NOTICE OF A MEETING
(In compliance with Sec. 551.041, Et. Seq., Tex. Gov't. Code)

NOTICE is hereby given that the **City of Jersey Village 2024 Bond Committee** will hold a meeting on June 18, 2024, at 6:30 p.m. in the Civic Center Municipal Center Meeting Room at 16327 Lakeview Drive, Jersey Village, Texas 77040.

A quorum of the City of Jersey Village City Council may be in attendance at this meeting.

ITEM(S) to be discussed and acted upon by the Committee are listed on the attached agenda.

AGENDA

A. Open Meeting. Call the meeting to order and the roll of appointed officers will be taken.

B. CITIZENS' COMMENTS - Any person who desires to address the 2024 Bond Committee regarding an item on the agenda will be heard at this time. In compliance with the Texas Open Meetings Act, unless the subject matter of the comment is on the agenda, the City staff and Committee Members are not allowed to discuss the subject. Each person is limited to five (5) minutes for comments to the Bond Committee.

C. Consider approval of the minutes from the meeting held on June 12, 2024.

D. Discuss and take appropriate action on potential bond items. *Robert Basford, Assistant City Manager*

E. Select next meeting date.

F. Adjourn.

CERTIFICATION

I, the undersigned, do hereby certify in accordance with the Texas Open Meeting Act, the Agenda is posted for public information, at all times, for at least 72 hours preceding the scheduled time of the meeting on the bulletin board located at City Hall, 16327 Lakeview, Jersey Village, TX 77040, a place convenient and readily accessible to the general public at all times, and said Notice was posted on the following date and time: June 13, 2024 at 3:00 pm and remained so posted until said meeting was convened.

Maria Thorne, Administrative Assistant

In compliance with the Americans with Disabilities Act, the City of Jersey Village will provide for reasonable accommodations for persons attending public meetings. Request for accommodations must be made to the Administrative Assistant by calling 713-466-2174 forty-eight (48) hours prior to the meetings. Agendas are posted on the Internet Website at www.jerseyvillagetx.com.

"Pursuant to Section 30.06, Penal Code (trespass by license holder with a concealed handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a concealed handgun."

"Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a handgun that is carried openly."

MINUTES OF THE MEETING OF THE CITY OF JERSEY VILLAGE 2024 BOND COMMITTEE

June 12, 2024, at 6:30 p.m.

THE CITY OF JERSEY VILLAGE 2024 BOND COMMITTEE MET ON June 12, 2024, AT 6:30 P.M. AT THE CIVIC CENTER MUNICIPAL CENTER MEETING ROOM, JERSEY VILLAGE, TEXAS 77040.

A. CALL TO ORDER

The meeting was called to order at 6:34 p.m. and the roll of appointed officers was taken. Committee members present were:

Beverly Petersen	Susan Edwards
Edward Lock	Jennifer Withner
Krista Guerrero	Sean Willis
Curtis Haverty	

Staff in attendance: Austin Bleess, City Manager; Robert Basford, Assistant City Manager; Isaac Recinos, Recreation and Events Manager; George Deines from Counsilman-Hunsaker, and Maria Thorne, Administrative Assistant.

B. CITIZENS' COMMENTS - Any person who desires to address the 2024 Bond Committee regarding an item on the agenda will be heard at this time. In compliance with the Texas Open Meetings Act, unless the subject matter of the comment is on the agenda, the City staff and Committee members are not allowed to discuss the subject. Each person is limited to five (5) minutes for comments to the Bond Committee

Susan Holland 15910 Tahoe Dr. – Susan, a resident of Jersey Village for 43 years, supports building a new pool. She feels embarrassed by the current pool's deteriorated condition, which contrasts with her initial pride and belief that it boosted property values. Susan recently regretted renovating her own lake house pool and it now needs replacement only 2 years later. She pears the possibility of a similar scenario with the city pool if the renovation route is taken instead of replacement with a new pool. She has a strong connection to swimming, with her children achieving notable success starting from the Jersey Village swim team, and she herself is an active master swimmer. Susan believes a new pool would benefit the community and maintain property values, making the extra cost worthwhile.

Kim Madere 103 Windcrest Ct. - Kim has lived in Jersey Village for almost 10 years in the Wyndham Lake area. She expressed gratitude for those serving on the committee and underscored the significance of serving on committees like the one she was addressing, noting its value in community development. Regarding the pool, she articulated several reasons for its necessity. Kim spoke on behalf of parents whose children participate in the local swim team, emphasizing the community support and enjoyment it brings every summer. She highlighted how the swim team attracts visitors from outside the community during certain weekends, thereby boosting local visibility and cohesion. Economically, she stated that investing in the pool would benefit property owners by maintaining or potentially increasing property values. She cautioned against the negative consequences of neglecting community facilities, citing examples from neighboring areas where such neglect led to decreased property values. Kim advocated for the construction of a new pool, viewing it as essential for the community's well-being both socially and economically. She also stressed the importance of taking care of our facilities and the need for proactive community investment to ensure ongoing prosperity and unity.

Kyle Holland 8642 Wyndham Village Dr. – Kyle, a lifelong resident of Jersey Village and a swim parent, emphasized the importance of the community pool. Representing the second generation of his family in the area, he noted that his children, the third generation, are also part of the JV Stars swim team. He highlighted how swimming has been a significant part of his life and is now significant in his children's lives. Kyle stated that a pool is essential for the community, providing a crucial recreational activity for youth. He posed a rhetorical question about whether families with children would choose to live in a subdivision without a pool, suggesting they wouldn't. From his perspective in construction, he warned that delaying the pool project would only lead to higher costs due to rising construction prices. He advocated for immediate action rather than renovation or further delays. He mentioned that other subdivisions admire Jersey Village's pool during swim meets, enhancing the community's reputation and property values. This pride in facilities contributes to why many multi-generational families choose to live and return to Jersey Village. Kyle concluded by thanking the committee for their efforts, acknowledging the importance and often thankless nature of their work.

Bill Edwards, 16001 Jersey - Bill, a resident of Jersey Village for over 40 years and a former competitive swimmer, expressed conditional support for a new pool. He stated that he supports the idea if it is fiscally and financially sound. However, he questioned the necessity of an 8-lane pool, suggesting that it primarily benefits people outside of Jersey Village by making swim meets more efficient. He noted that a 6-lane pool has been adequate for the community for over 50 years. Bill also disagreed with the mayor's comments about either building a new pool or filling in the current one

Beatriz Menendez 16121 Delozier St. - Beatriz, a resident of 16121 Delozier St. who grew up in Jersey Village and works in the Spring Branch ISD, supports having a pool but believes its scope should be appropriate for the area. Drawing from her experience visiting high-end neighborhoods, she notes that these areas have well-maintained pools with amenities but are not overly extravagant. She argues that Jersey Village, being smaller, does not need a large water park like those in Bridgeland or Towne Lake. Beatriz voted against a previous bond due to a lack of transparency on how the funds would be used, emphasizing the need for clear information on the project's costs and plans. She likens this to not proceeding with home remodeling without a clear estimate, advocating for a responsible and transparent approach to the pool improvement project.

