

# GREEN LAKE COMMUNITY CENTER AND EVANS POOL FACILITY ASSESSMENT

December 2008



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## EXECUTIVE SUMMARY

The Green Lake Community Center and Evans Pool are located in Green Lake Park and are easily accessible from the popular jogging and biking trail that circles the lake. The central location makes it one of the busiest centers in Seattle. The 16,817 square foot Community Center was built in 1929 and the 13,618 square foot Evans Pool and lobby were built in 1954. There have been several upgrades to the building including an elevator addition in 1996, fire sprinklers in 2001, and restroom renovations in 2007.

The building itself abuts the walking path along the edge of Green Lake, but does not present a welcoming image to the park user and therefore misses great opportunities to connect potential users with Parks services and activities.

The facility has a series of ADA issues that need to be addressed including access to the gymnasium, restrooms, and showers. The structural system does not meet current seismic standards and will require significant improvements. The facility is also in need of significant repairs of its mechanical, plumbing, and electrical systems.

The following recommendations for Green Lake CC and Evans Pool address needed code and building system improvements as well as plan reconfigurations that will enhance Parks ability to offer exciting programs. The total cost for these recommendation is estimated at \$3,169,00.



Figure 1 - View of Community Center from south side and basketball courts

## EXECUTIVE SUMMARY

### ***Maintenance***

The maintenance issues that need to be addressed include window replacement, re-roof of pool and lobby, replacement of boilers and branch electrical panels, corroded piping in the basement, and basement sump drain piping. The cost estimate is \$494,000.

### ***Code and Life Safety***

The facility is not up to current ADA code and needs to provide direct ADA access to the gymnasium, ADA restrooms, locker rooms and ADA reception desk. The seismic upgrades include concrete shear walls, plywood and ties at the gymnasium roof. The total estimated cost for all code and life safety recommendations is \$1,472,000.

### ***Comfort Stations***

One of the main security and ADA issues is the exterior access to public restrooms that are open after the facility is closed. Separate stand alone public restrooms that can be used by park users would solve several code, safety, and limited space issues. These restrooms could be similar to the facilities recently built at Cal Anderson Park. The cost estimate is \$473,000.

### ***Program Improvements***

The interior layout is compartmentalized which prohibits visibility to the program spaces and minimizes the welcoming nature of the facility. In addition the gym and pool are undersized, which limits the ability to program them. The program improvements recommended include new lighting and windows throughout the facility, renovation of the second floor, pool water heat exchanger, and new data voice cabling. The cost estimate is \$730,000.



Figure 2 - Evans Pool with north and west windows



# EXECUTIVE SUMMARY

## ***Report Recommendations***

In summary, the total recommendations for maintenance, code and life safety, and program improvements would cost approximately \$3,169,000. Completion of a major renovation project would address many of the issues that Parks currently struggles with in this facility and would ensure future opportunities for all users to enjoy.

## ***Major Addition Option***

In order to address the larger concern that Green Lake CC and Evans Pool do not have a clear connection or welcoming presence for Park users, the central portion of the building between the gymnasium and the pool could be replaced with a welcoming lobby that reaches out to the park, provides central control and meeting rooms at the main level, as well as modern locker rooms. This option would need to be further studied to determine full scope and cost estimate.

## ***New Facility Option***

The last option for Parks to consider is the full demolition and construction of a new facility. A new facility could be designed as a destination and visitors center for the Green Lake Park with a larger recreation pool and meeting rooms that open out to the park and lake. The existing minimal parking space would need to be analyzed to determine the appropriate program mix and options for increasing parking. The cost estimate for the building, not including parking or site work, is \$12,000,000 based on a \$40,000 square foot facility at \$300 per square foot.

This report finds, however, that with seismic upgrades and additional improvements the existing facility could provide services to the community for another 30 years and does not recommend replacement based on the existing conditions of the facility.



Figure 3 - Connections to Greenlake

## DESCRIPTION OF PROCESS

Seattle Parks and Recreation requested the facility assessment of Green Lake Community Center in the Fall of 2008. The goal of the study is to recommend short and long term improvements that would benefit the community center including structural, mechanical, electrical, civil, and architectural improvements. Architectural recommendations include concept ideas that were sketched to test fit possible renovations and develop budget estimates.

This report divides the recommendations into three categories.

### ***Maintenance***

The maintenance category covers recommendations that should be done to keep the facility in good working order and to maintain the existing building operations and programs. Some of these recommendations may be accomplished by maintenance staff or from the small works roster. The maintenance category includes minor changes to the facility, such as replacement of cracked glazing, as well as more significant upgrades such as complete glazing replacement.

### ***Code and Life Safety***

The code / life safety category includes recommendations to upgrade the facility to meet the current code standards. This category includes modifications to the existing conditions as well as items that need to be upgraded to meet the updated codes. These items are required to keep the facility in good working order and to extend the life of the facility for another 20 years or more.

### ***Program***

Program improvements include recommendations that enhance the community center's ability to provide services and programs. Recommendations within the program category have also been made to increase visual control and user and staff's sense of safety. This category may also include mechanical and electrical recommendations that could improve the use and comfort of the existing facility.

### ***Process***

Seattle Parks staff met on-site for two meetings with ARC Architects and its engineer consultants to review existing conditions and discuss facility concerns. The facility director and maintenance staff provided input on their daily challenges with the facility equipment, finishes, lighting, layout, windows, temperature, security etc. Seattle Parks also provided ARC Architects with existing drawings and several reports including the 1994 EQE Seismic Report, 2003 Roof Report, and 2006 Electrical and 2006 Boiler Study prepared by Seattle Parks.

## DESCRIPTION OF PROCESS

### *General Recommendations*

The following are some general notes for consideration as Parks prepares for renovation of the Green Lake Community Center and Evans Pool. Before any of the recommended work is begun, a hazardous materials survey should be completed to determine if the project will require asbestos or lead abatement. Toxic materials such as asbestos or lead are commonly found in buildings of this age and will require mitigation or abatement during renovations.

Security is of concern in each of the community centers studied during this series of facility assessments (Queen Anne, Loyal Heights, Jefferson, Green Lake / Evans Pool, and Hiawatha). Some community specific recommendations are included in the report; however an overall Seattle Community Center security evaluation should be considered. There are varied opinions on the need for security cameras depending on the layout of the facility, the demographics of the neighborhood, and program offerings. Parks should determine an overall strategy for addressing security concerns at each community center.

Energy efficiency is extremely important for all public buildings. This report notes energy efficiency as a reason for some of the identified recommendations, but a full energy audit of each building has not been completed. A full energy audit would be of value in determining how to extend the life of the building while optimizing its performance.



Figure 4 - 1929 Community center gymnasium with stage

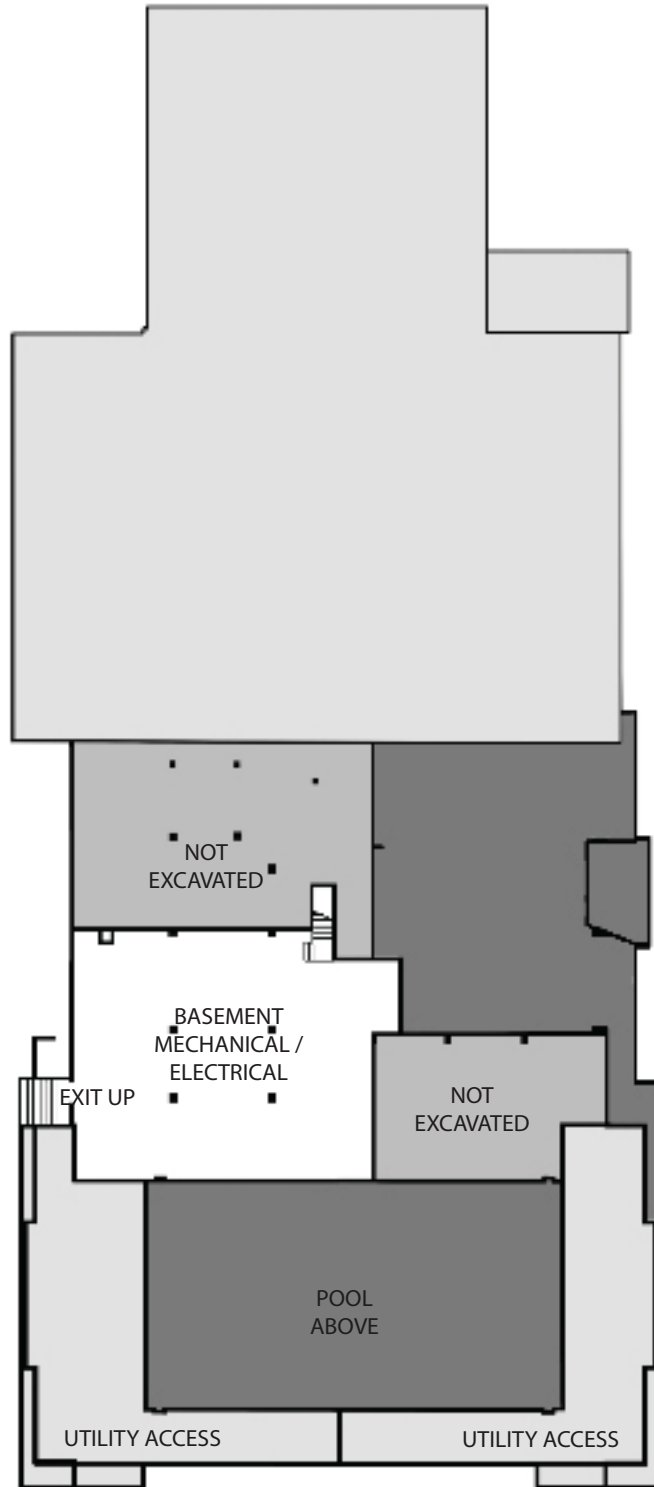




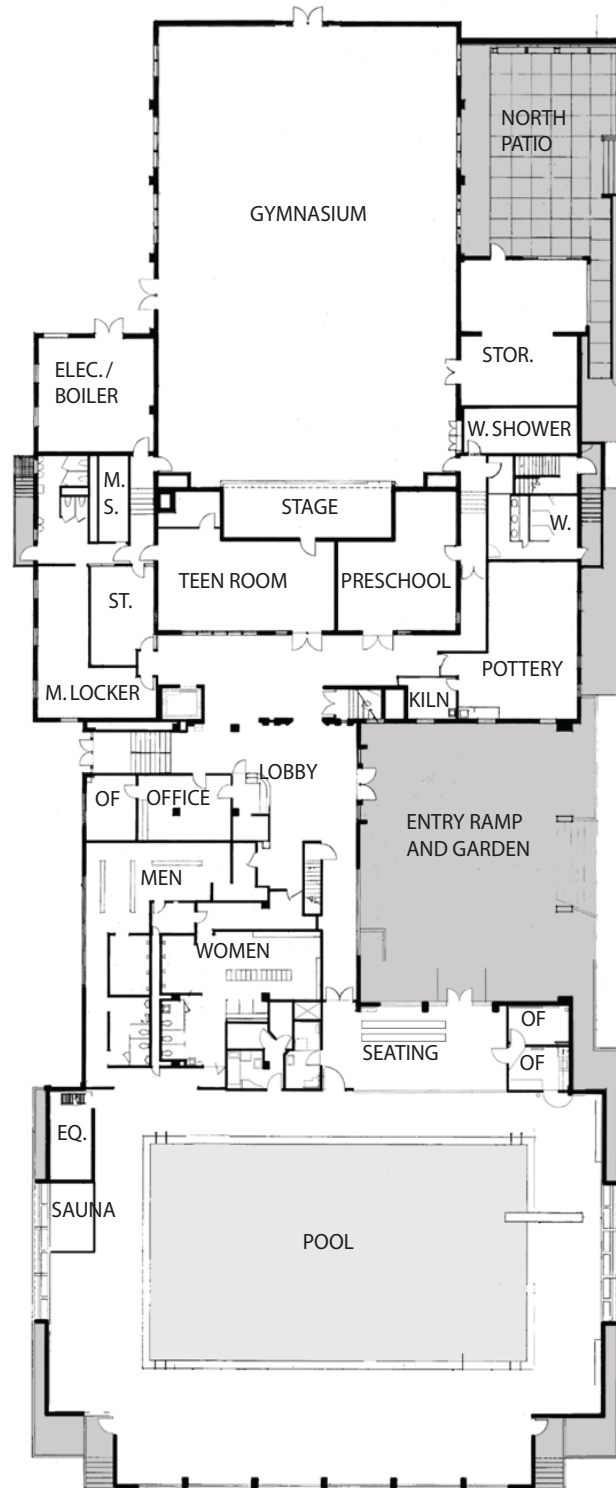
Green Lake Community Center / Evans Pool - aerial site looking south



