



LEAD-BASED PAINT SCREENING REPORT

FOR:

**Rock Terrace School
390 Martins Lane
Rockville, MD 20850**

Prepared For:

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Montgomery County Public Schools
Division of Maintenance
16651 Crabbs Branch Way
Rockville, MD 20855*

Prepared and Submitted by:

**Jonathan Coale
Maryland Accredited Risk Assessor
Certification No. 14299**

**KCI Technologies Inc.
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Sparks, Maryland 21152**

Date of Report: May 14, 2018

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1.0 Introduction

KCI Technologies, Inc. (KCI) was retained by Montgomery County Public Schools (MCPS) (Client), to conduct a Lead-Based Paint Screening of Rock Terrace School located at 390 Martins Ln, Rockville, MD 20850.

The scope of work included a screening of interior and exterior components to determine general prevalence of lead based paint in sections of the building built before 1979. The survey included 144 XRF readings including 8 calibrations. Wall codes (A, B, C, D) were used to show location of building components. Wall "A" indicated the front facing wall parallel with the main entrance of the building with wall "B" being the next wall going clockwise in order, etc. The LBP testing results are included as Attachment A.

2.0 Lead Based Paint (LBP) Screening

Jonathan Coale performed the lead based paint screening (Certificate #14299). Mr. Coale performed the screening on April 9, 2018 in order to determine painted surfaces for lead content.

The testing for lead content in paints was performed with a Heuresis (model # Pb200i, serial # 1769, resourced on February 15, 2017) x-ray fluorescence (XRF) Spectrum Analyzer, an instrument that detects lead by reading the fluorescence emanating from a painted surface when exposed to small amounts of radiation. XRF readings are in mg/cm², a mass per area reading.

LBP is defined as >0.7mg/cm² by Maryland Department of Environment and ≥1.0 mg/cm² by the U.S. Environmental Protection Agency (EPA) and the U. S. Dept. of Housing and Urban Development (HUD). The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard (29 CFR 1926.62) defines lead based paint as any detectable amount and guidelines must be followed for any activity which may bring a worker in contact with lead. Therefore a negative classification based on the EPA/HUD definition does not necessarily mean the component is lead free. The LBP action level used is >0.7 mg/cm².

Based on the testing results, Table 1 summarizes the components that contain lead levels >0.7mg/cm²:

Table 1: Summary of Positive XRF Readings									
Reading No.	Substrate	Component 1	Component 2	Color	Wall Code	Room	XRF Readings mg/cm ²	Condition	Picture
17	CMU	Wall	-	Tan	N/A	Hallway	2.4	Intact	1
18	CMU	Wall	-	Tan	N/A	Hallway	1.4	Intact	2
35	CMU	Wall	-	Purple	A	Room 7	1.2	Intact	3
36	CMU	Wall	-	Off-White	B	Room 7	1	Intact	5
37	CMU	Wall	-	Off-White	C	Room 7	1.2	Intact	5
38	CMU	Wall	-	Off-White	D	Room 7	1.5	Intact	5
46	CMU	Wall	-	Off-White	N/A	Hallway	2.6	Intact	5

Table 1: Summary of Positive XRF Readings

Reading No.	Substrate	Component 1	Component 2	Color	Wall Code	Room	XRF Readings mg/cm ²	Condition	Picture
52	CMU	Wall	-	Off-White	N/A	Hallway	1.9	Intact	5
67	CMU	Wall	-	Off-White	A	Room 14	0.9	Intact	5
68	CMU	Wall	-	Off-White	A	Room 14	1.5	Intact	5
69	CMU	Wall	-	Blue	B	Room 14	1.1	Intact	6
70	CMU	Wall	-	Blue	B	Room 14	1.5	Intact	6
74	CMU	Wall	-	White	A	Room 13	0.8	Intact	4
75	CMU	Wall	-	White	D	Room 13	1.3	Intact	4
76	CMU	Wall	-	White	D	Room 13	1.3	Intact	4
89	Ceramic	Wall	-	Blue	N/A	Boys Locker Rm	2.9	Intact	8
90	Ceramic	Wall	-	Blue	N/A	Boys Locker Rm	3.8	Intact	8
116	Ceramic	Wall	-	Green	A	Girls Locker Rm	4	Intact	7
117	Ceramic	Wall	-	Green	A	Girls Locker Rm	3.4	Intact	7
130	Metal	Window	Sill	White	A	Exterior	3.3	Intact	9, 10
131	Metal	Window	Casing	White	A	Exterior	6	Intact	9, 10
133	Metal	Wall	Support	White	B	Exterior	2.9	Intact	11
137	Metal	Window	Casing	White	C	Exterior	2.9	Intact	9, 10

