

ASBESTOS & HAZARDOUS MATERIALS INSPECTION

of

**Bon Air Elementary School
252 Fordyce Street
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 Bon Air Elementary School, located at 252 Fordyce Street in Pittsburgh, Pennsylvania 15210. The site consists of the main school building and maintenance shed. The main school building is a brick and concrete three-story building (including the basement) comprising approximately 14,563 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 structures:

Friable ACM

- Pipe Fitting Insulation Fiberglass Insulated Heating and Waterlines

Non-Friable ACM

- 9" x 9" Gray with White, Black, and Pink Streaks Floor Tile and Associated Mastic
- 9" x 9" Light Brown with White and Black Streaks Floor Tile and Associated Mastic
- 9" x 9" Dark Gray with White Streaks Floor Tile and Associated Mastic
- 9" x 9" Tan with Dark Brown and Cream Streaks Floor Tile and Associated Mastic
- 9" x 9" Light Gray with Dark Gray Streaks Floor Tile and Associated Mastic
- 9" x 9" Green Streaked Floor Tile and Associated Mastic
- 9" x 9" Dark Tan with Beige and Brown Streaks Floor Tile
- 9" x 9" Orange with Beige Streaks Floor Tiles
- 9" x 9" Cream with Reddish Brown Streaks Floor Tile and Associated Mastic
- 9" x 9" Light Green with White and Black Stripes Floor Tile and Associated Mastic
- Yellow Terrazzo Flooring
- Green Terrazzo Flooring
- Gray Terrazzo Flooring
- Window Caulking
- Window Glazing
- Brown Caulking Around Vents
- Off-White Outside Door Caulking
- White Joint Compound

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:

- Chalkboard/Tackboard Mastic
- Pipe Fitting Insulation on Roof Drains

The estimated cost to remove and dispose of the above-referenced ACM is **\$35,280.00**. 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
- Interior Boiler Insulation – inaccessible

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 and cooled water fountains with the potential of containing CFCs;
- Older light ballasts;
- Two lead acid batteries;
- Chemicals such as stored oils and gasoline, paints, floor and carpet treatment products, cleaning products, metal polish, degreasers/lubricants and salt;

The estimated cost to remove and dispose the above-mentioned hazardous materials is **\$3,671.00**. 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
Bon Air Elementary School

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
9" x 9" Gray with White, Black, and Pink Streaks Floor Tile and Associated Mastic	Rooms 104, 106, 107	1,820 Square Foot	\$3,700.00
9" x 9" Light Brown with White and Black Streaks Floor Tile and Associated Mastic	Corridor 103 and 202	1,705 Square Foot	\$3,500.00
9" x 9" Dark Gray with White Streaks Floor Tile and Associated Mastic	Room 216	870 Square Foot	\$1,700.00
9" x 9" Tan with Dark Brown and Cream Streaks Floor Tile	Room 211	260 Square Foot	\$650.00
9" x 9" Light Gray with Dark Gray Streaks Floor Tile and Associated Mastic	Room 207	160 Square Foot	\$500.00
9" x 9" Green Streaked Floor Tile and Associated Mastic	Room 203	355 Square Foot	\$750.00
9" x 9" Dark Tan with Beige Floor Tile and Brown Streaks	Corridor 202 at Office	15 Square Foot	\$50.00
9" x 9" Orange with Beige Streaks Floor Tile	Teachers Toilet Room 210	10 Square Foot	\$20.00
9" x 9" Cream with Reddish Brown Streaks Floor Tile and Associated Mastic	Room 211	10 Square Foot	\$20.00
9" x 9" Light Green with White and Black Stripes Floor Tile and Associated Mastic	Gym/Cafeteria	15 Square Foot	\$30.00
Yellow Terrazzo Flooring	Boys and Girls Room	520 Square Foot	\$5,200.00
Window Glazing	Corridor 202, Room 216 and 104	60 Windows	\$3,000.00
Green Terrazzo Flooring	1 st and 2 nd floor Janitor's Closet	110 Square Foot	\$1,100.00
Gray Terrazzo Flooring	Entry 102 and 2 nd Floor Entry	145 Square Foot	\$1,450.00
Window Caulking	Entrance Court and Room 104	60 Windows	\$3,000.00
Brown Caulking Around Vents	Room 104 and Entrance Court	13 Vents	\$800.00
Off-White Outside Door Caulking	2 nd Floor Entrance, Entrance Court, and Stair Hall A	9 Doors	\$900.00
White Joint Compound	Corridor 202, Room 216, and 106	210 Square Feet	\$4,200.00
Pipe Fitting Insulation - Roof Drains	Access Hatch Corridor 202	10 Fittings	\$200.00
Fitting Insulation on Waterlines	Janitor 110 and 219	20 Fittings	\$400.00
Fitting Insulation on Heating Lines	Corridor 103 at Room 107, Room 4 and 110	3 Fittings	\$60.00

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
Blackboard Mastic	Various Classrooms	10 - 12' x4' 5 - 3'x4'	\$4,050.00
Interior Stack Material	Inside Stack	Not Quantified	N/A
Boiler Insulation	Boiler Room	Not Quantified	N/A
		TOTAL	\$35,280.00

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 on bidding used.

