waters edge
AQUATIC DESIGN

Ewert Pool Study

Joplin, MO

October 20, 2020



Project Team

CITY OF JOPLIN MISSOURI

JOPLIN PARKS & RECREATION
just play

waters edge
AQUATIC DESIGN

landworks
STUDIO



Agenda

1. Project summary
2. Overview of physical condition
3. Public Engagement Summary
4. Future Options



Project Summary

Project Goals

- Evaluate physical conditions of Ewert Pool
- Study aquatics system and market
- Analyze possible options and capital costs
- Operating cost projections for options

waters edge
AQUATIC DESIGN

Overview of Physical Conditions



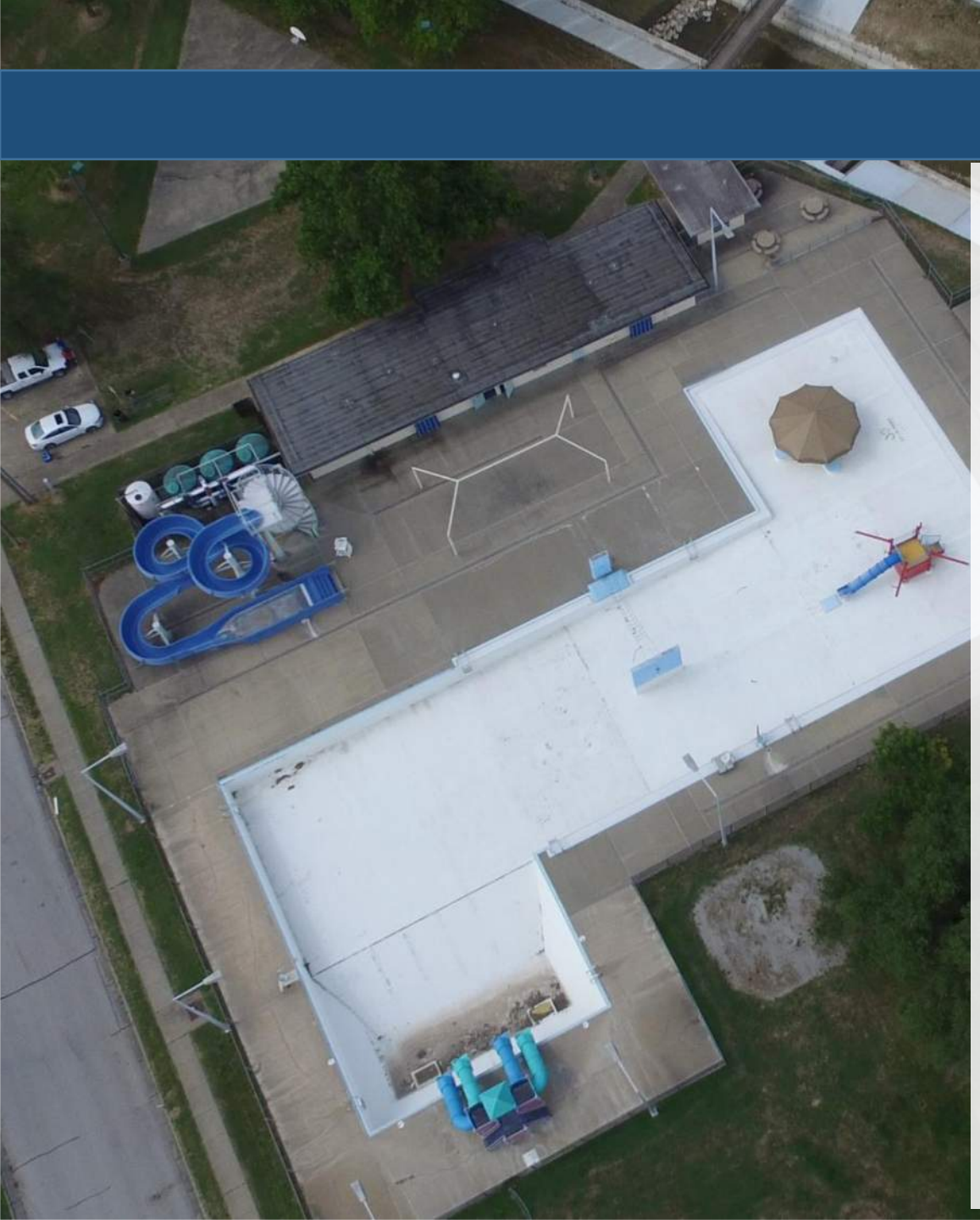
Overview of Physical Conditions



Existing Facility

- Located within Ewert Park
- Originally opened in 1925
- Approximately 9,866 s.f. of water surface
- 306,296 gallons

Overview of Existing Facility



Major Milestones

1974:

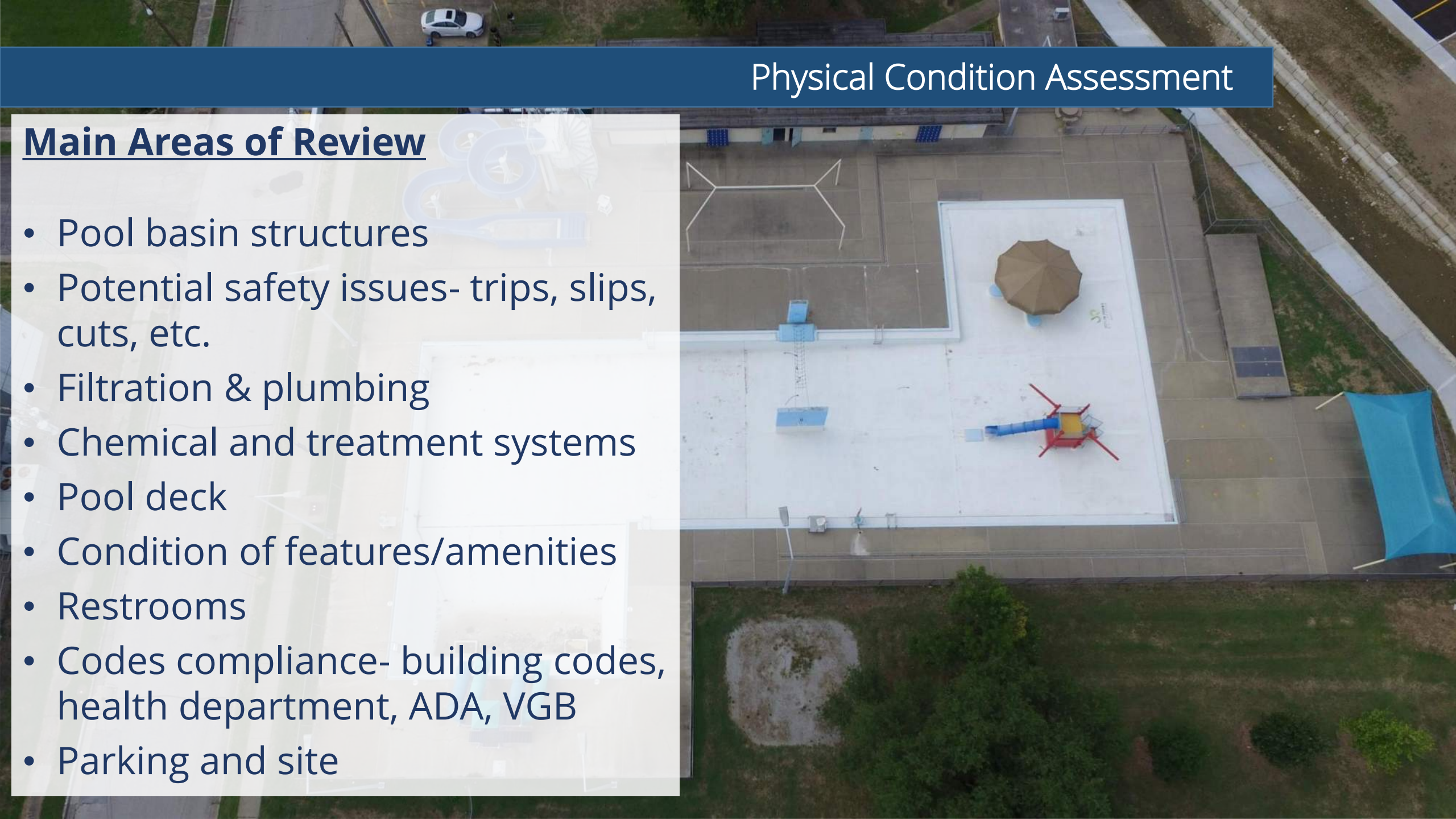
- Addition of: wading pool, diving boards, bathhouse, concession stand
- Expand pool size to 50-meters

2003:

- Convert 50-meters to zero-depth with features, add deck sprays, shade, large water slide
- Remove wading pool
- Replace diving boards with drop slides
- Bathhouse improvements

Main Areas of Review

- Pool basin structures
- Potential safety issues- trips, slips, cuts, etc.
- Filtration & plumbing
- Chemical and treatment systems
- Pool deck
- Condition of features/amenities
- Restrooms
- Codes compliance- building codes, health department, ADA, VGB
- Parking and site

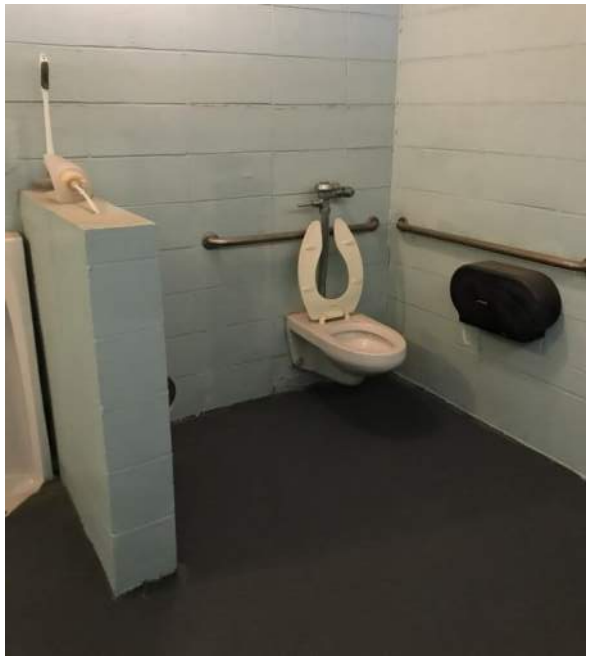


Physical Condition Assessment

Buildings

- Bathhouse in fair condition
- Gender split entry
- Lack of privacy in men's restroom
- Lack of floor drains
- Pipe breaks behind the wall
- Ceiling coating showing rust coming through
- Concessions building is newer









Pool Structure (1974/2003)

1974 structure:

- Fair condition
- sections failing – top of wall, transition to diving
- Diving well clearances, depth and slope, diving boards not able to be utilized

2003:

- Widespread failing – floor, portions of walls









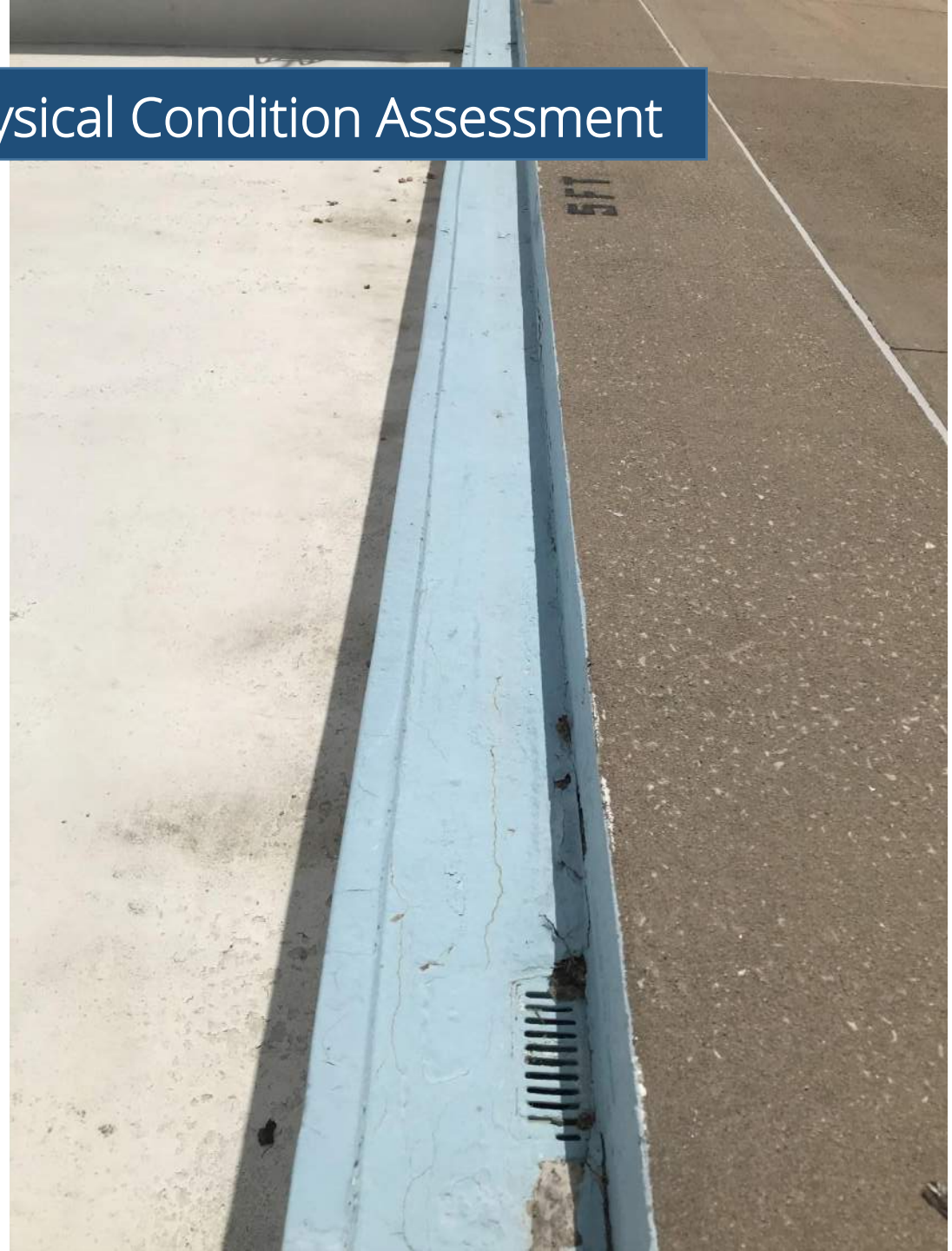
Recirculation/Piping (1974/2003)

