City of Beaumont, California

Beaumont Plunge Pool Study

January 2021





AUDIT











Process Overview

The City of Beaumont, California commissioned Counsilman-Hunsaker (CH) to provide a swimming pool assessment and feasibility study for the Beaumont Plunge Swimming Pool. 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 the aquatic facility.

The Pool was opened in 1963 making it 57 years old and it contains a 3,981 square foot main pool and 500 square foot children's pool. Counsilman-Hunsaker typically assigns a 30-to-40-year lifespan for an outdoor aquatic facility. The Beaumont Plunge Swimming Pool has exceeded that lifespan by 17 years. 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 pools operational with small to medium repairs over the course of several years. For this reason, the City is looking at long-term goals that need to be considered to maintain an excellent aquatic experience for its residents.

As with other pools built at this same time, they are facing both physical and functional obsolescence. Physical obsolescence refers to physical issues such as equipment that needs to be replaced or is not operating as designed. Functional obsolescence describes the pools meeting the wants and needs of the community and the various aquatic user groups. Physical obsolescence requires increasing capital budgets on an annual basis due to repairs the facility needs to keep it operational. Functional obsolescence typically requires increased annual subsidies from the City's general fund due to declining attendance and the inability to charge a sustainable admission fee since the facility does not have modern aquatic amenities that drive admission prices and guest length of stay.

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





Applicable Codes

The state administrative swimming pool code referenced as "California Building Code" in the report is as follows.

California Building Code Chapter 31B – Public Pools

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

Americans with Disabilities Act (ADA) U.S.C. 12101 et seq. Signed into Law on July 26, 1990 (2010 Update)

The administrative code requirements must be satisfied if a major modification of the pool is undertaken or if a particular item or piece of equipment is in need of repair. The recommended repairs address all administrative code items identified in this report.



Existing Conditions Assessment



Beaumont Plunge Swimming Pool

General Pool Information

Main Pool

Date Opened: 1963

Size: 3,981 square feet

Number of Gallons: 160,000

Depth Range: 3 feet to 10 feet

350 GPM (7.9 hours) Turnover Rate:

Children's Pool

AUDIT

Size: 500 square feet

Number of Gallons: 5,000

Depth Range: 1 ½ feet (constant depth)

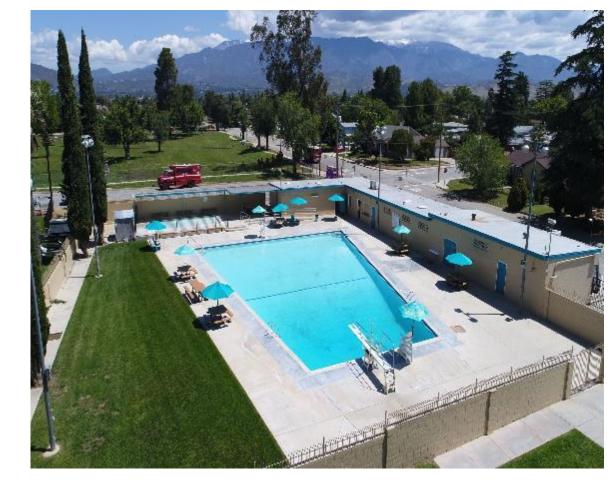
Turnover Rate: 30 GPM (2.77 hours)

STUDY

DESIGN

OPERATE

WEB-APPS





Pool Surface

The swimming pool is a concrete structure with a pebble-tec/sheen finish that was installed in 2014 and a tile perimeter band. Cracking was prevalent in the pool's surface near the main drain covers, and in both the shallow and deep ends on the slope where the pool wall and floor meet.

When structural cracking in a pool occurs, it can be created by many factors including shifting soils around the perimeter of the pool. 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, further weakening the pool structure.

Industry experience has shown that Pebbletec pools, if maintained in a wet or moist condition, will typically have a lifespan of 7 to 10 years. In most cases achieving a 10-year life on a Pebbletec surface is expected.

Staff report they started finding black mold on the pool's surface and have received a quote from a contractor to acid wash the affected areas.

















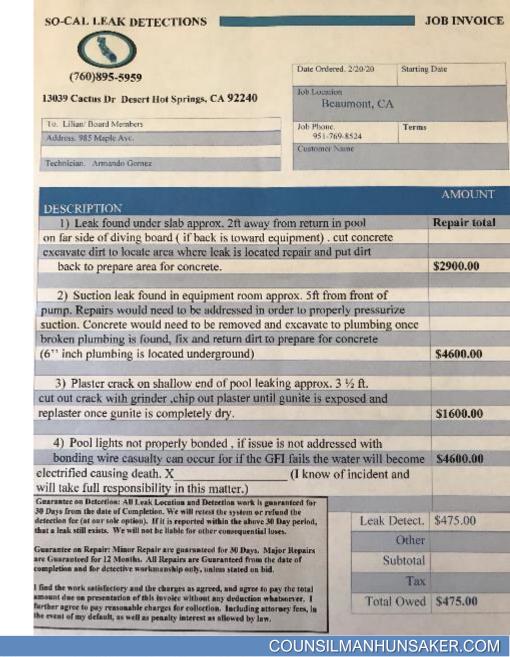




Pool Surface

The City commissioned So-Cal Leak Detections to perform a leak detection test in April 2020. Three leaks were confirmed during their analysis.

- Leak found under slab approximately 2 feet away from return in pool on far side of diving board
- Suction leak found in equipment room approximately 5 feet in front of pump.
- Plaster crack on shallow end of pool in 3 ½ foot area.







STUDY













Pool Surface

Staff report the 48-hour water loss with the pumps running goes from the middle of the blue tile to below the first step on stair entry. Since the pool did not lose as much water without the pumps running, there is a leak within the pool's recirculation system.

Staff have not observed the pool water leaking into the adjacent park, which likely means the leaking pool water is draining below the pool, which could be destabilizing the soil surrounding the pool structure. There are limited solutions to soil stabilization after the pool structures are in place.

Because of these cracks, coupled with the water loss and shifting deck, it is recommended that the pool shell not be reused if the facility undergoes a substantial renovation. It is possible to add a vinyl or fiberglass pool liner to the facility, purely as a band-aid approach, in order to get the facility 5 more years of operation.