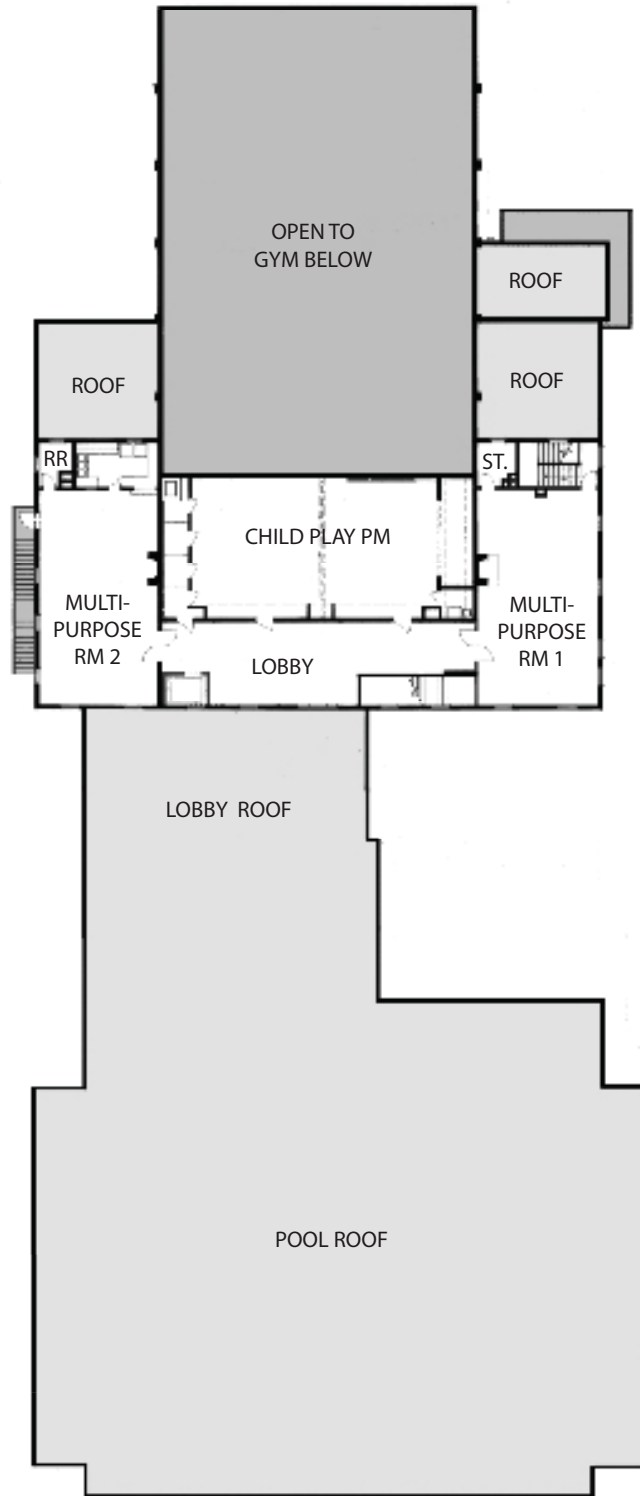
Green Lake Community Center / Evans Pool - aerial site looking west



Green Lake Community Center / Evans Pool - Basement Plan



Green Lake Community Center / Evans Pool - First Floor Plan



Green Lake Community Center / Evans Pool - Second Floor and Roof Plan

## FACILITY ASSESSMENT INVENTORY

The following summary lists estimated costs in 2008 dollars for suggested improvements. More detail is provided in the assessment section and detailed cost estimate areas of the report.

GREEN LAKE COMMUNITY CENTER and EVANS POOL				
	Maintenance	0-2 yrs.	3-10 yrs.	10-20 yrs.
	Architectural			
1	Replace windows at pool	\$25,815		
2	Locker room floor drainage	\$75,649		
3	Replace roofing at pool and lobby		\$243,145	
4	Pool chemical storage room	\$7,705		
5	Roller shades at pool	\$4,166		
6	Vinyl flooring to pool offices	\$1,710		
7	Investigate gym floor	no cost available		
8	Insulated pool cover	no cost available		
9	Apply exterior elastomeric coating	no cost available		
	Structural			
1	no maintenance items			
	Mechanical			
1	Replace domestic hot water boiler		\$39,191	
2	Replace corroded piping and hangers in basement mechanical room	\$19,928		
	Electrical			
1	Replace all branch panelboards		\$31,220	
2	Replace transformer	\$41,184		
	Civil			
1	Basement drain to sump piping	\$3,986		



## FACILITY ASSESSMENT INVENTORY

The following summary lists estimated costs in 2008 dollars for suggested improvements. More detail is provided in the assessment section and detailed cost estimate areas of the report.

GREEN LAKE COMMUNITY CENTER and EVANS POOL				
	Code / Life Safety	0-2 yrs.	3-10 yrs.	10-20 yrs.
	<b>Architectural</b>			
1	Reconfigure interior space for ADA access to gym		\$136,644	
2	Stand alone restrooms/comfort stations		\$472,946	
3	Pool lockers/restrooms		\$434,439	
4	New reception counter/front desk	\$8,967		
5	Code and wayfinding signage	\$10,295		
6	Replace all windows		\$168,301	
7	Kalwal at gym		\$56,648	
	<b>Structural</b>			
1	Seismic upgrades	\$305,496		
	<b>Mechanical</b>			
1	Replace main boiler for building and pool water heating		\$149,788	
2A	Repair existing controls system or new DDC controls system	\$9,964		
2B	New DDC controls system		\$51,694	
3	Replace hot water pump and valves	\$8,967		
	<b>Electrical</b>			
1	Emergency and exit lighting	\$18,028		
2	Fire alarm system	\$43,031		
3	Replace main switch board and relocate		\$53,140	
	<b>Civil</b>			
1	Regrade landscaping	\$3,321		
2	Replace sidewalk		\$12,089	
3	Replace catch basin grate	\$1,329		
	CODE AND LIFE SAFETY BY YEAR	\$409,398	\$1,535,689	\$0
	<b>TOTAL CODE AND LIFE SAFETY - Green Lake</b>	<b>\$1,945,087</b>		

## FACILITY ASSESSMENT INVENTORY

The following summary lists estimated costs in 2008 dollars for suggested improvements. More detail is provided in the assessment section and detailed cost estimate areas of the report.

GREEN LAKE COMMUNITY CENTER and EVANS POOL				
	Program Improvements	0-2 yrs.	3-10 yrs.	10-20 yrs.
	<b>Architectural</b>			
1	Upgrade gym lighting	\$41,361		
2	Panic button	\$1,329		
3	Replace trees, paint exterior, and signage	\$65,017		
4	Pottery and restroom reconfiguration		\$235,039	
5	Level 2 renovations		\$104,704	
	<b>Structural</b>			
1	None			
	<b>Mechanical</b>			
1	Replace pool water heat exchanger		\$42,512	
2	Dehumidification system			\$97,977
	<b>Electrical</b>			
1	Upgrade building lighting (excluding gym)		\$96,619	
2	Upgrade gym lighting	see Architectural item 1 above		
3	Site lighting	\$9,964		
4	Upgrade data/voice cabling system			\$35,869
	<b>Civil</b>			
1	None			
	PROGRAM IMPROVEMENTS BY YEAR	\$117,671	\$478,874	\$133,846
	TOTAL PROGRAM IMPROVEMENTS - Green Lake	\$730,391		
	TOTAL COST ESTIMATE FOR ALL RECOMMENDATIONS	\$3,169,177		

# ARCHITECTURAL ASSESSMENT

## Facility Assessment

The Green Lake Community Center and Evans Pool are located in Green Lake Park and are easily accessible from the popular jogging and biking trail that circles the lake. The central location makes it one of the busiest centers in Seattle. The 16,817 square foot community center was built in 1929 and the 13,618 square foot swimming pool, lockers, and lobby were built in 1954. There have been several upgrades to the building including fire sprinklers in 2001, an elevator addition in 1996, and restroom renovations in 2007.

The center contains an undersized gymnasium by Parks standards with a wood floor and small stage. The swimming pool is heavily used from 6:30am – 8 p.m. providing a variety of classes and open swim which is also undersized in relation to Park's standards. The pool has a diving board and large pool deck with a sauna and bleacher seating. These undersized program areas limit the ability to schedule competitive popular activities. A pottery room is located north of the lobby with a few small windows. There is a pre-school classroom on the main level next to the gymnasium with no natural daylight. The teen room is adjacent to the lobby with relites for easy visibility of activities and has couches and a ping pong table.

The second floor has 2 meeting rooms with wood floors that provide for a variety of classes and functions. The central room on the second floor is an open child playroom that is very popular and provides steady income for the community center.

The facility has a series of ADA code issues that need to be addressed including access to the gymnasium, restrooms, and showers. The interior layout is compartmentalized which restricts visibility to the program spaces and minimizes the welcoming nature of the facility.

The structural system does not meet current seismic design standards and requires invasive improvements in order to withstand further seismic events. The facility is also in need of significant repairs of its mechanical, plumbing, and electrical systems.

## Recommendations

### Maintenance

1. The windows on the west side of the pool, facing the entry garden have cracked seals and are leaking. The windows need to be replaced with thermally insulated units which will save on energy costs and improve user comfort.

**Replace windows at the west side of the pool.**

**\$25,815**

## ARCHITECTURAL ASSESSMENT

2. The floors in the locker rooms are difficult to drain and keep dry, creating slip hazards and sanitation issues. The existing trench drains are trip hazards and do not always slope to the drain. Parks has recently installed new flooring to begin to address this issue, but the room layout and drain locations make it impossible to resolve the standing water issue. The locker rooms and drain locations need to be reconfigured to drain properly. Due to the cost of just fixing the drainage, Parks should consider completing this work as a part of a large renovation of the locker room and pool restrooms. See item #3 in code compliance.

### **Reconfigure locker room floor drainage.**

**\$75,649**

3. The thin shell concrete pool roof and concrete side roofs are structurally separate and move independently of each other. There is evidence of roof leaks at these joints in the structure along the concrete beams above the pool deck. The roofing needs to be replaced in these areas and include additional flashing to prevent water intrusion.

### **Replace roofing at pool and lobby.**

**\$243,145**

4. The pool chemicals are currently stored in the basement along with all the mechanical equipment and exposed pool piping. A separate, well ventilated, closet should be built for storage of pool chemicals. This will reduce the corrosive results of having the pool chemicals exposed and in close adjacency to mechanical and plumbing pipes.

