



**U.S. Army Corps of Engineers
Philadelphia District**

***Volume I - Building Reports for a
Comprehensive Asbestos
Survey in Various Buildings at
Fort Monmouth, New Jersey***

Contract Number DACA61-89-D-0013

June 1991

Prepared for:

U.S. ARMY ENGINEER DISTRICT
U.S. Custom House
Philadelphia, Pennsylvania 19106

C55

Prepared by:



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West Chester,
Pennsylvania 19380

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**BUILDING REPORTS
FOR A COMPREHENSIVE ASBESTOS SURVEY
IN VARIOUS BUILDINGS AT
FORT MONMOUTH, NEW JERSEY**

VOLUME I

CONTRACT NO. DACA61-89-D-0013

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U.S. ARMY CORPS OF ENGINEERS

Philadelphia, Pennsylvania

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Prepared By:

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Weston Work Order No. 3886-41-05

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205

BARRACKS BUILDING

BARRACKS BUILDING**205.1 GENERAL**

Building 205 was surveyed by WESTON technicians on 7 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 205.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 24 samples of suspect material collected from the building. Of these samples, 12 were found to be asbestos-containing materials (ACM). Table 205.1 lists the analytical results for the bulk samples.

205.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 205 are presented in Table 205.1. An area-by-area inventory of ACM is provided in Tables 205.2 and 205.3. "Other Asbestos-Containing Materials," listed in Table 205.3, are materials that do not correspond to the standard caption categories listed in Table 205.2. A prioritized listing of exposure assessments is presented in Table 205.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 205.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 205.2 and 205.5.

205.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- The mechanical room and the 2nd floor men's latrine in Building 205 qualify for the Army Asbestos Deficiency Abatement Project.
- Other asbestos-containing materials should be labeled under the O&M Program.

TABLE 205.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 205, BARRACKS

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH041	STOREROOM BASEMENT,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	NO
FH042	STOREROOM BASEMENT,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH043	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	15	15	-	YES
FH044	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	20	15	-	NO
FH045	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	35	-	-	YES
FH046	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	40	-	-	NO
FH047	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	-	-	-	YES
FH048	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	50	-	-	YES
FH049	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH050	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	40	-	-	YES
FH051	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES
FH052	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES
FH053	1ST FLOOR DAY ROOM,BELOW CEILING	CEILING BOARD	WHITE,OTH,2X4 CL BRD	-	-	-	NO
FH054	1ST FLOOR DAY ROOM,BELOW CEILING	CEILING BOARD	WHITE,OTH,2X4 CL BRD	-	-	-	YES
FH055	1ST FLOOR DAY ROOM,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL	3	-	-	YES
FH056	1ST FLOOR DAY ROOM,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL	5	-	-	YES
FH057	1ST FLR TR'NG OFFICE,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	3	-	-	YES
FH058	1ST FLOOR ROOM 126,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FT	-	-	-	YES
FH059	2ND FLR HALL E. END,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	YES
FH060	2ND FLR MENS LATRINE,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	40	-	-	YES
FH061	2ND FLR MENS LATRINE,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	-	-	-	YES
FH062	2ND FLR LAUNDRY ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	NO
FH063	2ND FLR LAUNDRY RM.,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	NO
FH064	3RD FLOOR HALLWAY,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	7	-	-	NO

^a Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 205.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 205, BARRACKS

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1st Floor Day Room	-	-	-	-	-	-	-	-	-	1.10	-	-	-
1st Flr Area I S-End	-	-	-	-	-	-	-	-	-	3.00	-	-	-
1st Flr Tr'ng Office	-	-	-	-	-	-	-	-	-	0.40	-	-	-
2nd Flr Hall & Rooms	-	-	-	-	-	-	-	-	-	6.40	-	-	-
2nd Flr Hall E. End	-	-	-	-	-	-	-	-	-	0.20	-	-	-
2nd Flr Mens Latrine	-	-	-	-	12	-	-	-	-	-	-	-	-
3rd Floor Hallway	-	-	-	-	-	-	-	-	-	0.30	-	-	-
3rd Flr Hall & Rooms	-	-	-	-	-	-	-	-	-	6.10	-	-	-
Baggage Rm. Basement	-	-	-	-	80	-	-	-	-	-	-	-	-
Mechanical Room	1	-	-	-	162	-	-	-	-	-	0.28	-	-
TOTALS	1	-	-	-	254	-	-	-	-	17.50	0.28	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 205.3

Other Asbestos-Containing Material - Building 205
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

205-5

TABLE 205.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 205, BARRACKS

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH060	2nd Flr Mens Latrine	<4" PIPE RUN	C	3.180E04	2	3	1	2	12	20.00	40
FH046	Mechanical Room	BOILERS/TANKS	C	4.150E03	3	3	2	2	1	2.00	40
FH048	Mechanical Room	<4" PIPE RUN	C	4.150E03	3	3	2	2	1	2.00	50
FH050	Mechanical Room	<4" PIPE FITTING	C	4.150E03	3	3	2	2	1	2.00	40
FH043	Mechanical Room	BOILERS/TANKS	C	1.500E03	3	3	2	2	1	2.00	30
FH044	Mechanical Room	BOILERS/TANKS	C	1.500E03	3	3	2	2	1	2.00	35
FH045	Mechanical Room	BOILERS/TANKS	C	1.500E03	3	3	2	2	1	2.00	35
FH048	Baggage Rm. Basement	<4" PIPE RUN	A	2.500E-2	2	1	1	1	1	1.00	50
FH041	Baggage Rm. Basement	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH041	Mechanical Room	<4" PIPE FITTING	A	0	3	3	2	2	1	2.00	0
FH041	Storeroom Basement	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH042	Storeroom Basement	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH047	Mechanical Room	<4" PIPE RUN	A	0	3	3	2	2	1	2.00	0
FH049	Mechanical Room	<4" PIPE FITTING	A	0	3	3	2	2	1	2.00	0
FH051	Mechanical Room	4-8" PIPE FITTING	A	0	3	3	2	2	1	2.00	0
FH052	Mechanical Room	4-8" PIPE FITTING	A	0	3	3	2	2	1	2.00	0
FH053	1st Floor Ceiling	CEILING BOARD	A	0	2	3	1	2	3	40.00	0
FH053	1st Floor Day Room	CEILING BOARD	A	0	2	3	1	2	3	40.00	0
FH053	2nd Floor Ceiling	CEILING BOARD	A	0	2	3	1	2	3	40.00	0
FH053	3rd Floor Ceiling	CEILING BOARD	A	0	2	3	1	2	3	40.00	0
FH054	1st Floor Day Room	CEILING BOARD	A	0	2	3	1	2	3	40.00	0
FH061	2nd Flr Mens Latrine	<4" PIPE RUN	A	0	2	3	1	2	12	20.00	0
FH062	2nd Flr Laundry Room	4-8" PIPE FITTING	A	0	3	2	1	1	6	20.00	0
FH063	2nd Flr Laundry Rm.	<4" PIPE FITTING	A	0	3	2	1	1	6	20.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 205.5

COST ESTIMATE* - BUILDING 205, BARRACKS

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	AREA 9	AREA 10	TOTAL
Pipe Fittings (EA)												
<4"	70.30	-	-	-	-	-	-	-	-	-	**	**
4-8"	85.80	-	-	-	-	-	-	-	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	0.3	-	-	2.1	4.3	6.7
4-8"	30.50	-	-	-	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	6.2	16.8	2.2	35.8	1.1	-	1.7	34.2	-	-	98.0
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	10.7	10.7
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		6.2	16.8	2.2	35.8	1.1	0.3	1.7	34.2	2.1	15.1	115.5
Difficulty Allowance		-	-	-	53.8	-	-	-	-	-	6.5	60.3
SUBTOTAL		6.2	16.8	2.2	89.6	1.1	0.3	1.7	34.2	2.1	21.6	175.8
Decontamination Units Mobilization		1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	12.5
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0
SUBTOTAL		7.6	18.3	3.7	91.1	2.6	1.8	3.1	35.6	3.6	23.0	190.3
Contingency @ 15.00%		1.1	2.7	0.6	13.7	0.4	0.3	0.5	5.3	0.5	3.5	28.5
SUBTOTAL		8.8	21.0	4.2	104.7	3.0	2.0	3.6	41.0	4.1	26.5	218.8
Design Fee @ 10.00%		0.9	2.1	0.4	10.5	0.3	0.2	0.4	4.1	0.4	2.7	21.9
SUBTOTAL		9.6	23.1	4.7	115.2	3.3	2.2	4.0	45.0	4.5	29.2	240.7
Air Monitoring @ 10.00%***		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	24.1
TOTAL		12.0	25.5	7.1	117.6	5.7	4.6	6.4	47.5	6.9	31.6	264.8

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1st Floor Day Room
 AREA 3: 1st Flr Trng Office
 AREA 5: 2nd Flr Hall E. End
 AREA 7: 3rd Floor Hallway
 AREA 9: Baggage Rm. Basement

AREA 2: 1st Flr Area 1 S-End
 AREA 4: 2nd Flr Hall & Rooms
 AREA 6: 2nd Flr Mens Latrine
 AREA 8: 3rd Flr Hall & Rooms
 AREA 10: Mechanical Room

205.4

PHOTOGRAPHS



Bldg. 205

Mechanical Room: (Sample FH043)
Storage Tank Insulation Tested Positive. Tank
Insulation Is Extremely Damaged.



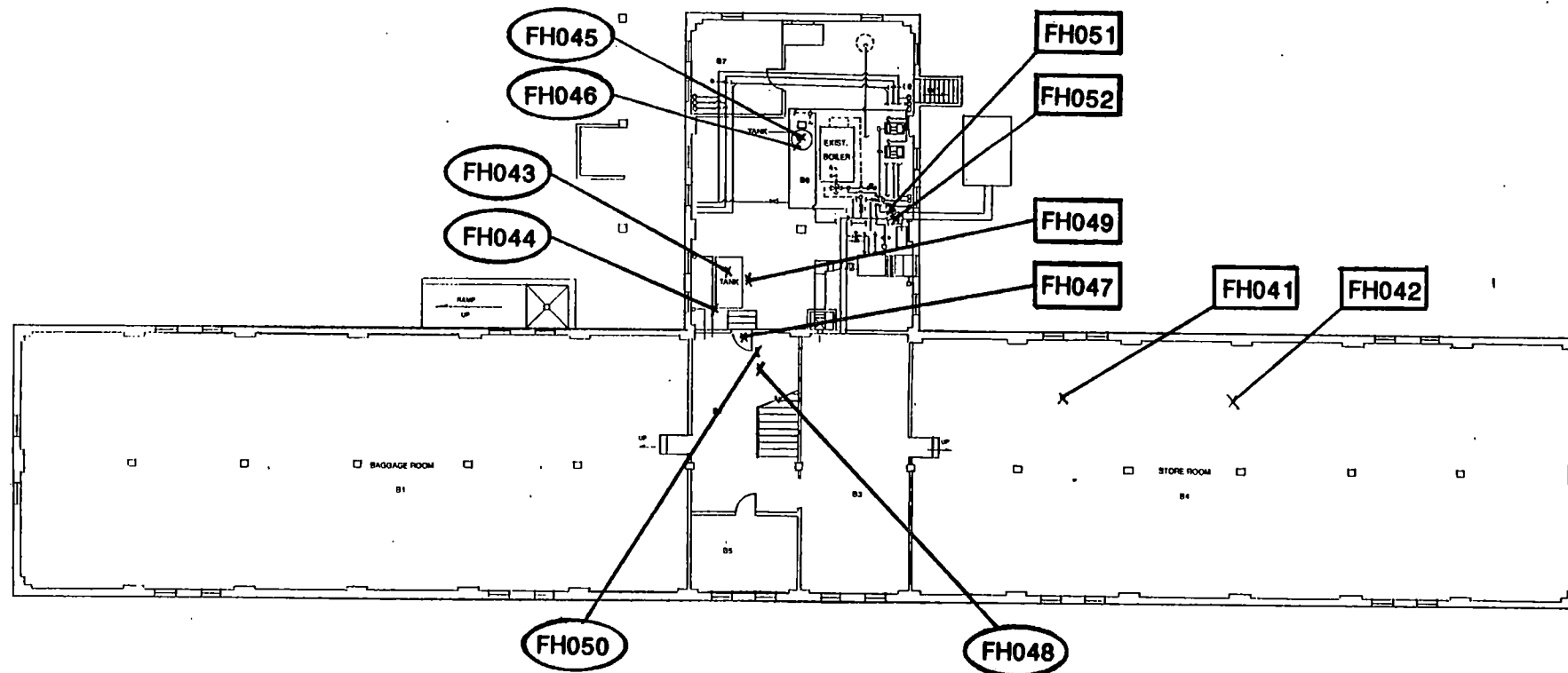
Bldg. 205

Mechanical Room: (Sample FH045)
Storage Tank Insulation Tested Positive.



Bldg. 205

Second Floor Men's Latrine: (Sample FH060) Pipe
Insulation (Less than 4 in.) Tested Positive.



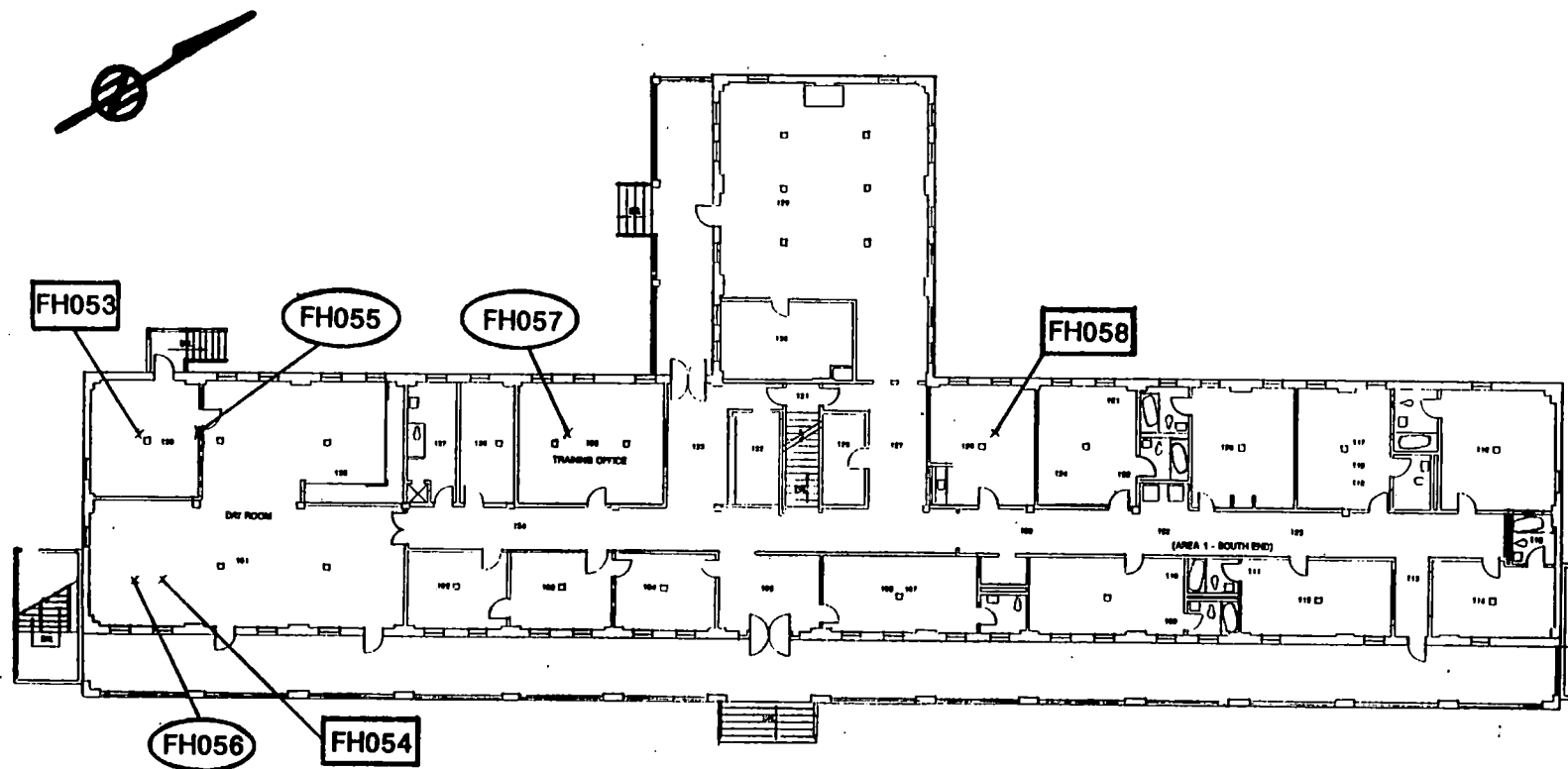
BLDG. 205
BASEMENT FLOOR PLAN

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

205-11



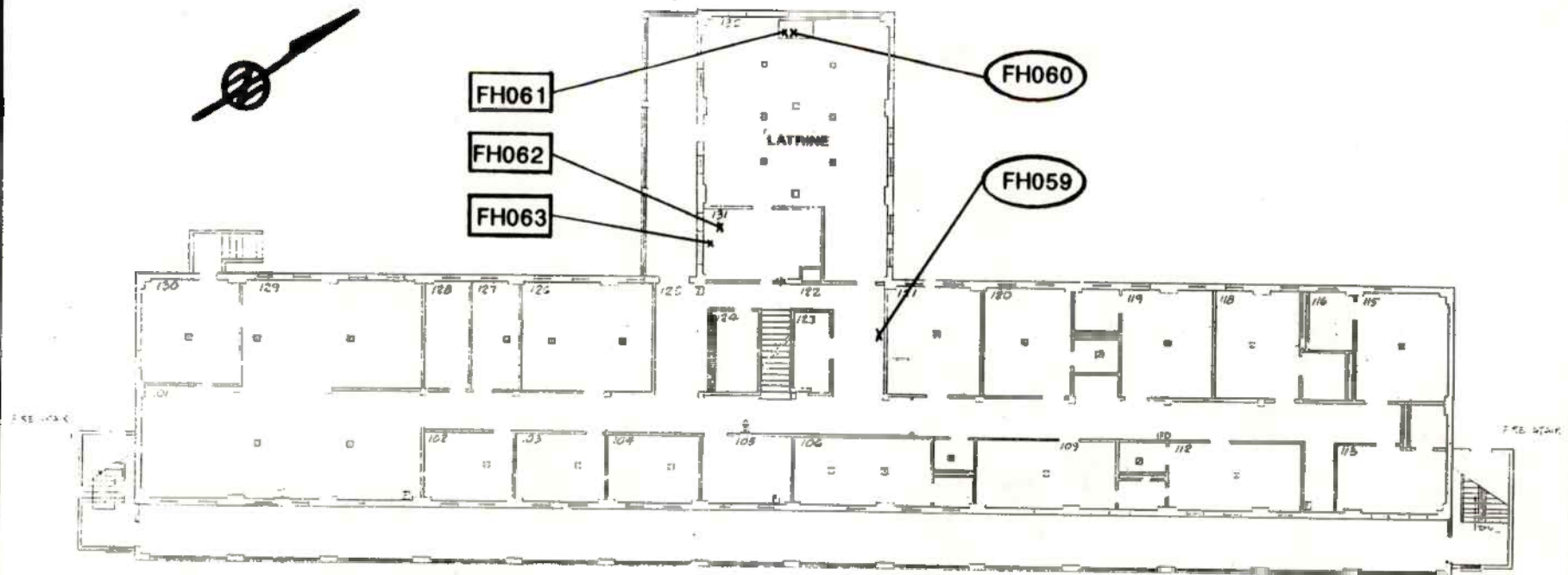
BLDG. 205
FIRST FLOOR PLAN

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

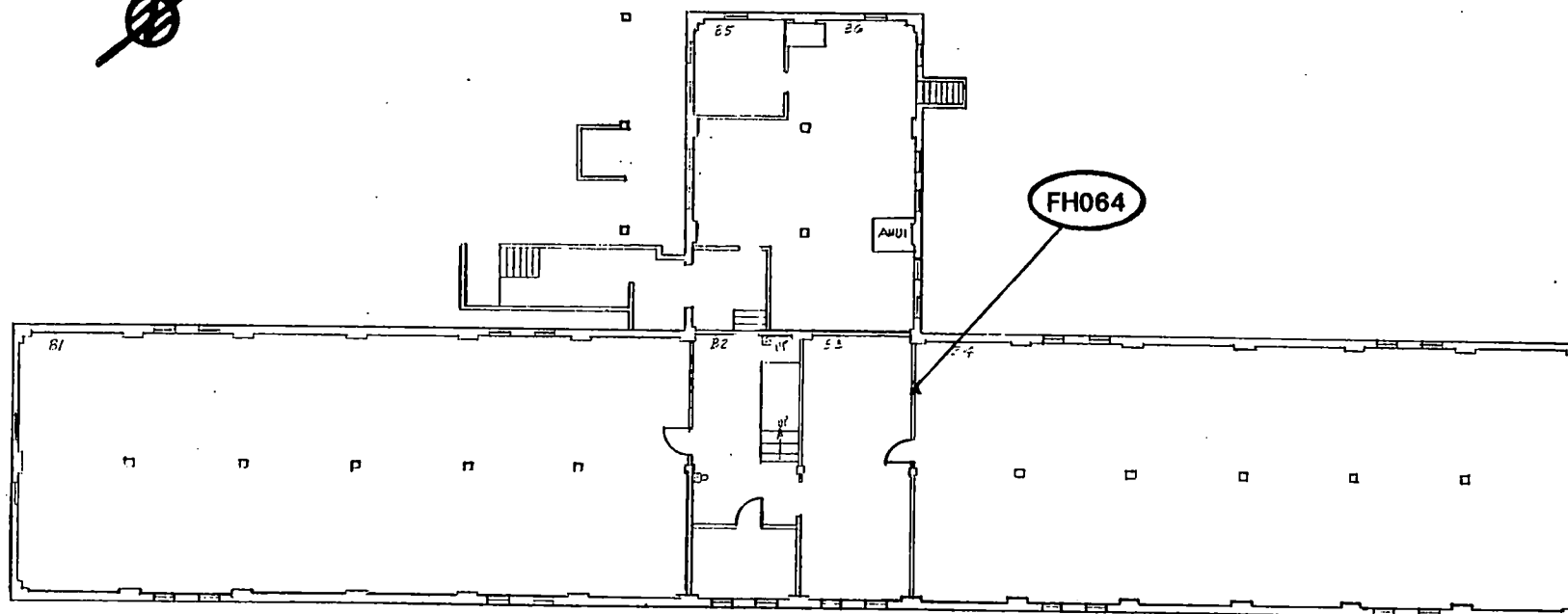
WESTON
DESIGNERS/CONSULTANTS

**LEGEND**

FHnnnn POSITIVE SAMPLE

FHnnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS



BLDG. 205
THIRD FLOOR PLAN

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

206

BARRACKS BUILDING

BARRACKS BUILDING**206.1 GENERAL**

Building 206 was surveyed by WESTON technicians on 9 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 14 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 206.1 lists the analytical results for the bulk samples.

206.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 206 are presented in Table 206.1. An area-by-area inventory of ACM is provided in Tables 206.2 and 206.3. "Other Asbestos-Containing Materials," listed in Table 206.3, are materials that do not correspond to the standard caption categories listed in Table 206.2. A prioritized listing of exposure assessments is presented in Table 206.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 206.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 206.2 and 206.5.

206.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing pipe insulation and floor tile should be labeled under the O&M Program.

TABLE 206.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 206, BARRACKS

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH077	BASEMENT SUPPLY RM 1,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH078	BASEMENT SUPPLY RM 1,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	NO
FH079	BASEMENT SUPPLY RM 2,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTING	10	-	-	YES
FH080	MECHANICAL ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	-	-	-	NO
FH081	MECHANICAL ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	-	-	-	YES
FH082	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	40	-	-	YES
FH083	1ST FLOOR DAY ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,24X24 CT	-	-	-	YES
FH084	1ST FLOOR DAY ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,24X24 CT	-	-	-	YES
FH085	1ST FLR SOUTH HALL,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH086	1ST FLR SOUTH HALL,BELOW CEILING	FLOOR TILE	RED,OTH,9X9 FL TL	7	-	-	YES
FH087	2ND FLOOR E. HALLWAY,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	YES
FH088	2ND FLOOR CEILING,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH089	2ND FLOOR ROOM 205,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	10	-	-	YES
FH090	2ND FLOOR N. HALLWAY,BELOW CEILING	FLOOR TILE	RED,OTH,9X9 FL TL	7	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 206.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 206, BARRACKS

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROWELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1st Flr South Hall	-	-	-	-	-	-	-	-	-	1.00	-	-	-
2nd Floor E. Hallway	-	-	-	-	-	-	-	-	-	0.20	-	-	-
2nd Floor N. Hallway	-	-	-	-	-	-	-	-	-	1.80	-	-	-
2nd Floor Room 205	-	-	-	-	-	-	-	-	-	0.25	-	-	-
3rd Floor E. Hallway	-	-	-	-	-	-	-	-	-	0.25	-	-	-
3rd Floor N. Hallway	-	-	-	-	-	-	-	-	-	1.80	-	-	-
3rd Floor S. Hallway	-	-	-	-	-	-	-	-	-	1.80	-	-	-
Basement Supply Rm 2	-	10	-	-	-	-	-	-	-	-	-	-	-
Mechanical Room	-	-	-	-	30	-	-	-	-	-	-	-	-
TOTALS	-	10	-	-	30	-	-	-	-	7.10	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 206.3

Other Asbestos-Containing Material - Building 206
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 206.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 206, BARRACKS

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH082	Mechanical Room	<4" PIPE RUN	A	2.900E-1	3	1	1	1	1	2.00	40
FH079	Basement Supply Rm 2	4-8" PIPE FITTING	A	9.250E-3	2	1	1	1	1	1.00	10
FH077	Basement Supply Rm 1	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH077	Basement Supply Rm 2	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH078	Basement Supply Rm 1	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0
FH080	Mechanical Room	>14" PIPE RUN	A	0	3	1	1	1	1	2.00	0
FH081	Mechanical Room	>14" PIPE RUN	A	0	3	1	1	1	1	2.00	0
FH083	1st Floor Day Room	CEILING TILE	A	0	2	3	1	2	3	40.00	0
FH084	1st Floor Day Room	CEILING TILE	A	0	2	3	1	2	3	40.00	0
FH085	1st Flr South Hall	CEILING TILE	A	0	2	3	1	2	3	40.00	0
FH088	2nd Floor Ceiling	CEILING TILE	A	0	2	3	1	2	3	40.00	0
FH088	3rd Floor Ceiling	CEILING TILE	A	0	2	2	1	2	3	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 206.5

COST ESTIMATE* - BUILDING 206, BARRACKS

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	AREA 9	TOTAL
Pipe Fittings (EA)											
<4"	70.30	-	-	-	-	-	-	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	0.9	-	0.9
9-14"	147.00	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)											
<4"	26.50	-	-	-	-	-	-	-	-	0.8	0.8
4-8"	30.50	-	-	-	-	-	-	-	-	-	-
9-14"	22.50	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	5.6	1.1	10.1	1.4	1.4	10.1	10.1	-	-	39.8
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-
SUBTOTAL		5.6	1.1	10.1	1.4	1.4	10.1	10.1	0.9	0.8	41.4
Difficulty Allowance		-	-	-	-	-	-	-	-	-	-
SUBTOTAL		5.6	1.1	10.1	1.4	1.4	10.1	10.1	0.9	0.8	41.4
Decontamination Units		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	10.0
Mobilization		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0
SUBTOTAL		6.9	2.5	11.4	2.7	2.7	11.4	11.4	2.2	2.1	53.4
Contingency @ 15.00%		1.0	0.4	1.7	0.4	0.4	1.7	1.7	0.3	0.3	8.0
SUBTOTAL		8.0	2.8	13.1	3.1	3.1	13.1	13.1	2.5	2.4	61.4
Design Fee @ 10.00%		0.8	0.3	1.3	0.3	0.3	1.3	1.3	0.3	0.2	6.1
SUBTOTAL		8.8	3.1	14.4	3.5	3.5	14.4	14.4	2.8	2.7	67.6
Air Monitoring @ 10.00%***		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	6.8
TOTAL		9.5	3.9	15.2	4.2	4.2	15.2	15.2	3.5	3.4	74.3

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1st Flr South Hall
 AREA 2: 2nd Floor N. Hallway
 AREA 3: 3rd Floor E. Hallway
 AREA 4: 3rd Floor S. Hallway
 AREA 5: Mechanical Room

AREA 6: 2nd Floor E. Hallway
 AREA 7: 2nd Floor Room 205
 AREA 8: 3rd Floor N. Hallway
 AREA 9: Basement Supply Rm 2



Northeastern Analytical Corp.

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-0524

CLIENT: E-Systems, Inc./SAI

PO Box 360

JOB SITE:

Fort Monmouth, NJ

Bldg. 42
Gosselin

Hexagon

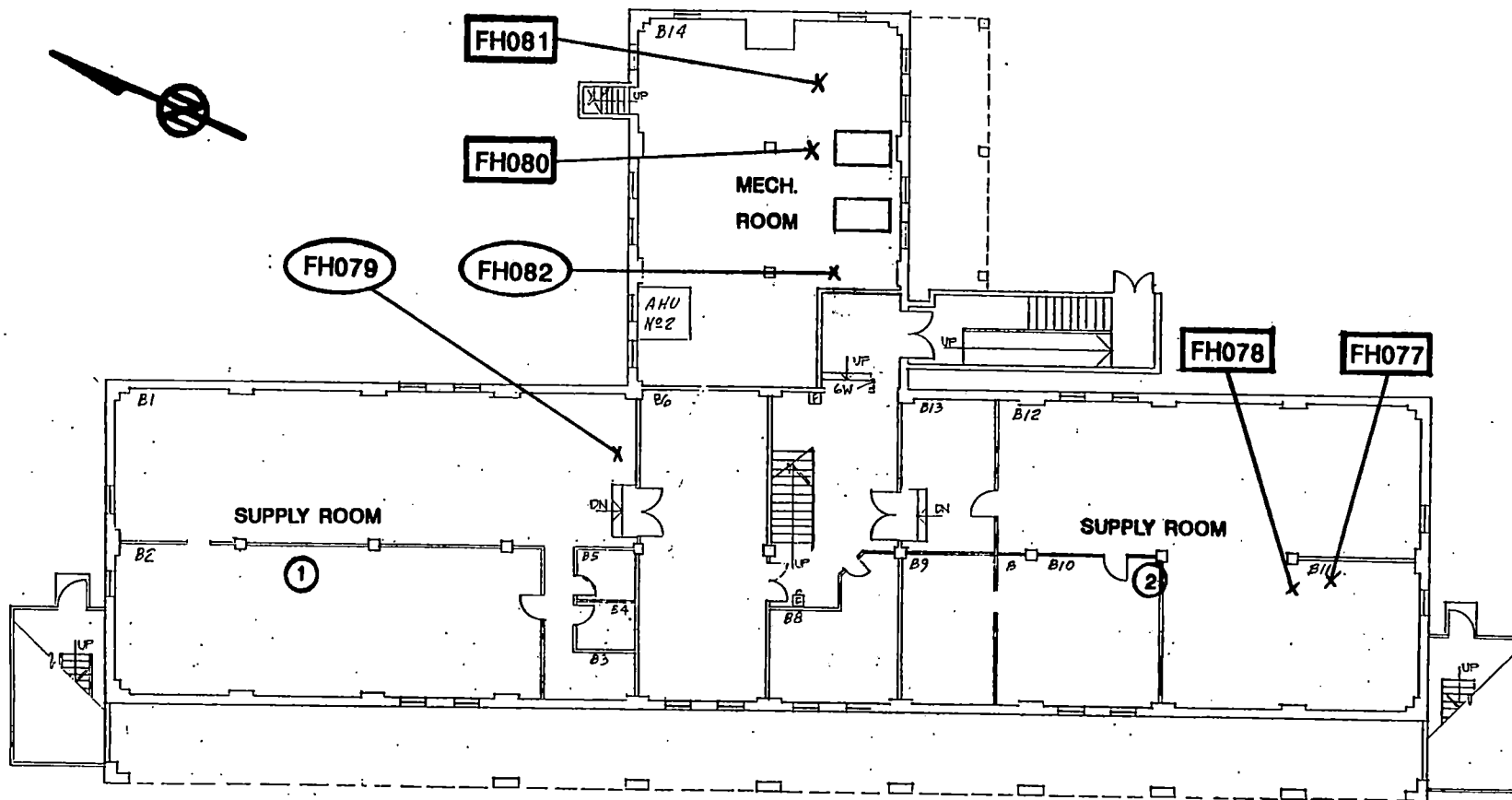
Bldg. 206

SAMPLE LOCATION	C89-64	C89-65	C89-67	
SAMPLE NUMBER	89A-0524-1	89A-0524-2	89A-0524-3	
ASBESTOS				
1. CHRYSOTILE	70-75%	60-65%	30-35%	
2. AMOSITE	ND	ND	ND	
3. CROCIDOLITE	ND	ND	ND	
4. OTHER	ND	ND	ND	
NON-ASBESTOS				
1. Cellulose	3-5%	2-3%	25-30%	
2. Fibrous Glass	3-5%			
3. Perlite				
4. Vermiculite				
5. Quartz	8-10%	15-20%	5-8%	
6. Binders	2-3%	Balance	Balance	
7. Mica				
8. Synthetic Fibers				
9. Gypsum			3-5%	
10. Talc				
11. Calcite	Balance	5-10%	3-5%	
12. Other				

Analyst: John F. FeltzDate Analyzed: 3/7/89

ND: None Detected, Detection Limit: 1% EPA defines Asbestos-Containing Materials (ACM) as those containing more than 1% asbestos.

