

# **GREENWOOD MEMORIAL POOL**

## **GARDNER, MASSACHUSETTS**



## **VISUAL INSPECTION AND STRUCTURAL ASSESMENT**

PREPARED BY:

**BELL ENGINEERING**  
A.S. BELL ENGINEERING, P.C.  
2568 Western Avenue  
Altamont, New York 12009



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518 / 357 - 0313

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**INTRODUCTION**

The existing structure was constructed in 1914 as a combination bathhouse and swimming pool by L. H. Greenwood, Esq. The building is T-shaped with the top of the tee approximately eighty (80') feet by thirty (30') feet and the stem of the tee approximately fifty-seven (57') feet by ninety-seven (97'). The stem of the tee contains the swimming pool and at one time dressing rooms along each side of the pool and the north end, and a second floor balcony around the entire pool. The top of the tee contained on the first floor, separate men's and women's bathrooms complete with bath tubs, showers, toilets and lavatories. Also on the first floor was the open foyer hallway with attendant's desk, an alcove, an office and stairways to the second floor and basement. On the second floor was an open center area, and separate meeting rooms on either end.

On the grounds of the building to the North, was a 1.3 acre freshwater swimming pond complete with a wooden sheet piling bulkhead diving wharf.

**ORIGINAL STRUCTURE**

The structure is well built with reinforced concrete foundations consisting of footings and walls founded on what the original drawings refer to as hardpan which is probably either solid rock or dense glacial till. The pool tank structure is supported by additional footings, pier columns and beams, also founded on hardpan. The exterior reinforced concrete walls extend above grade approximately one foot to eighteen inches, depending on the ground surface. The building consists of a tan-colored cement masonry brick above the reinforced concrete wall. In the pool structure portion, the brick masonry has pilasters approximately twelve (12') feet on center. These pilasters support riveted steel roof trusses spanning the full width of the pool building. Above the trusses the roof structure consists of 4"x 9" wood purlins spanning from truss to truss and approximately seven feet (7') spacing along the top chord of the truss. Above the purlins is approximately 2" of wood sheathing and waterproofing. The original roof above the sheathing was slate, but this was replaced with asphalt shingles circa 1980. A glass skylight exists for approximately seventy-two (72') feet in the center of the length, and extends down both sides approximately fourteen (14') feet. The balcony structure consists of wood framing suspended from the trusses above.

**EXISTING CONDITIONS**

The interior space has been modified somewhat from the original. The dressing rooms at the deck level of the pool area have been completely removed, allowing for a clear deck from the edge of the pool to the side walls. The masonry from the deck level to the roof has been painted. The men's and women's bath rooms have been converted into locker rooms.

The existing structure appears to be in good condition except the roof. The roofs over the second floor meeting rooms are leaking, and the water was being caught by large plastic containers. The roof over the

pool area appears to be leaking around the skylight, as well as through the sheathing. The paint on the trusses has begun to fail, and the sheathing shows areas of rotten wood, with one area near the men's bathroom having fungi growing out of the wood. Nails through the sheathing are deteriorated and water stains are prevalent. With the high humidity in the pool area, and the age of the sheathing, the sheathing may well be rotting from the inside-out as well as from the outside-in. There were puddles of water on the balcony floor.

The outside masonry is in good condition except for the area from the level of the pool deck down to the top of the reinforced concrete foundation. Most of the mortar joints in this area of the pool wing are deteriorated and in need of repointing. The doorway leading out from the north end of the pool on the right (east) side has an area of deterioration under the doorway sill. There is a general deterioration of the mortar of the masonry in this area, to the point where the masonry under the door has dropped, and diagonal cracks through the mortar joints extend over the doorway frame. This deterioration extends around the corner of the wall to the east side.

Steam heating pipes and heating fixtures are present over the pool area and are connected through the webs of the trusses. Additionally, fans and fluorescent lights are suspended from the trusses. All of this equipment is rusting, and some appear to be not working.

