

171 F.9.4X3

Case # R 5833-013-7

~~File Sampling Results by MARCO~~

Appendix B

Backgrounds: Elwha

Page 40

b4
j5



2500 Broening Highway, Baltimore, Maryland 21224 (410) 631-3859
MARYLAND DEPARTMENT OF THE ENVIRONMENT
DIVISION OF LEAD POISONING PREVENTION



- 3. Place large disposable items in plastic bags and tie the bags shut. Bulky items, such as windows or long pieces of wood trim, may be wrapped in 6 mil plastic sheets and securely fastened with duct tape.

- 2. Use the spray bottle to wet down all dust and debris with a fine mist of water. This will help control the dust during cleanup.
- 1. Put on plastic gloves to protect hands from TSP.

BEFORE STARTING, review Lead Paint Hazard Fact Sheet #1: Health and Safety Precautions.

CLEANUP PROCEDURE

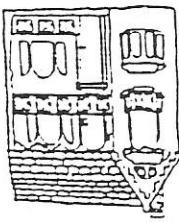
- ◆ HEPA Vacuum cleaner (special vacuum cleaner with a "High Efficiency Particulate Air" filter).
- ◆ Cleaning items: disposable lint-free towels, rags, sponges and mops.
- ◆ Buckets
- ◆ Heavy-duty plastic bags: use single 6 mil bags or double 4 mil bags.
- ◆ Gardeau mister or spray bottle with water
- ◆ Plastic work gloves

CLEANUP MATERIALS

A careful and complete cleaning of the work area is necessary to prevent exposure to lead for people, especially young children, who will use the area in the future. Lead dust that remains on surfaces can get onto toys, food, hands, or even a pet dog or cat. From there, lead dust can easily find its way into a child's mouth.

JANUARY 1995

Cleanup of Lead-Bearing Dust
FACT SHEET #5
LEAD PAINT HAZARD





MARYLAND DEPARTMENT OF THE ENVIRONMENT
DIVISION OF LEAD POISONING PREVENTION



2500 Broening Highway, Baltimore, Maryland 21224 (410) 631-3859

Disposal of liquid waste presents special problems. When possible, avoid using abatement methods which generate liquid waste. Liquid waste is best managed as storm drains. For more information regarding liquid waste pour liquid waste on the ground or into storm drains. Do not dispose of liquid waste.

the environment.

- DO NOT BURN DEBRIS. Lead fumes will contaminate the air; lead in ash can also contaminate Transport windows, trim and other bulky items in a covered vehicle.
- Required by Code of Maryland Regulations (COMAR) 26.04.07.19.
- Transport lead-containing solid wastes materials and debris to a municipal or land fill, as remove all lead waste from the abatement site within 48 hours following cleanup.
- Provide for protection from children, animals, the weather and other sources of disturbance.
- Provide short-term storage in a secure place until waste and debris can be transported safely.
- Put lead-containing debris into heavy duty 6 mil plastic bags.

requirements:

Waste material generated by a single residential structure, such as a house or apartment, may be classified as household waste and therefore will be exempt from the disposal requirements listed on page 2 next page. Please contact the Maryland Department of the Environment (MDE), Hazardous and Solid Waste Management Administration at (410) 631-3343 if you have questions about this household waste exemption. In order to comply with the state and federal regulations, and to prevent lead contamination, all property owners and contractors conducting abatement of households must adhere to the following requirements:

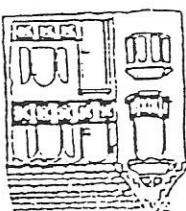
- DISPOSAL PROCEDURES FOR HOUSEHOLDS CONDUCTING LEAD ABATEMENTS
- Liquid waste, such as wash water used to decontaminate wood after solvents or caustic paint is stripped have been used.
- Sludge from paint removers used in the job.
- Disposible work clothes.
- Rags, sponges, mop heads, HEPA filters, and other items used for cleanup.
- Plastic sheets and tape used to cover floors and other surfaces during lead paint removal.
- the building.
- Old woodwork, plaster, windows, doors, and other painted components removed from true of wastes and debris generated by a lead abatement project. Such lead hazards include:

JANUARY 1995

Disposal of Hazardous Material and Debris

FACCT SHEET #6

LEAD PAINT HAZARD



D-7



MARYLAND DEPARTMENT OF THE ENVIRONMENT
DIVISION OF LEAD POISONING PREVENTION



House dust is a major source of lead exposure for young children. It is normal for babies and young children to put everything, including dirty toys or fingers, in their mouths. Removing lead paint by any method will create lead dust. Many children have been lead poisoned after paint removal projects where cleanup has been inadequate and large amounts of lead dust have remained in the home environment.

The purpose of testing house dust for lead is to make sure that the home is safe for the family to return following the careful abatement of lead paint.

WHY MEASURE LEAD IN HOUSE DUST?

follows:

2. A final inspection is done following the final cleanup and disposal of all debris. Dust samples are collected. Because the test for lead levels in dust is critically important, more detailed information

1. A visual inspection following completion of all abatement work but before repainting begins will determine if all surfaces requiring abatement have been adequately abated.

The property owner or contractor must contact the design team agency before beginning a large project. Two inspections are specifically required for abatement projects under Maryland regulations (COMAR 26.02.07).

- Required records of the project are maintained.
- Workers have received required health and safety training.
- Safe work practices are being followed.
- Abatement methods are appropriate for the project.
- Dust and debris are contained within the work areas (see Lead Paint Hazard Fact Sheet #4).
- Cleanup is thorough and complete (see Lead Paint Hazard Fact Sheet #5).
- Regulations for disposal of hazardous lead waste are followed (see Lead Paint Hazard Fact Sheet #6).
- Lead dust levels following the final cleanup are below the State standards (COMAR 26.02.07 listed on page 2 of this fact sheet).

Inspections are appropriate at any time during the course of an abatement project to assure that all work is conducted properly and that no problems develop. The inspector may specifically check to see that:

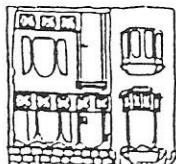
INSPECTION PROCEDURES

JANUARY 1995

Inspections for Lead Paint Abatement

FACt SHEET #7

LEAD PAINT HAZARD



This is the Seventh in a Series of Eight Fact Sheets providing guidance consistent with Maryland Lead Paint Abatement Regulations (COMAR 26.02.07) and Departmental Policies.

Once back in the home, residents should be encouraged to use a high phosphate solution to clean doors, window sills and other surfaces on a routine basis. A satisfactory detergent with one gallon of hot water. Protect hands by wearing rubber gloves. Use a wet mop on the floor and a damp cloth on other surfaces.

If tested lead dust levels meet this standard, an abatement project will be approved for reoccupation.

Floors	Window Sills	Window Wells
Below 200	Below 500	Below 800

SURFACE

Micrograms of Lead Per Square Foot Of Surface Area

COMAR 26.02.07:

Following an abatement project, lead dust levels must meet the environmental standards which are specified by

ACCEPTABLE LEVELS

Samples must be taken from each work area or room involved in the project. Samples are taken from the floors next to abated surfaces and from windowsills and window wells. These three samples will usually provide a good representation of the lead dust levels in each room.

WHAT TO SAMPLE

When lead paint abatement project is ready for an inspection, notify the Lead Poisoning Prevention Program of the Maryland Department of the Environment (MDE) at (410) 631-3859. Following notification, an inspection may be conducted by a representative of MDE, a delegated local agency, or a laboratory approved by MDE.

WHO WILL DO THE INSPECTION?

