

AHERA Three-Year Re-inspection

At the

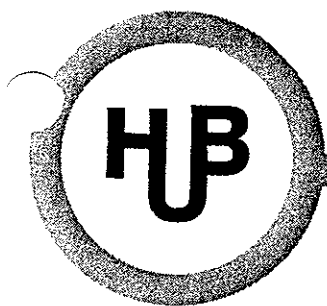
Greenleaf Elementary School
58 Chadwick Street
Haverhill, MA 01835

HUB TESTING LABORATORY, INC.

Environmental Testing Service



95 Beaver Street - Waltham, MA 02453
(781) 893-8330 (781) 893-4414 (fax)



HUB TESTING LABORATORY, INC.

Environmental Testing Service

95 Beaver Street - Waltham, MA 02453
(781) 893-8330 (781) 893-4414 (fax)

REPORT FOR:

Haverhill Public School District
Central Administration
4 Summer Street
Room 104
Haverhill, MA 01830

ATTENTION:

Mr. Tom Geary
Supervisor of Energy & Maintenance

PROJECT:

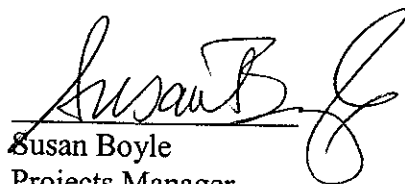
AHERA 3-Year Re-Inspection

SUBJECT:

Greenleaf Elementary School
58 Chadwick Street
Haverhill, MA 01835

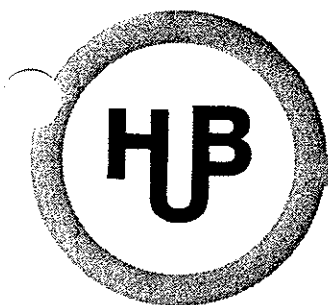
PREPARED BY:

Hub Testing Laboratory, Inc.


Susan Boyle
Projects Manager
Management Planner
MA License No.: AP060147

DATE:

April 2011



HUB TESTING LABORATORY, INC.

Environmental Testing Service

95 Beaver Street - Waltham, MA 02453
(781) 893-8330 (781) 893-4414 (fax)

REPORT FOR: Haverhill Public School District
4 Summer Street
Haverhill, MA 01830

ATTENTION: Mr. Tom Geary
Supervisor of Energy and Maintenance

PROJECT: Greenleaf Elementary School
58 Chadwick Street
Haverhill, MA 01835

SUBJECT: AHERA Three-Year Re-inspection

DATE: April 2011

As required by the US Environmental Protection Agency's AHERA regulations, Hub Testing Laboratory has completed a survey and reassessment of asbestos containing materials in the Greenleaf Elementary School of the Haverhill Public School District. This report summarizes the locations and condition of materials remaining in the school and reviews the ongoing responsibilities of the Local Education Authority (LEA) pertaining to the building. Lynne Whitcraft (AI 61691) performed the inspection in April of 2011.

When sampling of suspect asbestos-containing materials was required, samples representative of the material were taken. Samples of thermal systems insulation and miscellaneous materials were collected in unobtrusive locations. Samples of surfacing materials were collected using the guidance document method for random sampling.

This latest survey report should be incorporated into the files that the LEA maintains, pertaining to response actions, operations & maintenance activities, six month reinspection, training, air sampling and major asbestos activities.

SUMMARY OF AHERA RE-INSPECTION

The re-inspection consisted of reviewing previous documentation available, interviewing building personnel, and performing a thorough survey of each functional space in the building. The following sections summarize the current re-inspection, the presence of suspect or proven ACM in the building, any damage to the ACM, and response action proposals.

CURRENT FINDINGS

MATERIALS FROM PREVIOUS INSPECTION

During the previous three-year AHERA inspection of the Greenleaf Elementary School in 2000, the following materials were identified as either containing asbestos or assumed to contain asbestos (identified with an asterisk (*)). The list is classified by material. Any change in the condition or presence of the material discovered in the current re-inspection is noted here.

