

First Baptist Church Building:

Cost Estimates to Occupy Building	Using LPBA		Using Combined	
		Estimate Project Cost		Estimates Project Cost
Purchase price:	\$	425,000.00	\$	425,000.00
Renovations	\$	1,112,572.00	\$	1,361,240.00
Defined Costs (1) Architect (2) Asbestos Survey (3) MEP Engineer				
1st floor & Bell Tower Structural Support	1	\$ 45,000.00	1	\$ 45,000.00
Asbestos and HazMat Removal	1	\$ 10,687.00	3	\$ 87,600.00
Install/Update Bathrooms	1	\$ 32,160.00		\$ -
Plumbing and Cosmetics	1	\$ 22,000.00	3	\$ 125,000.00
Elevator Install Prep	1	\$ 22,200.00	1	\$ 22,200.00
Install Elevator	1	\$ 272,206.00	1	\$ 272,206.00
Upgrade Kitchen	1	\$ 30,000.00	3	\$ 30,000.00
Accessable Drinking Fountain	1	\$ 3,200.00	1	\$ 3,200.00
Public Telephone	1	\$ 250.00	1	\$ 250.00
Patching, Plastering and Painting	1	\$ 11,269.00	1	\$ 10,000.00
Doors and Frames	1	\$ 10,900.00	1	\$ 10,000.00
Fire Alarm System	1	\$ 32,000.00	3	\$ -
Sprinkle Building	1	\$ 90,000.00	3	\$ 125,000.00
Electrical Work	1	\$ 30,000.00	3	\$ 225,000.00
General Conditions	1	\$ 44,000.00	E	\$ 49,280.00
Contractor Overhead	1	\$ 62,700.00	E	\$ 70,224.00
Contingency	1	\$ 69,000.00	E	\$ 77,280.00
Arcitectural/Engineering Fees	1	\$ 75,000.00	E	\$ 84,000.00
Not anticipated but Needed				
HVAC **	3	\$ 250,000.00	3	\$ 125,000.00
<b>Total Estimated Cost to Occupy Building</b>		<b>\$ 1,537,572.00</b>		<b>\$ 1,786,240.00</b>

Source:

- 1 LPBA
- 2 Universal Environmental Consultants
- 3 MacRichie Engineering / Cost Est from Daedalus

\*\* This cost can be reduced to under \$150,000 by using floor placed window vented AC and replacing Heat Plant



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Francis Lynam  
Town of Whitman  
54 South Avenue,  
Whitman  
MA 02382

August 24<sup>th</sup>, 2009

Frank,

Per our recent telephone conversation we understand that, if purchased by the Town of Whitman, it is proposed to renovate the existing "First Baptist Church" building. The renovated building would be used as a senior center comprising senior day care center, offices, meeting rooms and associated common areas.

We have reviewed McRitchie Engineers report on the Mechanical, Electrical, Plumbing and Fire Protection systems at the existing "First Baptist Church" in Whitman MA. The following is our estimate of the costs to carry out the work outlined in the MEP & FP report.

1. Fire Protection \$100,000 - \$125,000  
New fire protection system throughout the building. The system would be connected to the municipal system located in the street.
2. Plumbing \$125,000 – \$150,000  
Replace existing plumbing system including new hot and cold water piping, drainage, toilet fixtures and hot water heater
3. Heating Ventilation and Air Conditioning \$250,000 - \$300,000  
Complete new HAVC system including replacing the existing boiler.
4. Electrical \$225,000 - \$275,000  
New fire alarm, emergency lighting, power distribution, and lighting throughout the existing building.  
New 400 amp 208/120 volt, three phase service.
5. Catering Kitchen Equipment \$12,000 - \$18,000  
Allowance for catering standard kitchen – food prepared off site
6. Commercial Kitchen Equipment \$30,000 - \$50,000  
Allowance for commercial standard equipment catering for 30 - 40 people per day

The above estimates assume that the work will be carried out as part of a complete building renovation. Please do not hesitate to contact me if you have any questions or require further information.

Yours Sincerely

Shane Nolan  
DAEDALUS PROJECTS

First Baptist Church  
Whitman, MA

Background:

The building currently housing the "First Baptist Church" in Whitman is to be sold. One potential reuse for the building is a senior center. This report addresses the capacity and condition of the mechanical and electrical system, and their suitability for the new use.

In general, the original building is over a hundred years old. An addition was added at some point, many years ago. The mechanical and electrical systems, although there is a relatively new boiler and some newer electrical panels, is old and incapable of adequately serving a modern renovation.

Fire Protection:

Currently, the building is not fire protected with a fire sprinkler system. Due to the size of the building, wood construction and change of use, a fire sprinkler system is recommended and will likely be required by code.

The building should be completely protected with a fire protection system installed under NFPA-13. The system would be connected to the municipal system located in the street.

In general, the fire protection system will be a wet system but may require a dry system to serve unheated areas such as the steeple.

Based on the extent of the kitchen renovation, an "Ansul" type fire suppression system may be required in the kitchen hood. (See discussion under plumbing.)

Plumbing:

The plumbing system is functional but old. The extent of the kitchen renovations will have a large impact on the required extent of plumbing system improvements.

Kitchen: The existing kitchen and proposed renovated kitchen today would be considered a commercial kitchen and be required to meet both building code and Department of Health regulations.

From our perspective, there are two types of commercial kitchens. The first is considered a "catering kitchen". Food would be prepared off-site. A "residential" quality stove for light incidental use would be installed. However, a triple sink and commercial dish washer would

likely be required, triggering the need for a grease trap in the sanitary line. This also requires the domestic hot water system provide both 140°F water for the dishwasher and triple sink and 120°F water for hand sinks. A catering kitchen generally requires a great deal of counter space and receptacle on dedicated currents for warming trays.

A full commercial kitchen would have commercial cooking equipment with exhaust hood and welded grease exhaust ductwork. The gas fired equipment would be interlocked with the exhaust hood so it couldn't operate until the exhaust hood starts. An Ansul fire suppression system would be installed in the ductwork. All the extra work for a catering kitchen (dishwasher, triple sink, etc) will be required.

If only catered functions are intended, the reduced scope of a "catering kitchen" will define the scope of work.

If meals for functions are to be prepared on site or if a Meals-on –Wheels type program is to be operated out of the senior center, the full commercial kitchen requirements must be provided.

The recently completed "Senior Center" in Quincy has a full commercial kitchen.

The existing plumbing system should be replaced. The water heater is undersized for either kitchen use. Toilets with flush valves are recommended for reduced maintenance. A new water service can be easily brought in with the new sprinkler system.

#### Heating, Ventilating and Air Conditioning:

There are no mechanical ventilation or air conditioning systems. The existing building is heated by an oil fired, cast iron boiler that is relatively new.

The old steam system was converted to hot water. There are currently six heating zones, each with a residential quality zone control valve. The hot water circulation and return piping is undersized. Newer work is in copper. The older steam system is steel. There appears to be some asbestos pipe insulation.

The entire system should be replaced with a modern HVAC system. The final layout, use of space, etc. should be used to determine the type of system. However, a hydronic system in some form is recommended.

Although the boiler can be reused, it is not particularly efficient. Modern, gas fired condensing boilers can increase efficiency by 12-15 percent.

A new, natural gas service is recommended.

Note: We understand the existing kitchen range is propane. The Fire Department will not allow two separate services without their approval. The renovated kitchen should also be natural gas.

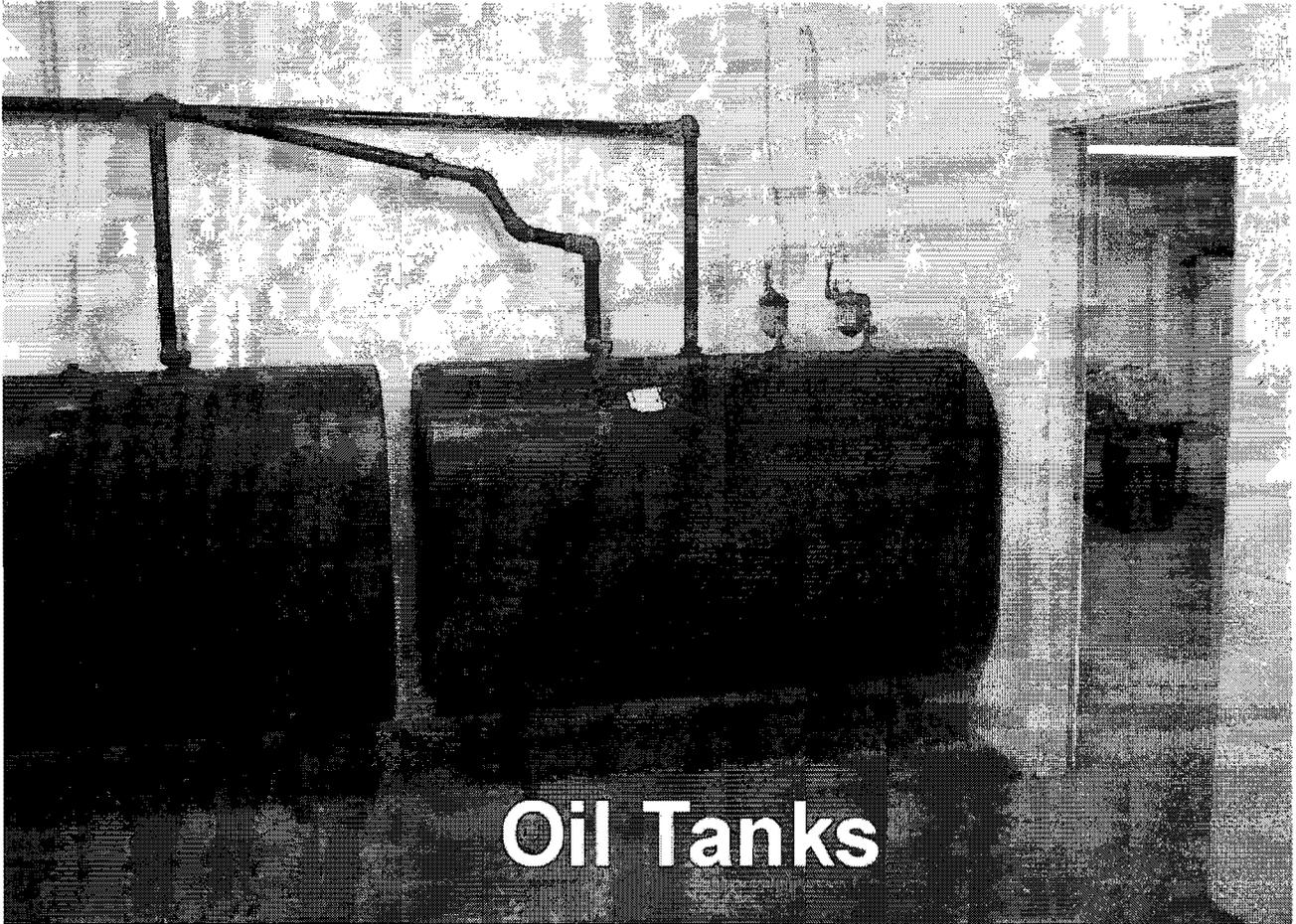
Electrical:

The building is currently served by a 200 AMP, 240/120 volt, single phase electrical service. Although adequate for the current use, it will not be capable of providing adequate power for an elevator and a modern HVAC system.

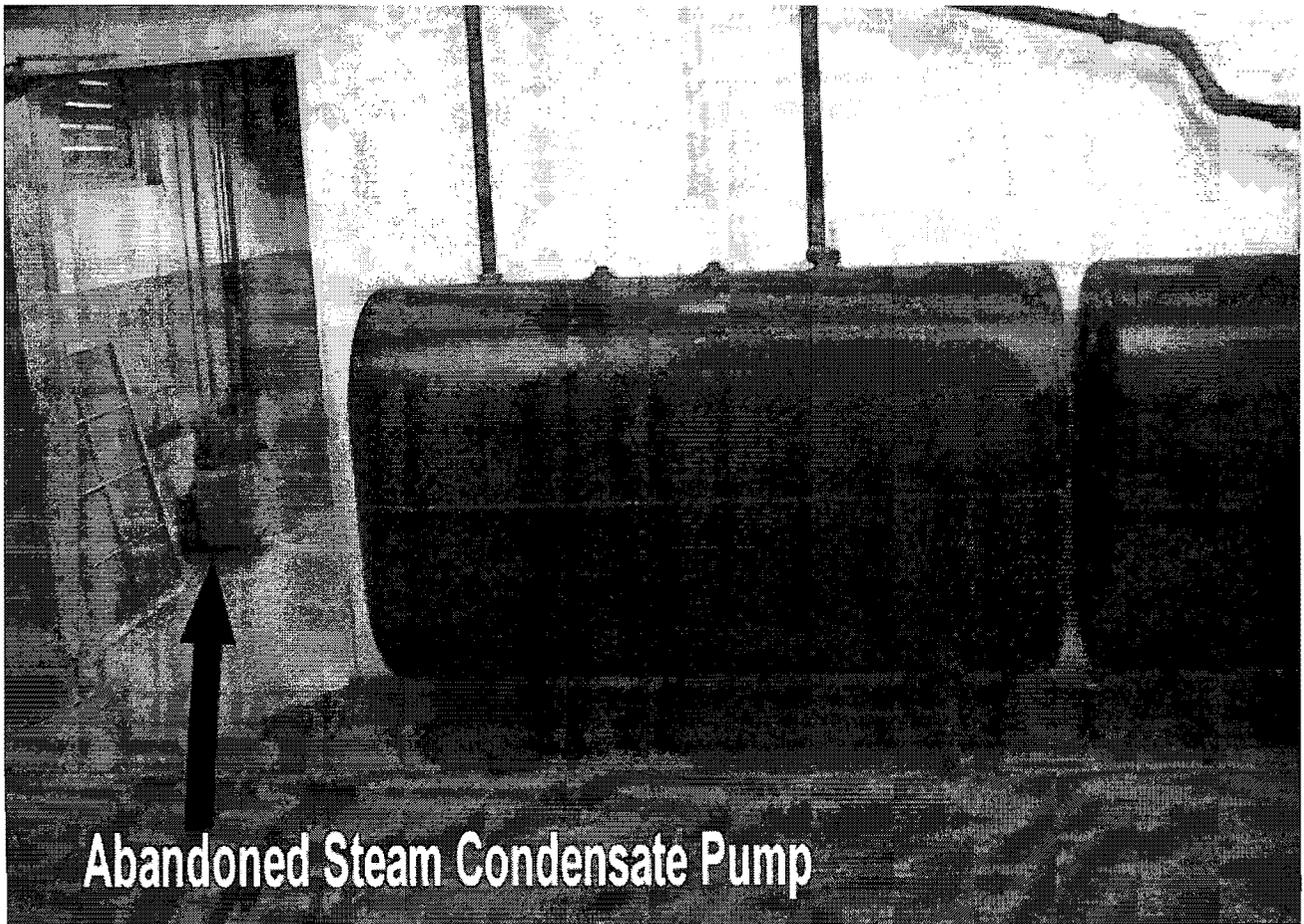
Emergency lighting is via battery operated wall packs. A minimal fire alarm system exists.

The entire building must be upgraded electrically. A new 400 ampere 208/120 volt, three phase service is recommended.

New fire alarm, emergency lighting, power distribution and lighting will also be required.