Methodology: EPA Interim method for Asbestos Identification for Bulk Sample Testing.



BLDG. 206
BASEMENT PLAN

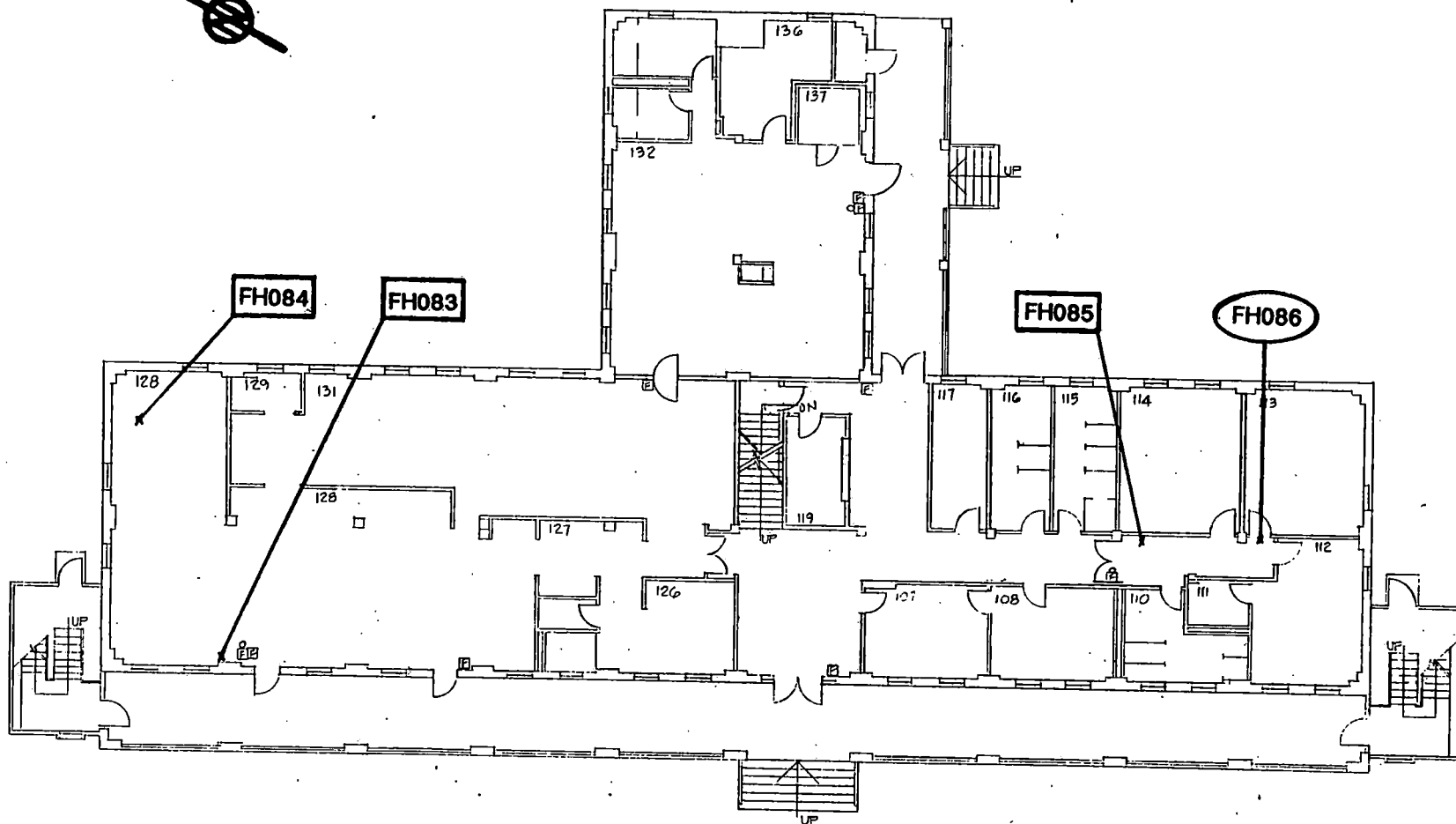
LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

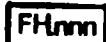
WESTON
MANAGERS DESIGNERS/CONSULTANTS

206-9

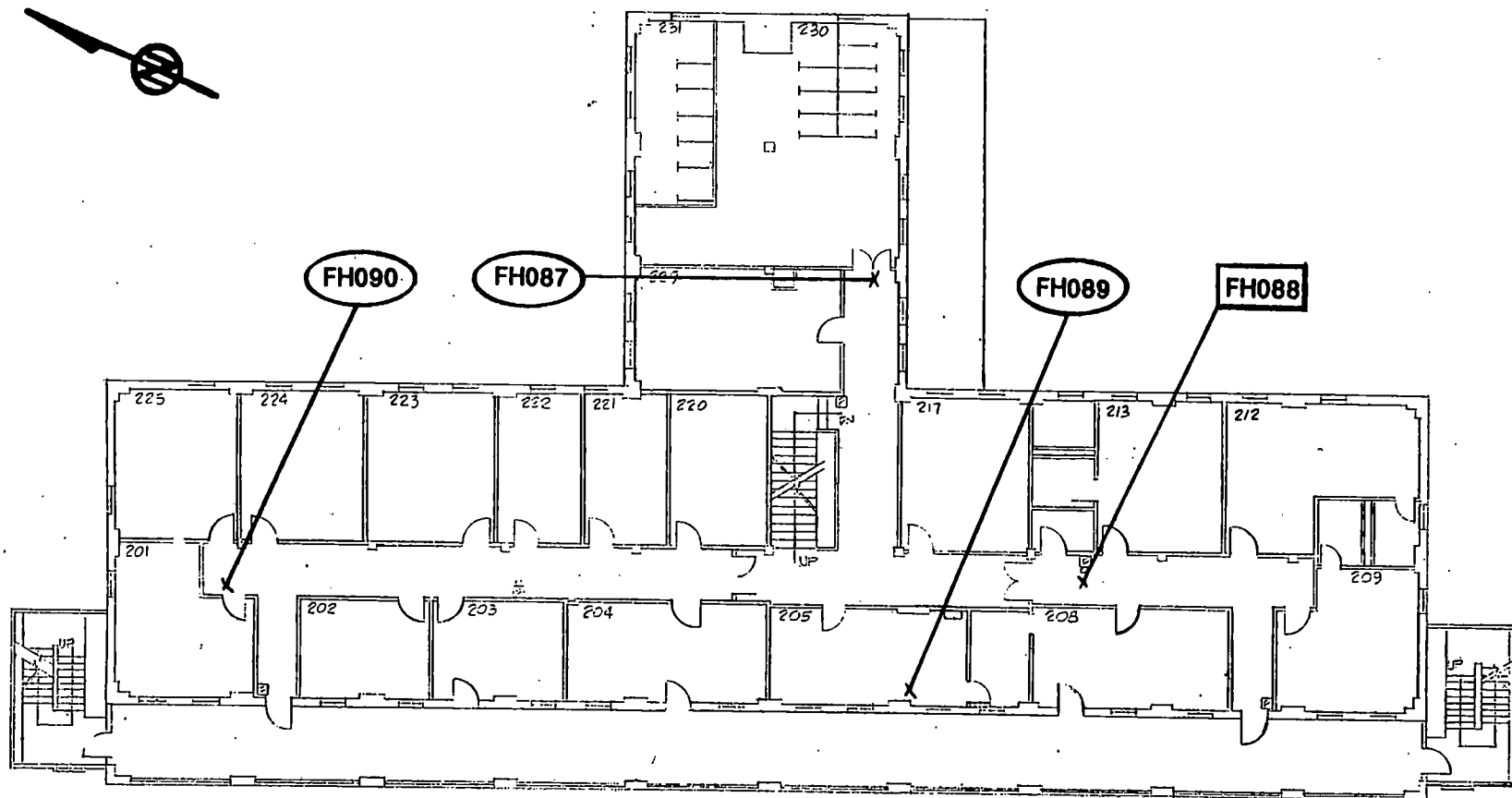


BLDG. 206
FIRST FLOOR PLAN

LEGEND

-  POSITIVE SAMPLE
 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS



BLDG. 206
SECOND FLOOR PLAN

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

207

MECHANICAL ROOM

MECHANICAL ROOM

207.1 GENERAL

Building 207, Mechanical Room was surveyed by WESTON technicians on 7 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 207.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 10 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 207.1 lists the analytical results for the bulk samples.

207.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 207, Mechanical Room are presented in Table 207.1. An area-by-area inventory of ACM is provided in Tables 207.2 and 207.3. "Other Asbestos-Containing Materials," listed in Table 207.3, are materials that do not correspond to the standard caption categories listed in Table 207.2. A prioritized listing of exposure assessments is presented in Table 207.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 207.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 207.2 and 207.5.

207.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing tank insulation, pipe insulation, and fitting insulation should be labeled under the O&M Program.

TABLE 207.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 207, MECHANICAL ROOM

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH031	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	10	-	-	YES
FH032	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	8	-	-	YES
FH033	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES
FH034	MECHANICAL ROOM,N,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES
FH035	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	1	-	-	NO
FH036	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	20	-	-	YES
FH037	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	50	-	-	NO
FH038	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	40	-	-	NO
FH039	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH040	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 207.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 207, MECHANICAL ROOM

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Mechanical Room	21	-	-	-	100	-	-	-	-	-	0.15	-	-
TOTALS	21	-	-	-	100	-	-	-	-	-	0.15	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 207.3

Other Asbestos-Containing Material - Building 207, Mechanical Room
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

TABLE 207.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 207, MECHANICAL ROOM

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH037	Mechanical Room	<4" PIPE RUN	A	5.000E-2	2	1	1	1	1	2.00	50
FH038	Mechanical Room	<4" PIPE FITTING	A	5.000E-2	2	1	1	1	1	2.00	40
FH031	Mechanical Room	BOILERS/TANKS	A	1.850E-2	2	1	1	1	1	2.00	10
FH036	Mechanical Room	<4" PIPE FITTING	A	1.850E-2	2	1	1	1	1	2.00	20
FH032	Mechanical Room	BOILERS/TANKS	A	3.250E-3	2	1	1	1	1	2.00	8
FH035	Mechanical Room	<4" PIPE RUN	A	3.250E-3	2	1	1	1	1	2.00	1
FH033	Mechanical Room	4-8" PIPE FITTING	A	0	2	1	1	1	1	2.00	0
FH034	Mechanical Room	4-8" PIPE FITTING	A	0	2	1	1	1	1	2.00	0
FH039	Mechanical Room	<4" PIPE FITTING	A	0	2	1	1	1	1	2.00	0
FH040	Mechanical Room	<4" PIPE FITTING	A	0	2	1	1	1	1	2.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 207.5

COST ESTIMATE* - BUILDING 207, MECHANICAL ROOM

DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	1.5	1.5
4-8"	85.80	-	-
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	2.7	2.7
4-8"	30.50	-	-
9-14"	42.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	-	-
Boilers/Tanks (SF)	37.90	5.7	5.7
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		9.8	9.8
Difficulty Allowance		-	-
SUBTOTAL		9.8	9.8
Decontamination Units		3.0	3.0
Mobilization		2.0	2.0
SUBTOTAL		14.8	14.8
Contingency @ 15.00%		2.2	2.2
SUBTOTAL		17.1	17.1
Design Fee @ 10.00%		1.7	1.7
SUBTOTAL		18.8	18.8
Air Monitoring @ 10.00%***		1.9	1.9
TOTAL		20.7	20.7

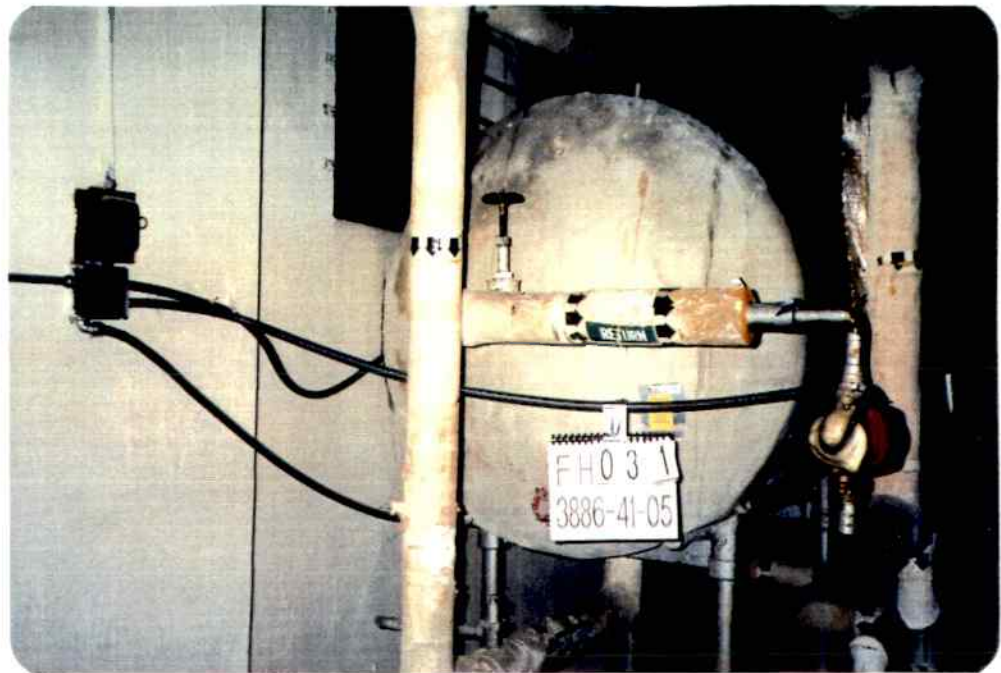
* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Mechanical Room

SECTION 207.4
PHOTOGRAPHS



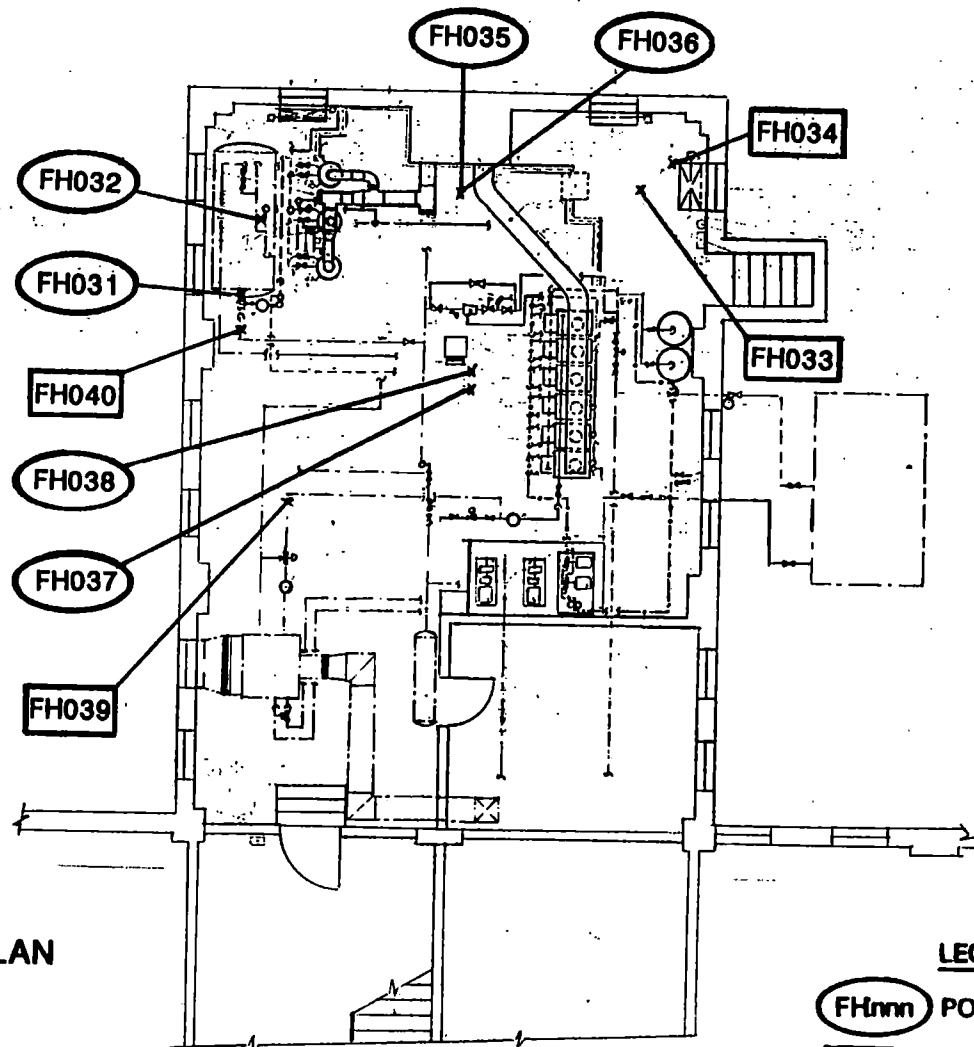
Bldg. 207

Mechanical Room: (Sample FH031)
Storage Tank Insulation Tested Positive.



Bldg. 207

Mechanical Room: (Sample FH037)
Pipe Insulation (Less Than 4 In.) Tested Positive.
Pipe Fitting Insulation Also Tested Positive. Pipe
and Fitting Insulation Are Extremely Damaged.



BLDG. 207
PARTIAL BASEMENT PLAN

LEGEND

- FHnnn** POSITIVE SAMPLE
FHnnn NEGATIVE SAMPLE

208

MECHANICAL ROOM

MECHANICAL ROOM

208.1 GENERAL

Building 208, Mechanical Room was surveyed by WESTON technicians on 7 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 208.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 5 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 208.1 lists the analytical results for the bulk samples.

208.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 208, Mechanical Room are presented in Table 208.1. An area-by-area inventory of ACM is provided in Tables 208.2 and 208.3. "Other Asbestos-Containing Materials," listed in Table 208.3, are materials that do not correspond to the standard caption categories listed in Table 208.2. A prioritized listing of exposure assessments is presented in Table 208.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 208.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 208.2 and 208.5.

208.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing tank insulation should be labeled under the O&M Program.

PROFESSIONAL TESTING LABORATORIES OF NEW JERSEY

The Holiday Building, 121 State Highway 36, West Long Branch, N.J. 07764

(908) 222-7441

Fax: (908) 222-0676

167
208

ENVIRONMENTAL PROTECTION AGENCY - RESEARCH TRIANGLE INSTITUTE
INTERIM ASBESTOS BULK SAMPLE
QUALITY ASSURANCE PROGRAM LABORATORY IDENTIFICATION ID #: 2242
NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM ID#: 1929

CLIENT: E-SYSTEMS
SERV-AIR INC.
P.O. 396 BLDG 490
FT. MONMOUTH, NJ. 07703
PHONE #: 542-4359 FAX #:

CLIENT #: 21248

PROJECT: FT. MONMOUTH
EATONTOWN, NJ.

PROJECT #: 4-91-1010

BULK SAMPLE TEST RESULTS

DATE SAMPLED: 10-22-91
DATE RECEIVED: 10-25-91
DATE TESTED: 10-25-91
REPORT DATE: 10-28-91

REPORT #: B1245 TO B1247

PTL ID #	CLIENT ID #	FIBROUS ASBESTOS TYPE(S) AND PERCENTAGES DETECTED	OTHER MATERIALS DETECTED
B1245	C91-580	NONE	N/A
B1246	C91-581	NONE	N/A
B1247	C91-582	NONE	N/A

SAMPLE LOCATIONS

CLIENT ID #	SURFACE SAMPLED	SAMPLE COLOR	TESTED BY	LOCATION
	CEILING TILE	BROWN\WH	B167	12' HIGH CEILING
	CEILING TILE	WH\GRAY	B167	7' HIGH CEILING
	PAINT CHIPS	WH\GRY.	B208	SHOWER AREA 1 1991

APPROVED BY _____

CONTRACT # _____ ACCT # _____

APPROVED BY

WILLIAM J. McLENN
LABORATORY DIRECTOR

TABLE 208.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 208, MECHANICAL ROOM

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH026	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	10	-	-	NO
FH027	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	10	-	-	NO
FH028	MECHANICAL ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	15	-	-	NO
FH029	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	NO
FH030	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 208.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 208, MECHANICAL ROOM

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROWELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Mechanical Room	-	-	-	-	-	-	-	-	-	-	0.15	-	-
TOTALS	-	-	-	-	-	-	-	-	-	-	0.15	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 208.3

Other Asbestos-Containing Material - Building 208
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

208-5

TABLE 208.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 208, MECHANICAL ROOM

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH026	Mechanical Room	BOILERS/TANKS	A	1.850E-2	2	1	1	1	1	2.00	10
FH027	Mechanical Room	BOILERS/TANKS	A	1.850E-2	2	1	1	1	1	2.00	10
FH028	Mechanical Room	BOILERS/TANKS	A	1.850E-2	2	1	1	1	1	2.00	15
FH029	Mechanical Room	4-8" PIPE FITTING	A	0	2	1	1	1	1	2.00	0
FH030	Mechanical Room	4-8" PIPE FITTING	A	0	2	1	1	1	1	2.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 208.5

COST ESTIMATE* - BUILDING 208, MECHANICAL ROOM

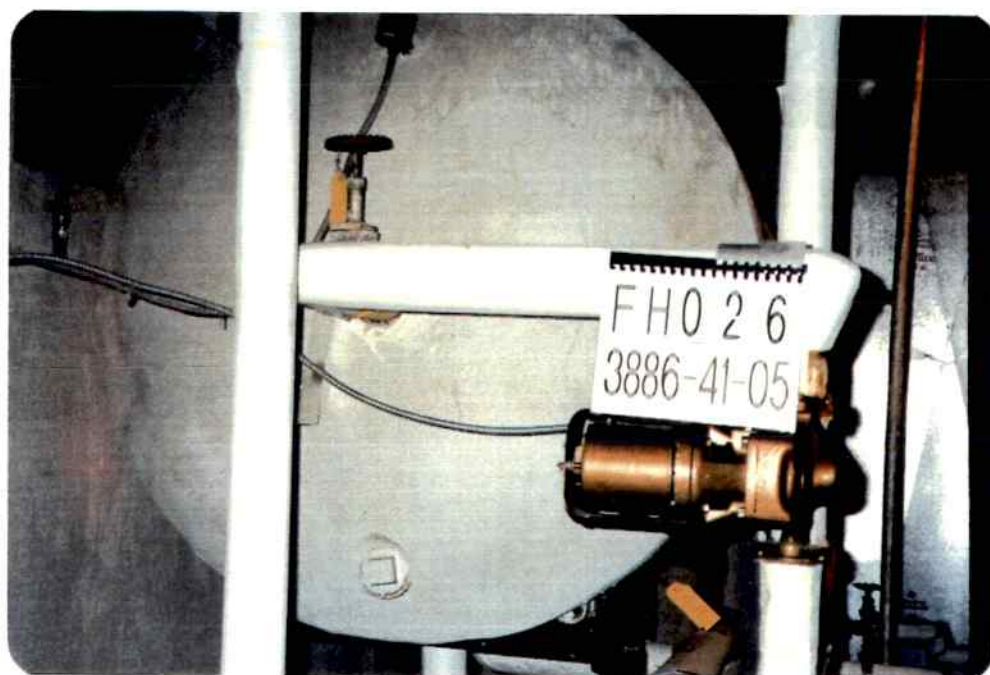
DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	85.80	-	-
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	42.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	-	-
Boilers/Tanks (SF)	37.90	5.8	5.8
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		5.8	5.8
Difficulty Allowance		-	-
SUBTOTAL		5.8	5.8
Decontamination Units		3.0	3.0
Mobilization		2.0	2.0
SUBTOTAL		10.8	10.8
Contingency @ 15.00%		1.6	1.6
SUBTOTAL		12.4	12.4
Design Fee @ 10.00%		1.2	1.2
SUBTOTAL		13.6	13.6
Air Monitoring @ 10.00%***		1.4	1.4
TOTAL		15.0	15.0

*Amounts Are In Thousands Of Dollars

**Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

***The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Mechanical Room



Bldg. 208

Mechanical Room: (Sample FH026)
Storage Tank Insulation Tested Positive.

ASBESTOS CONSULTANCY SERVICE INC.



NEW JERSEY: THE HOLIDAY BUILDING 121 STATE HIGHWAY 36 WEST LONG BRANCH NEW JERSEY 07764
PHONE: 201 571 1400 FAX: 201 571 3328

VIRGINIA SUITE 204 6095 INDIAN RIVER ROAD VIRGINIA BEACH VIRGINIA 23464
PHONE: 804 420 7200 FAX: 804 523 6476

DATE: 3/20/90
BATCH: A1671
SAMPLED BY: E-SYSTEMS

CUSTOMER: E-SYSTEMS
SITE: PO #MO-1656

AIR MONITORING TEST RESULTS

CERTIFICATE OF ANALYSIS

DATE	VOLUME	SAMPLE LOCATION	FIBERS/CC
2/26/90	1888 L	C90-230 Bldg. 208 Weight Rm (Basement)	<0.010
2/26/90	BLANK	C90-231 Bldg. 208 Blank	0/100
2/26/90	1856 L	C90-232 Bldg. 208 Weight Rm (Basement)	<0.010
2/26/90	BLANK	C90-233 Bldg. 208 Blank	1/100
3/6/90	2484 L	C90-235 Bldg. 552 Pool Rm (North)	<0.010
3/6/90	2411 L	C90-236 Bldg. 552 Pool Rm (South)	<0.010
3/6/90	BLANK	C90-237 Bldg. 552 Blank	1/100
3/6/90	2272 L	C90-238 Bldg. 552 Attic (Center Rm)	<0.010
3/6/90	2189 L	C90-239 Bldg. 552 Attic (Pool Rm)	<0.010
3/6/90	BLANK	C90-240 Bldg. 552 Blank	2/100

END OF RESULTS

LABORATORY RELATIVE STANDARD DEVIATION = 0.45
MICROSCOPE: MELJI, POSITIVE PHASE CONTRAST, S/N 10087
AIRBORNE ANALYSIS BY NIOSH METHOD NO. 7400 - NIOSH PAT LAB NO: 07764-001
DR. R. J. WILLEY, BSc PhD MInstP MBOSH MIOASH

PP

PAGE 1 OF 1

#2

FLOW AVERAGE # SAMPLES
 10.31 10.31 01
 10.32 10.32 02
 10.31 10.31 03

TRIAL HYGIENE AIR SAMPLE DATA

Form see USAEHA TG 141; the proponent is HSEB-LO.

Address including Zip Code)

Point of Contact (name/AUTOVON)

J. Fallon 532-4359

Associated Bulk Samples

☐ Yes ☒ No

Bulk Sample No(s):

Samples Collected By

Frank Conte + R.C.

Date Collected

2/21/90

Date Shipped

Project Number

Sampled Installation

Fort Monmouth

ARLOC

Location (BLDG/AREA)

208

Description of Operation (details on reverse)

Basement - Weight Room



Persons Exposed



Hrs/Day

Method of Collection

.8 μ m Filter -

Conductive 2" Bowl
25 mm CBLOCK

Associated Complaints (be specific) (state NONE if applicable)

Open Face

Analysis Desired

Asbestos Fiber Count - NIOSH

7400 Method

Sampling Data

Sample No.	C90-230	C90-231	C90-232	C90-233				
Pump No.	0736A	—	07342	—				
Time On	10:30	Blank	10:35	Blank				
Time Off	1:30		1:35					
Total Time (min)	180		180					
Flow Rate (LPM)	10.49		10.31					
Volume (Liters)	1888.2		1855.8					
GA/BZ	GA		GA					
Employee Name/ID								
Laboratory No.								

B
L
A
N
K

Results

Comments to Lab:

Air Monitoring

Lab Use Only

Analyst (initials)

Reviewed By (initials)

Date Received

Date Dispatched

Calibration Information				
Pump No.	Calibration (L/min)		Rotometer Setting	Date
	Pre-Use	Post-Use		
07369	10.49 L/min	10.30 L/min		2/22/90
07342	10.31 L/min	10.23 L/min		2/22/90
			Name of Calibrator	
Operation				
Source of Contaminant:				
Operation Employee(s) Perform:				
Ventilation: ☐ Local Exhaust ☐ General Area ☐ None				
Personal Protective Equipment (check if worn)				
☐ Respiratory Protective Equipment Type: _____ ☐ Protective Clothing Type: _____ ☐ Gloves Type: _____ ☐ Goggles/Face Shield ☐ Ear Protection ☐ Other: _____				
Field Notes/Additional Comments				

BULK SAMPLE DATA.

For use of this form see USARMA TC 141; the proponent is RSHB-LO.

