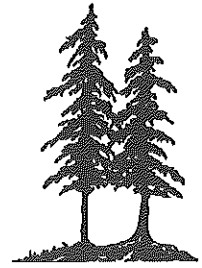


Midwest  
Environmental  
Consulting, L.L.C.



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**Nokomis Montessori Magnet  
Saint Paul Public Schools**

**Lead-Based Paint Inspection**

**Inspection Dates: 7/30/97, 5/13/98**

**submitted to:**

**Saint Paul Public Schools**

**MEC Project # 62/0197AU**

## INTRODUCTION

At the request of Saint Paul Public Schools Environmental Safety Department, Midwest Environmental Consulting, L.L.C. (MEC), conducted a lead-based paint inspection at Nokomis Montessori Magnet, 985 Ruth Street, St. Paul, MN. The purpose of this inspection was to identify lead-based painted, varnished, or otherwise coated building components on the interior and exterior of the school building.

The inspection protocol incorporated applicable portions of the U.S. Department of Housing and Urban Development (HUD) *Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing* (HUD Guidelines, June 1995) and OSHA 1926.62 requirements (Lead in Construction). The HUD guidelines are formulated to guide agencies in conducting random sampling of the interiors and exteriors of dwellings and common areas in public housing. The OSHA requirement is designed to minimize worker exposure when working with material containing lead.

No paint chip samples were collected from this school for laboratory analysis.

The United States Environmental Protection Agency defines "lead-based paint" as a paint or other surface coating that contains lead equal to or in excess of 1.0 milligrams per square centimeter when analyzed by XRF or more than 0.5% by weight (5000 parts per million) by laboratory analysis of a bulk sample.

Minnesota Department of Labor and Industry (MN OSHA) adopted the EPA lead levels for the purpose of enforcing OSHA 1926.62 federal regulations. Detection of lead in dried paint film by XRF is a dependable indicator of levels of lead and is accepted by MN OSHA.

For this Saint Paul Public Schools Lead Inspection, all building components were tested on site using a Niton XL® X-ray Fluorescence Spectrum Analyzer<sup>(1)</sup>. Building components included walls, ceilings, floors, moldings, window and door components, door surfaces, and miscellaneous features such as shelves or bookcases. Only painted or glazed surfaces or surfaces which were varnished were tested. Suspended ceilings, structural steel, and corrugated decking were not included in the inspection. Neither anodized (e.g., window sashes) nor plastic (e.g., vinyl baseboard and vinyl mini-blinds) were included in the scope of this inspection.

Each building was divided into unique sites based on the year of construction or renovation. Portable classrooms, playgrounds, and other detached buildings were automatically designated as a unique site. Each site was inspected independently assuming differences in painting history and construction characteristics.

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<sup>(1)</sup> This is a portable hand held machine that can analyze building components instantly for lead concentrations.

## SITE DESCRIPTION AND BUILDING HISTORY

According to information provided to MEC by Saint Paul Public Schools, Nokomis Montessori Magnet was constructed in essentially two phases. The initial phase includes the 15,000 square-foot older section of the building and dates from 1959. The second phase is a 32,000 square foot addition dating from 1993.

The 1993 addition was not inspected because of the construction date. Several classroom were not inspected because they were not accessible due to extended maintenance activities.

All room and area designations used in this report are depicted on sampling maps found in Appendix A.

## XRF SAMPLE RESULTS TABLE

The results of all samples analyzed are listed in the table at the end of this section. The following is a description of the column headings:

<b>Site</b>	Each school is divided into sites based on their unique construction characteristics. Each site has a unique date of construction or major renovation.
<b>Sample #</b>	Each sample taken was given a unique number to identify the type and location of the sample. The sampling date is an integral part of the sample number.
<b>Analysis</b>	This defines the type of analysis which can be categorized into two types:  1) XRF: This is an on-site analysis using a hand held Niton XL® X-ray Fluorescence Spectrum Analyzer; 2) Bulk or Chip: This is a bulk sample where paint is removed from the substrate and sent to a laboratory for analysis;
<b>Floor</b>	This is the level of the building in which the area tested was found, example, 1 (first floor), 0 (basement), etc.
<b>Area</b>	This further defines the specific functional space inspected such as a classroom, exterior, playground, gym, kitchen, etc.
<b>Room #</b>	This is typically the actual number on the room as identified at the building.