And, while it is impossible to repair significant cracking in the pool and pool deck, they can be filled with an epoxy injection. However, with this type of movement, the cracking will reoccur.



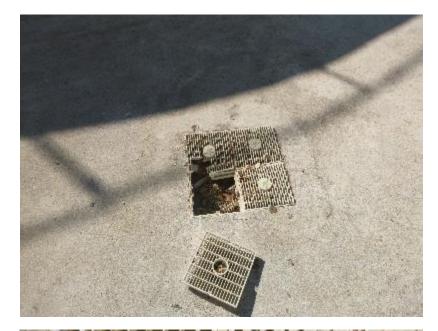


Main Drains

There are two (2) 24" x 24" square, fiberglass main drain covers located in the deep end of the main pool. The main drain grates were broken and unsecured at the time of the site visit. The grates are suction and hair entrapment certified as required by the Virginia Graeme Baker Pool and Spa Safety Act (VGB), ASME/ANSI A112.19.81. All main drains with dimensions 18" x 23" or smaller are classified as "blockable" and must have a VGB stamped and certified "unblockable" grate cover with tamper proof screws.

The federal regulations of VGB were passed by Congress in 2008 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.).

Staff should confirm when the grates were last replaced to ensure it is still within the stipulated time frame. New grates will be necessary if the pool is brought back into operation.















Competition Pool ADA Accessibility

The ADA Act requires that a swimming pool with a perimeter that is less than 300' to have at least one 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. The secondary means of access can be either a ramp, lift or compliant stair entry. The main pool's size necessitates one means of entry which is met with the ADA lift that is on-site. The lift will need to be installed adjacent to the pool if the pool is brought back into operation.





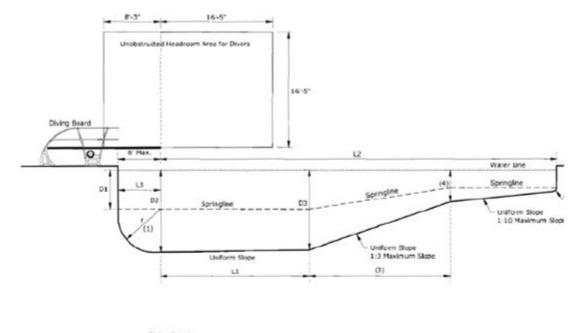




Diving

According to Section 3313B: Diving Boards and Platforms, the following are required for diving boards.

- Diving boards shall be anchored to the pool deck, constructed of corrosion resistant material, designed and constructed to be easily cleanable and finished with a durable slip resistant material.
- Diving boards greater than 18 inches in height above the deck shall be provided with a ladder or stairs for access. Handrails shall be provided at all ladders and stairs leading to diving boards more than 1 meter above the water. Diving boards over 1 meter above the water shall have guard rails on both sides of the diving board that extend to a point director above the water's edge.
- Dimensions and clearances for the use of diving boards shall conform to those shown in Figures 31B-1 and 31B-2. Diving boards shall conform to the USA Diving Rules and Codes, Part 1, Subpart A and Appendix B.



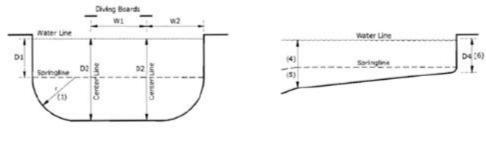


FIGURE 31B-1 DEPTHS AND CLEARANCES FOR POOLS WITH DIVING BOARDS GREATER THAN 30 INCHES (762 mm) ABOVE THE WATER LINE

Transverse Section Deep End

TABLE 31B-1

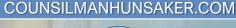
BOARDS AND PLATFORMS	DEPTH OF WATER					LENGTH OF SECTION				
	DIM	D1	D2	D3	D4	L1	L2	L3	W1	W2
1-meter board	Min.	5'-6"	11'-6"	11'-2"	0'-0"	16'-5"	29'-7"	5'-11"	7'-11"	8'-3"
3-meter board	Min.	6'-6"	12'-6"	12'-2"	0'-0"	19'-9"	33'-8"	5'-11"	8'-7"	11'-6"

AUDIT STUDY









Transverse Section Shallow End

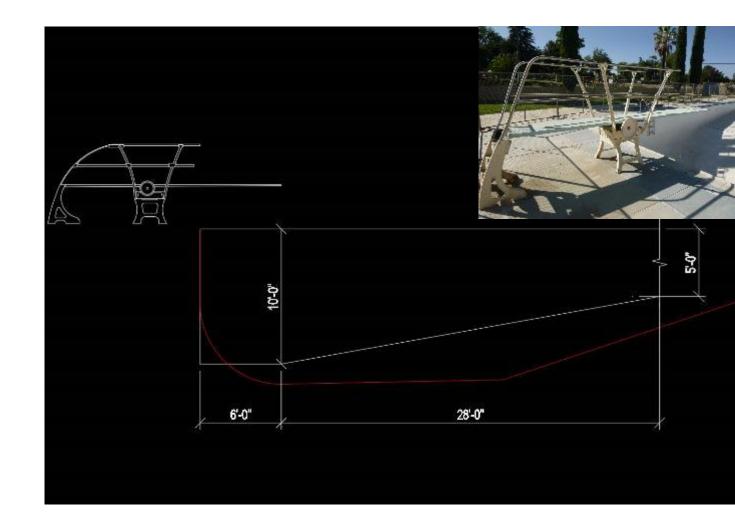




Diving

Through Counsilman-Hunsaker's analysis of the existing deep end of the Beaumont Plunge Swimming Pool, the following has been determined:

- The depth of the diving well does not meet the minimum standards stipulated by the State Code. With a depth of 10 feet, the depth fails the standards by 18 inches.
- The existing slope of the pool floor does not meet the standards stipulated by the State Code. As shown in the picture to the right, the white line denotes the existing pool floor and slope while the red line represents the depth and slope required by the State Code. The pool does not meet the slope or the depth requirement.





Perimeter Overflow

The pool has a tiled, concrete gutter overflow system that allows for continuous surface skimming around the perimeter of the pool. The gutter system is in poor condition with noticeable cracks in the concrete and in the connecting coping stone.