Table 2
Cost Estimate
Hazardous Materials
Bon Air Elementary School

ITEM	LOCATION	APPROXIMATE QUANTITY	DISPOSAL COST ESTIMATE	RECYCLING COST ESTIMATE
Fluorescent Lamps and Bulbs	Various Locations Throughout Building	475	\$713.00	\$120.00
Metal Halide Lamps	Boiler Room	8	\$80.00	\$40.00
Other Potential Mercury Containing Items	Boiler Room, Room 4	4 Mercury Switches 2 Thermometers 1 Thermostat	\$175.00	\$85.00
Light Ballasts	Older Fin Style Fixtures	10	\$ 53.00.00	\$ 35.00
Potential PCB Oil Containing Equipment	Boiler Room	1 Emergency Generator 1 Air Compressor	\$500.00	NA
CFC Equipment	Boiler Room, Gymnasium/Cafeteria	1 Air Dryer 1 Walk-in Freezer/Cooler	\$500.00	\$250.00
Lead Acid Batteries	Boiler Room	3 Auto Batteries	\$150.00	NA
Solvents, Cleaners, Paints and Other Miscellaneous Chemicals	School Building & Shed	See Section 3.7	\$ 1,500.00	NA
Lead-Based Paint Systems	Throughout Building	Not Estimated	NA ³	NA
		TOTAL	\$3,671.00	\$530.00

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 Bon Air Elementary School, located at 252 Fordyce Street in Pittsburgh, Pennsylvania, to identify, locate, and quantify asbestos-containing materials (ACM) and other hazardous materials, such as mercury-containing fluorescent lamps (including fluorescent, metal halide, high-pressure sodium, and mercury-vapor), thermostats, and other mercury containing items; polychlorinated biphenyls (PCB)-containing ballasts and oil containing equipment; chlorofluorocarbon (CFC)-containing equipment, such as water coolers and building specific air conditioning units; nickel cadmium (NiCad) and lead-acid batteries, commonly found in exit signs and emergency lighting units; storage tanks; stored solvents, paints, and other miscellaneous chemicals; and lead-based paint (LBP) systems.

The inspection was conducted from September 13-14, 2006 by Mr. Richard Mance, certified PA Management Planner/Project Designer (#006311), Ms. Michele Wilson, PA certified Asbestos Building Inspector (#028580), and Ms. Amanda Neary and Mr. Luke Bark, Field Technicians. Additional bulk sampling was performed for clarification purposes on October 25, 2006. 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 seventy five (75) homogeneous areas and collected one-hundred fifty-three (153) bulk samples of suspect ACM throughout the building.

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

Friable ACM

- Pipe Fitting Insulation on Fiberglass Insulated Heating and Waterlines

Non-Friable ACM

- 9" x 9" Gray with White, Black, and Pink Streaks Floor Tile and Associated Mastic
- 9" x 9" Light Brown with White and Black Streaks Floor Tile and Associated Mastic
- 9" x 9" Dark Gray with White Streaks Floor Tile and Associated Mastic
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- Yellow Terrazzo Flooring
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- Green Terrazzo Flooring
- Gray Terrazzo Flooring
- Window Caulking
- Brown Caulking Around Vents
- Off-White Outside Door Caulking
- White Joint Compound

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:

- Chalkboard/Tackboard Mastic
- Pipe Fitting Insulation - Roof Drain Lines

The estimated cost to remove and dispose of the above-referenced ACM is **\$35,280.00**. 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 – inaccessible
- Interior Boiler Insulation – inaccessible

Roofing consisted of a newer rubber roofing system. According to Pittsburgh Public Schools personnel, older built-up roofing was removed in total. Destructive roof sampling was not performed as part of this assessment.

Table 1 Cost Estimate

**Asbestos-Containing Materials
Bon Air Elementary School**

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
9" x 9" Gray with White, Black, and Pink Streaks Floor Tile and Associated Mastic	Rooms 104, 106, 107	1,820 Square Foot	\$3,700.00
9" x 9" Light Brown with White and Black Streaks Floor Tile and Associated Mastic	Corridor 103 and 202	1,705 Square Foot	\$3,500.00
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9" x 9" Dark Tan with Beige Floor Tile and Brown Streaks	Corridor 202 at Office	15 Square Foot	\$50.00
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9" x 9" Cream with Reddish Brown Streaks Floor Tile and Associated Mastic	Room 211	10 Square Foot	\$20.00
9" x 9" Light Green with White and Black Stripes Floor Tile and Associated Mastic	Gym/Cafeteria	15 Square Foot	\$30.00
Yellow Terrazzo Flooring	Boys and Girls Room	520 Square Foot	\$5,200.00
Window Glazing	Corridor 202, Room 216 and 104	60 Windows	\$3,000.00
Green Terrazzo Flooring	1 st and 2 nd floor Janitor's Closet	110 Square Foot	\$1,100.00
Gray Terrazzo Flooring	Entry 102 and 2 nd Floor Entry	145 Square Foot	\$1,450.00
Window Caulking	Entrance Court and Room 104	60 Windows	\$3,000.00
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Off-White Outside Door Caulking	2 nd Floor Entrance, Entrance Court, and Stair Hall A	9 Doors	\$900.00
White Joint Compound	Corridor 202, Room 216, and 106	210 Square Feet	\$4,200.00
Pipe Fitting Insulation - Roof Drains	Access Hatch Corridor 202	10 Fittings	\$200.00
Fitting Insulation on Waterlines	Janitor 110 and 219	20 Fittings	\$400.00
Fitting Insulation on Heating Lines	Corridor 103 at Room 107, Room 4 and 110	3 Fittings	\$60.00
Blackboard Mastic	Various Classrooms	10 - 12' x4' 5 - 3' x4'	\$4,050.00
Interior Stack Material	Inside Stack	Not Quantified	N/A

ACM	LOCATION	APPROXIMATE QUANTITY	COST ESTIMATE
Boiler Insulation	Boiler Room	Not Quantified	N/A
		TOTAL	\$35,280.00

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**.