Summary of lead containing components identified:**Interior:**

- CMU walls in various colors. Lead content detected at 0.8 – 1.5 mg/cm²
- Off-White glazed tile (ceramic) walls. Lead content detected at 1.9 – 2.6 mg/cm²
- Blue glazed tile (ceramic) walls. Lead content detected at 2.9 – 3.8 mg/cm²
- Green glazed tile (ceramic) walls. Lead content detected at 3.4 mg/cm²

Exterior:

- White metal window components. Lead content detected at 2.9 – 6 mg/cm²
- White metal wall support. Lead content detected at 2.9 mg/cm²

A labeled floor plan with example locations of lead based painted and/or containing components is included as Attachment B. Not all components are represented in the drawing. Photo examples of these components are included in Attachment C.

3.0 Recommendations

Primarily the lead in paint on a renovation project is regulated in two (2) ways: 1) airborne lead dust by the U.S. Occupational Safety and Health Administration (OSHA), and 2) lead in waste by the toxicity characteristic leachate procedure (TCLP) by EPA and MDE.

During renovation, it is recommended that the contractor follow OSHA "Lead in Construction" standard, in conjunction with dust control and containment to prevent lead contamination of the surrounding areas, and the use of personal protective clothing to protect worker health and safety during renovation.

KCI recommends that the construction waste containing LBP and Lead Containing Materials (LCM) generated during renovation be tested for the toxicity characteristic leachate procedure (TCLP) by EPA and MDE to determine the appropriate disposal method.

4.0 Disclaimer

This report has been prepared by KCI Technologies, Inc. exclusively for our Client and their Authorized Representatives. The findings and recommendations presented are based upon discussions with the Client of the present conditions, and may not necessarily indicate future conditions. KCI implies no warranty to the accuracy of information provided to them by the Client or outside agents and transmitted herein.

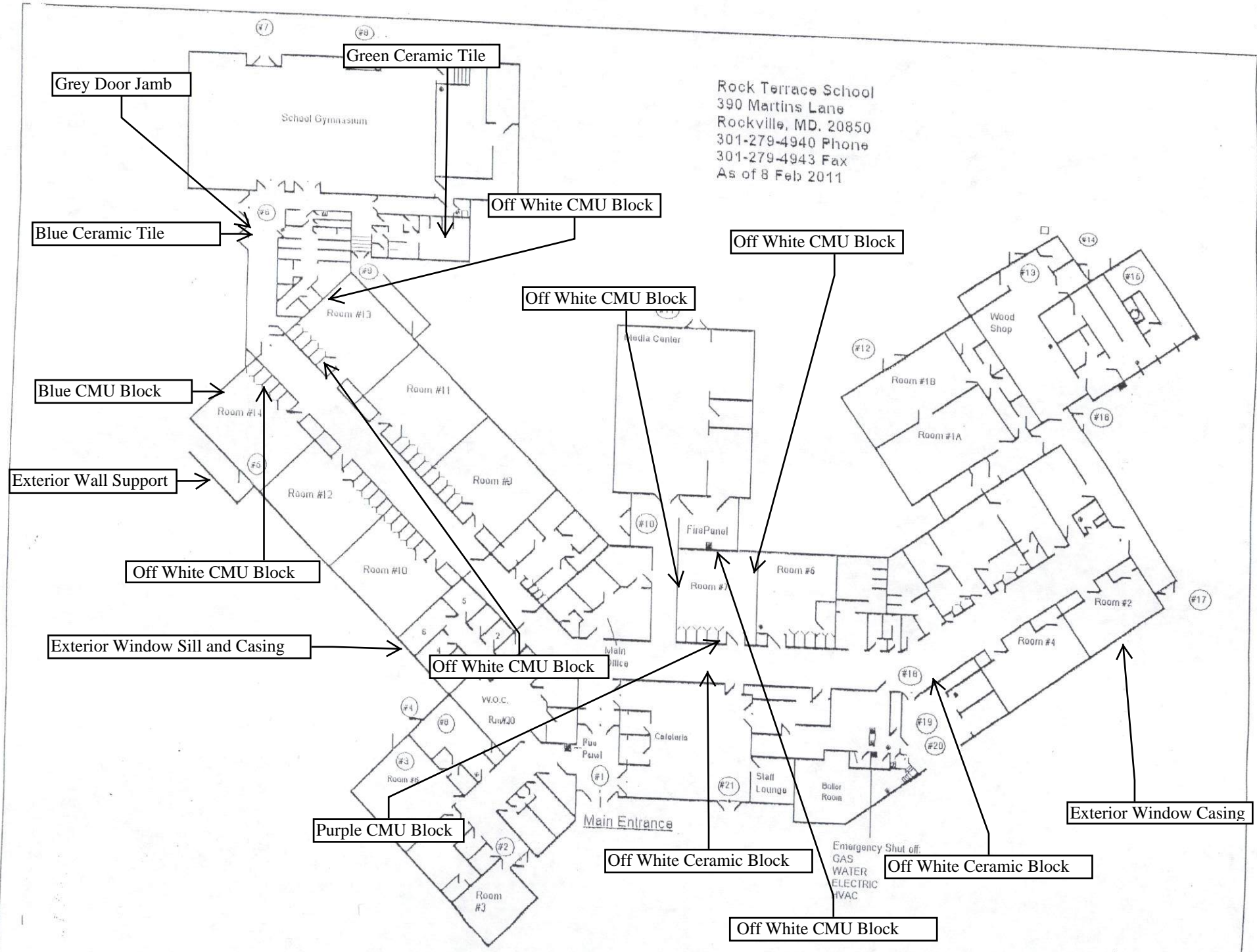
Attachment A:
Lead Based Paint XRF Datasheet