The State Code and current industry standards stipulate that overflow gutters shall be capable of continuously removing no less than 100% of the recirculated water, which is not met with the current flow rate and gutter capacity.

A new perimeter overflow system would require a surge tank to be constructed equal to at least 1 gallon per square foot of pool surface area. Solutions exist to install a stainless-steel gutter system on this type of pool by cutting the top off the pool's perimeter and installing the gutter system. The installation of this gutter system would bring the pool's perimeter overflow system up to code.

Staff reported the perimeter return piping was replaced within the past 10 years by the City's grounds maintenance staff.

Based on the location of the scum line in the pictures to the right, it appears the gutters might not have been properly draining when the pool was last in operation. If the water level in the gutters is above the tile lip, then the gutters are not functioning properly.



























Pool Deck

Cracking is evident in the pool deck around the entire perimeter of the pool. Some of the cracks span 10 feet or longer. Staff reported that they have observed water bubbling under the cracks in the deck and when the pool is filled, there is often standing water behind the diving board.

While the facility does meet the California Building Code requirement of maintaining a minimum deck width of four (4) feet around the pool perimeter, due to the condition of the deck, a full replacement is recommended during a future renovation.

























Mechanical System



A single 10-horsepower Marathon pump is provided on the recirculation system that is under direct suction from the main drains. The pump and motor both display significant signs of corrosion. The GPM rating for the pump and the horsepower for the motor were not verified by nameplate during the site visit. A strainer is provided for the pump as required by the State Code.

The main drain and skimmer combine to a 6-inch PVC schedule 80 pipe in the mechanical room that is routed through the required skimmer basket (3125B.4) and to the high-rate sand filters. The filtered water is routed back to the pool via a single, 6-inch pipe (pressure). A flow meter was observed as required by 3125B.3.

The California Building Code, Chapter 3124B requires that public pools be turned over at a minimum rate of six hours. The pool was empty during the site visit, so the mechanical system was not observed as operational. Based on the size of the pool's suction piping at the current flow rate of 350GPM, the 160,000-gallon pool is turned over every 7.9 hours, which exceeds the current code requirement. The minimum flow rate for the swimming pool to achieve the required 6-hour turnover is 461 GPM.





The pool contains two (2) Eko-3 Systems high-rate sand filters that were installed in 2014. With 16.5 square feet of filter area, the filters are each rated for a flow rate of 247 GPM, giving them an overall capacity for 494 GPM at 15 gallons per minute per square foot, which is the industry standard. The pool's flow rate of 350GPM is within this rating.

The horizontal filter tanks did not have any noticeable defects and staff reported they were functional during the 2019 summer season when the pool was last opened. Staff reported the gaskets and connectors behind the filter gauges are constantly leaking.

CH typically assigns a lifespan of 15-20 years to pool filters and related mechanical equipment. Since the pool filters are only 6 years old, CH would expect them to last another 10+ years for the operation of the pool.







The pool is controlled by an BECSys 3 chemical controller. The chemical controller automatically adds sanitizer from the Pulsar 4 system, or muriatic acid as the pH buffer, as necessary to minimize the peaks and valleys common when the chemical feed is controlled manually. The controller was installed within the past few years and is in good working condition. It is appropriate for this type of usage and could be reused in a future renovation.

















The pools are sanitized with calcium hypochlorite (tablet chlorine) via a Pulsar erosion feeder system and use muriatic acid as a pH buffer. The sodium hypochlorite and muriatic acid for the swimming pool are located in the main pool mechanical room.

Corrosion was evident on several items within the mechanical space, including the following:

- Electrical panel
- Water heater
- Electrical conduit
- Electrical box for the Pulsar switch

This is most likely due to the presence of the muriatic acid feeder that is located within the mechanical room. A separate, dedicated and ventilated chemical storage room for both the sanitizer and pH buffer is recommended and is the current industry standard. During a future renovation, these separate mechanical rooms could be included. In an ideal setting these two would be in their own separate, ventilated spaces.













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A variable frequency drive is not installed on the circulation system. A variable-frequency drive (VFD) is a system for controlling the rotational speed of an alternating current (AC) electric motor by controlling the frequency of the electrical power supplied to the motor. VFDs should be considered on any future mechanical system upgrades.







- The children's pool is in fair condition overall but does not meet the current expectations for a children's area at an outdoor aquatic facility. The pool holds approximately 5,600 gallons which would necessitate a flow rate of 85 gallons per minute to reach a one-hour turnover rate as required by the State Code.
- Noticeable cracking is evident in the pool's coping stone and there are areas that do not contain any grout along the expansion joints. Missing tiles from the perimeter tile band were also observed.
- The pool is not compliant with the current ADA Standards for swimming pools (2010) and would need to add an entry ramp with compliant handrails in order to meet the current ADA requirements.
- The main drain grate is compliant with the Virginia Graeme Baker Pool and Spa Safety Act (VGB) but has a lifespan that is noted at 5 years. Staff should confirm when the grate was last replaced to ensure it is still within the stipulated time frame. Since the pool contains only one main drain, a Safety Vacuum Release System (SVRS) system is necessary to protect users against suction entrapment.







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- The pool's mechanical system contains a Triton Sand Filter, BecSys 2 chemical controller and a Pulsar 1 unit for the calcium hypochlorite sanitizer. The muriatic acid and calcium hypochlorite feeders are both located in the mechanical shed and have caused corrosion on some of the surrounding equipment. This is especially noticeable on the pool pump motor and electrical outlet.
- The children's pool does not have a mechanical system that meets industry design standards since it does not contain an Ultraviolet Treatment (UV) System on the pool (picture – bottom right) to provide secondary sanitation. UV has been shown to be highly effective against chlorine resistant pathogens like Cryptosporidium and Giardia; as well as the vast majority of bacteria, viruses, yeast, and mold.
- According to the Model Aquatic Health Code, "Due to the risk of outbreaks of RWIs associated with the DISINFECTANT tolerant parasite Cryptosporidium, it is strongly recommended that all AQUATIC FACILITIES include SECONDARY DISINFECTION SYSTEMS to minimize the risk to the public associated with these outbreaks."