Maryland Regulations require testing of dust levels following the final cleanup of an abatement project, but before the residents are permitted to return. As part of a lead abatement project, all abated surfaces and doors must be flushed to provide smooth and easily cleanable surfaces; fresh paint or other appropriate coverings will enable the residents to keep lead dust levels low. If the abated surfaces appear "dirty" or "dusty," the cleanup procedure must be repeated before testing can be done (see Lead Paint Hazard Sheet #5). If the lead levels of the initial dust samples test high, further cleaning is required, followed by repeated testing until the levels are acceptable. To save time, pay close attention to cleaning before calling for a clearance inspection. To save



2500 Broening Highway, Baltimore, Maryland 21224 (410) 631-3859
MARYLAND DEPARTMENT OF THE ENVIRONMENT
DIVISION OF LEAD POISONING PREVENTION



A list of some manufacturers is included with this fact sheet. Liquid encapsulants come in many varieties. Some are refigored by embedding a woven mat into the initial layer before it dries and then applying a second coat on top. They can be water-based or solvent-based. Some require mixing two ingredients together. Some are paint-like substances, while others are permeable to moisture. Each product may exhibit certain advantages or disadvantages under various conditions.

Encapsulants containing liquid coatings which are applied with a brush, roller, or spray. Use of these materials is always an alternative abatement procedure under Maryland regulations. While these coatings often provide for the effective, long-term encapsulation of lead paint, failure may result from inappropriate application of the product, inadequate surface preparation, or poor condition of the underlying paint or substrate.

II. ENCAPSULANT COATINGS

CMAR 26.02.07.03B(3) provides a list of materials, such as gypsum board, fiberglass mats, padding, and metal, which are approved for appropriate surfaces. These are generally rigid materials which are permeable, tightly attached using screws, nails, and adhesives. "Lead Paint Hazard Fact Sheet #3" explains that materials may be used over various surfaces such as woodwork, walls and ceilings, or floors. Use of these materials details an evaluation of the structure to be abated to assure adequacy of the treatment. Use appropriate surface preparation of the area to be sealed to ensure that lead-bearing dust and debris cannot escape.

I. MATERIALS CERTIFIED IN MARYLAND REGULATIONS

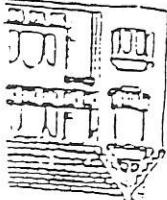
METHODS OF ENCAPSULATION

Encapsulation is a method of abatement in which lead paint is covered and completely sealed by a durable, lead-tight material which will not readily tear, chip, or peel. A list of allowed encapsulants use a type of material that is specifically listed in the regulations CMAR 26.02.07. If you wish to perform abatement procedures, permission from the Maryland Department of the Environment (MDE) to perform an alternative abatement procedure.

WHAT IS ENCAPSULATION?

JANUARY 1995

LEAD PAINT HAZARD **#-16**
FACt SHEET #8
ENCAPSULATION OF LEAD PAINT



B-11
Page 184

All residents, including pets, must find other housing. Residents must stay out of the building until cleanup and if the abatement is limited to an isolated work area. For guidance, contact the MDE Lead Poisoning Prevention Division at (410) 631-3859.

Post warning signs immediately outside all entrances and exits to the work area.

Only workers or individuals directly involved in the project may enter the work area.

Pregnant women and young children are not to be involved in any paint removal activity and must stay out of the work area until cleanup has been completed.

4. Pick The Safest Method

Select the most appropriate methods for your project (see Lead Hazard Fact Sheet #3).

5. Wear Appropriate Clothing

Disposables minimize contamination of clothing by lead dust and to help prevent the spread of lead dust outside of the work area. Gloves and other special clothing may be required for protection from other work site hazards. Non-disposable coveralls may be used; however they must be cleaned at a commercial laundry which accepts lead-contaminated clothing.

6. Use Required Safety Equipment

A respirator with HEPA cartridges is required when using an electric heat gun, HEPA sander, or other methods which produce high levels of lead fumes when abating lead levels can be expected to be higher. Check with Maryland Occupational Safety and Health (MOSH) or the MDE Lead Poisoning Prevention Division to be sure that you select the right respirator and filters. The respirator must be tested to assure proper fit. A paper dust mask will not protect you from lead dust. You may also need further safety equipment, special clothing, or additional respiratory protection to protect yourself from caustic strippers, fumes, or other hazards that are identified at a particular job site.

7. Do Not Smoke Or Eat In The Work Area

Lead dust can easily get on your food or cigarettes. Store any eating or smoking materials away from the work area. Leave the work area and wash your hands and face before eating or smoking.

8. Contain Lead Dust And Debris Within The Work Area

Keep lead dust and debris in the work area. See Lead Paint Hazard Fact Sheet #4 for detailed information. Wear disposable shoe covers, and remove them when you leave the work area.

Very truly yours,

again if we may be of assistance in the future.

We thank you for your interest in occupational safety and health, and look forward to hearing from you

- Leonard, the water was never from sewage.
- Rowntree water back up in them when the rainwater on the roof caused a slight backflush situation. According to Mr. Rowntree..... If the fountains are still in the halls, they are not connected to the water system. [S]ome of the fountains had stoppers..... All the water fountains in the school were being replaced with bottled water first floor hallways were already removed.... [A]ll the water fountains until the fountains could be removed. Many of the fountains on the first floor water disconnected to alleviate the problems until the fountains could be removed. Many of the fountains and had the hallway disconnected to alleviate the problems until the fountains could be removed. Many of the existing fountains and had the 3. Drinking fountains. The school officials were aware of the order from the existing fountains and had the other renovations that do not involve exposure to lead dust will be done by the existing contractor on site.
- Surveillance by the MDE [Maryland Department of the Environment] for the paint renovation process at the school. Any work done in accord with the lead standard.... [T]he City has decided to contact a lead removal contractor and have the detection level as lead containing paint. Since these results indicate the potential for exposures, the City will have laboratories) as non-lead based (NLP) according to their criteria, but the OSHA lead standard considers any level above school was conducted. (See case file for results). All of the paints were found to contain lead in different concentrations. The cream colored paint had the lowest concentration at 0.11% and was reported by the analytical laboratory (SSM Laboratories) as non-lead based (NLP) according to their criteria, but the OSHA lead standard considers any level above 2. Lead. Since the entire school building was scheduled for repainting, a survey for lead based paints in the school was conducted. (See case file for results). All of the paints were found to contain lead in the building.
1. Asbestos. According [assistant principal] the school had the asbestos removed back in Sept. 1991 by Marcor Environmental (Elkridge Md). During the current renovations, which were begun Aug 1, 1996 and are to continue until Sept. 1998, a "pocket" of asbestos containing material was discovered in the basement area behind the walls. The general contractor on site is G. E. Tignal; he notified the City of the condition and Marcor Environmental was again summoned to abate the condition.... During the abatement process, air monitoring was conducted over several days by I.H. Services, Inc of Baltimore Md. These results were negative for over exposures. The work was completed in this area at the time of this inspection.

inspector reported the following information:

Act at Fairmount Harford High School. In response to your complaint, this agency conducted an investigation to verify the conditions you described. That investigation, conducted by a MOSH industrial hygienist, included a visual inspection of your worksite and interviews with management and employees, as well as a review of relevant records maintained by the employer. No violations of MOSH standards were identified. With respect to the specific allegations set out in your complaint, the MOSH standards were identified.