3.0 Hazardous Materials Inspection

3.1 Fluorescent Lamps

Kimball identified approximately four hundred seventy-five (475) mercury-containing fluorescent tubes throughout the building. Kimball also identified eight (8) metal halide lamps in exterior building security light fixtures. No sodium lamps were noted. 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 a 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 – Cost Estimate, 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 equipment that use hydraulic oil. Kimball identified one (1) emergency generator, and one (1) air compressor containing suspect PCB oils. All ballasts manufactured after July 1, 1978, that 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. Select original 2 (two) tube fixtures with fin grills housed older Jefferson ballasts assumed to contain PCBs. Newer light fixtures inspected housed newer Sylvania Quicktronic and Advance models of ballast, and were labeled as “No PCBs”.

Please note that the interiors of some of the inspected fixtures exhibited oil staining, possibly from older PCB ballasts.

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 cafeteria, one (1) air compressor, one (1) air dryer, and twelve (12) cooled water fountains. 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 are required to be purged 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, abiding by 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 – Cost Estimate, 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 two (2) lead-acid batteries associated with the emergency generator and snow plow tractor. 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 – Cost Estimate, Hazardous Materials**.

3.5 Mercury

Mercury may be present inside thermostats, thermometers, and laboratory drain traps. Kimball inspected select thermostats present through-out the school. All inspected thermostats appear to be pneumatic types containing no mercury switches. No mercury containing thermostats were observed.

Thermometers, mercury switches, and 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 – Cost Estimate, 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. Custodial personnel had no knowledge of boilers previously being fueled by oil.

3.7 Miscellaneous Materials

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

Boiler Room

- 1 - Emergency Generator
- 3 - Auto Batteries
- 1 - Air Compressor
- 1 - Air Dyer - Coils
- 2 - Thermometers
- 4 - Mercury Pressure Control Switches
- 4 - Sodium/Mercury Lamps
- 1 - Quart Motor Oil
- 5 - 13 ½ Oz. Cans Insecticide
- 1 - Quart Compressor Oil
- 1 - Quart Liquid Belt Dressing
- 1 - Can Spray of Paint
- 20 - 6" Stored Fluorescent Tubes
- 1 - 5 Gallon Pale of Floor Sealer

Room 4

- 1 - Mercury Thermostat

Main Entrance

- 1 – Fluorescent Lamps

Gym/Cafeteria

- 1 Freezer/ Cooler

Crawl Space 01

- 15 – 2 ½ Gallon Jug of 3M Floor Products
- 50 – Stored 4' Fluorescent Tubes
- Partial Gallon Jug of Floor Restorer
- 5 – 1 Quart Jugs of Cleaner/Degreaser
- 1 – 5 Gallon Floor Stripper
- 3 – 5 Gallon Urethane Floor Finish

Shed

- 1 Push Mower
- 3 – 4 Gallon Gas Cans
- 1 – 11 Ounce Spray Can WD-40
- 1 – 1 Quart Oil
- 22 Bags of Rock Salt
- 1 – 5 Gallon Bucket Floor Treatment
- 1 – 20 Pound Drum at Powdered Cleaner with Chlorine Bleach
- 2 – 1 Gallon Jug Dustup
- 1 – 5 Gallon Can Pour Sealer

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
Bon Air Elementary School**

ITEM	LOCATION	APPROXIMATE QUANTITY	DISPOSAL COST ESTIMATE	RECYCLING COST ESTIMATE
Fluorescent Lamps and Bulbs	Various Locations Throughout Building	475	\$713.00	\$120.00
Metal Halide Lamps	Boiler Room	8	\$80.00	\$40.00
Other Potential Mercury Containing Items	Boiler Room, Room 4	4 Mercury Switches 2 Thermometers 1 Thermostat	\$175.00	\$85.00
Potential PCB Oil Containing Equipment	Boiler Room	1 Emergency Generator 1 Air Compressor	\$500.00	NA
CFC Equipment	Boiler Room, Gymnasium/Cafeteria	1 Air Dryer 1 Walk-in Freezer/Cooler	\$500.00	\$250.00
Lead Acid Batteries	Boiler Room	3 Auto Batteries	\$150.00	NA
Solvents, Cleaners, Paints and Other Miscellaneous Chemicals	School Building & Shed	See Section 3.7	\$ 1,500.00	NA
Lead-Based Paint Systems	Throughout Building	Not Estimated	NA ³	NA
		TOTAL	\$3,671.00	\$ 530.00

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)

Seven (7) paint systems sampled throughout the school were found to contain between <0.005% and 0.21% lead by weight based on laboratory analysis. Six (6) of the seven (7) paints 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).

Paint 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 Bon Air Elementary School, located at 252 Fordyce Street in Pittsburgh, Pennsylvania 15210. 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.
- Six (6) of seven (7) paint samples 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.
- Select older fin style light fixtures exhibited oil staining, possibly from older PCB ballasts. All stained light fixtures should be considered PCB contaminated or sampled prior to handling or removal.

BUILDING IDENTIFICATION

OWNER/CLIENT: Pittsburgh Public Schools BLDG. NAME: Bon Air Elementary School
 ADDRESS: 252 Fordyce Street PHONE: 412-488-2575
Pittsburgh, PA 15214

PHYSICAL DESCRIPTION – MAIN BLDG.