Index	Substrate	Component 1	Component 2	Color	Wall Code	Room	XRF Reading (mg/cm ²)	Result	Condition	Address
1		SRM-2579		Red		Calibration	0.9			
2		SRM-2579		Red		Calibration	0.9			
3		SRM-2579		Red		Calibration	1.1			
4		SRM-2570		White		Calibration	0			
5	Metal	Door	Jamb	Grey	N/A	main office	0.1	NEG	Intact	Rock Terrace School
6	CMU	Wall		Yellow	D	main office	-0.1	NEG	Intact	Rock Terrace School
7	CMU	Wall		Yellow	D	main office	-0.2	NEG	Intact	Rock Terrace School
8	CMU	Wall		Yellow	D	main office	-0.3	NEG	Intact	Rock Terrace School
9	CMU	Wall		Yellow	D	main office	-0.3	NEG	Intact	Rock Terrace School
10	Metal	Window		Grey	B	main office	0.5	NEG	Intact	Rock Terrace School
11	CMU	Wall		Blue	C	asst principle	0.1	NEG	Intact	Rock Terrace School
12	CMU	Wall		Blue	B	asst principle	-0.2	NEG	Intact	Rock Terrace School
13	CMU	Door	Jamb	Blue	B	asst principle	0.2	NEG	Intact	Rock Terrace School
14	Metal	Door	Jamb	Grey	N/A	principle	0.3	NEG	Intact	Rock Terrace School
15	CMU	Wall		Blue	C	principle	0	NEG	Intact	Rock Terrace School
16	CMU	Wall		White	N/A	hallway	0.4	NEG	Intact	Rock Terrace School
17	Ceramic	Wall		Off-White	N/A	hallway	2.4	POS	Intact	Rock Terrace School
18	Ceramic	Wall		Off-White	N/A	hallway	1.4	POS	Intact	Rock Terrace School
19	Metal	Door	Jamb	Grey	N/A	hallway	0.4	NEG	Intact	Rock Terrace School
20	CMU	Wall		Off-White	A	hallway	0	NEG	Intact	Rock Terrace School
21	CMU	Wall		Off-White	B	hallway	0.1	NEG	Intact	Rock Terrace School
22	Metal	Window	Sill	Grey	B	hallway	0.3	NEG	Intact	Rock Terrace School
23	CMU	Wall		Off-White	B	hallway	-0.2	NEG	Intact	Rock Terrace School
24	Metal	Door	Jamb	Grey	B	hallway	0.4	NEG	Intact	Rock Terrace School
25	Metal	Hatch	Door	Off-White	B	hallway	0.2	NEG	Intact	Rock Terrace School
26	Metal	Window	Sill	Off-White	B	hallway	0.2	NEG	Intact	Rock Terrace School
27	Metal	Window	Trim	Off-White	C	hallway	0.4	NEG	Intact	Rock Terrace School
28	Metal	Door	Jamb	Off-White	C	hallway	0.2	NEG	Intact	Rock Terrace School
29	Metal	Door	Door	Brown	D	staff lounge	0.1	NEG	Intact	Rock Terrace School
30	CMU	Wall		Green	A	staff lounge	0	NEG	Intact	Rock Terrace School
31	CMU	Wall		Green	B	staff lounge	0.1	NEG	Intact	Rock Terrace School
32	CMU	Wall		Green	D	staff lounge	-0.1	NEG	Intact	Rock Terrace School
33	Metal	Door	Jamb	Grey	A	staff lounge	0.5	NEG	Intact	Rock Terrace School
34	Metal	Door	Jamb	Grey	A	room 7	0.4	NEG	Intact	Rock Terrace School
35	CMU	Wall		Purple	A	room 7	1.2	POS	Intact	Rock Terrace School
36	CMU	Wall		Off-White	B	room 7	1	POS	Intact	Rock Terrace School
37	CMU	Wall		Off-White	C	room 7	1.2	POS	Intact	Rock Terrace School
