



Technical Memo
Smoky Hill River Renewal
Refined Master Planning Process
City of Salina, Kansas

December
2017



Refined Master Plan

Vision to Reality

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01 Design Programs/ Goals



1.0 Design Program / Goals

The main design goal of the Smoky Hill River Renewal Project is to create a design concept derived from public feedback, which will rejuvenate the riverfront, get water flowing within the channel, and to restore the natural ecosystem. The project aims to improve water quality, mitigate the algae and odors currently diminishing the river, and to create a community focal point that drives the revitalization of the river as well as the adjacent neighborhoods.

Project goals were attained through a detailed analysis and design of locations where people can connect to the river from the surrounding areas, build a cohesive aesthetic theme, ensure trail connections and the placement of trail heads, identifying existing and future park and recreational uses, locating public art, treatment of storm water, aesthetic bridge enhancements, as well as other details.

A citizen steering committee was assembled to take part in a series of meetings and design charrettes, allowing the design team to fine-tune the project vision. The steering committee assisted in developing a conceptual plan that comprises alternatives presented in the master plan, and sizes the project to reflect both current and future conditions. Feedback from the city and steering committee were the primary influences that drove the decision making process and allowed for the creation of a preferred design concept. Public meetings were also held to gather additional feed back and validate the steering committee’s vision.



Urban Boardwalk

Non-Motorized Boating

Wilderness Trail

1.1 Key Design Considerations

Since the 2010 Master Plan was completed, there have been several changes within Salina, most notably the recent surge of redevelopment energy within Downtown Salina. With several significant tourism-oriented entities planned for Downtown Salina, Santa Fe Avenue is positioned to become the focal point of community redevelopment. The Salina Fieldhouse, Homewood Suites, The Alley Family Entertainment Center, Car Museum, and Old Chicago are all venues that will attract visitors from outside of Salina that are looking to spend their entertainment dollars within the community.

The Santa Fe corridor is located just blocks away from the river amenity. Downtown streets such as Iron Avenue, Walnut Street, Mulberry Street, and South Street directly connect Downtown Salina to the Smoky Hill River and have the opportunity to connect the two projects together in a cohesive manner. Building off of the success of the downtown streetscape project, similar elements and features can be located on these intersections to emphasize the physical connection to downtown. Moving people back and forth between the river and downtown will add to the success of each project.

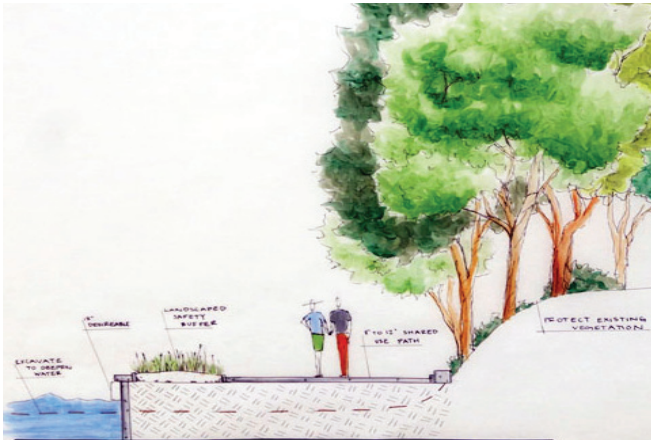


Downtown Streetscape Project

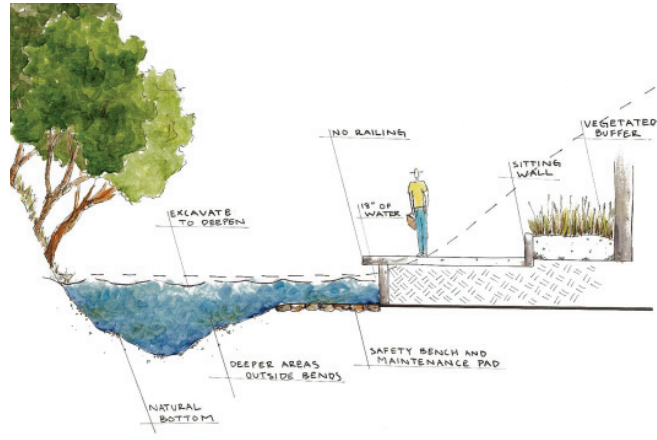
The existing river corridor has steep sides, and is heavily wooded for much of the length of the river. In many segments along the river channel, the wooded vegetation is still desired along the banks of the river. The goal when developing walkways adjacent to the river is to preserve the trees on the upper slopes of the river bank as much as possible and to add a shelf for the walkway on the lower side of the bank. The channel would be excavated to a minimum depth of 18 inches. In locations where a riverwalk is indicated, a landscaped buffer exists between the trail and the river channel. This buffer acts as a safety barrier that keeps trail users away from the channel. The boardwalk segments of the riverwalk would have an 18 inch deep shelf adjacent to the bulkhead wall where an excavator could gain access to the channel for future maintenance. This in-channel shelf doubles as a safety bench in case a boardwalk user falls over the edge since railings are not placed at the edge of the walkway. The water depth will vary from one side of the channel to the other in many locations, with the outside bends being deeper and sustainable for aquatic life. However, in any location where the walkway is right up against the channel the maximum water depth will be 18 inches.



Existing Dry Channel



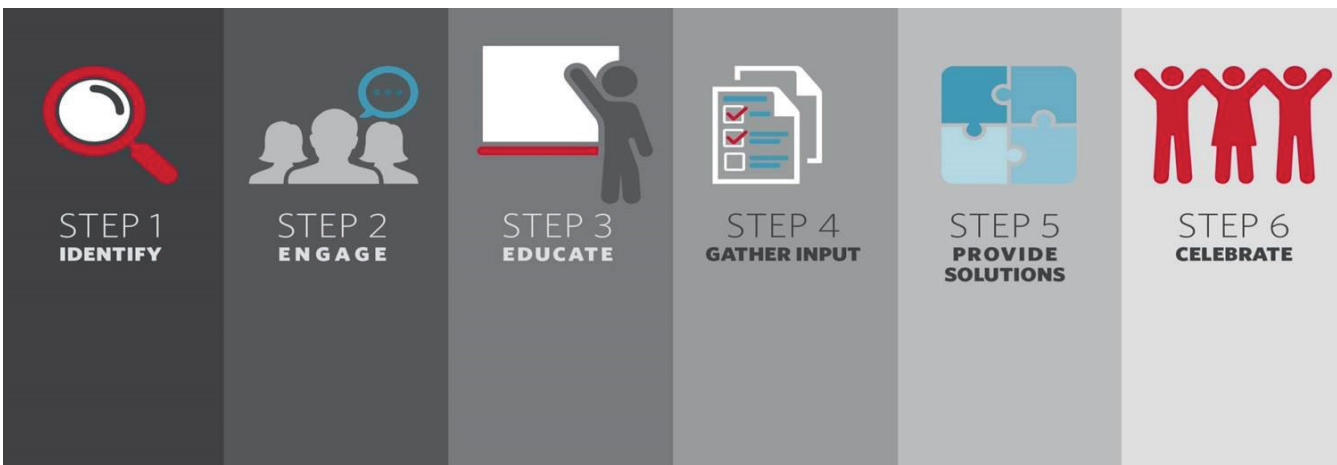
Riverwalk Rendering



Boardwalk Rendering

1.2 Public Engagement Process

The mission of the public engagement process was to get the public interested in the project and allow for their voices to be heard. The public will be using these amenities and living in this community so their opinions and input is vital to the success of the project. The public was involved through key messages, preliminary stakeholder analysis, project branding, and public engagement outreach tools. These tools included online surveys, comment cards at public meetings, and press releases to spread the word. The existing Smoky Hill River Renewal Master Plan webpage was used as a host for links for the public to access. These links provided dates for open houses and information on the steering committee, as well as links to surveys and the survey results. Each meeting supplied more tools to engage the public like large boards that welcomed people to the project, a wall map of the master plan, handouts with specific project information, and presentations at the public meeting that walked through options and ideas moving forward. These public engagement tools and processes welcomed the public and allowed for them to share their thoughts and opinions on decisions that will impact their lives in the future.



1.3 Steering Committee / Composition

A Steering Committee was formed to provide direction on key design issues relating to the master planning process. To join the committee, there was an application process undertaken where the general public could apply for a position on the committee. This process garnered 26 committee members that represented a broad range of community organizations and interests within Salina, including area businesses, local non-profit organizations, service club organizations, and generally interested citizens with an interest in the utilization of parks, trails, and recreational opportunities. The age range of the steering committee members ranged from high school students to retired individuals, showing the broad interest that this project garnered throughout the community.



The commitment that the selected steering committee members had to make was attending 14 steering committee meetings spanning a timeframe from July, 2017 to November, 2018. These steering committee members will act as project advisors and ambassadors throughout the community, and were chosen to help shape and form the end result of the project. They will provide a “checks and balances” system to make sure that the proposed plan conforms to the desires of the community and the project budget.

**02 June 2017 Public
Kickoff Meeting**



2.0 June 2017 Public Kickoff Meeting (Open House)

An open house meeting was held at Tony's Pizza Event Center in Salina, Kansas on Thursday, June 22 from 4:00 p.m. to 7:00 p.m. with a presentation at 5:30 p.m.

Table 2.01 In-person Public Open House Meeting Information

Date & Time	Location	Number of Attendees
Thursday, June 22, 2017 4:00 p.m. – 7:00 p.m. 5:30 p.m. presentation	Tony's Pizza Event Center 800 The Midway Salina, KS 67401	121

Table 2.02 June 2017 Open House Staffing

Name	Organization
Chris Cotten	City of Salina
Dan Stack	City of Salina
Jason Gage	City of Salina
Jeff Mitchell	City of Salina
Jim Kowach	City of Salina
Martha Tasker	City of Salina
Rachel Hinde	City of Salina
Jane Anderson	Friends of the River

Name	Organization
Don Lindeman	HDR
Eric Dove	HDR
Kristen Obermueller	HDR
Stephanie Rittershaus	HDR
Troy Henningson	HDR
Jon Jones	Wrightwater Engineers
Patricia Flood	Wrightwater Engineers

2.1 Outreach & Meeting Materials

Press Release – the City of Salina sent a press release to the Salina Journal on June 5, 2017.

Boards – two boards were included in the meeting – a welcome board and a schedule board. A full wall map from the Master Plan was also displayed.

Handout – an 8.5 by 11 handout was distributed at the sign-in table.

Presentation – a presentation was given at 5:30 p.m. to brief the public on the project.

Sign-In Sheets – approximately 121 people attended the meeting.

Survey – attendees took surveys in-person or online during and for two weeks after the meeting.