Return Address. (complete address including Zip Code) Industrial Hygiene Section, Preventive Medicine Service ATTN: HSXS-PVM, Bldg 876, USA MEDDAC Fort Monmouth, NJ 07703-5000		Point of Contact (name/PHONE) Mr. J. Ortes/AV 992-2667 RALPH CLOUSER	
Sampled Installation FT. MONMOUTH NJ	Project Number FAX = (201)-532-2089	ARLO 34558	
Sample Collected By Ralph G. Clouser Jr.	Date Collected 21 Feb 1990	Date Shipped 26 Feb 90	
Description of Operation 241 st Military Police Barracks Weight Room		Location (BLDG/AREA) 208/Basement	
Associated Complaints (be specific) ASBESTOS - Employees		serv-Air Inc samples sent to Princeton Testing	
Associated Air Samples ☐ Yes ☒ No		If yes, list sample numbers BUT SERV-AIR did air sampling	
Trade Name NSM		Manufacturer	
Address		MSDS Attached ☐ Yes ☒ No	

Analysts Desired**ASBESTOS TYPE & PERCENTAGE**

Lab Use Only	Sample No.	Constituents	Results	Remarks
W0450	0052-03	Elbow entering wall opposite entrance closer to wall with 2 windows approximately 6" x 6"	No Asbestos	

Comments to Lab: Environmental Technician from Serv-Air Inc. sealed piece of insulation →

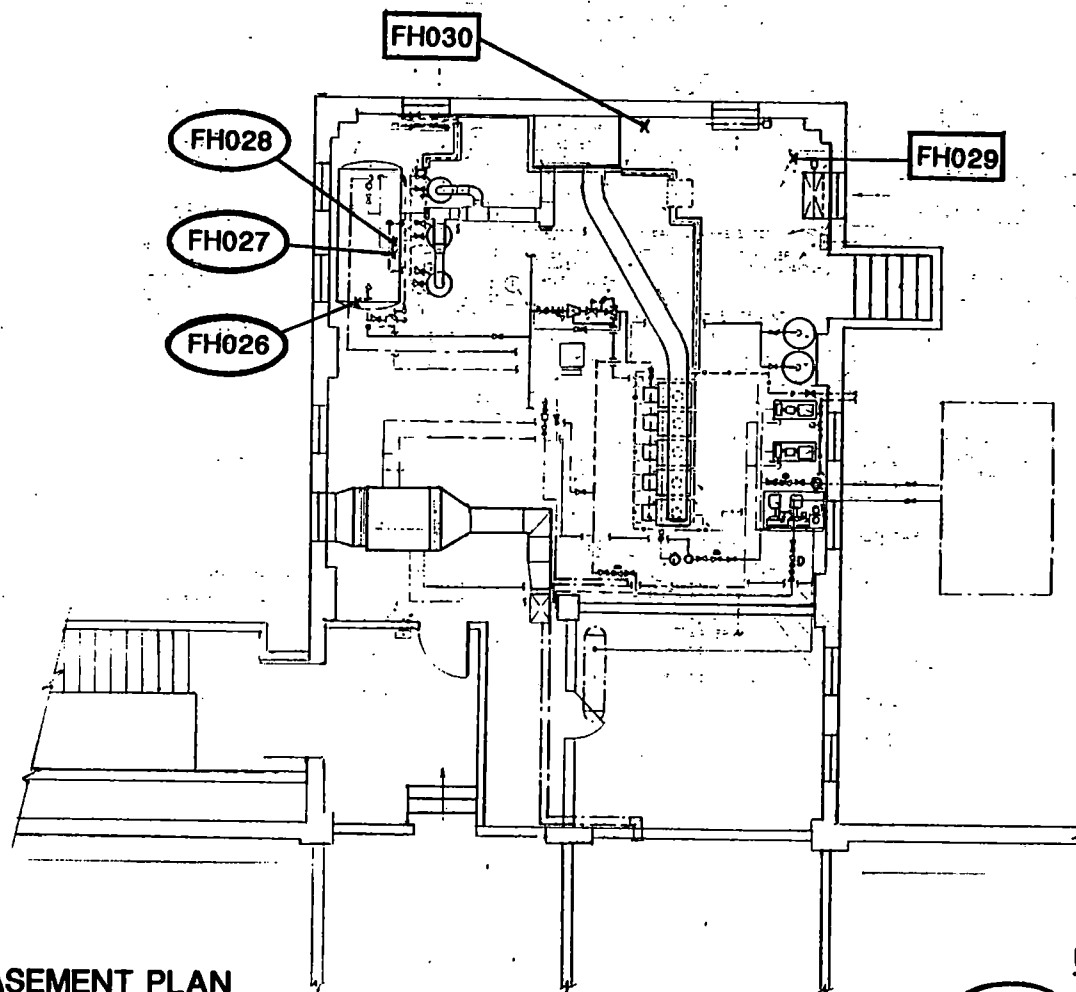
Lab Use Only			
Analyst (Initials) JP	Reviewed By (Initials) FL	Date Received 3-9-90	Date Reported 3-20-90
Procedures Performed NIOSH 9002		Comments:	

AEMA Form 8, 1 Oct 84

Replaces AEMA Form 8, 1 Oct 80 which is obsolete.

[illegible]

SECTION 208.4
PHOTOGRAPHS



BLDG. 208
PARTIAL BASEMENT PLAN

LEGEND

 **FHnnnn** POSITIVE SAMPLE

 **FHnnnn** NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

209

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

209.1 GENERAL

Building 209 was surveyed by WESTON technicians on 19 November 1990 through 20 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 209.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 57 samples of suspect material collected from the building. Of these samples, 35 were found to be asbestos-containing materials (ACM). Table 209.1 lists the analytical results for the bulk samples.

209.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 209 are presented in Table 209.1. An area-by-area inventory of ACM is provided in Tables 209.2 and 209.3. "Other Asbestos-Containing Materials," listed in Table 209.3, are materials that do not correspond to the standard caption categories listed in Table 209.2. A prioritized listing of exposure assessments is presented in Table 209.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 209.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 209.2 and 209.5.

209.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- The mechanical room in Building 209 qualifies for the Army Asbestos Deficiency Abatement Project.
- Other asbestos-containing materials should be labeled under the O&M Program.

TABLE 209.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 209, ADMIN. (SATCOM)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH175	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	40	-	-	YES
FH176	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	50	-	-	NO
FH177	MECHANICAL ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	50	-	-	NO
FH178	MECHANICAL ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	60	-	-	YES
FH179	MECHANICAL ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,UNK,>14 RUN	-	-	-	YES
FH180	MECHANICAL ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,UNK,>14 RUN	-	-	-	YES
FH181	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	15	-	-	YES
FH182	MECHANICAL ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	YES
FH183	BASEMENT RMS 14&14A,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	5	-	-	YES
FH184	BASEMENT RMS 14&14A,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH185	BASEMENT N. HALLWAY,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FT	5	-	-	NO
FH186	BASEMENT N. END ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	40	-	-	NO
FH187	BASEMENT N. END ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	60	-	-	YES
FH188	BASEMENT N. END ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,9X9 CL	-	-	-	YES
FH189	BASEMENT N. END ROOM,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,9X9 TILE	-	-	-	YES
FH190	BASEMENT N. STAIRS,BELOW CEILING	OTHER MATERIAL	RED,OTH,LINOLEUM	-	-	-	YES
FH191	BASEMENT N. STORE RM,BELOW CEILING	FLOOR TILE	RED,OTH,9X9 FL TL	7	-	-	YES
FH192	BASEMENT N. STORE RM,BELOW CEILING	CEILING TILE	YELLOW,OTH,9X9 CL TL	-	-	-	YES
FH193	BASEMENT ROOM 12,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH194	BASEMENT HALLWAY,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,12X12 TILE	-	-	-	YES
FH195	BASEMENT ROOM 13,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CL T	-	-	-	YES
FH196	BASEMENT ROOM 11,BELOW CEILING	CEILING TILE	WHITE,OTH,24X24 CT	-	-	-	YES
FH197	BASEMENT ROOM 11,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,12X12 TILE	-	-	-	YES
FH198	BASEMENT HALLWAY,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 TILE	3	-	-	NO
FH199	BASEMENT HALLWAY,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	50	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 209.1
(continued)

BULK SAMPLE ANALYSIS RESULTS - BUILDING 209, ADMIN. (SATCOM)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH200	BASEMENT HALLWAY,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH201	BASEMENT HALLWAY,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	50	-	-	NO
FH202	BASEMENT HALLWAY,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	NO
FH203	BASEMENT ROOM 24,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL	7	-	-	YES
FH204	BASEMENT ROOM 24,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH205	BASEMENT ROOM 26,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL	3	-	-	NO
FH206	BASEMENT ROOM 19,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	YES
FH207	BASEMENT ROOM 19,BELOW CEILING	CEILING TILE	TAN,OTH,12X12 CT	-	-	-	YES
FH208	1ST FLOOR N. HALLWAY,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FT	5	-	-	YES
FH209	1ST FL. ENTIRE HALLW,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FT	5	-	-	NO
FH210	1ST FLOOR ROOM 131,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	NO
FH211	1ST FLOOR ROOM 130,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	NO
FH212	1ST FL. HALLWAY SOU.,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FT	5	-	-	YES
FH213	1ST FLR AUDIO VISUAL,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CT	-	-	-	YES
FH214	1ST FLR H2O BTL.STR.,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	YES
FH215	2ND FLOOR N. HALLWAY,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FL	3	-	-	NO
FH216	2ND FLOOR ROOM 227,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH217	ROOMS 227-229,N,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH218	2ND FL. OFFICES SE,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CT	-	1	-	YES
FH219	2ND FLOOR OFFICE 208,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,12X12 TL	-	-	-	YES
FH220	2ND FLOOR ROOM 214A,BELOW CEILING	CEILING TILE	WHITE,OTH,CL TILE	-	-	-	YES
FH221	ATTIC,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	60	-	-	NO
FH222	ATTIC,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 RUN	50	-	-	NO
FH223	ATTIC,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	60	-	-	NO
FH224	ATTIC,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 RUN	50	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
N = North
E = East
S = South
W = West
NE = Northeast
NW = Northwest
SE = Southeast
SW = Southwest

System Codes

STM = Steam
CHW = Chilled Water
HHW = Heating Hot Water
DOM = Domestic Water
OTH = Other
UNK = Unknown

Asbestos Types

CH = Chrysotile
AM = Amosite
OT = Other

TABLE 209.1
(continued)
BULK SAMPLE ANALYSIS RESULTS - BUILDING 209, ADMIN. (SATCOM)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			
				CH	AM	OT	LAYERED ^a
FH225	ATTIC,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	60	-	-	NO
FH226	ATTIC,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 RUN	45	-	-	NO
FH227	ATTIC,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4 FITTIN	60	-	-	NO
FH228	ATTIC,NN,BELOW CEILING	<4" PIPE RUN	WHITE,HHW,<4 RUN	40	-	-	YES
FH229	ATTIC,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4 FITTING	45	-	-	NO
FH230	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,HHW,<4 RUN	40	-	-	NO
FH231	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	70	-	-	NO

^a Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
N = North
E = East
S = South
W = West
NE = Northeast
NW = Northwest
SE = Southeast
SW = Southwest

System Codes

STM = Steam
CHW = Chilled Water
HHW = Heating Hot Water
DOM = Domestic Water
OTH = Other
UNK = Unknown

Asbestos Types

CH = Chrysotile
AM = Amosite
OT = Other

TABLE 209.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 209, ADMIN. (SATCOM)

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROWELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1st Fl. Audio Visual	-	-	-	-	-	-	-	-	-	0.14	-	-	-
1st Fl. Confr. Room	-	-	-	-	-	-	-	-	-	0.90	-	-	-
1st Fl. Entire Hallw	-	-	-	-	-	-	-	-	-	1.40	-	-	-
1st Fl. Hallway Sou.	-	-	-	-	-	-	-	-	-	0.00	-	-	-
1st Floor N. Hallway	-	-	-	-	-	-	-	-	-	0.60	-	-	-
1st Floor Room 114	-	-	-	-	-	-	-	-	-	4.10	-	-	-
1st Floor Room 130	-	-	-	-	-	-	-	-	-	0.75	-	-	-
1st Floor Room 131	-	-	-	-	-	-	-	-	-	0.27	-	-	-
1st Floor Room 132	-	-	-	-	-	-	-	-	-	0.80	-	-	-
1st Flr Conf. Room	-	-	-	-	-	-	-	-	-	0.90	-	-	-
1st Flr H2O Btl.Str.	-	-	-	-	-	-	-	-	-	0.10	-	-	-
1st Flr and Visual	-	-	-	-	-	-	-	-	-	0.14	-	-	-
2nd Fl. Offices SE	-	-	-	-	-	-	-	-	-	0.63	-	-	*
2nd Fl. Rm. 214-218	-	-	-	-	-	-	-	-	-	0.80	-	-	-
2nd Floor Hallway	-	-	-	-	-	-	-	-	-	0.80	-	-	-
2nd Floor N. Hallway	-	-	-	-	-	-	-	-	-	1.00	-	-	-
2nd Floor Room 230	-	-	-	-	-	-	-	-	-	0.38	-	-	-
2nd Flr N. Offices	-	-	-	-	-	-	-	-	-	1.60	-	-	-
2nd Flr Ofc 207-209	-	-	-	-	-	-	-	-	-	0.65	-	-	-
Attic	71	52	-	-	331	462	-	-	-	-	-	-	-
Basement Hallway	-	-	-	-	150	-	-	-	-	0.00	-	-	-
Basement N. End Room	8	-	-	-	42	-	-	-	-	-	-	-	-
Basement N. Hallway	-	-	-	-	-	-	-	-	-	2.40	-	-	-
Basement N. Store Rm	-	-	-	-	-	-	-	-	-	0.12	-	-	-
Basement Rms 14&14A	-	-	-	-	-	-	-	-	-	0.80	-	-	-
Basement Room 19	-	-	-	-	-	-	-	-	-	0.50	-	-	-
Basement Room 24	-	-	-	-	-	-	-	-	-	1.10	-	-	-
Basement Room 26	-	-	-	-	-	-	-	-	-	0.00	-	-	-
Mechanical Room	21	12	-	-	221	-	-	-	-	-	-	-	-
TOTALS	100	64	-	-	744	462	-	-	-	20.88	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 209.3

**Other Asbestos-Containing Material - Building 209, SATCOM
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
2nd Flr. Office-SE	Ceiling Tile	0.63 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

209-7

TABLE 209.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 209, ADMIN.(SATCOM)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH175	Mechanical Room	<4" PIPE FITTING	C	1.500E03	3	2	2	2	1	2.00	40
FH176	Mechanical Room	<4" PIPE RUN	C	1.500E03	3	2	2	2	1	2.00	50
FH177	Mechanical Room	<4" PIPE FITTING	C	1.500E03	3	2	2	2	1	2.00	50
FH178	Mechanical Room	<4" PIPE RUN	C	1.500E03	3	2	2	2	1	2.00	60
FH181	Mechanical Room	4-8" PIPE FITTING	B	5.500E02	3	2	2	2	1	2.00	15
FH218	2nd Fl. Offices SE	CEILING TILE	B	4.800E02	2	2	1	2	4	40.00	1
FH186	Basement N. End Room	<4" PIPE FITTING	B	1.320E02	3	1	1	2	4	40.00	40
FH187	Basement N. End Room	<4" PIPE RUN	B	1.320E02	3	1	1	2	4	40.00	60
FH199	Basement Hallway	<4" PIPE RUN	A	6.960E01	3	1	1	1	12	40.00	50
FH201	Basement Hallway	<4" PIPE RUN	A	6.960E01	3	1	1	1	12	40.00	50
FH221	Attic	4-8" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH222	Attic	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	50
FH223	Attic	4-8" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH224	Attic	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	50
FH225	Attic	4-8" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH226	Attic	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	45
FH227	Attic	<4" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH228	Attic	<4" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	40
FH229	Attic	<4" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	45
FH230	Attic	<4" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	40
FH231	Attic	<4" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	70
FH179	Mechanical Room	>14" PIPE RUN	A	0	3	2	2	2	1	2.00	0
FH180	Mechanical Room	>14" PIPE RUN	A	0	3	2	2	2	1	2.00	0
FH182	Mechanical Room	4-8" PIPE FITTING	A	0	3	2	2	2	1	2.00	0
FH184	Basement Rms 14&14A	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH188	Basement N. End Room	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH189	Basement N. End Room	ACOUSTICAL WALL TILE	A	0	3	1	1	2	4	40.00	0
FH192	Basement N. Store Rm	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH193	Basement Room 12	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH194	Basement Hallway	ACOUSTICAL WALL TILE	A	0	3	1	1	2	4	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 209.4
(continued)

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 209, ADMIN. (SATCOM)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH195	Basement Room 13	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH196	Basement Room 11	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH197	Basement Room 11	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH197	Basement Room 24	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH200	Basement Hallway	<4" PIPE FITTING	A	0	3	1	1	1	12	40.00	0
FH202	Basement Hallway	<4" PIPE FITTING	A	0	3	1	1	1	12	40.00	0
FH204	Basement Room 24	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH207	Basement Room 19	CEILING TILE	A	0	3	1	1	2	4	40.00	0
FH213	1st Flr Audio Visual	CEILING TILE	A	0	2	3	1	1	1	2.00	0
FH216	2nd Floor Offices	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH216	2nd Floor Room 227	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH217	2nd Flr Ofc 227-229	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH217	Rooms 227-229	CEILING TILE	A	0	2	2	1	2	4	40.00	0
FH219	2nd Floor Office 208	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH220	2nd Floor Room 214A	CEILING TILE	A	0	2	2	1	2	4	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 209.5

COST ESTIMATE* - BUILDING 209, ADMIN. (SATCOM)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	AREA 9	AREA 10	AREA 11
Pipe Fittings (EA)												
<4"	70.30	-	-	-	-	-	-	-	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	-	-	-	-	-	-
4-8"	30.50	-	-	-	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.8	5.0	7.8	**	3.4	23.0	4.2	1.5	4.5	5.0	0.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.8	5.0	7.8	**	3.4	23.0	4.2	1.5	4.5	5.0	0.6
Difficulty Allowance	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.8	5.0	7.8	**	3.4	23.0	4.2	1.5	4.5	5.0	0.6
Decontamination Units Mobilization		**	**	**	**	**	**	**	**	**	**	**
SUBTOTAL		1.7	5.9	8.7	0.9	4.3	23.9	5.1	2.4	5.4	5.9	1.5
Contingency @ 15.00%		0.3	0.9	1.3	0.1	0.6	3.6	0.8	0.4	0.8	0.9	0.2
SUBTOTAL		2.0	6.8	10.0	1.0	4.9	27.4	5.9	2.8	6.2	6.8	1.7
Design Fee @ 10.00%		0.2	0.7	1.0	0.1	0.5	2.7	0.6	0.3	0.6	0.7	0.2
SUBTOTAL		2.2	7.5	11.1	1.1	5.4	30.2	6.4	3.0	6.8	7.5	1.8
Air Monitoring @ 10.00%***		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
TOTAL		3.1	8.4	12.0	2.1	6.3	31.1	7.4	4.0	7.7	8.4	2.8

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1st Fl. Audio Visual
 AREA 2: 1st Fl. Entire Hallw
 AREA 3: 1st Floor N. Hallway
 AREA 4: 1st Floor Room 130
 AREA 5: 1st Floor Room 131
 AREA 6: 1st Floor Room 132
 AREA 11: 1st Flr H2O Btl.Str.

AREA 2: 1st Fl. Confr. Room
 AREA 4: 1st Fl. Hallway Sou.
 AREA 6: 1st Floor Room 134
 AREA 10: 1st Floor Room 131
 AREA 10: 1st Flr Conf. Room

TABLE 209.5
(continued)
COST ESTIMATE* - BUILDING 209, ADMIN. (SATCOM)

DESCRIPTION	UNIT COST (\$)	AREA 12	AREA 13	AREA 14	AREA 15	AREA 16	AREA 17	AREA 18	AREA 19	AREA 20	AREA 21	AREA 22
Pipe Fittings (EA)												
<4"	70.30	-	-	-	-	-	-	-	-	5.0	-	0.6
4-8"	85.80	-	-	-	-	-	-	-	-	4.5	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	-	-	-	8.8	4.0	1.1
4-8"	30.20	-	-	-	-	-	-	-	-	14.1	-	-
9-14"	42.30	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.8	3.5	4.5	4.5	5.6	2.1	9.0	3.6	-	**	-
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other		-	4.2	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.8	7.7	4.5	4.5	5.6	2.1	9.0	3.6	32.3	4.0	1.7
Difficulty Allowance		-	-	-	-	-	-	-	-	-	4.0	-
SUBTOTAL		0.8	7.7	4.5	4.5	5.6	2.1	9.0	3.6	32.3	8.0	1.7
Decontamination Units Mobilization		**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8
SUBTOTAL		1.7	8.6	5.4	5.4	6.5	3.0	9.9	4.5	33.2	8.9	2.6
Contingency @ 15.00%		0.3	1.3	0.8	0.8	1.0	0.4	1.5	0.7	5.0	1.3	0.4
SUBTOTAL		2.0	9.9	6.2	6.2	7.5	3.4	11.3	5.2	38.2	10.2	3.0
Design Fee @ 10.00%		0.2	1.0	0.6	0.6	0.7	0.3	1.1	0.5	3.8	1.0	0.3
SUBTOTAL		2.2	10.9	6.8	6.8	8.2	3.8	12.5	5.7	42.0	11.2	3.3
Air Monitoring @ 10.00%***		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
TOTAL		3.1	11.8	7.7	7.7	9.1	4.7	13.4	6.7	42.9	12.1	4.2

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 12: 1st Flr and Visual
AREA 14: 2nd Flr. Rm. 214-218
AREA 16: 2nd Floor N. Hallway
AREA 18: 2nd Flr N. Offices
AREA 20: Attic
AREA 22: Basement N. End Room

AREA 13: 2nd Fl. Offices SE
AREA 15: 2nd Floor Hallway
AREA 17: 2nd Floor Room 230
AREA 19: 2nd Flr Ofc 207-209
AREA 21: Basement Hallway

TABLE 209.5
(continued)

COST ESTIMATE* - BUILDING 209, ADMIN. (SATCOM)

DESCRIPTION	UNIT COST (\$)	AREA 23	AREA 24	AREA 25	AREA 26	AREA 27	AREA 28	AREA 29	TOTAL
Pipe Fittings (EA)									
<4"	70.30	-	-	-	-	-	-	1.5	7.0
4-8"	85.80	-	-	-	-	-	-	1.0	5.5
9-14"	147.00	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-
Pipe Runs (LF)									
<4"	26.50	-	-	-	-	-	-	5.9	12.7
4-8"	30.50	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	13.4	0.7	4.5	2.8	6.2	**	-	116.9
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	4.2
SUBTOTAL		13.4	0.7	4.5	2.8	6.2	**	8.4	167.5
Difficulty Allowance		-	-	-	-	-	-	12.5	16.5
SUBTOTAL		13.4	0.7	4.5	2.8	6.2	**	20.9	184.0
Decontamination Units Mobilization		**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	**0.8	24.0
SUBTOTAL		14.3	1.6	5.4	3.7	7.1	0.9	21.8	210.0
Contingency @ 15.00%		2.2	0.2	0.8	0.6	1.1	0.1	3.3	31.5
SUBTOTAL		16.5	1.8	6.2	4.3	8.1	1.0	25.1	241.5
Design Fee @ 10.00%		1.6	0.2	0.6	0.4	0.8	0.1	2.5	24.1
SUBTOTAL		18.1	2.0	6.8	4.7	8.9	1.1	27.6	265.6
Air Monitoring @ 10.00%***		0.9	0.9	0.9	0.9	0.9	0.9	0.9	26.6
TOTAL		19.1	2.9	7.7	5.6	9.8	2.1	28.5	292.2

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 23: Basement N. Hallway
AREA 25: Basement Rms 14&14A
AREA 27: Basement Room 24
AREA 29: Mechanical Room

AREA 24: Basement N. Store Rm
AREA 26: Basement Room 19
AREA 28: Basement Room 26

SECTION 209.4
PHOTOGRAPHS



Bldg. 209

Mechanical Room: (Sample FH175)
(Less Than 4 In.) Pipe Fitting Insulation Tested
Positive. Pipe Run Insulation Also Tested Positive
(Sample FH176).



Bldg. 209

Mechanical Room: (Sample FH181)
(4 In. - 8 In.) Pipe Fitting Insulation Tested
Positive. Pipe Run Insulation Is Fiberglass.



Bldg. 209

Basement, Room 27 (North End): (Sample FH187)
(Less Than 4 In.) Pipe Fitting Insulation Tested
Positive. Pipe Run Insulation Is Also Tested
Positive (Sample FH186).



Bldg. 209

Basement, Store Room (North End): (Sample FH191)
(9 In. x 9 In.) Red Floor Tile Tested Positive.



Bldg. 209

Basement, West Hallway: (Less Than 4 In.) Pipe Run Insulation Located Above Hallway Ceiling Tested Positive (Sample FH201). Pipe Fitting Insulation, (Sample FH200), Tested Negative.



Bldg. 209

Attic: (Sample FH225) (4 In. - 8 In.) Pipe Fitting
Insulation Tested Positive.



Bldg. 209

Attic: (Sample FH226) (4 In. - 8 In.) Pipe Run
Insulation Tested Positive.



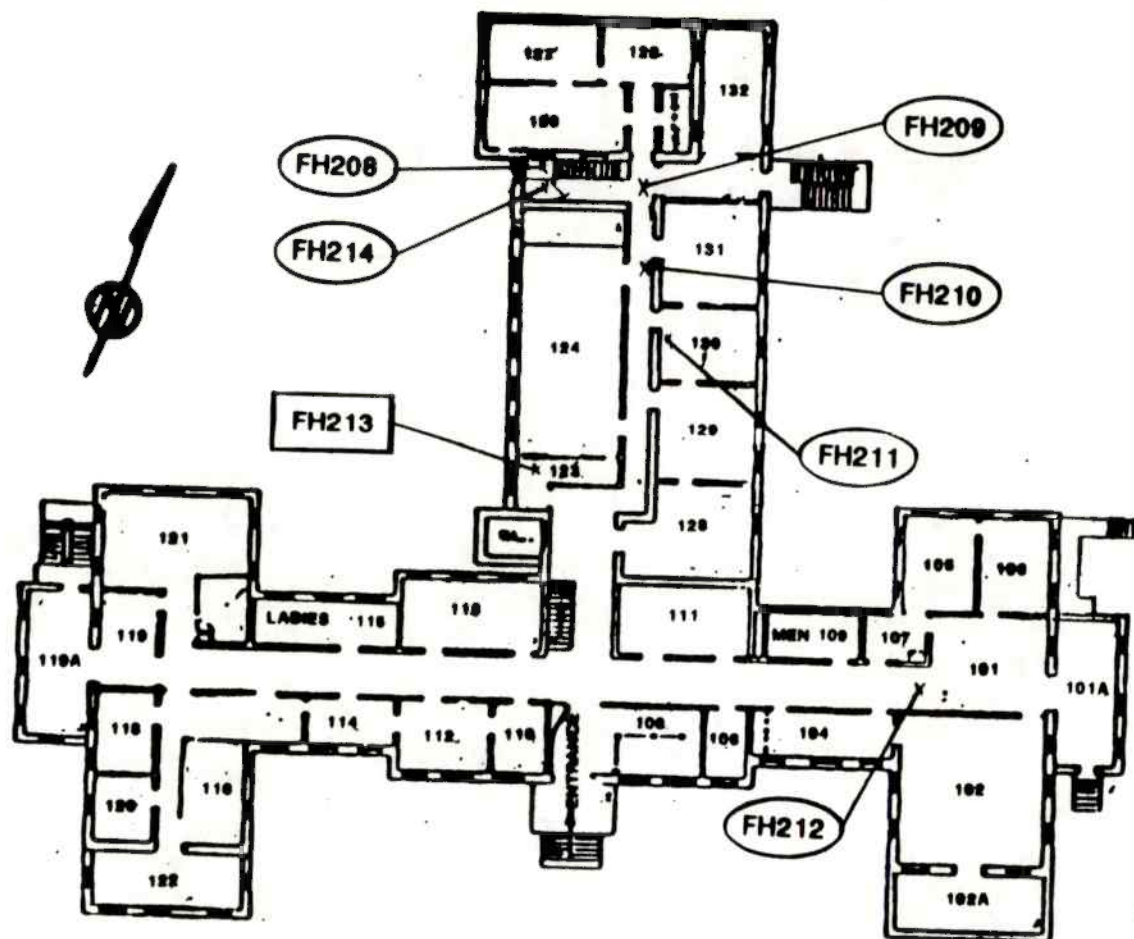
Bldg. 209

Attic: (Sample FH228) (Less Than 4 In.) Pipe Run
Insulation Tested Positive.



Bldg. 209

Attic: (Sample FH229) (Less Than 4 In.) Pipe
Fitting Insulation Tested Positive.