Case No. K5823-013-97

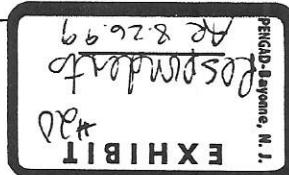
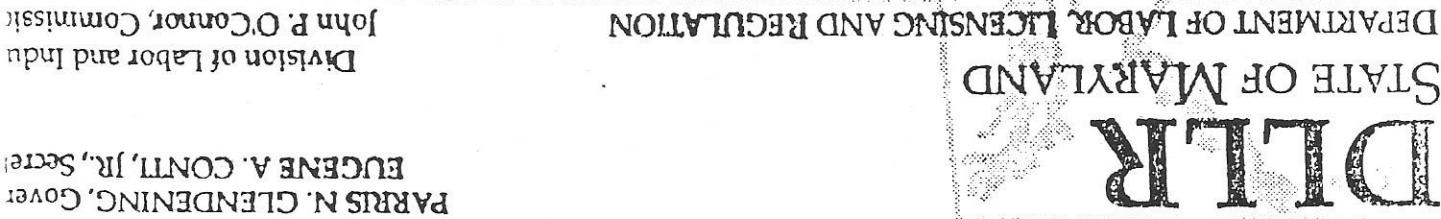
Subject: MOSH Complaint 1718

Dear Ms. Williams:

Ms. Diana Williams
1311 North Ellwood Avenue
Baltimore MD 21213

November 1, 1996

Telephone: 410-333-4100
Facsimile: 410-333-8725



43

The construction contractor has hired a certified lead abatement contractor, per Baltimore City Department of the Environment. The construction will proceed under that variance, and the Public Schools, who will submit a protocol for a variance as required by law to the Maryland Department of the Environment by the Maryland State University Headstart Program in the

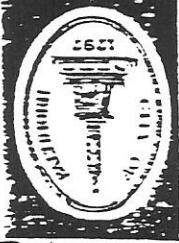
east wing of the first floor. The Headstart Program is inspected annually by the Maryland State Fairmount-Harford Facility houses the Morgan State University Headstart Program in the Department of Human Resources. The most recent inspection was conducted in October 1996, and according to Ms. Teresa Pierson, center director, the facility passed inspection as lead-free.

Currently, all occupied areas identified in the report have been cleaned to HUD standards according to the ceiling. The environmental contractor is scheduled to date those rooms are in satisfactory condition. Several currently occupied classrooms have suspended ceilings from November 16 and 17, 1996, with clearance samples to be analyzed prior to reoccupation. The construction contractor's area, which is located in the basement, is not open to the public occupants. This area is currently under abatement and will be completed by November 21, 1996.

At that time, the contractors impacted surfaces which, during our investigation, were found to contain lead-based paint. Forty-five lead dust samples were collected by Spots, Stevens and McCoy, an independent environmental contractor, on October 10 and 11, 1996. The attached document identifies six of those samples to be above Housing and Urban Development (HUD) recommended safe levels. Three of the samples are from areas in the occupied space, and three are from areas in the basement utilized only by the contractors engaged in their work. Because the environmental contractor identified three samples in the stage of their work. Occupied spaces above the recommended levels by HUD, the Department of Facilities occupied spaces above the recommended levels by HUD, the Department of Facilities is currently working to improve the conditions using lead abatement protocols in the entire facility.

You requested information about the construction project at Fairmount-Harford High School with the assistance of the Department of Facilities, I am forwarding this account of the remediation to the environmental contractor, on November 14, 1996. At that time, the contractors impacted surfaces which, during our investigation, were found to contain lead-based paint. Forty-five lead dust samples were collected by Spots, Stevens and McCoy, an independent environmental contractor, on October 10 and 11, 1996. The attached document identifies six of those samples to be above Housing and Urban Development (HUD) recommended safe levels. Three of the samples are from areas in the occupied space, and three are from areas in the basement utilized only by the contractors engaged in their work. Because the environmental contractor identified three samples in the stage of their work. Occupied spaces above the recommended levels by HUD, the Department of Facilities is currently working to improve the conditions using lead abatement protocols in the entire facility.

At that time, the contractors impacted surfaces which, during our investigation, were found to contain lead-based paint. Forty-five lead dust samples were collected by Spots, Stevens and McCoy, an independent environmental contractor, on October 10 and 11, 1996. The attached document identifies six of those samples to be above Housing and Urban Development (HUD) recommended safe levels. Three of the samples are from areas in the occupied space, and three are from areas in the basement utilized only by the contractors engaged in their work. Because the environmental contractor identified three samples in the stage of their work. Occupied spaces above the recommended levels by HUD, the Department of Facilities is currently working to improve the conditions using lead abatement protocols in the entire facility.

	TO	Council President Lawrence Bell
NAME & ADDRESS	NAME & ADDRESS	NAME & ADDRESS
Walter G. Amprey, Superintendent	Baltimore City Public Schools	Fairmount-Harford High School No. 456
200 East North Avenue - Room #405 - 21202	BALTIMORE	MEMO
DATE: November 14, 1996	EXHIBIT	AE 8.26.99

Recon and A. E. H. Exhibit

C: Honorable Kurt L. Schmoke
 Board of School Commissioners
 Dr. Jeannette H. Evans
 Mr. Anthony A. Fears
 Mr. William C. Giles
 Mr. Jack M. Elam

Attachment

WGA:WCG:eg

Should additional information be required, please contact me on 396-8803.

The Baltimore City Public Schools, in conjunction with the Department of Personnel, Office of Safety, is offering blood tests for all occupants. A collection of blood samples has been scheduled with the Johns Hopkins Bayview Asthma and Allergy Clinic. Clinical staff will assist in identifying any at-risk students.

Department of Facilities will continue to monitor the facility to prevent any future incidents that might impact on the health of building occupants during the renovation.

Page 2
 November 14, 1996
 Fairmount-Harford High School No. 456
 Council President Lawrence Bell

Exhibit 41

Secondly, I am requesting a meeting with the facilities manager and the contractor along with the BTU building representative, and AFT's Occupational Safety

should be closed during the renovation.

Teachers Protocol (see attachment) should be put in place or the school Precautions, such as those that appear in the United Federation of would not be exposed to toxic and noxious hazards during the process?

First, were adequate methods put in place to guarantee that staff and students suggest the following:

Occupational Safety and Health Coordinator and I have been advised to request and The test results which we received from MOSH were examined by AFT's

members of this union be furnished to us.

about the school and the composite results of any blood lead testing performed on Monitoring Information" I am requesting any additional air monitoring information under the Maryland Occupational Safety and Health "Access to Medical and was tested be given his/her individual results without further delay.

support and protect our members, I am requesting that each teacher who Nov. 19th, teachers are still waiting for individual results. In an effort to results are not going to be shared with them immediately. As of today, Thursday, November 14, 1996. These teachers are now concerned that their paraprofessionals took advantage of the testing which took place at the school site on have their blood tested and have received the results. Other teachers and may already know, a few of the teachers have gone to their personal physicians to Fairmount-Harford High about the renovation and the resulting lead problem. As you There are a number of concerns being expressed to this union by the teachers of

Dear Dr. Amprey:

Baltimore, Maryland 21202
200 E. North Avenue
Dr. Walter Amprey, Superintendent

Nov 20 3 11 PM '96

November 19, 1996

FAX: (410) 358-2894
Phone: (410) 358-6600
Baltimore, MD 21215-3209
5800 Metro Drive, 2nd Floor
Second Business Park
AFT 340 AFL-CIO



The Baltimore Teachers Union

CG

At 8-22.99
Expense Reimbursement
#22
EXHIBIT

I would appreciate an immediate response so that those persons on the staff can be reassured that all efforts are being taken by the school system to provide for the safety of all the individuals who are now assigned to the Fairmount-Harford High building.

I believe that our concerns may be similar to the concerns of others but I am concerned that many of the efforts identified in this letter may not have been addressed. I demonstrate that the concentration of the lead has fallen to an acceptable level. to eliminate so that we can verify that a thorough cleaning of all surfaces is being conducted plan so that we can advise This Union is requesting a copy of the statement that must be put in place immediately. I have also advised that a thorough lead inspection and lead abatement plan

CLEARANCE LEVELS.

