

**Sand Point
Potential Partnership Study**

**Building No. 18
Fire Station**



Sand Point Potential Partnership Study

Building Data Sheet

Building No: 18

Name: Fire Station

General Description:

Building 18 was the base Fire Station, built in phases starting in 1936. On the first floor it contains a two bay garage, a three bay garage and a single bay garage, as well as a storage "shed" on the east end of the building. There was also what appears to have been a base "central command station" on the first floor. The second floor was the "crew quarters", ready room etc. There is a 60 ft. hose tower located on the south of the building.

This building suffered a recent fire, and has considerable smoke damage on the 2nd floor. Firefighters cut numerous holes in the roof to vent the fire. Major deterioration to the roof structures in this area has occurred.

Year(s) Constructed: 1936, 1957

Building Area:

| | |
|------------------------------|-------------------|
| 1st floor: | 8,139 sf. |
| 2nd floor: | 5,583 sf. |
| 3rd floor: | n/a |
| Total: | 13,722 sf. |

Construction Type:

The exterior brick walls of the building are load bearing. The first floor is slab on grade with steel framing for the 2nd floor deck of concrete. The structural framing is wrapped in "GWB" or encased in concrete for fire protection. Framing above the second floor is wood, with the brick exterior bearing walls on the perimeter. The "shed" on the eastern face of the building is wood framed with the suspect asbestos board siding attached.

Relevant Reference Estimating Information Available:

- EDAW study, March 1994
- SWMB seismic evaluation, March 1996
- Film Base Task Force ROM estimates, November 1998
- EAF Draft, Sand Point Blue Ribbon Committee, Background Materials, April, 1998

Survey Highlights:

The building is basically a connection of elements. The original fire house appears to have been the first 5 bays, with a small second story. Over the years an additional truck bay was added to the east, the second story added and expanded and a shed added on the east end of the building.

The basic exterior of the building appears in good shape, with the exception of the parapet precast, the roof, and the shed on the very east end of the building. Roofing will require replacement, as will a significant portion of the roof structure and sheathing on the N. ½ of the roof. Doors and windows are in generally decent condition, needing cleaning and painting. The exterior sheathing on the "shed" and on the south face of the second floor appears to be the suspect asbestos board.

There has been some "fireproofing of the structural steel in the engine bays with concrete and GWB. The paint on the walls in these same bays, however is peeling badly. The second floor, having suffered a fire, as well as vandalism is in poor shape.

There is a single stair to the second floor, no elevator. The addition of a second stair, and rebuilding the existing stair to provide fire access will be required. There is a single restroom on the main level, which can be converted to an ADA Unisex restroom, and a large restroom/shower room on the second level that could be made into two restrooms of 3 stalls each.

Upgrade Recommendations

- **Selective Demolition**
 - Removal of the damaged N ½ of the roof structure
 - Demolition of interior improvements
 - Removal of all fire damaged material on the 2nd floor
 - Demolition of Interior sheathing on exterior walls
 - Demolition required for restroom renovations
 - Demolition required for elevator openings
 - Misc “additions” to the outside of the building such as the “slide”
- **Remediation;**
 - Asbestos
 - Allow \$1.50/sf for base building
 - Allow \$4.00/sf of siding for removing the siding at the second floor south and shed
 - Lead paint
 - Allow \$1.00/sf for the truck bays
 - Allow \$0.50/sf for the remainder of the building
- **Seismic/Structural:**
 - Seismic/Structural renovation costs to be based on SWMB study and estimate in March, 1995. Escalation @ 3% per year to 9-03.
 - Replace N. ½ of roof structure due to fire/water damage
- **Fire & Life Safety:**
 - Exiting
 - Exit signage and emergency lighting (*with TI work*)
 - Provide exit from truck bays
 - Corridors
 - Provide exit corridor from truck bays to exit at south (2) (*with TI work*)
 - Fire Stairs
 - Rebuild existing stair and enclose for fire exit
 - Add new exit stair from 2nd floor east end
 - Fire Alarm
 - Allowance for full building system (*with TI work*)
 - Fire Sprinklers
 - Wet system in entire building
 - Fire Separations
 - N/a
- **Plumbing**
 - Allowance for inspection, repair and minimal upgrade
- **HVAC**
 - Heating and ventilating system based on 1 cfm/sq ft. Main duct only.
 - Provide alternate for Air Conditioning at 400 sf/ton (*NOTE: The addition of air conditioning must be decided in the initial design, not as a later addition*)
- **Electrical**
 - Upgrade service panels
 - Electrical for HVAC, Fire & Life Safety
- **ADA Compliance**
 - Accessibility