- The pool contains a single main drain with two (2) return inlets on the west side of the pool and a single skimmer box on the east side of the pool. With 2-inch schedule 40 pressure piping that is rated for 105 GPM at 10 feet per second, the piping can handle the flow rate necessary to meet the required one-hour turnover rate.
- The single skimmer suction piping cannot handle the full recirculation flow rate for the children's pool. Assuming the maximum flow rate of 63 GPM the pool would need a 3-inch pipe to handle this flow.
- The tot pool does not meet the modern definition of a children's pool because it lacks a zero-beach entry, children's play features, tot slides, etc. If the facility undergoes a future renovation, it is recommended that this area be replaced with a modern tot pool or interactive spraypad.









Assessment Summary



Assessment Summary

The Beaumont Plunge Swimming Pool has several physical and functional issues that are notated below. Due to these issues, it is the opinion of Counsilman-Hunsaker that the pool has exceeded its expected lifespan and the City should consider options for renovation or replacement.

- Three major leaks have been found in the swimming pool and mechanical system. CH observed numerous cracks in the pool shell and in the surrounding deck, which points to structural movement of the pool shell.
- The current perimeter overflow system and piping does not sufficiently meet modern industry standards, which is for the system to handle 100% of the recirculation rate as required by the current State Code (3136B).
- The pool's turnover rate exceeds the State Code requirement by 1.9 hours.
- The pool deck is shifting and has numerous cracks surrounding the pool necessitating a complete replacement.
- The depth and slope of the deep end of the pool does not meet the minimum requirement for the 1-meter diving board.
- The children's pool does not meet the current 2010 Americans with Disabilities Act standards or the Model Aquatic Health Code standards for secondary sanitation.
- An evaluation has determined that the in-pool lights are not grounded per NEC 680 requirements.
- Significant corrosion exists in the swimming pool's mechanical room necessitating separate chemical rooms for the pool's sanitizer (calcium hypochlorite) and the pH buffer (muriatic acid).



Assessment Summary

- The Beaumont Plunge Swimming pool has seen decreased attendance over the past several years with an increasing general fund subsidy for the summer pool operations.
- The shallow portion of the main pool is still too deep for young children, inhibiting the City's ability to teach swimming lessons.
- The pool does not contain easily accessible exits for pool users. Exit stairs are a key component of modern swimming pool design to ensure the ingress and egress to the pool is easily manageable for all pool users.
- Today's expectation for an outdoor aquatic facility has drastically changed from that of 1963.
- While most outdoor family aquatic centers will still incorporate lap lanes, a competition pool is not essential since the School District operates a competitive pool for their swimming programs. Likewise, there is not a large contention of competitive swimmers within the immediate area who have requested the City to build a competition pool.
- Children's areas are designed much larger than the existing one at the Beaumont Plunge Swimming Pool and incorporate perimeter seating for adults in order to enjoy the experience and to closely monitor their children.
- Recreational water has taken a more freeform shape as opposed to the traditional rectangular pools of the 1960s. It's common for these pools to have multiple zones that include a zero-beach entry, waterslide plunge areas, moving water such as a current channel or lazy river, inflatable crossing activities and deep-water amenities such as climbing walls, drop slides and diving boards or platforms.
- Mechanical systems have also been updated to address the requirements set forth in the Model Aquatic Health Code. These include increased turnover rates and secondary disinfection systems.

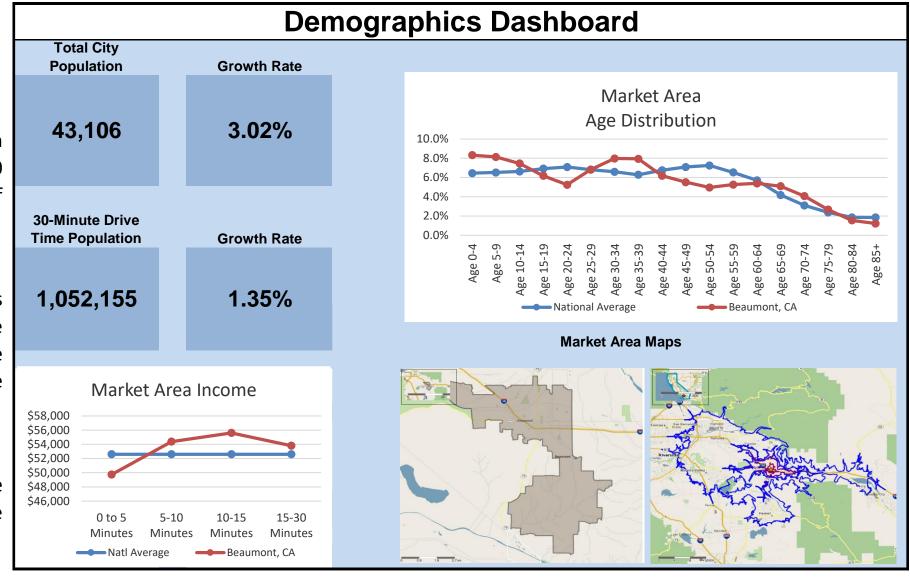


Market Overview



Beaumont Demographics

- Above average number of adults with ages ranging 30 to 39 and children 0 to 14 reside within the City of Beaumont.
- The local area to Stewart Park has below average household income (95%); areas 5 to 15 minutes away are slightly above the national average (106%).
- Both the City of Beaumont and the 30-minute drive time market have increasing population growth.