### **Add pool chemical storage closet with ventilation.**

**\$7,705**



Figure 5 - Children's Playroom



Figure 6 - Teen Room looking into Lobby

## ARCHITECTURAL ASSESSMENT

5. The windows along the north of the pool provide good natural light most of the year. However, in the summer sunlight creates glare on the surface of the water reducing the visibility for the lifeguards. Roller shades should be installed to reduce glare and increase visibility of the water surface for pool staff.

**Add roller shades at pool north windows.**

**\$4,166**

6. The floor in the pool offices were not leveled when these offices were built in 1987. The staff have to continually push themselves back up to their desks since the floor slopes towards floor drains. The floors need to be leveled and finished with anti-skid coatings.

**Level pool office floors and install anti-skid industrial flooring.**

**\$1,710**

7. Gym floor has been wet several times and is in poor condition due to moisture exposure. A dehumidification system could reduce problems.

**Investigate the condition of the gym floor and installation of dehumidification system.**

**No cost available.**

8. An insulated pool cover would result in utility savings.

**Provide an insulated pool cover.**

**No cost available.**

9. An elastomeric coating on the exterior stucco finish would provide long term preservation and weather resistance.

**No cost available.**



# ARCHITECTURAL ASSESSMENT

## Code / Life Safety

1. Access to the gymnasium from the lobby is located down a hall, around the corner, down five steps, past women's showers, and through a single door. The gymnasium needs to be accessible from the lobby and visible for staff oversight. A ramp and windows could be installed in place of the existing stage. (See Figure 7)

### **Reconfigure interior spaces for ADA access to the gymnasium.**

**\$136,644**

2. The community center has restrooms and showers that are accessed from both the interior and the exterior for users of the park. These restrooms stay open after the community center is closed requiring the interior access to be secured from entry. When Parks rents out meeting rooms after hours, the users have to go outside to access the restrooms. Separate stand alone accessible restrooms for park and sports field users should be built. This would allow the community center to provide new accessible men's and women's restroom and locker area. Potential locations for the new comfort station could be northeast of the community center and children's play area or northwest of the tennis courts and community center.

### **Construct separate comfort station facility**

**\$ 472,946**

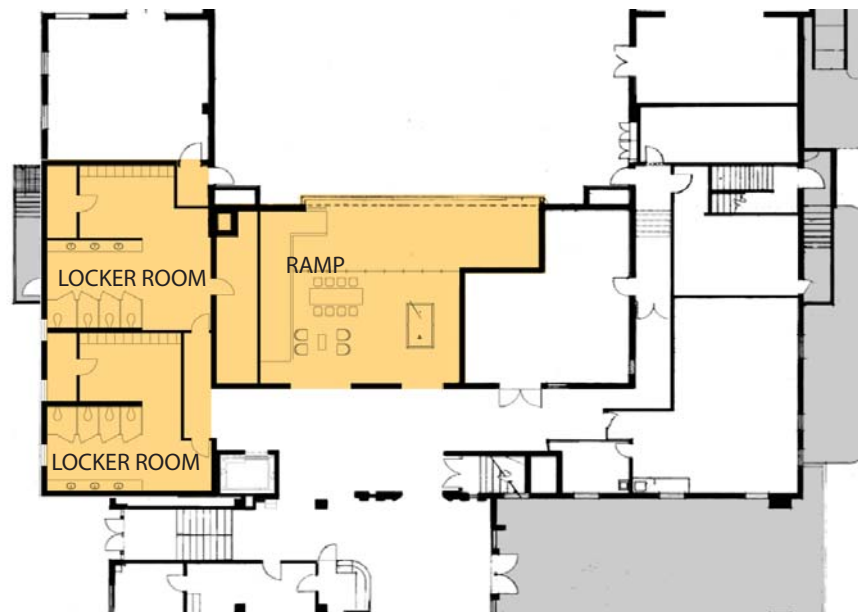


Figure 7 - New restrooms, locker rooms, and ramp to gymnasium layout concept

## ARCHITECTURAL ASSESSMENT

3. The pool has restrooms, locker rooms, and showers that are accessed from both the lobby and from the pool. These spaces have some new finishes but are poorly configured, have poor drainage, and cannot handle the number of users. The renovation of the swimming pool locker and restrooms should be combined with the recommended seismic improvements to provide a complete renovation of this area. See figure 8 for concept sketch.

### Renovate the pool locker rooms and restrooms

**\$434,439**

4. The present configuration of the main reception counter does not meet ADA code requirements and does not work for staff due to size, visibility, and layout. A new reception desk should be constructed to provide a welcoming lobby for all visitors.

### Provide a new reception desk.

**\$8,967**

5. The community center is difficult to find your way around due to its plan configuration. Additional signage that meets current codes needs to be provided for better way finding. See Figure 10 for an example of the existing signage.

### Add interior code and wayfinding signage.

**\$10,295**

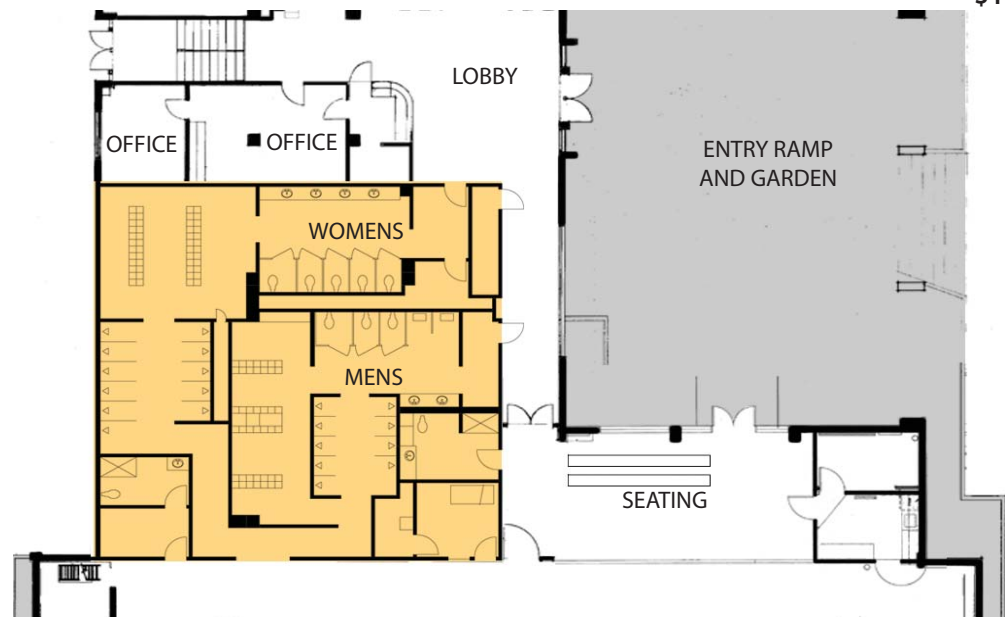


Figure 8 - New pool locker room and shower layout concept

## ARCHITECTURAL ASSESSMENT

6. Most of the facility's windows are single pane with metal frames and should be replaced with thermally insulated units. At the second floor meeting rooms the windows are often wet or fogged over in the winter and overheat the room in the summer. New windows would provide yearly savings in the operation budget. Operable windows should be installed at the second floor meeting rooms to provide needed ventilation in the summer.

### **Replace all windows.**

**\$168,301**

7. In the gymnasium, the single pane aluminum windows have been painted over. The windows should be replaced with polycarbonate insulated units such as Kalwall to provide diffuse natural day lighting. This would reduce the lighting requirements in the gymnasium during daylight hours and decrease the heating requirements in the winter. The original gymnasium had skylights at the roof that have been removed and are not recommended to be re-installed due to seismic issues.

### **Replace the gymnasium windows with polycarbonate windows.**

**\$ 56,648**



Figure 9 - Trees in front of building facing Greenlake



Figure 10 - Locker Room & gym signage

# ARCHITECTURAL ASSESSMENT

## **Program Improvements**

1. The lighting in the gym is poor and very uneven. The floor is dimly lit in some areas and has potential for people falling. The gymnasium used to be very popular for athletes, but no longer has the same draw. The failing light could be a factor in this downturn in use. New dimmable fluorescent lighting that meets Parks standard of 50 footcandles will increase safety and provide a more inviting facility.

### **Install new light fixtures at gymnasium.**

**\$ 41,361**

2. A panic button should be installed to provide safety and assistance between staff at the front desk, community center office, and the pool staff office. The center is managed with minimal staff and it is important to provide for their safety. This work could be incorporated with the design of a new reception desk and rework of the pool office sloping floors.

### **Provide panic button at reception desk.**

**\$1,329**

3. As shown in Figure 9, the gymnasium is hidden behind evergreen trees that grow very close to the foundations on the north and south sides. We recommend replacing these trees with new trees planted further from the building. The community center needs to be painted and could be creatively painted to bring some of the 1928 period character to these façades. Parks could develop an exterior color scheme and signage for the building. This would create a more visible and inviting gesture to the lake front users.

### **Replace evergreen trees, paint exterior, and add signage.**

**\$65,017**

4. By providing a new separate comfort station, the community center restrooms can be reconfigured to provide ADA code compliant restrooms that are accessed directly from the main lobby. New men's and women's restrooms and locker rooms can be built just south of the lobby with obscure windows to the south providing great daylighting. Each locker room could include a lockable shower or more storage space for visitors. The community center could also reconfigure the existing women's restroom on the north side for more gymnasium storage and expansion of the pottery room spaces. See Figure 7 concept sketch.

### **Reconfigure men's and women's restroom and locker rooms.**

**\$235,039**

## ARCHITECTURAL ASSESSMENT

5. The second floor open child play room is very generous and well used. Parks could consider dividing this space into two spaces, one for toddlers and one for teenagers. Both spaces should have relites to the hallway for visibility and to gain natural daylight from the windows across the hallway. It would be beneficial for all of the meeting spaces at the second floor to add an ADA family restroom across from the elevator. Renovation of the second floor should also include removing the walls around the stair since it does not need to be enclosed. This would open up the connection between the two lobby spaces. See Figure 11.

**Renovate the second floor including restroom, relites, and railings.**

**\$ 104,704**

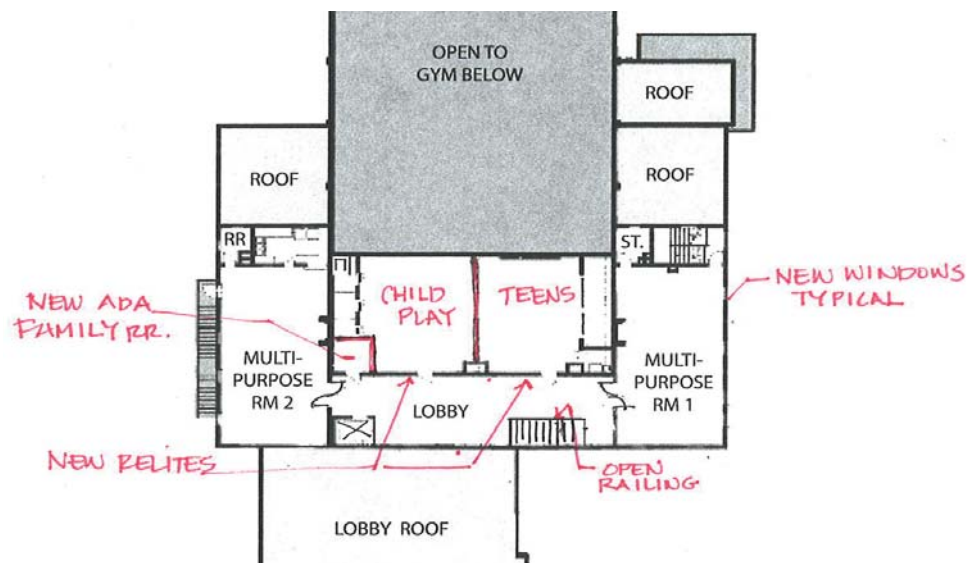


Figure 11 - Second floor renovation concept layout



# STRUCTURAL ASSESSMENT

## Construction Dates

Field House / Community Center 1928, E R Hoffman Engineer

Pool 1954, Lamont & Fey Arch, Skilling Engineer

Tenant Improvements 1972, 1975, 1987

ADA Elevator, 1996, Wei Huang Engineer

## Description and Observed Condition

### *Green Lake Community Center*

The Community Center was originally constructed in 1928. It contains a gym with stage and two story locker/classroom wing. The style of construction is cast-in-place concrete slab and beam at the ground and second floor with interior concrete columns and perimeter bearing walls. The roof of gym is timber decking spanning to steel trusses which bear on the perimeter concrete walls. The roof at the stage and locker/classroom portion is concrete slab and beam. The foundation is shown as timber piles with reinforced concrete pile caps. The site is shown on the City of Seattle DPD maps as a previous landfill, it is but not susceptible to liquefaction.