1974:

- Older piping materials – integrity unknown
- Larger (header) pipes- do not have reason to believe would fail soon
- Smaller (wall inlet) pipes – unknown conditions and expected life
- Dated gutter style

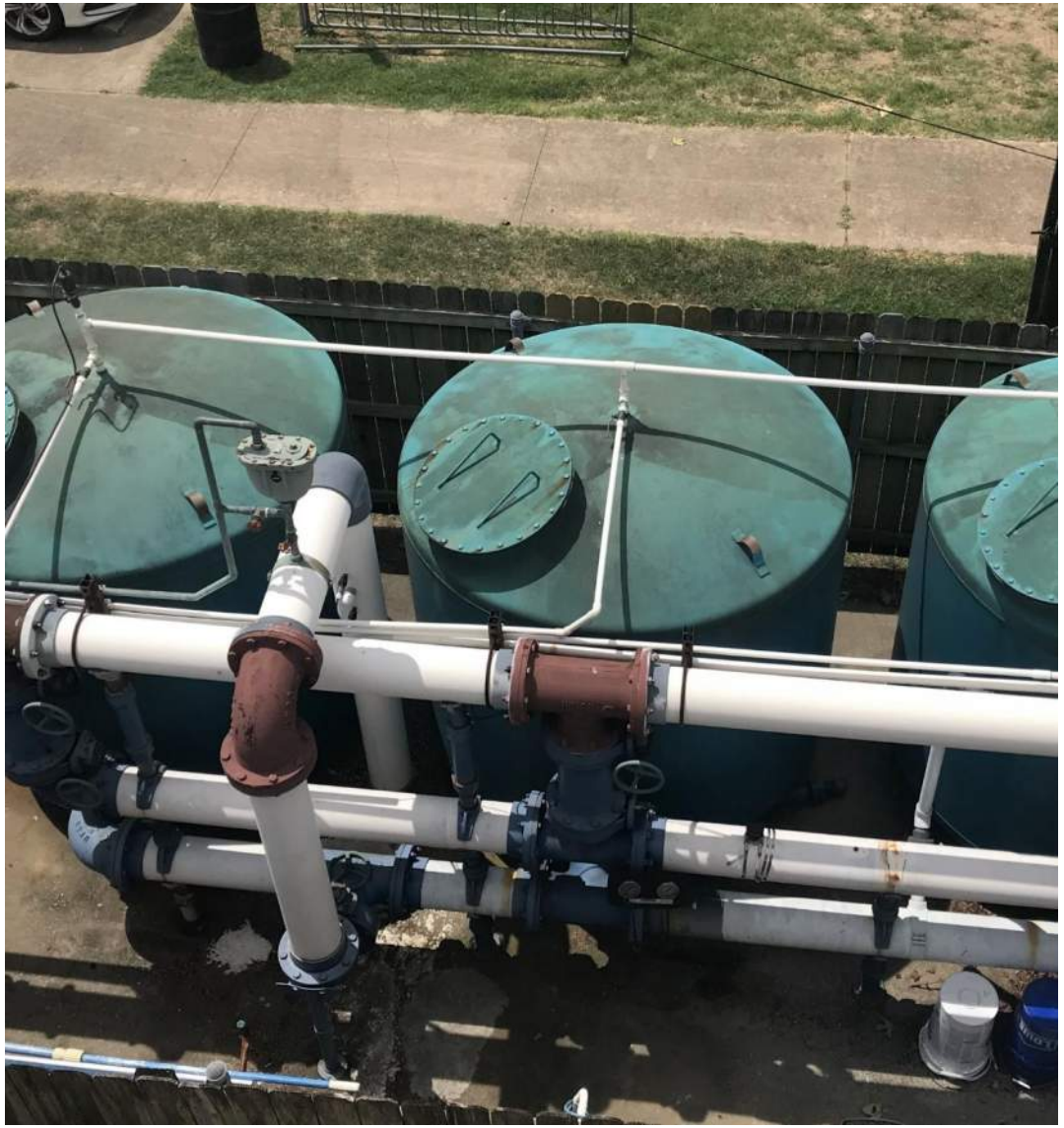
2003:

- Newer piping materials
- Assume to be in fair condition



Main Pool (1974/2003)

- Filtration – effective
- Filters and disinfectant chemical exposed to the elements (not covered)
- Belt-driven, self-priming pumps – difficult to operate & maintain
- Rusting in acid room







Water Slide (2003)

- Functional & operable
- Showing surface rust – needs recoating
- Shade canopy missing
- Maintain until lived its useful life (est. no more than 15-20 years)







Physical Condition Assessment

Deck (1974) & Features (2003)

- Deck around the deeper water is 46 yrs. old and settling, cracks throughout
- Water walk paint failing
- Drop slide structure fading and rusting
- Play structure fading and needs valve replacement