BUILDING USE: Elementary School # OF FLOORS: 3
 SQ. FEETAGE: 19,000 BUILDING EXTERIOR: Brick
 ATTIC: No BASEMENT: Yes
 CEILING HEIGHT: 12' FRAME: Steel

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
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ASBESTOS MATERIALS RECORDS (THERMAL)

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	%ASBESTOS
8" Outside Diameter Roof Drain Fitting Insulation	Above Corridor 202		Assumed		10 Fittings	NA
Fitting Insulation on Waterlines	Pipe Chases 219 and 110	03-5500-103	03-5500-104	03-5500-105	20 Fittings	Sample 103- 20% Chrysotile Sample 104- 90% Chrysotile
Fitting Insulation on Heating Lines	Corridor 103 at 107, Rooms 04 and 110	03-5500-106	03-5500-107	03-5500-108	3 Fittings	50% Chrysotile
Interior Boiler Insulation	Boilers		Assumed		Not Quantified	NA
Interior Stack Material	Boiler Stack		Assumed		Not Quantified	NA

ASBESTOS MATERIALS RECORDS (MISCELLANEOUS)

MATERIAL	LOCATION	SAMPLE #	SAMPLE #	SAMPLE #	QUANTITY	%ASBESTOS
9" x 9" Gray with White, Black, and Pink Streaks Floor	Rooms 104, 106, 107	03-5500-016 A/B	03-5500-017 A/B	03-5500-018 A/B	1,820 Square Feet	Floor Tile- 7.6% Chrysotile Mastic- 5.6% Chrysotile

Tile and Associated Mastic						
9" X 9" Light Brown with White and Black Streaks Floor Tile and Associated Mastic	Corridor 103 and 202	03-5500-019 A/B	03-5500-020 A/B	03-5500-021 A/B	1,705 Square Feet	Floor Tile- 7.7% Chrysotile Mastic- 5.3% Chrysotile
9" x 9" Dark Gray with White Streaks Floor Tile and Associated Mastic	Room 216	03-5500-022 A/B	03-5500-023 A/B	03-5500-024 A/B	870 Square Feet	Floor Tile-10% Chrysotile Mastic- 6.5% Chrysotile
9" x 9" Tan with Dark Brown and Cream Streaks Floor Tile	Room 211	03-5500-025 A	03-5500-026 A	03-5500-027 A	260 Square Feet	8.9% Chrysotile
9" x 9" Light Gray with Dark Gray Streaks Floor Tile and Associated Mastic	Room 207	03-5500-028 A	03-5500-029 A/B	03-5500-030 A/B	160 Square Feet	Floor Tile- 8.3% Chrysotile Mastic- 4.2% Chrysotile
9" x 9" Green Streaked Floor Tile and Associated Mastic	Room 203	03-5500-031 A/B	03-5500-032 A/B	03-5500-033 A/B	355 Square Feet	Floor Tile- 12% Chrysotile Mastic- 3.3% Chrysotile
9" x 9" Dark Tan with Beige and Brown Streaks Floor Tile- Patch	Corridor 202 at Office	03-5500-034 A	NA	NA	15 Square Feet	15% Chrysotile
9" x 9" Orange with Beige Streaks Floor Tile - Patch	Teachers Toilet Room 210	03-5500-035 A	NA	NA	10 Square Feet	7.3% Chrysotile
9" x 9" Cream with Reddish Brown Streaks Floor Tile – Patch and Associated Mastic	Room 211	03-5500-036 A/B	NA	NA	10 Square Feet	Floor Tile- 12% Chrysotile Mastic- 4% Chrysotile
9" x 9" Light Green with White and Black Stripes Floor Tile– Patch and Associated Mastic	Kindergarten	03-5500-039 A/B	NA	NA	15 Square Feet	Floor Tile- 10% Chrysotile Mastic- 2.7% Chrysotile
Yellow Terrazzo	2nd Floor Boys and Girls	03-5500-047	03-5500-048	03-5500-049	520 Square Feet	2% Chrysotile

Flooring	Room, 1st Floor Girls Room					
Window Glazing	Corridor 202, Rooms 216 and 104	03-5500-050	03-5500-051	03-5500-052	60 Windows	1.3% Chrysotile
Green Terrazzo Flooring	Janitor Closets 108 and 217	03-5500-053	03-5500-054	03-5500-055	110 Square Feet	1.8% Chrysotile
Gray Terrazzo Flooring	First and Second Floor Entryways	03-5500-056	03-5500-057	03-5500-058	146 Square Feet	1.8% Chrysotile
Window Caulking	Windows	03-5500-059	03-5500-060	03-5500-061	60 Windows	4.9% Chrysotile
Brown Caulking Around Vents	Exterior Vents	03-5500-062	03-5500-063	03-5500-064	413	4.8% Chrysotile
Off-White Outside Door Caulking	Exterior Doors	03-5500-065	03-5500-066	03-5500-067	9 Doors	8.9% Chrysotile
White Joint Compound	Corridor 202 and Room 106	03-5500-087 B	03-5500-088 B	03-5500-089 B	105 Square Feet	1.8% Chrysotile
Blackboard Mastic	Various Classrooms		Assumed		10 - 12' x 4' 5 - 3' x 4'	NA