38	CMU	Wall		Off-White	D	room 7	1.5	POS	Intact	Rock Terrace School
39	CMU	Wall		Red	A	room 5	0.3	NEG	Intact	Rock Terrace School
40	Metal	Door	Jamb	Grey	A	room 5	0.5	NEG	Intact	Rock Terrace School
41	Metal	Window	Sill	White	C	room 5	0.4	NEG	Intact	Rock Terrace School
42	Metal	Door	Jamb	Grey	A	room 4	0.2	NEG	Intact	Rock Terrace School
43	CMU	Wall		Blue	B	room 4	0.5	NEG	Intact	Rock Terrace School
44	Metal	Window	Sill	White	C	room 4	0.2	NEG	Intact	Rock Terrace School
45	Metal	Door	Jamb	White	N/A	bistro	0.4	NEG	Intact	Rock Terrace School
46	Ceramic	Wall		Off-White	N/A	hallway	2.6	POS	Intact	Rock Terrace School
47	CMU	Wall		Off-White	N/A	hallway	0.3	NEG	Intact	Rock Terrace School
48	Metal		Railing	Red	N/A	hallway	0.2	NEG	Intact	Rock Terrace School
49	CMU	Wall		Off-White	N/A	hallway	-0.4	NEG	Intact	Rock Terrace School
50	Metal	Stair	Stringer	Red	N/A	hallway	0.2	NEG	Intact	Rock Terrace School
51	CMU	Wall		Red	N/A	hallway	0.3	NEG	Intact	Rock Terrace School
52	Ceramic	Wall		Off-White	N/A	hallway	1.9	POS	Intact	Rock Terrace School
53	CMU	Wall		Off-White	A	go	0	NEG	Intact	Rock Terrace School
54	Metal	Door	Casing	Off-White	A	go	0.4	NEG	Intact	Rock Terrace School
55	Metal	Window	Trim	Off-White	N/A	go	0.4	NEG	Intact	Rock Terrace School
56	Metal	Door	Casing	Grey	N/A	Room 10	0.5	NEG	Intact	Rock Terrace School
57	CMU	Wall		Off-White	A	Room 10	0.5	NULL	Intact	Rock Terrace School
58	CMU	Wall		Off-White	A	Room 10	0.5	NEG	Intact	Rock Terrace School
59	Metal	Window		Off-White	C	Room 10	0.5	NEG	Intact	Rock Terrace School
60	Metal	Door	Casing	Grey	A	Room 10	0.5	NEG	Intact	Rock Terrace School
61	Metal	Door	Casing	Grey	A	Room 11	0	NEG	Intact	Rock Terrace School
62	Metal	Door	Jamb	Grey	A	Room 11	0.4	NEG	Intact	Rock Terrace School
63	CMU	Wall		Off-White	A	Room 11	0.2	NEG	Intact	Rock Terrace School
64	CMU	Wall		Off-White	B	Room 11	0.3	NEG	Intact	Rock Terrace School
65	CMU	Window	Sill	Off-White	N/A	Room 11	0.4	NEG	Intact	Rock Terrace School
66	Metal	Door	Casing	Grey	N/A	Room 14	0.4	NEG	Intact	Rock Terrace School
67	CMU	Wall		Off-White	A	Room 14	0.9	POS	Intact	Rock Terrace School
68	CMU	Wall		Off-White	A	Room 14	1.5	POS	Intact	Rock Terrace School
69	CMU	Wall		Blue	B	Room 14	1.1	POS	Intact	Rock Terrace School
70	CMU	Wall		Blue	B	Room 14	1.5	POS	Intact	Rock Terrace School
71	Metal	Window	Sill	White		Room 14	0.4	NEG	Intact	Rock Terrace School
72	Metal	Door	Jamb	Grey		Room 13	0.4	NEG	Intact	Rock Terrace School
73	CMU	Wall		White	A	Room 13	0.4	NEG	Intact	Rock Terrace School
74	CMU	Wall		White	A	Room 13	0.8	POS	Intact	Rock Terrace School

