



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

***Volume II - 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:



Roy F. Weston, Inc.
West Chester,
Pennsylvania 19380

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

VOLUME II

CONTRACT NO. DACA61-89-D-0013

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Weston Work Order No. 3886-41-06

BUILDING REPORTS

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ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

288.1 GENERAL

Building 288 was surveyed by WESTON technicians on 3 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 288.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 13 samples of suspect material collected from the building. Of these samples, 9 were found to be asbestos-containing materials (ACM). Table 288.1 lists the analytical results for the bulk samples.

288.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 288 are presented in Table 288.1. An area-by-area inventory of ACM is provided in Tables 288.2 and 288.3. "Other Asbestos-Containing Materials," listed in Table 288.3, are materials that do not correspond to the standard caption categories listed in Table 288.2. A prioritized listing of exposure assessments is presented in Table 288.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 288.5. 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 288.2 and 288.5.

288.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- The first floor computer room (Rm. #2), first floor stairwell area, and mechanical/boiler room qualify for the Army Asbestos Deficiency Abatement Project.
- Asbestos-containing materials should be labeled under the O&M Program.



NORTH-EASTERN ANALYTICAL CORPORATION

288

BULK SAMPLE ANALYSIS REPORT

CLIENT: E-Systems

NAC #: A1-1232-007

FACILITY:

Bldg. 288

SAMPLE DESCRIPTION AND LOCATION:	C90-409 Ceiling Material		
SAMPLE NUMBER:	01		
ASBESTOS:			
Chrysotile	ND		
Amosite	ND		
Crocidolite	ND		
Other	ND		
NON-ASBESTOS:			
Cellulose	1-2%		
Fibrous Glass	92-94%		
Quartz			
Binders	BALANCE		
Calcite			
Perlite			
Vermiculite			
Synthetic Fibers			
Gypsum			
Mica			
Talc			
Glass Beads	2-3%		

ANALYST:

DATE: 12-11-90

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

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

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TABLE 288.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 288, ADMINISTRATIVE BLDG.

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH250	1ST FLR. - RM. #21,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	-	YES
FH251	1ST FLR. RM #21,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH252	1ST FLR. - UPR. HALL,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	-	YES
FH253	1ST FLR. - STAIRWELL,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,1X1 WL TL	-	2	-	YES
FH254	1ST FLR. HALLWAY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH255	1ST FLR. ALCOVE/BATH,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FT	-	-	-	YES
FH256	1ST FLR. - ROOM #2,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	-	-	-	YES
FH257	BOILER RM.\MECH RM.,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	50	-	-	YES
FH258	BOILER RM.\MECH RM.,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	60	-	-	YES
FH259	BOILER RM.\MECH RM.,BELOW CEILING	BOILERS/TANKS	GRAY,HHW,TANK INSUL	40	-	-	YES
FH260	BOILER RM.\MECH RM.,BELOW CEILING	BOILERS/TANKS	GRAY,HHW,TANK INSUL	60	-	-	NO
FH261	BOILER RM.\MECH RM.,BELOW CEILING	<4" PIPE FITTING	GRAY,UNK,<4 FITT.	15	-	-	YES
FH262	BOILER RM.\MECH RM.,BELOW CEILING	>14" PIPE RUN	GRAY,OTH,>14 BREECH	25	-	-	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 288.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 288, ADMINISTRATIVE BLDG.

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. Comp. Rm. 2	-	-	-	-	-	-	-	-	-	-	-	-	*
1st Flr. (Entire)	-	-	-	-	-	-	-	-	-	10.10	-	-	-
1st Flr. - Rm. #21	-	-	-	-	-	-	-	-	-	1.20	-	-	-
1st Flr. - Stairwell	-	-	-	-	-	-	-	-	-	-	-	-	*
1st Flr. - Upr. Hall	-	-	-	-	-	-	-	-	-	2.00	-	-	-
Boiler Rm. \Mech Rm.	15	-	-	-	-	-	-	10	-	-	0.18	-	-
TOTALS	15	-	-	-	-	-	-	10	-	13.30	0.18	-	*

* Other Material Present In Various Units Of Measure

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

Table 288.3

**Other Asbestos-Containing Material - Building 288, Admin.
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
1st Fl. Comp. Rm. 2	Acoustical Wall Tile	0.150 (MSF)
1st Fl. Stairwell	Acoustical Wall Tile	0.010 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 288.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 288, ADMINISTRATIVE BLDG.

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH253	1st Fl. Comp. Rm. 2	ACOUSTICAL WALL TILE	C	4.800E03	2	2	1	2	40	40.00	2
FH253	1st Flr. - Stairwell	ACOUSTICAL WALL TILE	C	4.800E03	2	2	1	2	40	40.00	2
FH257	Boiler Rm.\Mech Rm.	BOILERS/TANKS	C	1.500E03	3	2	2	2	1	2.00	50
FH258	Boiler Rm.\Mech Rm.	BOILERS/TANKS	C	1.500E03	3	2	2	2	1	2.00	60
FH259	Boiler Rm.\Mech Rm.	BOILERS/TANKS	C	1.500E03	3	2	2	2	1	2.00	40
FH260	Boiler Rm.\Mech Rm.	BOILERS/TANKS	C	1.500E03	3	2	2	2	1	2.00	60
FH261	Boiler Rm.\Mech Rm.	<4" PIPE FITTING	B	5.500E02	3	2	2	2	1	2.00	15
FH262	Boiler Rm.\Mech Rm.	>14" PIPE RUN	B	5.500E02	3	2	2	2	1	2.00	25
FH251	1st Flr. (Entire)	CEILING TILE	A	0	2	2	1	2	40	40.00	0
FH251	1st Flr. Rm #21	CEILING TILE	A	0	2	2	1	2	40	40.00	0
FH254	1st Flr. Hallway	CEILING TILE	A	0	2	2	1	2	40	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 288.5

COST ESTIMATE* - BUILDING 288, ADMINISTRATIVE BLDG.

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	TOTAL
Pipe Fittings (EA)								
<4"	70.30	-	-	-	-	-	1.1	1.1
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	-	-	-	-	-	0.6	0.6
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	-	56.6	6.7	-	11.2	-	74.5
Boilers/Tanks (SF)	37.90	-	-	-	-	-	6.9	6.9
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-
Other		1.7	-	-	0.1	-	-	1.8
SUBTOTAL		1.7	56.6	6.7	0.1	11.2	8.5	84.8
Difficulty Allowance		-	-	-	-	-	-	-
SUBTOTAL		1.7	56.6	6.7	0.1	11.2	8.5	84.8
Decontamination Units Mobilization		1.5 0.3	1.5 0.3	1.5 0.3	1.5 0.3	1.5 0.3	1.5 0.3	9.0 2.0
SUBTOTAL		3.5	58.4	8.6	1.9	13.0	10.4	95.8
Contingency @ 15.00%		0.5	8.8	1.3	0.3	2.0	1.6	14.4
SUBTOTAL		4.0	67.2	9.8	2.2	15.0	11.9	110.1
Design Fee @ 10.00%		0.4	6.7	1.0	0.2	1.5	1.2	11.0
SUBTOTAL		4.4	73.9	10.8	2.5	16.5	13.1	121.1
Air Monitoring @ 10.00%***		2.0	2.0	2.0	2.0	2.0	2.0	12.1
TOTAL		6.4	75.9	12.8	4.5	18.5	15.1	133.3

* 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 Fl. Comp. Rm. #2
 AREA 3: 1st Fl. - Rm. #21
 AREA 5: 1st Fl. - Upr. Hall

AREA 2: 1st Fl. (Entire)
 AREA 4: 1st Fl. - Stairwell
 AREA 6: Boiler Rm. Mech Rm.

SECTION 288.4

PHOTOGRAPHS



Bldg. 288

Room No. 21 (9 In. x 9 In.) Dark Brown Floor Tiles
(Under Carpet). Sample No. FH250 Tested Positive.



Bldg. 288

Mechanical Room: Tank Insulation (End Cap) Sample FH257 Tested Positive. Tank Insulation Side of Tank (Picture Not Shown); Sample FH258 Also Tested Positive.



Bldg. 288

Mechanical Room: Tank Insulation (Elevated Tanks) Sample No. FH259 Tested Positive.



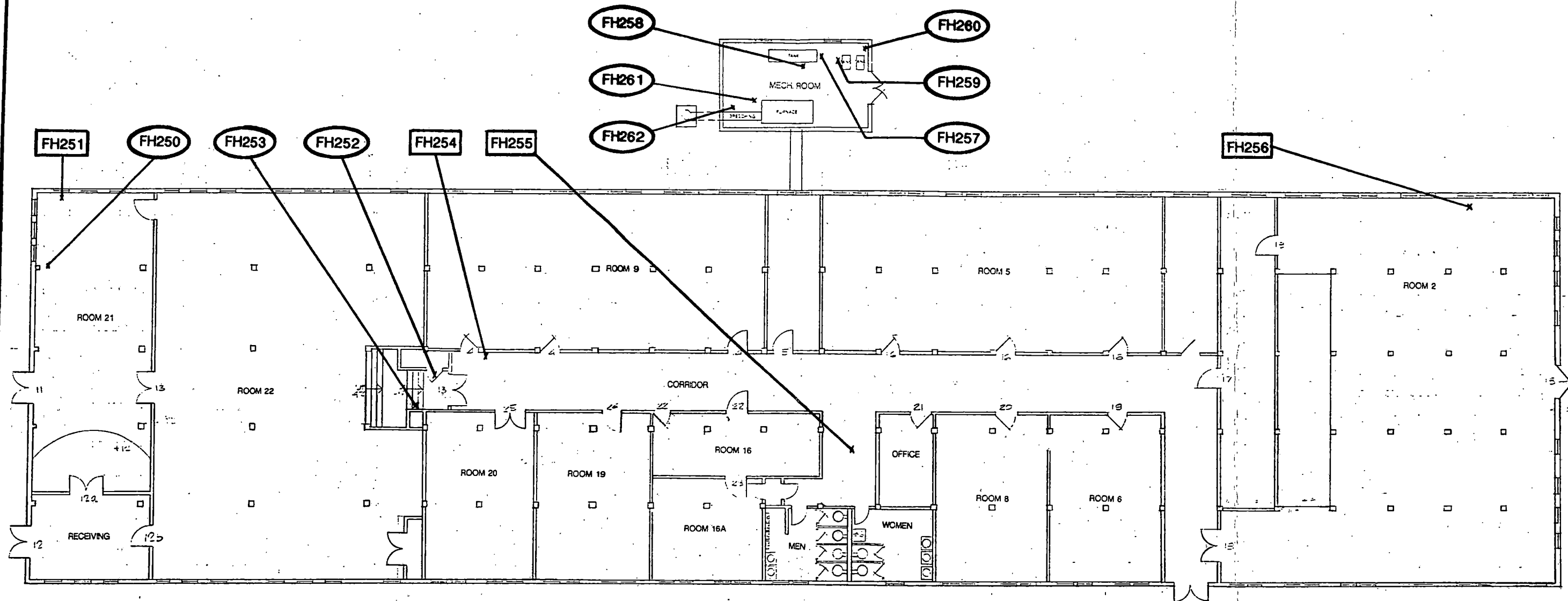
Bldg. 288

Mechanical Room: (Less Than 4 In.) Fitting
(Associated With An American Standard Boiler Model
A72B52) Sample FH261 Tested Positive.



Bldg. 288

Mechanical Room: (Greater Than 14 In.) Breeching
Insulation (Associated With An American Standard
Boiler Model A72B-52) Sample FH262 Tested Positive.



BLDG. 288

LEGEND

- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE



291

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

291.1 GENERAL

Building 291 was surveyed by WESTON technicians on 4 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 291.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 9 samples of suspect material collected from the building. Of these samples, 5 were found to be asbestos-containing materials (ACM). Table 291.1 lists the analytical results for the bulk samples.

291.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 291 are presented in Table 291.1. An area-by-area inventory of ACM is provided in Tables 291.2 and 291.3. "Other Asbestos-Containing Materials," listed in Table 291.3, are materials that do not correspond to the standard caption categories listed in Table 291.2. A prioritized listing of exposure assessments is presented in Table 291.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 291.5. 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 291.2 and 291.5.

291.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 291.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 291, ADMIN-NEW EQUIP TRNG

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH263	MECH. ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	20	20	-	NO
FH264	MECH. ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8 FITT.	10	-	-	YES
FH265	MECH. ROOM,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,MUD PACK.	-	-	-	YES
FH266	MECH. ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4 FITT.	-	-	-	NO
FH267	HALLWAY,BELOW CEILING	FLOOR TILE	WHITE,OTH,9X9 FL TL	10	-	-	YES
FH268	OFFICE # 1,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH269	ROOM #6,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	YES
FH270	ROOM #2,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,1X1 WL TL	-	1	-	YES
FH271	ROOM #14,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,1X1 WL TL	-	-	-	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 291.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 291, ADMIN-NEW EQUIP TRNG

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"					
Hallway	-	-	-	-	-	-	-	-	-	1.00	-	-	-
Mech. Room	-	1	-	-	-	-	-	20	-	-	-	-	-
Offices (entire)	-	-	-	-	-	-	-	-	-	12.00	-	-	-
Room #2	-	-	-	-	-	-	-	-	-	-	-	-	*
Room #6	-	-	-	-	-	-	-	-	-	1.95	-	-	-
TOTALS	-	1	-	-	-	-	-	20	-	14.95	-	-	*

* Other Material Present In Various Units Of Measure

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

Table 291.3

**Other Asbestos-Containing Material - Building 291, New Equip. Trng.
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Room #2	Acoustical Wall Tile	0.700 (MSF)

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

TABLE 291.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 291, ADMIN-NEW EQUIP TRNG

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH263	Mech. Room	>14" PIPE RUN	A	2.900E-1	3	1	1	1	1	2.00	40
FH264	Mech. Room	4-8" PIPE FITTING	A	1.050E-1	3	1	1	1	1	2.00	10
FH270	Room #2	ACOUSTICAL WALL TILE	A	5.500E-2	1	1	1	2	50	40.00	1
FH266	Mech. Room	<4" PIPE FITTING	A	0	3	1	1	1	1	2.00	0
FH268	Office # 1	CEILING TILE	A	0	1	1	1	2	50	40.00	0
FH268	Offices (entire)	CEILING TILE	A	0	1	1	1	2	50	40.00	0
FH271	Room #14	ACOUSTICAL WALL TILE	A	0	1	1	1	2	50	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 291.5

COST ESTIMATE* - BUILDING 291, ADMIN-NEW EQUIP TRNG

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	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	-	1.2	-	-	-	1.2
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-
Floor Tile (SF)	5.60	5.6	-	67.2	-	10.9	83.7
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-
Other	-	-	-	-	7.7	-	7.7
SUBTOTAL		5.6	1.3	67.2	7.7	10.9	92.7
Difficulty Allowance	-	-	-	-	-	-	-
SUBTOTAL		5.6	1.3	67.2	7.7	10.9	92.7
Decontamination Units Mobilization		1.3 0.4	1.3 0.4	1.3 0.4	1.3 0.4	1.3 0.4	6.5 2.0
SUBTOTAL		7.3	3.0	68.9	9.4	12.6	101.2
Contingency @ 15.00%		1.1	0.5	10.3	1.4	1.9	15.2
SUBTOTAL		8.4	3.5	79.2	10.8	14.5	116.4
Design Fee @ 10.00%		0.8	0.3	7.9	1.1	1.5	11.6
SUBTOTAL		9.2	3.8	87.2	11.9	16.0	128.0
Air Monitoring @ 10.00%***		2.6	2.6	2.6	2.6	2.6	12.8
TOTAL		11.8	6.4	89.7	14.5	18.5	140.9

*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 1: Hallway
 AREA 3: Offices (entire)
 AREA 5: Room #8

AREA 2: Mech. Room
 AREA 4: Room #2

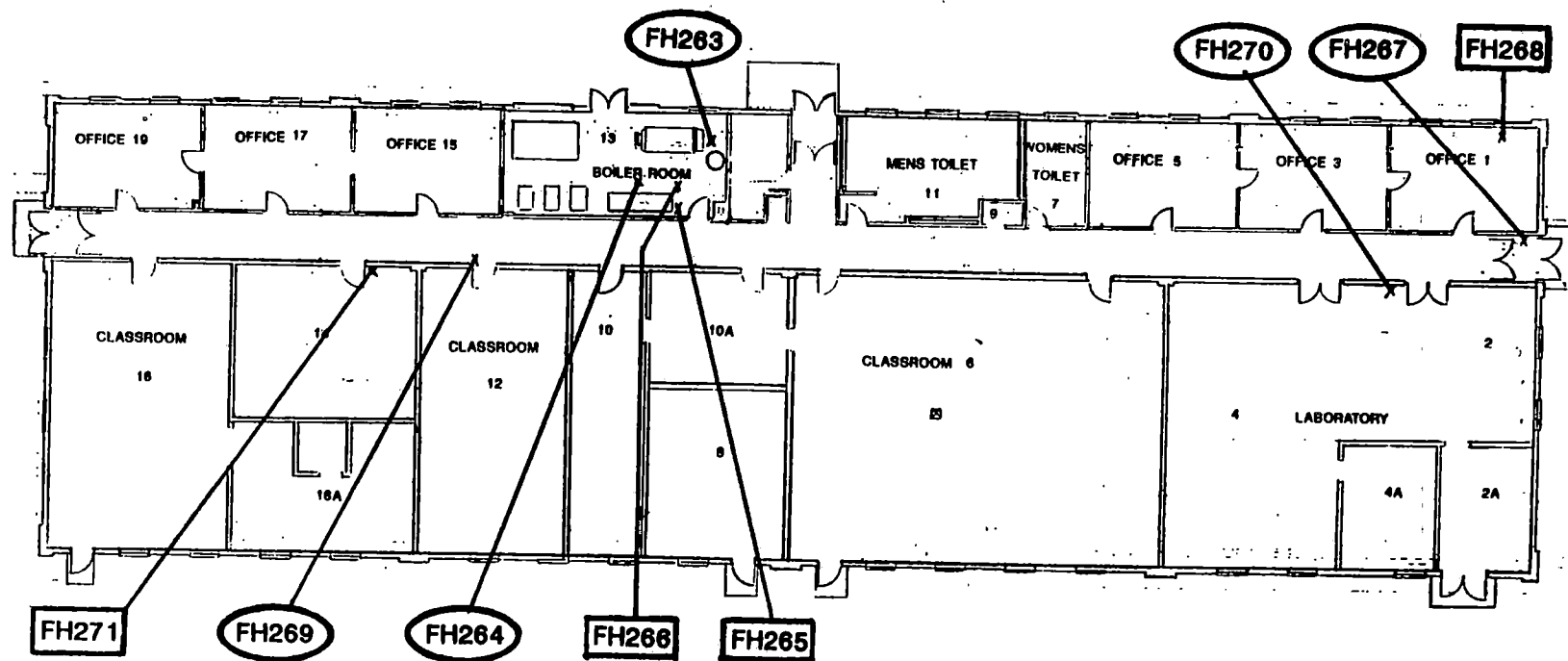
SECTION 291.4

PHOTOGRAPHS



Bldg. 291

Mechanical Room: (4 In. - 8 In.) Fitting
Insulation Sample FH264 Tested Positive. Pipe Run
Insulation Is Fiberglass.



BLDG. 291

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

296

**ADMINISTRATIVE BUILDING
(DATA COMMUNICATIONS)**

ADMINISTRATIVE BUILDING**296.1 GENERAL**

Building 296 was surveyed by WESTON technicians on 4 December 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, 5 were found to be asbestos-containing materials (ACM). Table 296.1 lists the analytical results for the bulk samples.

296.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 296 are presented in Table 296.1. An area-by-area inventory of ACM is provided in Tables 296.2 and 296.3. "Other Asbestos-Containing Materials," listed in Table 296.3, are materials that do not correspond to the standard caption categories listed in Table 296.2. A prioritized listing of exposure assessments is presented in Table 296.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 296.5. 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 296.2 and 296.5.

296.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

DATA SHEET

Clayton Project No.: 16621-47 *qd*

Sample ID	E-SYSTEMS, INC./SAI <i>Bldg. 296 Boiler</i>	#C88-3				
Laboratory Sample ID #		101258				
Analytical Method - PLM + Dispersion Staining						
Gross Sample Appearance (enter number; note color)	1. Homogeneous, fibrous 2. Homogeneous, nonfibrous 3. Heterogeneous, fibrous 4. Heterogeneous, nonfibrous 5. Heterogeneous, mixed	off-white fibrous mixture				
Sample Treatment (enter number)	1. Homogenized 2. Untreated					
Amount of Material Examined (mg)						
Asbestos Present (enter number and percent)	1. Amosite 2. Chrysotile 3. Crocidolite 4. Other, specify	<1%				
Percent Total Asbestos Present in Sample		<1%				
Other Fibrous Material Present (enter number and percent)	1. Fiberglass 2. Mineral Wool 3. Cellulose 4. Synthetic fibers	2. 20%				
Nonfibrous Materials Present (description and percent)						
1. Gypsum 2. Silicate 3. Sand 4. Cement 5. Mica 6. Other						

ND = No asbestos detected

BULK SAMPLE TEST RESULTS.

TABLE 296.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 296, ADMIN. (DATA COMM.)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH272	HALLWAY NORTH,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL	-	-	-	YES
FH273	HALLWAY NORTH,BELOW CEILING	FLOOR TILE	WHITE,OTH,9X9 FL TL	2	-	-	YES
FH274	ROOM #2,BELOW CEILING	FLOOR TILE	WHITE,OTH,9X9 FL TL	3	-	-	YES
FH275	ROOM #2,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	5	-	-	YES
FH276	ROOM #5,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,TRAN.PANEL	30	-	-	YES
FH277	MECH. ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	40	-	-	NO
FH278	MECH. ROOM,BELOW CEILING	EXPANSION JOINT(S)	WHITE,OTH,EXP.JOINT	-	-	-	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 296.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 296, ADMIN. (DATA COMM.)

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. - Offices	-	-	-	-	-	-	-	-	-	3.00	-	-	-
Hallway North	-	-	-	-	-	-	-	-	-	0.80	-	-	-
Mech. Room	-	-	-	-	-	-	-	1	-	-	-	-	-
Room #2	-	-	-	-	-	-	-	-	-	0.64	-	-	-
Room #5	-	-	-	-	-	-	-	-	-	-	-	-	*
TOTALS	-	-	-	-	-	-	-	1	-	4.44	-	-	*

* Other Material Present In Various Units Of Measure

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

Table 296.3

**Other Asbestos-Containing Material - Building 296, Administrative (Data Communications)
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Room #5	Transite Panel Board	1.00 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 296.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 296, ADMIN. (DATA COMM.)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH276	Room #5	TRANSITE PANEL BOARD	A	9.750E-2	1	1	1	2	15	40.00	30
FH277	Mech. Room	>14" PIPE RUN	A	5.000E-2	2	1	1	1	1	2.00	40
FH278	Mech. Room	EXPANSION JOINTS	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 296.5

COST ESTIMATE* - BUILDING 296, ADMIN. (DATA COMM.)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	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	16.8	4.5	-	3.6	-	24.9
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-
Other		-	-	-	-	11.0	11.0
SUBTOTAL		16.8	4.5	**	3.6	11.0	35.9
Difficulty Allowance		-	-	-	-	-	-
SUBTOTAL		16.8	4.5	**	3.6	11.0	35.9
Decontamination Units Mobilization		1.3 0.4	1.3 0.4	1.3 0.4	1.3 0.4	1.3 0.4	6.5 2.0
SUBTOTAL		18.5	6.2	1.8	5.3	12.7	44.4
Contingency @ 15.00%		2.8	0.9	0.3	0.8	1.9	6.7
SUBTOTAL		21.3	7.1	2.0	6.1	14.6	51.1
Design Fee @ 10.00%		2.1	0.7	0.2	0.6	1.5	5.1
SUBTOTAL		23.4	7.8	2.2	6.7	16.1	56.2
Air Monitoring @ 10.00%***		1.1	1.1	1.1	1.1	1.1	5.6
TOTAL		24.5	8.9	3.4	7.8	17.2	61.8

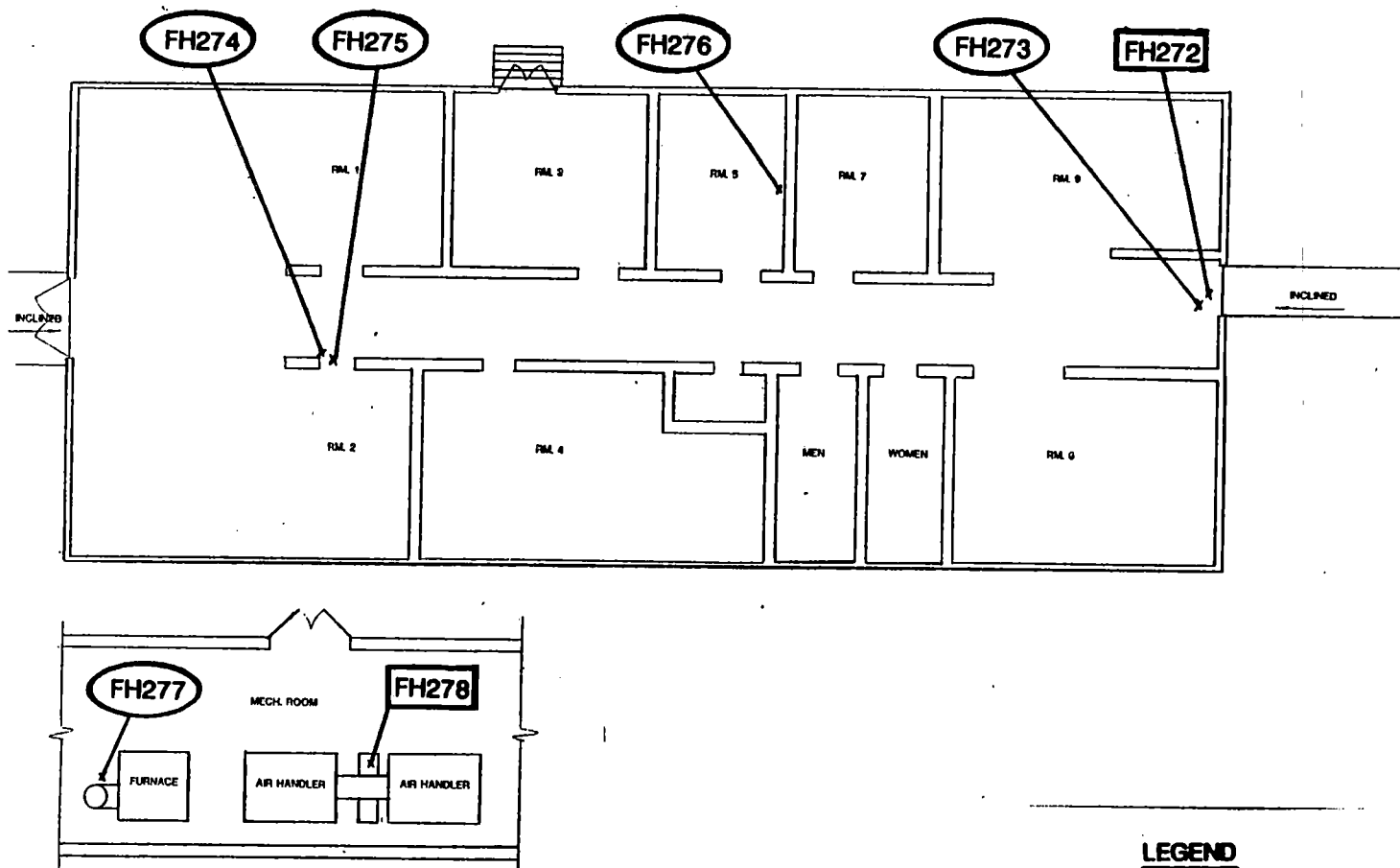
*Amounts Are In Thousands Of Dollars

**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 Flr. - Offices
 AREA 3: Mech. Room
 AREA 5: Room #5

AREA 2: Hallway North
 AREA 4: Room #2



BLDG. 296

LEGEND

(FHnnn) POSITIVE SAMPLE

[FHnnn] NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

360

BOQ BUILDING

BOQ BUILDING**360.1 GENERAL**

Building 360 was surveyed by WESTON technicians on 5 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 360.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 38 samples of suspect material collected from the building. Of these samples, 33 were found to be asbestos-containing materials (ACM). Table 360.1 lists the analytical results for the bulk samples.

360.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 360 are presented in Table 360.1. An area-by-area inventory of ACM is provided in Tables 360.2 and 360.3. "Other Asbestos-Containing Materials," listed in Table 360.3, are materials that do not correspond to the standard caption categories listed in Table 360.2. A prioritized listing of exposure assessments is presented in Table 360.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 360.5. 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 360.2 and 360.5.