- there should be clearance testing before any barriers are removed; the particular air vacuum, wet wipe/mop and a final vacuuming.
- final clean-up of the area should consist of vacuuming with a high efficiency to eliminate all loose paint dust in the work area at the end of every work day.
- all loose paint debris should be collected frequently and a wet wipe performed.
- all windows and transoms should be tightly closed.

same manner as the work area

- a changing mini-decontamination area should be constructed adjacent and contiguous to the work area using two layers of six-mil polyethylene in the curtain access through the door opening.
- a second sheet should be taped across the top and right side forming a polyethylene. The first layer should be taped across the top and left side; the entrance to the work area must be sealed with two layers of six-mil walls approximately six inches and taped on all sides.

two layers of six-mil polyethylene must cover the floor and be wrapped up the student staff areas

polyethylene sheet taped around the perimeter to prevent lead dust migration to any forced air system must be shut-down and isolated with a six-mil warning signs should be at each local entrance to the work area

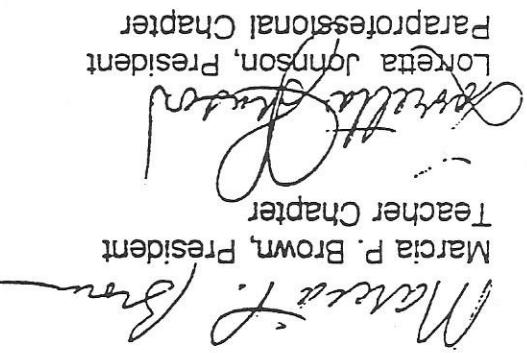
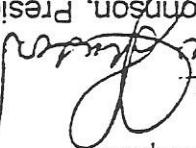
from migrating to areas outside the work area

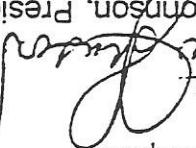
the area of work should be totally contained to prevent paint dust and debris from migrating to areas outside the work area

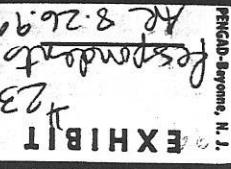
things should be in place if the school continues to be in session during the work day; since there is documented lead dust exposure, I have been advised that the following school should be closed until an acceptable clearance level is obtained.

exposure, the work should not be conducted during school hours or the demonstration that he can control lead dust exposure or any other toxic methods should be held within the next week. Again, if the contractor cannot This meeting should be used to test the environment and air for toxic/hazardous methods that will be used to test the potential harmful exposure to staff and students, methods to prevent exposure and the potential harmful exposure to get detailed information about the nature of the renovation, and Health Coordinator to get detailed information about the nature of the renovation,

Sincerely,


Marcia P. Brown, President
Teacher Chapter
Loretta Johnson, President
Paraprofessional Chapter


Ms. Elaine White, Principal
CC: BTU Building Representative
Mr. Wilbur C. Giles, Director of Facilities
Mr. John Court



EYH/bt 45

Dust samples were collected by Stephen Epps on October 10 & 11, 1996 in accordance with "Guidelines for the Evaluation and Control of Lead Based Paint in Housing and Urban Development (HUD)." Protocols established by the U.S. Department of Housing and Urban Development (HUD), "Guidelines for the Evaluation and Control of Lead Based Paint in Housing and Urban Development (HUD)." Dust samples were collected by Stephen Epps on October 10 & 11, 1996 in accordance with (Appendix I3.1). 45 dust samples were collected throughout the School (see Attachment 1, for exact locations of each sample). Dust samples were analyzed by Metropolitan Environmental Testing Services, Inc. (ELPAT # 21506) on October 15, 1996 in accordance with EPA method SW-846, 7420.

Dust Sampling and Analysis

METHODS AND RESULTS

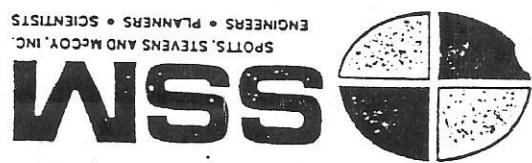
SSM/Sports, Stevens & McCoy, Inc. was retained by the Baltimore City Department of Personnel, Division of Safety to conduct lead dust sampling/analysis and on-site XRF analysis of the Harford Fairmount Institute #456. The purpose of the inspection was to determine current and potential risk of lead exposure related to ongoing renovation activities at the School.

Dear Ms. Schudler:

RE: REPORT
Harford Fairmount Inst. #456,
Lead Dust Sampling & Analysis and
On Site XRF Analysis

Ms. Susan Schudler
Chief of Safety
Baltimore Department of Personnel
Division of Safety
201 E. Baltimore Street, 2nd Floor
Baltimore, MD 21202

October 23, 1996



indication of lead dust concentrations which may result from renovation activities.
 There are no standards for the tops of the lockers, however, these levels may provide an

Interior Component Type	Lead Level (Average)
Wood Baseboards	0.8 mg/cm ²
Wood Window Sills	0.9 mg/cm ²
Stone Baseboards	1.0 mg/cm ²
Wood Chair Rails	1.1 mg/cm ²
Wood Door Casings	2.4 mg/cm ²
Plaster Walls	2.3 mg/cm ²

XRF analysis was performed by Arc Environmental, Inc. on October 16, 1996 in accordance with protocols established by HUD. "Guidelines for the Evaluation and Control of Lead-Based Paint in Housing", June, 1995 (Chapter 7). Arc tested representative interior and exterior component types throughout the School. At least three (3) readings were taken for each type of component (i.e. wood baseboards, wood doors, metal doors, etc.). The purpose of this testing routine was to establish an inventory of surfaces throughout the School which contain lead levels in excess of Maryland's definition of lead-based paint ($> 0.7 \text{ mg/cm}^2$). The following is an inventory of building component types at the School which contain lead-based paint (See Attachment 2 for exact testing levels and locations):

On-Site XRF Analysis

Sample Location	Lead Level
Top of Locker 321, 2nd floor (sample F12)	1,836 ug/ft ²
Wood Window Sill, room 310 (sample F14)	664 ug/ft ²
Top of Locker 2199, 1st floor (sample F22)	1,093 ug/ft ²
Cement Floor near loading dock, basement (sample F43)	1,295 ug/ft ²
Cement Floor near east wing, basement (sample F44)	1,598 ug/ft ²
Cement Floor near west wing, basement (sample F45)	31,325 ug/ft ²

Six (6) out of the 45 samples analyzed contained "elevated" levels of lead. In this case, "elevated" indicates levels in excess of HUD lead dust clearance standards for post-abatement wells. The following dust samples contained elevated levels of lead (see Attachment 1 for all analysis results):

October 23, 1996

(4) if the City decides to continue renovations while the School is occupied, an "Alternate Procedure Request" for Lead abatement in an occupied dwelling should be submitted for approval to MDE's Lead Compliance Division;

(COMAR 26.16.01);

(3) ensure that the Contractor(s) are MDE licensed Lead Abatement Contractors and that a certified Lead Supervisor/Contractor is on site at all times during renovation activities in accordance with "Accreditation and Training for Lead Paint Abatement Services"

(2) ensure that Contractors adhere to OSHA's Lead in Construction Standard (29 CFR 1926.62) where workers may be occupationally exposed to lead;

(1) ensure that all future renovation activities that impact lead-based paint are done in compliance with Maryland's "Procedures for Abating Lead Containing Substances from Buildings" (COMAR 26.02.07);

SSM recommends the following course of action:

The results of our dust analysis indicate that current lead dust levels, throughout the School contain lead-based paint ($> 0.7 \text{ mg/cm}^2$). The most part are below post abatement clearance standards for reoccupancy established by HUD and MDE. However, elevated lead dust levels were identified on top of the lockers on the last and 2nd floors, on one (1) third floor window sill, and in the base of prior renovation activities which levels on the lockers and in the baseboard may be a result of prior renovation activities which impacted lead painted surfaces. Our XRF analysis confirmed that building components throughout the School contain lead-based paint ($> 0.7 \text{ mg/cm}^2$).