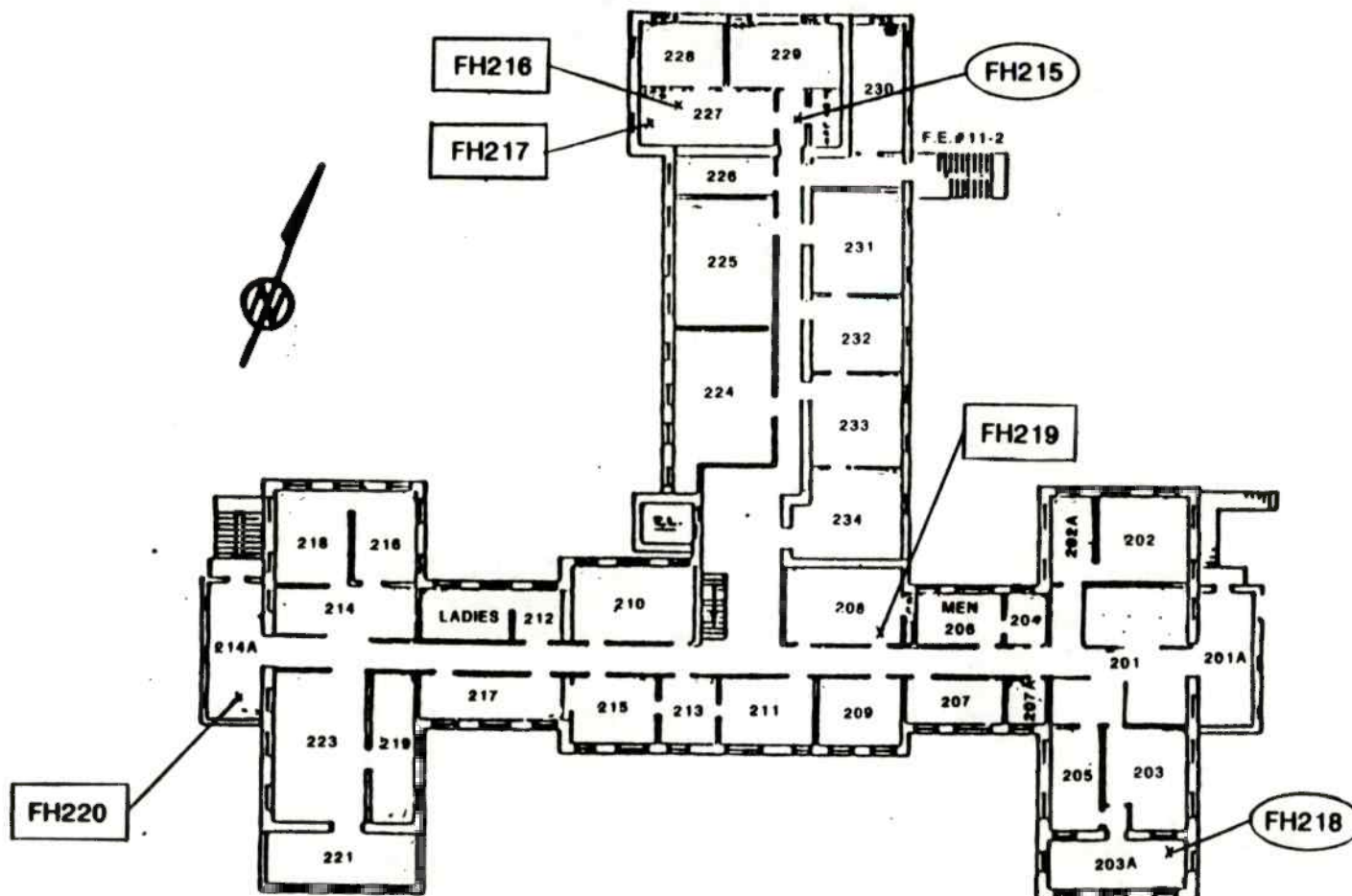


BLDG. 209
FIRST FLOOR

LEGEND

-  POSITIVE SAMPLE
 NEGATIVE SAMPLE

WESTON
DESIGNERS/CONSULTANTS



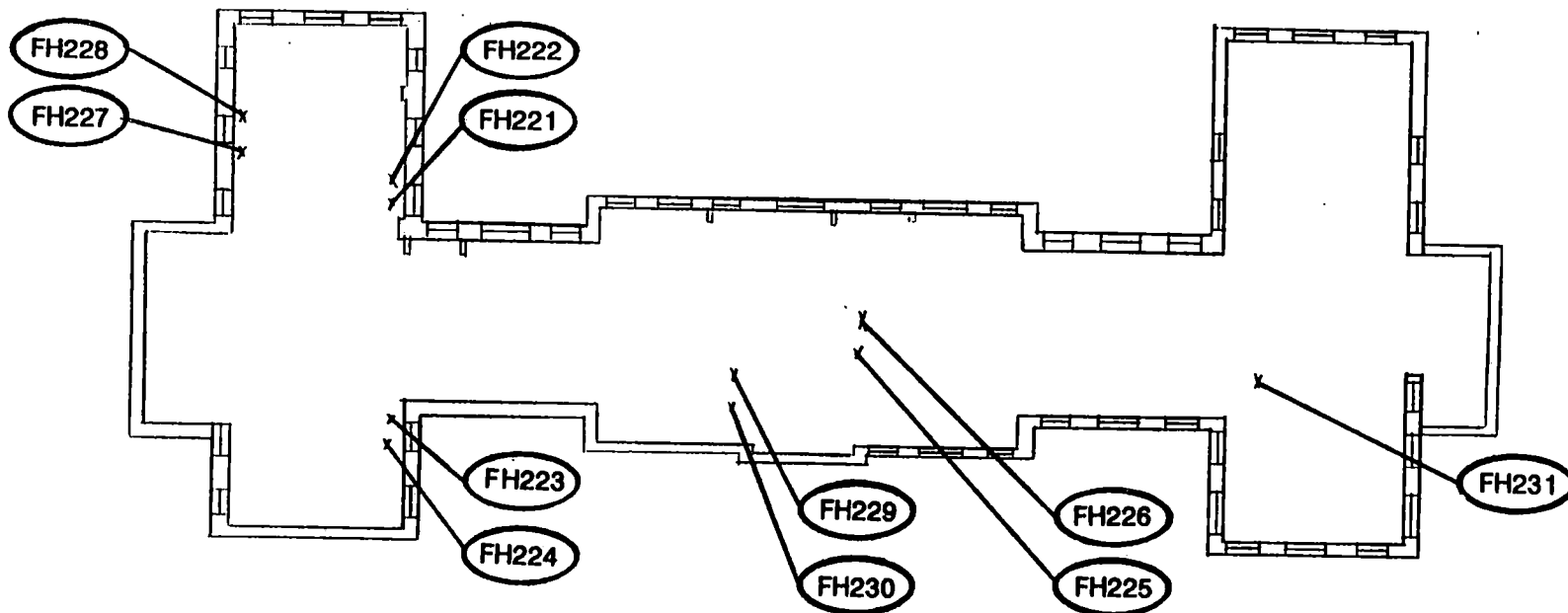
BLDG. 209
SECOND FLOOR

LEGEND

(FHnnn) POSITIVE SAMPLE

[FHnnn] NEGATIVE SAMPLE

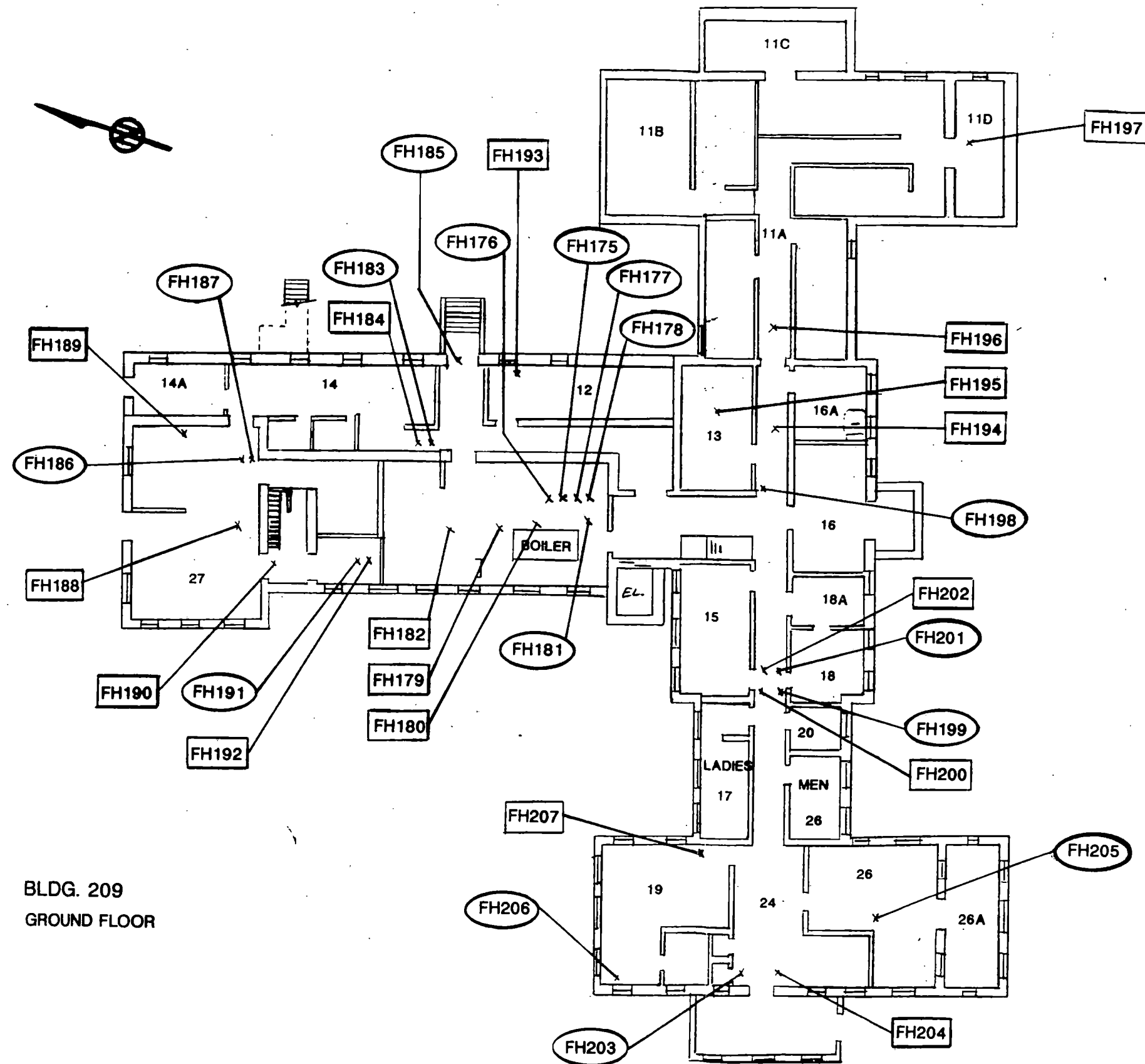
WESTON
DESIGN & CONSULTANTS



BLDG. 209
ATTIC

LEGEND

- FHnnnn POSITIVE SAMPLE
- FHnnnn NEGATIVE SAMPLE



259

BOQ BUILDING

BOQ BUILDING**259.1 GENERAL**

Building 259 was surveyed by WESTON technicians on 3 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 259.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 6 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 259.1 lists the analytical results for the bulk samples.

259.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 259 are presented in Table 259.1. An area-by-area inventory of ACM is provided in Tables 259.2 and 259.3. "Other Asbestos-Containing Materials," listed in Table 259.3, are materials that do not correspond to the standard caption categories listed in Table 259.2. A prioritized listing of exposure assessments is presented in Table 259.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 259.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 259.2 and 259.5.

259.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing transite panel board, furnace insulation, and floor tile should be labeled under the O&M Program.

TABLE 259.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 259, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH232	BOILER ROOM,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,SIDING	40	-	-	NO
FH233	BOILER ROOM,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,FURN INSUL	75	-	-	NO
FH234	HALLWAY-1ST FLR.,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH235	1ST FLOOR HALLWAY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL	-	-	-	YES
FH236	1ST FLR HUNTER SUITE,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL	-	-	-	YES
FH237	1ST FLR LOUNGE AREA,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	10	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 259.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 259, BOQ

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1st Flr Lounge Area	-	-	-	-	-	-	-	-	-	3.50	-	-	-
Boiler Room	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	-	-	3.50	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 259.3

**Other Asbestos-Containing Material - Building 259, BOQ
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Boiler Room	Furnance Insulation	0.001 (MSF)
Boiler Room	Transite Panel Board	0.260 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

259-5

TABLE 259.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 259, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH232	Boiler Room	TRANSITE PANEL BOARD	A	5.000E-2	1	2	1	1	1	2.00	40
FH233	Boiler Room	INSULATION BOARD	A	5.000E-2	1	2	1	1	1	2.00	75
FH234	Hallway-1st Flr.	<4" PIPE FITTING	A	0	1	1	1	1	6	40.00	0
FH235	1st Floor Hallway	CEILING TILE	A	0	1	1	1	1	6	40.00	0
FH235	1st Flr Lounge Area	CEILING TILE	A	0	1	1	1	1	6	40.00	0
FH236	1st Flr Hunter Suite	CEILING TILE	A	0	1	1	1	1	6	40.00	0

Priority Index Codes

- A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

- 1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 259.5

COST ESTIMATE* - BUILDING 259, BOQ

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	40.50	-	-	-
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	19.6	-	19.6
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	2.9	2.9
SUBTOTAL		19.6	2.9	22.5
Difficulty Allowance		-	-	-
SUBTOTAL		19.6	2.9	22.5
Decontamination Units		3.0	3.0	6.0
Mobilization		1.0	1.0	2.0
SUBTOTAL		23.6	6.9	30.5
Contingency @ 15.00%		3.5	1.0	4.6
SUBTOTAL		27.1	7.9	35.0
Design Fee @ 10.00%		2.7	0.8	3.5
SUBTOTAL		29.9	8.7	38.5
Air Monitoring @ 10.00%***		1.9	1.9	3.9
TOTAL		31.8	10.6	42.4

* Amounts Are In Thousands Of Dollars

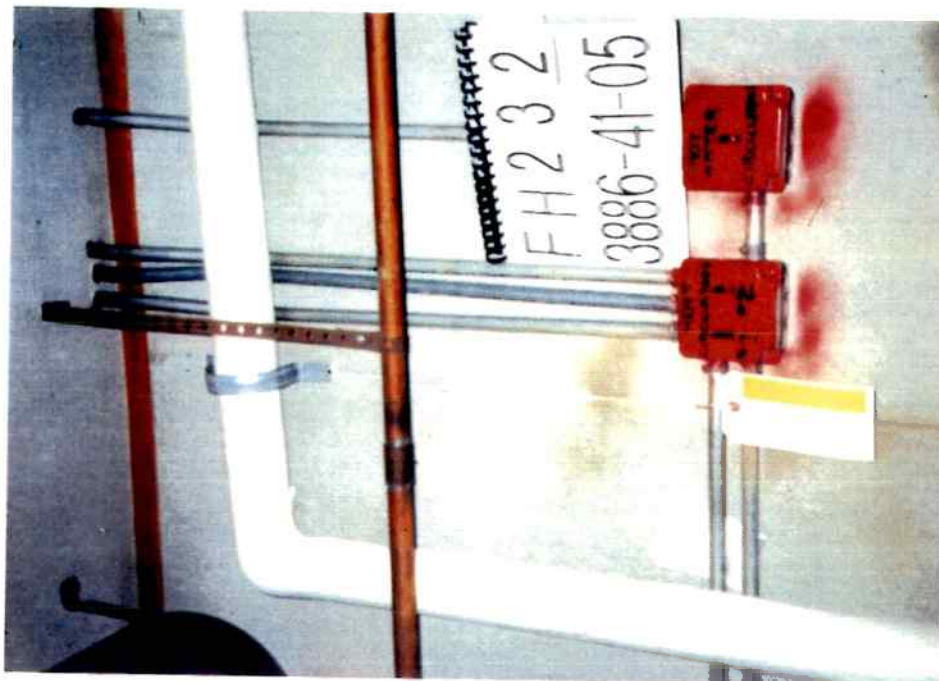
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1st Flr Lounge Area

AREA 2: Boiler Room

SECTION 259.4
PHOTOGRAPHS



Bldg. 259

Mechanical Room: (Sample FH232) Transite Panels
(Ceiling and Walls) Tested Positive.



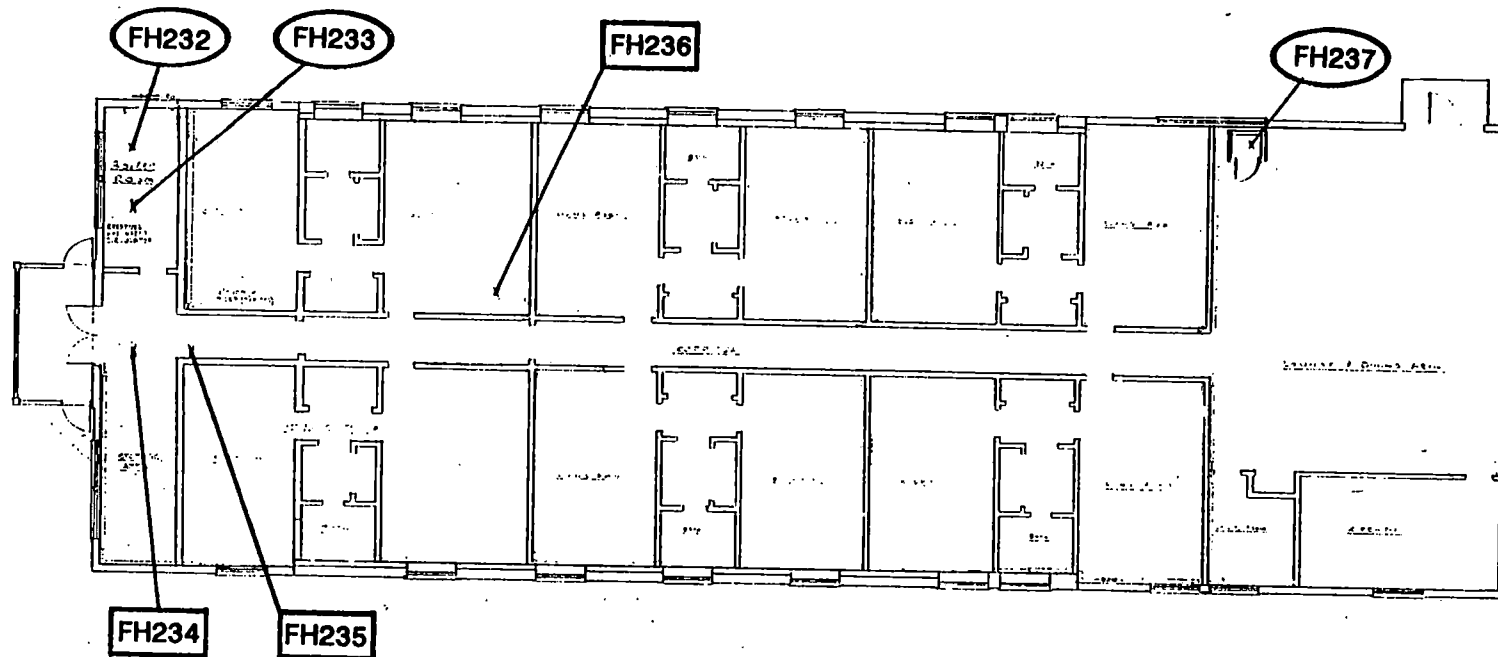
Bldg. 259

Mechanical Room: (Sample FH233) Furnace Insulation
Tested Positive.



Bldg. 259

Entire First Floor Area: (Sample FH237) (9 In. x 9 In.) Gray Floor Tile Tested Positive.



BLDG. 259

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

270

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

270.1 GENERAL

Building 270 was surveyed by WESTON technicians on 15 November 1990 and 16 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 270.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 31 samples of suspect material collected from the building. Of these samples, 24 were found to be asbestos-containing materials (ACM). Table 270.1 lists the analytical results for the bulk samples.

270.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 270 are presented in Table 270.1. An area-by-area inventory of ACM is provided in Tables 270.2 and 270.3. "Other Asbestos-Containing Materials," listed in Table 270.3, are materials that do not correspond to the standard caption categories listed in Table 270.2. A prioritized listing of exposure assessments is presented in Table 270.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 270.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 270.2 and 270.5.

270.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing pipe insulation, air duct insulation, tank insulation, and debris should be labeled under the O&M Program.

TABLE 270.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 270, ADMIN. (HOUSING DEPT)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH144	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	3	17	-	YES
FH145	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	17	3	-	YES
FH146	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	7	15	-	YES
FH147	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	20	3	-	YES
FH148	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	3	17	-	YES
FH149	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	20	3	-	YES
FH150	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	10	10	-	NO
FH151	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	10	30	-	YES
FH152	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	50	10	-	YES
FH153	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	20	30	-	NO
FH154	BASEMENT,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8 FITTIN	20	10	-	YES
FH155	BASEMENT,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 INSUL	30	30	-	NO
FH156	BASEMENT,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4 INSUL	-	-	-	YES
FH157	BASEMENT,BELOW CEILING	<4" PIPE FITTING	WHITE,DOM,<4 FITTING	35	25	-	NO
FH158	BASEMENT,BELOW CEILING	AIR HANDLING EQUIPMENT	WHITE,OTH,DUCT TAPE	70	-	-	YES
FH159	BASEMENT,BELOW CEILING	AIR HANDLING EQUIPMENT	WHITE,OTH,DUCT TAPE	20	-	-	YES
FH160	BASEMENT,BELOW CEILING	AIR HANDLING EQUIPMENT	WHITE,OTH,DUCT TAPE	60	-	-	YES
FH161	BASEMENT,BELOW CEILING	<4" PIPE RUN	WHITE,HHW,<4 INSUL	10	20	-	YES
FH162	BASEMENT,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4 FITTING	30	5	-	NO
FH163	BASEMENT,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4 INSUL	20	10	-	YES
FH164	BASEMENT,BELOW CEILING	<4" PIPE FITTING	WHITE,DOM,<4 FITTING	-	-	-	NO
FH165	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	80	-	-	NO
FH166	MECH ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,HHW,<4 INSUL	25	10	-	NO
FH167	MECH. ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4 FITTING	35	-	-	NO
FH168	MECH ROOM,BELOW CEILING	9-14" PIPE RUN	WHITE,OTH,9-14 BREEC	25	25	-	NO

^a Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 270.1
(continued)

BULK SAMPLE ANALYSIS RESULTS - BUILDING 270, ADMIN. (HOUSING DEPT)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH169	1ST FLR. STAIRWELL,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,FLOOR PAD	-	-	-	YES
FH170	1ST FLR. STAIRWELL,BELOW CEILING	CEILING TILE	WHITE,OTH,CL TILE	-	-	-	NO
FH171	1ST FLR-HOUSING REFG,BELOW CEILING	CEILING TILE	WHITE,OTH,CL TILE	-	-	-	YES
FH172	1ST FLR - MENS ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,CL TILE	-	-	-	YES
FH173	2ND FLR. ROOM #4,BELOW CEILING	DEBRIS	BLACK,OTH,DEBRIS	5	-	-	NO
FH174	2ND FLR. KITCHEN,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FT	-	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
N = North
E = East
S = South
W = West
NE = Northeast
NW = Northwest
SE = Southeast
SW = Southwest

System Codes

STM = Steam
CHW = Chilled Water
HHW = Heating Hot Water
DOM = Domestic Water
OTH = Other
UNK = Unknown

Asbestos Types

CH = Chrysotile
AM = Amosite
OT = Other

TABLE 270.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 270, ADMIN. (HOUSING DEPT)

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
2nd Flr. Room #4	-	-	-	-	-	-	-	-	-	-	-	-	*
Basement	280	106	-	-	101	1004	-	-	-	-	-	1.20	-
Mech Rm. Under Kit.	8	-	-	-	-	-	-	-	-	-	-	-	-
Mech Room	-	-	-	-	80	-	15	-	-	-	0.13	-	-
Mech. Room	16	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	304	106	-	-	181	1004	15	-	-	-	0.13	1.20	*

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 270.3

**Other Asbestos-Containing Material - Building 270, Housing Department
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
2nd Flr. Room 4	ACM Debris	0.010 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 270.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 270, ADMIN.(HOUSING DEPT)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH151	Basement	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	40
FH152	Basement	4-8" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH153	Basement	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	50
FH155	Basement	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	60
FH157	Basement	<4" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	60
FH158	Basement	AIR HANDLING EQUIPMENT	A	4.050E-1	3	1	2	1	1	1.00	70
FH160	Basement	AIR HANDLING EQUIPMENT	A	4.050E-1	3	1	2	1	1	1.00	60
FH165	Mech Room	BOILERS/TANKS	A	4.050E-1	3	1	2	1	1	1.00	80
FH168	Mech Room	9-14" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	50
FH173	2nd Flr. Room #4	DEBRIS	A	1.800E-1	2	1	2	1	1	40.00	5
FH144	Basement	4-8" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	20
FH145	Basement	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	20
FH146	Basement	4-8" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	22
FH147	Basement	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	23
FH148	Basement	4-8" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	20
FH149	Basement	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	23
FH150	Basement	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	20
FH154	Basement	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	30
FH159	Basement	AIR HANDLING EQUIPMENT	A	1.450E-1	3	1	2	1	1	1.00	20
FH161	Basement	<4" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	30
FH162	Basement	<4" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	35
FH163	Basement	<4" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	30
FH166	Mech Room	<4" PIPE RUN	A	1.450E-1	3	1	2	1	1	1.00	35
FH167	Mech Rm. Under Kit.	<4" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	35
FH167	Mech. Room	<4" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	35
FH156	Basement	<4" PIPE RUN	A	0	3	1	2	1	1	1.00	0
FH164	Basement	<4" PIPE FITTING	A	0	3	1	2	1	1	1.00	0
FH170	1st Flr. Stairwell	CEILING TILE	A	0	2	1	1	2	3	40.00	0
FH170	2nd Flr. Ent. Area	CEILING TILE	A	0	2	1	1	1	8	40.00	0
FH171	1st Flr-Housing Refg	CEILING TILE	A	0	2	1	1	2	3	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 270.4
(continued)

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 270, ADMIN.(HOUSING DEPT)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH172	1st Flr - Mens Room	CEILING TILE	A	0	2	1	1	2	3	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
B [=] Review Management Special Considerations/Remarks
C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
2 [=] Occupant Accessibility
3 [=] Material Condition
4 [=] Level Of Activity
5 [=] Number Of Assigned Occupants

TABLE 270.5

COST ESTIMATE* - BUILDING 270, ADMIN. (HOUSING DEPT)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	TOTAL
Pipe Fittings (EA)							
<4"	70.30	-	19.7	0.6	-	1.1	21.4
4-8"	85.80	-	9.1	-	-	-	9.1
9-14"	147.00	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-
Pipe Runs (LF)							
<4"	26.50	-	2.7	-	2.1	-	4.8
4-8"	50.50	-	30.6	-	-	-	30.6
9-14"	72.50	-	-	-	0.6	-	0.6
>14"	60.80	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-
Floor Tile (SF)	5.60	-	-	-	-	-	-
Boilers/Tanks (SF)	37.90	-	-	-	4.9	-	4.9
Air Handling Equipment (SF)	20.00	-	24.0	-	-	-	24.0
Other		0.2	-	-	-	-	0.2
SUBTOTAL		0.2	86.1	0.6	7.7	1.1	95.7
Difficulty Allowance		-	-	-	-	-	-
SUBTOTAL		0.2	86.1	0.6	7.7	1.1	95.7
Decontamination Units Mobilization		1.4	1.4	1.4	1.4	1.4	7.0
		0.4	0.4	0.4	0.4	0.4	2.0
SUBTOTAL		2.0	87.9	2.4	9.5	2.9	104.7
Contingency @ 15.00%		0.3	13.2	0.4	1.4	0.4	15.7
SUBTOTAL		2.3	101.1	2.7	10.9	3.4	120.4
Design Fee @ 10.00%		0.2	10.1	0.3	1.1	0.3	12.0
SUBTOTAL		2.5	111.2	3.0	12.0	3.7	132.4
Air Monitoring @ 10.00%***		2.6	2.6	2.6	2.6	2.6	13.2
TOTAL		5.2	113.9	5.6	14.6	6.3	145.7

* Amounts Are In Thousands Of Dollars

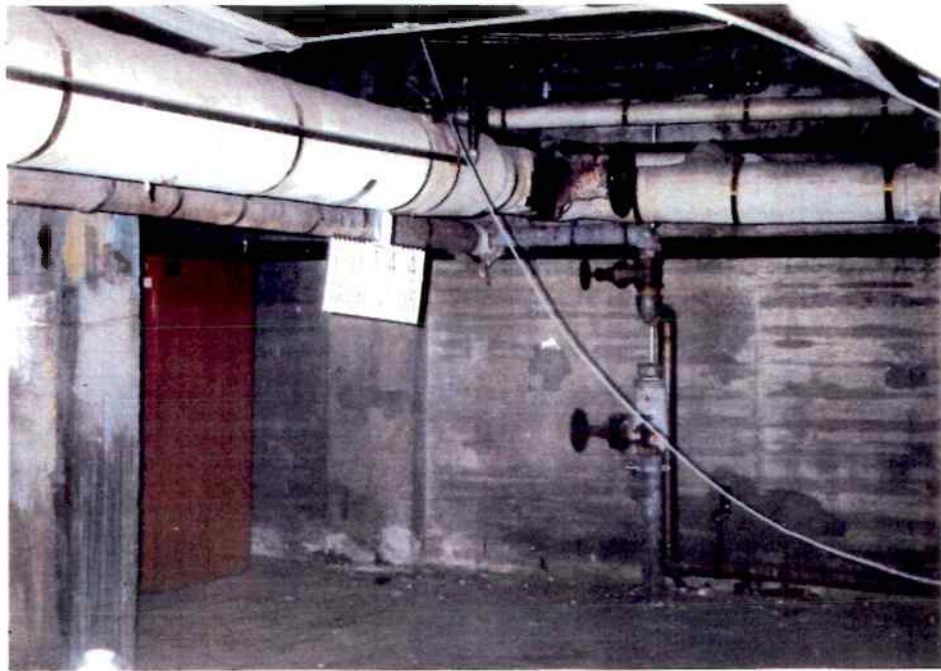
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 2nd Flr. Room #4.
 AREA 3: Mech Rm. Under Kit.
 AREA 5: Mech. Room

AREA 2: Basement
 AREA 4: Mech Room

SECTION 270.4
PHOTOGRAPHS



Bldg. 270

Basement: (Sample FH144) Pipe Insulation (4 In. - 8 In.) Tested Positive. Pipe Insulation In Some Sections Are Extremely Damaged.



Bldg. 270

Basement: (Sample FH150) Pipe Fitting Insulation (4 In. - 8 In.) Tested Positive. Pipe Fitting Insulation are Extremely Damages.



Bldg. 270

Basement: Pipe Insulation Debris (Tested Positive)
are Present in The Middle Section Of The Basement.



Bldg. 270

Basement: (Sample FH159) Air Duct Tape Tested Positive. Duct Tape In Some Sections Of The Duct Is Extremely Damaged.



Bldg. 270

Basement: (Sample FH162) Pipe Fitting Insulation (Less Than 4 In.) Tested Positive. Pipe Insulation (Less Than 4 In.) Is Also Tested Positive.



Bldg. 270

Mechanical Room: (Sample FH165) Tank Insulation Tested Positive. Tank Insulation Is Extremely Damaged. Insulation Debris Are Also Found On The Floor.



Bldg. 270

Mechanical Room: (Sample FH165) Pipe Insulation Tested Positive. Pipe Fitting Insulation Is Also Tested Positive. Pipe And Fitting Insulation Are Extremely Damaged.



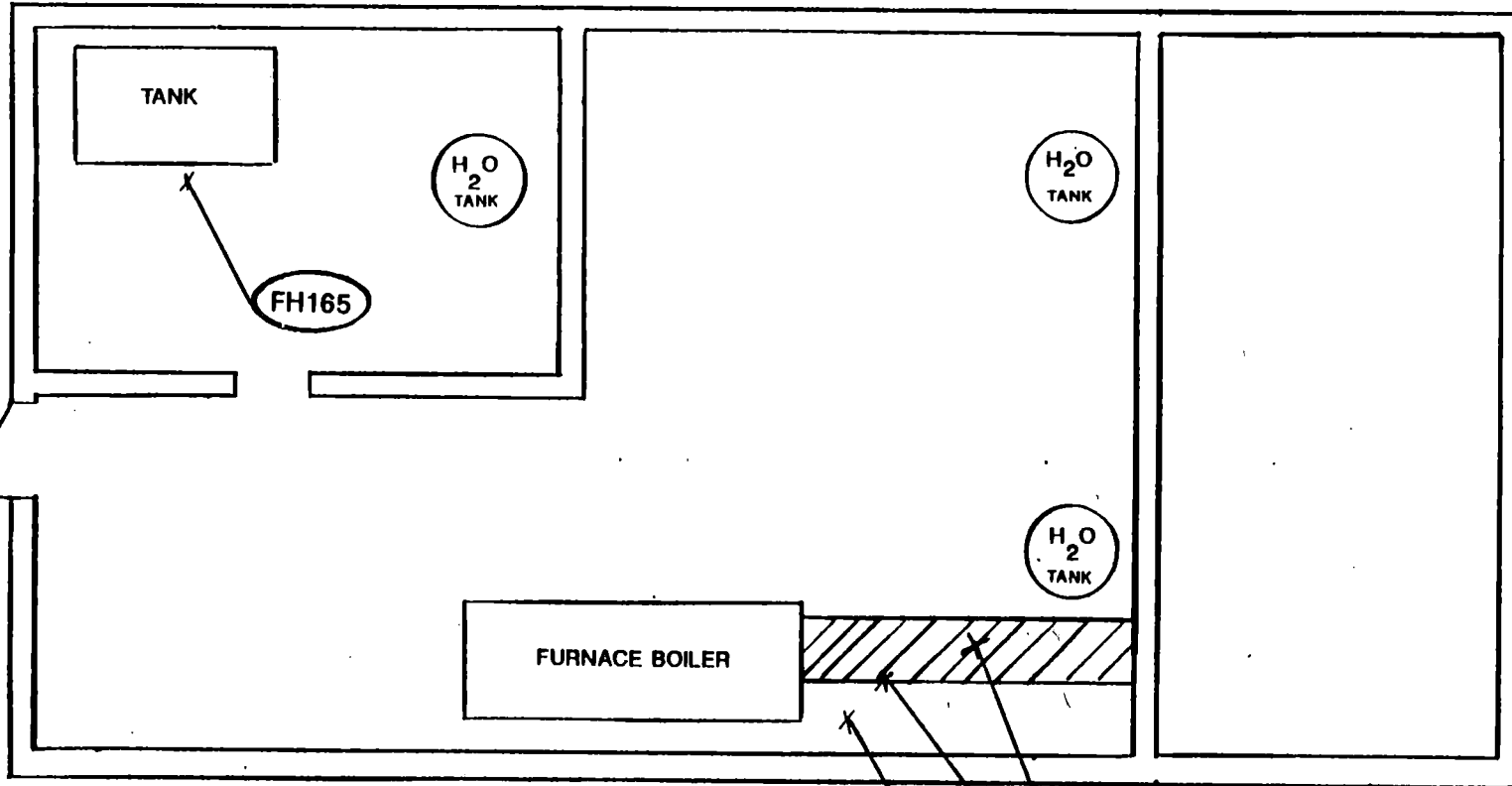
Bldg. 270

Mechanical Room: (Sample FH168) Boiler Breeching Insulation Tested Positive. Breeching Insulation Is Extremely Damaged.