## **RECOMMENDATIONS**

The entire roof needs to be replaced. In the pool area, the roof needs to be removed down to the trusses including the 4"x 9" purlins. The heating pipes, fans and lights need to be removed and disposed of. The trusses need to be sandblasted to bare metal and repainted with zinc rich primer, moisture-cured urethane intermediate coat, with polyurethane top coat, or another industrial type paint system. During paint removal operations the entire area around the trusses needs to have complete containment due to the distinct possibility of lead-based paints existing. The skylight should be replaced with a newer, more energy efficient skylight, or windows, depending upon the desired architectural look. The purlins and sheathing need to be replaced with moisture resistant materials. If treated timber is to be used, extreme care needs to be taken to protect the trusses from the aggressive nature of the newer preservatives.

In the meeting room areas, the ceilings need to be removed to determine the extent of the deterioration. If the deterioration is arrested in time, a simple re-sheathing over the existing may be sufficient, prior to the new roof treatment.

The wood decking on the balcony needs refinishing, and any deteriorated wood caused from the roof leaking needs to be replaced. Currently the deck is painted.

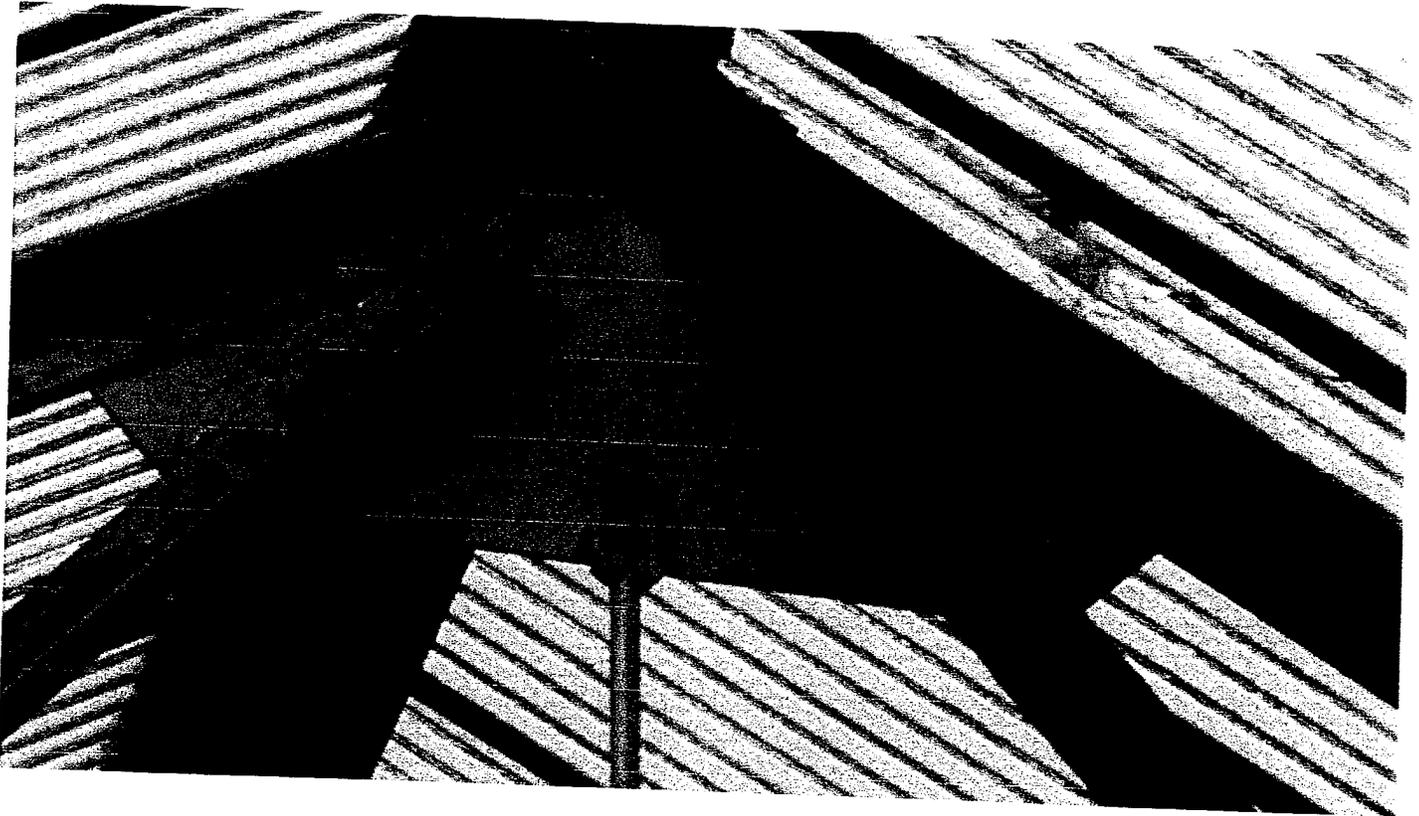
The paint on the deck, walls, and trusses needs to be tested for the presence of lead paint.