Beaumont Plunge, Beaumont, CA



City of Banning Repplier Park Aquatic Center; Banning, CA 12 minutes, 5.8 miles from site



Yucaipa City Swimming Pool; Yucaipa, CA 17 minutes, 10.6 miles from site



Riverside Aquatics Complex; Riverside, CA 34 minutes, 27 miles from site



Arlington Park Pool; Riverside, CA 37 minutes, 32.6 miles from site



Islander Park Pool; Riverside, CA 26 minutes, 21.9 miles from site



Sippy Woodhead / Bobby Bonds Pool, Riverside, CA 31 minutes, 24.2 miles from site



Lancer Aquatic Center CBU; Riverside, CA 37 minutes, 31.3 miles from site

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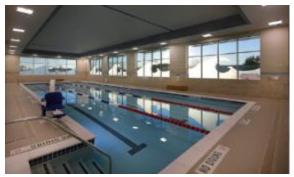




Shamel Park Pool, Riverside, CA 33 minutes, 28.6 miles from site



Canyon Crest Country Club, Riverside, CA 29 minutes, 22.7 miles from site



24 Hour Fitness, Riverside, CA 34 minutes, 29.5 miles from site



Hunt Park Pool; Riverside, CA 38 minutes, 32.1 miles from site



LA Fitness Arlington Ave, Riverside, CA 34 minutes, 28.6 miles from site



UCR Student Recreation Center, Riverside, CA 28 minutes, 23.4 miles from site



Riverside Community College, Riverside, CA 32 minutes, 26.9 miles from site



The Cove Waterpark Camino Real, Riverside, CA 35 minutes, 30.2 miles from site

AUDIT





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Rialto Fitness and Aquatic Center, Rialto, CA 30 minutes, 27.8 miles from site



24 Hour Fitness, Rialto, CA 36 minutes, 34.1 miles from site



DVL Aquatic Center Valley-Wide Recreation, Hemet, CA 30 minutes, 17.9 miles from site



LA Fitness, Hemet, CA 22 minutes, 14.1 miles from site



DropZone Waterpark, Perris, CA 36 minutes, 24.9 miles from site



Palm Springs Swim Center, Palm Springs, CA 34 minutes, 30.8 miles from site



Crafton Hills College Aquatics Center, Yucaipa, CA 18 minutes, 12.1 miles from site



Fifth Avenue Swim Club, Redlands, CA 18 minutes, 14.5 miles from site

AUDIT





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Yucaipa Regional Park Swim Complex, Yucaipa, CA 22 minutes, 14.2 miles from site



University of Redlands, Thompson Aquatic Center, Redlands, CA 20 minutes, 16.1 miles from site



Jerry Lewis Family Swim Center, San Bernardino, CA 30 minutes, 27.4 miles from site



YMCA of the East Valley, Redlands, CA 20 minutes, 15.9 miles from site



Tom Sawyer Swimming Pool, Rialto, CA 30 minutes, 27.8 miles from site



Grand Terrace High School Swimming Pool, Grand Terrace, CA 31 minutes, 27.8 miles from site



John W. North High School Swimming Pool, Riverside, CA 28 minutes, 23.6 miles from site



UC Riverside - Glen Mor Pool, Riverside, CA 28 minutes, 22.2 miles from site

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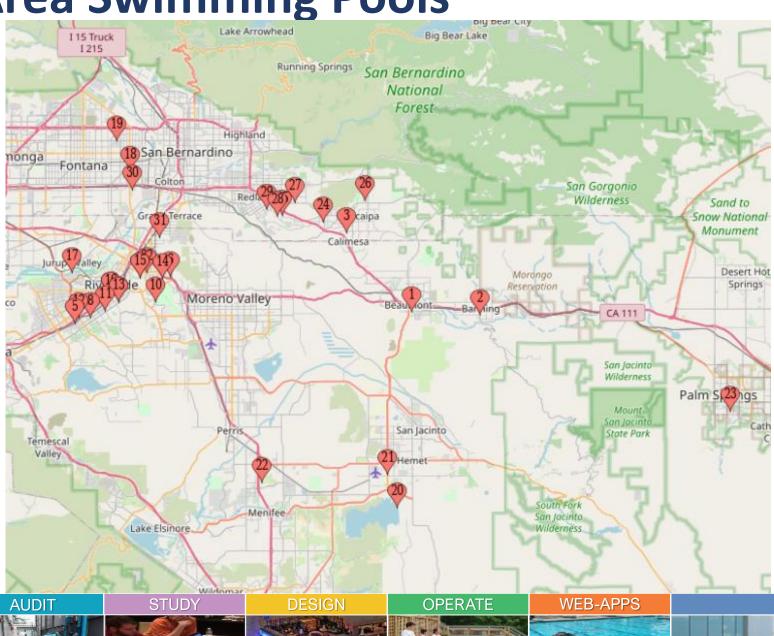












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Facility

Beaumont Plunge

Yucaipa City Swimming Pool

Riverside Aquatics Complex

Arlington Park Public Pool

Lancer Aquatic Center - CBU

Canyon Crest Country Club

24 Hour Fitness Madison St.

LA Fitness Arlington Ave.

24 Hour Fitness Rialto

LA Fitness Hemet

DropZone Waterpark

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YMCA of the East Valley

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UCR Student Recreation Center

Cesar E. Chavez Community Center
Riverside Community College
The Cove Waterpark Camino Real
Rialto Fitness and Aquatic Center

Diamond Valley Lake Aquatic Center

Crafton Hills College Aquatics Center

Yucaipa Regional Park Swim Complex

Jerry Lewis Family Swim Center

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Grand Terrace High School Swimming Pool

John W. North High School Swimming Pool

Sippy Woodhead / Bobby Bonds Pool

Islander Park Pool

Shamel Park Pool

Hunt Park

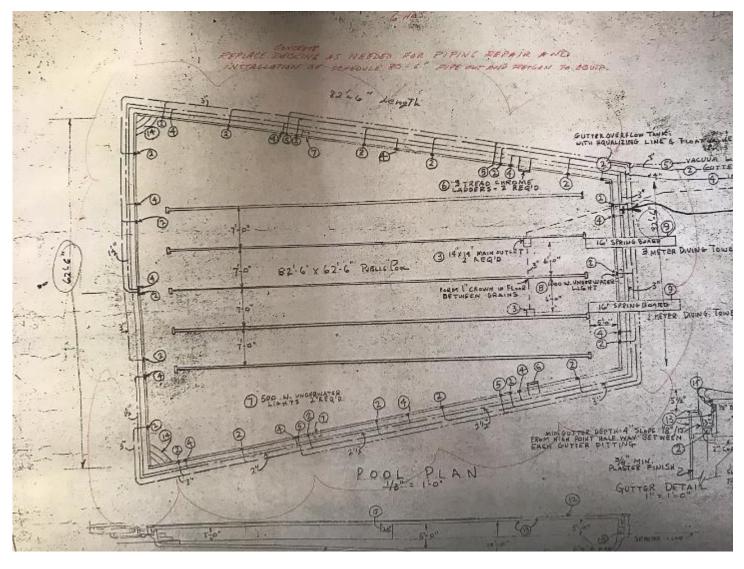
City of Banning Repplier Park Aquatic Center

Options for Consideration



Options for Consideration

- The first option consists of a complete renovation of the existing Beaumont Plunge Pool. This would include modifications to the existing pool and pool structure, a new stainless steel gutter system, and removal of the 1-meter diving board. The existing children's pool would be demolished and a new one built in its place. Mechanical system upgrades would be made to both pools, as well as a renovation to the existing bathhouse.
- The second option would entail a complete demolition of the existing Beaumont Plunge Pool and the construction of a new outdoor swimming pool in its place. The new pool would contain fitness lap lanes, waterslides, a zero-beach entry with a children's area and an update to the existing bathhouse.
- The third option includes the demolition of the existing Beaumont Plunge Pool and replacing it with a spraypad.