Malcolm Malonson Lakewood Glen - Malcolm, formerly a resident of 16501 St. Helier in Jersey Village and now living in Lakewood Glenn, shared his perspective. Despite moving, his children continue to swim with the Jersey Village swim team, as they have for the past decade. With experience in construction and housing, including recreation centers for cities like Ableton, he believes that demonstrating to Jersey Village residents what their budget can achieve could sway opinions. He cited Ableton's project, which includes a 7-lane Olympic pool with resort-style amenities like a weight room, community room, bathrooms, lifeguard stations, and a lazy river, suggesting that showing similar potential benefits and property value increases could change many minds.

Sailor Ross Wall St. – Sailor, an 8-year-old resident of Jersey Village, believes that getting a new pool is important. She stated that without a new pool, there won't be a swim team anymore, and Sailor enjoys swimming in the summer with her mom and brother.

Brian Hundle 16308 Lewis St. – Brian said that he feels that the pool is the lifeblood of the community and that if it was to be eliminated, that it would be detrimental to the community.

Shayna Brown of 16122 Singapore Lane – Shayna advocates for building a brand new pool instead of spending 75% of the cost of a new pool on repairing and renovating the existing one, which would

only last about 10 years and effectively mean paying twice. They emphasize the importance of a new pool for the swim team and community, which would also attract new families to Jersey Village. She would prefer a straightforward new pool over one with extensive features, if it meant that it would help move the decision forward. She feels that the it allow the city to focus on other projects.

Lindsay Poage 16105 Tahoe Dr. – Lindsay expresses gratitude for the amenities in Jersey Village and strong support for having a pool. She and her children enjoy the pool during the summer and hope that it remains available for their enjoyment in the future.

C. Consider approval of the minutes from the meeting held on May 21, 2024.

Beverly Petersen made a motion for approval of the minutes, and Krista Guerrero seconded the motion. The vote follows:

Ayes: Beverly Petersen, Edward Lock, Jennifer Withner, Krista N. Guerrero, Sean Willis, Curtis Haverty and Susan Edwards

Nays: None

The motion carried.

D. Presentation of Clark Henry Pool findings report. George Deines, Counsilman-Hunsaker

George Deines, Counsilman-Hunsaker gave a presentation on the findings of the pool.

A committee member asked for clarification on what a pool gutter is. George explained that the gutter connects the skimmer boxes and aids in sending the dirty water back to the filter for cleaning. The renovation would involve cutting off the top of the pool walls to install a gutter, but the walls and bottom of the pool would remain unchanged, just refinished as long as the patch on the crack holds and remains stable. The crack is farther down than just the plaster surface, but it's assumed that it's probably a structural crack. It has been sealed and it's holding because the water loss has been mitigated, but that could be something that would be addressed as well. George added that when a the pool starts to lose water from a small crack, it often leads to a larger structural crack as the water seepage erodes away the backfill around the pool shell, causing movement. The new guttering system would eliminate the tile work. A comment was made that the swim team would appreciate a new guttering system – especially those on the outer lanes and that it would be a big benefit. The width of the pool steps was discussed and it was mentioned that people like having the wider steps.

George continued with the presentation and then addressed some questions and comments.

It was mentioned that the new pool would be a yard pool instead of a meter pool. The split-pool concept drawing brought up the question of how many lifeguards would be needed for the new design. Isaac said that it would not have an impact on pool staffing. A committee member asked what would be the difference in cost from a 6-lane pool to an 8-lane pool. George replied that it would cost 300K to 400K to add 2 additional lanes. The concept featured a separate deep pool off to the side to keep younger kids from accidentally swimming into it.

George continued with the next slide of the presentation and then addressed some questions and comments.

The design featured a structure that brought up the question of cleaning and maintenance. Daily cleaning and safety checks would be required. The stair widths and pool depths were discussed.
A comment was made that water aerobics would only be able to take place in the lap pool because of the shallow depth of the smaller pool

George continued with the next slide of the presentation and then addressed some questions and comments.

A committee member asked the price of the water slide and George responded that it was in the range of 300k to 500k, depending on the height of the tower and whether or not it is part of the existing pool circulation. One asked what it would cost to add air conditioning to the bathroom and facilities. George will get the pricing. A committee member stated that there are a lot of people that want a diving board. The cost of increased pool depth for a diving stand has been included in the design.

The question was asked why at least one of the concepts was not similar to what we already have. They asked what the difference in cost was for having two separate pools. George estimated that the difference in cost is 100k to 200k to have separate pools. Two pools would require a single pump house, but two separate circulating/filtering systems. If we were to rebuild the existing facilities very similar to what we have, it would be in the 8.5 to 8.7 million dollar range. It would include everything that is in the concept, including steps in the shallow part.

A committee member stated that he would like to have all of the mechanical equipment be the best that we can get for longevity, durability and repair-ability and safety. George stated that the level of quality of the equipment scoped out is on the higher side. Whether the pool system would be connected to the splash pad is to be determined. A pool cover was discussed. There are some advantages such as reducing evaporation and chemical use, but the whether the extra cost of the cover offsets the savings has not been studied.

A committee member asked about the water slide dropping into the pool versus being a separate area on it's own. Both have pros and cons, bit it all comes down to the intended use of the pool.
Committee members requested information about the Greenville Aquatic Center that was show as an example, and discussed the features and possibilities of the design.

Isaac informed the committee that based on the demographics; the majority of persons that use the pool are kids. So it would be assumed that there would be a large number of kids playing in the play area. The location of a diving board was discussed again. Some modifications would be required.

A resident asked the committee chair for permission to speak. She said that she had been to all the meetings. She talked about the Z shape design of the current pool and asked why no similar design had been featured in the presentation where there had been at least 4 persons who had stated that they wanted that design in the previous meetings. She wanted to know where the design came from. She also asked why the concepts featured separate pools.

George explained that the reason for separate pools was that in case a kid has an accident in the baby pool, they wouldn't have to shut down the entire facility to wait for all of the water to recirculate. It happened 5 or 6 times last year George also stated that the health code has different recommendations for the different types of pools. The water in toddler pools has to be turned over a lot more often than regular pools.

George stated that a Z shaped pool is still an option, but with considerations. A committee member pointed out that in the proposed pool designs, noting that while there are two pools in each of the three concepts, the second pool is too shallow for actual swimming. If the main lap or deeper pool is closed due to an accident, anyone older than 10 would have nowhere to swim. They highlight that the second pool is more like a play pool or splash pad, which isn't suitable for swimming. The speaker urges everyone to consider this issue when voting on the bond issue, questioning the practicality of having a second pool that isn't truly usable for swimming.

