

Phase III

U.S. Army Corps of Engineers Philadelphia District

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

Contract Number DACA61-89-D-0002 DACA61-89-D-0013 DACA61-91-M-0837

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Prepared for:

U.S. ARMY ENGINEER DISTRICT U.S. Custom House Philadelphia, Pennsylvania 19106 C23B

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

PHASE III

VOLUME I

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Prepared For:

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Philadelphia, Pennsylvania

February 1992

Prepared By:

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Weston Work Order No. 3886-37-09

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12 GAS STATION BUILDING

GAS STATION BUILDING

12.1 GENERAL

Building 12 was surveyed by WESTON technicians on 3 April 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 3 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 12.1 lists the analytical results for the bulk samples.

12.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 12 are presented in Table 12.1. An area-by-area inventory of ACM is provided in Tables 12.2 and 12.3. "Other Asbestos-Containing Materials," listed in Table 12.3, are materials that do not correspond to the standard caption categories listed in Table 12.2. A prioritized listing of exposure assessments is presented in Table 12.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 12.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 12.2 and 12.5.

12.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 12.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 12, GAS STATION BLDG.

SAMPLE				PERCE	NT ASBE	STOS	_
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH695 OFFIC	E	FLOOR TILE	BLACK,OTH,FL TL	3	-	-	NO
FH696 OFFIC	E	FLOOR TILE	GREEN,OTH,FL TL	5	-	-	NO
FH697 ROOF		OTHER MATERIAL	BLACK,OTH,ROOF MAT.	-	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

	P1	PE FITT	INGS (EA)	<u> </u>		PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ffice					<u> </u>	<u> </u>	-			0.15			<u> </u>
DTALS	-	_	_	_	-	_	_	-	-	0.15	-	-	_

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 12.3

Other Asbestos-Containing Material - Building 12, Gas Station Building 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 12.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 12, GAS STATION BLDG.

		•		•	<u> </u>			
 			PRIOR.	PRIORITY		AVG.		·
SAMPLE		MATERIAL	INDEX	INDEX	EXPOSURE FACTORS	EXP.	%	
NO	AREA	TYPE	CODE	NUMBER	1 2 3 4 5	HOURS	ASB.	

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 Accessability

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 12.5 COST ESTIMATE* - BUILDING 12, GAS STATION BLDG.

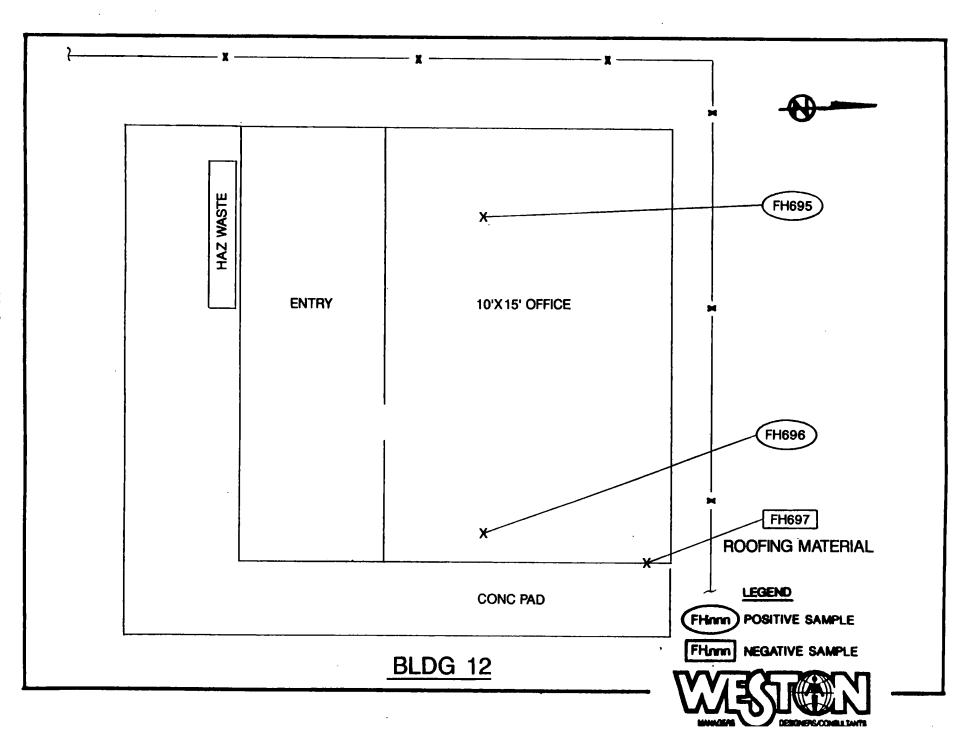
	UNIT COST (\$)	AREĄ	
DESCRIPTION	COST (\$)	<u> </u>	TOTAL
Pipe fittings (EA)	70-30	•	=
3-8" 9-14" >14"	70.30 85.80 147.00 216.00	-	=
Pipe Runs (LF)			
' <4" 4-8"	26.50 30.50 42.50 60.80	-	-
478" 9-14" >14"	86:88	:	:
Sprayed/Troweled Ceilings (SF)	9.60	-	_
Floor Tile (SF)	5.60	0.8	0.8
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		0.8	0.8
Difficulty Allowance		-	-
SUBTOTAL		0.8	0.8
Decontamination Units Mobilization		3:8	3:8
SUBTOTAL		5.8	5.8
Contingency a 15.00%		0.9	0.9
SUBTOTAL		6.7	6.7
Design Fee a 10.00%		0.7	0.7
SUBTOTAL		7.4	7.4
Air Monitoring a 10.00%	**************************************	0.7	0.7
TOTAL		8.1	8.1

AREA 1: Office

^{*}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



63 STOREHOUSE

STOREHOUSE

63.1 GENERAL

Building 63 was surveyed by WESTON technicians on 3 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 63.4

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 14 samples of suspect material collected from the building. Of these samples, 6 were found to be asbestos-containing materials (ACM). Table 63.1 lists the analytical results for the bulk samples.

63.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 63 are presented in Table 63.1. An area-by-area inventory of ACM is provided in Tables 63.2 and 63.3. "Other Asbestos-Containing Materials," listed in Table 63.3, are materials that do not correspond to the standard caption categories listed in Table 63.2. A prioritized listing of exposure assessments is presented in Table 63.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 63.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 63.2 and 63.5.

63.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing transite and floor tile should be labeled under the O&M Program.

TABLE 63.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 63, STOREHOUSE

_	STOS	NT ASBE	PERCE				SAMPLE
LAYERED	OT	AM	CH	DESCRIPTION	ITEM	LOCATION	NO.
NO	-	-	-	GREEN,OTH,9X9 FL TL	FLOOR TILE	BAY 4	FH698 BAY 4
NO	-	-	5	BLACK,OTH,FL TL	FLOOR TILE	BAY 4	FH699 BAY 4
NO	-	-	1	WHITE,OTH,FL TL	FLOOR TILE	BAY 4	FH700 BAY 4
NO	-	-	3	BROWN,OTH,FL TL	FLOOR TILE	BAY 4	FH701 BAY 4
NO	-	-	2	RED.OTH.FL TL	FLOOR TILE	BAY 4	FH702 BAY 4
NO	-	-	-	GRAY,OTH,FL TL	FLOOR TILE	BAY 4	FH703 BAY 4
NO	-	-	1	GREEN,OTH,FL TL	FLOOR TILE	BAY 4	FH704 BAY 4
YES	-	-	-	WHITE,OTH,CL TL	CEILING TILE	BAY 4	FH705 BAY 4
NO	-	-	-	WHITE,OTH,CL TL	CEILING TILE	BAY 4	FH706 BAY 4
YES	-	-	-	WHITE,OTH,CL TL	CEILING TILE	BAY 4	FH707 BAY 4
NO	-	-	40	WHITE,OTH,TRANS PANL	TRANSITE PANEL BOARD	BAY 4	FH708 BAY 4
NO	-	-	-	GREEN, OTH, ROOF MAT.	OTHER MATERIAL	BAY 3	FH709 BAY 3
NO	-	-	-	BROWN, OTH, ROOF MAT.	OTHER MATERIAL	BAY 3	FH710 BAY 3
NO	-	-	-	BLACK, OTH, ROOF MAT.	OTHER MATERIAL	BAY 3	FH711 BAY 3

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

Quadrant Codes	System Codes	Asbestos Types
C = Center .	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

TABLE 63.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 63, STOREHOUSE

	PI	PE FITT	INGS (EA)			PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14#	CEILINGS (MSF)	· (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ıy 2	_	-	-	-	-	-	-	-	-	-		-	*
y 4	-	-	-	-	-	-	-	-		0.66	-	-	*
y 6					-								
TALS	-	_	-	_	-	-	-	-	-	0.66	-	-	*

^{*} Other Material Present In Various Units Of Measure

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

Table 63.3

Other Asbestos-Containing Material - Building 63, Storehouse Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Bay 2	Transite Panel	0.150 (MSF)
Bay 4	Transite Panel	0.150 (MSF)
Bay 6	Transite Panel	0.200 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 63.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 63, STOREHOUSE

CAMPI F			MATERIAL	PRIOR.	PRIORITY					7000	AVG.		
SAMPLE No.		AREA	MATERIAL Type	I NDEX CODE	I NDEX Number	1	2	3 3	L FAI	STORS_	EXP. HOURS	る ASB.	
					, tonibe it							, NOD1	
FH708	Bay 2		TRANSITE PANEL BOARD	Α	1.550E-2	1	1	1	1	5	40.00	40	
FH708	Bay 4		TRANSITE PANEL BOARD	A	1.550E-2	1	1	1	1	5	40.00	40	
FH708	Bay 6		TRANSITE PANEL BOARD	A	1.550E-2	1	1	1	1	5	40.00	40	
FH705	Bay 4		CEILING TILE	A	0	1	1	1	1	5	40.00	0	
FH706	Bay 4		CEILING TILE	Ä	Ö	1	1	1	1	5	40.00	Ō	
FH707	Bay 2		CEILING TILE	Ä	Ō	1	1	1	1	5	40.00	Õ	
FH707	Bay 4		CEILING TILE	Ä	Ŏ	1	1	1	1	5	40.00	Ö	

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 63.5 COST ESTIMATE* - BUILDING 63, STOREHOUSE

	· UNIT	AREĄ	AREĄ	AREĄ	
DESCRIPTION	UNIT COST (\$)	<u> </u>	2		TOTAL
Pipe Fittings (EA)	70.30	•	-	-	-
4-8" 9-14" >14"	70.30 85.80 147.00 216.00	=	:	=	:
Pipe Runs (LF)					
44" 4-8"	30:50	-	-	-	:
4-8" 9-14" >14"	26.50 30.50 42.50 60.80	-	:	:	:
Sprayed/Troweled Ceilings (SF)	9.60		_	_	
Floor Tile (SF)	5.60		3.7	-	3.7
Boilers/Tanks (SF)	37.90	-	-	-	•
Air Handling Equipment (SF)	20.00	_		,	
	20.00		-	-	
Other		1.7	1.7	0.2	3.5
SUBTOTAL		1.7	5.4	0.2	7.2
Difficulty Allowance		-	-	-	-
SUBTOTAL		1.7	5.4	0.2	7.2
Decontamination Units Mobilization		∂: 9	∂: 9	∂: 9	3 :8
SUBTOTAL		3.3	7.0	1.8	12.2
Contingency a 15.00%		0.5	1.1	0.3	1.8
SUBTOTAL		3.8	8.1	2.1	14.0
Design Fee @ 10.00%		0.4	0.8	0.2	1.4
SUBTOTAL		4.2	8.9	2.3	15.4
Air Monitoring a 10.00%	***	0.5	0.5	0.5	1.5
TOTAL		4.7	9.4	2.8	16.9

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Bay 2 AREA 3: Bay 6

^{***}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
****The Minimum Air Monitoring Fee is \$500.00 Per Building

SECTION 63.4 PHOTOGRAPHS



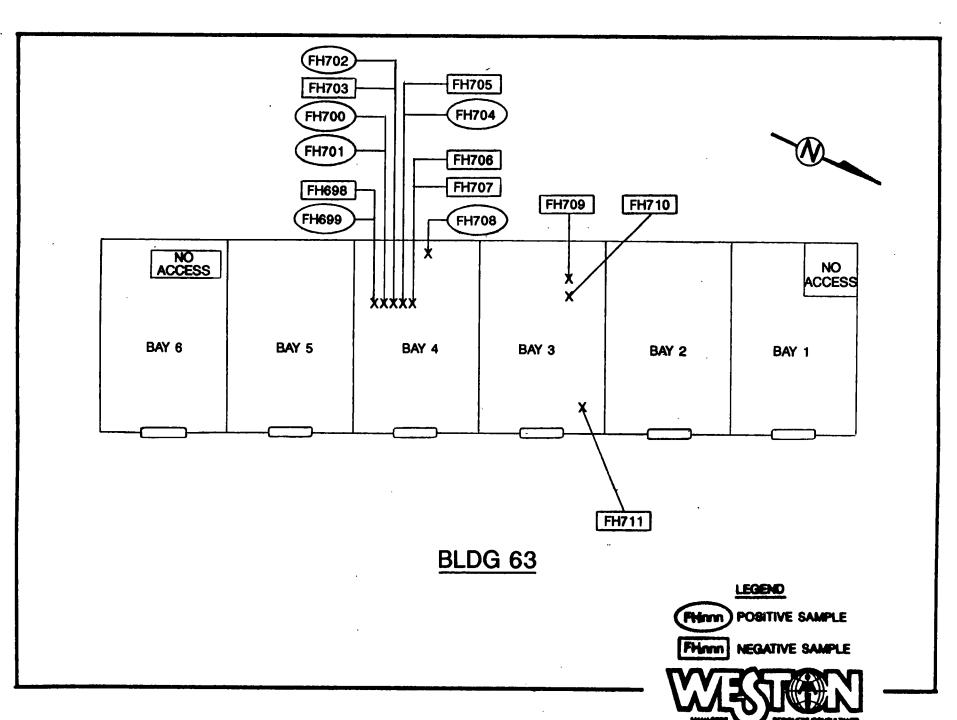
BLDG. 63

BAY 4: (SAMPLE FH704) GREEN 9" X 9" FLOOR TILE TESTED POSITIVE.



BLDG. 63

BAY 4: (SAMPLE FH708) TRANSITE PANEL BOARD TESTED POSITIVE. TRANSITE PANELS ARE ALSO PRESENT IN BAYS 2 & 6.



64 MAINTENANCE SHOP

MAINTENANCE SHOP

64.1 GENERAL

Building 64 was surveyed by WESTON technicians on 3 April 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 8 samples of suspect material collected from the building. Of these samples, 5 were found to be asbestos-containing materials (ACM). Table 64.1 lists the analytical results for the bulk samples.

64.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 64 are presented in Table 64.1. An area-by-area inventory of ACM is provided in Tables 64.2 and 64.3. "Other Asbestos-Containing Materials," listed in Table 64.3, are materials that do not correspond to the standard caption categories listed in Table 64.2. A prioritized listing of exposure assessments is presented in Table 64.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 64.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 64.2 and 64.5.

64.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 64.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 64, MAINT. SHOP

SAMPLE				PERCE	NT ASBI	<u>ESTOS</u>	_
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	ОТ	LAYERED
FH718 BAY 1		FLOOR TILE	BROWN,OTH,FL TL	5	-	-	NO
FH719 BAY 1		OTHER MATERIAL	BROWN, OTH, SHEET FLR.	-	-	-	NO
FH720 BAY 1		FLOOR TILE	BROWN,OTH,FL TL	2	-	-	NO
FH721 BAY 1		FLOOR TILE	GREEN, OTH, FL TL	5	-	-	NO
FH722 BAY 1		FLOOR TILE	TAN,OTH,FL TL	1	-	-	NO
FH723 BAY 1		AIR HANDLING EQUIPMENT	GRAY,OTH,EXP. JOINT	-	-	-	NO
FH724 BAY 9		FLOOR TILE	BROWN,OTH,FL TL	-	-	-	NO
FH725 BAY 5		OTHER MATERIAL	GRAY,OTH,ROLL MAT.	50	-	-	NO

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown,	
NW = Northwest		
SE = Southeast		

	PI	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTH
ay 1	-	-	•	-	-	-	-	-	-	0.93	-	-	-
y 5	-	-	-	-	-	-	-	-	-	1.10	- '	-	*
ay 9				<u></u>			<u>-</u>			0.14			
OTALS	-	_	_	-	-	-	_	-	_	2.18	-	-	*

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 64.3

Other Asbestos-Containing Material - Building 64, Maintenance Shop Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Bay 5	(Floor) Roll Material	0.100 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	E)	(POS	URE	FAC	CTORS	AVG. Exp.	%
NO.	AREA	ТҮРЕ	CODE	NUMBER	_1	2	3	4	5	HOURS	ASB.
FH723	Bay 1	AIR HANDLING EQUIPMENT	A	0	1	2	1	1	5	50.00	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 Accessability
3 [=] Material Condition
4 [=] Level Of Activity
5 [=] Number Of Assigned Occupants

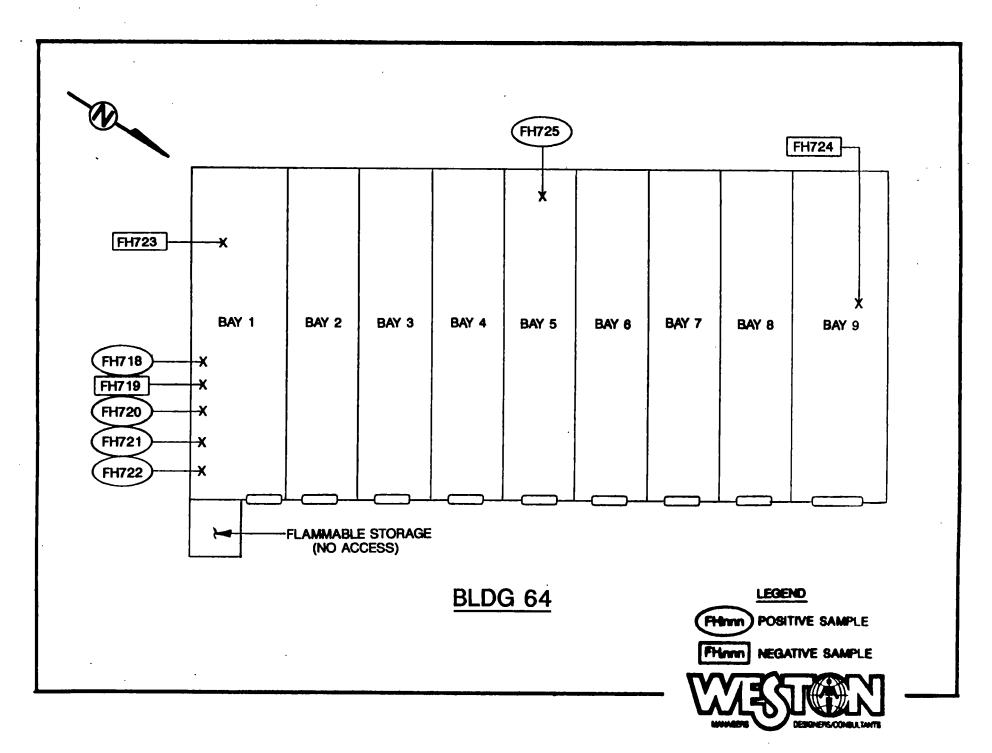
TABLE 64.5 COST ESTIMATE* - BUILDING 64, MAINT. SHOP

						•
	DESCRIPTION	UNIT COST (\$)	AREA	AREA 2	AREA	TOTAL
Pi	pe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 147.00 216.00	- - -	:	:	:
Pi	pe Runs (LF) <4" 4-8" 9-14" >14"	26.50 30.50 60.80	:	:	:	:
Sp	rayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Flo	oor Tile (SF)	- 5.60	5.2	6.2	0.8	12.2
Во	ilers/Tanks (SF)	37.90	-	-	-	-
Ai	r Handling Equipment (SF)	20.00	-	-	-	-
Ot	her		-	**	-	**
	SUBTOTAL		5.2	6.2	0.8	12.2
Di	fficulty Allowance		1.7	-	-	1.7
	SUBTOTAL		6.9	6.2	0.8	13.9
De: Mo	contamination Units bilization		1: 9	∂: ?	1:0 0:7	3:8
	SUBTOTAL		8.6	7.9	2.5	18.9
Co	ntingency a 15.00%		1.3	1.2	0.4	2.8
	SUBTOTAL		9.9	9.0	2.8	21.7
De	sign Fee @ 10.00%		1.0	0.9	0.3	2.2
	SUBTOTAL		10.8	9.9	3.1	23.9
Ai	r Monitoring a 10.00%	***	8.0	0.8	0.8	2.4
	TOTAL		11.6	10.7	3.9	26.3

^{*}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



80 WAREHOUSE

WAREHOUSE

80.1 GENERAL

Building 80 was surveyed by WESTON technicians on 3 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 80.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 5 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 80.1 lists the analytical results for the bulk samples.

80.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 80 are presented in Table 80.1. An area-by-area inventory of ACM is provided in Tables 80.2 and 80.3. "Other Asbestos-Containing Materials," listed in Table 80.3, are materials that do not correspond to the standard caption categories listed in Table 80.2. A prioritized listing of exposure assessments is presented in Table 80.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 80.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 80.2 and 80.5.

80.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

1513WG

• All asbestos-containing transite and floor tile should be labeled under the O&M Program.

