

Dakota County
Mississippi River Trail

Interpretive + Experience Design

9.16.2014

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Adopted by the Dakota County Board of Commissioners September 23, 2014

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Each Experience Node Contains the Following

History Summary at a Glance

Context: Related Activities, Attractions, etc.

Experience Assessment

Site Images

Historic Reference

Site Plan + Amenities

Detailed Site Plan

Story Structure

Interactive Elements

Interpretive Elements

Cost Estimate for Node Elements

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PROJECT OVERVIEW + GOALS

The national Mississippi River Trail follows the country's iconic river along its 3,000-mile course from Lake Itasca in Minnesota to the Gulf of Mexico. Twenty-seven miles of this trail will run through Dakota County from the northern edge of South St. Paul to downtown Hastings. Created over the last decade, this corridor connects off-street trails and bike lanes through parks, cities, natural areas, and remarkable views.

Completion of the Trail's final leg in 2014 will provide Dakota County with a major opportunity to create an engaging, memorable, and educational set of experiences for residents and tourists. Development of a cohesive interpretive framework and approach based on a comprehensive long-range greenway vision for the County would tie together cultural and historical stories and content relevant at local, regional, and national levels.

In February 2014, Dakota County's Office of Planning launched an interpretive planning process with RSP DreamBox, a studio of Minneapolis-based RSP Architects. Five goals framed the project, providing guidance for development of fresh, engaging, interactive experiences based in the history and culture of the corridor.

GOALS

- Increase accessibility of cultural and historical resources on the Mississippi River
- Engage visitors with interactive, interesting interpretive installations that are unique and memorable
- Support the development of the corridor as a high-quality regional tourism destination
- Develop a coordinated and consistent vision for interpretation along the Mississippi River corridor
- Create a model on which to base future interpretive plans in Dakota County

TEN NODES: ARRIVING AT CONTENT

Ten interpretive nodes spanning the entire Mississippi River Regional Trail's length were identified as part of an initial phase of planning. Along with trail-user accessibility, the nodes offer substantial and engaging cultural and historical opportunities for interpreting stories and content and engaging trail users. The 10 nodes from South St. Paul to downtown Hastings are:

Node 1. Kaposia Landing

Node 2. South St. Paul + Stockyards

Node 3. Wakota Bridge

Node 4. Swing Bridge

Node 5A + B. Pine Bend Bluffs

Node 6. Spring Lake Park 1

Node 7. Spring Lake Park 2 Schaar's Bluff

Node 8. Town of Nininger

Node 9. Lock + Dam No. 2

Node 10. Hastings

STORIES + CONTENT

Research on the corridor conducted by Dakota County and the Dakota County Historical Society assembled a substantial set of possible themes and stories for the 10 interpretive nodes. The corridor's historic, cultural and ecological richness generated multiple engaging stories for every node. Final selection of stories and content for developing experience and design strategies were based on the following set of factors.

- Historical and cultural research and resources
- Feedback from Dakota County's Technical Advisors Group
- Interest to a wide range of trail users
- Local, regional, and national relevance to the Mississippi River's story
- Stories work together as a set

THEMES + EXPERIENCES

River of Dreams, an overarching interpretive theme for the Trail, emerged from the wide-ranging stories and content. Evocative and encompassing, River of Dreams is supported by subthemes to bring coherence to the great physical variety along the Trail and among the nodes. Together this set of themes informs an interpretive approach that is grounded with stories, features, and views that reveal the sites' significance.

AUDIENCE ANALYSIS

TRAIL USER OVERVIEW

A wide range of activities and interests bring users to the Mississippi River Regional Trail: jogging, cycling, bird-watching, and seeking solitude, to name a few.

These uses as well as the number of users will expand with completion of the Trail's final leg and interpretation of 10 nodes along the 27-mile stretch. While extensive information about trail use and users is lacking on this trail, some general patterns are clear. The trail is used year round, enjoys use on good weather weekends, and is busiest in the summer months. Use estimates of parks and trails by the Metropolitan Council in 2012 placed Mississippi River Trail use at 41,000 visits.

Trail users can be viewed in a variety of ways:

- Where they live—along the trail or in the region
- The purpose of their use, such as health and well-being or family time
- Demographic segments such as Empty Nesters, Diverse Families, and Young Enthusiasts
- The activity they engage in: running, meeting others, or bird watching
- Use of the trail by node, segment, or the full trail

This Framework views Trail-users as people who are inclined to use the trail whether they live or work near the Trail, reside in Dakota County or the Metropolitan Area, or are visiting from beyond.

