ASBESTOS MANAGEMENT PLAN
HILL AND PLAIN SCHOOL

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November, 1986

CONTENTS

Each section of this document contains a separate asbestos management plan for each building owned by the New Milford Public Schools, in accordance with Public Act 85-541.

A. School Buildings

(1) Hill and Plain School.

(2) John Pettibone School.

(3) New Milford High School.

(4) Northville School.

(5) Schaghticoke Middle School.

B. Administration and Maintenance Buildings.

(1) Bridge St. Maintenance Building.

(2) East St. Administration Building.

ASBESTOS MANAGEMENT PLAN : THE HILL AND PLAIN SCHOOL

The Hill and Plain School was surveyed and evaluated for asbestos containing materials in August and September, 1986. The New Milford School District has developed a series of management strategies for each location where asbestos was identified in the building. The remedial action prescribed for each of these areas is the foundation for this asbestos management plan.

The purpose of the plan which follows is to provide the documentation of the asbestos surveys and to describe the management strategies for each area where asbestos is present in the school. The specific objectives of this plan are as follows :

(1) Provide a description of the school buildings which highlights the locations where asbestos containing materials are present ;

(2) Describe the methodology which was used for surveying and evaluating materials in the school which were suspected to contain asbestos ;

(3) Summarize the locations and conditions of materials which were confirmed as asbestos ;

(4) Describe the remedial strategy selected for each site which has asbestos present in the school with a justification for selecting this course of action ;

(5) Develop a system for implementing the plan which includes the following elements :

   a. Timetable for implementing remediation strategy ;

   b. Interim strategies for minimizing fiber release from the areas with asbestos until a permanent method of remediation can be implemented ;

   c. Procedure for implementing the remedial strategy ;

   d. Specifications for removal of asbestos containing materials;

(6) Establish an ongoing management and monitoring program for all asbestos containing materials which are left in place.

This asbestos management plan is submitted to the State Department of Education in accordance with Public Act 85-541 of the Connecticut General Statutes.

TABLE OF CONTENTS FOR ASBESTOS MANAGEMENT PLAN

Laboratory Reports are in the Appendix at the End of the Plan.

A. GENERAL DESCRIPTION OF BUILDING.

The Hill and Plain School was built in 1967, with a new addition constructed in 1986. The general layout of the building is illustrated on figure 1.

The Hill and Plain School is a primary educational facility which includes grades K - 3. In addition to education, extra curricular events may periodically be conducted in the gymnasium and the music area.

The school employs a staff of 60 and has a student body which numbers 606.

The building is constructed on a slab foundation, with brick outer walls and a corrugated steel frame. The inner walls are constructed of cinder blocks. A suspended ceiling exists in most of the building, resulting in a ceiling plenum, with water pipes and air ducts located near the true ceiling.

Ventilation is provided by an air handling system which draws air into return ducts and supplies air by means of air handling units which are located on the roof, forcing air into each room by means of supply ducts.

All areas of the school are serviced by a central boiler room. Heat is provided by two oil burning boilers which convey heat through steam pipes that traverse the building through the pipe tunnels. The pipe tunnels begin at the boiler room and are located below grade, throughout the perimeter of the building, branching up to basebard radiators which are located in each of the rooms.

B. DELINEATION OF AREAS

For the purpose of this evaluation, the school was divided into 9 sections of similar design, construction or function. Table 1, below, lists these areas and indicates whether asbestos was identified in each location.

TABLE 1 : AREAS OF HILL AND PLAIN SCHOOL SURVEYED FOR ASBESTOS

location	materials evaluated	prescence of asbestos
boiler room *	boilers, h.w. tank, pipes	YES
pipe tunnels *	pipe insulation	YES
ceiling plenum	ceiling, ducts, pipe insulation	NO
cafeteria	ceiling, floor	NO
office area	ceiling, floor, walls	NO
gymnasium	floor, ceiling, curtains	NO
kindergarten	floor, ceiling, assessory mat'ls	NO
music room	floor, ceiling, curtains	NO
classrooms	room by room search : floor, ceiling, walls, assessory mat'ls	NO

* The specific locations which contain asbestos are described in more detail on Table 2 and in narrative text.

C. METHOD OF EVALUATION

The Hill and Plain School was surveyed for asbestos containing materials and evaluated in the following manner :

(1) Blueprints of the building were examined to determine the layout of specific sections of the building and to determine whether asbestos was specified for use in any area of the building ;

(2) An inspection of each room of the building was conducted to provide a descriptive documentation of design, construction, and building materials to identify substances which are positively asbestos, non asbestos materials and materials which are suspected to contain asbestos, which require an analytical confirmation of its constituency. The maintenance staff of the School District was consulted with regard to specific locations of areas (such as pipe tunnels) and regarding recent construction activities affecting insulation and other asbestos containing materials.

(3) All asbestos suspect materials (identified above) were sampled in accordance with the State Department of Health Services guidelines for identification of asbestos. These samples were submitted to the State Department of Health Services Laboratory for analysis of asbestos content.

(4) Following receipt of the laboratory reports, all locations in the building where asbestos was confirmed to be present were inspected again and evaluated with respect to its condition in accordance with the State Health Department's "decision protocol" process.

D. LOCATIONS WHERE ASBESTOS IS PRESENT IN THE HILL AND PLAIN SCHOOL

Table 2 indicates the location where asbestos was positively identified in the Hill and Plain School. The table also describes the the condition, the degree of friability, and the potential for future deterioration of each asbestos product in the building. The asbestos materials were confirmed, in all cases, by a laboratory analysis of bulk samples which were taken from the building. The analytical reports are attached to the appendix at the end of this document.

Exhibits A - C are the "school facility" and "area reports" (EDO75A and EDO75B), which provide information on the specific locations where asbestos is present in the building.

The diagrams on the following pages illustrate the areas where asbestos is present in the building. Figure 1 is an overall diagram of the school building, illustrating the general locations of the areas described on table 2. Figures 2 - 3 are site specific illustrations of each asbestos area in the building, specifying the total area of asbestos at each location.

E. AREA REMEDIATION STRATEGIES.

This section outlines the management strategies which will be used for each location in the building where asbestos is present. This narrative also includes a justification for the remediation option which was selected.

(1) Boiler room.

The insulation on the boilers, breeching, stack, hot water tank, and the pipe elbows contains asbestos. The insulation on the boilers, stack and the hot water tank are characterized in a different manner than the pipe elbow insulation.

The asbestos on the elbows is cloth wrapped and in generally good condition. The cloth wrap limits the friability of this material. However, if the wrap is punctured or if it delaminates from the asbestos over the elbow, the asbestos will become friable. Such damage can be caused by mechanical impact or by water damage. Due to the large number of elbows in this room and the maintenance operations which occur in this area, there is a potential for future damage to the elbow insulation.

The asbestos insulation on the boiler surfaces, the breeching, the stack and the water tank is friable, has deteriorated in several areas to a poor condition and will only get worse in time. The large surface areas of friable asbestos results in a high potential for chronic exposure to the maintenance and janitorial staff who work in this room.

All of the asbestos in this location will be removed during the summer of 1987. The large amount of friable asbestos which is present in this area poses an ongoing potential for asbestos exposure to employees and contractors who work in this room. Therefore, the removal of asbestos under contract specifications is the permanent solution of choice. Contract specifications for the removal project are described in Section G.

Due to the large scope of this job, and the importance of performing the work when school is not in session, the work is scheduled for the summer 1987 school recess. In the interim period, the management program described in Section F will be instituted.

(2) Pipe tunnels.

The pipe elbows in the tunnels are insulated with asbestos which is covered with a cloth wrap, as in the boiler room. The elbows in the pipe tunnel are much more susceptible to water damage; there are more of them, the conditions in the tunnel are more damp, and a minor water leak is likely to go unnoticed for a long period of time causing the outer wrap and the asbestos insulation to deteriorate over a protracted period of time.

Although the elbows which were observed were in good condition, there is a strong likelihood that some of the elbow insulation, in some part of the vast tunnel area, are damaged and friable. The tunnel area is used by the maintenance staff for emergency repairs. The tunnels are relatively isolated and access is limited by metal doors located in the boiler room.

Removal of asbestos from the tunnels is a difficult operation, complicated by tight working conditions and the dirt floor. Asbestos removal in the pipe tunnels was not selected as a remedial option at this time for the following reasons :

a. It is feasible to control and limit access to the tunnels and minimize employee exposure through a management and monitoring program ;

b. The high priority of removing asbestos from the boiler room in the building (as well as major removal projects from other schools in the District) will involve a large workload for the contractor who is selected. It is imperative that these jobs are performed carefully without a pressure schedule.

c. Removal from the pipe tunnels involves unique conditions which require specialized procedures to prevent further contamination of the entire area. If this project is scheduled in the future, it should be done as a single removal job for a given summer.

Therefore, the remedial strategy for this area involves a management and monitoring program, as described in Section F. This process includes measures for isolating the tunnels from the remainder of the building, methods for controlling access to the tunnels, and a system for protecting employees who must enter the tunnels for repairs. The effectiveness of the management program and the condition of the asbestos in the tunnel will be evaluated prior to the summer, 1988 school recess (and annually thereafter). If the system for controlling access and reducing exposures is not functioning effectively, a removal of asbestos from the tunnels under contract specifications will be implemented during that summer.

F. MANAGEMENT AND MONITORING PROGRAM FOR ASBESTOS REMAINING IN SCHOOL BUILDING.

The management strategy for the pipe tunnels involves keeping the asbestos in place without an active remediation project. Also, there will be a short period of time during which the asbestos in the boiler room will remain in place until a removal project is initiated.