360.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 360.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 360, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH301	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	-	-	YES
FH302	MECH ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	10	-	-	YES
FH303	MECH ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	-	-	-	NO
FH304	MECH ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	-	-	-	NO
FH305	MECH ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	50	-	-	YES
FH306	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	10	-	-	YES
FH307	MECH ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	30	-	-	YES
FH308	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	10	-	-	YES
FH309	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	25	-	NO
FH310	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	10	30	-	NO
FH311	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	10	35	-	NO
FH312	MECH ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	20	-	-	YES
FH313	1ST FLOOR LOUNGE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	3	-	-	YES
FH314	1ST FLOOR LOUNGE,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	YES
FH315	1ST FLOOR LOUNGE,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL	-	-	-	YES
FH316	1ST FLOOR LOUNGE,BELOW CEILING	CEILING TILE	WHITE,OTH,1X1 CL TL	-	-	-	YES
FH317	1ST FLOOR LAUNDRY,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	25	-	-	YES
FH318	1ST FLOOR LAUNDRY,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	10	-	-	YES
FH319	1ST FL. PIPE CHASE,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	20	-	-	YES
FH320	1ST FL. PIPE CHASE,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	10	-	-	YES
FH321	1ST FLR. PIPE CHASE,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	25	-	-	YES
FH322	1ST FL. LOBBY EAST,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL	3	-	-	YES
FH323	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	30	-	-	YES
FH324	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	10	-	-	YES
FH325	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	30	-	-	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 360.1
(continued)
BULK SAMPLE ANALYSIS RESULTS - BUILDING 360, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH326	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	-	-	YES
FH327	1ST FLR JANT. CLOSET,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	30	-	-	YES
FH328	1ST FLR JANT. CLOSET,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	15	-	-	YES
FH329	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	25	-	-	YES
FH330	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	10	-	YES
FH331	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	45	-	-	YES
FH332	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	15	-	YES
FH333	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT	25	-	-	YES
FH334	1ST FLR JANT. CLOSET,BELOW CEILING	4-8" PIPE RUN	WHITE,UNK,4-8IN. RUN	15	15	-	YES
FH335	1ST FLOOR HALLWAY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL	-	-	-	YES
FH336	1ST FL. ROOMS ENTIRE,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	3	-	-	NO
FH337	2ND FLOOR ROOM 228,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	3	-	-	YES
FH338	3RD FLOOR ROOM 358,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	5	-	-	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 360.2
ASBESTOS-CONTAINING MATERIALS - BUILDING 360, 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 Fl. Lobby East	-	-	-	-	-	-	-	-	-	0.36	-	-	-
1st Fl. Lobby West	-	-	-	-	-	-	-	-	-	0.36	-	-	-
1st Fl. Pipe Chase	5	-	-	-	26	-	-	-	-	-	-	-	-
1st Fl. Rooms Entire	-	-	-	-	-	-	-	-	-	5.40	-	-	-
1st Floor Laundry	4	-	-	-	25	-	-	-	-	-	-	-	-
1st Floor Lounge	2	-	-	-	16	-	-	-	-	0.70	-	-	-
1st Flr Jant. Closet	10	50	-	-	90	810	-	-	-	-	-	-	-
1st Flr. Pipe Chase	3	-	-	-	-	-	-	-	-	-	-	-	-
2nd Fl. Rooms Entire	-	-	-	-	-	-	-	-	-	5.40	-	-	-
2nd Floor Room 228	-	-	-	-	-	-	-	-	-	0.45	-	-	-
3rd Fl. Rooms Entire	-	-	-	-	-	-	-	-	-	5.40	-	-	-
3rd Floor Room 358	-	-	-	-	-	-	-	-	-	0.45	-	-	-
3rd Flr. Rooms(Entr)	-	-	-	-	-	-	-	-	-	5.40	-	-	-
Mech Room	-	7	-	-	50	297	-	-	-	-	-	-	-
TOTALS	24	57	-	-	207	1107	-	-	-	23.92	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 360.3

**Other Asbestos-Containing Material - Building 360, BOQ
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

360-6

TABLE 360.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 360, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH317	1st Floor Laundry	<4" PIPE FITTING	A	6.300E01	2	1	1	2	30	40.00	25
FH317	1st Floor Lounge	<4" PIPE FITTING	A	6.300E01	2	1	1	2	30	40.00	25
FH318	1st Floor Laundry	<4" PIPE RUN	A	6.300E01	2	1	1	2	30	40.00	10
FH318	1st Floor Lounge	<4" PIPE RUN	A	6.300E01	2	1	1	2	30	40.00	10
FH319	1st Fl. Pipe Chase	<4" PIPE FITTING	A	6.300E01	2	1	1	2	30	40.00	20
FH320	1st Fl. Pipe Chase	<4" PIPE RUN	A	6.300E01	2	1	1	2	30	40.00	10
FH321	1st Flr. Pipe Chase	<4" PIPE FITTING	A	6.300E01	2	1	1	2	30	40.00	25
FH323	1st Flr Jant. Closet	4-8" PIPE FITTING	A	6.300E01	2	1	1	2	30	40.00	30
FH305	Mech Room	4-8" PIPE FITTING	A	8.100E-1	3	1	2	1	1	2.00	50
FH309	Mech Room	4-8" PIPE RUN	A	8.100E-1	3	1	2	1	1	2.00	40
FH310	Mech Room	4-8" PIPE RUN	A	8.100E-1	3	1	2	1	1	2.00	40
FH311	Mech Room	4-8" PIPE RUN	A	8.100E-1	3	1	2	1	1	2.00	45
FH301	Mech Room	4-8" PIPE RUN	A	2.900E-1	3	1	2	1	1	2.00	15
FH302	Mech Room	4-8" PIPE FITTING	A	2.900E-1	3	1	2	1	1	2.00	10
FH306	Mech Room	4-8" PIPE RUN	A	2.900E-1	3	1	2	1	1	2.00	10
FH307	Mech Room	4-8" PIPE FITTING	A	2.900E-1	3	1	2	1	1	2.00	30
FH308	Mech Room	4-8" PIPE RUN	A	2.900E-1	3	1	2	1	1	2.00	10
FH312	Mech Room	<4" PIPE RUN	A	2.900E-1	3	1	2	1	1	2.00	20
FH331	1st Flr Jant. Closet	4-8" PIPE FITTING	A	5.000E-2	2	1	1	1	1	2.00	45
FH324	1st Flr Jant. Closet	4-8" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	10
FH325	1st Flr Jant. Closet	4-8" PIPE FITTING	A	1.850E-2	2	1	1	1	1	2.00	30
FH326	1st Flr Jant. Closet	4-8" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	15
FH327	1st Flr Jant. Closet	<4" PIPE FITTING	A	1.850E-2	2	1	1	1	1	2.00	30
FH328	1st Flr Jant. Closet	<4" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	15
FH329	1st Flr Jant. Closet	4-8" PIPE FITTING	A	1.850E-2	2	1	1	1	1	2.00	25
FH330	1st Flr Jant. Closet	4-8" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	25
FH332	1st Flr Jant. Closet	4-8" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	30
FH333	1st Flr Jant. Closet	4-8" PIPE FITTING	A	1.850E-2	2	1	1	1	1	2.00	25
FH334	1st Flr Jant. Closet	4-8" PIPE RUN	A	1.850E-2	2	1	1	1	1	2.00	30
FH303	Mech Room	>14" PIPE RUN	A	0	3	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 360.4
(continued)

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 360, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH304	Mech Room	>14" PIPE RUN	A	0	3	1	2	1	1	2.00	0
FH315	1st Floor Lounge	CEILING TILE	A	0	2	1	1	2	30	40.00	0
FH316	1st Floor Lounge	CEILING TILE	A	0	2	1	1	2	30	40.00	0
FH335	1st Floor Hallway	CEILING TILE	A	0	2	1	1	2	30	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 360.5

COST ESTIMATE* - BUILDING 360, BOQ

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)												
24"	70.30	-	-	0.4	-	0.3	0.1	0.7	0.2	-	-	-
4-8"	89.80	-	-	-	-	-	-	4.3	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
24"	26.50	-	-	0.7	-	0.7	0.4	2.4	-	-	-	-
4-8"	30.50	-	-	-	-	-	-	24.7	-	-	-	-
9-14"	30.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	2.0	2.0	-	30.2	-	3.9	-	-	30.2	2.5	30.2
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		2.0	2.0	1.0	30.2	0.9	4.5	32.1	0.2	30.2	2.5	30.2
Difficulty Allowance		1.0	-	0.5	-	0.1	0.3	16.0	0.1	-	-	-
SUBTOTAL		3.0	2.0	1.6	30.2	1.1	4.8	48.1	0.3	30.2	2.5	30.2
Decontamination Units Mobilization		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SUBTOTAL		4.2	3.2	2.8	31.5	2.3	6.0	49.3	1.5	31.5	3.7	31.5
Contingency @ 15.00%		0.6	0.5	0.4	4.7	0.3	0.9	7.4	0.2	4.7	0.6	4.7
SUBTOTAL		4.9	3.7	3.2	36.2	2.6	6.9	56.7	1.8	36.2	4.3	36.2
Design Fee @ 10.00%		0.5	0.4	0.3	3.6	0.3	0.7	5.7	0.2	3.6	0.4	3.6
SUBTOTAL		5.4	4.1	3.5	39.8	2.9	7.6	62.4	1.9	39.8	4.7	39.8
Air Monitoring @ 10.00%***		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TOTAL		7.3	6.1	5.5	41.8	4.9	9.5	64.4	3.9	41.8	6.7	41.8

*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. Lobby East
 AREA 3: 1st Fl. Pipe Chase
 AREA 5: 1st Floor Laundry
 AREA 7: 1st Flr Jant. Closet
 AREA 9: 2nd Flr. Rooms Entire
 AREA 11: 3rd Flr. Rooms Entire

AREA 2: 1st Fl. Lobby West
 AREA 4: 1st Flr. Rooms Entire
 AREA 6: 1st Floor Lounge
 AREA 8: 1st Flr. Pipe Chase
 AREA 10: 2nd Floor Room 228

TABLE 360.5
(continued)
COST ESTIMATE* - BUILDING 360, BOQ

DESCRIPTION	UNIT COST (\$)	AREA 12	AREA 13	AREA 14	TOTAL
Pipe Fittings (EA)					
<4"	70.30	-	-	-	1.7
4-8"	85.80	-	-	0.6	4.9
9-14"	147.00	-	-	-	-
>14"	216.00	-	-	-	-
Pipe Runs (LF)					
<4"	26.50	-	-	1.3	5.5
4-8"	30.20	-	-	9.1	33.8
9-14"	42.50	-	-	-	-
>14"	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	2.5	30.2	-	134.0
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	-	-	-
SUBTOTAL		2.5	30.2	11.0	179.8
Difficulty Allowance		-	-	4.1	22.2
SUBTOTAL		2.5	30.2	15.0	201.9
Decontamination Units Mobilization		0.1	0.1	0.1	15.0
					2.0
SUBTOTAL		3.7	31.5	16.3	218.9
Contingency @ 15.00%		0.6	4.7	2.4	32.8
SUBTOTAL		4.3	36.2	18.7	251.8
Design Fee @ 10.00%		0.4	3.6	1.9	25.2
SUBTOTAL		4.7	39.8	20.6	277.0
Air Monitoring @ 10.00%***		2.0	2.0	2.0	27.7
TOTAL		6.7	41.8	22.6	304.7

*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 12: 3rd Floor Room 358
AREA 14: Mech Room

AREA 13: 3rd Flr. Rooms(Entr)

SECTION 360.4

PHOTOGRAPHS



Bldg. 360

Mechanical Room: (Sample FH301)
(4 In. - 8 In.) Pipe Run Insulation Tested
Positive. Pipe Fitting Insulation Associated With
This Run Also Tested Positive (Sample FH302).



Bldg. 360

Mechanical Room: (Sample FH309)
(4 In. - 8 In.) Pipe Run Insulation Tested
Positive. Total Of Six Pipe Runs In Pipe Chase All
Tested Positive.



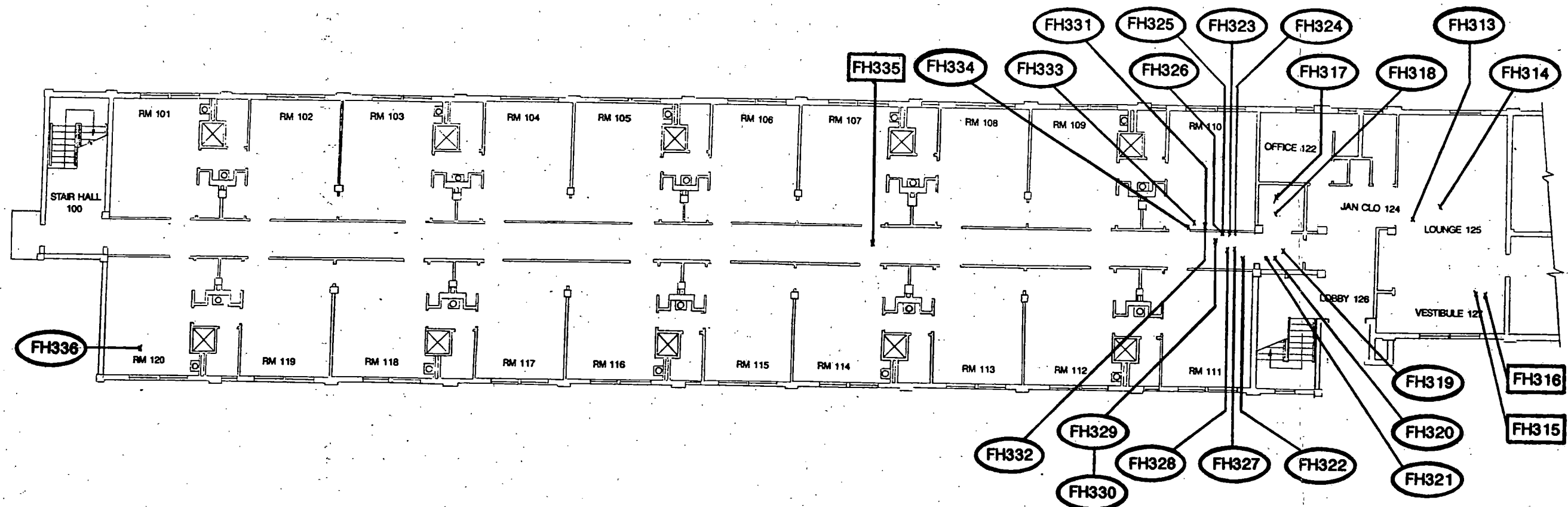
Bldg. 360

First Floor, Janitor's Closet: (Sample FH334) (4 In. - 8 In.) Pipe Run Insulation Tested Positive. All Pipe Runs and Fitting Insulation On First Floor Tested Positive.



Bldg. 360

Third Floor, Room 358: (Sample FH338) (9 In. x 9 In.) Gray Floor Tile. Black Floor Tile (9 In. x 9 In.) Also Tested Positive. Floor Tiles In Entire Building Tested Positive.



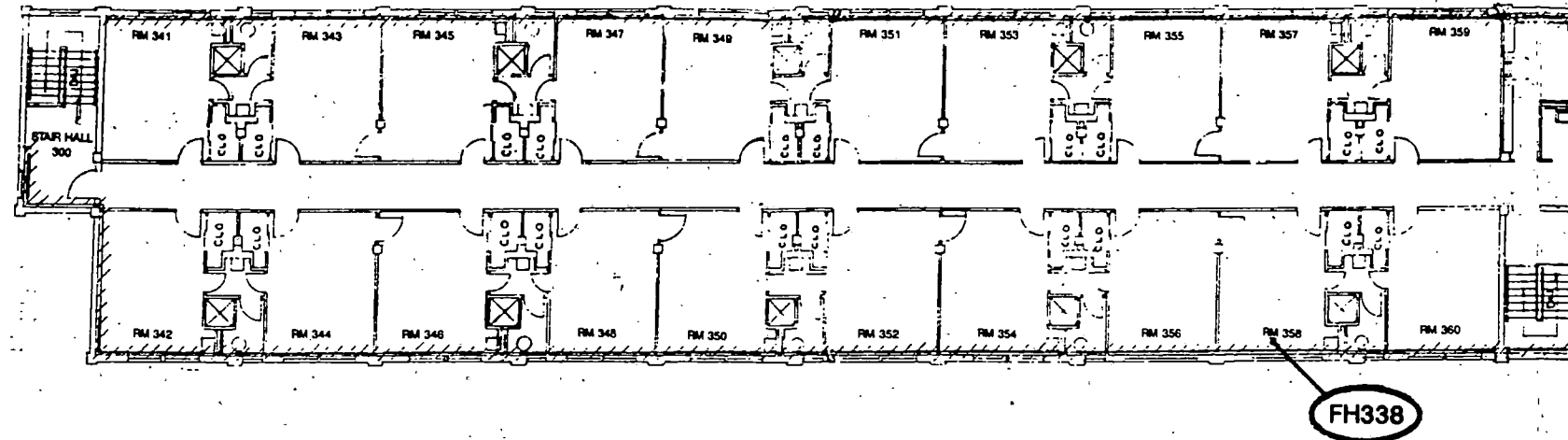
BLDG. 360
FIRST FLOOR PLAN

LEGEND

 FHnnn POSITIVE SAMPLE

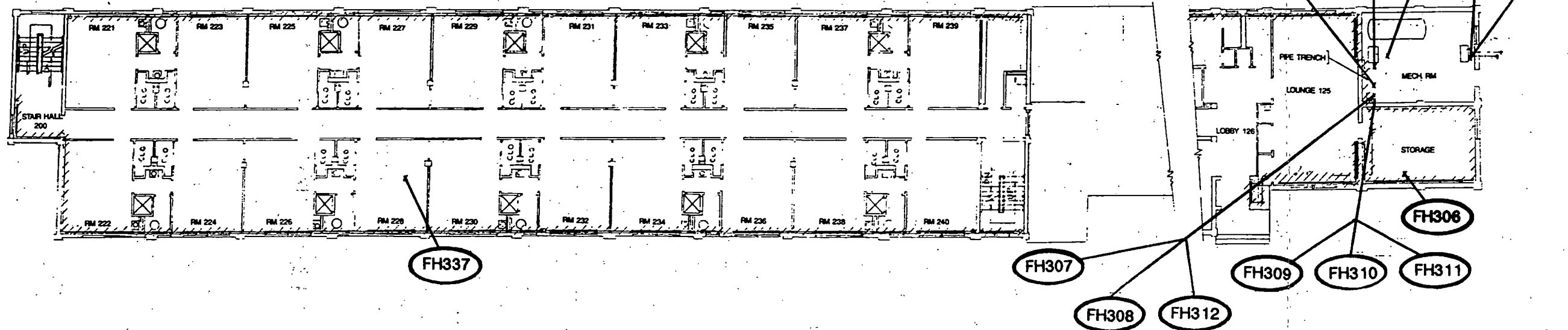
 FHnnn NEGATIVE SAMPLE





THIRD FLOOR

SECOND FLOOR



BLDG. 360
SECOND AND THIRD FLOORS

LEGEND

-  POSITIVE SAMPLE
-  NEGATIVE SAMPLE



361

BEQ BUILDING

BEQ BUILDING**361.1 GENERAL**

Building 361 was surveyed by WESTON technicians on 6 December 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, 10 were found to be asbestos-containing materials (ACM). Table 361.1 lists the analytical results for the bulk samples.

361.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 361 are presented in Table 361.1. An area-by-area inventory of ACM is provided in Tables 361.2 and 361.3. "Other Asbestos-Containing Materials," listed in Table 361.3, are materials that do not correspond to the standard caption categories listed in Table 361.2. A prioritized listing of exposure assessments is presented in Table 361.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 361.5. 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 361.2 and 361.5.

361.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 361.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 361, BEQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH339	2ND FLOOR ROOM 227,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL,HORIZONTAL	5	-	-	YES
FH340	2ND FLOOR ROOM 240,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH341	3RD FLOOR ROOM 356,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL,HORIZONTAL	5	-	-	NO
FH342	1ST FLOOR ROOM 104,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH343	1ST FLOOR ROOM 119,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH344	1ST FL. ENTRANCE SO.,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL,HORIZONTAL	2	-	-	YES
FH345	1ST FLOOR HALLWAY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL,HORIZONTAL	-	-	-	YES
FH346	1ST FLOOR HALLWAY,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT,HORIZONTAL	2	-	-	YES
FH347	1ST FLOOR HALLWAY,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT,HORIZONTAL	3	-	-	YES
FH348	1ST FLOOR HALLWAY,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT,HORIZONTAL	2	-	-	YES
FH349	TRANSFORMER ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT,HORIZONTAL	15	-	-	YES
FH350	MECH ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH,HORIZONTAL	-	-	-	NO
FH351	MECH ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH,HORIZONTAL	-	-	-	YES
FH352	MECH ROOM,BELOW CEILING	9-14" PIPE RUN	WHITE,OTH,9-14 BREECH,HORIZONTAL	-	-	-	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 361.2
ASBESTOS-CONTAINING MATERIALS - BUILDING 361, BEQ

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. Entrance So.	-	-	-	-	-	-	-	-	-	0.14	-	-	-
1st Floor Entire	-	-	-	-	-	-	-	-	-	7.20	-	-	-
1st Floor Hallway	-	60	-	-	-	-	-	-	-	-	-	-	-
1st Floor Room 104	-	-	-	-	-	-	-	-	-	0.20	-	-	-
1st Floor Room 119	-	-	-	-	-	-	-	-	-	0.00	-	-	-
1st Flr. Ent. North	-	-	-	-	-	-	-	-	-	0.14	-	-	-
2nd Floor Entire	-	-	-	-	-	-	-	-	-	7.20	-	-	-
2nd Floor Room 227	-	-	-	-	-	-	-	-	-	0.20	-	-	-
2nd Floor Room 240	-	-	-	-	-	-	-	-	-	0.00	-	-	-
3rd Floor Entire	-	-	-	-	-	-	-	-	-	7.20	-	-	-
3rd Floor Room 356	-	-	-	-	-	-	-	-	-	0.20	-	-	-
Transformer Room	-	9	-	-	-	-	-	-	-	-	-	-	-
TOTALS	-	69	-	-	-	-	-	-	-	22.48	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 361.3

**Other Asbestos-Containing Material - Building 361, BEQ
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 361.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 361, BEQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH349	Transformer Room	4-8" PIPE FITTING	A	8.250E00	2	2	2	1	1	1.00	15
FH346	1st Floor Hallway	4-8" PIPE FITTING	A	1.300E00	2	1	1	1	20	40.00	2
FH347	1st Floor Hallway	4-8" PIPE FITTING	A	1.300E00	2	1	1	1	20	40.00	3
FH348	1st Floor Hallway	4-8" PIPE FITTING	A	1.300E00	2	1	1	1	20	40.00	2
FH345	1st Floor Entire	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH345	1st Floor Hallway	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH345	2nd Floor Entire	CEILING TILE	A	0	1	1	1	1	20	40.00	0
FH345	3rd Floor Entire	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH350	Mech Room	>14" PIPE RUN	A	0	2	1	2	1	2	2.00	0
FH351	Mech Room	>14" PIPE RUN	A	0	2	1	2	1	2	2.00	0
FH352	Mech Room	9-14" PIPE RUN	A	0	2	1	2	1	2	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 361.5

COST ESTIMATE* - BUILDING 361, BEQ

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	-	-	5.1	-	-	-	-	-	-	-	-
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	0.8	40.3	-	1.1	**	0.8	40.3	1.1	**	40.3	1.1
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.8	40.3	5.1	1.1	**	0.8	40.3	1.1	**	40.3	1.1
Difficulty Allowance		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.8	40.3	5.1	1.1	**	0.8	40.3	1.1	**	40.3	1.1
Decontamination Units Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SUBTOTAL		1.1	40.6	5.4	1.4	0.3	1.1	40.6	1.4	0.3	40.6	1.4
Contingency @ 15.00%		0.2	6.1	0.8	0.2	**	0.2	6.1	0.2	**	6.1	0.2
SUBTOTAL		1.3	46.7	6.3	1.6	0.3	1.3	46.7	1.6	0.3	46.7	1.6
Design Fee @ 10.00%		0.1	4.7	0.6	0.2	**	0.1	4.7	0.2	**	4.7	0.2
SUBTOTAL		1.4	51.4	6.9	1.8	0.4	1.4	51.4	1.8	0.4	51.4	1.8
Air Monitoring @ 10.00%***		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
TOTAL		2.8	52.8	8.3	3.2	1.8	2.8	52.8	3.2	1.8	52.8	3.2

* 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: 1st Fl. Entrance So.
 AREA 3: 1st Floor Hallway
 AREA 5: 1st Floor Room 119
 AREA 7: 2nd Floor Entire
 AREA 9: 2nd Floor Room 240
 AREA 11: 3rd Floor Room 356

AREA 2: 1st Floor Entire
 AREA 4: 1st Floor Room 104
 AREA 6: 1st Flr. Ent. North
 AREA 8: 2nd Floor Room 227
 AREA 10: 3rd Floor Entire

TABLE 361.5
(continued)
COST ESTIMATE* - BUILDING 361, BEQ

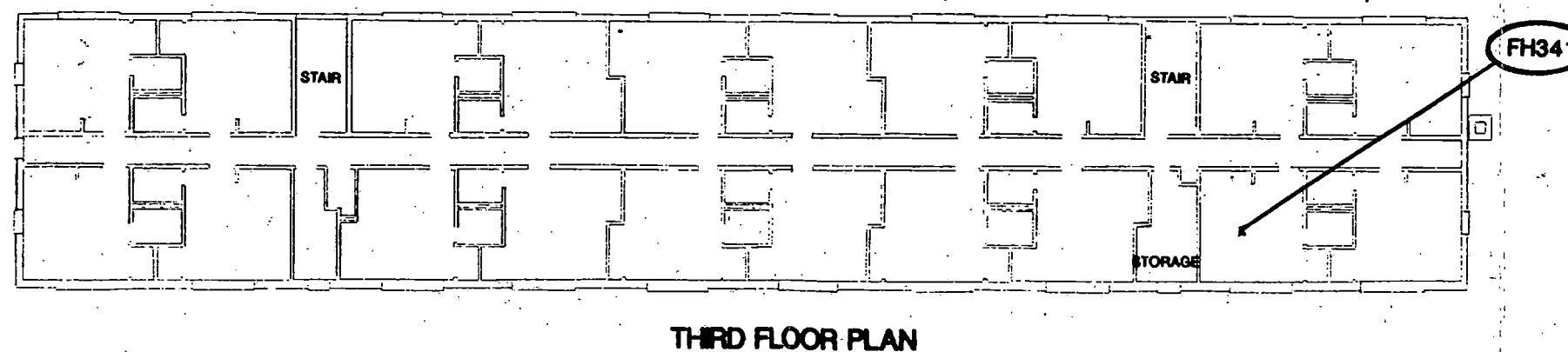
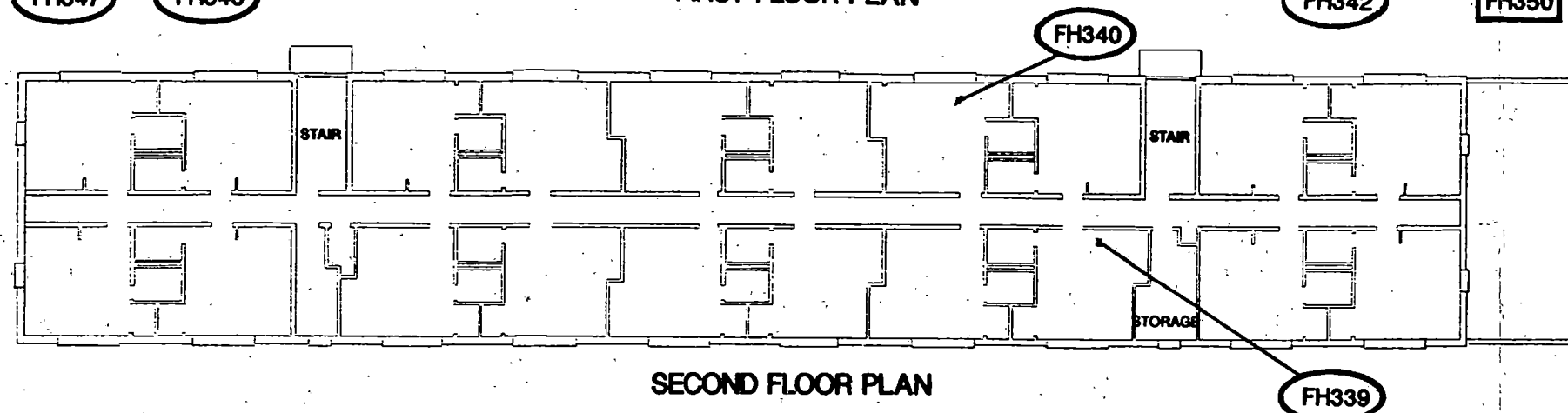
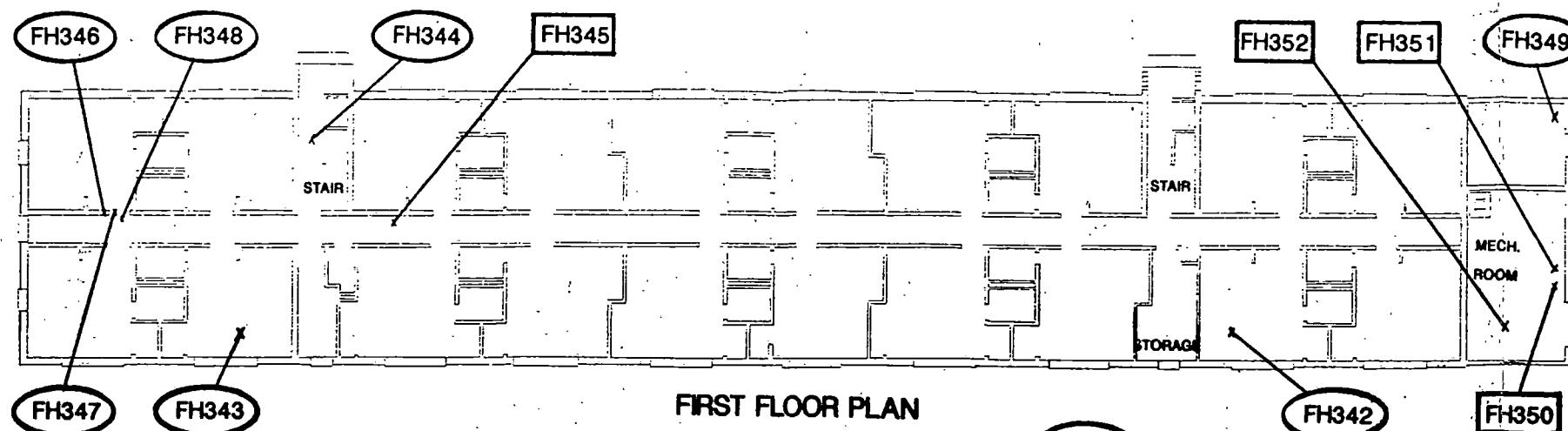
DESCRIPTION	UNIT COST (\$)	AREA 12	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	85.80	0.8	5.9
9-14"	122.80	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	22.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	-	125.9
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		0.8	131.8
Difficulty Allowance		0.4	0.4
SUBTOTAL		1.2	132.2
Decontamination Units Mobilization		0.3	3.5
SUBTOTAL		1.4	135.7
Contingency @ 15.00%		0.2	20.4
SUBTOTAL		1.7	156.0
Design Fee @ 10.00%		0.2	15.6
SUBTOTAL		1.8	171.6
Air Monitoring @ 10.00%***		1.4	17.2
TOTAL		3.3	188.8

* 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 12: Transformer Room



BLDG 361

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON

MANAGERS DESIGNERS/CONSULTANTS

363

BOQ BUILDING

BOQ BUILDING**363.1 GENERAL**

Building 363 was surveyed by WESTON technicians on 7 December 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 10 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 363.1 lists the analytical results for the bulk samples.

363.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 363 are presented in Table 363.1. An area-by-area inventory of ACM is provided in Tables 363.2 and 363.3. "Other Asbestos-Containing Materials," listed in Table 363.3, are materials that do not correspond to the standard caption categories listed in Table 363.2. A prioritized listing of exposure assessments is presented in Table 363.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 363.5. 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 363.2 and 363.5.