Physical Condition Assessment



Lighting

- Majority of lights not functional
- Potential issues with circuits to the poles
- Not sufficient for night swimming

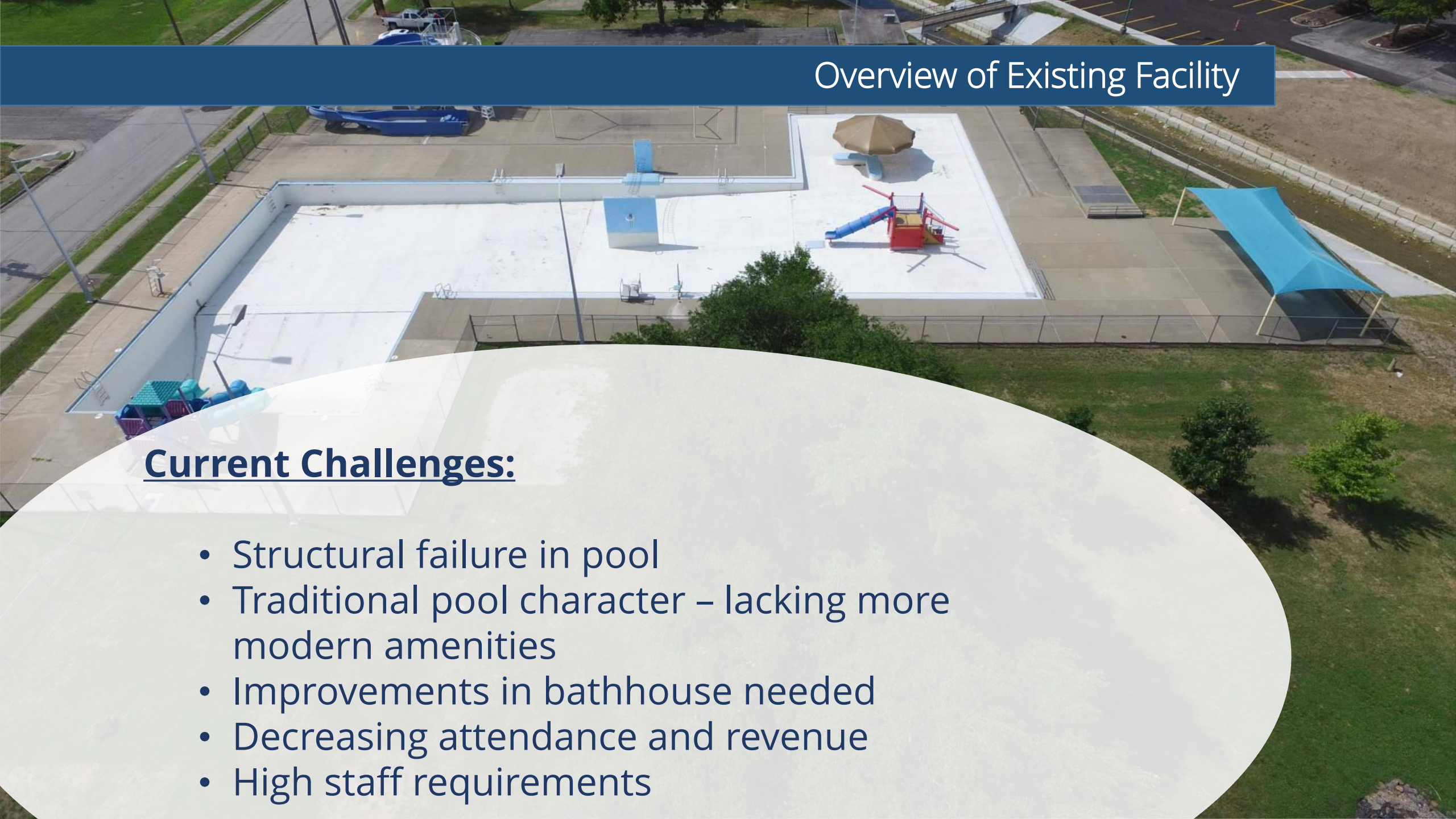
Physical Condition Assessment

Site

- Ample parking
- Complementary activities
- Historical value and accepted as a pool location
- Site boundary constraints
- Available green space to the south of the bathhouse



Overview of Existing Facility



Current Challenges:

- Structural failure in pool
- Traditional pool character – lacking more modern amenities
- Improvements in bathhouse needed
- Decreasing attendance and revenue
- High staff requirements

Study of water surface per capita in Midwest metro areas:
(water surface area divided by population)

- Ranges from about .25 to .75 s.f. per capita
- Larger cities of 100,000+ typically provide less water surface *(around .25 s.f. per capita)*
- Smaller cities typically provide more water surface *(.75 s.f. per capita or more)*

Water Surface Area

Important to consider:

- Community needs
- Operational goals
- Staffing requirements
- Capital costs



Joplin Water Square Footage: 35,005 s.f.

Recommended sizing target for Joplin:

22,500 – 30,500 s.f. of water surface

waters edge
AQUATIC DESIGN

Public Engagement Summary



Public Engagement

Methods

- Committee meeting
- Stakeholder phone calls
- Online survey – August 5 – 27
- Open house – August 20
- East Town meeting – September 1
- Townhall meeting – October 20



1928 surveys submitted

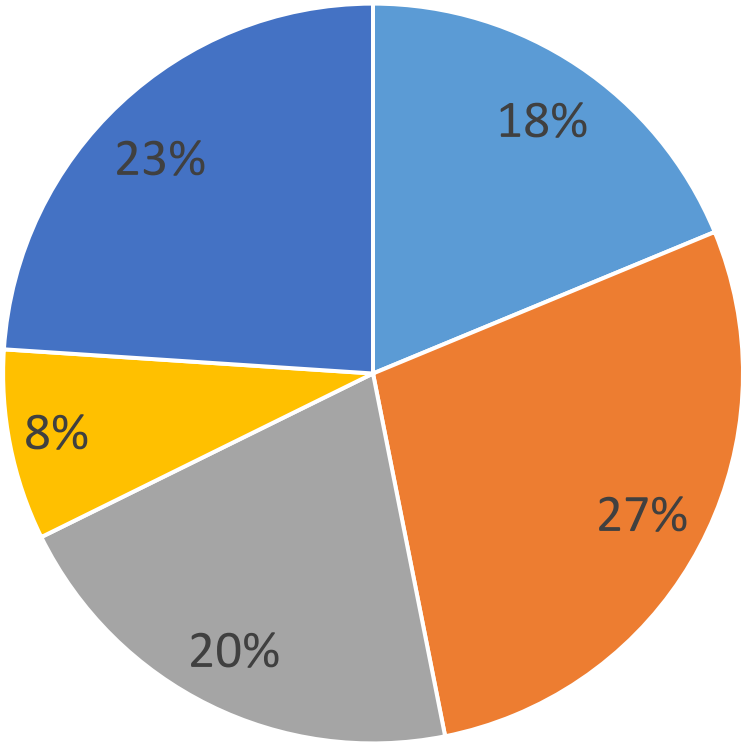
Respondent Overview: Most Frequently Answered