A "passive remedial option" has been developed for the pipe tunnels along with interim measures for the boiler room. This management program focusses on staff training, control over assigned work in these areas, and a periodic inspection of the asbestos.

The specific details of the staff training which is referenced throughout this section are described in the document, titled :

" Inservice Training Program for Maintenance Staff : Mininizing Asbestos Exposure to Staff and Building Occupants

New Milford Public Schools
(November, 1986). "

(1) Pipe Tunnels.

The first task for this area is to isolate the tunnels from the remainder of the building. This will be accomplished by the following measures :

a) All holes leading from the pipe tunnels to the classrooms above will be sealed ;

b) All accessways to the tunnels will be locked, except for one entrance behind the boiler. The tunnel entrance in the boiler room will be placarded with a warning notice and access will be controlled by limiting the use of the boiler room to maintenance personnel ;

c) Entrance into the tunnel will be restricted to maintenance personnel or contractors with assigned tasks.

The control of access to the tunnels will be instituted immediately. The sealing of holes which lead from the tunnels to the radiators will be accomplished during the summer of 1987.

The major aspect of minimizing exposures to asbestos in this area is through education of the staff. An initial inservice training session will be conducted in November, 1986, which will cover the following topics :

. Hazards associated with asbestos on pipe elbows.
. Equipment and clothing required for safe entry and work in this area
. Procedures for the proper use of asbestos respirators.
. Emergency cleanup procedures for asbestos which has become dislodged or delaminated from the pipe elbows.
. Decontamination procedures for personnel after work is complete in the pipe tunnels.

By January 1, 1987, the New Milford School District will purchase a sufficient number of respirators for the employees designated to work in the tunnels. Also, the District will purchase a glove bag enclosure system which will be used for emergency repair of pipe elbows which have become damaged.

The asbestos coordinator will designate specific maintenance personnel to conduct emergency work in the pipe tunnels. These individuals will be the only staff who are allowed access

EXHIBIT A (76)

CONNECTICUT DEPARTMENT OF EDUCATION

ED 075B
SCHOOL FACILITY ASBESTOS INSPECTION REPORT
P.A. 85-541

RETURN TWO (2) COPIES TO: State Department of Education, Bureau of Grants Processing
School Facilities Unit, P.O. Box 2219, Hartford, CT 06145

SCHOOL DISTRICT: NEW MILFORD — DISTRICT CODE: 096

FACILITY NAME: HILL AND PLAIN SCHOOL — FACILITY ADDRESS: OLD TOWN PARK ROAD

Year of Construction 1967 — Year of Additions (if any) _____

CERTIFICATION:

Attached are 3 Area Asbestos Inspection Reports (ED 075A) for the above referenced school facility.

☒ Check this box if this school facility has been inspected according to Public Act 85-541, state regulations enacted pursuant thereto and decision protocols.

☒ Check this box if this school facility has been inspected prior to January 1, 1988 in order to comply with Environmental Protection Agency (EPA) School Asbestos Inspection Rule.

Name of Inspector JACK S. KOZUCHOWSKI — Phone 203-792-361

Signature of Inspector Jack S. Kozuchowski — Date 11/26/86

☐ Check this box if this building had been previously inspected and was found to have asbestos containing materials which have subsequently been removed. Please submit documentation supporting this fact.

19181

p. 4a

TABLE 2 : SUMMARY OF ASBESTOS LOCATIONS - HILL AND PLAIN SCHOOL

location of asbestos	friability	condition	damage potential	management strategy selected
Boiler Room: - boilers - stacks - breeching - h.w. tank	high	poor - deteriorated and delamination	potential for impact and vibration.	Removal under contract specifications.
Boiler Room: - pipe elbows	low	fair-good: cloth wrap on elbows is intact.	potential for water damage and impact.	Implement management & monitoring program.

EXHIBIT B

0075A
ED XXX

CONNECTICUT DEPARTMENT OF EDUCATION

SCHEDULE A - AREA ASBESTOS INSPECTION REPORT
P.A. 85-541

RETURN TWO (2) COPIES TO: State Department of Education, Bureau of Grants Processing
School Facilities Unit, P.O. Box 2219, Hartford, CT 06145

FACILITY NAME	FACILITY ADDRESS	INSPECTED BY (Name and Telephone)	DATE
HILL AND PLAIN SCHOOL	OLD TOWN PARK ROAD; NEW MILFORD	JACK S. KOZUCHOWSKI 792-3613	

AREA DESCRIPTION	AREA SQUARE FEET	AREA POPULATION
1: BOILER ROOM	895	6

1. Samples: Description of material sampled BOILER/TANK: FIBROUS INSULATION WITH OUTER WRAP; ELBOWS: FIBROUS INSULATION WITH CLOTH WRAP
   Type of sample: Bulk ✓ Dust ___ Air ___
2. Type of Material: Sprayed on ___ Trowled on ___ Boiler Lagging ✓
   Pipe Insulation ✓ Duct ___ Other (please explain) ___ {SEE COMMENT}
3. Friability: High ✓ Moderate ___ Low ✓ Not Friable ___
   Sq. Footage Area 395 Pipe Insulation ___ Linear Feet ___ Sq. Ft. ___

(If the potential for fiber release or contact has been affected, explain under Comments.)

4. Condition: Water Damage: High ___ Moderate ___ Low ___ None ✓
   Physical Damage: High ___ Moderate ✓ Low ___ None ___
5. Accessibility: Less than 10 ft. ✓ More than 10 ft. ___
   Contact Potential: High ___ Moderate ___ Low ✓ None ___
   Distance to items needing maintenance:
   Electrical ___ Plumbing 5 feet Ventilation ___ Other ___
6. Internal Building Description:
   Wall Texture: Rough ___ Pitted ___ Moderately Textured ✓ Smooth ___
   Floor Type: Concrete ✓ Carpet ___ Tile ___ Wood ___ Other ___
   Ceiling Type: Concrete ___ Acoustical Tile ___ Plaster ✓ Metal Deck ___
   Suspended lay in panels ___ Concrete joist and beam ___
   Suspended metal lath ___ Other ___
7. Barriers: Suspended Ceiling ___ Encapsulation ___ Enclosure ___
   Railing ___ Other LOCKING DOORS None ___
8. Ventilation: Intake vents near friable materials(y/n) N Distance ft. ___
   Outflow vents near friable materials(y/n) N Distance ft. ___
   Plenum (y/n) N Air Erosion Evident (y/n) N
   Air Movement: High ___ Moderate ___ Low ✓
9. Activity/Movement:
   Use of Area MECHANICAL - BOILER MAINTENANCE Activity: High ___ Moderate ___ Low ✓
   What is adjacent to the area? KITCHEN
   What is above the area? ROOF
10. Population Exposed:

Number of Individuals:	Length of Exposure:	Frequency of Exposure:
Students 0	___ hrs/day	___ days/week
Staff 6	1 hrs/day	2 days/week

Comments: ASBESTOS INSULATION ON BOILERS AND TANK IS CRACKED, LOOSE, DELAMINATED AND, HENCE, HIGHLY FRIABLE INSULATION ON ELBOWS IS WRAPPED WITH NEW ASBESTOS OUTER CLOTH, ~~WHICH~~ ALL OF WHICH ARE IN GOOD CONDITION.

Conclusions (Recommendation Derived from the Detailed Asbestos Decision Protocol):
ASBESTOS ON BOILERS AND TANK IS IN BAD CONDITION. ASBESTOS INSULATION ON PIPE ELBOWS IS NOT IN BAD CONDITION, BUT POTENTIAL EXISTS FOR FUTURE IMPACT DAMAGE.
ASBESTOS MANAGEMENT PLAN SPECIFIES REMOVAL AND REPLACEMENT. INTERIM MANAGEMENT MEASURES TO BE IMMEDIATELY IMPLEMENTED.

-0 075A

CONNECTICUT DEPARTMENT OF EDUCATION

ED XXX
SCHEDULE A - AREA ASBESTOS INSPECTION REPORT
P.A. 85-541

RETURN TWO (2) COPIES TO: State Department of Education, Bureau of Grants Processing
School Facilities Unit, P.O. Box 2219, Hartford, CT 06145

FACILITY NAME: HILL AND PLAIN SCHOOL
FACILITY ADDRESS: OLD TOWN PARK RD., NEW MILFORD, CT.
INSPECTED BY (Name and Telephone): JACK S.
DATE:

AREA DESCRIPTION: PIPE TUNNELS
AREA SQUARE FEET: 2880
AREA POPULATION: 0

2.

1. Samples: Description of material sampled ~~FIBROUS~~ FIBROUS MATERIAL WITH OUTER CLOT WRAP
   Type of sample: Bulk ✓ Dust ___ Air ___
2. Type of Material: Sprayed on ___ Trowled on ___ Boiler Lagging ___
   Pipe Insulation ✓ Duct ___ Other (please explain) ___
3. Friability: High ___ Moderate ___ Low ✓ Not Friable ___ (SEE COMMENT)
   Sq. Footage Area 1258 Pipe Insulation ___ Linear Feet ___ Sq. Ft. ___

(If the potential for fiber release or contact has been affected, explain under Comments.)