TABLE 80.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 80, WAREHOUSE

SAMPLE				PERCI	<u>ent</u> asbi	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	_LAYERED ^E
FH712	LATRINE	FLOOR TILE	TAN,OTH,FL TL	-	-	-	NO
FH713	OFFICE	FLOOR TILE	TAN,OTH,FL TL	5	-	-	NO
FH714	OFFICE	CEILING TILE	WHITE, OTH, CL TL	-	-	-	YES
FH715	HEATER ROOM	TRANSITE PANEL BOARD	GRAY, OTH, TRANS PANL	40	-	-	NO
FH716	MAIN OFFICE	FLOOR TILE	TAN,OTH,FL TL	-	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East .	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

TABLE 80.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 80, WAREHOUSE

	PI	PE FITT	INGS (EA)		PIPE RUNS (LF)			SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING		
AREA	<4º	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
eater Room		-	-	-	-	-	-	-	-	-	-	-	*
ffice		<u>-</u>						<u> </u>		0.19			
OTALS	-	_	-	-	_	-	-	-	-	0.19	-	-	*

Other Material Present In Various Units Of Measure

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

Table 80.3

Other Asbestos-Containing Material - Building 80, Warehouse Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Heater Room	Transite Panel	0.010 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 80.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) -BUILDING 80, WAREHOUSE

SAMP	LE	MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EXP	osu	RE · F	ACTORS	AVG. EXP.	×	
NO		ТҮРЕ	CODE	NUMBER	1	2	3 4	5	HOURS	ASB.	
FH71	5 Heater Room	TRANSITE PANEL BOARD	A	1.800E-2	1	1	1 2	1	40.00	40	
FH71		CEILING TILE	Α	0	1	1	1 2	4	40.00	0	

Priority Index Codes
A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

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

TABLE 80.5 COST ESTIMATE* - BUILDING 80, WAREHOUSE

	UNIT	AREĄ	ADEA	
DESCRIPTION	UNIT COST (\$)		AREA 2	TOTAL
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 127.00 216.00	:	:	. :
Pipe Runs (LF)	26-50 30-50 60-80	:	:	:
Sprayed/Troweled Ceilings (SF)	9.60	-	-	
Floor Tile (SF)	5.60	-	1.1	1.1
Boilers/Tanks (SF)	37.90	-	•	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		**	-	**
SUBTOTAL		**	1.1	1.1
Difficulty Allowance		-	•	-
SUBTOTAL		**	1.1	1.1
Decontamination Units Mobilization		1:8	1:8	3:8
SUBTOTAL		2.5	3.6	6.1
Contingency a 15.00%		0.4	0.5	0.9
SUBTOTAL		2.9	4.1	7.0
Design Fee @ 10.00%		0.3	0.4	0.7
SUBTOTAL		3.2	4.5	7.7
Air Monitoring a 10.00%*	***	0.4	0.4	0.8
TOTAL		3.6	4.9	8.5

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Heater Room

^{***}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
****The Minimum Air Monitoring Fee is \$500.00 Per Building

SECTION 80.4 PHOTOGRAPHS



BLDG. 80

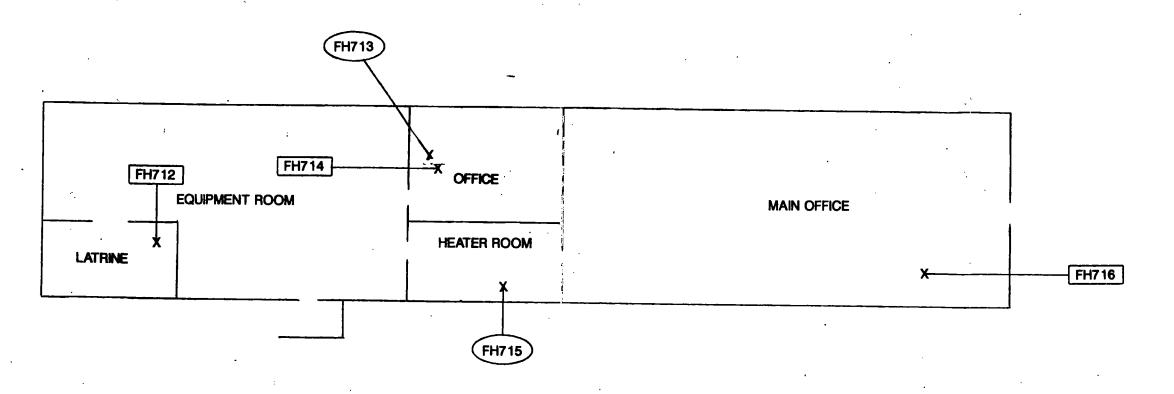
WAREHOUSE OFFICE: (SAMPLE FH713)
TAN 9" X 9" FLOOR TILE TESTED POSITIVE.



BLDG. 80

HEATER ROOM: (SAMPLE FH715)
TRANSITE PANEL BOARD TESTED POSITIVE.





BLDG 80



FHnnn POSITIVE SAMPLE





81 STOREHOUSE

STOREHOUSE

81.1 GENERAL

Building 81 was surveyed by WESTON technicians on 3 April 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 1 sample of suspect material collected from the building. It was found to be non-asbestos-containing materials (non-ACM). Table 81.1 lists the analytical result for the bulk sample.

The location, description, and analytical result for the bulk sample from Building 81 is presented in Table 81.1. The building floor plan (see attachment) indicates the sample locations.

81.2 CONCLUSIONS

According to the survey and the laboratory result of the sample collected in Building 81, WESTON concludes that Building 81 is an asbestos-free building.

TABLE 81.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 81, STOREHOUSE

SAMPLE					PERCE	ENT ASB	ESTOS	_
NO.		LOCATION	ITEM	DESCRIPTION	CH	AM	ОТ	LAYERED ^a
FH717	ROOF MATERIAL	(EXT.)	OTHER MATERIAL	GREEN,OTH,ROOF MAT.	-	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest	·	
SE = Southeast		

TABLE 81.2
ASBESTOS-CONTAINING MATERIALS - BUILDING 81, STOREHOUSE

	PIP	E FITTI	NGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING		
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>1411	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHER	

No Asbestos Containing Material Detected In This Building

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

^{*} Other Material Present In Various Units Of Measure

Table 81.3

Other Asbestos-Containing Material - Building 81, Storehouse Type Occupancy: Adults (Public)

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

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 81.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 81, STOREHOUSE

					· · · · · · · · · · · · · · · · · · ·			
			PRIOR.	PRIORITY		AVG.		
CANDLE		MATERIAL		THREY	EVENCUET FACTORS		•	
SAMPLE		MAIEKIAL	INDEX	INDEX	EXPUSURE - FACTURS	EXP.	76	
NO.	AREA	TYPE	CODE	NUMBER	12345	HOURS	ASB.	

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

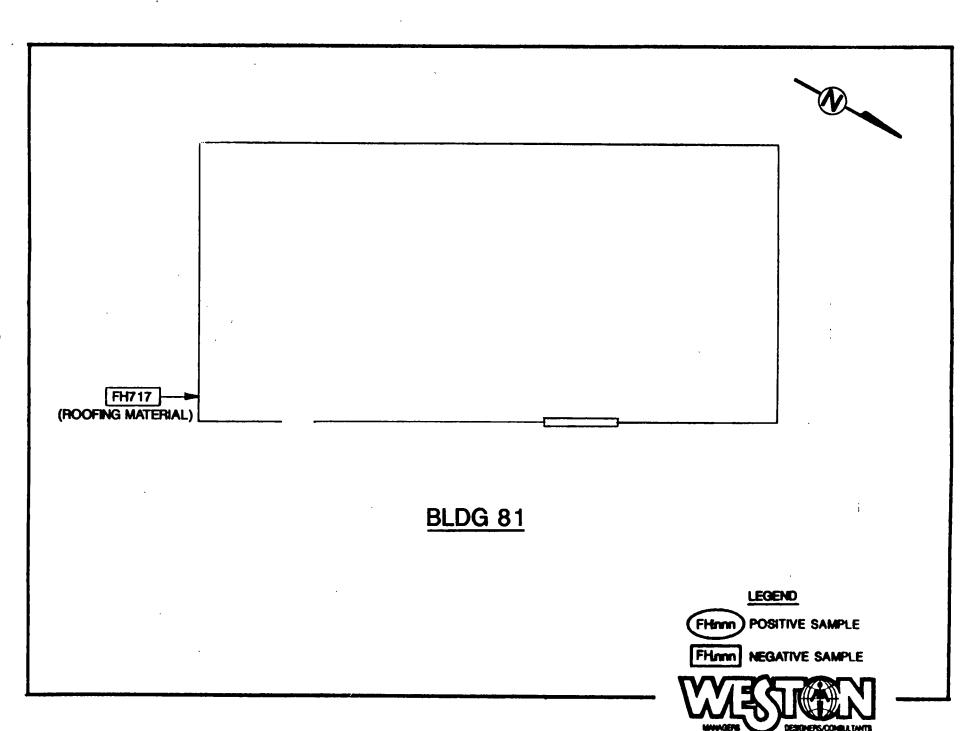
2 [=] Occupant Accessability 3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

COST ESTIMATE* - BUILDING 81, STOREHOUSE

No Asbestos Containing Material Detected In This Building



108 DISPATCH BUILDING

DISPATCH BUILDING

108.1 GENERAL

Building 108 was surveyed by WESTON technicians on 3 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 108.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 8 samples of suspect material collected from the building. Of these samples, 4 were found to be asbestos-containing materials (ACM). Table 108.1 lists the analytical results for the bulk samples.

108.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 108 are presented in Table 108.1. An area-by-area inventory of ACM is provided in Tables 108.2 and 108.3. "Other Asbestos-Containing Materials," listed in Table 108.3, are materials that do not correspond to the standard caption categories listed in Table 108.2. A prioritized listing of exposure assessments is presented in Table 108.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 108.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 108.2 and 108.5.

108.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing floor tile and expansion joints should be labeled under the O&M Program.

TABLE 108.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 108, DISPATCH BLDG.

SAMPLE	•			PERC	ENT ASBI	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION -	CH	AM	OT	LAYERED
FH726	DISPATCH OFFICE	FLOOR TILE	BROWN,OTH,FL TL	5	-	-	NO
FH727	DISPATCH OFFICE	FLOOR TILE	TAN,OTH,FL TL	-	-	-	NO
FH728	DISPATCH OFFICE	FLOOR TILE	GRAY,OTH,FL TL	-	-	-	NO
FH729	DISPATCH OFFICE	FLOOR TILE	BLUE,OTH,FL TL	-	-	-	NO
FH730	DISPATCH OFFICE	FLOOR TILE	TAN,OTH,FL TL	1	-	-	NO
FH731	DISPATCH OFFICE	FLOOR TILE	BROWN,OTH,FL TL	5	-	-	NO
FH732	DISPATCH OFFICE	OTHER MATERIAL	WHITE OTH ACOUS TILE	-	-	-	YES
FH733	MECH. ROOM	EXPANSION JOINT(S)	GRAY,OTH,EXP. CLOTH	50	-	-	NO

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

SW = Southwest

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest	•	
SE = Southeast		

TABLE 108.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 108, DISPATCH BLDG.

	PI	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ispatch Office	-	-	-	-	-	-	-	-	-	1.28	-	-	_
ech. Room		<u>-</u>	:		-	<u>:</u>					<u> </u>		
OTALS	-	-	-	-	-	-	-	-	-	1.28	-	-	*

Other Material Present In Various Units Of Measure

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

Table 108.3

Other Asbestos-Containing Material - Building 108, Dispatch Bldg. Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Mechanical Room	Expansion Joints	2.0 EA

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 108.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 108, DISPATCH BLDG.

SAMPLE	-		MATERIAL			EVD	OCLIB	F FA	CTORE	AVG.	٠	
NO.		AREA	MATERIAL Type	I NDEX CODE	I NDEX Number	<u>EXP</u>	<u>050k</u> 2 3	E FA	CTORS 5	EXP. HOURS	ASB.	
	•		· · · · · · · · · · · · · · · · · · ·		NOTIBLIT					1100110	7,501	
FH733	Mech. Ro	om E	XPANSION JOINTS	A	3.480E01	1	2 1	2	6	40.00	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 Accessability

3 [=] Material Condition

4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 108.5 COST ESTIMATE* - BUILDING 108, DISPATCH BLDG.

	UNIT COST (\$)	AREĄ	AREĄ	
DESCRIPTION	COST (\$)	11	2	TOTAL
Pipe Fittings (EA)	70:30 25:80 216:00	:	:	:
Pipe Runs (LF) 448" 9-14" >14"	26-50 30-50 60-80	:	:	:
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	7.2	-	7.2
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	~
Other		-	0.6	0.6
SUBTOTAL		7.2	0.6	7.8
Difficulty Allowance		-	0.3	0.3
SUBTOTAL		7.2	0.9	8.1
Decontamination Units Mobilization		1:8	1:8	3 :8
SUBTOTAL		9.7	3.4	13.1
Contingency @ 15.00%		1.5	0.5	2.0
SUBTOTAL		11.1	3.9	15.0
Design Fee a 10.00%		1.1	0.4	1.5
SUBTOTAL		12.2	4.3	16.5
Air Monitoring a 10.00%*	**	0.8	0.8	1.7
TOTAL		13.1	5.1	18.2

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Dispatch Office

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

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



BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-0242 CLIENT: E-Systems, Inc./SAI

JOB SITE: Bldg. 108 Bldg. 296 Bldg. 443

OB SITE:	2.00	510g. 274	0149. 713	
SAMPLE LOCATION	C89-46	C89-49	C89-50	
SAMPLE NUMBER	0242-1	0242-2	0242-3	
ASBESTOS*				
1. CHRYSOTILE	ND	ND	ND	
2. AMOSITE	ND	ND	ND	
3. CROCIDOLITE	ND	ND	ND	
4. OTHER	ND	ND	ND	
NON-ASBESTOS				
1. Cellulose	10-15%	5-8%	30-35%	
2. Fibrous Glass	30-35%	30-35%	8-10%	
3. Perlite				
4. Vermiculite				
5. Quartz		8-10%	10-15%	
6. Binders	BALANCE		BALANCE	
7. Mica				
8. Synthetic Fibers			8-10%	
9. Gypsum		15-20%		
10. Talc				
11. Calcite	8-10%	BALANCE		
12. Glass Beads	15-20%			

Analyst:	Date Analyzed:	1/31/89

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

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

SECTION 108.4 PHOTOGRAPHS



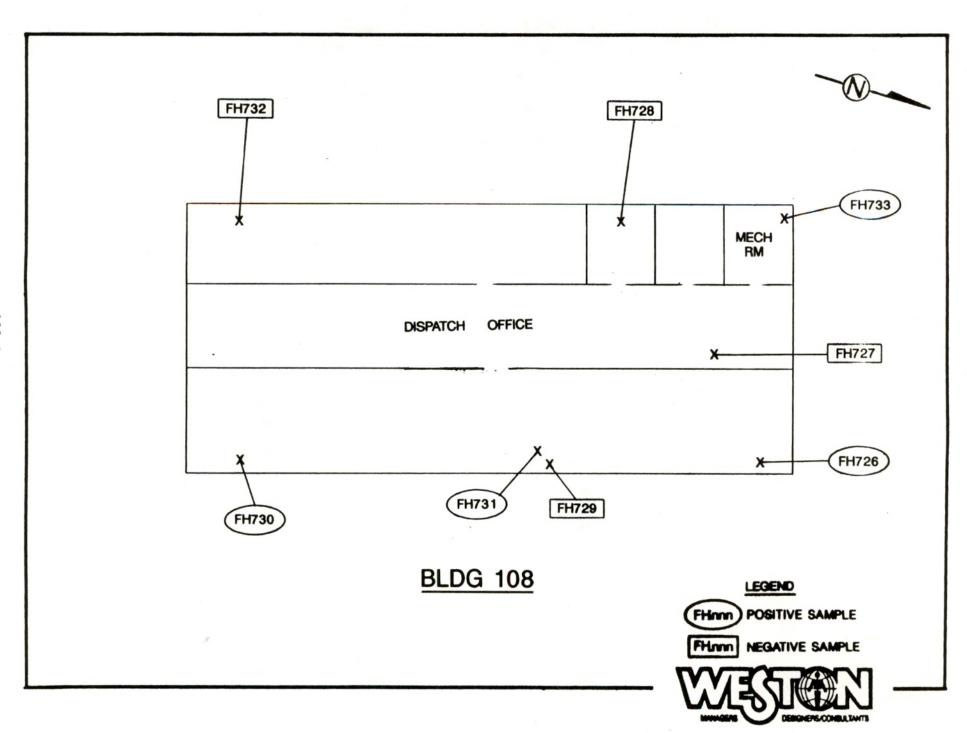
BLDG. 108

DISPATCH OFFICE: (SAMPLE FH726) BROWN 9" X 9" FLOOR TILE TESTED POSITIVE.



BLDG. 108

MECHANICAL ROOM: (SAMPLE FH733) EXPANSION JOINT TESTED POSITIVE.



117 WAREHOUSE

WAREHOUSE

117.1 GENERAL

Building 117 was surveyed by WESTON technicians on 4 April 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 8 samples of suspect material collected from the building. Of these samples, 5 were found to be asbestos-containing materials (ACM). Table 117.1 lists the analytical results for the bulk samples.

117.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 117 are presented in Table 117.1. An area-by-area inventory of ACM is provided in Tables 117.2 and 117.3. "Other Asbestos-Containing Materials," listed in Table 117.3, are materials that do not correspond to the standard caption categories listed in Table 117.2. A prioritized listing of exposure assessments is presented in Table 117.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 117.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 117.2 and 117.5.

117.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 117.1 BULK SAMPLE ANALYSIS RESULTS - BUILDING 117, WAREHOUSE

SAMPLE				PERC	ENT ASB	ESTOS	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	ОТ	LAYERED
FH734 MENS		CEILING TILE	WHITE,OTH,CL TL	-	-	_	YES
FH735 MENS		FLOOR TILE	TAN,OTH,FL TL	-	-	-	NO
FH736 CORRIDO	OR .	FLOOR TILE	GRAY,OTH,FL TL	5	-	-	NO
FH737 OFFICE	2	FLOOR TILE	TAN, OTH, FL TL	-	-	-	NO
FH738 WAREHO	JSE AREA	FLOOR TILE	GREEN,OTH,FL TL	3	-	-	NO
FH739 WAREHO	JSE AREA	FLOOR TILE	GRAY,OTH,FL TL	5	-	-	NO
FH740 WAREHO	JSE AREA	FLOOR TILE	BLACK,OTH,FL TL	2	-	-	NO
FH741 WAREHOU	JSE AREA	FLOOR TILE	GRAY,OTH,FL TL	45	-	-	NO

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		•
SW = Southwest		

TABLE 117.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 117, WAREHOUSE

	PI	PE FITT	INGS (EA)	<u> </u>		PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
Corridor	-	-	-	_	-	-	-	_	-	0.18	-	-	
ffice 1	-	-	-	-	-	-	-	-	•	0.32	-	-	-
arehouse Area				<u> </u>		<u> </u>	-		<u> </u>	5.14			<u>.</u>
OTALS	-	-	-	_	-	_	-	-	-	5,64	-		_

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 117.3

Other Asbestos-Containing Material - Building 117, Warehouse Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other A	Asbestos-Containing Material Found in the	his Building

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 117.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 117, WAREHOUSE

SAMPLE NO.	AREA	MATERIAL Type	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS 1 2 3 4 5	AVG. EXP. HOURS	% ASB.	
FH734	Mens	CEILING TILE	A	0	1 1 1 2 4	40.00	0	

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

- Exposure Factors

 1 [=] Material Friability

 2 [=] Occupant Accessability

 3 [=] Material Condition

 4 [=] Level Of Activity

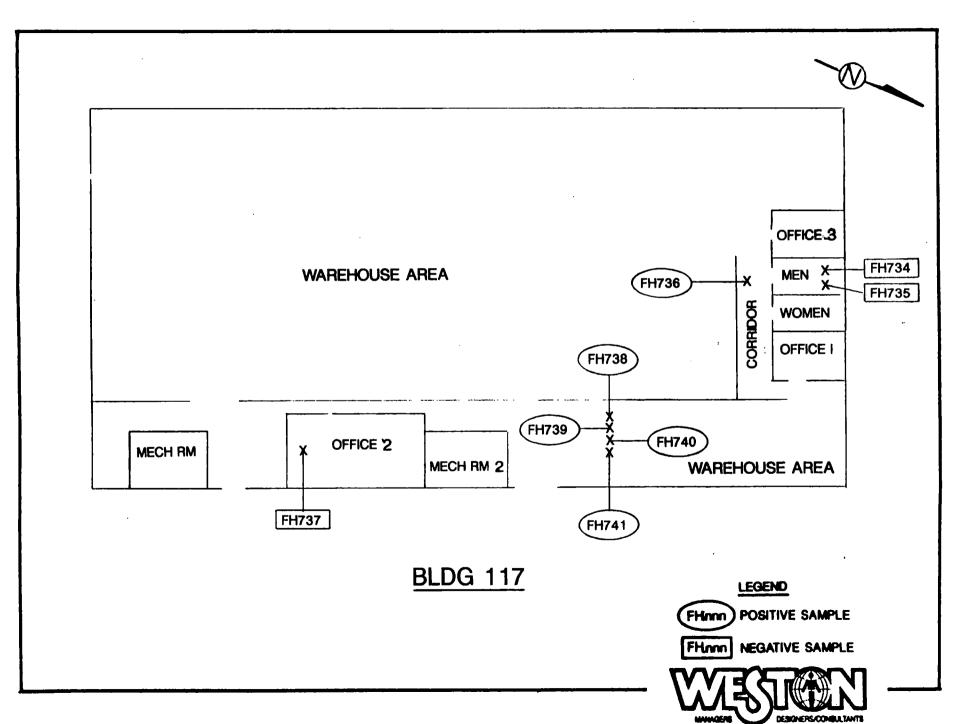
 5 [=] Number Of Assigned Occupants

TABLE 117.5 COST ESTIMATE* - BUILDING 117, WAREHOUSE

DECORADIAN	UNIT COST (\$)	AREĄ	AREA	AREĄ	TOTAL			
DESCRIPTION	LUSI (\$)	1		<u>.</u>	TOTAL	 	·	
ipe Fittings (EA)	70.30	-	-	•	-			•
4-8" 9-14" >14"	70.30 85.80 147.00 216.00	=		:	=			
	210.00	_	_	-	_			
ipe Runs (LF)	₹ 6-₹8	-	-	-	-			
4-8" 9-14" >14"	26.50 30.50 60.80	=	-	-	-			
prayed/Troweled Ceilings (SF)	9.60	-	-	-	-			
loor Tile (SF)	5.60	1.0	1.8	28.8	31.6			
oilers/Tanks (SF)	37.90	-	-	-	-			
ir Handling Equipment (SF)	20.00	, -	-	-	-			
ther		· <u>-</u>	-	-	-			
SUBTOTAL		1.0	1.8	28.8	31.6			
ifficulty Allowance		-	-	-	-			
SUBTOTAL		1.0	1.8	28.8	31.6			
econtamination Units		∂: ?	1:9	1:0 0:7	3.0			
SUBTOTAL		2.6	3.5	30.5	36.6			
ontingency a 15.00%		0.4	0.5	4.6	5.5			
SUBTOTAL		3.0	4.0	35.0	42.0			
esign Fee a 10.00%		0.3	0.4	3.5	4.2			
SUBTOTAL	-	3.3	4.4	38.5	46.2			
ir Monitoring a 10.00%	**	1.5	1.5	1.5	4.6			
TOTAL		4.9	5.9	40.1	50.9	 		

^{*}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



159 VEHICLE MAINTENANCE

VEHICLE MAINTENANCE

159.1 GENERAL

Building 159 was surveyed by WESTON technicians on 10 April 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 4 samples of suspect material collected from the building. Of these samples, all were found to be asbestos-containing materials (ACM). Table 159.1 lists the analytical results for the bulk samples.