The Trail draws people to it because they can engage in activities they enjoy along the way and at nodes. Empty Nesters, Diverse Families, and Young Enthusiasts from nearby towns or from beyond the Metro may share interests such as hiking or photography with one another. This activity-focused nature of the Trail is reflected in an approach that groups trail users into activity-based clusters.

AUDIENCE ANALYSIS CONT.

SOURCES

The following sources help develop an understanding of current and potential Trail users.

- Annual Use Estimate of the Metropolitan Regional Parks System for 2012. (Metropolitan Council. 2013)
- Dakota County, Minnesota, Resident Survey: Report of Results (2013). Trail and bikeway system receive consistently high (78%) average rating among county services, closely following library and parks.
Among county park services, trail networks for biking, hiking, and skiing received the second highest priority (66/100).
- Mississippi River Trail Ethnic Mix (Dakota County Survey and Land Information Department 2013)
Ethnic mix of MRT trail users is a virtual match for the overall state of Minnesota.
- Regional Park Usage Among Select Communities of Color (Raintry Salk, PhD, Senior Parks Researcher for the Metropolitan Council. March 17, 2014)
- Rails-to-Trails Conservancy: Trail User Surveys and Economic Impact (2009). A review of surveys from 20 trails in 5 states had general and similar results related to the following. (http://www.railstotrails.org/resources/documents/resource_docs/

Comparison_of_Trail_Users_Surveys_FINAL.pdf)

Biking is the primary activity

Health and recreation are the top reasons for using the trails

The majority of users are 45 years and older

Gender percentages vary about 10% or less, with the majority being male

- Interpretive Plan: Spring Lake Park Reserve. For Dakota County Parks Administration by The 106 Group (March 2005).
- Regional patterns and range of uses from movement to solitude on two nodes of the Trail.
- Observations of trail activities:
January 24, 2014; March 20, 2014; April 6, 2014
May 8, 2014

AUDIENCE ANALYSIS CONT.

AUDIENCE ENGAGEMENT GOALS

The primary interest in audience engagement is to help increase use of the regional trail by creating:

A better experience for people who already use the Trail.

A reason for more people to use the Trail.

Easy for users to stay longer on the Trail.

An experience that invites people to explore.

A reason for people to return to the Trail.

AUDIENCE ANALYSIS CONT.

CULTURAL + ACTIVITY CLUSTERS

To understand users better, our review examined the cultural orientation of those already inclined to use the trail. Rather than segment based on age or ethnicity, it makes sense to understand the ways users naturally engage and then to design to those inclinations. While we are not limited to these defined user groups, they can be a starting point to design the trail nodes towards enhancing engagement.

- Movers are Trail users looking for opportunities to be physically active and cover stretches of the Trail.
- Seekers are Trail users looking for opportunities to observe, notice, and discover.
- Meeters / Connectors are Trail users looking for opportunities to enjoy quality time with friends and family.
- Dreamers are Trail users looking for opportunities to be inspired and reflect.

Movers

Bladers Bikers Joggers Tri-trainers
Walkers Amblers Fitness Athletes

Seekers

Birders Geocachers Historians
Hunters Archers Naturalists

Meeters / Connectors

Socializers Baby walkers People
watchers Playground users
Families

Dreamers

Respite Contemplaters Musers Artists
Worshippers

EXPERIENCE ASSESSMENT

OVERVIEW + ACTIVITIES

Preliminary research and node review
Site visit and photography
Primary node experience documentation

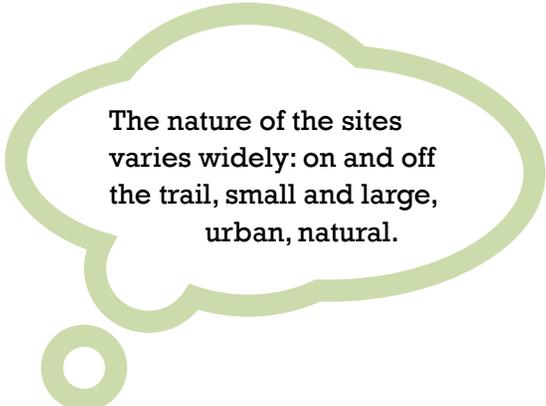
GOOD TO KNOW

Most nodes are also trail heads.
Nodes 1-4 may be one experience [biking].
Node 5 is a unique experience.
Nodes 6-7 are a natural pair of experiences.
Nodes 6-10 can be one experience [biking].
Restrooms: all but Nininger have accessible restrooms.
Trails will be a year round facility: plowed and accessible.
We are telling stories of the site, not the community.

