



CITY OF ST. ALBERT ADMINISTRATIVE BACKGROUNDER

TITLE: Fountain Park Peninsula Removal Analysis

On October 24, 2016 Council approved the following motion:

That an architectural/engineering review and construction estimate is performed to determine the costs, feasibility and timelines required to remove the peninsula in the Fountain Park Pool, and up to \$15,000 be allocated for this, to be funded through the Stabilization Reserve.

BACKGROUND:

Prior to 2000, the Leisure Pool at Fountain Park Recreation Centre (Fountain Park; FPRC) existed as the primary pool, an eight-lane 25-meter tank, complimented by the small tot's pool. The peninsula, bollards and accessibility ramp was added to the Fountain Park Leisure Pool as part of the facility construction that occurred in 2000 as indicated in the diagram below. The eight-lane competition pool and hot tub were also added as part of the overall facility enhancements.

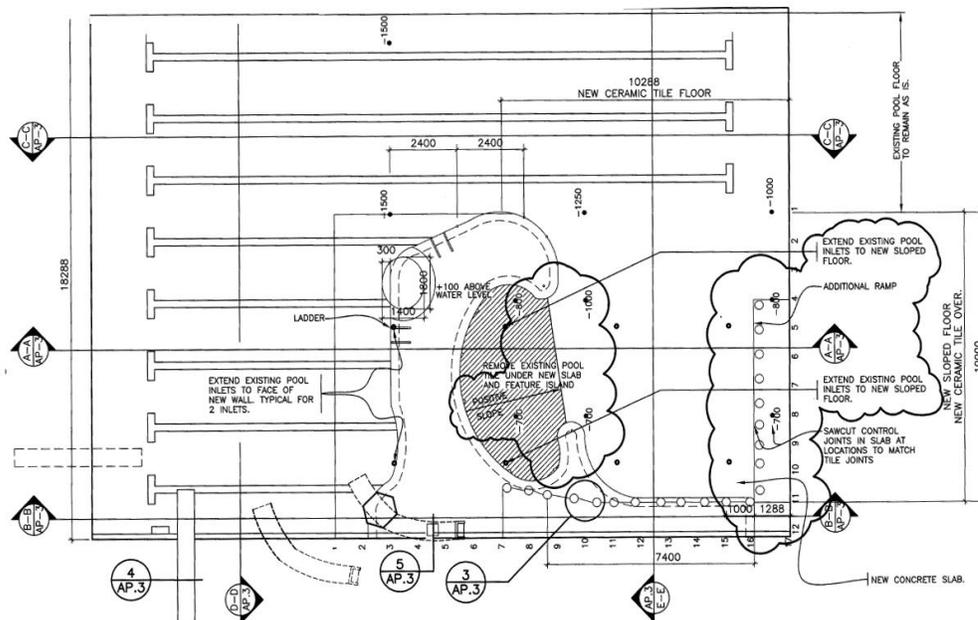


Image: Fountain Park Recreation Centre – Leisure Pool

The motivation for modifying the Leisure Pool in 2000 was to enhance the facility to be inclusive of the different needs of the community. The renovation transitioned a traditional rectangle tank to a multi-faceted leisure pool.

The peninsula, bollards and accessibility ramp allow for:

- Full accessibility to the Leisure Pool through the sloped ramp, divided by the bollards.
- Physical separation of space to allow for multiple uses at one time such as lessons, public swim, and fitness classes.
- Allows for additional amenities to be provided including a second slide.
- Safety boundary that allows the diving board to be used during public and family swims.
- Key component of the lifeguarding system allowing for improved access to middle of pool.

Summary of Scope of Work: Removal of the Peninsula

Workun Garrick was commissioned to perform an analysis within the following scope of work:

- Engineering analysis on the impacts to the existing infrastructure including but not limited to: structural, architectural, Water Filtration, HVAC, mechanical, electrical, other.
- Provide a report that will include the following items:
 - Summary of area changes.
 - Recommended structural enhancements/changes.
 - Recommended mechanical, architectural, electrical, other changes.
 - Detailed construction cost estimates in 2017 dollars.
 - Estimate of construction schedule/pool closure time frame.

Workun Garrick solicited mechanical, electrical, and structural engineering firms, as well as Automated Aquatics to provide further consultation on the analysis and report.

Preliminary Construction Estimate

The preliminary construction estimate for renovating the Fountain Park Recreation Centre Pool, based on the scope of work noted above, is *six hundred and nineteen thousand, eight hundred and fifty (\$619,850.00)*, excluding GST.

A suggested 20 % or \$123,970 is added to the total project cost for detailed Consultant Design Fees, Project Management Fees, and any additional project Soft Costs.

Total estimated cost: \$743,820

- The above is an opinion of Probable Cost Only, and does not include other potential mechanical, plumbing, structural, or electrical issues that may surface during the construction process.
- It is assumed the existing pool deck will remain as is, and will not require additional work.
- It is assumed that the existing pool tank shell will remain as is, and will not require additional work.