- Residents of Joplin 66%
- Between ages 25- 44 54%
- Have 4 people in the household 28%
- Have young children (4 - 8 years) 32%

Representation from households with families

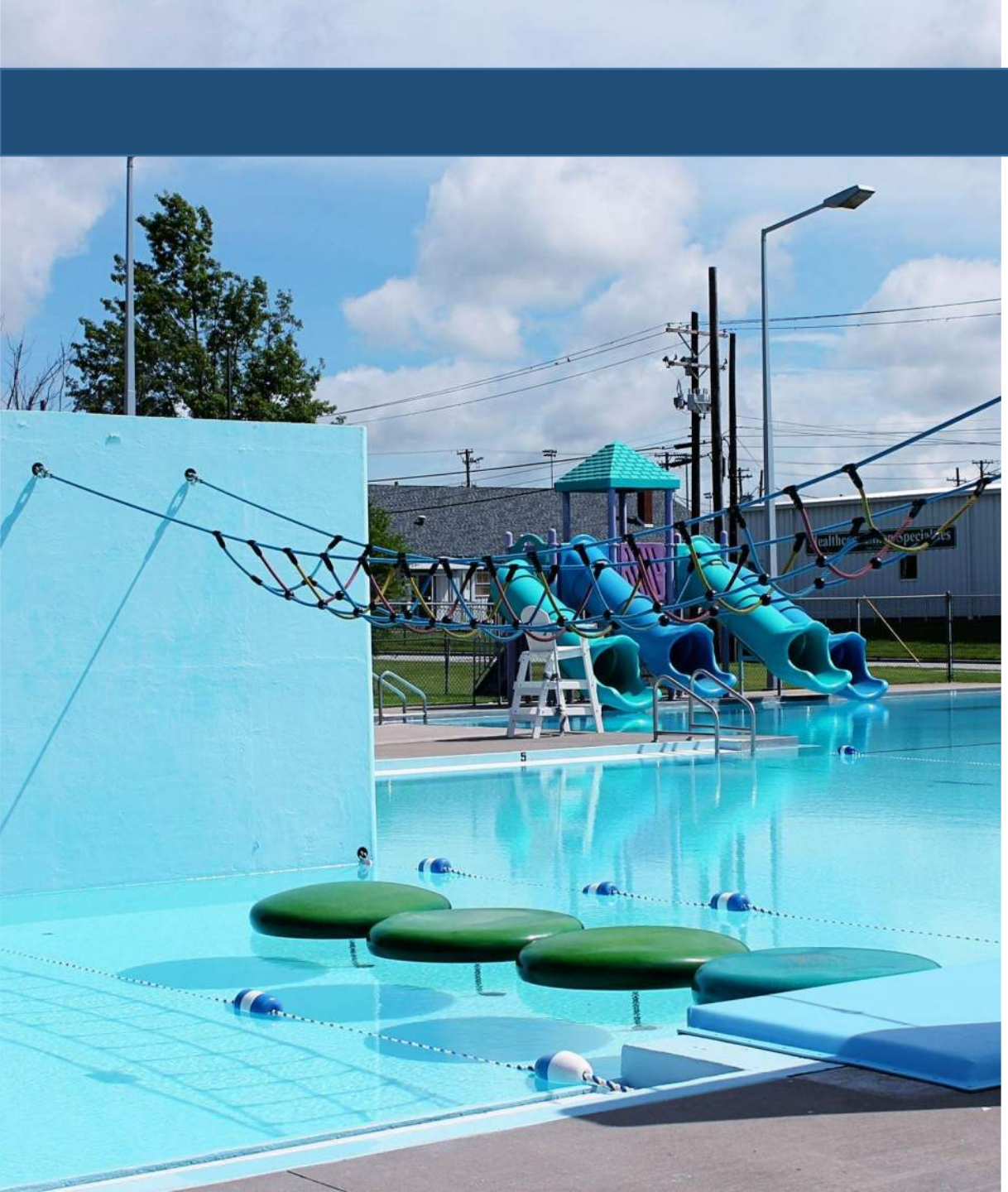
Public Engagement: Online Survey

Please rate your overall satisfaction of Ewert Pool.



Excellent Good Average Poor Does not apply

Public Engagement: Online Survey



Top 4 reasons Ewert Pool is not used

1. Use other outdoor pool facilities
2. Facility lacks amenities
3. Facility is not well maintained
4. Safety concern

Public Engagement: Online Survey

Rank of future uses

#1



#2



#3



#4



#5 *This was an "Other" selection with written comments. Majority of comments are related to the options shown.*

#6



Areas of important for future uses

1. Easily accessible and available for use
2. Access for the community as a whole
3. Enhances community development in the surrounding area
4. Offer a new amenity or features for Joplin
5. Amenity is financially sustainable
6. Fees/cost to use the facility or amenity
7. Continued pool use
8. Continued water related use (not pool use)

Public Engagement: Summary

Takeaways

- Support for a pool
- Support for a large splash park with amenities
- Support for a splashpad and pool combination
- Support for expanding the skatepark
- Costs for use important