Masonry repairs are required around the east door at the north end of the pool building. In addition, the mortar joints for approximately five (5') feet above the concrete foundation need repair. Concrete repairs to the foundation are required below this joint with the masonry.

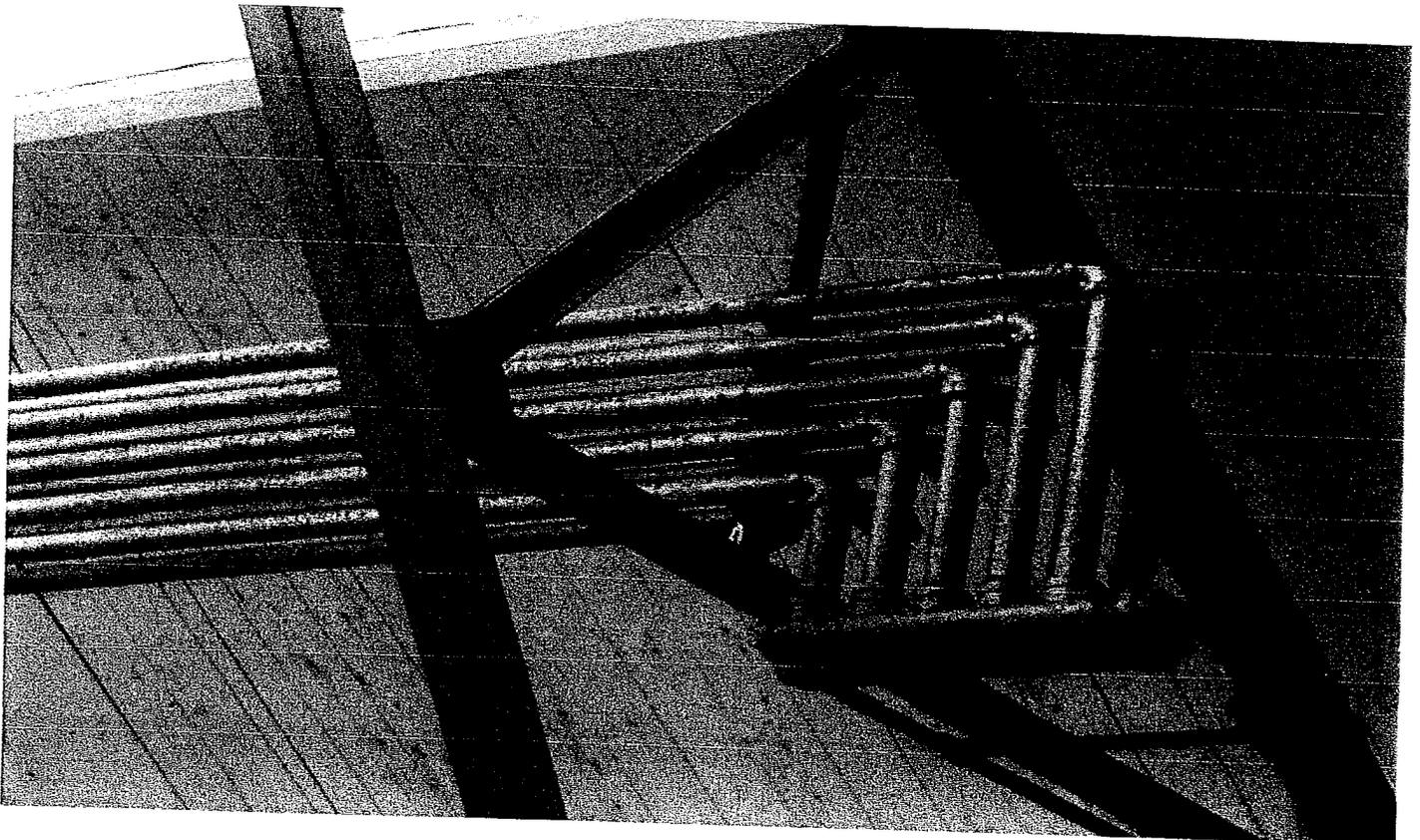


## COST ESTIMATE

No.	Work Item	Unit	Quantity	Unit Price	Amount
<b>Pool Area</b>					
1	Furnish and Install Exterior Scaffolding	SF	3500	\$2.50	\$8,750
2	Removal of Shingles and Underlayment	SF	5800	\$3.00	\$17,400
3	Removal of Skylights	SF	2020	\$10.00	\$20,200
4	Removal of Roof Sheathing & Purlins	SF	5800	\$5.00	\$29,000
5	Furnish and Install Interior Work Platform	LS	1	\$10,000.00	\$10,000
6	Removal of Lights, Piping, Fans	LS	1	\$10,000.00	\$10,000
7	Class "A" Containment	LS	1	\$25,000.00	\$25,000
8	Sandblast Paint Removal on Trusses	EA	7	\$2,000.00	\$14,000
9	Paint Trusses (3 coat system)	EA	7	\$6,000.00	\$42,000
10	Furnish and Install Glulam Purlins	EA	78	\$500.00	\$39,000
11	Furnish and Install New Sheathing	SF	5800	\$15.00	\$87,000
12	Furnish and Install New Insulation	SF	5800	\$3.00	\$17,400
13	Furnish and Install New Skylights	SF	2020	\$20.00	\$40,400
14	Furnish and Install New Roofing	SF	5800	\$7.00	\$40,600
15	Balcony Repairs - Columns/Flooring	LS	1	\$7,000.00	\$7,000
16	Debris Disposal	LS	1	\$15,000.00	\$15,000
17	Paint Waste Disposal	LS	1	\$5,000.00	\$5,000
18	Masonry and Concrete Repairs	SF	1500	\$15.00	\$22,500
					<hr/>
					\$450,250
<b>Locker Room Office Area</b>					
1	Furnish and Install Exterior Scaffolding	SF	2500	\$2.50	\$6,250
2	Removal of Shingles and Underlayment	SF	3900	\$3.00	\$11,700
4	Removal of Roof Sheathing (25%)	SF	1000	\$5.00	\$5,000
11	Furnish and Install New Sheathing	SF	1000	\$15.00	\$15,000
12	Furnish and Install New Insulation	SF	3900	\$3.00	\$11,700
14	Furnish and Install New Roofing	SF	3900	\$7.00	\$27,300
16	Debris Disposal	LS	1	\$10,000.00	\$10,000
					<hr/>
					\$86,950
				SUBTOTAL	\$537,200
Mobilization @ 6%					\$32,232
Miscellaneous @ 10%					\$53,720
Contractor overhead and profit @ 15%					\$93,473
				TOTAL	\$716,625