1. Pipe insulation *

Location: Tunnels & chases

Condition: Damaged

2. Hard fittings

Location: Associated with pipe insulation

Quantity: \approx 17LF

Condition: Not damaged

3. Breeching *

Location: Boiler room

Quantity: \approx 400 LF

Condition: Significantly damaged

4. Blown-in insulation *

Location: Attic

Quantity: \approx 9000 SF

Condition: Not damaged

5. Vibration isolator *

Location: Storage area

Quantity: \approx 20 SF

Condition: Not damaged

6. Roofing *

Location: Roof

Quantity: \approx 900 SF

Condition: Not damaged

7. Floorings & associated mastic *

Location: Throughout school

Quantity: \approx 13, 000 SF

Note: See the attached Materials Chart and floor plan for specific descriptions and locations of flooring. Until all individual types of tile are sampled and analyzed, suspect floorings and mastic must be assumed to be asbestos containing.

8. Brown stair treads *

Location: Stairs

Quantity: \approx 460 SF

Condition: Damaged

9. Library partition *

Location: Library

Quantity: \approx 120 SF

Condition: Not damaged

NEW MATERIALS SINCE PREVIOUS INSPECTION

The following homogeneous materials were newly identified during the current three-year AHERA inspection. The list is organized by material and all materials are assumed ACM at this time. All homogeneous materials not previously identified must be sampled and identified as ACM or non-ACM prior to any demolition or renovation in the area.

1. Glue on panels

Location: 2nd floor hall by water fountain

Condition: Not damaged

2. Glazing/caulking associated with window walls

Location: Window wall (custodian)

Condition: Not damaged

3. Brick mortar

Location: Basement

Condition: Not damaged

4. Sheetrock

Location: Room 210

Condition: Not damaged

5. Carpet adhesive

Location: Rooms by art room, Room 201

Condition: Not damaged

6. Boiler insulation

Location: Boiler room

Condition: Not damaged

7. 12x12 Blue mottled floor tile & associated mastic

Location: Threshold room 101

Condition: Not damaged

SUSPECT ACM FOUND NOT TO CONTAIN ASBESTOS

The following materials were sampled, analyzed and found not to contain asbestos.

1. Wallboard
2. Ceiling plaster
3. Ceiling & Wall plaster
4. Bulletin boards
5. Hardwood
6. 2x4 Thin fissured ceiling tile

ACTION SHEET

Based on the current three-year AHERA Re-inspection of the Greenleaf Elementary School, the following actions for ongoing asbestos management in the school are recommended.

SIX-MONTH SURVEILLANCE

Every six months a periodic surveillance of known and assumed asbestos-containing materials in the school must be conducted and documented. The chart included in this report may be used for the documentation. Use the right hand columns to indicate changes in a material's condition or quantity, and explain the changes in the comment section at the bottom of each page. Fill out the date of the survey and the signature of the person who conducted it at the end of the chart.

TRAINING

In the event that the LEA's Designated Person changes, or new maintenance personnel are hired, the LEA must have Asbestos Awareness Training provided for these individuals.

Staff has some knowledge of asbestos containing materials in their schools however if training has not been reviewed in a number of years this should be conducted again.

RECORDKEEPING

Continue to update files pertaining to:

- a. Training/Licensing of school personnel
- b. Notifications
- c. Response Actions
- d. Re-inspections

LABELING

All friable asbestos containing materials must be maintained with identifying labels. The labels can help to prevent the entry of untrained and unprotected personnel into areas, which may have been contaminated.

CAUTION
ASBESTOS. HAZARDOUS.
DO NOT DISTURB
WITHOUT PROPER
TRAINING AND EQUIPMENT

CLEANING

In the case that friable materials become damaged in an occupied space, the materials should be repaired and debris cleaned by qualified trained personnel with proper cleaning equipment and personal protective equipment.