SUMMARY PREPARED BY: _____

PEER REVIEWED BY: _____

SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-001 A	12" X 12" White with Blue and Gray Speckled Floor Tile	01	Corridor 03	None Detected
03-5500-002 A	12" X 12" White with Blue and Gray Speckled Floor Tile	01	Passage 09	None Detected
03-5500-003 A	12" X 12" White with Blue and Gray Speckled Floor Tile	01	Room 04	None Detected
03-5500-001 B	Associated Mastic	02	Corridor 03	None Detected
03-5500-002 B	Associated Mastic	02	Passage 09	None Detected
03-5500-003 B	Associated Mastic	02	Room 04	None Detected
03-5500-004 A	4" Black Kick Strip	03	Room 04	None Detected
03-5500-005 A	4" Black Kick Strip	03	Room 04	None Detected
03-5500-006 A	4" Black Kick Strip	03	Room 04	None Detected
03-5500-004 B	Associated Mastic	04	Room 04	None Detected
03-5500-005 B	Associated Mastic	04	Room 04	None Detected
03-5500-006 B	Associated Mastic	04	Room 04	None Detected
03-5500-007 A	6" Black Kick Strip	05	Corridor 03	None Detected
03-5500-008 A	6" Black Kick Strip	05	Corridor 03	None Detected
03-5500-009 A	6" Black Kick Strip	05	Corridor 03	None Detected
03-5500-007 B	Associated Mastic	06	Corridor 03	None Detected
03-5500-008 B	Associated Mastic	06	Corridor 03	None Detected
03-5500-009 B	Associated Mastic	06	Corridor 03	None Detected
03-5500-010 A	Blue Stair Tread	07	Stairwell 09	None Detected
03-5500-011 A	Blue Stair Tread	07	Stairwell 09	None Detected
03-5500-012 A	Blue Stair Tread	07	Stair Hall 113	None Detected
03-5500-010 B	Associated Mastic	08	Stairwell 09	None Detected
03-5500-011 B	Associated Mastic	08	Stairwell 09	None Detected
03-5500-012 B	Associated Mastic	08	Stair Hall 113	None Detected
03-5500-013 A	18" X 18" Gray Floor Tile	09	Stairwell 09	None Detected

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** Insufficient mastic provided for analysis.



SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-014 A	18" X 18" Gray Floor Tile	09	Stairwell 09	None Detected
03-5500-015 A	18" X 18" Gray Floor Tile	09	Stairwell 09	None Detected
03-5500-013 B	Associated Mastic	10	Stairwell 09	None Detected
03-5500-014 B	Associated Mastic	10	Stairwell 09	None Detected
03-5500-015 B	Associated Mastic	10	Stairwell 09	None Detected
03-5500-016 A	9" X 9" Gray with White, Black, and Pink Streaks Floor Tile	11	Room 107	7.5% Chrysotile
03-5500-017 A	9" X 9" Gray with White, Black, and Pink Streaks Floor Tile	11	Room 106	*
03-5500-018 A	9" X 9" Gray with White, Black, and Pink Streaks Floor Tile	11	Room 104	*
03-5500-016 B	Associated Mastic	12	Room 107	5.6% Chrysotile
03-5500-017 B	Associated Mastic	12	Room 106	*
03-5500-018 B	Associated Mastic	12	Room 104	*
03-5500-019 A	9" X 9" Light Brown with White and Black Streaks Floor Tile	13	Corridor 103	7.7% Chrysotile
03-5500-020 A	9" X 9" Light Brown with White and Black Streaks Floor Tile	13	Corridor 103	*
03-5500-021 A	9" X 9" Light Brown with White and Black Streaks Floor Tile	13	Corridor 202	*
03-5500-019 B	Associated Mastic	14	Corridor 103	5.3% Chrysotile
03-5500-020 B	Associated Mastic	14	Corridor 103	*
03-5500-021 B	Associated Mastic	14	Corridor 202	*
03-5500-022 A	9" X 9" Dark Gray with White Streaks Floor Tile	15	Room 216	10% Chrysotile
03-5500-023 A	9" X 9" Dark Gray with White Streaks Floor Tile	15	Room 216	*
03-5500-024 A	9" X 9" Dark Gray with White Streaks Floor Tile	15	Room 216	*
03-5500-022 B	Associated Mastic	16	Room 216	6.5% Chrysotile
03-5500-023 B	Associated Mastic	16	Room 216	*

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-024 B	Associated Mastic	16	Room 216	*
03-5500-025 A	9" X 9" Tan with Dark Brown and Cream Streaks Floor Tile	17	Room 211	8.9% Chrysotile
03-5500-026 A	9" X 9" Tan with Dark Brown and Cream Streaks Floor Tile	17	Room 211	*
03-5500-027 A	9" X 9" Tan with Dark Brown and Cream Streaks Floor Tile	17	Room 211	*
03-5500-025 B	Associated Mastic	18	Room 211	None Detected
03-5500-026 B	Associated Mastic	18	Room 211	None Detected
03-5500-027 B	Associated Mastic	18	Room 211	None Detected
03-5500-028 A	9" X 9" Light Gray with Dark Gray Streaks Floor Tile	19	Room 207	8.3% Chrysotile
03-5500-029 A	9" X 9" Light Gray with Dark Gray Streaks Floor Tile	19	Room 207	*
03-5500-030 A	9" X 9" Light Gray with Dark Gray Streaks Floor Tile	19	Room 207	*
03-5500-028 B	Associated Mastic	20	Room 207	None Detected
03-5500-029 B	Associated Mastic	20	Room 207	4.2% Chrysotile
03-5500-030 B	Associated Mastic	20	Room 207	*
03-5500-031 A	9" X 9" Green Streaked Floor Tile	21	Room 203	12% Chrysotile
03-5500-032 A	9" X 9" Green Streaked Floor Tile	21	Room 203	*
03-5500-033 A	9" X 9" Green Streaked Floor Tile	21	Room 203	*
03-5500-031 B	Associated Mastic	22	Room 203	3.3% Chrysotile
03-5500-032 B	Associated Mastic	22	Room 203	*
03-5500-033 B	Associated Mastic	22	Room 203	*
03-5500-034 A	9" X 9" Dark Tan with Beige and Brown Streaks Floor Tile - Patch	23	Corridor 202 at Office	15% Chrysotile
03-5500-034 B	Associated Mastic	24	Corridor 202 at Office	None Detected
03-5500-035 A	9" X 9" Orange with Beige Streaks Floor Tile - Patch	25	Teachers Toilet Room 210	7.3% Chrysotile

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** Insufficient mastic provided for analysis.



SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-035 B	Associated Mastic	26	Teachers Toilet Room 210	None Detected
03-5500-036 A	9" X 9" Cream with Reddish Brown Streaks Floor Tile - Patch	27	Room 211	12% Chrysotile
03-5500-036 B	Associated Mastic	28	Room 211	4% Chrysotile
03-5500-037 A	9" X 9" Dark Green Modeled Floor Tile- Patch	29	Room 216	None Detected
03-5500-037 B	Associated Mastic	30	Room 216	None Detected
03-5500-038 A	9" X 9" Olive with Streaks Floor Tile- Patch	31	Room 216	None Detected
03-5500-038 B	Associated Mastic	32	Room 216	0.5% Chrysotile
03-5500-039 A	9" X 9" Light Green with White and Black Stripes Floor Tile - Patch	33	Kindergarten	10% Chrysotile
03-5500-039 B	Associated Mastic	34	Kindergarten	2.7% Chrysotile
03-5500-040 A	12" X 12" Light Tan Speckled Floor Tile - Patch	35	Kindergarten	None Detected
03-5500-041 A	12" X 12" Light Tan Speckled Floor Tile - Patch	35	Corridor 202 by Water Fountain	None Detected
03-5500-042 A	12" X 12" Light Tan Speckled Floor Tile - Patch	35	Room 211	None Detected
03-5500-040 B	Associated Mastic	36	Kindergarten	None Detected
03-5500-041 B	Associated Mastic	36	Corridor 202 by Water Fountain	None Detected
03-5500-042 B	Associated Mastic	36	Room 211	None Detected
03-5500-043 A	9" X 9" Light Tan Spotted Floor Tile- Patch	37	Kindergarten	None Detected
03-5500-043 B	Associated Mastic	38	Kindergarten	None Detected
03-5500-044 A	6" Black Kick Strip	39	Room 106	None Detected
03-5500-045 A	6" Black Kick Strip	39	Room 106	None Detected
03-5500-046 A	6" Black Kick Strip	39	Room 107	None Detected
03-5500-044 B	Associated Mastic	40	Room 106	None Detected

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** Insufficient mastic provided for analysis.



SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-045 B	Associated Mastic	40	Room 106	None Detected
03-5500-046 B	Associated Mastic	40	Room 107	None Detected
03-5500-047	Yellow Terrazzo Flooring	41	Boys Room Second Floor	2% Chrysotile
03-5500-048	Yellow Terrazzo Flooring	41	Girls Room Second Floor	*
03-5500-049	Yellow Terrazzo Flooring	41	Boys Room First Floor	*
03-5500-050	Window Glazing	42	Corridor 202 at Window	1.3% Chrysotile
03-5500-051	Window Glazing	42	Room 216	*
03-5500-052	Window Glazing	42	Room 104	*
03-5500-053	Green Terrazzo Flooring	43	Janitor 108	1.8% Chrysotile
03-5500-054	Green Terrazzo Flooring	43	Janitor 108	*
03-5500-055	Green Terrazzo Flooring	43	Janitor 217	*
03-5500-056	Gray Terrazzo Flooring	44	Entry 102	1.8% Chrysotile
03-5500-057	Gray Terrazzo Flooring	44	Second Floor Entry	*
03-5500-058	Gray Terrazzo Flooring	44	Second Floor Entry	*
03-5500-059	Window Caulking	45	Entrance Court	4.9% Chrysotile
03-5500-060	Window Caulking	45	Walkway Between Play Yard and Entrance Court	*
03-5500-061	Window Caulking	45	Outside Classroom 104	*
03-5500-062	Brown Caulking Around Vents	46	Outside Room 104	4.8% Chrysotile
03-5500-063	Brown Caulking Around Vents	46	Outside Room 104	*
03-5500-064	Brown Caulking Around Vents	46	Entrance Court	*
03-5500-065	Off-White Outside Door Caulking	47	Second Floor Entrance	8.9% Chrysotile
03-5500-066	Off-White Outside Door Caulking	47	Walkway Between Play Yard and Entrance Court	*
03-5500-067	Off-White Outside Door Caulking	47	Stair Hall A Entrance to Playground	*

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-068 A	1' X 1' White Ceiling Tile with Holes	48	Room 203	None Detected
03-5500-069 A	1' X 1' White Ceiling Tile with Holes	48	Room 203	None Detected
03-5500-070 A	1' X 1' White Ceiling Tile with Holes	48	Kindergarten	None Detected
03-5500-068 B	Associated Mastic	49	Room 203	None Detected
03-5500-069 B	Associated Mastic	49	Room 203	None Detected
03-5500-070 B	Associated Mastic	49	Kindergarten	None Detected
03-5500-071 A	1' X 1' Fissured Ceiling Tile	50	Room 203	None Detected
03-5500-072 A	1' X 1' Fissured Ceiling Tile	50	Room 203	None Detected
03-5500-073 A	1' X 1' Fissured Ceiling Tile	50	Room 203	None Detected
03-5500-071 B	Associated Mastic	51	Room 203	None Detected
03-5500-072 B	Associated Mastic	51	Room 203	None Detected
03-5500-073 B	Associated Mastic	51	Room 203	None Detected
03-5500-074	Sheet Rock Above 1' X 1' Ceiling Tile	52	Room 203	None Detected
03-5500-075	Sheet Rock Above 1' X 1' Ceiling Tile	52	Room 203	None Detected
03-5500-076	Sheet Rock Above 1' X 1' Ceiling Tile	52	Kindergarten	None Detected
03-5500-077	Plaster – White Top Coat over Gray Base Coat	53	Kindergarten Wall	None Detected
03-5500-078	Plaster – White Top Coat over Gray Base Coat	53	Room 106 Interior Wall	None Detected
03-5500-079	Plaster – White Top Coat over Gray Base Coat	53	Corridor 202 at 211 Ceiling	None Detected
03-5500-080	Plaster – White Top Coat over Gray Base Coat	53	Room 107 End of Exterior Wall	None Detected
03-5500-081	Plaster – White Top Coat over Gray Base Coat	53	Corridor 202 at 211 Wall	None Detected
03-5500-082	Plaster – White Top Coat over Gray Base Coat	53	Room 216 Exterior Wall	None Detected