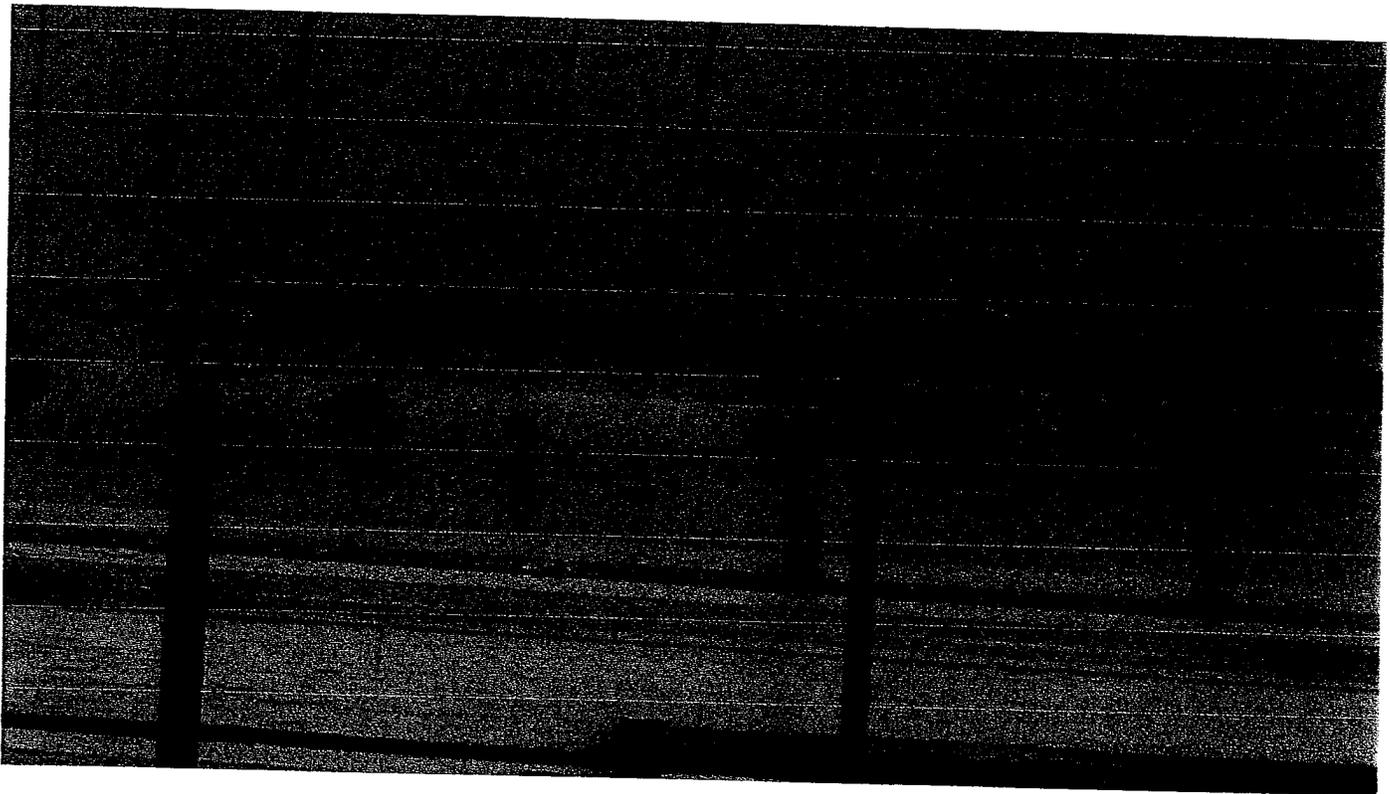
(1) Paint on truss beginning to fail.



(2) Obsolete heating pipes and fixtures to be removed and disposed of.



(3) Rotten wood (fungi) on sheathing near men's bathroom.