- Exits to outside at grade level. No adjustment necessary
 - Vertical transportation
 - Add elevator. Use hose tower for shaft
 - Restrooms
 - *Alternate provided for restrooms to be done with TI, based on usage and requirement.*
 - Probable requirement*
 - Renovate 1st floor restroom to Unisex ADA
 - Renovate 2nd floor restroom into Men and Women – 3 stalls each
 - Signage
 - Allowance for code signage only
- Exterior Envelope
 - Façade
 - Masonry
 - Clean and Point
 - Parapet cap regrouting and bracing
 - Steel
 - Windows and doors – replace 100%
 - Add metal siding at 2nd floor south and shed
 - Wood
 - Windows and doors – replace 100%
 - Overhead doors – Replace with insulated units
 - Exterior walls
 - Furr and insulate
 - Cleaning and Painting
 - Exterior wood and metal
 - Windows and Frames
 - Doors and Frames
 - Roof
 - Roofing and Flashing – complete replacement
 - Downspouts on S. side replaced
 - Rigid insulation with roof replacement

**Sand Point Magnuson Park
Potential Partnership Study
Estimated Shell Upgrade
Building 18 Fire Station
Estimate Summary**

| | | | |
|------------------------|------------|----|--|
| Building Area: | | | |
| 1 st floor: | 8,139 | sf | |
| 2 nd floor: | 5,583 | sf | |
| 3 rd floor: | <u>n/a</u> | sf | |
| Total: | 13,722 | sf | |

| Work Item | Cost | | | |
|---|---------------------------|-----------------|--------------|--------------------------------|
| Selective Demolition | \$94,489.00 | | | |
| Remediation: | \$39,013.00 | | | |
| Seismic/Structural: | \$220,569.58 | | | |
| Fire & Life Safety: | \$79,754.76 | | | |
| Plumbing | \$20,583.00 | | | |
| Heating and Ventilating | \$109,776.00 | | | |
| Electrical | \$42,666.00 | | | |
| ADA Compliance | \$61,000.00 | | | |
| Exterior Envelope | \$265,883.74 | | | |
| Miscellaneous | <u>\$10,112.34</u> | | | |
| Subtotal Direct Construction | \$943,847.42 | | | |
| General Conditions | \$94,384.74 | | | |
| Overhead and Fee | \$103,823.22 | | | |
| Escalation | none | | | |
| Estimating Contingency | \$171,308.31 | | | |
| Sales tax | <u>\$115,576.00</u> | | | |
| Subtotal Hard construction cost | \$1,428,939.68 | | | |
| Soft Costs (permits, fees, consultants, administrative) | <u>\$571,575.87</u> | | | |
| <i>Total Project Cost</i> | <i>\$2,000,515.55</i> | <i>\$145.79</i> | <i>\$/sf</i> | <i>\$2,000,515.55</i> |
| Restroom Alternative | | | | |
| Cost based on 1 stall, room approx 8' x 5' | 20,147.22 | | | |
| Likley requirement | | | | |
| 3 | ea | 60,441.66 | \$4.40 | \$/sf |
| | | | | 60,441.66 |
| Additional Stalls | | | | |
| Add 8 x 4 | 12,356.88 | | | |
| Likley requirement | | | | |
| 4 ea | ea | 49,427.50 | \$3.60 | \$/sf |
| | | | | 49,427.50 |
| HVAC air conditioning alternate | | | | |
| Based on 400 sf/ton | 145,421.15 | \$10.60 | \$/sf | nic |
| Total Cost based on estimated requirements, without Air Conditioning | | | | \$2,110,384.72 \$153.80 |

