

ASBESTOS & HAZARDOUS MATERIALS INSPECTION

of

**Horace Mann Elementary School
2819 Shadeland Avenue
Pittsburgh, Pennsylvania**

Prepared for

**Facilities Division
Pittsburgh Public Schools
1305 Muriel Street 15203-1513**

Prepared by

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EXECUTIVE SUMMARY

Pittsburgh Public Schools retained L. Robert Kimball & Associates, Inc., (Kimball) to conduct an asbestos and hazardous materials inspection of Horace Mann Elementary School, located at 2819 Shadeland Avenue in Pittsburgh, Pennsylvania 15212. The site consists of the main school building and an adjacent maintenance shed. The main school building is a brick and concrete five-story building (including the basement) comprising approximately 56,760 square feet. The storage shed is a 150 square foot, pre-formed, concrete structure that is used to store lawn mowers and yard maintenance equipment.

The purpose of the asbestos and hazardous materials inspection was to identify, locate, and quantify asbestos and other potential hazardous materials, such as lead-based paint (LBP), polychlorinated biphenyls (PCB), mercury-containing fluorescent lamps, thermostats, thermometers and switches; chlorofluorocarbons (CFCs), NiCad and lead-acid batteries, and various other stored chemicals. Exterior areas, adjacent to the building, were also inspected for the presence of Underground Storage Tanks (USTs).

The asbestos and hazardous materials inspection consisted of an on-site inspection, sampling of suspect asbestos-containing materials (ACM) and lead based paint (LBP), and quantification of all observed potentially hazardous materials.

Kimball identified the following materials as testing positive for ACM in the building:

Friable ACM

- None Observed

Non-Friable ACM

- Red/White Poured Flooring
- Mastic below 9"x 9" Brown Floor Tile
- 9"x 9" Light Brown Floor Tile
- 12"x12" White Floor Tile
- Mastic below 12"x 12" Tan and White Floor Tile

The following materials have been assumed to be ACM. These materials were not sampled due to inaccessibility to materials, or because sampling would have damaged the function of the component associated with the material:

- Original Window Caulking below new window frames
- Chalkboard/Tackboard Mastic
- Fire Doors
- One Ceramic Kiln

The estimated cost to remove and dispose of the above-referenced ACM is **\$ \$78,015.00**. See Table

1 for line item cost estimates.

The following assumed materials could not be quantified and were not included in the cost estimates:

- Interior boiler stack material – inaccessible

Based on Kimball's plaster survey results, and additional sample results from samples collected by AGX and analyzed by PLM point counting methods, all plaster homogeneous areas in the building should be considered non-regulated plaster.

Kimball identified the following hazardous materials throughout the building:

- Mercury-containing fluorescent tubes, lamps, thermometers, and switches;
- One walk-in refrigerator/freezer, and one refrigerated air dryer with the potential of containing CFCs;
- Older light ballasts, one air compressor and one emergency generator potentially containing PCB oils;
- 4 lead acid batteries and
- Chemicals such as stored oils and gasoline, paints, cleaning products, metal polish, degreasers/lubricants and salt;

The estimated cost to remove and dispose the above-mentioned hazardous materials is **\$ 7,020.00**. See Table 2 for line item cost estimates.

In addition, lead-based paint, as defined by the Occupational Safety and Health Administration (OSHA) was documented as present throughout the building. Remediation of lead based paint is not required prior to building renovation or demolition.

Table 1
Cost Estimate
Asbestos-Containing Materials
Horace Mann Elementary School

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
Red/White Poured Flooring	Room 303	500 square feet	\$3,500.00
Associated Mastic below 9"x 9" Brown Floor Tile	Principal's Office	440 square feet	\$1,800.00*
9"x 9" Light Brown Floor Tile	Principal's, Main and Nurse's Office	1,100 square feet	\$3,750.00**
12"x 12" White Floor Tile	Art Room - 203	805 square feet	\$2,800.00**
Associate Mastic below 12"x 12" Tan and White Floor Tile	Room 8 and 2	1,500 square feet	\$6,725.00*
Black Board/ Tack board Mastic	Select Classrooms	98 Boards	\$ 32,340.00
Window Caulking	Below Window Frames	175 Windows	\$ 17,500.00
Fire Doors	Select Doors	95	\$ 9,500.00
Interior Stack Material	Boiler Stack	Not quantified	N/A
Ceramic Kiln	Art Room 205	1 Kiln	\$ 100.00
		TOTAL	\$ 78,015.00

* ACM mastic is below carpeting, and includes removal cost of ACM mastic contaminated floor tile.

** ACM floor tile is below newer floor tile or carpeting. Costs reflect tear out of non-ACM materials.

Note: Cost estimates reflect unit pricing averages from select Pittsburgh-based asbestos abatement firms. Cost may vary based on the magnitude of material removed, and whether competitive bidding is used.

Table 2
Cost Estimate
Hazardous Materials
Horace Mann Elementary School

ITEM	LOCATION	APPROXIMATE QUANTITY	DISPOSAL COST ESTIMATE	RECYCLING COST ESTIMATE
Fluorescent Lamps and Bulbs	Through-out Building	\$ 1,100	\$ 1,700.00	\$ 350.00
Fluorescent Light Ballasts	Lunch Rooms	20	\$ 110.00	\$ 70.00
Metal Halide Lamps	Gymnasium and Exterior Security Lights	11	\$ 110.00	\$ 55.00
Other Potential mercury Containing Items	Boiler Room	10 Gas Pressure Switches 4 Thermometers	\$ 350.00	\$ 170.00
Potential PCB Equipment	Boiler Room	1 Air Compressor 1 Emergency Generator	\$ 500.00	NA
CFC Equipment	Boiler Room and Custodian's Room	1 Walk-in Cooler/Freezer 1 Air Dryer	\$ 500.00	\$ 500.00
Lead and Lead Acid Batteries	Boiler Room and Maintenance Shed	5	\$ 250.00	\$ 125.00
Solvents, cleaners, paints, and other misc. chemicals	School Building and Shed	See Section 3.7	\$ 3500.00	NA
Lead-Based Paint Systems	Through-out Building	Not Estimated	NA ³	NA ³
		TOTAL	\$ 7,020.00	\$ 1,270.00

Footnotes

1. Household type air conditioners, refrigerators, freezers, and vending machines were not included.
2. Miscellaneous office and cleaning supplies such as printer toner, ink cartages, spray cleaners, and art supplies were not included.
3. Remediation of lead paint is not generally required for building renovation or demolition, therefore cost estimates are not provided.

Notes

Cost estimates reflect unit pricing averages gained from select Pittsburgh based hazardous remediation firms.

NA = Not Applicable

1.0 Introduction

Kimball conducted an inspection of the Horace Mann Elementary School, located at 2819 Shadeland Avenue in Pittsburgh, Pennsylvania, to identify, locate, and quantify asbestos-containing materials (ACM), and other hazardous materials such as mercury-containing fluorescent lamps (fluorescent, metal halide, high-pressure sodium, and mercury-vapor), thermostats, and switches; polychlorinated biphenyls (PCB)-containing ballasts and oil containing equipment; chlorofluorocarbon (CFC)-containing equipment such as freezer/coolers and air dryer units; lead-acid batteries; storage tanks; and stored solvents, paints/ miscellaneous chemicals and lead-based paint (LBP) systems.

The inspection was conducted from August 16 - September 7, 2006 by Mr. Richard Mance, certified PA Management Planner/Project Designer (#006311), and Ms. Amanda Neary, Environmental Scientist. As part of this assessment, bulk samples were collected from accessible suspect asbestos-containing materials and paint systems for laboratory analysis.

2.0 Asbestos-Containing Materials (ACM)

Kimball conducted the inspection to identify, locate, and quantify ACM throughout the building. Kimball performed a visual inspection of all accessible areas within the building. An appropriate number of samples were collected of any suspect materials that were observed.

Suspect ACM was classified into homogeneous areas, and bulk samples were collected for each homogeneous area based on the random sampling protocol, as described by the United States Environmental Protection Agency (EPA), under the Asbestos Hazard Emergency Response Act (AHERA), or as described. All bulk samples were sealed in plastic vials, given unique sample numbers, and logged with an appropriate chain of custody. The samples were analyzed by International Asbestos Testing Laboratories, Inc. of Mt. Laurel, New Jersey, using Polarized Light Microscopy (PLM) with dispersion staining, as specified by the EPA method 600/R-93/116. Bulk samples with a content of less than 10% asbestos were also point counted. PLM point count analysis is a more definitive method in determining the percentage of asbestos. IATL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos in bulk sample analysis.