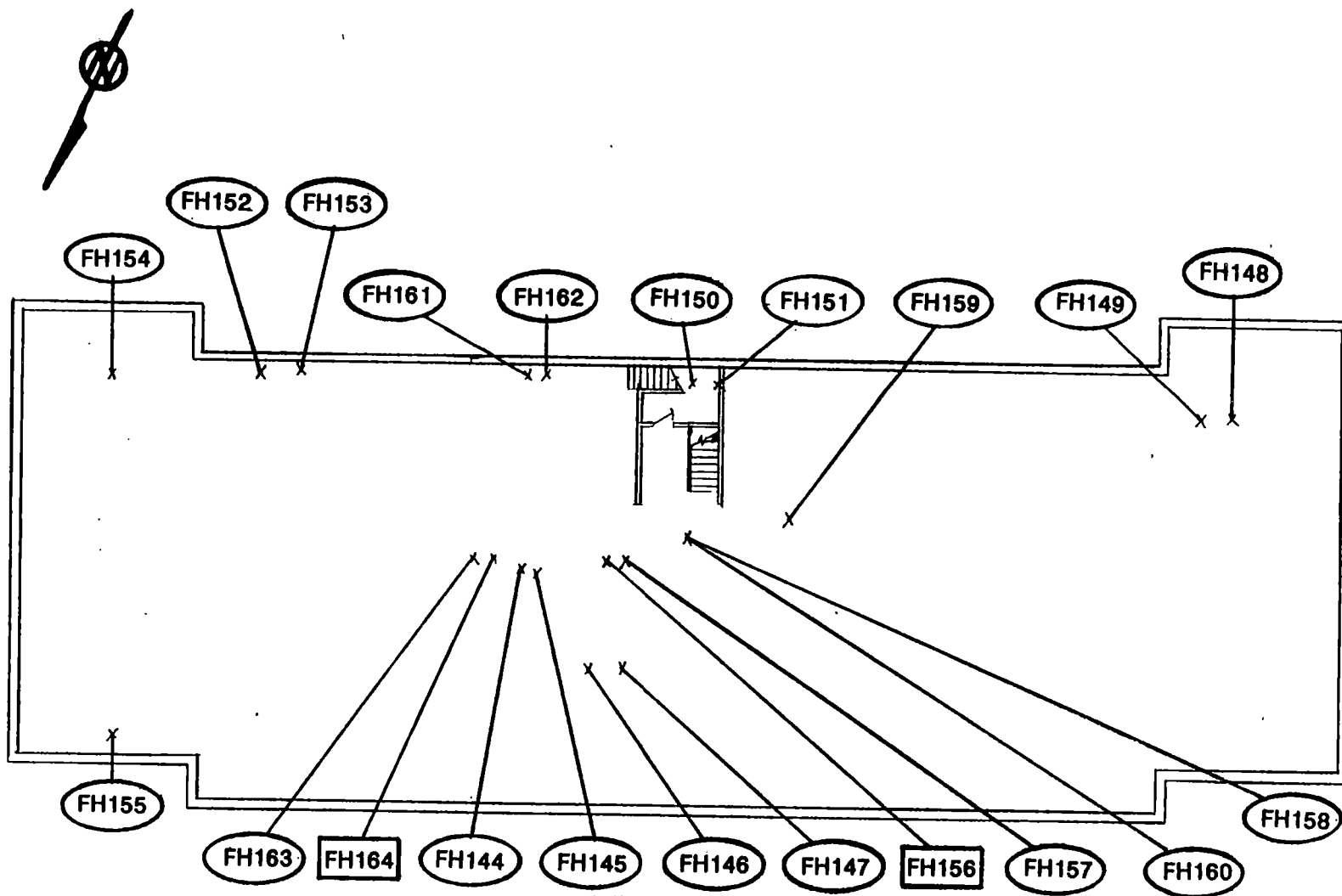
Bldg. 270

Second Floor, Room No. 4 Bathroom: (Sample FH173)
Pipe Insulation Debris Tested Positive.



BLDG. 270
MECHANICAL ROOM

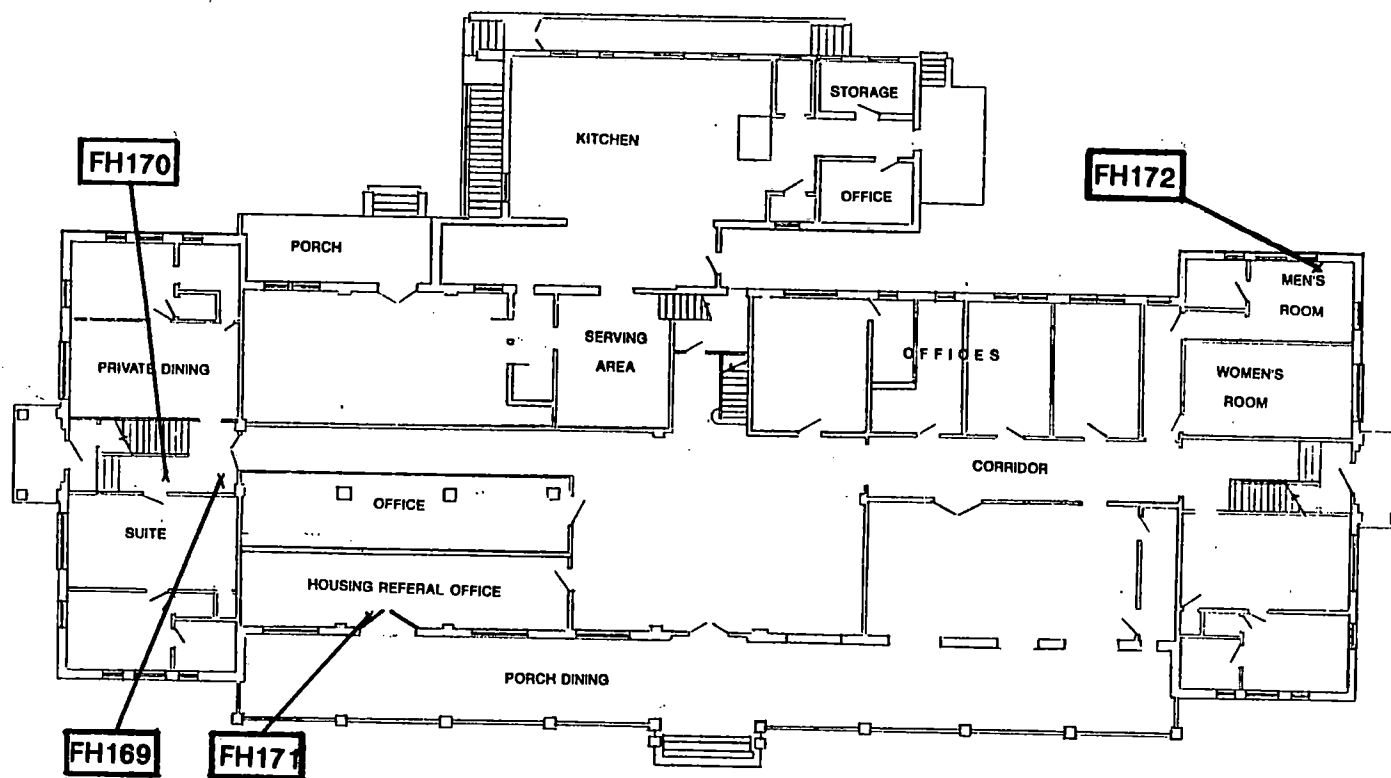
- LEGEND**
- FH168** - BREECHING
 - FH166**
 - FH167**
 - FHnnn** POSITIVE SAMPLE
 - FHnnn** NEGATIVE SAMPLE



BLDG. 270
BASEMENT PLAN

LEGEND

-  POSITIVE SAMPLE
 NEGATIVE SAMPLE



BLDG. 270
FIRST FLOOR PLAN

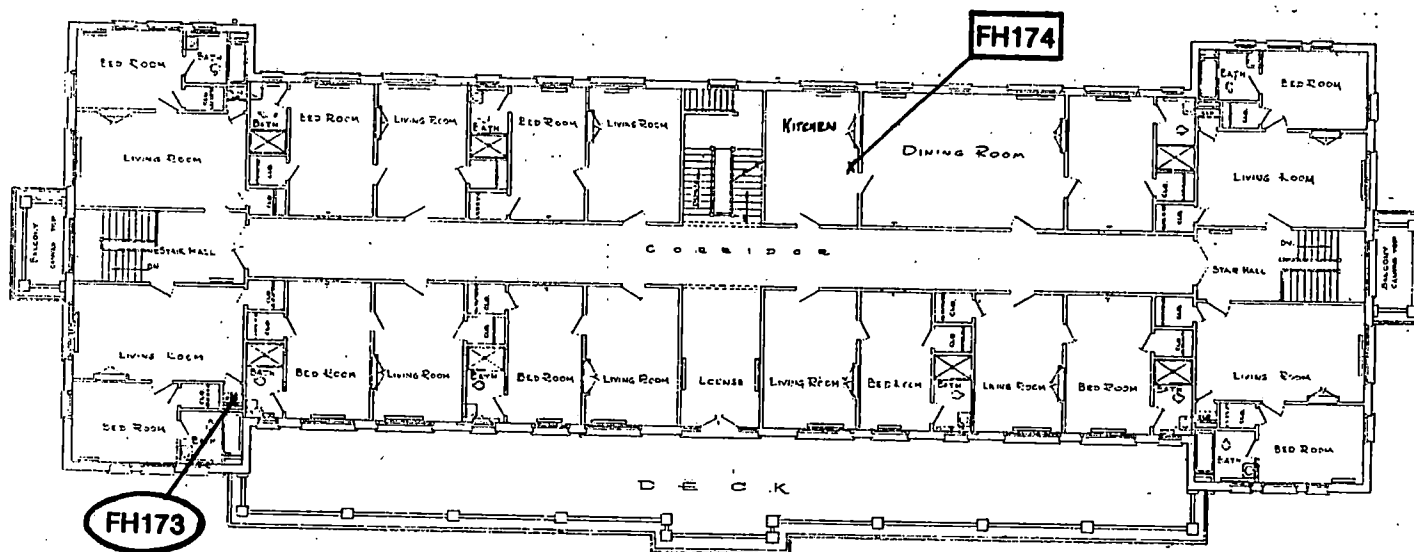
LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

270-19



BLDG. 270
SECOND FLOOR PLAN

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

271

BOQ BUILDING

BOQ BUILDING**271.1 GENERAL**

Building 271 was surveyed by WESTON technicians on 3 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 271.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 5 samples of suspect material collected from the building. Of these samples, 4 were found to be asbestos-containing materials (ACM). Table 271.1 lists the analytical results for the bulk samples.

271.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 271 are presented in Table 271.1. An area-by-area inventory of ACM is provided in Tables 271.2 and 271.3. "Other Asbestos-Containing Materials," listed in Table 271.3, are materials that do not correspond to the standard caption categories listed in Table 271.2. A prioritized listing of exposure assessments is presented in Table 271.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 271.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 271.2 and 271.5.

271.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing pipe insulation and floor tile should be labeled under the O&M Program.

TABLE 271.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 271, BOQ-GARDNER HALL

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH238	1ST FLR - ROOM #8,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL	-	-	-	YES
FH239	2ND FLOOR ROOM #13,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 PIPE	5	-	-	NO
FH240	ATTIC AREA,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 PIPE	5	-	-	YES
FH241	BARBER SHOP,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	10	-	-	YES
FH242	BARBER SHOP,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 PIPE	5	-	1	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 271.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 271, BOQ-GARDNER HALL

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROWELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
2nd Floor Room #13	-	-	-	-	2	-	-	-	-	-	-	-	-
Attic Area	-	-	-	-	2	-	-	-	-	-	-	-	-
Barber Shop	-	-	-	-	20	-	-	-	-	0.44	-	-	-
TOTALS	-	-	-	-	24	-	-	-	-	0.44	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 271.3

Other Asbestos-Containing Material - Building 271
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

TABLE 271.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 271, BOQ-GARDNER HALL

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH239	2nd Floor Room #13	<4" PIPE RUN	A	3.000E-3	1	1	1	1	15	40.00	5
FH240	Attic Area	<4" PIPE RUN	A	1.400E-4	1	1	2	1	1	1.00	5
FH242	Barber Shop	<4" PIPE RUN	A	1.400E-4	1	1	2	1	1	1.00	6
FH238	1st Floor Ceiling	CEILING TILE	A	0	1	1	1	1	15	40.00	0
FH238	1st Flr - Room #8	CEILING TILE	A	0	1	1	1	1	15	40.00	0
FH238	2nd Flr - Entire Flr	CEILING TILE	A	0	1	1	1	1	15	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 271.5

COST ESTIMATE* - BUILDING 271, BOQ-GARDNER HALL

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	TOTAL
Pipe Fittings (EA)					
<4"	70.30	-	-	-	-
4-8"	85.80	-	-	-	-
9-14"	147.00	-	-	-	-
>14"	216.00	-	-	-	-
Pipe Runs (LF)					
<4"	26.50	**	**	0.5	0.6
4-8"	30.50	-	-	-	-
9-14"	42.50	-	-	-	-
>14"	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	-	-	2.5	2.5
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	-	-	-
SUBTOTAL		**	**	3.0	3.1
Difficulty Allowance		-	-	-	-
SUBTOTAL		**	**	3.0	3.1
Decontamination Units		1.3	1.3	1.3	4.0
Mobilization		0.7	0.7	0.7	2.0
SUBTOTAL		2.1	2.1	5.0	9.1
Contingency @ 15.00%		0.3	0.3	0.7	1.4
SUBTOTAL		2.4	2.4	5.7	10.5
Design Fee @ 10.00%		0.2	0.2	0.6	1.0
SUBTOTAL		2.6	2.6	6.3	11.5
Air Monitoring @ 10.00%***		0.4	0.4	0.4	1.2
TOTAL		3.0	3.0	6.7	12.7

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 2nd Floor Room #13
AREA 3: Barber Shop

AREA 2: Attic Area

SECTION 271.4
PHOTOGRAPHS



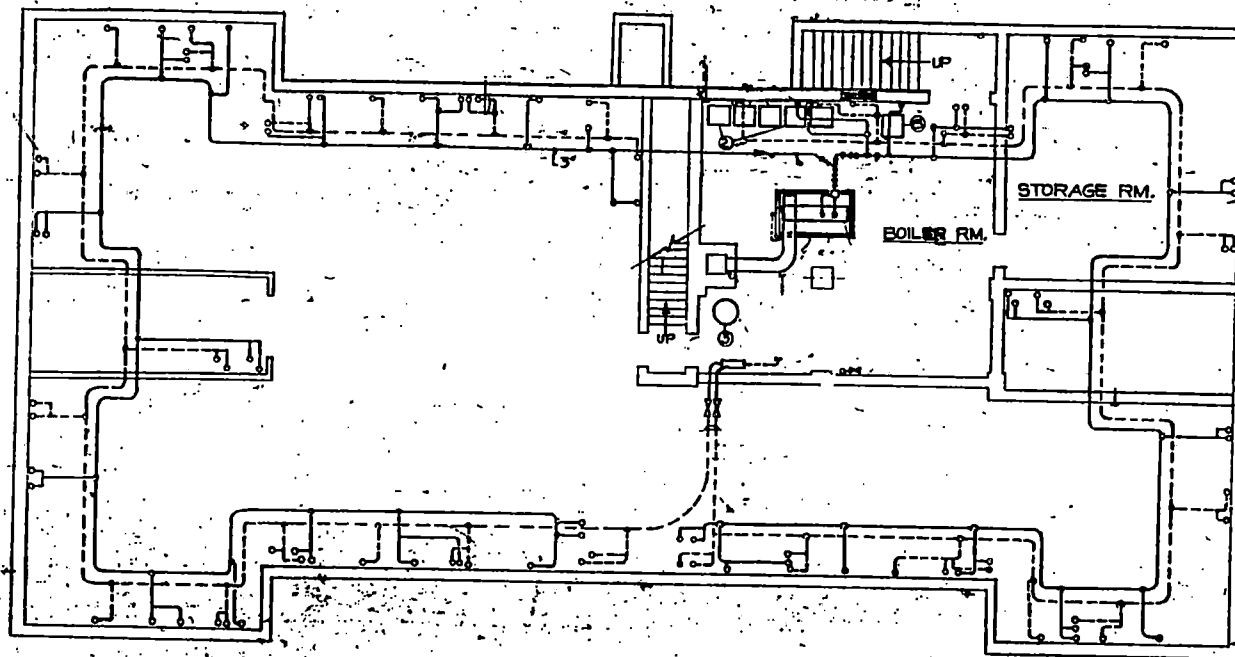
Bldg. 271

Second Floor, Room No. 13 Bathroom: (Sample FH239)
(Less Than 4 In.) Pipe Insulation Tested Positive.



Bldg. 271

Attic, Storage Room: (Sample FH240) (Less Than 4
In.) Pipe Insulation Tested Positive.



BLDG. 271
BASEMENT PLAN

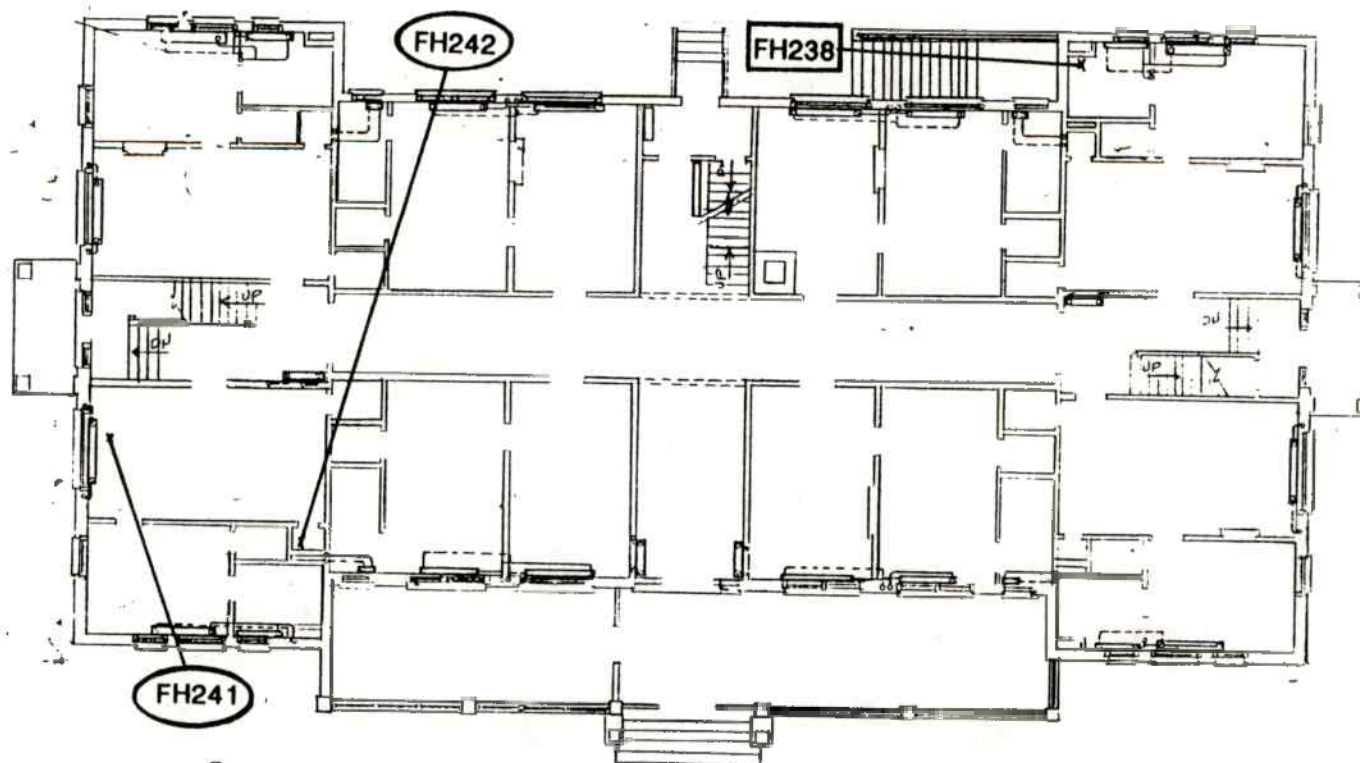
(NO SUSPECT ASBESTOS MATERIAL FOUND IN BASEMENT)

LEGEND

(FHnnn) POSITIVE SAMPLE

[FHnnn] NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS



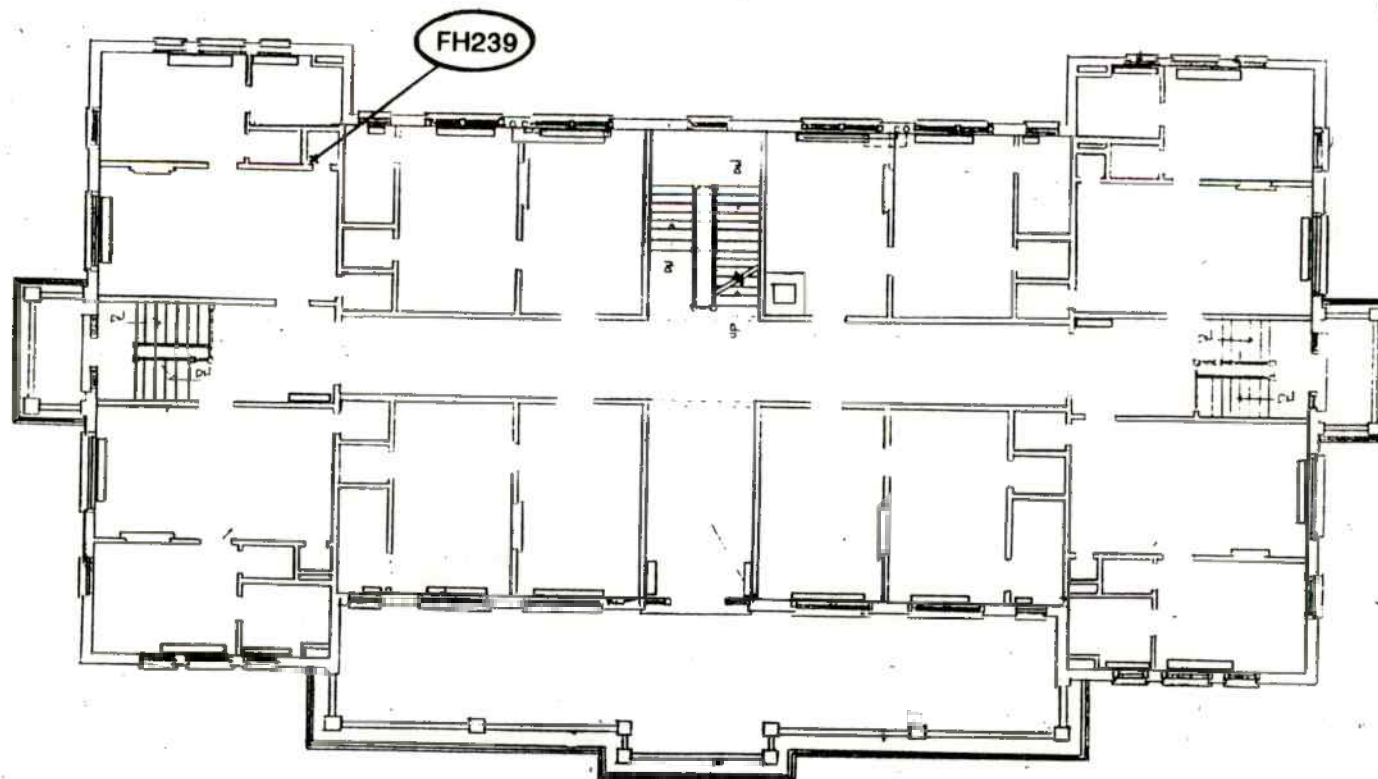
BLDG. 271
FIRST FLOOR PLAN

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

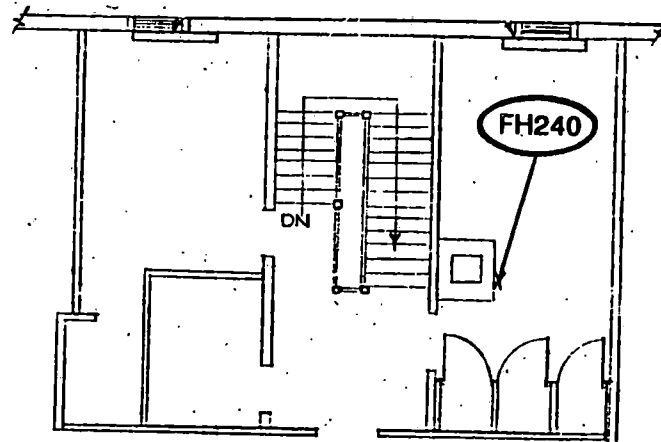


BLDG. 271
SECOND FLOOR PLAN

LEGEND

- FHnnn** POSITIVE SAMPLE
FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS



BLDG. 271
PARTIAL ATTIC FLOOR PLAN

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

287

BARRACKS BUILDING

BARRACKS BUILDING**287.1 GENERAL**

Building 287 was surveyed by WESTON technicians on 14 November 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 287.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 22 samples of suspect material collected from the building. Of these samples, 15 were found to be asbestos-containing materials (ACM). Table 287.1 lists the analytical results for the bulk samples.

287.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 287 are presented in Table 287.1. An area-by-area inventory of ACM is provided in Tables 287.2 and 287.3. "Other Asbestos-Containing Materials," listed in Table 287.3, are materials that do not correspond to the standard caption categories listed in Table 287.2. A prioritized listing of exposure assessments is presented in Table 287.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 287.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 287.2 and 287.5.

287.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile, pipe insulation, and fitting insulation should be labeled under the O&M Program.

TABLE 287.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 287, BARRACKS(MEDICAL CO)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH122	B'MENT SUPPLY\STORE.,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	40	-	-	NO
FH123	B'MENT SUPPLY\STORE.,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	15	2	-	YES
FH124	BASEMENT STORAGE,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH125	BASEMENT STORAGE,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	-	-	-	YES
FH126	BASEMENT,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	YES
FH127	BASEMENT,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	YES
FH128	BASEMENT STORAGE,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	15	2	-	YES
FH129	BASEMENT STORAGE,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	50	-	-	NO
FH130	1ST FLOOR DAYROOM,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	YES
FH131	1ST FLR. MENS ROOM,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	1	-	-	NO
FH132	1ST FLOOR DAYROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	NO
FH133	1ST FLR. KITCHEN,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FT	-	-	-	YES
FH134	1ST FLR. EASTWING,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	1	-	-	YES
FH135	2ND FLR. MENS ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	NO
FH136	2ND FL. RM223\HLWY,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	10	-	-	NO
FH137	2ND FLR. HALLWAY,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	15	-	-	YES
FH138	2ND FLR. HALLWAY,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	7	-	-	YES
FH139	3RD FLR. BATHROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	NO
FH140	3RD FLR. DAYRM.\HLWY,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	10	-	-	YES
FH141	MECH ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4 RUN	15	10	-	YES
FH142	MECH ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITTING	20	2	-	YES
FH143	MECH ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITTIN	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 287.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 287, BARRACKS (MEDICAL CO)

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1st Floor Dayroom	-	-	-	-	-	-	-	-	-	1.22	-	-	-
1st Flr. Eastwing	-	-	-	-	-	-	-	-	-	1.40	-	-	-
1st Flr. Mens Room	-	-	-	-	-	-	-	-	-	0.60	-	-	-
1st Flr. Offices&Rms	-	-	-	-	-	-	-	-	-	2.00	-	-	-
2nd Fl. Rm223\Hlwy	-	-	-	-	-	-	-	-	-	1.35	-	-	-
2nd Flr. Hallway	-	-	-	-	-	-	-	-	-	1.80	-	-	-
2nd Flr. Hallwy&Rms.	-	-	-	-	-	-	-	-	-	6.50	-	-	-
3rd Flr. Dayrm.\Hlwy	-	-	-	-	-	-	-	-	-	1.40	-	-	-
3rd Flr. Hallwy&Rms.	-	-	-	-	-	-	-	-	-	8.00	-	-	-
B'Ment Supply\Store.	37	-	-	-	67	-	-	-	-	-	-	-	-
Basement	-	-	-	-	-	-	-	-	-	0.25	-	-	-
Basement Storage	12	-	-	-	56	-	-	-	-	-	-	-	-
Mech Room	12	-	-	-	1	-	-	-	-	-	-	-	-
TOTALS	61	-	-	-	124	-	-	-	-	24.52	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 287.3

Other Asbestos-Containing Material - Building 287
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

287-5

TABLE 287.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 287, BARRACKS (MEDICAL CO)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH122	B'Ment Supply\Store.	<4" PIPE FITTING	B	1.650E02	2	2	1	1	2	10.00	40
FH129	Basement Storage	<4" PIPE FITTING	B	1.650E02	2	2	1	1	2	10.00	50
FH123	B'Ment Supply\Store.	<4" PIPE RUN	A	6.000E01	2	2	1	1	2	10.00	17
FH128	Basement Storage	<4" PIPE RUN	A	6.000E01	2	2	1	1	2	10.00	17
FH141	Mech Room	<4" PIPE RUN	A	5.000E-2	2	1	2	1	1	2.00	25
FH142	Mech Room	<4" PIPE FITTING	A	5.000E-2	2	1	2	1	1	2.00	22
FH124	Basement Storage	<4" PIPE FITTING	A	0	2	2	1	1	2	10.00	0
FH124	Basement Storage	<4" PIPE FITTING	A	0	2	2	1	1	2	10.00	0
FH125	Basement Storage	<4" PIPE FITTING	A	0	2	2	1	1	2	10.00	0
FH132	1st Floor Dayroom	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH132	1st Floor Entire	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH135	2nd Floor - Entire	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH135	2nd Flr. Mens Room	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH139	3rd Floor - Entire	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH139	3rd Flr. Bathroom	CEILING TILE	A	0	1	3	1	2	3	40.00	0
FH143	Mech Room	4-8" PIPE FITTING	A	0	2	1	2	1	1	2.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 287.5

COST ESTIMATE* - BUILDING 287, BARRACKS (MEDICAL CO)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	AREA 9	AREA 10	AREA 11
Pipe Fittings (EA)												
<4"	70.30	-	-	-	-	-	-	-	-	-	2.6	-
4-8"	85.80	-	-	-	-	-	-	-	-	-	-	-
9-14"	127.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	-	-	-	-	1.8	-
4-8"	30.50	-	-	-	-	-	-	-	-	-	-	-
9-14"	29.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	6.8	7.8	3.4	11.2	7.6	10.1	36.4	7.8	44.8	-	1.4
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		6.8	7.8	3.4	11.2	7.6	10.1	36.4	7.8	44.8	4.4	1.4
Difficulty Allowance	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		6.8	7.8	3.4	11.2	7.6	10.1	36.4	7.8	44.8	4.4	1.4
Decontamination Units Mobilization		1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2	1.5 0.2
SUBTOTAL		8.5	9.5	5.0	12.9	9.2	11.7	38.1	9.5	46.5	6.0	3.1
Contingency @ 15.00%		1.3	1.4	0.8	1.9	1.4	1.8	5.7	1.4	7.0	0.9	0.5
SUBTOTAL		9.8	10.9	5.8	14.8	10.6	13.5	43.8	10.9	53.4	6.9	3.5
Design Fee @ 10.00%		1.0	1.1	0.6	1.5	1.1	1.3	4.4	1.1	5.3	0.7	0.4
SUBTOTAL		10.7	12.0	6.3	16.3	11.7	14.8	48.1	12.0	58.8	7.6	3.9
Air Monitoring @ 10.00%***		1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL		12.4	13.6	8.0	17.9	13.3	16.5	49.8	13.6	60.4	9.2	5.5

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1st Floor Dayroom
 AREA 2: 1st Flr. Mens Room
 AREA 3: 2nd Flr. Rm 223 Hlwy
 AREA 4: 2nd Flr. Hallway & Rms.
 AREA 5: 3rd Flr. Hallway & Rms.
 AREA 11: Basement

AREA 2: 1st Flr. Eastwing
 AREA 4: 1st Flr. Offices & Rms
 AREA 6: 2nd Flr. Hallway
 AREA 8: 2nd Flr. Dayrm. Hlwy
 AREA 10: 3rd Flr. Supply Store.

