INDOOR POOL SLIDE AND STAIR TOWER

CITY COUNCIL-APRIL 7, 2025

STAFF PRESENTER: JEN BASHAM, DIRECTOR OF PARKS AND RECREATION

OVERVIEW

1. Background
2. Structural Engineers Report
3. Maintenance
4. Findings
5. Scope of Work for Refurbishment & Replacement
6. Additional Information since Park Board Meeting
7. Return on Investment
8. Budget
9. Project Timeline
10. Recommendation
11. Direction

BACKGROUND

- In April 2019, the entire stair structure was sand-blasted and repainted ($80,535).
- In November 2020, additional repairs were completed ($8,000).
- On June 11, 2024 TMLRIP completed their annual inspection.
- The inspector stated that the stair tower needed an additional evaluation on the stairs, safety railing, supports, hardware, fasteners, and all steel components. The slide was closed immediately. The inspector requested that a structural engineer inspect the slide for integrity in the closing notes of their inspection. As of January 2025, a third party is required to inspect the slide and stairs every five years or at the manufacturers recommended interval.
- Between the initial inspection and presentation to the board staff worked with the inspector and a third party inspector to determine remediation requirements. Once determined staff began gathering quotes for both refurbishment and replacement to make the most fiscally responsible decision.
- This item was presented to the Park Board on February 13, 2025. After discussion, the Park Board tabled the item with a request for additional information and for the item to be brought back for further review at the Park Board meeting on March 20, 2025.

BACKGROUND

FEBRUARY 13 TO MARCH 12

- Staff contacted the manufacturer to obtain their recommendations for remediation. The manufacturer provided a recommendation of refurbishment based on submitted photos. A subsequent in-person inspection occurred on March 25. The information presented to park board was based on the virtual inspection utilizing submitted photos.
- Staff also reached out to all original vendors that were presented to the park board on February 13 to obtain additional quotes for the following:
  - Refurbishment of the staircase, including the removal of treads to address additional rust.
  - Refurbishment of the slide.
  - Replacement of the slide.
- Staff reviewed the most recent inspection report to identify process improvements and make necessary adjustments. Some items have been completed, while others are still in progress.
- Staff collaborated with the capital engineering department to source a structural engineer to inspect the existing structure and provide recommendations.

STRUCTURAL ENGINEER INITIAL DRAFT REPORT: FREESE AND NICHOLS OBSERVATIONS

OBSERVATIONS:

- The most visually obvious rust staining originated at the top of the rises at the contact point with the tread pans. While highly visible, the corrosion was not a significant structural concern.
- In general, the bolts appeared to be very corroded and a close second in terms of visual impact.
- Some localized heavy corrosion and scaling was observed on the face of a few risers.
- **Most of the corrosion on the staircase appeared to be due to pool water cascading down the structure from the upper platform.**
- Evidence for this conclusion area as follows:
  - Surface mineral deposits not observed on other structures.
  - The general lack of corrosion below the landings in areas protected from cascading water.
  - The general lack of similar corrosion for other steel structures in the vicinity which were exposed to the same atmosphere but no direct water exposure.
- The galvanized and non-galvanized pipe supports below the upper landing were heavily corroded.

  - *This supports staff's initial findings that the stairs degradation is due to design and not to maintenance protocols historically utilized.

STRUCTURAL ENGINEER REPORT: FREESE AND NICHOLS CONCLUSION & RECOMMENDATIONS

CONCLUSION:

None of the observed corrosion appeared to present an immediate concern for structural integrity or safety. The structure is in need of maintenance and a new coating.

RECOMMENDATIONS:

Either recoat or replace the staircase.

- If possible, all of the circulated water at the upper landing should be made to enter a drain.
  - *This is a new recommendation that staff will be pursuing regardless of decision to repair or replace.
- In general, bolts should be replaced before the face of the bolts begins to scale off.
- Consider replacement with a more corrosion resistant material. Bolt head markings were not visible during my site visit but should be verified by removing the coating. If the bolts are not high-strength, consider replacement with Type 316 stainless steel. If high-strength bolts were used, the bolts should be replaced in kind but should be hot-dip galvanized.
- The bolts at the upper landing guardrail appeared to have significant exposure and significant corrosion inside the post. While the guardrails did not have signs of incipient bolt failure, we recommend bolt removal for inspection and replacement as appropriate.
- When recoating, the treads should be removed to improve the surface preparation and coating between the treads and risers.
- Replace the heavily corroded galvanized pipe supports below the upper landing.
- Replace the bolts between the risers and the central column with welds.
- Insert a neoprene or plastic strip between the risers and tread pans to reduce coating damage due to foot traffic.