Kimball identified a total of eight-eight (88) homogeneous areas, and collected three-hundred forty four (344) bulk samples of suspect ACM, throughout the building.

The following materials have been sampled, and found to be ACM.

Friable ACM

- None Observed

Non-Friable ACM

- Red/White Poured Flooring
- 9"x 9" Brown Floor Tile and Associated Mastic
- 9"x 9" Light Brown Floor Tile
- 12"x 12" White Floor Tile

- Associated Mastic for 12”x 12” Tan and White Floor Tile

The following materials have been assumed ACM. These materials were not sampled due to inaccessibility to materials, or because sampling would have damaged the function of the component associated with the material:

- Original Window Caulking below new window frames
- Chalkboard/Tackboard Mastic
- Fire Doors
- One Ceramic Kiln

The estimated cost to remove and dispose of the above-referenced ACM is **\$78,015.00**. See Table 1 for line item cost estimates.

The following assumed material could not be quantified and was not included in the cost estimates:

- Interior Boiler Stack Material

Table 1 identifies the location of ACM identified in this inspection, location, approximate quantity, and cost estimates for removal.

Table 1
Cost Estimate
Asbestos-Containing Materials
Horace Mann Elementary School

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
Red/White Poured Flooring	Room 303	500 square feet	\$3,500.00
Associated Mastic below 9"x 9" Brown Floor Tile	Principal's Office	440 square feet	\$1,800.00*
9"x 9" Light Brown Floor Tile	Principal's, Main and Nurse's Office	1,100 square feet	\$3,750.00**
12"x 12" White Floor Tile	Art Room - 203	805 square feet	\$2,800.00**
Associate Mastic below 12"x 12" Tan and White Floor Tile	Room 8 and 2	1,500 square feet	\$6,725.00*
Black Board/ Tack board Mastic	Select Classrooms	98 Boards	\$ 32,340.00
Window Caulking	Below Window Frames	175 Windows	\$ 17,500.00
Fire Doors	Select Doors	95	\$ 9,500.00
Interior Stack Material	Boiler Stack	Not quantified	N/A
Ceramic Kiln	Art Room 205	1 Kiln	\$ 100.00
		TOTAL	\$ 78,015.00

* ACM mastic is below carpeting, and includes removal cost of ACM mastic contaminated floor tile.

** ACM floor tile is below newer floor tile or carpeting. Costs reflect tear out of non-ACM materials.

Note: Cost estimates reflect unit pricing averages from select Pittsburgh-based asbestos abatement firms. Cost may vary based on the magnitude of material removed, and whether competitive bidding is used.

The building summary form, list of homogenous areas, bulk sampling forms, sample point location maps, and homogeneous area maps are located in **Appendix A – Inspection Reports**. Photographs of asbestos-containing materials are located in **Appendix B – Photographs**. Laboratory results are located in **Appendix C – Asbestos Laboratory Bulk Sample Results**. Inspectors' certifications are located in **Appendix E – Accreditations**.

2.1 Detailed Plaster Survey

Prior to initiating the asbestos inspection, Kimball reviewed the 2001 report from the previous plaster survey performed by AGX Inc. (AGX). The AGX survey included fifty-seven (57) wall and ceiling plaster samples. Five (5) of the samples collected from interior walls tested as greater than one percent (>1%) asbestos by PLM analysis. An additional five (5) samples were assumed positive for asbestos content.

Based on this information, Kimball inspected the different plasters and determined that six (6) homogeneous areas were present, and included:

- Wall and ceiling plaster over sheetrock associated with newer restrooms (Kimball HA 13)
- Wall and ceiling plaster over wood lathe in the 3rd Floor Gymnasium (Kimball HA 14)
- Decorative plaster in the 3rd Floor Gymnasium (Kimball HA 15)
- Ceiling plaster over metal lathe in stairwells (Kimball HA 21)
- Wall plaster over brick and speed block on interior and exterior walls (Kimball HA 22)
- Ceiling plaster over concrete in rooms and corridors (Kimball HA 23)

Kimball then collected a total of eighty-three (83) plaster samples including: five (5) samples from HA 13, seven (7) samples from HA 14, five (5) samples from HA 15, seven (7) samples from HA 21, thirty-one (31) samples from HA 22, and twenty-eight (28) samples from HA 23.

All plaster samples collected by Kimball were analyzed by IATL using PLM point counting methods. All eighty-three (83) samples testing as less than 1% asbestos content.

AGX was contracted to collect additional samples in areas where their 2001 survey showed asbestos containing plasters; sampled and assumed. AGX collected nine (9) plaster samples and submitted the samples to R.J. Lee Group Inc. for PLM point counting analysis. All nine (9) AGX samples collected and analyzed showed results of less than 1% asbestos content.

Based on Kimball's plaster survey results, and additional sample results from samples collected by AGX and analyzed by PLM point counting methods, all plaster homogeneous areas in the building should be considered non-regulated plaster.

3.0 Hazardous Materials Inspection

3.1 Fluorescent Lamps

Kimball identified approximately one thousand one hundred (1,100) mercury-containing fluorescent tubes throughout the building. Kimball also identified eleven (11) metal halide lamps in the gymnasium and exterior building security light fixtures. The term lamp refers to mercury-containing lamps, fluorescent tubes or bulbs, metal halide, high-pressure sodium, and mercury-vapor lamps.

Disposal costs average between 25 and 50 cents per four-foot tube and 75 cents to one (1) dollar per eight-foot tube, plus the cost of transportation and any additional landfill fees. An alternative to disposal is recycling. The average cost to recycle fluorescent tubes is around 10 cents per foot, or about 40 cents per four-foot tube (80 cents per eight-foot tube). The average cost to recycle high intensity discharge (HID) lamps is approximately \$2.50 per lamp.

Fluorescent tubes were added to the EPA list of "universal wastes" in 1999. "Universal wastes" are hazardous wastes, with less stringent requirements for storing, transporting, and collection. Under federal law, these lamps are considered hazardous waste if they fail the Toxic Characteristic Leaching Procedure (TCLP) test. Under this test, the waste can contain no more than 0.2 milligrams per liter (mg/l) of mercury.

The majority of spent fluorescent and high-intensity discharge (HID) lamps, however, fail the TCLP test. Therefore, it should be assumed that all used lamps are hazardous, unless proven otherwise. Current production fluorescent tubes will fail the TCLP test for mercury, while older (pre-1988 production) tubes will fail the TCLP test for cadmium. HID lamps will fail the TCLP test for both mercury and lead. The Universal Waste Rule did give states the authority to add products to their individual waste rules. According to the Pennsylvania Department of Environmental Protection regulation 25 PA Code 260a all fluorescent lamps, if hazardous, must be managed as either universal waste or manifested as hazardous waste.

Therefore, it is recommended that all mercury-containing lamps be handled, stored, and transported in such a manner that they are protected from damage and not broken. If impacted by building renovation/demolition activities, all mercury-containing lamps should be removed from each fixture. Mercury-containing lamps should be disposed or recycled in accordance with USEPA and the Commonwealth of Pennsylvania hazardous waste regulations and guidelines. Separate estimated costs to remove/dispose or remove/recycle the lamps are found in **Table 2, Hazardous Materials**.

3.2 Polychlorinated Biphenyls (PCBs)

PCBs can be found in a number of different electrical and hydraulic pieces of equipment. Such equipment typically includes oil-filled power transformers, capacitors, and electric ballasts and pieces of equipments that use hydraulic oil. Kimball noted one (1) air compressor, and (1) emergency generator with the potential for containing PCB oil. Twenty (20) older ballasts located in the ground floor lunchroom light fixtures housed older ballasts assumed to contain PCBs. All ballasts manufactured after July 1, 1978, which do not contain PCBs, are required to be clearly marked "No PCBs." Select light fixtures were dismantled during the inspection to verify the ballasts labels. Newer light fixtures inspected housed Sylvania Quicktronic and Advance models of ballast labeled as "No PCBs".