**Component** Building “components” included walls, ceilings, floors, moldings, window and door components, door surfaces, and miscellaneous features such as shelves or bookcases.

**Feature** Identifies more detailed information of the component.

**Condition** This describes condition of the surface, whether it is intact, cracked, peeling, or chalking.

**Substrate** This refers to the material the building component is made of (wood, concrete, drywall, metal, etc.).

**Result** This is the analysis results for lead. Less than 1.0 mg/cm<sup>2</sup> or less than 0.5% by weight is considered to be non-lead and these building components are below the action levels of EPA and HUD. (All results are in mg/cm<sup>2</sup> except where noted.)

The table of results is designed for quick information on lead concentrations of tested building components. Generally, all repetitions of a test combination within a given room or area, may be assumed to contain similar concentrations of lead to that of the tested sample. For instance, the lead concentration of a tested wooden window sash was found to be above the action level of 1.0 mg/cm<sup>2</sup> in a given classroom. The classroom has five windows, all of wood, the same color and appearing to be of the same era. It can be assumed that the remaining four wooden window sashes each contain lead above the action limit.

Other columns identify the component and the component feature tested, condition of the component, type of substrate and the result of the analytical test.

As an example, the following illustration shows that the wooden door jamb in Room 123, first floor in the 1923 building section was in good, solid condition, and had an XRF test result of 0.3 mg/cm<sup>2</sup>, which is below the action level.

**Illustration Only**

Site	Sample #	Date	Analysis	Floor	Area	Room #	Component	Feature	Condition	Substrate	Results
1923 Bldg.	52		XRF	1	Room	123	Door	Jamb	Solid	Wood	0.3

In a similar manner, the table shows that the plaster walls in room 23, on the second floor has peeling paint with more than 1.0 mg/cm<sup>2</sup> (shaded).

**ILLUSTRATION ONLY**

Site	Sample #	Date	Analysis	Floor	Area	Room #	Component	Feature	Condition	Substrate	Results
1910 Bldg.	16		XRF	2	Room	23	Door	Jamb	Peeling	Wood	0.25

1910 Bldg.	17	XRF	2 Room	23 Wall	Wall	Peeling	Plaster	1.2
1910 Bldg.	18	XRF	2 Room	23	Ceiling	Peeling	Plaster	0.25
1910 Bldg.	19	XRF	2 Room	23 Wall	Baseboard	Peeling	Wood	0.002