SLIDE & STAIR TOWER MAINTENANCE

Daily:

Inspect before & after pumps are turned on (address deficiencies immediately)

Rinse with fresh water

Monthly:

NEW: Utilize preventative rust chemical (currently researching this option)

Bi-Monthly:

Check joints - Re-caulk and wax if needed

Annually:

Water Slide Connector/Fastener Inspection and Replacement

ENHANCED MAINTENANCE PROCEDURES MOVING FORWARD

As staff reviewed maintenance standards through this process, they developed Standard Operating Procedures (SOPs) in collaboration with the slide and stair manufacturer, Splashtacular.

Staff has also engaged with the manufacturer to discuss enhancing current maintenance practices through a third-party maintenance agreement. This agreement offers an annual service that includes one inspection, cleaning, and up to six chip or gauge repairs, as well as recaulking and typical maintenance, for **$12,155**. Any identified deficiencies beyond routine maintenance, such as rust remediation, bolt replacement, tread repair, or leak repairs, would be quoted at an additional cost.

Additionally, staff has been working to onboard the BRiCk facility into the current work order system, Cartegraph. This system, already utilized by Public Works and Parks, will track maintenance and repairs for all major systems within the BRiCk. Implementing Cartegraph will improve reporting capabilities and provide valuable historical data to inform repair or replacement decisions.

*Daily maintenance is currently tracked, and will continue to be tracked, through the aquatic system Digiquatics.

In 2024, staff was directed to replace the dehumidification system within the natatorium. Staff also proposed enhancing this system with an evacuator system designed to remove chemicals at the ground level. Staff believes this enhancement will improve the indoor environment and extend the longevity of facility components.

Also in 2024, HR introduced a new position dedicated to managing risk management across the organization. Moving forward, this position will receive all inspection reports throughout the City and report any identified weaknesses or deficiencies to City Management.

FINDINGS

Staff has requested quotes for all listed options from each vendor, but not all responses have been received.

STAIR TOWER

VENDOR	REPLACEMENT	REFURBISH
ARC-WITHDREW FROM PROCESS	~~$218,672.50~~	~~$72,000~~
SAFE SLIDE	Requested	$214,375
LANDMARK AQUATICS	$291,078.57	Requested
SPLASHTACULAR	$170,000	$129,595

Restoration*: "There are a lot of pinch points on the structure where there is rust. This means the rust issues will likely return quickly. We will warrant adhesion of paint for (1) year but our warranty will not cover rust issues, or rust bleeding."* - ARC Owner
ARC is no longer interested in this project, we have kept the quotes listed as a reference

STAIR TOWER & SLIDE

VENDOR	REPLACEMENT	REFURBISH
ARC-WITHDREW FROM PROCESS	~~$418,022.50~~	~~$99,818~~
SAFE SLIDE	$486,000	Requested
LANDMARK AQUATICS	Requested	Requested
SPLASHTACULAR	$295,000	$159,595

Splashtacular quoted $75,000 to refurbish the slide

Safe Slide Warranty:
1 - year warranty on paint for adhesion – Steel
5 - year warranty on structural fiberglass repair not to delaminate.
5 - year warranty on gel coat and paint (available with yearly protection plan

STAIR REFURBISHMENT SCOPE

From Splashtacular Director of Restoration & Maintenance:

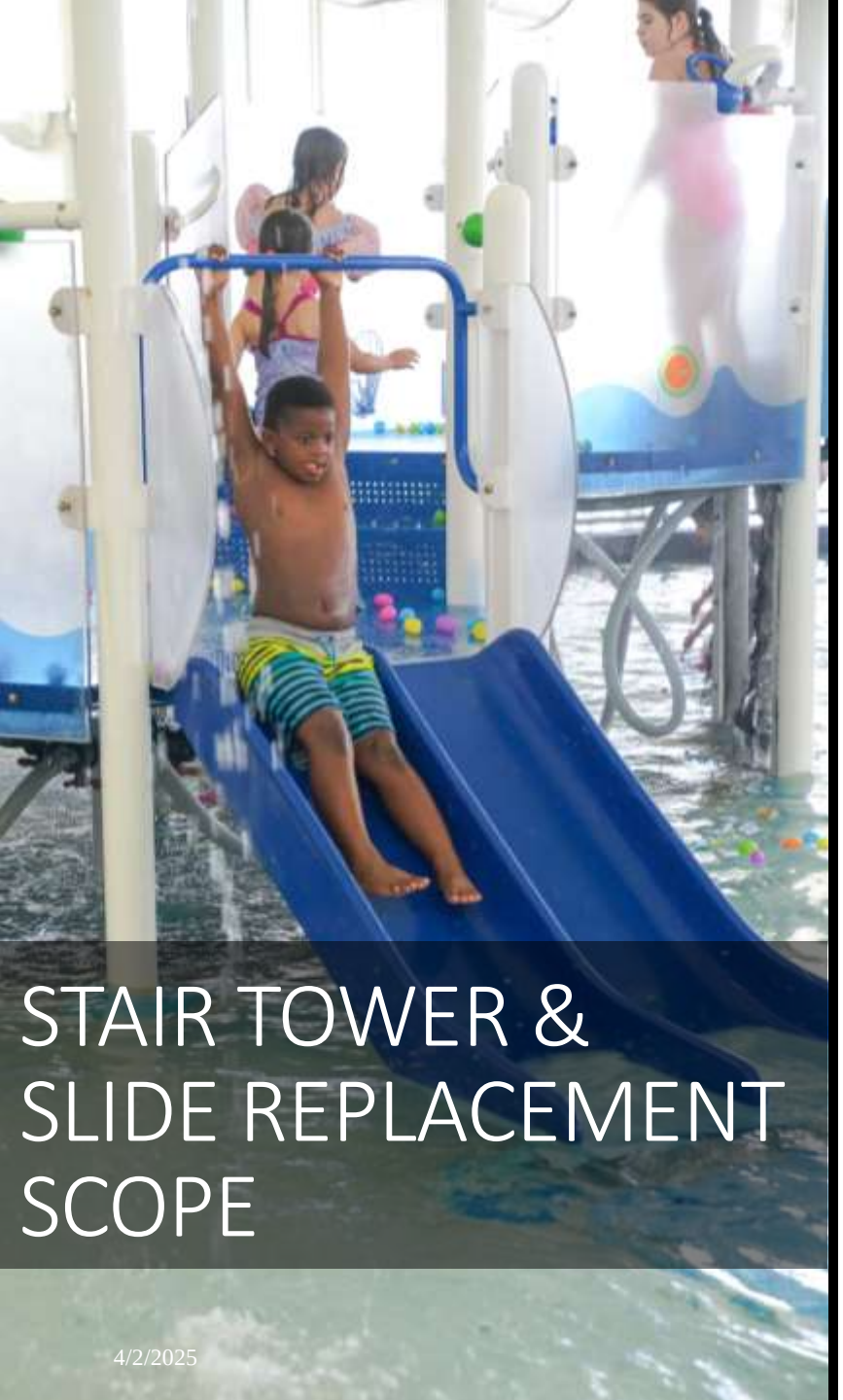
For future consideration:
Being we're the original manufacturer who design/engineered the foundations of your existing slide tower and slide we could completely remove existing slide tower/slide and install entirely new slide tower/slide of same height/length/ride path for $275,000.00 - $295,000.00 all-in. Other manufacturer's would be required to place all new foundations for slide tower/slide adding significant costs likely well over $100k. I'm not suggesting you need to remove your existing slide tower and slide, it can certainly be restored being 15 yrs old. Restoring it will increase your return on investment. However, if your slide was 25 yrs old, I'd recommend considering a complete remove and replace resetting the clock completely.

THE CITY OF BURLESON TEXAS

Scope	Splashtacular	SafeSlide
Rust remediation, inhibitor/primer of steel support structure as needed	X	X
Apply new paint to entire steel support structure	X	X
Remove all existing stair treads and landing/platform decking	X	
Retrofit/install all new stair treads and decking with our Smart Tread ™ to include associated	X	
Angles, risers and hardware	X	
Includes lift equipment and freight	X	
Hot water/high pressure wash structure, (5,000 PSI) per AMPP SSPC-SP1		X
Abrasive spot blast structure free of any previous coatings per AMPP SSPC-SP6 o If there are areas with previous coatings, this will provide a more aggressive profile to assure better adhesion		X
Reasonable measures will be taken to capture/contain the majority of debris associated with abrasive blasting (i.e. blast tarps, ground tarps)		X

SLIDE REFURBISHMENT SCOPE

Scope	Splashtacular	SafeSlide
Repair blemishes and prep slide interior to create adhesion profile for new gelcoat	X	
Remove existing caulking at all slide seams	X	
Apply new gelcoat to entire slide interior	X	X
Install new caulking at all slide seams	X	X
Prep slide exterior removing all failed coatings and calcium buildup	X	
Apply new paint to entire slide exterior	X	X
Permanently seal and fiberglass over seams		X
Prep and laminate seams with vinyl-ester resin and 1708 biaxle cloth		X
Fair Seam with compatible vinyl-ester fairing compound		X
Apply Premium Coating over seams		X
Repair all common fiberglass repairs in ride path* (common repairs do not require lamination)		X
Add textured surface to start tub		X
Wash exterior of slide with internally formulated cleaner		X
Prime-coat bare areas as needed		X



STAIR TOWER & SLIDE REPLACEMENT SCOPE

Scope	Splashtacular	SafeSlide
Demo entire steel support tower and fiberglass slide to include haul off	X	X
Install new steel support tower of same design, height, and ride path on existing foundations design/engineered by Splashtacular	X	X
Install new fiberglass slide of same design, height, length, and ride path on existing foundations design/engineered by Splashtacular	X	X
Includes lift equipment and freight	X	X

In all scopes, the new Smart Tread design will resolve the drainage issue raised by the structural engineer.