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SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-083	Plaster – White Top Coat over Gray Base Coat	53	Room 04 Ceiling	None Detected
03-5500-084	Tar Pipe Wrap on Freezer Condenser Line	54	Kindergarten atop Cooler	None Detected
03-5500-085	Tar Pipe Wrap on Freezer Condenser Line	54	Kindergarten atop Cooler	None Detected
03-5500-086	Tar Pipe Wrap on Freezer Condenser Line	54	Kindergarten atop Cooler	None Detected
03-5500-087 A	Dry Wall	55	Corridor 202 at Room 216	None Detected
03-5500-088 A	Dry Wall	55	Room 216	None Detected
03-5500-089 A	Dry Wall	55	Room 106	None Detected
03-5500-087 B	White Joint Compound	56	Corridor 202 at Room 216	None Detected
03-5500-088 B	White Joint Compound	56	Room 216	None Detected
03-5500-089 B	White Joint Compound	56	Room 106	1.8% Chrysotile
03-5500-090	Counter / Heater Tops	57	Room 104	None Detected
03-5500-091	Counter / Heater Tops	57	Room 107	None Detected
03-5500-092	Counter / Heater Tops	57	Kindergarten	None Detected
03-5500-093	Coating – I Beam	58	Corridor 03 at 04 Above Ceiling	None Detected
03-5500-094	Heater Board 2” X 4”	59	Stair Hall 221	None Detected
03-5500-095	Canvas Pipe Wrap over Fiberglass - Heating Lines	60	Crawl Space 01	None Detected
03-5500-096	Canvas Pipe Wrap over Fiberglass - Heating Lines	60	Crawl Space 01	None Detected
03-5500-097	Canvas Pipe Wrap over Fiberglass - Heating Lines	60	Crawl Space 01	None Detected
03-5500-098	Tar Foil Wrap over Fiberglass - Waterlines	61	Crawl Space 01	None Detected
03-5500-099	Tar Foil Wrap over Fiberglass - Waterlines	61	Pipe Chase 219	None Detected
03-5500-100	Tar Foil Wrap over Fiberglass - Waterlines	61	Pipe Chase 110	None Detected

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** Insufficient mastic provided for analysis.



SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
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SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-101	8"Roof Drain	62	Access Hatch Corridor 202	0.5% Chrysotile
03-5500-102	Roof Drain Tar Paper	63	Access Hatch Corridor 202	None Detected
03-5500-103	Fitting Insulation on Waterlines	64	Janitor Closet 110	20% Chrysotile
03-5500-104	Fitting Insulation on Waterlines	64	Janitor Closet 219	90% Chrysotile
03-5500-105	Fitting Insulation on Waterlines	64	Janitor Closet 219	*
03-5500-106	Fitting Insulation on Heating Lines	65	Corridor 103 at 107	50% Chrysotile
03-5500-107	Fitting Insulation on Heating Lines	65	Room 04	*
03-5500-108	Fitting Insulation on Heating Lines	65	Pipe Chase 110	*
03-5500-109	Paper over Fiberglass Insulated Heating Line	66	Room 04	None Detected
03-5500-110	Paper over Fiberglass Insulated Heating Line	66	Room 04	None Detected
03-5500-111	Paper over Fiberglass Insulated Heating Line	66	Room 04	None Detected
03-5500-112	Boiler Packing	67	Boiler Room – Boiler 1	None Detected
03-5500-113	Boiler Packing	67	Boiler Room – Boiler 2	None Detected
03-5500-114	Boiler Packing	67	Boiler Room – Boiler 2	None Detected
03-5500-115	Textured Ceiling Plaster	68	Boiler Room	None Detected
03-5500-116	Textured Ceiling Plaster	68	Boiler Room	None Detected
03-5500-117	Textured Ceiling Plaster	68	Boiler Room	None Detected
03-5500-118	Strand Board – Roof Decking	69	Floor 2 Stairwell	None Detected
03-5500-119	Strand Board – Roof Decking	69	Pipe Chase 219	None Detected
03-5500-120	Strand Board – Roof Decking	69	Pipe Chase 219	None Detected
03-5500-121	Tar Paper on Strand Board	70	Floor 2 Stairwell	None Detected
03-5500-122	Tar Paper on Strand Board	70	Pipe Chase 219	None Detected
03-5500-123	Tar Paper on Strand Board	70	Pipe Chase 219	None Detected

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** Insufficient mastic provided for analysis.



SUSPECT ASBESTOS BULK SAMPLING FORM

BUILDING NAME: Bon Air Elementary
ADDRESS: 252 Fordyce Street, Pittsburgh, PA
SAMPLED BY: Richard Mance
DATE: September 13-14, 2006

SAMPLE NUMBER	MATERIAL	HA #	LOCATION	% ASBESTOS
03-5500-124	Tar/Paper Wrap Over Fiberglass Insulation (Resample)	61	Basement Bathroom	None Detected
03-5500-125	Tar/Paper Wrap Over Fiberglass Insulation (Resample)	61	Pipe Chase 110	None Detected
03-5500-126	Tar/Paper Wrap Over Fiberglass Insulation (Resample)	61	Pipe Chase 219	None Detected
03-5500-127	Tar Over Cementation Pipe Fitting on Water Lines (Resample)	64	Pipe Chase 219	Cement – 60% Chrysotile Tar – 40% Chrysotile
03-5500-128	Tar Over Cementation Pipe Fitting on Water Lines (Resample)	64	Pipe Chase 110	Cement – None Detected Tar – 40% Chrysotile
03-5500-129	Tar Over Cementation Pipe Fitting on Water Lines (Resample)	64	Pipe Chase 110	Cement – None Detected Tar – 40% Chrysotile

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** Insufficient mastic provided for analysis.