159.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 159 are presented in Table 159.1. An area-by-area inventory of ACM is provided in Tables 159.2 and 159.3. "Other Asbestos-Containing Materials," listed in Table 159.3, are materials that do not correspond to the standard caption categories listed in Table 159.2. A prioritized listing of exposure assessments is presented in Table 159.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 159.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 159.2 and 159.5.

159.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- The mechanical room in Building 159 qualifies for the Army Asbestos Deficiency Abatement Project.
- All asbestos-containing floor tile should be labeled under the O&M Program.

DEH ENVIRONMENTAL DIVISION BLDG. 167; SELFM-EH-EV

BULK SAMPLE ANALYSIS

PLEASE PROVIDE A COPY OF THE LAB RESULTS

	Material	Low=1			Material
For the following use: High=3 Medium=2 Low=1 Good=1 Poor=2 Sample Material Occupant Level of Material Priability Accessibility Activity Conditions C92-734 / / / / C92-735 / / / / C92-736 2 / / / Laboratory name: New Jersey Professional Festing of Address: Holiday Blds St. Hwy 36 #121 West Long Brunch NO 07764 Technician: Bewelly Monroe Results: Color: Gree Orientation:			gh=3 Medium=2	units:	
Sample Material Occupant Level of Material ID# Friability Accessibility Activity Conditions C92-734 / / / / / C92-735 / / / / C92-736 2 / / / / Laboratory name: New Jersey Professional festing of Material Conditions Address: Holiday Blag St. Huy 36 #121 Wast Long Branch ND 07764 Technician: Beachy Monroe Results: Color: Greg Orientation:			gh=3 Medium=2		Quantity
ID# Friability Accessibility Activity Cond (92-734 / / / / (92-735 / / / / (92-736 2 / / / Laboratory name: New Jersey Professional desting of Address: Holiday Blas St. Huy 36 #121 Wast Cong Branch ND 07764 Technician: Beach Monroe Results: Color: Greg Orientation:		Taucl of	od=1 Poor=2	following use:	For the i
Laboratory name: New Jersey Professional festing Address: Holiday Blag St. Hwy 36 #121 Wast cong Branch ND 07764 Technician: Benerly Monroe Results: Color: Grey Orientation:	/		_		
Laboratory name: New Jersey Professional testing Address: Holiday Bldg St. Hwy 36 #121 Wast cong Branch ND 07764 Technician: Beverly Monroe Results: Color: Greg Orientation:		1	/	1	C92-734
Laboratory name: New Jersey Professional Festing of Address: Holiday Bldg St. Hwy 36 #121 West cong Branch ND 07764 Technician: Beverly Monroe Results: Color: Grey Orientation:	/	/	/	1	C92-735
Address: Holiday Blag St. Hwy 36 #121 West Long Branch NO 07764 Technician: Beverly Monroe Results: Color: Greg Orientation:	/	/	/	2	c92-736
Technician: Beverly Monroe Results: Color: Greg Orientation:					I
Results: Color: Green	764	N) 07	long Breach	Was	
Orientation:		1 2	ly Monroe	nnician: Bec	Tech
				color: Greg	Results:
Description: 734+735-Cement 736-Space			<u> </u>	Orientation:_	
	Spacer on	736 -	+735- Cement	Description:	
Type of Asbestos: 734+735 ND 736-70 Content: 70%			1		
Please circle the appropriate category:	7 7 7 7				Please ci
PES CITY UNITS MATERIAL TYPES CITY UNITS DEFICULTY FACTORS	TOPS	DEFICULTY FAC	1		
TINGS <4° EA L AIR HANDLING EQUIP, MSF COMPONENT CRITERIA	DEFFIC				

MATERIAL HEIGHT (MH)

COMPLEXITY (CPX)

O TO 10 Ft ABOVE GRADE 1.0

>10 TO 20 Ft ABOVE GRADE...1.5

>20 Ft ABOVE GRADE......2.0

FLOOR TILE

K BOILERS/TANKS

RAY/TROWEL MATE

TRANS. CORR PANEL

TRANS. PANEL BO.

M OTHER MAT'L (NOTES)
Z OTHER MAT'L (NOTES)

TABLE 159.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 159, VEH. MAINT.

SAMP	.E				PERCI	ENT ASB	ESTOS	_
NO		LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED ⁸
FH7	9 MECH. ROOM		EXPANSION JOINT(S)	GRAY,OTH,EXP CLOTH	90	-	-	NO
FH7	0 STORAGE		FLOOR TILE	TAN,OTH,FL TL	5	-	-	YES
FH7	1 REC. ROOM		FLOOR TILE	GREEN, OTH, FL TL	1	-	-	NO
FH7	2 STORAGE 2		FLOOR TILE	BLACK,OTH,FL TL	8		-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		

TABLE 159.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 159, VEH. MAINT.

	P1	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4 ¹¹	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	· (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ech. Room	-	-	-	-	-	-	-	-	-	-	-	-	*
ec. Room	-	-	-	-	-	-	-	-	-	0.32	-	-	-
torage	-	-	-	-	-	-	-	-	-	0.13	-	•	-
torage 2				<u></u>	<u></u>			<u>-</u>	<u></u>	0.02			
OTALS	-	_	-	-	-	_	_	_	-	0.46	-	-	*

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 159.3

Other Asbestos-Containing Material - Building 159, Vehicle Maintenance Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Mechanical Room	Expansion Joints	6.0 EA

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 159.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 159, VEH. MAINT.

SAMPLE No. AF	MATERIAL EA TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXP(OSUR 2 3	E F/	ACTORS 5	AVG. EXP. Hours	% ASB.
FH789 Mech. Room	EXPANSION JOINTS	С	3.000E04	2 2	2 2	. 3	1	40.00	90

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

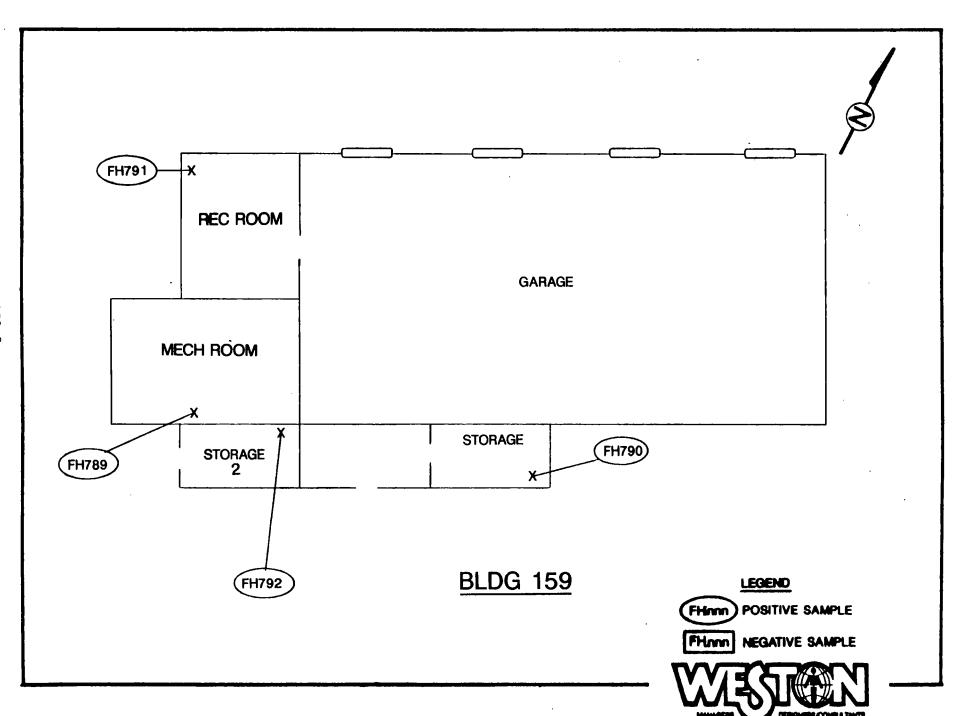
TABLE 159.5 COST ESTIMATE* - BUILDING 159, VEH. MAINT.

	UNIT COST (\$)	AREĄ	AREĄ	AREĄ	AREĄ	
DESCRIPTION	COST (\$)	1	2	3	. 4	TOTAL
Pipe Fittings (EA)	70.30	-	-	-	-	· <u>-</u>
4 ⁻ 8" 9-14" >14"	70.30 147.00 216.00	=	-	-	:	=
	216.00	-	•	-	•	-
Pipe Runs (LF)	26.50	-	-	-	-	-
4-8" 9-14" >14"	26.50 30.50 42.50 60.80	-	-	-	-	-
	60.60	-	•	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-
Floor Tile (SF)	5.60	-	1.8	0.7	**	2.6
Boilers/Tanks (SF)	37.90	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-	-
Other		1.8	•	-	-	1.8
SUBTOTAL		1.8	1.8	0.7	**	4.4
Difficulty Allowance		-	-	-	-	-
SUBTOTAL		1.8	1.8	0.7	**	4.4
Decontamination Units Mobilization		0:8 0:5	8: 8	8: 8	8: 8	3:0
SUBTOTAL		3.1	3.0	2.0	1.3	9.4
Contingency a 15.00%		0.5	0.5	0.3	0.2	1.4
SUBTOTAL		3.5	3.5	2.2	1.5	10.8
Design Fee @ 10.00%		0.4	0.3	. 0.2	0.2	1.1
SUBTOTAL		3.9	3.8	2.5	1.7	11.9
Air Monitoring a 10.00%	K***	0.3	0.3	0.3	0.3	1.2
TOTAL		4.2	4.1	2.8	2.0	13.0

^{*}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



197 VEHICLE MAINTENANCE

VEHICLE MAINTENANCE

197.1 GENERAL

Building 197 was surveyed by WESTON technicians on 8 April 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 1 sample of suspect material collected from the building. It was found to be asbestos-containing material (ACM). Table 197.1 lists the analytical result for the bulk sample.

197.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical result for the bulk sample from Building 197 is presented in Table 197.1. An area-by-area inventory of ACM is provided in Tables 197.2 and 197.3. "Other Asbestos-Containing Materials," listed in Table 197.3, are materials that do not correspond to the standard caption categories listed in Table 197.2. A prioritized listing of exposure assessments is presented in Table 197.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 197.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 197.2 and 197.5.

197.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 197.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 197, VEHICLE MAINT.

SAMPLE				PERCI	ENT ASB	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH804 WORK	SHOP	EXPANSION JOINT(S)	GRAY,OTH,EXP. CLOTH	75	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos_Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

TABLE 197.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 197, VEHICLE MAINT.

	P	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14#	<411	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
kshop								<u> </u>	-		-	<u> </u>	
ALS	_	_	-	_	-	-	-	-	-	-	-	-	*

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 197.3

Other Asbestos-Containing Material - Building 197, Vehicle Maintenance Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Workshop	Expansion Joints	1.0 EA

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 197.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 197, VEHICLE MAINT.

SAMPLE NO.	AREA	MATERIAL Type	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPOSURE FACTORS 1 2 3 4 5	AVG. EXP. HOURS	X ASB.
FH804	Workshop	EXPANSION JOINTS	A	6.200E-3	1 1 1 1 . 2	40.00	75

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

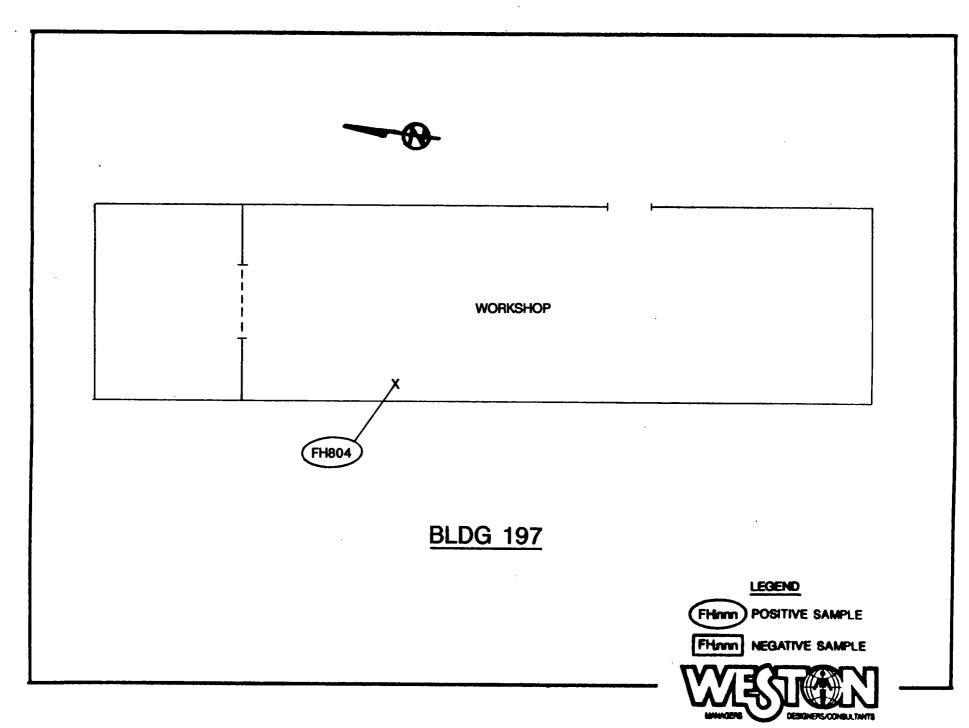
TABLE 197.5 COST ESTIMATE* - BUILDING 197, VEHICLE MAINT.

	INTT	ADEA	
DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL
Pipe Fittings (EA)	70.30	-	-
4 ⁷ 8" 9-14" >14"	70.30 147.00 216.00	:	=
Pipe Runs (LF)			
\$4.8" 9-14" >14"	26.50 22.50 60.80	=	:
₹ <u>1</u> 4#"	36:88	=	:
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	-	-
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		0.3	0.3
SUBTOTAL		0.3	0.3
Difficulty Allowance		-	-
SUBTOTAL		0.3	0.3
Decontamination Units Mobilization		3 :8	3:8
SUBTOTAL		5.3	5.3
Contingency @ 15.00%		0.8	0.8
SUBTOTAL		6.1	6.1
Design Fee a 10.00%		0.6	0.6
SUBTOTAL		6.7	6.7
Air Monitoring a 10.00%		0.7	0.7
TOTAL		7.4	7.4

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Workshop

^{***}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
****The Minimum Air Monitoring Fee is \$500.00 Per Building



198 VEHICLE STORAGE

VEHICLE STORAGE

198.1 GENERAL

Building 198 was surveyed by WESTON technicians on 9 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 198.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 3 samples of suspect material collected from the building. Of these samples, all were found to be asbestos-containing materials (ACM). Table 198.1 lists the analytical results for the bulk samples.

198.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 198 are presented in Table 198.1. An area-by-area inventory of ACM is provided in Tables 198.2 and 198.3. "Other Asbestos-Containing Materials," listed in Table 198.3, are materials that do not correspond to the standard caption categories listed in Table 198.2. A prioritized listing of exposure assessments is presented in Table 198.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 198.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 198.2 and 198.5.

198.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

All asbestos-containing transite and floor tile should be labeled under the O&M Program.

TABLE 198.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 198, VEH. STORAGE

SAMPLE				PERCE	NT ASB	STOS	
NO.	LOCATION	ITEM	DESCRIPTION	СН	MA	OT	LAYERED
FH797	MAIN STORAGE AREA	FLOOR TILE	BROWN,OTH,FL TL	10	-	-	YES
FH798	MAIN STORAGE AREA	FLOOR TILE	TAN,OTH,FL TL	10	-	-	YES
FH799	MECHANICAL ROOM	TRANSITE PANEL BOARD	GRAY,OTH,TRANS PANL	20	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

TABLE 198.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 198, VEH. STORAGE

	PI	PE FITT	INGS (EA)	<u> </u>		PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	· (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
Main Storage Area	-	-		-	-	-	-	-	-	0.88	-	-	-
lechanical Room	<u></u> :	<u></u>				-	-	<u> </u>					*
TOTALS	-	-	_	-	-	-	-	-	-	0.88		•	*

Other Material Present In Various Units Of Measure

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

.

Other Asbestos-Containing Material - Building 198, Vehicle Storage Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Mechanical Room	Transite Panel	0.500 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 198, VEH. STORAGE

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

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 198.5 COST ESTIMATE* - BUILDING 198, VEH. STORAGE

DESCRIPTION	UNIT COST (\$)	AREA	AREA	TOTAL
Pipe Fittings (EA)		-	•	-
3-8" 3-14" >14"	70.30 147.00 216.00	:	-	-
Pipe Runs (LF)	26- 50	-	-	-
4 ⁻ 8" 9-14" >14"	26.50 30.50 40.80	:	:	=
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	4.9	-	4.9
Boilers/Tanks (SF)	37.90	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-
Other		-	5.5	5.5
SUBTOTAL		4.9	5.5	10.4
Difficulty Allowance		-	-	-
SUBTOTAL		4.9	5.5	10.4
Decontamination Units Mobilization		1:8	1:8	3:8
SUBTOTAL		7.4	8.0	15.4
Contingency a 15.00%		1.1	1.2	2.3
SUBTOTAL		8.5	9.2	17.7
Design Fee a 10.00%		0.9	0.9	1.8
SUBTOTAL	***	9.4	10.1	19.5
Air Monitoring a 10.00%	***	1.0	1.0	2.0
TOTAL		10.4	11.1	21.5

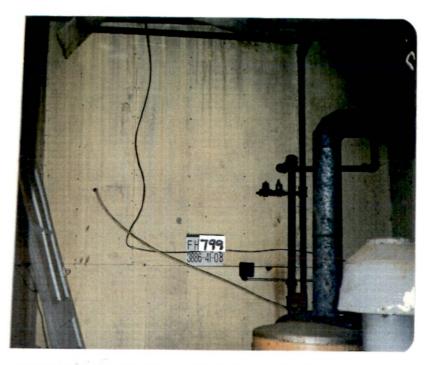
^{*}Amounts Are In Thousands Of Dollars

AREA 1: Main Storage Area

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

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

SECTION 198.4 PHOTOGRAPHS



BLDG. 198

MECHANICAL ROOM: (SAMPLE FH799) TRANSITE PANEL BOARD TESTED POSITIVE.

264 FAMILY HOUSING

FAMILY HOUSING

264.1 GENERAL

Building 264 was surveyed by WESTON technicians on 10 April 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 6 samples of suspect material collected from the building. Of these samples, 5 were found to be asbestos-containing materials (ACM). Table 264.1 lists the analytical results for the bulk samples.

264.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 264 are presented in Table 264.1. An area-by-area inventory of ACM is provided in Tables 264.2 and 264.3. "Other Asbestos-Containing Materials," listed in Table 264.3, are materials that do not correspond to the standard caption categories listed in Table 264.2. A prioritized listing of exposure assessments is presented in Table 264.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 264.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 264.2 and 264.5.

264.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing pipe run insulation and floor tile should be labeled under the O&M Program.