There are two primary federal regulations that govern the disposal of PCB ballasts:

- Toxic Substance Control Act (TSCA) 40 CFR Part 761

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund Act

TSCA regulates leaking ballasts and requires the PCB liquids to be drained and incinerated in a TSCA-approved disposal facility or in a chemical waste landfill. Under the Superfund laws, PCBs are specifically listed as a hazardous substance. Sixteen (16) ballasts collectively contain approximately one pound of PCBs, which meets the requirements for a reportable quantity of waste.

Therefore, based on TSCA and CERCLA regulations, PCB-containing ballasts, in excess of 16, must be handled and removed as PCB-containing waste for proper disposal at an EPA-approved chemical waste landfill or high temperature incinerator prior to demolition/renovation of the building. An approved company may also recycle the ballasts. A separate cost estimate is given in **Table 2 – Cost Estimate, Hazardous Materials**.

The average cost for high-temperature incineration is \$1.50 per pound, which is approximately \$5.25 per ballast. The average cost for recycling is \$1.00 per pound or approximately \$3.50 per ballast. Disposal at a chemical or hazardous waste landfill is based on disposal of a 55-gallon drum of ballasts. The average cost is \$100.00 per 55-gallon drum, which is approximately \$0.50 per ballast. The costs do not include packaging, transportation, or profile fees. High-temperature incineration or recycling eliminates future CERCLA liabilities, while liability will continue for landfill disposal. The estimated cost to remove and dispose of the assumed PCB-containing electric ballasts are found in **Table 2 – Cost Estimate, Hazardous Materials**. The estimated cost to remove the assumed PCB-containing oil from other PCB-containing equipment is also found in Table 2.

3.3 Chlorofluorocarbons (CFCs)

CFCs are primarily used as a refrigerant and can be found in heating, ventilation, and air conditioning (HVAC) units, refrigerators, freezers, vending machines, and water coolers/fountains. If impacted by building renovation/demolition activities, these units should be properly purged prior to disposal of the units. The CFCs must be handled and purged by properly licensed contractors and/or personnel, abiding by all Federal, State, and local regulations. Kimball identified one (1) walk-in refrigerator/freezer in the custodian's office, and one (1) air dryer in the boiler room. This equipment may contain CFCs. Window mount air conditioning units, household style refrigerators and freezers, and vending machines, were not included, as they are not part of the building mechanical system and can be easily transported to another location without releasing any CFCs into the atmosphere.

The release of ozone-depleting substances is restricted under the Clean Air Act. All CFCs require purging from the equipment prior to the commencement of demolition/renovation activities. Properly licensed personnel and contractors must be used to handle and purge the CFCs, in compliance with all Federal, State, and local regulations. Qualified Pittsburgh Public Schools maintenance personnel should be able to purge and transport the CFC-containing equipment. The cost of handling and purging of the CFC units averages approximately \$60.00 per unit. The estimated cost to handle and purge the CFC-containing units is found in **Table 2, Hazardous**

Materials.

3.4 Batteries

Nickel-cadmium (NiCad) and lead-acid batteries can be typically found in exit signs and emergency lighting units. Exit signs and emergency lighting units that are hard wired into the building electrical system were not included counted in this assessment. Kimball identified three (3) lead-acid batteries associated with the emergency generator and snowplow tractor, and two (2) re-chargeable lead batteries in the boiler room. No exit signs or emergency lights, which contain batteries, were identified in the school.

All batteries should be disposed or recycled in accordance with USEPA and the Commonwealth of Pennsylvania hazardous waste regulations and guidelines. The estimated cost to remove and dispose or recycle the battery found in **Table 2, Hazardous Materials**.

3.5 Mercury

Mercury may be present inside thermostats, thermometers, and laboratory drain traps. Kimball inspected select thermostats present throughout the school. Ten (10) gas pressure switches (rectangular and round types) and four (4) thermometers in boiler room were identified. No mercury containing thermostats were observed; all inspected thermostats appear to be pneumatic types containing no mercury switches.

Thermometers, mercury switches and, if present, thermostats should be disposed or recycled in accordance with USEPA and the Commonwealth of Pennsylvania hazardous waste regulations and guidelines prior to any demolition/renovation activities. The estimated cost to remove and dispose or recycle mercury-containing items is found in **Table 2, Hazardous Materials**.

3.6 Storage Tanks

The school grounds were inspected for visual evidence of storage tanks containing fuels or other hazardous materials. No storage tanks were noted, however, the custodial stated that two (2) 500-gallon fuel tanks were present outside the building adjacent to the boiler room. These tanks were removed approximately 5 years ago. The concrete tank pad was inspected; no visible staining was noted.

3.7 Miscellaneous Materials

Various solvents, chemicals, equipment and other miscellaneous hazardous materials were found throughout the building. Kimball identified the following:

Custodian Closet 01B

- 1 - 8 oz. bottle of Multi-Purpose Degreaser
- 1 - 5 gallon jug of Techni-Blend
- 2 - 15 oz. bags of Soak it Special Absorbent with deodorizer

Custodian Closet 100B

- 2 - 15 oz bag of Soak it Special Absorbent with deodorizer
- 1 - 1 gallon bottle of glass cleaner
- 1 - 1 gallon bottle of washroom cleaner
- 1 - 1 gallon bottle of tough job cleaner
- 1 - 1 gallon bottle of neutral disinfectant
- 1 - 1 gallon jug of Nutra-Clean
- 1 - 32 oz. bottle of Speedball

Custodian Closet 200A

- 2 - 32 oz. bottle of Speedball
- 1 - 15oz bag of Soak It Special absorbent with deodorizer
- 1 - 3 quart jug of Ultra Clorox
- 2 - 1 gallon jug of Nutra-Clean

Basement Storage

- 1 gasoline powered lawn mower
- 5 - 2 pound cans of gel floor stripper
- 27 - 1 gallon jugs floor gloss restorer
- 7 - 1 gallon cans of paint
- 1 - 1 gallon can of neoprene cement
- 4 - 1 gallon jugs of oil polish
- 1 - 1 gallon can of metal polish
- 1 - 5 gallon jugs of floor stripper
- 1 - 30 gallon drums of floor stripper
- 10 - 5 gallon buckets of floor sealer
- 1 - 30 pound and 1 - 20 pound drum of powdered cleanser
- 2 - 1 gallon jugs of butcher cleaning gel
- 20 - 1 gallon jugs of low foam cleaner
- 13 - 1 gallon jugs of disinfectant
- 2 - 1 gallon jugs of deacon spray and buff

Shed

- 5 gallons of gasoline
- 1 snow tractor with battery
- 2 gasoline powered lawn mowers
- 1 gasoline powered string trimmer
- 1 quart of oil
- 2 cans of spray lube
- 1 tube of grease

Boiler Room

- 1 - 1 gallon jug of compressor oil
- 1 - 1 quart can of motor oil

Boiler Room Storage

- 1 - 5 gallon can of Boiler Treatment
- 2 - 30 pound drums of powered cleanser

Custodian Office

- 2 - 55 gallon drums of pink concentrate cleaner
- 16 - 2.5 gallon jugs of 3M floor treatment products
- 5 - 80 pound bags of rock salt
- 1 - 30 gallon drum of floor stripper
- 3 - 1 gallon jugs of Clorox Bleach

Storage and filing cabinets within the classrooms were not inspected for potential hazardous materials.

The estimated cost to remove and dispose of the identified chemicals is found in the following table.