TABLE 287.5
(continued)
COST ESTIMATE* - BUILDING 287, BARRACKS(MEDICAL CO)

DESCRIPTION	UNIT COST (\$)	AREA 12	AREA 13	TOTAL
Pipe Fittings (EA)				
<4"	70.30	0.8	0.8	4.3
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	1.5	**	3.3
4-8"	30.50	-	-	-
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	-	-	137.3
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	-
SUBTOTAL		2.3	0.9	144.9
Difficulty Allowance		-	-	-
SUBTOTAL		2.3	0.9	144.9
Decontamination Units		1.5	1.5	12.5
Mobilization		0.2	0.2	2.0
SUBTOTAL		4.0	2.5	166.4
Contingency @ 15.00%		0.6	0.4	25.0
SUBTOTAL		4.6	2.9	191.4
Design Fee @ 10.00%		0.5	0.3	19.1
SUBTOTAL		5.0	3.2	210.5
Air Monitoring @ 10.00%***		1.6	1.6	21.0
TOTAL		6.7	4.8	231.5

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 12: Basement Storage

AREA 13: Mech Room

SECTION 287.4
PHOTOGRAPHS



Bldg. 287

Basement Supply/Storage Room: (Sample FH123) Pipe Insulation (Less Than 4 In.) Tested Positive.



Bldg. 287

First Floor Men's Room: (Sample FH131) Brown (9 In. x 9 In.) Floor Tile Tested Positive.



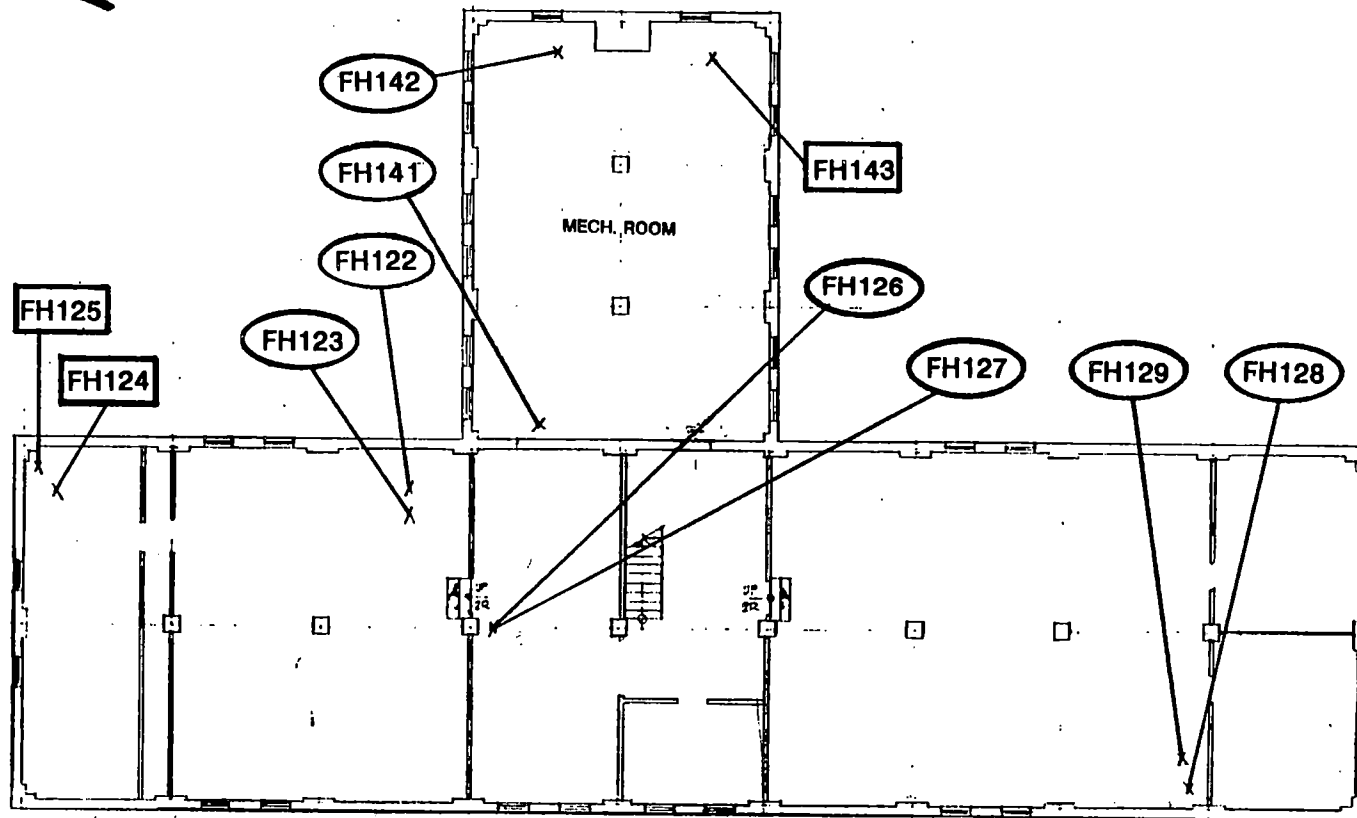
Bldg. 287

Mechanical Room: (Sample FH141) Pipe Insulation
(Less Than 4 In.) Tested Positive.



Bldg. 287

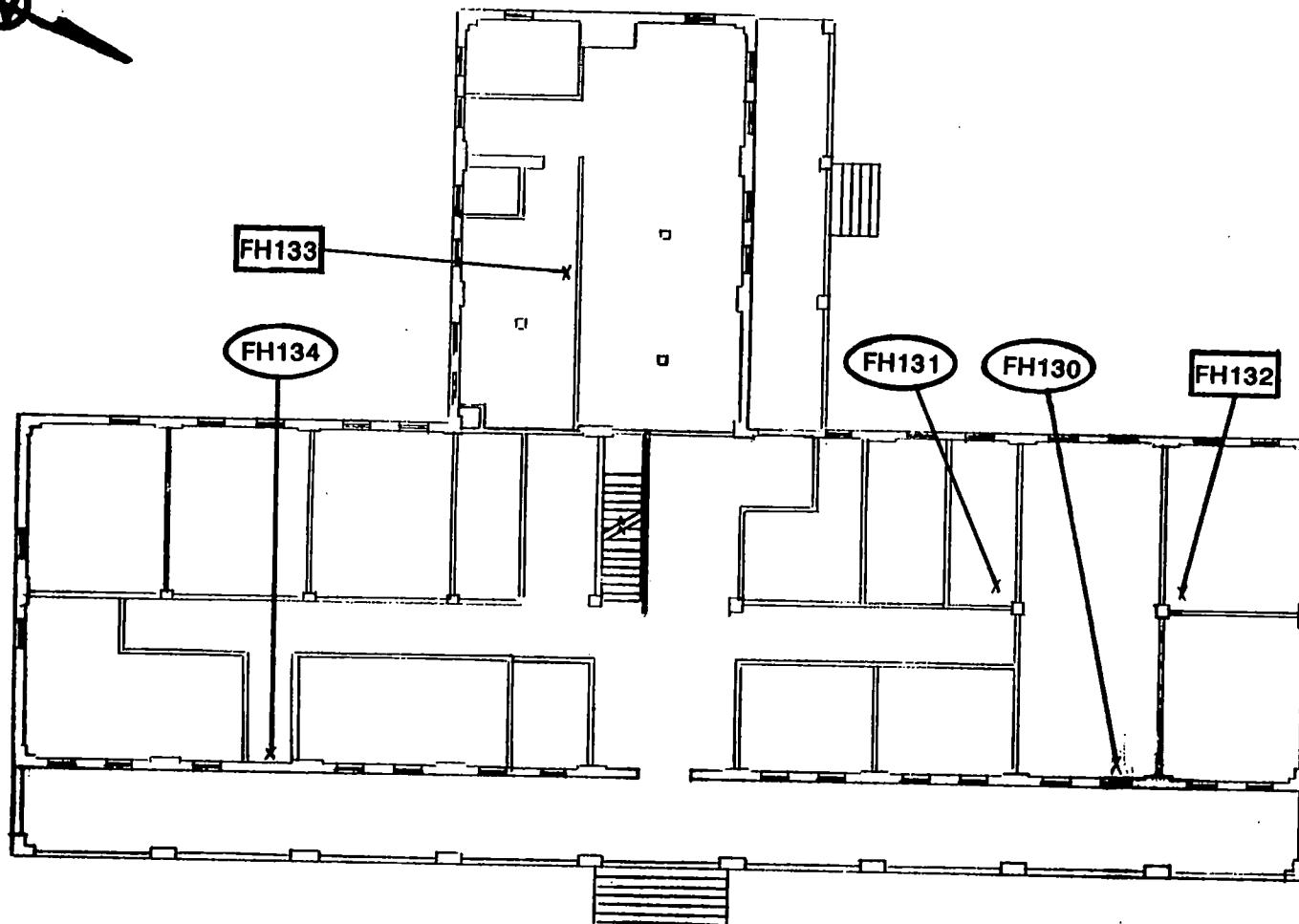
Mechanical Room: (Sample FH142) Pipe Fitting
Insulation (Less Than 4 In.) Tested Positive.



BLDG. 287
BASEMENT PLAN

LEGEND

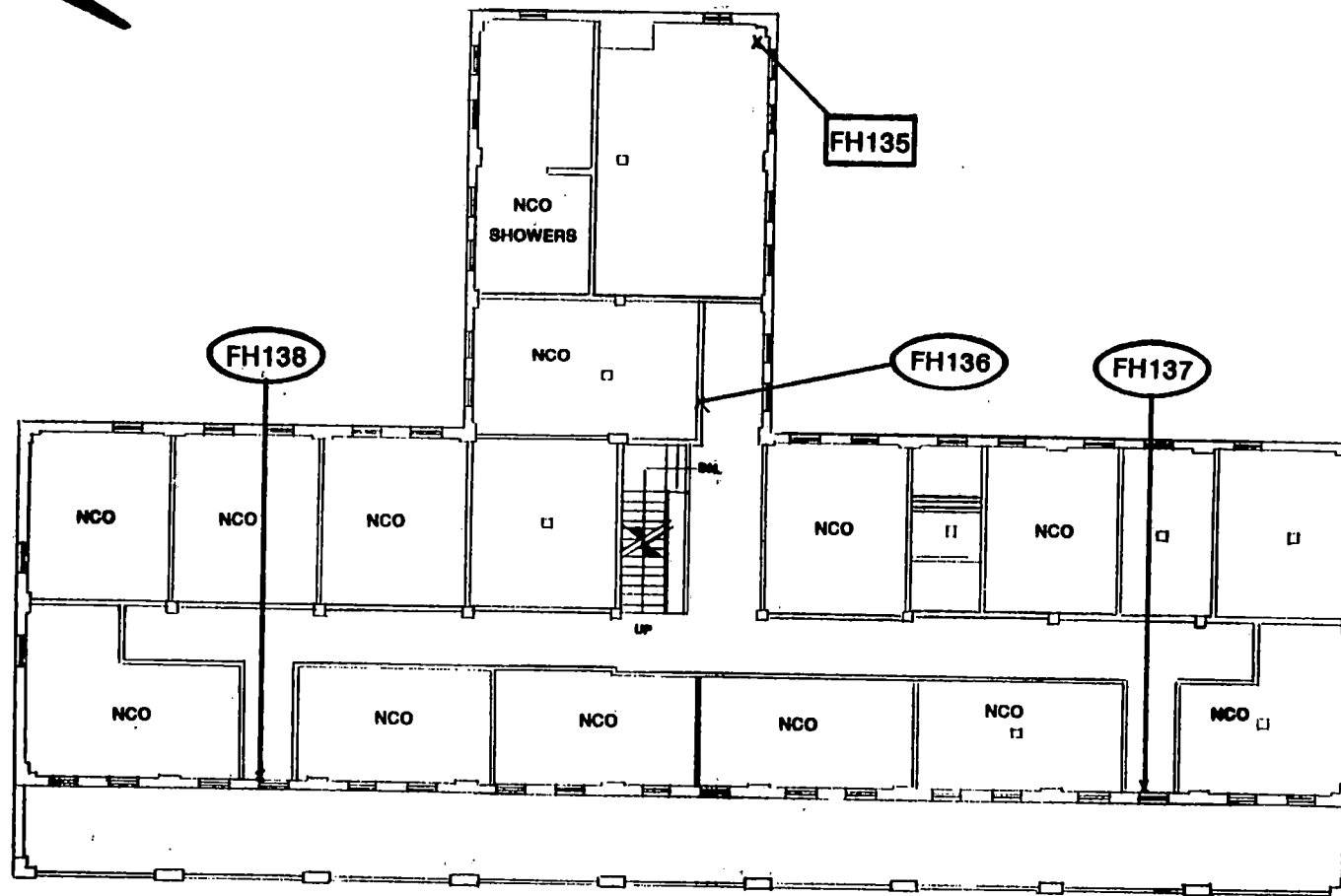
- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE



BLDG. 287
FIRST FLOOR PLAN

LEGEND

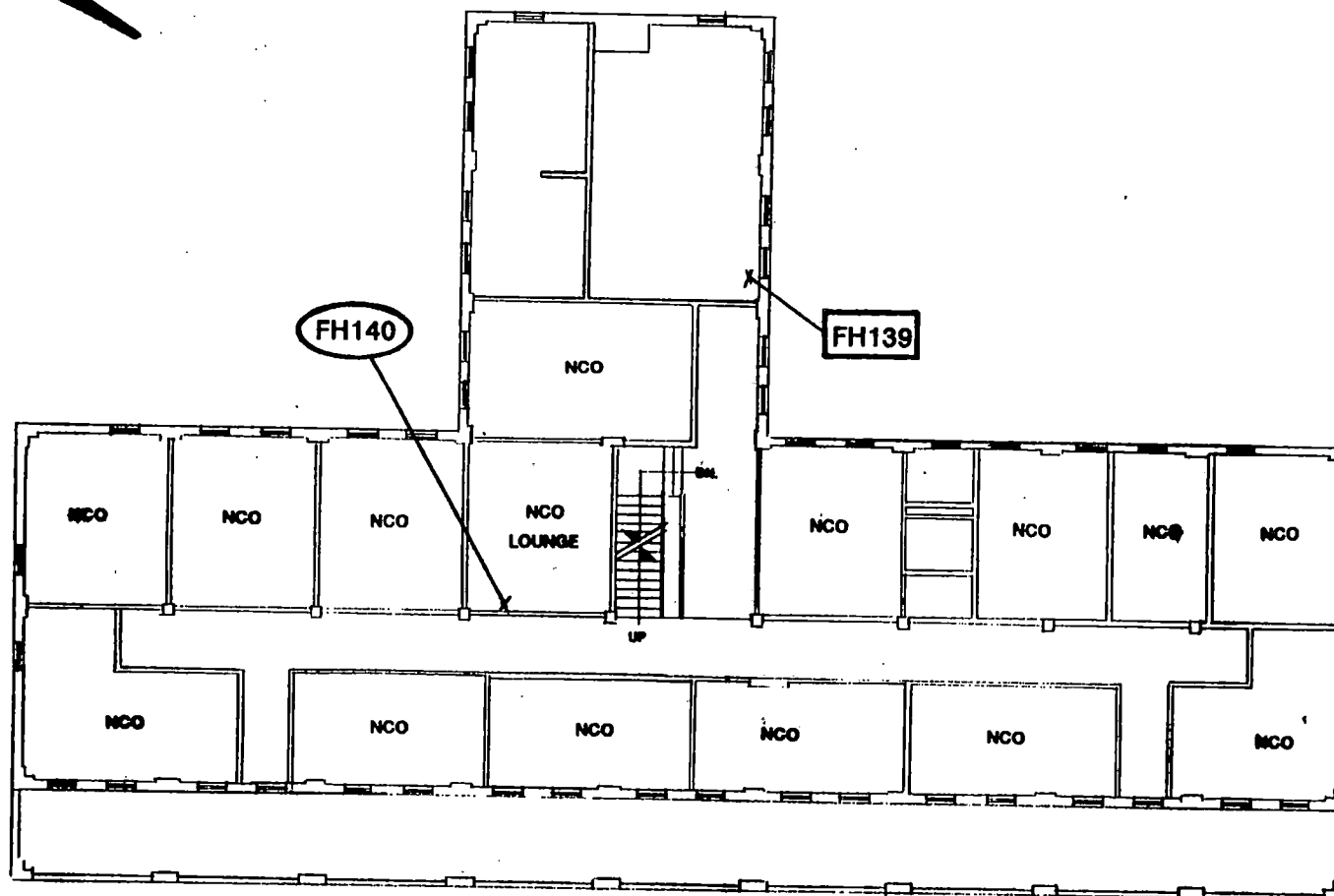
- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE



BLDG. 287
SECOND FLOOR PLAN

LEGEND

- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE



BLDG. 287
THIRD FLOOR PLAN

LEGEND

(FHnnn) POSITIVE SAMPLE

[FHnnn] NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

600

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

600.1 GENERAL

Building 600 was surveyed by WESTON technicians on 6 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 3 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 600.1 lists the analytical results for the bulk samples.

600.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 600 are presented in Table 600.1. An area-by-area inventory of ACM is provided in Tables 600.2 and 600.3. "Other Asbestos-Containing Materials," listed in Table 600.3, are materials that do not correspond to the standard caption categories listed in Table 600.2. A prioritized listing of exposure assessments is presented in Table 600.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 600.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 600.2 and 600.5.

600.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile and transite panel board should be labeled under the O&M Program.

TABLE 600.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 600, ADMIN(I.G. OFFICE)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH013	IG OFFICE BATHROOM,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	15	-	-	NO
FH014	IG OFFICE BATHROOM,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	-	-	-	NO
FH015	OUTSIDE WALL-SKIRT,BELOW CEILING	TRANSITE PANEL BOARD	BROWN,OTH,2X6 TRANSI	15	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 600.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 600, ADMIN(I.G. OFFICE)

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
IG Office Bathroom	-	-	-	-	-	-	-	-	-	0.10	-	-	-
Outside Wall-Skirt	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	-	-	0.10	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 600.3

**Other Asbestos-Containing Material - Building 600
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Outside Wall	Transite Panel Board	0.200 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

600-5

TABLE 600.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 600, ADMIN(I.G. OFFICE)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH015	Outside Wall-Skirt	TRANSITE PANEL BOARD	B	1.980E02	1	3	1	3	6	40.00	15

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 600.5

COST ESTIMATE* - BUILDING 600, ADMIN(I.G. OFFICE)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	30.50	-	-	-
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	0.6	-	0.6
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	2.2	2.2
SUBTOTAL		0.6	2.2	2.8
Difficulty Allowance		-	-	-
SUBTOTAL		0.6	2.2	2.8
Decontamination Units Mobilization		1.5 1.0	1.5 1.0	3.0 2.0
SUBTOTAL		3.1	4.7	7.8
Contingency @ 15.00%		0.5	0.7	1.2
SUBTOTAL		3.5	5.4	8.9
Design Fee @ 10.00%		0.4	0.5	0.9
SUBTOTAL		3.9	5.9	9.8
Air Monitoring @ 10.00%***		0.5	0.5	1.0
TOTAL		4.4	6.4	10.8

* Amounts Are In Thousands Of Dollars

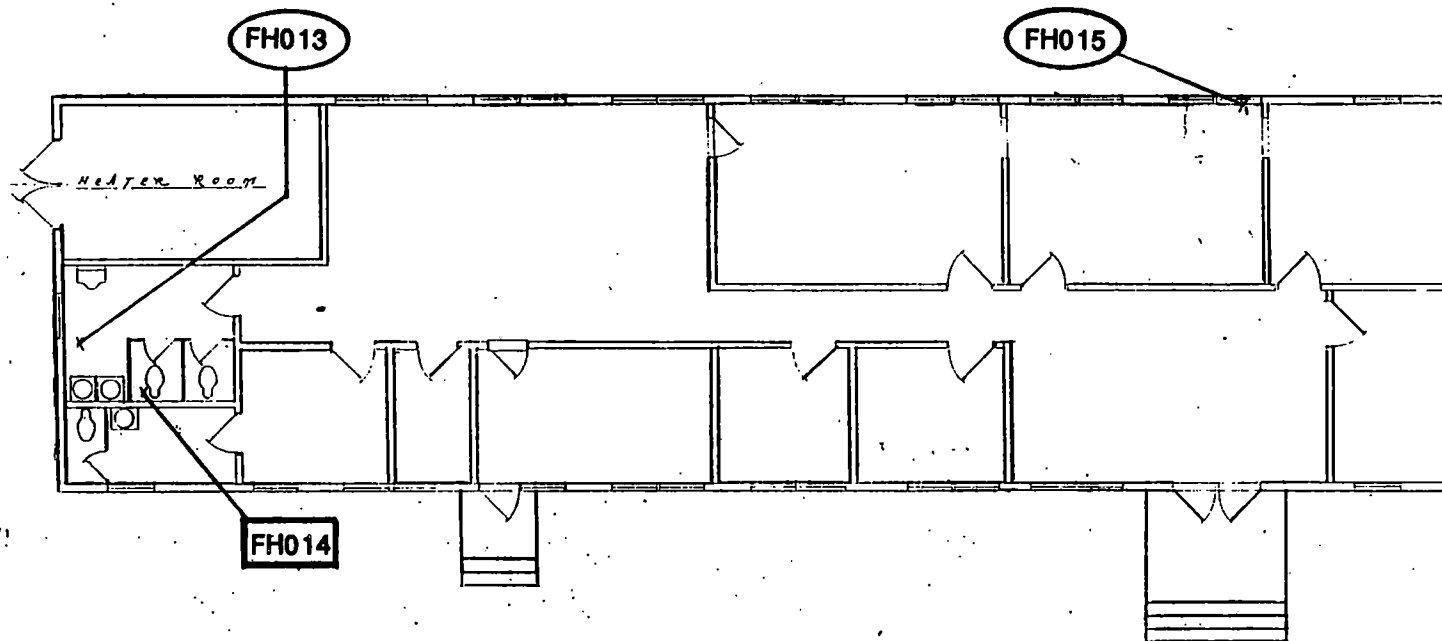
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: IG Office Bathroom

AREA 2: Outside Wall-Skirt

8-009



BLDG. 600

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

601

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING**601.1 GENERAL**

Building 601 was surveyed by WESTON technicians on 6 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 601.1 lists the analytical results for the bulk samples.

601.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 601 are presented in Table 601.1. An area-by-area inventory of ACM is provided in Tables 601.2 and 601.3. "Other Asbestos-Containing Materials," listed in Table 601.3, are materials that do not correspond to the standard caption categories listed in Table 601.2. A prioritized listing of exposure assessments is presented in Table 601.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 601.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 601.2 and 601.5.

601.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing transite panel board and floor tile should be labeled under the O&M Program.

TABLE 601.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 601, ADMIN(I.G.CLASSROOM)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH016	IG CLASSROOM,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	2	-	-	NO
FH017	IG CLASSROOM,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	1	-	-	NO
FH018	WALLBOARD IG CLSS.RM,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,1X1 AC TL	-	-	-	NO
FH019	IG CLASSRM. CEILING,BELOW CEILING	CEILING TILE	WHITE,OTH,2X8 GYP CL	-	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 601.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 601, ADMIN(I.G.CLASSROOM)

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
IG Classroom	-	-	-	-	-	-	-	-	-	2.10	-	-	-
IG Classroom-outsds.	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	-	-	2.10	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 601.3

Other Asbestos-Containing Material - Building 601
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
IG Classroom-Outside	Transite Panel Board	0.200 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

601-5

TABLE 601.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 601, ADMIN(I.G.CLASSROOM)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH015	IG Classroom-outsd.	TRANSITE PANEL BOARD	B	2.640E02	1	3	1	3	8	40.00	15
FH018	Wallboard IG Clss.rm	ACOUSTICAL WALL TILE	A	0	1	3	1	3	8	40.00	0
FH019	IG Classrm. Ceiling	CEILING TILE	A	0	1	3	1	3	8	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 601.5

COST ESTIMATE* - BUILDING 601, ADMIN(I.G.CLASSROOM)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	30.20	-	-	-
9-14"	42.30	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	11.8	-	11.8
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	2.2	2.2
SUBTOTAL		11.8	2.2	14.0
Difficulty Allowance		-	-	-
SUBTOTAL		11.8	2.2	14.0
Decontamination Units Mobilization		1.5 1.0	1.5 1.0	3.0 2.0
SUBTOTAL		14.3	4.7	19.0
Contingency @ 15.00%		2.1	0.7	2.8
SUBTOTAL		16.4	5.4	21.8
Design Fee @ 10.00%		1.6	0.5	2.2
SUBTOTAL		18.0	5.9	24.0
Air Monitoring @ 10.00%***		1.2	1.2	2.4
TOTAL		19.2	7.1	26.4

* Amounts Are In Thousands Of Dollars

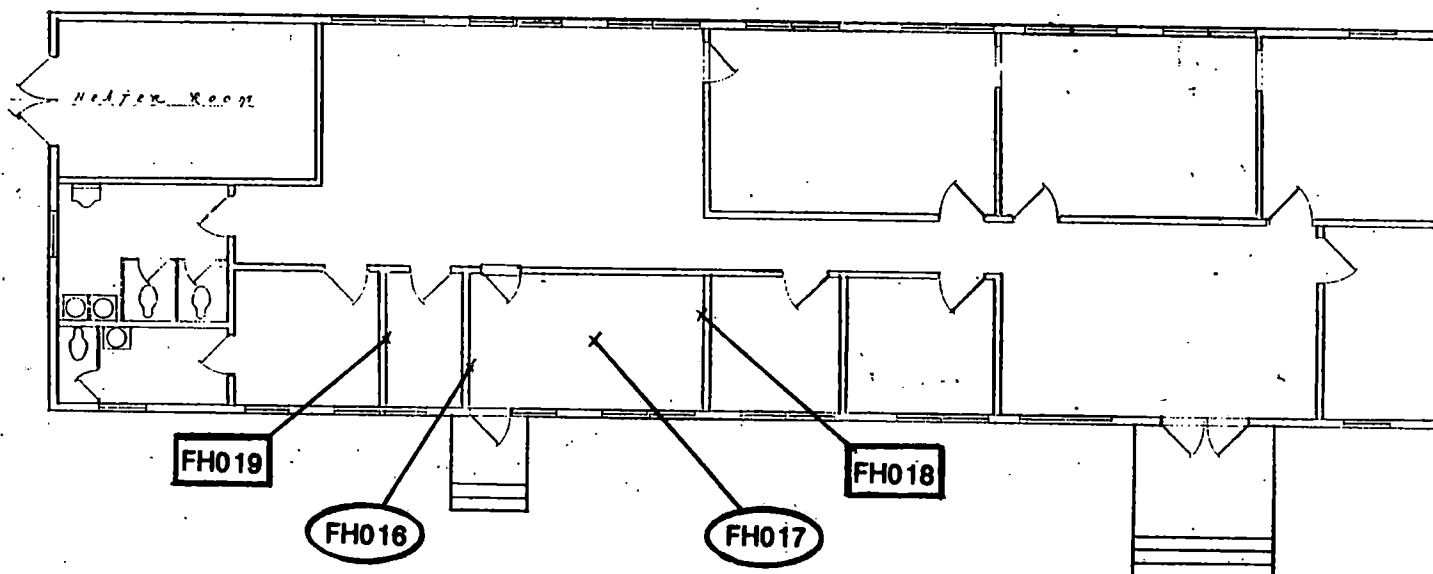
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: IG Classroom

AREA 2: IG Classroom-outsld.

8-109
601-8



BLDG. 601

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

692

STOREHOUSE

STOREHOUSE**692.1 GENERAL**

Building 692 was surveyed by WESTON technicians on 6 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 692.1 lists the analytical results for the bulk samples.

692.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 692 are presented in Table 692.1. An area-by-area inventory of ACM is provided in Tables 692.2 and 692.3. "Other Asbestos-Containing Materials," listed in Table 692.3, are materials that do not correspond to the standard caption categories listed in Table 692.2. A prioritized listing of exposure assessments is presented in Table 692.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 692.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 692.2 and 692.5.

692.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- **Asbestos-containing floor tile should be labeled under the O&M Program.**

TABLE 692.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 692, STOREHOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH009	WAREHOUSE,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	15	-	-	NO
FH010	WAREHOUSE,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	1	-	-	YES
FH011	WAREHOUSE WALLBOARD,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,WALLBOARD	-	-	-	YES
FH012	WAREHOUSE ROOFING,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,ROOFING	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 692.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 692, STOREHOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Bathroom #1	-	-	-	-	-	-	-	-	-	0.03	-	-	-
Bathroom #2	-	-	-	-	-	-	-	-	-	0.03	-	-	-
Warehouse	-	-	-	-	-	-	-	-	-	0.40	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.45	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 692.3

Other Asbestos-Containing Material - Building 692
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

692-5

TABLE 692.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 692, STOREHOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH011	Warehouse Ceiling	INSULATION BOARD	A	0	1	1	2	1	1	1.00	0
FH011	Warehouse Wallboard	INSULATION BOARD	A	0	1	1	2	1	1	1.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 692.5

COST ESTIMATE* - BUILDING 692, STOREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	TOTAL
Pipe Fittings (EA)					
<4"	70.30	-	-	-	-
4-8"	85.80	-	-	-	-
9-14"	147.00	-	-	-	-
>14"	216.00	-	-	-	-
Pipe Runs (LF)					
<4"	26.50	-	-	-	-
4-8"	40.50	-	-	-	-
9-14"	72.50	-	-	-	-
>14"	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	0.1	0.1	2.2	2.5
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	-	-	-
SUBTOTAL		0.1	0.1	2.2	2.5
Difficulty Allowance		-	-	-	-
SUBTOTAL		0.1	0.1	2.2	2.5
Decontamination Units		1.0	1.0	1.0	3.0
Mobilization		0.7	0.7	0.7	2.0
SUBTOTAL		1.8	1.8	3.9	7.5
Contingency @ 15.00%		0.3	0.3	0.6	1.1
SUBTOTAL		2.1	2.1	4.5	8.6
Design Fee @ 10.00%		0.2	0.2	0.4	0.9
SUBTOTAL		2.3	2.3	4.9	9.5
Air Monitoring @ 10.00%***		0.3	0.3	0.3	1.0
TOTAL		2.6	2.6	5.3	10.5

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Bathroom #1
AREA 3: Warehouse

AREA 2: Bathroom #2



Northeastern Analytical Corp

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-2062

CLIENT: E-Systems Inc./SAI

JOB SITE:

Bldg. 692

Bldg. 692

SAMPLE LOCATION	Floor Tile - Green C89-126	Floor Tile - Gray C89-127
SAMPLE NUMBER	NAC89A-2062-1	NAC89A-2062-2
ASBESTOS		
1. CHRYSOTILE	5-10%	10-15%
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose	5-6%	6-7%
2. Fibrous Glass		
3. Perlite		
4. Vermiculite		
5. Quartz	30-35%	30-35%
6. Binders	Balance	Balance
7. Mica		
8. Synthetic Fibers		
9. Gypsum		
10. Talc		
11. Calcite	5-10%	5-6%
12. Other		

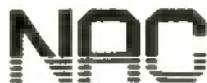
Analyst:

Date Analyzed: August 21, 1989

ND: None Detected, Detection Limit: 1% EPA defines Asbestos-Containing Materials (ACM) as those containing greater than 1% asbestos.

Laboratory Accreditation: NVLAP Lab Code 1333

Methodology: "Interim Method of the Determination of Asbestos in Bulk Insulation Samples," 40 CFR Chapter I (1-1-87) Part 763, Subpart F, Appendix A.



Northeastern Analytical Corp.

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-2062

CLIENT: E-Systems Inc./SAI

JOB SITE:

Bldg. 692

Bldg. 861

SAMPLE LOCATION	Wall Board C89-128	Pipe Joint C89-129
SAMPLE NUMBER	NAC89A-2062-3	NAC89A-2062-4
ASBESTOS		
1. CHRYSOTILE	ND	ND
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose	20-25%	
2. Fibrous Glass		35-40%
3. Perlite		
4. Vermiculite		
5. Quartz	Balance	Balance
6. Binders		
7. Mica		
8. Synthetic Fibers		
9. Gypsum	20-25%	
10. Talc		
11. Calcite	25-30%	40-55%
12. Other		

Analyst:

Date Analyzed: August 21, 1989

ND: None Detected, Detection Limit: 1%
than 1% asbestos.