TABLE 264.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 264, FAMILY HOUSING

SAMPLE				PERC	<u>ent</u> asbi	ESTOS	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH774	UNIT 31 - BEDROOM 1	<4" PIPE RUN	GRAY, HHW, PIPE RUN	25	_	-	YES
FH775	UNIT 31 - BEDROOM 1	<4" PIPE RUN	GRAY, HHW, PIPE RUN	25	-	-	YES
FH776	UNIT 31 - KITCHEN	FLOOR TILE	TAN,OTH,FL TL	-	-	-	NO
FH777	UNIT 31 - STAIR 2	FLOOR TILE	BROWN,OTH,FL TL	3	-	-	YES
FH778	UNIT 31 - ATTIC	<4" PIPE RUN	GRAY,UNK,PIPE RUN	3	-	-	NO
FH779	UNIT 31 - ATTIC	FLOOR TILE	BROWN,OTH,FL TL	2	-	1	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water .	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown .	
NW = Northwest		
SE = Southeast		

	PI	PE FITT	INGS (EA)			PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
Init 31 - Attic	-	-	_	-	6	_	-	-	-	0.24	-	-	-
nit 31 - Bedroom 1	-	-	-	-	20	-	-	-	-	•	-	-	-
nit 31 - Stair 2	-			-		<u>-</u>				0.05			
DTALS	-	-	-	-	26	_	-	-	-	0.29	_	-	_

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 264.3

Other Asbestos-Containing Material - Building 264, Family Housing Type Occupancy: Adults (Public)

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

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 264.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 264, FAMILY HOUSING

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EVDOCUDE	EACTORS	AVG. EXP.	~
NO.	AREA	TYPE	CODE	NUMBER	EXPOSURE 1 2 7	/ E	HOURS	ASB.
FH774	Unit 31 - Bedroom 1	<4" PÎPE RUN		2.600E-2	1 1 1	2 4	40.00	25
FH775	Unit 31 - Bedroom 1	<4" PIPE RUN	Ä	2.600E-2	iii	2 4	40.00	25
FH778	Unit 31 - Attic	<4" PIPE RUN	A	4.400E-3	1 1 1	2 4	40.00	3

Priority Index Codes

A [=] Long Term Corrective Measure
B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

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

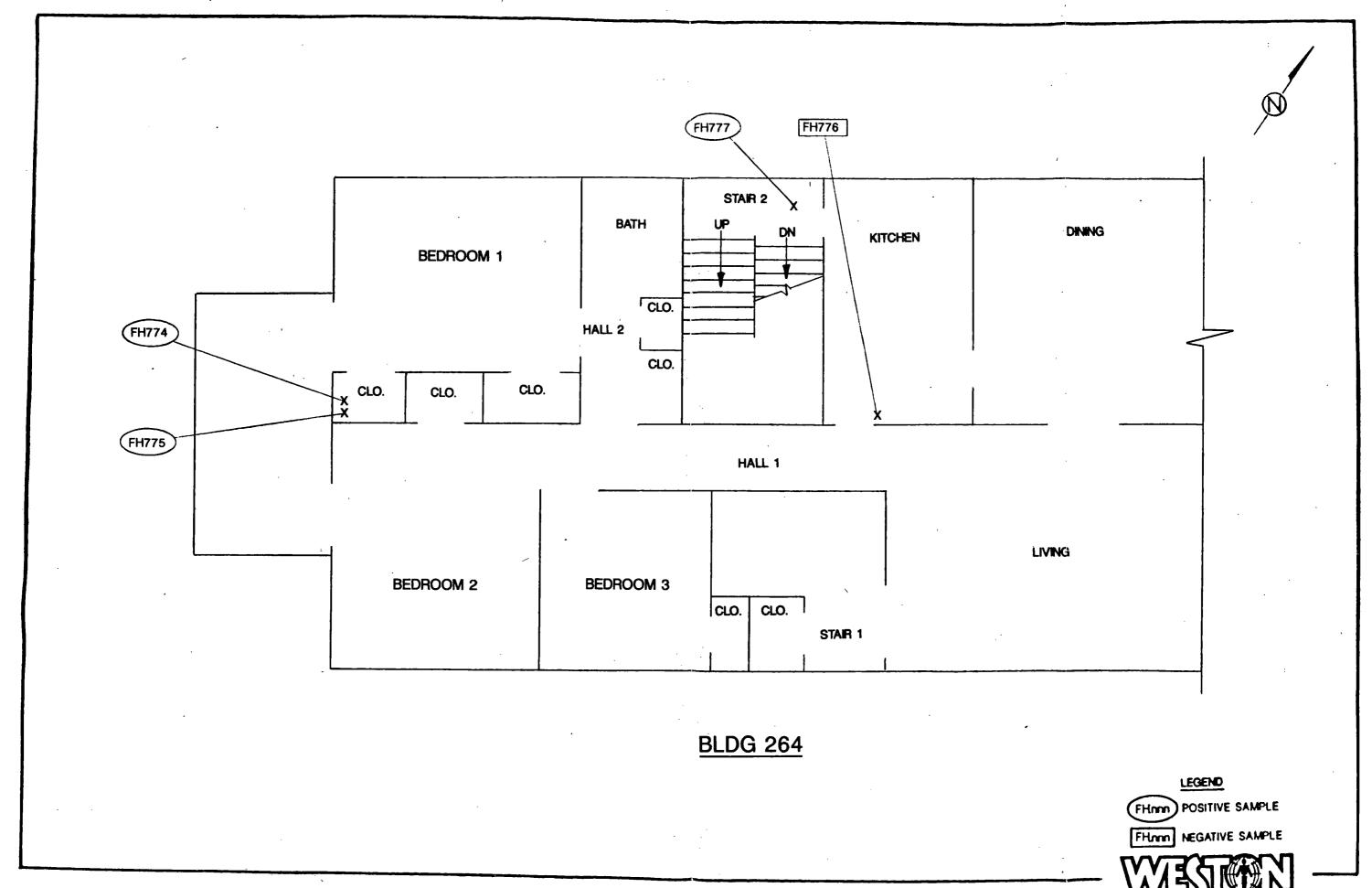
TABLE 264.5 COST ESTIMATE* - BUILDING 264, FAMILY HOUSING

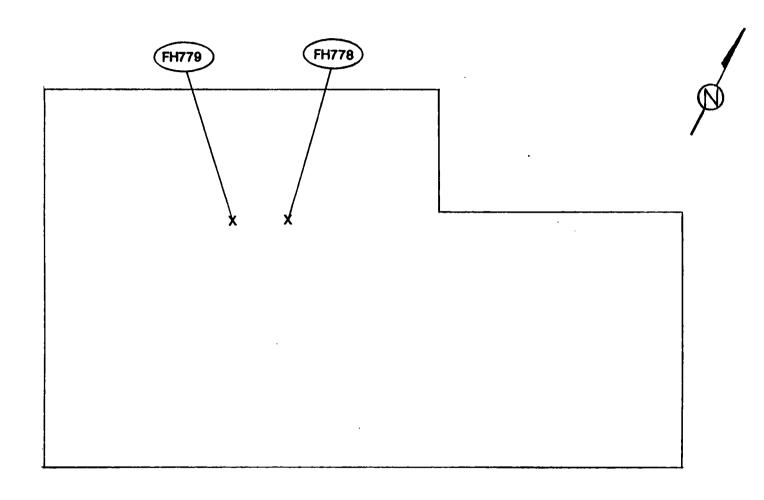
	UNIT	AREĄ	AREĄ	AREĄ	
DESCRIPTION	COST (\$)	<u> </u>	2	3	TOTAL
Pipe Fittings (EA)	70-30	<u>-</u>	•	:	<u>-</u>
3 ⁻ 8" 9-14" >14"	70.30 147.00 216.00	-	-	=	-
Pipe Runs (LF)	26.50	0.2	0.5		0.7
≩-8" 9-14" >14"	26.50 30.50 42.50 60.80	•	:	:	:
	60.60	-	•	-	•
Sprayed/Troweled Ceilings (SF)	9.60	-	•	•	-
Floor Tile (SF)	5.60	1.3	-	0.3	1.6
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00		-		-
Other			-	-	-
SUBTOTAL		1.5	0.5	0.3	2.3
Difficulty Allowance		-	•	•	-
SUBTOTAL		1.5	0.5	0.3	2.3
Decontamination Units Mobilization		∂: 9	1: 9	∂: 9	3:8
SUBTOTAL		3.2	2.2	1.9	7.3
Contingency a 15.00%		0.5	0.3	0.3	1.1
SUBTOTAL		3.6	2.5	2.2	8.4
Design Fee @ 10.00%		0.4	0.3	0.2	8.0
SUBTOTAL		4.0	2.8	2.5	9.3
Air Monitoring a 10.00%	**	0.3	0.3	0.3	0.9
TOTAL		4.3	3.1	2.8	10.2

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Unit 31 - Attic 2

^{***}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
****The Minimum Air Monitoring Fee is \$500.00 Per Building





ATTIC-BLDG 264





FHnnn) POSITIVE SAMPLE



FHANN NEGATIVE SAMPLE



265 FAMILY HOUSING

FAMILY HOUSING

265.1 GENERAL

Building 265 was surveyed by WESTON technicians on 10 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 265.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 3 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 265.1 lists the analytical results for the bulk samples.

265.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 265 are presented in Table 265.1. An area-by-area inventory of ACM is provided in Tables 265.2 and 265.3. "Other Asbestos-Containing Materials," listed in Table 265.3, are materials that do not correspond to the standard caption categories listed in Table 265.2. A prioritized listing of exposure assessments is presented in Table 265.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 265.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 265.2 and 265.5.

265.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 265.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 265, FAMILY HOUSING

SAMPLE		•		PERCE	ENT ASB	<u>estos</u>	
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	LAYERED
FH772	UNIT 39 - BEDROOM 1	<4" PIPE RUN	WHITE, HHW, PIPE RUN	5	15	_	YES
FH773	UNIT 39 - ATTIC	FLOOR TILE	TAN,OTH,FL TL	4	-	-	NO
FH803	UNIT 39 - BEDROOM 1	<4" PIPE RUN	WHITE, KHW, PIPE RUN	3	25	-	YES

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	•
NW = Northwest		
SE = Southeast		
SW = Southwest		

	PIPE FITTINGS (EA)				PIPE RUNS (LF)			SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING		
AREA	<4"	4-8"	9-14"	>14"	<411	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTH
nit 39 - Attic	-	-	-	-	-	_	-		-	0.15	-	-	
it 39 - Bedroom 1	-	-	-	-	20	-	-	-	-	-	-	-	
it 39 - Stair 2				-		-				0.09			_
TALS	-	-	-	-	20	-	-		-	0.23	-	•	

^{*} Other Material Present In Various Units Of Measure

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

Other Asbestos-Containing Material - Building 265, 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

TABLE 265.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 265, FAMILY HOUSING

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EXPO	SUR	E FA	CTORS	AVG. Exp.	×
NO.	AREA	TYPE	CODE	NUMBER	1 2	3	4	5	HOURS	ASB.
FH772	Unit 39 - Bedroom 1	<4" PIPE RUN	А	2.600E-2	1 1	1	2	4	40.00	20
FH803	Unit 39 - Bedroom 1	<4" PIPE RUN	A	2.600E-2	1 1	1	2	4	40.00	28

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 265.5 COST ESTIMATE* - BUILDING 265, FAMILY HOUSING

DESCRIPTION	UNIT COST (\$)	AREA	AREA 2	AREA	TOTAL
Pipe Fittings (EA)	70.30 85.80 127.00 216.00	:	:	Ē ·	:
Pipe Runs (LF) 44" 9-14" >14"	26.50 30.50 60.80	:	0.5	:	0.5
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	0.8	-	0.5	1.3
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		-	-	-	-
SUBTOTAL		0.8	0.5	0.5	1.8
Difficulty Allowance		-	-	-	-
SUBTOTAL		0.8	0.5	0.5	1.8
Decontamination Units Mobilization		∂: ?	∂: 9	∂: 9	3:8
SUBTOTAL		2.5	2.2	2.1	6.8
Contingency a 15.00%		0.4	0.3	0.3	1.0
SUBTOTAL		2.9	2.5	2.5	7.9
Design Fee @ 10.00%		0.3	0.3	0.2	0.8
SUBTOTAL		3.1	2.8	2.7	8.6
Air Monitoring a 10.00%	***	0.3	0.3	0.3	0.9
TOTAL		3.4	3.1	3.0	9.5

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Unit 30 - Attic AREA 3: Unit 39 - Stair 2

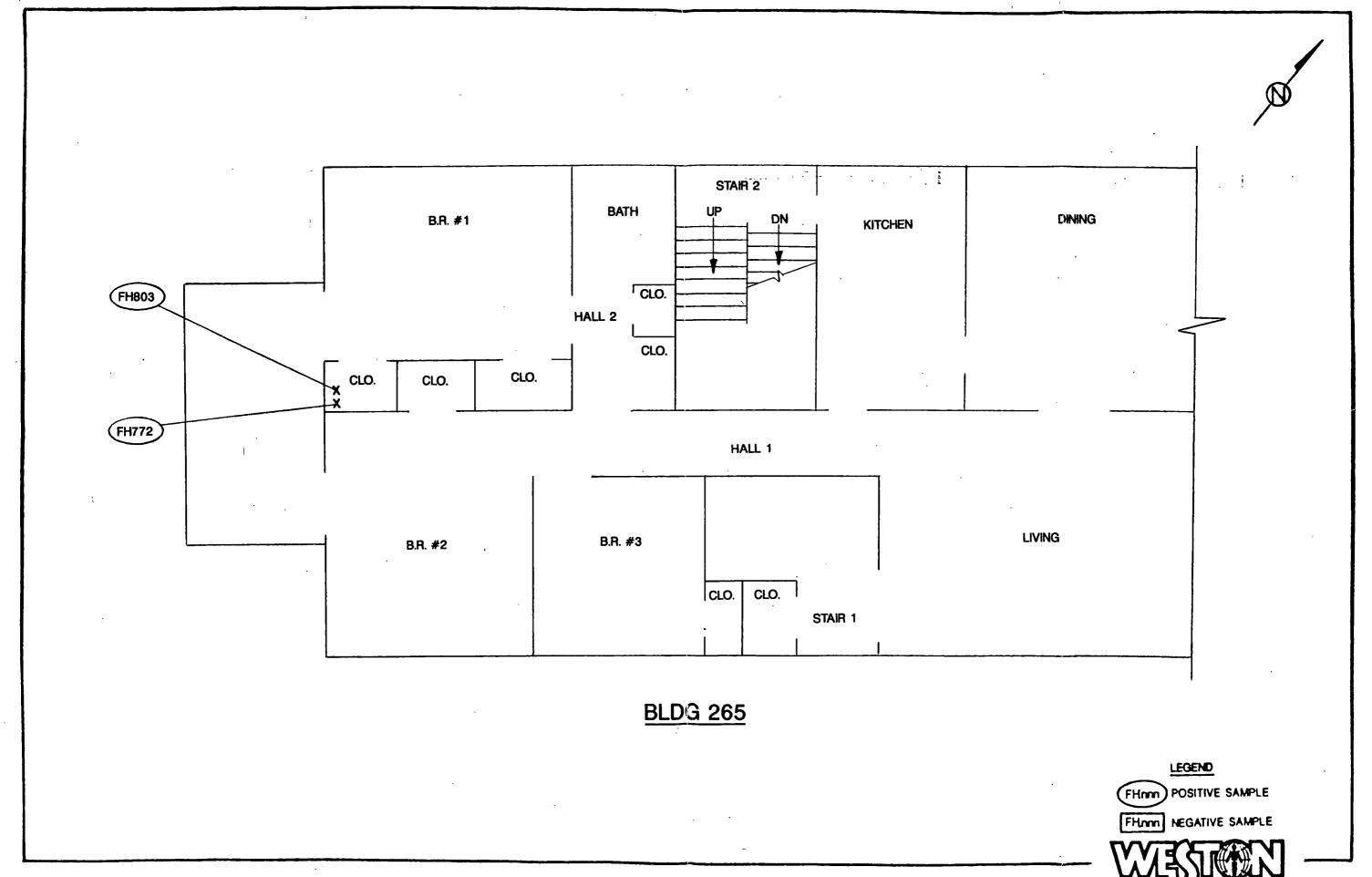
^{**}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
***The Minimum Air Monitoring Fee is \$500.00 Per Building

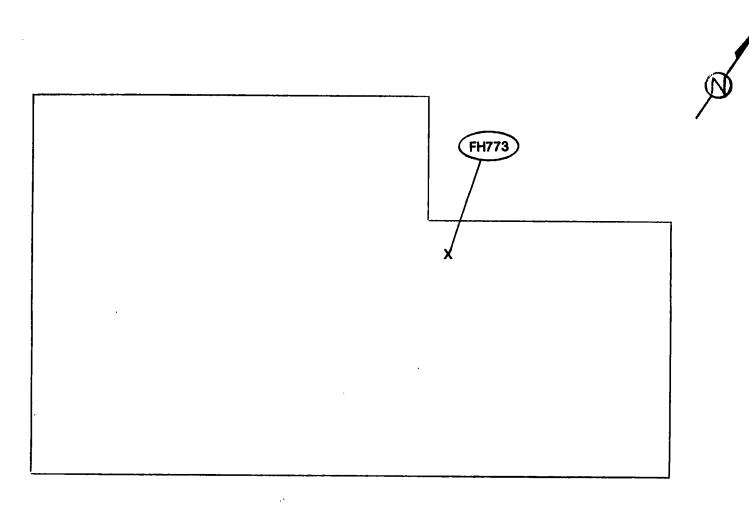
SECTION 265.4 PHOTOGRAPHS



BLDG. 265

SECOND FLOOR, BEDROOM #1: (SAMPLE FH803) <4" PIPE RUN INSULATION TESTED POSITIVE.





ATTIC-BLDG 265



279

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279 VEHICLE MAINTENANCE

VEHICLE MAINTENANCE

279.1 GENERAL

Building 279 was surveyed by WESTON technicians on 8 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 279.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 4 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 279.1 lists the analytical results for the bulk samples.

279.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 279 are presented in Table 279.1. An area-by-area inventory of ACM is provided in Tables 279.2 and 279.3. "Other Asbestos-Containing Materials," listed in Table 279.3, are materials that do not correspond to the standard caption categories listed in Table 279.2. A prioritized listing of exposure assessments is presented in Table 279.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 279.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 279.2 and 279.5.

279.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 279.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 279, VEH. MAINT.

_	STOS	NT ASBE	PERCE				SAMPLE	
LAYERED'	OT	AM	CH	DESCRIPTION	ITEM	LOCATION	NO.	
NO	-	-	7	GREEN,OTH,FL TL	FLOOR TILE	CE	FH793 OFFICE	
NO	-	-	2	BLACK,OTH,FL TL	FLOOR TILE	CE	FH794 OFFICE	
YES	-	-	-	GRAY, OTH, FL TL	FLOOR TILE	CE	FH795 OFFICE	
YES	-	-	-	WHITE,OTH,CL TL	CEILING TILE	CE	FH796 OFFICE	

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

	P	IPE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ffice	<u> </u>		<u>:</u>	-						0.18			
TALS	_	-	-	-	-	-		-	-	0.18	_	_	_

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Other Asbestos-Containing Material - Building 279, Vehicle Maintenance Type Occupancy: Adults (Public)

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

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 279.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 279, VEH. MAINT.

SAMPLE NO.	AREA	MATERIAL TYPE	PRIOR. INDEX CODE	PRIORITY INDEX NUMBER	EXPC	OSURI 2 3	E · FA 4	CTORS 5	AVG. EXP. HOURS	X ASB.	
FH796	Office	CEILING TILE	, A	0	2 1	1 1	1	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 Accessability
 3 [=] Material Condition

- 4 [=] Level Of Activity
 5 [=] Number Of Assigned Occupants

TABLE 279.5

COST ESTIMATE* - BUILDING 279, VEH. MAINT.

	110177	4054		
DESCRIPTION	UNIT COST (\$)	AREA	TOTAL	
Pipe Fittings (EA)	70.30	=	:	
3-74" >14"	70.30 17.00 216.00	:	:	
Pipe Runs (LF)	26.50		-	
4-8" 9-14" >14"	26.50 30.50 42.50 60.80	:	:	
	60.80	-	•	
Sprayed/Troweled Ceilings (SF)	9.60	-	-	
Floor Tile (SF)	5.60	1.0	1.0	
Boilers/Tanks (SF)	37.90	-	-	
Air Handling Equipment (SF)	20.00	-	-	
Other		-	-	
SUBTOTAL		1.0	1.0	
Difficulty Allowance		-	•	
SUBTOTAL		1.0	1.0	
Decontamination Units Mobilization		3:8	3 :8	
SUBTOTAL	•	6.0	6.0	
Contingency a 15.00%		0.9	0.9	
SUBTOTAL		6.9	6.9	
Design Fee @ 10.00%		0.7	0.7	
SUBTOTAL	***	7.6	7.6	
Air Monitoring @ 10.00%		<u>0.8</u>	0.8	
TOTAL		8.4	8.4	

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Office

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

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



BULK SAMPLE ANALYSIS REPORT

TEST REPORT NO. NAC89A-0447

CLIENT: E-Systems, Inc.

Bldg 166 Riverside Dr. Fort Monmouth, NJ

JOB SITE:

Bldg. 279 Bidg. 9061

	0	100		
SAMPLE LOCATION	C89-62	C89-63		
SAMPLE NUMBER	89A-0447-1	89A-0447-2		
ASBESTOS				
1. CHRYSOTILE	65-70%	ND		
2. AMOSITE	ND	ND	4 /	
3. CROCIDOLITE	ND	ND		
4. OTHER	ND	ND		0.4
NON-ASBESTOS				
1. Cellulose	3-5%	10-15%		
2. Fibrous Glass				
3. Perlite				
4. Vermiculite				
5. Quartz	3-5%	5-8%		
6. Binders	5-8%	5-8%		
7. Mica		4		
8. Synthetic Fibers	1	3-5%		
9. Calcite	Balance	Balance		
10. Other				

Analyst: KDR	Date Analyzed: 2/23/89	
Allatyst:	Date Analyzed: 2/23/89	

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

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

SECTION 279.4 PHOTOGRAPHS



BLDG. 279

OFFICE AREA: BLACK AND GREEN 9" X 9" FLOOR TILES TESTED POSITIVE. (SAMPLES FH793 AND FH794).

285 EQUIPMENT MAINTENANCE SHOP

EQUIPMENT MAINTENANCE SHOP

285.1 GENERAL

Building 285 was surveyed by WESTON technicians on 3 June 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 5 samples of suspect material collected from the building. Of these samples, 2 were found to be asbestos-containing materials (ACM). Table 285.1 lists the analytical results for the bulk samples.

285.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 285 are presented in Table 285.1. An area-by-area inventory of ACM is provided in Tables 285.2 and 285.3. "Other Asbestos-Containing Materials," listed in Table 285.3, are materials that do not correspond to the standard caption categories listed in Table 285.2. A prioritized listing of exposure assessments is presented in Table 285.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 285.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 285.2 and 285.5.