4. Condition: Water Damage: High ___ Moderate ___ Low ✓ None ___ (SEE COMMEN
   Physical Damage: High ___ Moderate ___ Low ✓ None ___
5. Accessibility: Less than 10 ft. ✓ More than 10 ft. ___
   Contact Potential: High ___ Moderate ___ Low ✓ None ___
   Distance to items needing maintenance:
   Electrical ___ Plumbing 1-5' Ventilation ___ Other ___
6. Internal Building Description:
   Wall Texture: Rough ___ Pitted ___ Moderately Textured ✓ Smooth ___
   Floor Type: Concrete ✓ Carpet ___ Tile ___ Wood ___ Other ___
   Ceiling Type: Concrete ✓ Acoustical Tile ___ Plaster ___ Metal Deck ___
   Suspended lay in panels ___ Concrete joist and beam ___
   Suspended metal lath ___ Other ___
7. Barriers: Suspended Ceiling ___ Encapsulation ___ Enclosure ___
   Railing ___ Other ___ None ✓
8. Ventilation: Intake vents near friable materials(y/n) N Distance ft. ___
   Outflow vents near friable materials(y/n) N Distance ft. ___
   Plenum (y/n) ___ Air Erosion Evident (y/n) N
   Air Movement: High ___ Moderate ___ Low ✓
9. Activity/Movement:
   Use of Area ~~EMERGENCY~~ PLUMBING REPAIRS Activity: High ___ Moderate ___ Low ✓
   What is adjacent to the area? ___
   What is above the area? ___
10. Population Exposed:
    Number of Individuals: Length of Exposure: Frequency of Exposure:
    Students 0 ___ hrs/day ___ days/week
    Staff 0 [EXCEPT FOR RARE ENTRIES] ___ hrs/day ___ days/week

Comments: ~~INSULATION~~ INSULATION ON PIPE ELBOWS OBSERVED WAS INTACT ~~WITH~~ IN A NON FRIABLE CONDITION. HOWEVER, THERE IS A STRONG PROBABILITY THAT THE INSULATION ON SOME ELBOW IN THE VAST TUNNEL AREA HAS BECOME DAMAGED.

Conclusions (Recommendation Derived from the Detailed Asbestos Decision Protocol):
ASBESTOS ON PIPE ELBOWS OBSERVED WAS NOT IN BAD CONDITION; NO CURRENT HAZARD WAS FOUND, ~~ARE~~ HOWEVER, THE CONDITIONS IN THIS AREA SUGGEST A STRONG POTENTIAL FOR MOISTURE DAMAGE.

ASBESTOS MANAGEMENT PLAN SPECIFIES IMPLEMENTATION OF A MANAGEMENT / MONITORING PROGRAM.

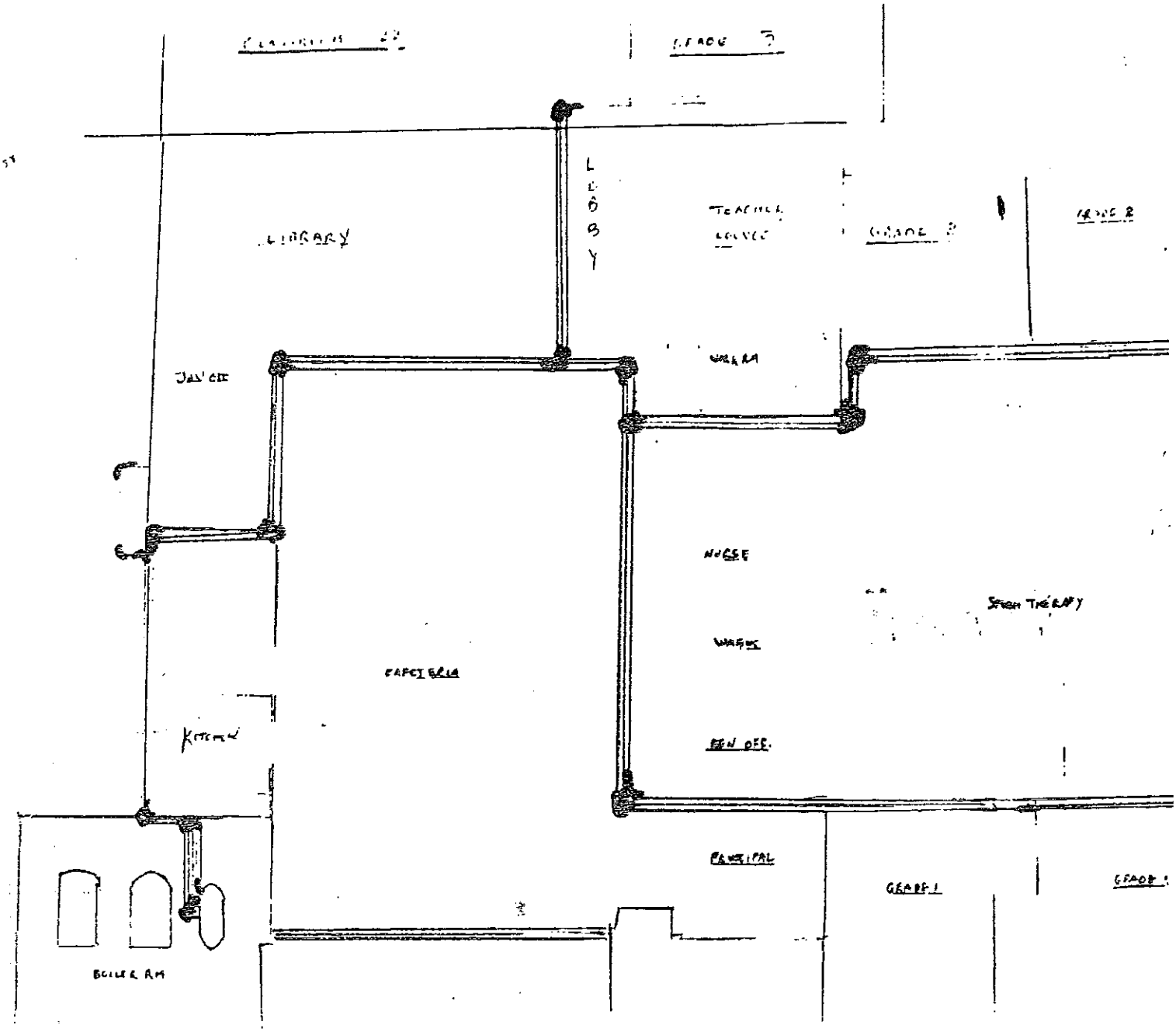
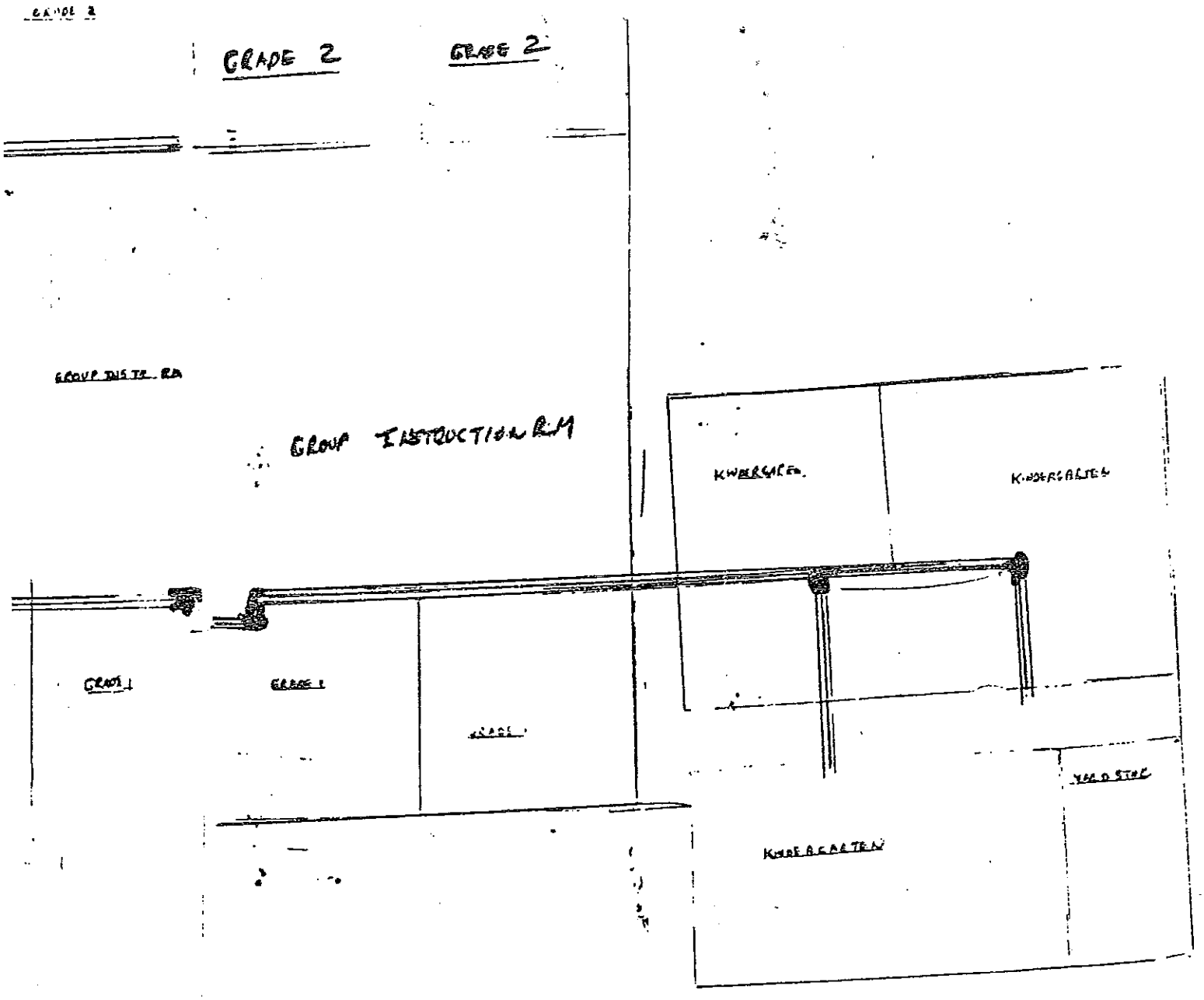