**Table 2
Cost Estimate
Hazardous Materials
Horace Mann Elementary School**

ITEM	LOCATION	APPROXIMATE QUANTITY	DISPOSAL COST ESTIMATE	RECYCLING COST ESTIMATE
Fluorescent Lamps and Bulbs	Through-out Building	\$ 1,100	\$ 1,700.00	\$ 350.00
Fluorescent Light Ballasts	Lunch Rooms	20	\$ 110.00	\$ 70.00
Metal Halide Lamps	Gymnasium and Exterior Security Lights	11	\$ 110.00	\$ 55.00
Other Potential mercury Containing Items	Boiler Room	10 Gas Pressure Switches 4 Thermometers	\$ 350.00	\$ 170.00
Potential PCB Equipment	Boiler Room	1 Air Compressor 1 Emergency Generator	\$ 500.00	NA
CFC Equipment	Boiler Room and Custodian's Room	1 Walk-in Cooler/Freezer 1 Air Dryer	\$ 500.00	\$ 500.00
Lead and Lead Acid Batteries	Boiler Room and Maintenance Shed	5	\$ 250.00	\$ 125.00
Solvents, cleaners, paints, and other misc. chemicals	School Building and Shed	See Section 3.7	\$ 3500.00	NA
Lead-Based Paint Systems	Through-out Building	Not Estimated	NA ³	NA ³
		TOTAL	\$ 7,020.00	\$ 1,270.00

Footnotes:

1. Household type air conditioners, refrigerators, freezers, and vending machines were not included.
2. Miscellaneous office and cleaning supplies such as printer toner, ink cartages, spray cleaners, and art supplies were not included.
3. Remediation of lead paint is not generally required for building renovation or demolition, therefore cost estimates are not provided.

Notes

Cost estimates reflect unit pricing averages gained from select Pittsburgh based hazardous remediation firms.

NA = Not Applicable

4.0 Lead-Based Paint (LBP)

Eight (8) paint systems were sampled throughout the school. Sampled paint systems were found to contain between 0.044% and 22% lead by weight based on laboratory analysis. All paint samples showed concentrations of total lead greater than the laboratory limit of detection, and are considered regulated under the Occupational Safety and Health Administration (OSHA).

The OSHA Lead in Construction Standard (29 CFR 1926.62) requires all contractors performing demolition or renovation activities to notify and provide training for their employees involved in the alteration and/or repair of lead-containing building components. The contractor is also required to conduct an initial Employee Exposure Assessment. There are no requirements for removing lead based paint during renovation or demolition of buildings however means of minimizing the migration of lead dust must be implemented. In addition, waste stream sampling of renovation/demolition materials is required under the Resource Conservation and Recovery Act (RCRA).

The samples were analyzed by International Asbestos Testing Laboratories, Inc. of Mt. Laurel, New Jersey, using ASTM D3335-85A Atomic Absorption Spectrophotometry (AAS). IATL is accredited by the American Industrial Hygiene Association (AIHA) for metals analysis. The paint chip sampling form and the laboratory analysis are found in **Appendix D – Lead-based Paint Sample Results**.

5.0 Summary

Kimball performed an inspection for asbestos and hazardous materials throughout all accessible areas of the Horace Mann Elementary School, located at 2819 Shadeland Avenue in Pittsburgh, Pennsylvania 15212. Asbestos, lead paint and hazardous materials were identified in the buildings and included mercury-containing light tubes, thermometers and switches, potential PCB-containing equipment, lead acid batteries, potential CFC containing equipment, and miscellaneous stored chemicals.

Based on the results and findings of the building inspection, Kimball recommends the following:

- ACM that will be impacted by renovation/demolition activities should be removed and disposed of as ACM waste according to all applicable asbestos regulations. The Pennsylvania Department of Labor and Industry and the Allegheny County Health Department (ACHD) requires that asbestos abatement be completed by certified contractors. Assumed materials should be properly characterized for asbestos content prior to disturbance.
- All eight (8) - sample paint systems in the school were found to contain lead. In accordance with OSHA Standard 29 CFR 1926.62, contractors are required to notify and train all employees involved in the construction, alteration, and/or repair of lead-containing building components, of the presence of lead. The Contractors are also required to conduct an initial Employee Exposure Assessment in accordance with 29 CFR 1926.62 (d) (1) (i). Prior to cutting, sanding, or welding painted structural steel for renovation or demolition, the paint should be properly abated from each structure.

- All hazardous materials/equipment impacted by renovation or demolition activities should be removed by properly trained contractors and/or personnel, and the materials disposed of in accordance with USEPA and Commonwealth of Pennsylvania hazardous waste regulations and guidelines. Photographs of hazardous materials and types of equipment found are located in Appendix B – Photographs.

BUILDING IDENTIFICATION

OWNER/CLIENT: Pittsburgh Public Schools BLDG. NAME: Horace Mann Elementary School
 ADDRESS: 2819 Shadeland Avenue PHONE: (412) 906-0619
Pittsburgh, PA 15212-2554

PHYSICAL DESCRIPTION – MAIN BLDG.

BUILDING USE: Elementary School # OF FLOORS: 5
 SQ. FOOTAGE: 56,760 BUILDING EXTERIOR: Brick
 ATTIC: No BASEMENT: Yes
 CEILING HEIGHT: 12' FRAME: Concrete

FLOOR:

TILE: CARPET: CONCRETE: WOOD: CERAMIC: SOIL: LINOLEUM: METAL:

CEILING:

PLASTER: CONCRETE: FIBERGLASS: SUSPENDED: DRYWALL: WOOD:

ASBESTOS MATERIALS RECORDS (SURFACING)

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	%ASBESTOS
N/A	N/A	N/A	N/A	N/A	N/A	N/A

ASBESTOS MATERIALS RECORDS (THERMAL)

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	%ASBESTOS
N/A	N/A	N/A	N/A	N/A	N/A	N/A

ASBESTOS MATERIALS RECORDS (MISCELLANEOUS)

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	%ASBESTOS
Poured Flooring- Red Base, Gray Top	Room 303	03-3300-045	03-3300-046	03-3300-047	500 sq. ft.	2.6% Chrysotile
Mastic Below 9"x 9" Brown Floor Tile	Principal's Office	03-3300- 183B	03-3300- 184B	03-3300- 185B	440 sq. ft.	3.2% Chrysotile
9"x 9" Light Brown Floor Tile	Principal's, Main and Nurse's Office	03-3300- 184A (layer 2)	03-3300- 190A	03-3300- 191A	1,100 sq. ft.	10% Chrysotile
12"x 12" White Floor Tile	Art Room - 203	03-3300- 195A	03-3300- 196A	03-3300- 197A	805 sq. ft.	3.9% Chrysotile
Mastic below 12"x12" Tan and White Floor Tile	Rooms 8 and 2	03-3300- 213B	03-3300- 214B	03-3300- 215B	1,500 sq. ft.	4.8% Chrysotile
Blackboard/Tac kboard Mastic	Select Classrooms	N/A	N/A	N/A	98 Blackboards	Assumed

BUILDING SUMMARY FORM

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	% ASBESTOS
Older Window Caulking	All Windows	N/A	N/A	N/A	175 Windows	Assumed
Fire Doors	Select Doors	N/A	N/A	N/A	95 Doors	Assumed
Ceramic Kiln Material	Art Room 205	N/A	N/A	N/A	1 Kiln	Assumed

SUMMARY PREPARED BY:

PEER REVIEWED BY:

SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Horace Mann Elementary School

ADDRESS: 2819 Shadeland Avenue

SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-001A	Drywall	01	Room B3 – Lunchroom	None Detected
03-3300-002A	Drywall	01	Room B3 – Lunchroom	None Detected
03-3300-003A	Drywall	01	Room B10 – Lunchroom	None Detected
03-3300-001B	Associated Joint Compound	02	Room B3 – Lunchroom	None Detected
03-3300-002B	Associated Joint Compound	02	Room B3 – Lunchroom	None Detected
03-3300-003B	Associated Joint Compound	02	Room B10 – Lunchroom	None Detected
03-3300-004A	Drywall	03	Room 101B	None Detected
03-3300-005A	Drywall	03	Corridor at Room 101B	None Detected
03-3300-006A	Drywall	03	Corridor at Room 101B	None Detected
03-3300-004B	Associated Joint Compound	04	Room 101B	None Detected
03-3300-005B	Associated Joint Compound	04	Corridor at Room 101B	None Detected
03-3300-006B	Associated Joint Compound	04	Corridor at Room 101B	None Detected
03-3300-007A	Drywall	05	Room 305	None Detected
03-3300-008A	Drywall	05	Room 305	None Detected
03-3300-009A	Drywall	05	Room 302	None Detected
03-3300-007B	Associated Joint Compound	06	Room 305	None Detected
03-3300-008B	Associated Joint Compound	06	Room 305	None Detected
03-3300-009B	Associated Joint Compound	06	Room 302	None Detected
03-3300-010	2' x 2' Ceiling Tile – Big Fissures and Holes	07	Room B3 – Lunchroom	None Detected
03-3300-011	2' x 2' Ceiling Tile – Big Fissures and Holes	07	Room B10 – Lunchroom	None Detected
03-3300-012	2' x 2' Ceiling Tile – Big Fissures and Holes	07	Room 108 – Main Office	None Detected
03-3300-013	2' x 2' Ceiling Tile with Small Squares	08	Room 208 – Library	None Detected
03-3300-014	2' x 2' Ceiling Tile with Small Squares	08	Room 207 – Computer Education	None Detected
03-3300-015	2' x 2' Ceiling Tile with Small Squares	08	Room 201	None Detected