285.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 285.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 285, EQUIP. MAINT. SHOP

SAMPLE				PERC	ENT ASBI	<u>ESTOS</u>	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH885 LATE	LINE	CEILING TILE	WHITE,OTH,1X1 FL TL	-	-	-	YES
FH886 LATE	INE	FLOOR TILE	GRAY,OTH,1X1 FL TL	2	-	1	YES
FH887 OFFI	CE	CEILING TILE	WHITE,OTH,1X1 CL TL	-	-	-	YES
FH888 OPEN	OFFICE	CEILING TILE	WHITE,OTH,1X1 CL TL	-	-	-	YES
FH889 OPEN	I OFFICE	FLOOR TILE	GRAY,OTH,1X1 FL TL	2	-	1	YES

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SU = Southwest		

	P1	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	< 4 ¹¹	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
LATRINE	-	_	_	-	-	-	-	-	-	0.10	-	-	
OPEN OFFICE								:		0.49		<u>-</u>	
TOTALS	-	-	-	-	-	-	-	-	-	0.58	-	•	

^{*} Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Other Asbestos-Containing Material - Building 285, Equipment Maintenance Shop Type Occupancy: Adults (Public)

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

- Each EA

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 285.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 285, EQUIP. MAINT. SHOP

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EXPO:	SURE	FAC	CTORS	AVG. EXP.	%	
NO.	AREA	ТҮРЕ	CODE	NUMBER	1 2	3	4	5	HOURS	ASB.	
FH885	LATRINE	CEILING TILE	A	0	1 2	1	3	10	40.00	0	
FH887	OFFICE	CEILING TILE	Α	0	1 2	1	3	10	40.00	0	
FH888	OPEN OFFICE	CEILING TILE	Α	. 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 Accessability
3 [=] Material Condition
4 [=] Level Of Activity
5 [=] Number Of Assigned Occupants

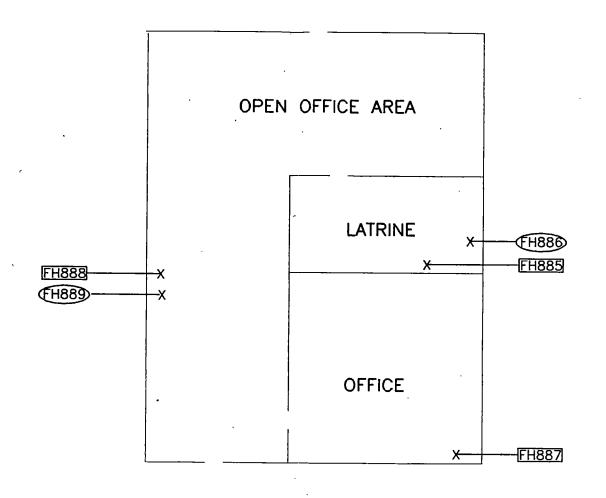
TABLE 285.5 COST ESTIMATE* - BUILDING 285, EQUIP. MAINT. SHOP

			•	
DESCRIPTION	UNIT COST (\$)	AREA	AREA	TOTAL
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 146.70	:	:	-
	218:00	-		-
Pipe Runs (LF)	26.50	-	-	•
4-8" 9-14" >14"	26.50 30.50 42.50 60.80	:	Ξ	Ξ
Sprayed/Troweled Ceilings (SF)	9.60	-	-	•
Floor Tile (SF)	5.60	0.5	2.7	3.3
Boilers/Tanks (SF)	37.90	-	•	-
Air Handling Equipment (SF)	20.00	•	-	-
Other		-	-	-
SUBTOTAL	•	0.5	2.7	3.3
Difficulty Allowance		-	-	-
SUBTOTAL		0.5	2.7	3.3
Decontamination Units Mobilization		1:8	1:5	3: 8
SUBTOTAL		3.0	5.2	8.3
Contingency a 15.00%		0.5	0.8	1.2
SUBTOTAL		3.5	6.0	9.5
Design Fee a 10.00%		0.3	0.6	1.0
SUBTOTAL	L.L.L.	3.8	6.6	10.5
Air Monitoring a 10.00%	* R R	0.5	0.5	1.0
TOTAL		4.4	7.1	11.5

^{*}Amounts Are In Thousands Of Dollars

AREA 1: LATRINE

^{***}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
****The Minimum Air Monitoring Fee is \$500.00 Per Building



BLDG. 285 NOT TO SCALE



<u>LEGEND</u>



432 WAREHOUSE

WAREHOUSE

432.1 GENERAL

Building 432 was surveyed by WESTON technicians on 10 April 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 3 samples of suspect material collected from the building. Of these samples, all were found to be asbestos-containing materials (ACM). Table 432.1 lists the analytical results for the bulk samples.

432.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 432 are presented in Table 432.1. An area-by-area inventory of ACM is provided in Tables 432.2 and 432.3. "Other Asbestos-Containing Materials," listed in Table 432.3, are materials that do not correspond to the standard caption categories listed in Table 432.2. A prioritized listing of exposure assessments is presented in Table 432.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 432.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 432.2 and 432.5.

432.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 432.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 432, WAREHOUSE

SAMPLE		,		PERCE	NT ASBI	<u>ESTOS</u>	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH800	LAVATORY	FLOOR TILE	GREEN,OTH,FL TL	7	-	-	YES
FH801	STORAGE AREA	FLOOR TILE	GRAY, OTH, FL TL	2	-	-	NO
FH802	STORAGE AREA	FLOOR TILE	GREEN,OTH,FL TL	4	-	-	NO

Asbestos Types
CH = Chrysotile
AM = Amosite

OT = Other

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes
C = Center	STM = Steam
N = North	CHW = Chilled Water
E = East	HHW = Heating Hot Water
S = South	DOM = Domestic Water
W = West	OTH = Other
NE = Northeast	UNK = Unknown
NW = Northwest	
SE = Southeast	,
SW = Southwest	

	PI	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHER
Lavatory	-	_	-	-	-	-	-	-	-	0.06	-	-	-
Storage Area								 :		2.85			
TOTALS	-	-				-	-	-	-	2.91	-	-	-

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Other Asbestos-Containing Material - Building 432, Warehouse Type Occupancy: Adults (Public)

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

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 432.4

EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 432, WAREHOUSE

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

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 Accessability
- 3 [=] Material Condition
- 4 [=] Level Of Activity
- 5 [=] Number Of Assigned Occupants

TABLE 432.5

COST ESTIMATE* - BUILDING 432, WAREHOUSE

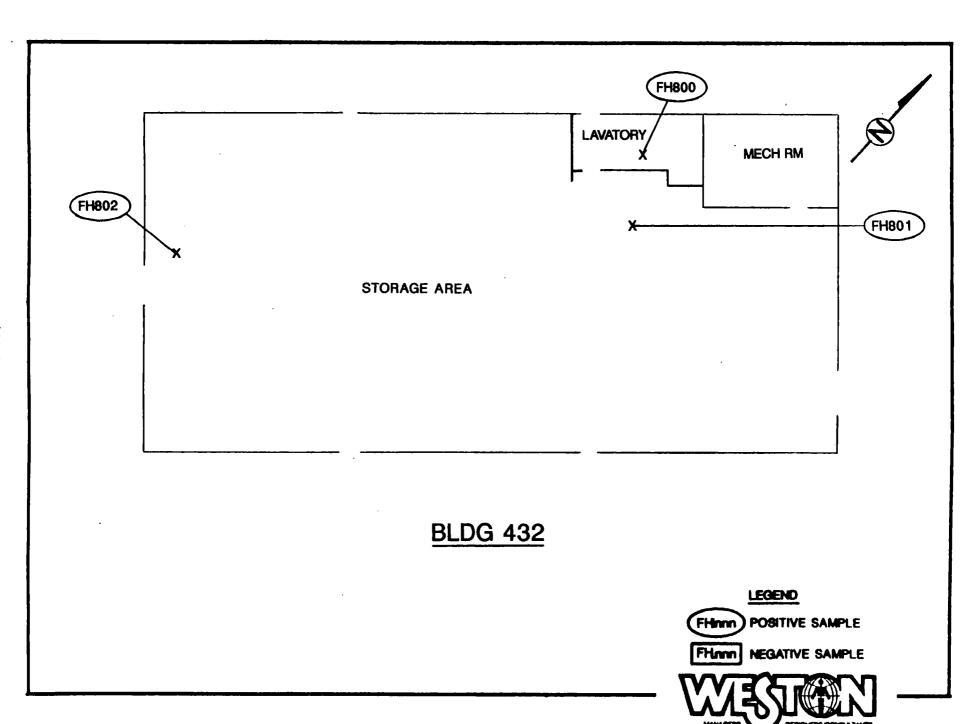
DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	TOTAL		
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 147.00 216.00	:	:	:		
Pipe Runs (LF) 4-8" 9-14" >14"	26.50 30.50 60.80	:	:	:		
Sprayed/Troweled Ceilings (SF)	9.60	-	-	.		
Floor Tile (SF)	5.60	0.3	15.9	16.3		
Boilers/Tanks (SF)	37.90	-	-	-		
Air Handling Equipment (SF)	20.00	_	-	-		
Other		•	-	-		
SUBTOTAL		0.3	15.9	16.3		
Difficulty Allowance		-	-	-		
SUBTOTAL		0.3	15.9	16.3		
Decontamination Units Mobilization		1:8	1:5	3: 8		
SUBTOTAL		2.8	18.4	21.3		
Contingency & 15.00%		0.4	2.8	3.2		
SUBTOTAL		3.3	21.2	24.5		
Design Fee a 10.00%		0.3	2.1	2.4		
SUBTOTAL	4.4.4	3.6	23.3	26.9		
Air Monitoring a 10.00%	***	1.3	1.3	2.7		
TOTAL		4.9	24.7	29.6	 	

^{*}Amounts Are In Thousands Of Dollars

AREA 1: Lavatory

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

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



454 ADMINISTRATION BUILDING

ADMINISTRATION BUILDING

454.1 GENERAL

Building 454 was surveyed by WESTON technicians on 11 April 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 9 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 454.1 lists the analytical results for the bulk samples.

454.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 454 are presented in Table 454.1. An area-by-area inventory of ACM is provided in Tables 454.2 and 454.3. "Other Asbestos-Containing Materials," listed in Table 454.3, are materials that do not correspond to the standard caption categories listed in Table 454.2. A prioritized listing of exposure assessments is presented in Table 454.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 454.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 454.2 and 454.5.

454.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 454.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 454, ADMINISTRATIVE

SAMPLE				PERCI	ENT ASB	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION '	CH	AM	OT	LAYERED
FH780	OFFICE 2	CEILING TILE	WHITE,OTH,CL TL	-	-	-	YES
FH781	GENERAL OFFICE 2	CEILING TILE	WHITE,OTH,CL TL	-	-	-	YES
FH782	OFFICE 2	FLOOR TILE	BROWN,OTH,FL TL	5	-	-	YES
FH783	GENERAL OFFICE 2	OTHER MATERIAL	BLACK,OTH,BLACK TRIM	7	-	1	NO
FH784	OFFICE 2	FLOOR TILE	BLACK,OTH,FL TL	-	-	-	YES
FH785	ATTIC	OTHER MATERIAL	WHITE, OTH, TROWEL	-	-	-	NO
FH786	OFFICE 2	ACOUSTICAL WALL TILE	WHITE, OTH, ACOUS TILE	-	-	-	YES
FH787	GENERAL OFFICE 1	FLOOR TILE	BROWN,OTH,FL TL	5	-	-	YES
FH788	GENERAL OFFICE 1	CEILING TILE	WHITE,OTH,CL TL	-	-	<1	YES

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SU - Southwest		

TABLE 454.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 454, ADMINISTRATIVE

	F 4	he till	INGS (EA)			PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
eneral Office 1	-	_	-	-	_	-	-	-	-	0.30	-	-	*
eneral Office 2	-	-	-	-	-	-	-	-	•	0.36	-	-	-
ens & Womens Toilet	-	-	-	•	-	-	-	-	-	0.20	•	- '	-
ffice 1	•	-	-	-	•	-	-	-	•	0.17	•	-	-
ffice 2	-	-	-	-	-	-	-	-	-	0.44	-	-	-
ffice 3	-	-	-	-	-	-	-	-	-	0.12	-	-	-
ffice 4	-	-	-	-	-	-	-	-	-	0.14	-	•	-
ffice 5	-	-	-	-	-	-	-	-	•	0.17	-	-	-
ffice 6	-	-	-	-	-	-	-	-	-	0.13	-	-	-
torage & Restricted $_$	• •	-	-	-	-	-	•	-	-	0.15	-	-	-

Other Material Present In Various Units Of Measure

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

Other Asbestos-Containing Material - Building 454, Administration Building Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
General Office 1	Ceiling Tile	0.257 MSF

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 454.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 454, ADMINISTRATIVE

!	SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EX	POS	URE	FAC	CTORS	AVG. EXP.	×	
	NO.	AREA	TYPE	CODE	NUMBER	1_	2	3	4	5	HOURS	ASB.	
1	FH788	General Office 1	CEILING TILE	A	1.800E00	2	1	2	1	10	40.00	<1	
1	FH780	Office 3	CEILING TILE	A	.0	2	1	2	1	10	40.00	0	
	FH781	General Office 2	CEILING TILE	Α	0	2	1	2	1	10	40.00	Ō	
1	H781	Mens & Womens Toilet	CEILING TILE	A	0	2	1	2	1	10	40.00	-0	
	H781	Office 1	CEILING TILE	A	Ó	2	1	2	1	10	40.00	Ō	
1	H781	Office 5	CEILING TILE	A	0	2	1	2	1	10	40.00	Ô	
ı	H785	Attic	INSULATION BOARD	Ä	Ŏ	2	1	2	1	10	40.00	Ó	
	H786	Office 1	ACOUSTICAL WALL TILE	A	Ō	2	1	2	1	10	40.00	Ö	

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 454.5 COST ESTIMATE* - BUILDING 454, ADMINISTRATIVE

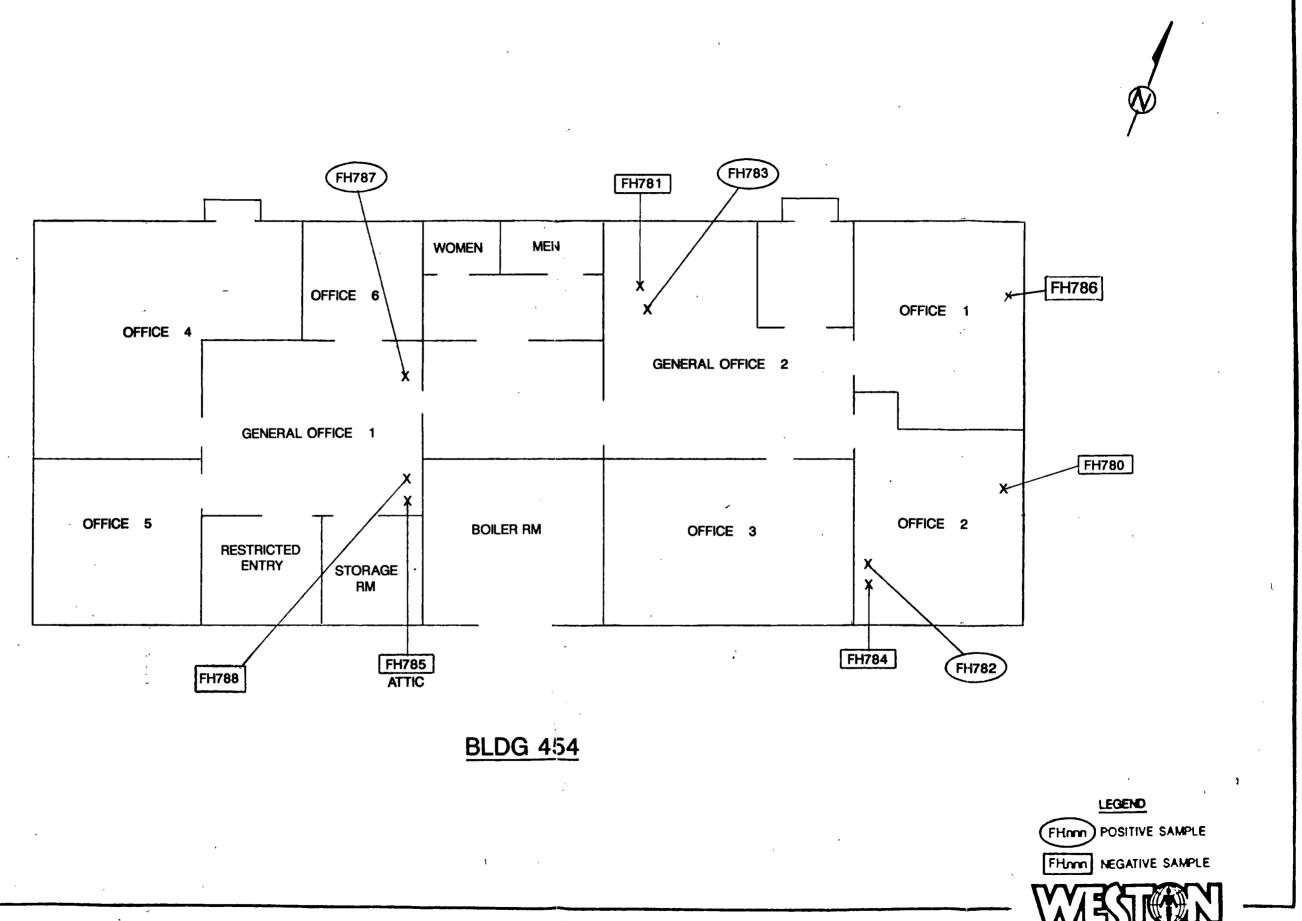
	IINTT	AREA	AREĄ	AREA	AREA	AREA	AREĄ	AREA	AREA	ARFA	ADFA	•
DESCRIPTION	COST (\$)	า	711-2		7		<u> </u>	77	8	AREA	AREA 10	TOTAL
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 147.00 216.00	:	:	:	:	. :	:	:	:	:	:	:
Pipe Runs (LF)	26-50° 30-50 60-80	:	:	:	:	:	:	:	:	:	:	:
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-	-	-	-	-	-	-
Floor Tile (SF)	5.60	1.7	2.0	1.1	0.9	2.5	0.7	0.8	0.9	0.7	0.8	12.1
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	-	-	• .
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	_	_		-
Other		1.7	-	-	-	-	-	-	-	-	-	1.7
SUBTOTAL		3.4	2.0	1.1	0.9	2.5	0.7	0.8	0.9	0.7	0.8	13.8
Difficulty Allowance		-	-	-	-	-	-	-	-	-	-	•
SUBTOTAL		3.4	2.0	1.1	0.9	2.5	0.7	0.8	0.9	0.7	0.8	13.8
Decontamination Units Mobilization		8:3	8:3	8:3	8:3	8:3	8:3	8:3	8:3	8:3	8:3	3:8
SUBTOTAL		3.9	2.5	1.6	1.4	3.0	1.2	1.3	1.4	1.2	1.3	18.8
Contingency @ 15.00%		0.6	0.4	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	2.8
SUBTOTAL		4.5	2.9	1.9	1.6	3.4	1.4	1.4	1.6	1.4	1.5	21.7
Design Fee @ 10.00%		0.4	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.2	2.2
SUBTOTAL		4.9	3.2	2.1	1.8	3.8	1.5	1.6	1.8	1.5	1.7	23.8
Air Monitoring a 10.00%	***	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
TOTAL		5.2	3.4	2.3	2.0	4.0	1.7	1.8	2.0	1.8	1.9	26.2

^{*}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

^{1:} General Office 1 3: Mens & Womens Toilet 5: Office 2 7: Office 2 9: Office 6



482 MAINTENANCE SHOP

MAINTENANCE SHOP

482.1 GENERAL

Building 482 was surveyed by WESTON technicians on 1 April 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 482.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 11 samples of suspect material collected from the building. Of these samples, 9 were found to be asbestos-containing materials (ACM). Table 482.1 lists the analytical results for the bulk samples.

482.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 482 are presented in Table 482.1. An area-by-area inventory of ACM is provided in Tables 482.2 and 482.3. "Other Asbestos-Containing Materials," listed in Table 482.3, are materials that do not correspond to the standard caption categories listed in Table 482.2. A prioritized listing of exposure assessments is presented in Table 482.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 482.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 482.2 and 482.5.

482.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

• All asbestos-containing pipe fitting insulation, pipe run insulation, floor tile, expansion joints, and insulation board should be labeled under the O&M Program.