- Concern for removing the pool from the park

- Desire to improve and enhance the park



waters edge
AQUATIC DESIGN

Future Options



Future Options



OPTION 1: Pool Renovation

OPTION 2: Splash Park

OPTION 3: Splash Park

OPTION 4: Pool and Splashpad

OPTION 1: Pool Renovation

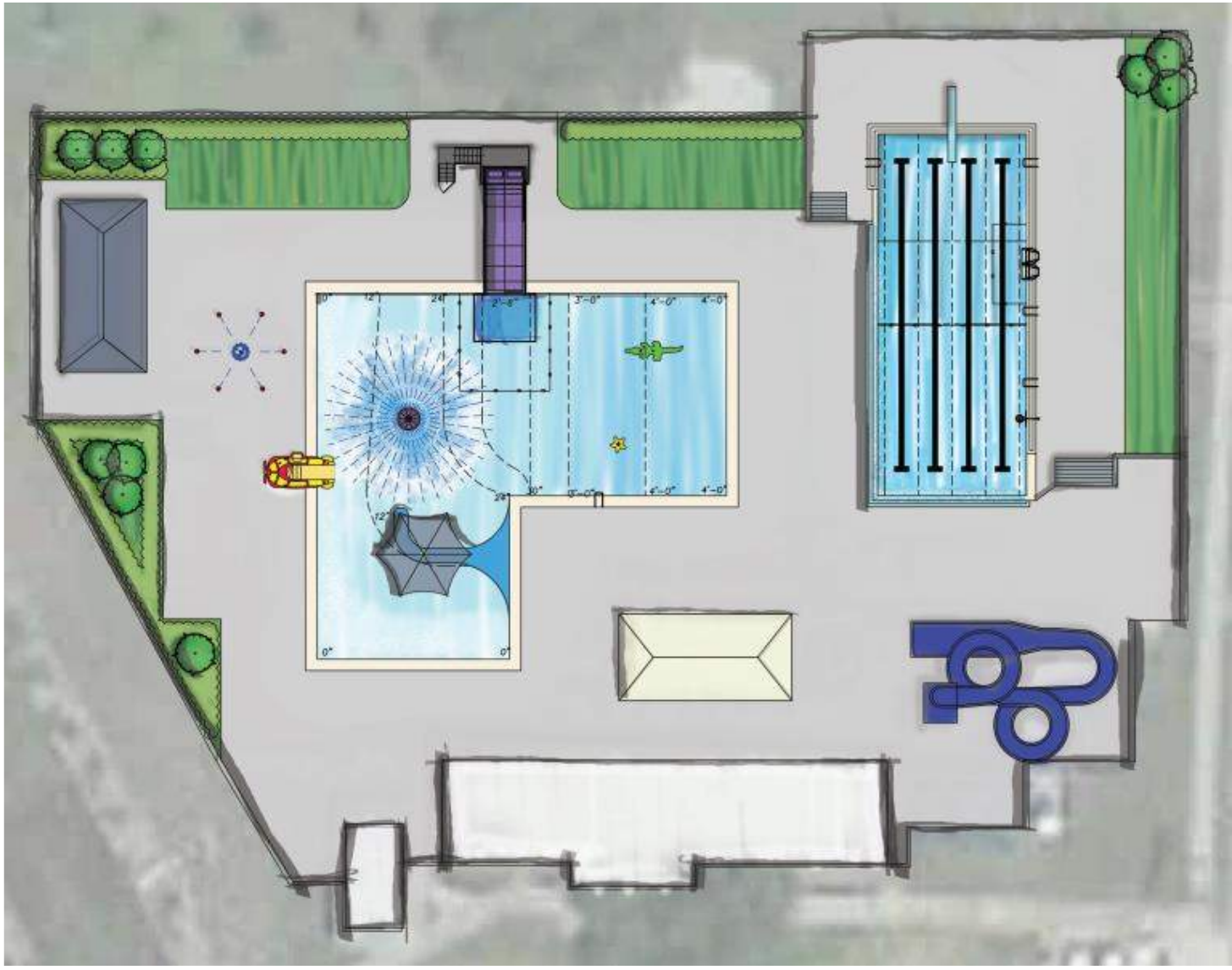
Replace: pool basin floor, portions of the wall, deck, small diameter piping

Renovate:

- Reconfigure pool into 2 pools – zero-depth/shallow and lap lanes/deep
- Add toddler slide, dumping bucket, in-water bench and shade, family slide and floatbles to zero-depth pool
- Add basketball goal, climbing wall, and 1-meter diving board to lap pool
- Maintain existing slide until it has lived its useful life, remove at that time

Bathhouse: reconfigure admission area, men's restroom privacy, add family changing rooms

Benefits: Improve failing pool basin structures, update features, minor reduction in staff requirement

















Plan Key Notes

1. Zero-Depth Sloped Entry
2. Toddler Slide
3. Water Bench with Shade
4. Dumping Bucket Feature
5. Family Slide (2'-6" water)
6. Floatables
7. Open Swim Area
8. Existing Sprays
9. Lap Pool
10. Basketball Goal
11. Raised Diving Well
12. Climbing Wall (2 Panel High)
13. 1-Meter Diving
14. Existing Slide
15. Existing Shade







Shallow Rec Pool	4956	S.F.
Shallow Lap	1108	S.F.
Deep Water Lap	1225	S.F.
Total Pool Water	7289	S.F.
Landscape	1736	S.F.
Grass Deck	2383	S.F.

waters edge AQUATIC DESIGN | landworks STUDIO | CITY OF JOPLIN MISSOURI

Option 1 - Pool Renovation
Ewert Aquatic Center
Joplin, MO
10-20-2020

0 8' 16' 32' 48'
1/16" = 1'-0"