There were 121 people that signed into the meeting. The previous master plan from 2010 was shown and participants were asked to fill out a survey that simply prioritize ten of the key amenity features from the 2010 master plan to help determine which elements are seen as current priorities within the community. The survey was also available online, where 465 total people took the survey. Interest in the meeting was high, as over 2,691 total video views were indicated from people who watched a portion of the meeting on Facebook Live which was streaming live on location directly from the presentation.

Public Open House
Thursday, June 22, 2017
Open House: 4:00 p.m. – 7:00 p.m.
Presentation at 5:30 p.m.
Tony's Pizza Event Center
The Midway Mall
800 The Midway
Salina, KS 67401

Take the Survey
To take the Smoky Hill River Renewal Project survey, visit www.salina.kansas.gov/riverrenewal. The survey will be available June 22 through July 1, 2017.

For More Info...
Please contact:
Martha Tasker
Director of Utilities
City of Salina
300 W. 4th St.
Salina, KS 67401
785.209.5725
Martha.Tasker@salina.org

All project information, including an online survey, can be found at www.salina.kansas.gov/riverrenewal

2010 Smoky Hill River Renewal Master Plan
The Old Smoky Hill Channel meanders through the City and was included in the 1900s by construction of a flood control levee and bypass channel. The original river alignment (old river channel) has no sustained base flow of water and has accumulated sediment and urban debris. The old channel continues to receive stormwater flow from approximately 75 storm sewer outfalls.

Community meetings were held to allow the public to offer opinions and ideas on how the Master Plan could best address a variety of public and private improvements. The Master Plan identifies improvements, locations, general costs, potential funding sources, recommended planning, and operation and maintenance costs.

In August 2010, the City Commission accepted the Smoky Hill River Renewal Master Plan. For more information, visit www.salina.kansas.gov. In May 2016, voters approved a sales tax increase from 4.4% to 5.25% that will be in place over 20 years. A portion of those sales tax funds will be used for Smoky Hill River Renewal projects and will allow restoration efforts to move forward.

Smoky Hill River Renewal Current Status
The City has obtained a water right to divert a portion of the Smoky Hill River base flows into the old channel. However, due to sedimentation and unchanneled culverts, a restoration effort is needed before water will move through the system. A historical study did in addition to restoring the base flow, an Urban River Walk is planned for a portion of the channel near downtown that will consist of public amenities and water tasks. HDR was hired in the spring of 2017 to develop preliminary design of the channel features and the gateway trail shown in the Master Plan. Additionally, HDR will be working with the City and public to obtain input on areas within the Master Plan that require refinement due to existing or changed conditions and budget constraints.

On February 17, 2017 the City initiated the first step in applying for federal funding that may cover up to \$10 million of the construction costs in the natural channel area (75% federal/25% local cost share). Public meetings, surveys, design drawings, and a steering committee will provide citizens with multiple opportunities for engagement and input. The City of Salina is committed to transparency. All project information will be located on the City's website: www.salina.kansas.gov/riverrenewal.

03 July Charrette #1





3.0 July Charrette #1

A design charrette was held at the Salina Art Center Warehouse in Salina, Kansas from Monday, July 17 to Thursday, July 20. On Tuesday, July 18 and Wednesday, July 19, steering committee meetings were held from 5:30 p.m. to 7:30 p.m. On Thursday, July 20, an open house was held from 5:30 p.m. to 7:30 p.m. with a presentation starting at approximately 5:45 p.m. A press release was sent to the Salina Journal on July 10, 2017. The focus area of the first design charrette was from Iron Avenue to the YMCA driveway.

The charrette began with the design team touring the river channel to discuss the opportunities and constraints associated with the project. The design team then worked in a collaborative working session to create initial design concepts based on first hand impressions, 2010 Master Plan, analysis of design considerations, and survey results from the public kickoff open house and online survey. These initial concepts were then presented to City staff to get reactions and input in the form of a pin-up session. Following City staff input, the pin-up involved presenting designs and hanging them on the wall so the steering committee could vote and provide input on which parts of the design they liked or disliked by placing red and green dots on those particular design elements. The Steering Committee also provided comments and necessary information that corresponded to their dots and votes. Next, the design team reviewed the votes, notes, and comments and developed refined designs incorporating changes based on the feedback. This process of presenting, voting, and altering designs repeated as many times as possible in the allotted time with both the City and the Steering Committee. For a successful charrette, a minimum of three feedback loops are required to provide enough feedback and direction to complete the master planning process. Both charrettes for this project included the three requisite feedback loops.

Salina Smoky Hill River Renewal Charrette Process Flow Chart



Day One



Day Two



Day Three



Day Four



Table 3.01 In-person Meeting Information

Date & Time	Location	Number of Attendees
Tuesday, July 18, 2017 5:30 p.m. to 7:30 p.m.	Salina Art Center Warehouse 149 S 4th Street Salina, KS 67401	Steering Committee 18
Wednesday, July 19, 2017 5:30 p.m. to 7:30 p.m.	Salina Art Center Warehouse 149 S 4th Street Salina, KS 67401	Steering Committee 14
Thursday, July 20, 2017 5:30 to 7:30 p.m. Presentation at 5:45 p.m.	Salina Art Center Warehouse 149 S 4th Street Salina, KS 67401	Open House 100

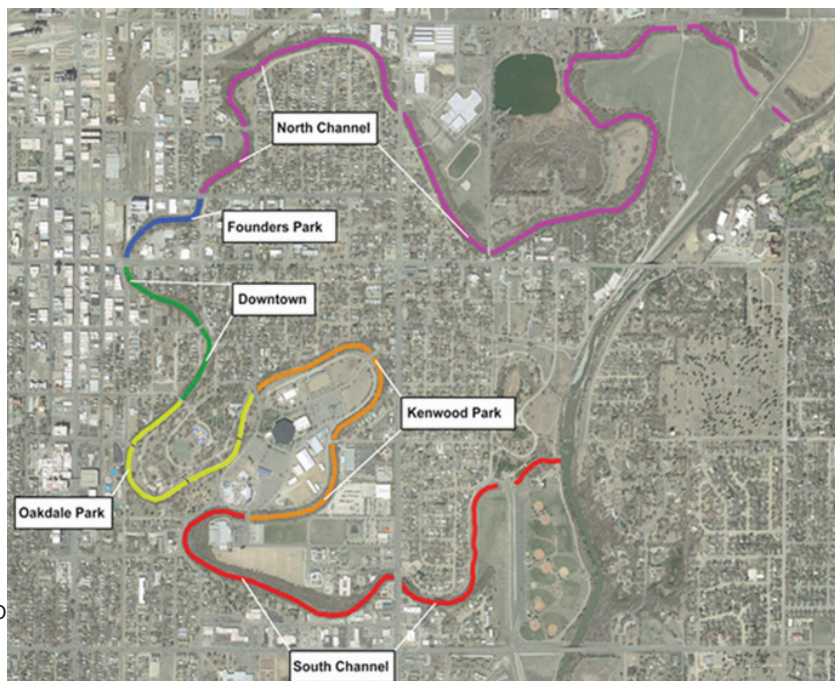
Table 3.02 July 2017 Charrette Staffing

Name	Organization
Martha Tasker	City of Salina
Rachel Hinde	City of Salina
Eric Dove	HDR
Doug Bisson	HDR
Stephanie Rittershaus	HDR
Kristen Obermueller	HDR

Name	Organization
Troy Henningson	HDR
Andy Gorham	HDR
Austin Vachal	HDR
Alex Robinson	HDR
Cassie Schilling	HDR

3.1 Design Charrette Progression

The goal for the first charrette was to come to a consensus on a final concept focusing on the Downtown, Oakdale Park, and Kenwood Park segments. This design charrette had a strong emphasis on hardscape and built amenities involved in the project and had an urban concentration focusing on connecting downtown through visual beacons as well as physical access routes. The design team began with diagramming locations for main amenities and connections to downtown. After getting feedback from city staff and the steering committee, the design team collaborated to develop three design concepts that incorporated interactive features like mist areas, water veneers, and waterfront seating. They also proposed formal amenities like a formal hardscape edge, programmable pavilions, and a boardwalk. These concepts also evaluated different placements of a boathouse, a second dam, and additional pedestrian bridges.





After receiving feedback from the steering committee, the design team consolidated the ideas and developed a conceptual plan that focused on:

- Intersecting street beacons that terminate street access,
- Pavilion and plaza with programmable space and formal steps located at Iron Avenue and 4th Street,
- Ceremonial entrance at the Midway, and
- Wilderness areas along the river's edge on the southern stretch.

The steering committee also reached a consensus on not building a second dam, as well as postponing the water taxis until a later phase. The consolidated design concept plan and ideas were then presented in a public meeting format where votes were cast and opinions shared allowing for future revisions and a concise idea of what is expected and necessary for the second charrette.



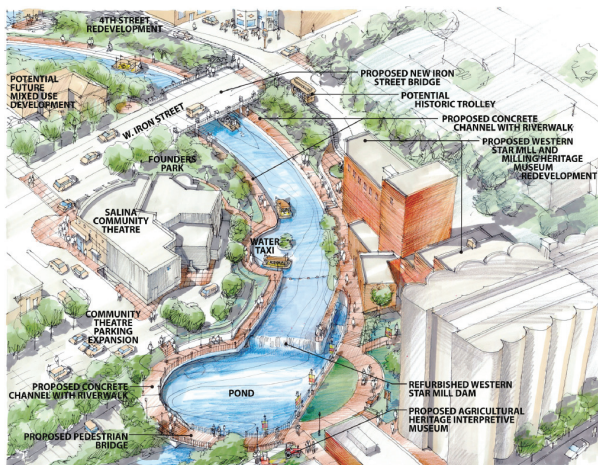
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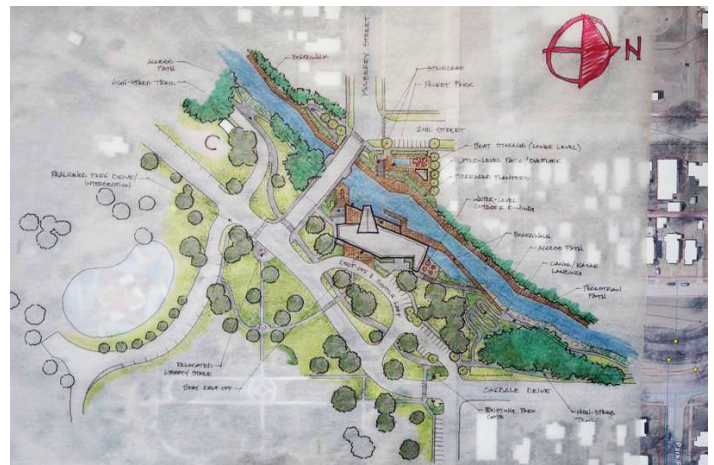
Iron Ave & 4th Street