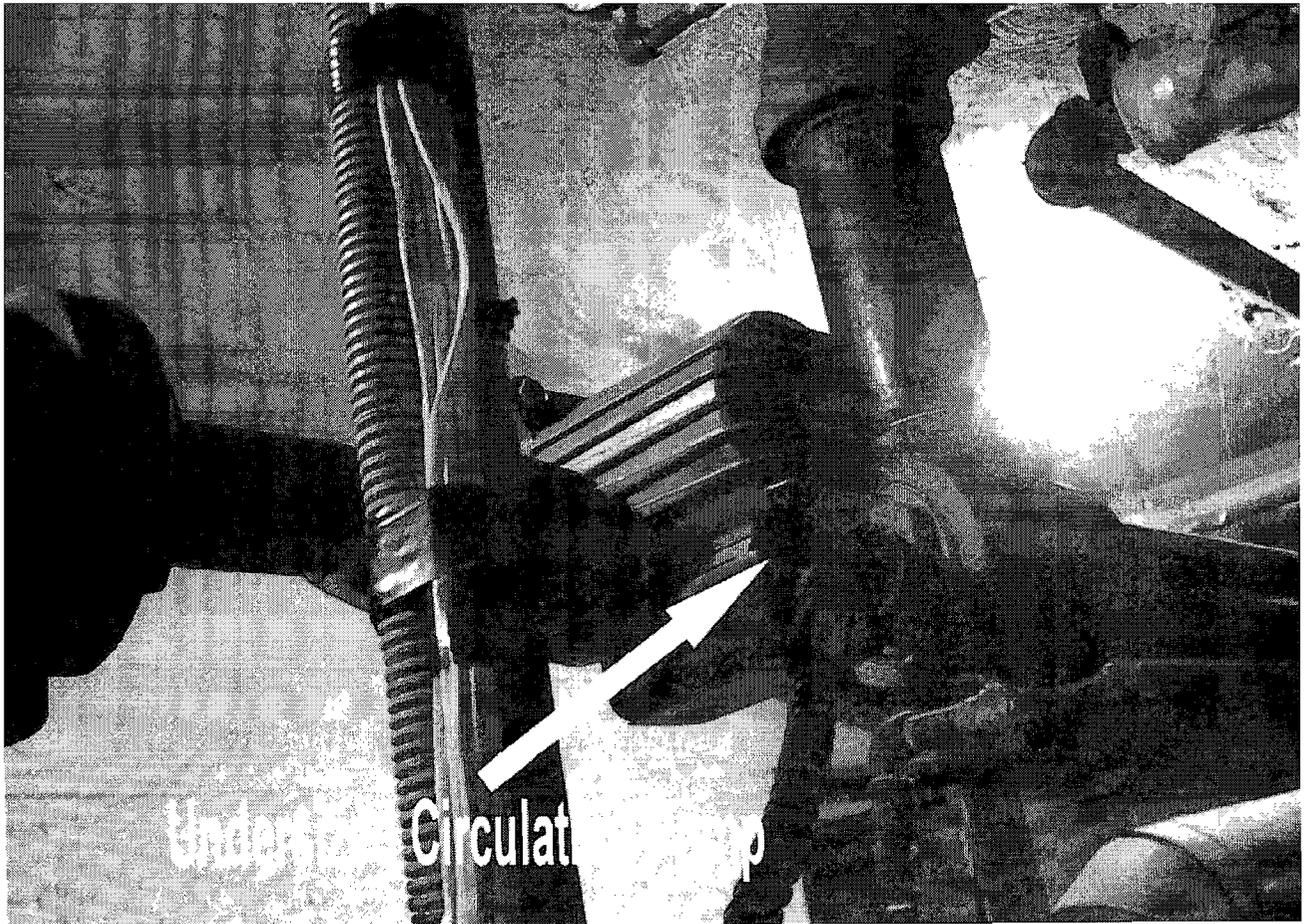
**Oil Tanks**



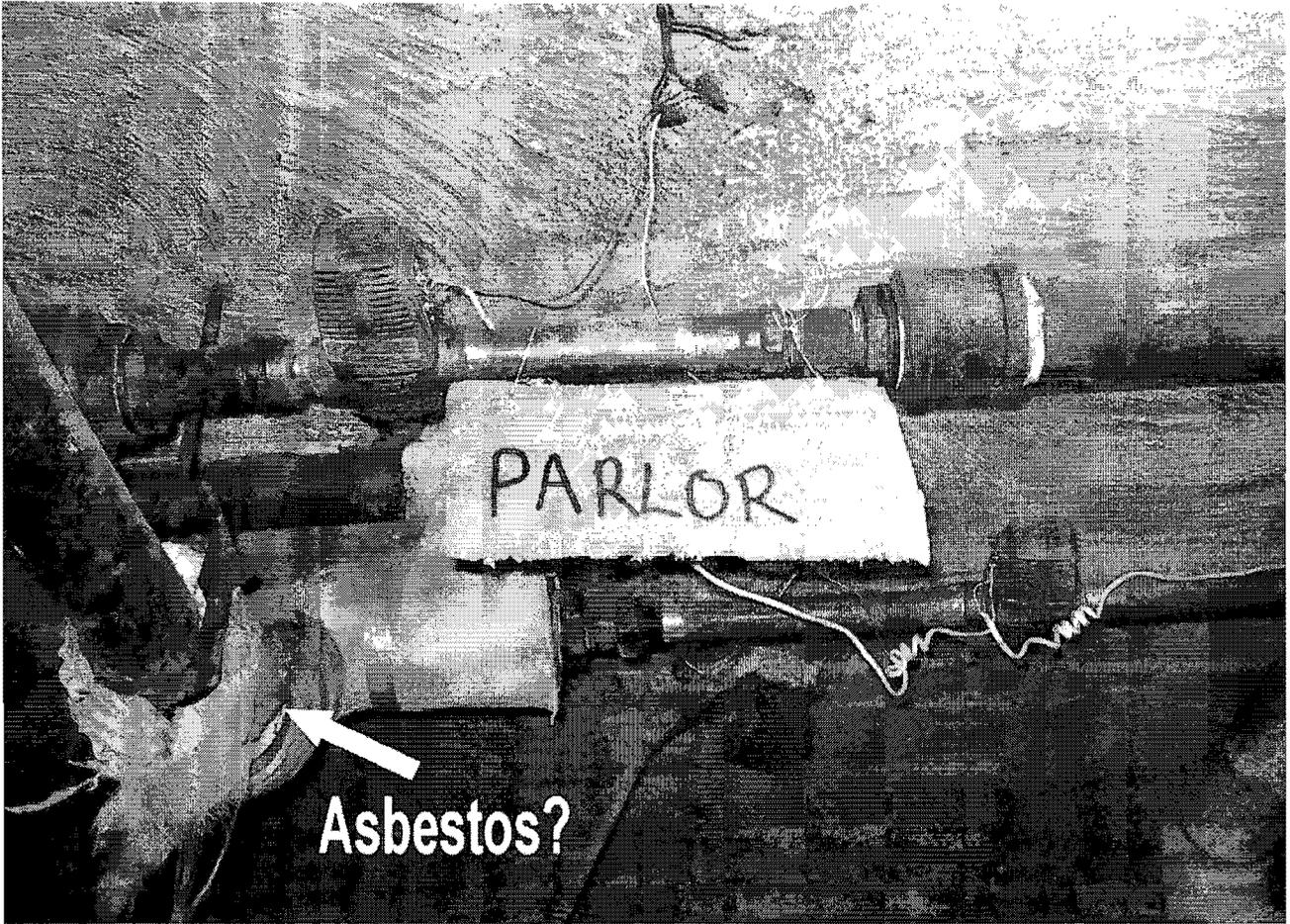
**Abandoned Steam Condensate Pump**

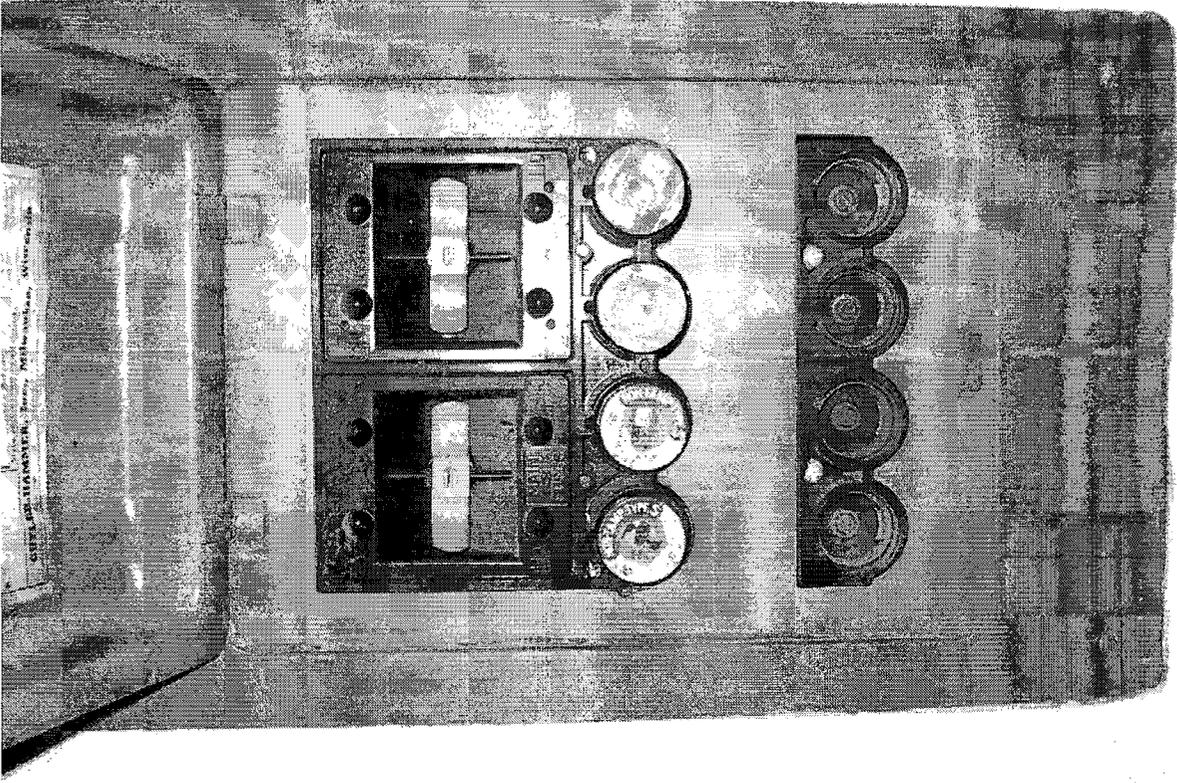


Typical Zone Control Valves. Note Mix of Steel Pipe and Copper Tubing.



Circulator Pump





**Older Style Fuse Box**



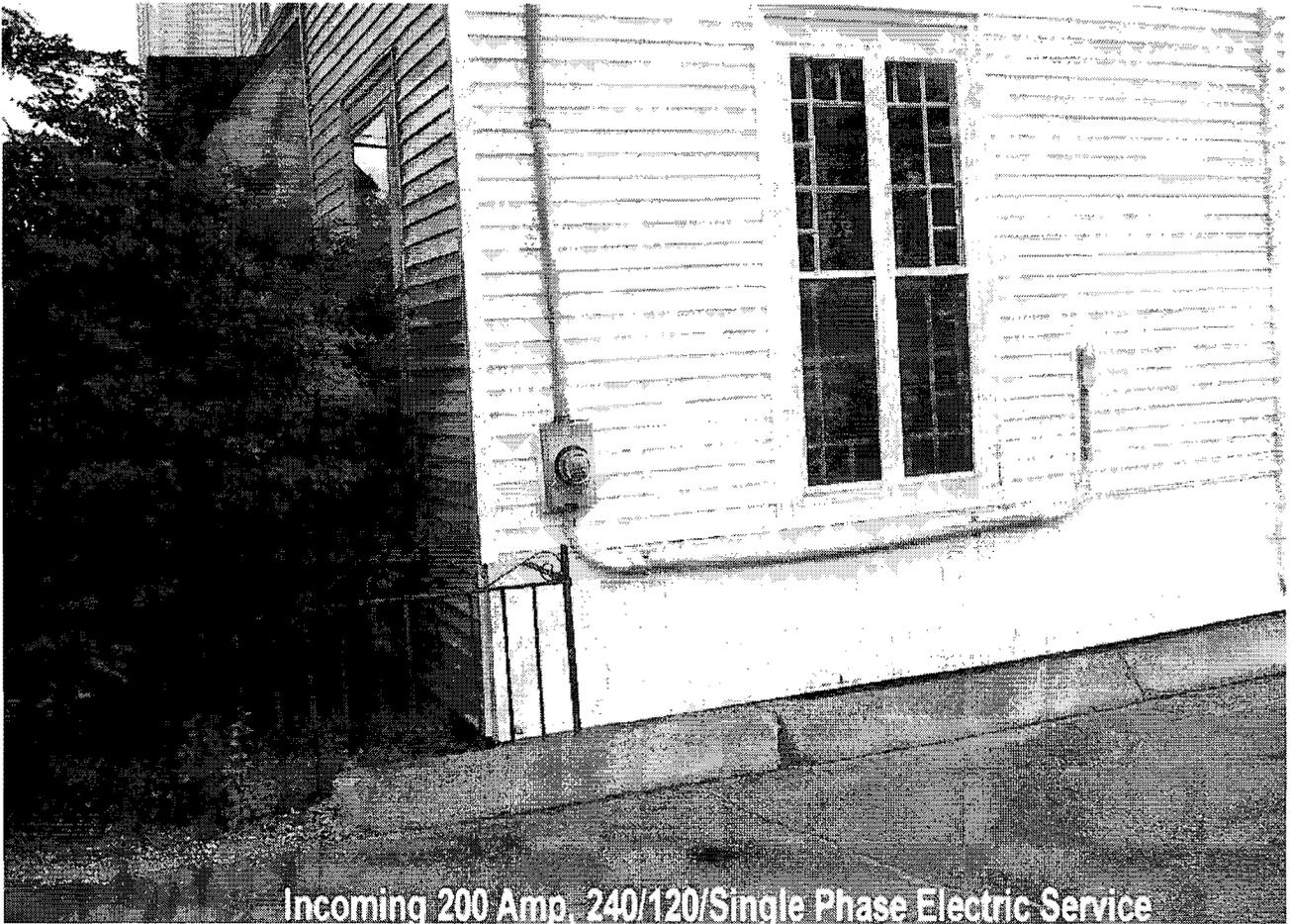
**Existing Stove. No Hood. No Fire Suppression.**



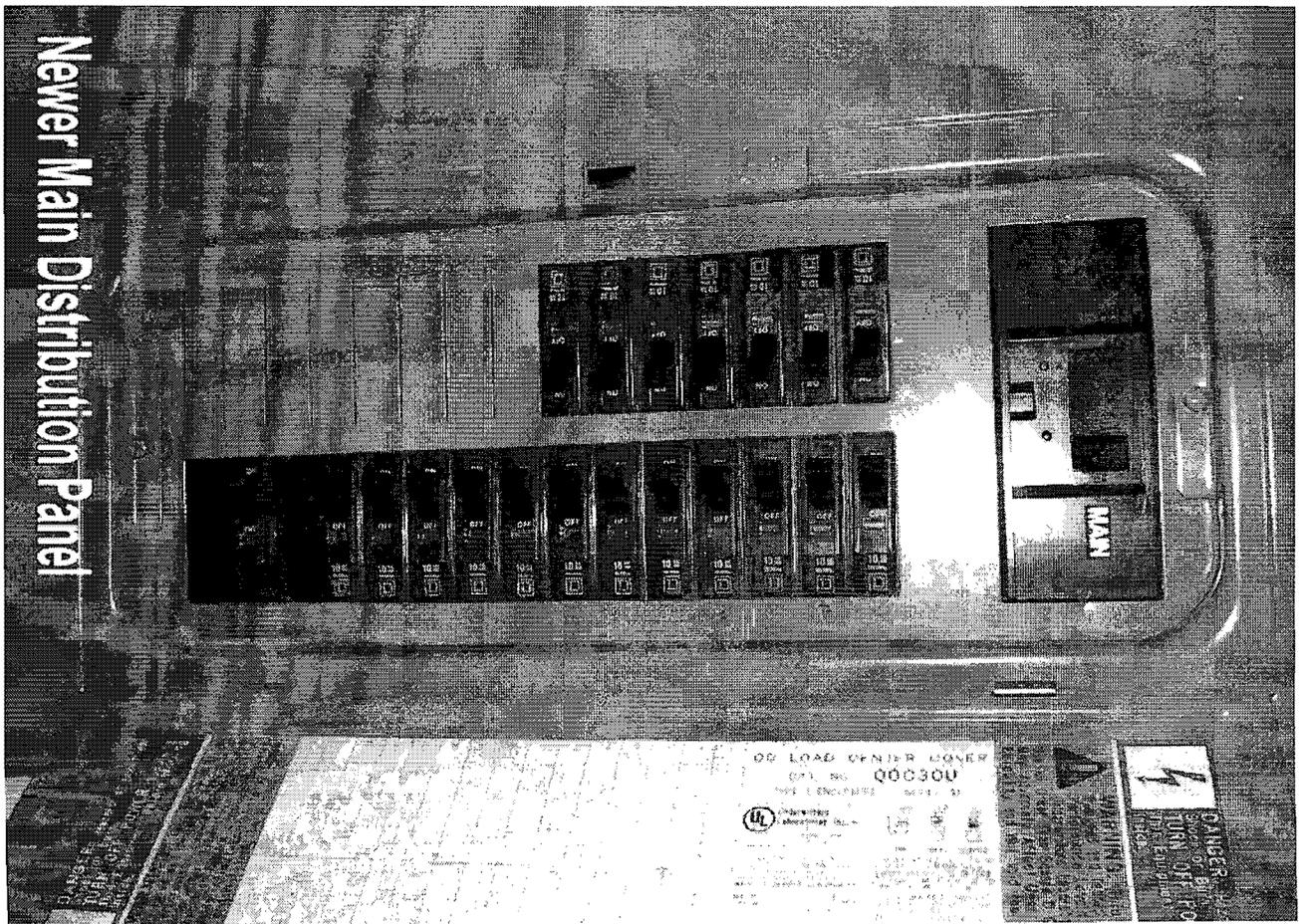
Former Steam Convactor Now Piped With Hot Water