RECOMMENDED RESPONSE ACTIONS

All known and assumed asbestos-containing materials must be monitored for any change in condition. Every precaution and extreme care should be taken to keep these materials in an undamaged condition. In the event that a material is damaged, the appropriate response action should be taken to deal with the situation. Proposed response actions are based on the inspector's visual assessment of ACM according to AHERA assessment categories and risk assessment categories. These categories are detailed on the attached chart. All response actions should be implemented in a timely manner and must be designed by an accredited Asbestos Abatement Designer.

FLOOR TILES

All efforts should be taken to prevent the further cracking and delamination of the asbestos-containing floor tiles in the building. No removal or significant repair is necessary at this time, however funding should be appropriated for future needs. The condition of the floor tiles should be monitored during the six-month surveillances, which is performed as required by a knowledgeable

person. This process will aid in documenting when tiles become broken and to determine when and where significantly damaged tiles need to be replaced.

THERMAL SYSTEMS INSULATION (TSI)

Breeching insulation is damaged. Funding should be appropriated for sampling and if necessary removal. Care should be taken not to disturb the insulation and fittings.

ASSUMED MATERIALS

The majority of the materials identified during the re-inspection are assumed. Until such time as these materials are sampled and determined to be asbestos containing or not, they must be treated as asbestos containing. All efforts should be taken not to disturb the assumed materials. The inspector did not note issues that require immediate attention. However, funding should start to be appropriated so that sampling can occur as needed. The condition of the materials should be monitored during the six-month surveillances, which is performed as required by a knowledgeable person.

ASSOCIATED COSTS

1. Sampling of breeching.
2. Appropriate funding into account for future sampling.
3. As custodial & maintenance personnel have changes, provide awareness training (\$1,800 for all schools)

Approximate funds: \$3,000.00

All work beyond the capabilities of a trained and licensed in house O&M maintenance person must be performed by a licensed and qualified asbestos removal contractor. A licensed Project Designer must design all abatement projects outside of O&M.

3 YEAR RE-INSPECTION

Greenleaf Elementary School

April 2011

ASSUMED AND PROVEN ASBESTOS-CONTAINING MATERIALS											
Material & Amount	Location	Type & Friability	Assessment (ND, D, SD), (PD, PSD), (L,M,H)	Type/% Asbestos & # of Samples	Comment	Six Month Surveillances & Re-inspections					
						6-mo.	12-mo.	18-mo.	24-mo.	30-mo.	3-YR
Pipe insulation ≈ 95 LF	All floor runs (tunnels) & chases	TSI, F	D, PD, L		Previous reports indicate that this material was abated in 9/87. However insulation was noted.						C
Hard fittings ≈ 17 LF	Associated with pipe insulation	TSI, F	ND, PD, L	* GRN 46	Previous reports indicate that this material was abated in 9/87. However fittings were noted.						C
Breeching ≈ 170 SF	Boiler room	TSI, F	SD, PD, M		Previous reports indicate that this material was abated in 9/87. However breeching was identified. This material is a presumed material. Sampling is recommended.						C
Blown-in insulation ≈ 9000 SF	Attic	TSI, F	ND, PD, L		This material is a presumed material.						C
Vibration isolators ≈ 20 SF	Storage Area	TSI, F	ND, PD, L		This material is a presumed material.						C
Roofing ≈ 9000 SF	Roof	M, NF	ND, PD, L		This material is a presumed material.						C
12x12 Tan floor tile w/ white flecks ≈ 1325 SF	Rooms 002 & 003	M, NF	D, PD, M	* GRN 53	This material is a presumed material.						C
12x12 Faux marble floor tile ≈ 364 SF	Office	M, NF	ND, PD, M	Hub ID 13812-1A & 13812-2A							C

Comments: * Indicates previously sampled material from original inspection.