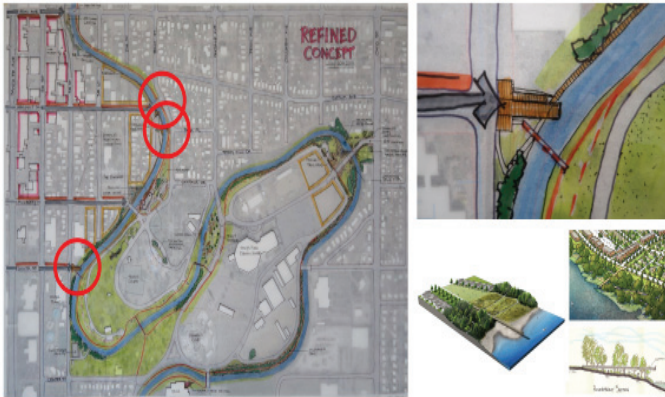
Ceremonial Entrance at Midway



Western Star Mill Area from the 2010 Master Plan



Boat House Sketch



River Overlook



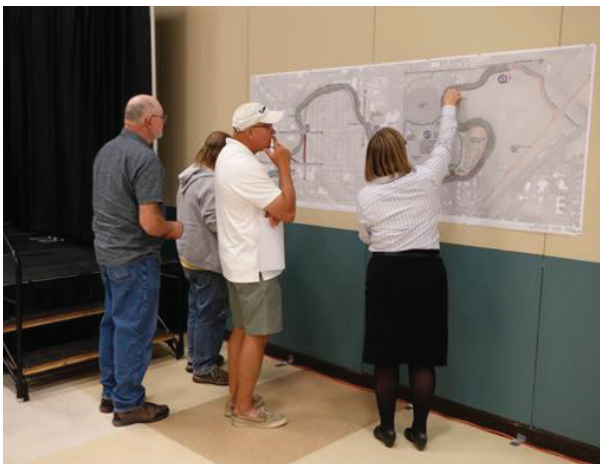
Maintenance Area



Steering Committee Reviewing Slide Presentation



Steering Committee Discussing Features of Project



Steering Committee Discussing Features of Project



Steering Committee Voting

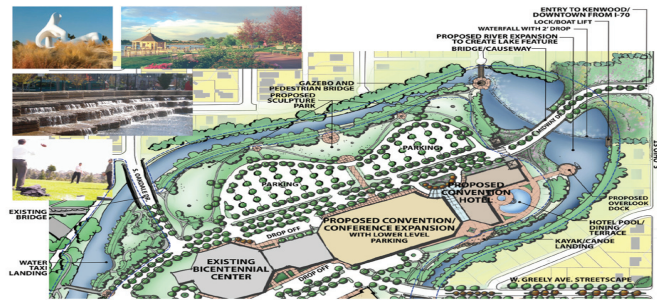


3.2 Second Public Meeting

The second public meeting was held at the end of the fourth day of Charrette #1 on July 20, 2017. Again, participation was high, with 100 people in attendance. A second survey was conducted that asked several questions about the concept developed between Iron Avenue and the YMCA, 293 people took the survey and most of the master plan components were ranked highly. The features that rose to the top were the Wilderness Trail, the Boardwalk, and the East Gateway area. Individual survey responses are shown in Appendix B.

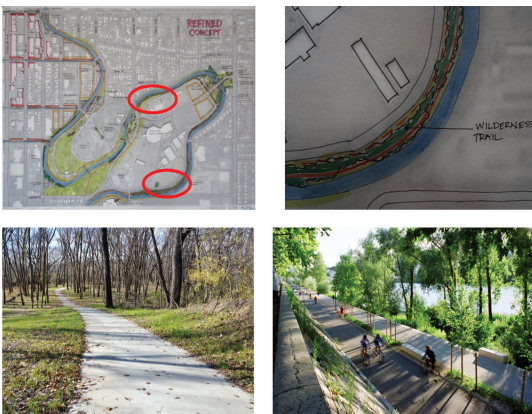


YMCA Area



Kenwood Park East Gateway

WILDERNESS TRAIL

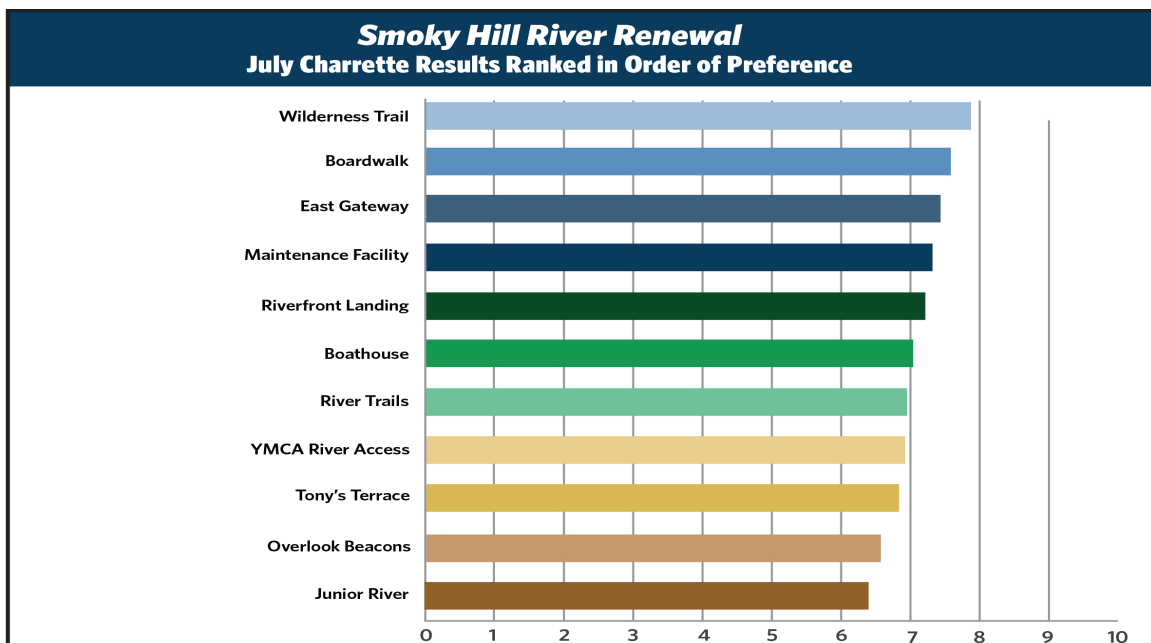


Wilderness Area

THE BOARDWALK



Boardwalk



Following the meeting renderings were developed for 4th Street and Iron Avenue as well as the Kenwood Park East Gateway.



4th & Iron Avenue Rendering



Kenwood Park East Gateway Rendering

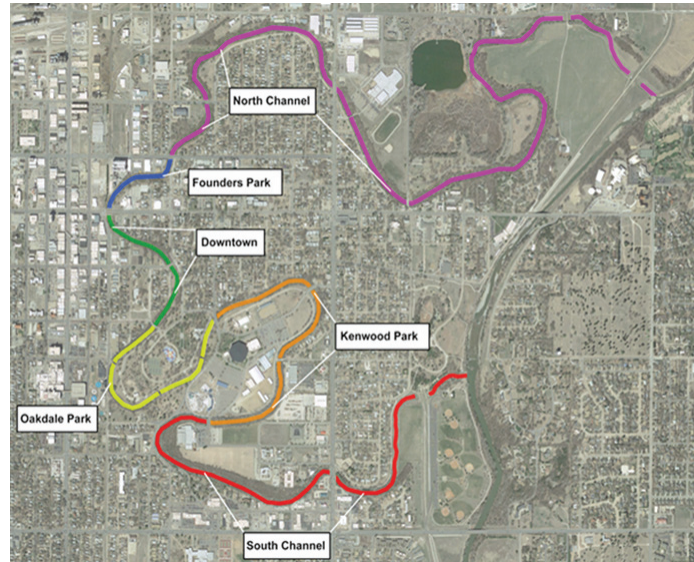
04 **September 2017**
Charrette #2



4.0 September 2017 Charrette #2

A design charrette was held at Tony’s Pizza Event Center in Salina, Kansas from Tuesday, September 26 to Thursday, September 28. On Tuesday, September 26 and Wednesday, September 27, steering committee meetings were held from 5:30 p.m. to 7:30 p.m. On Thursday, September 28 an open house was held from 5:30 p.m. to 7:30 p.m. with a presentation starting at approximately 5:45 p.m. A press release was sent to the Salina Journal on September 14, 2017.

Charrette Two focused on the North Channel, Founders Park/Western Star Mill Dam, and the South Channel. The goal of this charrette was to develop a design concept for these spaces as well as address unresolved concerns that were remaining from the first charrette. This charrette had an overall theme of rural, less developed elements with more of an emphasis on canoe and kayak accessibility. After analyzing needs and addressing unresolved questions from the first charrette, some of the questions that needed to be answered included a location for an additional pedestrian bridge, locations for trailheads and boat launches, step pool details, and the design intensity of amenity features.



Project Reach Locations

Table 4.01 In-person Meeting Information

Date & Time	Location	Number of Attendees
Tuesday, September 26, 2017 5:30 p.m. to 7:30 p.m.	Tony’s Pizza Events Center 800 The Midway Salina, KS 67401	Steering Committee 14
Wednesday, September 27, 2017 5:30 p.m. to 7:30 p.m.	Tony’s Pizza Events Center 800 The Midway Salina, KS 67401	Steering Committee 12
Thursday, September 28, 2017 5:30 to 7:30 p.m. Presentation at 5:45 p.m.	Tony’s Pizza Events Center 800 The Midway Salina, KS 67401	Open House 104

Table 4.02 September 2017 Charrette Staffing

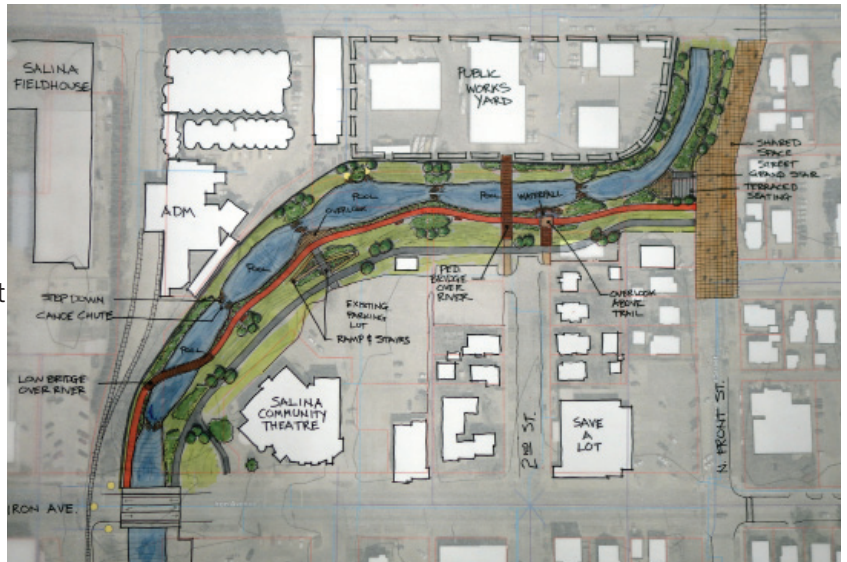
Name	Organization	Name	Organization
Martha Tasker	City of Salina	Kristen Obermueller	HDR
Rachel Hinde	City of Salina	Troy Henningson	HDR
Eric Dove	HDR	Andy Gorham	HDR
Doug Bisson	HDR	Austin Vachal	HDR
Stephanie Rittershaus	HDR	Alex Robinson	HDR

4.1 Design Charrette Progression

After the initial design discussion and site analysis, the design team provided section cuts views of potential future river conditions and variations of design concepts for each node of the focus section based on feedback from city employees and steering committee members. These ideas provided various locations for amenities by the step pools in Founders Park and Western Star Mill, different amenity types and trail locations in Lakewood Park, and different layouts for the YMCA pedestrian bridge and trailhead as well as the Elmhurst Boulevard trailhead and boat launch. These ideas were voted on and refined for the final presentation with the consensus on:

- Water quality wetlands closet Bill Burke Park,
- Trail heads and boat launches by Elmhurst Boulevard and the YMCA,
- Shared use spaces by the step pools in Founders Park,
- Lakewood Park area landforms from the excavated and deposited river sediment,
- Canoe discovery trail, and
- Habitat restoration.