Older (but operational) Battery Pack Emergency Lighting



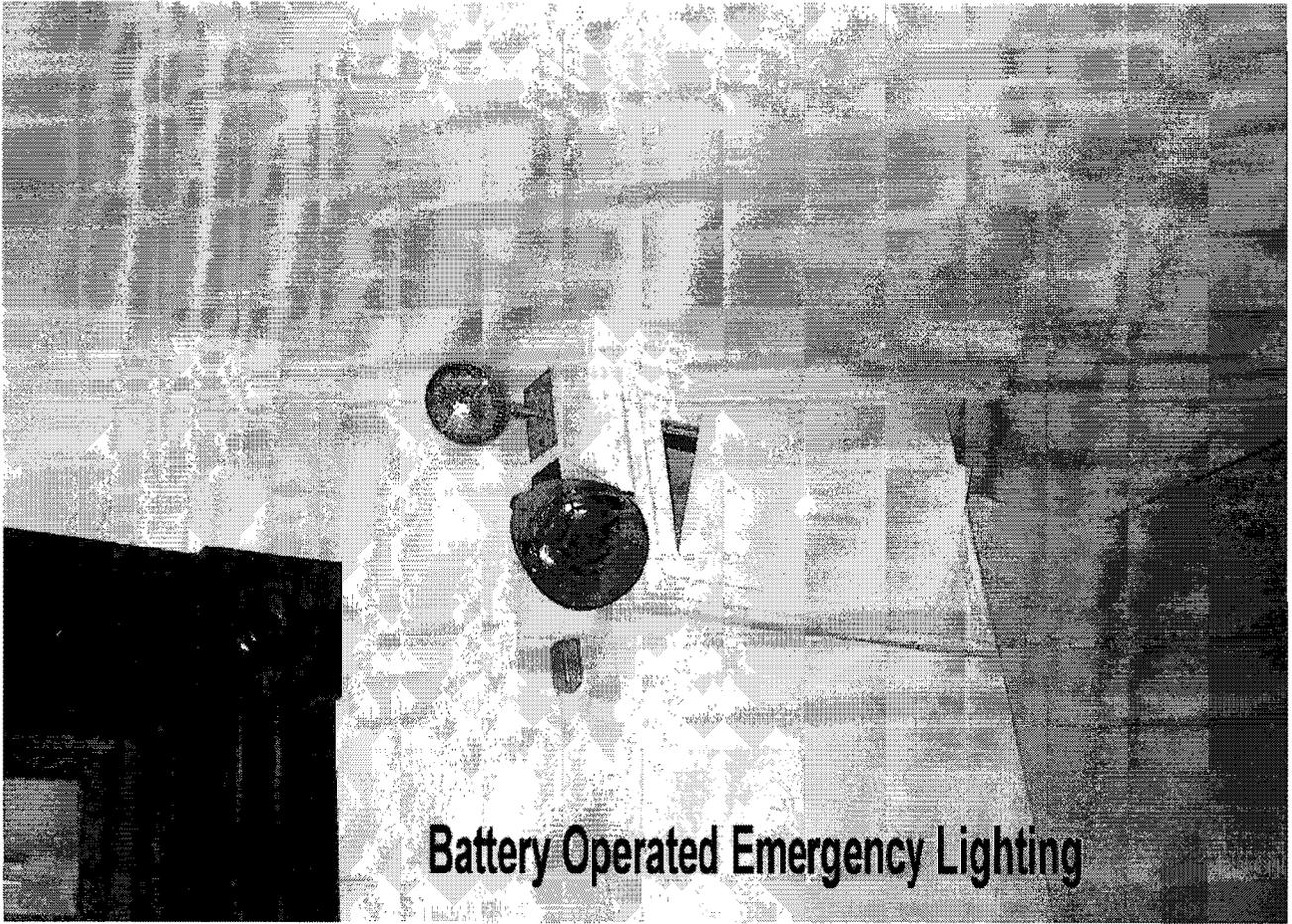
Incoming 200 Amp, 240/120/Single Phase Electric Service



Newer Main Distribution Panel

00 LOAD CENTER COVER  
Q0C30U  
UL Laboratories Inc.

4  
DANGER  
TURN OFF POWER  
BEFORE OPENING



**FINAL REPORT  
FOR  
ASBESTOS CONTAINING MATERIALS  
IDENTIFICATION SURVEY  
AT  
FIRST BAPTIST CHURCH  
WHITMAN, MASSACHUSETTS**

PROJECT NO: 29117.00

SURVEY DATE:  
July 14, 2009

SURVEY CONDUCTED BY:

**UNIVERSAL ENVIRONMENTAL CONSULTANTS**

July 16, 2009

Mr. Francis J. "Frank" Lynam  
Town Administrator  
Town of Whitman  
54 South Avenue  
Whitman, MA 02382

Reference: Asbestos Inspection and Laboratory Services  
First Baptist Church, Whitman, MA

Dear Mr. Lynam:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the final report for the Identification Survey for accessible asbestos containing materials at the First Baptist Church, Whitman, MA.

The inspection was performed by a Massachusetts licensed asbestos inspector Mr. Leonard J. Busa (AI-030673).

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

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Ammar M. Dieb  
President

UEC:\29117\Report.DOC

Enclosure

## 1.0 INTRODUCTION:

Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of fifteen years of experience.

UEC was contracted by the Town of Whitman to conduct a determination survey for accessible Asbestos Containing Materials (ACM) at the First Baptist Church, Whitman, MA.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination of types of ACM found and cost estimates for remediation.

Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) in accordance with EPA standard. The bulk samples were collected by a Massachusetts licensed asbestos inspector Leonard J. Busa (AI-030673) and analyzed by a Massachusetts licensed laboratory AmeriSci, Weymouth, MA.

Samples results can be found in Appendix A.

## 2.0 FINDINGS:

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than 1 percent in accordance with EPA regulations. However, all suspect materials that contain any amount of asbestos must be considered asbestos if it is scheduled to be removed per the Department of Environmental Protection (DEP) regulations.

### A. Number of Samples Collected

Forty four (44) bulk samples were collected from the following materials suspected of containing asbestos:

1. Ceiling plaster at church balcony storage
2. Ceiling plaster at kitchen
3. Ceiling plaster at children's room
4. Ceiling plaster at function hall
5. Ceiling plaster at Pastor's room
6. Wall plaster at church
7. Wall plaster at church balcony
8. Wall plaster at kitchen storage room
9. Wall plaster at function hall
10. Wall plaster at kitchen
11. Wall plaster at third floor
12. Ceiling plaster at basement oil tank room
13. Rough ceiling plaster at boiler room
14. Rough ceiling plaster at room adjacent to boiler room
15. 2'x 2' Suspended acoustical ceiling tile type I at Pastor's room
16. 2'x 2' Suspended acoustical ceiling tile type II at function hall
17. 2'x 2' Suspended acoustical ceiling tile type II at children's room
18. Old 2'x 2' suspended acoustical ceiling tile type II at children's closets
19. 2'x 4' Suspended acoustical ceiling tile at basement room by boiler room
20. Linoleum floor covering type I at kitchen storage room

21. Black paper for linoleum floor covering type I at kitchen storage room
22. Glue for linoleum floor covering type I at kitchen storage room
23. Linoleum floor covering type I at kitchen
24. Linoleum floor covering type I under 12"x 12" vinyl floor tile at kitchen
25. 12"x 12" Vinyl floor tile on top of linoleum floor covering type I at kitchen
26. Linoleum floor covering type II at kitchen II
27. Linoleum floor covering type III at rear stairs and landings
28. Linoleum floor covering type IV at third floor stairs
29. Beige joint compound at function hall
30. White joint compound at kitchen mechanical room
31. Light brown 9"x 9" vinyl floor tile at function hall
32. Mastic for light brown 9"x 9" vinyl floor tile at function hall
33. Mastic for 9"x 9" red vinyl floor tile at basement hall
34. Mastic for 9"x 9" light brown vinyl floor tile at kitchen
35. Pipe insulation at church balcony
36. Pipe insulation debris on crawl space floor
37. Rosin paper under hardwood floor at function hall
38. Rosin paper under hardwood floor at function hall
39. Black paper under hardwood floor at oil tank room
40. Exterior transite siding under vinyl siding
41. Exterior window glazing caulking
42. Exterior window glazing caulking
43. Exterior window glazing caulking
44. Exterior window glazing caulking

**No other accessible suspect materials were found during the survey. Additional ACM may exist in concealed and hidden locations and could only be found during renovation and demolition activities.**

## **B. Sample Results**

<b>Location/ Type of Material</b>	<b>Sample Result</b>
1. Ceiling plaster at church balcony storage	None Detected
2. Ceiling plaster at kitchen	None Detected
3. Ceiling plaster at children's room	None Detected
4. Ceiling plaster at function hall	None Detected
5. Ceiling plaster at Pastor's room	None Detected
6. Wall plaster at church	None Detected
7. Wall plaster at church balcony	None Detected
8. Wall plaster at kitchen storage room	None Detected
9. Wall plaster at function hall	None Detected
10. Wall plaster at kitchen	None Detected
11. Wall plaster at third floor	None Detected
12. Ceiling plaster at basement oil tank room	None Detected
13. Rough ceiling plaster at boiler room	None Detected
14. Rough ceiling plaster at room adjacent to boiler room	None Detected
15. 2'x 2' Suspended acoustical ceiling tile type I at Pastor's room	None Detected
16. 2'x 2' Suspended acoustical ceiling tile type II at function hall	None Detected
17. 2'x 2' Suspended acoustical ceiling tile type II at children's room	None Detected
18. Old 2'x 2' suspended acoustical ceiling tile type II at children's closets	None Detected
19. 2'x 4' Suspended acoustical ceiling tile at basement room by boiler room	None Detected
20. Linoleum floor covering type I at kitchen storage room	None Detected
21. Black paper for linoleum floor covering type I at kitchen storage room	None Detected
22. Glue for linoleum floor covering type I at kitchen storage room	None Detected

23.	Linoleum floor covering type I at kitchen	None Detected
24.	Linoleum floor covering type I under 12"x 12" vinyl floor tile at kitchen	None Detected
25.	12"x 12" Vinyl floor tile on top of linoleum floor covering type I at kitchen	<1% Asbestos
26.	Linoleum floor covering type II at kitchen II	None Detected
27.	Linoleum floor covering type III at rear stairs and landings	None Detected
28.	Linoleum floor covering type IV at third floor stairs	None Detected
29.	Beige joint compound at function hall	<1% Asbestos
30.	White joint compound at kitchen mechanical room	None Detected
31.	Light brown 9"x 9" vinyl floor tile at function hall	5% Asbestos
32.	Mastic for light brown 9"x 9" vinyl floor tile at function hall	15% Asbestos
33.	Mastic for 9"x 9" red vinyl floor tile at basement hall	Not Analyzed
34.	Mastic for 9"x 9" light brown vinyl floor tile at kitchen	Not Analyzed
35.	Pipe insulation at church balcony	40% Asbestos
36.	Pipe insulation debris on crawl space floor	40% Asbestos
37.	Rosin paper under hardwood floor at function hall	None Detected
38.	Rosin paper under hardwood floor at function hall	None Detected
39.	Black paper under hardwood floor at oil tank room	None Detected
40.	Exterior transite siding under vinyl siding	30% Asbestos
41.	Exterior window glazing caulking	None Detected
42.	Exterior window glazing caulking	None Detected
43.	Exterior window glazing caulking	None Detected
44.	Exterior window glazing caulking	None Detected

Various samples were not analyzed. The Environmental Protection Agency regulations states that should one sample from a homogenous area was found to be greater than 1 percent of asbestos, then the material must be considered asbestos containing.

### 3.0 OBSERVATION AND COST ESTIMATES:

#### A. OBSERVATIONS:

1. 9"x 9" Vinyl floor tile and mastic was found to contain asbestos. The ACM was found at various locations in the building including under carpet.
2. Pipe insulation was found to contain asbestos. The ACM was found at various locations in the building including above ceilings. The ACM was also found in the boiler room and crawl space.
3. Pipe insulation in the crawl space was found to be significantly damaged.
4. ACM debris was found on top of ceiling tiles at various locations in the building.
5. ACM debris was found in the crawl space. All stored items in the crawl space are contaminated with asbestos.
6. Transite siding was found to contain asbestos. The ACM was found on the exterior of the original building.
7. All remaining suspect materials were found not to contain asbestos.
8. Ballasts in light fixtures are new and were assumed not to contain PCB's.
9. Tubes in light fixtures were assumed to contain mercury.
10. Exit signs, switches, thermostats were assumed to contain mercury.
11. Two aboveground oil tanks were observed in the basement
12. Painted surfaces were assumed to contain lead based paint. However, lead abatement is not required prior to renovation or demolition.
13. Roofing material was assumed to contain asbestos. However, roofing material is not required to be removed by a licensed asbestos contractor prior to renovation or demolition.

## B. COST ESTIMATES:

The cost includes removal and disposal of all accessible ACM and an allowance for removal of inaccessible or hidden ACM that may be found during the renovation or demolition project.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Various Locations	9"x 9" Vinyl Floor Tile and Mastic	5,000 SF	15,000.00
	Pipe and Hard Joint Insulation	900 LF	18,000.00
	Contaminated Ceilings	Unknown	5,000.00
	Hidden ACM	Unknown	5,000.00
Boiler Room	Pipe and Hard Joint Insulation	80 LF	1,600.00
Crawl Space	Pipe and Hard Joint Insulation	1,200 LF	24,000.00
	ACM Debris	4,000 SF	8,000.00
	Contaminated Items	Unknown	5,000.00
Basement	Oil Tanks	2 Total	1,000.00
Exterior	Transite Siding	11,000 SF	55,000.00
Engineering Fess for Design, Construction Monitoring and Air Sampling Services			14,400.00
<b>TOTAL:</b>			<b>\$ 152,000.00</b>

## 4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a.

Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA method 600/M4-82-020.

Prepared by:

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Ammar M. Dieb  
President

## **5.0 LIMITATIONS AND CONDITIONS:**

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.