363.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 363.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 363, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH353	1ST FLR.-N. ENTRANCE,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL,HORIZONTAL	5	-	-	NO
FH354	1ST FLR.-N. HALL,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL,HORIZONTAL	-	-	-	YES
FH355	1ST FLR.- SOUTH HALL,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT,HORIZONTAL	1	-	-	YES
FH356	1ST FLR. - RM. 101,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL,HORIZONTAL	5	-	-	YES
FH357	1ST FLR. - RM. 120,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH358	2ND FLR. - ROOM 239,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH359	MECH. ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH,HORIZONTAL	-	-	-	NO
FH360	MECH. ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH,HORIZONTAL	-	-	-	NO
FH361	MECH. ROOM,BELOW CEILING	9-14" PIPE RUN	WHITE,OTH,9-14 BREECH,HORIZONTAL	-	-	-	YES
FH362	MECH. ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,UNK,4-8IN. FIT,HORIZONTAL	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 363.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 363, BOQ

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 (Entire)	-	-	-	-	-	-	-	-	-	1.80	-	-	-
1st Flr. - Rm. 101	-	-	-	-	-	-	-	-	-	0.12	-	-	-
1st Flr. - Rm. 120	-	-	-	-	-	-	-	-	-	0.12	-	-	-
1st Flr. North Hall	20	-	-	-	-	-	-	-	-	-	-	-	-
1st Flr.- South Hall	20	-	-	-	-	-	-	-	-	-	-	-	-
1st Flr.-N. Entrance	-	-	-	-	-	-	-	-	-	0.10	-	-	-
1st Flr.-South Entr.	-	-	-	-	-	-	-	-	-	0.10	-	-	-
2nd Flr (Entire)	-	-	-	-	-	-	-	-	-	0.80	-	-	-
2nd Flr. - Room 239	-	-	-	-	-	-	-	-	-	0.12	-	-	-
3rd Flr. (Entire)	-	-	-	-	-	-	-	-	-	0.80	-	-	-
Mech. Room	-	10	-	-	-	-	-	-	-	-	-	-	-
TOTALS	40	10	-	-	-	-	-	-	-	3.96	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 363.3

**Other Asbestos-Containing Material - Building 363, BOQ
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 363.4
EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 363, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH362	Mech. Room	4-8" PIPE FITTING	A	2.000E00	2	1	2	2	2	40.00	1
FH355	1st Flr. North Hall	<4" PIPE FITTING	A	4.000E-3	1	1	1	1	20	40.00	1
FH355	1st Flr.- South Hall	<4" PIPE FITTING	A	4.000E-3	1	1	1	1	20	40.00	1
FH354	1st Flr (Entire)	CEILING TILE	A	0	1	1	1	1	20	40.00	0
FH354	1st Flr.-W. Hall	CEILING TILE	A	0	1	1	1	1	20	40.00	0
FH354	2nd Flr (Entire)	CEILING TILE	A	0	1	1	1	1	20	40.00	0
FH354	3rd Flr. (Entire)	CEILING TILE	A	0	1	3	1	3	20	40.00	0
FH359	Mech. Room	>14" PIPE RUN	A	0	2	1	2	2	2	40.00	0
FH360	Mech. Room	>14" PIPE RUN	A	0	2	1	2	2	2	40.00	0
FH361	Mech. Room	9-14" PIPE RUN	A	0	2	1	2	2	2	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 363.5

COST ESTIMATE* - BUILDING 363, BOQ

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	-	-	-	1.4	1.4	-	-	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	-	-	-	0.9
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	-	-	-	-	-	-
4-8"	30.20	-	-	-	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	10.1	0.7	0.7	-	-	0.6	0.6	4.5	0.7	4.5	-
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		10.1	0.7	0.7	1.4	1.4	0.6	0.6	4.5	0.7	4.5	0.9
Difficulty Allowance	-	-	-	-	-	0.7	-	-	-	-	-	-
SUBTOTAL		10.1	0.7	0.7	1.4	2.1	0.6	0.6	4.5	0.7	4.5	0.9
Decontamination Units Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SUBTOTAL		10.4	1.0	1.0	1.7	2.4	0.9	0.9	4.8	1.0	4.8	1.2
Contingency @ 15.00%		1.6	0.1	0.1	0.3	0.4	0.1	0.1	0.7	0.1	0.7	0.2
SUBTOTAL		12.0	1.1	1.1	2.0	2.8	1.0	1.0	5.5	1.1	5.5	1.4
Design Fee @ 10.00%		1.2	0.1	0.1	0.2	0.3	0.1	0.1	0.6	0.1	0.6	0.1
SUBTOTAL		13.2	1.3	1.3	2.2	3.1	1.1	1.1	6.1	1.3	6.1	1.5
Air Monitoring @ 10.00%***		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
TOTAL		13.5	1.6	1.6	2.5	3.4	1.5	1.5	6.4	1.6	6.4	1.8

*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 Flr. (Entire)
 AREA 3: 1st Flr. - Rm. 120
 AREA 5: 1st Flr. - South Hall
 AREA 7: 1st Flr. - South Entr.
 AREA 9: 2nd Flr. - Room 239
 AREA 11: Mech. Room

AREA 2: 1st Flr. - Rm. 101
 AREA 4: 1st Flr. - North Hall
 AREA 6: 1st Flr. - N. Entrance
 AREA 8: 2nd Flr. (Entire)
 AREA 10: 3rd Flr. (Entire)

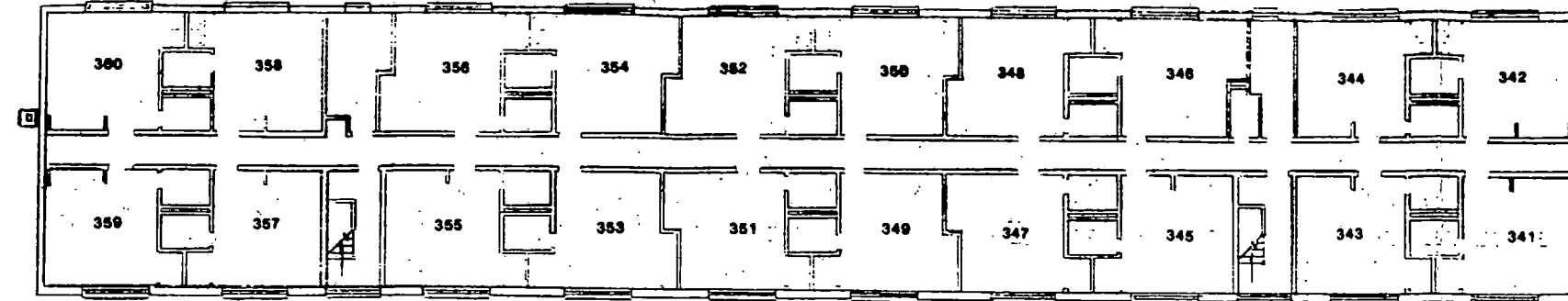
TABLE 363.5
(continued)
COST ESTIMATE* - BUILDING 363, BOQ

DESCRIPTION	UNIT COST (\$)	TOTAL
Pipe Fittings (EA)		
<4"	70.30	2.8
4-8"	85.80	0.9
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	22.2
Boilers/Tanks (SF)	37.90	-
Air Handling Equipment (SF)	20.00	-
Other		-
SUBTOTAL		25.8
Difficulty Allowance		0.7
SUBTOTAL		26.5
Decontamination Units Mobilization		3.5
SUBTOTAL		30.0
Contingency @ 15.00%		4.5
SUBTOTAL		34.6
Design Fee @ 10.00%		3.5
SUBTOTAL		38.0
Air Monitoring @ 10.00%***		3.8
TOTAL		41.8

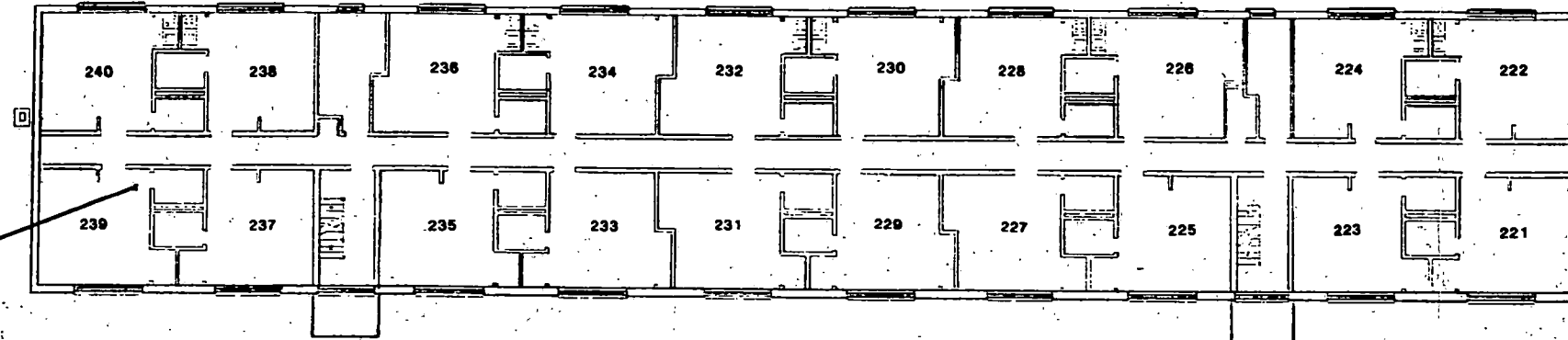
*Amounts Are In Thousands Of Dollars

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

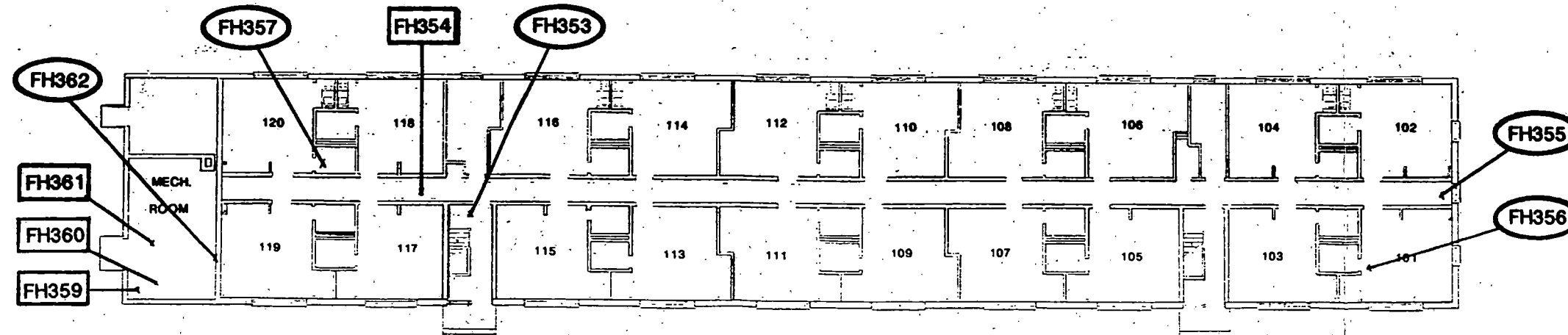
*** The Minimum Air Monitoring Fee is \$500.00 Per Building



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

BLDG. 363

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE



364

BOQ BUILDING

BOQ BUILDING**364.1 GENERAL**

Building 364 was surveyed by WESTON technicians on 10 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 364.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 7 samples of suspect material collected from the building. Of these samples, all 7 were found to be asbestos-containing materials (ACM). Table 364.1 lists the analytical results for the bulk samples.

364.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 364 are presented in Table 364.1. An area-by-area inventory of ACM is provided in Tables 364.2 and 364.3. "Other Asbestos-Containing Materials," listed in Table 364.3, are materials that do not correspond to the standard caption categories listed in Table 364.2. A prioritized listing of exposure assessments is presented in Table 364.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 364.5. 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 364.2 and 364.5.

364.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 364.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 364, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH363	1ST FLOOR ROOM #4,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	YES
FH364	1ST FLOOR SUITE #11,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	-	NO
FH365	2ND FLOOR ROOM #19,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	1	YES
FH366	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	50	-	-	YES
FH367	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	50	-	-	YES
FH368	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	50	-	-	NO
FH369	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	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 364.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 364, 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 Fl. Entire Area	-	-	-	-	-	-	-	-	-	5.28	-	-	-
1st Floor Room #4	-	-	-	-	-	-	-	-	-	0.40	-	-	-
1st Floor Suite #11	-	-	-	-	-	-	-	-	-	0.80	-	-	-
2nd Floor Room #19	-	-	-	-	-	-	-	-	-	0.40	-	-	-
2nd Flr. Entire	-	-	-	-	-	-	-	-	-	5.28	-	-	-
Mech Room	-	-	-	-	-	-	-	-	-	-	0.30	-	-
TOTALS	-	-	-	-	-	-	-	-	-	12.16	0.30	-	-

* Other Material Present In Various Units Of Measure

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

Table 364.3

**Other Asbestos-Containing Material - Building 364, BOQ
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 364.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 364, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH366	Mech Room	BOILERS/TANKS	A	2.900E-1	3	1	1	1	1	2.00	50
FH367	Mech Room	BOILERS/TANKS	A	2.900E-1	3	1	1	1	1	2.00	50
FH368	Mech Room	BOILERS/TANKS	A	2.900E-1	3	1	1	1	1	2.00	50
FH369	Mech Room	BOILERS/TANKS	A	2.900E-1	3	1	1	1	1	2.00	50

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 364.5

COST ESTIMATE* - BUILDING 364, BOQ

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	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"	42.50	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	29.6	2.2	4.5	2.2	29.6	-	68.1
Boilers/Tanks (SF)	37.90	-	-	-	-	-	11.4	11.4
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
SUBTOTAL		29.6	2.2	4.5	2.2	29.6	11.4	79.5
Difficulty Allowance	-	-	-	-	-	-	-	-
SUBTOTAL		29.6	2.2	4.5	2.2	29.6	11.4	79.5
Decontamination Units Mobilization		2.5 0.3	2.5 0.3	2.5 0.3	2.5 0.3	2.5 0.3	2.5 0.3	15.0 2.0
SUBTOTAL		32.4	5.1	7.3	5.1	32.4	14.2	96.5
Contingency @ 15.00%		4.9	0.8	1.1	0.8	4.9	2.1	14.5
SUBTOTAL		37.3	5.8	8.4	5.8	37.3	16.4	111.0
Design Fee @ 10.00%		3.7	0.6	0.8	0.6	3.7	1.6	11.1
SUBTOTAL		41.0	6.4	9.3	6.4	41.0	18.0	122.1
Air Monitoring @ 10.00%***		2.0	2.0	2.0	2.0	2.0	2.0	12.2
TOTAL		43.0	8.5	11.3	8.5	43.0	20.0	134.3

* 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 Fl. Entire Area
 AREA 3: 1st Floor Suite #11
 AREA 5: 2nd Flr. Entire

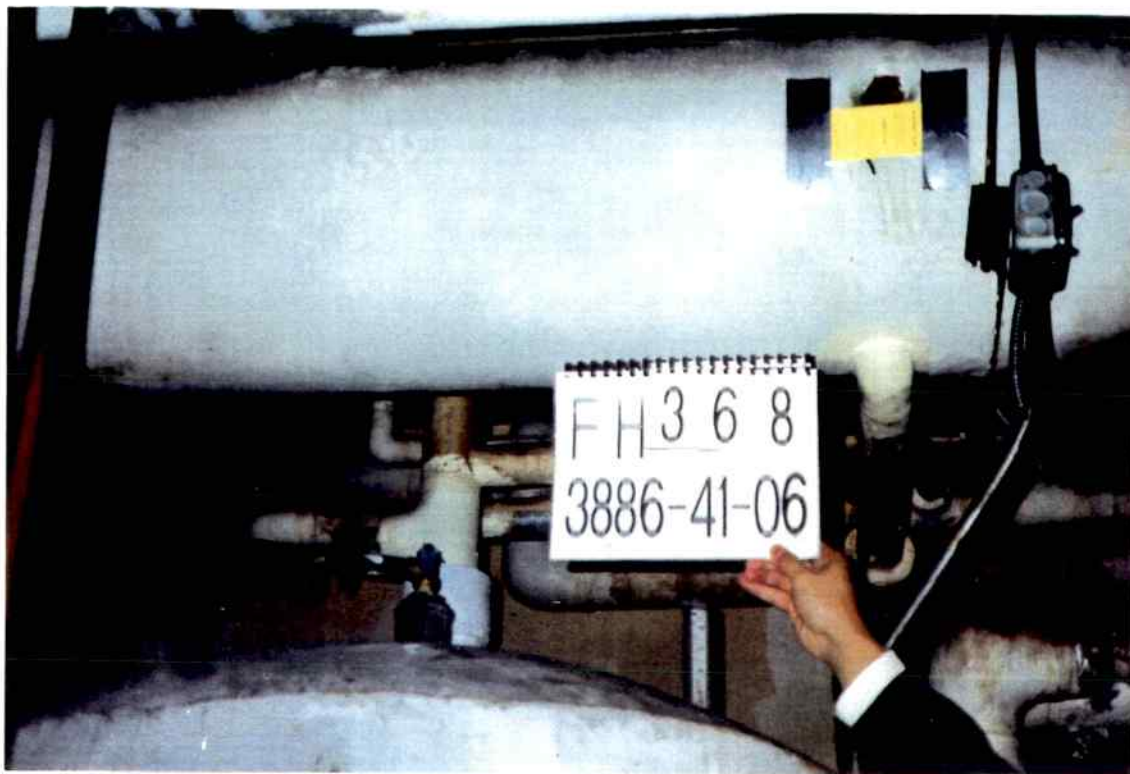
AREA 2: 1st Floor Room #4
 AREA 4: 2nd Floor Room #19
 AREA 6: Mech Room

SECTION 364.4

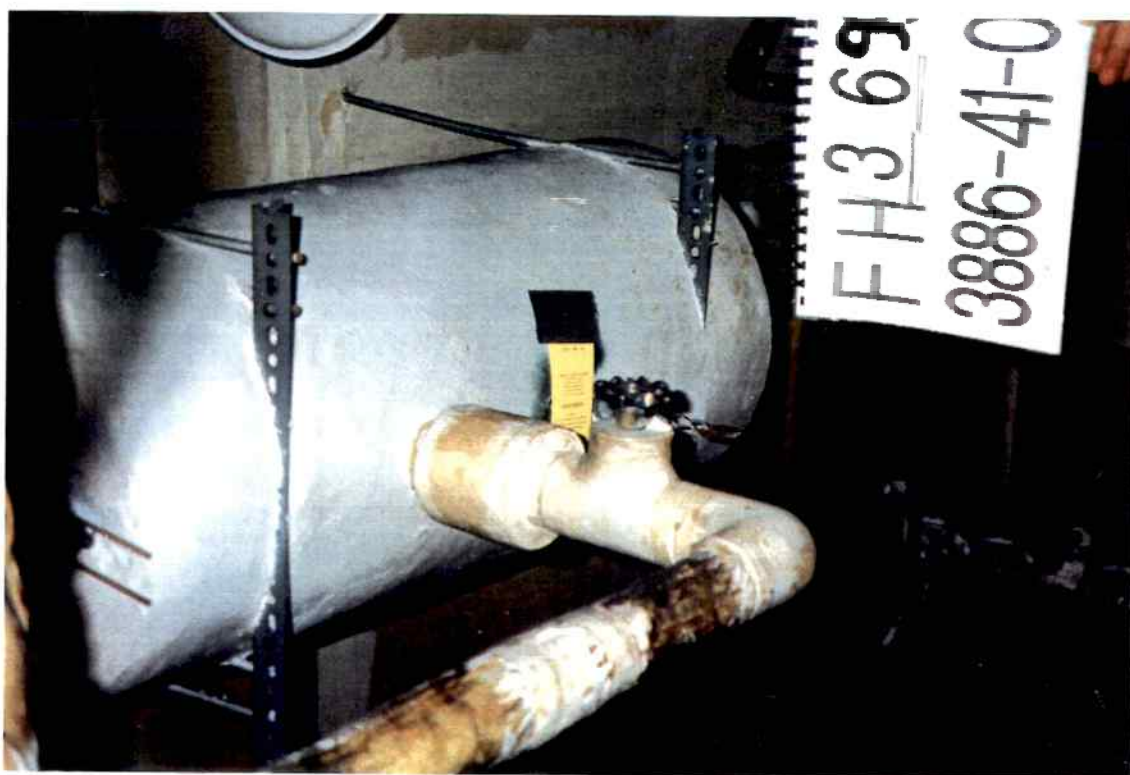
PHOTOGRAPHS



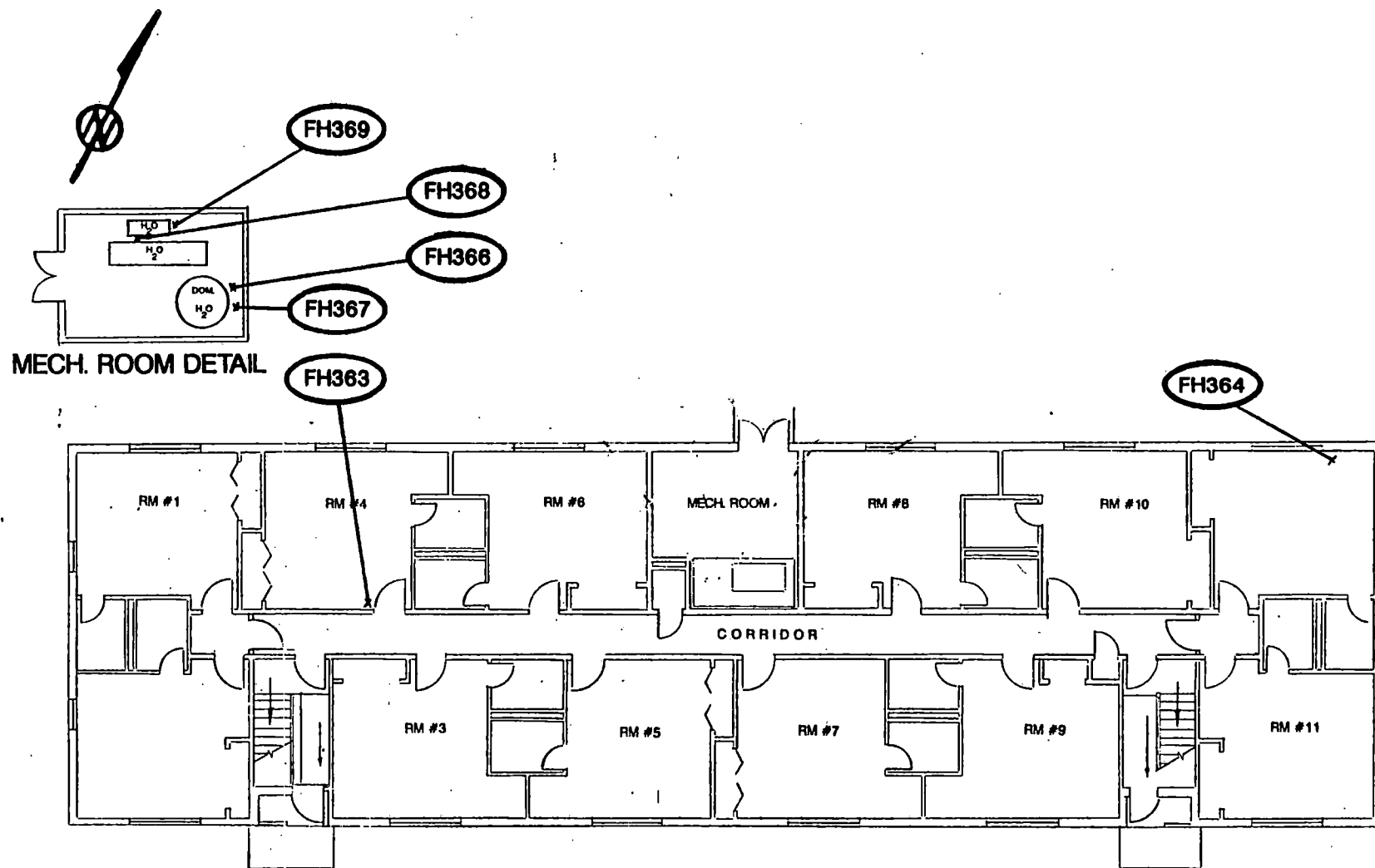
Bldg. 364: Mechanical Room: Tank insulation (side of tank)
Sample No. FH366 tested positive. Tank insulation
end cap of tank (Sample No. FH367) also tested
positive.



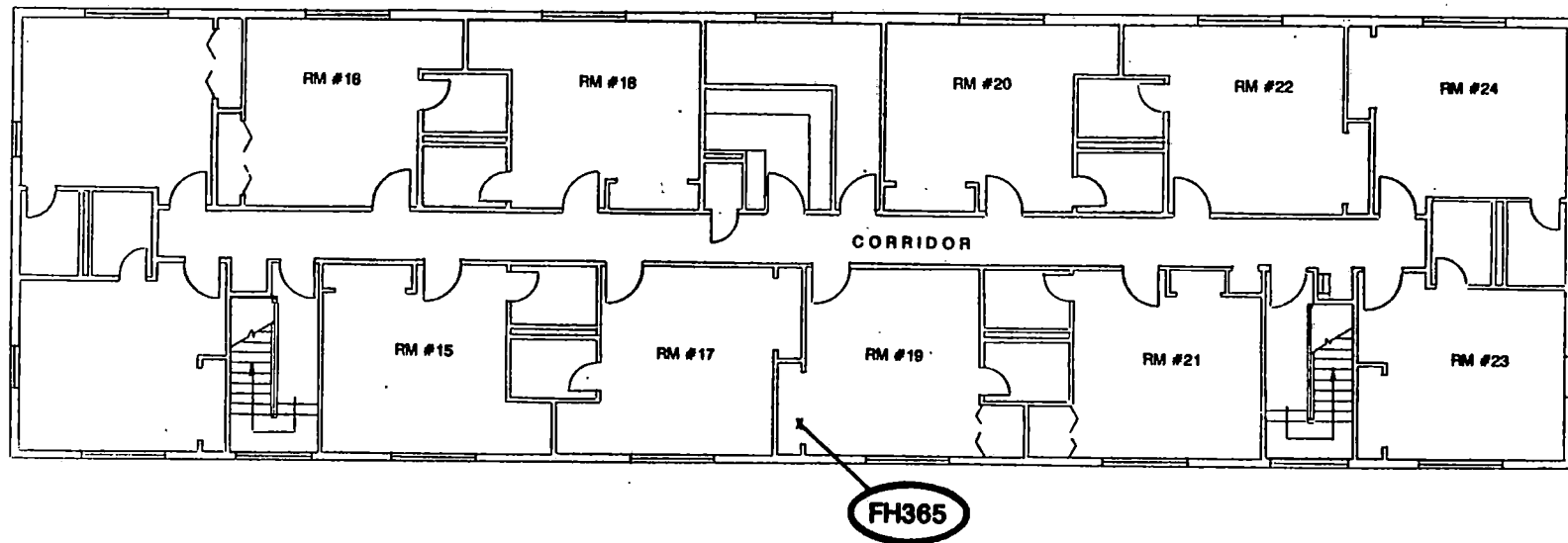
Bldg. 364: Mechanical Room: Tank insulation (side of tank) sample FH368 tested positive.



Bldg. 364: Mechanical Room: Tank insulation (end cap) sample FH369 tested positive.



BLDG. 364
FIRST FLOOR PLAN



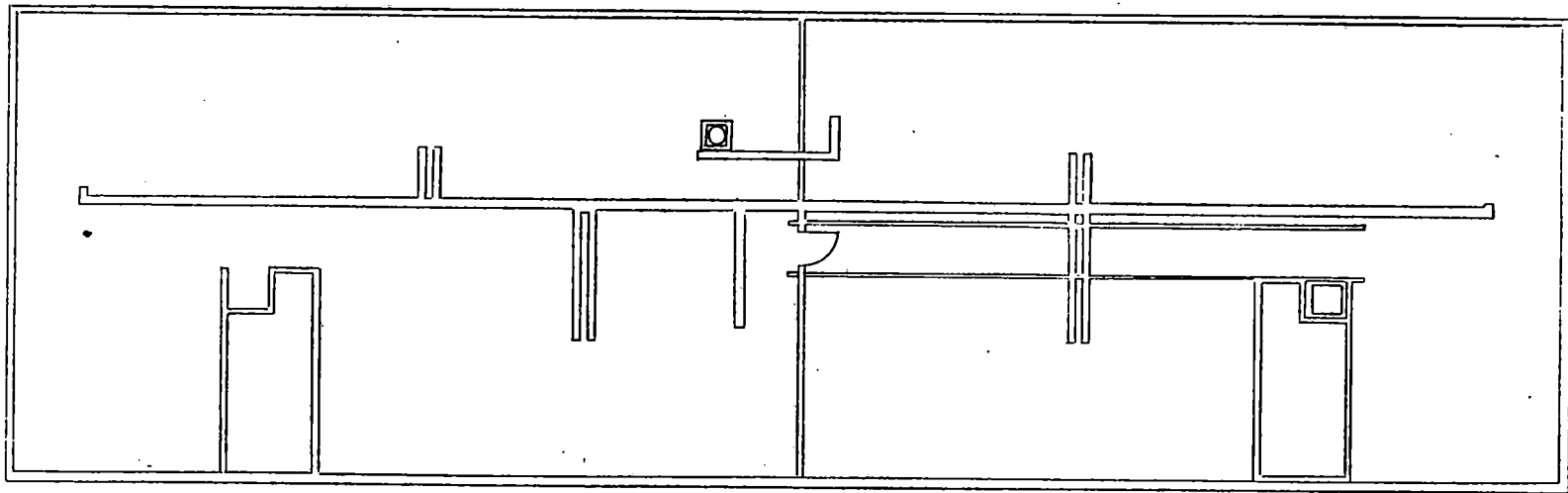
BLDG. 364
SECOND FLOOR PLAN

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS



BLDG. 364
PARTIAL ATTIC PLAN
(NO SUSPECT MATERIAL FOUND IN ATTIC)

LEGEND

-  POSITIVE SAMPLE
 NEGATIVE SAMPLE

492

**ADMINISTRATIVE BUILDING
(SATO)**

ADMINISTRATIVE BUILDING (SATO)

492.1 GENERAL

Building 492 was surveyed by WESTON technicians on 11 December 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 492.1 lists the analytical results for the bulk samples.

492.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 492 are presented in Table 492.1. An area-by-area inventory of ACM is provided in Tables 492.2 and 492.3. "Other Asbestos-Containing Materials," listed in Table 492.3, are materials that do not correspond to the standard caption categories listed in Table 492.2. A prioritized listing of exposure assessments is presented in Table 492.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 492.5. 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 492.2 and 492.5.

492.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 492.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 492, SATO

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH370	ENTIRE BUILDING,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL,HORIZONTAL	-	-	-	YES
FH371	ENTIRE BUILDING,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL,HORIZONTAL	5	-	-	YES
FH372	BATHROOMS,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL,HORIZONTAL	-	-	-	YES
FH373	ENTIRE BUILDING,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL,HORIZONTAL	3	-	-	YES
FH374	ENTIRE BUILDING,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL,HORIZONTAL	-	-	-	YES
FH381	MECH ROOM,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	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 492.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 492, SATO

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"					
Entire Building	-	-	-	-	-	-	-	-	-	1.60	-	-	-
Mech Room	-	-	-	-	-	-	-	-	-	0.12	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	1.72	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 492.3

Other Asbestos-Containing Material - Building 492, Admin. (SATO)
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 492.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 492, SATO

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH370	Entire Building	CEILING TILE	A	0	1	2	1	3	10	40.00	0
FH374	Entire Building	CEILING TILE	A	0	1	2	1	3	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 492.5

COST ESTIMATE* - BUILDING 492, SATO

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	9.0	0.7	9.6
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	-
SUBTOTAL		9.0	0.7	9.6
Difficulty Allowance		-	-	-
SUBTOTAL		9.0	0.7	9.6
Decontamination Units Mobilization		1.8	1.8	3.5
SUBTOTAL		10.7	2.4	13.1
Contingency @ 15.00%		1.6	0.4	2.0
SUBTOTAL		12.3	2.8	15.1
Design Fee @ 10.00%		1.2	0.3	1.5
SUBTOTAL		13.5	3.1	16.6
Air Monitoring @ 10.00%***		0.8	0.8	1.7
TOTAL		14.4	3.9	18.3

* Amounts Are In Thousands Of Dollars

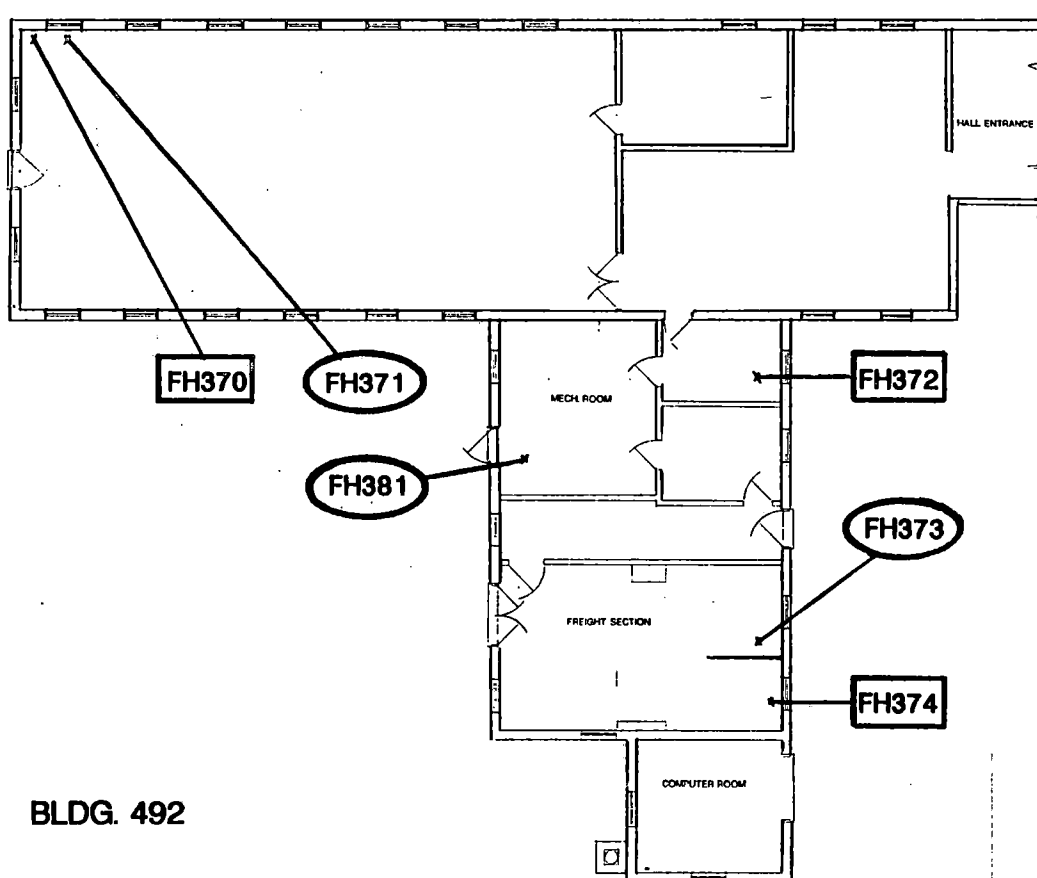
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

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

AREA 1: Entire Building

AREA 2: Mech Room

492-8



BLDG. 492

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

492A

ADMINISTRATIVE BUILDING

492A

ADMINISTRATIVE BUILDING

492A. 1 GENERAL

Building 492A was surveyed by WESTON technicians on 11 December 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, 5 were found to be asbestos-containing materials (ACM). Table 492A-1 lists the analytical results for the bulk samples.