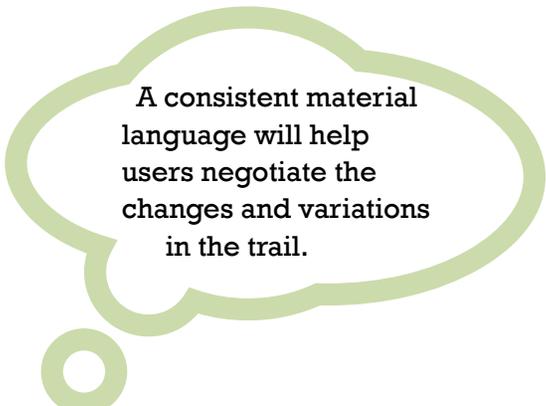
OPPORTUNITIES + LIMITATIONS

Each node has unique characteristics. The experience assessment provided insight into what types of interpretive interventions are most appropriate for each location. For example, some sites are large and can accommodate an iconic experiential element, whereas others are primarily about movement through the site. Three locations already contain considerable interpretation, so our interpretive elements need to weave seamlessly into the current and planned elements.

In the experience Node section of this document, these limitations and opportunities will be listed as context for the proposed design.



The nature of the sites varies widely: on and off the trail, small and large, urban, natural.

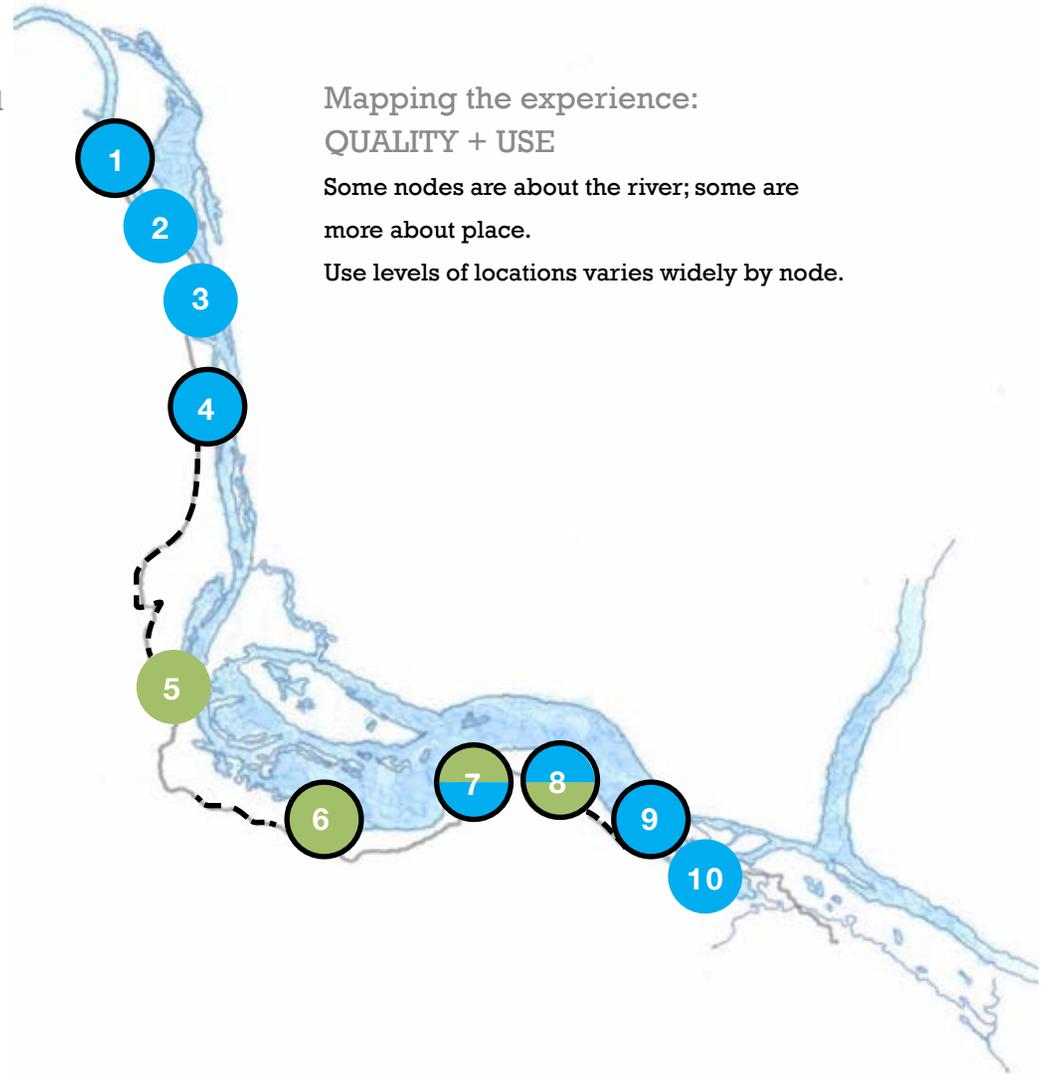
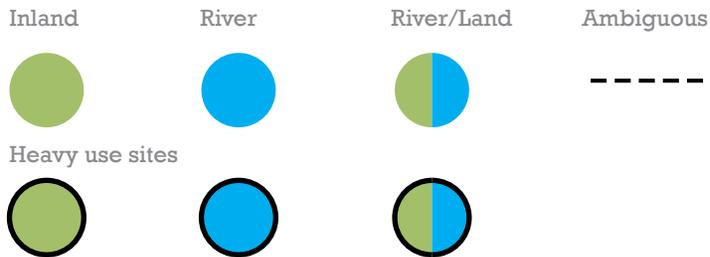