Preliminary Construction Schedule

It is anticipated that the project will require approximately *3-months* to complete construction.

There will be an approximately 3-week period outside of the construction, to empty/prepare the tanks prior to construction, and refill the tanks to appropriate water quality levels once construction is complete. Fountain Park Recreation Centre schedules an annual maintenance shutdown for 2-3 weeks annually, therefore this shutdown period would be considered part of that process.

The entire facility must be closed for the full 3-month construction period due to the nature of the construction, safety, and water quality issues. The time frame of the construction schedule will have significant impacts to programming and the operating budget. The period with the least amount of impacts would be a June to August time frame, as it represents the lowest program demand, additional aquatic options, and shoulders the annual facility shutdown time.

During this period, the following programs and services would be impacted:

| Program/Service Area Pre-Empted | Impacts (Based on June to August 2016 usage) |
|--|--|
| Registered Programs | 1,500 programs |
| Registered Program Participants | 41,000 participants |
| Drop-in programs | 475 programs |
| Drop-in program participants | 7,600 participants |
| Programmed hours pre-empted | 5,200 hours |
| Rental hours | 2,300 hours |
| Public lane swim hours | 1,350 hours |
| Public swim hours | 709 hours |
| Swim Club practice hours | 1,730 hours |
| Swim Club meets | 6 swim meets, 240 hours. |

Summary of Area Changes:

The report from Workun Garrick, outlines the detailed Architectural, Structural, Mechanical, Water Filtration and electrical construction work required to complete the project.

Major Changes:

- Removal of the island, ramp, and raised floor will require demolition and removal of all cast-in place concrete structure and lean mix concrete fill added in the 1999 renovation.
- Significant re-piping and replacement of mechanical pumps and supply inlets.
- A higher horsepower pump will need to be installed to achieve desired rate of flow rate, filtration rate and water turnover rate due to the increased water volume.

| Leisure Pool Water Impacts of Proposed Construction | Present Peninsula | Proposed Peninsula Removal |
|--|------------------------------|-----------------------------------|
| Water Volume | 215,275 US/gal | 252,020 us/gal |
| Water Flow Rate | 850 gallons per minute (gpm) | 1050 gpm |
| Water Filtration Rate | 7.75 gpm | *9.59 gpm |
| Water Turnover Rate | 4.22 hours | *4 hrs |

*Rate achieved only with installation of new circulation pump.

- Repairs to unforeseen damage to portions of the existing pool tank base slab and walls to ensure the structural integrity of the existing pool tank. This is not reflected in the cost estimate.
- Retiling of a large portion of the pool to maintain consistency of the tiles in construction areas.

Operational Impacts

The removal of the peninsula, bollards and accessibility ramp would propose a significant number of operating implications to the current operating model and would require significant changes to programs, scheduling, staffing, lifecycle and maintenance.

Possible benefits from removing the Peninsula, Bollards and accessibility ramp:

- Offers potential additional swim programs or;
- Additional lane(s) for lap swimming.

Removal of the peninsula, bollards and accessibility ramp would have the following negative operating impacts:

- The peninsula is a key element in the successful lifeguarding of Fountain Park as it provides better visibility and acts as an access point into the Leisure Pool. Removing the peninsula may delay the lifeguard response time in getting to a distressed swimmer.
- To reconfigure the pool to maximize the number of swim lanes would involve removal in whole or in part of the access ramp that would eliminate/limit modified access for patrons with physical limitations.
- Aqua fitness classes would be limited as currently the cove area is used for the instructor who can safely and efficiently move around while teaching. The perimeter pool deck is too narrow and there are many obstructions that it present safety hazards.
- Without the barrier between the dive-tank area and the shallow area, there is a risk to users and of the Leisure Pool when accommodating mixed program uses such as Dive Club and Learn to Swim lessons.
- Additional lanes in the Leisure Pool may not be desirable to lane swimmers as it is maintained at a warmer temperature than traditional lane pools and is thusly less desirable for lane swimmers.
- The diving board would not be able to be used during public swim as the absence of a solid barrier dividing the shallow area from the dive tank presents a safety issue.
- The blue slide would no longer be available for use. With the peninsula in place, the large blue slide can be used safely as it has the exit location controlled. If the peninsula were to be removed, the exit would no longer be controlled and it would be unsafe to use. There is not currently another location that the slide could be relocated to within Fountain Park that would provide for safe usage.
- A complete restructure of current programs, staffing deployment and services would need to be developed.

Conclusion

Based on the consultant's findings, it is technically feasible to remove the FPRC Leisure Pool Peninsula; however, the changes to the infrastructure, total cost, and the preemption to the facility operation have significant impacts for the perceived benefits that may be realized.

If City Council wishes to move forward with the project, Administration would recommend that a Project Charter be developed to fund the project through the City of St Albert 10 Year Capital Plan. The project charter would outline the required public engagement, a detailed design process, a comprehensive operational analysis and construction for the removal of the peninsula.

Report Date: April 3, 2017

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Committee/Department: Recreation & Parks

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