An argument was made that smaller pools, typically used by very young children in diapers, are more likely to be closed due to accidents than larger lap pools where older children learn to swim. They believe the focus should be on deciding whether to approve a bond to build a pool rather than discussing design concepts prematurely. The speaker stated that too much time has been spent on the specifics, like the Z-shaped pool, and emphasizes the need to first decide on the funding.

The failed bond that was voted on in November was brought up. It was argued that people voted against it because there were three high dollar pool concepts to choose from, but that it also included a skate park and other amenities that the residents did not want.

A citizen asked a question to George in regard to the budget cost. George answered that the costs are based on extensive data from existing projects that they have worked on.

A member of the committee stated that she appreciates the work done in providing ideas and cost estimates for maintaining, renovating, or building a new pool, which range from $8.4 to $10 million. She finds this information valuable for the committee's task of presenting funding needs to the City Council. The design concepts offer several options, and the speaker acknowledges that while discussing every detail could take a lot of time, the provided estimates are very helpful. She thanked the team for their efforts and asked about the next steps and future communication, highlighting the committee's role in making bond recommendations to the City Council.

E. Discuss and take appropriate action on potential bond items. ***Robert Basford***

Robert stated that the purpose of the study and presentation was to present concepts and corresponding cost estimates for the pool, which are flexible and can be refined with stakeholder input before construction. They aimed to illustrate renovation possibilities and price out the existing pool, estimating between $8 and $8.7 million. The committee's role is to make bond recommendations to the council. The committee will continue refining concepts to fit the recommended price, based on feedback collected through a website form. The presentation will be posted online for public input, and all questions and answers will be made available. The meeting's goal was to receive the presentation, gather feedback, and decide whether to pursue renovation, repair, or replacement, moving toward a recommendation to the council.

One of the committee members provided cost estimates, using numbers that the City Manager provided, for a proposed pool bond based on exemptions for those over 65 and without exemptions for those under 65. For those over 65 with the exemption, an $8 million bond would cost $45 more per year, while a $10 million bond would cost $56 more per year. For those under 65 without the exemption, an $8 million bond would cost about $74 per year, and a $10 million bond would cost $92 per year. They emphasize the importance of informing citizens about these costs if they are presented with a bond

The speaker also clarified that contrary to what was stated in the mayor's newsletter, the committee has not been working on a bond proposal for a new pool. Instead, they have focused on understanding the issues with the current pool and exploring whether it can be fixed or renovated. They only just received accurate information about the pool's condition tonight. The speaker believes the newsletter was misleading, as it suggested the committee aimed to build a new pool, which was not their primary focus. Their efforts have been misrepresented, and this was not their intention.

Another committee member asked what the next step was and if the committee wanted to propose a bond or not? Committee members decided to take some time to think about the information that had been presented and agreed to reconvene to further the discussion next week.

F. Select next meeting date.

The next meeting was set for Tuesday June 18th at 6:30pm at Civic Center Municipal Center Meeting Room.

G. ADJOURN

There being no further business on the agenda, a motion was made to adjourn the meeting by Beverly Petersen and was second by Edward Lock. The meeting was adjourned at 8:07 p.m.

Maria Thorne, Administrative Assistant

City of Jersey Village
Clark Henry Pool Study
June 12, 2024

Project Overview

Project Overview

The City of Jersey Village, Texas commissioned Counsilman-Hunsaker to conduct a conditions assessment of the existing outdoor swimming pool that consists of a main pool with 6, 25-yard lanes, along with a shallow area and a deep-water area that contains a diving board, climbing wall and drop slide, as well as a 200 square foot children's pool. The outdoor pool opened in 1975 and is currently utilized for a variety of aquatic activities and programs during the summer including, recreation swim, summer swim team, water fitness classes and swimming lessons.

The purpose of the swimming pool assessment is to identify items that are substandard in the pools, identify items not to current industry swimming pool design standards, or equipment not operating as designed, and to assist in defining a course of action regarding the future of both pools. As pools age, they tend to require more regular care to remain open. Due to restricted budgets, pool operators are often required to keep their facility operational with small to medium repairs over the course of several years. For this reason, the City is conducting this assessment to better understand the existing deficiencies with the pools and the necessary repairs and associated costs to keep them operational.

Counsilman-Hunsaker typically estimates the average lifespan of an outdoor aquatic facility to be approximately 30 to 40 depending on a variety of factors including quality of construction, the presence of a preventative maintenance plan, climate, amount of usage, etc. Both pools have reached this lifespan, but the renovation that took place in 2008 to address the pool surfaces and pool mechanical systems has extended the life of the main pool past this range. This assessment report will help the City determine the existing condition and expected lifespan for the swimming pools and the development of cost estimates to extend the life of the pools as a comparison for the cost to build a new outdoor swimming pool for the City.

Review Existing Information	Facility Drawings
	Prior Studies/Reports
	Observations/Goals of City
Conduct On-Site Audit of Facility	Pools and All Equipment
	Support Facilities
	Code Compliance including ADA Review
Review Findings with City	Recommendations for Physical Issue Corrections
	Recommendations for Addressing Functional Issues
	Cost Implications of Identified Action Plan
	Forecasting Remaining Life of Systems
	Identification of "fatal flaws" or Major Concerns

Project Overview

- Counsilman-Hunsaker would put the lifespan of an outdoor aquatic facility in the range of 30 to 40 years, depending on a variety of factors including:
  - Quality of construction
  - Presence of a preventative maintenance plan
  - Climate
  - Amount of usage
- It's common for an aquatic facility to undergo a mechanical renovation and facility upgrades about halfway through this lifespan.
  - The swimming pool had a mechanical renovation in 2008.
- Physical versus Functional Condition is another consideration to take into account when evaluating an aging outdoor pool.
  - Physical: condition of pool, equipment, natatorium, mechanical systems
  - Functional: Do the pools meet the expectation of user groups and the Jersey Village community? Does the pool support the primary aquatic programs and activities?