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SUSPECT ASBESTOS BULK SAMPLING FORM

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-016	2' x 4' Ceiling Tile with Large Squares	09	Ground Floor Corridor at Room 8	None Detected
03-3300-017	2' x 4' Ceiling Tile with Large Squares	09	Ground Floor Corridor at Stair A	None Detected
03-3300-018	2' x 4' Ceiling Tile with Large Squares	09	1 st Floor Corridor at Stair A	None Detected
03-3300-019	2' x 4' Ceiling Tile – Small Fissures and Holes	10	Room 101B	None Detected
03-3300-020	2' x 4' Ceiling Tile – Small Fissures and Holes	10	Room 101B	None Detected
03-3300-021	2' x 4' Ceiling Tile – Small Fissures and Holes	10	Room 101B	None Detected
03-3300-022	Water Line Fitting Insulation on Fiberglass Insul. Lines	11	Ground Floor Restroom Chase	None Detected
03-3300-023	Water Line Fitting Insulation on Fiberglass Insul. Lines	11	First Floor Restroom Chase	None Detected
03-3300-024	Water Line Fitting Insulation on Fiberglass Insul. Lines	11	Second Floor Restroom Chase	None Detected
03-3300-025	Boiler Rope Gasket	12	Boiler Room- Boiler 1	None Detected
03-3300-026	Boiler Rope Gasket	12	Boiler Room- Boiler 1	None Detected
03-3300-027	Boiler Rope Gasket	12	Boiler Room- Boiler 1	None Detected
03-3300-028	Newer Plaster over Sheetrock	13	Second Floor Girls Restroom	None Detected
03-3300-029	Newer Plaster over Sheetrock	13	First Floor Hallway at Rest Rooms	None Detected
03-3300-030	Newer Plaster over Sheetrock	13	First Floor Girls Restroom - Ceiling	None Detected
03-3300-031	Newer Plaster over Sheetrock	13	Ground Floor- Hallway at Restrooms	None Detected
03-3300-032	Newer Plaster over Sheetrock	13	Ground Floor- Boys Restroom	None Detected
03-3300-033	Wall Plaster over Wood Lathe	14	Gymnasium Hallway	Trace Chrysotile
03-3300-034	Wall Plaster over Wood Lathe	14	Gymnasium By Entrance	None Detected
03-3300-035	Wall Plaster over Wood Lathe	14	Gymnasium at North Windows	None Detected
03-3300-036	Ceiling Plaster over Wood Lathe	14	Room 303	None Detected
03-3300-037	Ceiling Plaster over Wood Lathe	14	On Stage- Stage Left	None Detected

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DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-038	Wall Plaster over Wood Lathe	14	Gymnasium at South Windows	None Detected
03-3300-039	Ceiling Plaster	14	Hallway at Room 305	0.3% Chrysotile
03-3300-040	Decorative White Plaster	15	Gymnasium – North Column	None Detected
03-3300-041	Decorative White Plaster	15	Gymnasium Front Colum	None Detected
03-3300-042	Decorative White Plaster	15	Stage Facade- Stage Right	None Detected
03-3300-043	Decorative White Plaster	15	Stage Façade - Stage Left	None Detected
03-3300-044	Decorative White Plaster	15	Gymnasium - South Column	None Detected
03-3300-045	Poured Flooring- Red/White Base, Gray Painted Top	16	Room 303	2.6% Chrysotile
03-3300-046	Poured Flooring- Red Base, Gray Top	16	Room 303	Trace Chrysotile
03-3300-047	Poured Flooring- Red Base, Gray Top	16	Room 303	Trace Chrysotile
03-3300-048	Newer Window Caulking	17	Exterior Bldg. at Custodian Office	Trace Chrysotile
03-3300-049	Newer Window Caulking	17	Exterior Bldg. at Playground	Trace Chrysotile
03-3300-050	Newer Window Caulking	17	Exterior Bldg. at Baseball Field	Trace Chrysotile
03-3300-051	Canvas/ Foil/ Paper Wrap Over Fiberglass	18	Basement Hallway	None Detected
03-3300-052	Canvas/ Foil/ Paper Wrap Over Fiberglass	18	Basement Hallway	None Detected
03-3300-053	Canvas/ Foil/ Paper Wrap Over Fiberglass	18	Basement Hallway	None Detected
03-3300-054	Paper with Tar and Foil Over Fiberglass	19	Basement Hallway	None Detected
03-3300-055	Paper with Tar and Foil Over Fiberglass	19	Basement Hallway	None Detected
03-3300-056	Paper with Tar and Foil Over Fiberglass	19	Basement Hallway	None Detected
03-3300-057	Foil with Tar and Wrapping (No Paper)	20	Room 104- Closet	None Detected
03-3300-058	Foil with Tar and Wrapping (No Paper)	20	Room 103- Closet	None Detected

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-059	Foil with Tar and Wrapping (No Paper)	20	Room 103- Closet	None Detected
03-3300-060	Ceiling Plaster over Metal Lathe	21	Stairwell B	None Detected
03-3300-061	Ceiling Plaster over Metal Lathe	21	Stairwell B- Ground Floor	None Detected
03-3300-062	Ceiling Plaster over Metal Lathe	21	Stairwell B- 2 nd Floor	None Detected
03-3300-063	Ceiling Plaster over Metal Lathe	21	Stairwell A- 2 nd Floor	None Detected
03-3300-064	Ceiling Plaster over Metal Lathe	21	Stairwell A- 1 st Floor	None Detected
03-3300-065	Ceiling Plaster over Metal Lathe	21	Stairwell A- Ground Floor	None Detected
03-3300-066	Ceiling Plaster over Metal Lathe	21	Stairwell B- Basement	None Detected
03-3300-067	Wall Plaster over Brick/Block	22	Corridor 01 at Room 7	None Detected
03-3300-068	Wall Plaster over Brick/Block	22	Classroom 8 Entry	None Detected
03-3300-069	Wall Plaster over Brick/Block	22	Room 7- Interior Wall	None Detected
03-3300-070	Wall Plaster over Brick/Block	22	Room 6- Exterior Wall	Trace Chrysotile
03-3300-071	Wall Plaster over Brick/Block	22	Room 5A- Cloak Room Exterior Wall	Trace Chrysotile
03-3300-072	Wall Plaster over Brick/Block	22	Room 4- Exterior Wall	Trace Chrysotile
03-3300-073	Wall Plaster over Brick/Block	22	Room 3- Interior Wall	Trace Chrysotile
03-3300-074	Wall Plaster over Brick/Block	22	Room 2- Exterior Wall	None Detected
03-3300-075	Wall Plaster over Brick/Block	22	Room 5	Trace Chrysotile
03-3300-076	Wall Plaster over Brick/Block	22	Custodian Room B8	None Detected
03-3300-077	Wall Plaster over Brick/Block	22	Room 101- Exterior Wall	None Detected
03-3300-078	Wall Plaster over Brick/Block	22	Room 101B- Back Wall	None Detected
03-3300-079	Wall Plaster over Brick/Block	22	Room 111- Interior Wall	None Detected
03-3300-080	Wall Plaster over Brick/Block	22	Room 110- Medical Office- Interior Wall	None Detected
03-3300-081	Wall Plaster over Brick/Block	22	Room 107- Main Office- Interior Wall	None Detected