N

Copyright 2020

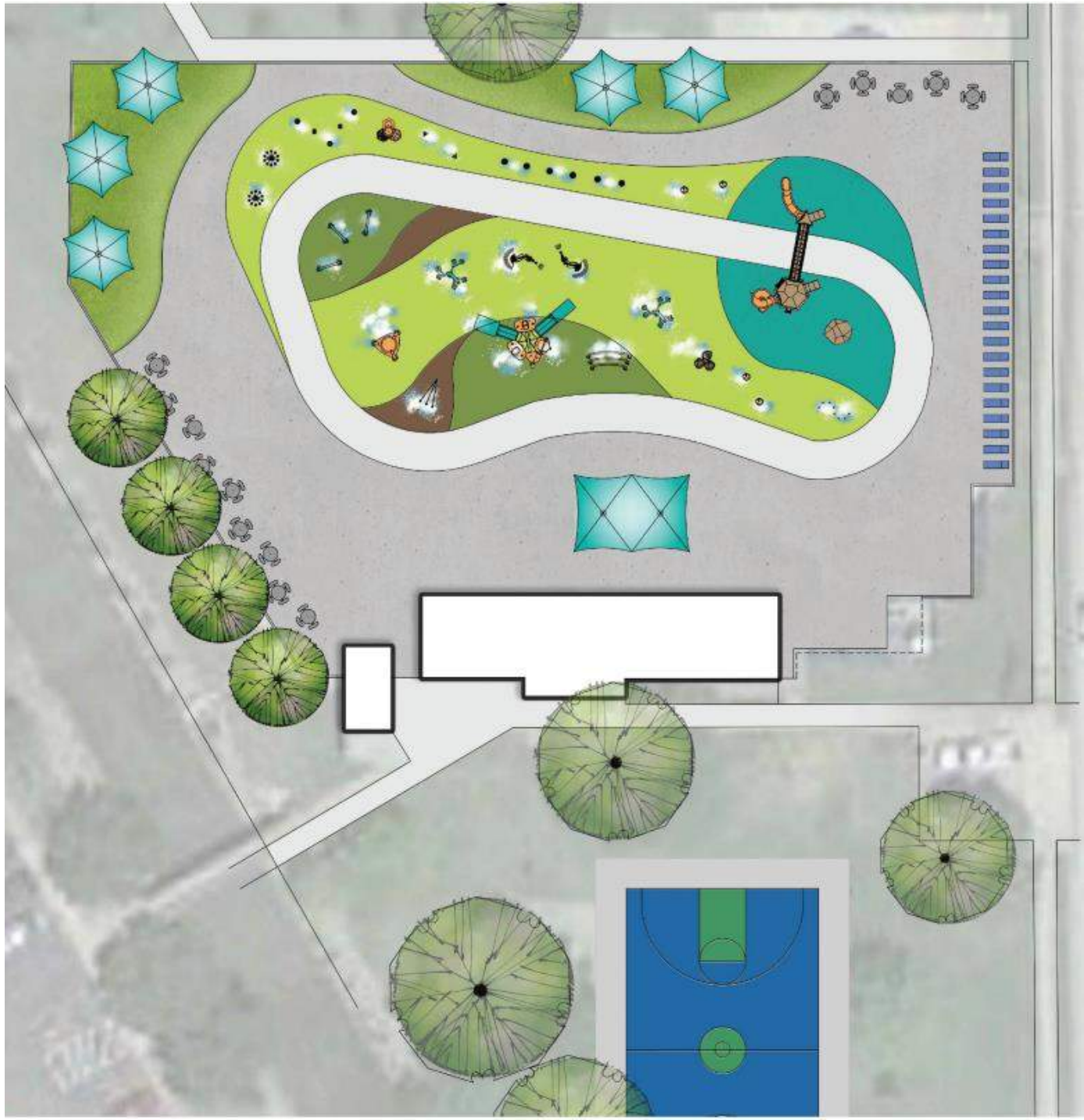
OPTION 2: Splash Park (North)

Add:

- Splash Park with features – various spray features and play structures, areas for multiple age groups
- Theme: Natural elements
- Dry play area with climbing feature
- Shade and seating areas
- Sidewalk connection to Skate Park
- Ice ribbon (ice skating in winter months)

Bathhouse: reconfigure admission area, men's restroom privacy, add family changing rooms

Benefits: Flexibility in hours of use and cost for participation, new and modern features, substantial reduction in staff requirement














Plan Key Notes

1. Sidwalk Connection to Skate Park
2. Shade Umbrellas
3. Artificial Turf
4. Toddler Area
5. Spray Arches
6. Flash Flood Feature
7. Tree Sprays
8. Bucket Canopy Dumper
9. Jet Sprays
10. Custom Nature Theme Play Unit
11. Spray Cannons
12. Boulder Sprays
13. Ice Ribbon (during winter months)
14. Nature Tower Dry Play
15. Boulder Dry Play

Concrete Deck Area	15,200 S.F.
Wet Play Area	7600 S.F.
Dry Play Area	1905 S.F.
Artificial Turf Area	3485 S.F.
Ice Ribbon Area	4100 S.F.

waters edge AQUATIC DESIGN | landworks STUDIO | CITY OF JOPLIN MISSOURI

Option 2 - Splash Park
Ewert Aquatic Center
Joplin, MO
10-20-2020

0 8' 16' 32' 48'
1/16" = 1'-0"

N

Copyright 2020













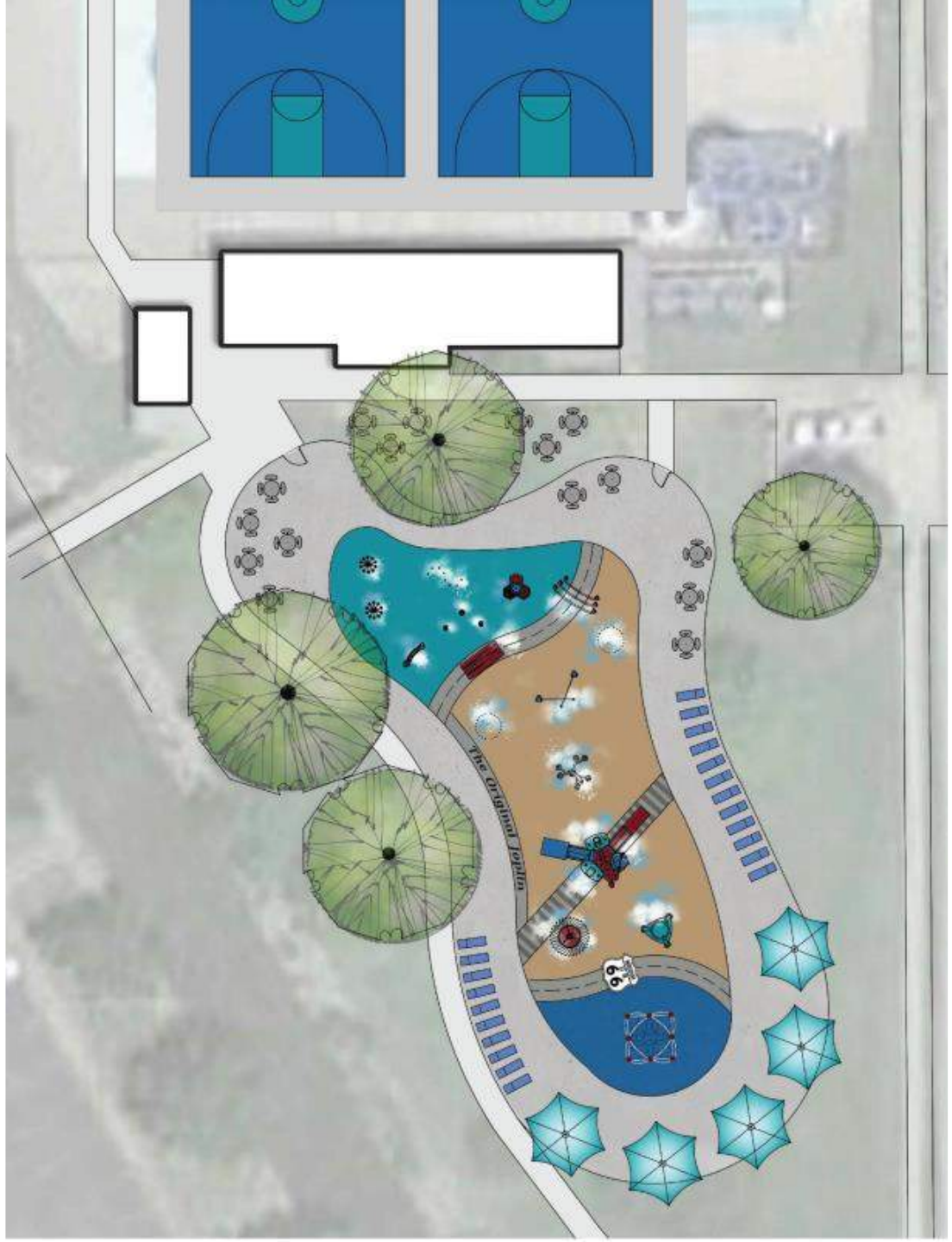
OPTION 3: Splash Park (South)