Modifications over time appear to have focused on typical tenant improvements and mechanical upgrades. An ADA elevator was added in 1996.

The Community Center is in fair to good condition structurally. There are signs of minor sagging floors which is typical of this age and style of construction as concrete creeps over time. The walls do not show signs of differential structural settlement. In the southwest corner of the gym there is damage to the wood floor. The damage is most likely localized wood rot as the floor is supported by a elevated concrete slab connected to the concrete wall and there is no noticeable damage in the wall. The damage during the 2001 Nisqually earthquake appears to be limited to mainly settlement of the surrounding on grade pavement and minor cracking in the concrete shearwalls.

### *Evans Pool*

In 1954 the Evans Pool was constructed as an independent free standing structure adjacent to the east of the Community Center. The seismic separation between the two structures is minimal. The Evans Pool is a one story (with partial basement) cast-in-place concrete structure with timber pile foundations similar to the 1928 Community Center. The pool is pile supported. The roof of the offices and locker rooms is concrete slab and beam. The roof of the pool is thin shell concrete.

## STRUCTURAL ASSESSMENT

Modifications over time appear to have focused on typical T/Is and mechanical upgrades. The structural condition was probed by URS in 2000 and a seismic evaluation was performed. The evaluation report was reviewed but found to be difficult to interpret at this time.

The pool is in fair to good condition. There were no obvious signs of settlement. The floors appear to be more flat than those in the Community Center; this may be a result of their “newer” design. The damage during the 2001 Nisqually earthquake appears to be limited to settlement of the on grade paving and minor cracking in the pool walls. Additionally there are signs of movement during the earthquake between the Pool and Community Centers where they abut.

### Earthquake/Wind Resisting System

#### *Green Lake Community Center*

The lateral force resisting system of the 1928 Community Center is a combination of the flexible wood roof diaphragms, rigid concrete floor diaphragms and the concrete shear walls. The walls have numerous window openings.

#### *Evans Pool*

The lateral force resisting system of the 1954 Pool consists of the concrete roof and diaphragms and perimeter concrete shearwalls. There appears to be a lack of concrete walls in the north/south direction. This may be one of the reasons for the damage between the Pool and Field House.

### Seismic Evaluation

Based on our seismic evaluation, the Community Center is in need of a seismic upgrade in order to provide life safety performance in a design level earthquake. The building is an excellent candidate for an upgrade. The upgrade will utilize the existing strength of the numerous concrete shear walls.

Based on our seismic evaluation, the Evans Pool is in need of a seismic upgrade in order to provide life safety performance in a design level earthquake. Similar to the Community Center, the building is an excellent candidate for an upgrade. The upgrade will utilize the existing strength of the numerous concrete shear walls.

# STRUCTURAL ASSESSMENT

## Recommendations

### Maintenance

No recommendations.

### Code / Life Safety

#### ***Green Lake Community Center***

1. Add plywood sheathing over the straight sheathing at the Gym roof.
2. Add in-plane wall anchors at the roof of the Gym in order to better attach the enhanced roof diaphragm to the existing perimeter shear walls.
3. Add out-of-plane wall anchors at the roof of the Gym in order to attach the perimeter concrete walls to the enhanced roof diaphragms.
4. At the teen room, infill approximately 6 feet of the window opening that was created in the 1970s to restore the shear wall to its original strength.
5. Evaluate the condition of the timber piles: Have they remained below the water table? If not they may be susceptible to rot. This would most likely be reflected in differential settlement of the building which at this time has not been noted

The seismic upgrades are shown in figures S1 and S2, with the key plan referring to the list above.

#### ***Evans Pool***

1. Add a 6 inch reinforced concrete wall, approximately 20 feet long running in the north/south direction on the west side of the existing men's shower. Wall to be located on top of existing foundation wall.
2. Add a 6 inch reinforced concrete wall, approximately 20 feet long running in the north/south direction on the east side of the stair in the lobby. Wall will require pile foundations.
3. Create a properly detailed seismic separation between the lobby and the Gym.
4. Epoxy fill the cracks at the swimming pools walls to reduce leakage.
5. Evaluate the condition of the timber piles: Have they remained below the water table? If not they may be susceptible to rot. This would most likely be reflected in differential settlement of the building which at this time has not been noted.

## STRUCTURAL ASSESSMENT

The seismic upgrades are shown in figures S1, with the key plan referring to the list above.

### **Seismic upgrade cost estimate for both buildings**

**\$305,496**

### **Program Improvements**

No structural recommendations. At this time, the proposed architectural modifications do not appear to have significant impact on the structural systems.