492A.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 492A are presented in Table 492A-1. An area-by-area inventory of ACM is provided in Tables 492A.2 and 492A.3. "Other Asbestos-Containing Materials," listed in Table 492A.3, are materials that do not correspond to the standard caption categories listed in Table 492A.2. A prioritized listing of exposure assessments is presented in Table 492A.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 492A.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 492A.2 and 492A.5.

492A.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 492-A.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 492-A, ADMIN.(TRANSPORT)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH375	E. HALF OF TRANSPORT,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	15	-	-	YES
FH376	E. HALF OF TRANSPORT,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL	-	-	-	YES
FH377	OFFICE,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	15	-	-	YES
FH378	MECH ROOM,BELOW CEILING	CEILING BOARD	WHITE,OTH,4X4 CL BD	60	-	-	NO
FH379	MECH ROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	15	10	-	YES
FH380	MECH ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	60	-	-	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 492-A.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 492-A, ADMIN.(TRANSPORT)

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"					
E. Half of Transport	-	-	-	-	-	-	-	-	-	1.40	-	-	-
Mech Room	3	-	-	-	10	-	-	-	-	-	-	-	*
Office	-	-	-	-	-	-	-	-	-	1.40	-	-	-
TOTALS	3	-	-	-	10	-	-	-	-	2.80	-	-	*

* Other Material Present In Various Units Of Measure .

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

Table 492A.3

**Other Asbestos-Containing Material - Building 492A, Transportation
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Mechanical Room	Ceiling Board	0.010 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

492A-5

TABLE 492-A.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 492-A, ADMIN. (TRANSPORT)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH378	Mech Room	CEILING BOARD	A	4.600E01	2	2	2	1	1	2.00	60
FH380	Mech Room	<4" PIPE FITTING	A	4.600E01	2	2	2	1	1	2.00	60
FH379	Mech Room	<4" PIPE RUN	A	1.650E01	2	2	2	1	1	2.00	25

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 492-A.5

COST ESTIMATE* - BUILDING 492-A, ADMIN. (TRANSPORT)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	TOTAL
Pipe Fittings (EA)					
<4"	70.30	-	0.2	-	0.2
4-8"	85.80	-	-	-	-
9-14"	147.00	-	-	-	-
>14"	216.00	-	-	-	-
Pipe Runs (LF)					
<4"	26.50	-	0.3	-	0.3
4-8"	30.50	-	-	-	-
9-14"	42.50	-	-	-	-
>14"	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	7.8	-	7.8	15.7
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	**	-	**
SUBTOTAL		7.8	0.5	7.8	16.2
Difficulty Allowance		-	-	-	-
SUBTOTAL		7.8	0.5	7.8	16.2
Decontamination Units Mobilization		2.2 0.7	2.2 0.7	2.2 0.7	6.5 2.0
SUBTOTAL		10.7	3.3	10.7	24.7
Contingency @ 15.00%		1.6	0.5	1.6	3.7
SUBTOTAL		12.3	3.8	12.3	28.4
Design Fee @ 10.00%		1.2	0.4	1.2	2.8
SUBTOTAL		13.5	4.2	13.5	31.2
Air Monitoring @ 10.00%***		1.0	1.0	1.0	3.1
TOTAL		14.5	5.3	14.5	34.3

*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: E. Half of Transport
AREA 3: Office

AREA 2: Mech Room



Northeastern Analytical Corp.

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89-0988

 CLIENT: E-Systems, Inc./SAI
 Building 166,
 Riverside Drive
 Fort Monmouth, NJ

JOB SITE:

Bldg. 492

Bldg. 492 P. pa Rap

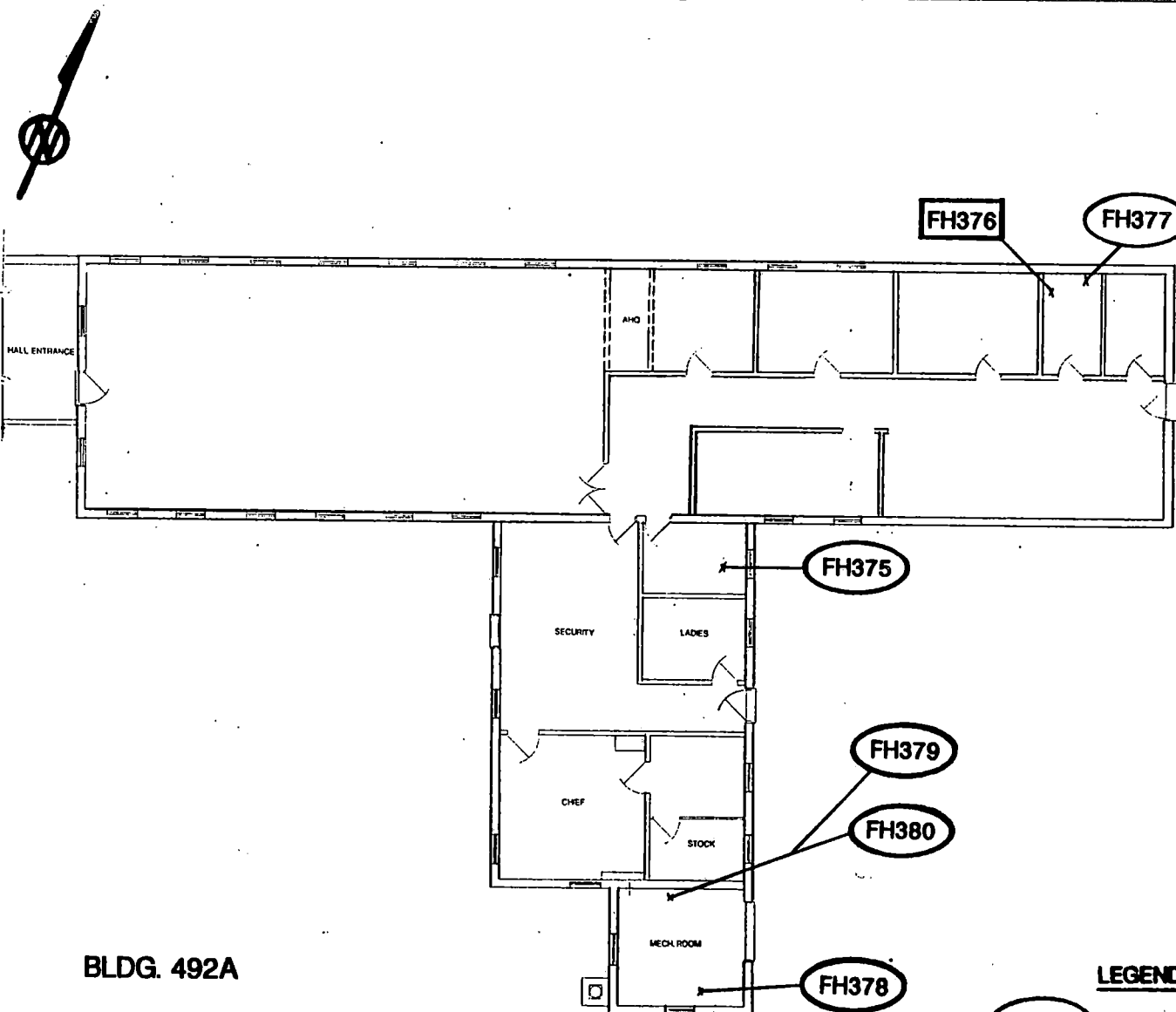
SAMPLE LOCATION	<i>Insulation material</i> C89-115 <i>crawl space</i>	C89-116
SAMPLE NUMBER	NAC89A-0988-1	NAC89A-0988-2
ASBESTOS		
1. CHRYSOTILE	ND	30-35%
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose	75-80%	35-40%
2. Fibrous Glass		
3. Perlite	3-5%	
4. Vermiculite		
5. Quartz	3-5%	3-5%
6. Binders	Balance	Balance
7. Mica		
8. Synthetic Fibers		
9. Gypsum		
10. Talc		
11. Calcite		
12. Other		

Analyst: Timberly RobinsonDate Analyzed: 6/15/89

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

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

492A-8



LEGEND

- FHnnn** POSITIVE SAMPLE
- FHnnn** NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

551

EDUCATION CENTER

EDUCATION CENTER

551.1 GENERAL

Building 551 was surveyed by WESTON technicians on 11 February 1991.

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 17 samples of suspect material collected from the building. Of these samples, 12 were found to be asbestos-containing materials (ACM). Table 551.1 lists the analytical results for the bulk samples.

551.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 551 are presented in Table 551.1. An area-by-area inventory of ACM is provided in Tables 551.2 and 551.3. "Other Asbestos-Containing Materials," listed in Table 551.3, are materials that do not correspond to the standard caption categories listed in Table 551.2. A prioritized listing of exposure assessments is presented in Table 551.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 551.5. 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 551.2 and 551.5.

551.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- Asbestos-containing floor tile, pipe insulation, fitting insulation, boiler packing, duct insulation, tank insulation, expansion joint, and plaster ceiling should be labeled under the O&M Program.

TABLE 551.1
BULK SAMPLE ANALYSIS RESULTS - BUILDING 551, EDUCATION CENTER

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH645	RESOURCE CENTER,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	NO
FH646	RESOURCE CENTER,BELOW CEILING	CEILING TILE	WHITE,OTH,1X1 CL TL,HORIZONTAL	-	-	-	NO
FH647	CORRIDOR (ALL),BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FT,HORIZONTAL	-	-	-	NO
FH648	STORAGE A,BELOW CEILING	FLOOR TILE	TAN,OTH,9X9 FL TL,HORIZONTAL	2	-	-	NO
FH649	STORAGE B,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,PLAST. CL,HORIZONTAL	-	-	-	YES
FH650	CORRIDOR,BELOW CEILING	<4" PIPE FITTING	WHITE,DOM,<4IN. FIT,HORIZONTAL	10	-	-	NO
FH651	CLASSROOM 14, 15, 16,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	NO
FH652	CLASSROOM 14, 15, 16,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4IN. FIT,HORIZONTAL	10	-	-	NO
FH653	CLASSROOM 14, 15, 16,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4IN. FIT,HORIZONTAL	5	-	-	NO
FH654	MECH. ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8IN. FIT,HORIZONTAL	5	-	-	NO
FH655	MECH. ROOM,BELOW CEILING	4-8" PIPE FITTING	WHITE,HHW,4-8IN. FIT,HORIZONTAL	5	-	-	NO
FH656	MECH. ROOM,BELOW CEILING	AIR HANDLING EQUIPMENT	WHITE,OTH,DUCT INSUL,HORIZONTAL	45	-	-	NO
FH657	MECH. ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,OTH,TANK INSUL,HORIZONTAL	5	-	-	NO
FH658	MECH. ROOM,BELOW CEILING	9-14" PIPE RUN	WHITE,OTH,BOILER PCK,HORIZONTAL	5	-	-	NO
FH659	MECH. ROOM,BELOW CEILING	EXPANSION JOINT(S)	WHITE,OTH,EXP. JOINT,HORIZONTAL	65	-	-	YES
FH660	MECH. ROOM,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,BOILER PCK,HORIZONTAL	1	-	-	NO
FH661	ADMIN. HALLWAY,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,PLASTER CL,HORIZONTAL	5	-	-	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 551.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 551, EDUCATION CENTER

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"					
Admin. Hallway	-	-	-	-	-	-	-	-	-	-	-	-	*
Classroom 10A and B	-	-	-	-	-	-	-	-	-	-	-	-	*
Classroom 11	4	-	-	-	-	-	-	-	-	-	-	-	-
Classroom 12	4	-	-	-	-	-	-	-	-	-	-	-	-
Classroom 14, 15, 16	12	-	-	-	-	-	-	-	-	-	-	-	-
Classroom 17, 18, 19	12	-	-	-	-	-	-	-	-	-	-	-	-
Corridor	6	-	-	-	-	-	-	-	-	-	-	-	-
Corridor Area 1	-	-	-	-	-	-	-	-	-	-	-	0.30	-
Janitor's Closet	-	-	-	-	-	-	-	-	-	-	-	0.10	-
Mech. Room	-	36	-	-	-	-	70	-	-	-	0.08	0.35	*
Storage A	-	-	-	-	-	-	-	-	-	0.29	-	-	-
Storage B	-	-	-	-	-	-	-	-	-	0.29	-	-	-
TOTALS	38	36	-	-	-	-	70	-	-	0.58	0.08	0.75	*

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 551.3

Other Asbestos-Containing Material - Building 551, Education Center
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Admin. Hallway	Plaster Ceiling	0.600 (MSF)
Mech. Room	Boiler Packing	1 (EA)
Classroom 10 A & B	Plaster Ceiling	14.0 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

551-5

TABLE 551.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 551, EDUCATION CENTER

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH656	Mech. Room	AIR HANDLING EQUIPMENT	B	2.650E02	3	2	2	1	1	2.00	45
FH659	Mech. Room	EXPANSION JOINTS	B	2.650E02	3	2	2	1	1	2.00	65
FH650	Corridor	<4" PIPE FITTING	A	5.920E01	2	1	1	1	160	40.00	10
FH652	Classroom 11	<4" PIPE FITTING	A	5.920E01	2	1	1	1	160	40.00	10
FH652	Classroom 12	<4" PIPE FITTING	A	5.920E01	2	1	1	1	160	40.00	10
FH652	Classroom 14, 15, 16	<4" PIPE FITTING	A	5.920E01	2	1	1	1	160	40.00	10
FH652	Classroom 17, 18, 19	<4" PIPE FITTING	A	5.920E01	2	1	1	1	160	40.00	10
FH654	Mech. Room	4-8" PIPE FITTING	A	1.650E01	3	2	2	1	1	2.00	5
FH655	Mech. Room	4-8" PIPE FITTING	A	1.650E01	3	2	2	1	1	2.00	5
FH657	Mech. Room	BOILERS/TANKS	A	1.650E01	3	2	2	1	1	2.00	5
FH657	Mech. Room	BOILERS/TANKS	A	1.650E01	3	2	2	1	1	2.00	5
FH658	Mech. Room	9-14" PIPE RUN	A	1.650E01	3	2	2	1	1	2.00	5
FH660	Mech. Room	GASKET	A	1.650E01	3	2	2	1	1	2.00	1
FH653	Classroom 14, 15, 16	<4" PIPE FITTING	A	1.040E01	2	1	1	1	160	40.00	5
FH656	Corridor Area 1	AIR HANDLING EQUIPMENT	A	1.000E01	2	1	1	1	10	40.00	45
FH661	Admin. Hallway	PLASTER CEILINGS & WALLS	A	1.950E00	2	1	1	1	30	40.00	5
FH661	Classroom 10A and B	PLASTER CEILINGS & WALLS	A	1.950E00	2	1	1	1	30	40.00	5
FH656	Janitor's Closet	AIR HANDLING EQUIPMENT	A	5.000E-2	2	1	1	1	1	2.00	45
FH645	Administration Area	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH645	Classroom 10A and B	CEILING TILE	A	0	2	1	1	1	30	40.00	0
FH645	Classroom 11	CEILING TILE	A	0	2	1	1	1	160	40.00	0
FH645	Classroom 12	CEILING TILE	A	0	2	1	1	1	160	40.00	0
FH645	Classroom 19	CEILING TILE	A	0	1	2	1	2	15	40.00	0
FH645	Corridor (All)	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH645	Resource Center	CEILING TILE	A	0	3	1	1	1	10	40.00	0
FH645	Storage A	CEILING TILE	A	0	1	1	1	1	1	2.00	0
FH646	Corridor (Vending)	CEILING TILE	A	0	2	1	1	1	20	40.00	0
FH646	New Office 116	CEILING TILE	A	0	3	1	1	1	10	40.00	0
FH646	Resource Center	CEILING TILE	A	0	3	1	1	1	10	40.00	0
FH646	Storage B	CEILING TILE	A	0	1	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 551.4
(continued)

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 551, EDUCATION CENTER

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	X ASB.
					1	2	3	4	5		
FH649	Entire Area 1 (Old)	PLASTER CEILINGS & WALLS	A	0	2	1	1	1	10	40.00	0
FH649	Storage B	PLASTER CEILINGS & WALLS	A	0	1	1	1	1	1	2.00	0
FH651	Classroom 14, 15, 16	CEILING TILE	A	0	2	1	1	1	160	40.00	0
FH651	Classroom 17, 18, 19	CEILING TILE	A	0	2	1	1	1	160	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 551.5

COST ESTIMATE* - BUILDING 551, EDUCATION CENTER

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	-	-	0.3	0.3	0.8	0.8	0.4	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	-	-	3.1	-
9-14"	127.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	-	-	-	-	-	-	-	-	-
4-8"	30.50	-	-	-	-	-	-	-	-	-	-	-
9-14"	22.50	-	-	-	-	-	-	-	-	-	3.0	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	-	-	-	-	-	-	-	-	-	-	1.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	3.0	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	6.0	1.9	7.0	-
Other		4.2	9.8	-	-	-	-	-	-	-	0.7	-
SUBTOTAL		4.2	9.8	0.3	0.3	0.8	0.8	0.4	6.0	1.9	16.8	1.6
Difficulty Allowance		8.4	19.6	0.6	0.6	0.8	0.8	0.2	21.0	1.0	6.1	-
SUBTOTAL		12.6	29.4	0.8	0.8	1.7	1.7	0.6	27.0	2.9	22.9	1.6
Decontamination Units Mobilization		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SUBTOTAL		13.6	30.4	1.9	1.9	2.7	2.7	1.7	28.0	3.9	23.9	2.7
Contingency @ 15.00%		2.0	4.6	0.3	0.3	0.4	0.4	0.3	4.2	0.6	3.6	0.4
SUBTOTAL		15.7	35.0	2.2	2.2	3.1	3.1	1.9	32.2	4.5	27.5	3.1
Design Fee @ 10.00%		1.6	3.5	0.2	0.2	0.3	0.3	0.2	3.2	0.5	2.7	0.3
SUBTOTAL		17.3	38.5	2.4	2.4	3.5	3.5	2.1	35.5	5.0	30.2	3.4
Air Monitoring @ 10.00%***		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
TOTAL		18.5	39.7	3.6	3.6	4.7	4.7	3.3	36.7	6.2	31.5	4.6

* 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: Admin. Hallway
 AREA 2: Classroom 11
 AREA 3: Classroom 14, 15, 16
 AREA 4: Corridor
 AREA 5: Janitor's Closet
 AREA 11: Storage A

AREA 2: Classroom 10A and B
 AREA 4: Classroom 12
 AREA 6: Classroom 17, 18, 19
 AREA 8: Corridor Area 1
 AREA 10: Mech. Room

TABLE 551.5
(continued)

COST ESTIMATE* - BUILDING 551, EDUCATION CENTER

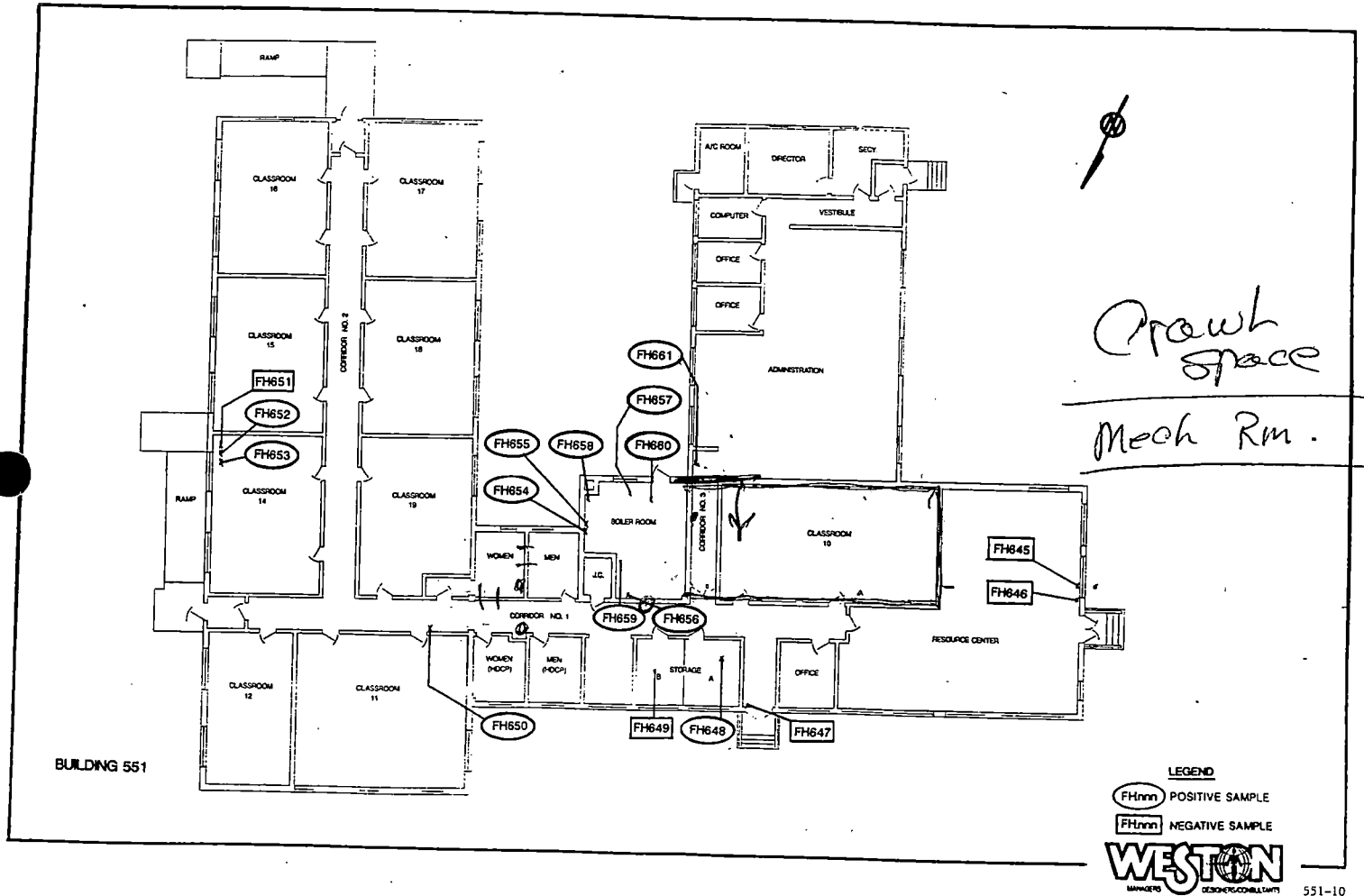
DESCRIPTION	UNIT COST (\$)	AREA 12	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	2.7
4-8"	85.80	-	5.1
9-14"	147.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	50.50	-	-
9-14"	73.50	-	3.0
>14"	80.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	1.6	3.2
Boilers/Tanks (SF)	37.90	-	3.0
Air Handling Equipment (SF)	20.00	-	14.9
Other		-	14.7
SUBTOTAL		1.6	44.6
Difficulty Allowance		-	59.0
SUBTOTAL		1.6	103.7
Decontamination Units Mobilization		0.9 0.2	10.5 2.0
SUBTOTAL		2.7	116.2
Contingency @ 15.00%		0.4	17.4
SUBTOTAL		3.1	133.6
Design Fee @ 10.00%		0.3	13.4
SUBTOTAL		3.4	146.9
Air Monitoring @ 10.00%***		1.2	14.7
TOTAL		4.6	161.6

*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: Storage B



552

RECREATION BUILDING

RECREATION BUILDING

552.1 GENERAL

Building 552 was surveyed by WESTON technicians on 13 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 552.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 14 samples of suspect material collected from the building. Of these samples, 8 were found to be asbestos-containing materials (ACM). Table 552.1 lists the analytical results for the bulk samples.

552.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 552 are presented in Table 552.1. An area-by-area inventory of ACM is provided in Tables 552.2 and 552.3. "Other Asbestos-Containing Materials," listed in Table 552.3, are materials that do not correspond to the standard caption categories listed in Table 552.2. A prioritized listing of exposure assessments is presented in Table 552.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 552.5. 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 552.2 and 552.5.

811

YOUTH CENTER

YOUTH CENTER**811.1 GENERAL**

Building 811 was surveyed by WESTON technicians on 13 December 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 10 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 811.1 lists the analytical results for the bulk samples.

811.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 811 are presented in Table 811.1. An area-by-area inventory of ACM is provided in Tables 811.2 and 811.3. "Other Asbestos-Containing Materials," listed in Table 811.3, are materials that do not correspond to the standard caption categories listed in Table 811.2. A prioritized listing of exposure assessments is presented in Table 811.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 811.5. 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 811.2 and 811.5.

811.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 811.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 811, YOUTH CTR(LATCH KEY)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH388	1ST FLR. HALL/FOYER,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	15	-	-	YES
FH389	1ST FLOOR KITCHEN,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,12X12 WL	-	-	-	YES
FH390	1ST FL. KIT. & FOYER,BELOW CEILING	CEILING TILE	WHITE,OTH,1X3 CL TL	-	-	-	YES
FH391	1ST FLOOR CLASSROOM,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	YES
FH392	1ST FLOOR STORAGE,BELOW CEILING	ACOUSTICAL WALL TILE	WHITE,OTH,1X1 WL TL	-	2	-	YES
FH393	2ND FL. STORAGE AREA,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	-	NO
FH394	1ST FLR. BOY&GIRL RM,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL	-	-	-	NO
FH395	1ST FL. HLWY & GAME,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	12	-	-	YES
FH396	1ST FLOOR OFFICE,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	NO
FH397	MECH ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH	-	-	-	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 811.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 811, YOUTH CTR(LATCH KEY)

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. Hlwy & Game	-	-	-	-	-	-	-	-	-	2.80	-	-	-
1st Floor Classroom	-	-	-	-	-	-	-	-	-	1.93	-	-	-
1st Floor Office	-	-	-	-	-	-	-	-	-	0.36	-	-	-
1st Floor Storage	-	-	-	-	-	-	-	-	-	0.14	-	-	*
1st Flr. Hall/Foyer	-	-	-	-	-	-	-	-	-	0.26	-	-	-
2nd Fl. Storage Area	-	-	-	-	-	-	-	-	-	0.33	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	5.82	-	-	*

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 811.3

**Other Asbestos-Containing Material - Building 811, Latch Key
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
1st Floor Storage	Acoustical Wall Tile	0.120 (MSF)

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

811-5

TABLE 811.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 811, YOUTH CTR(LATCH KEY)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH392	1st Floor Storage	ACOUSTICAL WALL TILE	B	1.544E02	1	3	1	3	71	15.00	2
FH389	1st Floor Kitchen	ACOUSTICAL WALL TILE	A	0	1	3	1	3	71	15.00	0
FH390	1st Fl. Kit. & Foyer	CEILING TILE	A	0	1	3	1	3	71	15.00	0
FH390	2nd Floor Storage	CEILING TILE	A	0	1	3	1	3	71	15.00	0
FH397	Mech Room	>14" PIPE RUN	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 811.5

COST ESTIMATE* - BUILDING 811, YOUTH CTR(LATCH KEY)

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	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	15.7	10.8	2.0	0.8	1.5	1.8	32.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-
Other		-	-	-	1.3	-	-	1.3
SUBTOTAL		15.7	10.8	2.0	2.1	1.5	1.8	33.9
Difficulty Allowance		-	-	-	-	-	-	-
SUBTOTAL		15.7	10.8	2.0	2.1	1.5	1.8	33.9
Decontamination Units		1.5	1.5	1.5	1.5	1.5	1.5	9.0
Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	2.0
SUBTOTAL		17.5	12.6	3.8	4.0	3.3	3.7	44.9
Contingency @ 15.00%		2.6	1.9	0.6	0.6	0.5	0.6	6.7
SUBTOTAL		20.1	14.5	4.4	4.6	3.8	4.2	51.7
Design Fee @ 10.00%		2.0	1.5	0.4	0.5	0.4	0.4	5.2
SUBTOTAL		22.2	16.0	4.9	5.0	4.2	4.7	56.8
Air Monitoring @ 10.00%***		0.9	0.9	0.9	0.9	0.9	0.9	5.7
TOTAL		23.1	16.9	5.8	6.0	5.1	5.6	62.5

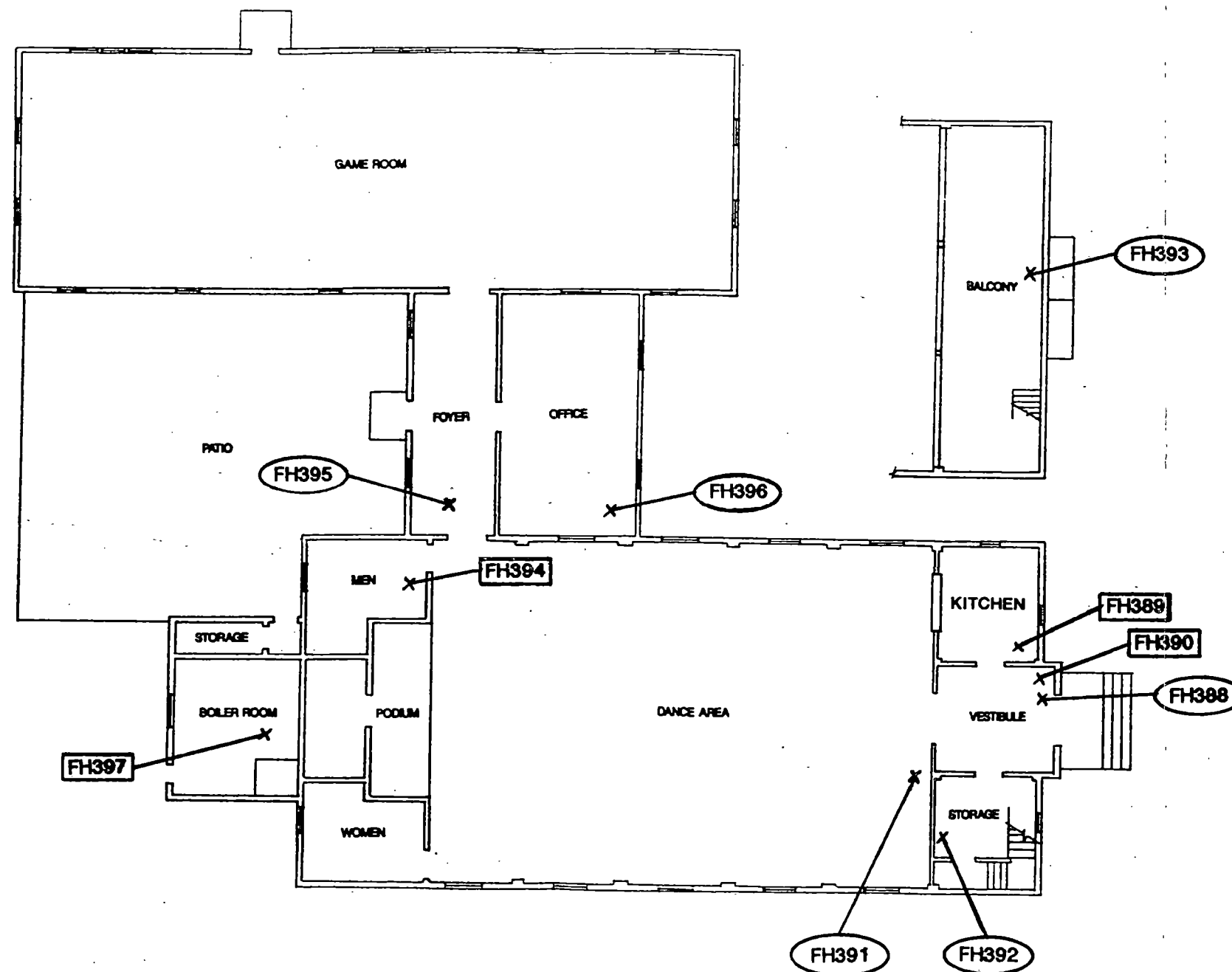
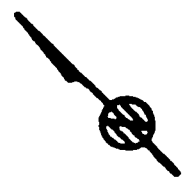
* Amounts Are In Thousands Of Dollars

** 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 Fl. Hlwy & Game
 AREA 2: 1st Floor Office
 AREA 3: 1st Flr. Hall/Foyer

AREA 2: 1st Floor Classroom
 AREA 4: 1st Floor Storage
 AREA 6: 2nd Fl. Storage Area



BLDG. 811

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

ASBESTOS CONSULTANCY SERVICE INC.