TABLE 482.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 482, MAINT. SHOP

SAMPLE				PERC	ENT ASB	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	LAYERED
FH662	LOCKER RM	FLOOR TILE	GRAY, OTH, 9X9 FL TL	5	-	-	NO
FH663	TOILET	CEILING TILE	WHITE, OTH, 2X4 CL TL	-	-	-	YES
FH664	PAINT SPRAY SHOP	<4" PIPE FITTING	WHITE, UNK, <4 FITTING	30	10	-	NO
FH665	PAINT SPRAY SHOP	<4" PIPE RUN	GRAY, UNK, <4 RUN	20	-	-	NO
FH761	LOCKER RM	FLOOR TILE	RED, OTH, FL TL	10	-	-	NO
FH762	EQUIPMENT ROOM	<4" PIPE FITTING	WHITE, UNK, FITTING	50	-	-	NO
FH763	EQUIPMENT ROOM	<4" PIPE FITTING	WHITE, UNK, FITTING	50	-	-	NO
FH764	WOOD WORKING SHOP	CEILING TILE	WHITE, OTH, CL TL	-	-	-	YES
FH765	WOOD WORKING SHOP	OTHER MATERIAL	OTHER, OTH, CORK INSUL	3	-	-	NO
FH766	OFFICE 1	FLOOR TILE	BROWN, OTH, FL TL	5	-	-	NO
FH767	STORAGE ROOM 2	EXPANSION JOINT(S)	WHITE, OTH, EXP. JOINT	75	-	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SE = Southeast SW = Southwest

Qua	adı	rant Codes		,	System Codes	As	рe	stos Types
С	=	Center	STM	=	Steam	CH	=	Chrysotile
N	=	North	CHW	=	Chilled Water	AM	=	Amosite
E	=	East	HHW	=	Heating Hot Water	OT	=	Other
S	=	South	DOM	=	Domestic Water			
W	=	West	OTH	=	Other			
NE	=	Northeast	UNK	=	Unknown			
NW	=	Northwest						

TABLE 482.2
ASBESTOS-CONTAINING MATERIALS - BUILDING 482, MAINT. SHOP

	PI	PE FITT	INGS (EA)			PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
quipment Room	22	_	-	-	-	-	-	-	-	-	-	-	-
ocker Rm/Toilet	-	-	-	-	-	-	-	-	-	0.38	-	•	-
Office 1	-	-	•	-	-	-	-	-	-	0.23	-	-	-
Paint Spray Shop	6	-	-	-	6	-	-	-	•	-	-	-	-
torage Room 1	-	-	-	-	-	-	-	-	-	0.14	-	-	-
torage Room 2	-	-	-	-	-	-	-	-	-	-	-	•	*
lood Working Shop		-		:				-		<u> </u>			
OTALS	28	_	-	-	6	-	-	-	-	0.74	_	_	*

^{*} Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

Table 482.3

Other Asbestos-Containing Material - Building 482, Maintenance Shop Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Wood Working Shop	Cork Insulation	9.00 (MSF)
Storage Room 2	Expansion Joints	12.0 EA

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 482.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) -BUILDING 482, MAINT. SHOP

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EX	POSI	JRE	FAC	TORS	AVG. EXP.	x	
NO.	AREA	TYPE	CODE	NUMBER	1_	2	3	4	5	HOURS	ASB.	
FH664	Paint Spray Shop	<4" PIPE FITTING	A	4.000E00	2	1	2	2	1	10.00	40	
FH762	Equipment Room	<4" PIPE FITTING	Ä	4.000E00	Ž	1	2	2	1	10.00	50	
FH763	Equipment Room	<4" PIPE FITTING	Α	4.000E00	2	1	2	2	1	10.00	50	
FH767	Storage Room 2	EXPANSION JOINTS	A	4.000E00	2	1	2	2	1	10.00	75	
FH665	Paint Spray Shop	<4" PIPE RUN	Α	1.450E00	2	1	2	2	1	10.00	20	
FH765	Wood Working Shop	INSULATION BOARD	Ä	2.500E-1	2	1	2	2	1	10.00	3	
FH663	Locker Rm/Toilet	CEILING TILE	Α	0	2	1	2	2	1	10.00	0	
FH764	Wood Working Shop	CEILING TILE	Α	0	2	1	2	2	1	10.00	0	•

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks

C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

- Exposure Factors

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

TABLE 482.5 COST ESTIMATE* - BUILDING 482, MAINT. SHOP

DESCRIPTION	UNIT COST (\$)	AREA 1	AREA 2	AREA 3	AREA	AREA	AREA 6	AREA	TOTAL	
Pipe_Fittings (EA)	70.30 85.80 127.00 216.00	1.5	:	:	0.4	:	:	:	2.0	
Pipe Runs (LF)	26.50 30.50 60.80	:	:	:	0.2 -	:	:	:	0.2	
Sprayed/Troweled Ceilings (SF)	9.60	_	-	-	-	-	-	-	-	
Floor Tile (SF)	5.60	-	2.2	1.3	-	0.8	-	-	4.2	
Boilers/Tanks (SF)	37.90	-	-	-	-	-	-	-	-	
Air Handling Equipment (SF)	20.00	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	3.6	37.8	41.4	
SUBTOTAL		1.5	2.2	1.3	0.6	0.8	3.6	37.8	47.7	
Difficulty Allowance		-	-	-	1.2	-	-	94.5	95.7	
SUBTOTAL		1.5	2.2	1.3	1.7	0.8	3.6	132.3	143.4	
Decontamination Units Mobilization		8:4	8:4	8:4	8:4	8:4	8:4	8:4	3 :8	
SUBTOTAL		2.3	2.9	2.0	2.5	1.5	4.3	133.0	148.4	
Contingency @ 15.00%		0.3	0.4	0.3	0.4	0.2	0.6	20.0	22.3	
SUBTOTAL		2.6	3.3	2.3	2.8	1.7	5.0	153.0	170.6	
Design Fee a 10.00%		0.3	0.3	0.2	0.3	0.2	0.5	15.3	17.1	
SUBTOTAL		2.9	3.6	2.5	3.1	1.9	5.5	168.3	187.7	
Air Monitoring a 10.00%*	**	2.7	2.7	2.7	2.7	2.7	2.7	2.7	<u>18.8</u>	
TOTAL		5.5	6,3	5.2	5.8	4.5	8.1	170.9	206.4	

^{*}Amounts Are In Thousands Of Dollars

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

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

SECTION 482.4 PHOTOGRAPHS



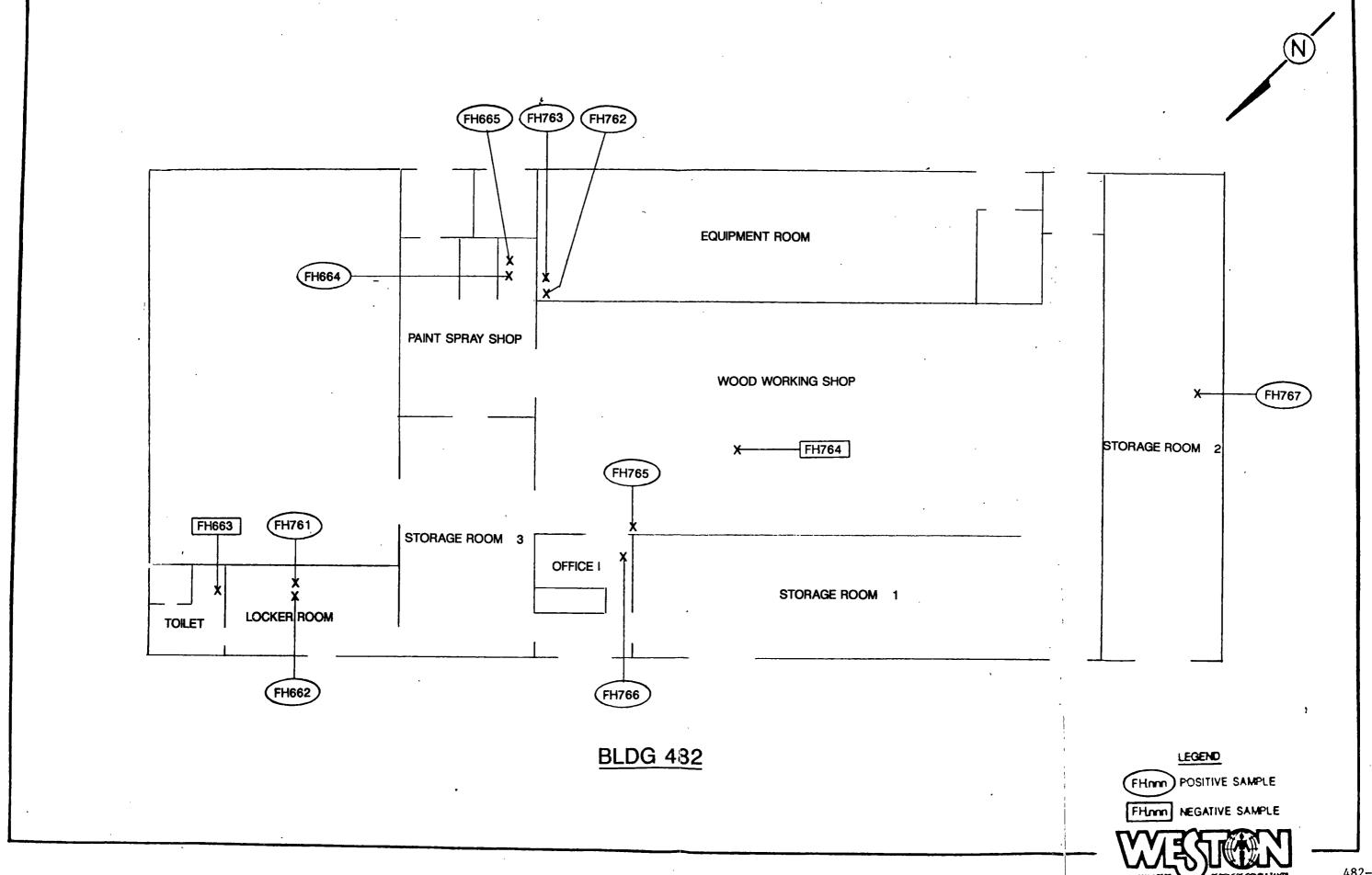
BLDG. 482

LOCKER ROOM/TOILET: (SAMPLE FH662) RED 9" X 9" FLOOR TILE TESTED POSITIVE. GRAY 9" X 9" FLOOR TILE (SAMPLE FH761) ALSO TESTED POSITIVE.



BLDG. 482

WOOD WORKING SHOP: (SAMPLE FH765) CORK INSULATION TESTED POSITIVE. CORK INSULATION IS PRESENT ON WALLS AND CEILINGS OF THE ENTIRE BUILDING.



490 SERVICE BUILDING

SERVICE BUILDING

490.1 GENERAL

Building 490 was surveyed by WESTON technicians on 11 June 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 490.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 7 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 490.1 lists the analytical results for the bulk samples.

490.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 490 are presented in Table 490.1. An area-by-area inventory of ACM is provided in Tables 490.2 and 490.3. "Other Asbestos-Containing Materials," listed in Table 490.3, are materials that do not correspond to the standard caption categories listed in Table 490.2. A prioritized listing of exposure assessments is presented in Table 490.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 490.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 490.2 and 490.5.

490.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 490.1
BULK SAMPLE ANALYSIS RESULTS - BUILDING 490, SERVICE BUILDING

SAMPLE				PERCE	ENT ASB	STOS	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH978	HEATER ROOM	BOILERS/TANKS	GRAY, UNK, TANK INSUL	50	-	_	NO
FH979	HEATER ROOM	DUPLICATE SAMPLE	GRAY, UNK, TANK INSUL	50	-	-	YES
FH980	OFFICE	CEILING TILE	WHITE, OTH, CEIL. TILE	-	-	-	YES
FH 981	HALLWAY	FLOOR TILE	TAN,OTH,1X1 FL TL	-	-	-	NO
FH982	ENVIR. LAB	CEILING TILE	WHITE,OTH,CEIL. TILE	-	-	-	NO
FH983	ENVIR. LAB	FLOOR TILE	TAN,OTH,1X1 FL TL	-	-	1	NO
FH984	BATHROOM	FLOOR TILE	TAN,OTH,1X1 FL TL	-	-	-	NO

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

	PI	PE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	' (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ENVIR. LAB	-	-	-	-	-	-	-	-	-	0.55		-	-
MECH/HEATER ROOM	<u></u>	-	 .								0.10		<u></u>
TOTALS	-	-	-	-	-	-	-	-	-	0.55	0.10	-	-

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Other Asbestos-Containing Material - Building 490, Service Building Type Occupancy: Adults (Public)

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

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 490.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 490, SERVICE BUILDING

			PRIOR.	PRIORITY						AVG.	
SAMPLE	•	MATERIAL	INDEX	INDEX	EX	POS	URE	FA	CTORS	EXP.	*
NO.	AREA	TYPE	CODE	NUMBER	1	2	3	4	5	HOURS	ASB.
FH978	MECH/HEATER ROOM	BOILERS/TANKS	A	1.240E-2	1	1	1	1	4	40.00	50
FH980	OFFICE	CEILING TILE	A	0	1	1	1	1	4	40.00	0
FH982	ENVIR. LAB	CEILING TILE	A	0	1	1	1	1	4	40.00	Ô

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 490.5 COST ESTIMATE* - BUILDING 490, SERVICE BUILDING

DESCRIPTION	UNIT COST (\$)	AREA .	AREA	TOTAL
Pipe Fittings (EA)		<u> </u>	•	
4-8" 9-14" >14"	70.30 143.70 216.00	:	:	-
Pipe Runs (LF)	26.50	_	_	_
4-8" 9-14" >14"	26.50 30.50 42.50 60.80	=	=	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-
Floor Tile (SF)	5.60	3.1	-	3.1
Boilers/Tanks (SF)	37.90	-	3.8	3.8
Air Handling Equipment (SF)	20.00	-	-	-
Other		•	-	-
SUBTOTAL		3.1	3.8	6.9
Difficulty Allowance		-	3.8	3.8
SUBTOTAL		3.1	7.6	10.7
Decontamination Units Mobilization		1:8	1:₹	3 :8
SUBTOTAL		5.6	10.1	15.7
Contingency a 15.00%		0.8	1.5	2.3
SUBTOTAL		6.4	11.6	18.0
Design Fee @ 10.00%		0.6	1.2	1.8
SUBTOTAL	***	7.1	12.8	19.8
Air Monitoring a 10.00%	,	1.0	1.0	2.0
TOTAL		8.1	13.7	21.8

^{*}Amounts Are In Thousands Of Dollars

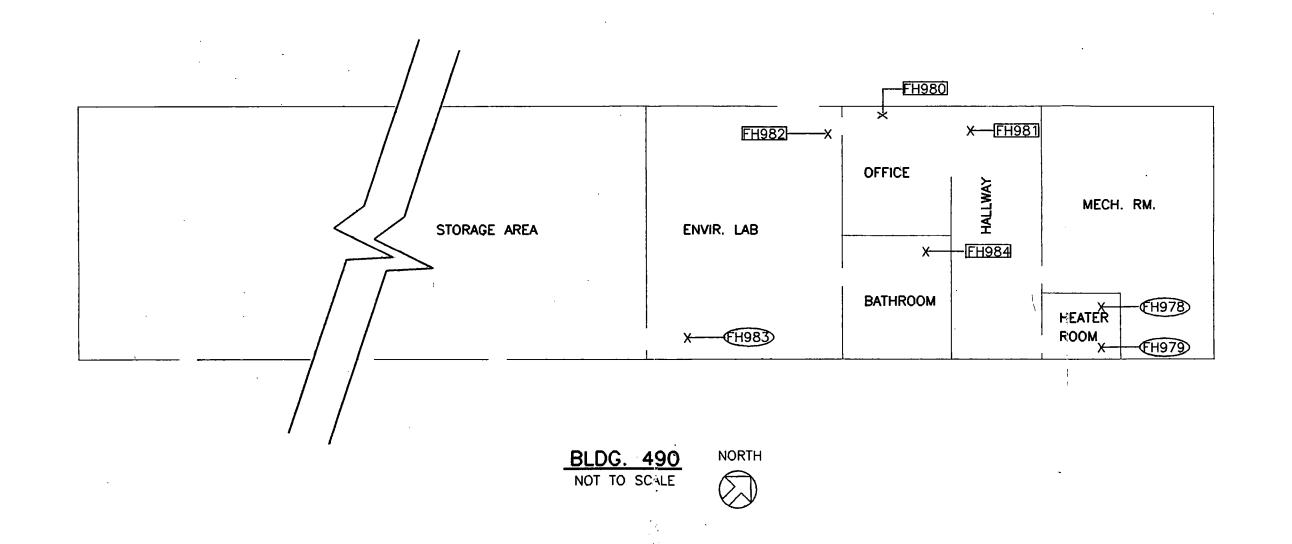
AREA 1: ENVIR. LAB

^{**}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
***The Minimum Air Monitoring Fee is \$500.00 Per Building

SECTION 490.4 PHOTOGRAPHS



BLDG. 490 (SAMPLE FH978) GRAY TANK INSULATION TESTED POSITIVE.



LEGEND

500 POST CHAPEL

POST CHAPEL

500.1 GENERAL

Building 500 was surveyed by WESTON technicians on 6 June 1991.

The first three portions of this facility report summarize the results of this inspection. A photograph of one sample location is provided in Section 500.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 9 samples of suspect material collected from the building. Of these samples, 1 was found to be asbestos-containing materials (ACM). Table 500.1 lists the analytical result for the bulk sample.

500.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical result for the bulk sample from Building 500 are presented in Table 500.1. An area-by-area inventory of ACM is provided in Tables 500.2 and 500.3. "Other Asbestos-Containing Materials," listed in Table 500.3, are materials that do not correspond to the standard caption categories listed in Table 500.2. A prioritized listing of exposure assessments is presented in Table 500.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 500.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 500.2 and 500.5.

500.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 500.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 500, POST CHAPEL

SAMPLE				PERC	ENT ASBI	ESTOS	
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	ОТ	LAYERED ^a
FH853	ACTIVITY ROOM	CEILING TILE	WHITE, OTH, 1X1 CL TL	-	_	-	NO
FH854	ACTIVITY ROOM OFFICE	CEILING TILE	WHITE,OTH,CL PANEL	-	-	-	NO
FH855	MENS ROOM, AREA B	CEILING TILE	WHITE, OTH, CL PANEL	-	-	-	NO
FH856	MENS ROOM, AREA A	CEILING TILE	WHITE,OTH,CL PANEL	-	-	-	YES
FH857	CORRIDOR	CEILING TILE	WHITE,OTH,CL PANEL	-	-	-	NO
FH858	CHAPLAIN NO.1 CLOSET	ACOUSTICAL WALL TILE	WHITE,OTH,ACOU PANEL	-	-	-	NO
FH859	SACRISTY CLOSET	FLOOR TILE	BROWN,OTH,FL TL	5	-	-	NO
FH860	BOILER ROOM	CEILING BOARD	GRAY, OTH, FOAM BOARD	-	-	-	YES
FH861	BOILER ROOM	DUPLICATE SAMPLE	GRAY,OTH,FOAM BOARD	-	-	-	YES

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SW = Southwest		

ASBESTOS-CONTAINING MATERIALS - BUILDING 500, POST CHAPEL

	P	IPE FITT	INGS (EA)			PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14 ¹¹	CEILINGS (MSF)	' (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHER
SACRISTY CLOSET				<u>-</u>		<u> </u>	<u> </u>	<u>-</u>		0.05			
TOTALS		-	-	-			-	•	-	0.05	-	-	-

Other Material Present In Various Units Of Measure

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

Other Asbestos-Containing Material - Building 500, Post Chapel Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
No Other A	Asbestos-Containing Material Found in th	is Building

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 500.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) -BUILDING 500, POST CHAPEL

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EXPO:	SURE	FA	CTORS	AVG. EXP.	%	
NO.	AREA	TYPE	CODE	NUMBER	1 2	3	4	5	HOURS	ASB.	
FH853	ACTIVITY ROOM	CEILING TILE	. А	0	1 1	1	1	16	40.00	0	
FH854	ACTIVITY ROOM OFFICE	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH854	ASSEMBLY ROOM	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH854	CLASSROOM WING & COR	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH855	KITCHEN, AREA B	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FK855	MENS ROOM, AREA B	CEILING TILE	Α	0	1 1	1	1	16	40.00	0	
· FH855	WOMENS, AREA B	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH856	MENS ROOM, AREA A	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH856	WOMENS, AREA A	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH857	CORRIDOR	CEILING TILE	Α	0	1 1	1	1	16	40.00	0	
FH857	NAVE & CHANCER	CEILING TILE	A	0	1 1	1	1	16	40.00	0	
FH857	VESTIBULE	CEILING TILE	Α	0	1 1	1	1	16	40.00	0	
FH858	CHAPLAIN NO.1 CLOSET	ACOUSTICAL WALL TILE	Α	0	1 1	1	1	16	40.00	0	
FH860	BOILER ROOM	CEILING BOARD	A	0	1 1	1	1	16	40.00	0	

<u>Priority Index Codes</u>
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 500.5 COST ESTIMATE* - BUILDING 500, POST CHAPEL

	UNIT COST (\$)	AREĄ	
DESCRIPTION	COST (\$)	1	TOTAL
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 145.70 218.60	:	:
	210.00	-	-
Pipe Runs (LF) <- 8" 14" > 14"	26.50 30.50 42.50 60.80	- - -	<u>:</u>
Sprayed/Troweled Ceilings (SF)	9.60	-	-
Floor Tile (SF)	5.60	0.3	0.3
Boilers/Tanks (SF)	37.90	-	-
Air Handling Equipment (SF)	20.00	-	-
Other		-	-
SUBTOTAL		0.3	0.3
Difficulty Allowance		-	-
SUBTOTAL		0.3	0.3
Decontamination Units Mobilization		2:5	2:8
SUBTOTAL		3.8	3.8
Contingency a 15.00%		0.6	0.6
SUBTOTAL		4.3	4.3
Design Fee a 10.00%		0.4	0.4
SUBTOTAL		4.7	4.7
Air Monitoring a 10.00%	**	0.5	0.5
TOTAL		5.2	5.2