CONCLUSIONS AND RECOMMENDATIONS

Component Type	Lead Level (Average)	Wood/Metal Staircase Doors	10.0 mg/cm^2	Metal Staircase Newel Posts	10.4 mg/cm^2	Metal Staircase Support Walls	14.4 mg/cm^2	Plaster Ceilings	15.5 mg/cm^2	Wood Door Casings	1.2 mg/cm^2	Implications
Exterior												
Metal Doors												
Wood Door Casings												
Interior												
Wood/Metal Staircase												
Wood/Metal Staircase												
Wood/Metal Staircase												

Ms. Susan Schudler
October 23, 1996

ff² (i.e. hallways, cafeteria, etc.).
allemaning between rooms and one (1) floor; and (2) for common areas, one (1) for every 2,000
four (4) rooms on each floor of the School: one (1) interior window sill or window trough,
protocol. With this in mind, we recommend that two (2) dust samples be taken from at least
June, 1995 (Chapter 15) should be used as a reference for developing an appropriate sampling

- 3 HUD's, "Guidelines for the Evaluation and Control of Lead Based Paint in Housing",
children and employees via foot traffic and movement of equipment.
to children because there is concern that lead dust could be tracked into areas accessible to
2 We are recommending that the base ment be cleaned as well as areas currently accessible

Attachments

/SAR

Project Manager
SCOTT A. RIFKIN, M.A.



Respectfully Submitted,

If you will need assistance with developing and/or implementing any of the above listed
recommendations or if you need further interpretation of this report, please do not hesitate to
contact me anytime.

(6) immediately after the School has been cleaned, dust clearance sampling and analysis is
should be performed to ensure that lead dust levels are below acceptable HUD/MDE
occupancy standards (100 ug/ft² for floors; 500 ug/ft² for window sills; and 800 ug/ft²
for window wells).
recommendations or if you need further interpretation of this report, please do not hesitate to
contact me anytime.

(5) As soon as possible (prior to commencement of renovations), an accredited Maryland
Lead Abatement Contractor should clean the entire school (including the base ment) in
accordance the Basic Cleaning Methods outlined in HUD's, "Guidelines for the
Evaluation and Control of Lead Based Paint in Housing", June, 1995 (Chapter 14).; and

October 23, 1996

4

Ms. Susan Schudler



Field Sampling Form for USE
(Single-Surface Sampling)

Name of risk assessor STEPHEN B KEPF
 Name of property owner BALTIMORE C.ITY
 Property address 2555 Haeford Apt. no. Road

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions' area (sample x inches)	Area (ft ²)	Result of lab analysis ($\mu\text{g}/\text{ft}^2$)
F-1	OUTSIDE ROOM 339 3rd Floor East wing office management	FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-2	OUTSIDE ROOM 323 3rd floor North wing hall	FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-3	OUTSIDE ROOM 301 3rd floor West wing office	FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-4	OUTSIDE ROOM 401 3rd floor West wing office	FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-5	TOP OF LOCKER ROOM 2nd floor 302 WEST HALL passenger	METAL TOP	YES	12 x 12	1 ft ²	99.3
F-6	ROOM #212 2nd floor	WOOD FLOOR	YES	12 x 12	1 ft ²	45.05
F-7	ROOM #212 2nd floor	WOOD WINDOW SILL	YES	12 x 12	1 ft ²	< 12.5
F-8	ROOM #212 2nd floor	METAL WINDOW frame	YES	12 x 39		123.32

HUD standards: 100 $\mu\text{g}/\text{ft}^2$ (floors), 500 $\mu\text{g}/\text{ft}^2$ (interior window sills), 800 $\mu\text{g}/\text{ft}^2$ (window troughs)

Total number of samples on this page

Page 1 of 6

Date of sample collection 1/1/ Date shipped to lab 1/1/

Shipped to

(signature)

Received by _____

Field Sampling Form for Dust
(Single-Surface Sampling)

Name of risk assessor Stephen B. Keppler
Name of property owner Baltimore City
Property address 2555 Hanover Apt. no. _____

Road

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions of sample area (inches x inches)	Area (ft ²)	Result of lab analysis ($\mu\text{g}/\text{ft}^2$)
F-9	ROOM # 205 2nd floor	wood floor	yes	12 x 12	1 ft ²	12.5
F-10	ROOM # 205 2nd floor	wood window sill	yes	12 x 12	1 ft ²	14.55
F-11	ROOM # 205 2nd floor	metal window sill	yes	12 x 39"		36.68
F-12	TOP OF CABINET 3rd floor edge near 205 passenger	metal top	yes	12 x 12	1 ft ²	1,836.00 *
F-13	ROOM # 310 3rd floor	wood floor	yes	12 x 12	1 ft ²	12.5
F-14	ROOM # 310 3rd floor	wood window sill	yes	2 1/2" x 7 1/4"	1 ft ²	664.35 *
F-15	ROOM # 310 3rd floor	metal window sill	yes	1 1/2" x 39"		74.58

HUD standards: 100 $\mu\text{g}/\text{ft}^2$ (floors), 500 $\mu\text{g}/\text{ft}^2$ (interior window sills), 800 $\mu\text{g}/\text{ft}^2$ (window frames)

Total number of samples on this page _____

Page 2 of 6

Date of sample collection 1/1/ Date shipped to lab 1/1/

Shipped by _____

(signature)

Received by _____

(Single-Surface Sampling)

Name of risk assessor SIMPSON B. EPPS
 Name of property owner BALTIMORE CITY
 Property address 2555 Herford Apt. no. Road

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions' of sample area (inches x inches)	Area (ft ²)	Result of lab analysis ($\mu\text{g}/\text{ft}^2$)
F-16	Room # 303 3rd Floor	wood floor	yes	12 x 12	1 ft ²	12.5
F-17	Room # 303 3rd Floor	wood window sill	yes	12 x 12	1 ft ²	23.9
F-18	Room # 303 3rd Floor	inner window pane	yes	12 x 39"		30.5
F-19	bedroom west wing area	true floor	yes	12 x 12	1 ft ²	< 12.5
F-20	ourside room 2nd floor living area	true floor	yes	12 x 12	1 ft ²	14.95
F-21	bedroom 2nd floor living area	true floor	yes	12 x 12	1 ft ²	< 12.5
F-22	bedroom 2nd floor near room 138 passageway	mentor top	yes	12 x 12	1 ft ²	1,093.75 *
				— x —		
				— x —		
				— x —		

HUD standards: 100 $\mu\text{g}/\text{ft}^2$ (floors), 500 $\mu\text{g}/\text{ft}^2$ (interior window sills), 800 $\mu\text{g}/\text{ft}^2$ (window troughs)

Total number of samples on this page _____

Page 3 of 6Date of sample collection 1-1-1 Date shipped to lab 1-1-1

Shipped by _____ Received by _____ (signature) _____ (signature) _____

Dust Sampling Form for Dust
(Single-Surface Sampling)

Name of risk assessor S. Steppner B. EPPR
Name of property owner Bartlowes C. T.Y
Property address 2555 Harsens Apt. no. _____
RuAD