NEW JERSEY: THE HOLIDAY BUILDING 12th 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

BULK ASBESTOS ANALYSIS REPORT

DATE OF REPORT: 5/14/90
REPORT NO: B1033 / Sample 1 of 3
CLIENT: E-SYSTEMS
P.O. BOX 360
FORT MONMOUTH NJ 07703
SAMPLE LOCATION: FORT MONMOUTH/NJ

SAMPLE ID:

#C90-309

Bldg. 811 Wall Board

The sample was inhomogeneous and subsamples were analyzed separately.

SAMPLE COLOR:

BROWN WHITE

Sample does not contain asbestos.

FIBROUS CONTENT:

CELLULOSE 90%

Sample chain of custody was complete.

LABORATORY DIRECTOR: DR. R J Willey BSc PhD MInstP MBOHS MIOSH

APPROVED SIGNATORY: B. MONROE

LABORATORY NVLAP CODE: 1543

This report relates only to the material tested. It should only be reproduced in full, with the written approval of Asbestos Consultancy Service. It should not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

All samples analyzed are retained for a period of 6 months prior to disposal.

All samples are analyzed by E.P.A. Method EPA 600/M4-82-020 Dec 1982.

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

BULK ASBESTOS ANALYSIS REPORT

DATE OF REPORT: 5/14/90
REPORT NO: B1033 / Sample 2 of 3
CLIENT: E-SYSTEMS
P.O. BOX 360
FORT MONMOUTH NJ 07703
SAMPLE LOCATION: FORT MONMOUTH/NJ
SAMPLE ID: #C90-310

Bldg. 811 Ceiling Material

The sample was inhomogeneous and subsamples were analyzed separately.

SAMPLE COLOR: BROWN WHITE

Sample does not contain asbestos.

FIBROUS CONTENT: CELLULOSE 70%

Sample chain of custody was complete.

LABORATORY DIRECTOR: DR. R J Willey BSc PhD MInstP MBOHS MIOHS
APPROVED SIGNATORY: B. MONROE
LABORATORY NVLAP CODE: 1543

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All samples analyzed are retained for a period of 6 months prior to disposal.

All samples are analyzed by E.P.A. Method EPA 600/M4-82-020 Dec 1982.

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

BULK ASBESTOS ANALYSIS REPORT

DATE OF REPORT: 5/14/90
REPORT NO: B1033 / Sample 3 of 3
CLIENT: E-SYSTEMS
P.O. BOX 360
FORT MONMOUTH NJ 07703
SAMPLE LOCATION: FORT MONMOUTH/NJ

SAMPLE ID: #C90-311

Bldg. 811 Floor tile

The sample was homogeneous.

SAMPLE COLOR: GREY

Sample contains asbestos.

FIBROUS CONTENT:	CHRYSTILE	5%
	CELLULOSE	<1%

Sample chain of custody was complete.

LABORATORY DIRECTOR: DR. R J Willey BSc PhD MInstP MBOHS MIOSH

APPROVED SIGNATORY: B. MONROE

LABORATORY NVLAP CODE: 1543

This report relates only to the material tested. It should only be reproduced in full, with the written approval of Asbestos Consultancy Service. It should not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

All samples analyzed are retained for a period of 6 months prior to disposal.

All samples are analyzed by E.P.A. Method EPA 600/M4-82-020 Dec 1982.



Northeastern Analytical Corp.

811

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-2170

CLIENT: E-Systems/SAI

JOB SITE:

Bldg. 811 Fibrous Insulation Bldg. 811 Pipe Elbow Insulation

SAMPLE LOCATION	C89-176	C89-177
SAMPLE NUMBER	NAC89A-2170-1	NAC89A-2170-2
ASBESTOS		
1. CHRYSOTILE	ND	20-25%
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose		10-15%
2. Fibrous Glass	90-95%	35-40%
3. Perlite		
4. Vermiculite		
5. Quartz		BALANCE
6. Binders		
7. Mica		
8. Synthetic Fibers		
9. Gypsum		
10. Talc		
11. Calcite	BALANCE	10-15%
12. Other		

Analyst:

James M. Conner

Date Analyzed:

9/26/89

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.

LCI

812

COMMUNITY SERVICE CENTER

COMMUNITY SERVICE CENTER**812.1 GENERAL**

Building 812 was surveyed by WESTON technicians on 13 December 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, 1 was found to be asbestos-containing materials (ACM). Table 812.1 lists the analytical results for the bulk samples.

812.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 812 are presented in Table 812.1. An area-by-area inventory of ACM is provided in Tables 812.2 and 812.3. "Other Asbestos-Containing Materials," listed in Table 812.3, are materials that do not correspond to the standard caption categories listed in Table 812.2. A prioritized listing of exposure assessments is presented in Table 812.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 812.5. 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 812.2 and 812.5.

812.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 812.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 812, COM. SERV. CTR.

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH382	1ST FLR - HALLWAY,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL,HORIZONTAL	-	-	-	NO
FH383	1ST FLR. HALLWAY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X2 CL TL,HORIZONTAL	-	-	-	YES
FH384	1ST FLR. OFFICE,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	YES
FH385	1ST FLR - MENS ROOM,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL,HORIZONTAL	-	-	-	NO
FH386	1ST FLR - HALLWAY,BELOW CEILING	FLOOR TILE	WHITE,OTH,12X12 FL,HORIZONTAL	-	-	-	NO
FH387	MECH. ROOM,BELOW CEILING	>14" PIPE RUN	WHITE,OTH,>14 BREECH,HORIZONTAL	-	-	-	YES
FH422	MECH. ROOM,BELOW CEILING	OTHER MATERIAL	WHITE,OTH,FURN. INSL,HORIZONTAL	-	-	-	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 812.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 812, COM. SERV. CTR.

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. Office	-	-	-	-	-	-	-	-	-	0.27	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.27	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 812.3

**Other Asbestos-Containing Material - Building 812, Community Service Center
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 812.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 812, COM. SERV. CTR.

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH383	1st Flr. Hallway	CEILING TILE	A	0	1	1	1	3	12	40.00	0
FH387	Mech. Room	>14" PIPE RUN	A	0	1	1	1	1	2	2.00	0
FH422	Mech. Room	GASKET	A	0	1	1	1	1	2	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

*gasket and
friable/ducts*

TABLE 812.5

COST ESTIMATE* - BUILDING 812, COM. SERV. CTR.

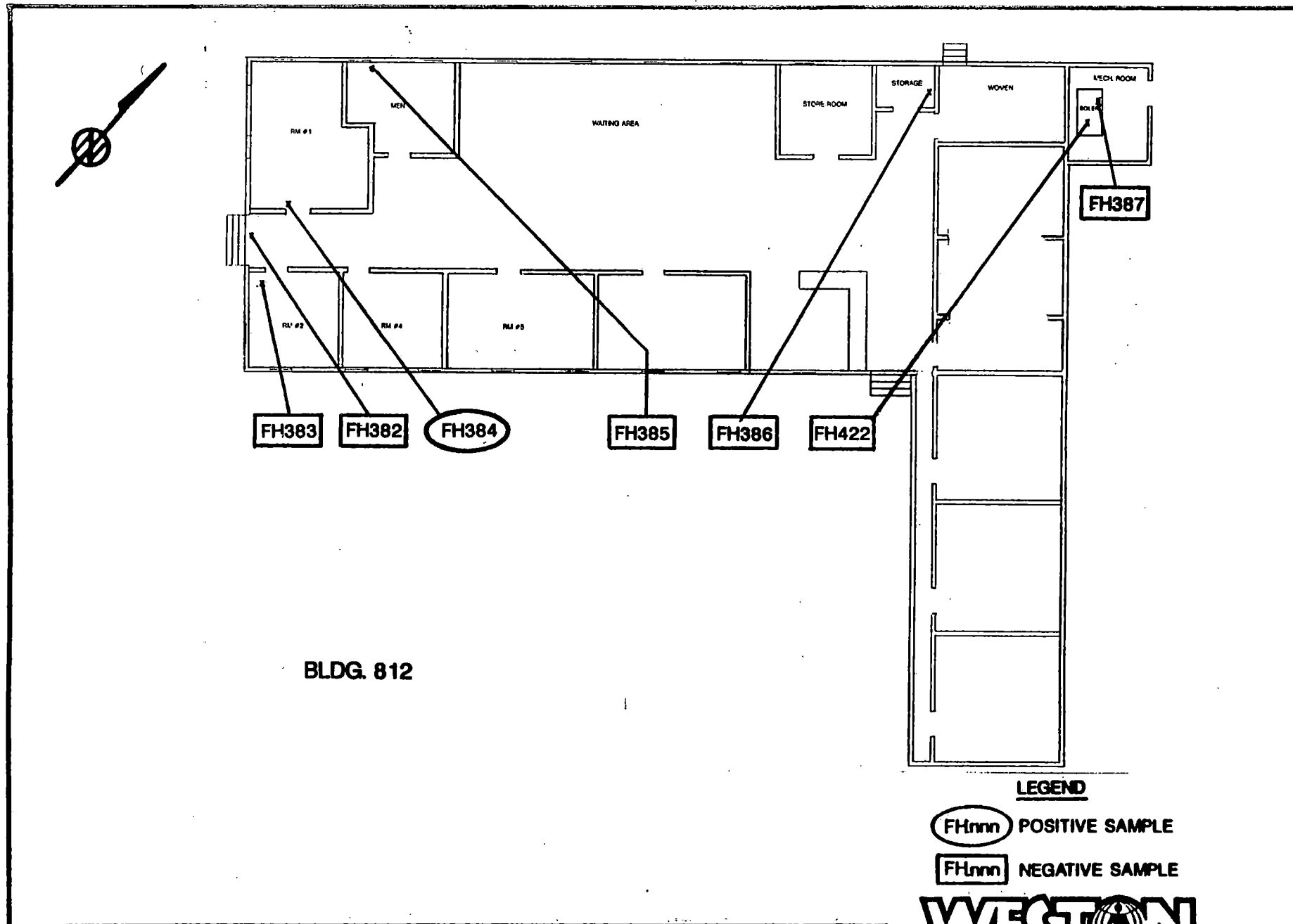
DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)			
<4"	70.30	-	-
4-8"	85.80	-	-
9-14"	127.00	-	-
>14"	216.00	-	-
Pipe Runs (LF)			
<4"	26.50	-	-
4-8"	30.50	-	-
9-14"	42.50	-	-
>14"	60.80	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	1.5	1.5
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		1.5	1.5
Difficulty Allowance		-	-
SUBTOTAL		1.5	1.5
Decontamination Units Mobilization		3.5	3.5
SUBTOTAL		5.0	5.0
Contingency @ 15.00%		0.8	0.8
SUBTOTAL		5.8	5.8
Design Fee @ 10.00%		0.6	0.6
SUBTOTAL		6.3	6.3
Air Monitoring @ 10.00%***		0.6	0.6
TOTAL		7.0	7.0

* 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: 1st Flr. Office



876

ENVIRONMENTAL HEALTH BUILDING

ENVIRONMENTAL HEALTH BUILDING**876.1 GENERAL**

Building 876 was surveyed by WESTON technicians on 17 December 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, 1 was found to be asbestos-containing materials (ACM). Table 876.1 lists the analytical results for the bulk samples.

876.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 876 are presented in Table 876.1. An area-by-area inventory of ACM is provided in Tables 876.2 and 876.3. "Other Asbestos-Containing Materials," listed in Table 876.3, are materials that do not correspond to the standard caption categories listed in Table 876.2. A prioritized listing of exposure assessments is presented in Table 876.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 876.5. 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 876.2 and 876.5.

876.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 876.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 876, ENV. HEALTH

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH423	ENTRANCE/OFFICE,BELOW CEILING	SPRAYED/TROVELED MATERIAL	BROWN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	YES
FH424	EXIT LABORATORY,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	YES
FH425	LATRINE #1,BELOW CEILING	<4" PIPE FITTING	WHITE,DOM,<4IN. FIT,HORIZONTAL	-	-	-	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 876.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 876, ENV. HEALTH

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"					
Entire Building	-	-	-	-	-	-	-	-	0.10	-	-	-	-
Entrance/Office	-	-	-	-	-	-	-	-	2.49	-	-	-	-
TOTALS	-	-	-	-	-	-	-	-	2.59	-	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 876.3

**Other Asbestos-Containing Material - Building 876, Env. Health
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

876-5

TABLE 876.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 876, ENV. HEALTH

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH423	Entire Building	SPRAYED/TROWELED MATERIAL	A	1.260E01	1	2	1	2	6	40.00	10
FH423	Entrance/Office	SPRAYED/TROWELED MATERIAL	A	1.260E01	1	2	1	2	6	40.00	10
FH424	Exit Laboratory	CEILING TILE	A	0	1	2	1	2	6	40.00	0
FH425	Latrine #1	<4" PIPE FITTING	A	0	1	2	1	2	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 876.5

COST ESTIMATE* - BUILDING 876, ENV. HEALTH

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL
Pipe Fittings (EA)				
<4"	70.30	-	-	-
4-8"	85.80	-	-	-
9-14"	127.00	-	-	-
>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	1.0	23.9	24.9
Floor Tile (SF)	5.60	-	-	-
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	-	-
SUBTOTAL		1.0	23.9	24.9
Difficulty Allowance		-	-	-
SUBTOTAL		1.0	23.9	24.9
Decontamination Units Mobilization		1.8	1.8	3.5
SUBTOTAL		2.7	25.7	28.4
Contingency @ 15.00%		0.4	3.8	4.3
SUBTOTAL		3.1	29.5	32.6
Design Fee @ 10.00%		0.3	3.0	3.3
SUBTOTAL		3.4	32.5	35.9
Air Monitoring @ 10.00%***		1.8	1.8	3.6
TOTAL		5.2	34.2	39.5

* Amounts Are In Thousands Of Dollars

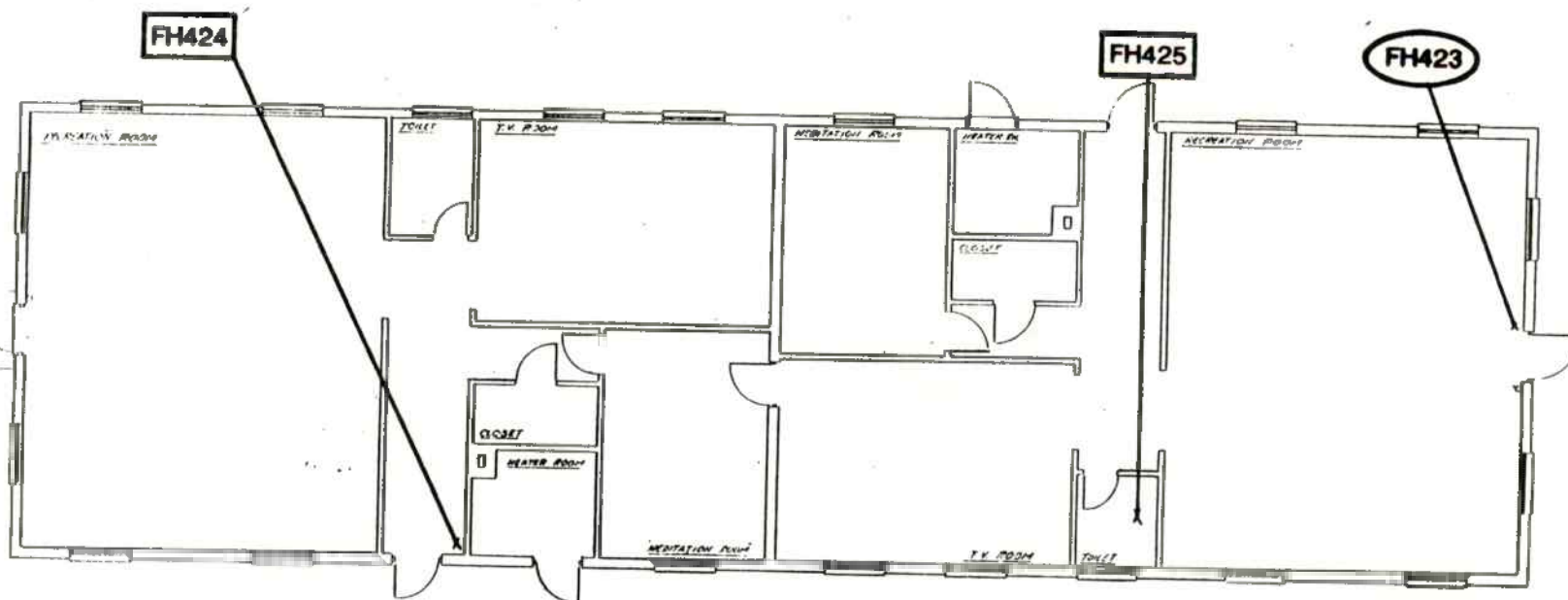
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

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

AREA 1: Entire Building

AREA 2: Entrance/Office

876-8



BLDG 876

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

900

VEHICLE MAINTENANCE SHOP

VEHICLE MAINTENANCE SHOP**900.1 GENERAL**

Building 900 was surveyed by WESTON technicians on 17 December 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 12 samples of suspect material collected from the building. Of these samples, 11 were found to be asbestos-containing materials (ACM). Table 900.1 lists the analytical results for the bulk samples.

900.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 900 are presented in Table 900.1. An area-by-area inventory of ACM is provided in Tables 900.2 and 900.3. "Other Asbestos-Containing Materials," listed in Table 900.3, are materials that do not correspond to the standard caption categories listed in Table 900.2. A prioritized listing of exposure assessments is presented in Table 900.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 900.5. 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 900.2 and 900.5.

900.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 900.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 900, VEHICLE MAINT. (TACT)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH426	OPEN BAY AREA - ADD.,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,1X1 TRANS.	40	-	-	NO
FH427	BAY AREA NORTH END,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,1X1 TRANS.	40	-	-	NO
FH428	BAY AREA-EAST SIDE,BELOW CEILING	TRANSITE PANEL BOARD	WHITE,OTH,1X1 TRANS.	40	-	-	NO
FH429	BAY AND BREAK ROOM,BELOW CEILING	FLOOR TILE	BLACK,OTH,9X9 FL TL	10	-	-	YES
FH430	BAY & BREAK ROOM,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	YES
FH431	SUPPLY ROOM,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	1	-	-	YES
FH432	SUPPLY ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CL	-	-	-	YES
FH433	BOILER HOUSE II,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	5	10	-	YES
FH434	BOILER HOUSE II,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	7	5	-	YES
FH435	NEW ADDITION,BELOW CEILING	EXTERIOR SIDING	TAN,OTH,TRAN. SIDE	40	-	-	YES
FH436	NEW ADDITION,BELOW CEILING	EXTERIOR SIDING	TAN,OTH,TRAN. SIDE	40	-	-	YES
FH437	BOILER HOUSE II	EXTERIOR SIDING	TAN,OTH,TRAN. SIDE	40	-	-	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 900.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 900, VEHICLE MAINT.(TACT)

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"					
Bay & Break Room	-	-	-	-	-	-	-	-	-	0.01	-	-	-
Bay Area North End	-	-	-	-	-	-	-	-	-	-	-	-	*
Bay Area-East Side	-	-	-	-	-	-	-	-	-	-	-	-	*
Bay and Break Room	-	-	-	-	-	-	-	-	-	2.15	-	-	-
Boiler House II	-	-	-	-	-	-	-	-	-	-	0.03	-	*
New Addition	-	-	-	-	-	-	-	-	-	-	-	-	*
Office	-	-	-	-	-	-	-	-	-	0.13	-	-	-
Open Bay Area - Add.	-	-	-	-	-	-	-	-	-	-	-	-	*
Supply Room	-	-	-	-	-	-	-	-	-	0.15	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	2.44	0.03	-	*

* Other Material Present In Various Units Of Measure

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

Table 900.3

**Other Asbestos-Containing Material - Building 900, Vehicle Maint. (Tactical)
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Bay Area North End	Training Ceiling Tile	0.001 (MSF)
Bay Area East End	Transite Wall Tile	0.100 (MSF)
Boiler House II	Exterior Siding	0.480 (MSF)
New Addition	Exterior Siding	2.040 (MSF)
Open Bay Area - Addition	Transite Ceiling Tile	5.250 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

900-5

TABLE 900.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 900, VEHICLE MAINT.(TACT)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH426	Open Bay Area - Add.	TRANSITE PANEL BOARD	A	5.400E-2	1	1	1	2	3	40.00	40
FH427	Bay Area North End	TRANSITE PANEL BOARD	A	5.400E-2	1	1	1	2	3	40.00	40
FH428	Bay Area-East Side	TRANSITE PANEL BOARD	A	5.400E-2	1	1	1	2	3	40.00	40
FH435	New Addition	EXTERIOR SIDING	A	5.400E-2	1	1	1	2	3	40.00	40
FH436	New Addition	EXTERIOR SIDING	A	5.400E-2	1	1	1	2	3	40.00	40
FH437	Boiler House II	EXTERIOR SIDING	A	5.400E-2	1	1	1	2	3	40.00	40
FH433	Boiler House II	BOILERS/TANKS	A	1.950E-2	1	1	1	2	3	40.00	15
FH434	Boiler House II	BOILERS/TANKS	A	1.950E-2	1	1	1	2	3	40.00	12
FH432	Office	CEILING TILE	A	0	1	1	1	2	3	40.00	0
FH432	Supply Room	CEILING TILE	A	0	1	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 900.5

COST ESTIMATE* - BUILDING 900, VEHICLE MAINT. (TACT)

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	-	-	-	-	-	-	-	-	-	-
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	**	-	-	12.0	-	-	0.7	-	0.8	13.7
Boilers/Tanks (SF)	37.90	-	-	-	-	1.3	-	-	-	-	1.3
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-
Other		-	1.1	1.1	-	5.3	31.4	-	57.8	-	96.7
SUBTOTAL		**	1.1	1.1	12.0	6.5	31.4	0.7	57.8	0.8	111.6
Difficulty Allowance		-	1.1	1.1	-	3.3	47.1	-	57.8	-	110.4
SUBTOTAL		**	2.2	2.2	12.0	9.8	78.6	0.7	115.5	0.8	221.9
Decontamination Units		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	9.0
Mobilization		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.0
SUBTOTAL		1.3	3.4	3.4	13.3	11.0	79.8	2.0	116.7	2.0	232.9
Contingency @ 15.00%		0.2	0.5	0.5	2.0	1.7	12.0	0.3	17.5	0.3	34.9
SUBTOTAL		1.5	3.9	3.9	15.3	12.7	91.8	2.3	134.2	2.4	267.9
Design Fee @ 10.00%		0.1	0.4	0.4	1.5	1.3	9.2	0.2	13.4	0.2	26.8
SUBTOTAL		1.6	4.3	4.3	16.8	13.9	100.9	2.5	147.7	2.6	294.6
Air Monitoring @ 10.00%***		3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	29.5
TOTAL		4.9	7.6	7.6	20.1	17.2	104.2	5.8	150.9	5.9	324.1

*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: Bay & Break Room
 AREA 2: Bay Area-East Side
 AREA 3: Boiler House II
 AREA 4: Office
 AREA 5: Supply Room

AREA 6: Bay Area North End
 AREA 7: Bay and Break Room
 AREA 8: New Addition
 AREA 9: Open Bay Area - Add.

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-2155

CLIENT: E-Systems
Riverside Drive
Ft. Monmouth, NJ 07703

JOB SITE:

SAMPLE LOCATION	Bldg. 900 Board near railing over ducts	Bldg. 900 Heat Shields
SAMPLE NUMBER	NAC89A-2155-3 C89-170	NAC89A-2155-4 C89-171
ASBESTOS		
1. CHRYSOTILE	55-60%	55-60%
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose	<1%	
2. Fibrous Glass		
3. Perlite		
4. Vermiculite		
5. Quartz		
6. Binders		BALANCE
7. Mica		
8. Synthetic Fibers		
9. Gypsum	BALANCE	5-10%
10. Talc		
11. Calcite	20-25%	15-20%
12. Other		

Analyst:

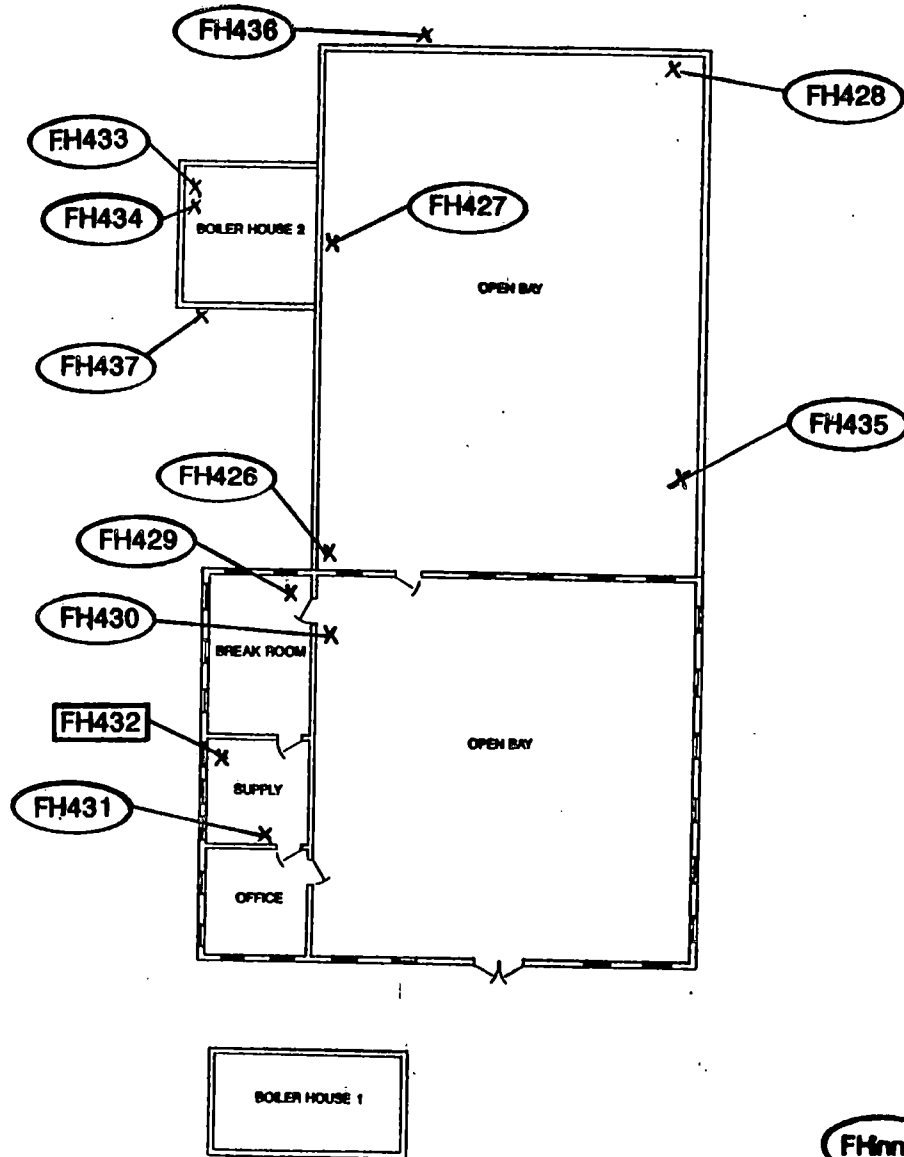
Joseph M. C...

Date Analyzed: 9/22/89

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

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

BLDG. 900



LEGEND

- (FHnnn) POSITIVE SAMPLE
 [FHnnn] NEGATIVE SAMPLE

WESTON
 MANAGERS DESIGNERS/CONSULTANTS

906

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

906.1 GENERAL

Building 906 was surveyed by WESTON technicians on 18 December 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 11 samples of suspect material collected from the building. Of these samples, all 6 were found to be asbestos-containing materials (ACM). Table 906.1 lists the analytical results for the bulk samples.

906.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 906 are presented in Table 906.1. An area-by-area inventory of ACM is provided in Tables 906.2 and 906.3. "Other Asbestos-Containing Materials," listed in Table 906.3, are materials that do not correspond to the standard caption categories listed in Table 906.2. A prioritized listing of exposure assessments is presented in Table 906.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 906.5. 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 906.2 and 906.5.