Index	Substrate	Component 1	Component 2	Color	Wall Code	Room	XRF Reading (mg/cm ²)	Result	Condition	Address
75	CMU	Wall		White	D	Room 13	1.3	POS	Intact	Rock Terrace School
76	CMU	Wall		White	D	Room 13	1.3	POS	Intact	Rock Terrace School
77	CMU	Wall		White	C	Room 13	-0.1	NEG	Intact	Rock Terrace School
78	Metal	Window	Lintel	White	C	Room 13	0.1	NEG	Intact	Rock Terrace School
79	Metal		Railing	Black	N/A	Room 13	0.1	NEG	Intact	Rock Terrace School
80	Metal		Railing	Black	N/A	Room 13	0.1	NEG	Intact	Rock Terrace School
81	CMU	Wall		Off-White	N/A	Room 13	0.1	NEG	Intact	Rock Terrace School
82	CMU	Wall		Off-White	N/A	Room 13	0.1	NEG	Intact	Rock Terrace School
83	CMU	Wall		Off-White	N/A	Room 13	-0.1	NEG	Intact	Rock Terrace School
84	CMU	Wall		Off-White	N/A	Room 13	-0.1	NEG	Intact	Rock Terrace School
85	Metal	Door	Jamb	Grey	N/A	Boys Locker Rm	0.6	NEG	Intact	Rock Terrace School
86	Metal	Window	Sill	Brown	N/A	Boys Locker Rm	0.3	NEG	Intact	Rock Terrace School
87	CMU	Wall		White	N/A	Boys Locker Rm	0	NEG	Intact	Rock Terrace School
88	CMU	Wall		White	N/A	Boys Locker Rm	-0.1	NEG	Intact	Rock Terrace School
89	Ceramic	Wall		Blue	N/A	Boys Locker Rm	2.9	POS	Intact	Rock Terrace School
90	Ceramic	Wall		Blue	N/A	Boys Locker Rm	3.8	POS	Intact	Rock Terrace School
91	Ceramic	Wall		Yellow	A	gym	0.2	NEG	Intact	Rock Terrace School
92	Ceramic	Wall		Yellow	A	gym	0	NEG	Intact	Rock Terrace School
93	Ceramic	Wall		Yellow	A	gym	-0.3	NEG	Intact	Rock Terrace School
94	Ceramic	Wall		Yellow	D	gym	-0.1	NEG	Intact	Rock Terrace School
95	Ceramic	Wall		Yellow	D	gym	-0.2	NEG	Intact	Rock Terrace School
96	Ceramic	Wall		Yellow	D	gym	0.1	NEG	Intact	Rock Terrace School
97	Ceramic	Wall		Yellow	D	gym	0	NEG	Intact	Rock Terrace School
98	Ceramic	Wall		Yellow	D	gym	0.1	NEG	Intact	Rock Terrace School
99	Metal	Door	Casing	White	C	gym	0.3	NEG	Intact	Rock Terrace School
100	CMU	Wall		Yellow	C	gym	-0.1	NEG	Intact	Rock Terrace School
101	CMU	Wall		Yellow	C	gym	0.1	NEG	Intact	Rock Terrace School
102	Metal	Door	Door	Red	B	gym	0.2	NEG	Intact	Rock Terrace School
103	Metal	Door	Jamb	Red	B	gym	0.6	NEG	Intact	Rock Terrace School
104	CMU	Wall		White	B	gym	0.1	NEG	Intact	Rock Terrace School
105	CMU	Wall		White	B	stage	0.3	NEG	Intact	Rock Terrace School
106	CMU	Wall		White	B	stage	0.1	NEG	Intact	Rock Terrace School
107	CMU	Wall		White	B	stage	0.1	NEG	Intact	Rock Terrace School
108	CMU	Wall		White	B	stage	0.1	NEG	Intact	Rock Terrace School
109	CMU	Wall		White	B	stage	0	NEG	Intact	Rock Terrace School
110	CMU	Wall		White	B	mech rom	0.3	NEG	Intact	Rock Terrace School
111	CMU	Wall		White	B	mech rom	0	NEG	Intact	Rock Terrace School
112	Metal	Door	Casing	Brown	A	Girls Locker Rm	0.5	NEG	Intact	Rock Terrace School
113	Metal	Window	Casing	Brown	A	Girls Locker Rm	0.3	NEG	Intact	Rock Terrace School