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DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-082	Wall Plaster over Brick/Block	22	Room 106- Principal's Office- Interior Wall	Trace Chrysotile
03-3300-083	Wall Plaster over Brick/Block	22	Room 109-Storage- Interior Wall	None Detected
03-3300-084	Wall Plaster over Brick/Block	22	Room 105- Exterior Wall	Trace Chrysotile
03-3300-085	Wall Plaster over Brick/Block	22	1 st Floor Corridor- Interior Wall	None Detected
03-3300-086	Wall Plaster over Brick/Block	22	Room 104- Exterior Wall	Top Coat None Detected Base Coat Trace Chrysotile
03-3300-087	Wall Plaster over Brick/Block	22	Room 103- Interior Wall	None Detected
03-3300-088	Wall Plaster over Brick/Block	22	Room 102A- Cloak Room- Interior Wall	None Detected
03-3300-089	Wall Plaster over Brick/Block	22	Room 208- Exterior Wall	None Detected
03-3300-090	Wall Plaster over Brick/Block	22	Room 207- Interior Wall	None Detected
03-3300-091	Wall Plaster over Brick/Block	22	Room 206- Interior Wall	0.5% Chrysotile
03-3300-092	Wall Plaster over Brick/Block	22	Room 205- Exterior Wall	0.3% Chrysotile
03-3300-093	Wall Plaster over Brick/Block	22	Room 204- Interior Wall	Top Coat None Detected Base Coat Trace Chrysotile
03-3300-094	Wall Plaster over Brick/Block	22	Room 203- Exterior Wall	Trace Chrysotile
03-3300-095	Wall Plaster over Brick/Block	22	Room 202- Interior Wall	None Detected
03-3300-096	Wall Plaster over Brick/Block	22	Room 201- Exterior Cloak Room Wall	None Detected
03-3300-097	Wall Plaster over Brick/Block	22	Corridor 200- Wall outside 206	Trace Chrysotile
03-3300-098	Ceiling Plaster on Concrete	23	Room 7- Kindergarten	None Detected
03-3300-099	Ceiling Plaster on Concrete	23	Ground	None Detected
03-3300-100	Ceiling Plaster on Concrete	23	Room 6	None Detected
03-3300-101	Ceiling Plaster on Concrete	23	Room 5A- Cloak Room	None Detected
03-3300-102	Ceiling Plaster on Concrete	23	Room 4	None Detected

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SUSPECT ASBESTOS BULK SAMPLING FORM

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SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-103	Ceiling Plaster on Concrete	23	Room 3	None Detected
03-3300-104	Ceiling Plaster on Concrete	23	Room 2	None Detected
03-3300-105	Ceiling Plaster on Concrete	23	Custodian Room, B-8	None Detected
03-3300-106	Ceiling Plaster on Concrete	23	Bookroom, B-12	None Detected
03-3300-107	Ceiling Plaster on Concrete	23	Corridor 100	None Detected
03-3300-108	Ceiling Plaster on Concrete	23	Room 101- Ceiling	None Detected
03-3300-109	Ceiling Plaster on Concrete	23	Room 102	None Detected
03-3300-110	Ceiling Plaster on Concrete	23	Room 111	None Detected
03-3300-111	Ceiling Plaster on Concrete	23	Room 110- Medical Inspector	None Detected
03-3300-112	Ceiling Plaster on Concrete	23	Room 108- Main Office	None Detected
03-3300-113	Ceiling Plaster on Concrete	23	Room 106- Principal's Office	None Detected
03-3300-114	Ceiling Plaster on Concrete	23	Room 105	None Detected
03-3300-115	Ceiling Plaster on Concrete	23	Room 104	None Detected
03-3300-116	Ceiling Plaster on Concrete	23	Room 103	None Detected
03-3300-117	Ceiling Plaster on Concrete	23	Room 208	None Detected
03-3300-118	Ceiling Plaster on Concrete	23	Room 207	None Detected
03-3300-119	Ceiling Plaster on Concrete	23	Room 206	None Detected
03-3300-120	Ceiling Plaster on Concrete	23	Room 205	None Detected
03-3300-121	Ceiling Plaster on Concrete	23	Room 204	None Detected
03-3300-122	Ceiling Plaster on Concrete	23	Room 203	None Detected
03-3300-123	Ceiling Plaster on Concrete	23	Room 202	None Detected
03-3300-124	Ceiling Plaster on Concrete	23	Room 201	None Detected
03-3300-125	Ceiling Plaster on Concrete	23	Corridor 220A	None Detected
03-3300-126A	12"x12" White and Black Floor Tile	24	Corridor B-1	None Detected
03-3300-127A	12"x12" White and Black Floor Tile	24	Corridor B-1	None Detected

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-128A	12"x12" White and Black Floor Tile	24	Corridor B-1	None Detected
03-3300-126B	Associated Mastic	25	Corridor B-1	None Detected
03-3300-127B	Associated Mastic	25	Corridor B-1	None Detected
03-3300-128B	Associated Mastic	25	Corridor B-1	None Detected
03-3300-129A	Stair Tread-Black	26	Corridor B-13	None Detected
03-3300-130A	Stair Tread-Black	26	Corridor B-13	None Detected
03-3300-131A	Stair Tread-Black	26	Corridor B-13	None Detected
03-330-129B	Associated Mastic	27	Corridor B-13	None Detected
03-330-130B	Associated Mastic	27	Corridor B-13	None Detected
03-330-131B	Associated Mastic	27	Corridor B-13	None Detected
03-330-132A	6" Black Kick Strip	28	Lunch Room B-10	None Detected
03-330-133A	6" Black Kick Strip	28	Corridor B-1	None Detected
03-3300-134A	6" Black Kick Strip	28	Corridor B-1	None Detected
03-3300-132B	Associated Mastic	29	Lunch Room B-10	None Detected
03-3300-133B	Associated Mastic	29	Corridor B-1	**
03-3300-134B	Associated Mastic	29	Corridor B-1	None Detected
03-3300-135A	12"x12" Salmon and Black Floor Tile	30	Lunchroom B-10	None Detected
03-3300-136A	12"x12" Salmon and Black Floor Tile	30	Lunchroom B-10	None Detected
03-330-137A	12"x12" Salmon and Black Floor Tile	30	Lunchroom B-3	None Detected
03-330-135B	Associated Mastic	31	Lunchroom B-10	None Detected
03-330-136B	Associated Mastic	31	Lunchroom B-10	None Detected
03-330-137B	Associated Mastic	31	Lunchroom B-3	None Detected
03-330-138A	12"x12" Brown Marbled Floor Tile	32	Corridor B-13	None Detected

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-139A	12"x12" Brown Marbled Floor Tile	32	Corridor 01 at Custodian Closet	None Detected
03-3300-140A	12"x12" Brown Marbled Floor Tile	32	Corridor 100 at G-1, Room	None Detected
03-3300-138B	Associated Mastic	33	Corridor B-13	None Detected
03-330-139B	Associated Mastic	33	Corridor 01 at Custodian Closet	None Detected
03-330-140B	Associated Mastic	33	Corridor 100 at G-1, Room	None Detected
03-330-141A	12"x12" Tan, Mauve, and Green Floor Tile	34	Room 9	None Detected
03-330-142A	12"x12" Tan, Mauve, and Green Floor Tile	34	Room 9	None Detected
03-330-143A	12"x12" Tan, Mauve, and Green Floor Tile	34	Room 9	None Detected
03-3300-141B	Associated Mastic	35	Room 9	None Detected
03-3300-142B	Associated Mastic	35	Room 9	None Detected
03-3300-143B	Associated Mastic	35	Room 9	None Detected
03-3300-144A	12"x12" Green Marbled Floor Tile	36	Room 7	None Detected
03-3300-145A	12"x12" Green Marbled Floor Tile	36	Room 7	None Detected
03-3300-146A	12"x12" Green Marbled Floor Tile	36	Room 208A	None Detected
03-330-144B	Associated Mastic	37	Room 7	None Detected
03-330-145B	Associated Mastic	37	Room 7	None Detected
03-330-146B	Associated Mastic	37	Room 208A	None Detected
03-330-147A	12"x12" Dark Green Marbled Floor Tile	38	Room 7	None Detected
03-330-148A	12"x12" Dark Green Marbled Floor Tile	38	Room 7	None Detected
03-3300-149A	12"x12" Dark Green Marbled Floor Tile	38	Room 7	None Detected
03-3300-147B	Associated Mastic	39	Room 7	None Detected
03-3300-148B	Associated Mastic	39	Room 7	None Detected

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SUSPECT ASBESTOS BULK SAMPLING FORM