FIGURE 1 : General Diagram of the Hill and Plain School Bui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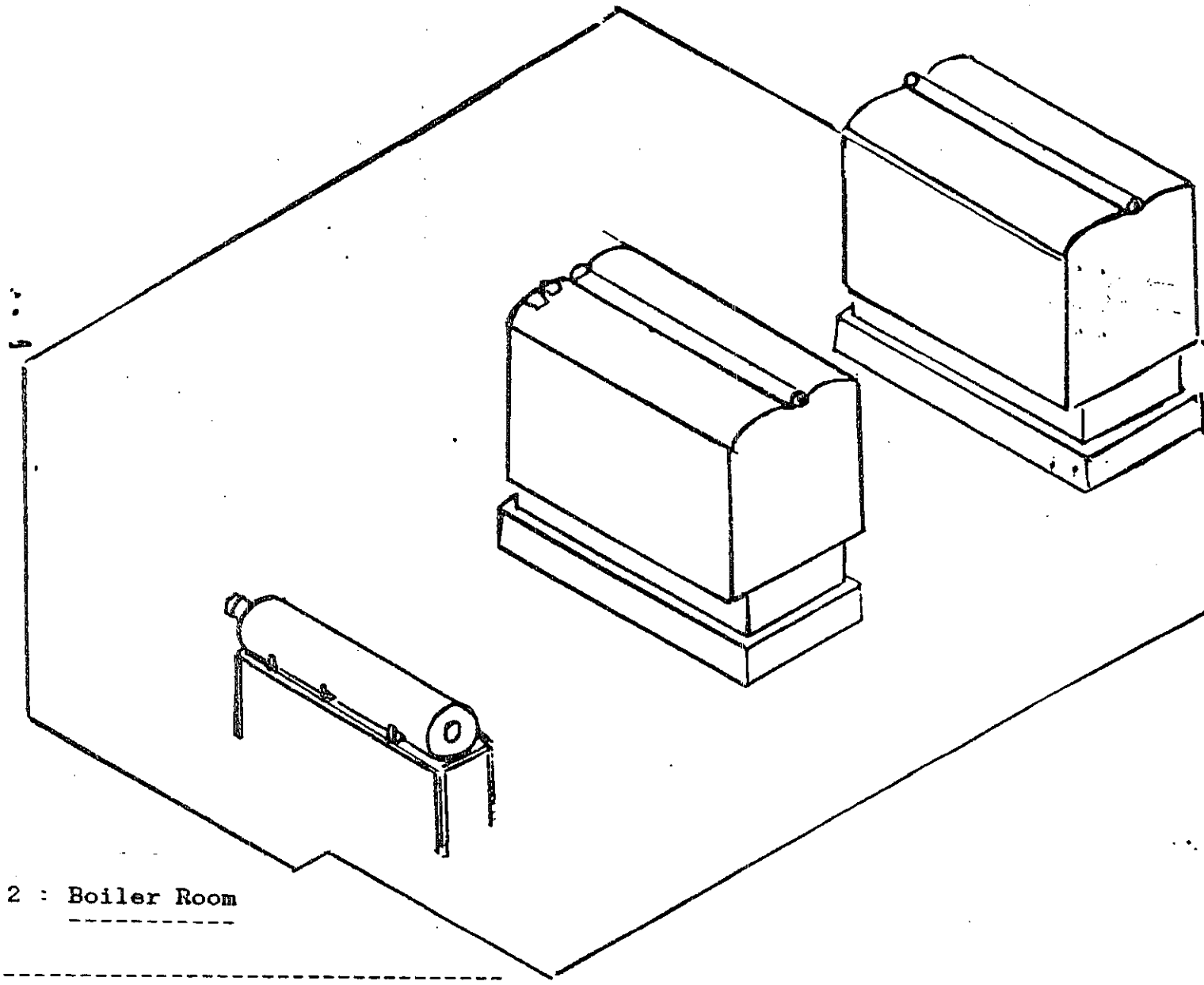


FIGURE 2 : Boiler Room

Area of Asbestos (square feet)