509071145

103

# CHAIN OF CUSTODY

UNIVERSAL ENVIRONMENTAL CONSULTANTS  
 12 BREWSTER ROAD  
 FRAMINGHAM, MASSACHUSETTS 01702  
 TEL: (508) 628-5486 • FAX: (508) 628-5488

STOP  
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 (+) A, B

Town/City: Whitman Building Name: First Baptist Church Job Number: \_\_\_\_\_

Sample	Description of Material	Sample Location
1	CEILING PLASTER (CP)	Church balcony storage
2	CP	Kitchen
3	CP	children's rm (rear of function hall)
4	CP	Function Hall
5	CP	Pastor's rm
6	WALL PLASTER (WP)	Church
7	WP	Church Balcony
8	WP	Kitchen storage (by stairs-up)
9	WP	Function Hall
10	WP	Kitchen (by stove)
11	WP	3 <sup>rd</sup> Fl, rm w/ hwd floor - addition
12	CP	Bsmt oil tank rm - addition
13	rough CP	Boiler rm
14	rough CP	rm Adj to Boiler rm
15	2x2 SAT-T	Pastor's rm
16	2x2 SAT-II	Function Hall
17	2x2 SAT-III	children's rm (rear of Function Hall)
18	old 2x2 SAT	children's rm closets
19	2x4 p.w. SAT	Bsmt rm Adj. to Boiler rm
20	Lino-I	Kitchen storage (by stairs)

Reported By: [Signature] Date: 02/14/09 Due Date: 02/16/09  
 Received By: [Signature] Date: 2/15/09 9:30

# CHAIN OF CUSTODY

UNIVERSAL ENVIRONMENTAL CONSULTANTS  
 12 BREWSTER ROAD  
 FRAMINGHAM, MASSACHUSETTS 01702  
 TEL: (508) 628-5486 • FAX: (508) 628-5488

509071145

~~509071146~~

Town/City: Whitman Building Name: First Baptist Church Job Number: \_\_\_\_\_

Sample	Description of Material	Sample Location
21	Black paper backing #20	Kitchen storage by stairs
2	adhesive #20	" " " " "
3	Lino - I	Kitchen
4	Lino - I under 12-12 vt	Kitchen
5	12-12 vt on Lino - I	Kitchen
6	Lino - II (as table top)	Kitchen - II
7	Lino - III on rear stairs & landings	
8	Lino - IV (grey)	3 <sup>rd</sup> fl stairs from addition
9	Beige joint (wall) compound	Function Hall ~ rear wall
30	white joint (wall) compound	Kitchen - mech room
11	9x9 vt (light brown)	Function Hall
12 A	MASTIC # 31	" " "
13 A	MASTIC for 9x9 red vt	Basmt Hall
14 A	MASTIC for 9x9 light brown	Kitchen
15	air cell pipe insul.	Church BALCONY
16	air cell pipe insul.	debris on crawl space floor
17	rosin paper under bdwd fl	Function Hall (from basmt)
18	rosin paper under bdwd fl	Function Hall " "
19	Black paper under bdwd fl	oil tank room, basmt - ADDITION
40	TRANSITE under vinyl siding	EXTERIOR

Reported By: Howard Buss Date: 021409 Due Date: 021609  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_

# CHAIN OF CUSTODY

UNIVERSAL ENVIRONMENTAL CONSULTANTS  
 12 BREWSTER ROAD  
 FRAMINGHAM, MASSACHUSETTS 01702  
 TEL: (508) 628-5486 • FAX: (508) 628-5488

~~509071145~~  
 509071145

Town/City: Whitman Building Name: First Baptist Church Job Number: \_\_\_\_\_

Sample	Description of Material	Sample Location
(41) B	window glazing (win gl)	Front of Bldg 1 <sup>st</sup> Fl
2 B	win gl	Washington St
3 B	win gl	Parking lot side
4	win gl	addition
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Reported By: [Signature] Date: 02/16/09 Due Date: 02/16/09  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_



**AmeriSci Boston**

8 SCHOOL ST.  
WEYMOUTH, MA 02189  
TEL: (781) 337-9334 • FAX: (781) 337-7642

## PLM Bulk Asbestos Report

Universal Environmental Consultant  
Attn: Ammar Dieb  
12 Brewster Road  
  
Framingham, MA 01702

Date Received 07/15/09      AmeriSci Job # 509071145  
Date Examined 07/16/09      P.O. #  
Page 1 of 10  
RE: 1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
1 Location: Church Balcony Storage	509071145-01	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 2 %, Non-fibrous 98 %			
2 Location: Kitchen	509071145-02.1	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 % <b>Comment:</b> Skim Coat			
2 Location: Kitchen	509071145-02.2	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 2 %, Non-fibrous 98 % <b>Comment:</b> Base Coat			
3 Location: Children's Room (Rear Of Function Hall)	509071145-03.1	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 % <b>Comment:</b> Skim Coat			

# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
3 Location: Children's Room (Rear Of Function Hall)	509071145-03.2	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 2 %, Non-fibrous 98 % <b>Comment:</b> Base Coat			
4 Location: Function Hall	509071145-04.1	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 % <b>Comment:</b> Skim Coat			
4 Location: Function Hall	509071145-04.2	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 2 %, Non-fibrous 98 % <b>Comment:</b> Base Coat			
5 Location: Pastor's Room	509071145-05.1	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 % <b>Comment:</b> Skim Coat			
5 Location: Pastor's Room	509071145-05.2	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Cementitious, Ceiling Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 2 %, Non-fibrous 98 % <b>Comment:</b> Base Coat			

Client Name: Universal Environmental Consultant

**PLM Bulk Asbestos Report**

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
6 Location: Church	509071145-06	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Brown, Homogeneous, Fibrous, Cementitious, Wall Plaster Asbestos Types: Other Material: Animal hair Trace, Non-fibrous 100 %			
7 Location: Church Balcony	509071145-07	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Brown, Homogeneous, Fibrous, Cementitious, Wall Plaster Asbestos Types: Other Material: Animal hair Trace, Non-fibrous 100 %			
8 Location: Kitchen Storage (By Stair - Up)	509071145-08	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Brown, Homogeneous, Fibrous, Cementitious, Wall Plaster Asbestos Types: Other Material: Animal hair 2 %, Non-fibrous 98 %			
9 Location: Function Hall	509071145-09	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Brown, Homogeneous, Fibrous, Cementitious, Wall Plaster Asbestos Types: Other Material: Animal hair Trace, Non-fibrous 100 %			
10 Location: Kitchen (By Stove)	509071145-10	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Brown, Homogeneous, Fibrous, Cementitious, Wall Plaster Asbestos Types: Other Material: Animal hair 2 %, Non-fibrous 98 %			
11 Location: 3rd Floor , Room With Hardwood Floor Addition	509071145-11	No	NAD (by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Grey, Homogeneous, Fibrous, Wall Plaster Asbestos Types: Other Material: Cellulose Trace, Non-fibrous 100 %			

See Reporting notes on last page

Client Name: Universal Environmental Consultant

**PLM Bulk Asbestos Report**

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
12	509071145-12	No	NAD
Location: Bsmt Oil Tank Room - Addition			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Grey, Homogeneous, Fibrous, Wall Plaster			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100 %			
13	509071145-13	No	NAD
Location: Boiler Room			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Grey, Homogeneous, Fibrous, Ceiling Plaster			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100 %			
14	509071145-14	No	NAD
Location: Room Adj To Boiler Room			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Grey, Homogeneous, Fibrous, Ceiling Plaster			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100 %			
15	509071145-15	No	NAD
Location: Pastor's Room			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Off-White, Homogeneous, Fibrous, 2'x2' SAT			
Asbestos Types:			
Other Material: Fibrous glass 40 %, Non-fibrous 60 %			
16	509071145-16	No	NAD
Location: Function Hall			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Off-White, Homogeneous, Fibrous, 2'x2' SAT			
Asbestos Types:			
Other Material: Fibrous glass 40 %, Non-fibrous 60 %			
17	509071145-17	No	NAD
Location: Children' Room (Rear Of Function Hall)			(by CVES) by Sopheira Ken on 07/16/09
Analyst Description: Off-White, Homogeneous, Fibrous, 2'x2' SAT			
Asbestos Types:			
Other Material: Fibrous glass 40 %, Non-fibrous 60 %			

See Reporting notes on last page

# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
18 Location: Children ' Room Closet	509071145-18	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Brown/Off-White, Homogeneous, Fibrous, 2'x2' SAT <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 60 %, Fibrous glass 10 %, Non-fibrous 30 %			
19 Location: Bsmt Adj To Boiler Room	509071145-19	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Brown/Off-White, Homogeneous, Fibrous, 2'x2' SAT <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 90 %, Non-fibrous 10 %			
20 Location: Kitchen Storage (By Stair)	509071145-20	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Red, Homogeneous, Fibrous, Linoleum <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 30 %, Synthetic fibers 10 %, Non-fibrous 60 %			
21 Location: Kitchen Storage By Stairs	509071145-21	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Black, Homogeneous, Fibrous, Paper Udr Linoleum <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 90 %, Non-fibrous 10 %			
22 Location: Kitchen Storage By Stairs	509071145-22	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Yellow/Brown, Homogeneous, Non-Fibrous, Adhesive Udr Linoleum <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
23 Location: Kitchen	509071145-23	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<b>Analyst Description:</b> Red, Homogeneous, Fibrous, Linoleum <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 30 %, Synthetic fibers 10 %, Non-fibrous 60 %			

Client Name: Universal Environmental Consultant

# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
24 Location: Kitchen	509071145-24	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Red, Homogeneous, Fibrous, Linoleum Udr 12.12 VT  <b>Asbestos Types:</b>  <b>Other Material:</b> Cellulose 30 %, Synthetic fibers 10 %, Non-fibrous 60 %</p>			
25 Location: Kitchen	509071145-25L1	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, 12x12 VT On Linoleum  <b>Asbestos Types:</b>  <b>Other Material:</b> Non-fibrous 100 %  <b>Comment:</b> Floor Tile</p>			
25 Location: Kitchen	509071145-25L2	Yes	Trace (<1 %) <sup>1</sup> (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Yellow/Brown, Homogeneous, Non-Fibrous, 12x12 VT On Linoleum  <b>Asbestos Types:</b> Chrysotile &lt;1. %  <b>Other Material:</b> Non-fibrous 100 %  <b>Comment:</b> Assoc. Mastic</p>			
26 Location: Kitchen II	509071145-26	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Brown, Homogeneous, Fibrous, Linoleum  <b>Asbestos Types:</b>  <b>Other Material:</b> Cellulose 30 %, Non-fibrous 70 %</p>			
27 Location: Rear Stairs and Landings	509071145-27	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Brown/Black, Homogeneous, Fibrous, Linoleum  <b>Asbestos Types:</b>  <b>Other Material:</b> Cellulose 30 %, Non-fibrous 70 %</p>			

Client Name: Universal Environmental Consultant

## PLM Bulk Asbestos Report

1st Baptist Church, Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
28	509071145-28L1 Location: 3rd Floor Stair From Addition	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Brown/Black, Homogeneous, Fibrous, Linoleum  <b>Asbestos Types:</b>  <b>Other Material:</b> Cellulose 30 %, Non-fibrous 70 %  <b>Comment:</b> Linoleum</p>			
28	509071145-28L2 Location: 3rd Floor Stair From Addition	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Brown, Homogeneous, Non-Fibrous, Linoleum  <b>Asbestos Types:</b>  <b>Other Material:</b> Non-fibrous 100 %  <b>Comment:</b> Assoc. Mastic</p>			
29	509071145-29 Location: Function Hall And Rear Wall	Yes	Trace (<1 %) (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Joint Compound  <b>Asbestos Types:</b> Chrysotile &lt;1. %  <b>Other Material:</b> Non-fibrous 100 %</p>			
30	509071145-30 Location: Kitchen Mech Room	No	NAD (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Joint Compound  <b>Asbestos Types:</b>  <b>Other Material:</b> Non-fibrous 100 %</p>			
31	509071145-31 Location: Function Hall	Yes	5 % (by CVES) by Sopheira Ken on 07/16/09
<p><b>Analyst Description:</b> Brown, Homogeneous, Non-Fibrous, 9"x9" VT  <b>Asbestos Types:</b> Chrysotile 5.0 %  <b>Other Material:</b> Non-fibrous 95 %</p>			

# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
32A A Location: Function Hall	509071145-32	Yes	15 % (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Black, Homogeneous, Non-Fibrous, Mastic Udr 9"x9" VT <b>Asbestos Types:</b> Chrysotile 15.0 % <b>Other Material:</b> Non-fibrous 85 %			
33A A Location: Bsmt Hall	509071145-33		NA/PS
<b>Analyst Description:</b> Mastic Udr 9"x9" VT <b>Asbestos Types:</b> <b>Other Material:</b>			
34A A Location: Kitchen	509071145-34		NA/PS
<b>Analyst Description:</b> Mastic Udr 9"x9" VT <b>Asbestos Types:</b> <b>Other Material:</b>			
35 Location: Church Balcony	509071145-35	Yes	40 % (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Fibrous, Air Cell Pipe Insulation <b>Asbestos Types:</b> Chrysotile 40.0 % <b>Other Material:</b> Non-fibrous 60 %			
36 Location: Debris On Crawl Space Floor	509071145-36	Yes	40 % (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Fibrous, Air Cell Pipe Insulation <b>Asbestos Types:</b> Chrysotile 40.0 % <b>Other Material:</b> Non-fibrous 60 %			
37 Location: Function Hall from Basement	509071145-37	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Red, Homogeneous, Fibrous, Paper Udr Hardwood Floor <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 90 %, Non-fibrous 10 %			

# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
38 Location: Function Hall From Basement	509071145-38	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Red, Homogeneous, Fibrous, Paper Udr Hardwood Floor <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 90 %, Non-fibrous 10 %			
39 Location: Oil Tank Room, Bsmt - Addition	509071145-39	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Black, Homogeneous, Fibrous, Paper Udr Hardwood Floor <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85 %, Non-fibrous 15 %			
40 Location: Exterior	509071145-40	Yes	30 % (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Fibrous, Cementitious, Transite Udr Vinyl Siding <b>Asbestos Types:</b> Chrysotile 30.0 % <b>Other Material:</b> Non-fibrous 70 %			
41B B Location: Front Of Bldg 1st Floor	509071145-41	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Window Glazing <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
42B B Location: Washington St	509071145-42	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Window Glazing <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			
43B B Location: Parking Lot Side	509071145-43	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Off-White, Homogeneous, Non-Fibrous, Window Glazing <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			

Client Name: Universal Environmental Consultant

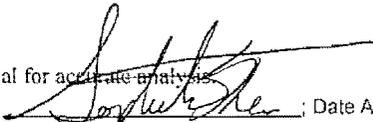
# PLM Bulk Asbestos Report

1st Baptist Church; Whitman

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
44 Location: Addition	509071145-44	No	NAD (by CVES) by Sophetra Ken on 07/16/09
<b>Analyst Description:</b> Beige, Homogeneous, Non-Fibrous, Window Glazing <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100 %			

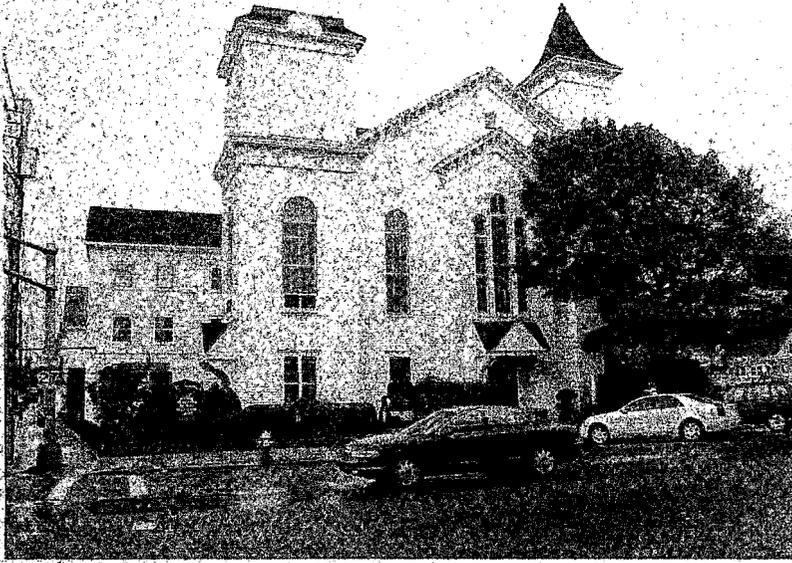
**Reporting Notes:**

(1) Insufficient material for accurate analysis.