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-149B	Associated Mastic	39	Room 7	None Detected
03-3300-150A	4" Green Kick Strip	40	Room 7	None Detected
03-3300-151A	4" Green Kick Strip	40	Room 7A	None Detected
03-3300-152A	4" Green Kick Strip	40	Room 7B	None Detected
03-3300-150B	Associated Mastic	41	Room 7	None Detected
03-3300-151B	Associated Mastic	41	Room 7A	None Detected
03-3300-152B	Associated Mastic	41	Room 7B	None Detected
03-3300-153A	6" Light Brown Kick Strip	42	Corridor 01	None Detected
03-3300-154A	6" Light Brown Kick Strip	42	Corridor 100	None Detected
03-3300-155A	6" Light Brown Kick Strip	42	Corridor 200	None Detected
03-330-153B	Associated Mastic	43	Corridor 01	None Detected
03-330-154B	Associated Mastic	43	Corridor 100	None Detected
03-330-155B	Associated Mastic	43	Corridor 200	None Detected
03-330-156A	12"x12" Light Pink and Brown Marbled Floor Tile	44	Room 5	None Detected
03-330-157A	12"x12" Light Pink and Brown Marbled Floor Tile	44	Room5	None Detected
03-3300-158A	12"x12" Light Pink and Brown Marbled Floor Tile	44	Room 5	None Detected
03-3300-156B	Associated Mastic	45	Room 5	None Detected
03-3300-157B	Associated Mastic	45	Room5	None Detected
03-3300-158B	Associated Mastic	45	Room 5	None Detected
03-3300-159A	Stair Tread - Brown	46	Corridor 01	None Detected
03-3300-160A	Stair Tread - Brown	46	Corridor 01	None Detected
03-3300-161A	Stair Tread - Brown	46	Corridor 01	None Detected
03-3300-159B	Associated Mastic	47	Corridor 01	None Detected

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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-160B	Associated Mastic	47	Corridor 01	None Detected
03-3300-161B	Associated Mastic	47	Corridor 01	None Detected
03-3300-162A	6" Brown Kick Strip	48	Corridor 01	None Detected
03-3300-163A	6" Brown Kick Strip	48	Corridor 01	None Detected
03-3300-164A	6" Brown Kick Strip	48	Corridor 01	None Detected
03-330-162B	Associated Mastic	49	Corridor 01	None Detected
03-330-163B	Associated Mastic	49	Corridor 01	None Detected
03-330-164B	Associated Mastic	49	Corridor 01	None Detected
03-330-165A	12"x12" Pink Marbled Floor Tile	50	Room 4	None Detected
03-330-166A	12"x12" Pink Marbled Floor Tile	50	Room 103	None Detected
03-3300-167A	12"x12" Pink Marbled Floor Tile	50	Room 205A	None Detected
03-3300-165B	Associated Mastic	51	Room 4	None Detected
03-3300-166B	Associated Mastic	51	Room 103	None Detected
03-3300-167B	Associated Mastic	51	Room 205A	None Detected
03-3300-168A	4" Medium Brown Kick Strip	52	Room 6	None Detected
03-3300-169A	4" Medium Brown Kick Strip	52	Room 105	None Detected
03-3300-170A	4" Medium Brown Kick Strip	52	Room 202	None Detected
03-3300-168B	Associated Mastic	53	Room 6	None Detected
03-3300-169B	Associated Mastic	53	Room 105	None Detected
03-3300-170B	Associated Mastic	53	Room 202	None Detected
03-3300-171A	12"x12" Light Brown Marbled Floor Tile	54	Corridor 200	None Detected
03-3300-172A	12"x12" Light Brown Marbled Floor Tile	54	Corridor 100	None Detected
03-3300-173A	12"x12" Light Brown Marbled Floor Tile	54	Corridor 100	None Detected

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** Insufficient mastic provided for analysis.

SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Horace Mann Elementary School

ADDRESS: 2819 Shadeland Avenue

SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-330-171B	Associated Mastic	55	Corridor 200	None Detected
03-330-172B	Associated Mastic	55	Corridor 100	None Detected
03-330-173B	Associated Mastic	55	Corridor 100	None Detected
03-330-174A	12"x12" Beige and Red Marbled Floor Tile	56	Main Office- 108	None Detected
03-330-175A	12"x12" Beige and Red Marbled Floor Tile	56	Nurses Office – 110	None Detected
03-3300-176A	12"x12" Beige and Red Marbled Floor Tile	56	Main Office- 108	None Detected
03-3300-174B	Associated Mastic	57	Main Office- 108	None Detected
03-3300-175B	Associated Mastic	57	Nurses Office – 110	None Detected
03-3300-176B	Associated Mastic	57	Main Office- 108	None Detected
03-3300-177A	6" Dark Brown Kick Strip	58	Main Office- 108	None Detected
03-3300-178A	6" Dark Brown Kick Strip	58	Main Office- 108	None Detected
03-3300-179A	6" Dark Brown Kick Strip	58	Nurses Office- 110	None Detected
03-3300-177B	Associated Mastic	59	Main Office- 108	None Detected
03-3300-178B	Associated Mastic	59	Main Office- 108	None Detected
03-3300-179B	Associated Mastic	59	Nurses Office- 110	None Detected
03-3300-180A	Brown Floor Sheeting	60	Principal's Office- 106	None Detected
03-3300-181A	Brown Floor Sheeting	60	Principal's Office- 106	None Detected
03-3300-182A	Brown Floor Sheeting	60	Teacher's Lounge- 206	None Detected
03-3300-180B	Associated Mastic	61	Principal's Office- 106	None Detected
03-3300-181B	Associated Mastic	61	Principal's Office- 106	None Detected
03-3300-182B	Associated Mastic	61	Teacher's Lounge- 206	None Detected
03-3300-183A	9"x 9" Brown Floor Tile	62	Principal's Office- 106	Trace Chrysotile
03-3300-184A	9"x 9" Brown Floor Tile	62	Principal's Office- 106	Trace Chrysotile

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Horace Mann Elementary School

ADDRESS: 2819 Shadeland Avenue

SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-185A	9"x 9" Brown Floor Tile	62	Principal's Office- 106	Trace Chrysotile
03-3300-183B	Associated Mastic	63	Principal's Office- 106	3.2% Chrysotile
03-3300-184B	Associated Mastic	63	Principal's Office- 106	*
03-3300-185B	Associated Mastic	63	Principal's Office- 106	*
03-3300-186A	4" Tan Kick Strip	64	Hallway- By Room 102	None Detected
03-3300-187A	4" Tan Kick Strip	64	Hallway- By Nurse's Office	None Detected
03-3300-188A	4" Tan Kick Strip	64	Hallway- By Room 101A	None Detected
03-3300-186B	Associated Mastic	65	Hallway- By Room 102	None Detected
03-3300-187B	Associated Mastic	65	Hallway- By Nurse's Office	None Detected
03-3300-188B	Associated Mastic	65	Hallway- By Room 101A	None Detected
03-3300-184A (Layer 2)	9"x9" Brown Floor Tile	66	Principal's Office- 106	10% Chrysotile
03-3300-189A	9"x9" Light Brown Floor Tile	66	Main Office	None Detected
03-3300-190A	9"x9" Light Brown Floor Tile	66	Main Office	10% Chrysotile
03-3300-191A	9"x9" Light Brown Floor Tile	66	Nurse's Office	*
03-3300-189B	Associated Mastic/ Tar Paper	67	Main Office	None Detected
03-3300-190B	Associated Mastic/ Tar Paper	67	Main Office	None Detected
03-3300-191B	Associated Mastic/ Tar Paper	67	Nurse's Office	None Detected
03-3300-192A	12"x12" Light Gray with White Streaks Floor Tile	68	Room 204	**
03-3300-193A	12"x12" Light Gray with White Streaks Floor Tile	68	Room 204	None Detected
03-3300-194A	12"x12" Light Gray with White Streaks Floor Tile	68	Teacher's Lounge 206	None Detected
03-3300-192B	Associated Mastic	69	Room 204	None Detected
03-3300-193B	Associated Mastic	69	Room 204	None Detected
03-3300-194B	Associated Mastic	69	Teacher's Lounge 206	None Detected

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Horace Mann Elementary School