906.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 906.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 906, ADMIN(SPACE SYSTEMS)

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH438	AREA I LIBRARY,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4IN. RUN	50	-	-	NO
FH439	AREA I OFFICE,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4IN. RUN	50	-	-	YES
FH440	AREA I OFFICE,BELOW CEILING	<4" PIPE RUN	WHITE,DOM,<4IN. RUN	30	-	-	YES
FH441	AREA I OFFICE,BELOW CEILING	4-8" PIPE RUN	WHITE,DOM,<4IN. RUN	50	-	-	YES
FH442	AREA I COMBINED,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	-	-	-	NO
FH443	AREA I COMBINED,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	-	-	-	NO
FH444	AREA I ROOM 6,BELOW CEILING	FLOOR TILE	RED,OTH,12X12 FL	5	-	-	YES
FH445	AREA III COMBINED,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	-	-	-	YES
FH446	AREA III COMBINED,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	-	-	-	NO
FH447	AREA III TEST AREA,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	YES
FH448	MECH. ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,OTH,TANK INSUL	-	-	-	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 906.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 906, ADMIN(SPACE SYSTEMS)

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"					
Area I Library	-	-	-	-	132	-	-	-	-	-	-	-	-
Area I Office	-	-	-	-	264	95	-	-	-	-	-	-	-
Area I Room 6	-	-	-	-	-	-	-	-	-	0.31	-	-	-
Area III Test Area	-	-	-	-	-	-	-	-	-	0.84	-	-	-
TOTALS	-	-	-	-	396	95	-	-	-	1.15	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 906.3

**Other Asbestos-Containing Material - Building 906, Administrative (Space Systems)
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

906-5

TABLE 906.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 906, ADMIN(SPACE SYSTEMS)

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH438	Area I Library	<4" PIPE RUN	A	6.200E-2	1	1	1	1	20	40.00	50
FH439	Area I Office	<4" PIPE RUN	A	6.200E-2	1	1	1	1	20	40.00	50
FH441	Area I Office	4-8" PIPE RUN	A	6.200E-2	1	1	1	1	20	40.00	50
FH440	Area I Office	<4" PIPE RUN	A	2.200E-2	1	1	1	1	20	40.00	30
FH448	Mech. Room	BOILERS/TANKS	A	0	1	1	1	1	20	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 906.5

COST ESTIMATE* - BUILDING 906, ADMIN(SPACE SYSTEMS)

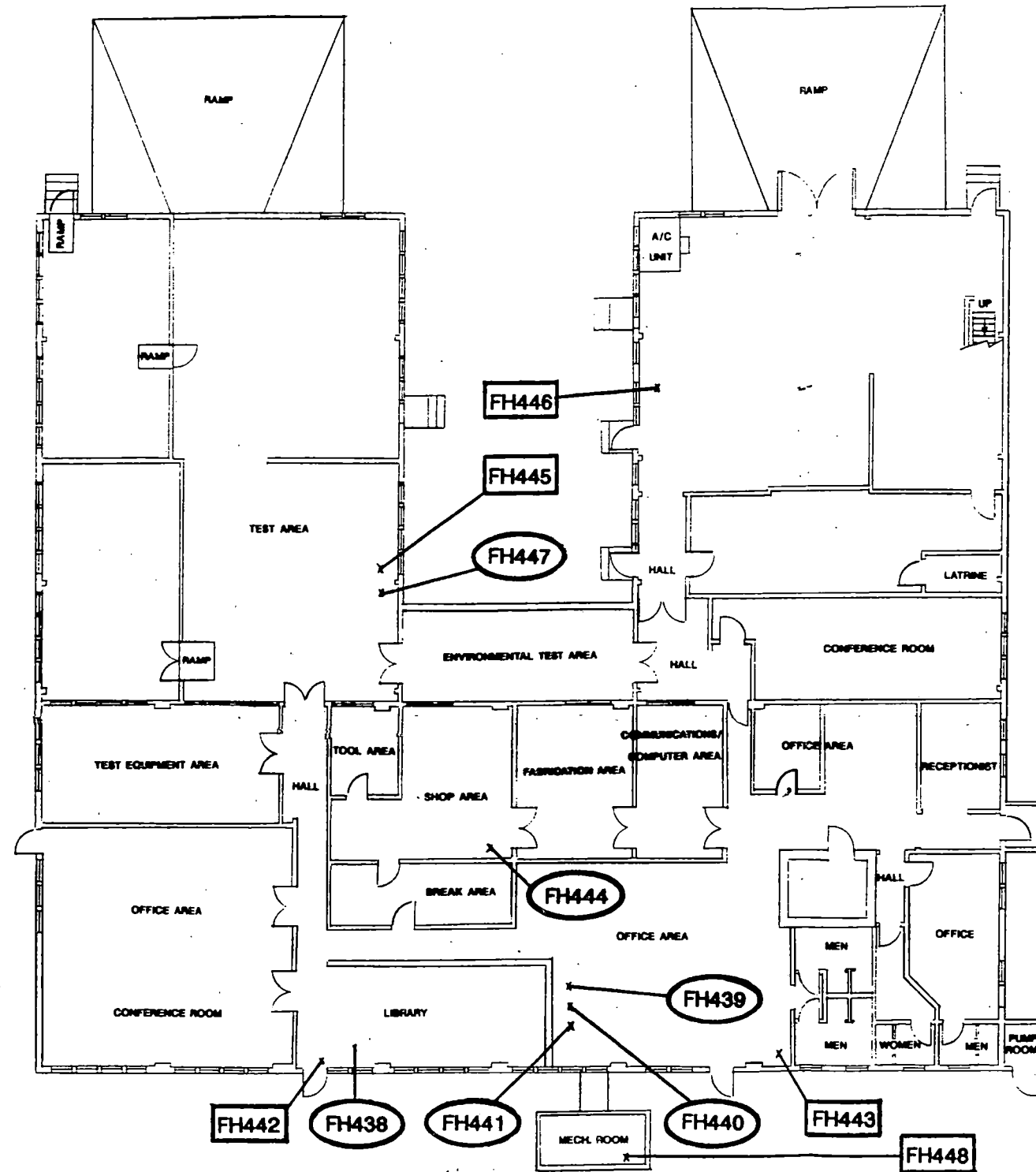
DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	TOTAL
Pipe Fittings (EA)						
<4"	70.30	-	-	-	-	-
4-8"	85.80	-	-	-	-	-
9-14"	147.00	-	-	-	-	-
>14"	216.00	-	-	-	-	-
Pipe Runs (LF)						
<4"	26.50	3.5	7.0	-	-	10.5
4-8"	30.50	-	2.9	-	-	2.9
9-14"	22.50	-	-	-	-	-
>14"	60.80	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-
Floor Tile (SF)	5.60	-	-	1.7	4.7	6.4
Boilers/Tanks (SF)	37.90	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-
Other		-	-	-	-	-
SUBTOTAL		3.5	9.9	1.7	4.7	19.8
Difficulty Allowance		1.7	4.9	-	2.4	9.0
SUBTOTAL		5.2	14.8	1.7	7.1	28.9
Decontamination Units Mobilization		2.3	2.3	2.3	2.3	9.0
		0.5	0.5	0.5	0.5	2.0
SUBTOTAL		8.0	17.6	4.5	9.8	39.9
Contingency @ 15.00%		1.2	2.6	0.7	1.5	6.0
SUBTOTAL		9.2	20.2	5.1	11.3	45.8
Design Fee @ 10.00%		0.9	2.0	0.5	1.1	4.6
SUBTOTAL		10.1	22.3	5.6	12.4	50.4
Air Monitoring @ 10.00%***		1.3	1.3	1.3	1.3	5.0
TOTAL		11.4	23.5	6.9	13.7	55.5

* Amounts Are In Thousands Of Dollars

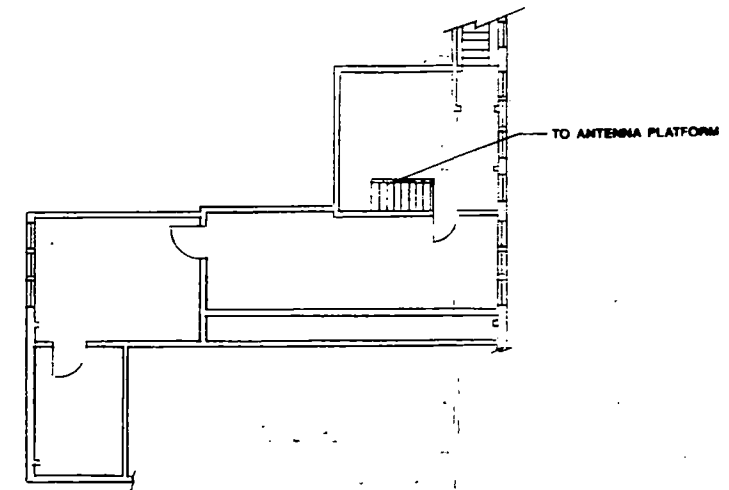
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

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

AREA 1: Area I Library
AREA 3: Area I Room 6AREA 2: Area I Office
AREA 4: Area III Test Area



FLOOR PLAN



MEZZANINE PLAN

BLDG 906

- LEGEND**
- FHnnn POSITIVE SAMPLE
 - FHnnn NEGATIVE SAMPLE



907

GENERAL WAREHOUSE

GENERAL WAREHOUSE**907.1 GENERAL**

Building 907 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.

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 907.1 lists the analytical results for the bulk samples.

907.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 907 are presented in Table 907.1. An area-by-area inventory of ACM is provided in Tables 907.2 and 907.3. "Other Asbestos-Containing Materials," listed in Table 907.3, are materials that do not correspond to the standard caption categories listed in Table 907.2. A prioritized listing of exposure assessments is presented in Table 907.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 907.5. 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 907.2 and 907.5.

907.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- **Asbestos-containing expansion joint should be labeled under the O&M Program.**

TABLE 907.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 907, SATO

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH474	ROOF,BELOW CEILING	OTHER MATERIAL	GREEN,OTH,ROOFING,HORIZONTAL	-	-	-	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 907.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 907, SATO

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"					

No Asbestos Containing Material Detected In This Building

* Other Material Present In Various Units Of Measure

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

Table 907.3

**Other Asbestos-Containing Material - Building 907, SATO
Type Occupancy: Adults (Public)**

Area	Material Type	Quantity (Unit)
Mechanical Room	Expansion Joint	1.0 (EA)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

907-5

TABLE 907.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 907, SATO

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

No Asbestos Containing Material Detected In This Building
Exposure Assessments Are Not Available

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

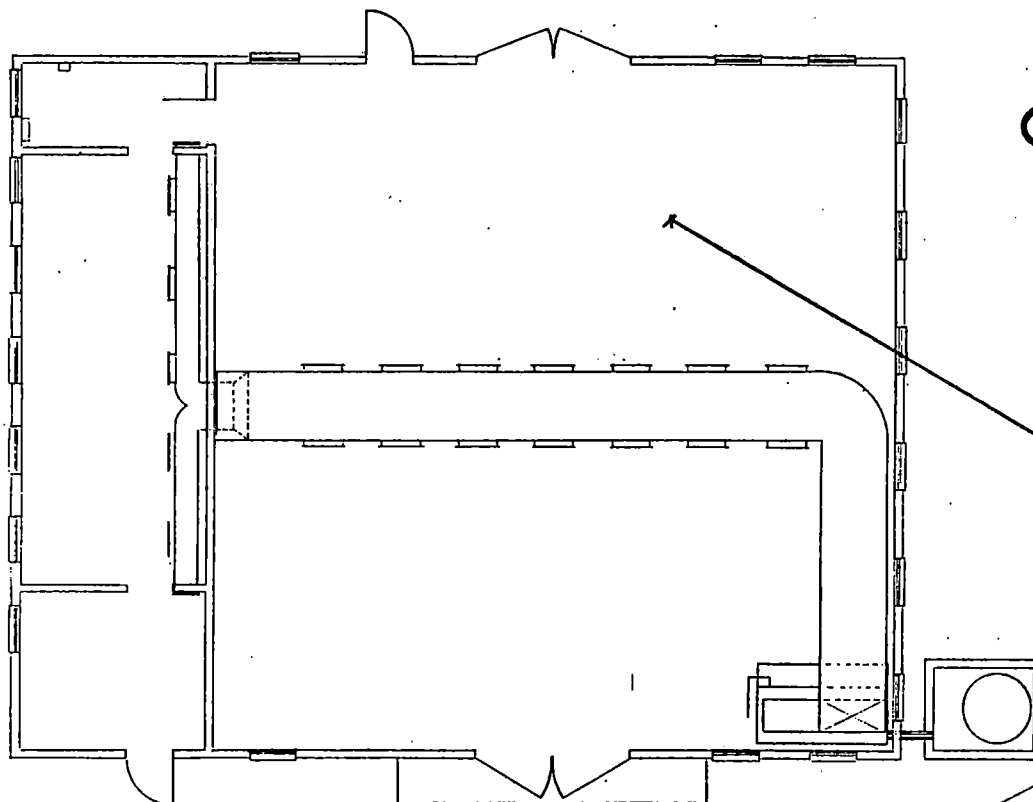
Exposure Factors

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

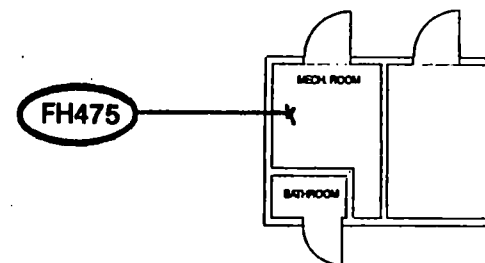
TABLE 907.5

COST ESTIMATE* .- BUILDING 907, SATO

No Asbestos Containing Material Detected In This Building



BLDG. 907



FH474 - ROOFING MATERIAL

LEGEND

FHnnnn POSITIVE SAMPLE

FHnnnn NEGATIVE SAMPLE



Northeastern Analytical Corp.

BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-2062

CLIENT: E-Systems Inc./SAI

JOB SITE:

Bldg. 478

Bldg. 907

SAMPLE LOCATION	Wall Board C89-138	Wall Board C89-139
SAMPLE NUMBER	NAC89A-2062-13	NAC89A-2062-14
ASBESTOS		
1. CHRYSOTILE	ND	ND
2. AMOSITE	ND	ND
3. CROCIDOLITE	ND	ND
4. OTHER	ND	ND
NON-ASBESTOS		
1. Cellulose	10-15%	15-20%
2. Fibrous Glass		
3. Perlite		
4. Vermiculite		
5. Quartz	Balance	Balance
6. Binders		
7. Mica		
8. Synthetic Fibers		
9. Gypsum	30-35%	35-40%
10. Talc		
11. Calcite	30-35%	30-35%
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. 907

SAMPLE LOCATION	Floor Tile C89-140	
SAMPLE NUMBER	NAC89A-2062-15	
ASBESTOS		
1. CHRYSOTILE	5-10%	
2. AMOSITE	ND	
3. CROCIDOLITE	ND	
4. OTHER	ND	
NON-ASBESTOS		
1. Cellulose	2-3%	
2. Fibrous Glass		
3. Perlite		
4. Vermiculite		
5. Quartz	25-30%	
6. Binders	Balance	
7. Mica		
8. Synthetic Fibers		
9. Gypsum		
10. Talc		
11. Calcite	5-6%	
12. Other		

Analyst:

Joseph M. Lantieri

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.

Jim Ott FYI cc: Desai, Sears

June 24, 1992

From: Charles Appleby

Regarding: Weston Asbestos Report, BLDG.907

General:

Bldg. 907 is slated for demo. Reggie Sears is coordinating the activities. Reggie used the Weston Report to determine the amount of asbestos to be cleaned out of the building prior to demo.

The report states "NO ASBESTOS CONTAINING MATERIAL IN THIS BUILDING"

Reggie acted accordingly and inspected the building and found a large amount of asbestos not detected by Weston. He informed Desai and Desai asked me to inspect the building, which I did.

I inspected the building and found the following:

- approx. 720 sq.ft. of asbestos floor tile

- approx. 55 ft. of 1.5'X2' asbestos duct

- an attached furnace room not noted in the Weston Report the room is approx. 15'X20'

 - it contains asbestos gaskets in several areas around the furnace

- the furnace room has an asbestos ceiling which I sampled and has been confirmed to be 70% Asbestos

- the gaskets and ceiling are in poor condition and are very friable

Note: I did not inspect the attic do to the lack of access.

Weston was made aware of my findings and I conducted a site visit with Ben and Bruno on 6/23/92 at 1430 hrs.

I identified the areas I found earlier and Ben and Bruno agreed to the general conclusion that the inspection of Bldg. 907 was less than satisfactory. They stated that they were going to look into the problem and get back to Desai with a response.

Conclusion:

Large amounts of obvious asbestos material in Bldg. 907 were completely overlooked by the Weston Inspectors

A sample was taken by Weston (ID#FH475) was not reported in the report

The extent of the unsatisfactory inspection and reporting by Weston may have resulted in the issuance of a contract for demolition with no asbestos removal and therefor would have resulted in the need to issue additional mods for the removal of asbestos as it was discovered by the demo contractor or the demo debris may have been sent to the landfill and rejected due to the asbestos content resulting in a much greater expense to the Government

Problem: The Weston Report is not accurate

Solution: DEH, Environmental should inspect 05-10% of the Bldgs..

If errors persist further action should involve the U.S. Army Corp. of Engineers.

918

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING**918.1 GENERAL**

Building 918 was surveyed by WESTON technicians on 20 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 918.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 13 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 918.1 lists the analytical results for the bulk samples.

918.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 918 are presented in Table 918.1. An area-by-area inventory of ACM is provided in Tables 918.2 and 918.3. "Other Asbestos-Containing Materials," listed in Table 918.3, are materials that do not correspond to the standard caption categories listed in Table 918.2. A prioritized listing of exposure assessments is presented in Table 918.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 918.5. 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 918.2 and 918.5.

918.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 918.1
BULK SAMPLE ANALYSIS RESULTS - BUILDING 918, P & T

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH461	MAIN OFFICE A & B,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL,HORIZONTAL	2	-	-	YES
FH462	MAIN OFFICE A & B,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	7	-	-	YES
FH463	MAIN OFFICE A & B,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	YES
FH464	MEN'S LAV.,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	YES
FH465	GENERAL CLASSROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CL,HORIZONTAL	-	-	-	YES
FH466	STUDENT LOUNGE,BELOW CEILING	CEILING TILE	WHITE,OTH,12X12 CL,HORIZONTAL	-	-	-	YES
FH467	WAVE SOLD. ROOM,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL,HORIZONTAL	-	-	-	NO
FH468	INSTRUCTOR'S OFFICE,BELOW CEILING	FLOOR TILE	BLUE,OTH,12X12 FL,HORIZONTAL	-	-	-	YES
FH469	HAND SOLD. ROOM,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL,HORIZONTAL	1	-	-	NO
FH470	BRANCH OFFICES,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	NO
FH471	MEAS. & DRAFT. ROOM,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL,HORIZONTAL	1	-	-	NO
FH472	MEAS. & DRAFT. ROOM,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	YES
FH473	BOILER ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT,HORIZONTAL	-	-	-	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 918.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 918, P & T

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"					
Branch Office	-	-	-	-	-	-	-	-	-	0.58	-	-	-
Branch Offices	-	-	-	-	-	-	-	-	-	0.58	-	-	-
General Classroom	-	-	-	-	-	-	-	-	-	0.67	-	-	-
Hand Sold. Room	-	-	-	-	-	-	-	-	-	0.86	-	-	-
Main Office A & B	-	-	-	-	-	-	-	-	-	0.96	-	-	-
Meas. & Draft. Room	-	-	-	-	-	-	-	-	-	4.50	-	-	-
Student Lounge	-	-	-	-	-	-	-	-	-	0.34	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	8.49	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 918.3

**Other Asbestos-Containing Material - Building 918, Admin. (P and T)
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

918-5

TABLE 918.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 918, P & T

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH463	AFH Lav.	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Hall I	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Hall II	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Hand Sold. Room	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Instructor's Office	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Main Office A & B	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Meas. & Draft. Room	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Wave Solo. Room	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Women's Lav.	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH463	Work Room	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH464	Men's Lav.	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH465	Branch Office	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH465	General Classroom	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH466	Student Lounge	CEILING TILE	A	0	1	1	1	1	2	1.00	0
FH473	Boiler Room	<4" PIPE FITTING	A	0	1	1	1	1	2	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 918.5

COST ESTIMATE* - BUILDING 918, P & T

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	TOTAL
Pipe Fittings (EA)									
<4"	70.30	-	-	-	-	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	-
9-14"	127.00	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-
Pipe Runs (LF)									
<4"	26.50	-	-	-	-	-	-	-	-
4-8"	30.80	-	-	-	-	-	-	-	-
9-14"	22.80	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	3.2	3.2	3.7	4.8	5.4	25.2	1.9	47.5
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
SUBTOTAL		3.2	3.2	3.7	4.8	5.4	25.2	1.9	47.5
Difficulty Allowance		-	1.6	-	-	1.3	6.3	-	9.3
SUBTOTAL		3.2	4.8	3.7	4.8	6.7	31.5	1.9	56.8
Decontamination Units Mobilization		0.5	0.5	0.5	0.5	0.5	0.5	0.5	3.5
SUBTOTAL		3.7	5.3	4.2	5.3	7.2	32.0	2.4	60.3
Contingency @ 15.00%		0.6	0.8	0.6	0.8	1.1	4.8	0.4	9.0
SUBTOTAL		4.3	6.1	4.9	6.1	8.3	36.8	2.8	69.3
Design Fee @ 10.00%		0.4	0.6	0.5	0.6	0.8	3.7	0.3	6.9
SUBTOTAL		4.7	6.8	5.4	6.8	9.1	40.5	3.1	76.3
Air Monitoring @ 10.00%***		1.1	1.1	1.1	1.1	1.1	1.1	1.1	7.6
TOTAL		5.8	7.8	6.4	7.8	10.2	41.6	4.2	83.9

* 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 1: Branch Office
 AREA 2: General Classroom
 AREA 3: Main Office A & B
 AREA 7: Student Lounge

AREA 2: Branch Offices
 AREA 4: Hand Sold. Room
 AREA 6: Meas. & Draft. Room

SECTION 918.4

PHOTOGRAPHS

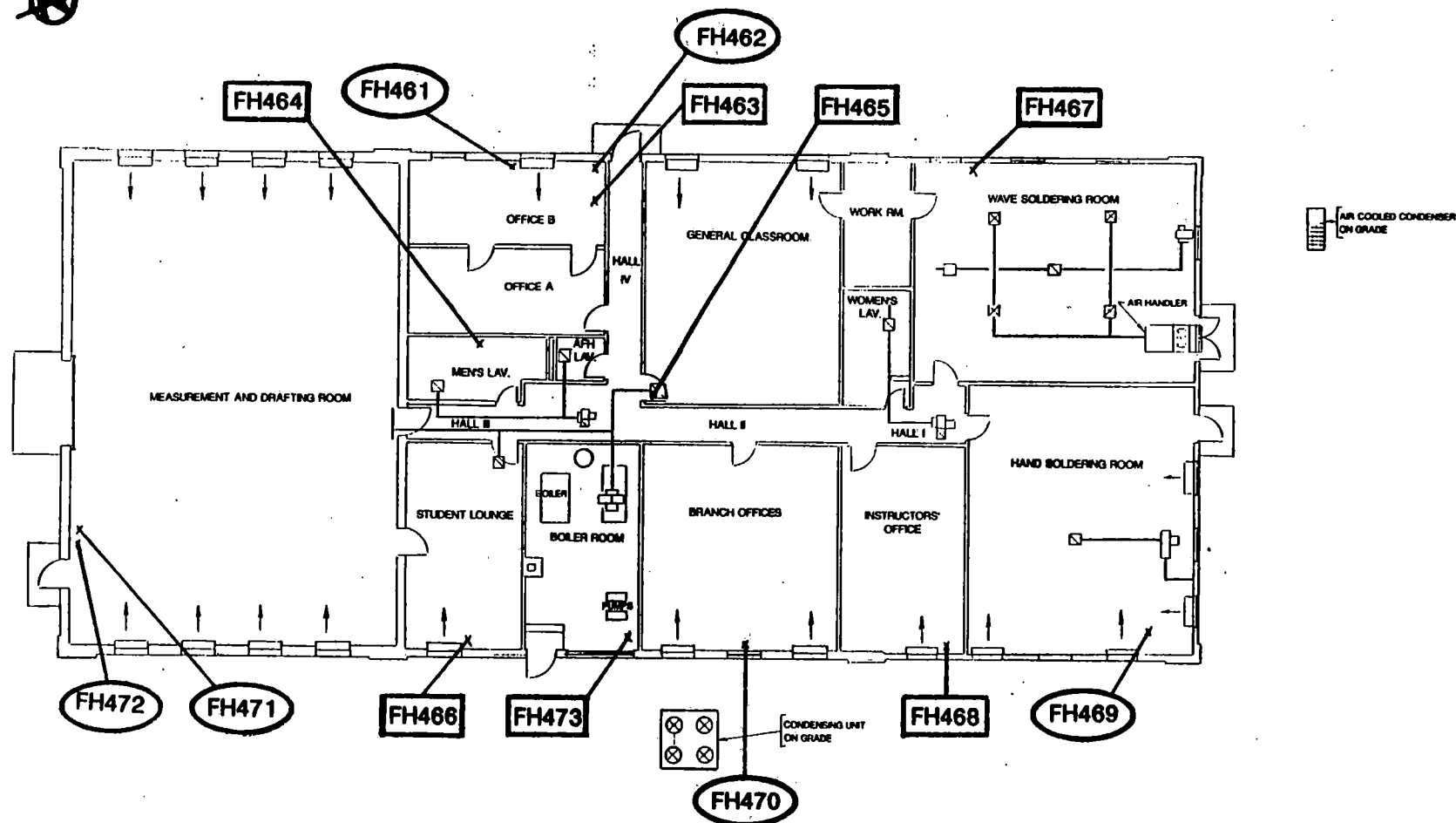


Bldg. 918: 12 x 12" tan floor tile with 9 x 9" brown floor tile below tested positive.



Bldg. 918: 9 x 9" brown floor tile under 12 x 12" tan floor tile tested positive.

918-9



BLDG. 918

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

1078

BOQ BUILDING

BOQ BUILDING**1078.1 GENERAL**

Building 1078 was surveyed by WESTON technicians on 14 December 1990.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 1078.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 10 samples of suspect material collected from the building. Of these samples, 9 were found to be asbestos-containing materials (ACM). Table 1078.1 lists the analytical results for the bulk samples.

1078.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 1078 are presented in Table 1078.1. An area-by-area inventory of ACM is provided in Tables 1078.2 and 1078.3. "Other Asbestos-Containing Materials," listed in Table 1078.3, are materials that do not correspond to the standard caption categories listed in Table 1078.2. A prioritized listing of exposure assessments is presented in Table 1078.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 1078.5. 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 1078.2 and 1078.5.

1078.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 1078.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 1078, BOQ

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH412	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	5	-	-	NO
FH413	MECH ROOM,BELOW CEILING	BOILERS/TANKS	WHITE,HHW,TANK INSUL	15	25	-	NO
FH414	MECH ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	-	-	-	YES
FH415	CENTER STAIRWELL,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	3	-	-	YES
FH416	UNIT 3B - HALLWAY,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	10	-	-	YES
FH417	UNIT 3B - KITCHEN,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	10	-	-	NO
FH418	UNIT 3B - BATHROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,UNK,<4IN. FIT	5	-	-	NO
FH419	UNIT 3B - BATHROOM,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	15	15	-	NO
FH420	MECH ROOM PIPE TRNCH,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	15	25	-	NO
FH421	MECH. RM. PIPE TRNCH,BELOW CEILING	<4" PIPE RUN	WHITE,UNK,<4IN. RUN	15	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 1078.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 1078, 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"					
Center Stairwell	-	-	-	-	-	-	-	-	-	0.13	-	-	-
Mech Room	-	-	-	-	-	-	-	-	-	-	0.11	-	-
Mech Room Pipe Trnch	-	-	-	-	150	-	-	-	-	-	-	-	-
Mech. Rm. Pipe Trnch	-	-	-	-	1	-	-	-	-	-	-	-	-
N & S Stairwell	-	-	-	-	-	-	-	-	-	0.26	-	-	-
Unit 1A	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 1B	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 1C	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 1D	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 2A	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 2B	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 2C	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 2D	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 3A	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 3B - Bathroom	10	-	-	-	21	-	-	-	-	-	-	-	-
Unit 3B - Hallway	-	-	-	-	-	-	-	-	-	0.45	-	-	-
Unit 3B - Kitchen	-	-	-	-	-	-	-	-	-	0.01	-	-	-
Unit 3C	10	-	-	-	21	-	-	-	-	0.45	-	-	-
Unit 3D	10	-	-	-	21	-	-	-	-	0.45	-	-	-
TOTALS	120	-	-	-	403	-	-	-	-	5.80	0.11	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 1078.3

Other Asbestos-Containing Material - Building 1078, BOQ
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

1078-5

TABLE 1078.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 1078, BOQ

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH419	Unit 1A	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 1B	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 1C	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 1D	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 2A	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 2B	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 2C	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 2D	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 3A	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 3B - Bathroom	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 3C	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH419	Unit 3D	<4" PIPE RUN	A	8.400E00	2	1	1	2	4	40.00	30
FH413	Mech Room	BOILERS/TANKS	A	1.620E00	3	1	2	1	2	2.00	40
FH420	Mech Room Pipe Trnch	<4" PIPE RUN	A	1.620E00	3	1	2	1	2	2.00	40
FH421	Mech. Rm. Pipe Trnch	<4" PIPE RUN	A	1.620E00	3	1	2	1	2	2.00	40
FH418	Unit 1A	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 1B	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 1C	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 1D	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 2A	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 2B	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 2C	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 2D	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 3A	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 3B - Bathroom	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 3C	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH418	Unit 3D	<4" PIPE FITTING	A	1.480E00	2	1	1	2	4	40.00	5
FH412	Mech Room	BOILERS/TANKS	A	1.000E-1	3	1	2	1	2	2.00	5
FH414	Mech Room	<4" PIPE FITTING	A	0	3	1	2	1	2	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 1078.5

COST ESTIMATE* - BUILDING 1078, BOQ

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	-	-	-	-	-	0.7	0.7	0.7	0.7	0.7	0.7
4-8"	85.80	-	-	-	-	-	-	-	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)												
<4"	26.50	-	-	4.0	**	-	0.6	0.6	0.6	0.6	0.6	0.6
4-8"	30.50	-	-	-	-	-	-	-	-	-	-	-
9-14"	42.50	-	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.7	-	-	-	1.5	2.5	2.5	2.5	2.5	2.5	2.5
Boilers/Tanks (SF)	37.90	-	4.2	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.7	4.2	4.0	**	1.5	3.8	3.8	3.8	3.8	3.8	3.8
Difficulty Allowance		-	-	11.9	**	-	2.5	2.5	2.5	2.2	2.5	2.5
SUBTOTAL		0.7	4.2	15.9	0.1	1.5	6.3	6.3	6.3	5.9	6.3	6.3
Decontamination Units Mobilization		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
SUBTOTAL		2.3	5.7	17.4	1.6	3.0	7.8	7.8	7.8	7.5	7.8	7.8
Contingency @ 15.00%		0.3	0.9	2.6	0.2	0.4	1.2	1.2	1.2	1.1	1.2	1.2
SUBTOTAL		2.6	6.6	20.0	1.9	3.4	9.0	9.0	9.0	8.6	9.0	9.0
Design Fee @ 10.00%		0.3	0.7	2.0	0.2	0.3	0.9	0.9	0.9	0.9	0.9	0.9
SUBTOTAL		2.9	7.3	22.0	2.1	3.8	9.9	9.9	9.9	9.5	9.9	9.9
Air Monitoring @ 10.00%***		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
TOTAL		3.7	8.1	22.9	2.9	4.6	10.7	10.7	10.7	10.3	10.7	10.7

* 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: Center Stairwell
 AREA 3: Mech. Room Pipe Trnch
 AREA 5: N & S Stairwell
 AREA 7: Unit 1B
 AREA 9: Unit 1C
 AREA 11: Unit 2B

AREA 2: Mech. Room
 AREA 4: Mech. Rm. Pipe Trnch
 AREA 6: Unit 1A
 AREA 8: Unit 1C
 AREA 10: Unit 2A

TABLE 1078.5
(continued)

COST ESTIMATE* - BUILDING 1078, BOQ

DESCRIPTION	UNIT COST (\$)	AREA 12	AREA 13	AREA 14	AREA 15	AREA 16	AREA 17	AREA 18	AREA 19	TOTAL
Pipe Fittings (EA)										
<4"	70.30	0.7	0.7	0.7	0.7	-	-	0.7	0.7	8.4
4-8"	82.80	-	-	-	-	-	-	-	-	-
9-14"	147.00	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)										
<4"	26.50	0.6	0.6	0.6	0.6	-	-	0.6	0.6	10.7
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	2.5	-	2.5	**	2.5	2.5	32.5
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	4.2
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		3.8	3.8	3.8	1.3	2.5	**	3.8	3.8	55.8
Difficulty Allowance		2.5	2.5	2.5	2.5	-	-	2.5	2.5	41.9
SUBTOTAL		6.3	6.3	6.3	3.8	2.5	**	6.3	6.3	97.7
Decontamination Units Mobilization		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	27.0
		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.0
SUBTOTAL		7.8	7.8	7.8	5.3	4.0	1.6	7.8	7.8	126.7
Contingency @ 15.00%		1.2	1.2	1.2	0.8	0.6	0.2	1.2	1.2	19.0
SUBTOTAL		9.0	9.0	9.0	6.1	4.7	1.8	9.0	9.0	145.7
Design Fee @ 10.00%		0.9	0.9	0.9	0.6	0.5	0.2	0.9	0.9	14.6
SUBTOTAL		9.9	9.9	9.9	6.7	5.1	2.0	9.9	9.9	160.3
Air Monitoring @ 10.00%***		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	16.0
TOTAL		10.7	10.7	10.7	7.6	6.0	2.8	10.7	10.7	176.3

*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 12: Unit 2C
 AREA 14: Unit 3A
 AREA 16: Unit 3B - Hallway
 AREA 18: Unit 3C

AREA 13: Unit 2D
 AREA 15: Unit 3B - Bathroom
 AREA 17: Unit 3B - Kitchen
 AREA 19: Unit 3D

SECTION 1078.4

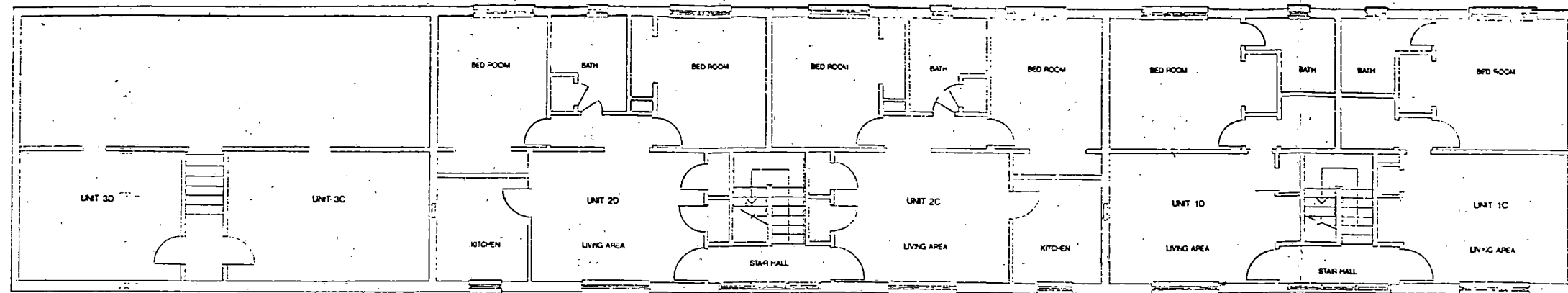
PHOTOGRAPHS



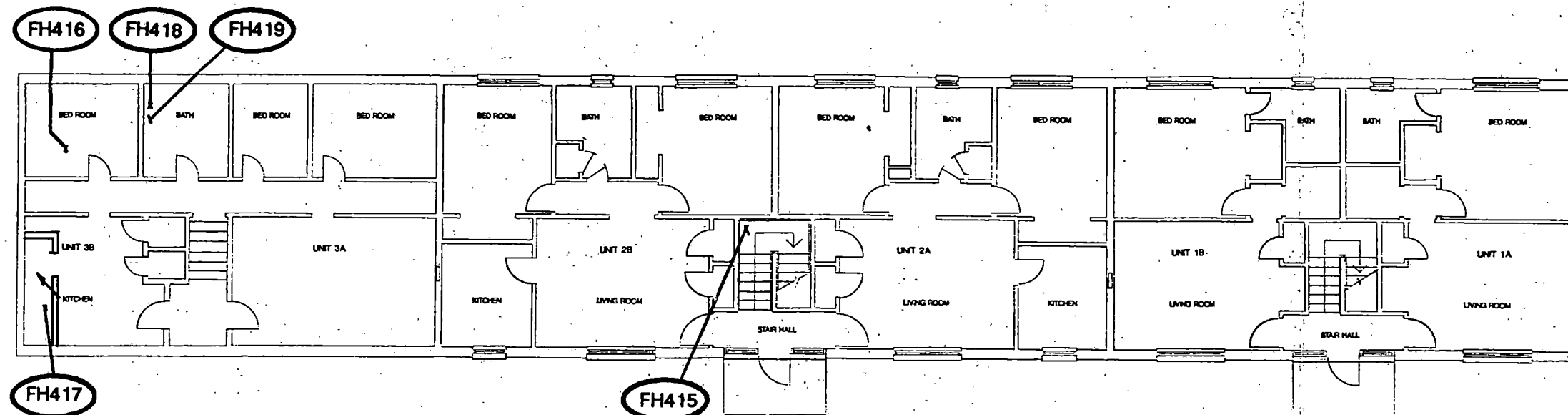
Bldg. 1078: Bachelor Officers Quarters, Bathroom: <4" mud fitting sample FH418 tested positive. Samples FH415 12 x 12" tan floor tiles; FH416, 9 x 9" gray floor tiles; FH517, 9 x 9" gray floor tiles (not shown) also tested positive.