## APPLICABLE REGULATIONS

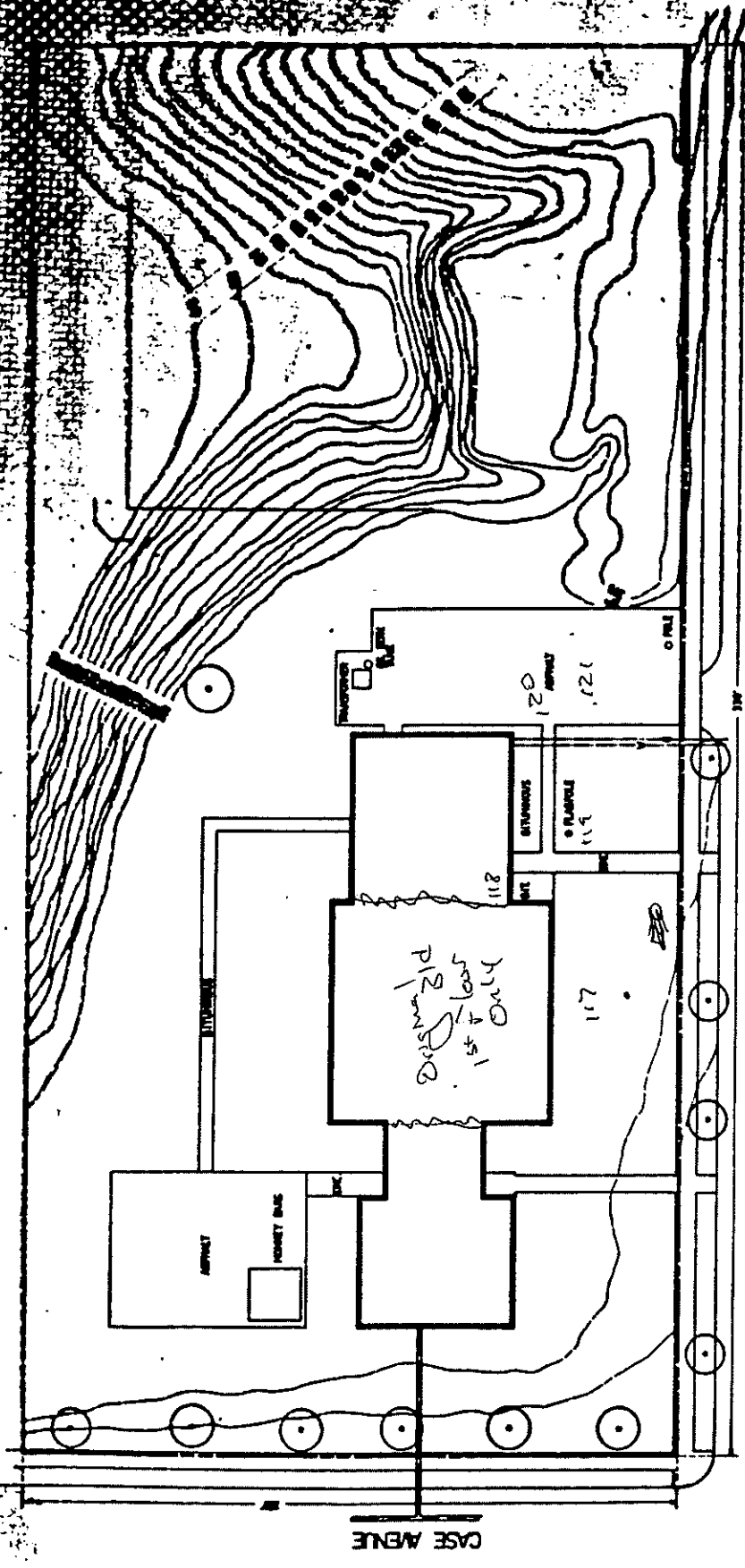
When building components test above 1.0 mg/cm<sup>2</sup> of lead by XRF or 0.5% lead by weight from laboratory analysis all employees and contractors who will be working with these components in a construction related activity must be notified. The requirements of OSHA 1926.62, Lead in Construction are enforceable. This regulation defines construction work as "work for construction, alteration and/or repair, including painting and decorating." This regulation further defines monitoring requirements to minimize employee exposure to lead during construction activities.

When work is performed on external painted building structures (i.e. flashing, fire escapes, playground equipment, handrails, etc.), regulations of the Minnesota Pollution Control Agency (MPCA) may also be applicable. For removal of lead based paint from steel structures, MN Rules 7025.0200 - 7025.0380 apply to steel materials on the exterior of a building, or on the property when levels exceed 0.5 mg/cm<sup>2</sup> based on the average of three XRF spectrum results of the sample tested, or 5,000 ppm by laboratory analysis. If it is other than a steel surface, then MPCA regulates the painted surfaces under MN Rules 7025.010 - 7025.0080, when surfaces are to be disturbed using abrasive blasting methods.

Please contact MEC directly if you have questions about any portion of this report or the lead-based paint inspection itself.