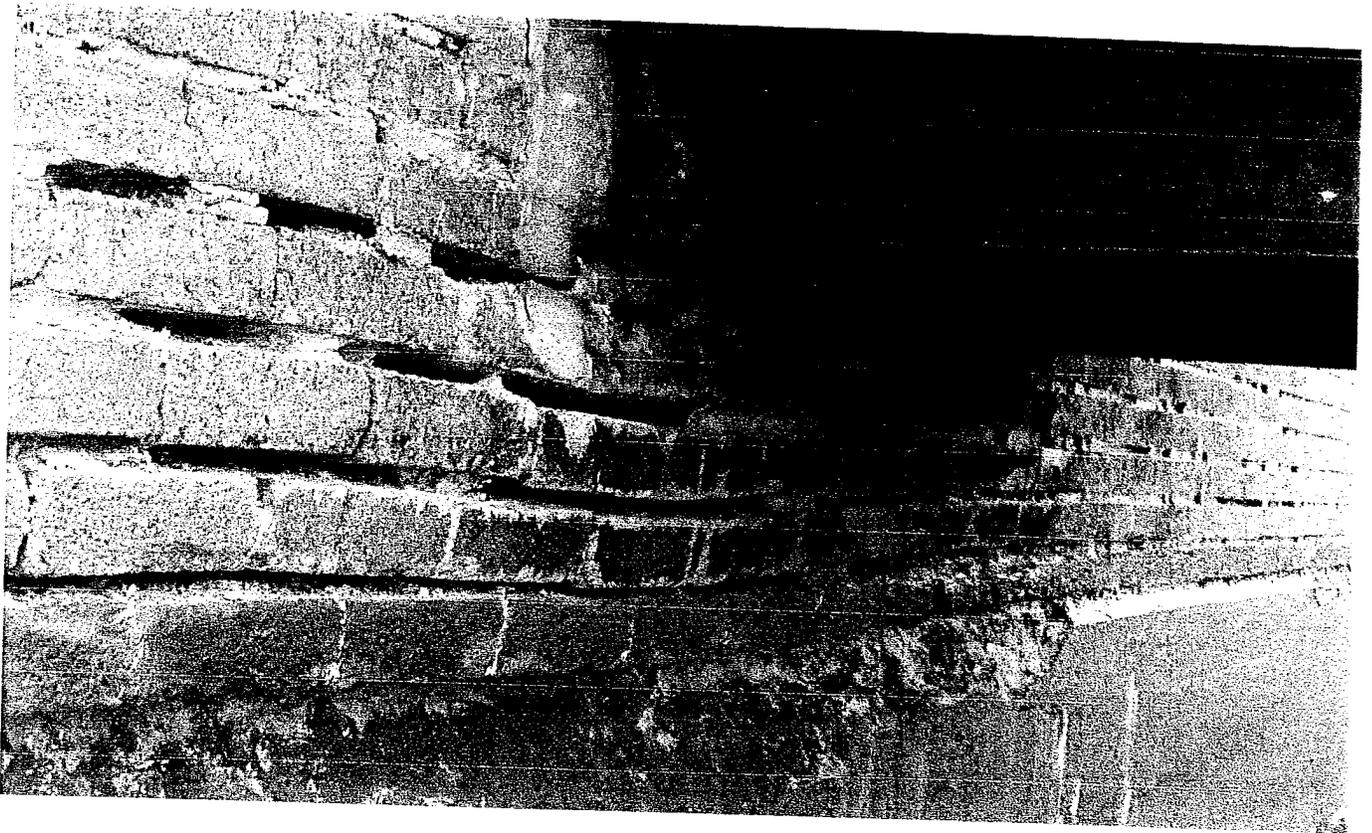
(4) Deterioration of purlin bolts and rust staining at fascia.