EPA defines Asbestos-Containing Materials (ACM) as those containing greater

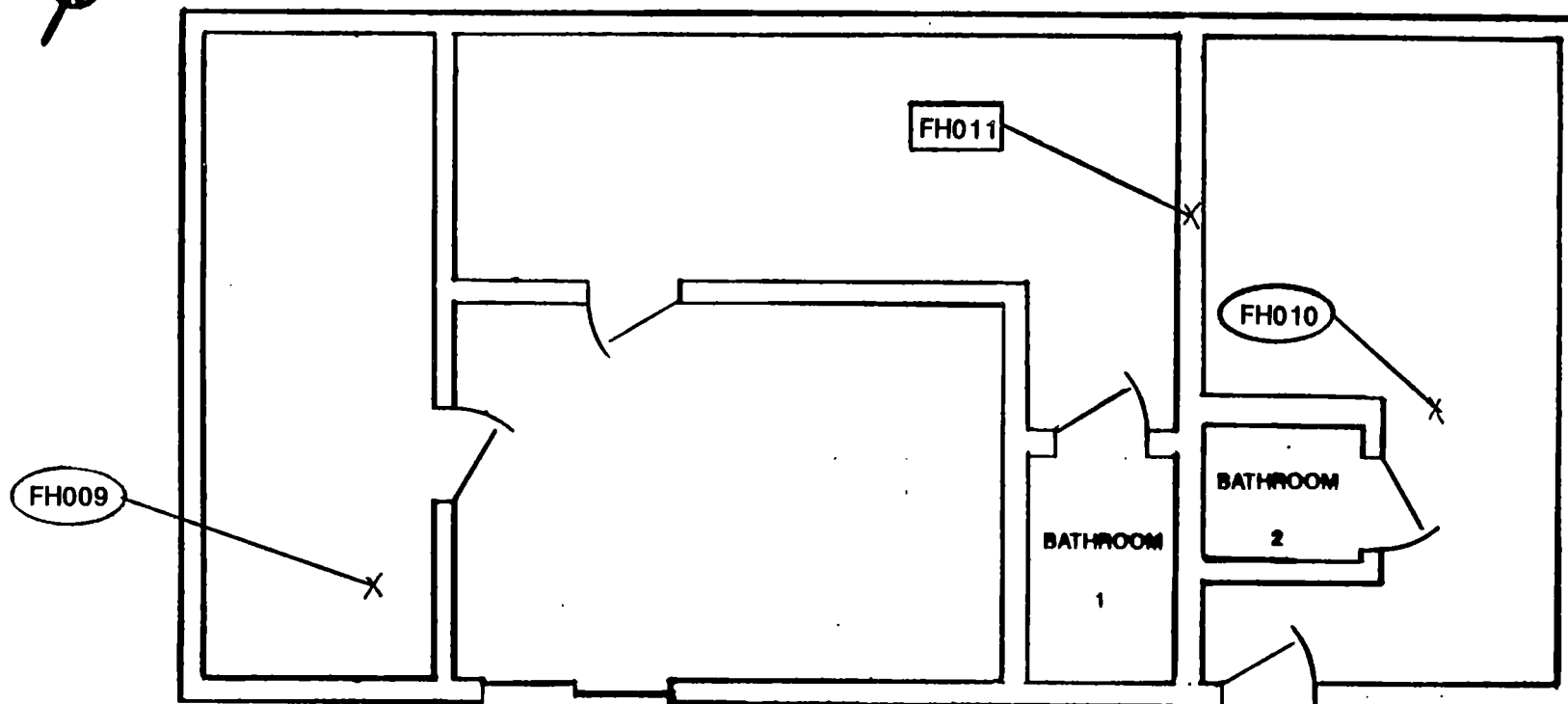
Laboratory Accreditation: NVLAP Lab Code 1333

Methodology: "Interim Method of the Determination of Asbestos in Bulk Insulation Samples," 40 CFR Chapter I
(1-1-87) Part 763, Subpart F, Appendix A.

692-8



FH012 — ROOFING MATERIAL



BLDG. 692

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
DESIGNERS/CONSULTANTS

824

STOREHOUSE

STOREHOUSE**824.1 GENERAL**

Building 824 was surveyed by WESTON technicians on 6 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 6 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 824.1 lists the analytical results for the bulk samples.

824.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 824 are presented in Table 824.1. An area-by-area inventory of ACM is provided in Tables 824.2 and 824.3. "Other Asbestos-Containing Materials," listed in Table 824.3, are materials that do not correspond to the standard caption categories listed in Table 824.2. A prioritized listing of exposure assessments is presented in Table 824.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 824.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 824.2 and 824.5.

824.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing transite panel board and floor tile should be labeled under the O&M Program.

TABLE 824.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 824, STOREHOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH020	WAREHOUSE,BELOW CEILING	FLOOR TILE	WHITE,OTH,9X9 FL TL	15	-	-	YES
FH021	WAREHOUSE,BELOW CEILING	FLOOR TILE	RED,OTH,9X9 FL TL	15	-	-	YES
FH022	WAREHOUSE,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,9X9 AC TL	-	-	-	NO
FH023	WAREHOUSE,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,WALLBOARD	-	-	-	YES
FH024	OUTSIDE SKIRT,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,TRANSITE	10	-	-	NO
FH025	ROOF,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,ROOFING	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 824.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 824, STOREHOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Outside Skirt	-	-	-	-	-	-	-	-	-	-	-	-	*
Warehouse	-	-	-	-	-	-	-	-	-	3.60	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	3.60	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 824.3

**Other Asbestos-Containing Material - Building 824, Storehouse
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Outside Skirt	Transite Panel Board	0.960 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

824-5

TABLE 824.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 824, STOREHOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH024	Outside Skirt	TRANSITE PANEL BOARD	A	2.500E-2	2	1	2	1	1	1.00	10
FH022	Warehouse	ACOUSTICAL WALL TILE	A	0	2	1	2	1	1	1.00	0
FH023	Mech Room	INSULATION BOARD	A	0	1	1	2	1	1	2.00	0
FH023	Warehouse	INSULATION BOARD	A	0	2	1	2	1	1	1.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 824.5

COST ESTIMATE* - BUILDING 824, STOREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	30.50	-	-	-
9-14"	22.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	-	20.2	20.2
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		10.6	-	10.6
SUBTOTAL		10.6	20.2	30.7
Difficulty Allowance		-	-	-
SUBTOTAL		10.6	20.2	30.7
Decontamination Units		1.5	1.5	3.0
Mobilization		1.0	1.0	2.0
SUBTOTAL		13.1	22.7	35.7
Contingency @ 15.00%		2.0	3.4	5.4
SUBTOTAL		15.0	26.1	41.1
Design Fee @ 10.00%		1.5	2.6	4.1
SUBTOTAL		16.5	28.7	45.2
Air Monitoring @ 10.00%***		2.3	2.3	4.5
TOTAL		18.8	30.9	49.7

* Amounts Are In Thousands Of Dollars

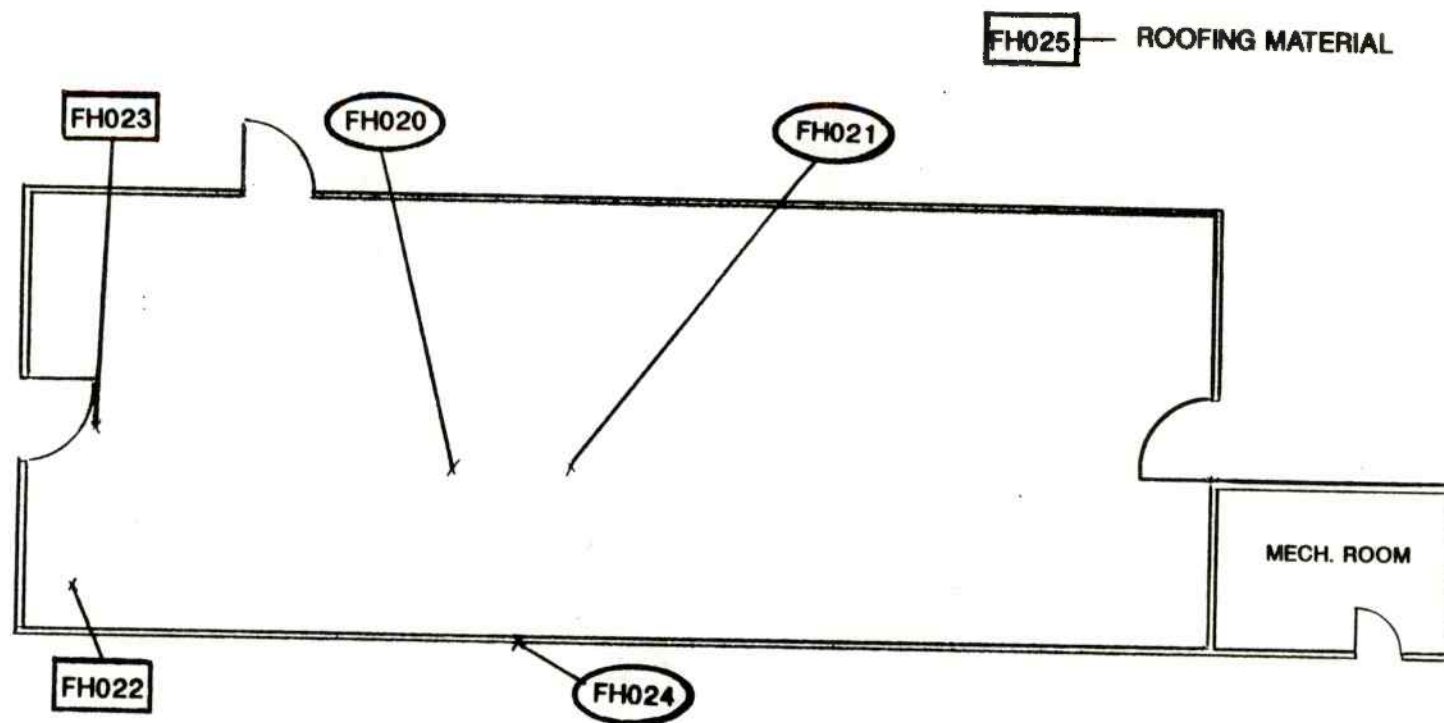
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Outside Skirt

AREA 2: Warehouse

824-8



BLDG. 824

LEGEND

FHnnn (Circle) POSITIVE SAMPLE

FHnnn (Rectangle) NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

861

WAREHOUSE

WAREHOUSE**861.1 GENERAL**

The outside of Building 861 was surveyed by WESTON technicians on 5 November 1990. However, the outside of Building 861 was surveyed and two samples of the transite panels on the outside of the building were collected. (According to the DEH, Building 861 has been surveyed previously.)

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 2 samples of suspect material collected from the building. Both were found to be asbestos-containing materials (ACM). Table 861.1 lists the analytical results for the bulk samples.

861.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 861 are presented in Table 861.1. An area-by-area inventory of ACM is provided in Tables 861.2 and 861.3. "Other Asbestos-Containing Materials," listed in Table 861.3, are materials that do not correspond to the standard caption categories listed in Table 861.2. A prioritized listing of exposure assessments is presented in Table 861.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 861.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 861.2 and 861.5.

861.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing transite panel boards should be labeled under the O&M Program.

TABLE 861.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 861, WAREHOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH007	WAREHOUSE,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,TRANSITE	7	-	-	NO
FH008	WAREHOUSE,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,TRANSITE	3	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 861.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 861, WAREHOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Warehouse	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	*

* Other Material Present in Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 861.3

**Other Asbestos-Containing Material - Building 861, Warehouse
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Warehouse-Outside	Transite Panel Board	0.600 (MSF)

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

861-5

TABLE 861.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 861, WAREHOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH007	Warehouse	TRANSITE PANEL BOARD	A	1.400E-4	1	1	2	1	1	1.00	7
FH008	Warehouse	TRANSITE PANEL BOARD	A	1.400E-4	1	1	2	1	1	1.00	3

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability

2 [=] Occupant Accessibility

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 861.5

COST ESTIMATE* - BUILDING 861, WAREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	85.80	-	-
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	42.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	-	-
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		6.6	6.6
SUBTOTAL		6.6	6.6
Difficulty Allowance		-	-
SUBTOTAL		6.6	6.6
Decontamination Units		3.0	3.0
Mobilization		2.0	2.0
SUBTOTAL		11.6	11.6
Contingency @ 15.00%		1.7	1.7
SUBTOTAL		13.4	13.4
Design Fee @ 10.00%		1.3	1.3
SUBTOTAL		14.7	14.7
Air Monitoring @ 10.00%***		1.5	1.5
TOTAL		16.2	16.2

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

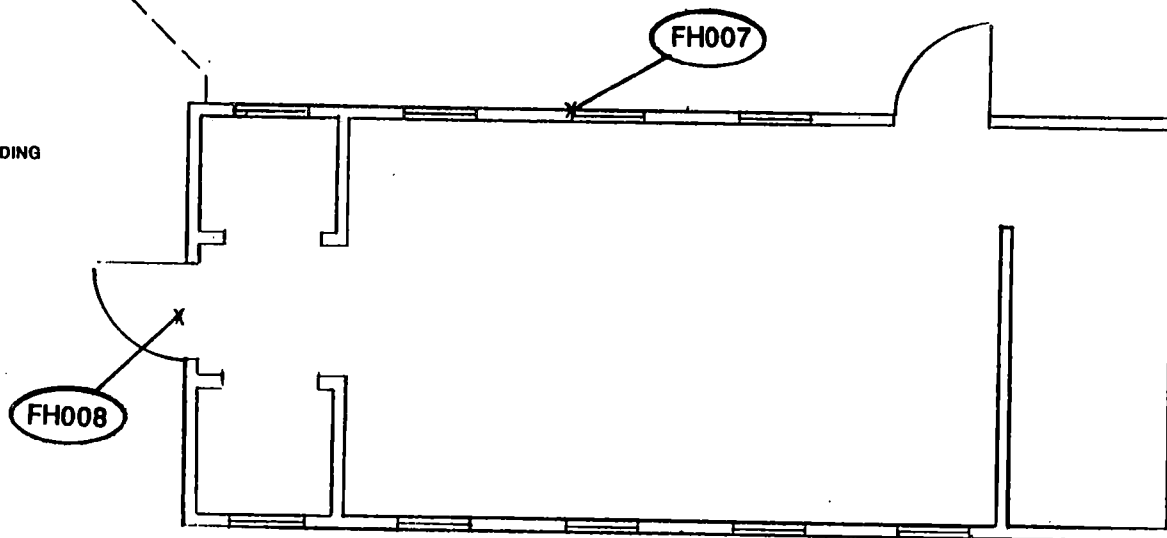
AREA 1: Warehouse

861-8



* NOTE

* NOTE:
TRANSITE SKIRT
OUTSIDE OF BUILDING



BLDG. 861

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2624

STOREHOUSE

STOREHOUSE

2624.1 GENERAL

Building 2624 was surveyed by WESTON technicians on 5 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 7 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 2624.1 lists the analytical results for the bulk samples.

2624.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2624 are presented in Table 2624.1. An area-by-area inventory of ACM is provided in Tables 2624.2 and 2624.3. "Other Asbestos-Containing Materials," listed in Table 2624.3, are materials that do not correspond to the standard caption categories listed in Table 2624.2. A prioritized listing of exposure assessments is presented in Table 2624.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2624.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 2624.2 and 2624.5.

2624.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- **Asbestos-containing pipe insulation should be labeled under the O&M Program.**

TABLE 2624.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2624, STOREHOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH000	WAREHOUSE,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 RUN	65	-	-	NO
FH001	WAREHOUSE,BELOW CEILING	4-8" PIPE RUN	WHITE,HHW,4-8 RUN	65	-	-	YES
FH002	WAREHOUSE,BELOW CEILING	CEILING BOARD	WHITE,OTH,2-6 CL BRD	-	-	-	YES
FH003	WAREHOUSE,BELOW CEILING	OTHER MATERIAL	BROWN,OTH,2-6 WL BRD	-	-	-	NO
FH004	BOILER HOUSE,BELOW CEILING	CEILING BOARD	WHITE,OTH,CL BOARD	-	-	-	YES
FH005	BOILER HOUSE,BELOW CEILING	4-8" PIPE RUN	WHITE,OTH,4-8 RUN	50	-	-	NO
FH006	BOILER HOUSE,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,ROOFING	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 2624.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2624, STOREHOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROWELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Boiler House	-	-	-	-	-	8	-	-	-	-	-	-	-
Warehouse	-	-	-	-	-	21	-	-	-	-	-	-	-
TOTALS	-	-	-	-	-	29	-	-	-	-	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 2624.3

Other Asbestos-Containing Material - Building 2624
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

2624-5

TABLE 2624.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2624, STOREHOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH005	Boiler House	4-8" PIPE RUN	A	7.000E-1	2	1	2	1	1	10.00	50
FH000	Warehouse	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	65
FH001	Warehouse	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	65
FH002	Warehouse	CEILING BOARD	A	0	3	1	2	1	1	1.00	0
FH003	Warehouse	INSULATION BOARD	A	0	3	1	2	1	1	1.00	0
FH004	Boiler House	CEILING BOARD	A	0	2	1	2	1	1	10.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 2624.5

COST ESTIMATE* - BUILDING 2624, STOREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	30.50	0.2	0.6	0.9
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	-	-	-
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	-
SUBTOTAL		0.2	0.6	0.9
Difficulty Allowance		-	-	-
SUBTOTAL		0.2	0.6	0.9
Decontamination Units		1.5	1.5	3.0
Mobilization		0.5	0.5	1.0
SUBTOTAL		2.2	2.6	4.9
Contingency @ 15.00%		0.3	0.4	0.7
SUBTOTAL		2.6	3.0	5.6
Design Fee @ 10.00%		0.3	0.3	0.6
SUBTOTAL		2.8	3.3	6.2
Air Monitoring @ 10.00%***		0.3	0.3	0.6
TOTAL		3.1	3.6	6.8

* Amounts Are In Thousands Of Dollars

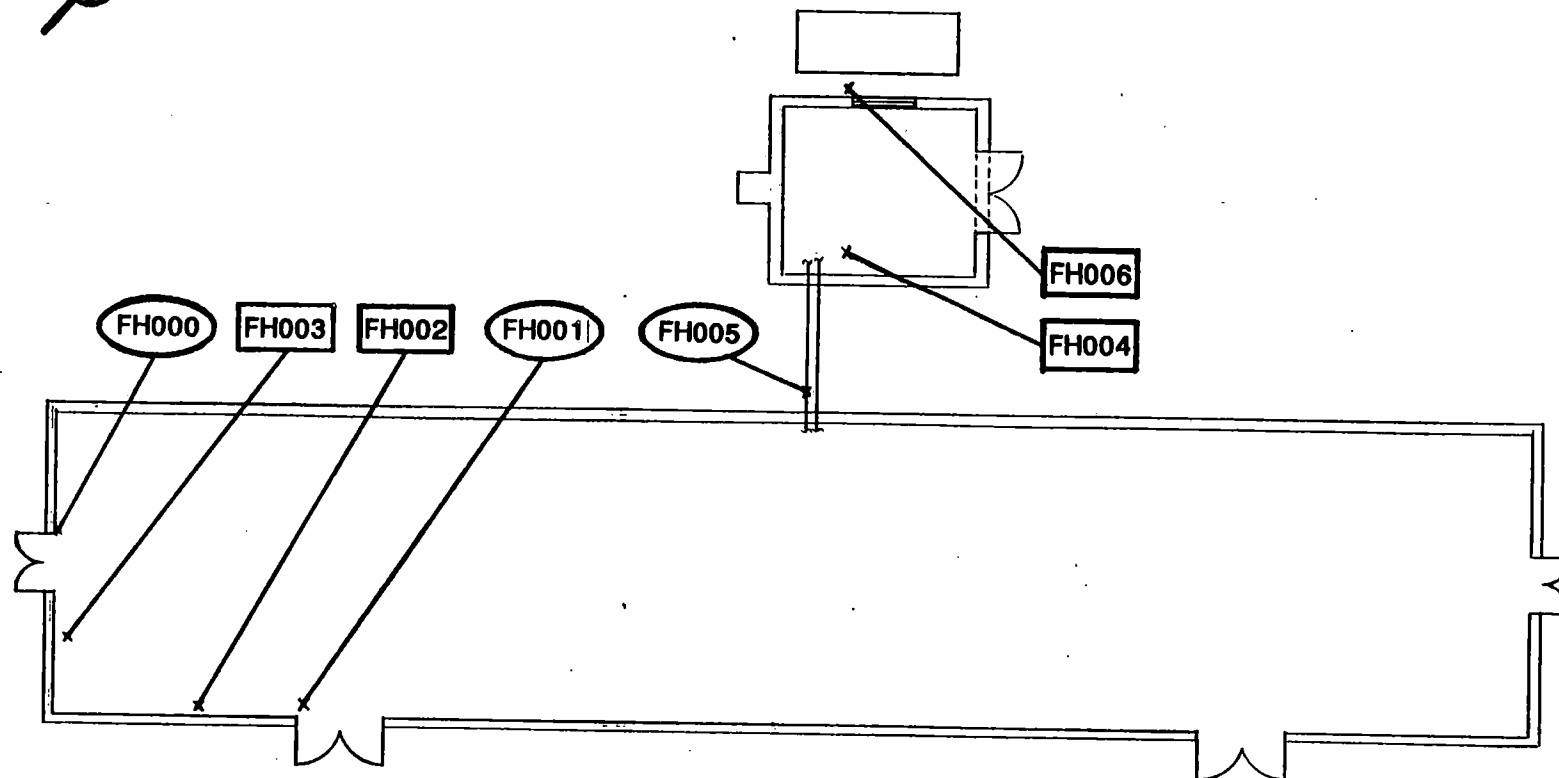
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Boiler House

AREA 2: Warehouse

2624-8



BLDG. 2624

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

9037

ADMINISTRATIVE BUILDING

9037

ADMINISTRATIVE BUILDING

9037.1 GENERAL

Building 9037 was surveyed by WESTON technicians on 13 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 31 samples of suspect material collected from the building. Of these samples, 20 were found to be asbestos-containing materials (ACM). Table 9037.1 lists the analytical results for the bulk samples.

9037.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 9037 are presented in Table 9037.1. An area-by-area inventory of ACM is provided in Tables 9037.2 and 9037.3. "Other Asbestos-Containing Materials," listed in Table 9037.3, are materials that do not correspond to the standard caption categories listed in Table 9037.2. A prioritized listing of exposure assessments is presented in Table 9037.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 9037.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 9037.2 and 9037.5.

9037.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile, pipe insulation, fitting insulation, and expansion joint should be labeled under the O&M Program.

TABLE 9037.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9037, ADMIN. EW/RST

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			
				CH	AM	OT	LAYERED ^a
FH091	BLDG. 9037 ENTRANCE,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FT	-	-	-	YES
FH092	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,STM,<4 RUN	40	-	-	YES
FH093	ATTIC,BELOW CEILING	<4" PIPE FITTING	WHITE,STM,<4 FITTING	15	-	-	YES
FH094	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,STM,<4 RUN	7	-	-	YES
FH095	ATTIC,BELOW CEILING	<4" PIPE FITTING	WHITE,STM,<4 FITTING	15	-	-	YES
FH096	ROOM 167,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	NO
FH097	ROOM 162,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	2	-	-	YES
FH098	ROOM 164,BELOW CEILING	CEILING BOARD	WHITE,OTH,CL BOARD	-	-	-	YES
FH099	ROOM 164,BELOW CEILING	ACOUSTICAL WALL TILE	TAN,OTH,WALL TL	-	-	-	YES
FH100	ROOM 162,BELOW CEILING	OTHER MATERIAL	BROWN,OTH,WALL BRD	-	-	-	YES
FH101	ROOM 161,BELOW CEILING	ACOUSTICAL WALL TILE	BROWN,OTH,WALL TILE	-	-	-	YES
FH102	ATTIC,BELOW CEILING	4-8" PIPE RUN	WHITE,DOM,4-8 RUN	60	-	-	YES
FH103	ATTIC,BELOW CEILING	4-8" PIPE FITTING	WHITE,DOM,4-8 FITTIN	35	-	-	YES
FH104	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4 WATER	5	-	-	NO
FH105	ROOM 18,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	YES
FH106	ROOM 104,BELOW CEILING	FLOOR TILE	RED,OTH,9X9 FL TL	2	-	-	YES
FH107	ROOM 102,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	3	-	-	YES
FH108	HALLWAY,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	8	-	-	YES
FH109	ATTIC,BELOW CEILING	4-8" PIPE RUN	WHITE,DOM,4-8 RUN	70	-	-	NO
FH110	ATTIC,BELOW CEILING	4-8" PIPE FITTING	WHITE,DOM,4-8 FITTIN	40	-	-	NO
FH111	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4 RUN	7	-	-	NO
FH112	ATTIC,BELOW CEILING	<4" PIPE FITTING	WHITE,DOM,<4 FITTING	50	-	-	NO
FH113	ATTIC,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4 RUN	50	-	-	NO
FH114	ATTIC,BELOW CEILING	EXPANSION JOINT(S)	WHITE,OTH,EXP JOINT	60	-	-	YES
FH115	ATTIC,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,TAR PAPER	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 9037.1
(continued)

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9037, ADMIN. EW/RST

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH116	ATTIC,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,TAR PAPER	-	-	-	NO
FH117	SOUTH END COPY ROOM,BELOW CEILING	CEILING BOARD	WHITE,OTH,CL BOARD	-	-	-	YES
FH118	CONFERENCE ROOM,BELOW CEILING	CEILING BOARD	WHITE,OTH,CL BOARD	-	-	-	YES
FH119	CONFERENCE ROOM,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	3	-	-	YES
FH120	ROOM 55,BELOW CEILING	ACOUSTICAL WALL TILE	BLUE,OTH,WALL TILE	-	-	-	YES
FH121	HALLWAY(A&B SECTION),BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FT	-	-	-	YES

^a Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
N = North
E = East
S = South
W = West
NE = Northeast
NW = Northwest
SE = Southeast
SW = Southwest

System Codes

STM = Steam
CHW = Chilled Water
HHW = Heating Hot Water
DOM = Domestic Water
OTH = Other
UNK = Unknown

Asbestos Types

CH = Chrysotile
AM = Amosite
OT = Other

TABLE 9037.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 9037, ADMIN. EW/RST

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Attic	35	95	-	-	810	281	-	-	-	-	-	-	*
Conference Room	-	-	-	-	-	-	-	-	-	0.50	-	-	-
Hallway	-	-	-	-	-	-	-	-	-	0.70	-	-	-
Hallway(A&B Section)	-	-	-	-	-	-	-	-	-	2.00	-	-	-
Hallway(C&D Section)	-	-	-	-	-	-	-	-	-	2.20	-	-	-
Offices(A&B Section)	-	-	-	-	-	-	-	-	-	11.00	-	-	-
Offices(C&D Section)	-	-	-	-	-	-	-	-	-	10.50	-	-	-
Room 102	-	-	-	-	-	-	-	-	-	0.30	-	-	-
Room 104	-	-	-	-	-	-	-	-	-	0.20	-	-	-
Room 162	-	-	-	-	-	-	-	-	-	0.53	-	-	-
Room 167	-	-	-	-	-	-	-	-	-	0.55	-	-	-
Room 18	-	-	-	-	-	-	-	-	-	0.22	-	-	-
Theater	-	-	-	-	-	-	-	-	-	0.36	-	-	-
TOTALS	35	95	-	-	810	281	-	-	-	29.06	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 9037.3

**Other Asbestos-Containing Material - Building 9037, Admin. EW/RST
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Attic	Expansion Joint	1 (EA)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

9037-6

TABLE 9037.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 9037, ADMIN. EW/RST

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH092	Attic	<4" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	40
FH102	Attic	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	60
FH109	Attic	4-8" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	70
FH110	Attic	4-8" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	40
FH112	Attic	<4" PIPE FITTING	A	4.050E-1	3	1	2	1	1	1.00	50
FH113	Attic	<4" PIPE RUN	A	4.050E-1	3	1	2	1	1	1.00	50
FH114	Attic	EXPANSION JOINTS	A	4.050E-1	3	1	2	1	1	1.00	60
FH093	Attic	<4" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	15
FH095	Attic	<4" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	15
FH103	Attic	4-8" PIPE FITTING	A	1.450E-1	3	1	2	1	1	1.00	35
FH094	Attic	<4" PIPE RUN	A	2.500E-2	3	1	2	1	1	1.00	7
FH104	Attic	<4" PIPE RUN	A	2.500E-2	3	1	2	1	1	1.00	5
FH111	Attic	<4" PIPE RUN	A	2.500E-2	3	1	2	1	1	1.00	7
FH098	Room 151	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH098	Room 161 and 157	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH098	Room 164	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH098	Room 165	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH099	Room 164	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH100	Room 162	INSULATION BOARD	A	0	2	2	1	2	4	40.00	0
FH101	Room 157	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH101	Room 161	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH117	South End Copy Room	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH117	West Side Offices	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH118	Conference Room	CEILING BOARD	A	0	2	2	1	2	4	40.00	0
FH120	Room 55	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0
FH120	Theater	ACOUSTICAL WALL TILE	A	0	2	2	1	2	4	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 9037.5

COST ESTIMATE* - BUILDING 9037, ADMIN. EW/RST

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	AREA 9	AREA 10	AREA 11
Pipe Fittings (EA)												
<4"	70.30	2.5	-	-	-	-	-	-	-	-	-	-
4-8"	85.80	8.2	-	-	-	-	-	-	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	21.5	-	-	-	-	-	-	-	-	-	-
4-8"	30.50	8.6	-	-	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	-	2.8	3.9	11.2	12.3	61.6	58.8	1.7	1.1	3.0	3.1
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other		0.3	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		40.9	2.8	3.9	11.2	12.3	61.6	58.8	1.7	1.1	3.0	3.1
Difficulty Allowance		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		40.9	2.8	3.9	11.2	12.3	61.6	58.8	1.7	1.1	3.0	3.1
Decontamination Units		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Mobilization		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SUBTOTAL		42.0	3.9	5.0	12.3	13.4	62.7	59.9	2.8	2.2	4.0	4.2
Contingency @ 15.00%		6.3	0.6	0.7	1.8	2.0	9.4	9.0	0.4	0.3	0.6	0.6
SUBTOTAL		48.3	4.5	5.7	14.1	15.4	72.1	68.9	3.2	2.5	4.7	4.8
Design Fee @ 10.00%		4.8	0.4	0.6	1.4	1.5	7.2	6.9	0.3	0.3	0.5	0.5
SUBTOTAL		53.2	4.9	6.3	15.5	16.9	79.3	75.7	3.5	2.8	5.1	5.3
Air Monitoring @ 10.00%***		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
TOTAL		55.3	7.0	8.4	17.6	19.1	81.4	77.9	5.6	4.9	7.2	7.4

* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Attic
 AREA 3: Hallway
 AREA 5: Hallway (C&D Section)
 AREA 7: Offices (C&D Section)
 AREA 9: Room 104
 AREA 11: Room 167

AREA 2: Conference Room
 AREA 4: Hallway (A&B Section)
 AREA 6: Offices (A&B Section)
 AREA 8: Room 102
 AREA 10: Room 162

TABLE 9037.5
(continued)

COST ESTIMATE* - BUILDING 9037, ADMIN. EW/RST

DESCRIPTION	UNIT COST (\$)	AREA 12	AREA 13	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	2.5
4-8"	82.80	-	-	8.2
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	21.5
4-8"	30.50	-	-	8.6
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	1.2	2.0	162.7
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	0.3
SUBTOTAL		1.2	2.0	203.7
Difficulty Allowance		-	-	-
SUBTOTAL		1.2	2.0	203.7
Decontamination Units		0.9	0.9	12.0
Mobilization		0.2	0.2	2.0
SUBTOTAL		2.3	3.1	217.7
Contingency @ 15.00%		0.3	0.5	32.6
SUBTOTAL		2.6	3.6	250.3
Design Fee @ 10.00%		0.3	0.4	25.0
SUBTOTAL		2.9	3.9	275.3
Air Monitoring @ 10.00%***		2.1	2.1	27.5
TOTAL		5.0	6.0	302.9