# APPENDIX A

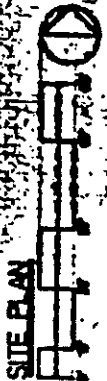
## XRF TESTING DATA WITH LOCATION MAPS



RUTH STREET

CASE AVENUE

WATER	0.000
SEWER	0.000
STORM	0.000
LAND	0.000
CONCRETE	0.000
BRICK	0.000
GLASS	0.000
STEEL	0.000
PAINT	0.000
LANDSCAPE	0.000
UTILITIES	0.000
PERMITS	0.000
TOTAL	0.000



SITE PLAN

ST. PAUL INDEPENDENT SCHOOL DIST. 753  
 210 COLLEGE STREET  
 ST. PAUL, MINNESOTA 55102

NOOKS BLDG SCHOOL  
 ONE AE & RUTH ST  
 ST. PAUL, MINNESOTA 55102





Saint Paul Public Schools  
 Nokomis Montessori Magnet  
 Lead-Based Paint Inspection

	A	B	C	D	E	F	G	H	I	J	K	L
1	Nokomis Montessori Magnet											
2												
3	Site	Sample #	Analysis	Date	Floor	Area	Room#	Component	Feature	Condition	Substrate	Result
4	1959 Bldg.	31	XRF	7/30/97	1	Classroom	103	Wall	Wall	Solid	Metal	0.01
5	1959 Bldg.	32	XRF	7/30/97	1	Classroom	103	Wall	Wall	Solid	Drywall	0
6	1959 Bldg.	33	XRF	7/30/97	1	Classroom	103	Wall	Wall	Solid	Concrte	0.02
7	1959 Bldg.	34	XRF	7/30/97	1	Classroom	103	Chalkboard	Rail	Solid	Wood	0
8	1959 Bldg.	35	XRF	7/30/97	1	Classroom	103	Ceiling		Solid	Concrte	0
9	1959 Bldg.	36	XRF	7/30/97	1	Classroom	103	Cabinet	Door	Solid	Wood	0
10	1959 Bldg.	37	XRF	7/30/97	1	Classroom	103	Door	Door	Solid	Wood	0
11	1959 Bldg.	38	XRF	7/30/97	1	Classroom	104		Radiator	Solid	Metal	0.01
12	1959 Bldg.	39	XRF	7/30/97	1	Classroom	104	Wall	Midle Wall	Solid	Drywall	0.02
13	1959 Bldg.	40	XRF	7/30/97	1	Classroom	104	Cabinet	Door	Solid	Wood	0
14	1959 Bldg.	41	XRF	7/30/97	1	Classroom	104	Wall	Wall	Solid	Concrte	0.09
15	1959 Bldg.	42	XRF	7/30/97	1	Classroom	104	Door	Door	Solid	Wood	0
16	1959 Bldg.	43	XRF	7/30/97	1	Classroom	104	Ceiling		Solid	Concrte	0
17	1959 Bldg.	44	XRF	7/30/97	1	Classroom	104	Chalkboard	Rail	Solid	Wood	0
18	1959 Bldg.	45	XRF	7/30/97	1	Classroom	105		Radiator	Solid	Metal	0
19	1959 Bldg.	46	XRF	7/30/97	1	Classroom	105	Wall	Midle Wall	Solid	Drywall	0
20	1959 Bldg.	47	XRF	7/30/97	1	Classroom	105	Wall	Midle Wall	Solid	Concrte	0.05
21	1959 Bldg.	48	XRF	7/30/97	1	Classroom	105	Chalkboard	Rail	Solid	Wood	0
22	1959 Bldg.	49	XRF	7/30/97	1	Classroom	105	Wall	Baseboard	Solid	Metal	0
23	1959 Bldg.	50	XRF	7/30/97	1	Classroom	105	Cabinet	Door	Solid	Wood	0
24	1959 Bldg.	51	XRF	7/30/97	1	Classroom	105	Door	Door	Solid	Wood	0
25	1959 Bldg.	52	XRF	7/30/97	1	Classroom	105	Ceiling		Solid	Concrte	0