**Sand Point Magnuson Park
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Estimated Shell Upgrade
Building 18 Fire Station**

| Category | Work Item | Units | Unit | Unit Price | Cost |
|--------------------------------|--|------------------|------|------------|------------|
| | | | | | 0.00 |
| Selective Demolition | | | | | 0.00 |
| | Removal of the damaged N ½ of the roof structure | 2,746 sf | | 3.00 | 8,238.00 |
| | Interior improvements demolition | 13,722 sf | | 4.50 | 61,749.00 |
| | Removal of all fire damaged material on the 2 nd floor | | | | incl |
| | Demolition of Interior sheathing on exterior walls | | | | incl |
| | Demolition required for restroom renovations | | | | incl |
| | Demolition required for elevator openings | 2 ea | | 500.00 | 1,000.00 |
| | Demolition required for Fire and Life Safety issues | | | | 0.00 |
| | Exterior Exit opening | 28 sf | | 20.00 | 560.00 |
| | Fire stair opening | 60 sf | | 20.00 | 1,200.00 |
| | Saw Cut Masonry/Concrete | 56 lf | | 50.00 | 2,800.00 |
| | Remove existing radiant heating system and associated piping | 13,722 sf | | 1.00 | 13,722.00 |
| | Allow \$4.00/sf of wall area at 2nd floor south and east shed for asbestos board removal | 930 sf | | 4.00 | 3,720.00 |
| | Misc "additions" to the outside of the building such as the "slide" | 1 Allow | | 1,500.00 | 1,500.00 |
| | <i>Subtotal - Selective Demolition</i> | | | | 94,489.00 |
| Remediation; | | | | | 0.00 |
| | Asbestos | | | | 0.00 |
| | Allow \$1.50/sf for base building | 13,722 sf | | 1.50 | 20,583.00 |
| | Allow a premium of \$1,000 for encapsulating the siding at the second floor south and shed | 1 Allow | | 1,000.00 | 1,000.00 |
| | Allow \$1.00/sf for roofing materials abatement | 8,139 sf | | 1.00 | 8,139.00 |
| | Lead paint | | | | |
| | Allow \$1.00/sf for the truck bays | 4,860 sf | | 1.00 | 4,860.00 |
| | Allow \$0.50/sf for the remainder of the building | 8,862 sf | | 0.50 | 4,431.00 |
| | <i>Subtotal - Remediation</i> | | | | 39,013.00 |
| Seismic/Structural: | | | | | |
| | Seismic/Structural renovation costs to be based on SWMB study and estimate in March, 1996, Option 3. | 1 LS | | 161,325.00 | |
| | Escalation @ 3-1/4% per year to 9-03 | 1.231 multiplier | | | 198,603.58 |
| | Replace N. ½ of roof structure due to fire/water damage | 2,746 sf | | 8.00 | 21,966.00 |
| | <i>Subtotal - Seismic/Structural</i> | | | | 220,569.58 |
| Fire & Life Safety: | | | | | |
| | Exiting | | | | |
| | Exit signage and emergency lighting | | | | W/TI |
| | Provide exit from truck bays | 2 ea | | 2,000.00 | 4,000.00 |
| | Corridors | | | | |
| | Provide exit corridor from truck bays to exit at south (2) | | | | W/TI |
| | Fire Stairs | | | | |
| | Rebuild existing stair and enclose for fire exit | 1 ls | | 11,529.59 | 11,529.59 |
| | Add new exit stair from 2 nd floor east end | 1 ls | | 23,059.17 | 23,059.17 |
| | Footings/Slab | 140 sf | | 12.00 | 1,680.00 |
| | Walls | 480 sf | | 7.00 | 3,360.00 |
| | | 240 sf | | 7.00 | 1,680.00 |
| | metal siding | 720 sf | | 7.50 | 5,400.00 |
| | Exit doors | 2 ea | | 1,000.00 | 2,000.00 |
| | roof frame/ roofing/flashing | 140 sf | | 12.00 | 1,679.31 |
| | insulation | 140 sf | | 2.50 | 349.86 |
| | Stair flt | 1 flight | | 5,000.00 | 5,000.00 |
| | Handrail | 46 lf | | 35.00 | 1,610.00 |
| | lighting | 2 each | | 150.00 | 300.00 |