Applicable Codes

Texas Administrative Code
Title 25: Health Services
Part 1: Department of State Health Services
Chapter 265: General Sanitation
Subchapter 1: Public Swimming Pools and Spa

Applicable Federal Code Section
Virginia Graeme Baker Pool and Spa Safety Act (VGB)
ASME/ANSI A112.19.81
Signed into Law on December 19, 2007
CPSC Staff Interpretation of Section 1404 issued on June 18, 2008
Successor standard ANSI/APSP/ICC-16 2017 currently adopted

Americans with Disabilities Act (ADA)
U.S.C. 12101 et seq.
Signed into Law on July 26, 1990
Revisions published September 15, 2010
https://www.ada.gov/2010ADAstandards_index.htm

Jersey Village Swimming Pool

Conditions Assessment Summary

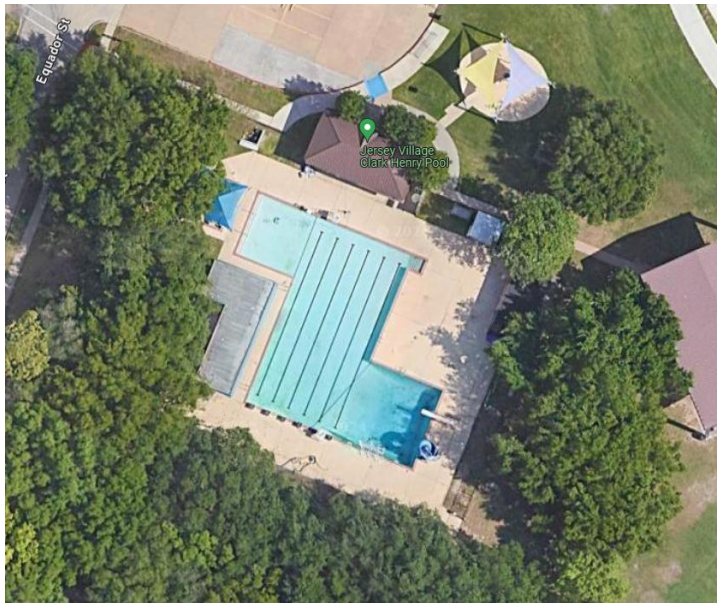
Swimming Pools Overview

- Main Pool
  - Pool size: 5,400 SF
  - Gallons: 240,000
  - Water depth: 2’6” to 12’0”
  - Turnover: 13 hours (300 GPM)

- Children’s Pool
  - Pool size: 200 SF
  - Gallons: 2,250
  - Water depth: 1’6”
  - Turnover: Unknown

Summary

- **Inspection and Findings:**
- Outdoor community pool, built in 1975.
- The swimming pool has exceeded the standard lifespan of an outdoor pool (30-40 years)
- The existing mechanical system is nearing the end of its lifespan (15-20 years) as is the plaster surface (7-10 years).
- The inspection revealed several issues including cracks in the pool structure, deck, and coping stone.
- The plaster surface is beyond its lifespan and needs replacement.
- The pool deck was replaced in 2021 but has already developed cracks throughout.
- The current turnover rate (over 13 hours) is significantly slower than the code requirement (6 hours). Upgrading the pool to meet the code would require replacing the entire piping system due to its insufficient size for a higher flow rate.
- The pool mechanical room has significant corrosion and needs to be replaced.
- The separate children's pool does not meet current ADA compliance standards, and requires an entry ramp which significantly reduces its usable space. The pool also needs safety upgrades including a functional Safety Vacuum Release System (SVRS) and a secondary sanitation system.
- **Renovation vs. Replacement:**
- One option involves lining the pool with stainless steel panels and a PVC liner, essentially creating new pool walls and surface. This would come with a new gutter system, potentially a deck-level one for better water flow during lap swimming.
- Expanding the shallow end into a zero-depth entry by combining it with the children's pool is also a possibility.
- Renovation would save the existing concrete layout but still require a new mechanical system, piping, and pool deck.



Lap Pool

Lap Pool

Pool Structure

- The swimming pool has a concrete structure with a plaster finish. There were areas of etching and delaminating plaster at several areas in the pool. A large crack is visible throughout the surface of the pool spanning from the shallow end by the starting blocks to the deep end. Staff report the crack has been in the pool since at least 2021. The crack is close to an inch wide and has been filled by maintenance staff to prevent water loss. The corners of the pool were in poor condition with missing plaster, cracking, missing tile and exposed concrete. While not uncommon for a pool of this age, it does indicate signs of structural movement and cracking in the pool shell. When structural cracking in a pool occurs, it can be created by many factors. Structural failure will continue until the issue is addressed. Furthermore, structural cracking allows water (pool or hydrostatic ground water) to penetrate the concrete and reach the embedded rebar. The result is corroded and eventual failed rebar which can further weaken the pool structure.

- Staff report that the pool was losing upwards of 3 inches per day of water which could have been a combination of leaks in the recirculation system and leaks within the pool structure. Repairs have been performed, though the pool still loses up to 1 inch per day.

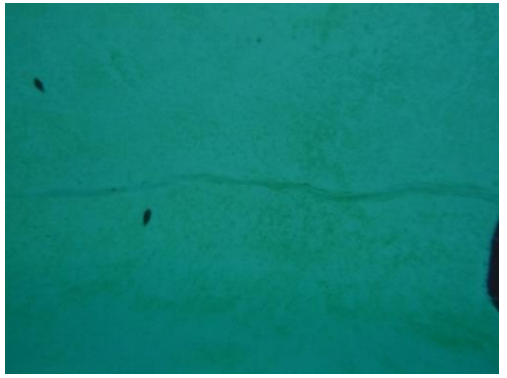


Figure 1.1, Crack in pool structure

Figure 1.2, Area of large crack

Figure 1.3, Crack in pool structure

Figure 1.4, Plaster surface etching/delamination

Figure 1.5, Underwater light not in place

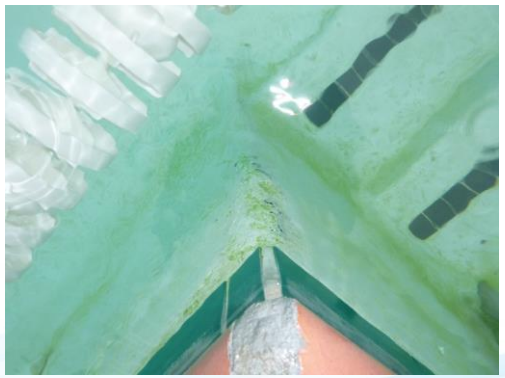


Figure 1.6, Cracking, delamination on corner

Lap Pool

Coping Stone

- Cracking was also observed in the pool's perimeter precast coping stone and gaps exist between the perimeter pool tile and coping stone. Staff have repaired and patched these areas with concrete though some of the patches need repairing. In two separate areas the coping stone was able to be pulled up as it was not attached to the top of the concrete wall. Areas specific to the corners of the pool also had issues with the condition of the coping stone and large gaps and cracking. When gaps exist in the pool's coping stone it allows water to penetrate behind and in between the stone. When water gets behind the coping stone it can create movement in the stone. These areas should be secured, patched and filled before the start of the 2024 pool season.