Key
Amount
 SF – square feet
 LF – linear feet
Friability
 F – friable
 NF – not friable
Assessment
 ND – not damaged
 D – damage
 SD – significantly damaged
 PD – potential for damage
 PSD – potential for significant damage
Type
 T – TSI
 S – surfacing
 M – misc.
 L – low access.
 M – medium access.
 H – high accessibility

Six Month Surveillance & Re-inspections

Fill in the corresponding box with a ✓ for no change in condition or a C for a change in the status of a material. Write details about changes in the comment area below the chart on the same page. The person conducting the surveillance must sign and date below.

6-mo. Date:

Signature:

12-mo. Date:

Signature:

30-mo. Date:

Signature:

18-mo.

Date:

Signature:

24-mo.

Date:

Signature:

3-YR Re-inspect:

Date: 4/20/11

Signature:

Lynne W. W.

3 YEAR RE-INSPECTION

Greenleaf Elementary School

April 2011

ASSUMED AND PROVEN ASBESTOS-CONTAINING MATERIALS										
Material & Amount	Location	Type & Friability	Assessment (ND, D, SD), (PD, PSD), (L, M, H)	Type/% Asbestos & # of Samples	Comment	Six Month Surveillances & Re-inspections				
						6-mo.	12-mo.	18-mo.	24-mo.	30-mo.
12x12 Off-white floor tile w/ gray flecks ≈ 800 SF	103, 104, Stair landings	M, NF	D, PD, M		This material is a presumed material.					C
12x12 Beige floor tile w/ beige flecks ≈ 3300 SF	Art Room, Storage off art room, 201, Hall by 201	M, NF	D, PD, M		This material is a presumed material.					C
12x12 White floor tile ≈ 78 SF	2 nd Floor women's bathroom	M, NF	ND, PD, M		This material is a presumed material.					C
12x12 Beige floor tile w/ white flecks & streaks	Room 207 and small bath by 207	M, NF	ND, PD, M		This material is a presumed material.					C
12x12 Yellow floor tile w/ brown, white & gray flecks ≈ 2100 SF	Room 102, 106	M, NF	ND, PD, M		This material is a presumed material.					C
12x12 Gray floor tile w/ gray & white flecks ≈ 1100 SF	1 st Floor hallway & entry	M, ND	D, PD, M		This material is a presumed material.					C

Comments: * Indicates previously sampled material from original inspection.

Key
Amount
 SF – square feet
 LF – linear feet
Friability
 F – friable
 NF – not friable
Assessment
 ND – not damaged
 D – damage
 SD – significantly damaged
 PD – potential for damage
 PSD – potential for
 L – low access.
 M – medium access.
 H – high accessibility
Type
 T – TSI
 S – surfacing
 M – misc.

Six Month Surveillance & Re-inspections

Fill in the corresponding box with a ✓ for no change in the status of a material. Write details about changes in the comment area below the chart on the same page. The person conducting the surveillance must sign and date below.

6-mo. Date:

Signature:

18-mo.

Date:

Signature:

12-mo. Date:

Signature:

24-mo.

Date:

Signature:

30-mo. Date:

Signature:

3-YR Re-inspect:

4/2011

Signature: *Symone W...*

3 YEAR RE-INSPECTION

Greenleaf Elementary School

April 2011

ASSUMED AND PROVEN ASBESTOS-CONTAINING MATERIALS											
Material & Amount	Location	Type & Friability	Assessment (ND, D, SD), (PD, PSD), (L,M,H)	Type/% Asbestos & # of Samples	Comment	Six Month Surveillances & Re-inspections					
						6-mo.	12-mo.	18-mo.	24-mo.	30-mo.	3- YR
9x9 Aqua floor tile ≈ 350 SF	Teacher's room	M, NF	D, PD, L	* GRN 25	This material is a presumed material. Two more samples should be collected to prove material is non-asbestos.						C
9x9 White floor tile w/ black streaks ≈ 2450 SF	Room 202 (library) & small vestibule, 203	M, NF	D, PD, L	* GRN 28	This material is a presumed material. Two more samples should be collected to prove material is non-asbestos.						C
9x9 Tan floor tile w/ pink & blue ≈ 140 SF	Nurse	M, NF	D, PD, L	* GRN 27	This material is a presumed material. Two more samples should be collected to prove material is non-asbestos.						C
Linoleum ≈ 190 SF	Bathrooms in rooms, Slop sink 1 st floor	M, NF	ND, PD, L	* GRN 29							C
Tan mosaic sheet flooring ≈ 15 SF	Room N. 106	M, NF	ND, PD, L		This material is a presumed material and could not be located during the current inspection.						C
Black mastic associated with floorings ≈ 6000 SF	Under all floor tiles	M, NF	ND, PD, L		This material is a presumed material.						C

Comments: * Indicates previously sampled material from original inspection.

Key
Amount
 SF – square feet
 LF – linear feet
Friability
 F – friable
 NF – not friable
Assessment
 ND – not damaged
 D – damage
 SD – significantly damaged
 PD – potential for damage
 PSD – potential for
 L – low access.
 M – medium access.
 H – high accessibility
Type
 T – TSI
 S – surfacing
 M – misc.

Six Month Surveillance & Re-inspections

Fill in the corresponding box with a ✓ for no change in condition or a C for a change in the status of a material. Write details about changes in the comment area below the chart on the same page. The person conducting the surveillance must sign and date below.

6-mo. Date: Signature: 18-mo. Date: Signature:
 12-mo. Date: Signature: 24-mo. Date: Signature:
 30-mo. Date: Signature: 3-YR Re-inspect: Date: 4/20/11 Signature: Lynne Wintzke

3 YEAR RE-INSPECTION

Greenleaf Elementary School

April 2011

ASSUMED AND PROVEN ASBESTOS-CONTAINING MATERIALS									
Material & Amount	Location	Type & Friability	Assessment (ND, D, SD), (PD, PSD), (L, M, H)	Type/% Asbestos & # of Samples	Comment	Six Month Surveillances & Re-inspections			
Brown stair treads ≈ 460 SF	Stairs	M, NF	ND, PD, L		(Approximately 5' x 1') This material is a presumed material.	6-mo.	12-mo.	18-mo.	24-mo.
Library partition ≈ 120 SF	Library	M, F	ND, PD, L	* GRN 01	This material is a presumed material. Two more samples should be collected to prove material is non-asbestos.				3-YR
Glue-on panels	2 nd floor hall by water fountain	M, NF	ND, PD, L		New material identified.				C
Glazing/ Caulking	Window walls	M, NF	ND, PD, L		New material identified.				C
Brick mortar	Basement	M, NF	ND, PD, L		New material identified.				C
Sheetrock	210 (office)	M, NF	ND, PD, L		New material identified.				C
Carpet adhesive	Rooms by art room, Room 201	M, NF	ND, PD, L		New material identified.				C
Boiler insulation	Boiler room	TSI, F	ND, PD, M		Old rib style boiler				C

Comments: * Indicates previously sampled material from original inspection.

Key
Amount
 SF – square feet
 LF – linear feet
Friability
 F – friable
 NF – not friable
Assessment
 ND – not damaged
 D – damage
 SD – significantly damaged
 PD – potential for damage
 PSD – potential for significant damage
Type
 T – TSI
 S – surfacing
 M – misc.
 H – high accessibility

Six Month Surveillance & Re-inspections

Fill in the corresponding box with a Y for no change in condition or a C for a change in the status of a material. Write details about changes in the comment area below the chart on the same page. The person conducting the surveillance must sign and date below.

6-mo. Date:

Signature:

12-mo. Date:

Signature:

30-mo. Date:

Signature:

18-mo.