Analyzed by: Sophetra Ken ; Date Analyzed: 7/16/09

NAD = no asbestos detected; CVES = Calibrated Visual Estimate; NA = not analyzed; NA/PS = not analyzed / positive stop; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #102079-0) or NY ELAP PLM Analysis Protocol 198.1 for New York friable samples (198.6 for NOB samples) (NY ELAP Lab # 10982); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: \_\_\_\_\_



<input checked="" type="checkbox"/> RECEIVED	<input type="checkbox"/> APPROVED
<input type="checkbox"/> COMPLETED	
JUN 02 2009	
TOWN ADMINISTRATOR WHITMAN, MA	

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## First Baptist Church

Project:  
**Investigation and Report for First Baptist Church**  
South Street and Washington Street  
Whitman, MA 02382

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AWARDING AUTHORITY:

**Town of Whitman**  
54 South Avenue  
Whitman, MA 02382

TOWN REPRESENTATIVE:

Mr. Francis Lynam  
*Town Administrator*

---

Architecture  
Planning  
Interiors  
Construction  
Management

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Boston, MA 02134  
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## First Baptist Church

Project:

### Investigation and Report for First Baptist Church

South Street and Washington Street

Whitman, MA 02382

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AWARDING AUTHORITY:

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**Ronald John Alex, AIA**  
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Senior Planner

**Francesco Garofalo, AIA**  
Principal

May 25, 2009

**Mr. Francis J. Lynam**  
Town Administrator  
**Whitman Town Hall**  
54 South Avenue  
Whitman, MA 02382

**Project:**

**Investigation and Report for First Baptist Church**  
South Street and Washington Street  
Whitman, MA

Dear Mr. Lynam,

LPBA welcomes the opportunity to work with you and Town of Whitman's staff, building and finance committee to prepare report of existing conditions for possible purchase of Baptist Church.

Our goals of the building inspection and observation are to determine the construction quality of the building envelope and assess the interior conditions. Our approach to provide visual inspection of the building contributes to our understanding of the Building Overview. The building contains approximately 11,340 gross square feet, not including crawl space under the original main building footprint.

Scope of Work:

- Architectural Statement
- Existing Conditions Analysis
- Structural Assessment
- MEP systems evaluation
- Hazardous Materials/ Abatement
- Code Issues
- Conceptual Cost Estimate

Town of Whitman  
First Baptist Church  
*Investigation and Report*

### **Architectural Statement**

The building was designed in Italianate architectural style (predominate in 1840-1885), and is not listed on local or national historical register but notable and important building in the district due to location and style of character.

The building was constructed in the late 1800's for First Baptist Church and currently continues to be used for church services. The addition on South Street was constructed in 1951. The original bell tower was removed after building fire in 1901 and never re-constructed. The bronze cast bell has been placed outside the main entrance on Washington Street mounted on the original cradle.

The first floor consists of large meeting room, classrooms, offices, toilet rooms, kitchen with parlor, and three sets of stairs, two at the Washington Street entrance, one set of stairs in the 1950's addition. The second floor has two-story open auditorium space or meeting hall with raised platform including organ on the 2<sup>nd</sup> floor of the original building. The basement contains boiler room, storage room and internal stairs, and exterior door leading up concrete stairs to grade on the North elevation. The crawl space under the main building first floor is shallow in depth, with column and floor joists stabilization and reconstruction performed in 1951. The original stone foundation walls were not reconstructed. The auditorium attic access was restricted from view.

### **Structural Assessment**

Arthur Choo, Structural Engineer has prepared report summary of his observations. Please see attachment. The two main entrance stairs from first to second floor is pitched or leaning to the interior side of the building. The floor and basement timber beam should be reinforced to carry 100 lbs. per square foot live and dead load. If the existing auditorium floor is to be used as public assembly, the structural joists are to be increased in size to carry 100 lbs. live and dead loads. The auditorium ceiling deflection has been caused by insufficient depth of beam. The wood roof trusses are adequate to support design snow loads. Adjustments can be made to raise the beam and truss deflection, but not necessary at occupancy. Changes could be made during the renovation process. Seismic forces are to be addressed if there are renovations.

### **Existing Conditions Analysis**

In my opinion, the building, although in need of repairs and rehabilitation, can be occupied for Town use with certain repairs for day one occupancy. New programming use of the spaces will necessitate renovations with Building Code regulations and accessibility upgrades, continuing to be useful for the new occupants.

Through courtesies of the Whitman Fire Department, the ladder truck was used to observe existing conditions of the roof, exterior walls, doors and windows, truncated bell tower and smaller pyramid roof shaped tower at the Southeast corner.

The exterior walls have been covered with vinyl siding, and we understand the original cladding may be wood clapboard over pine sheathing and wood stud framing. Behind the vinyl siding, we understand from church personnel, may lay asphalt tile shingle. It was not observed in the review. Additional destructive testing should be performed to verify the material type, how anchored, and what materials have been added over the original clapboard (we believe) wood trim.

The condition of each material layer and their connections and supports have resulted in unusual 3 "+ overhang at the brick foundation wall. This may provide some reasons for indicating deterioration or failure behind the vinyl siding and should be investigated further. The stone foundation walls on the East elevation have been covered with vertical vinyl siding and were not possible to estimate conditions of repointing or rebuilding of the stone foundation wall. The interior stonewalls condition does warrant repointing of the random size stone foundation wall where the natural cement has fallen away.

### **MEP Systems Evaluation**

LPBA is not mechanical, electrical, or plumbing engineer. What we have observed was approximately five- year old replacement Weil-McClain oil fired boiler with two 275-gallon interior oil tanks in good condition. The piping age is undetermined, however there is almost continuously installed, suspected asbestos pipe insulation in the entire building. If asbestos, this material should be removed since the condition is not good in many areas, particularly the crawl space. The electrical systems have three sub panels in the building. Main disconnect not observed. We were told there is 100 amp building service. There is knob and tube electrical in crawl space, and undetermined if in use. BX cable and Romex electrical wire was visible in the crawl space.

### **Hazardous Materials/ Abatement**

Since there are open and loose (apparently asbestos) insulation pipe coverings throughout the church, we suggest having outside contractor make assessment and providing cost for remediation, full or partial.

### **Code Issues**

Options to meet life safety and zoning requirements.

When the programming has been finalized to convert the Church to new uses, perhaps as senior center, offices or museum, all floors must be accessible for employees and the public under Americans with Disabilities Act, and Massachusetts Architectural Access Board accessibility regulations. When occupied by the Town, the building will need public accommodations such as accessible entrance with ramp, elevator, M/W toilet rooms, kitchen, means of egress (dependent on occupancy load).

At occupancy, new floor loading determination of 1<sup>st</sup> floor meeting room, and 2<sup>nd</sup> floor auditorium uses must be stated if known. Wood sash windows, when replaced should meet U.44 energy efficiency code using thermal pane insulated windows. The building frame walls were not accessible and the installation of wall insulation is not known. We assume there is no formaldehyde insulation in the building and should be verified. The broken roof rafter in the former bell tower needs replacement. Seismic considerations will be required for horizontal reinforcement in the building, depending on programmatic schemes and renovation.

### **Building Overview**

- Existing stone foundation appears to need repointing of the original foundation walls; patching and repair to follow outside. The re-grading of the parking lot with bitumen against building did not allow for observation. Vinyl siding should be removed for closer observation of the stone to paving conditions to determine type of repairs.
- The vinyl siding covers 90% of the building envelope and is impossible to evaluate the building walls for life remaining, age, type and conditions. Destructive testing is recommended to determine age and condition and extent of repairs.
- Both interior main stairs are in good condition although the stairs are leaning toward the interior load bearing wall, that condition could remain as having no structural consequence, only aesthetic concerns. However the floor loading for Town use is 100lbs and the structure will have to be reinforced. The load bearing wall deflection can be adjusted to level the floors and stairs.

- Fireplace to remain and to be checked for operation.
- Original and early replacement windows storm and sash can remain. There may be problems with the exterior window trim if vinyl siding is removed to restore and replace clapboards (assume wood clapboards is the original building surface material).
- Hazardous material check should be made to determine if lead or asbestos are present in floor tiles, pipe insulation, doors and door trims, window caulk, window casing, parting beads, and wall plaster.
- Existing second level wood flooring to remain.
- Roof shingles appear worn in some areas, some cracking of the shingles observed. Existing asphalt shingle life remaining may be 1-8 years. There are water stains on the auditorium ceiling. Age of gutters undetermined. Newer architectural style shingles are on the Southwest tower roof. Bell tower roof has flat roof with roof hatch. Roof material unknown BUR or EPDM.
- Repair mechanical, plumbing, electrical systems as needed for continuing operation. Fire protection required over 7500 SF of space.
- Reinforce structure to meet assembly or business use code requirements; repair other miscellaneous structural elements.
- Provide accessible entrance, ramp, toilet rooms, drinking fountains, telephone, and kitchen and elevator vertical access.
- Patch and repair walls, ceilings, trim, doors, and miscellaneous details.

**Existing Useable Space**

Location	Floor	Existing Gross SF approx.
Original building footprint	1 <sup>st</sup> Floor	4100
	2 <sup>nd</sup> Floor	2375
1950's Addition	Basement	1225
	1 <sup>st</sup> Floor	1225
	2 <sup>nd</sup> Floor	1225
	3 <sup>rd</sup> Floor	1225
<b>Total Gross Square Footage</b>		<b>11,340</b>

**A. Estimated Cost for Repairs at Day One Occupancy with Change of Use**  
 (No future programming considerations)

LPBA has developed a general guide for initial costs to occupy the building with necessary code upgrades for Town use. LPBA would be interested in working with the Town, to proceed to the next phase, finalizing programming and provide schematic design to assist the Town with more accurate cost estimates for funding the project.

**Simple Renovation Cost Projections (by item)**

ITEM	Estimated Cost	
Correct first floor corridor structural deficiency and bell tower floor joists	\$55,000	30,000
Remove hazardous materials	\$75,000	35,000
Minimum two accessible toilet rooms (occupant load dependent)	\$60,000	20,000
Removal of Stair chair lift	\$1,500	Remove Before Sale
Exterior ramp upgrade or removal	\$3,500	
New elevator	\$350,000	
Accessible kitchen	\$30,000	
Accessible drinking fountain	\$3,200	
Public telephone	\$250	
Patching/ Plastering/Painting in select areas/ cleaning	\$28,000	
Fire Alarm System	\$45,000	
Sprinklers	\$95,000	
Electrical Contingency	\$15,000	
Sub Total Estimated Construction Cost	\$761,450	
20% Construction Contingency	\$152,290	
A/E Design	\$85,000	
<b>Total Estimated Cost</b>	<b>\$998,740</b>	

**B. Estimated Cost for Repairs with some renovation** (No programming considerations)

**1. Simple Renovation** Cost Projections (by Square Footage)

General Requirements in terms of SF	Architectural Renovations	Elevator	MEP Upgrades	Code Related Items	Total
11,340	\$100 SF x 11,340 = \$1,134,000	\$300,000	\$30SF x 11,340 = \$340,200	\$30SF x 11,340 = \$340,200	\$1,814,400

**2. Complex Renovation** Cost Projections (by Square Footage)

General Requirements in terms of SF	Architectural Renovations	Elevator	MEP Upgrades	Code Related Items	Total
11,340	\$300 SF x 11,340 = \$3,402,000	\$300,000	\$75SF x 11,340 = \$850,500	\$30SF x 11,340 = \$340,200	\$4,892,700

**Recommendations**

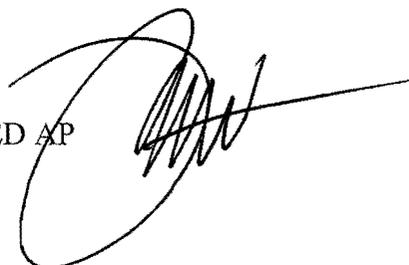
The repair or replacement decisions involve many considerations. These include developing plans for future use of the building that will determine the extent, severity, and cause for improvement and renovations. Safety for egress, and compliance with building code for floors, walls and its components are essential for day one occupancy. Preservation of the essential aesthetic characteristics of the Italianate architectural style would be an important goal for the community. Life cycle costs of existing components and continuing repairs vs. restoring the original components of the building envelope, to be determined by program and budget.

Before purchase, we recommend to verify material condition and type under vinyl siding and test all mechanical, plumbing and electrical systems for operation. The existing stone foundation wall should be observed from the exterior side for possible repairs.

Please review all of the above considerations for potential scope of work and cost estimates. We look forward to provide the quality attention and experienced skills necessary for this project to advance, and address any of the Town’s concerns to make this project phase successful.

Sincerely,  
**LPBA/Architects, Inc.**

Ronald J. Alex, AIA, LEED AP  
 President



Town of Whitman  
 First Baptist Church  
*Investigation and Report*



ARTHUR CHOO ASSOCIATES INC., CONSULTING ENGINEERS  
 ONE BILLINGS ROAD, QUINCY, MASSACHUSETTS 02171  
 OFFICE (617) 328-3320

(617) 786-7715

May 28, 2009



LPBA ARCHITECTS,  
 28 Penniman Street,  
 Boston, MA. 02134.

RECEIVED  
 MAY 29 2009  
 LPBA/Architects, inc.

Attn: Mr. Ron Alex, AIA, PRINCIPAL.

Re: First Baptist Church, Washington Street & South Ave. Whitman,

Dear Mr. Alex,

On Thursday, May 21, 2009, Mr. Ronald Wong and I inspected the First Baptist Church in Whitman, Massachusetts. The purpose of the inspection was to see whether there are any glaring structural deficiencies in the building.

On entering the front door of the Church we noticed that the Stair Hall floor is sloping down towards the wall which separates the Auditorium from the stair Hall. The stair Hall floor is framed with 2" x 7 1/2" wood joists at 16" on centers on 11'-0" span. The existing joists will not support a live load of 100 pounds per square foot required by the Massachusetts Building Code. The floor should be reinforced by 2" x 8's" at 24" on centers. Approximately 32 pieces of 2" x 8's", 12' long are required. The existing timber beam in the basement which is supporting the wall is an 8" x 11" beam laid flat. In this position the strength of the beam is only one half of that which is required. Bolt two 1 3/4" x 11 7/8" LVL's to the 8" x 11" beam. The LVL's should be bolted to the 8" x 11" beam by 3/4" thru bolts at 2'-0" on centers staggered.

The existing auditorium floor will support a live load of 80 pounds per square foot. The Massachusetts Building Code requires a live load of 100 pounds per square foot and 60 pounds per square foot if seats are attached to the floor of the auditorium.

There are deflections in the auditorium ceiling one bay inside the two end walls of the auditorium. The deflections are due to the fact that the beams supporting the ceiling at these two locations are too shallow. Cracks in the ceiling above the two columns which support the central beam indicate the inadequacy in the depth of the supporting beams.

There is a deflection in the ridge of the roof trusses. Although the existing sizes are adequate to support the anticipated design snow loads, some adjustments in the joints and turnbuckles will be required.

The Massachusetts Building Code requires the structure to be reinforced for seismic forces. This can be done in the final plan.

Very truly yours,

*Arthur Choo, P.E.*

LPBA/ Architects, Inc.