Figure 1.7, Coping stone loose and cracking

Figure 1.8, Area of corner wall repair

Figure 1.9, Area of corner wall repair

Figure 1.10, Cracked, shifting skimmer basket

Figure 1.11, Loose/unsecured coping stone

Figure 1.12, Uneven/shifting concrete deck and pool

Lap Pool

Pool Deck

- The concrete pool deck shows signs of cracking around the perimeter of the pool and has areas that are uneven or where concrete is missing in several locations. The top coating is also delaminating in numerous locations. The main issues with the pool deck are the areas of missing concrete that can cause safety hazards for guests walking around without their shoes. Staff have patched areas that have cracked and delaminated to ensure the safety of pool users, but a few areas still need to be addressed. There is also significant shifting the pool deck as evidenced by the fact that the pool deck was replaced 3 years ago and there is already cracking, heaving and swelling of the deck. A key location this has occurred is on the north side of the deep end where the deck and coping stone are wavy.
- One of two approaches can be taken regarding the deck slabs, depending on the level of renovation undertaken.
  - The current maintenance approach can be continued. If this approach is continued, this will certainly be an ongoing maintenance issue for the life of the facility.
  - An alternative approach would be to replace all of the pool deck, or major sections of the deck in their entirety, enabling proper placement and compaction of fill materials and a robustly designed deck slab to eliminate issues for the replaced areas – rather than continuing to replace or repair the deck in small sections.

  Staff should continue to monitor the condition of the pool deck and repair areas as needed. A complete replacement of the pool deck is not recommended at this time though repairs should be made to areas of concern.

Figure 1.13, Coping stone cracking

Figure 1.14, Pool deck delamination

Figure 1.15, Sunken skimmer basket cover

Figure 1.16, Pool deck delamination

Figure 1.17, Pool deck cracking

Figure 1.18, Pool deck corrosion

Lap Pool

Americans with Disabilities Act (ADA)

- In 2010, the Department of Justice implemented the Americans with Disabilities Act (ADA) requiring compliant accessibility to all pools, including those in operation at the time the law was enacted. The ADA requires that a swimming pool with a perimeter that is more than 300' to have at least two accessible means of entry, provided that the primary accessible means of entry is an ADA compliant swimming pool lift or ADA compliant swimming pool ramp with handrails, while the secondary means of access can be either a ramp, lift or compliant stair entry.
    - The pool contains a lift but it was not functional during the site visit. The ladders and stair entry do not qualify for a compliant entry. To meet the ADA standards the pool should have two compliant lifts installed, or a single lift and convert the smaller stair entry on the east side of the pool to a compliant stair entry with handrails.
    - Another option would be to install a new ADA lift along with an ADA compliant portable stair entry system similar to https://www.recreonics.com/product/aqua-step-4-step/.
    - The children's pool's size necessitates one means of entry which would require the construction of a new entry ramp as the pool is too shallow for a pool lift.

Figure 1.19, Pool deck cracking

Figure 1.20, ADA pool lift

Figure 1.21, Deep water area

Figure 1.22, Pool bathhouse

Figure 1.23, Pool mechanical building

Figure 1.24, Chemical storage room

Lap Pool

Starting blocks

- The pool consists of 6 starting blocks that meets the current standard for 28”x32” with the inclusion of an angular wedge. The wedge is contained within acetal tracks mounted on both sides of the platform, which allow it to slide to the desired distance or to be stowed underneath the platform. Safety covers should be placed on the existing starting blocks when not in use for competitive swimming per the Texas Administrative Code.

Main drains

- The pool contains 2 suction outlets in pool’s deep end that are each 24”x24” with stainless-steel VBGA covers and located in the deepest portion of the swimming pool. All main drains / suction outlets with dimensions 18” x 23” or smaller are classified as “blockable” and must have a Virginia Graeme Baker Pool and Spa Safety Act (VGB), ASME/ANSI A112.19.81 stamped and certified “unblockable” grate cover with tamper proof screws.
- The federal regulations of VGB were passed by Congress in 2008 (after the construction of the swimming pool) and are designed to reduce the potential for suction and hair entrapment in commercial swimming pools at all suction outlets (e.g. main drains, skimmer equalizer lines, etc.). The Consumer Product Safety Commission (CPSC) is tasked with federally enforcing all VGB regulations, but due to the vast number of commercial swimming pools in the United States, enforcement most commonly is the responsibility of the local governing agencies (e.g. public health departments, building departments, etc.). VGBA covers have expiration dates on them based on their expected lifespan.
- The pool contains VGBA raised grates but the expiration dates on them are unknown. Staff should confirm the expiration date and replace as needed.

Figure 1.25, Pool mechanical system

Figure 1.26, Mechanical room wall deterioration


Figure 1.27, Piping bolt corrosion


Figure 1.28, Piping support corrosion | area of filter leak


Figure 1.29, Wall/door deterioration


Figure 1.30, Mechanical room ceiling damage

Lap Pool

Pool filtration

- The pool contains a two Waterco 55” high-rate sand fiberglass filters that were installed in 2008. Staff report that new sand and laterals were recently installed. Staff also report that the pool water gets hazy during the afternoons in the summer time when bather loads are high which can usually be attributed to poor filtration or poor turnover rates. Based on the existing flow rate of 300 GPM, the filters are rated to accommodate the flow rate, though the flow rate needs to be 700 GPM to achieve the minimum turnover rate to meet the existing Texas Administrative Code requirement.

Pool piping

- The visible, above ground recirculation piping for the pool’s gutter system and main drain in the pool mechanical room are Schedule 80 PVC that was installed during the 2008 renovation. Several of the pipe supports show signs of corrosion. Overall, the piping for the pool is in good condition. The 6” recirculation piping is adequate for the 300 GPM flow rate, but it is not rated for a 700 GPM flow rate which is necessary to meet the code requirement of a 6-hour turnover. In order to achieve the required turnover rate a complete renovation of the recirculation system is required including all new piping in the mechanical room and to the swimming pool. This would require a complete demolition and reinstallation of the existing pool deck to reach all of the subgrade piping.

Pool Sanitation

- The pool has an Accutab chlorinator that utilizes calcium hypochlorite (tablet chlorine) for the pool’s sanitizer. Muriatic acid is used for the pH buffer and is stored in an adjacent room. The feed line for the acid comes through the wall into the main mechanical room which allow fumes to get into this space which has caused some level of corrosion on most of the equipment. There is minimal ventilation in this area and corrosion was observed on pipe supports, piping bolt connections, and electrical components. A separate dedicated and ventilated chemical storage room for both the sanitizer and pH buffer is recommended and is the current industry standard. These spaces are strongly recommended to be exhausted independently to the exterior, typically at rates around 15-20 air changes per hour, depending on specific code requirements. A plan for dedicated spaces for chemical storage in a future renovation should be developed.