Steering committee and public feedback emphasized nature and possible ways for the public to experience the riverfront and access the water. There was a clear consensus on removing Western Star Mill Dam and replacing it with a series of 2 foot high step pools. The steering committee indicated the step pools must be visible from Iron Street and navigable with canoes.



Founder's Park Step Pool Concept



Founder Park and Western Mill Dam Rendering

4.2 Third Public Meeting

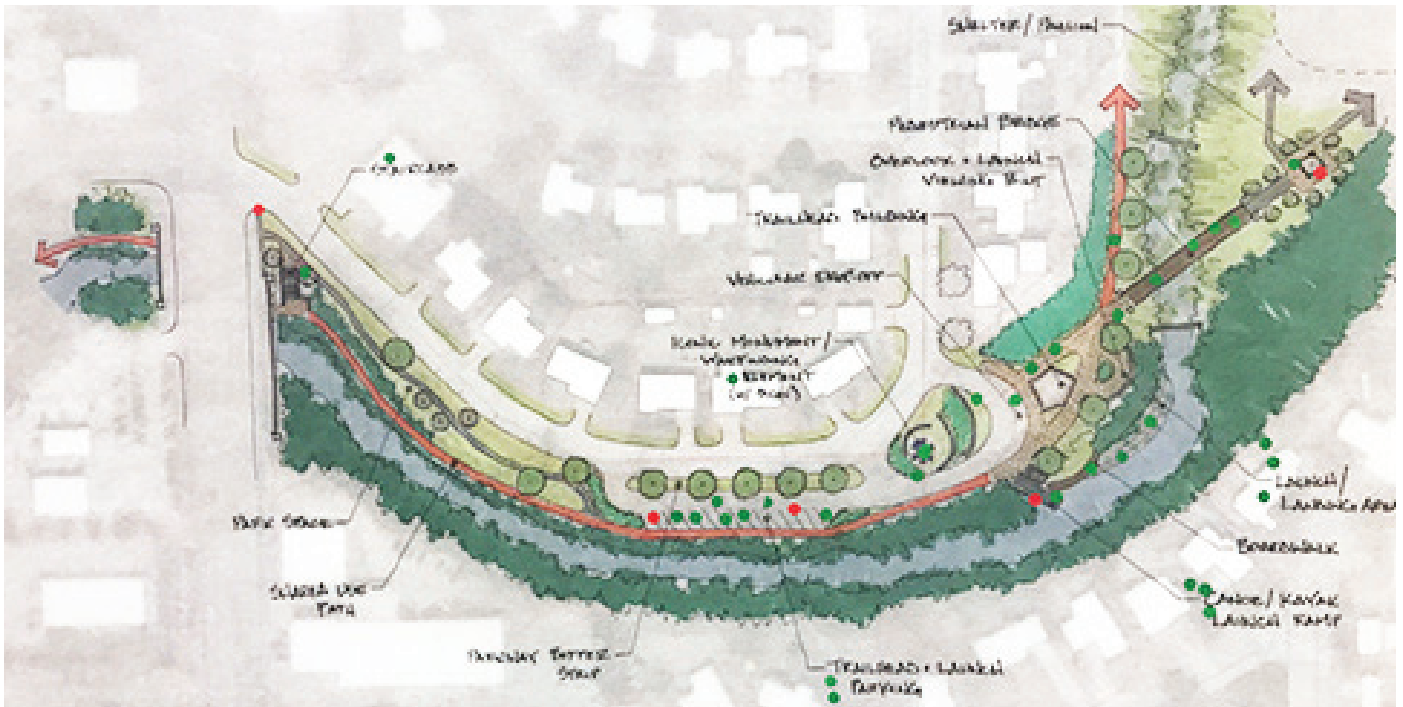
The third public meeting was held at the end of the third day of Charrette #2, on September 28, 2017 at the Tony's Pizza Events Center. Participants were able to review and provide input for the area of the master plan from the intake at Bill Burke Park to the YMCA, and from Iron Avenue to the outfall back into the Smoky Hill River. 104 people attended the meeting and were able to provide their input. An online survey was conducted in October and 305 individuals responded. Overall, the concepts developed during the charrette were well received.



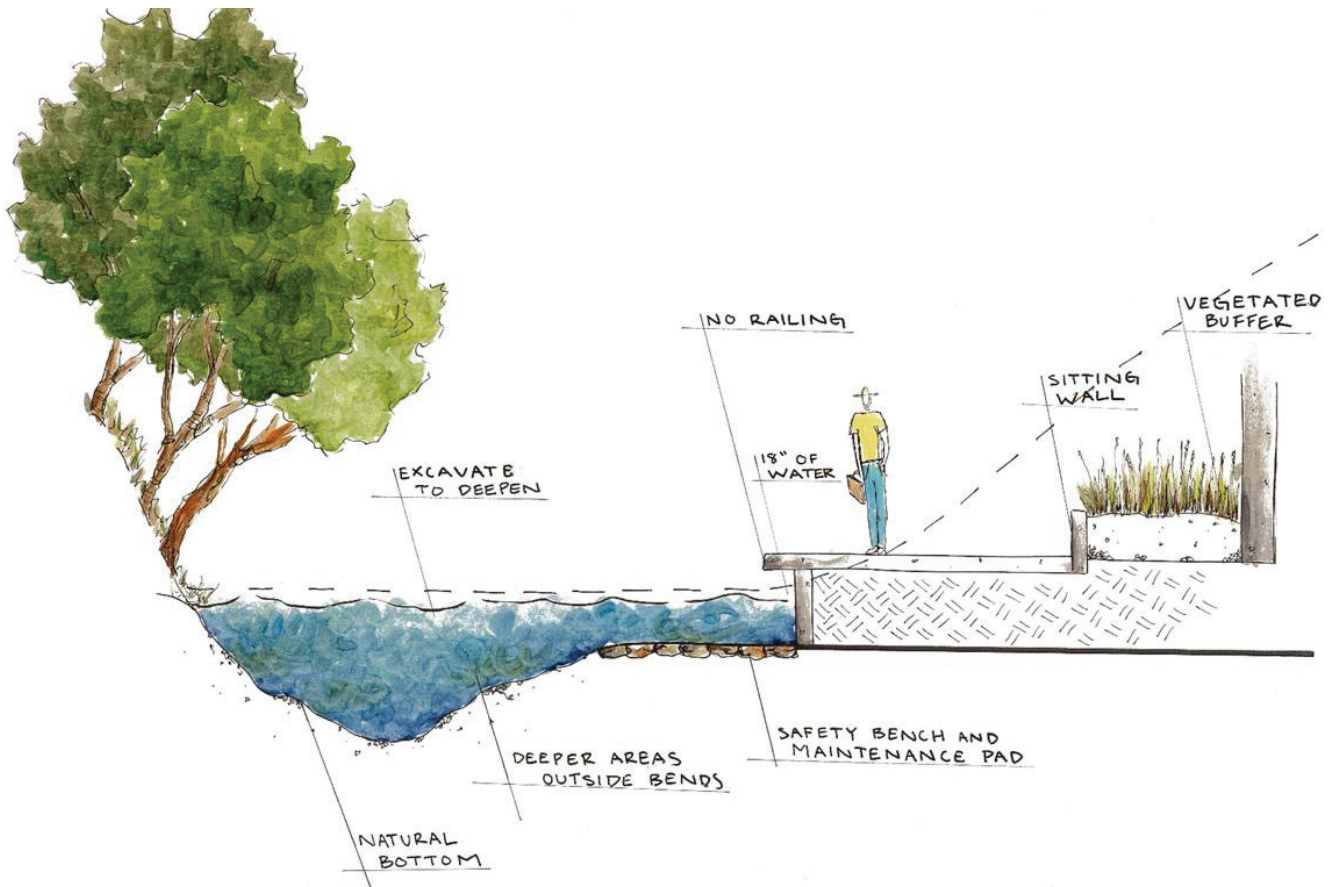
Tony's Event Center



Refined Design Concept for Lakewood Park



Bill Burke Park



Boardwalk

05 Steering Committee Direction



5.0 Key Steering Committee and Public Direction

The steering committee, along with the public comments, have helped transition the master plan from where it was in 2010, to be current with the general consensus of where the community is today. It reflects changes that have occurred within the last several years to take advantage of the energy and transformations that Salina is currently undergoing downtown as well as in other locations within the community. It has guided the planning process towards a framework for the design, providing key decisions on several key issues to propel the plan forward. A listing of these broad framework refinement to the 2010 Master Plan are summarized below.