ADDRESS: 2819 Shadeland Avenue

SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-195A	12"x 12" White Floor Tile	70	Art Room- 203	3.9% Chrysotile
03-3300-196A	12"x 12" White Floor Tile	70	Art Room- 203	*
03-3300-197A	12"x 12" White Floor Tile	70	Art Room- 203	*
03-3300-195B	Associated Mastic	71	Art Room- 203	None Detected
03-3300-196B	Associated Mastic	71	Art Room- 203	None Detected
03-3300-197B	Associated Mastic	71	Art Room- 203	None Detected
03-3300-198A	12"x 12" Gary, White, and Brown Marble Floor Tile	72	Room 207	None Detected
03-3300-199A	12"x 12" Gary, White, and Brown Marble Floor Tile	72	Room 207	None Detected
03-3300-200A	12"x 12" Gary, White, and Brown Marble Floor Tile	72	Room 207	None Detected
03-3300-198B	Associated Mastic	73	Room 207	None Detected
03-3300-199B	Associated Mastic	73	Room 207	None Detected
03-3300-200B	Associated Mastic	73	Room 207	None Detected
03-3300-201A	4" Green Kick Strip	74	Room 201	None Detected
03-3300-202A	4" Green Kick Strip	74	Room 201	None Detected
03-3300-203A	4" Green Kick Strip	74	Room 201	None Detected
03-3300-201B	Associated Mastic	75	Room 201	None Detected
03-3300-202B	Associated Mastic	75	Room 201	None Detected
03-3300-203B	Associated Mastic	75	Room 201	None Detected
03-3300-204A	12"x 12" Beige, White, and Tan Floor Tile	76	Room 302	None Detected
03-3300-205A	12"x 12" Beige, White, and Tan Floor Tile	76	Room 305	None Detected
03-3300-206A	12"x 12" Beige, White, and Tan Floor Tile	76	Room 305	None Detected
03-3300-204B	Associated Mastic	77	Room 302	**

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Horace Mann Elementary School

ADDRESS: 2819 Shadeland Avenue

SAMPLED BY: Richard Mance

DATE: August 16, 2006 - September 6, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-3300-205B	Associated Mastic	77	Room 305	None Detected
03-3300-206B	Associated Mastic	77	Room 305	None Detected
03-3300-207A	4" Brown Kick Strip	78	Room 302	None Detected
03-3300-208A	4" Brown Kick Strip	78	Room 305	None Detected
03-3300-209A	4" Brown Kick Strip	78	Room 305	None Detected
03-3300-207B	Associated Mastic	79	Room 302	None Detected
03-3300-208B	Associated Mastic	79	Room 305	None Detected
03-3300-209B	Associated Mastic	79	Room 305	None Detected
03-3300-210A	Black Stair Tread	80	Room 305	None Detected
03-3300-211A	Black Stair Tread	80	Room 302	None Detected
03-3300-212A	Black Stair Tread	80	Room 302	None Detected
03-3300-210B	Associated Mastic	81	Room 305	None Detected
03-3300-211B	Associated Mastic	81	Room 302	None Detected
03-3300-212B	Associated Mastic	81	Room 302	None Detected
03-3300-213A	12"x 12" Tan and White Floor Tile	82	Room 8	None Detected
03-3300-214A	12"x 12" Tan and White Floor Tile	82	Room 2	None Detected
03-3300-215A	12"x 12" Tan and White Floor Tile	82	Room 2	None Detected
03-3300-213B	Associated Mastic	83	Room 8	4.8% Chrysotile
03-3300-214B	Associated Mastic	83	Room 2	*
03-3300-215B	Associated Mastic	83	Room 2	*

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** Insufficient mastic provided for analysis.

LIST OF HOMOGENEOUS AREAS

BUILDING NAME: Horace Mann Elementary **LOCATION:** Pittsburgh, PA

HA#	MATERIAL	CONTAIN ASBESTOS?			APPROXIMATE QUANTITY
		YES	NO	ASSUMED	
01	Drywall		X		
02	Joint Compound		X		
03	Drywall		X		
04	Joint Compound		X		
05	Drywall		X		
06	Joint Compound		X		
07	2'x2' Ceiling Tile – Big Fissures and Holes		X		
08	2'x2' Ceiling Tile with Squares		X		
09	2'x4' Ceiling Tile		X		
10	2'x4' Ceiling Tile – Small Fissures and Holes		X		
11	Water Line Fitting INS		X		
12	Boiler Rope Gastec		X		
13	New Plaster		X		
14	Wall Plaster		X		
15	Decorative Plaster		X		
16	Poured Flooring- Red Base, Gray Top	X			500 Square Feet
17	New Window Caulking		X		
18	Paper Foil Canvas Paper Wrap Over Fiberglass		X		
19	Paper with Tar and Foil Over Fiberglass		X		
20	Foil with Tar and Wrapping Without Paper		X		
21	Ceiling Plaster		X		
22	Wall Plaster		X		
23	Ceiling Plaster		X		
24	12"x12" White and Black Floor Tile		X		
25	Associated Mastic		X		
26	Stair Tread-Black		X		
27	Associated Mastic		X		
28	6" Black Kick Strip		X		
29	Associated Mastic		X		
30	12"x12" Salmon and Black Floor Tile		X		

LIST OF HOMOGENEOUS AREAS

BUILDING NAME: Horace Mann Elementary **LOCATION:** Pittsburgh, PA

HA#	MATERIAL	CONTAIN ASBESTOS?			APPROXIMATE QUANTITY
		YES	NO	ASSUMED	
31	Associated Mastic		X		
32	12"x12" Brown Marbled Floor Tile		X		
33	Associated Mastic		X		
34	12"x12" Tan, Mauve, and Green Floor Tile		X		
35	Associated Mastic		X		
36	12"x12" Green Marbled Floor Tile		X		
37	Associated Mastic		X		
38	12"x12" Green Marbled Floor Tile		X		
39	Associated Mastic		X		
40	4" Green Kick Strip		X		
41	Associated Mastic		X		
42	6" Light Brown Kick Strip		X		
43	Associated Mastic		X		
44	12"x12" Light Pink and Brown Marbled Floor Tile		X		
45	Associated Mastic		X		
46	Brown Stair Tread		X		
47	Associated Mastic		X		
48	6" Brown Kick Strip at Stairs		X		
49	Associated Mastic		X		
50	12"x12" Pink Marbled Floor Tile		X		
51	Associated Mastic		X		
52	4" Medium Brown Kick Strip		X		
53	Associated Mastic		X		
54	12"x12" Light Brown Marbled Floor Tile		X		
55	Associated Mastic		X		
56	12"x12" Beige and Red Marbled Floor Tile		X		
57	Associated Mastic		X		
58	6" Dark Brown Kick Strip		X		
59	Associated Mastic		X		

LIST OF HOMOGENEOUS AREAS

BUILDING NAME: Horace Mann Elementary **LOCATION:** Pittsburgh, PA

HA#	MATERIAL	CONTAIN ASBESTOS?			APPROXIMATE QUANTITY
		YES	NO	ASSUMED	
60	Brown Floor Sheeting		X		
61	Associated Mastic		X		
62	9"x9" Brown Floor Tile		X		
63	Associated Mastic below HA 62	X			440 Square Feet
64	4" Tan Kick Strip		X		
65	Associated Mastic		X		
66	9"x9" Light Brown Floor Tile	X			1,100 Square Feet
67	Associated Mastic		X		
68	Light Gray with White Streaks Floor Tile		X		
69	Associated Mastic		X		
70	12"x 12" White Floor Tile	X			805 Square Feet
71	Associated Mastic		X		
72	12"x12" Gary, White, and Brown Marble Floor Tile		X		
73	Associated Mastic		X		
74	4" Green Kick Strip		X		
75	Associated Mastic		X		
76	12"x12" Beige, White, and Tan Floor Tile		X		
77	Associated Mastic		X		
78	4" Brown Kick Strip		X		
79	Associated Mastic		X		
80	Black Stair Tread		X		
81	Associated Mastic		X		
82	12"x12" Tan and White Floor Tile		X		
83	Associated Mastic below HA 82	X			1,500 Square Feet
84	Blackboard Mastic			X	98 Blackboards
85	Windows			X	175
86	Fire Doors			X	95
87	Stack			X	Not Quantified
88	Kiln			X	1 Kiln