Figure 1.31, Pool mechanical system

Figure 1.32, Mechanical room wall deterioration

Figure 1.33, Piping bolt corrosion

Figure 1.34, Piping support corrosion | area of filter leak

Figure 1.35, Wall/door deterioration

Figure 1.36, Mechanical room ceiling damage

Main Pool

- A Chemtrol chemical controller is installed on the system. The chemical controller automatically calls for feed of the sanitizer and the pH buffer as necessary minimizing the peaks and valleys common when the chemical feed is controlled manually. A chemical controller is current industry standard and is within current industry standards for this type of swimming pool.
- The recirculation system does not contain a flow meter as required by code.
- Counsilman-Hunsaker typically assigns a lifespan of 15-20 years for a pool's mechanical system. The outdoor pool mechanical system falls within that window and the City will need to plan for a mechanical renovation if the pool continues in operation for the foreseeable future.

Figure 1.37, Pool mechanical system

Figure 1.38, Mechanical room wall deterioration

Figure 1.39, Piping bolt corrosion

Figure 1.40, Piping support corrosion | area of filter leak

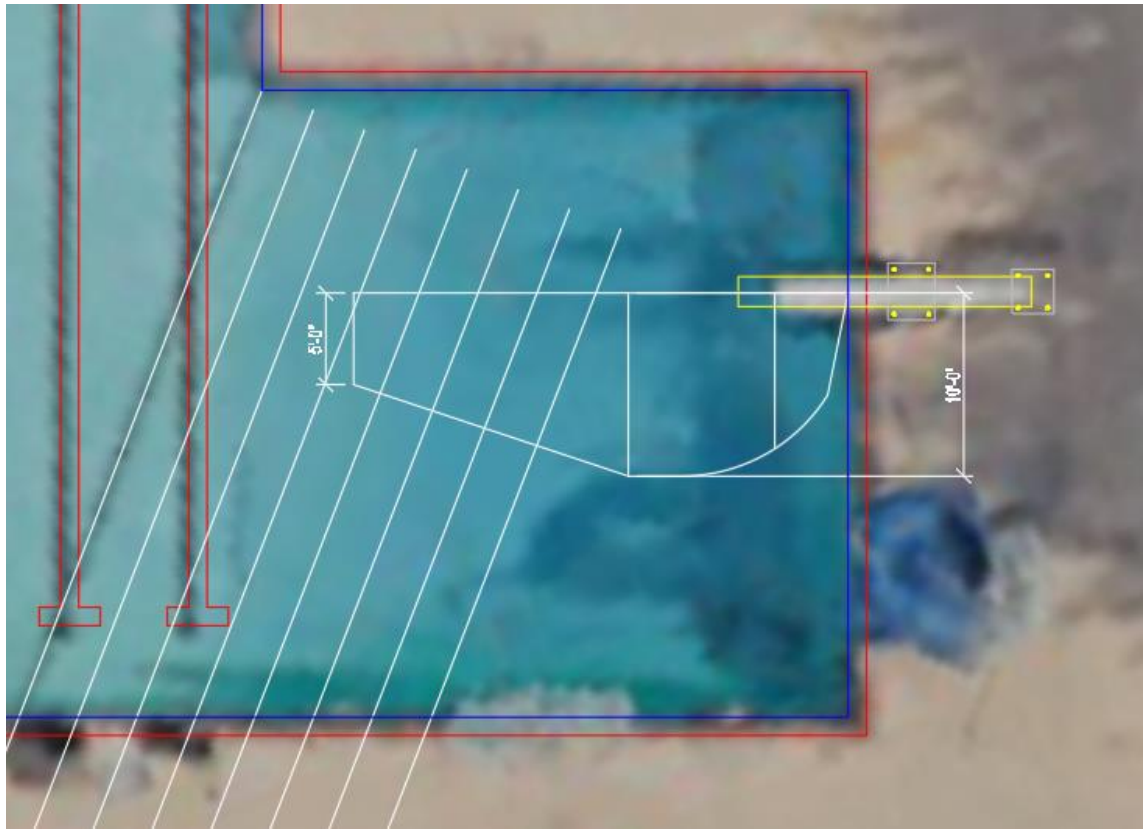
Figure 1.41, Wall/door deterioration

Figure 1.42 Mechanical room ceiling damage

Lap Pool

Diving Board

- The State of Texas has recently adopted the International Swimming Pool and Spa Code (ISPSC) which allows for Class B and C pools (non-competitive pools) different “types” of diving boards that have different water depth requirements. Since the diving board at the swimming pool is not a competitive diving springboard (it is more rigid), then the standard for the slope and depth is not as stringent. The graphic to the right shows the existing swimming pool shell for an S.R. Smith diving board. Based on the assumptions made on the slope and depth of the diving area, the board meets the current standard. Staff should confirm the type of diving board to ensure compliance with the ISPSC and the manufacturer’s recommendations.



Summary - Lap Pool

- Structural cracking in the pool is a major concern for the integrity of the pool structure
- Plaster surface has exceeded normal lifespan by 6 years and has signs of staining, etching and delamination
- Coping stone is cracking and loose in several areas around the pool's perimeter
- Pool deck has significant cracking around the entire pool perimeter
    - Previous repairs in 2015 and new pool deck in 2021
- Pool necessitates two compliant means of accessible entry to be ADA compliant
- Corners of pool walls have required significant repairs and are in poor condition with cracking, etching and exposed concrete
- Pool's recirculation rate is 2x longer than the current State of Texas Administrative Code (TAC) requirement
    - Recirculation rate is 5 hours longer than the pre-1999 pool requirement
    - Primary cause of hazy/cloudy water during summer swim season
    - Pool recirculation rate needs to increase 230% to meet the current TAC requirement
    - Requires increased and new pump size, piping, recirculation, suction outlets, return inlets
    - Lack of functioning flow meter makes it difficult to pinpoint exact flow rate
- Rust and corrosion of pool mechanical system elements is prevalent due to chemical storage
- Pool mechanical building is in poor condition with lack of ventilation and isolation for pool chemicals
- Pool filtration is nearing the end of its expected lifespan and has had leaks in recent years

Children’s Pool

Children’s Pool

In the State of Texas, the children’s pool is considered a Public Interactive Water Feature (PIWF). The following applies to PIWFs:
Signs for PIWFs. Warning and notification signs shall be posted at the entrance of all PIWFs, or where the signs are clearly visible to users entering the PIWF area before contact with PIWF water occurs, when the PIWF is open or in use.
Signs shall be securely mounted, clearly visible, and easily read with letters in a contrasting color to the background.

The required signage can be combined into a single sign. The signage shall provide the following notifications and warnings in letters at least 2 inches in height:

(1) "Non-Service Animals Prohibited;“
(2) "Changing Diapers Within 6 Feet Of The Water Feature is Prohibited;“
(3) "Use Of The Water Feature If Ill With A Contagious Disease is Prohibited;“
(4) "Do Not Drink Water From The Water Feature;" and
(5) "Use Of The Water Feature When Ill With Diarrhea is Prohibited.