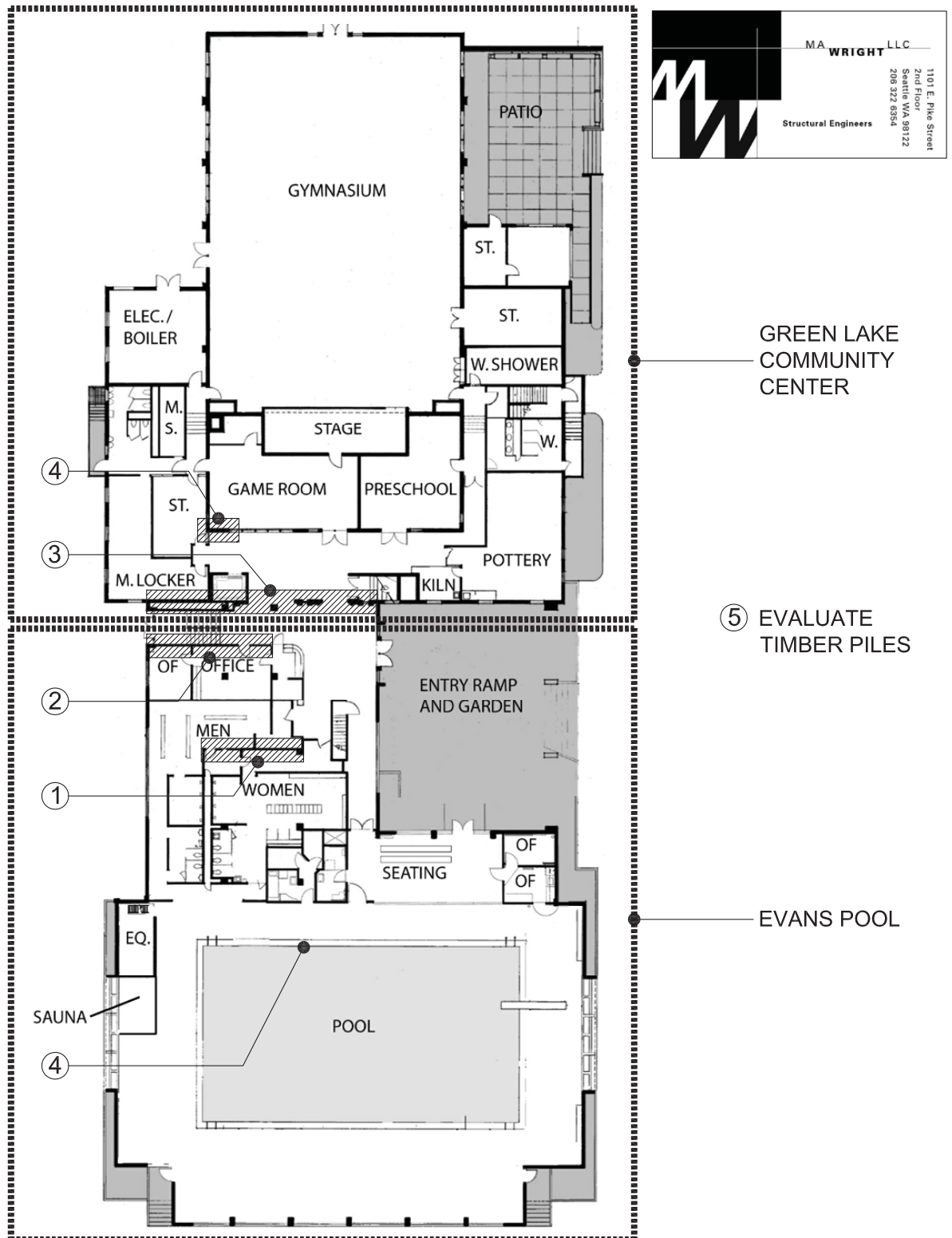


Figure S1 - Green Lake Community Center / Evans Pool - First Floor Plan



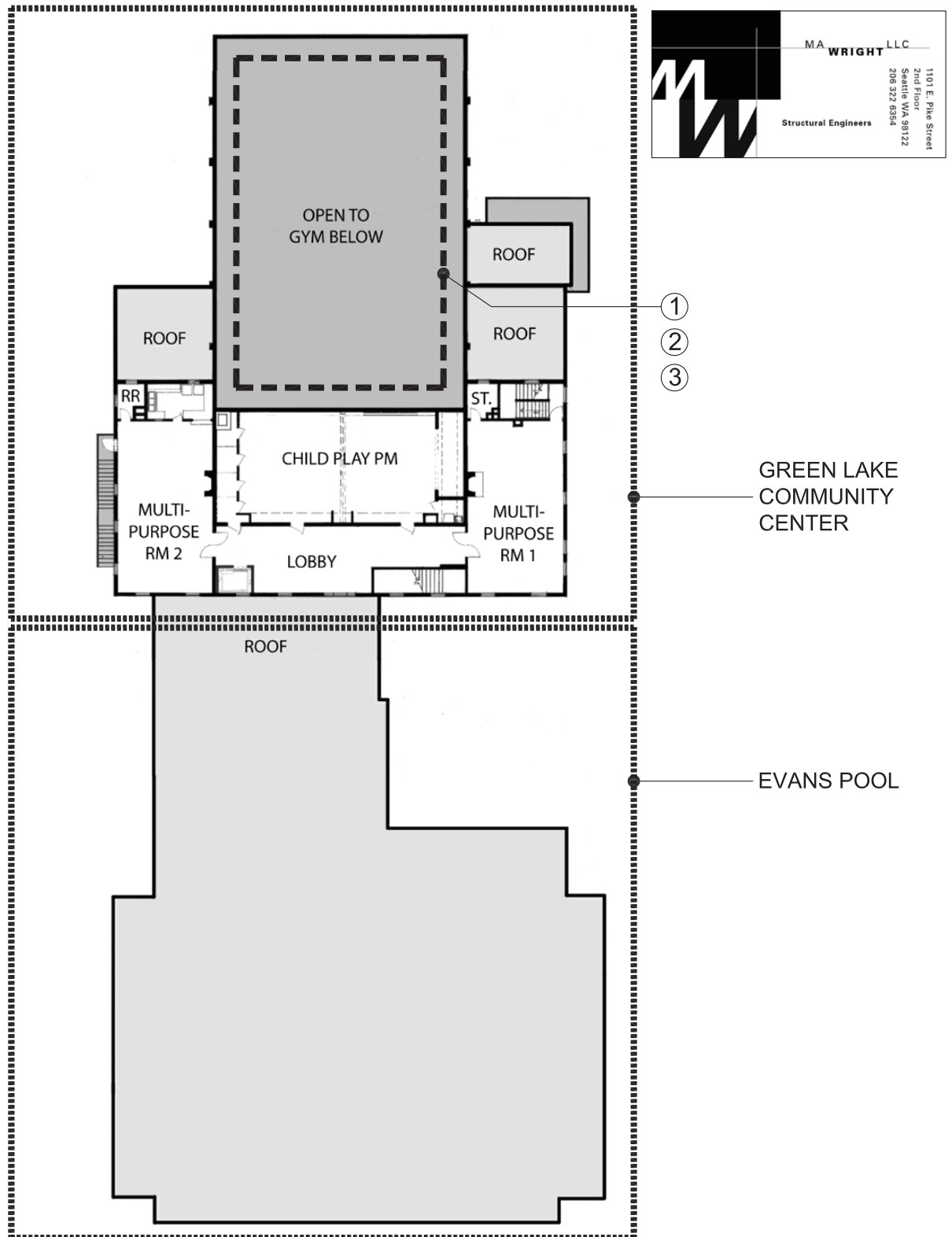


Figure S2 - Green Lake Community Center / Evans Pool - Second Floor / Roof

# MECHANICAL ASSESSMENT

## Condition Assessment

### HVAC

The HVAC system in the Green Lake Community Center consists of several separate systems. The Pool natatorium is heated and ventilated with an existing built-up mechanical system. This system supplies 100% outside air to the natatorium to provide humidity control. A run-around heat recovery system transfers sensible heat from the exhaust air stream to the supply air stream. A second heat recovery ventilator, located on the roof, provides air to the seating area on the east side of the pool. No air conditioning or refrigeration based dehumidification is supplied to the pool. This system is aging, but is generally in good condition.

The locker rooms are heated and ventilated with a rooftop heat recovery ventilator. The individual zones are heated with zone duct coils. No air conditioning is provided for these areas.

The remainder of the building is heated and ventilated through an air handling unit in the basement of the building, with duct mounted heating coils serving each zone. No air conditioning is provided for these areas. It was reported that some spaces could be hot, while neighboring spaces were more reasonable. This would appear to be a controls issue, because individual zone coils should allow spaces to be heated evenly.

Heating hot water is provided for all areas of the building by an old hot water boiler in the basement, and a small backup boiler. These boilers also provide heating water to the pool water heat exchanger. The larger boiler is long past its expected life. The small backup boiler is in fair condition, but is not large enough to provide heating for the building and the pool.

A computer based DDC control system has been installed in the building, but older pneumatic controls are still in place to control the older equipment. It appears as if the DDC system has no control over the pneumatic portion of the controls.

### Plumbing

The domestic water system consists of older galvanized steel pipe. It was reported that there were no major leaks in this piping, but the pipe is corroding especially in the mechanical areas. Domestic hot water is provided by a third boiler in the basement mechanical room. While this boiler appears in fair condition, it is over 30 years old. There is a domestic hot water circulation pump that is not working. Domestic hot water temperature is controlled with a thermostatic mixing valve. This valve appeared to be set to a high temperature. The valve may have been set too high because the circulation pump was broken, requiring a long waiting time before hot water is available at the shower. It was reported that shower water was either too hot or too cold, which may be caused by the broken pump and valve setting.

## MECHANICAL ASSESSMENT

The drainage system is cast iron. This piping is corroded in the mechanical area beneath the pool.

The pool heating system consists of the original boiler from 1928 and a small backup boiler installed later. The two boilers heat the pool water indirectly through a small plate and frame heat exchanger. It was reported during the walkthrough that the system maintains the pool water temperature fairly well, but that reheating the pool water after being drained for maintenance can take up to 5 days.

In general, pipe hangers in the mechanical areas are significantly corroded.

### ***Fire Protection***

The entire building is sprinklered with a wet pipe fire protection system.

## **Recommendations**

### **Maintenance**

1. The domestic hot water boiler is reaching the end of its useful life and will need replacement soon. Replacement of this boiler will require coordination with facility operations as the showers will be unavailable during the replacement. Pool and facility heat would be unaffected.

**Replace domestic hot water boiler.**

**\$39,191**

2. Piping in the mechanical room has become severely corroded because of the chlorinated atmosphere and is at risk of leaking.

**Replace corroded piping and pipe hangers in the mechanical room.**

**\$19,928**

### **Code / Life Safety**

- 1 The old boiler providing building and pool heat has long outlived its usefulness and needs to be replaced. A new boiler would be more efficient and, if properly sized, would speed up the pool heating time.

**Replace the heating hot water boiler.**

**\$149,788**

## MECHANICAL ASSESSMENT

2. Several spaces were reported to be hot, while neighboring spaces were comfortable. This is likely caused by faulty thermostats, control valves, or problems with the DDC control logic. These items should be investigated to determine the issue.

### **2a. Re-commission temperature controls to verify correct operation.**

**\$9,964**

**OR**

### **2b. Provide new DDC Control System.**

**\$ 51,694**

- 3 The domestic hot water circulation pump is not operational and the thermostatic mixing valve appears to be stuck in the wide open position. This is likely causing the water temperature issues in the showers.

### **Replace the domestic hot water circulation pump and mixing valve and reset or replace thermostatic mixing valve.**

**\$8,967**

## **Program Improvements**

1. The plate and frame heat exchanger is too small for the heating requirements of the pool. While the current heat exchanger maintains the pool temperature, heating the pool after being drained and refilled is difficult. A larger unit should fit in the same space. While this item does not need immediate attention, a new heater would allow for a quicker recovery after a maintenance shut-down.

### **Replace the heat exchanger with a larger unit.**

**\$42,512**

2. Humidity control for the natatorium is currently through use of outside air. There may be a reasonable payback in going to a refrigeration based dehumidification system with heat recovery. Parks should investigate the cost payback based on operation costs.

### **Install a refrigeration dehumidification system with heat recovery.**

**\$97,977**

# ELECTRICAL ASSESSMENT

## Condition Assessment

The facility is served by a 120/240V, 3 phase, 4 wire, 1000 amp Main Service Switchboard. The electrical panels are at 98% capacity and are in marginal condition due to age. Water comes into the basement where electrical equipment is located and corrosion is present at existing panels in this area. The panels in the basement are in poor condition. Mechanical equipment near the Main Service Switchboard encroaches on the code required clearance area in front of the switchboard. The transformer in the basement was observed to be generating excessive heat.

There is no generator on the site. The elevator that was added in 1996 has its own power backup.

Existing lighting consists of a mix of fluorescent fixtures. T8 and T12 lamps were found throughout the facility. Gymnasium lighting is provided by 400 watt metal halide fixtures. Lighting levels in the gym are low, especially in the south end. Some fixtures in the pool area are not watertight, but they are located at a distance from the pool that is acceptable. The pool niche lights are LED and are functional. Site lighting is insufficient, especially in the southwest plaza. Lighting fixture uniformity throughout the Community Center is desired.

Emergency egress lighting is insufficient to meet code requirements. The exit signs present have been updated, but there are no fixtures with emergency battery ballasts for pathway lighting in the event of power outage.

The fire alarm system is of Silent Knight manufacture and does not meet code requirements. There are minimal horn strobes and pull stations observed throughout the facility. Detection devices are also minimal.

The security system is by Bosch. There are no security cameras.

Existing telephone system is by Nortel Network.

Data and phone cabling is distributed to communication outlets at workstations. The cabling is functional, but not up to current standards for data/voice cabling systems. Upgrades are not required by code.



Figure 12 - Existing transformer in the basement

# ELECTRICAL ASSESSMENT

## Recommendations

### Maintenance

1. Replace panelboards in the basement as soon as possible as they are in poor condition. Replace existing branch panelboards at the main level over the next decade. It is not necessary to do this immediately, but it should be considered as opportunities arise. Also, it is not necessary to replace all panelboards at one time as the work can be done on a panelboard by panelboard basis depending on budget constraints.

**Replace all 5 branch panelboards.**

**\$31,220**

2. Replace transformer in the basement as it is in poor condition. Corrosion was observed due to water damage and it was noted that the transformer was producing excessive heat. A power shutdown of the feeder to the transformer will be required to replace it. Replacement should be done as soon as possible.

**Replace transformer in basement.**

**\$41,184**

### Code / Life Safety

1. Add "bugeye" style emergency lighting units with battery backup to achieve code required levels for egress lighting. Approximately 25 bugeye units will be required. Replace existing 12 exit signs with exit signs with battery backup and self-diagnostics.

**Upgrade emergency and exit lighting.**

**\$18,028**

2. Add horn/strobes, strobes, pull stations and detection devices per code requirements. Number of detection devices and pull stations required is limited as the building has a sprinkler system. Eight smoke detectors will be required in the lobby and both level corridors. 24 horn/strobes will need to be located in the large spaces (Pool, Gym, etc.) and corridors. Twelve strobes will need to be located in small spaces such as offices and restrooms.

**Upgrade fire alarm system.**

**\$43,031**



## ELECTRICAL ASSESSMENT

3. Replace existing main switchboard and locate new main switchboard in a manner that provides adequate working clearance as defined by code. The main switchboard can remain as an existing condition, but it is in marginal condition due to age. When it is replaced adequate clearance must be provided.

### **Replace main switchboard.**

**\$53,140**

### **Program Improvements**

1. Upgrade lighting fixtures with aesthetically pleasing fixtures that improve light levels and glare control. This will improve the overall ambience of the facility and will improve working conditions in areas with computers due to improved glare control.

### **Upgrade building lighting (excluding the gymnasium).**

**\$96,619**

2. Upgrade gymnasium lighting fixtures to fluorescent or compact fluorescent to provide energy efficient lighting and also improve light levels in the area. Light levels need to be 50 maintained footcandles per Parks standards.

### **Install new light fixtures at gymnasium.**

**See Architectural item1 above.**

3. Site lighting is insufficient in the southwest plaza. Add three wall pack style exterior lights at this area to improve visibility and security.

### **Add exterior site lighting.**

**\$9,964**

4. Upgrade data/voice cabling system to Category 6 components. Existing cabling can remain in service until such time as the Owner elects to upgrade it or architectural renovations drive a requirement to add cabling or reroute cabling. It is not necessary to replace all cabling at once.

### **Upgrade data / voice cabling system.**

**\$35,869**

# CIVIL ASSESSMENT

## Conditions Assessment

The following is a short detailed summary of improvements to the site.

### *Parking*

Parking for the site is provided via an asphalt paved parking lot located north of the existing community center/pool site. Access to the parking lot is via a paved asphalt road linking to East Green Lake Drive North.

### *Site Grading/Drainage*

The existing site and building layout is such that stormwater flows do not impact the building. Due to the lack of relief on the site, catch basins are situated throughout the site to mitigate drainage issues. Some standing water was evident at some locations and the areas that need to be addressed are noted in the recommendations section.

### *Sanitary Sewer*

The 8" Clay Sanitary Sewer service line, which was rebuilt in 1954, is located at the southwest corner of the pool building and conveys flows for the building's sanitary sewer pipes to a main located on East Green Lake Drive North.

### *Storm Pipe*

The existing storm drain lines for the site are such that all storm drain runoff from the roof of the building and also the parking lot located north of the building drain into the 8" sanitary sewer service that serves the pool and community center buildings. The pipe then heads toward the street into a sanitary sewer pipe located in the right of way. The remainder of the site storm drainage for the fields located south of the site and west of the site discharge directly to Green Lake.