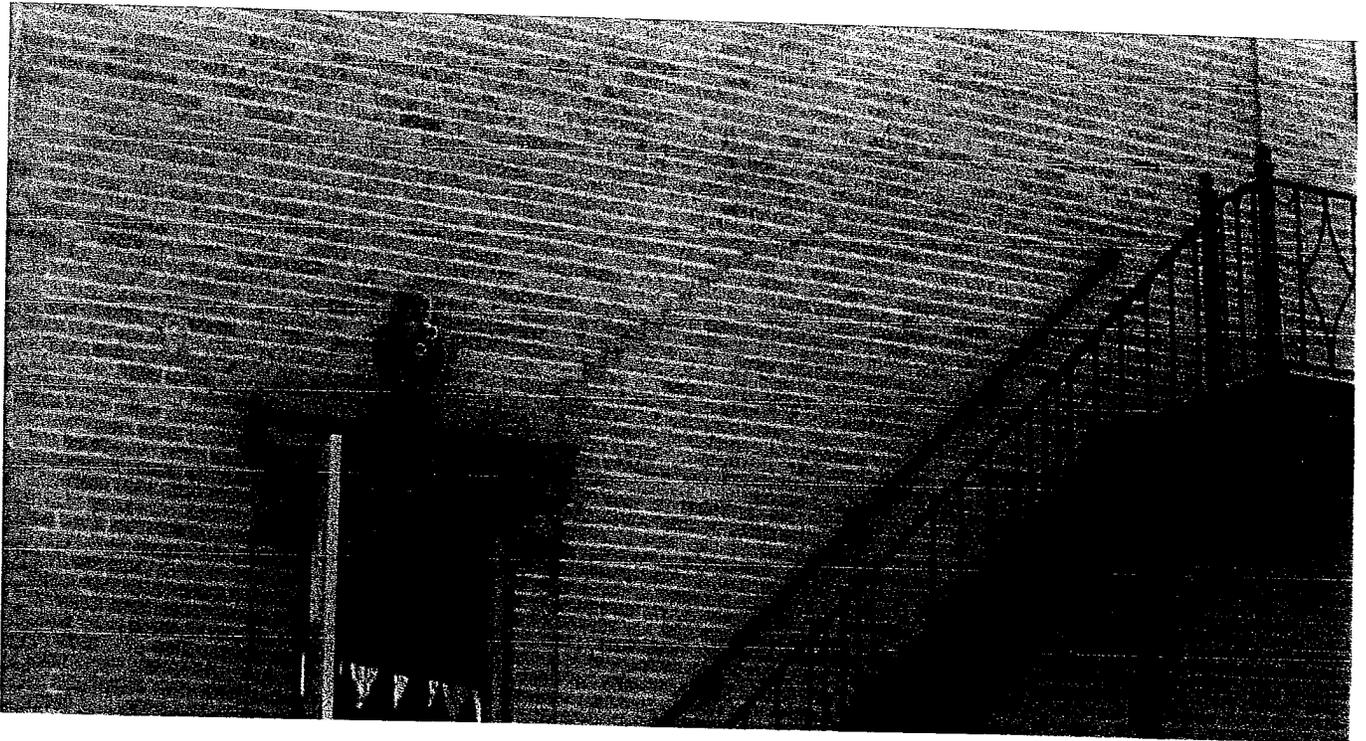
(5) A hole in the wooden floor due to deterioration at former vent location.