Boilers	-	245
Hot water tank	-	100
Pipe elbows	-	50
Total		395

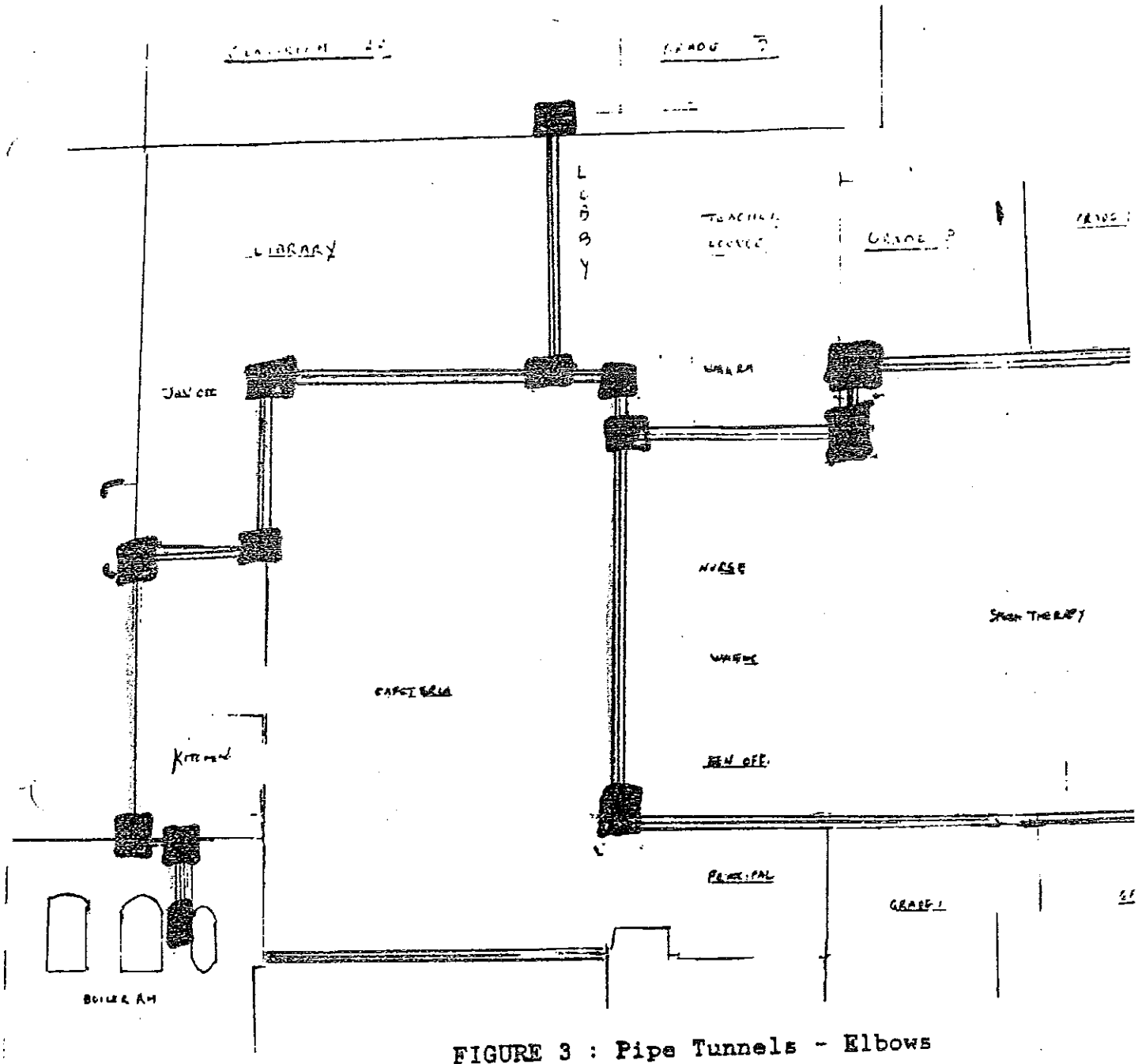


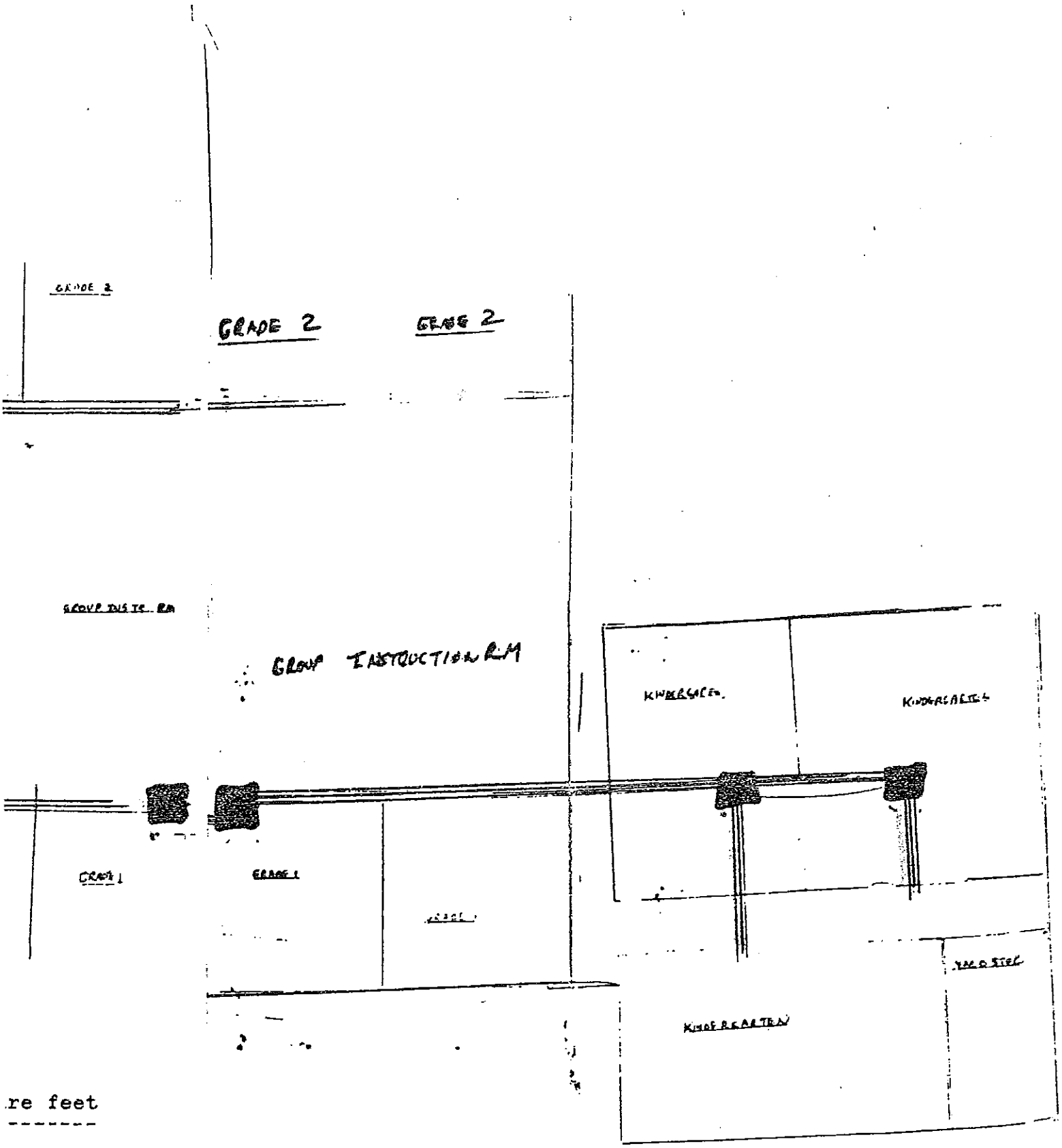
FIGURE 3 : Pipe Tunnels - Elbows

Tunnels highlighted, elbows shown in red.

Total estimated area of asbestos on elbows -

AREA SAMPLES

PIPE ELBOW (#1947-1)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re feet

into this area. These employees will have the following qualifications :

. They must participate in the employee training sessions regarding emergency operations and the use of asbestos respirators ;

. They must be medically fit to wear a respirator and able to work in the pipe tunnels ;

. They must be willing to work in the pipe tunnels to perform the assigned tasks with the proper safety precautions.

A list of the individuals designated to work in the pipe tunnels will be maintained in the main administrative office and in the maintenance office of the School District.

The final aspect of the remediation program in the tunnels is monitoring. Once per year, the management system described above, will be evaluated, the pipe tunnels will be inspected and air samples will be collected within the tunnels. These inspections will assess the degree of friability and employee exposure to the asbestos in this area. The conditions will be documented and maintained on file at the School District's main administrative office. The report of the conditions will also include an assessment of the effectiveness of the management system and a recommendation for either continuing the management/monitoring program, modifying it in some way, or abandoning the system and removing the asbestos from the tunnel area.

(2) Boiler Room.

The following interim strategy has been developed for the boiler room. These management procedures will be instituted immediately and will remain in effect until the asbestos is removed in the summer of 1987.

The management process for this area centers on work procedures and staff training. This includes the following measures :

. STAFF TRAINING. An overview on the recognition of asbestos hazards and safety precautions regarding work around large surface areas of asbestos containing materials will be emphacized.

. CONTROLLED ACCESS. Access to the boiler room will be restricted by the asbestos coordinator. Entrance into the boiler room will be restricted to maintenance personnel with assigned tasks. The doors of the boiler room will remain locked and will be placarded with a warning notice. Smoking in the boiler room will be absolutely prohibited.

. WORK PROCEDURES - BOILER ROOM. Any employee who works directly

on the boiler, stack, hot water tank, pipe elbows or any assigned task in the boiler room which requires more than a short (i.e., 15 - 30 minutes) period of time will be equipped with respiratory protection. Dry sweeping of the floors in this room will be prohibited.

G. CONTRACT SAFETY SPECIFICATIONS FOR ASBESTOS REMOVAL PROJECTS.

All of the asbestos in the boiler room in the Hill and Plain School will be removed and replaced by a contractor : this project will be conducted during the summer of 1987. This section outlines the safety specifications which will be required for the removal project in this area and describes selection criteria for hiring a contractor to do the asbestos abatement work.

PART I. GENERAL

1.1 Introduction.

Asbestos has been classified by the federal government as a carcinogenic material. These specifications are designed to maintain compliance with all governmental regulations regarding asbestos work, minimize employee exposures to airborne asbestos, and protect the building and its occupants from asbestos contamination.

1.2 Scope.

These specifications cover all safety and environmental controls and procedures which will be used during the removal of asbestos from the New Milford High School. The extent of asbestos removal is confined to the rooms and areas described in Section 6. All aspects of the removal work shall be conducted in strict accordance with these specifications.

1.3 Applicable Codes.

The contractor shall be solely responsible for conducting each project, supervising all work in a manner which will be in conformance with all federal, state and local regulations and guidelines pertaining to asbestos abatement. Specifically, the contractor shall comply with the requirements of the following agencies :

1.3.1 EPA Regulations (40 CFR Part 763) ;

1.3.2 NESHAPS Regulations (40 CFR 61, Subpart M) ;

1.3.3 OSHA Regulations (29 CFR 1910.1001 and 1926.58) ;

1.3.4 Connecticut DEP Regulations (Section 22a-209-8(i) and Section 22a-220 of the Connecticut General Statutes).

1.3.5 Connecticut Regulations regarding asbestos inspection and abatement ;

1.3.6 Connecticut Basic Building Code ;

1.3.7 Connecticut Fire Safety Code ;

1.3.8 Local health and safety codes, ordinances or regulations pertaining to asbestos remediation.

1.4 Exemptions.

Any deviations from these specifications requires the written approval and authorization from the building owner.

1.5 Contractor Qualificatiioms.

All bidders shall submit a record of prior experience in asbestos removal projects, listing no less than 10 completed jobs in the past 5 years.

PART 2 : TERMINOLOGY

2.1 ABATEMENT - Procedures to control fiber release from asbestos-containing materials; includes removal, encapsulation, and enclosure.

2.2 AIRLOCK - A system for permitting ingress and egress while assuring air movement to contaminated area from an uncontaminated area. Two curtained doorways spaced a minimum of six feet apart form an airlock.

2.3 AIR MONITORING - The process of measuring the fiber content of a specific volume of air in a stated period of time.

2.4 AIR SAMPLING PROFESSIONAL - A professional capable of conducting air monitoring and analysis schemes. This indivvidual should be a certified industrial hygienist or an environmental scientist or engineer with equivalent experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 1926.58.

2.5 AMMENDED WATER - Water to which a surfactant has been added.

2.6 ASBESTOS - the name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles.

2.7 ASBESTOS CONTROL AREA - An area where asbestos abatement operations are performed which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris.

2.8 ASBESTOS FIBERS - Those particles with a length greater than five (5) microns and a length to diameter ratio of 3 : 1 or greater.

2.9 ASBESTOS FIBERS PERMISSABLE EXPOSURE LIMIT (PEL) - The max-

imum concentration of asbestos fibers which is allowed in a work area where employees are present. The current level established by OSHA is 0.2 fibers per cubic centimeter of air as an eight (8) hour time weighted average. An employer is responsible for maintaining work areas in a manner that this standard is not exceeded.

2.10 AUTHORIZED VISITOR - Any person authorized by the building owner to enter the premises of the school building.

2.11 BUILDING OWNER - The New Milford School District. The Superintendent of the New Milford Schools (or his designee) shall represent the owner in all transactions with the contractor.

2.12 CLEAN ROOM - An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

2.13 CURTAINED DOORWAY - A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms. Two curtained doorways spaced a minimum of six feet apart form an airlock.

2.14 DECONTAMINATED ENCLOSURE SYSTEM - A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock.

2.15 ENCAPSULANT - A liquid material which can be applied to asbestos-containing material and which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

2.16 ENCAPSULATION - A specified asbestos remediation strategy involving the application of an encapsulant to asbestos-containing materials to control the release of asbestos fibers into the ambient air.

2.17 EQUIPMENT DECONTAMINATION ENCLOSURE - That portion of a decontamination enclosure system designed for controlling the transfer of materials and equipment, typically consisting of a washroom and a holding area.