26	1959 Bldg.	59	XRF	7/30/97	1	Classroom	107	Wall	Midle Wall	Solid	Concrte	0.04
27	1959 Bldg.	60	XRF	7/30/97	1	Classroom	107		Radiator	Solid	Metal	0.01
28	1959 Bldg.	61	XRF	7/30/97	1	Classroom	107	Wall	Wall	Solid	Drywall	0
29	1959 Bldg.	62	XRF	7/30/97	1	Classroom	107	Ceiling		Solid	Concrte	0
30	1959 Bldg.	63	XRF	7/30/97	1	Classroom	107	Door	Casing	Solid	Metal	0.13
31	1959 Bldg.	64	XRF	7/30/97	1	Classroom	107	Door	Door	Solid	Wood	0
32	1959 Bldg.	65	XRF	7/30/97	1	Classroom	107	Chalkboard	Rail	Solid	Wood	0
33	1959 Bldg.	66	XRF	7/30/97	1	Classroom	107	Cabinet	Outside	Solid	Wood	0
34	1959 Bldg.	67	XRF	7/30/97	1	Classroom	107	Book Case	Shelf	Solid	Wood	0
35	1959 Bldg.	68	XRF	7/30/97	1	Classroom	108	Chalkboard	Rail	Solid	Wood	0
36	1959 Bldg.	69	XRF	7/30/97	1	Classroom	108	Wall	Wall	Solid	Concrte	0.01
37	1959 Bldg.	70	XRF	7/30/97	1	Classroom	108	Wall	Midle Wall	Solid	Drywall	0
38	1959 Bldg.	71	XRF	7/30/97	1	Classroom	108		Radiator	Solid	Metal	0.01
39	1959 Bldg.	72	XRF	7/30/97	1	Classroom	108	Cabinet	Outside	Solid	Wood	0
40	1959 Bldg.	73	XRF	7/30/97	1	Classroom	108		Radiator	Solid	Metal	0.01
41	1959 Bldg.	74	XRF	7/30/97	1	Classroom	108	Door	Casing	Solid	Metal	0.11
42	1959 Bldg.	75	XRF	7/30/97	1	Classroom	108	Door	Door	Solid	Wood	0
43	1959 Bldg.	76	XRF	7/30/97	1	Classroom	108	Book Case	Shelf	Solid	Wood	0
44	1959 Bldg.	105	XRF	7/30/97	1	Classroom	114	Door	Door	Solid	Wood	0
45	1959 Bldg.	106	XRF	7/30/97	1	Classroom	114	Cabinet	Door	Solid	Wood	0
46	1959 Bldg.	107	XRF	7/30/97	1	Classroom	114	Wall	Midle Wall	Solid	Concrte	0
47	1959 Bldg.	108	XRF	7/30/97	1	Classroom	114	Door	Casing	Solid	Metal	0
48	1959 Bldg.	109	XRF	7/30/97	1	Classroom	114	Wall	Midle Wall	Solid	Drywall	0
49	1959 Bldg.	110	XRF	7/30/97	1	Classroom	114		Radiator	Solid	Metal	0.01
50	1959 Bldg.	111	XRF	7/30/97	1	Classroom	114	Chalkboard	Rail	Solid	Wood	0
51	1959 Bldg.	112	XRF	7/30/97	1	Classroom	114		Radiator	Solid	Metal	0.01
52	1959 Bldg.	97	XRF	7/30/97	1	Classroom	115	Door	Door	Solid	Wood	0
53	1959 Bldg.	98	XRF	7/30/97	1	Classroom	115	Cabinet	Door	Solid	Wood	0
54	1959 Bldg.	99	XRF	7/30/97	1	Classroom	115	Wall	Midle Wall	Solid	Drywall	0
55	1959 Bldg.	100	XRF	7/30/97	1	Classroom	115	Chalkboard	Rail	Solid	Wood	0
56	1959 Bldg.	101	XRF	7/30/97	1	Classroom	115	Ceiling		Solid	Concrte	0

Saint Paul Public Schools  
 Nokomis Montessori Magnet  
 Lead-Based Paint Inspection