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions' of sample area (inches x Inches)	Area (ft ²)	Result of lab analysis (µg/ft ²)
F-24	OUTSIDE ROOM 136 1ST FLOOR ENTR WING ATT OUTSIDE	TILE FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-23	OUTSIDE ROOM 1/4 1ST FLOOR ENTR WING ATT OUTSIDE	TILE FLOOR	YES	12 x 12	1 ft ²	< 12.5
F-25	1st-2nd FLOOR WEST WING ATT OUTSIDE ROOM	TILE FLOOR	YES	12 x 12	1 ft ²	13.25
F-26	ROOM #122 1ST FLOOR	WOOD FLOOR	YES	12 x 12	1 ft ²	55.7
F-27	ROOM # 122 1ST FLOOR	WOOD WINDOW SILL	YES	12 x 12	1 ft ²	13.5
F-28	ROOM #122 1ST FLOOR	WOOD WINDOW SILL	YES	1 1/2 x 39"		
F-29	ROOM #135 1ST FLOOR	WOOD FLOOR	YES	12 x 12	1 ft ²	126.65
F-30	ROOM #135 1ST FLOOR	WOOD WINDOW SILL	YES	12 x 12	1 ft ²	< 12.5
F-31	ROOM #135 1ST FLOOR	METAL WINDOW	YES	1 1/2 x 39"		57.85

HUD standards: 100 µg/ft² (floors), 500 µg/ft² (interior window sills), 800 µg/ft² (window troughs)

Total number of samples on this page _____

Page 4 of 6

Date of sample collection 1/1/ Date shipped to lab 1/1/

Shipped by _____ (signature)

Received by _____

(Single-Surface Sampling)

Name of risk assessor Stephen Berger
 Name of property owner Bartmane City
 Property address 2555 Horshes Rd. Apt. no. 104

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions ¹ of sample area (inches x inches)	Area (ft ²)	Result of lab analysis (µg/ft ²)
F-32	Room #137 1st Floor	wood floor	yes	12 x 12	1 ft ²	< 12.5
F-33	Room #137 1st Floor	wood window .Sill	yes	12 x 12	1 ft ²	< 12.5
F-34	Room #137 1st Floor	metal window frame	yes	12 x 32"	1 ft²	29.78
F-35	Room #139 1st Floor	wood floor	yes	12 x 12	1 ft ²	16.75
F-36	Room #139 1st Floor	wood window .Sill	yes	12 x 12	1 ft ²	212.5
F-37	Room #139 1st Floor	metal window frame	yes	12 x 39"	1 ft²	25.48
F-38	Room #115 1st Floor	ceramic floor	yes	12 x 12	1 ft ²	53.7
F-39	Room #115 1st Floor	ceramic tile window frame	yes	12 x 12	1 ft ²	< 12.5

HUD standards: 100 µg/ft² (floors), 500 µg/ft² (interior window sills), 800 µg/ft² (window troughs)

Total number of samples on this page 5

Page 5 of 6

Date of sample collection 1/1/91 Date shipped to lab 1/1/91

Shipped by _____ Received by _____

(signature)

(initials)

Field Sampling Form for Dust
(Single-Surface Sampling)

Name of risk assessor Streater Baker
Name of property owner Barttore City
Property address 2555 Huron Rd. Apt. no. _____

Sample number	Room (record name of room used by the owner or resident)	Surface type (circle the type)	Is surface smooth and cleanable?	Dimensions of sample area (inches x inches)	Area (ft^2)	Result of lab analysis ($\mu\text{g}/\text{ft}^2$)
F-40	room #100 1st floor	floor tile	yes	12 x 12	1 ft^2	<12.5
F-41	room #100 1st floor	wood window sill	yes	12 x 12	1 ft^2	17
F-42	1st floor	metal window sill	yes	12 x 39	45.29	
F-43	Gasterior fire dock North wing	concrete floor	yes	12 x 12	1 ft^2	*1,295.5
F-44	basement fire dock North wing	concrete floor	yes	12 x 12	1 ft^2	*1,598.25
F-45	basement fire dock wing	concrete floor	yes	12 x 12	1 ft^2	*31,325.00
				— x —		
				— x —		
				— x —		
				— x —		
				— x —		
				— x —		

HUD standards: 100 $\mu\text{g}/\text{ft}^2$ (floors), 500 $\mu\text{g}/\text{ft}^2$ (interior window sills), 800 $\mu\text{g}/\text{ft}^2$ (window troughs)

Total number of samples on this page _____

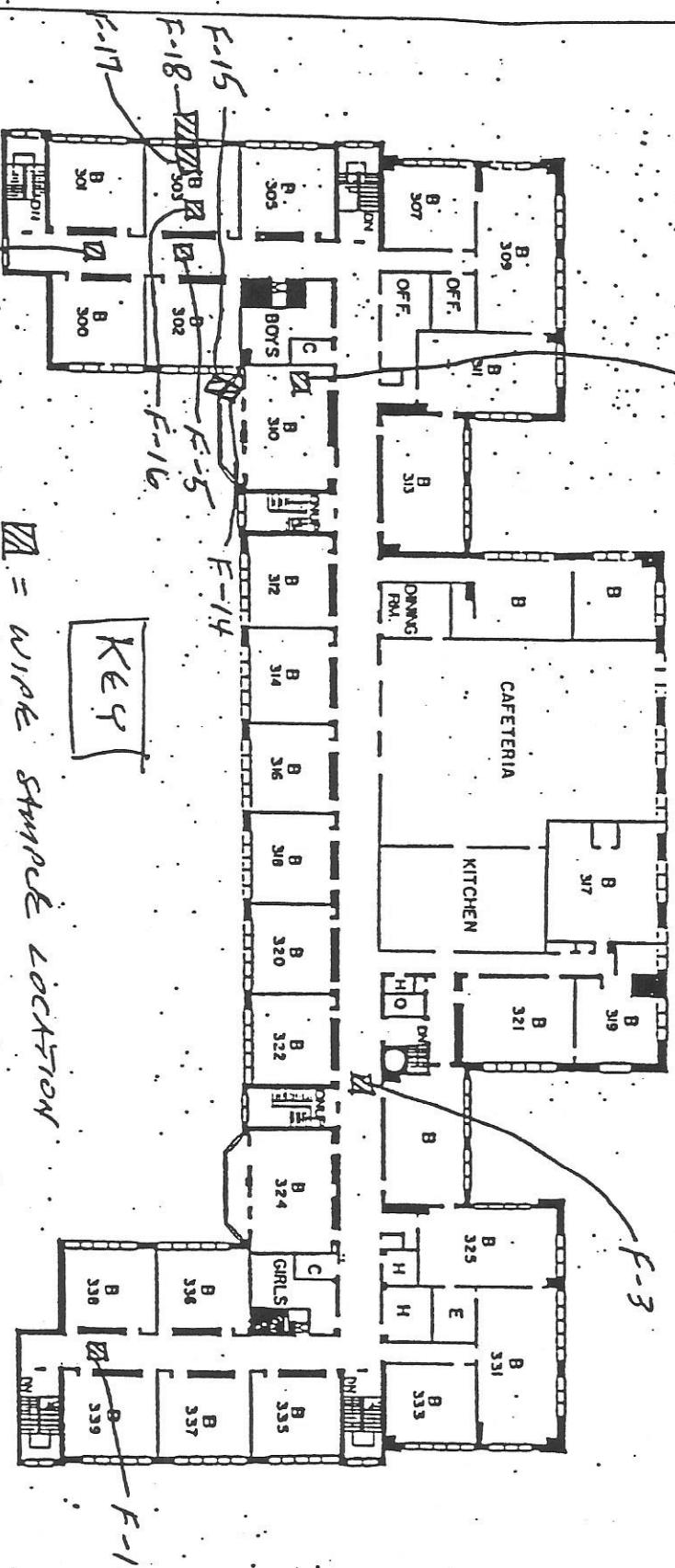
Page 60 of 60Date of sample collection 1/1/ Date shipped to lab 1/1/

Shipped by _____ Received by _____

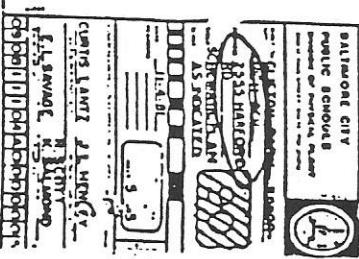
(signature)