Bldg. 1078: Mechanical Room Pit: <4" pipe runs going underground in pipe trench to Bldg. 1078 tested positive. Samples FH418 < 4" mud fitting; FH419 < 4" pipe run; FH421 < 4" pipe run (not shown) also tested positive.



SECOND FLOOR PLAN



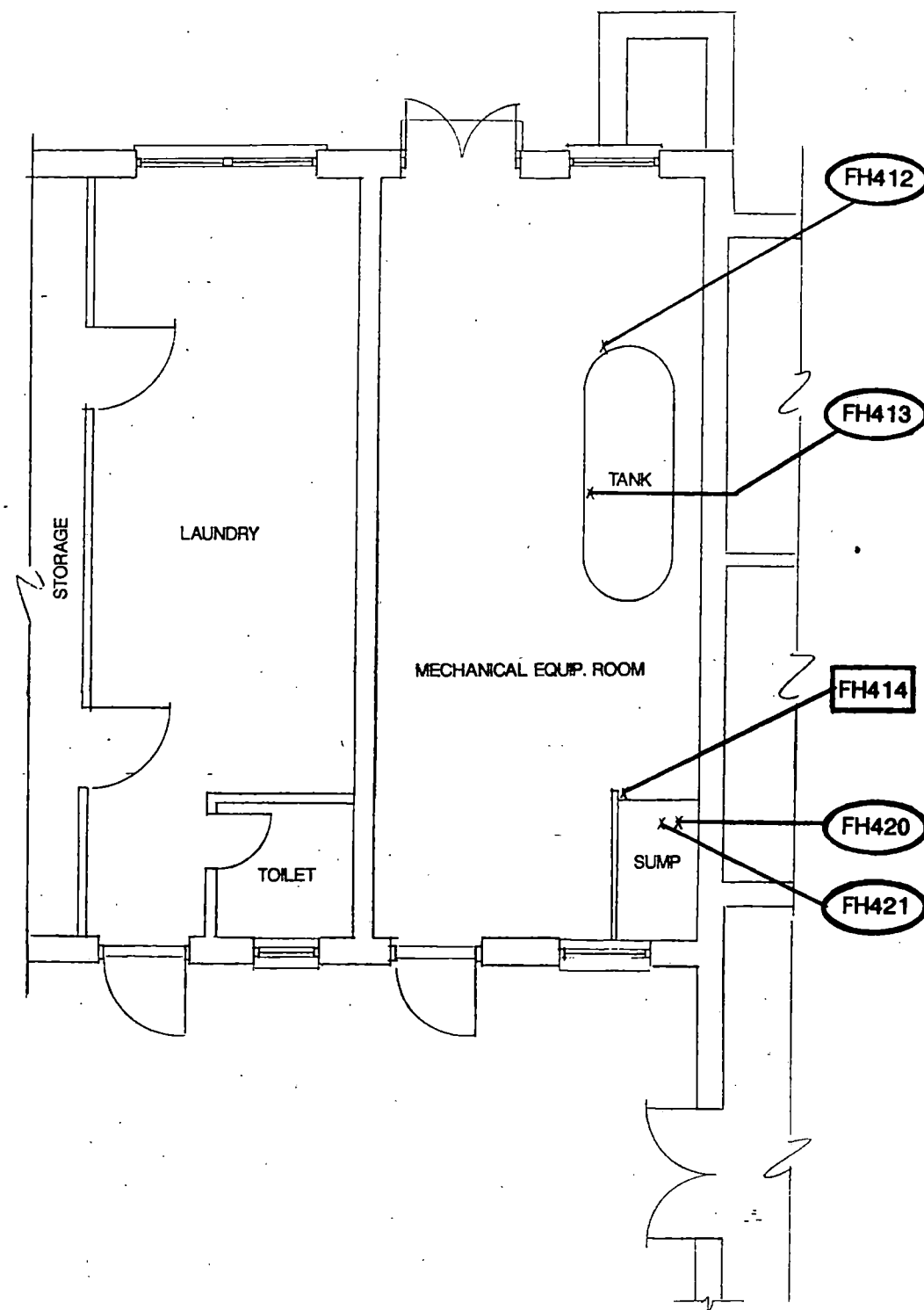
FIRST FLOOR PLAN

BLDG. 1078

LEGEND

- FHnnn POSITIVE SAMPLE
- FHnnn NEGATIVE SAMPLE





BLDG. 1078
PARTIAL PLAN
UTILITY WING BLDG. "B"

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

1212

ADMINISTRATIVE BUILDING

ADMINISTRATIVE BUILDING

1212.1 GENERAL

Building 1212 was surveyed by WESTON technicians on 19 December 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 12 samples of suspect material collected from the building. Of these samples, 9 were found to be asbestos-containing materials (ACM). Table 1212.1 lists the analytical results for the bulk samples.

1212.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 1212 are presented in Table 1212.1. An area-by-area inventory of ACM is provided in Tables 1212.2 and 1212.3. "Other Asbestos-Containing Materials," listed in Table 1212.3, are materials that do not correspond to the standard caption categories listed in Table 1212.2. A prioritized listing of exposure assessments is presented in Table 1212.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 1212.5. 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 1212.2 and 1212.5.

1212.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 1212.1
BULK SAMPLE ANALYSIS RESULTS - BUILDING 1212, USAMPAS

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH449	ADMISSIONS AREA,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FL,HORIZONTAL	1	-	-	YES
FH450	HALLWAY/OFFICES,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FL,HORIZONTAL	5	-	-	YES
FH451	FLA. ROOM/PORCH,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL,HORIZONTAL	10	-	-	YES
FH452	FLA. ROOM/PORCH,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL,HORIZONTAL	10	-	-	YES
FH453	ALL OFFICES & HALLS,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	YES
FH454	COPY ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,CHW,<4IN. FIT,HORIZONTAL	1	-	-	YES
FH455	COPY ROOM,BELOW CEILING	<4" PIPE FITTING	WHITE,HHW,<4IN. FIT,HORIZONTAL	15	5	-	NO
FH456	COPY ROOM,BELOW CEILING	CEILING TILE	WHITE,OTH,2X4 CL TL,HORIZONTAL	-	-	-	YES
FH457	MECH ROOM,BELOW CEILING	4-8" PIPE RUN	GRAY,UNK,4-8IN. RUN,HORIZONTAL	-	40	-	YES
FH458	MECH ROOM,BELOW CEILING	4-8" PIPE FITTING	GRAY,UNK,4-8IN. FIT,HORIZONTAL	15	1	-	YES
FH459	MECH ROOM,BELOW CEILING	EXPANSION JOINT(S)	WHITE,OTH,EXP. CLOTH,HORIZONTAL	70	-	-	NO
FH460	MECH ROOM,BELOW CEILING	<4" PIPE FITTING	GRAY,UNK,<4IN. FIT,HORIZONTAL	-	-	-	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 1212.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 1212, USAMPAS

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"					
Admissions Area	-	-	-	-	-	-	-	-	-	0.81	-	-	-
Commandant Office	2	-	-	-	-	-	-	-	-	-	-	-	-
Copy Room	18	-	-	-	-	-	-	-	-	-	-	-	-
Fla. Room/Porch	-	-	-	-	-	-	-	-	-	0.77	-	-	-
Hallway/Offices	-	-	-	-	-	-	-	-	-	3.61	-	-	-
Ladies Room	2	-	-	-	-	-	-	-	-	-	-	-	-
Mech Room	-	26	-	-	-	5	-	-	-	-	-	-	*
Mens I	2	-	-	-	-	-	-	-	-	-	-	-	-
Resource Management	7	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	31	26	-	-	-	5	-	-	-	5.19	-	-	*

* Other Material Present In Various Units Of Measure

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

Table 1212.3

Other Asbestos-Containing Material - Building 1212, Admin. (USAMPAS)
Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Mech. Room	Expansion Joint	3 (EA)

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

1212-5

TABLE 1212.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 1212, USAMPAS

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		
FH457	Mech Room	4-8" PIPE RUN	A	1.240E-2	1	1	1	1	20	8.00	40
FH459	Mech Room	EXPANSION JOINTS	A	1.240E-2	1	1	1	1	20	8.00	70
FH455	Copy Room	<4" PIPE FITTING	A	4.400E-3	1	1	1	1	20	8.00	20
FH458	Mech Room	4-8" PIPE FITTING	A	4.400E-3	1	1	1	1	20	8.00	16
FH454	Commandant Office	<4" PIPE FITTING	A	8.000E-4	1	1	1	1	20	8.00	1
FH454	Copy Room	<4" PIPE FITTING	A	8.000E-4	1	1	1	1	20	8.00	1
FH454	Ladies Room	<4" PIPE FITTING	A	8.000E-4	1	1	1	1	20	8.00	1
FH454	Mens I	<4" PIPE FITTING	A	8.000E-4	1	1	1	1	20	8.00	1
FH454	Resource Management	<4" PIPE FITTING	A	8.000E-4	1	1	1	1	20	8.00	1
FH453	All Offices & Halls	CEILING TILE	A	0	1	1	1	1	20	8.00	0
FH456	Copy Room	CEILING TILE	A	0	1	1	1	1	20	8.00	0
FH460	Mech Room	<4" PIPE FITTING	A	0	1	1	1	1	20	8.00	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 1212.5

COST ESTIMATE* - BUILDING 1212, USAMPAS

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	-	0.1	1.3	-	-	0.1	-	0.1	0.5	2.2
4-8"	85.80	-	-	-	-	-	-	2.2	-	-	2.2
9-14"	147.00	-	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)											
<4"	26.50	-	-	-	-	-	-	-	-	-	-
4-8"	40.50	-	-	-	-	-	-	0.2	-	-	0.2
9-14"	70.50	-	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	4.5	-	-	4.3	20.2	-	-	-	-	29.1
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	0.9	-	-	0.9
SUBTOTAL		4.5	0.1	1.3	4.3	20.2	0.1	3.3	0.1	0.5	34.5
Difficulty Allowance		2.3	-	1.3	-	-	**	1.2	**	-	4.9
SUBTOTAL		6.8	0.1	2.5	4.3	20.2	0.2	4.5	0.2	0.5	39.4
Decontamination Units Mobilization		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.5
SUBTOTAL		7.2	0.5	2.9	4.7	20.6	0.6	4.9	0.6	0.9	42.9
Contingency @ 15.00%		1.1	**	0.4	0.7	3.1	**	0.7	**	0.1	6.4
SUBTOTAL		8.3	0.6	3.4	5.4	23.7	0.7	5.6	0.7	1.0	49.3
Design Fee @ 10.00%		0.8	**	0.3	0.5	2.4	**	0.6	**	0.1	4.9
SUBTOTAL		9.1	0.7	3.7	6.0	26.1	0.8	6.2	0.8	1.1	54.3
Air Monitoring @ 10.00%***		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	5.4
TOTAL		9.7	1.3	4.3	6.6	26.7	1.4	6.8	1.4	1.7	59.7

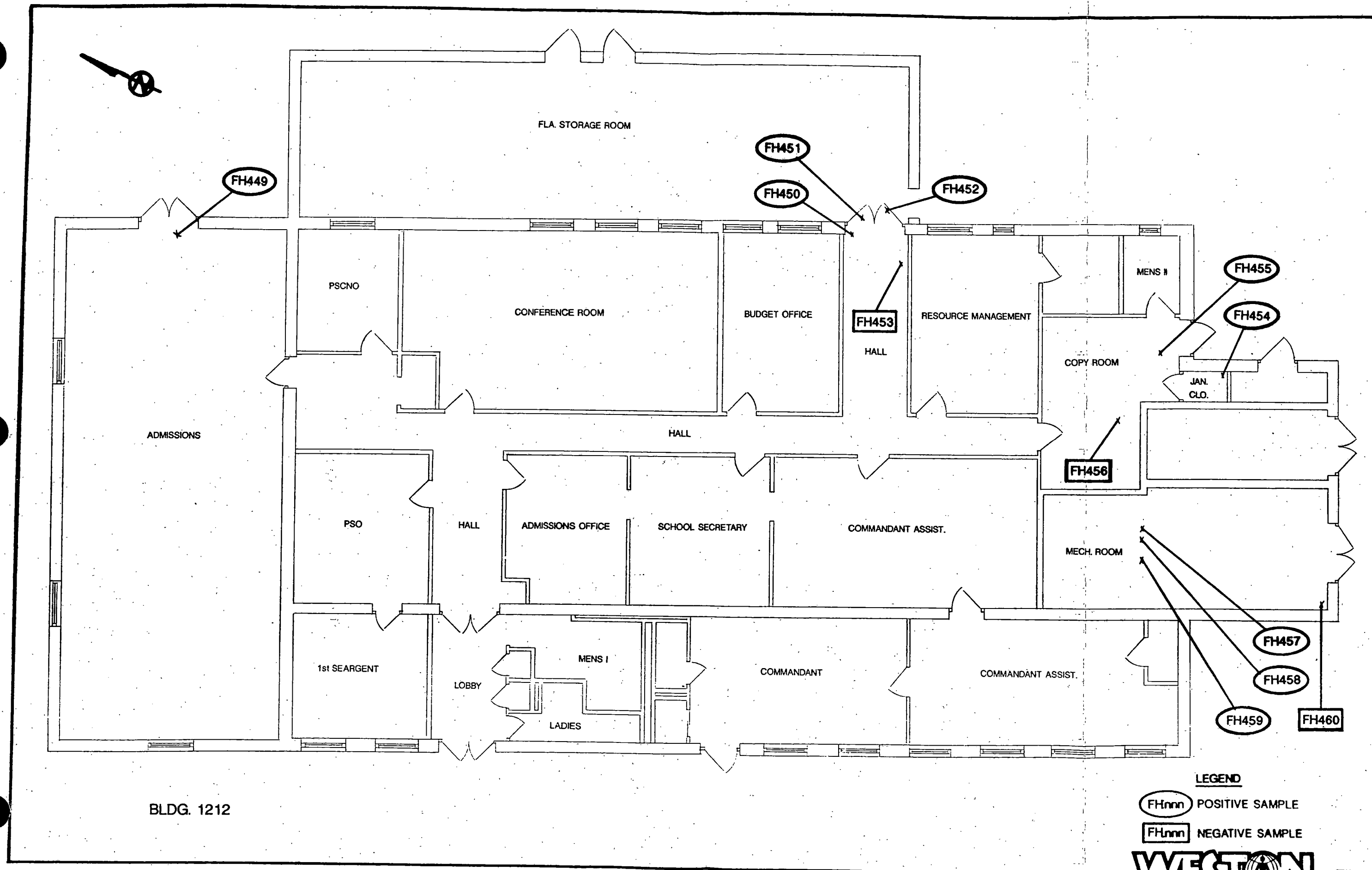
* Amounts Are In Thousands Of Dollars

** 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: Admissions Area
 AREA 3: Copy Room
 AREA 5: Hallway/Offices
 AREA 7: Mech Room
 AREA 9: Resource Management

AREA 2: Commandant Office
 AREA 4: Fla. Room/Porch
 AREA 6: Ladies Room
 AREA 8: Mens I



2105

FAMILY HOUSING

FAMILY HOUSING**2105.1 GENERAL**

Building 2105 was surveyed by WESTON technicians on 5 December 1990. A complete inspection (CI) for ACM was performed in Unit 4 of this building. The rest of the units in Building 2105, Units 1, 2, 3, and 5, were assumed to have type and quantity of ACM similar to that found in Unit 4 and are designated as similar units (S).

No actual inspection for ACM was performed in the similar units. Refer to the Guide Document for further discussions on complete inspections (CI) and similar units (S).

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 2105.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, both were found to be asbestos-containing materials (ACM). Table 2105.1 lists the analytical results for the bulk samples.

2105.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2105 are presented in Table 2105.1. An area-by-area inventory of ACM is provided in Tables 2105.2 and 2105.3. "Other Asbestos-Containing Materials," listed in Table 2105.3, are materials that do not correspond to the standard caption categories listed in Table 2105.2. A prioritized listing of exposure assessments is presented in Table 2105.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2105.5. 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 2105.2 and 2105.5.

2105.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2105.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2105, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH293	UNIT 4-1ST FLR.,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	5	-	-	NO
FH294	UNIT 4-1ST FLR.,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	7	-	-	YES
FH295	UNIT 4-1ST FLR/CLSET,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL	-	-	-	YES
FH296	UNIT 4-2ND FLR.,BELOW CEILING	FLOOR TILE	GRAY,OTH,12X12 FL	-	-	-	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 2105.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2105, FAMILY HOUSING

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"					
UNIT 1 (S)	-	-	-	-	-	-	-	-	-	0.90	-	-	-
UNIT 2 (S)	-	-	-	-	-	-	-	-	-	0.90	-	-	-
UNIT 3 (S)	-	-	-	-	-	-	-	-	-	0.90	-	-	-
UNIT 5 (S)	-	-	-	-	-	-	-	-	-	0.90	-	-	-
Unit 4 (CI)	-	-	-	-	-	-	-	-	-	0.90	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	4.50	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 2105.3

**Other Asbestos-Containing Material - Building 2105, Family Housing
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

2105-5

TABLE 2105.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2105, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2105.5

COST ESTIMATE* - BUILDING 2105, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	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"	50.50	-	-	-	-	-	-
9-14"	72.50	-	-	-	-	-	-
>14"	80.80	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-
Floor Tile (SF)	5.60	5.0	5.0	5.0	5.0	5.0	25.2
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-
Other		-	-	-	-	-	-
SUBTOTAL		5.0	5.0	5.0	5.0	5.0	25.2
Difficulty Allowance		-	-	-	-	-	-
SUBTOTAL		5.0	5.0	5.0	5.0	5.0	25.2
Decontamination Units		0.6	0.6	0.6	0.6	0.6	3.0
Mobilization		0.4	0.4	0.4	0.4	0.4	2.0
SUBTOTAL		6.0	6.0	6.0	6.0	6.0	30.2
Contingency @ 15.00%		0.9	0.9	0.9	0.9	0.9	4.5
SUBTOTAL		6.9	6.9	6.9	6.9	7.0	34.7
Design Fee @ 10.00%		0.7	0.7	0.7	0.7	0.7	3.5
SUBTOTAL		7.6	7.6	7.6	7.6	7.6	38.2
Air Monitoring @ 10.00%***		0.8	0.8	0.8	0.8	0.8	3.8
TOTAL		8.4	8.4	8.4	8.4	8.4	42.0

* 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: UNIT 1 (S)
 AREA 2: UNIT 2 (S)
 AREA 3: UNIT 4 (C)

AREA 2: UNIT 2 (S)
 AREA 4: UNIT 3 (S)

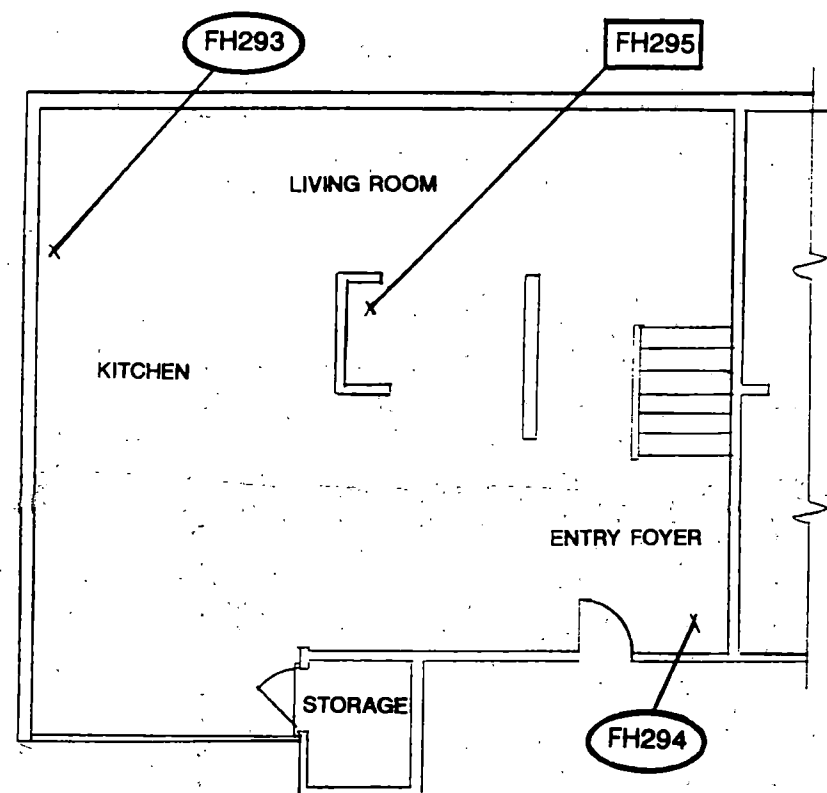
SECTION 2105.4

PHOTOGRAPHS

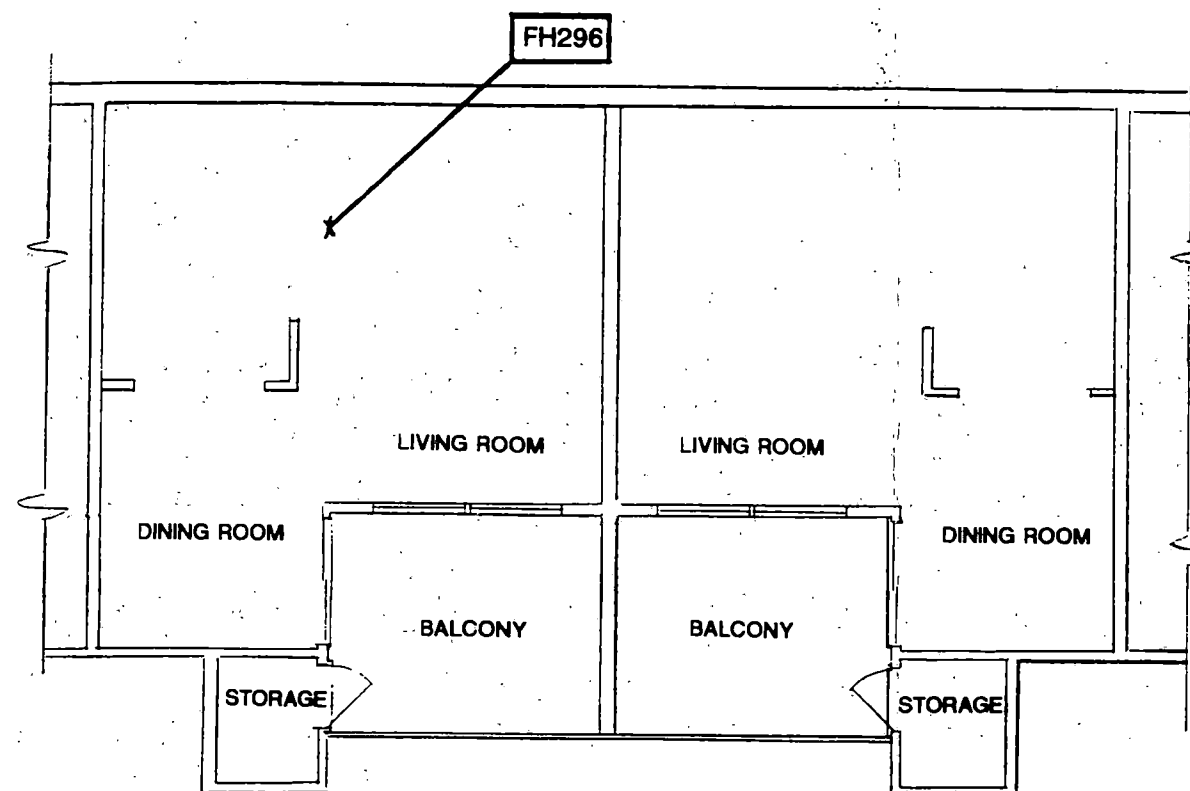


Bldg. 2105

Unit 4, Entire First Floor: (Sample FH293) (12 In. x 12 In.) Tan Floor Tile Tested Positive. Gray Floor Tile (12 In. x 12 In.) On The Second Floor And First Floor Closet Tested Negative.



FIRST FLOOR



SECOND FLOOR

BLDG. 2105

LEGEND

- POSITIVE SAMPLE
- NEGATIVE SAMPLE



2251

FAMILY HOUSING

FAMILY HOUSING**2251.1 GENERAL**

Building 2251 was surveyed by WESTON technicians on 5 December 1990. Complete inspections (CI) for ACM were performed in Units 43 and 45 of this building. The rest of the units in Building 2251, Units 41 and 47, were assumed to have type and quantity of ACM similar to that found in Units 43 and 45 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 2251.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, all 4 were found to be asbestos-containing materials (ACM). Table 2251.1 lists the analytical results for the bulk samples.

2251.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2251 are presented in Table 2251.1. An area-by-area inventory of ACM is provided in Tables 2251.2 and 2251.3. "Other Asbestos-Containing Materials," listed in Table 2251.3, are materials that do not correspond to the standard caption categories listed in Table 2251.2. A prioritized listing of exposure assessments is presented in Table 2251.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2251.5. 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 2251.2 and 2251.5.