- **Eliminate the second dam occurring in the location of the East Gateway as the 2010 master plan indicated.** There was a desire to maintain the canoe navigation from Bill Burke Park all the way to Founder's Park without interruption. The committee didn't believe that adding a lock and dam at East Gateway was the best use of the limited construction funds that would be available.
- **Provide the opportunity for canoes and kayaks to traverse the entire stretch of the river from Bill Burke Park to Lakewood Park.** The Western Star Mill Dam, is the only location where there was a vertical drop that would be non-navigable throughout the entire length of the river. The options for canoes and kayaks were to portage around the dam, or to replace the dam with another option, step pools.
- **No water taxis in the initial phase.** Although this item was a popular choice in the 2010 study, the public survey process as part of this updated study found that water taxis were one of the lowest desired features for immediate implementation of the plan. Although they may not be included as part of the initial phase of development, the Steering Committee did not want to preclude them from being implemented at some point in the future. To accommodate that, the elevations of the adjacent boardwalk are maintained at the desired 18" difference from the normal top of water elevation where water taxi stops could be added in the future.
- **Reduce the emphasis on the East Gateway / Midway Entrance.** The 2010 master plan had a significant water feature and associated amenities shown in the vicinity of the East Gateway / Midway Entrance from South Ohio Street. This included a long waterfall and a lock and dam for water taxi access. In the years that have transpired since the previous master plan, the downtown has gone through a renaissance and has shifted the center of energy within the community back towards Santa Fe Avenue. The East Gateway area was no longer seen as being the primary location that should have a significant amount of money spent on developing amenities for the river. Nevertheless, there is still a desire to accentuate this gateway location, only to a lesser extent, while providing a "wow" factor for the many visitors to the Tony's Pizza Events Center, the Fairgrounds, and for those arriving from South Ohio Street.
- **Emphasizing the Downtown stretch of the river.** Since recent development within the community has been shifted towards Downtown Salina, it was determined that the segments of the river that are closest to downtown would become a priority for the Smoky Hill River to build off of that energy. With projects such as the Downtown Streetscape, Salina Fieldhouse, Homewood Suites and Inn, The Alley Family Entertainment Center, Old Chicago, and renovations made to the Stiefel Theatre, adding amenities to supplement those developments and physically connect the downtown with the river became a priority. There are several locations within these river segments that could become the marquee hot-spots and amenity features that attract a multitude of people and visitors to the river. Several locations could provide the much-needed "postcard photo" location that will be included in future marketing materials.
- **Central Launch and Trail Head Location.** An ideal location to place the second trail head and canoe/kayak launch was determined to be the YMCA property just south of Kenwood Park. Located a little more than a mile downstream from the Elmhurst Boulevard, this location was identified as one that could become a partnership with the YMCA, as they have the space, facilities, and potential staff to operate such an endeavor. Because of the aforementioned items, this location is also an excellent location to have rental facilities for canoes and kayaks.

- **Maintenance Facility.** This feature was not included in the original master planning efforts in 2010. Although it is not the most slightly component of the master plan, a maintenance facility is a necessary function that will be required for ongoing maintenance, trash pickup, and delivery of mulch and other materials along the river once it is restored. The steering committee believed that the best location to place this facility would be on the west side of the river, close to the Water Treatment Plan and near the corner of 4th and Center. This location is centrally located for access along the channel.
- **Boathouse Facility.** This is another feature that was not included as part of the 2010 Master Plan. This multi-purpose boathouse facility was desired for canoe and kayak rental to the general public, and feature and outdoor eating area. It could also function as a gathering space for wedding receptions, family reunions, or other celebrations. The location deemed most suitable for a potential boathouse was the east side of the river, on axis with Mulberry Street, just east of the soon to be constructed Homewood Suites Hotel.
- **Iconic Downtown Entrance Plaza.** Iron Avenue has long been seen as the division between north and south in Salina, and as such, the addresses to the north are labeled as north, and the addresses to the south are labeled as south. The intersection of Iron Avenue and 4th Street is the closest to the river and downtown core. The Steering Committee believed that this location was the best location to create synergy with pedestrians and activities that are occurring downtown. An iconic amenity was envisioned to be located at this intersection.
- **Northwest Launch and Trailhead Location.** Downstream from Western Star Mill Dam, there was a need to locate an additional trailhead and canoe/kayak launch. Riverside Park, located on the east side of the channel just north of Elm Street, provided a large enough parcel for this use, and had the benefit of being publicly owned.
- **Northern Launch and Trailhead Location.** Another potential trailhead/launch was identified on the west side of Lakewood Middle School. This site would be large enough to have a few parking spaces as well as become a launch point for canoes and kayaks to access the northern reach of the river. This location would be minimal in contrast to the fall feature located at Riverside Park.
- **Excavated Sediment.** The large amount of sediment that will be excavated from the existing channel requires a large space to deposit it. To save money on hauling costs, Lakewood Park was identified as a potential location where the sediment can be deposited and transformed into an amenity with landforms and trails.
- **Connect Lakewood Lake with the River.** The Steering Committee recommended reconnecting Lakewood Lake to the Smoky Hill River channel in order to restore it back to its former condition. By doing so, the water level in the lake would rise four to six feet and would provide the opportunity to create a Canoe Discovery Trail as a recreational opportunity.
- **Northeast Launch and Trail Head Location.** The existing parking lot on the northeast side of Lakewood Park could be expanded and additional amenities could be added to make this area the final canoe and kayak launch site on the river. This would provide many options throughout the 6.8 mile long river channel to access the river with canoes and kayaks, providing trips of many different lengths and iterations. The 2010 Master Plan likewise envisioned a marina near this reservoir.

06 Master Plan Overview



6.0 Refined Master Plan Overview

The refined Master Plan developed as part of this project is primarily for the in-channel improvements to the Smoky Hill River channel, as well as the publicly owned land adjacent to the river. The Master Plan covers the entire 6.8 mile alignment of the historic Smoky Hill channel from the intake in Bill Burke Park, to the outfall downstream and east of Lakewood Park. The overall master plan was largely developed over the course of the two design charrettes that were described earlier. The charrette concepts were then further refined based on feedback from the Steering Committee and the City of Salina to what is the revised 2017 Master Plan for the Smoky Hill River channel. The main goal of the project is to get the water flowing through the old channel again, and then to supplement the enhanced channel with recreational amenities such as trails and access for canoes and kayaks to maneuver through the channel. This Master Plan will serve as a guide for which components of the Master Plan are constructed in the initial phase of construction. Specific elements of the Master Plan are explained below in more detail.



Smoky Hill River Renewal Project - Refined Master Plan

A. Sedimentation basins are indicated at the intake on the north side of Bill Burke Park. Two, side-by-side basins are indicated that will be lined by concrete for ease of maintenance. They essentially act as concrete swimming pools and will successfully remove up to 17% of the sediments from the Smoky Hill River. Access for maintenance is located on both the north and south side of the sedimentation basins and designed so that while one is shut down due to the removal of sediment the other one can remain in service.



opportunity to locate a **canoe and kayak launch** exists. This is immediately downstream from the water quality wetlands. This location will maximize the length of the navigable channel that can be accessed by the general public. A small parking lot is shown, along with an accessible put-in for canoes and kayaks, a small trailhead building with restroom facilities, and a pedestrian bridge across the channel to Bill Burke Park.



Canoe and Kayak Launch Example

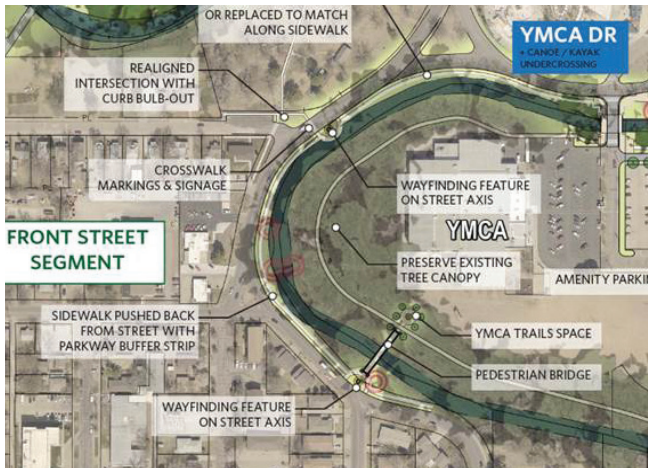
B. Once the channel crosses through the flood control levee in Bill Burke Park, there are a series of **water quality wetlands** that will further filter the water and begin to remove additional sediments from the channel.



Elmhurst Blvd Trailhead and Canoe/Kayak Launch

D. The neighborhood around **South Front Street**, located to the south and west of the YMCA property on the opposite side of the channel, was the preferred location to place a pedestrian bridge across the river channel that would connect to the trail system on the YMCA property. This allows for residents of the neighborhood to conveniently access the trail system along the river and to safely access the amenities along its course.

C. West of Bill Burke Park along the south side of Elmhurst Avenue is the location where the first



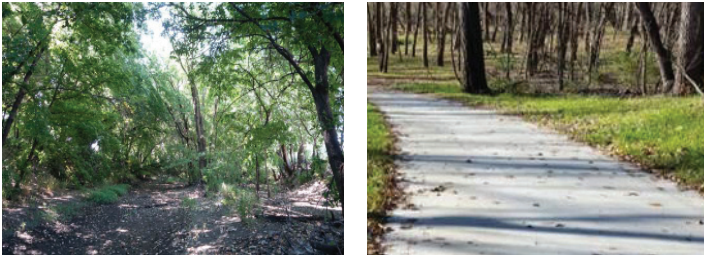
E. The **YMCA property**, just south of Kenwood Park, is an amenity that the entire community may enjoy. The abundance of YMCA-owned land and its strategic location adjacent to the Smoky Hill River makes it an ideal location for a centrally located trailhead facility as well as another canoe and kayak launch. There is space available to add parking and affiliated amenities associated with a trailhead. Secondly, the YMCA may be able to operate the facility and staff it with their employees.

tall water fountain would terminate that view from the east. When crossing over the river channel, passersby will notice a stone step cascading water feature with ample seating for visitors and users of the waterfront to take advantage of. This becomes one of the signature “postcard photograph” locations. This location is also a prime location to locate another trailhead facility with a small parking lot and restroom facilities.



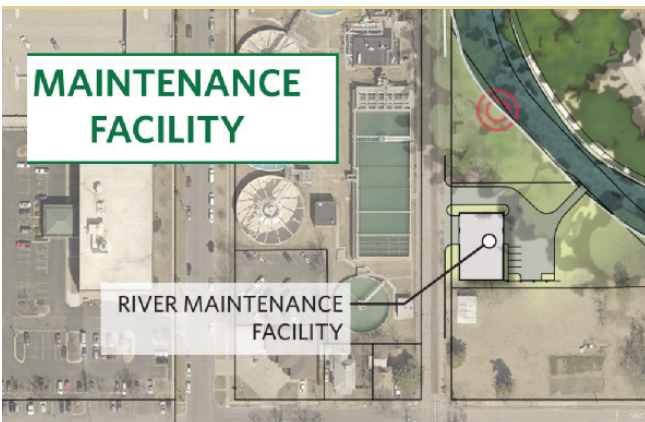
F. The **Kenwood Park East Gateway** location is still a significant entry point into the river corridor for out of town visitors that are attending events at the Tony’s Pizza Events Center. The plan calls for a new bridge, and a significant water feature at the terminus of The Midway when entering from South Ohio Street. Whereas currently the roadway is terminated on a grove of trees, the idea is that a significant vertical structure like a

G. In several locations along the river corridor, there is a desire to maintain as many of the existing trees as is possible in order to provide much needed shade and enhanced aesthetics for the corridor. These locations are prime locations for a **Wilderness Trail**, where utilizing the existing tree canopy can add to the ambiance and experience of trail users. One of these locations exists between the aforementioned East Gateway amenities and Oakdale Avenue, where the tree canopy provides a significant tree canopy to weave the trail through.