2.18 EQUIPMENT ROOM - A contaminated area or a room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

2.19 FIXED OBJECT - A unit of equipment or furniture in the work areas which cannot be removed from the work area.

2.20 FRIABLE ASBESTOS MATERIAL - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized

or reduced to powder by hand pressure, and, which releases asbestos particles to the environment. Covering by an impermeable, intact surface precludes friability.

2.21 GLOVEBAG TECHNIQUE - A method for removing small amounts of asbestos-containing materials from HVAC ducts, short piping runs, elbows, valves, joints and other non-planar surfaces in a self-contained work area.

2.22 HEPA FILTER - A high efficiency particulate air (HEPA) filter in compliance with ANSI Z9.2-1979.

2.23 HEPA VACUUM EQUIPMENT - Vacuum equipment with a HEPA filter system for filtering the effluent air from the unit.

2.24 HOLDING AREA - A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.

2.25 INSPECTOR - An individual, retained by the Owner, who is a "qualified asbestos inspector" as defined by the State of Connecticut Department of Health Services, and who will be responsible for overseeing and enforcing all of the specifications during the asbestos remediation projects.

2.26 MOVABLE OBJECT - A unit of equipment or furniture in the work area which can be removed from the work area.

2.27 NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a contaminated area (negative with respect to adjacent uncontaminated areas) and capable of maintaining a constant, low velocity air flow into contaminated areas from adjacent uncontaminated areas.

2.28 NOTICE OF DISCHARGE - A formal discharge of the contractor by the building owner and nullification of the contract.

2.29 NOTICE OF NON-COMPLIANCE - A process to be followed in the course of a violation hearing, whereby the building owner, upon determining that the specifications have been breached, informs the contractor that he (she) has 24 hours to correct the violations noted by the inspector, subsequent to a discharge procedure.

2.30 NOTICE OF VIOLATION - An enforcement procedure by which the inspector informs the contractor to immediately cease all removal or remediation work in the building and to immediately implement clean-up procedures. The notice of violation will be followed by a hearing with the building owner within 24 hours.

2.31 PLASTICIZE - To cover floors and walls with plastic sheeting as specified herein.

2.32 REMOVAL - All procedures, specified herein, which are

necessary to remove asbestos-containing materials from the designated areas and to transport and dispose of these materials at an acceptable site.

2.33 SHOWER ROOM - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold running water and suitably arranged for complete showering during decontamination. The shower room comprises an airlock between the contaminated area and the clean area.

2.34 STRIPPING - Taking off asbestos materials from any structural member, pipe surface or HVAC equipment.

2.35 SURFACTANT - A chemical wetting agent added to water to improve penetration into asbestos-containing materials.

2.36 VIOLATION HEARING - A formal process whereby the building owner holds a conference with the contractor and the inspector to review violations of the specifications noted during the project, in order to ascertain whether the project contract has been breached.

2.37 WASHROOM - A room between the work area and the holding area in the equipment decontamination enclosure with provisions for storage of contaminated clothing and equipment.

2.38 WET CLEANING - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened by water, and by afterwards disposing these cleaning items as asbestos contaminated waste.

2.39 WORK AREA - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are occurring and which may become contaminated as a result of such abatement actions. The work area must be totally self contained by sealing, plasticizing and equipping the area with a decontamination enclosure system.

2.40 WORKER DECONTAMINATION ENCLOSURE SYSTEM - That portion of a decontamination enclosure system designated for controlled passage of workers, and other personnel and authorized visitors, typically consisting of a clean room, a shower room, and an equipment room.

2.41 WORK STOPPAGE CLEANUP PROCEDURE - A process following the completion of the project or following the issuance of a notice of violation, whereby the contractor thoroughly cleans and decontaminates the work area, the decontamination enclosure system, and any other areas of the building affected by the removal project, to the satisfaction of the inspector.

2.42 WORK ZONE - The area of the decontamination enclosure sys-

tem where asbestos is being removed.

PART 3 : DESCRIPTION OF WORK

3.1 Locations and Work Statement

The specific sites for asbestos remediation are described in Part 6 of these specifications. The contractor shall retain full ownership of all asbestos containing materials in these specific locations and is responsible for removal, transport, and disposal of the asbestos in accordance with these specifications.

3.2 Chain of Command

3.2.1 Responsible Authority.

The Owner, represented by the Superintendent of Schools, (or his designee), is the ultimate authority in the discharge of this contract. All deliberations regarding the contract or the degree of compliance with the specifications, shall be ultimately decided by the owner.

3.2.2 Inspector.

The owner shall retain an asbestos inspector to oversee all work performed under this contract and to enforce the provisions of these specifications. The inspector shall have the authority to issue a notice of violation to the contractor and temporarily stop all further work if the air quality of the building is affected by the removal operation. The inspector may also function as the air sampling professional, if he/she is qualified under the terms defined herein.

3.2.3 Air Sampling Professional.

The owner shall retain an air sampling professional to conduct the air monitoring tasks outlined in section 5.4.3.1 of these specifications. If the owner retains a separate individual as the air sampling professional (in addition to the inspector), he/she shall report directly to the inspector. All determinations of air quality contamination shall be made by the air sampling professional.

3.2.4 Project Supervision.

With the exception of the process outlined in part 3.5.3 - 3.5.5 of these specifications, the contractor shall report to the inspector as the School District's manager of the project.

3.3 Contractor Responsibilities.

The work specified in this contract entails the remov-

al of asbestos-containing materials and the replacement of such materials with a suitable non asbestos product. This work shall be done by persons who are knowledgeable, qualified, and experienced in the removal, treatment, handling, and disposal of asbestos-containing materials and the subsequent cleaning of the environment. The contractor selected must comply with all applicable federal, state, and local regulations which mandate work practices and shall be capable of performing the work of this contract within the specified timeframe.

The contractor shall supply all labor, materials, equipment, services, insurance, and incidentals which are necessary or required to perform the work in accordance with all applicable governmental regulations and the specifications of this contract.

3.4 Performance Bond.

Before commencing work, the contractor shall post a performance bond in the amount and form specified in the general contract. In the event of an issuance of a notice of discharge, the owner reserves the right to use the bond to complete any unfinished work specified by this contract and adequately clean and/or decontaminate the work area and the building of asbestos to make it fit for occupancy.

3.5 Procedure for Resolving Documented Violations.

In the event that the inspector determines a violation of these specifications, the following procedures shall be employed to resolve and correct the areas of non compliance :

3.5.1 The inspector shall adequately document deviations from these specifications and immediately inform the contractor of the conditions which require correction. The contractor shall be given a reasonable period of time to correct these conditions.

3.5.2 If the violations continue unabated, the inspector shall issue a notice of violation to the contractor. After receiving the notice of violation, the contractor shall immediately cease all removal operations and effectuate a work stoppage cleanup procedure.

3.5.3 Within 24 hours of the issuance of a notice of violation, a hearing shall be conducted by the owner, with the contractor and the inspector in attendance. The owner shall review the documented violations with the objective of resolving the problems which resulted in the violations noted by the inspector. When the issues are fully resolved, removal work can resume under the conditions established by the building owner.

3.5.4 If the building owner sets conditions to correct the

violations which the contractor is unwilling or unable to accomplish, the owner shall issue a notice of non-compliance.

3.5.5 If the correction conditions established by the owner are not initiated within 24 hours, the building owner shall issue a notice of discharge to the contractor, which immediately abrogates the contract.

PART 4 : WORK PREPARATION.

Prior to the initiation of the removal work, the following tasks must be completed by the contractor :

4.1 Work Site Safety Plan.

The contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following :

4.1.1 Evacuation of injured workers.

4.1.2 Emergency and fire exit routes from all work areas.

The contractor is responsible for training all workers in these procedures.

4.2 Notifications, Postings, and Submittals.

The contractor will make the following notifications, and provide the following submittals 10 days prior to the commencement of removal work :

4.2.1 Environmental Protection Agency (EPA)

Submit notification to the Regional EPA NESHAPS Coordinator at this address :

Director, Enforcement Division
Air and Hazardous Materials Division
Pesticides and Toxic Substances Branch
USEPA Region 1
Boston, Massachusetts 02203

The minimum information required in the notification includes the following :

. Name and address of the owner ;
. Building Location ;
. Building size, age, and use ;
. Amount of friable asbestos ;
. Work schedule, including proposed start and completion dates ;
. Asbestos removal procedures ;

. Name and location of disposal site for generated friable asbestos waste.

4.2.2 State Department of Education.

Send written notice of any project which involves the removal of more than 160 linear feet or 260 square feet of asbestos containing material to the Connecticut State Department of Education at the following address :

Chief, Bureau of Grants Processing
Room 325, State Office Building
State Department of Education
165 Capitol Avenue
Hartford, Connecticut 06106

The following information must be submitted :

. Name and address of building owner ;
. Building location ;
. Building size, age and use ;
. Amount of friable asbestos ;
. Work schedule, including proposed start and completion dates ;
. Asbestos removal procedures ;
. Name and location of disposal site for generated friable asbestos.

4.2.3 Transport and Disposal.

Submit proof, satisfactory to the owner, that all required permits, site locations, arrangements for transport and disposal of asbestos containing or asbestos contaminated materials and supplies have been obtained.

4.2.4 Work Zone Construction Plan.

Submit to the owner plans and/or shop drawings for the construction of decontamination enclosure systems and for the isolation of work areas as may be necessary in compliance with these specifications and applicable regulations.

4.2.5 Certification of Compliance Record for Past Projects.

Contractor must submit a written statement regarding whether he/she has ever been found out-of compliance with pertinent Federal and State asbestos regulations pertaining to removal. transport, disposal or other environmental or safety considerations.