	A	B	C	D	E	F	G	H	I	J	K	L
3	Site	Sample #	Analysis	Date	Floor	Area	Room#	Component	Feature	Condition	Substrate	Result
57	1959 Bldg.	102	XRF	7/30/97	1	Classroom	115		Radiator	Solid	Metal	0.01
58	1959 Bldg.	103	XRF	7/30/97	1	Classroom	115	Door	Casing	Solid	Metal	0
59	1959 Bldg.	104	XRF	7/30/97	1	Classroom	115	Wall	Wall	Solid	Concrte	0
60	1959 Bldg.	90	XRF	7/30/97	1	Classroom	116	Door	Door	Solid	Wood	0
61	1959 Bldg.	91	XRF	7/30/97	1	Classroom	116	Cabinet	Door	Solid	Wood	0
62	1959 Bldg.	92	XRF	7/30/97	1	Classroom	116		Radiator	Solid	Metal	0
63	1959 Bldg.	93	XRF	7/30/97	1	Classroom	116		Radiator	Solid	Metal	0
64	1959 Bldg.	94	XRF	7/30/97	1	Classroom	116	Wall	Midle Wall	Solid	Concrte	0
65	1959 Bldg.	95	XRF	7/30/97	1	Classroom	116	Chalkboard	Rail	Solid	Wood	0
66	1959 Bldg.	96	XRF	7/30/97	1	Classroom	116	Ceiling		Solid	Concrte	0
67	1959 Bldg.	29	XRF	7/30/97	1	Hall	101	Wall	Wall	Solid	Concrte	0
68	1959 Bldg.	30	XRF	7/30/97	1	Hall	101	Door	Door	Solid	Wood	0
69	1959 Bldg.	113	XRF	7/30/97	1	Hall	102		Locker	Solid	Metal	0
70	1959 Bldg.	114	XRF	7/30/97	1	Hall	102	Wall	Wall	Solid	Concrte	0.14
71	1959 Bldg.	115	XRF	7/30/97	1	Hall	102	Door	Door	Solid	Wood	0
72	1959 Bldg.	116	XRF	7/30/97	1	Hall	102		Radiator	Peeling	Metal	0.02
73	1959 Bldg.	19	XRF	7/30/97	1	Office	150	Wall	Wall	Solid	Concrte	0
74	1959 Bldg.	20	XRF	7/30/97	1	Office	150	Door	Casing	Solid	Metal	0
75	1959 Bldg.	21	XRF	7/30/97	1	Office	150	Door	Door	Solid	Wood	0
76	1959 Bldg.	22	XRF	7/30/97	1	Office	152	Wall	Midle Wall	Solid	Drywall	0
77	1959 Bldg.	23	XRF	7/30/97	1	Office	152	Wall	Wall	Solid	Concrte	0
78	1959 Bldg.	24	XRF	7/30/97	1	Office	152	Door	Casing	Solid	Metal	0
79	1959 Bldg.	25	XRF	7/30/97	1	Office	152	Door	Door	Solid	Wood	0
80	1959 Bldg.	14	XRF	7/30/97	1	Office	162		Radiator	Solid	Metal	0
81	1959 Bldg.	15	XRF	7/30/97	1	Office	162	Wall	Wall	Solid	Drywall	0
82	1959 Bldg.	16	XRF	7/30/97	1	Office	162	Wall	Midle Wall	Solid	Concrte	0.01
83	1959 Bldg.	17	XRF	7/30/97	1	Office	162	Door	Casing	Solid	Metal	0
84	1959 Bldg.	18	XRF	7/30/97	1	Office	162	Door	Door	Solid	Wood	0
85	1959 Bldg.	11	XRF	7/30/97	1	Office	163	Door	Casing	Solid	Metal	0.03
86	1959 Bldg.	12	XRF	7/30/97	1	Office	163	Wall	Wall	Solid	Concrte	0
87	1959 Bldg.	13	XRF	7/30/97	1	Office	163	Door	Door	Solid	Wood	0
88	1959 Bldg.	6	XRF	7/30/97	1	Office	164		Radiator	Solid	Metal	0
89	1959 Bldg.	7	XRF	7/30/97	1	Office	164	Wall	Midle Wall	Solid	Drywall	0
90	1959 Bldg.	8	XRF	7/30/97	1	Office	164	Wall	Wall	Solid	Concrte	0.01
91	1959 Bldg.	9	XRF	7/30/97	1	Office	164	Door	Casing	Solid	Metal	0.01
92	1959 Bldg.	10	XRF	7/30/97	1	Office	164	Door	Door	Solid	Wood	0
93	1959 Bldg.	117	XRF	7/30/97	1	Outside	1	Floor		Peeling	Concrte	2.55
94	1959 Bldg.	118	XRF	7/30/97	1	Outside	1	Door	Door	Solid	Metal	0
95	1959 Bldg.	119	XRF	7/30/97	1	Outside	1	Parking	Barrior	Peeling	Concrte	0
96	1959 Bldg.	120	XRF	7/30/97	1	Outside	1	Floor		Solid	Concrte	0.01
97	1959 Bldg.	121	XRF	7/30/97	1	Outside	1	Floor		Solid	Concrte	0
98	1959 Bldg.	77	XRF	7/30/97	1	Restroom	110	Wall	Midle Wall	Solid	Drywall	0
99	1959 Bldg.	78	XRF	7/30/97	1	Restroom	110		Radiator	Solid	Metal	0.03
100	1959 Bldg.	79	XRF	7/30/97	1	Restroom	110		Radiator	Solid	Metal	0.05
101	1959 Bldg.	80	XRF	7/30/97	1	Restroom	110	Wall	Wall	Solid	Concrte	0.02
102	1959 Bldg.	81	XRF	7/30/97	1	Restroom	110	Door	Stall Door	Solid	Metal	0.03
103	1959 Bldg.	82	XRF	7/30/97	1	Restroom	110	Ceiling		Solid	Plaster	0.17
104	1959 Bldg.	83	XRF	7/30/97	1	Restroom	111		Radiator	Solid	Metal	0.04
105	1959 Bldg.	84	XRF	7/30/97	1	Restroom	111	Wall	Wall	Solid	Concrte	0.1
106	1959 Bldg.	85	XRF	7/30/97	1	Restroom	111	Wall	Bthrm Stll	Solid	Metal	0.12
107	1959 Bldg.	86	XRF	7/30/97	1	Restroom	111	Wall	Wall	Solid	Plaster	0.1
108	1959 Bldg.	87	XRF	7/30/97	1	Restroom	111	Wall	Midle Wall	Solid	Drywall	0
109	1959 Bldg.	88	XRF	7/30/97	1	Restroom	111	Door	Casing	Solid	Metal	0.12
110	1959 Bldg.	89	XRF	7/30/97	1	Restroom	111	Door	Door	Solid	Wood	0
111	1959 Bldg.	26	XRF	7/30/97	1	Restroom	151	Wall	Wall	Solid	Concrte	0