Wilderness Trail Examples

H. A **Maintenance Facility** is one of the most beneficial and functional elements for the long term success of the corridor. Located in an inconspicuous location adjacent to the Water Treatment Plant at 4th and Center Streets, the Maintenance Facility will provide storage for equipment, a boat ramp to access the river, and a centrally located launching point to access much of the river corridor. This functional element will have a gate across the ramp to prevent unauthorized usage of the river corridor by the general public. Barges will be able to access the river and collect trash or deliver landscaping and other materials in an efficient manner from Bill Burke Park to the Western Star Mill Dam.



Maintenance Facility Example

I. The Downtown Segment of the river corridor, which includes the stretch between Oakdale Park and Iron Avenue, is one of the main focal points along the entire length of the river. With its proximity to Downtown Salina, the Downtown Segment will attract a significant number of people due to the short walk from Santa Fe Avenue. There are many parades, events, concerts, and activities that occur downtown benefit the river and vice-versa. Some of the many features shown in the Downtown Segment include the following:

1. A **boathouse facility**, located at the terminus of Mulberry Street with the river, is envisioned as being one of the main points of visual interest along the river. With the right architecture, a boathouse facility could become an architectural showpiece within Salina. It is recommended that the building architecture should emphasize a tower element on the portion of the boathouse that is located at the terminus of Mulberry Street, thereby tying to together with some of the other overlook beacons. The building would serve multiple functions, from utilitarian functions such as a rental and storage facility for canoes and kayaks, to a multipurpose gathering space that can be rented out for a myriad of activities from family reunions and wedding receptions, to birthday parties and banquets. There is the opportunity to have a variety of food services located within the facility, from an independently operated restaurant with a large kitchen and catering possibilities, to a snack bar that would serve convenience foods that do not take a lot of time to prepare. This facility would be developed independent to the River Renewal Project, as it is located within the confines of Oakdale Park. A great example of a successful boathouse facility is located in Oklahoma City.



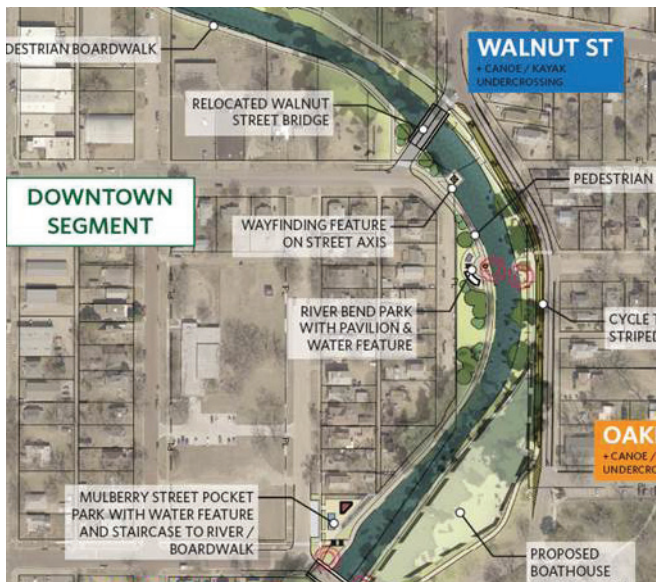
Oklahoma City Boat House Example

2. **Boardwalk** – The boardwalk is located closest to Downtown Salina on the westernmost bank of the river, and is the location where the greatest number of pedestrians will gather. Although called a boardwalk, the materials will likely be constructed with a longer lasting material such as concrete, which will resist rotting or deteriorating for a longer period of time. The boardwalk will slightly cantilever over the river, at an elevation that is 18” above the water surface. With no handrails

adjacent to the boardwalk, the water depth adjacent to the boardwalk is 18" to prevent accidental drowning if a user happens to fall into the channel.



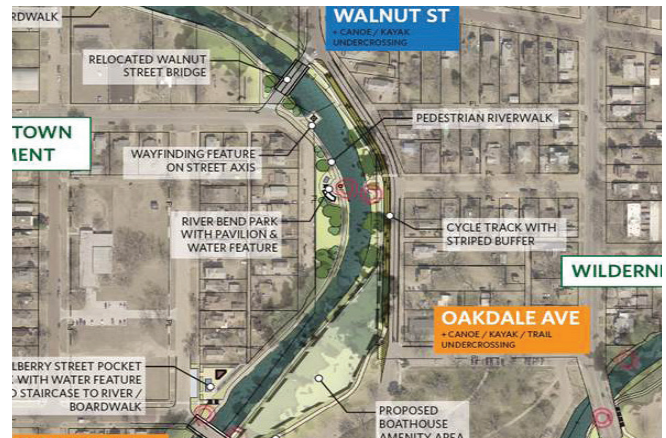
Boardwalk Example



3. Riverbend Park – Riverbend Park is located between Walnut Street and Mulberry Street on property that is owned by the City of Salina. There is a pavilion and water feature, along with an overlook feature with views of the Smoky Hill River.



4. River Overlooks / Beacons – At the termini of Walnut Street, Mulberry Street, South Street and Park Place and the river, a river overlook or vertical beacon is envisioned in each location. These elements would terminate the views when looking down the streets towards the river and help draw in visitors to the river from several blocks around. The beacon on Mulberry Street is intended to be part of the boathouse facility as described above. These overlooks would be at the same elevation as the streets and extend out towards the river at that same height. The height would be enough where circulation on the trail network below would not be affected.



5. Riverfront Landing is located at the intersection of the Smoky Hill River and Iron Avenue. With a new bridge envisioned at Iron Avenue, this area will act as a gateway for passersby heading into downtown along Iron Avenue. To capitalize on the short two block walk to downtown, Riverfront Landing offers many amenities and features that will become prime locations to take “postcard photos.” Some of the amenities include a grand staircase and terraced seating that will provide a location for people to enjoy events taking place on the water or just eating lunch. A plaza complete with a pavilion and water feature will provide a location with shade where users can enjoy the outdoors during the hot summer months. A thin veneer of water will provide a location where small children can interact with water in a safe manner and still have fun. A gently sloping ramp will allow individuals the opportunity

to access the boardwalk below without too much difficulty.



J. Located just north of Iron Avenue is the historic Founders Park and Western Star Mill Dam area, which is near to the location where Salina was founded. With excellent visibility from Iron Avenue, this area can capitalize on events taking place at the adjacent Salina Community Theater, as well as the remainder of Downtown Salina. Some of the main features included in the Founders Park and Western Star Mill Dam area include the following:

1. **Step Pools** - This series of pools will allow for the Western Star Mill Dam to be removed and replaced by a series of boulder steps and pools of water. It will raise the channel to the current height of the dam and gradually slope down to meet the height of the rest of the channel in a series of five steps. These step pools will generate rapids that will create aesthetic diversity from the rest of the channel and allow the option for canoes and kayaks to travel over the rapids. These pools will even out the water level without limiting access for canoes and kayaks.

2. **Canoe Slides** – A canoe slide is an in-channel feature that will provide an option for people in canoes and kayaks to continue on the river without going over the two foot drop that each of the step pools create. A canoe slide is a ramp in the water that allows river craft to move from a high level of water to a lower level of water without having to portage their boats, and allows people to remain in the channel for a longer period of time. These slides can also be a source of excitement and an element of entertainment.



3. **Water Crossing** – The water crossing is a pedestrian bridge that will connect the pedestrian riverwalk to the opposite side of the riverbank. It crosses close to the water to create an immersive experience and has a slight curve to create a smooth connection with the rest of the trail. From the upstream viewpoint there is an optical illusion where it appears that the bridge will not have enough clearance for a canoe or kayak user to get under, but as soon as the elevations change within the step pools takes place, this illusion is realized.





4. Water Feature/Falls – This water feature is located below an overlook plaza and pulls water from the channel to produce a cascading wall of water that people can walk behind. It will create another opportunity to experience and interact with the river, and will form a dynamic experience people will be able to see from above or behind.

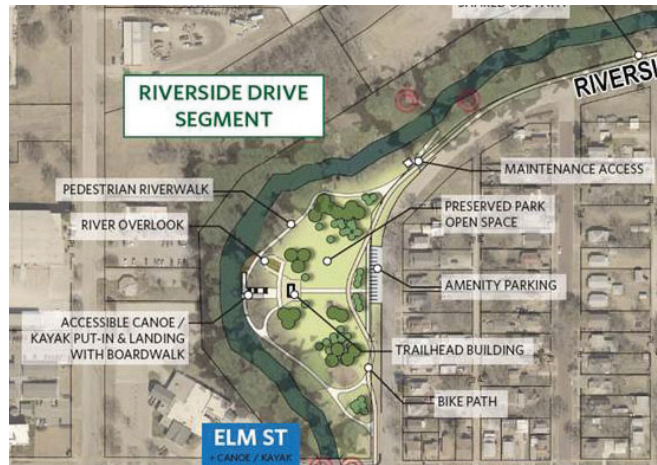


5. Shared Space Street – A shared space street at North Front Street essentially eliminates curbs and the segregation between modes of transportation and will in turn influence drivers to slow their speed and share the space with pedestrians and bicycles. A shared space street activates a space and stimulates the urban environment by promoting walking, limiting heavy traffic, and inspiring a safe, walkable street. With such a narrow right-of-way, this option allows the trail users a safe option to continue north along the river as they approach Ash Street. Bollards are oftentimes utilized at the edge to indicate the edge of the shared use space.



K. Riverside Drive parallels the river between Elm Street and North Ohio Street on the east and south side of the channel. There are a couple of river-related amenities envisioned for the corridor, including:

1. Riverside Park is an underutilized park within the City of Salina park system. Located just north of Elm Street on the east side of the river, Riverside Park will provide an accessible canoe and kayak put-in and landing with a combined boardwalk that connects to the pedestrian riverwalk. This area also contains a trailhead building, a river overlook space, amenity parking, and maintenance access. These features connect to the shared use trail that parallels the river channel. This space provides numerous amenities that allow people to experience the river and the associated trails while still maintaining the undeveloped feel and preserving much of the open lawn space that makes up the current park.



2. The **Lakewood Middle School** launch and trail head is located on the east side of the North Ohio Street crossing. This trailhead space is adjacent to the North Ohio Street existing box culvert bridge and the new culvert intended for pedestrians. The trailhead contains amenity parking, a vehicular drop off space, a trailhead building, and a river overlook. At the water's edge, this space provides an accessible canoe and kayak put-in and landing space with a boardwalk. This area also preserves the existing tree canopy as

much as possible to maintain the current wilderness aesthetic.