4.2.6 Employee Training.

Submit documentation to the owner indicating that each employee has had instruction on the hazards of asbestos exposure, on the proper use and fitting of respirators, on protect-

ive dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures. This documentation must include a signed statement by each employee who will perform the removal work in the School that he/she understands these instructions and is willing to comply with these procedures and perform all work in accordance with these specifications.

The contractor must also submit verification that all employees have received medical examinations as required by OSHA regulations.

4.2.7 Postings.

The contractor shall post signs in and around the work area to comply with 29 CFR 1910.1001 and 1926.58. Post one copy of each of the following documents at the work site :

- Title 29, Code of Federal Regulations, Part 1910.1001 and 1926.58 OSHA Asbestos Standards.
- Title 40, Code of Federal Regulations, Part 61, Subparts A and B, NESHAPS.

4.2.8 Condition of Fixtures.

The owner and contractor must agree, in writing, on the condition of the building and fixtures. A photograhic record of major fixtures is required.

4.2.9 Certification of Exhaust Equipment.

The contractor must submit the manufacturer's certification that vacuums, negative air pressure equipment, and other local exhaust / ventilation equipment conform to ANSI Z9.2-1979.

4.2.10 Rental Equipment.

When rental equipment is to be used in removal areas or to transport waste materials, the contractor shall provide documentation to the owner that written notification has been provided to the rental company informing them of the nature of use of the rented materials.

4.2.11 Equipment and Supplies.

The contractor shall provide a list of all essential materials, equipment and supplies which have been purchased to conduct the remediation project. This list shall also include the insulation material which will be used by the contractor to replace the asbestos which will be stripped from all surfaces in the boiler room.

All materials, equipment, and supplies shall be adequate to conduct the remediation project in accordance with these spec-

ifications and shall be acceptable to the owner.

4.3 Preliminary Conference

Prior to the commencement of asbestos removal work, a conference will be held between the owner, the contractor, and the inspector. The objectives of this conference are as follows :

. Contractor submits to the owner copies of all submittals and notifications outlined above ;

. Contractor and inspector review the work plan and inspection procedures established in the specifications ;

. All parties agree to work standards, roles and time schedules established in contract specifications.

Asbestos removal work may proceed when the owner specifically authorizes the initiation of the project, in writing.

PART 5 : EXECUTION OF WORK.

5.1 Work Standards.

The contractor is responsible for maintaining work conditions at all times in conformance with OSHA standards and asbestos removal guidelines established by the Connecticut Department of Health Services. This includes the following :

5.1.1 Personnel Protection Equipment.

All employees shall be provided with and trained in the proper use of all equipment, respirators and supplies to minimize exposure to asbestos during work operations as specified in Section 1.6.1 - 1.6.7 of the document entitled "CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES MODEL CONTRACT SPECIFICATIONS FOR ASBESTOS ABATEMENT AT PUBLIC SCHOOL BUILDINGS ", published by the Connecticut Department of Health Services.

5.1.2 Worker Protection Procedures.

All employees, inspectors, authorized visitors, or any individual who enters the work zone shall conform to the procedures established in Section 1.6.8.1 - 1.6.8.3 of the document entitled " CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES MODEL CONTRACT SPECIFICATIONS FOR ASBESTOS ABATEMENT AT PUBLIC SCHOOL BUILDINGS ".

A copy of these procedures shall be posted at all points of entry to the work zone. The contractor is responsible for limiting access to the work zone to individuals who abide by these procedures. The inspector shall oversee the control over entry into the work zone and shall enforce these procedures

when necessary.

5.2 Decontamination Enclosure System.

Before initiating work on any given day, a properly constructed decontamination enclosure system shall be in place at all points of entry into the work zone. The inspector shall evaluate and approve the integrity of the enclosure system(s) prior to the commencement of asbestos removal work on any given day.

5.2.1 Features.

The enclosure system shall be constructed with suitable Building Code conforming framing and built according to the drawings specified in the contractor's "Work Zone Construction Plan" as submitted according to part 4.2.4 of these specifications. The contractor shall, at all times, maintain the decontamination enclosure system with a proper functioning worker decontamination enclosure (with an integral equipment room, shower room, and a clean room), an equipment decontamination enclosure (with an integral washroom and holding area) and highly visible, controlled, and properly posted entry points.

In all cases, access between contaminated and uncontaminated areas shall be through an airlock. In all cases, access between any two rooms within the decontamination enclosure system shall be through a curtained doorway.

5.2.2 Maintenance and Monitoring of Enclosure Systems.

The contractor shall create and maintain a pressure differential between work areas and occupied areas by the use of negative air pressure equipment. Such equipment shall be maintained at the work site at all times in a properly functioning condition. This equipment shall be equipped with a high efficiency particulate filtration system, shall be sized to provide four air changes per area in the work area and shall conform to ANSI Z9.2 - 1979. The equipment shall feature an automatic shutdown of the system and/or warning lights to indicate improper pressure drop across the filters.

The air sampling professional shall periodically monitor the integrity of the negative air pressure equipment and shall conduct periodic chemical smoke tests to verify the effectiveness of the enclosure system. If any of these tests indicate a breakdown in the integrity of the decontamination enclosure system's negative pressure system, the inspector shall immediately inform the contractor to cease all removal operations. The contractor shall take immediate steps to reestablish negative pressure in the enclosure system. When the air sampling proffessional verifies the proper functioning of pressure in the enclosure system, asbestos removal work can resume.

5.3 Sequence of Work.

The removal project shall proceed in accordance with the sequence of work established during the preliminary conference as mutually agreed upon between the contractor and the owner, and in accordance with the schedule delineated in part 7 of these specifications.

5.4 Control Over Removal Work.

All work procedures shall be continuously controlled and monitored to assure that the building will not be contaminated. The following controls shall be instituted on each working day :

5.4.1 Start-Up.

Prior to work on any given day, the contractor's designated project foreman shall discuss the day's work schedule with the inspector to evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination of the building or the employees. This includes a visual survey of the work area and the decontamination enclosure systems.

5.4.2 Access.

The contractor shall maintain control of access to all work areas to ensure the following requirements :

. Unauthorized personnel are prohibited from entering the area ;

. All authorized personnel entering the work area shall read the "worker protection procedures" which are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing ;

. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated ;

. Asbestos waste which is taken out of the work area must be properly bagged and labelled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos leaving the enclosure system must be immediately transported off site or immediately placed in temporary storage on site, in accordance with the requirements described in part 5.4.5 of these specifications.

. Any material, equipment, or supplies which are brought out of the decontamination enclosure system shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

The inspector shall be responsible for monitoring the integrity of this system of access control and shall immediately inform the contractor of any deviations from the above requirements. The inspector shall also have the authority to mandate

immediate corrections to the control of access which are necessary to prevent the building from becoming contaminated with asbestos.

5.4.3 Air Quality Monitoring.

Air sampling shall be conducted by the owner to ascertain the integrity of controls which protect the building from asbestos contamination. Independently, the contractor shall monitor air quality within the work zone to ascertain the protection of employees and to comply with OSHA regulations.

5.4.3.1 Owner's Responsibility.

The owner's air sampling professional shall collect and analyze air samples during three time periods :

. Pre-abatement Sampling Period. The air sampling professional shall collect a sufficient number of air samples, inside and outside of the work area, to establish background air quality conditions. At least one sample will be taken outside of the building.

. Abatement Period. Samples shall be taken on a daily basis during the work period. A sufficient number of area samples shall be taken inside the work area and decontamination enclosure system, outside of the work area, at the exhaust of the negive pressure system, and outside of the building to judge the degree of cleanliness or contamination of the building during removal.

The air sampling professional shall provide a continual evaluation of the air quality of the building during removal, using his/her best professional judgements in perspective of the State Department of Health Services guideline of .01 fibers/cc. and the background air quality established during the pre-abatement period. If the air sampling professional determines that the building air quality has become contaminated from the project, the inspector shall immediately inform the contractor to cease all removal operations and implement a work stoppage clean-up procedure. The contractor shall conduct a thorough cleanup of areas of the building designated by the inspector. No further removal work can take place until the air sampling professional has determined that the building air has been decontaminated.

. Post Abatement Period. The air sampling professional shall conduct air sampling following the final cleanup phase of the project, once the "no visible residue" criterion has been met. A sufficient number of samples, collected aggressively, will be taken to determine the final air concentration, in perspective of the "clearance guideline" of .01 fibers / cc.

5.4.3.2 Contractor Responsibility.

The contractor shall independently retain an air sampling professional to monitor airborne asbestos concentrations in the work zone and to establish conditions and work procedures for maintaining compliance with OSHA regulations 29 CFR 1910.1001 and 1926.58.

The contractor's air sampling professional shall document all air sampling results and provide a report to the inspector within 24 hours after each work day.

5.4.3.3 Air Sampling Methods.

All air sampling shall be conducted in accordance with methods described in OSHA standards 29 CFR 1910.1001 and 1926.58. All air samples shall be conducted in a manner that will provide a minimum detection limit of .01 fibers / cc.

5.4.4 Asbestos Removal Procedures.

The contractor shall be responsible for the safe and methodical removal of asbestos from the work zone. All removal procedures shall be in conformance with section 3.2.2 - 3.2.5 of the document entitled, " CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES MODEL CONTRACT SPECIFICATIONS FOR ASBESTOS REMOVAL AT PUBLIC BUILDINGS ", published by the Connecticut Department of Health Services. At all times, negative pressure shall be maintained in the work zone, relative to the building outside of the decontamination enclosure system.