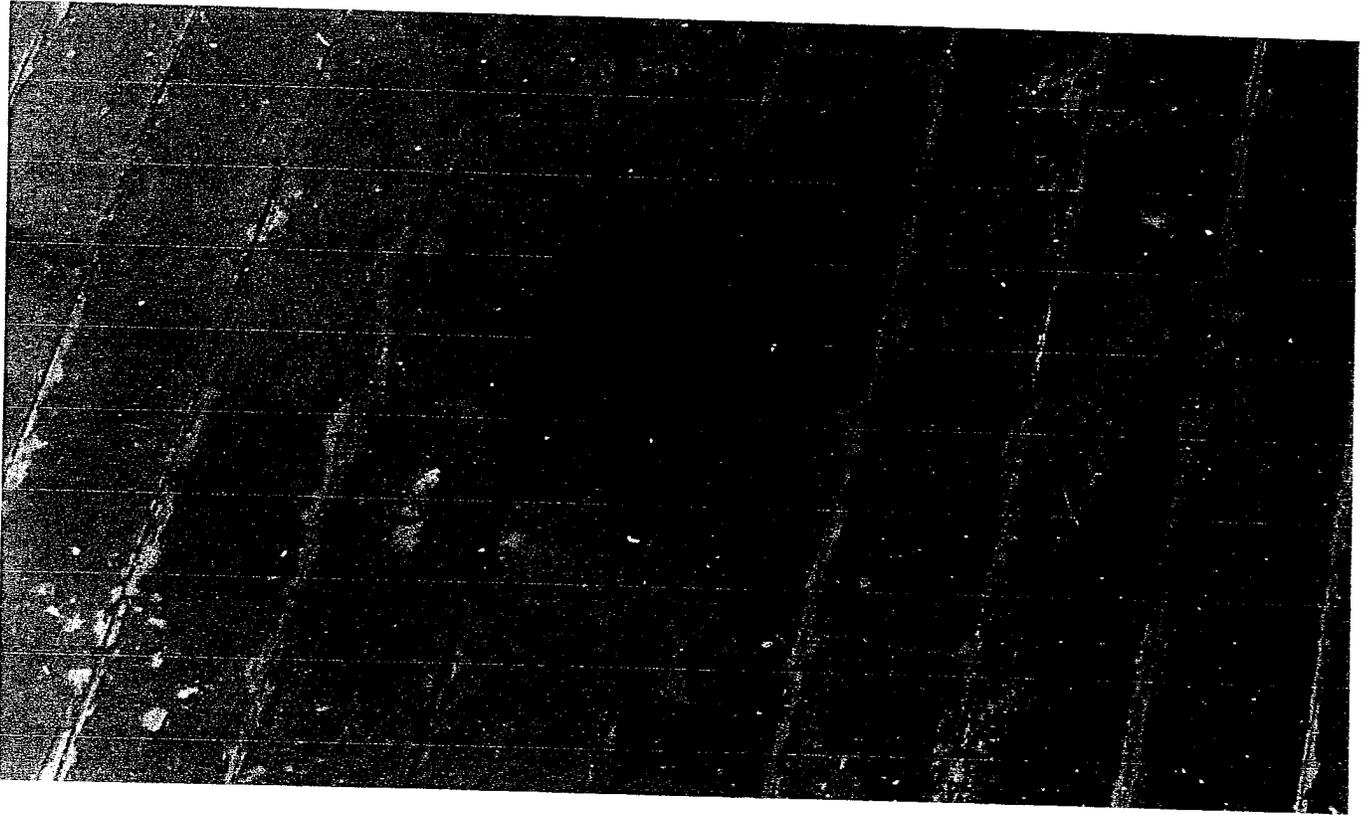
(6) General deterioration of mortar around the exterior walls.