^{*}Amounts Are In Thousands Of Dollars

AREA 1: SACRISTY CLOSET

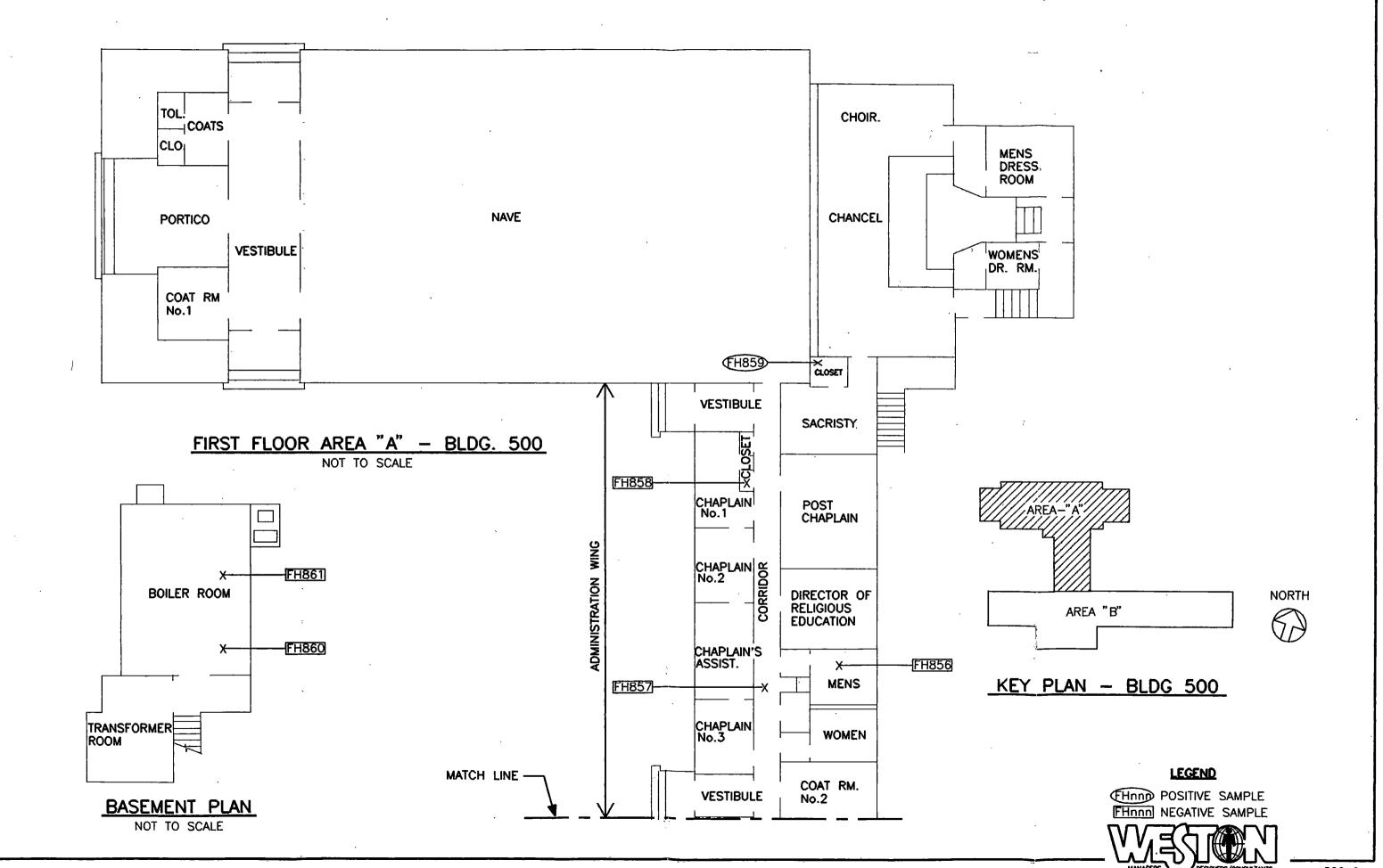
^{**}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
***The Minimum Air Monitoring Fee is \$500.00 Per Building

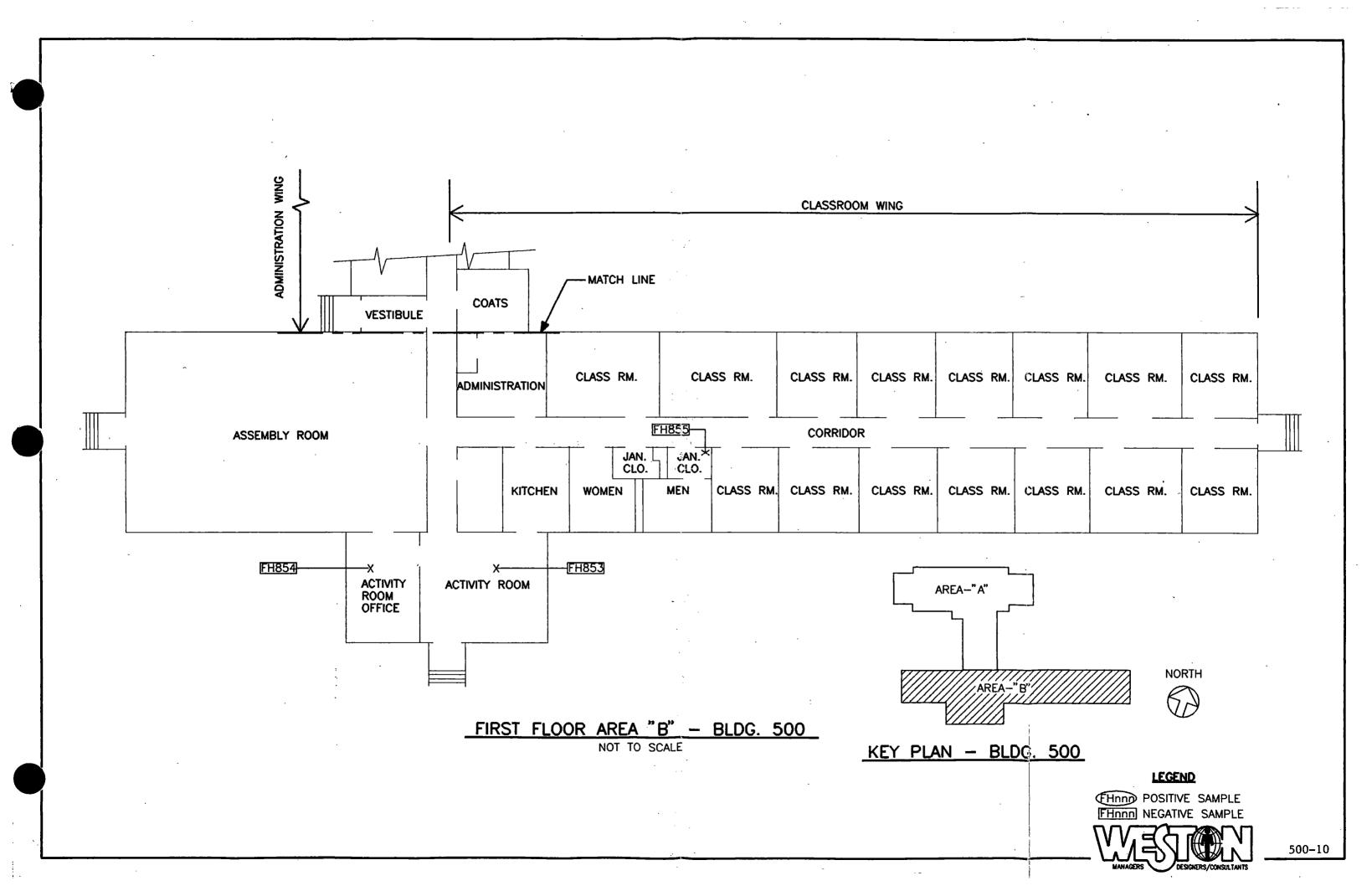
SECTION 500.4 PHOTOGRAPHS



BLDG. 500

SACRISTY CLOSET: (SAMPLE FH859) BROWN 9" X 9" FLOOR TILE TESTED POSITIVE.





501 ADMINISTRATION BUILDING

ADMINISTRATION BUILDING

501.1 GENERAL

Building 501 was surveyed by WESTON technicians on 6 June 1991.

The first three portions of this facility report summarize the results of this inspection. A photograph of one sample location is provided in Section 501.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 9 samples of suspect material collected from the building. Of these samples, 4 were found to be asbestos-containing materials (ACM). Table 501.1 lists the analytical results for the bulk samples.

501.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 501 are presented in Table 501.1. An area-by-area inventory of ACM is provided in Tables 501.2 and 501.3. "Other Asbestos-Containing Materials," listed in Table 501.3, are materials that do not correspond to the standard caption categories listed in Table 501.2. A prioritized listing of exposure assessments is presented in Table 501.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 501.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 501.2 and 501.5.

501.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 501.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 501, ADMINISTRATION BLDG.

SAMPLE				PERCE	ENT ASB	ESTOS	_
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	LAYERED
FH900	MECH ROOM	TRANSITE PANEL BOARD	GRAY,OTH,TRANSITE	45	-		NO
FH901	MECH ROOM	4-8" PIPE FITTING	GRAY,UNK,PIPE FITT.	-	-	-	NO
FH902	MECH ROOM	<4" PIPE FITTING	GRAY,UNK,PIPE FITT.	-	-	-	NO
FH903	OFFICE AREA	CEILING TILE	WHITE, OTH, 2X2 CL TL	-	-	-	YES
FH904	OFFICE AREA	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	YES
FH905	OFFICE 1	CEILING TILE	WHITE,OTH,2X2 CL TL	-	-	-	YES
FH906	OFFICE 1	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	<1	YES
FH907	OFFICE AREA - MENS	CEILING TILE	WHITE, OTH, 2X2 CL TL	-	-	-	YES
FH908	OFFICE AREA - MENS	FLOOR TILE	BLACK,OTH,9X9 FL TL	5	-	-	NO

 $^{{}^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System_Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		

TABLE 501.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 501, ADMINISTRATION BLDG.

	Pi	PE FITT	INGS (EA)			PIPE RUI	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4 ¹¹	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14"	CEILINGS (MSF)	' (MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
ECH ROOM	-	•	-	-	-	-	-	-	-	-	-	-	*
FFICE AREA	-	-	-	-	-	-	-	-	-	1.04	•	•	•
FFICE AREA - MENS		-				<u> </u>	<u></u>			1.40			
OTALS	-		-	•	-	_	_	-	-	2.44	-	•	*

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 501.3

Other Asbestos-Containing Material - Building 501, Administration Building Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Mechanical Room	Transite Panel Board	0.100 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 501.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 501, ADMINISTRATION BLDG.

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	FX	ากรเ	IRF	FAC	TORS	AVG. EXP.	¥	
 NO.	AREA	TYPE	CODE	NUMBER	1	2	3	4	5	HOURS	ASB.	
FH900	MECH ROOM	TRANSITE PANEL BOARD	А	7.000E-2	2	1	2	1	1	1.00	45	
FH901	MECH ROOM	4-8" PIPE FITTING	Α	0	2	1	2	1	1	1.00	0	
FH902	MECH ROOM	<4" PIPE FITTING	Α	0	2	1	2	1	1	1.00	0	
FH902	OFFICE AREA JAN. CLO	<4" PIPE FITTING	Α	0	1	2	1	2	6	40.00	0	
FH903	OFFICE AREA	CEILING TILE	Α	0	1	2	1	2	6	40.00	Ö	
FH905	OFFICE 1	CEILING TILE	Α	0	1	2	1	2	6	40.00	Ō	
FH907	OFFICE AREA - MENS	CEILING TILE	Α	Ó	1	2	1	2	6	40.00	Ŏ	

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 501.5

COST ESTIMATE* - BUILDING 501, ADMINISTRATION BLDG.

	UNIT	AREĄ	AREĄ	AREA	
DESCRIPTION	COST (\$)	77-7	2 2	3	TOTAL
Pipe Fittings (EA) 4-8" 9-14" >14"	70.30 85.80 146.70 218.00	:	:	:	:
	216.00	-		•	-
Pipe Runs (LF)	26.50	•	-	-	-
.2 ⁻ 8" 9-14" >14"	26.50 30.50 22.50 60.80	Ξ.	:	=	:
Sprayed/Troweled Ceilings (SF)	9.60	-	-	_	-
Floor Tile (SF)	5.60	-	5.8	7.8	13.7
Boilers/Tanks (SF)	37.90	-	-	-	
Air Handling Equipment (SF)	20.00	-	-	•	-
Other		1.1	-	-	1.1
SUBTOTAL		1.1	5.8	7.8	14.8
Difficulty Allowance		1.7	•	-	1.7
SUBTOTAL		2.8	5.8	7.8	16.4
Decontamination Units Mobilization		∂: 9	∂: ?	1: <u>9</u>	3:8
SUBTOTAL		4.4	7.5	9.5	21.4
Contingency @ 15.00%		0.7	1.1	1.4	3.2
SUBTOTAL		5.1	8.6	10.9	24.7
Design Fee @ 10.00%		0.5	0.9	1.1	2.5
SUBTOTAL		5.6	9.5	12.0	27.1
Air Monitoring a 10.00%	***	0.9	0,9	0.9	2.7
TOTAL		6.5	10.4	12.9	29.8

^{*}Amounts Are In Thousands Of Dollars

AREA 1: MECH ROOM AREA 3: OFFICE AREA - MENS

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

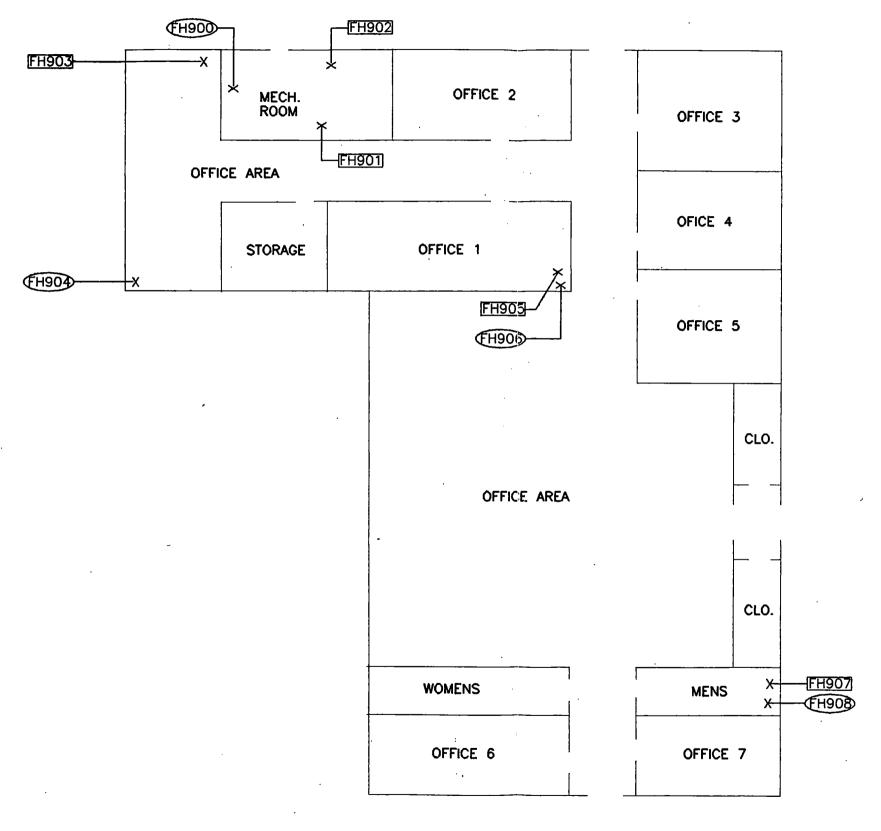
^{***}The Minimum Air Monitoring Fee is \$500.00 Per Building

SECTION 501.4 PHOTOGRAPHS



BLDG. 501

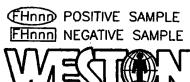
MECHANICAL ROOM: (SAMPLE FH900) GRAY TRANSITE PANEL BOARD TESTED POSITIVE.



BLDG. 501



LEGEND



605 235th SIG. DET.

235th SIG. DET.

605.1 GENERAL

Building 605 was surveyed by WESTON technicians on 6 June 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 605.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 10 samples of suspect material collected from the building. Of these samples, 5 were found to be asbestos-containing materials (ACM). Table 605.1 lists the analytical results for the bulk samples.

605.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 605 are presented in Table 605.1. An area-by-area inventory of ACM is provided in Tables 605.2 and 605.3. "Other Asbestos-Containing Materials," listed in Table 605.3, are materials that do not correspond to the standard caption categories listed in Table 605.2. A prioritized listing of exposure assessments is presented in Table 605.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 605.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 605.2 and 605.5.

605.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 605.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 605, 235 SIG DET.

_	STOS .	NT ASBE	PERCE				SAMPLE
LAYERED	OT	AM	CH	DESCRIPTION	ITEM	LOCATION	NO.
YES	-	_	-	TAN,OTH,1X1 FL TL	FLOOR TILE	MENS	FH890
YES	-	-	-	WHITE, OTH, CEILING	CEILING TILE	MEETING AREA	FH891
NO	-	-	5	TAN,OTH,9X9 FL TL	FLOOR TILE	MEETING AREA	FH892
YES	-	-	-	WHITE, OTH, CEILING	CEILING TILE	OFFICE 1	FH893
YES	-	-	-	WHITE, OTH, CEILING	CEILING TILE	OFFICE 1	FH894
NO	-	-	-	BROWN,OTH,TL MASTIC	OTHER MATERIAL	OFFICE 1	FH895
NO	-	-	45	GRAY,OTH,TRAN BOARD	TRANSITE PANEL BOARD	EXTERIOR WALL	FH896
NO	-	-	3	TAN,OTH,9X9 FL TL	FLOOR TILE	OFFICE 1	FH897
NO	-	-	50	GRAY,OTH,TRAN BOARD	TRANSITE PANEL BOARD	MECH ROOM	FH898
YES	-	-	45	GRAY,OTH,TRAN BOARD	TRANSITE PANEL BOARD	EXTERIOR WALL	FH899

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest	•	
SE = Southeast		
SW = Southwest		

	P1	PE FITT	INGS (EA)			PIPE RUI	NS (LF)	<u> </u>	SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4 ¹¹	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
EXTERIOR WALL	-	-	-	-	-	-	•		-	•	-	•	*
MECH ROOM	-	-	-	-	-	-	-	-	-	-	-	-	*
MEETING AREA	-	-	-	-	-	-	-	-	•	1.10	-	•	-
OFFICE 1	=						-		<u> </u>	0.48			
TOTALS		-	-	-	-	-		-	-	1.58	-	-	*

^{*} Other Material Present In Various Units Of Measure

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

Table 605.3

Other Asbestos-Containing Material - Building 605, 235th Sig. Det. Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Exterior Wall	Transite Siding	0.510 (MSF)
Mechanical Room	Transite Ceiling Board	0.065 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 605.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 605, 235 SIG DET.

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	FX	POSI	IRF	·FAC	TORS	AVG. EXP.	%
NO.	AREA	TYPE	CODE	NUMBER	1	2	3	4	5	HOURS	ASB.
FH896	EXTERIOR WALL	TRANSITE PANEL BOARD	A	5.100E00	1	1	1	3	50	40.00	45
FH898	MECH ROOM	TRANSITE PANEL BOARD	A	1.450E-1	3	1	1	1	1	1.00	50
FH899	EXTERIOR WALL	TRANSITE PANEL BOARD	Α	1.450E-1	3	1	1	1	1	1.00	45
FH891	MEETING AREA	CEILING TILE	A	0	1	1	1	3	50	40.00	0
FH893	OFFICE 1	CEILING TILE	Α	0	1	1	1	3	50	40.00	0
FH894	OFFICE 1	CEILING TILE	A	0	1	1	1	3	50	40.00	0
FH895	OFFICE 1	CEILING TILE	Α	0	1	1	1	3	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 Accessability
3 [=] Material Condition
4 [=] Level Of Activity

5 [=] Number Of Assigned Occupants

TABLE 605.5 COST ESTIMATE* - BUILDING 605, 235 SIG DET.

	UNIT COST (\$)	AREĄ	AREA	AREĄ	AREA	
DESCRIPTION	COST (\$)	1	2	3	4	TOTAL
Pipe Fittings (EA)	70.30	-	-	-	-	-
4 ² 8" 9-14" >14"	70:30 25:70 218:70	:	:	=	=	-
	210.00	-	_	-	_	-
Pipe Runs (LF)	26-5 0	-	:	:	-	-
4-8" 9-14" >14"	26.50 30.50 60.80	-	:	:	:	=
	00.00					
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-	-
Floor Tile (SF)	5.60	-	-	6.2	2.7	8.8
Boilers/Tanks (SF)	37.90	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-		-
Other		5.6	0.7	-	-	6.3
SUBTOTAL		5.6	0.7	6.2	2.7	15.2
Difficulty Allowance		-	0.7	3.1	-	3.8
SUBTOTAL		5.6	1.4	9.2	2.7	19.0
Decontamination Units Mobilization		0.5	0.5	0.5	0.5	2.0
SUBTOTAL		6.1	1.9	9.7	3.2	21.0
Contingency a 15.00%		0.9	0.3	1.5	0.5	3.1
SUBTOTAL		7.0	2.2	11.2	3.7	24.1
Design Fee a 10.00%		0.7	0.2	1.1	0.4	2.4
SUBTOTAL		7.7	2.4	12.3	4.0	26.5
Air Monitoring a 10.00%	6***	0.7	0.7	0.7	0.7	2.7
TOTAL		8.4	3.1	13.0	4.7	29.2

^{*}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

SECTION 605.4 PHOTOGRAPHS



BLDG 605

EXTERIOR WALL: (SAMPLE FH896) GRAY TRANSITE PANEL BOARD TESTED POSITIVE.