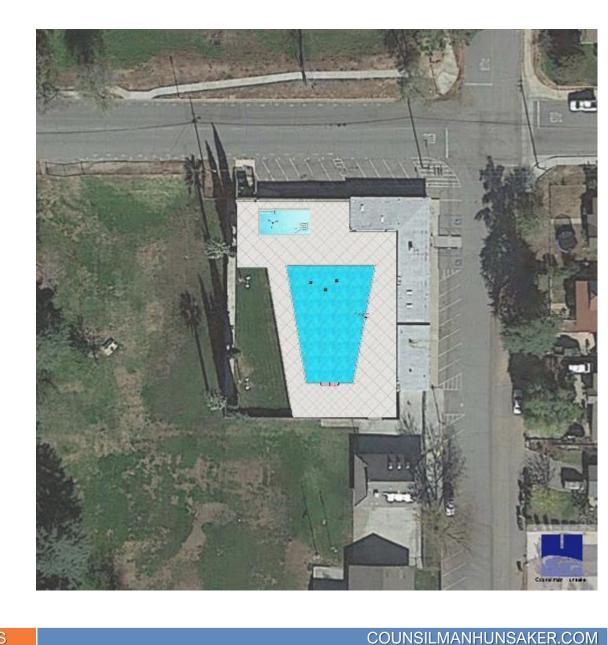






Beaumont Plunge Renovation

- Renovation of existing Beaumont Plunge Swimming Pool
 - Removal of diving board
 - Inclusion of shallow water floatables
- New children's pool
 - Spray features
 - ADA accessible
- Renovation of existing bathhouse and support spaces











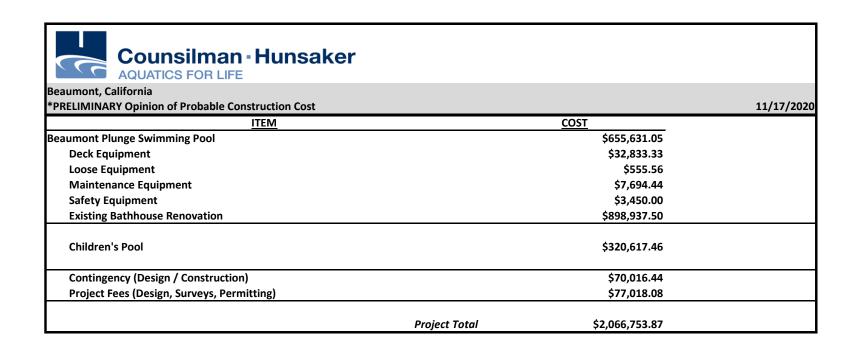






Beaumont Plunge Renovation

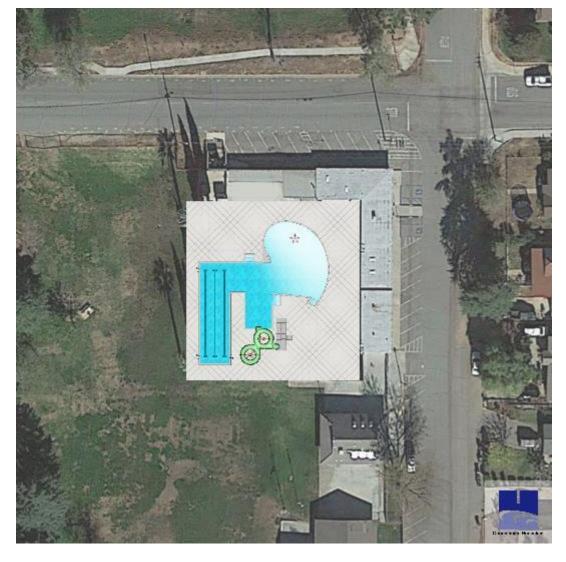
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 - Removal of diving board
 - Inclusion of shallow water floatables
- New children's pool
 - Spray features
 - ADA accessible
- Renovation of existing bathhouse and support spaces





Beaumont Plunge Replacement

- Demolition of existing swimming pool and children's pool
- New 5,000 SF outdoor aquatic center
 - Zero depth entry with spray features
 - Fitness lap lanes
 - Waterslide
- Renovation of existing support spaces
 - Mechanical room
 - Locker rooms
 - Office
 - Storage





Beaumont Plunge Replacement

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- New 5,000 SF outdoor aquatic center
 - Zero depth entry with spray features
 - Fitness lap lanes
 - Waterslide
- Renovation of existing support spaces
 - Mechanical room
 - Locker rooms
 - Office
 - Storage