**Sand Point Magnuson Park
Potential Partnership Study
Estimated Shell Upgrade
Building 18 Fire Station**

| | | | | | |
|---|--|-----------|-----------|------------|----------------|
| | Fire Alarm | | | | |
| | Allowance for full building system | | | | W/TI |
| | Fire Sprinklers | | | | |
| | Wet system in entire building | 13,722 sf | 3.00 | 41,166.00 | |
| | Fire Separations | | | | |
| | N/a | | | 0.00 | |
| | <i>Subtotal - Fire & Life Safety</i> | | | | 79,754.76 |
| Plumbing | | | | | |
| | Allowance for inspection and repair | 13,722 sf | 1.50 | 20,583.00 | |
| | Plumbing for restrooms | | | | W/Restroom Alt |
| | <i>Subtotal Plumbing</i> | | | | 20,583.00 |
| Heating and Ventilating | | | | | |
| | Heating and ventilating system based on 1 cfm/sq ft. Main duct only. | 13,722 sf | 8.00 | 109,776.00 | |
| | <i>Subtotal - Heating and Ventilating</i> | | | | 109,776.00 |
| Electrical | | | | | |
| | Upgrade service panels | 13,722 sf | 3.00 | 41,166.00 | |
| | Electrical for Heating and Ventilating | 1 ls | 1,500.00 | 1,500.00 | |
| | <i>Subtotal - Electrical</i> | | | | 42,666.00 |
| ADA Compliance | | | | | |
| | Accessibility | | | | |
| | Exits to outside at grade level. No adjustment necessary | | | 0.00 | |
| | Vertical transportation | | | | |
| | Add elevator. Use hose tower for shaft | 1 ls | 60,000.00 | 60,000.00 | |
| | Restrooms | | | | W/Restroom Alt |
| | Renovate 1 st floor restroom to Unisex ADA | | | | W/Restroom Alt |
| | Renovate 2 nd floor restroom into Men and Women – 3 stalls each | | | | W/Restroom Alt |
| | Signage | | | | |
| | Allowance for code signage only | 1 Allow | 1,000.00 | 1,000.00 | |
| | <i>Subtotal - ADA</i> | | | | 61,000.00 |
| Exterior Envelope | | | | | |
| Façade | | | | | |
| Masonry | | | | | |
| Clean and Point | 9,415 sf | 2.00 | 18,830.04 | | |
| Parapet cap regrouting/bracing | 509 lf | 53.50 | 27,224.55 | | |
| Steel | | | | | |
| Windows and doors – replace 100% | 1,136 sf | 45.00 | 51,131.25 | | |
| Metal siding at 2nd floor south and shed | 930 sf | 7.50 | 6,975.00 | | |
| Wood | | | | | |
| Windows and doors – replace | 2 ea | 650.00 | 1,300.00 | | |
| Overhead doors – Replace with insulated units | 1,217 sf | 35.00 | 42,606.90 | | |
| Exterior walls | | | | | |
| Furr and insulate | 8,434 sf | 6.00 | 50,604.00 | | |
| Cleaning and Painting | | | | | |
| Exterior wood and metal | 1 allow | 1,500.00 | 1,500.00 | | |
| Windows and Frames | | | | in reno | |
| Doors and Frames | 2 ea | 50.00 | 100.00 | | |
| Roof | | | | | |
| Roofing and Flashing – complete replacement | 8,139 sf | 5.50 | 44,764.50 | | |
| Downspouts on S. side replaced | 2 ea | 250.00 | 500.00 | | |
| Rigid roof insulation with reroofing | 8,139 sf | 2.50 | 20,347.50 | | |
| | <i>Subtotal - Exterior Envelope</i> | | | | 265,883.74 |
| Miscellaneous | | | | | |