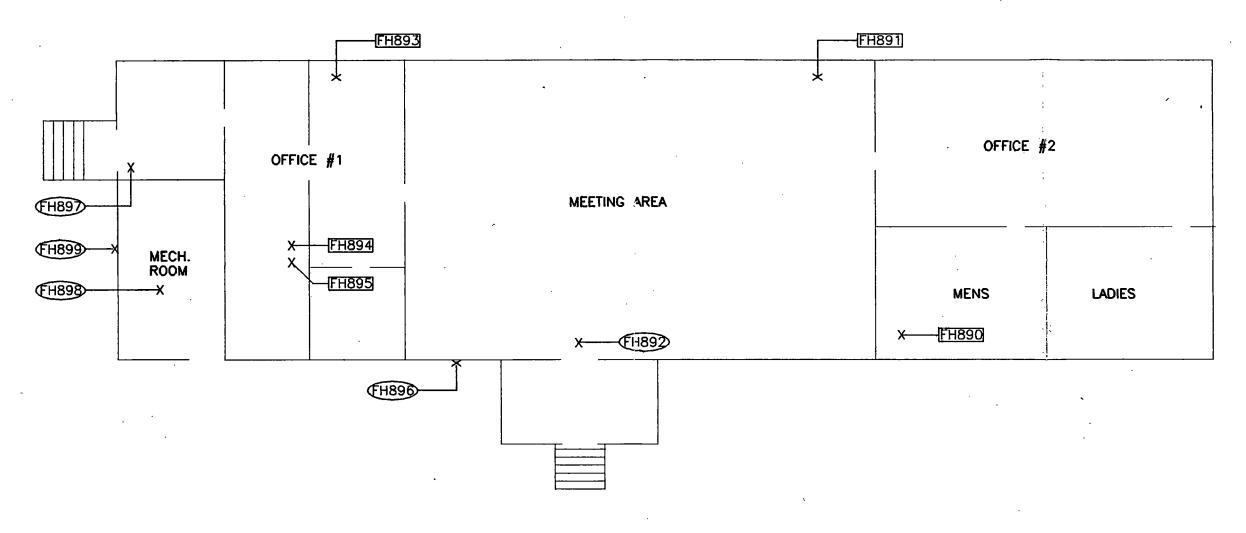


BLDG. 605 MECHANICAL ROOM: (SAMPLE FH898) GRAY TRANSITE PANEL TESTED POSITIVE.



BLDG. 605

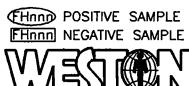
EXTERIOR WALL PATCH: (SAMPLE FH899)
TRANSITE PANEL BOARD TESTED POSITIVE.



BLDG. 605
NOT TO SCALE



LEGEND



614 RECRUITING OFFICE

RECRUITING OFFICE

614.1 GENERAL

Building 614 was surveyed by WESTON technicians on 6 June 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 5 samples of suspect material collected from the building. Of these samples, 3 were found to be asbestos-containing materials (ACM). Table 614.1 lists the analytical results for the bulk samples.

614.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 614 are presented in Table 614.1. An area-by-area inventory of ACM is provided in Tables 614.2 and 614.3. "Other Asbestos-Containing Materials," listed in Table 614.3, are materials that do not correspond to the standard caption categories listed in Table 614.2. A prioritized listing of exposure assessments is presented in Table 614.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 614.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 614.2 and 614.5.

614.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 614.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 614, RECRUTING OFFICE

SAMPLE				PERC	ENT ASBE	STOS	_
NO.	LOCATION	ITEM	DESCRIPTION	CH	AM	OT	LAYERED
FH909	MEN/WOMEN ROOMS	FLOOR TILE	TAN,OTH,1X1 FL TL	5	-	-	YES
FH910	OFFICE AREA	FLOOR TILE	BROWN, OTH, 9X9 FL TL	-	-	-	YES
FH911	TM LDR #2 & #3	FLOOR TILE	BROWN,OTH,9X9 FL TL	1	-	-	YES
FH912	BOILER ROOM	TRANSITE PANEL BOARD	GRAY,OTH,TRAN BOARD	50	-	-	YES
FH913	BOILER ROOM	<4" PIPE FITTING	GRAY,UNK,PIPE FITT.	-	-	-	NO

 $^{^{\}mathbf{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

Quadrant Codes	System Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotile
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		
SU = Southwest		

TABLE 614.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 614, RECRUTING OFFICE

	PI	PE FITT	INGS (EA)	<u> </u>		PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4"	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
OILER ROOM	-	-	•	-	-	-	-	-	•	-	_	-	*
EN/WOMEN ROOMS	-	-	-	-	-	-	-	-	-	0.18	•	-	-
4 LDR #2 & #3						-	:			0.25			
TALS	-	_	_	-	-	_	_	_	-	0.43	-	-	*

^{*} Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 614.3

Other Asbestos-Containing Material - Building 614, Recruiting Office Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Boiler Room	Transite Panel Board	0.040 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 614.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 614, RECRUTING OFFICE

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EXF	osu	RE	FAC	TORS	AVG. Exp.	*	
NO.	AREA	ТҮРЕ	CODE	NUMBER	1	2	3	4	5	HOURS	ASB.	
FH912	BOILER ROOM	TRANSITE PANEL BOARD	А	2.500E-2	2	1	1	1	1	1.00	50	
FH913	BOILER ROOM	<4" PIPE FITTING	A	0	2	1	1	1	1	1.00	0	

Priority Index Codes
A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

Exposure Factors

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

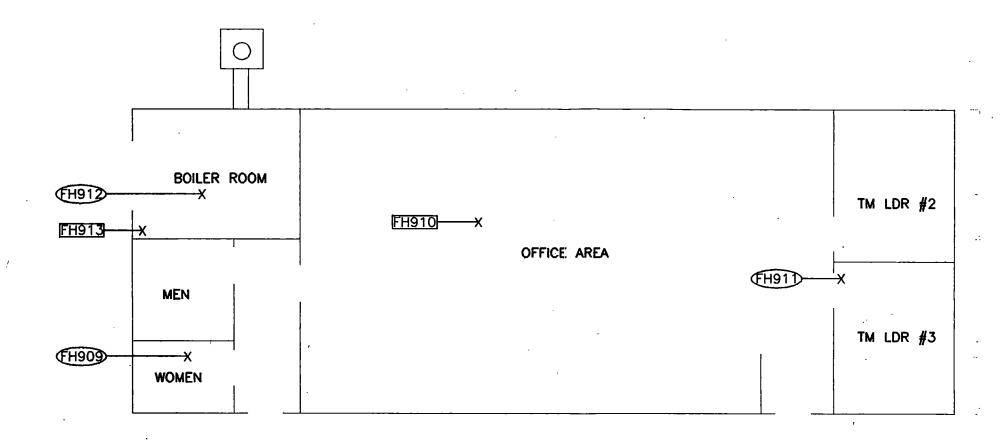
TABLE 614.5 COST ESTIMATE* - BUILDING 614, RECRUTING OFFICE

DESCRIPTION	UNIT COST (\$)	AREĄ	AREA	AREĄ	TOTAL
Pipe Fittings (EA)					IVINE
4-8" 9-14" >14"	70.30 85.80 146.70 216.00	:	=	:	:
\$14 ⁷⁷	278:68	-	-	-	-
Pipe Runs (LF)	26.50	-		-	
4-8" 9-14" >14"	26-50 30-50 22-50 60-80	:	-	:	•
-	60.80	-	-	-	-
Sprayed/Troweled Ceilings (SF)	9.60	-	-	-	-
Floor Tile (SF)	5.60	-	1.0	1.4	2.4
Boilers/Tanks (SF)	37.90	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	-	-
Other		0.4	-	-	0.4
SUBTOTAL		0.4	1.0	1.4	2.8
Difficulty Allowance		0.9	•	0.7	1.6
SUBTOTAL		1.3	1.0	2.1	4.4
Decontamination Units Mobilization		∂: 9	1: 9	∂: 9	3 :0
SUBTOTAL		3.0	2.7	3.8	9.4
Contingency a 15.00%		0.4	0.4	0.6	1.4
SUBTOTAL		3.4	3.1	4.3	10.8
Design Fee @ 10.00%		0.3	0.3	0.4	1.1
SUBTOTAL		3.8	3.4	4.8	11.9
Air Monitoring a 10.00%	***	0.4	0.4	0.4	1.2
TOTAL		4.2	3.8	5.2	13.1

^{*}Amounts Are In Thousands Of Dollars

AREA 1: BOILER ROOM AREA 3: TM LDR #2 & #3

^{**}Less Than \$100 For The Area; Amount Not Printed But Included In Total(s)
***The Minimum Air Monitoring Fee is \$500.00 Per Building



BLDG. 614

NOT TO SCALE



<u>LEGEND</u>



623 PCB STOREHOUSE

PCB STOREHOUSE

623.1 GENERAL

Building 623 was surveyed by WESTON technicians on 13 June 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 623.4.

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 asbestoscontaining materials (ACM). Table 623.1 lists the analytical results for the bulk samples.

623.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 623 are presented in Table 623.1. An area-by-area inventory of ACM is provided in Tables 623.2 and 623.3. "Other Asbestos-Containing Materials," listed in Table 623.3, are materials that do not correspond to the standard caption categories listed in Table 623.2. A prioritized listing of exposure assessments is presented in Table 623.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 623.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 623.2 and 623.5.

623.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

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

TABLE 623.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 623, PCB STOREHOUSE

SAMPLE				PERCE	NT ASB	<u>estos</u>	
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	LAYERED
FK514	STORAGE AREA	OTHER MATERIAL	GRAY,OTH,FIRE PROOF	45	-	-	NO
FK515	STORAGE AREA	OTHER MATERIAL	GRAY, OTH, FIRE PROOF	45	-	-	NO

 $^{^{\}mathrm{B}}\!\mathrm{Asbestos}$ content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quad	irant Codes	System Codes	Asbestos Types
C =	Center	STM = Steam	CH = Chrysotile
N =	: North	CHW = Chilled Water	AM = Amosite
E =	: East	HHW = Heating Hot Water	OT = Other
s =	: South	DOM = Domestic Water	
₩ =	: West	OTH = Other	
NE =	Northeast	UNK = Unknown	
NW =	: Northwest		
CE -	Southeast		

	PI	PE FITT	INGS (EA)			PIPE RU	S (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
TORAGE AREA	<u></u> :				<u> </u>			<u> </u>	-			-	*
TALS	-	-	_			-		-	-	- ,	-	-	*

Other Material Present In Various Units Of Measure

EA - Each

LF - Linear Feet MSF - Thousand Square Feet

Table 623.3

Other Asbestos-Containing Material - Building 623, PCB Storehouse Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Storage Area	Fireproofing Wall Insulation	0.780 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 623.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 623, PCB STOREHOUSE

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EX	POSI	URE	FAC	CTORS	AVG. Exp.	*	
NO.	AREA	TYPE	CODE	NUMBER	1_	2	3	4	5	HOURS	ASB.	
FK514	STORAGE AREA	INSULATION BOARD	A	1.620E00	3	1	2	1	2	2.00	45	
FK515	STORAGE AREA	INSULATION BOARD	Α	1.620E00	3	1	2	1	2	2.00	45	

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 623.5

COST ESTIMATE* - BUILDING 623, PCB STOREHOUSE

DESCRIPTION	UNIT COST (\$)	AREA 1	TOTAL		
Pipe Fittings (EA)	70:30 85:80	-	-		
4-8" 9-14" >14"	183.50 218.68	:	=		
Pipe Runs (LF)					
4-8"	26.50 30.50 42.50 60.80	-	:		
9-14" >14"	88:65	-	-		
Sprayed/Troweled Ceilings (SF)	9.60	-	-	·	
Floor Tile (SF)	5.60	-	-		
Boilers/Tanks (SF)	37.90	-	-		
Air Handling Equipment (SF)	20.00	-	-		
Other		3.3	3.3		
SUBTOTAL		3.3	3.3		
Difficulty Allowance		-	- '		
SUBTOTAL		3.3	3.3		
Decontamination Units Mobilization		3:8	3 :8		
SUBTOTAL		8.3	8.3		
Contingency a 15.00%		1.2	1.2		
SUBTOTAL		9.5	9.5		•
Design Fee @ 10.00%		1.0	1.0		
SUBTOTAL	_	10.5	10.5		
Air Monitoring a 10.00%**	'₩	1.0	1.0		
TOTAL		11.5	11.5		

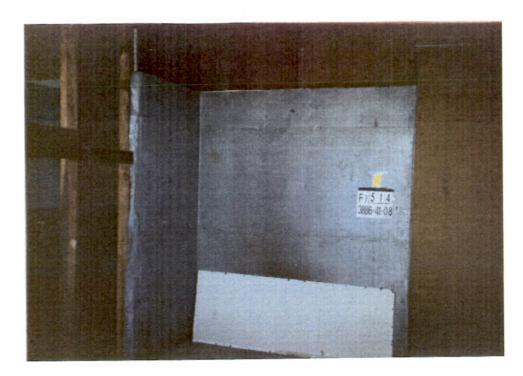
^{*}Amounts Are In Thousands Of Dollars

AREA 1: STORAGE AREA

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

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

SECTION 623.4 PHOTOGRAPHS



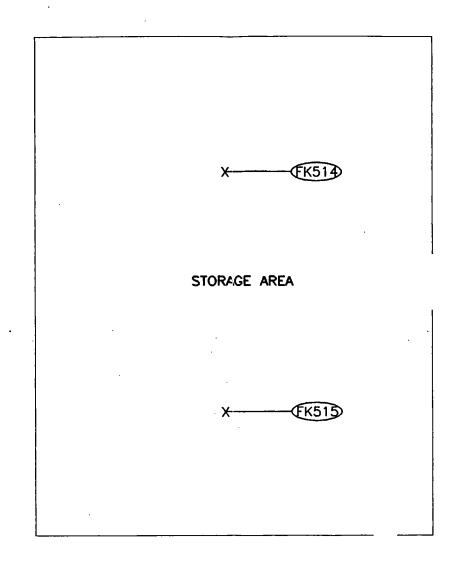
BLDG. 623

PCB STOREHOUSE: (SAMPLE FK514) GRAY FIREPROOFING WALL INSULATION TESTED POSITIVE.



BLDG.623

PCB STOREHOUSE: (SAMPLE FK515) GRAY FIREPROOFING INSULATION LOCATED BEHIND SHEET METAL TESTED POSITIVE.



BLDG. 623 NOT TO SCALE



<u>LEGEND</u>



668 CHILD DEVELOPMENT CENTER

CHILD DEVELOPMENT CENTER

668.1 GENERAL

Building 668 was surveyed by WESTON technicians on 13 June 1991.

The first three portions of this facility report summarize the results of this inspection. Photographs of some sample locations are provided in Section 668.4.

Polarized Light Microscopy (PLM) with dispersion staining was used to analyze 10 samples of suspect material collected from the building. Of these samples, 7 were found to be asbestos-containing materials (ACM). Table 668.1 lists the analytical results for the bulk samples.

668.2 ACM AND EXPOSURE ASSESSMENT

The location, description, and analytical results for each bulk sample from Building 668 are presented in Table 668.1. An area-by-area inventory of ACM is provided in Tables 668.2 and 668.3. "Other Asbestos-Containing Materials," listed in Table 668.3, are materials that do not correspond to the standard caption categories listed in Table 668.2. A prioritized listing of exposure assessments is presented in Table 668.4. The method by which the exposure assessment priority index values are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.5 of the Guide Document that accompanies this report. An itemized area-by-area cost estimate for removal and replacement is provided in Table 668.5. The method by which removal/replacement costs are calculated is described in the ISSUES COMMON TO ALL BUILDINGS, Section 3.4 of the Guide Document. Building floor plans (see attachment) indicate sample locations and building area names as they are listed in Tables 668.2 and 668.5.

668.3 RECOMMENDATIONS/CONCLUSIONS

WESTON recommends:

- The exterior wall of Building 668 qualifies for the Army Asbestos Deficiency Abatement Project.
- Asbestos-containing floor tile should be labeled under the O&M Program.

TABLE 668.1

BULK SAMPLE ANALYSIS RESULTS - BUILDING 668, CHILD DEVELOP. CTR.

SAMPLE				PERCE	ENT ASB	STOS	_
NO.	LOCATION	ITEM	DESCRIPTION	СН	AM	OT	LAYERED
FK504	CHILDRENS AREA	CEILING TILE	WHITE, OTH, CEIL. TILE	, -	-	-	YES
FK505	ADMIN AREA	CEILING TILE	WHITE, OTH, CEIL. TILE	-	-	-	YES
FK506	OPEN OFFICE	CEILING TILE	WHITE, OTH, CEIL. TILE	-	-	-	YES
FK507	CHILDRENS AREA	FLOOR TILE	GREEN,OTH,9X9 FL TL	7	-	-	NO
FK508	CLOSET	FLOOR TILE	WHITE,OTH,1X1 FL TL	<1	-	-	YES
FK509	OPEN OFFICE	FLOOR TILE	TAN,OTH,9X9 FL TL	5	-	-	YES
FK510	ADMIN AREA	FLOOR TILE	TAN,OTH,9X9 FL TL	7	-	-	YES
FK511	CHILDRENS AREA	DUPLICATE SAMPLE	GREEN,OTH,9X9 FL TL	10	-	-	NO
FK512	EXT WALL	TRANSITE PANEL BOARD	GRAY,OTH,TRANSITE	40	2	-	YES
FK513	EXT WALL	DUPLICATE SAMPLE	GRAY, OTH, TRANSITE	40	1	-	NO

 $^{^{\}mathrm{a}}$ Asbestos content presented for layered samples represents the highest concentration layer.

SW = Southwest

Quadrant Codes	System_Codes	Asbestos Types
C = Center	STM = Steam	CH = Chrysotil
N = North	CHW = Chilled Water	AM = Amosite
E = East	HHW = Heating Hot Water	OT = Other
S = South	DOM = Domestic Water	
W = West	OTH = Other	
NE = Northeast	UNK = Unknown	
NW = Northwest		
SE = Southeast		

TABLE 668.2 ASBESTOS-CONTAINING MATERIALS - BUILDING 668, CHILD DEVELOP. CTR.

	PI	PE FITT	INGS (EA)	·		PIPE RU	NS (LF)		SPRAY/TROWELED	FLOOR TILE	BOILERS/	AIR HANDLING	
AREA	<4"	4-8"	9-14"	>14"	<4 ¹¹	4-8"	9-14"	>14"	CEILINGS (MSF)	(MSF)	TANKS (MSF)	EQUIPMENT (MSF)	OTHE
DMIN AREA	•	-	-	-	-	_	-	-	-	0.49	-	-	-
HILDRENS AREA	-	-	-	-	-	-	-	-	•	0.80	-	-	-
CLOSET	-	-	-	-	-	-	-	-	•	0.03	-	•	-
XT WALL	-	-	-	-	-	-	-	-	-	-	-	•	*
OPEN OFFICE		-		-						<u> </u>			
TOTALS	-	_	-	•		_	_	-	-	2.88	-	•	*

^{*} Other Material Present In Various Units Of Measure

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

Table 668.3

Other Asbestos-Containing Material - Building 668, Child Development Center Type Occupancy: Adults (Public)

Area	Material Type	Quantity (Unit)
Exterior Wall	Transite Skirt	2.6 (MSF)

EA - Each

LF - Linear Feet

MSF - Thousand Square Feet

TABLE 668.4 EXPOSURE ASSESSMENTS (PRIORITY ORDER) - BUILDING 668, CHILD DEVELOP. CTR.

SAMPLE		MATERIAL	PRIOR. INDEX	PRIORITY INDEX	EV	'DAS	1105	, EV.	CTORS	AVG. Exp.	*
NO.	AREA	TYPE	CODE	NUMBER	1	2	3	4	5	HOURS	ASB.
FK512	EXT WALL	TRANSITE PANEL BOARD	С	2.640E03	2	2	1	1	8	40.00	42
FK504	CHILDRENS AREA	CEILING TILE	Α	0	2	2	1	1	8	40.00	0
FK505	ADMIN AREA	CEILING TILE	Ά	0	2	2	1	1	8	40.00	0
FK506	OPEN OFFICE	CEILING TILE	A	0	2	2	1	1	8	40.00	0

Priority Index Codes

A [=] Long Term Corrective Measure

B [=] Review Management Special Considerations/Remarks C [=] Army Asbestos Deficiency Abatement Project

Priority Index Numbers Are In Scientific Notation

- Exposure Factors

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

TABLE 668.5 COST ESTIMATE* - BUILDING 668, CHILD DEVELOP. CTR.

DESCRIPTION	UNIT COST (\$)	AREA	AREA	AREA	AREA	AREA	TOTAL
Pipe Fittings (EA) 4.8" 9-14" >14"	70:30 15:80 216:00	:	<u>-</u>	- -	=	:	:
		-	-	-	-	-	-
Pipe Runs (LF)	26.50 30.50 42.50 60.80	:	-	:	-	:	-
Sprayed/Troweled Ceilings (SF)	9.60	•	-	-	_	-	-
Floor Tile (SF)	5.60	2.7	4.5	0.2	•	8.7	16.1
Boilers/Tanks (SF)	37.90	•	-	-	-	-	-
Air Handling Equipment (SF)	20.00	-	-	_	-	-	-
Other		-	-	-	28.6	-	28.6
SUBTOTAL		2.7	4.5	0.2	28.6	8.7	44.7
Difficulty Allowance		1.4	2.2	-	-	4.4	8.0
SUBTOTAL		4.1	6.7	0.2	28.6	13.1	52.7
Decontamination Units Mobilization		8:4	8:\$	8:4	8:4	8:\$	3 :8
SUBTOTAL		5.1	7.7	1.2	29.6	14.1	57.7
Contingency a 15.00%		0.8	1.2	0.2	4.4	2.1	8.7
SUBTOTAL		5.8	8.9	1.3	34.0	16.2	66.3
Design Fee @ 10.00%		0.6	0.9	0.1	3.4	1.6	6.6
SUBTOTAL		6.4	9.8	1.5	37.4	17.8	73.0
Air Monitoring a 10.00%	(***	1.5	1,5	1.5	1.5	1.5	7.3
TOTAL		7.9	11.2	2.9	38.9	19.3	80.3

^{*}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

SECTION 668.4 PHOTOGRAPHS



BLDG. 668

OPEN OFFICE: (SAMPLE FK509) TAN 9" X 9" FLOOR TILE TESTED POSITIVE.



BLDG. 668

EXTERIOR WALL: (SAMPLE FK512) GRAY TRANSITE SKIRT, (PAINTED BROWN), TESTED POSITIVE.