### *Water*

The existing water 4" service for the building was installed as part of the original construction in 1929. No documented events with the water service have been noted.



Figure 13 - Catch basin in ADA walkway.

## CIVIL ASSESSMENT

### ***Fire***

The 6" fireline servicing the building was upgraded in 2003 and is in good condition.

### ***Offsite***

The site receives no offsite flows.

## **Recommendations**

### **Maintenance**

1. Due to the proximity of the building to Green Lake, the groundwater table is such that a pump system is needed to drain the existing building footings. Currently all water is drained on the floor of the basement and into a sump located in the basement. This water is pumped via a small diameter pipe to the outside via an exposed drain system that discharges eventually into the building's sanitary sewer service. Parks needs to install more piping so that groundwater flows do not drain across the basement floor and instead discharge directly into the sump. See item 1 on attached figure for location.

**Add basement drain to sump piping.**

**\$3,986**

### **Code / Life Safety**

1. Regrade landscape strip so that a large puddle with 1" plus standing water blocking the sidewalk east of the entrance loop to the site is removed. This is the main pedestrian/ADA thoroughfare from the roadway to the pool and community center buildings. The puddle will freeze during cold inclement weather which would increase the nature of the hazard. See item 2 on attached figure for location. See Figure 14 for photo of existing condition.

**Regrade landscape strip at parking lot.**

**\$3,321**

2. Replace existing damaged sidewalk pavement so that large puddle of 1" plus standing water is removed. The sidewalk is located at the southeast corner of the outdoor basketball courts. The puddle runs the risk of freezing during inclement weather, which would increase the nature of the hazard. See item 3 on attached figure for location. See Figure 15 for photo.

**Replace damaged sidewalk at southeast corner of basketball courts.**

**\$12,089**

## CIVIL ASSESSMENT

3. Replace existing catch basin grate, with an ADA approved equivalent grate, for the catch basin located in the ADA parking stall in the lot north of the community center building. The grate is such that wheelchair wheels are likely to go through the grate. See item 4 on following site plan for location and photo at Figure 13.

**Replace catch basin grate.**

**\$1,329**

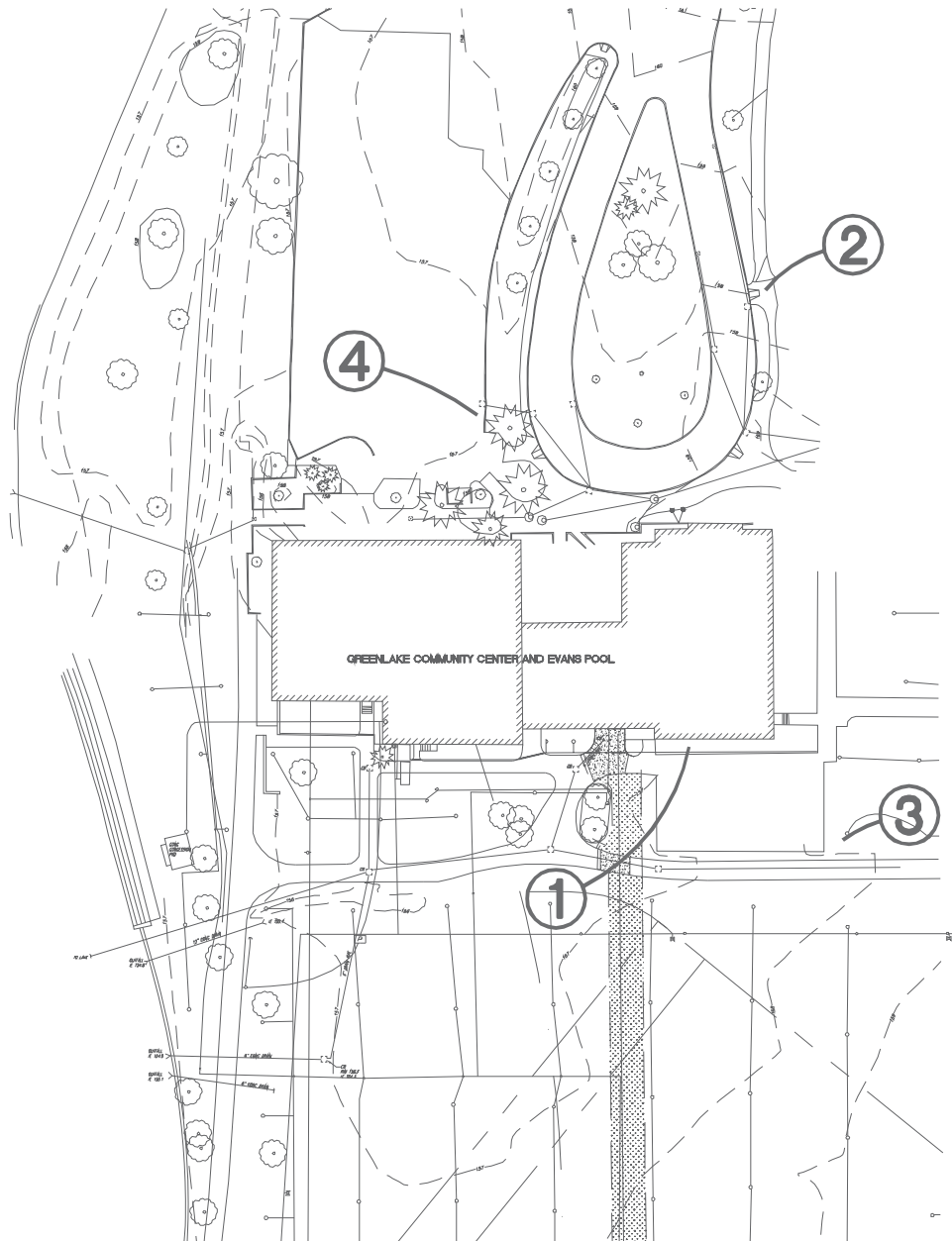


Figure 14 - Sidewalk with standing water



Figure 15 - Sidewalk with standing water

# CIVIL ASSESSMENT



SCALE 1"=100'



**ROSE WATER**

CLIENTS | PEOPLE | PERFORMANCE

1201 THIRD AVENUE, SUITE 1500  
SEATTLE, WASHINGTON 98101 - 3033



**GREEN LAKE  
COMMUNITY CENTER**

A · R · C ARCHITECTS



Green Lake CC and Evans Pool

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CONCEPTUAL  
COST PLAN

for

Seattle Parks & Recreation  
Green Lake Community Center  
Seattle, Washington

**DAVIS LANGDON**

December 15, 2008



CONCEPTUAL  
COST PLAN

for

Seattle Parks & Recreation  
Green Lake Community Center  
Seattle, Washington

December 15, 2008

December 15, 2008

Emily Wheeler  
ARC Architects  
1101 E Pike Street 3rd Floor

Seattle, Washington 98122

**Seattle Parks & Recreation  
Green Lake Community Center  
Seattle, Washington**

Dear Emily:

In accordance with your instructions, we enclose our Conceptual Cost Plan for the project referenced above. Please note that each task cost includes general contractor's mark-ups for general conditions and fee, unless noted otherwise. Differences in contracting methodology would affect these mark-ups. Note too that escalation has been excluded until more is known about project timing.

Lastly, some of the more ambitious Program and Code Compliance work includes and/or precludes some of the other separate smaller work items. Essentially, some of the work has been measured twice, and the total cost indicated in the Overall Summary reflects a higher-than-actual cost, than if the cost for all work were represented only once.

We would be pleased to discuss this report with you further at your convenience.

Sincerely,

Steve Kelly

*Davis Langdon 0278-7678*

Enclosures

## CONCEPTUAL COST PLAN

for

Seattle Parks & Recreation  
Green Lake Community Center  
Seattle, Washington

ARC Architects  
1101 E Pike Street 3rd Floor

Seattle, Washington 98122

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December 15, 2008

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Maintenance Component Summary	6
Code Compliance & Life Safety Component Summary	11
Programming Component Summary	22

***BASIS OF COST PLAN***

Cost Plan Prepared From

Dated      Received

Drawings issued for Queen Anne Community Center

Floor Plans and Elevations in hardcopy and pdf form.

10/22/08

Discussions with the Project Architect and Engineers

Conditions of Construction

The pricing is based on the following general conditions of construction

A start date of January 2009

The general contract will be competitively bid with qualified general and main subcontractors

There will not be small business set aside requirements

The contractor will be required to pay prevailing wages

There are no phasing requirements

The general contractor will have full access to the site during normal business hours

## ***INCLUSIONS***

This project is a renovation and upgrade to the 22,000 square foot Seattle Parks and Recreation Green Lake Community Center located north of downtown Seattle. This 2-story facility with partial basement, built in 1929, consists of childcare and dance classrooms, a pottery classroom/workshop, a teen game room, an indoor swimming pool, gymnasium, locker and shower rooms, a small kitchen area, and offices near the front desk/lobby area. Green Lake Community Center sits on the northwest shore of Green Lake, with a bicycle/pedestrian path located just several feet from the building. Athletic playfields and park areas surround the building on other sides, with a small parking lot just to the north of the building. The structure is primarily cast in place concrete.

## ***INCLUSIONS***

### ***BIDDING PROCESS - MARKET CONDITIONS***

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 4 bidders for all items of subcontracted work and 6-7 general contractor bids. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon's best judgement as professional construction consultant familiar with the construction industry. However, Davis Langdon cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.



***EXCLUSIONS***

Owner supplied and installed furniture, fixtures and equipment  
Loose furniture and equipment except as specifically identified  
Security equipment and devices except as specifically identified  
Audio visual equipment  
Hazardous material handling, disposal and abatement  
Compression of schedule, premium or shift work, and restrictions on the contractor's working hours  
Design, testing, inspection or construction management fees  
Architectural and design fees  
Scope change and post contract contingencies  
Assessments, taxes, finance, legal and development charges  
Environmental impact mitigation  
Builder's risk, project wrap-up and other owner provided insurance program  
Land and easement acquisition  
Cost escalation beyond a start date of January 2009

**OVERALL SUMMARY**

	Gross Floor Area	\$ / SF	\$\$\$\$
Maintenance	22,141 SF	22.30	493,696
Code Compliance & Life Safety	22,141 SF	87.85	1,945,087
Programming	22,141 SF	32.99	730,389
<b><i>TOTAL Building Construction</i></b>		<b>143.14</b>	<b>3,169,173</b>

*Please refer to the Inclusions and Exclusions sections of this report*

**MAINTENANCE COMPONENT SUMMARY**

**\$ Cost  
Including Mark-  
ups**

**ARCHITECTURAL**

1. Replace Windows at Pool	25,815
2. Locker Room Floor Drainage	75,649
3. Replace Roofing at Pool and Lobby	243,145
4. Pool Chemical Storage Room	7,705
5. Roller Shades at Pool	4,166
6. Vinyl Flooring to Pool Offices	1,710
7. Gym Flooring	No Cost Information Provided
8. Insulated Pool Cover	No Cost Information Provided
9. Elastomeric Coating to Exterior Stucco	No Cost Information Provided

**MECHANICAL**

1. Replace Domestic Hot Water Boiler	39,191
2. Replace Corroded Piping and Hangers in Basement Mechanical Room	19,928

**ELECTRICAL**

1. Replace All Branch Panelboards	31,220
2. Replace Transformer	41,184

**CIVIL**

1. Basement Drain-to-Sump Piping	3,986
----------------------------------	-------

Escalation is excluded		\$ / SF	
<b>RECOMMENDED BUDGET</b>	<i>January 2009</i>	22.30	493,696