## Current Conditions

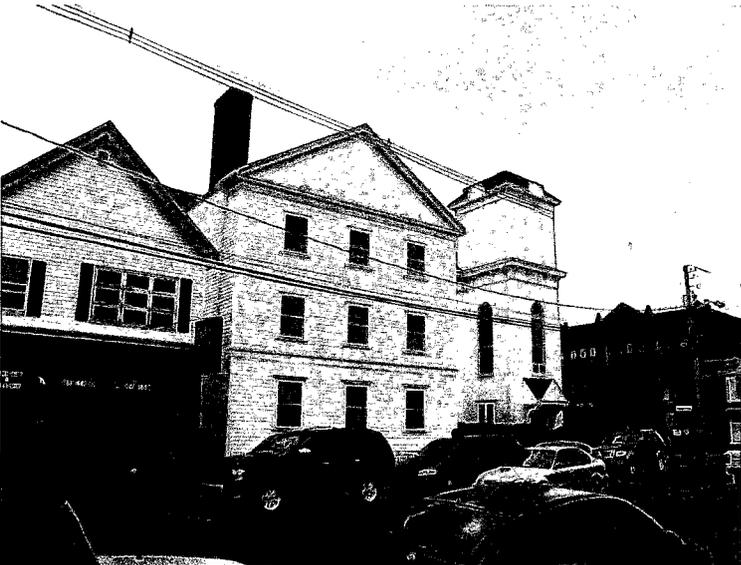
Architecture	28 Penniman Road
Planning	Boston, MA 02134
Interiors	Tel 617/782/9131
Construction	Fax 617/782/9141
Management	Email <a href="mailto:info@lpba.com">info@lpba.com</a>



Original Drawing with Bell Tower



South Elevation



East Elevation



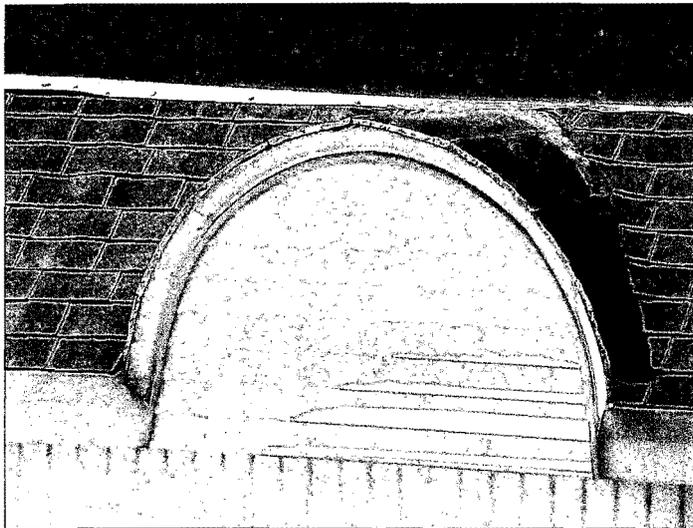
West Elevation



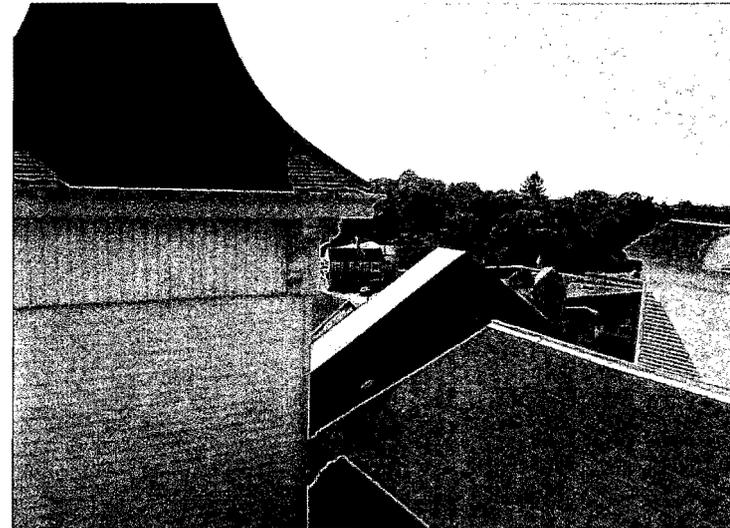
West Elevation



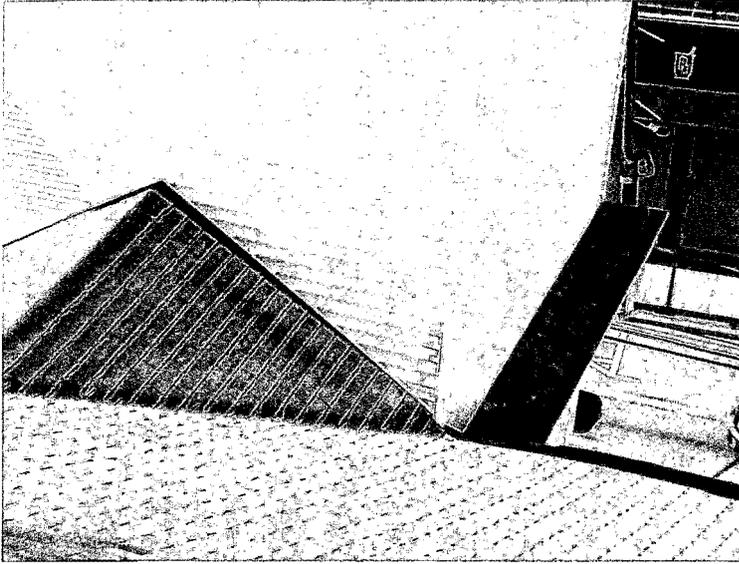
North Elevation



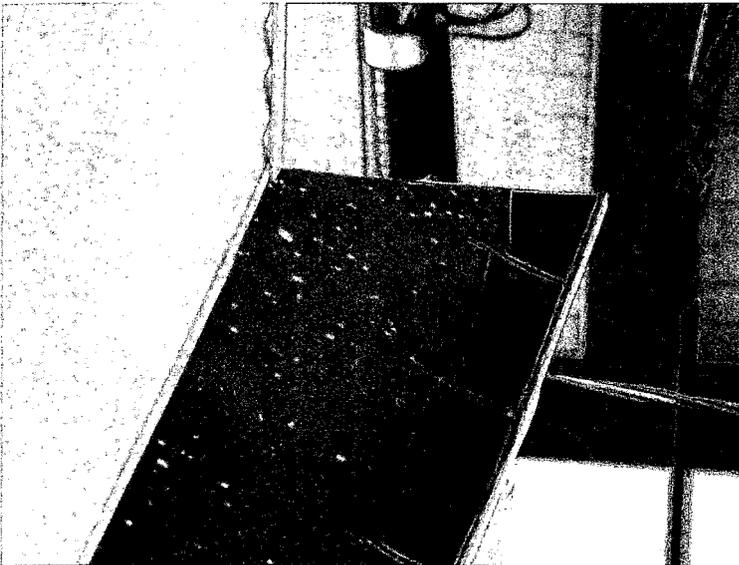
Closed half round window



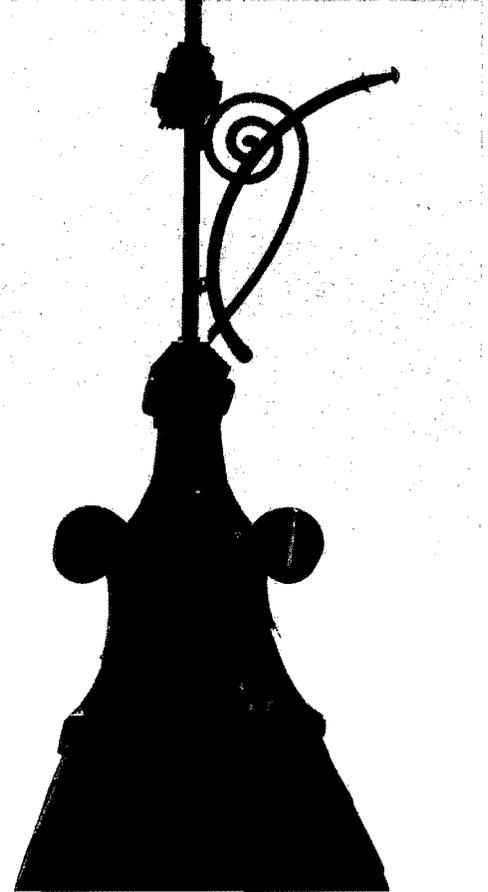
Roof shingle patch on gable



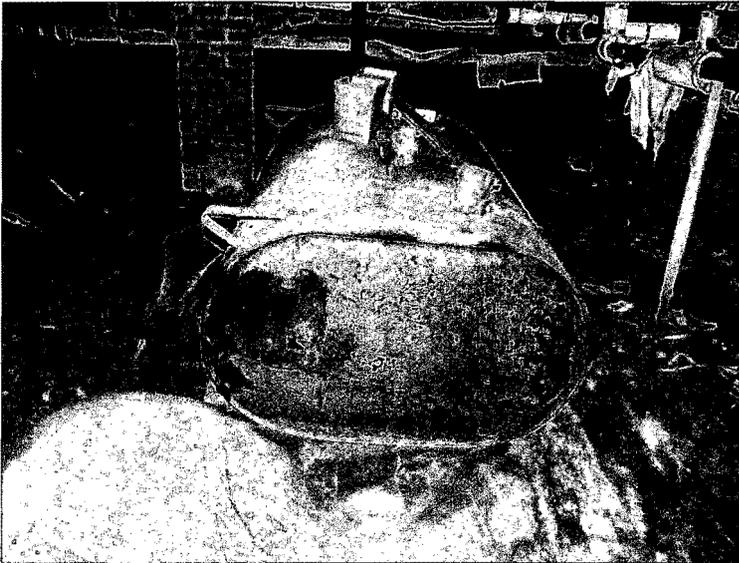
Asphalt shingle roof, metal flashing at gutter.



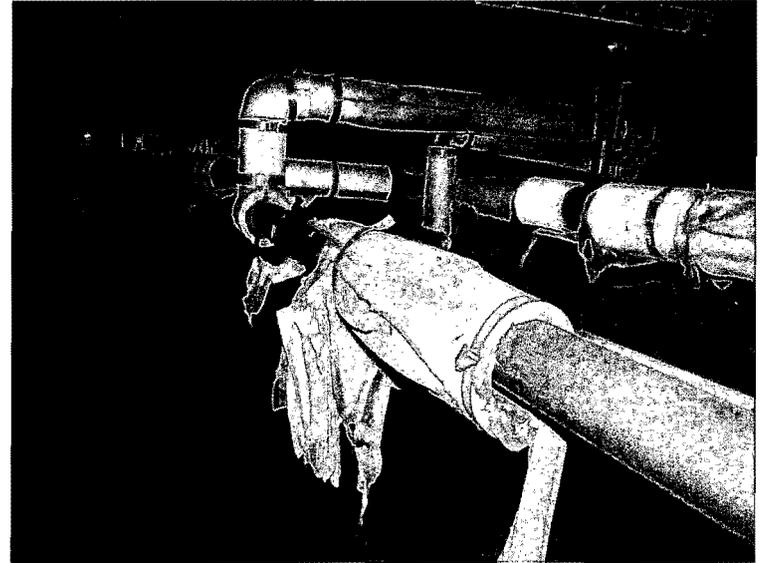
Metal flashing under vinyl siding



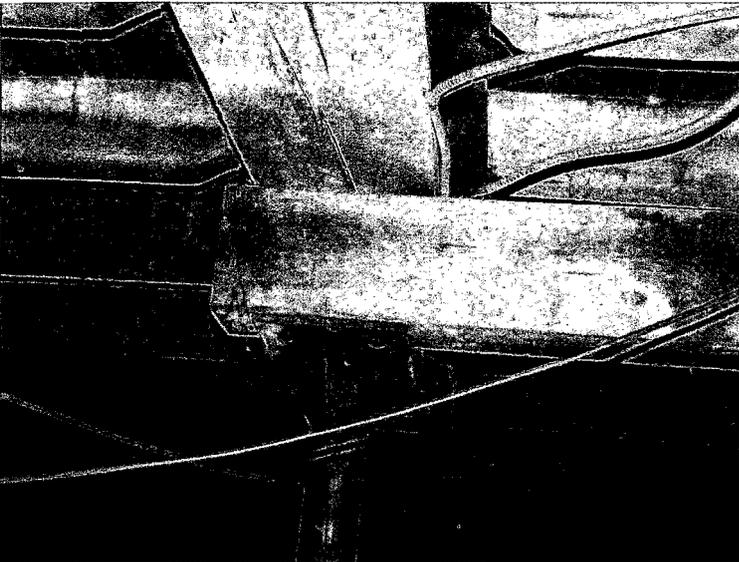
Rusting metal roof ornament at tower



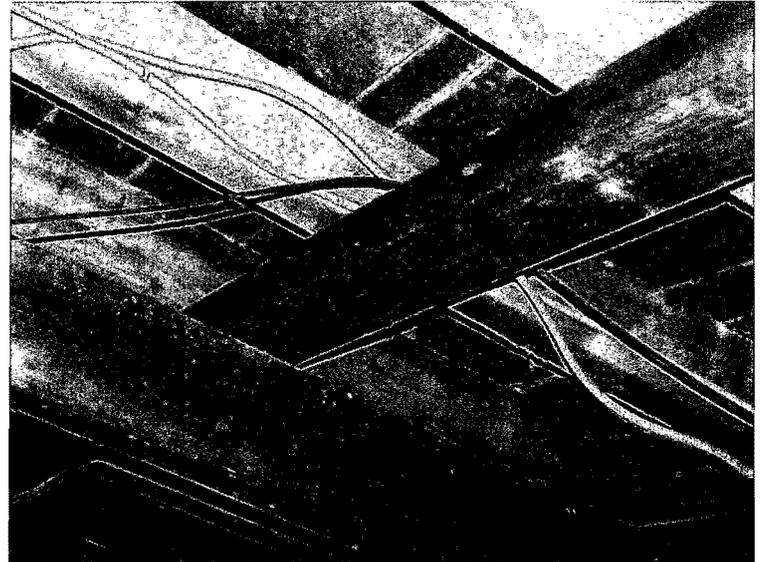
Abandoned Oil Tank



Asbestos pipe wrap



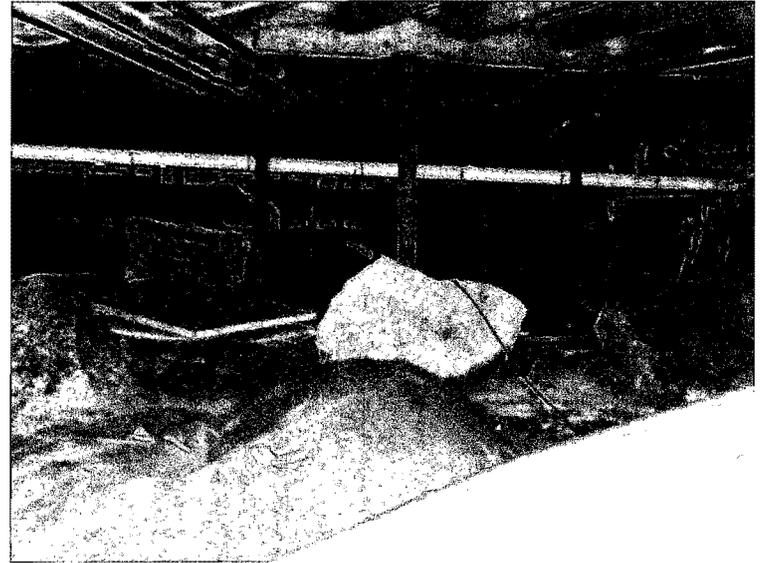
Additional structural support beam, wood joists have trimmed corners