Add:

- Splash Park with features – various spray features and play structure, areas for multiple age groups
- Theme: The Original Joplin - transportation
- Dry play area with climbing feature
- Shade and seating areas
- Sidewalk connection to School Ave.
- Possible basketball courts where the pool currently sits, covered & multi-use space?

Bathhouse: reconfigure admission area, men's restroom privacy, add family changing rooms

Benefits: Flexibility in hours of use and cost for participation, new and modern features, substantial reduction in staff requirement, visibility from School Ave. and 7th St., available land to the North for future park development and use while efficiently utilizing available and minimally used space south of the bathhouse

















Plan Key Notes

1	Sidewalk Connection to School Ave
2	Existing Shade Trees
3	Toddler Area
4	Water Table
5	Custom Car Slide
6	Spray Arches
7	Spray Cannons
8	Spray Jets
9	Bucket Canopy Dumper
10	Custom Train Theme Play Unit
11	Spinner Spray
12	Flash Flood Feature
13	Net Climber Dry Play
14	Shade Umbrella

Concrete Deck Area	7395 S.F.
Wet Play Area	5555 S.F.
Dry Play Area	850 S.F.







waters edge AQUATIC DESIGN | landworks studio | CITY OF JOPLIN MISSOURI

Option 3 - Splash Park
Ewert Aquatic Center
Joplin, MO
10-20-2020

Copyright 2020















OPTION 4: Pool and Splashpad

Replace: pool basin floor, portions of the wall, deck, small diameter piping

Add:

- Splash pad with features – various spray features and play structure
- Sunshelf/platform entry into lap lanes with ADA ramp (zero-depth),water bench and shade, 1-meter diving, basketball goal
- Maintain existing slide until it has lived its useful life, remove at that time

Bathhouse: reconfigure admission area, men's restroom privacy, add family changing rooms

Benefits: Improve failing pool basin structures, new and modern features, flexibility in hours of use and cost for participation, reduction in staff requirement











Plan Key Notes

1. ADA Ramp/Zero-Depth Entry
2. Stairs/Sunshelf & Learning Platform
3. Water Bench with Shade
4. Basketball Goal
5. 1-Meter Diving
6. Splashpad Area
7. Spray Cannons
8. Spray Hoops
9. Hydra Hub Play Unit
10. Toddler Area
11. Various Interactive Sprays
12. Various Flower + Leaf Sprays
13. Various Ground Sprays
14. Concrete Bench Seating
15. Existing Shade
16. Tables
17. Existing Slide
18. Shade

Splashpad Area	8760	S.F.
Shallow Water	2100	S.F.
Deep Water	1225	S.F.
Total Pool Water	3325	S.F.
Landscape	1082	S.F.
Grass Deck	1110	S.F.





waters edge AQUATIC DESIGN | landworks STUDIO | CITY OF JOPLIN MISSOURI

Option 4 - Pool & Splashpad
Ewert Aquatic Center
Joplin, MO
10-20-2020

0 8' 16' 32' 48'
1/16" = 1'-0"

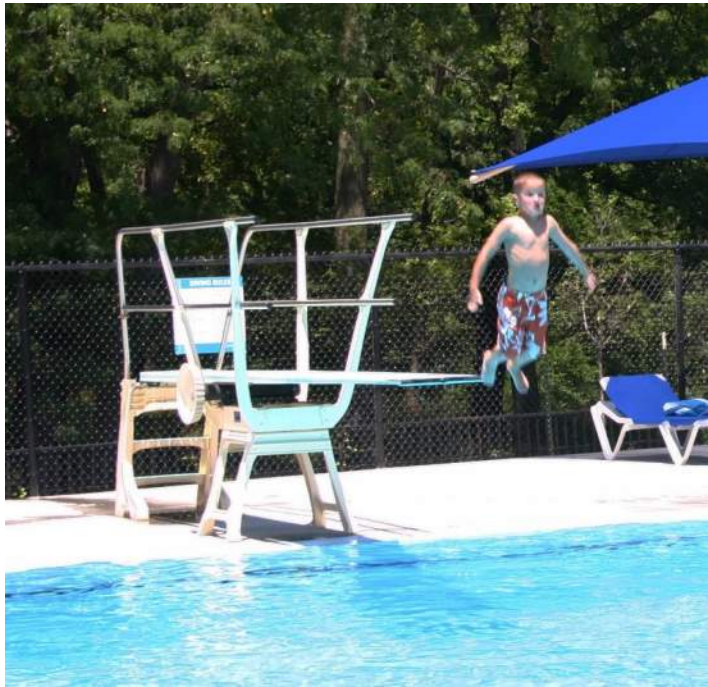
N

Copyright 2020


















Operating Costs

- Operating costs for pools and splash parks/splashpads are similar except for staffing and management costs
- Pools require more staff, both lifeguards and management, than splash parks and splashpads
- This means pools have a higher expenditure for staff and operations

The Options could be expected to fall as follows on the spectrum for operating costs in relation to the Other options:



Possible Options

		Magnitude of Cost
OPTION 1:	**Pool Renovation**	$3.5 - $4 Million
OPTION 2:	**Splash Park (North)**	$2.5 - $3.5 Million *(without ice ribbon)* $3 - $4 Million *(with ice ribbon)*
OPTION 3:	**Splash Park (South)**	$2 - $3 Million *(not including basketball courts)*
OPTION 4:	**Pool and Splashpad**	$4 - $5 Million

Next Steps



Recommend tasks if pool structure to be renovated:

1. Taking core samples of pool structure walls to verify integrity
2. Pressure testing and running a camera in existing piping to verify integrity



Thank You