(7) Masonry under the door in the north end of the building has dropped.



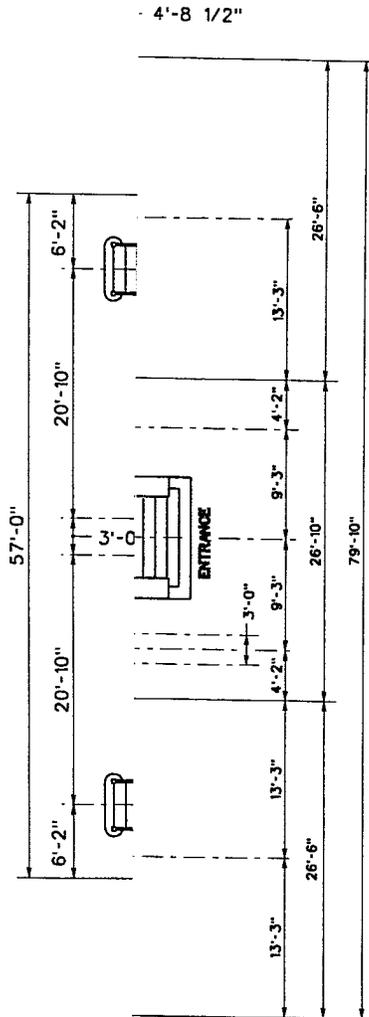
(8) Diagonal cracks in motor joint over door frame on the north side of building.



(9) Deteriorated wood decking in the balcony area.



(10) Concrete deterioration in the foundation.



**BELL ENGINEERING**  
 A S BELL ENGINEERING, P.C.  
 Andrew S. Bell, P.E.



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GREENWOOD MEMORIAL POOL  
 PARK STREET  
 GARDNER, MASS.

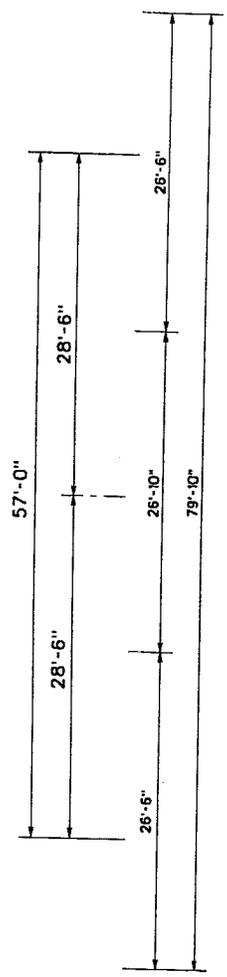
**FIRST FLOOR LAYOUT PLAN**

DRAWING NO.  
FP-1

SCALE:  
AS SHOWN

DATE:  
MAY, 2006

SHEET NO.  
1 OF 2



**BELL ENGINEERING**  
 A S BELL ENGINEERING, PC  
 Andrew S. Bell, P.E.



2568 WESTERN AVENUE  
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## SECOND FLOOR LAYOUT PLAN

DRAWING NO. FP-2	SCALE: AS SHOWN	DATE: MAY, 2006	SHEET NO. 2 OF 2
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