Saint Paul Public Schools  
 Nokomis Montessori Magnet  
 Lead-Based Paint Inspection

3	A	B	C	D	E	F	G	H	I	J	K	L
	Site	Sample #	Analysis	Date	Floor	Area	Room#	Component	Feature	Condition	Substrate	Result
112	1959 Bldg.	27	XRF	7/30/97	1	Restroom	151	Wall	Wall	Solid	Plaster	0
113	1959 Bldg.	28	XRF	7/30/97	1	Restroom	151	Door	Casing	Solid	Metal	0
114	1959 Bldg.	53	XRF	7/30/97	1	Room	106		Radiator	Solid	Metal	0.01
115	1959 Bldg.	54	XRF	7/30/97	1	Room	106	Wall	Midle Wall	Solid	Drywall	0.01
116	1959 Bldg.	55	XRF	7/30/97	1	Room	106	Chalkboard	Rail	Solid	Wood	0
117	1959 Bldg.	56	XRF	7/30/97	1	Room	106	Wall	Wall	Solid	Concrete	0.32
118	1959 Bldg.	57	XRF	7/30/97	1	Room	106	Door	Casing	Solid	Metal	0.22
119	1959 Bldg.	58	XRF	7/30/97	1	Room	106	Door	Door	Solid	Wood	0

# APPENDIX B INSPECTOR

**Bob Hargrove**  
**MDH Lead Inspector # 416**