In addition to maintaining sanitizer, cyanuric acid, and pH levels as required, PIWFs shall be equipped with a supplemental water treatment system that will protect the public against infection by the parasite, Cryptosporidium. (A) UV light disinfection installed after filtration; (B) ozone; (C) a NSF/ANSI-50 product, combination of products, or process to control Cryptosporidium; (D) weekly hyperchlorination following the Center for Disease Control's Recommendations for Aquatics Operators of Treated Venues "Hyperchlorination to Kill Cryptosporidium" available on the CDC's website: www.cdc.gov/healthyswimming/; or (E) an equivalent product, process, or system approved by the department.

Children’s pool

Children’s pool SVRS

Children’s pool mechanical system

Main drain

Deck/skimmer cracking

Children’s pool

Summary - Children's Pool

- Non-ADA compliant entry
  - Necessitates the construction of a ramp entry (1:12 slope) with ADA compliant handrails down to the depth of 1'6"
- Single main drain requires Safety Vacuum Release System (SVRS)
  - SVRS installed on the mechanical system but is not currently operating
- Children's pools are considered a Public Interactive Water Feature (PIWF) in the State of Texas
  - Necessitates secondary sanitation system (Ultraviolet Treatment System) to kill harmful bacteria associated with Recreational Water Illnesses
- Lack of chemical automation installed on the mechanical system to control chlorine and muriatic acid feeding.
- Cracking in the perimeter deck and coping stone was observed
- Lack of modern-day interactive aquatic amenities for children

Cost Estimates

Repair Option

- New plaster surface
- Concrete deck repairs
- Decommissioning of children's pool
- Addition of 2 ADA lifts
- Pool structure repairs
- No repairs or renovations to mechanical system

- Approximate lifespan: 5 to 7 years barring any unforeseen critical failure of mechanical equipment or significant water loss

Counsilman · Hunsaker
AQUATICS FOR LIFE

Jersey Village
***PRELIMINARY Opinion of Probable Construction Cost** — **6/12/2024**

ITEM		COST	
Lap Pool		$507,482.32	
Deck Equipment		$32,111.11	
Pool deck		$37,500.00	
Pool structure repairs		$100,000.00	
	Pool Subtotal		$677,093.43
Children's pool		$0.00	
	Pool Subtotal		$0.00
Mechanical Enclosure		$0.00	
	Pool Subtotal		$0.00
TOTAL AQUATICS COST ESTIMATE			**$677,093.43**
Contingency	20%		$812,512.12
TOTAL AQUATICS COST ESTIMATE			**$813,000.00**

The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable cost are representative only of the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinion of probable costs.

Renovation Option

- 5,400 sf renovation
  - New gutter system
  - New recirculation piping
  - Mechanical system renovation
  - Addition of 2 ADA lifts
- Pool deck demolition and replacement
- Removal of existing children's pool
- Addition of new children's pool – 665 sf
- Retain same functionality and layout as current pool
- Approximate lifespan: Additional 10-15 years barring any unforeseen critical failure of pool structure that leads to significant water loss

Renovation Option

Counsilman · Hunsaker
AQUATICS FOR LIFE

Jersey Village
***PRELIMINARY Opinion of Probable Construction Cost** **6/12/2024**

ITEM		COST	
Lap Pool		$1,220,736.70	
Deck Equipment		$32,111.11	
Pool deck		$135,000.00	
Pool structure repairs		$250,000.00	
	Pool Subtotal		$1,637,847.81
Children's pool		$401,705.66	
	Pool Subtotal		$401,705.66
Mechanical Enclosure		$450,000.00	
	Pool Subtotal		$450,000.00
TOTAL AQUATICS COST ESTIMATE			$2,489,553.47
Contingency	15%		$2,862,986.49
TOTAL AQUATICS COST ESTIMATE			$2,863,000.00

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Project Feedback

Community Meeting

- Steps in shallow end are nice feature for teaching swimming lessons
- Pool design should have good sight lines for parents with multiple children at the pool
- Park setting is important to users
- Incorporate the personality of Jersey Village into the pool design (community-feel)
- Preference for a single body of water
- Include waterslides for multiple age groups and a specific area for young children
- Explore the possibility of an 8-lane lap pool
- Deep water and diving board are popular amenities at the current pool
- Ensure plenty of shade areas exist for pool users when not in the water
- Zero-depth entry with shallow water can easily accommodate young children

Swimming Pool Concepts

Concept 1

- 4,572 sf lap | recreation pool
  - 6, 25-yard lanes
  - Zero-depth entry with children's play feature
  - Water depths: 0'0" to 6'0"
  - Open water recreation | program area
  - Available area to have 8 lanes instead of 6 lanes

- 597 sf deep pool
  - Shallow sun ledge
  - Climbing wall
  - Drop slide
  - Water depth: 9'0"

Concept 1

Concept 1

CHART AQUATIC RESEARCH TOOL	OPINION OF PROJECT COST: Option 1		
Description	Unit	Amount	Opinion of Cost
Support Spaces		4,073	$2,011,874
Front Desk	Sq. Ft.	400	
Offices (Lifeguard + Admin)	Sq. Ft.	400	
Locker Rooms	Sq. Ft.	1,000	
Family Changing Rooms	Sq. Ft.	320	
Outdoor Pool Mechanical Room	Sq. Ft.	1,038	
Building Mechanical / Electrical / Janitor	Sq. Ft.	100	
Circulation and Walls (25%)	Sq. Ft.	815	
Outdoor Aquatic Center		15,515	$3,393,320
Outdoor Dive Pool	Sq. Ft.	597	
Outdoor Leisure Pool	Sq. Ft.	4,572	
Children's Play Structure	Allowance	1	
Play Structure Mechanical	Allowance	1	
Drop Slide	Allowance	1	
Climbing Wall	Allowance	1	
Shade Structures	Qty.	3	
Shade Pavillion	Qty.	1	
Outdoor Deck	Sq. Ft.	10,338	
Overhead Lighting	Sq. Ft.	15,515	
Fencing	Linear Ft.	500	
Unit		Sq. Ft.	Opinion of Cost
Total Building Construction Costs			**5,405,194**
Site Construction Allowance (parking, landscaping, utilities, walks - assuming normal si			$979,402
Furniture, Fixtures, Equipment			$118,000
Subtotal		19,588	$6,502,596
Escalation Allowance (1 year)	5.0%		$325,130
Contingency (Design / Construction)	10.0%		$682,773
Design Fees, Surveys, Permitting	12.0%		$901,260
Opinion of Probable Cost			**$8,411,758**
Total Estimated Project Costs:			**$8,500,000**
Estimate Current as of:		**6/13/2024**	
Source: Counsilman-Hunsaker			

Concept 2

- 3,229 sf lap pool
  - 6, 25-yard lap lanes
  - Waterslide tower
  - Water depths: 3’6” to 6’0”
  - Open water recreation | program area

- 1,369 sf shallow water recreation pool
  - Step down entry
  - Spray features
  - Bench seating
  - Water depths: 1’0” to 3’6”