**Sand Point Magnuson Park
Potential Partnership Study
Estimated Shell Upgrade
Building 18 Fire Station**

| | | | |
|---|----------|------|---------------------|
| Replace 25% of roof sheathing (S 1/2) due to probable damage from moisture seepage. | 1,348 sf | 7.50 | 10,112.34 |
| <i>Subtotal - Miscellaneous</i> | | | <u>10,112.34</u> |
| <i>Subtotal Direct Construction</i> | | | <u>943,847.42</u> |
| <i>General Conditions</i> | 10% | | <u>94,384.74</u> |
| <i>Subtotal</i> | | | <u>1,038,232.16</u> |
| <i>Overhead and Fee</i> | 10% | | <u>103,823.22</u> |
| <i>Subtotal</i> | | | <u>1,142,055.37</u> |
| <i>Escalation</i> | 0% | | <u>none</u> |
| <i>Subtotal</i> | | | <u>1,142,055.37</u> |
| <i>Estimating Contingency</i> | 15% | | <u>171,308.31</u> |
| <i>Total Direct Construction Cost</i> | | | <u>1,313,363.68</u> |
| <i>Sales tax</i> | 8.8% | | <u>115,576.00</u> |
| <i>Subtotal</i> | | | <u>1,428,939.68</u> |
| <i>Soft Costs (permits, fees, consultants, administrative)</i> | 40% | | <u>571,575.87</u> |
| <i>Total Project Cost</i> | | | <u>2,000,515.55</u> |

**Sand Point Magnuson Park
Potential Partnership Study
Estimated Shell Upgrade
Building 18 Fire Station**

Restroom Alternative

Cost based on 1 stall, room approx 8' x 5'

| | | | | | |
|--|---------------------------------------|-----------|------|-----------|------------------|
| | <i>Total Project Cost</i> | | | | 20,147.22 |
| | Likley requirement | 3 ea | | | 60,441.66 |
| Additional Stalls | | | | | |
| | | Add 8 x 4 | | | |
| | | | | | |
| | <i>Total Project Cost</i> | | | | 12,356.88 |
| | Likley requirement | 4 ea | | | 49,427.50 |
| HVAC air conditioning alternate | | | | | |
| Based on 400 sf/ton | | | | | |
| | Heating - Hydronic Boiler system | 13,722 sf | 2.50 | 34,305.00 | |
| | Cooling - Remote Chiller | 13,722 sf | 2.50 | 34,305.00 | 68,610.00 |
| | | | | | <u>0.00</u> |
| | <i>Subtotal Direct Construction</i> | | | | 68,610.00 |
| <i>General Conditions</i> | | 10% | | | <u>6,861.00</u> |
| | <i>Subtotal</i> | | | | 75,471.00 |
| <i>Overhead and Fee</i> | | 10% | | | <u>7,547.10</u> |
| | <i>Subtotal</i> | | | | 83,018.10 |
| <i>Escalation</i> | | 0% | | | <u>none</u> |
| | <i>Subtotal</i> | | | | 83,018.10 |
| <i>Estimating Contingency</i> | | 15% | | | <u>12,452.72</u> |
| | <i>Total Direct Construction Cost</i> | | | | 95,470.82 |
| <i>Sales tax</i> | | 8.8% | | | <u>8,401.43</u> |
| | <i>Subtotal</i> | | | | 103,872.25 |
| <i>Soft Costs (permits, fees, consultants, administrative)</i> | | 40% | | | <u>41,548.90</u> |
| | <i>Total Project Cost</i> | | | | 145,421.15 |
| Add'l cost/sf for AC | | | | | 10.60 |