Park Board

March 20, 2025

On March 20, 2025, this item was presented to the Park Board following its deferral from the February 13 meeting. Additional information requested at the prior meeting was provided for review. After discussion, the Park Board issued the following recommendations:

- Replace the stair structure (Unanimous Recommendation)
- Refurbish or replace the slide structure (5 members of the board recommended refurbishment of the slide, while two stated they would recommend replacement or refurbishment)

The Board also discussed the potential addition of a maintenance contract with Splashtacular. Staff recommended a one-year contract to ensure the new or refurbished structure would be maintained to the highest standards moving forward. The need to continue with the contract would be evaluated at that time.

PROCUREMENT CONSIDERATIONS

March 21-April 2, 2025

On March 25, Splashtacular conducted an on-site inspection of the stair and slide structure. Their recommendation remains to refurbish both components. However, if the City opts to replace the stair structure, they advise replacing the slide concurrently due to the need for slide deconstruction during stair replacement.

Staff worked with the purchasing department to review quotes. As the manufacturer, Splashtacular is considered a sole-source provider. The manufacturer will be able to meet time requirements in conjunction with the existing pool closure remodel schedule.

In contrast, they do not meet the criteria for sole-source procurement for refurbishment and are not currently part of any cooperative purchasing agreements. If the City opts to proceed with refurbishment, the project will need to go through a formal bidding process.

All alternative quotes received, including cooperatives, also utilized Splashtacular components but were higher in cost, as they included the upcharge on the components.

FUNDING

Funding for this project was identified through the reconciliation of existing projects. This process reallocates unused funds to address current needs, helping to avoid additional debt while maximizing the use of available resources.

Staff has identified $1,022,917.61 in project savings. Of this amount, $558,848 has been allocated to the BRiCk renovation project, as previously presented with the Guaranteed Maximum Price (GMP) package award.

The Bailey Lake and Chisenhall Parking Lot Expansion Bond was issued on August 21, 2023, and savings from this project can be utilized for the stair and slide replacement.

If the decision is to refurbish rather than replace, alternate funding must be identified, as refurbishment is not considered a capital expense and must be funded with available cash. In that case, the project would require a budget adjustment.

The useful life of the current slide and stair structure extends through 2035, according to the manufacturer, at which point replacement would be scheduled. Using the current quote with a 3% annual cost escalation, the projected replacement cost in 2035 is approximately $396,455.

RETURN ON INVESTMENT

The table below outlines the projected costs of the project based on debt service. For comparison purposes, it is assumed that routine maintenance and periodic refurbishment will occur as needed in both scenarios and are therefore not factored into the financial analysis.

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Replacement	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120	23,120							
Refurbishment	159,595											31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720	31,720

Total Cost	
Replacement	$ 416,160
Refurbishment	$ 603,675

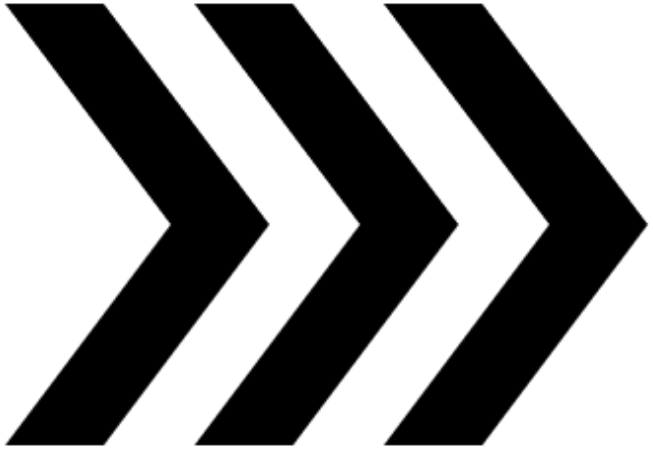
- **Cost of Investment** = $416,160 (the cost of the stair tower and slide replacement including debt service)
- **Annual Benefit** = $34,000 (40% of the annual income generated from Pool Party Room rentals in 2023)
- **Life of the Slide** = 25 years
- **ROI Replacement = 104%**
- **ROI Refurbishment = 40.8%**

PROJECTED TIMELINE

Due to material lead times and the time required for this replacement, the slide will remain closed throughout the summer.

Recommendation

Based on expected useful life, return on investment, and available funding sources, staff recommends the replacement of the stair and the slide.



PROVIDE FEEDBACK REGARDING REFURBISHMENT OR REPLACEMENT OF INDOOR POOL SLIDE AND STAIR STRUCTURE

DIRECTION