	OPINION OF I	PROJECT CO	ST: Option 2		
Description	Unit	Amount	Cost per Unit	Opinion of Cost	Opinion of Co
Support Spaces		3,785	238	\$898,938	\$898,938
Existing Building Renovation	Sq. Ft.	3,785	238	\$898,938	\$676,736
Emoning Building Honovation	5 4. 1 ti	3,700	250	40,0,,,,	
Outdoor Aquatic Center		15,286	165	\$2,524,101	\$2,524,101
Outdoor Leisure Pool	Sq. Ft.	5,091	333	\$1,695,303	
Spray Features	Allowance	2	50,000	\$100,000	
Crossing Activity	Allowance	1	50,000	\$50,000	
Climbing Wall	Allowance	1	50,000	\$50,000	
Waterslide Tower	Allowance	1	200,000	\$200,000	
Waterslide Mechanical	Allowance	1	50,000	\$50,000	
Shade Structures	Qty.	4	10,000	\$40,000	
Shade Pavillion	Qty.	1	20,000	\$20,000	
Outdoor Deck	Sq. Ft.	10,184	15	\$152,760	
Overhead Lighting	Sq. Ft.	15,286	8	\$122,288	
Fencing	Linear Ft.	500	88	\$43,750	
Jnit		Sq. Ft.	Cost	Opinion of Cost	Opinion of Co
Fotal Building Construction Costs		19,371	\$180	3,479,289	3,479,28
Demolition Allowance		1	\$200,000	\$200,000	\$200,00
Site Construction Costs (demolition, parking, land	ndscaping, utilities, walks	s)		\$484,275	\$484,275
Furniture, Fixtures, Equipment				\$117,000	\$117,000
Subtotal				\$4,280,564	\$4,280,564
Escalation Allowance (1 year)	5.0%			\$214,028	\$214,028
Contingency (Design / Construction)	10.0%			\$449,459	\$449,459
Design Fees, Surveys, Permitting	10.0%			\$494,405	\$494,405
Opinion of Probable Cost				\$5,438,456	\$5,438,450
Total Estimated Project Costs:			\$281	\$5,438,456	\$5,500,000
Estimate Current as of:		11/17/2020		-	
	Source: C	Counsilman-Hu	ınsaker		

















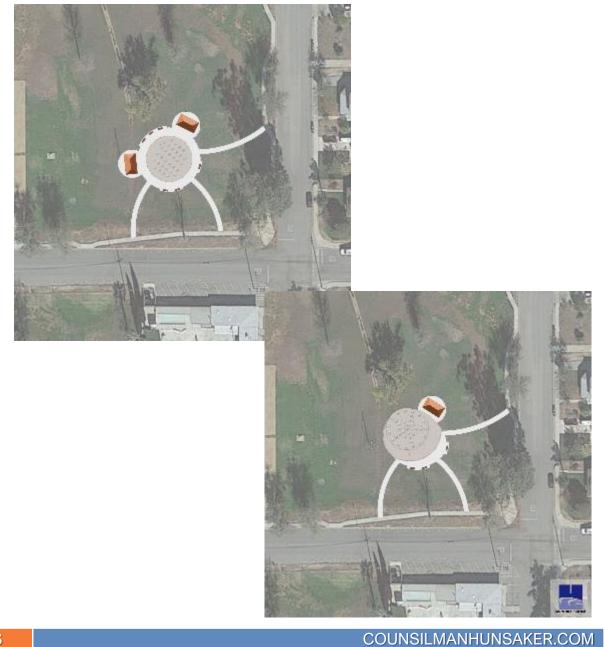
Beaumont Plunge Replacement







- New 2,100 SF spraypad with sequencing features and lighting
- Perimeter concrete deck
- Shade Pavilions
- Access walkways from sidewalks and streets





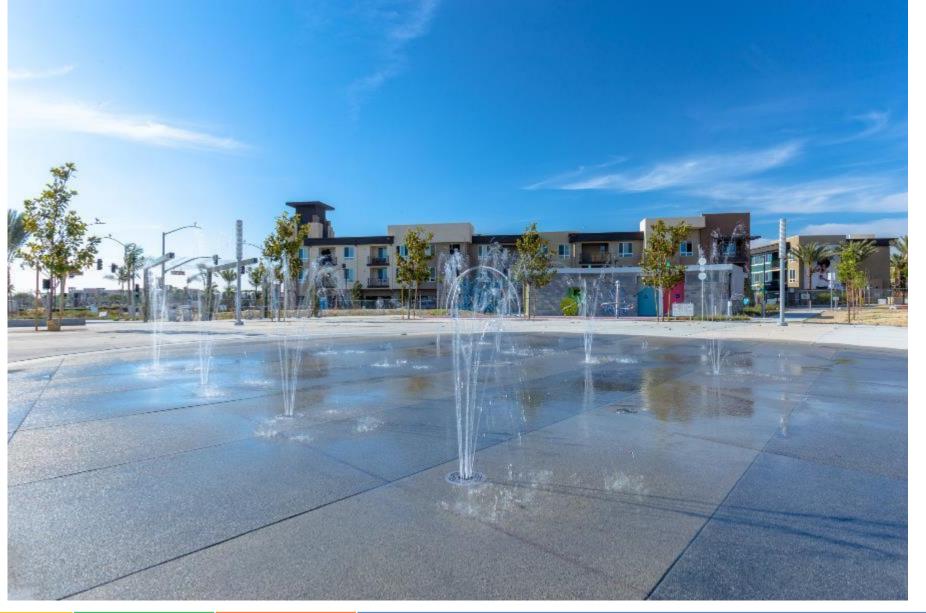




- New 2,100 SF spraypad with sequencing features and lighting
- Perimeter concrete deck
- Shade Pavilions
- Access walkways from sidewalks and streets

OPINION OF PROJECT COST: Option 3							
Description	Unit	Amount	Cost per Unit	Opinion of Cost	Opinion of Cost		
		C 005	00	Фс00 77 5	Ф<00 77 5		
Outdoor Aquatic Center	G E	6,905	88	\$608,775	\$608,775		
Spraypad	Sq. Ft.	2,100	163	\$341,250			
Features	Allowance	1	100,000	\$100,000			
Outdoor Pool Mechanical Enclosure	Sq. Ft.	600	50	\$30,000			
Shade Structures	Qty.	4	10,000	\$40,000			
Outdoor Deck	Sq. Ft.	4,200	15	\$63,000			
Overhead Lighting	Sq. Ft.	6,905	5	\$34,525			
Unit		Sq. Ft.	Cost	Opinion of Cost	Opinion of Cost		
Total Building Construction Costs		6,905	\$88	608,775	608,775		
Demolition Allowance				\$0	\$0		
Site Construction Costs (parking, landscaping, utili	ties, walks)			\$172,625	\$172,625		
Furniture, Fixtures, Equipment				\$21,000	\$21,000		
Subtotal				\$802,400	\$802,400		
Escalation Allowance (1 year)	5.0%			\$40,120	\$40,120		
Contingency (Design / Construction)	10.0%			\$84,252	\$84,252		
Design Fees, Surveys, Permitting	10.0%			\$92,677	\$92,677		
Opinion of Probable Cost				\$1,019,449	\$1,019,449		
Total Estimated Project Costs:			\$148	\$1,019,449	\$1,100,000		
Estimate Current as of: 11/17/2020							
	Source: Co	ounsilman-Hui	ngolrom				











Operational Analysis



Operational Analysis Overview

The revenue analysis for the swimming pool and spraypad options include special user group usage and facility per capita spending trends, developing an opinion of revenue for the first five years of operation. Programming revenue is based on user groups and local programming fees. The fee structure is based on fees from season passes and other users to project a per capita income. Revenue is estimated, taking recommended fee schedules into account and current market rates and utilization figures.