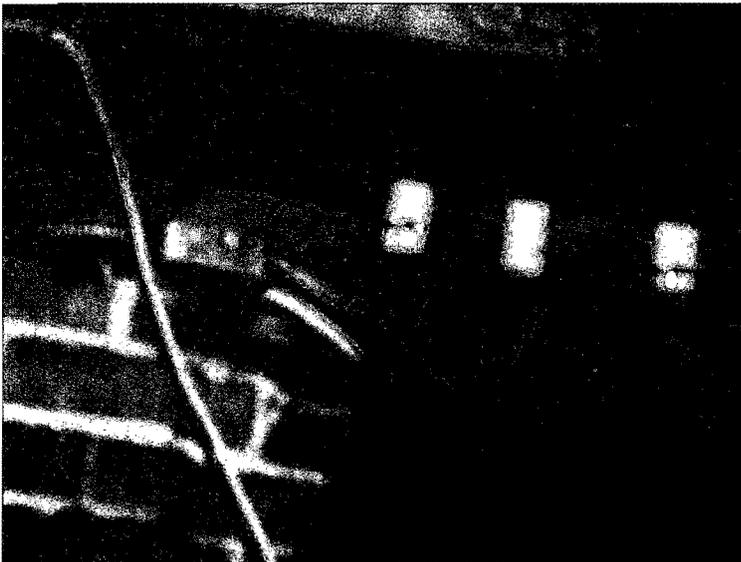
Temporary rafter support to first floor



Asbestos pipe wrap next to steel lolly column



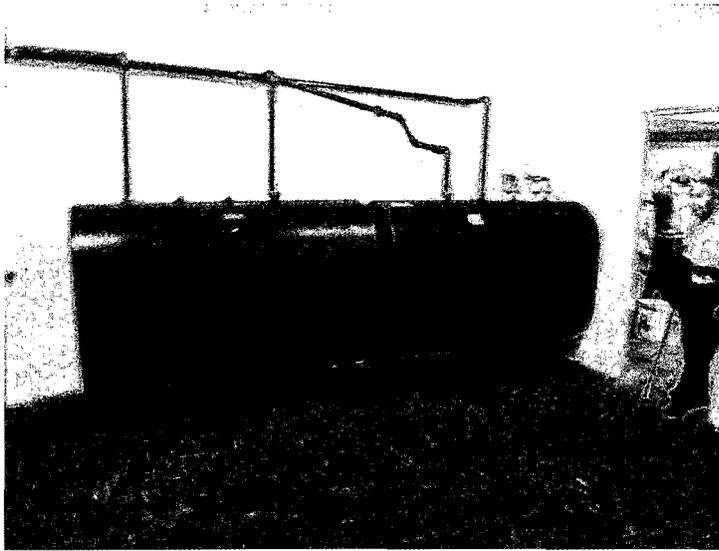
Crawl space



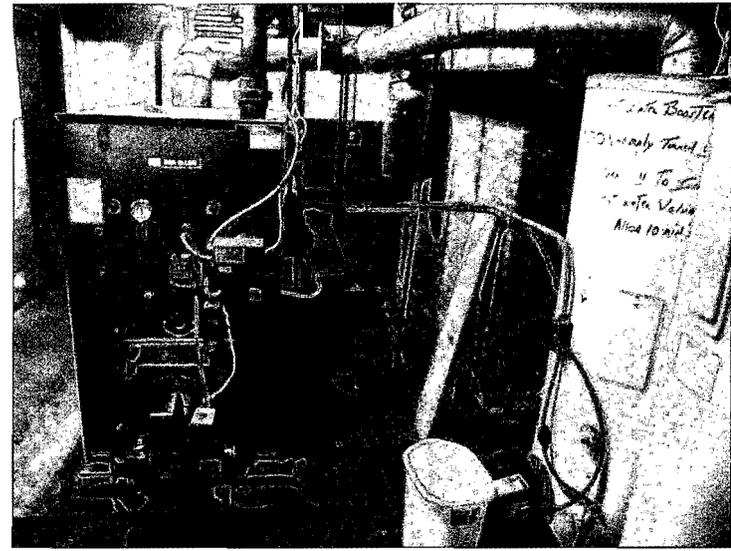
Knob and tube wiring



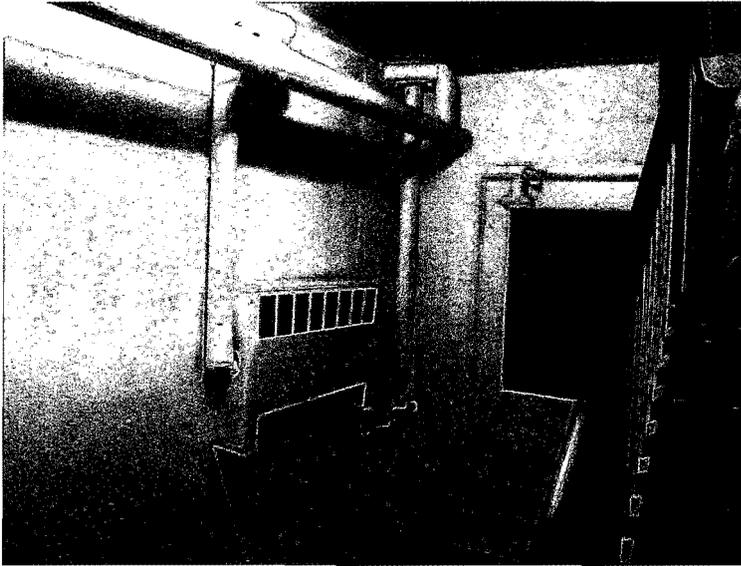
Original structural foundation wall



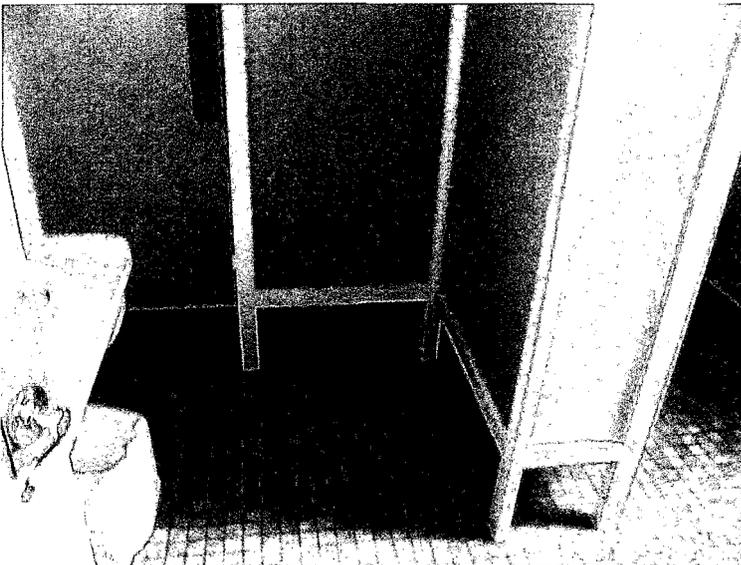
Existing 275 Gal steel oil tank



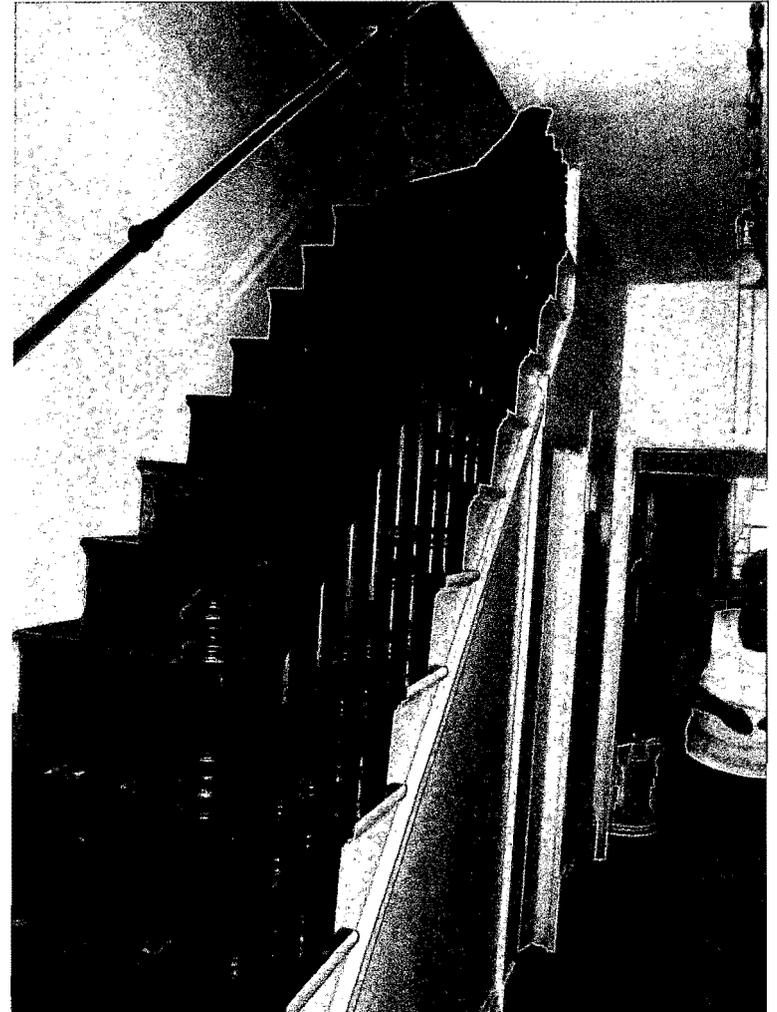
Existing Weil McLain boiler (one)



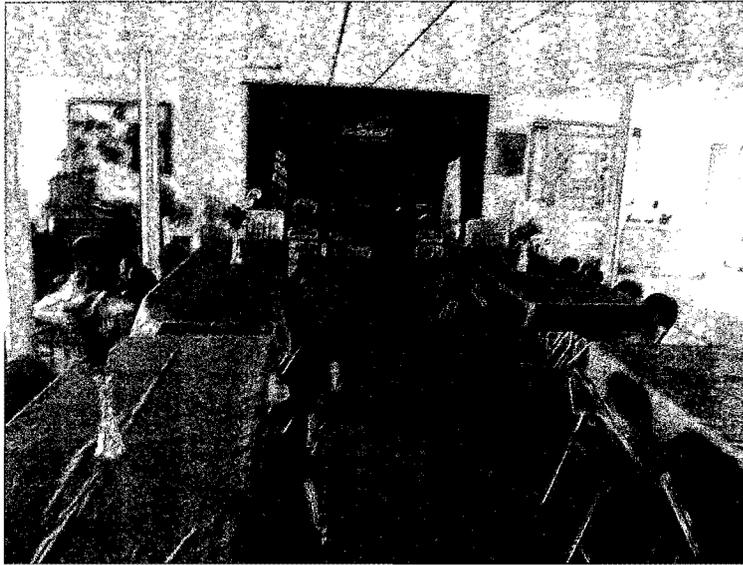
Asbestos pipe wrap on supply and return piping



Non-accessible toilet stall



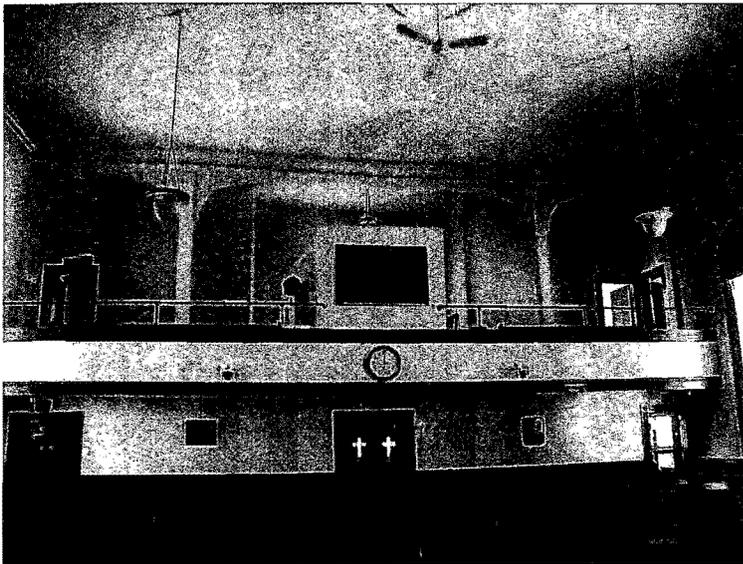
Rear stair egress at kitchen



First floor common space



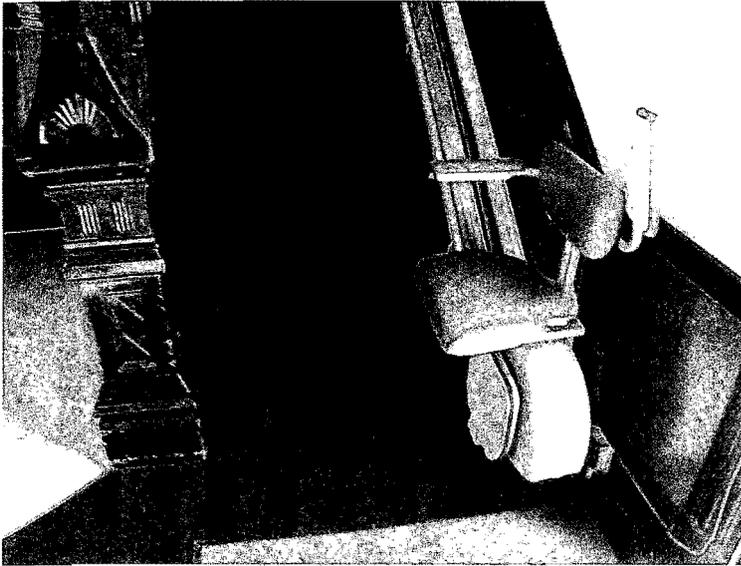
Parish parlor



Meeting room with mezzanine



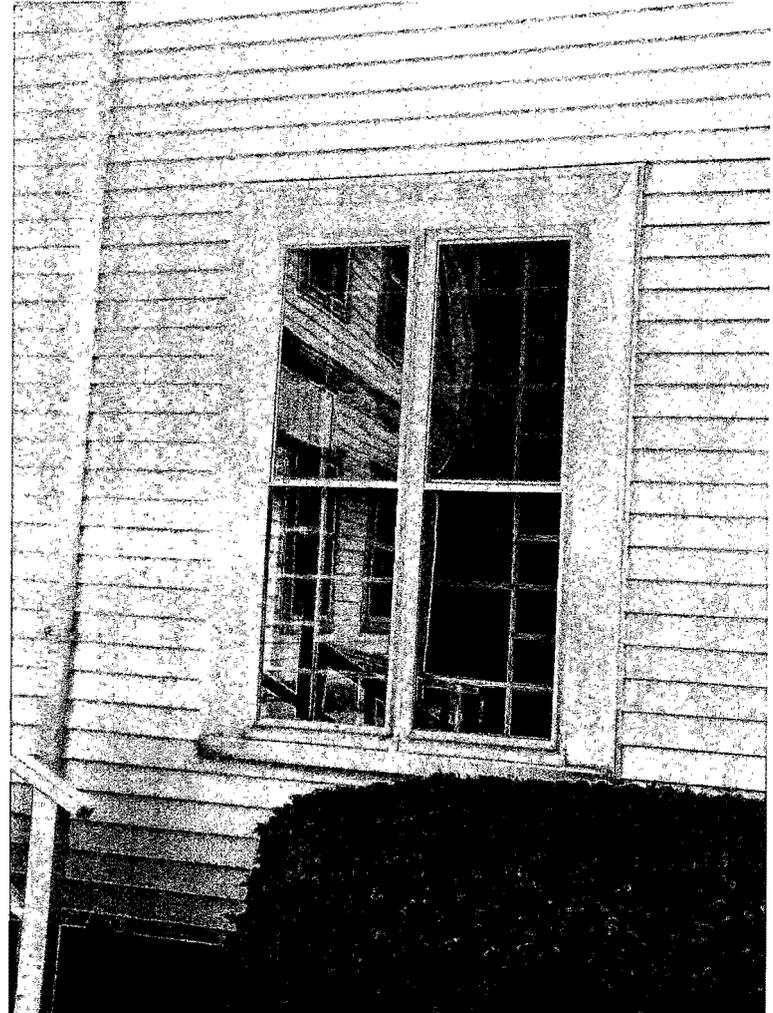
Ceiling with slight beam deflection



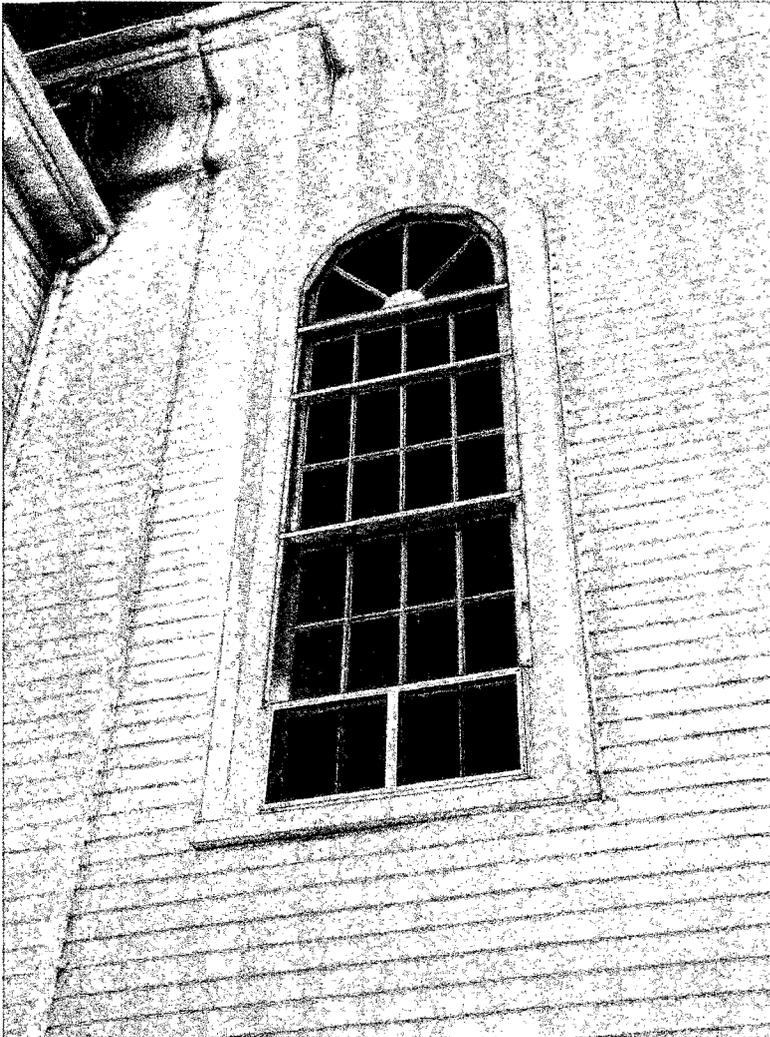
Accessible stair lift on settling staircase