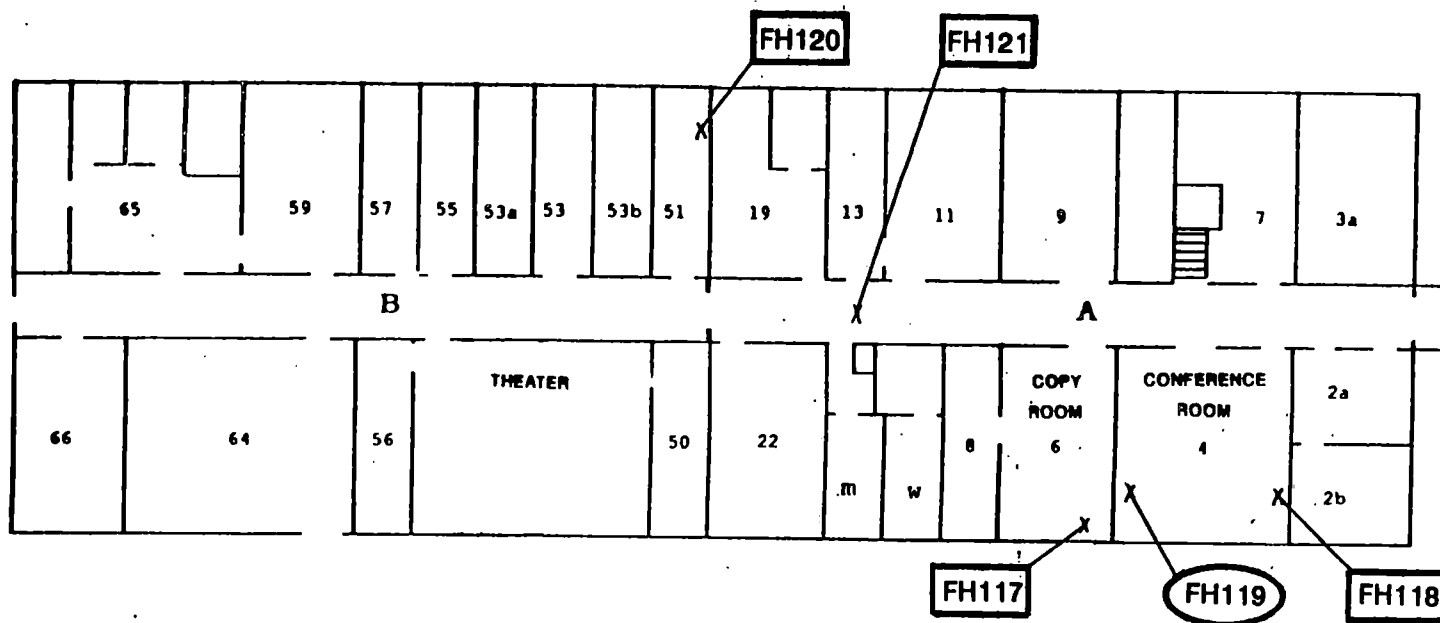
* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 12: Room 18

AREA 13: Theater



BLDG.9037
A AND B

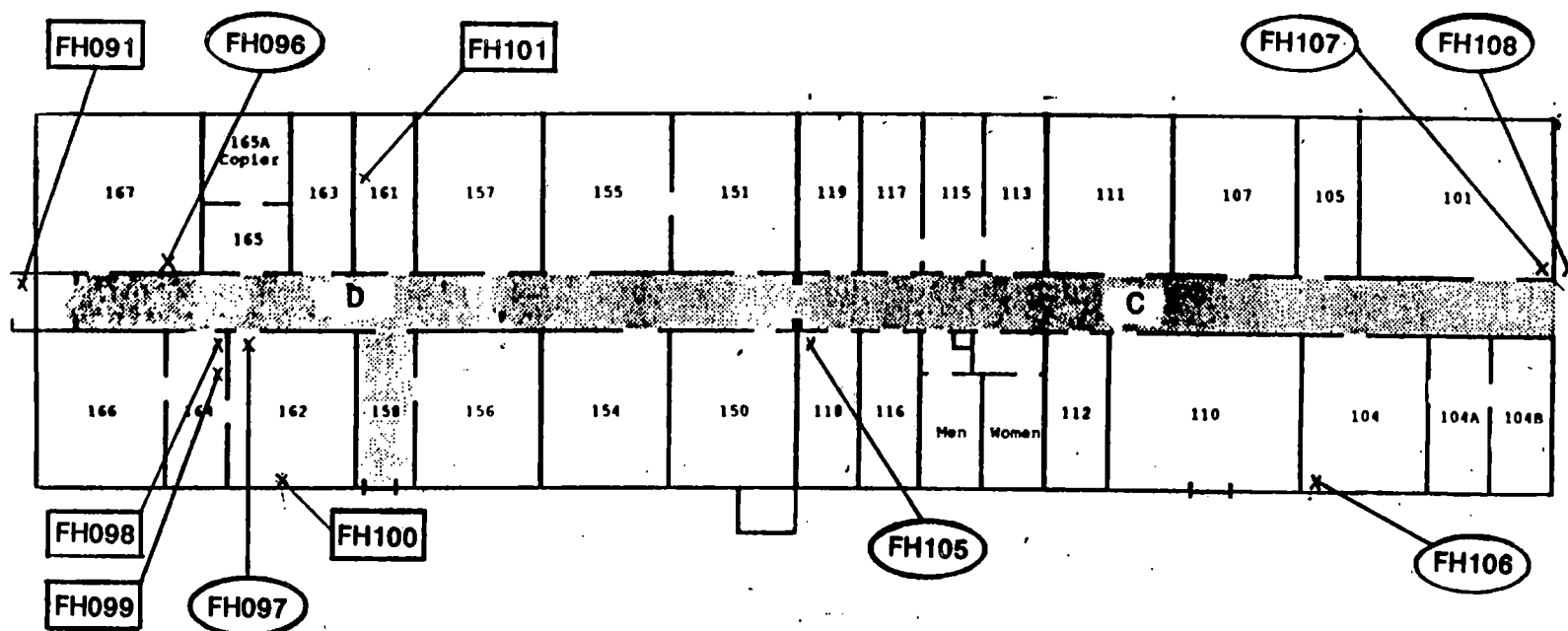
LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

9037-11

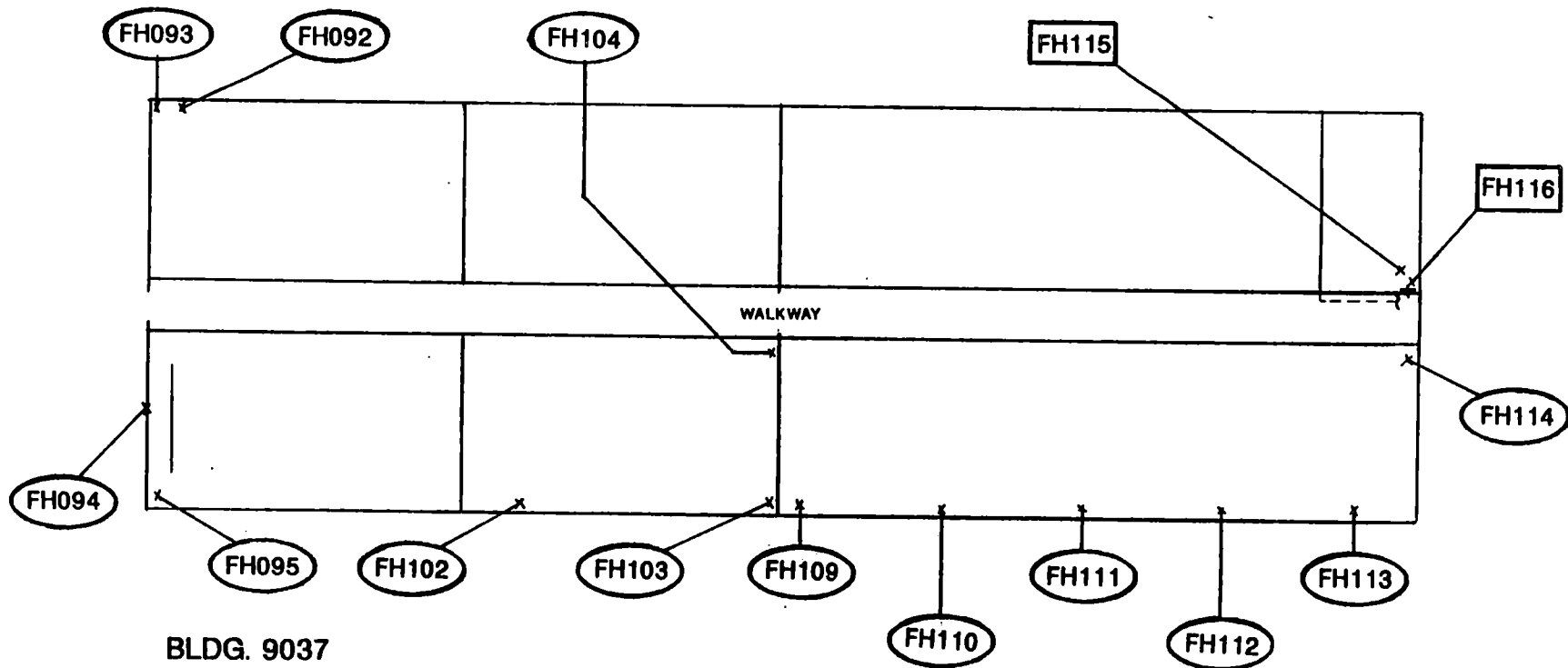


BLDG. 9037
C AND D

LEGEND

- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE





BLDG. 9037
ATTIC

LEGEND

FHnnnn POSITIVE SAMPLE

FHnnnn NEGATIVE SAMPLE

9045

LABORATORY

9045.1 GENERAL

Building 9045 was surveyed by WESTON's inspection team on 23 September 1992.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze one sample of suspect material collected from the building. This sample was found to be asbestos-containing material (ACM). Table 9045.1 lists the analytical results for the bulk sample.

9045.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for the bulk sample from Building 9045 are presented in Table 9045.1. An area-by-area inventory of ACM is provided in Tables 9045.2 and 9045.3. "Other Asbestos-Containing Materials," listed in Table 9045.3, are materials that do not correspond to the standard caption categories listed in Table 9045.2. A prioritized listing of exposure assessments is presented in Table 9045.4. The method by which the exposure assessment priority index values are calculated is described in ISSUES COMMON TO ALL BUILDINGS, Subsection 3.5 of this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 9045.5. The method by which removal/replacement costs are calculated is described in ISSUES COMMON TO ALL BUILDINGS, Subsection 3.4 of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 9045.2 and 9045.5.

9045.3 RECOMMENDATIONS/CONCLUSIONS

- Floor tile was the material in Building 9045 found to be ACM.
- Asbestos-containing floor tile present in Building 9045 should be labeled under the O&M Program.

TABLE 9045.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9045, LABORATORY

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FK969	1ST FL. - ENTIRE	FLOOR TILE	TAN,OTH,FLOOR TILE	1	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 9045.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 9045, LABORATORY

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
1ST FL. - ENTIRE	-	-	-	-	-	-	-	-	-	5.50	-	-	-
2ND FL. - ENTIRE	-	-	-	-	-	-	-	-	-	5.50	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	11.00	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 9045.3

Other Asbestos-Containing Material - Building 9045, Laboratory
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

9045-5

TABLE 9045.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 9045, LABORATORY

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FK748	1ST FL. - ENTIRE	CEILING BOARD	A	0	2	2	1	1	10	40.00	0
FK748	2ND FL. - ENTIRE	CEILING BOARD	A	0	2	2	1	1	10	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 9045.5

COST ESTIMATE* - BUILDING 9045, LABORATORY

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	147.00	-	-	-
>14"	216.00	-	-	-
Pipe Runs (LF)				
<4"	26.50	-	-	-
4-8"	30.50	-	-	-
9-14"	42.50	-	-	-
>14"	60.80	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	30.8	30.8	61.6
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	-
SUBTOTAL		30.8	30.8	61.6
Difficulty Allowance		-	-	-
SUBTOTAL		30.8	30.8	61.6
Decontamination Units Mobilization		1.5	1.5	3.0
		1.0	1.0	2.0
SUBTOTAL		33.3	33.3	66.6
Contingency @ 15.00%		5.0	5.0	10.0
SUBTOTAL		38.3	38.3	76.6
Design Fee @ 10.00%		3.8	3.8	7.7
SUBTOTAL		42.1	42.1	84.2
Air Monitoring @ 10.00%***		4.2	4.2	8.4
TOTAL		46.3	46.3	92.7

*Amounts Are In Thousands Of Dollars

**Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

***The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: 1ST FL. - ENTIRE

AREA 2: 2ND FL. - ENTIRE

9111

TARGET HOUSE

TARGET HOUSE

9111.1 GENERAL

Building 9111 was surveyed by WESTON technicians on 8 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, 1 was found to be asbestos-containing materials (ACM). Table 9111.1 lists the analytical results for the bulk samples.

9111.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 9111 are presented in Table 9111.1. An area-by-area inventory of ACM is provided in Tables 9111.2 and 9111.3. "Other Asbestos-Containing Materials," listed in Table 9111.3, are materials that do not correspond to the standard caption categories listed in Table 9111.2. A prioritized listing of exposure assessments is presented in Table 9111.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 9111.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 9111.2 and 9111.5.

9111.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 9111.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9111, TARGET HOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH065	OFFICE AREA - ENTIRE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	10	-	-	YES
FH066	OFFICE AREA - FRONT,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,12X12 TILE	-	-	-	YES
FH067	OFFICE AREA - ENTIRE,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,WALLBOARD	-	-	-	YES
FH068	ROOF,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,ROOF MATL	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 9111.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 9111, TARGET HOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Office Area - Entire	-	-	-	-	-	-	-	-	-	1.10	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	1.10	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 9111.3

Other Asbestos-Containing Material - Building 9111
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

9111-5

TABLE 9111.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 9111, TARGET HOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH066	Office Area - Front	ACOUSTICAL WALL TILE	A	0	1	1	2	1	0	0.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 9111.5

COST ESTIMATE* - BUILDING 9111, TARGET HOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	85.80	-	-
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	42.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	6.2	6.2
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		6.2	6.2
Difficulty Allowance		-	-
SUBTOTAL		6.2	6.2
Decontamination Units		3.0	3.0
Mobilization		2.0	2.0
SUBTOTAL		11.2	11.2
Contingency @ 15.00%		1.7	1.7
SUBTOTAL		12.8	12.8
Design Fee @ 10.00%		1.3	1.3
SUBTOTAL		14.1	14.1
Air Monitoring @ 10.00%***		1.4	1.4
TOTAL		15.5	15.5

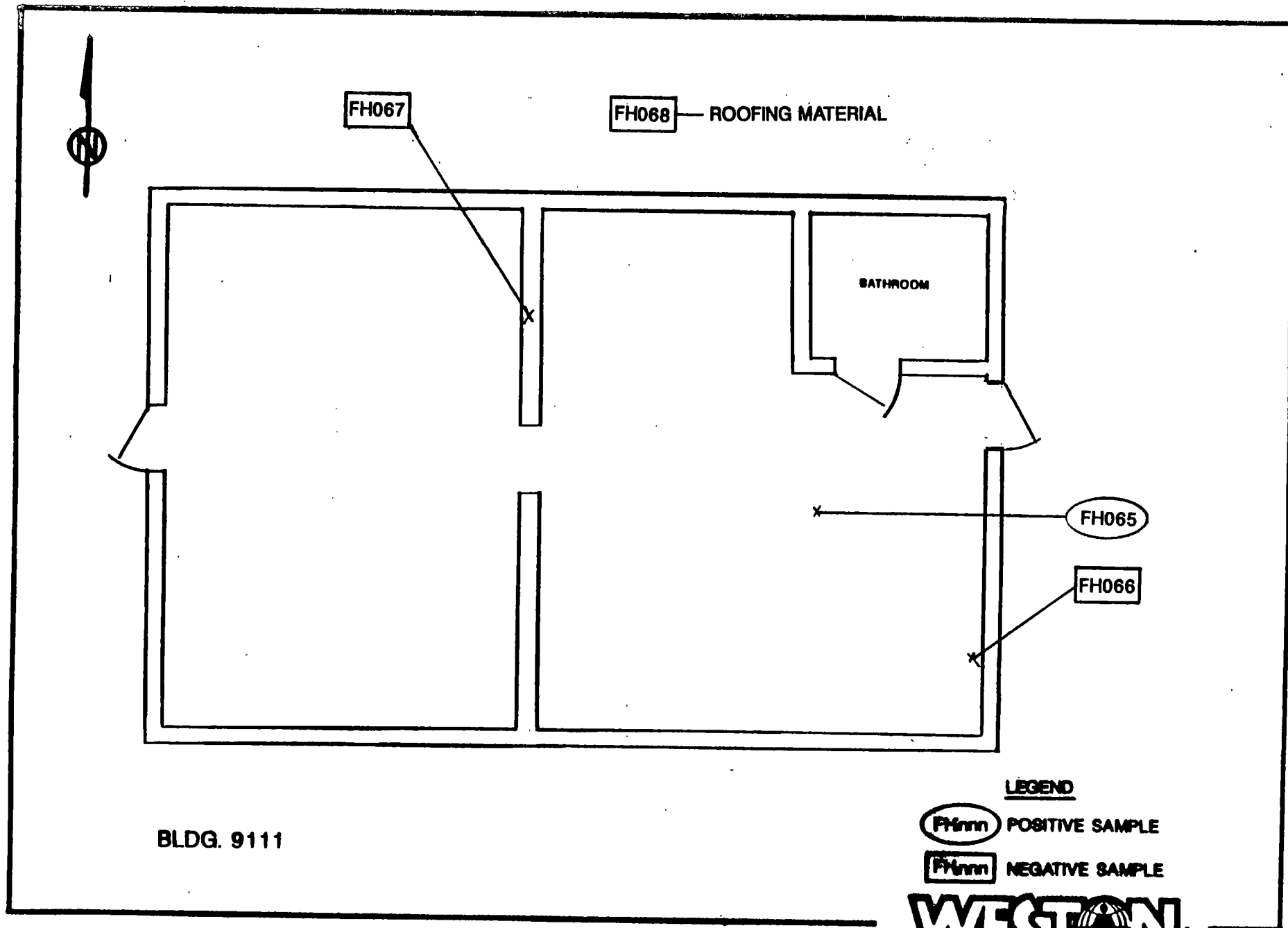
* Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Office Area - Entire

8-1116
9111-8



LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
DESIGNERS CONSULTANTS

9113

TARGET HOUSE

TARGET HOUSE

9113.1 GENERAL

Building 9113 was surveyed by WESTON technicians on 8 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 6 samples of suspect material collected from the building. Of these samples, 4 were found to be asbestos-containing materials (ACM). Table 9113.1 lists the analytical results for the bulk samples.

9113.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 9113 are presented in Table 9113.1. An area-by-area inventory of ACM is provided in Tables 9113.2 and 9113.3. "Other Asbestos-Containing Materials," listed in Table 9113.3, are materials that do not correspond to the standard caption categories listed in Table 9113.2. A prioritized listing of exposure assessments is presented in Table 9113.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 9113.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 9113.2 and 9113.5.

9113.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile, furnace insulation, and expansion joint should be labeled under the O&M Program.

TABLE 9113.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9113, TARGET HOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH069	OFFICE AREA - ENTIRE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	YES
FH070	OFFICE AREA - ENTIRE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	7	-	-	YES
FH071	OFFICE AREA - ENTIRE,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,WALLBOARD	-	-	-	YES
FH072	OFFICE AREA -MID.SEC,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,FURNACE	45	-	-	YES
FH073	OFFICE AREA -MID.SEC,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,EXP JOINT	80	-	-	YES
FH074	ROOF,BELOW CEILING	OTHER MATERIAL	BLACK,OTH,ROOF MATL	-	-	-	NO

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 9113.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 9113, TARGET HOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Office Area - Entire	-	-	-	-	-	-	-	-	-	1.80	-	-	-
Office Area -Mid.Sec	-	-	-	-	-	-	-	-	-	-	-	-	*
Office Area-End Sect	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	-	-	1.80	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 9113.3

**Other Asbestos-Containing Material - Building 9113, Target House
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Office Area - End Sec.	Furnace Insulation	0.010 (MSF)
Office Area - End Sec.	Expansion Joint	1 (EA)
Office Area - Mid Sec.	Furnace Insulation	0.010 (MSF)
Office Area - Mid Sec.	Expansion Joint	1 (EA)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

9113-5

TABLE 9113.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 9113, TARGET HOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH071	Office Area - Entire	INSULATION BOARD	A	0	3	1	2	1	0	0.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 9113.5

COST ESTIMATE* - BUILDING 9113, TARGET HOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	TOTAL
Pipe Fittings (EA)					
<4"	70.30	-	-	-	-
4-8"	85.80	-	-	-	-
9-14"	142.00	-	-	-	-
>14"	216.00	-	-	-	-
Pipe Runs (LF)					
<4"	26.50	-	-	-	-
4-8"	30.50	-	-	-	-
9-14"	42.50	-	-	-	-
>14"	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	10.1	-	-	10.1
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	0.6	3.0	3.6
SUBTOTAL		10.1	0.6	3.0	13.7
Difficulty Allowance		-	-	-	-
SUBTOTAL		10.1	0.6	3.0	13.7
Decontamination Units Mobilization		1.0 0.7	1.0 0.7	1.0 0.7	3.0 2.0
SUBTOTAL		11.8	2.3	4.7	18.7
Contingency @ 15.00%		1.8	0.3	0.7	2.8
SUBTOTAL		13.5	2.6	5.4	21.5
Design Fee @ 10.00%		1.4	0.3	0.5	2.1
SUBTOTAL		14.9	2.9	5.9	23.6
Air Monitoring @ 10.00%***		0.8	0.8	0.8	2.4
TOTAL		15.7	3.7	6.7	26.0

* Amounts Are In Thousands Of Dollars

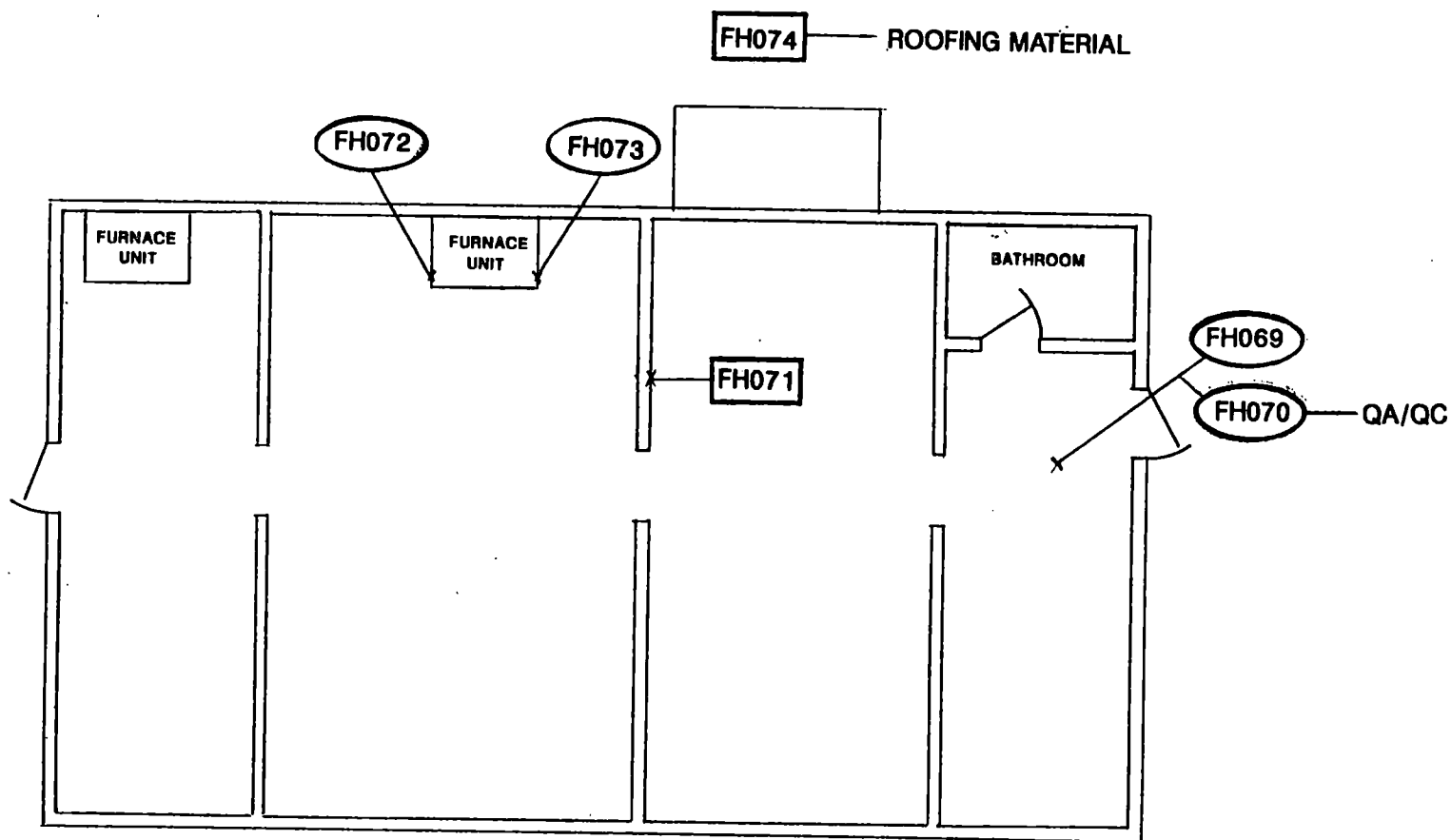
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Office Area - Entire
AREA 3: Office Area-End Sect

AREA 2: Office Area -Mid.Sec

9113-8



BLDG. 9113

LEGEND

FHnnn (circle) POSITIVE SAMPLE

FHnnn (rectangle) NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

9126

STOREHOUSE

STOREHOUSE

9126.1 GENERAL

Building 9126 was surveyed by WESTON technicians on 8 November 1990.

The first three portions of this facility report summarize the results of this inspection.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 2 samples of suspect material collected from the building. Of these samples, 1 was found to be asbestos-containing materials (ACM). Table 9126.1 lists the analytical results for the bulk samples.

9126.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 9126 are presented in Table 9126.1. An area-by-area inventory of ACM is provided in Tables 9126.2 and 9126.3. "Other Asbestos-Containing Materials," listed in Table 9126.3, are materials that do not correspond to the standard caption categories listed in Table 9126.2. A prioritized listing of exposure assessments is presented in Table 9126.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 9126.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS Section of this report. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 9126.2 and 9126.5.

9126.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 9126.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 9126, STOREHOUSE

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH075	STOREHOUSE,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,WALLBOARD	-	-	-	YES
FH076	STOREHOUSE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	8	-	-	YES

^aAsbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes

C = Center
 N = North
 E = East
 S = South
 W = West
 NE = Northeast
 NW = Northwest
 SE = Southeast
 SW = Southwest

System Codes

STM = Steam
 CHW = Chilled Water
 HHW = Heating Hot Water
 DOM = Domestic Water
 OTH = Other
 UNK = Unknown

Asbestos Types

CH = Chrysotile
 AM = Amosite
 OT = Other

TABLE 9126.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 9126, STOREHOUSE

AREA	PIPE FITTINGS (EA)				PIPE RUNS (LF)				SPRAY/TROVELED CEILINGS (MSF)	FLOOR TILE (MSF)	BOILERS/ TANKS (MSF)	AIR HANDLING EQUIPMENT (MSF)	OTHER
	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"					
Storehouse	-	-	-	-	-	-	-	-	-	0.43	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.43	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each
 LF - Linear Feet
 MSF - Thousand Square Feet

Table 9126.3

Other Asbestos-Containing Material - Building 9126
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other Asbestos-Containing Material Found in this Building		

EA - Each
LF - Linear Feet
MSF - Thousand Square Feet

9126-5

TABLE 9126.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 9126, STOREHOUSE

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH075	Storehouse	INSULATION BOARD	A	0	1	1	2	1	0	0.00	0

Priority Index Codes

A [=] Long Term Corrective Measure
 B [=] Review Management Special Considerations/Remarks
 C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

1 [=] Material Friability
 2 [=] Occupant Accessibility
 3 [=] Material Condition
 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 9126.5

COST ESTIMATE* - BUILDING 9126, STOREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	82.80	-	-
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	44.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	2.4	2.4
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		2.4	2.4
Difficulty Allowance		-	-
SUBTOTAL		2.4	2.4
Decontamination Units		3.0	3.0
Mobilization		2.0	2.0
SUBTOTAL		7.4	7.4
Contingency @ 15.00%		1.1	1.1
SUBTOTAL		8.5	8.5
Design Fee @ 10.00%		0.8	0.8
SUBTOTAL		9.3	9.3
Air Monitoring @ 10.00%***		0.9	0.9
TOTAL		10.3	10.3

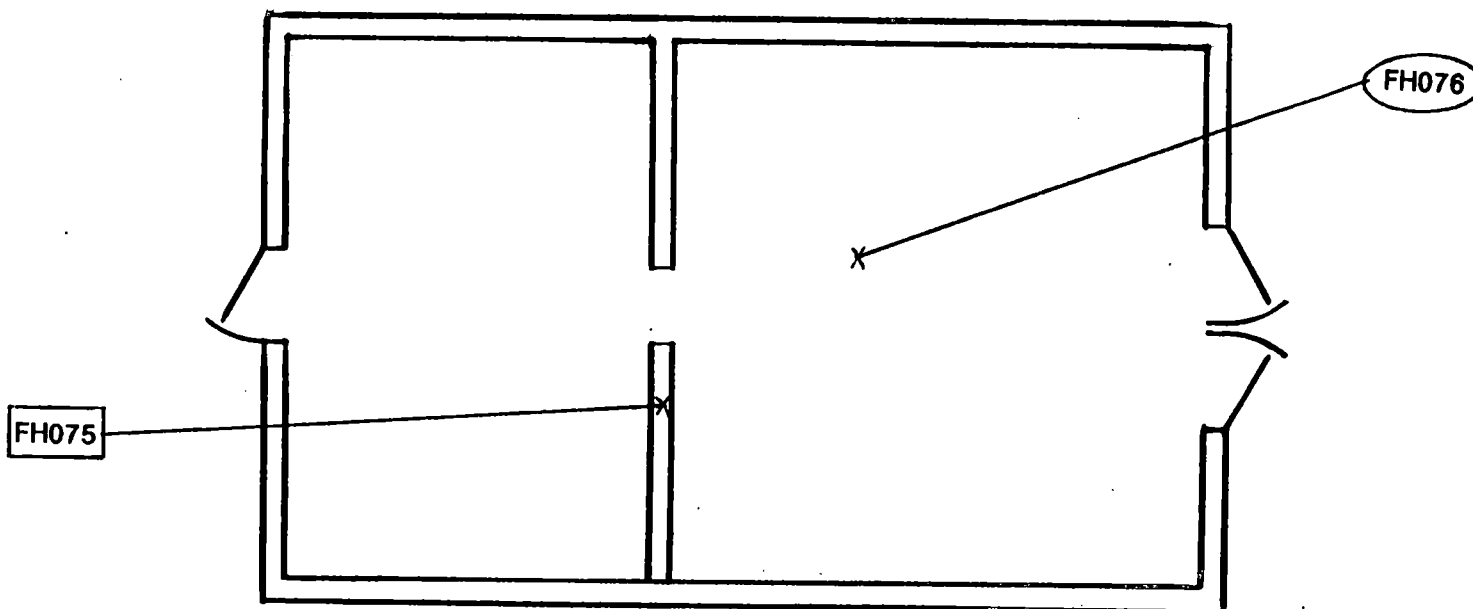
*Amounts Are In Thousands Of Dollars

** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

*** The Minimum Air Monitoring Fee is \$500.00 Per Building

AREA 1: Storehouse

9126-8



BLDG. 9126

LEGEND

-  POSITIVE SAMPLE
 NEGATIVE SAMPLE

WESTON
DESIGN/ENGINEERING/CONSULTANTS