The expense analysis includes a detailed budget model for estimating probable expenses for major areas of labor, contractual services, commodities, and utilities. User projections are made based on programming. Expenses are estimated taking into account hours of operation, attendance projections, local weather patterns, local utility rates, and other key items.



Expense Budget

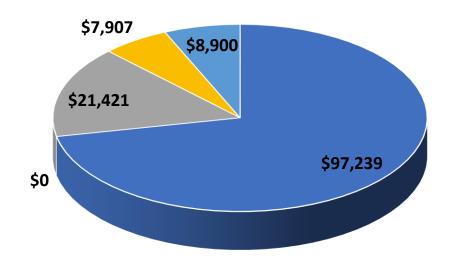
	Direct Facility Expense I		
	Existing Pool	New Outdoor Pool	Spraypa
Facility Staff			
Full Time Employment		Not Included	Not Include
Part-Time Management		\$15,120	9
Lifeguard Personel		\$120,960	9
Front Desk Personnel		\$7,140	9
Personnel Equipment Cost		\$1,333	
Training	_	\$5,000	S
Total Labor	_	\$149,553	
Direct Facility Expenses			
Insurance		Not Included	Not Include
Repair and Maintenance	*	\$13,600	\$2,60
Credit Card Fees	96	\$2,444	\$
Operating Supplies		\$8,160	\$1,50
Chemicals	Ĭ	\$7,020	\$2,4
Advertising	<u>~</u>	\$3,500	:
Direct Expenses	 Existing Budge1 	\$34,724	\$6,62
Utilities	ï		
HVAC	St	\$9,970	
Electricity	· <u>`</u>	\$35,290	\$13,8
Pool Heating	r / 1	\$11,895	\$2,0
Data/Communications	–	\$0	
Trash Service		\$0	;
Water & Sewer		\$11,982	\$8,5
Total Utilities	_	\$69,136	\$24,5
Programs			
Program Supplies		\$5,419	
LG Class Materials		\$666	
Food and Beverage		\$4,744	
Part-Time Program Staff	_	\$10,711	
Total Programs	_	\$21,540	
Total Operating Expenses	\$0	\$274,952	\$31,1



New Aquatic Facility Revenue (Option 2)

- Daily admissions / memberships
- Swim team revenue
- Program revenue
- Food and beverage
- Rentals

Revenue Streams



- Daily Admissions / Memberships
- Swim Team Revenue
- Aquatics Instruction Revenue
- Food and Beverage
- Rentals



Aquatic Facility Financial Dashboard (Option 2)

Total Capital Cost

\$5,500,000

Total Attendance

35,940

Operating Cashflow

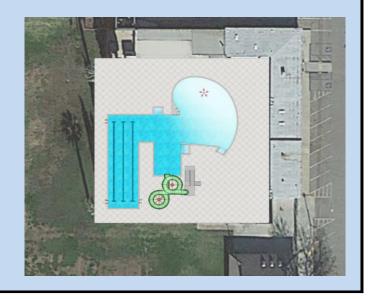
(\$139,485)

Cost Recovery

49%

























Aquatic Facility Financial Dashboard (Option 3)

Total Capital Cost

\$1,100,000

Total Attendance

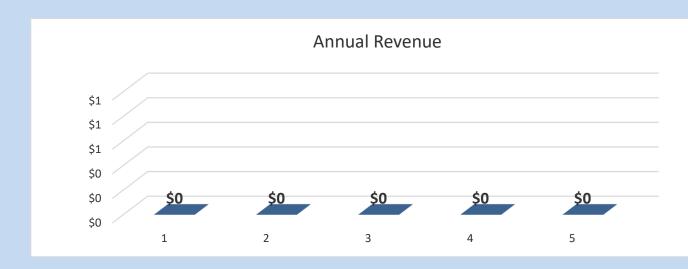
29,856

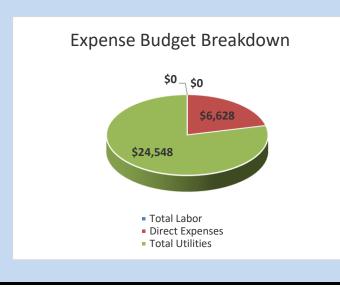
Operating Cashflow

(\$31,176)

Cost Recovery

0%























Options Summary

Summary Dashboard					
	Total Capital Cost	Total Revenue	Total Expense	Cost Recovery	
Existing Pool	\$2,066,754	\$10,403	\$61,150	17%	
New	Total Capital Cost	Total Revenue	Total Expense	Cost Recovery	
Outdoor Pool	\$5,500,000	\$135,467	\$274,952	49%	
	Total Capital Cost	Total Revenue	Total Expense	Cost Recovery	
	Total Supital Soot	Total Novolido	Total Expolice	Courting	
Spraypad	\$1,100,000	\$0	\$31,176	0%	



General Limiting Conditions

This study is based on information that was current as of January 2021. Every reasonable effort has been made in order that the data reflects the most timely and current information possible and is believed to be reliable. This study is based on estimates, assumptions, and other information developed by the consultant from independent research.

No warranty or representation is made by the consultant that any of the projected values or results contained in this study will actually be achieved. No responsibility is assumed for inaccuracies in reporting by the client, its agents, and representatives or any other data source used in preparing or presenting this study.

This entire report is qualified and should be considered in light of the above conditions and limitations.



City of Beaumont, California

Beaumont Plunge Pool Study

January 2021