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>1. Replace Windows at Pool, West Elevation</u></b>				
Remove existing windows	299	SF	10.00	2,990
Replace windows at west side of pool	299	SF	55.00	16,445
Markups				
Design Contingency	15.00	%	19,435.00	2,915
General Conditions	10.00	%	22,350.25	2,235
Contractor's Fee	5.00	%	24,585.28	1,229
				<hr/> 25,815
<b><u>2. Locker Room Floor Drainage</u></b>				
Demo of existing floor finish	2,997	SF	1.00	2,997
Locker room resloping of slab	2,997	SF	3.00	8,991
New floor finishes	2,997	SF	15.00	44,955
Markups	32.85	%	56,943.00	18,706
				<hr/> 75,649
<b><u>3. Replace Roofing at Pool and Lobby</u></b>				
Demo existing roofing system	10,766	SF	1.00	10,766
Rigid insulation	10,766	SF	4.00	43,064
Rubberized membrane roofing	10,766	SF	9.00	96,894
Protection board	10,766	SF	2.00	21,532
Flashing and sheet metal	10,766	SF	1.00	10,766
Markups	32.85	%	183,022.00	60,123
				<hr/> 243,145

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>4. Pool Chemical Storage Room</u></b>				
Gypsum board partitions including framing and insulation	200	SF	12.00	2,400
Hollow metal door, 3' x 7'	1	EA	1,400.00	1,400
Shelving	1	LS	500.00	500
Exhaust system to chemical storage	1	LS	1,500.00	1,500
Markups	32.85	%	5,800.00	1,905
				<b>7,705</b>
<b><u>5. Roller Shades at Pool</u></b>				
Roller shades	392	SF	8.00	3,136
Markups	32.85	%	3,136.00	1,030
				<b>4,166</b>
<b><u>6. Vinyl Flooring to Pool Offices</u></b>				
Self-leveling compound to concrete floor	166	SF	3.00	498
Sheet vinyl flooring	166	SF	4.75	789
Markups	32.85	%	1,287.00	423
				<b>1,710</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>MECHANICAL</u></b>				
<b><u>1. Replace Domestic Hot Water Heater/Boiler</u></b>				
Water treatment, storage and circulation				
Water heaters, gas fired	1	EA	15,000.00	15,000
Water heater flues	1	LS	3,000.00	3,000
Piping, fittings, valves and insulation				
Modify existing domestic water piping to suit new water heater	1	LS	5,000.00	5,000
Gas and fuel oil distribution				
Modify existing gas piping and fittings to water heater	1	LS	2,000.00	2,000
Remove existing water heater, pipings and fittings	1	LS	2,500.00	2,500
Connections and switches including conduit and cable	1	EA	500.00	500
Builderswork in connection with installation	1	LS	1,500.00	1,500
Markups	32.85	%	29,500.00	9,691
				<b>39,191</b>
<b><u>2. Replace Corroded Piping and Hangers in Basement Mechanical Room</u></b>				
Replace corroded piping and hangers	1	LS	15,000.00	15,000
Markups	32.85	%	15,000.00	4,928
				<b>19,928</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>ELECTRICAL</u></b>				
<b><u>1. Replace Branch Panelboards</u></b>				
Replace branch panelboards including re-connecting existing branch circuits	5	EA	4,500.00	22,500
Builderswork in connection with installation	1	LS	1,000.00	1,000
Markups	32.85	%	23,500.00	7,720
				<b>31,220</b>
<b><u>2. Replace Transformer</u></b>				
Replace building transformer	1	LS	30,000.00	30,000
Concrete pedestal for transformer	1	LS	1,000.00	1,000
Markups	32.85	%	31,000.00	10,184
				<b>41,184</b>
<b><u>CIVIL</u></b>				
<b><u>1. Basement Drain-to-Sump Piping</u></b>				
Extend footing drain piping to sump location	1	LS	2,500.00	2,500
Builderswork in connection with installation	1	LS	500.00	500
Markups	32.85	%	3,000.00	986
				<b>3,986</b>



**CODE COMPLIANCE & LIFE SAFETY COMPONENT SUMMARY**

**\$ Cost  
Including Mark-  
ups**

**ARCHITECTURAL**

1. Re-configure Interior Space for ADA Access to Gym	136,644
2. Stand Alone Restrooms/Comfort Stations	472,946
3. Pool Lockers/Restrooms	434,439
4. New Reception Counter/Front Desk	8,967
5. Code and Wayfinding Signage	10,295
6. Replace All Windows	168,301
7. Kalwal at Gym	56,648

**STRUCTURAL**

1. Seismic Upgrades	305,496
---------------------	---------

**MECHANICAL**

1. Replace Main Boiler for Building and Pool Water Heating	149,788
2A. Repair existing Controls System or New DDC Controls System	9,964
2B. New DDC Controls System	51,694
3. Replace Hot Water Pump and Valves	8,967

**ELECTRICAL**

1. Emergency and Exit Lighting	18,028
2. Fire Alarm System	43,031
3. Replace Main Switch Board and Re-locate	53,140

**CIVIL**

1. Re-grade Landscaping	3,321
2. Replace Sidewalk	12,089
3. Replace Catch Basin Grate	1,329

Escalation is excluded	\$ / SF	
<b>RECOMMENDED BUDGET</b>	<i>January 2009</i>	<b>87.85      1,945,087</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>1. Re-configure Interior Space for ADA Access to Gym</u></b>				
Demolition				
Demo interior partitions and finishes	1,628	SF	8.00	13,024
Slab demo for ramp				
Saw cut	44	LF	50.00	2,200
Demo slab	87	SF	4.00	348
Partitions				
Gypsum board partitions including framing and insulation	252	SF	12.00	3,024
Lobby, office, pottery and storage buildout, gypsum board partition	1,495	SF	12.00	17,940
New ramp and stem walls with rails	84	SF	100.00	8,400
Allow for patch and repair	1,628	SF	1.00	1,628
Doors and Windows				
Wood doors with metal frames, single 3' x 7'	4	EA	1,800.00	7,200
Re-lites	35	SF	45.00	1,575
Safety glazing	132	SF	75.00	9,900
Finishes				
Allow for finishes, teen room, childcare room, ramp, offices	1,628	SF	12.50	20,350
Reception desk	20	LF	350.00	7,000
MEP				
Modify existing receptacles and branch wiring to suit revised layout	1,628	SF	0.35	570
New lighting/fixtures	1,628	SF	4.00	6,512
Lighting controls including control panels, dimming, occupancy sensors, etc	1,628	SF	1.35	2,198
Demolish redundant MEP installations	1,628	SF	1.75	2,849
Builders work in connection with MEP installations	1,628	SF	0.65	1,058
Ventilation & heating	1,628	SF	5.00	8,140

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Markups				
Design Contingency	15.00	%	69,239.80	10,386
General Conditions	10.00	%	79,625.77	7,963
Contractor's Fee	5.00	%	87,588.35	4,379
				<hr/> 136,644

## 2. Stand Alone Restrooms/Comfort Stations

Stand alone restroom	1	LS	350,000.00	350,000
Demo and remove exterior stairs	2	EA	2,000.00	4,000
Allow for patch and repair	1	LS	2,000.00	2,000
Markups	32.85	%	356,000.00	116,946
				<hr/> 472,946

## 3. Pool Lockers/Restrooms

Demolition				
Demo and remove walls and finishes	2,389	SF	8.00	19,112
Partitions				
Pool restrooms partition build out of floor area, allowance	2,389	SF	18.00	43,002
Allow for patch and repair	2,389	SF	2.00	4,778
Floor, wall and ceiling finishes	2,389	SF	40.00	95,560
Locker & Restroom Furnishings				
Allow for toilet partitions and accessories	1	LS	40,000.00	40,000
Allow for vanity countertops	40	LF	150.00	6,000
Allow for lockers	1	LS	8,000.00	8,000
Allow for benches	1	LS	5,000.00	5,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
MEP				
Modify existing receptacles and branch wiring to suit revised layout	2,389	SF	0.35	836
Replace existing lighting fixtures	2,389	SF	4.00	9,556
Emergency lighting	2,389	SF	0.50	1,195
Lighting controls including control panels, dimming, occupancy sensors, etc	2,389	SF	1.35	3,225
Exhaust system to lockers/restrooms	1	LS	30,000.00	30,000
Demolish redundant MEP installations	2,389	SF	1.75	4,181
Builders work in connection with MEP installations	2,389	SF	0.65	1,553
Sanitary fixtures and connection piping				
Water closets	7	EA	1,275.00	8,925
Urinals	3	EA	1,235.00	3,705
Lavatories	9	EA	1,035.00	9,315
Shower, including mixing valves and heads	10	EA	1,550.00	15,500
Sanitary waste, vent and service piping				
Floor drains including trap primer and connection piping	5	EA	1,750.00	8,750
Waste/vent and domestic water piping, fittings, valves and insulation - to sanitary fixtures from existing main piping	29	EA	1,500.00	43,500
Markups	32.85	%	221,452.00	72,747
				<b>434,439</b>

#### 4. New Reception Counter/Front Desk

Remove existing desk	1	LS	250.00	250
New reception counter/front desk	20	LF	300.00	6,000
Allow for patching, repair and finishes	1	LS	500.00	500
Markups	32.85	%	6,750.00	2,217
				<b>8,967</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>5. Code and Wayfinding Signage</u></b>				
Allow for additional code and wayfinding signage	22,141	SF	0.35	7,749
Markups	32.85	%	7,749.35	2,546
				<b>10,295</b>

**6. Replace All Windows**

Remove existing windows and frames				
Gym	503	SF	10.00	5,030
Pool	691	SF	10.00	6,910
All other windows	755	SF	10.00	7,550
New insulated windows				
Gym	503	SF	55.00	27,665
Pool	691	SF	55.00	38,005
All other windows	755	SF	55.00	41,525
Markups	32.85	%	126,685.00	41,616
				<b>168,301</b>

**7. Kalwal at Gym**

Remove existing windows	503	SF	10.00	5,030
Kalwal system	503	SF	75.00	37,725
Tree pruning	1	LS	2,500.00	1,500
Markups	32.85	%	37,725.00	12,393
				<b>56,648</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>STRUCTURAL</u></b>				
<b><u>1. Seismic Upgrades</u></b>				
Demolition				
Sawcut and demo lobby and gym connection	128	LF	50.00	6,400
Saw cut slab on grade	56	LF	15.00	840
Demo and remove interior slab on grade	120	SF	4.00	480
Piling				
Pin piles	4	EA	5,000.00	20,000
Evaluate existing timber piles	1	LS	40,000.00	40,000
Reinforced concrete including excavation				
Reinforced concrete grade beams	20	LF	275.00	5,500
Shear walls				
Level 1 shear walls				
Epoxy dowel connections	120	EA	100.00	12,000
6" shotcrete shear walls with stay forms	560	SF	65.00	36,400
Shear infill at window opening				
Epoxy dowel connections	20	EA	100.00	2,000
Shotcrete infill	77	SF	65.00	5,005
Floor on grade				
Patch and repair slab on grade at new shear wall	120	SF	20.00	2,400
Expansion joints	50	LF	150.00	7,500
Roof				
Remove existing roofing	5,232	SF	1.00	5,232
Plywood sheathing with in-plane and out-of-plane anchors	5,232	SF	5.00	26,160
Rigid insulation	5,232	SF	4.00	20,928
Protection board	5,232	SF	2.00	10,464
Rubberized membrane roofing	5,232	SF	9.00	47,088
Flashing and sheet metal	5,232	SF	1.00	5,232

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Expansion joints				
Wall expansion joints	28	LF	175.00	4,900
Roof expansion joint and connections	50	LF	250.00	12,500
Epoxy fill cracks in swimming pool walls, allow	2,950	SF	1.00	2,950
Allow for patch and repair	1	LS	10,000.00	10,000
Markups	32.85	%	65,500.00	21,517
				<b>305,496</b>