(signature)

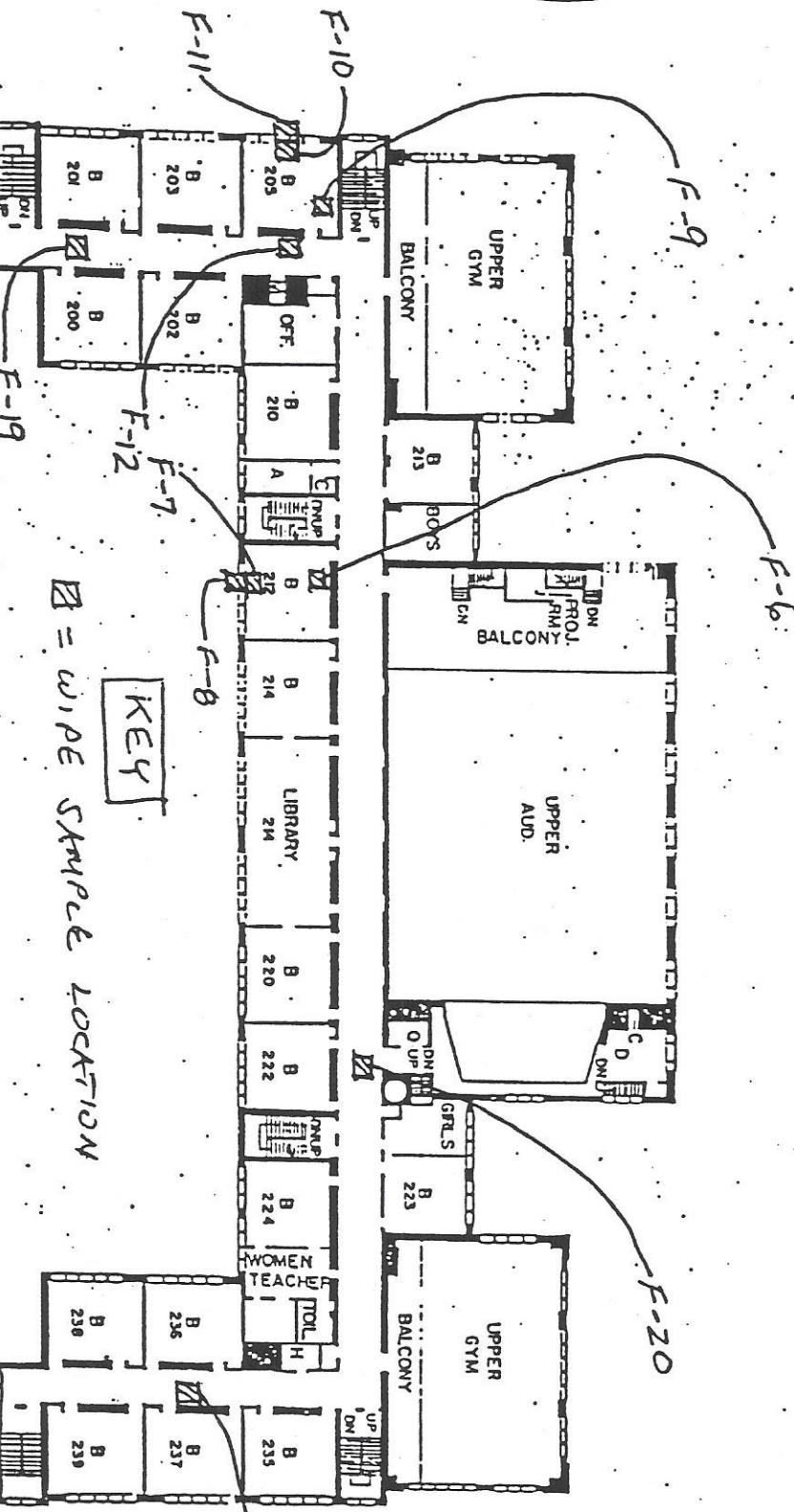
LEAD DUST SAMPLE LOCATIONS



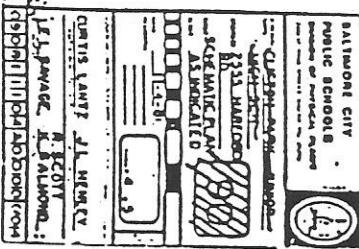
THIRD FLOOR PLAN ELEV. 172.0



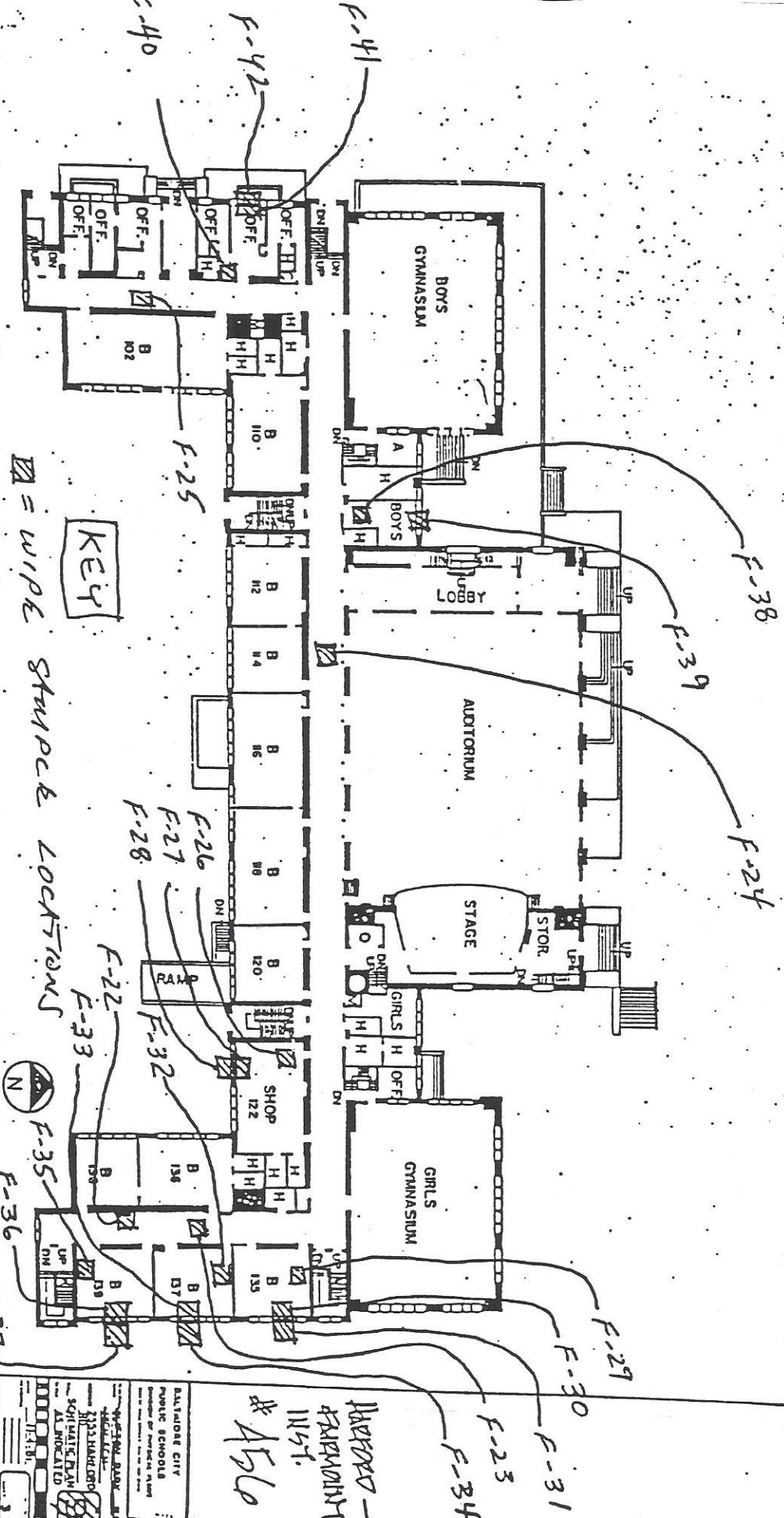
LEAD DUST SAMPLE LOCATIONS



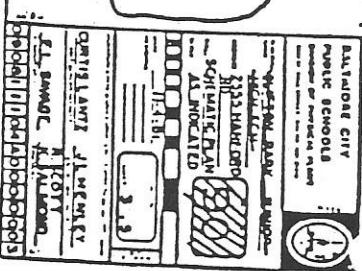
WIPERED -
PARAKEET
WING.
45c



LEAD DUST STAMP LOCATIONS



FIRST FLOOR PLAN ELEV. 145.0 F-37

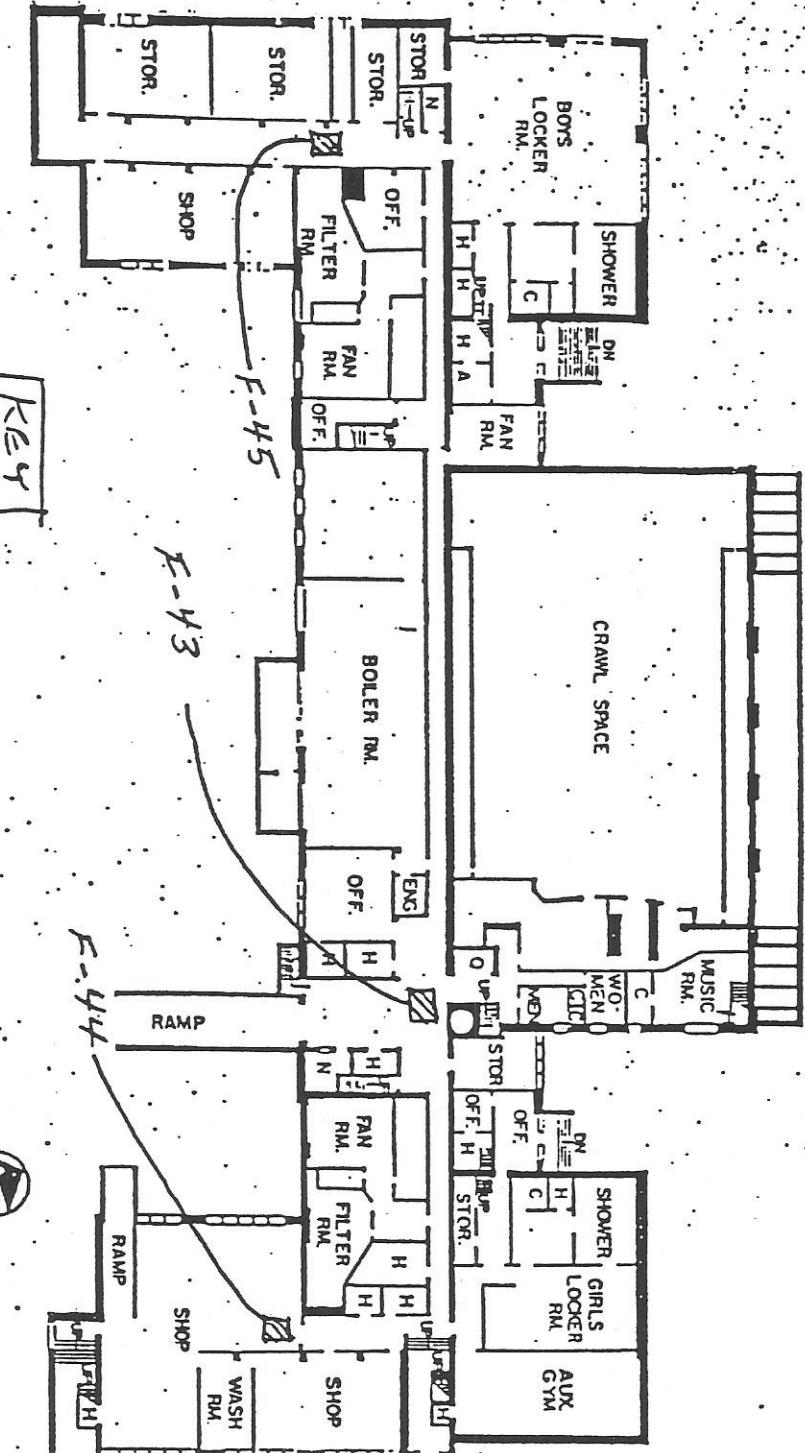


LEAD DUST Sample Locations

■ = Wipe Sample Locations



BASEMENT FLOOR PLAN ELEV. 1/5



HARPOD
EXPERIMENTAL
INST.
#451

CITY OF BALTIMORE	PUBLIC SCHOOLS
Board of Education	Department of Public Schools
1322 HARRISON	1322 HARRISON
ONE BLOCK FROM THE	ONE BLOCK FROM THE
LIBRARY AS LOCATED	LIBRARY AS LOCATED
ONE BLOCK FROM THE	ONE BLOCK FROM THE
LIBRARY AS LOCATED	LIBRARY AS LOCATED

A	OFFICE
B	CLASSROOM
C	TOILET RJM
D	LOUNGE
E	WORK ROOM
F	LOCKER ROOM
G	MUSIC ROOM
H	STORAGE
J	RECEIVING
K	LOCKER ROOM
L	INCINERATOR RV
M	JANITOR
N	MECH-ELEVN.
P	CONFERENCE
O	ELEVATOR

"ug/ft² - microgram per square foot

HUD clearance guidelines: floor-100 ug/ft², window sill-500 ug/ft², window wells-800 ug/ft². Samples collected by Spots Stevens and MC3."

Location/Surface	Results (ug/ft ²)	Location/Surface	Results (ug/ft ²)
Outside Room 339-floor	<12.5	Outside Room 114-floor	<12.5