L. Lakewood Park is a large park adjacent to the Smoky Hill River that is centered around an old sandpit lake. With a size of nearly 90 acres, there is plenty of potential to transform Lakewood Park into a really spectacular park. Some of the transformative ideas for Lakewood Park include the following:

1. **Landforms** – There will be large amounts of sediment excavated from the river channel in order to get water to flow, widen the channel, and create development and amenities. This sediment is envisioned to be moved to the Lakewood Park and used to form landforms and create aesthetic variation within the landscape. These mounds have the potential to add a creative, land art element to the river’s edge as well as provide a sense of mystery and discovery resulting from varying elevations and viewpoints as people move through the discovery paths and canoe routes. Some of these landforms may be as high as 30 feet in elevation change.



2. **Habitat Restoration** – Restoring the natural riparian and prairie habitats and not disrupting the restoration that already exists, will bring diversity of wildlife and plants to the site, and improve the health of the ecosystem. Increasing biodiversity of the prairie habitat will allow plant and animal life to flourish and create opportunities for education, bird watching, and plant detection. The health of the entire environment will increase by restoring habitat and will allow for immersive, aesthetically stimulating hikes and explorations. After the landforms are created with the sediment from the channel, all new vegetation will be planted. The opportunity exists to plant the varieties and species that are desired for proper habitat restoration so that in the long term, the biodiversity is increased and improved.



3. **Canoe Discovery Trail** – Lakewood Lake was once connected to the Smoky Hill River channel. By reconnecting the existing lake to the river channel, the water depth in Lakewood Lake will rise approximately 6 feet. A desirable feature to add in the new connection from the river to the lake is a canoe and discovery trail that will provide alternate routes connecting Lakewood Lake to the river for people interested in an immersive kayak or canoe experience. These routes will wind through wetlands and sediment mounds creating a sense of discovery and mystery that will allow people to fully engage with the environment around them. It will provide an excellent opportunity for education on wetlands, water systems, and wildlife and the slow pace is ideal for teaching. The water trails will also provide direct access to the lake for continued exploration.



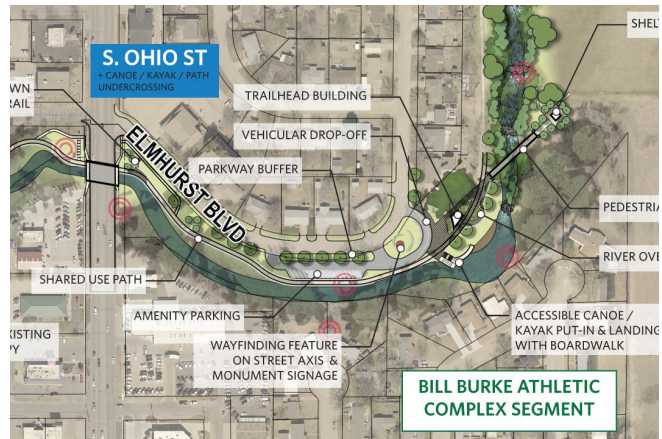
4. Hike and Bike Trails – A system of trails will be constructed that will wind around the landforms built from the excavated sediment and provide an exciting route for hikers and bikers who are interested in exploring different elevations and courses. These trails will not be paved and will provide a rustic alternative to the shared use paths along the river corridor.



5. Naturalized Prairie – The naturalized prairie will increase diversity of plant and animal life and restore natural habitat. The trail around this area is noninvasive and will allow people to explore plant and animal life without disrupting the natural ecosystem. This prairie is excellent for people looking to fully immerse themselves with the wildlife and creates the potential for educational opportunities.



6. Trailhead and Parking – There will be amenity parking located off of North Indiana Street to provide an alternative for short term parking to access the trail system and supplement the parking for the disc golf course. The area north of Lakewood Lake is a trailhead that provides a lake overlook, accessible canoe and kayak put-in and landing with a boardwalk, and trailhead building. This space also provides a vehicular drop off and is a great connector to the trails that span the river.



7. Canoe Launch – A canoe launch at Lakewood Lake will provide clear accessibility to the lake as well as allowing access to the rest of the river by means of the canoe/kayak discovery trail that connects the lake and the river. There will also be a direct connector to the river channel, providing a less intense route depending on time available and skill level.



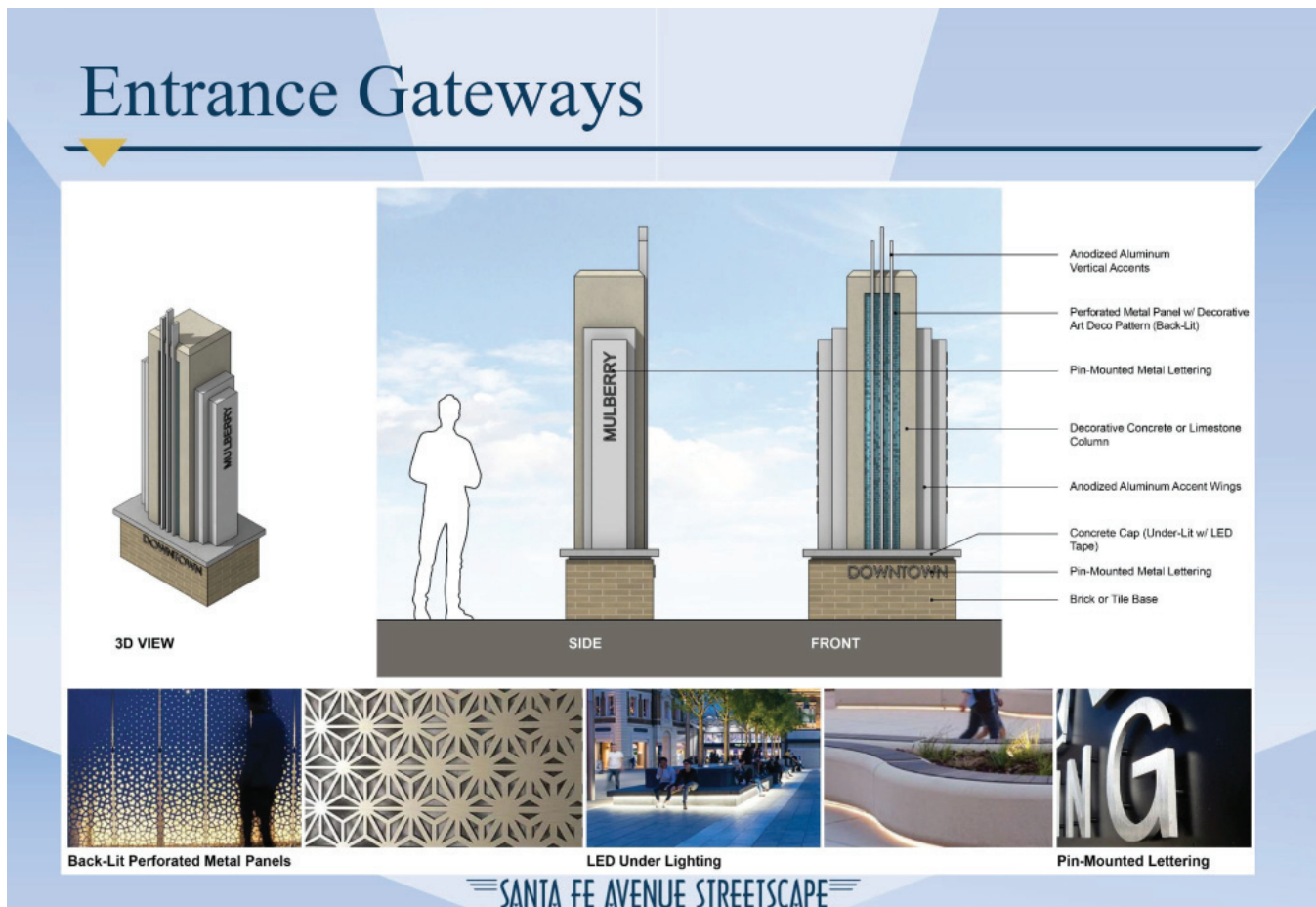
07 Aesthetics Discussion

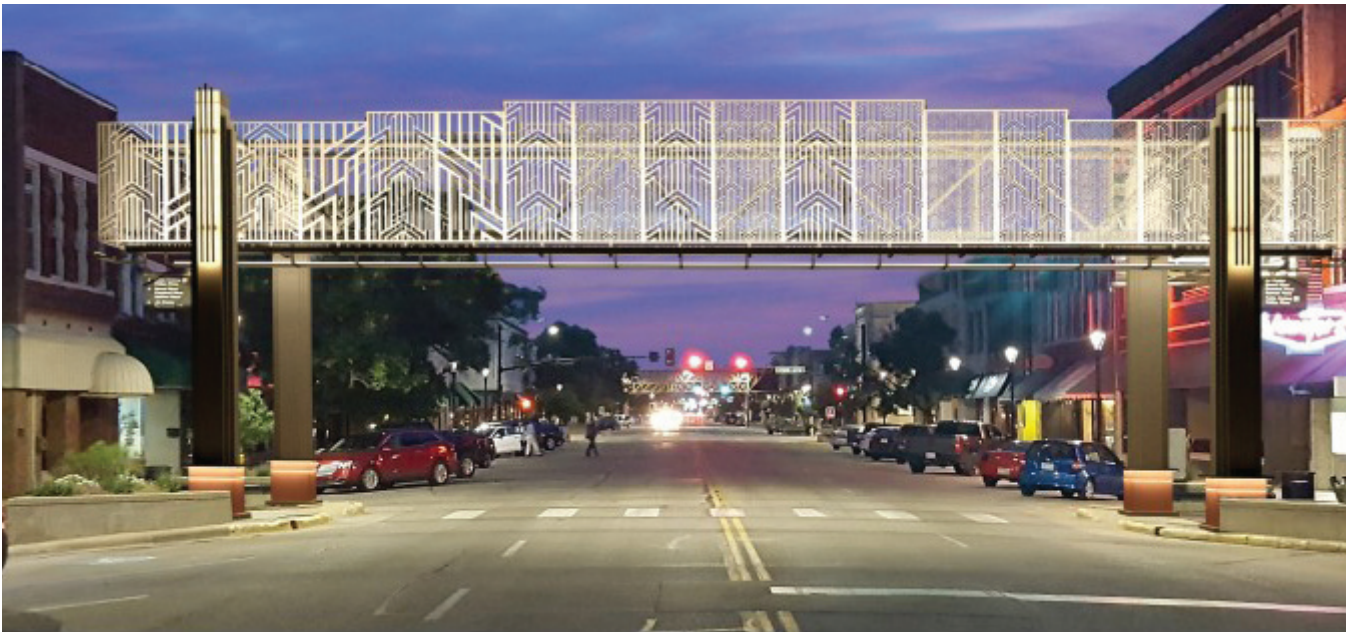


7.0 Aesthetics Discussion

The Steering Committee provided its input regarding the aesthetic treatments to be utilized along the river corridor. It gravitated towards a design that would be timeless, and not associated with any given point in time. There was a strong interest to tie into the downtown developments where the side streets that connect to downtown also intersect with the river. The aforementioned downtown area should be urban in character, and then transition to a more natural or native aesthetic away from the downtown core. Implementing green infrastructure solutions and utilizing native grasses and wildflowers to cut down on maintenance costs was preferred. Art was seen as being an important feature and incorporating it into the design, where possible, was desired.