## MECHANICAL

### 1. Replace Main Boiler for Building and Pool Water Heating

Heat generation and chilling				
Boiler, gas fired	1	LS	50,000.00	50,000
Boiler flues	1	LS	7,500.00	7,500
Chemical water treatment	1	LS	5,500.00	5,500
Gas and fuel oil distribution				
Modify existing gas piping and fittings to boiler	1	LS	3,000.00	3,000
Thermal storage and circulation pumps				
Expansion tanks and air separators	1	LS	6,000.00	6,000
Pumps				
Heating hot water	2	EA	5,500.00	11,000
Variable frequency drives	1	LS	7,000.00	7,000
Vibration isolation	1	LS	2,500.00	2,500
Piping, fittings, valves and insulation				
Modify existing heating hot water piping to suit new boilers, heat exchangers and pumps	1	LS	10,000.00	10,000
Connections and switches including conduit and				
Boilers	1	EA	1,250.00	1,250
Pumps	2	EA	1,000.00	2,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Selective demolition				
Remove existing boiler, pipings and fittings	1	LS	5,000.00	5,000
Builderswork in connection with installation	1	LS	2,000.00	2,000
Markups	32.85	%	112,750.00	37,038
				<b>149,788</b>

## 2A. Repair Existing Controls System

Repair existing controls system	1	LS	7,500.00	7,500
Markups	32.85	%	7,500.00	2,464
				<b>9,964</b>

## 2B. New DDC Controls System

DDC control system modifications	22,141	SF	1.50	33,212
Testing, adjusting and balancing	60	HR	95.00	5,700
Markups	32.85	%	38,911.50	12,782
				<b>51,694</b>

## 3. Replace Hot Water Pump and Valves

Replace hot water circulation pump and thermostatic mixing valve				
Circulating pumps	1	EA	3,000.00	3,000
Thermostatic mixer valves	1	EA	1,750.00	1,750
Modify existing heating hot water piping to suit new valve and pump	1	LS	1,500.00	1,500



<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Pump connections and switches including conduit and cable	1	EA	500.00	500
Markups	32.85	%	6,750.00	2,217
				<b>8,967</b>

## ELECTRICAL

### 1. Emergency and Exit Lighting

Emergency and emergency exit lighting	22,141	SF	0.50	11,071
Builderswork in connection with installation	1	LS	2,500.00	2,500
Markups	32.85	%	13,570.50	4,458
				<b>18,028</b>

### 2. Fire Alarm System

Fire alarm system including equipment, devices, conduit and cable	22,141	SF	1.35	29,890
Builderswork in connection with installation	1	LS	2,500.00	2,500
Markups	32.85	%	32,390.35	10,640
				<b>43,031</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>3. Replace Main Switch Board and Re-locate</u></b>				
New main switchboard at different location, including for extending supply cabling and reconnecting feeders to panelboards, etc	1	LS	35,000.00	35,000
Builderswork in connection with installation	1	LS	5,000.00	5,000
Markups	32.85	%	40,000.00	13,140
				<hr/> 53,140

## CIVIL

### **1. Re-grade Landscaping**

Allow for repairs to surrounding landscaping	1	LS	2,500.00	2,500
Markups	32.85	%	2,500.00	821
				<hr/> 3,321

### **2. Replaced Buckled Sidewalk Paving**

Demo and remove existing concrete paving	650	SF	3.00	1,950
New concrete sidewalk slab	650	SF	11.00	7,150
Markups	32.85	%	9,100.00	2,989
				<hr/> 12,089

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>3. Replace Catch Basin Grate</u></b>				
New ADA catch basin grating	1	LS	1,000.00	1,000
Markups	32.85	%	1,000.00	329
				<hr/> 1,329

**PROGRAMMING COMPONENT SUMMARY**

**\$ Cost  
 Including Mark-  
 ups**

**ARCHITECTURAL**

- |   |         |
|---|---------|
| 1. Upgrade Gym Lighting                 | 41,361  |
| 2. Panic Button                         | 1,329   |
| 3. Remove Trees and Paint Exterior      | 65,017  |
| 4. Pottery and Restroom Reconfiguration | 235,039 |
| 5. Level 2 Renovations                  | 104,704 |

**MECHANICAL**

- |                                      |        |
|--------------------------------------|--------|
| 1. Replace Pool Water Heat Exchanger | 42,512 |
| 2. Dehumidification System           | 97,977 |

**ELECTRICAL**

- |   |                                |
|---|--------------------------------|
| 1. Upgrade Building Lighting, (Excluding Gym) | 96,619                         |
| 2. Upgrade Gym Lighting                       | See Architectural Item 1 Above |
| 3. Site Lighting                              | 9,964                          |
| 4. Upgrade Data Voice Cabling System          | 35,869                         |

Escalation is excluded

**\$ / SF**

<b>RECOMMENDED BUDGET</b>	<i>January 2009</i>	<b>32.99</b>	<b>730,389</b>
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<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>1. Upgrade Gym Lighting</u></b>				
New lighting fixtures	5,323	SF	4.00	21,292
Lighting controls including control panels, dimming, occupancy sensors, etc	5,323	SF	1.35	7,186
Builders work in connection with installation	5,323	SF	0.50	2,662
Markups				
Design Contingency	15.00	%	31,139.55	4,671
General Conditions	10.00	%	35,810.48	3,581
Contractor's Fee	5.00	%	39,391.53	1,970
				<b>41,361</b>
<b><u>2. Panic Button</u></b>				
Panic alarm system to reception desk	1	EA	750.00	750
Builders work in connection with installation	1	LS	250.00	250
Markups	32.85	%	1,000.00	329
				<b>1,329</b>
<b><u>3. Remove Trees and Paint Exterior</u></b>				
Paint exterior	26,560	SF	1.50	39,840
Remove trees	1	LS	8,000.00	8,000
New trees and pits, allow	1	LS	1,100.00	1,100
Markups	32.85	%	48,940.00	16,077
				<b>65,017</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>4. Pottery and Restroom Reconfiguration</u></b>				
Demolition				
Demo partitions and finishes	1,440	SF	8.00	11,520
Demolish redundant MEP installations	1,440	SF	1.75	2,520
Locker room partitions, CMU 8"	1,313	SF	18.00	23,634
Finishes				
Locker room finishes	1,007	SF	40.00	40,280
Pottery room and storage	433	SF	12.50	5,413
Patch and repair walls and finishes	1,440	SF	1.50	2,160
Restroom furnishings				
Toilet partitions				
Standard	4	EA	1,100.00	4,400
ADA	2	EA	1,500.00	3,000
Grab bars at water closets	2	EA	400.00	800
Grab bars at showers, ADA	2	EA	400.00	800
Mirrors	1	LS	2,000.00	2,000
Lockers	26	EA	175.00	4,550
Vanity countertop	23	LF	150.00	3,450
Electrical				
Modify existing receptacles and branch wiring to suit revised layout	1,440	SF	0.35	504
Lighting fixtures, including conduit and wire	1,440	SF	7.00	10,080
Lighting controls including control panels, dimming, occupancy sensors, etc	1,440	SF	1.35	1,944
Exhaust system				
Exhaust system to lockers/restrooms	1	LS	7,500.00	7,500
Exhaust fan connections and switches including conduit and cable	1	LS	1,500.00	1,500

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Sanitary fixtures and connection piping				
Water closets	6	EA	1,275.00	7,650
Urinals	2	EA	1,235.00	2,470
Lavatories	6	EA	1,035.00	6,210
Shower, including mixing valves and heads	2	EA	1,550.00	3,100
Sanitary waste, vent and service piping				
Floor drains including trap primer and connection piping	2	EA	1,750.00	3,500
Hose bibbs	1	LS	3,000.00	3,000
Waste/vent and domestic water piping, fittings, valves and insulation - to sanitary fixtures from existing main piping	16	EA	1,500.00	24,000
Builderswork in connection with MEP installations	1,440	SF	0.65	936
Markups	32.85	%	176,920.50	58,118
				<b>235,039</b>

## 5. Level 2 Renovations

Demolition				
Demo finishes and partitions	2,197	SF	4.00	8,788
Demolish redundant MEP installations	2,197	SF	1.75	3,845
Partitions	440	SF	16.00	7,040
Floor, wall and ceiling finishes				
ADA restroom	97	SF	40.00	3,880
Other room finishes	2,100	SF	9.00	18,900
Stairs				
Guardrail	24	LF	250.00	6,000
Allow for new stair finishes	1	LS	1,000.00	1,000
Allow for patch and repair	1	LS	750.00	750
Re-lites	72	SF	50.00	3,600

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Lighting				
Replace existing lighting fixtures	2,197	SF	4.00	8,788
Lighting controls including control panels, dimming, occupancy sensors, etc	2,197	SF	1.35	2,966
Modify existing receptacles and branch wiring to suit revised layout	2,197	SF	0.35	769
Restroom furnishings				
ADA grab bars	1	EA	350.00	350
Toilet accessories	1	LS	500.00	500
Lavatory countertop	6	LF	150.00	900
Mirror	1	EA	250.00	250
Sanitary fixtures and connection piping				
Water closets	1	EA	1,275.00	1,275
Lavatories	1	EA	1,035.00	1,035
Sanitary waste, vent and service piping				
Floor drains including trap primer and connection piping	1	EA	1,750.00	1,750
Waste/vent and domestic water piping, fittings, valves and insulation - to sanitary fixtures from existing main piping	2	EA	1,500.00	3,000
Exhaust system to unisex ADA restroom				
Exhaust fan connections and switches including conduit and cable	1	EA	500.00	500
Exhaust fan	1	LS	1,500.00	1,500
Builderswork in connection with MEP installations	2,197	SF	0.65	1,428
Markups	32.85	%	78,813.70	25,890
				<b>104,704</b>



<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>MECHANICAL</u></b>				
<b><u>1. Replace Pool Water Heat Exchanger</u></b>				
Remove existing heat exchanger	1	LS	2,000.00	2,000
New heat exchanger	1	EA	25,000.00	25,000
Modify existing heating hot water piping to suit new heat exchanger	1	LS	5,000.00	5,000
Markups	32.85	%	32,000.00	10,512
				<b>42,512</b>
<b><u>2. Dehumidification System</u></b>				
Dehumidification system with heat recovery				
Dehumidification system	1	LS	65,000.00	65,000
Connections and switches including conduit and cable	1	EA	3,750.00	3,750
Builders work in connection with installation	1	LS	5,000.00	5,000
Markups	32.85	%	73,750.00	24,227
				<b>97,977</b>

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>ELECTRICAL</u></b>				
<b><u>1. Upgrade Building Lighting, (Excluding Gym)</u></b>				
Replace existing lighting fixtures, utilizing existing conduit and wire	16,818	SF	4.00	67,272
Lighting controls including control panels, dimming, occupancy sensors, etc	16,818	SF	1.35	22,704
Builders work in connection with installation	1	LS	5,000.00	5,000
Markups	32.85	%	5,000.00	1,643
				<b>96,619</b>

**2. Upgrade Gym Lighting**

See Architectural Item 1 Above

**3. Site Lighting**

Wall pack style fixtures, including conduit, wiring and controls	3	EA	2,000.00	6,000
Builders work in connection with installation	1	LS	1,500.00	1,500
Markups	32.85	%	7,500.00	2,464
				<b>9,964</b>

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<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
<b><u>4. Upgrade Data/Voice Cabling System</u></b>				
Replace existing telephone/data cabling	22,141	SF	1.50	33,212
Builders work in connection with installation	1	LS	2,000.00	2,000
Markups	32.85	%	2,000.00	657
				<hr/> 35,869