Blank	<12.5	Outside Room 101-2-floor	13.25
Outside Room 323-floor	<12.5	Outside Room 122-floor	3.27
Outside Room 301-floor	<12.5	Room 127-window sill	13.5
Top of locker #17, 3rd floor,	99.3	Room 127-window well	126.63
adj. to room 302		Room 127-window well	
Room 212-window well	<12.5	Room 135-window sill	<12.5
Room 212-floor	43.05	Room 135-floor	14.85
Room 212-window sill	<12.5	Room 135-window well	<12.5
Room 205-floor	<12.5	Room 137-floor	57.85
Room 205-window sill	14.55	Room 137-window sill	<12.5
Room 205-window well	36.68	Room 137-window well	29.78
Top of locker #221, 2nd	123.60	Room 139-floor	16.75
Hood: near room 205		Room 139-window sill	
Room 310-floor	<12.5	Room 139-window well	25.48
Room 310-window sill	74.58	Room 115-floor	53.7
Room 303-floor	<12.5	Room 115-window sill	<12.5
Room 303-window sill	23.9	Room 100-floor	<12.5
Room 303-window well	30.5	Room 100-window sill	17.0
Room 303-window well	<12.5	Room 110-window well	45.29
Outside Room 201-floor	<12.5	Basement east wing floor	129.53
Outside Room 222-floor	14.95	Basement west wing floor	159.25
Top of locker #2199, 1st	1093.75	Basement west wing floor	3132.50
Outer office room 128		Basement west wing floor	
Outside Room 136-floor	<12.5		

Lead Dust Wipe Sampling Results
Harford Fairmount Institute # 456
October 10 and 11, 1996