To determine which aesthetic was preferred by the Steering Committee, a series of photographs were shown to the committee and ranked according to which ones were liked the best. This allowed the design team to focus their design efforts in a much more narrow focus instead of developing options that were broad across the spectrum of aesthetic designs. Voting results for each individual component are identified later in this section. Overall, the Steering believed that the design elements should be within a design “family” of materials where similar components are utilized to make them complementary throughout the corridor. Four separate design families were presented to the group for the overall theme of the aesthetic treatments, including Traditional, Contemporary, Art Deco, and WPA. The Traditional design elements included stone walls, curvy lines, and historical lighting. The Contemporary design elements are mostly concrete, and are composed of straight lines. The Art Deco features tie into Downtown Salina and are more ornamental and design oriented in nature. The WPA style ties together with many of the elements that are found in Oakdale Park, such as the picnic tables and shelters with heavy stonework.

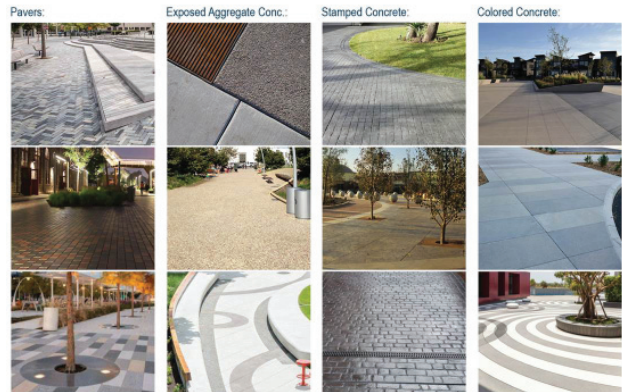




7.1 Paving Materials

A discussion was also conducted about the type of paving material that the Steering Committee deemed appropriate for the pathways along the corridor and included concrete, asphalt, or a crushed rock material. Concrete will typically last the longest, but will have jointing every 5-8' along the pathway creating some bumps along the way. Asphalt provides a smoother surface, but needs to have a material at the edge to contain it so it doesn't break off. Crushed rock is the least expensive, but is also the least desirable surface for bicycles. Other decorative paving options were presented for some of the specialty paving areas like plazas or other accent areas. These included concrete or clay unit pavers, and different finishes of concrete including exposed aggregate, stamped concrete, and colored concrete.

Decorative Paving:



7.2 Retaining Walls

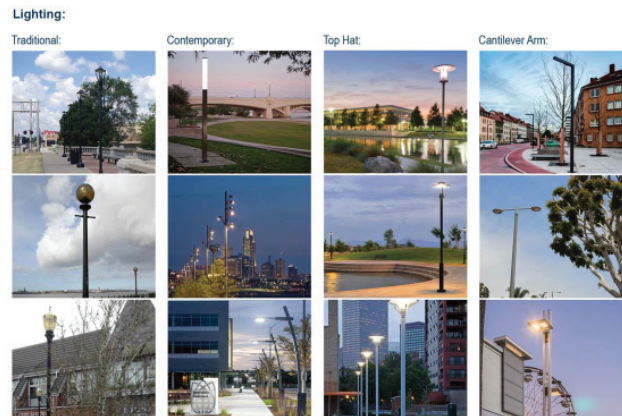
Other items that the Steering Committee was asked to give their input on included materials to construct retaining walls. Some of the options shown included concrete walls with a formliner treatment on the face of the wall to provide a pattern for visual interest, stone walls that include stone veneers as well as stacked stone, gabion baskets, and segmental concrete block walls.

Walls:



7.3 Lighting

Lighting options were important for safety aspects, and a series of photos were also shown that would indicate a more traditional lighting scheme with globe or acorn shaped fixtures. Contemporary options included light columns or light shafts, multi headed fixtures, and cutting edge technology. A top-hat option includes fixtures that are somewhat traditional in appearance, but yet have a slight nod to the modern appearance as well. And finally, other options showed fixtures with more of a cantilevered arm where the fixture was not directly on top of a pole.

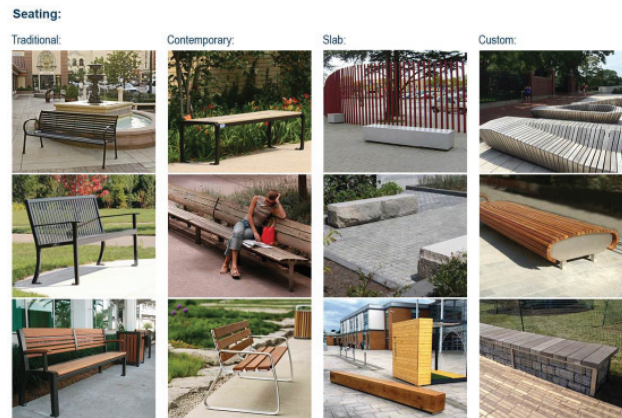


7.4 Seating

Seating is definitely desired along the course of the river corridor, and the Steering Committee evaluated seating options that included traditional benches in materials like metal or wood, contemporary options that had streamlined supports and cleaner lines, slabs of stone or wood, and custom made benches that would be designed specifically for this project.

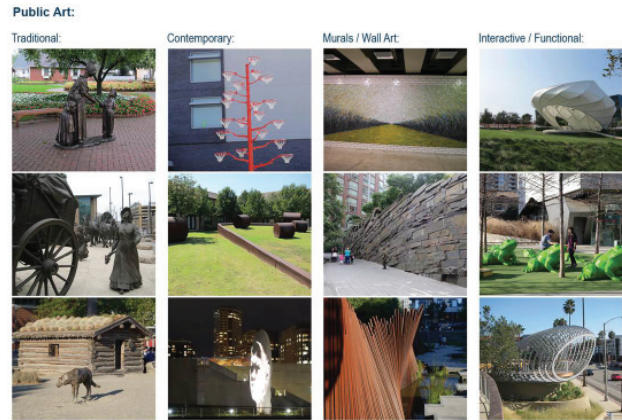
7.5 Plant Materials

Earlier, the desire for native planting materials was made known, but the steering committee was also asked to specify how they would be applied to the landscape. Options were shown that indicated a more traditional planting where plants were placed into planting beds, a contemporary spin that had massings of a single type of plant, a formal option where the plants become part of the design itself, and naturalized where plants were left to grow together with no specific pattern in mind as they would be found naturally. The Steering Committee discussed an affinity for rain gardens and natural plantings that don't require mowing or irrigation, and will also clean stormwater runoff before entering the river. After analyzing the options, the Steering Committee expressed the desire for natural grasses and native prairie features.



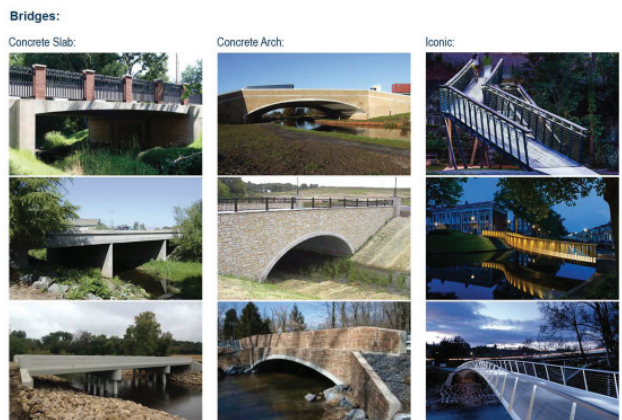
7.6 Public Art

Public Art is something that is very prevalent within Salina, especially after viewing the Salina Sculpture Tour that is rotated on a yearly basis along Santa Fe Avenue. Art is also desired along the river corridor where it may be applicable. Types of art were evaluated by the Steering Committee for their input on what they would like to see along the corridor. They chose between traditional pieces such as bronze sculptures, contemporary pieces that may become more of a statement piece, murals or wall art along some of the many walls that will be part of the project, including under bridges and form liners, and interactive or functional art that serves a purpose for not only looking at, but interacting with.



7.7 Bridges

The Steering Committee is highly interested in the look and feel of the new bridges to be placed along the river corridor, and believed that the design elements should be within a design “family” of materials where each bridge is not identical, but has similar components to make them complementary. Several types of bridges were identified for input including a concrete slab bridge similar to Greeley Avenue, a concrete arch bridge that has a more traditional connotation, or an iconic bridge, that will become a piece of art in its own right and have lighting and enhanced features to set it apart from other bridges.



The Steering Committee was then shown features for the design enhancements of the bridges. Options included the railings, lighting features, piers or columns, or detailing in walls or faces of the bridges. The committee preferred a slab type bridge where access is needed above and below the bridge. This preference was influenced by the fact that the Greeley Bridge will stay in place. The Steering Committee also expressed interest in a manufactured arch style where bicycle and pedestrian clearance can't be accommodated below bridge. Also, they stated the design should consider an enhanced aesthetic above and below bridges. It was discussed that the iconic structures or enhancements with a common theme should be considered at South Ohio Street, North Ohio Street, and Iron Avenue bridges as they serve as the gateways to the river. The committee stated desires for bridges that are efficient to build and require the least amount of maintenance. They also discussed that the aesthetic should be tied to downtown in the downtown areas with an urban nature, but should transition to a more natural or native aesthetic as you travel away from the core.

7.8 Voting Results

The voting for the aesthetic features included a preferred design aesthetic treatment for the Smoky Hill River Corridor and the voting ended up with a Traditional design aesthetic being the highest ranked, followed by the WPA style. This being said, the participants enjoyed the stone materials in comparison to the concrete materials.



The top locations that were seen as being the most suitable for Priority Design Enhancements were the Downtown Segments, Founders Park /Western Star Mill Dam, and Lakewood Park. The general sentiments were that the Downtown segments should be prioritized as 100% of the Steering Committee placed it within their top 3 locations.

The functional elements that were seen as being the top locations for Priority Design Enhancements included the new bridge structures, plantings and landscaping, and the pathway and trail system. Although lighting wasn't specifically marked as a selection by most of the participants, it was noted in the comments as being an important feature throughout the corridor.

08 Appendix





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We practice increased use of sustainable materials and reduction of material use.

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