114	Metal	Door		Brown	A	Girls Locker Rm	0.2	NEG	Intact	Rock Terrace School
115	Metal	Door		Brown	A	Girls Locker Rm	-0.1	NEG	Intact	Rock Terrace School
116	Ceramic	Wall		Green	A	Girls Locker Rm	4	POS	Intact	Rock Terrace School
117	Ceramic	Wall		Green	A	Girls Locker Rm	3.4	POS	Intact	Rock Terrace School
118	Ceramic	Wall		Green	A	Exterior	0.1	NEG	Intact	Rock Terrace School
119	Metal	Window	Casing	Red	A	Exterior	0	NEG	Intact	Rock Terrace School
120	Metal	Door	Door	Red	A	Exterior	0.1	NEG	Intact	Rock Terrace School
121	CMU	Wall		Off-White	A	Exterior	-0.3	NEG	Intact	Rock Terrace School
122	CMU	Wall		Off-White	A	Exterior	-0.2	NEG	Intact	Rock Terrace School
123	CMU	Wall		Off-White	A	Exterior	-0.1	NEG	Intact	Rock Terrace School
124	CMU	Wall		Red	A	Exterior	0.1	NEG	Intact	Rock Terrace School
125	CMU	Wall		Red	A	Exterior	0.4	NEG	Intact	Rock Terrace School
126	CMU	Wall		Off-White	A	Exterior	0.1	NEG	Intact	Rock Terrace School
127	CMU	Wall		Off-White	A	Exterior	0	NEG	Intact	Rock Terrace School
128	Metal	Door	Door	Grey	A	Exterior	0	NEG	Intact	Rock Terrace School
129	Metal		Railing	Black	A	Exterior	0.1	NEG	Intact	Rock Terrace School
130	Metal	Window	Sill	White	A	Exterior	3.3	POS	Intact	Rock Terrace School
131	Metal	Window	Casing	White	A	Exterior	6	POS	Intact	Rock Terrace School
132	CMU	Wall		White	B	Exterior	-0.1	NEG	Intact	Rock Terrace School
133	Metal	Wall	Support	White	B	Exterior	2.9	POS	Intact	Rock Terrace School
134	Wood	Door	Door	Red	B	Exterior	0	NEG	Intact	Rock Terrace School
135	Metal	Window	Support	White	B	Exterior	-0.4	NEG	Intact	Rock Terrace School
136	Concrete	Wall		Grey	B	Exterior	0.1	NEG	Intact	Rock Terrace School
137	Metal	Window	Casing	Grey	C	Exterior	2.9	POS	Intact	Rock Terrace School
138	Metal	Window	Casing	Grey	C	Exterior	0.3	NEG	Intact	Rock Terrace School
139	Metal	Window	Casing	Grey	C	Exterior	-0.3	NEG	Intact	Rock Terrace School
140	CMU	Wall		Grey	D	Exterior	-0.2	NEG	Intact	Rock Terrace School
141		SRM-2579		Red		Calibration	1			
142		SRM-2579		Red		Calibration	1			
143		SRM-2579		Red		Calibration	1			
144		SRM-2570		White		Calibration	0			

**Attachment B:
Labeled Floor Plan**

Rock Terrace School
 390 Martins Lane
 Rockville, MD. 20850
 301-279-4940 Phone
 301-279-4943 Fax
 As of 8 Feb 2011



Ceiling tile no asbestos containing material

Map Revision Done By:
 School Security Officer
 Myron E. Morrell

Attachment C:
Photographs



Picture 1: Tan CMU Block



Picture 2: Tan CMU Block



Picture 3: Purple CMU Wall



Picture 4: White CMU Wall



Picture 5: Off-White CMU Wall



Picture 6: Blue CMU Wall



Picture 7: Green Ceramic Wall



Picture 8: Blue Ceramic Wall



Picture 9: Exterior White Metal Window Casing



Picture 10: Exterior White Metal Window Casing



Picture 11: Exterior White Metal Wall Support