2251.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2251.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2251, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH289	UNIT 43 - KITCHEN,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	NO
FH290	UNIT 43 - LVG. RM.,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	7	-	-	YES
FH291	UNIT 45 - KITCHEN,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	NO
FH292	UNIT 45 - LVG. RM.,BELOW CEILING	FLOOR TILE	BROWN,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 2251.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2251, FAMILY HOUSING

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"					
UNIT 41 (S)	-	-	-	-	-	-	-	-	-	0.60	-	-	-
UNIT 47 (S)	-	-	-	-	-	-	-	-	-	0.60	-	-	-
Unit 43 (CI)	-	-	-	-	-	-	-	-	-	0.60	-	-	-
Unit 45 (CI)	-	-	-	-	-	-	-	-	-	0.60	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	2.40	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 2251.3

**Other Asbestos-Containing Material - Building 2251, Family Housing
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

2251-5

TABLE 2251.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2251, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR.	PRIORITY	EXPOSURE FACTORS					AVG.	% ASB.
			INDEX CODE	INDEX NUMBER	1	2	3	4	5	EXP. HOURS	

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2251.5

COST ESTIMATE* - BUILDING 2251, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	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"	42.20	-	-	-	-	-
>14"	60.80	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-
Floor Tile (SF)	5.60	3.4	3.4	3.4	3.4	13.4
Boilers/Tanks (SF)	37.90	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-
Other		-	-	-	-	-
SUBTOTAL		3.4	3.4	3.4	3.4	13.4
Difficulty Allowance		-	-	-	-	-
SUBTOTAL		3.4	3.4	3.4	3.4	13.4
Decontamination Units Mobilization		1.5 0.5	1.5 0.5	1.5 0.5	1.5 0.5	6.0 2.0
SUBTOTAL		5.4	5.4	5.4	5.4	21.4
Contingency @ 15.00%		0.8	0.8	0.8	0.8	3.2
SUBTOTAL		6.2	6.2	6.2	6.2	24.7
Design Fee @ 10.00%		0.6	0.6	0.6	0.6	2.5
SUBTOTAL		6.8	6.8	6.8	6.8	27.1
Air Monitoring @ 10.00%***		0.7	0.7	0.7	0.7	2.7
TOTAL		7.5	7.5	7.5	7.5	29.8

* Amounts Are In Thousands Of Dollars

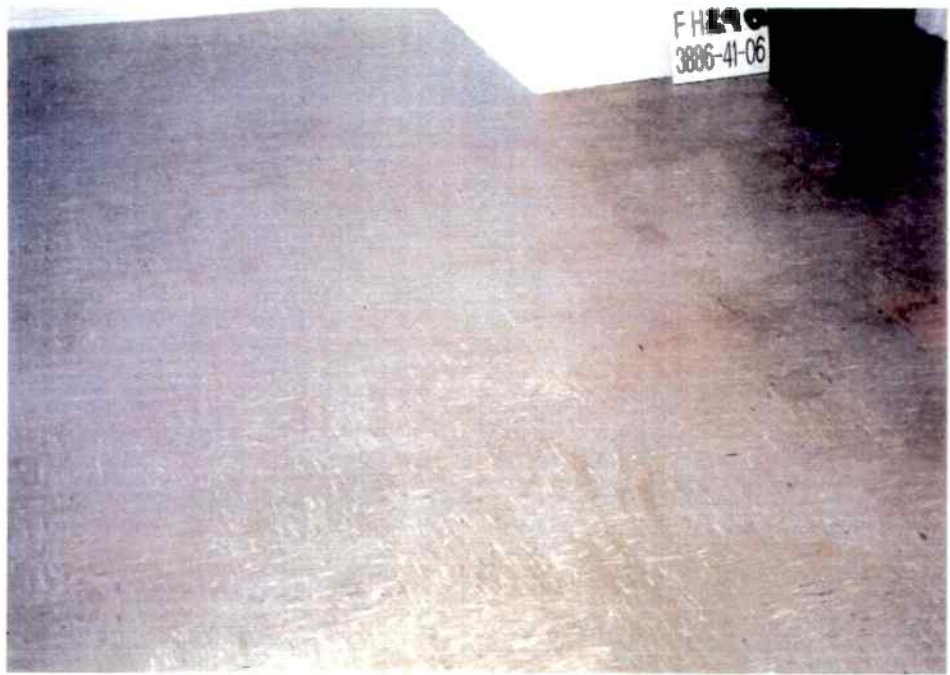
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

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

AREA 1: UNIT 41 (S)
AREA 3: UNIT 43 (C1)AREA 2: UNIT 42 (S)
AREA 4: UNIT 45 (C1)

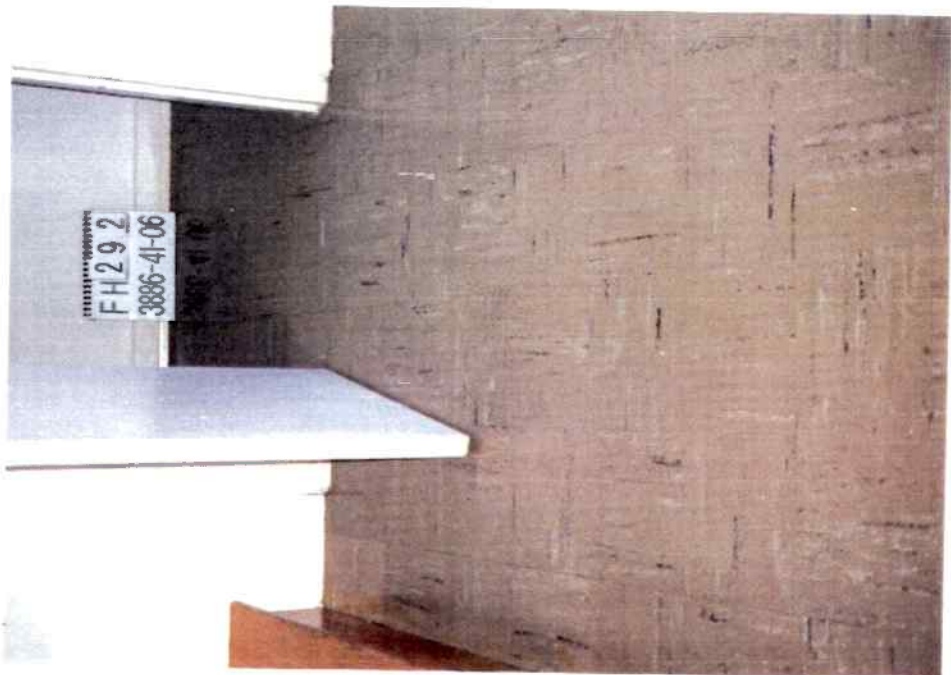
SECTION 2251.4

PHOTOGRAPHS



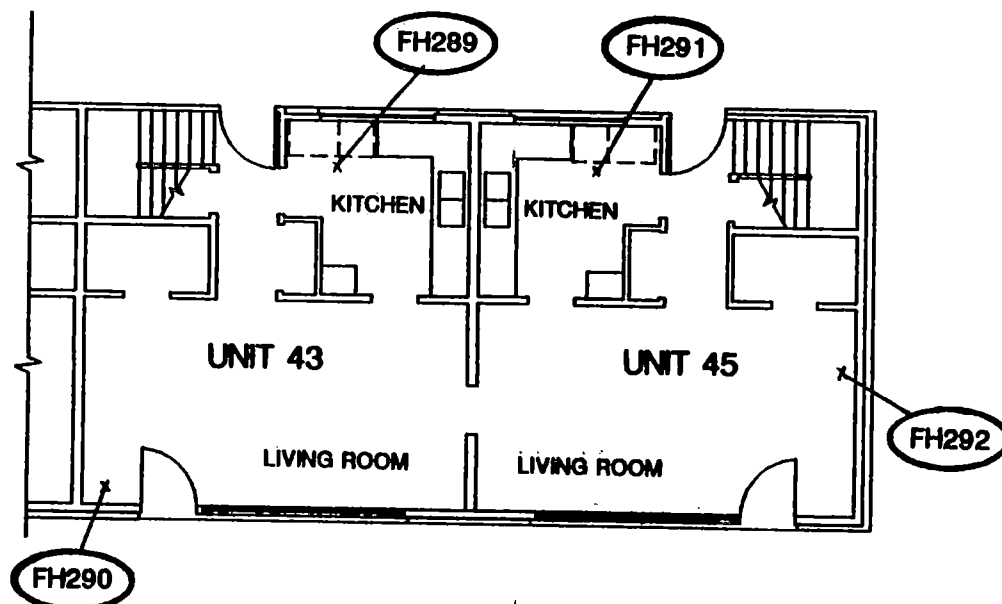
Bldg. 2251

Unit 43, Living Room: (Sample FH290) (9 In. x 9 In.) Gray Floor Tile Tested Positive. Floor Tile In The Kitchen (Brown, 9 In. x 9 In.) Also Tested Positive (Sample FH281).



Bldg. 2251

Unit 45, Living Room: (Sample FH292): (9 In. x 9 In.) Brown Floor Tile Tested Positive. Floor Tile In The Kitchen (Green, 9 In. x 9 In.) Also Tested Positive (Sample FH291).



BLDG. 2251

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2266

FAMILY HOUSING

FAMILY HOUSING

2266.1 GENERAL

Building 2266 was surveyed by WESTON technicians on 5 December 1990. A complete inspection (CI) for ACM was performed in Unit 40 of this building. The rest of the units in Building 2266, Units 26, 28, 30, 32, 34, 36, and 38, were assumed to have type and quantity of ACM similar to that found in Unit 40 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

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 samples were found to be asbestos-containing materials (ACM). Table 2266.1 lists the analytical results for the bulk samples.

2266.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2266 are presented in Table 2266.1. An area-by-area inventory of ACM is provided in Tables 2266.2 and 2266.3. "Other Asbestos-Containing Materials," listed in Table 2266.3, are materials that do not correspond to the standard caption categories listed in Table 2266.2. A prioritized listing of exposure assessments is presented in Table 2266.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2266.5. 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 2266.2 and 2266.5.

2266.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2266.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2266, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH299	UNIT 40-KITCHEN,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FL	5	-	-	YES
FH300	UNIT 40-1STFLR CLST,BELOW CEILING	FLOOR TILE	BROWN,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 2266.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2266, FAMILY HOUSING

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"					
UNIT 26 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 28 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 30 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 32 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 34 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 36 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 38 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 40 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.64	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 2266.3

**Other Asbestos-Containing Material - Building 2266, Family Housing
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

2266-5

TABLE 2266.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2266, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2266.5

COST ESTIMATE* - BUILDING 2266, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	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	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Difficulty Allowance	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Decontamination Units		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.0
SUBTOTAL		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	8.6
Contingency @ 15.00%		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3
SUBTOTAL		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	9.9
Design Fee @ 10.00%		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
SUBTOTAL		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	10.9
Air Monitoring @ 10.00%***		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
TOTAL		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	11.9

* Amounts Are In Thousands Of Dollars

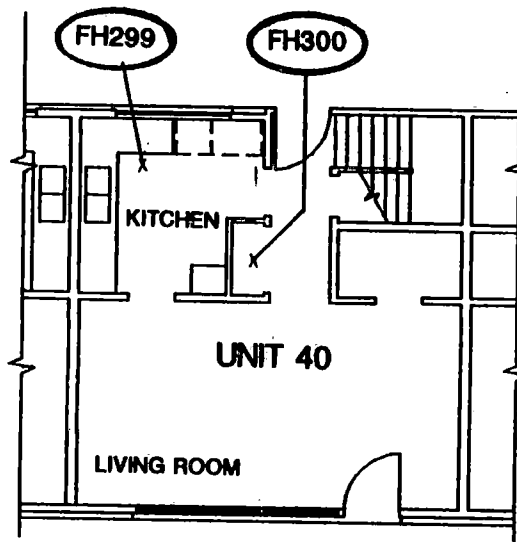
** Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)

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

AREA 1: UNIT 26 (\$)
 AREA 2: UNIT 30 (\$)
 AREA 3: UNIT 32 (\$)
 AREA 4: UNIT 34 (\$)
 AREA 5: UNIT 36 (\$)

AREA 6: UNIT 38 (\$)
 AREA 7: UNIT 40 (\$)
 AREA 8: UNIT 42 (\$)
 AREA 9: UNIT 44 (\$)
 AREA 10: UNIT 46 (\$)

2266-8



BLDG. 2266

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2276

FAMILY HOUSING

FAMILY HOUSING**2276.1 GENERAL**

Building 2276 was surveyed by WESTON technicians on 5 December 1990. A complete inspection (CI) for ACM was performed in Unit 5 of this building. The rest of the units in Building 2276, Units 1, 3, and 7, were assumed to have type and quantity of ACM similar to that found in Unit 5 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

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, one was found to be asbestos-containing materials (ACM). Table 2276.1 lists the analytical results for the bulk samples.

2276.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2276 are presented in Table 2276.1. An area-by-area inventory of ACM is provided in Tables 2276.2 and 2276.3. "Other Asbestos-Containing Materials," listed in Table 2276.3, are materials that do not correspond to the standard caption categories listed in Table 2276.2. A prioritized listing of exposure assessments is presented in Table 2276.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2276.5. 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 2276.2 and 2276.5.

2276.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2276.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2276, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH297	UNIT 5-KITCHEN,BELOW CEILING	FLOOR TILE	BROWN,OTH,12X12 FL	-	-	-	YES
FH298	UNIT 5-1STFLR CLOSET,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	5	-	-	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 2276.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2276, FAMILY HOUSING

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"					
UNIT 1 (S)	-	-	-	-	-	-	-	-	-	0.01	-	-	-
UNIT 3 (S)	-	-	-	-	-	-	-	-	-	0.01	-	-	-
UNIT 7 (S)	-	-	-	-	-	-	-	-	-	0.01	-	-	-
Unit 5 (CI)	-	-	-	-	-	-	-	-	-	0.01	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.04	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 2276.3

**Other Asbestos-Containing Material - Building 2276, Family Housing
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

2276-5

TABLE 2276.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2276, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2276.5

COST ESTIMATE* - BUILDING 2276, FAMILY HOUSING

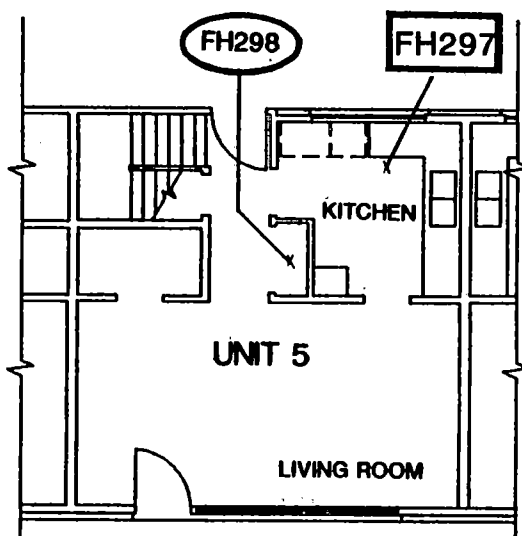
DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	TOTAL
Pipe Fittings (EA)						
<4"	70.30	-	-	-	-	-
4-8"	85.80	-	-	-	-	-
9-14"	147.00	-	-	-	-	-
>14"	216.00	-	-	-	-	-
Pipe Runs (LF)						
<4"	26.50	-	-	-	-	-
4-8"	50.50	-	-	-	-	-
9-14"	72.50	-	-	-	-	-
>14"	60.80	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-
Floor Tile (SF)	5.60	**	**	**	**	0.2
Boilers/Tanks (SF)	37.90	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-
Other		-	-	-	-	-
SUBTOTAL		**	**	**	**	0.2
Difficulty Allowance		-	-	-	-	-
SUBTOTAL		**	**	**	**	0.2
Decontamination Units		0.8	0.8	0.8	0.8	3.0
Mobilization		0.5	0.5	0.5	0.5	2.0
SUBTOTAL		1.3	1.3	1.3	1.3	5.2
Contingency @ 15.00%		0.2	0.2	0.2	0.2	0.8
SUBTOTAL		1.5	1.5	1.5	1.5	6.0
Design Fee @ 10.00%		0.2	0.2	0.2	0.2	0.6
SUBTOTAL		1.7	1.7	1.7	1.7	6.6
Air Monitoring @ 10.00%***		0.2	0.2	0.2	0.2	0.7
TOTAL		1.8	1.8	1.8	1.8	7.3

* 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: UNIT 1 (S)
AREA 3: UNIT 7 (S)AREA 2: UNIT 3 (S)
AREA 4: UNIT 5 (C)



BLDG. 2276

LEGEND

FHnnn POSITIVE SAMPLE

FHnnn NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2462

FAMILY HOUSING

FAMILY HOUSING**2462.1 GENERAL**

Building 2462 was surveyed by WESTON technicians on 5 December 1990. A complete inspection (CI) for ACM was performed in Unit 14 of this building. The rest of the units in Building 2462, Units 2, 4, 6, 8, 10, 12, and 16, were assumed to have type and quantity of ACM similar to that found in Unit 14 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 2462.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 2 samples of suspect material collected from the building. Both of these samples were found to be asbestos-containing materials (ACM). Table 2462.1 lists the analytical results for the bulk samples.

2462.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2462 are presented in Table 2462.1. An area-by-area inventory of ACM is provided in Tables 2462.2 and 2462.3. "Other Asbestos-Containing Materials," listed in Table 2462.3, are materials that do not correspond to the standard caption categories listed in Table 2462.2. A prioritized listing of exposure assessments is presented in Table 2462.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2462.5. 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 2462.2 and 2462.5.

2462.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2462.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2462, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH279	UNIT 14- KITCHEN,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	3	-	-	YES
FH280	UNIT 14-1STFLR CLSET,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	2	-	-	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 2462.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2462, FAMILY HOUSING

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"					
UNIT 10 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 12 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 16 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 2 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 4 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 6 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 8 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 14 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.64	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 2462.3

**Other Asbestos-Containing Material - Building 2462, Family Housing
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

2462-5

TABLE 2462.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2462, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2462.5

COST ESTIMATE* - BUILDING 2462, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	TOTAL
Pipe Fittings (EA)										
<4"	70.30	-	-	-	-	-	-	-	-	-
4-8"	85.80	-	-	-	-	-	-	-	-	-
8-14"	147.00	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)										
<4"	26.50	-	-	-	-	-	-	-	-	-
4-8"	50.50	-	-	-	-	-	-	-	-	-
8-14"	79.50	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Difficulty Allowance		-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Decontamination Units		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.0
SUBTOTAL		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	8.6
Contingency @ 15.00%		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3
SUBTOTAL		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	9.9
Design Fee @ 10.00%		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
SUBTOTAL		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	10.9
Air Monitoring @ 10.00%***		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
TOTAL		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	11.9

*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 1: UNIT 10 (S)
 AREA 2: UNIT 16 (S)
 AREA 3: UNIT 4 (S)
 AREA 7: UNIT 8 (S)

AREA 2: UNIT 12 (S)
 AREA 4: UNIT 2 (S)
 AREA 6: UNIT 6 (S)
 AREA 8: UNIT 14 (C1)

SECTION 2462.4

PHOTOGRAPHS



Bldg. 2462

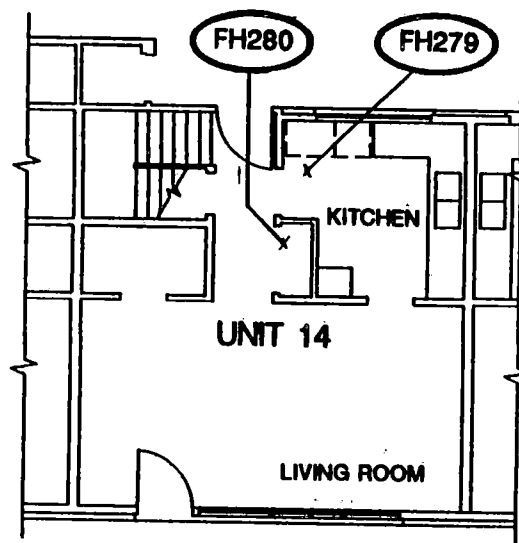
Unit 14, Kitchen: (Sample FH279) (9 In. x 9 In.)
Gray Floor Tile Tested Positive.



Bldg. 2462

Unit 14, Closet: (Sample FH280) (9 In. x 9 In.)
Brown Floor Tile Tested Positive.

2462-9



BLDG. 2462

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2463

FAMILY HOUSING

FAMILY HOUSING

2463.1 GENERAL

Building 2463, Unit 27 was surveyed by WESTON technicians on 5 December 1990. A complete inspection (CI) for ACM was performed in Unit 27 of this building. The rest of the units in Building 2463, Units 17, 19, 21, 23, 25, 29, and 31, were assumed to have type and quantity of ACM similar to that found in Unit 27 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 2463.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 2 samples of suspect material collected from the building. Both of these samples were found to be asbestos-containing materials (ACM). Table 2463.1 lists the analytical results for the bulk samples.

2463.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2463 are presented in Table 2463. 1. An area-by-area inventory of ACM is provided in Tables 2463.2 and 2463.3. "Other Asbestos-Containing Materials," listed in Table 2463.3, are materials that do not correspond to the standard caption categories listed in Table 2463.2. A prioritized listing of exposure assessments is presented in Table 2463.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2463.5. 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 2463.2 and 2463.5.

2463.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2463.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2463, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH281	UNIT 27-KITCHEN,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	10	-	-	YES
FH282	UNIT 27-1STFLR CLSET,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	5	-	-	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 2463.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2463, FAMILY HOUSING

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"					
UNIT 17 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 19 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 21 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 23 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 25 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 29 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 31 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 27 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.64	-	-	-

* Other Material Present In Various Units Of Measure

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

Table 2463.3

**Other Asbestos-Containing Material - Building 2463, Family Housing
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

2463-5

TABLE 2463.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2463, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2463.5

COST ESTIMATE* - BUILDING 2463, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	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"	42.50	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Difficulty Allowance		-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Decontamination Units Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.0
SUBTOTAL		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	8.6
Contingency @ 15.00%		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3
SUBTOTAL		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	9.9
Design Fee @ 10.00%		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
SUBTOTAL		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	10.9
Air Monitoring @ 10.00%***		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
TOTAL		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	11.9

*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 1: UNIT 17 (S)
 AREA 2: UNIT 21 (S)
 AREA 3: UNIT 25 (S)
 AREA 4: UNIT 31 (S)

AREA 2: UNIT 19 (S)
 AREA 4: UNIT 23 (S)
 AREA 4: UNIT 26 (S)
 AREA 8: UNIT 27 (C)

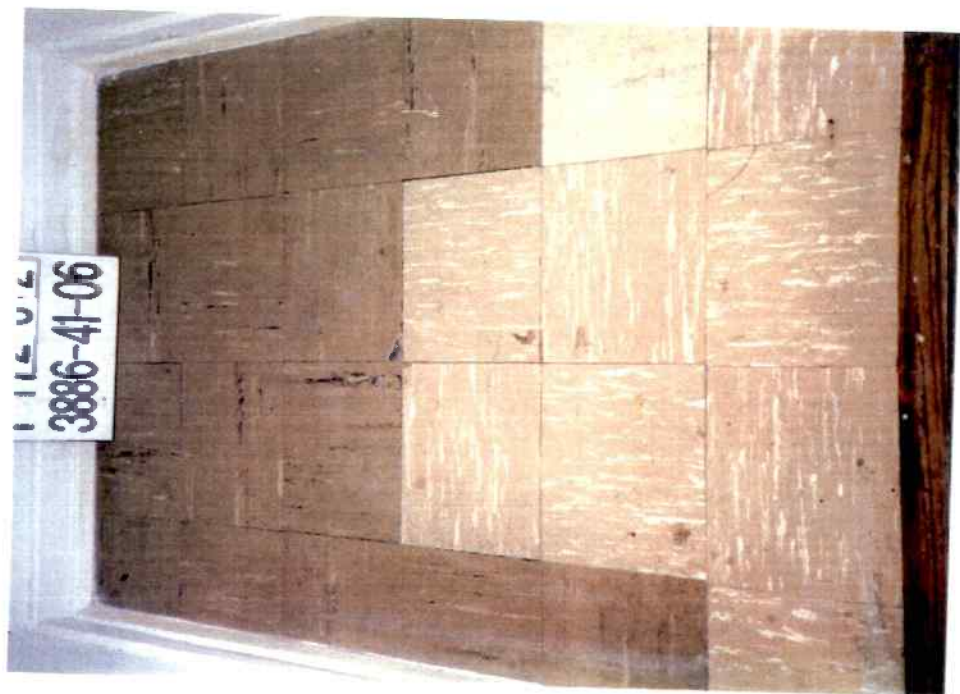
SECTION 2463.4

PHOTOGRAPHS



Bldg. 2463

Unit 27, Kitchen: (Sample FH281) (9 In. x 9 In.)
Green Floor Tile Tested Positive. Floor Tile Is
Extremely (Water) Damaged.



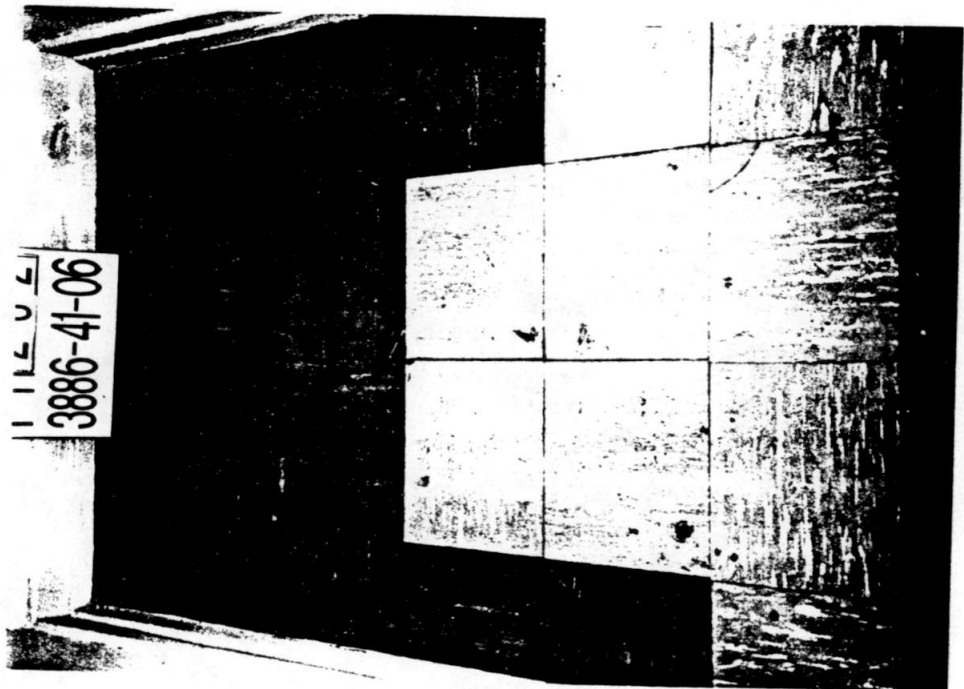
Bldg. 2463

Unit 27, Closet: (Sample FH282) (9 In. x 9 In.)
Brown Floor Tile Tested Positive.



Bldg. 2463

Unit 27, Kitchen: (Sample FH281) (9 In. x 9 In.)
Green Floor Tile Tested Positive. Floor Tile Is
Extremely (Water) Damaged.

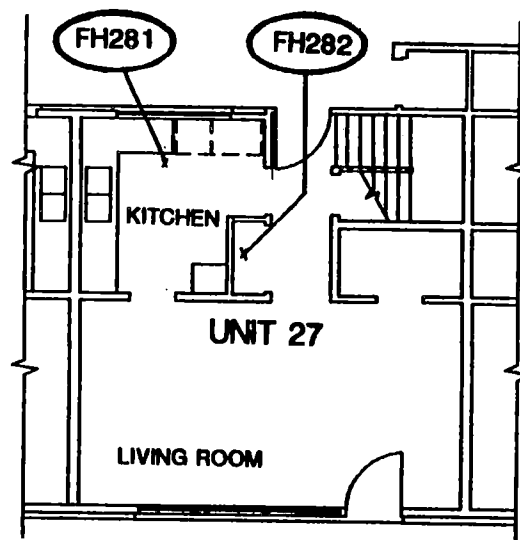


Bldg. 2463

Unit 27, Closet: (Sample FH282) (9 In. x 9 In.)
Brown Floor Tile Tested Positive.

2463-9

BLDG. 2463



LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

2466

FAMILY HOUSING

FAMILY HOUSING

2466.1 GENERAL

Building 2466 was surveyed by WESTON technicians on 5 December 1990. Complete inspections (CI) for ACM were performed in Units 36, 38, and 42 of this building. The rest of the units in Building 2463, Units 34, 40, 44, 46, and 48, were assumed to have type and quantity of ACM similar to that found in Units 36, 38, and 42 and are designated as similar units (S).

No actual inspection or sampling for ACM was performed in the similar units. Refer to the guide document for further discussions on complete inspections (CI) and similar units (S).

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 2466.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 6 samples of suspect material collected from the building. Of these samples, all were found to be asbestos-containing materials (ACM). Table 2466.1 lists the analytical results for the bulk samples.

2466.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 2466 are presented in Table 2466.1. An area-by-area inventory of ACM is provided in Tables 2466.2 and 2466.3. "Other Asbestos-Containing Materials," listed in Table 2466.3, are materials that do not correspond to the standard caption categories listed in Table 2466.2. A prioritized listing of exposure assessments is presented in Table 2466.4. An itemized area-by-area cost estimate for removal and replacement is provided in Table 2466.5. 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 2466.2 and 2466.5.

2466.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 2466.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 2466, FAMILY HOUSING

SAMPLE NO.	LOCATION	ITEM	DESCRIPTION	PERCENT ASBESTOS			LAYERED ^a
				CH	AM	OT	
FH283	UNIT 36 - KITCHEN,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	10	-	-	YES
FH284	UNIT 36 - CLOSET,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	NO
FH285	UNIT 38 - KITCHEN,BELOW CEILING	FLOOR TILE	TAN,OTH,12X12 FL	7	-	-	YES
FH286	UNIT 38 - CLOSET,BELOW CEILING	FLOOR TILE	BROWN,OTH,9X9 FL TL	7	-	-	NO
FH287	UNIT 42 - KITCHEN,BELOW CEILING	FLOOR TILE	GREEN,OTH,9X9 FL TL	5	-	-	YES
FH288	UNIT 42 - CLOSET,BELOW CEILING	FLOOR TILE	GRAY,OTH,9X9 FL TL	10	-	-	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 2466.2

ASBESTOS-CONTAINING MATERIALS - BUILDING 2466, FAMILY HOUSING

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"					
UNIT 34 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 40 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 44 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 46 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
UNIT 48 (S)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 36 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 38 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
Unit 42 (CI)	-	-	-	-	-	-	-	-	-	0.08	-	-	-
TOTALS	-	-	-	-	-	-	-	-	-	0.64	-	-	-

* Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 2466.3

**Other Asbestos-Containing Material - Building 2466, Family Housing
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

2466-5

TABLE 2466.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 2466, FAMILY HOUSING

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS					AVG. EXP. HOURS	% ASB.
					1	2	3	4	5		

Only Non-Friable Material Was Detected In This Building
Exposure Assessments Are Not Available

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 2466.5

COST ESTIMATE* - BUILDING 2466, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6	AREA 7	AREA 8	TOTAL
Pipe Fittings (EA)										
<4"	70.30	-	-	-	-	-	-	-	-	-
4-8"	89.80	-	-	-	-	-	-	-	-	-
9-14"	122.00	-	-	-	-	-	-	-	-	-
>14"	216.00	-	-	-	-	-	-	-	-	-
Pipe Runs (LF)										
<4"	26.50	-	-	-	-	-	-	-	-	-
4-8"	50.50	-	-	-	-	-	-	-	-	-
9-14"	29.50	-	-	-	-	-	-	-	-	-
>14"	60.80	-	-	-	-	-	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Difficulty Allowance	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.6
Decontamination Units		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	6.0
Mobilization		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.0
SUBTOTAL		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	11.6
Contingency @ 15.00%		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.7
SUBTOTAL		1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	13.3
Design Fee @ 10.00%		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3
SUBTOTAL		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	14.7
Air Monitoring @ 10.00%***		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.5
TOTAL		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	16.1

* 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: UNIT 34 (S)
 AREA 2: UNIT 44 (S)
 AREA 3: UNIT 48 (S)
 AREA 7: Unit 38 (C)

AREA 2: UNIT 40 (S)
 AREA 4: UNIT 46 (S)
 AREA 6: Unit 36 (C)
 AREA 8: Unit 42 (C)

SECTION 2466.4

PHOTOGRAPHS



Bldg. 2466

Unit 36, Kitchen: (Sample FH283) (9 In. x 9 In.)
Brown Floor Tile Tested Positive. Floor Tile In
The Closet Is Also Tested Positive (Sample FH284).



Bldg. 2466

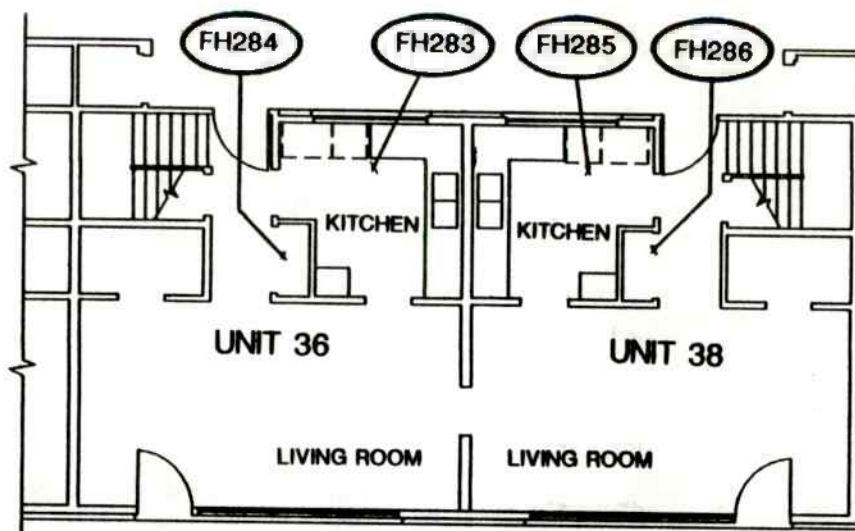
Unit 38, Closet: (Sample FH286) (9 In. x 9 In.)
Brown Floor Tile Tested Positive. Tan Floor Tile
(12 In. x 12 In.) In The Kitchen Also Tested
Positive (Sample FH285).



Bldg. 2466

Unit 42, Closet: (Sample FH288) (9 In. x 9 In.)
Mixed-Color Floor Tile Tested Positive. Green
Floor Tile (9 In. x 9 In.) In The Kitchen Also
Tested Positive. (Sample FH287).

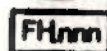
2466-11



BLDG. 2466

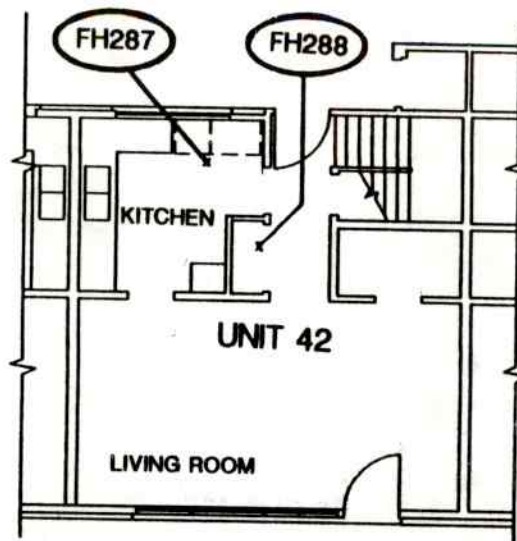
LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

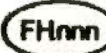
WESTON
MANAGERS DESIGNERS/CONSULTANTS

2466-12



BLDG. 2466

LEGEND

 POSITIVE SAMPLE

 NEGATIVE SAMPLE

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