Concept 2

Concept 2

CHART AQUATIC RESEARCH TOOL	OPINION OF PROJECT COST: Option 2		
Description	Unit	Amount	Opinion of Cost
Support Spaces		4,471	$2,153,250
Front Desk	Sq. Ft.	400	
Offices (Lifeguard + Admin)	Sq. Ft.	400	
Locker Rooms	Sq. Ft.	1,000	
Family Changing Rooms	Sq. Ft.	320	
Outdoor Pool Mechanical Room	Sq. Ft.	957	
Building Mechanical / Electrical / Janitor	Sq. Ft.	100	
Storage (Building / Pool)	Sq. Ft.	400	
Circulation and Walls (25%)	Sq. Ft.	894	
Outdoor Aquatic Center		13,805	$3,049,888
Outdoor Lap Pool	Sq. Ft.	3,229	
Outdoor Leisure Pool	Sq. Ft.	1,369	
Spray Features	Allowance	2	
Waterslide Tower	Allowance	1	
Waterslide Mechanical	Allowance	1	
Shade Structures	Qty.	4	
Shade Pavillion	Qty.	1	
Outdoor Deck	Sq. Ft.	9,198	
Overhead Lighting	Sq. Ft.	13,805	
Fencing	Linear Ft.	500	
Unit		Sq. Ft.	Opinion of Cost
Total Building Construction Costs			**5,203,138**
Site Construction Allowance (parking, landscaping, utilities, walks - assuming normal s			$913,804
Furniture, Fixtures, Equipment			$110,000
Subtotal		18,276	$6,226,941
Escalation Allowance (1 year)	5.0%		$311,347
Contingency (Design / Construction)	10.0%		$653,829
Design Fees, Surveys, Permitting	12.0%		$863,054
Opinion of Probable Cost			**$8,055,171**
Total Estimated Project Costs:			**$8,100,000**
Estimate Current as of:		**6/13/2024**	
Source: Counsilman-Hunsaker			

Concept 3

- 3,229 sf lap pool
  - 6, 25-yard lap lanes
  - Water depths: 3’6” to 6’0”
  - Open water recreation | program area
  - Possible to expand to 8 lanes instead of 6 lanes

- 3,078 sf recreation pool
  - Shallow zero-depth area
  - Play/spray features
  - Open water recreation | program area
  - Waterslide tower

Concept 3

Concept 3

6/13/2024

CHART AQUATIC RESEARCH TOOL	OPINION OF PROJECT COST: Option 3		
Description	Unit	Amount	Opinion of Cost
Support Spaces		4,776	$2,261,644
Front Desk	Sq. Ft.	400	
Offices (Lifeguard + Admin)	Sq. Ft.	400	
Locker Rooms	Sq. Ft.	1,000	
Family Changing Rooms	Sq. Ft.	320	
Outdoor Pool Mechanical Room	Sq. Ft.	1,201	
Building Mechanical / Electrical / Janitor	Sq. Ft.	100	
Storage (Building / Pool)	Sq. Ft.	400	
Circulation and Walls (25%)	Sq. Ft.	955	
Outdoor Aquatic Center		18,932	$4,164,674
Outdoor Lap Pool	Sq. Ft.	3,229	
Outdoor Leisure Pool	Sq. Ft.	3,078	
Spray Features	Allowance	2	
Waterslide Tower	Allowance	1	
Waterslide Mechanical	Allowance	1	
Shade Structures	Qty.	4	
Shade Pavillion	Qty.	1	
Outdoor Deck	Sq. Ft.	12,616	
Overhead Lighting	Sq. Ft.	18,932	
Fencing	Linear Ft.	600	
Unit		Sq. Ft.	Opinion of Cost
Total Building Construction Costs			**6,426,318**
Site Construction Allowance (parking, landscaping, utilities, walks - assuming normal sit			$1,185,413
Furniture, Fixtures, Equipment			$143,000
Subtotal		23,708	$7,754,730
Escalation Allowance (1 year)	5.0%		$387,737
Contingency (Design / Construction)	10.0%		$814,247
Design Fees, Surveys, Permitting	12.0%		$1,074,806
Opinion of Probable Cost			**$10,031,519**
Total Estimated Project Costs:			**$10,100,000**
Estimate Current as of:		**6/13/2024**	
Source: Counsilman-Hunsaker			

Concept Summary

- Recreation | lap pool (6 lanes)
- Dive pool
- Possible expansion to 8 lanes
- Total water surface: 5,000 SF
- Construction cost: $6.5M
- Project cost: $8.4M

- Lap pool (6 lanes)
- Recreation pool
- Total water surface: 4,600 SF
- Construction cost: $6.2M
- Project cost: $8.0M

- Lap pool (6 lanes)
- Recreation pool
- Total water surface: 6,200 SF
- Construction cost: $7.7M
- Project cost: $10.0M

General Limiting Conditions

This report is based on information that was current as of May 2024. The opinion of probable costs estimates are based upon a protocol in which a general contractor or swimming pool contractor executes all of the tasks with its own labor and that of qualified subcontractors. It is recognized that the Consultant or Owner have no control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Consultant cannot, and does not, warrant or represent that bids or negotiated prices will not vary from the Owner's project budget.

City of Jersey Village
Clark Henry Pool Study
Bond Committee Meeting
June 12, 2024

Greenville Aquatic Center
Greenville, NC

The citizens of Greenville celebrated the grand opening of their newest aquatics facility and the renovation of the Eppes Recreation Center in June 2022. The pool is located adjacent to Eppes Recreation Center in Thomas Foreman Park.

Replacing the city's 49-year-old community pool, the new 165,000-gallon pool has six competition-style lap lanes, a shallow area suitable for children, and a 16-foot slide. Additionally, there is a new 4,000 sq. ft. bath house, restrooms for public use, a storage facility for staff, and an office check in area at the $4 million facility.

Playing a vital role in the community, the aquatic amenities of the new pool include:

6,425 sq. ft. Recreation Pool

- Six 25-yard lap lanes
- Zero entry
- Two stair entries
- Waterslide
- Play structure
- Bubblers
- Water basketball
- Depths ranging from 0 ft. to 7 ft.

Two million dollars in improvements were made to the recreation center, including a 1,750-square-foot addition, enhanced visibility and access at the front entrance, updates to the Police Athletic League after-school rooms, the addition of a teen lounge, and upgrades to the C.M. Eppes Cultural and Heritage Center.

Project Cost: $6,000,000
Aquatics Cost: $1,300,000

Date Started: November 2020
Date Completed: June 2022

General Contractor: Harrod and Associates
Pool Contractor: Augusta Aquatics

Services Provided:
Aquatic Design & Engineering

Reference:
Mark Nottingham, Parks Planner
City of Greenville
Greenville Recreation and Parks Department
Parks Division
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Greenville, NC 27858
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