POOL FACILITY ASSESSMENT

Metro Design Associates Inc.

Site Usage Alternatives

PARK RIDGE Recreation and Park District

Oakton Park Pool

Description

- The existing site currently is used as an indoor ice rink facility and an outdoor swimming pool facility. The site is most favorable for a renovated outdoor aquatic center. The condition of the existing swimming pools is not conducive for renovation, but there is sufficient mechanical equipment room space, toilet/shower facilities and concession area to support a new aquatic pool on the site.

- It does not appear that the pools are heavily utilized for competition swimming. It appears that the primary use is recreation. Current recreation pools employ zero depth entrances, spray features, lazy rivers, water slides and plunge dive tubes. A single recreation pool could be designed for this site that would have a shallow play area with spray features to serve the younger children and a deeper area with water slides for the pre-teen/teenage group. A rectangular area could be incorporated into the design for adult water aerobics and/or lap swimming. The pool equipment room could be renovated with new pumps and filter system while still utilizing the existing chemistry control equipment.

- From review of the original construction documents, we found the existing soil conditions at this site to be very poor. The construction of any structures, not necessarily swimming pools, will require the installations of deep pilings and structural grade beams to properly support the construction. This type of construction method will add additional costs to the budgets, therefore the installation of soft/hard surface activity fields should not be ruled out.

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Conclusions and Recommendations

PARK RIDGE Recreation and Park District

Conclusions/Recommendations

Oakton Park Pool

Wading Pool

- The wading pool structure is in fair condition, but the inlet configuration and distribution piping is in very poor condition. It has seen many years of service and a complete renovation will cost about the same as a new one, therefore it is not financially feasible to renovate this pool. Complete renovation will result in an existing structure that will have extensive patches. Additionally, the pool decks surrounding this pool have reached the end of their useful life.

Lap Pool

- The existing 8-lane lap pool is in very poor condition. The deteriorating distribution piping, combined with the uneven recirculation patterns make it financially infeasible for renovation. If the structure was in a better condition and did not suffer from extensive cracking and settlement, it could be possible to renovate it with new gutters, inlets, and distribution piping.

Pool Decks

- The pool decks are failing structurally and the cracking, deterioration and de-lamination will only continue to worsen due to the lack of structural reinforcement. The deck drainage system is in fair condition and could be utilized in the event pool deck replacement was to be considered. Considering the condition of the existing swimming pool structures, it is this writer's opinion that it is not financially feasible to just replace the pool decks.

Distribution Piping

- It appears that the existing distribution piping is still solid and free of any breaks or separations. Unfortunately, the piping is extensively corroded, calcified and built-up with sediment. There are very aggressive power rodding tools available that can remove the majority of the calcification and blockages found by our video inspection efforts. However, we do recommend to pursue this very carefully because it has been our experience that some of the calcification and build-up may be holding the pipe

together. Aggressive methods to clear the piping systems may result in a more severe issue than what is already being encountered.

- The filtration system is in fair condition and has been well maintained. The pool filter uses the best filter media available today. The system backwash and maintenance is completely manual, which results in additional labor costs. The filter system could be used in the future installation of new swimming pool structures, but it would not be recommended. Cleaning, patching and replacement of the existing filter tanks and elements may only extend its life by another 10 to 15 years. It would be recommended to install new piping, pumps and filters in the event the construction of new swimming pools or an aquatic facility was an option. Diatomaceous earth (D.E.) is a superior filter media and current technology provides regenerative D.E. filter systems that can be fitted with energy management controls that can reduce the energy operating costs by 20% to 30% and result in 4 to 6 backwash cycles per operating season.

- The Park District must recognize that current code requires individual filtration systems for each individual pool. The existing filter room may not be able to accommodate multiple filter systems for multiple bodies of water. This is a good reason to create a single pool designed for multiple uses, in the event that construction of a new pool is contemplated.

Chemistry System

- The existing chemistry control system has been recently renovated and could be utilized in the installation of new swimming pool structures. We would recommend the installation of individual pumping systems and chemistry control panels for each body of water, in the event construction of multiple pools is considered.

Pool Heater

- The existing pool heater is in very good condition and could easily be utilized in the construction of a new swimming pool system with a surface area of approximately 15,000 square feet. It would be advised to install a separate pool gas-fired water heating system for any installation of new pool(s) since the current system utilizes the building's heating boiler for energy. The building's heating boiler is larger than the demands of the summer heating load for the currently sized pools, thus there could be an energy savings with the use of a separate gas-fired heating boiler for the pool(s).

Electrical System

- The electrical system has sufficient capacity to accommodate any type of renovation and/or reconstruction for swimming pools that can fit within reason on the existing site.

Final Recommendation

- I have had very good success in renovating old swimming pool facilities. Unfortunately, this facility has experienced extensive structural damage and renovation is not financially practical. My best recommendation is to continue operation under current conditions until it comes to the point where we cannot maintain a healthy pool, and/or operation conditions become financially impractical. The day is coming and unfortunately my crystal ball cannot predict the exact year. It may be as soon as next year, or it may be able to be extended by another 5 years with tender loving care from the pool's operators and continued preventative maintenance.

Oakton Park Pool

November 17, 2005

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Cost Analysis

PARK RIDGE Recreation and Park District

Oakton Park Pool:

Priority I:

- Repair existing cracks in the lap pool and wading pool utilizing epoxy crack injection.

  Estimated Cost = $20,000.00

- Power Rod and power flush all of the existing distribution piping.

  Estimated Cost = $10,000.00

Priority II:

- Replace existing wading pool with one of similar size. The new installation will include zero depth design, new pipes and new pool decks and will utilize existing filtration system.

  Estimated Cost = $300,000.00

- Replace existing lap pool with one of similar size. The new installation will include new pipes and pool decks and will utilize existing filtration system. Attempts to re-use the existing foundation pilings will be done.

  Estimated Cost = $2,250,000.00 to $2,500,000.00

- Convert existing vacuum D.E. filter into a surge tank and install a new regenerative D.E. filter system in existing pool equipment room. Includes utilization of existing chemistry control system and pool heater.

  Estimated Cost = $240,000.00

- Convert existing vacuum D.E. filter into a surge tank and install a new high rate pressure sand filter system in existing pool equipment room. Includes utilization of existing pool chemistry control system and pool heater.

  Estimated Cost = $160,000.00

Priority III:

- Completely demolish existing pool structures, decks and filtration systems. Install a new combination aquatic pool within the confines of the existing site. Facility will include zero depth design, spray features, a rectangular lap swimming area, two water slides and two plunge dives. The existing pool equipment room would be utilized.

  Estimated Cost = $3,750,000.00 to $4,500,000.00