The inspector shall make periodic evaluations of removal work procedures and shall enforce all safety procedures which are outlined (or referenced) in these specifications.

5.4.5 Asbestos Waste.

All asbestos waste shall be bagged in 6 mil plastic, labeled with danger placards as specified in 29 CFR 1910.1001 (g) (2), and transported to a landfill facility which is approved by the Department of Environmental Protection for disposal of asbestos.

Asbestos may be temporarily stored on the owner's premises outside of the work zone under the following circumstances :

. The bagged asbestos is thoroughly cleaned off by wet sponging the surface of the bag in the washroom of the decontamination enclosure system ;

. The bagged asbestos taken out of the decontamination enclosure system shall be immediately placed in a dumpster with a locking metal cover. At the end of each work day the top of the dump-

ster shall be closed and locked ;

. The dumpsters are placed in an area of the property designated by the owner. The owner reserves the right to require the contractor to move the dumpster to a different location or to order them to be removed from the premises. In no case shall the asbestos remain on the owner's premises longer than 72 hours after the completion of the project.

The asbestos shall be transported and disposed in accordance with Section 22a-209-8(i) of the administrative regulations of the Department of Environmental Protection and Section 3.7.1 of the document entitled, " CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES MODEL CONTRACT SPECIFICATIONS FOR ASBESTOS ABATEMENT AT PUBLIC SCHOOL BUILDINGS ", published by the State of Connecticut Department of Health Services.

5.4.6 End of Day Clean-up.

At the completion of each work day, a work stoppage clean-up procedure will be conducted by the contractor. The purpose of this clean-up is to remove all loose asbestos from the work zone and to inhibit the release of fibers to the air in the work room. This procedure should include the following steps :

. Bagging of all loose asbestos and decontamination of the bag surfaces in the washroom of the decontamination enclosure ;

. Wet cleaning of the floor of the work zone ;

. Visual inspection of the entire work zone for areas of loose asbestos ;

. Securing the work zone. This entails the sealing and posting of the decontamination enclosure system and locking the doors of the room where the removal is taking place.

5.5 Final Clean-up of Work Zone.

Following the completion of all asbestos removal work in a given area, the following clean-up, inspection and clearance procedure will be followed by the contractor and the inspector :

5.5.1 Initial Clean-up.

Following the last day of asbestos removal, the work stoppage clean-up procedure will be instituted, followed by a wet cleaning of all surfaces in the work zone. All visible accumulations of asbestos material and debris will be removed at this stage.

5.5.2 HEPA Vacuum Clean-up.

After the initial clean-up, the contractor shall allow all areas of the work zone to dry, and will clean all surfaces with a HEPA filtered vacuum. After this clean-up, the contractor shall wait 24 hours and then shall reclean all surfaces with a HEPA filtered vacuum.

After the second clean-up, the inspector shall evaluate the adequacy of the decontamination process. If the inspector finds visible accumulations of dust or bulk asbestos containing materials in the work zone, the contractor shall repeat the cleaning, at his/her expense, until the area is declared as clear of visible accumulations of dust and asbestos.

Following the inspector's initial clearance of the work zone, the contractor shall remove the outer layer of plastic from the walls and floors, but shall keep the windows, doors and HVAC vents sealed. The decontamination enclosure system and the negative pressure system shall remain in place. Other equipment, materials, and sealed drums (previously cleaned as above) shall be removed from the equipment decontamination enclosure system at an appropriate time in the cleaning sequence.

5.5.3 Initial Clearance Test.

Twenty four hours after the work zone is totally dismantled, after all of the contractor's equipment, supplies and waste (including the outer layer of plastic) have been removed from the room, the inspector shall make a final visual inspection of the work area. If this inspection reveals no visible dust, the contractor shall remove the second layer of plastic sheeting and all barriers, with the exception of the plastic over the windows and the barrier between the work zone and the outside.

The air sampling professional shall, at this stage, conduct the post abatement air monitoring. The maximum acceptable levels for these air samples shall be .01 fibers / cc. or less, or a level equal to or less than the average asbestos level determined in the initial background samples taken outside the building.

Areas which do not comply with the standards specified above shall continue to be cleaned by the contractor at his / her expense until the specified standard is achieved as evidenced by the results of air testing.

5.5.4 Reinstallation of Displaced Equipment.

After the inspector has cleared the work area as clean from visible dust, and after the air sampling professional has determined that the area has achieved background air quality relative to the standards specified above, all remaining seals and barriers shall be dismantled by the contractor.

The contractor shall relocate all objects, which were

moved to temporary locations during the course of the work, back to their proper positions. The contractor shall resecure mounted objects, which were removed during the course of the project, back to their former positions. The contractor shall reestablish HVAC, mechanical and electrical systems, which were temporarily shut down during the project, in conformance with all applicable building, mechanical and electrical codes. All existing filters shall be disposed, as asbestos contaminated, and replaced with new filters.

PART 6 : LOCATIONS OF ASBESTOS REMOVAL PROJECT IN THE HIll AND PLAIN SCH
OOL,

Asbestos is to be removed in in the boiler room of the building. The contractor is responsible for removing all asbestos from this location.

6.1 Boiler Room.

Figure 2 illustrates the sites and approximate areas where asbestos was discovered in this room. The contractor is responsible for removing all of the asbestos in this room. All of the asbestos in this room shall be removed in accordance with the specifications described in this document.

Following the removal of asbestos, the boilers, the hot water tank, the pipe elbows, and all surfaces where asbestos was stripped shall be reinsulated by the contractor with a suitable replacement material.

PART 7 : SCHEDULE.

Asbestos removal shall commence after July 1, 1987, after the building owner authorizes the initiation of the project. The removal projects shall take place when school classes are out of session. Under no circumstances shall asbestos be removed while non essential staff are present in the building.

All asbestos shall be removed from the building by August, 1, 1987. All cleaning and inspections, air sampling, and recleaning shall be completed no later than August 15, 1987. The contractor shall not be released from the job until the following clearances have been obtained :

7.1 Inspection Clearance.

The inspector shall declare the project areas and all areas in the building that were affected by the project as "clean", when all visible accumulation of asbestos and dust have been removed from these locations.

7.2 Air Quality Clearance.

The air sampling professional shall declare the air quality in the building as acceptable for occupancy when the post abatement air sample analyses indicate that airborne asbestos have achieved background levels (or better) according to the standards established in these specifications.

7.3 Final Reoccupancy Clearance.

The building owner will perform a reoccupancy inspection of all work areas to ascertain the general condition of the rooms and the fixtures and to evaluate the quality of any reinsulation, restoration or replacement of materials required where the asbestos has been removed.

The owner shall declare the areas as acceptable for reoccupancy when he is satisfied that all aspects of the contractor's work have been completed to his satisfaction.

The entire building shall be ready for reoccupancy by no later than August 24, 1987. Any deviations or extensions of this schedule shall require the written authorization from the building owner.

GUIDE FOR THE SELECTION OF A CONTRACTOR

The thoroughness and the degree of safety involved in an asbestos removal project depend largely upon the experience and competence of an asbestos remediation contractor. There are currently no state or federal regulations which review or license the contractors who perform this work. Therefore, it is extremely important that the School District thoroughly reviews the qualifications of prospective bidders for the removal project. This section outlines criteria for selecting the best contractor to perform the work. There are two phases involved in the process : the initial screening of companies interested in submitting a proposal for the work and the detailed review of contractors qualifications.

PHASE I : INITIAL REVIEW OF APPLICATIONS FOR A PROPOSAL.

This stage pertains to the initial screening of contractors who are interested in submitting a proposal to perform the asbestos remediation in the schools. The School District should initially advertise for a qualifications statement from prospective bidders. The qualifications statement should include the following information :

A. Record of experience in asbestos removal with names of the building owners of past projects;

B. Names and training of personnel who would perform the removal work;

C. Any record of violations of federal or state asbestos regulations over the past ten years ;

D. Affadavit regarding any projects which were prematurely terminated due to contract violations or building contamination incidents.

E. Statement of liability insurance coverage ;

F. Other information pertinent to asbestos removal.

The School District should carefully scrutinize these qualifications and select a list of qualified firms to submit a full proposal for the removal projects. The review should include a check of all references from previous projects which includes phone contacts to the building owners or the clerk of the works or inspectors of these projects to discuss the quality of work performed by the contractor. The affadavit regarding past violations should be checked by contacting the Environmental Protection Agency's Region I Asbestos Coordinator, OSHA, and the Connecticut Department of Health Services.

PHASE II : SELECTION OF THE CONTRACTOR.

When a list of qualified contractors is obtained, the School District should invite these firms to review all areas of the buildings which are scheduled for remediation. After a tour of all of the areas, followed by a question and answer period, the contractors will be instructed to develop a full proposal for all asbestos remediation described in the contract specifications with a bid quote for the project.

The final stage of screening before selection occurs is an interview process with one or more firms whose proposals are considered superior to the School District. The screening committee should be composed of 3 - 5 individuals including the Superintendent of Schools, the School District's Business Manager, and an asbestos inspector. The interview should include a discussion of the scope of the projects, the schedule, strategies for remediation, equipment available and other issues pertinent to completing the project in accordance with the specifications of the contract.

The selection should be based both on the competetiveness of the cost and the competence of the firm in safely completing each project in a timely manner. However, in no case should any question regarding the contractor's qualifications be superceded by a relatively lower cost.