LIST OF HOMOGENEOUS AREAS

BUILDING NAME: Bon Air Elementary

LOCATION: 252 Fordyce Street
Pittsburgh, PA

HA#	MATERIAL	CONTAIN ASBESTOS?			APPROXIMATE QUANTITY
		YES	NO	ASSUMED	
01	12" x 12" White with Blue - Gray Speckled Floor Tile		X		
02	Associated Mastic		X		
03	4" Black Kick Strip		X		
04	Associated Mastic		X		
05	6" Black Kick Strip		X		
06	Associated Mastic		X		
07	Blue Stair Tread		X		
08	Associated Mastic		X		
09	18" x 18" Gray Floor Tile		X		
10	Associated Mastic		X		
11	9" x 9" Gray with White, Black, and Pink Streaks Floor Tile	X			1,820 Square Feet
12	Associated Mastic for HA 11	X			1,820 Square Feet
13	9" x 9" Light Brown with White and Black Streaks Floor Tile	X			1,705 Square Feet
14	Associated Mastic for HA 13	X			1,705 Square Feet
15	9" x 9" Dark Gray with White Streaks Floor Tile	X			870 Square Feet
16	Associated Mastic for HA 15	X			870 Square Feet
17	9" x 9" Tan with Dark Brown and Cream Streaks Floor Tile	X			260 Square Feet
18	Associated Mastic for HA 18		X		
19	9" x 9" Light Gray with Dark Gray Streaks Floor Tile	X			160 Square Feet
20	Associated Mastic for HA 19	X			160 Square Feet
21	9" x 9" Green Streaked Floor Tile	X			355 Square Feet
22	Associated Mastic for HA 21	X			355 Square Feet
23	9" x 9" Dark Tan with Beige and Brown Streaks Floor Tile Patch	X			15 Square Feet
24	Associated Mastic for HA 23		X		
25	9" x 9" Orange with Beige Streaks Floor Tile - Patch	X			10 Square Feet
26	Associated Mastic for HA 24		X		
27	9" x 9" Cream with Reddish Brown Streaks Floor Tile - Patch	X			10 Square Feet



LIST OF HOMOGENEOUS AREAS

BUILDING NAME: Bon Air Elementary

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		YES	NO	ASSUMED	
28	Associated Mastic for HA 27	X			10 Square Feet
29	9" x 9" Dark Green Modeled Floor Tile - Patch		X		
30	Associated Mastic for HA 29		X		
31	9" x 9" Olive with Streaks Floor Tile - Patch		X		
32	Associated Mastic for HA 31		X		
33	9" x 9" Light Green with White and Black Stripes Floor Tile - Patch	X			15 Square Feet
34	Associated Mastic for HA 33	X			15 Square Feet
35	12" x 12" Light Tan Speckled Floor Tile- Patch		X		
36	Associated Mastic for HA 35		X		
37	9" x 9" Light Tan Spotted Floor Tile - Patch		X		
38	Associated Mastic for HA 37		X		
39	6" Black Kick Strip		X		
40	Associated Mastic for HA 39		X		
41	Yellow Terrazzo Flooring	X			520 Square Feet
42	Window Glazing	X			60 Windows
43	Green Terrazzo Flooring	X			110 Square Feet
44	Gray Terrazzo Flooring	X			145 Square Feet
45	Window Caulking	X			60 Windows
46	Exterior Caulking Around Vents	X			13 Vents
47	Exterior Door Caulking	X			9 Doors
48	1' x 1' White Ceiling Tile with Holes		X		
49	Associated Mastic for HA 49		X		
50	1' x 1' Fissured Ceiling Tile		X		
51	Associated Mastic for HA 50		X		
52	Sheet Rock Above 1' x 1' Ceiling Tile		X		
53	Plaster – White Top Coat over Gray Base Coat		X		
54	Tar Wrap		X		

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		YES	NO	ASSUMED	
55	Dry Wall		X		
56	White Joint Compound	X			210 Square Feet
57	Counter / Heater Tops		X		
58	Coating – I Beam		X		
59	Heater Board 2' x 4'		X		
60	Canvas Pipe Wrap over Fiberglass - Heating Lines		X		
61	Tar Foil Wrap Over Fiberglass - Waterlines		X		
62	8" Roof Drain Fitting Insulation			X	10 Fittings
63	Roof Drain Tar Paper		X		
64	Fitting Insulation on Waterlines	X			20 Fittings
65	Fitting Insulation on Heating Lines	X			3 Fittings
66	Paper over Fiberglass Insulated Heating Line		X		
67	Boiler Packing		X		
68	Textured Ceiling Plaster		X		
69	Strand Floor – Roof Decking		X		
70	Tar Paper on Stray Board		X		
71	Tar/Paper Wrap Over Fiberglass Insulation				
72	Tar Over Cementation Pipe Fitting on Water Lines				
73	Blackboard Mastic			X	10 - 12' x 4' 5 - 3'x 4'
74	Interior Stack Material			X	Not Quantified
75	Interior Boiler Insulation			X	Not Quantified