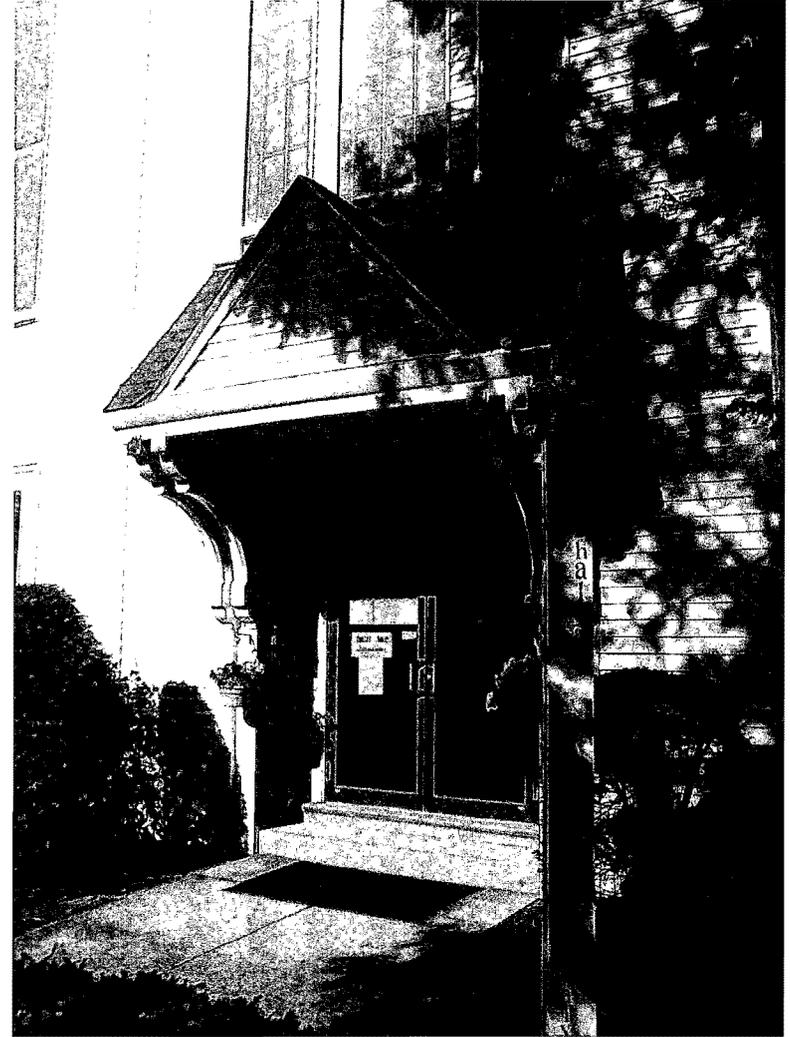
Original entrance doors



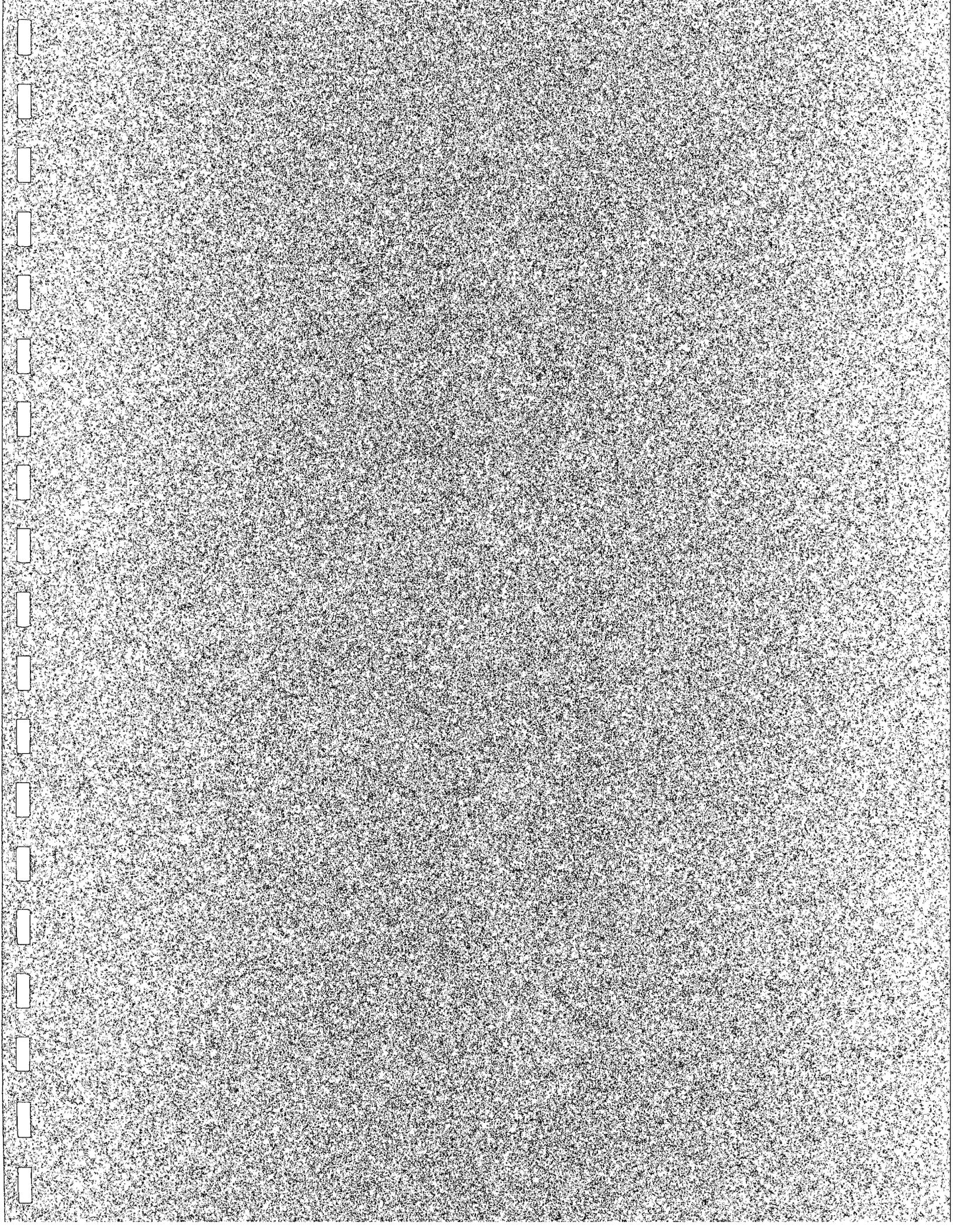
Storm windows over mosaic glass windows



Storm windows over framed arch window



South (main) entrance



**Conceptual  
COST ESTIMATE**

TYPE OF WORK - Renovation & Repairs- DRAFT  
Building Change of Use: Senior Center

Area/  
Quantity/  
SF/LF

UNIT #      UNIT COST      TOTAL  
Labor &  
Material

**GENERAL CONDITIONS**

Division 1- General Requirements  
Mobilization & Insurance (3%)

xxxx

**DIVISION 2 - DEMOLITION & SITEWORK**

Structural Floor Support- 1st floor	Allowance		\$	45,000.00
<b>Exterior elevator</b>				
Excavate footings- elevator	Allowance		\$	4,000.00
Open and remove exter. Stud wall for door openings, piers, cut back joists	Allowance		\$	7,500.00
Remove floor deck	Allowance		\$	800.00
Remove walls /floor area to create accessible toilet rooms (2), on 1st floor near stair vestibule.		2	\$ 1,200.00	\$ 2,400.00
Temporary shoring -elevator pit	Allowance		\$	2,800.00
Remove ext. wood ramp	Allowance	1	\$ 1,000.00	\$ 1,000.00
Sump pump concrete well	Allowance		\$	1,500.00
Remove cracked tower roof structure		1	\$ 200.00	\$ 200.00

**HAZARDOUS MATERIALS**

Remove all VAT floor tiles and asbestos piping		3875	\$ 1.75	\$ 6,781.25
Remove all asbestos piping		3875	\$ 0.75	\$ 2,906.25
Clean craw space	Allowance		\$	1,000.00

**DIVISION 2 - SITEWORK**

Site preparation- Elevator earthwork/12"new gravel base		140	\$ 1.65	\$ 231.00
Concrete fdn footing & earthwork	Allowance	1	\$ 2,200.00	\$ 2,200.00
Concrete fdn wall & earthwork	Allowance	1	\$ 4,200.00	\$ 4,200.00
Sump pump	Allowance		\$	1,000.00
12" crushed stone under pit slab w vapor barrier	Allowance		\$	275.00
Sprinkler sidewalk/street 6" pipe connection	Allowance	1	\$ 6,500.00	\$ 8,500.00
Dumpster, fees, etc.	Allowance	1	\$ 4,000.00	\$ 4,000.00

**DIVISION 3 - CONCRETE**

**Elevator**

Structural slab (12"), 4000PSI with re-bar, EPDM separator	sf	150	\$ 24.00	\$ 3,600.00
Conc. reinforced footings	lf	75	\$ 25.00	\$ 1,875.00
Entranceway slab	ea	50	\$ 45.00	\$ 2,250.00
Craw-space concrete floor slab-10", with vapor barrier and 4000 PSI, #10 www mesh	sf	36	\$ 25.00	\$ 900.00
Concrete ramp at South Street side entrance	lf	21	\$ 600.00	\$ 12,600.00

**DIVISION 4 - MASONRY**

Masonry shaft wall - CMU- (Elevator)	Allowance		\$	45,000.00
Foundation granite pointing in basement	Allowance		\$	5,000.00

**DIVISION 5 - METALS**

Steel lintel at rear door		1		175		175
Railings for interior ramp- 1st fl	unit	1	\$	1,600.00	\$	1,600.00
Exhaust/ air intake vents in attic	Allowance				\$	3,000.00
Re-bar	unit	4	\$	250.00	\$	1,000.00
Apply for MAAB handrail variance					\$	-

**DIVISION 6 - WOOD AND PLASTICS**

Rough carpentry, toilet rms, corridor, relocate kitchen	Allowance		\$	5,000.00	\$	5,000.00
Finish carpentry trim, doors -toilet rms.	Allowance	2	\$	1,200.00	\$	2,400.00
Finish carpentry -stair balusters, railings	Allowance	1	\$	2,600.00		\$2,600
Rough carpentry, bsmt stair enclosure	Allowance	1	\$	1,600.00		\$1,600
Corridor ramp	Allowance	1	\$	5,400.00		\$5,400
Air intake/ exhaust vent in attic	ea	2	\$	5,000.00		\$10,000
Plumbing chases	ea	2	\$	800.00		\$1,600
Egress stair repairs	Allowance				\$	500.00
Carpentry for elevator struct. floor adjustments	Allowance				\$	20,000.00
Finish carpentry/ vestibule for interior elevator	Allowance				\$	15,000.00
Accessible kitchen -counter/ oven	Allowance				\$	30,000.00
Elevator penthouse	Allowance				\$	7,500.00

**DIVISION 7 - THERMAL & MOISTURE PROTECTION**

Batt insulation @ toilet wall separation	Allowance				\$	100.00
					\$	-

**DIVISION 8 - DOORS AND WINDOWS**

Exterior door repairs (historic)		2	\$	1,000.00	\$	2,000.00
Interior doors, frame and hardware	ea	3	\$	1,100.00	\$	3,300.00
Rated hollow metal frames / doors @ stair & vestibule	ea	4	\$	1,400.00		\$5,600

**DIVISION 9 - FINISHES**

Gypsum patch ceilings/ walls @ toilets/ corridor rms-patching	sf	1800	\$	4.35	\$	7,830.00
Vinyl Tile flooring- 1st floor over 1/2" prep underlayment	sf	3875	\$	3.55	\$	13,756.25
Ceramic tile toilet walls/floors- 1/2" cement board backup	sf	410	\$	8.50	\$	3,485.00
Vinyl Cove Base	lf	300	\$	1.65	\$	495.00
Painting, stairs, corridor, ground floor/ basement, toilets, general.	Allowance					\$10,000
Sheet embossed vinyl @ elevator landings	Allowance				\$	600.00
2Hr fire code gypsum ceilings/ walls @ elevator stair	sf	300	\$	8.50	\$	2,550.00
2x4 ceiling tile- 1st floor	sf	3875	\$	2.25	\$	8,718.75

**DIVISION 10 - SPECIALTIES**

Toilet /sink	ea	2	\$	775.00	\$	1,550.00
Toilet accessories	ea	2	\$	625.00	\$	1,250.00
Signage- HP	Allowance				\$	50.00
Mechanical Elevator - 3 stops (Filed Sub Bid)	Allowance				\$	110,000.00

**DIVISION 15 - MECHANICAL & PLUMBING**

Pipe insulation	Allowance					\$3,500.00
Adjustments to plumbing: toilets, kitchen, etc.	Allowance	1		\$4,000		\$4,000.00
Plumbing - HP toilet/ shower rooms	Allowance	2	\$	5,000.00		\$8,000.00
2 vents- through wall @ toilet rms.	ea.	2	\$	750.00	\$	1,500.00
Temporary plumbing connections	Allowance	1	\$	5,000.00		\$5,000.00
Sprinklers	sf	15000	\$	6.00	\$	90,000.00

**DIVISION 16 - ELECTRICAL**

Electrical contingency for re-routing wiring, relocation of switches, thermostat, reconnect boiler, etc.	Allowance				\$	15,000.00
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Contingency for new electrical- partial upgrade of service	Allowance	\$10,000.00 ✓
Fire Alarm Protection, smoke/heat/CO2- Filed Sub-Bid	Allowance	\$24,000.00 ✓
Elevator fire alarm and 100 Amp power	Allowance	\$8,000.00 ✓
325 Amp new overhead service	Allowance	\$5,000.00 ✓
<b>SUBTOTAL</b>		<b>\$ 583,178.50</b>
7.5% General Conditions		\$ 43,738.39 ✓
Subtotal		\$ 626,916.89
10% Contractor Overhead and Profit		\$ 62,691.69 ✓
Subtotal		\$ 689,608.58
10% Contingency		\$ 68,960.86 ✓
<b>Sub TOTAL</b>		<b>\$ 758,569.43</b>
A&E Design and Construction Administration Fees		\$ 75,000.00 ✓
Reimbursable- Elevator test borings		\$ 2,000.00 ✓
<b>Total Estimated Conceptual Project Cost</b>		<b>\$ 835,569.43</b>

Assumptions: Minimum work in 2nd floor social hall as related to elevator shaft and enclosures.  
 Elevator will not access full height basement addition.  
 Programming and Schematic Design recommended to understand design and tighter cost estimate.