Date:

Signature:

24-mo.

Date:

Signature:

3-YR Re-inspect: 4/2011

Signature:

Lynne W. Smith

3 YEAR RE-INSPECTION

Greenleaf Elementary School

April 2011

ASSUMED AND PROVEN ASBESTOS-CONTAINING MATERIALS											
Material & Amount	Location	Type & Friability	Assessment (ND, D, SD), (PD, PSD), (L, M, H)	Type/% Asbestos & # of Samples	Comment	Six Month Surveillances & Re-inspections					
						6-mo.	12-mo.	18-mo.	24-mo.	30-mo.	3-YR
12x12 Blue mottled floor tile & associated mastic	Threshold room 101	M, NF	ND, PD, L		New material identified.						C
MATERIALS THAT HAVE BEEN ABATED/REMOVED OR PROVEN TO NOT CONTAIN ASBESTOS											
Material	Location	Samples	Comment								
Wallboard (≈ 1750 SF)	Rms. 105A - C	GRN 05, 06, 07	Previously sampled and found not to be asbestos containing								
Ceiling Plaster (≈ 10,900 SF)	Rooms 1 - 7	GRN 40, 41, 43, 44, 48, 49	Previously sampled and found not to be asbestos containing								
Ceiling & Wall Plaster (≈ 42,600 SF)	For walls: Rooms 1, 2, 3, 100 - 107, 200 - 210 For ceilings: Rooms 105 - 107, 200 - 203	GRN 21, 22, 24, 42, 50, 51, 52 Hub ID 15921-1, 15951-2	Previously sampled and found not to be asbestos containing								
Bulletin boards (≈ 200 SF each)	Rooms 105, 201, 204, 207	GRN 08, 09, 10, 11	Previously sampled and found not to be asbestos containing								
Hardwood	204, Stairs by 204, 205, 208, Hall by 208										
2x4 Thin fissured ceiling tile w/ lots of dots (≈ 1800 SF)	Rooms 102, 106	GRN 25 Hub ID 13246-4-1, 13246-4-2	Previously sampled and found not to be asbestos containing								

Key

Amount
 SF - square feet
 LF - linear feet

Friability
 F - friable
 NF - not friable

Assessment
 ND - not damaged
 D - damage

SD - significantly damaged
PD - potential for damage
PSD - potential for significant damage

Type
 T - TSI
 S - surfacing
 M - misc.

L - low access.
M - medium access.
H - high accessibility

Comments: * Indicates previously sampled material from original inspection.

Six Month Surveillance & Re-inspections

Fill in the corresponding box with a ✓ for no change in condition or a C for a change in the status of a material. Write details about changes in the comment area below the chart on the same page. The person conducting the surveillance must sign and date below.

6-mo. Date:

Signature:

18-mo.

Date:

Signature:

12-mo. Date:

Signature:

24-mo.

Date:

Signature:

30-mo. Date:

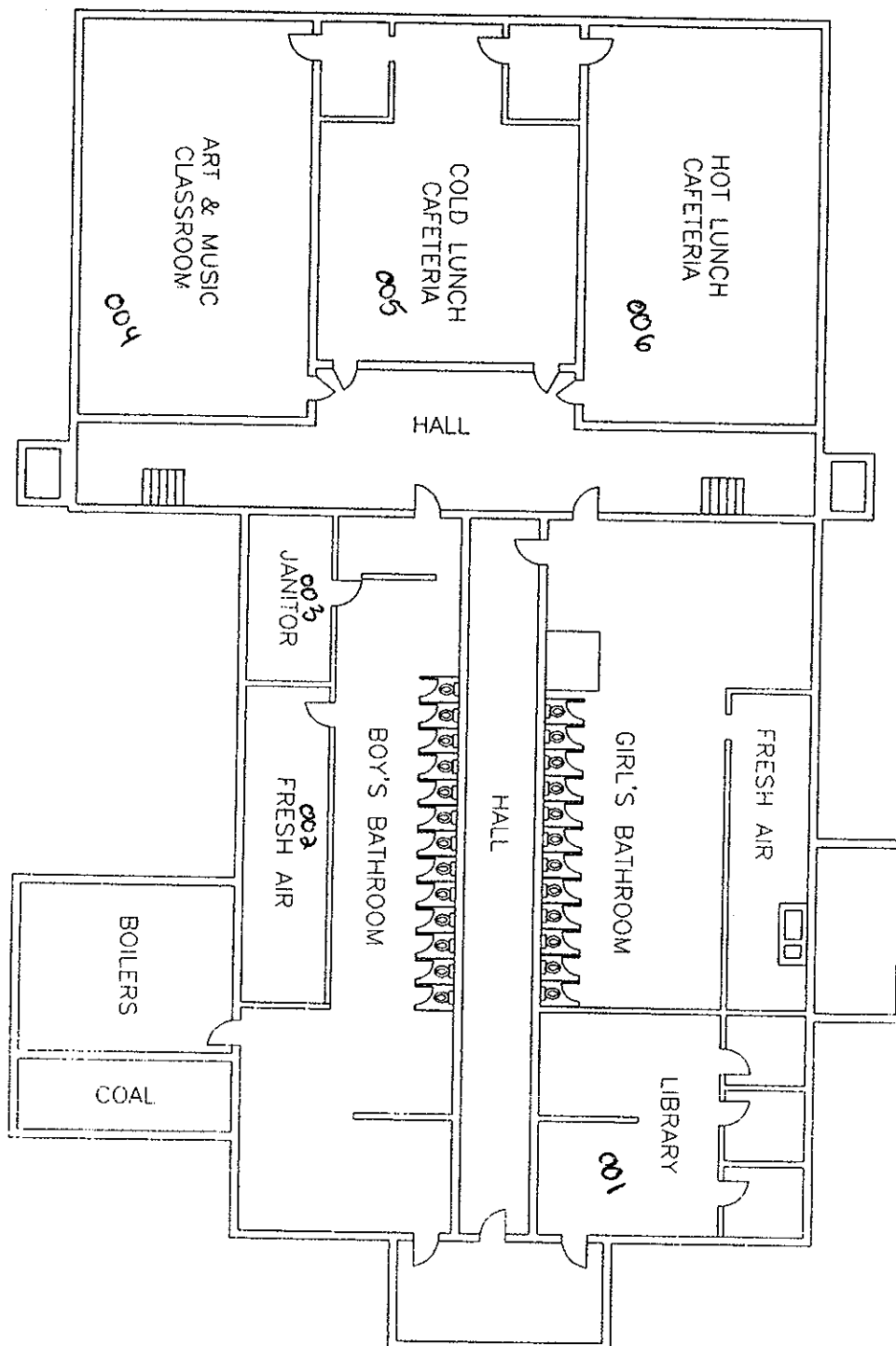
Signature:

3-YR Re-inspect:

Date:

Signature:

GREENLEAF ELEMENTARY SCHOOL - BASEMENT FLOOR PLAN



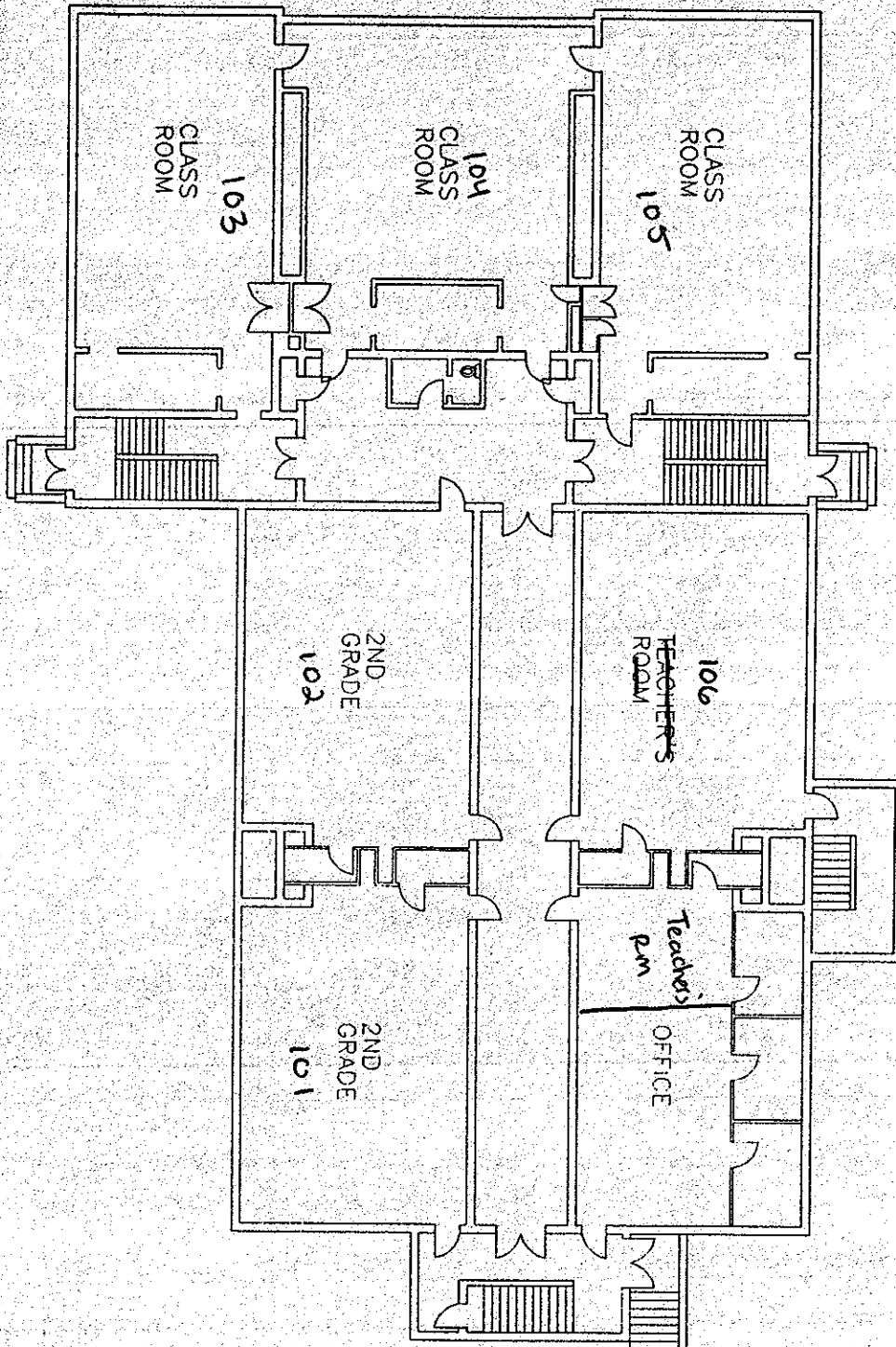
02

EXISTING BASEMENT
FLOOR PLAN

GREENLEAF ELEMENTARY SCHOOL
58 CHADWICK STREET • HAVERHILL, MASS.

ARCADD, INC.
ARCHITECTS & PLANNERS
ONE HANCOCK STREET
HAVERHILL, MASS. 01830
TEL: 978/875-1000
FAX: 978/875-1001
WWW.ARCADD.COM

GREENLEAF ELEMENTARY SCHOOL - FIRST FLOOR PLAN



GREENLEAF ELEMENTARY SCHOOL - SECOND FLOOR PLAN