A consistent material language will help users negotiate the changes and variations in the trail.

EXPERIENCE ASSESSMENT

	Nature of node	Use level
1 Kaposia Landing	1. Place 2. Trail	Heavy
2 South Saint Paul + Stockyards	1. Trail	Light
3 Wakota Bridge	1. Trail 2. Place	Medium
4 Swing Bridge	1. Place 2. Trail	Heavy
5 Pine Bend Bluffs	1. Trail	Light
6 Spring Lake Park 1	1. Trail 2. Place	Heavy
7 Spring Lake Park 2 Schaar's Bluff	1. Place 2. Trail	Heavy
8 Town of Nininger	1. Trail	Light
9 Lock + Dam No. 2	1. Place	Heavy
10 Hastings	1. Place	Medium

Relative scale of nodes



Mapping the experience: QUALITY + USE

Some nodes are about the river; some are more about place.

Use levels of locations varies widely by node.

EXPERIENCE ASSESSMENT

		Node descriptors
1	Kaposia Landing	Park
2	South Saint Paul + Stockyards	Ramp + trail
3	Wakota Bridge	Destination + trail
4	Swing Bridge	Destination + trail
5	Pine Bend Bluffs	Trail
6	Spring Lake Park 1	Destination park + trail
7	Spring Lake Park 2 Schaar's Bluff	Destination park + trail
8	Town of Nininger	Trail
9	Lock + Dam No. 2	Destination + trail
10	Hastings	Destination + trail

Large site	Small site	Iconic element recommended
		



Mapping the experience: SIZE + OPPORTUNITIES

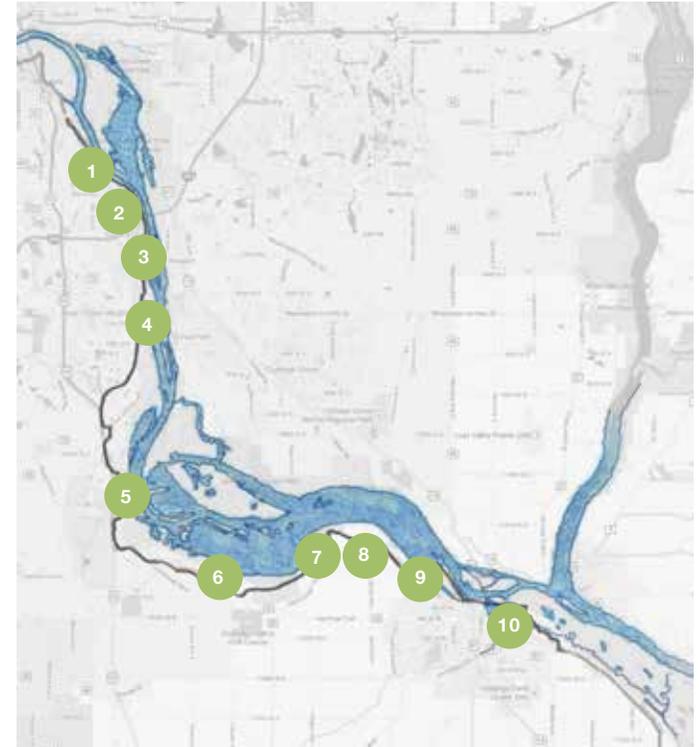
Some nodes are destinations, some are pass-by's.
Few sites can accommodate a larger iconic element.

INTRODUCTION TO THE MRT

THE MRT PATHWAY

The Mississippi River Regional Trail will run 27 miles from South St Paul to Hastings. It passes through towns, crosses railroad tracks, parallels roads; it sometimes follows the River closely and sometimes veers away. This readily apparent variety along the Trail is interwoven with historical, cultural, ecological, and narrative richness. Stretches of the Trail have been inhabited for 8,000 years. Many sites have inspired grand dreams. Some have known success and others have known disappointment; and some have been well acquainted with both. Stories of grit, ghosts, and gangsters populate the Trail while it connects places of natural beauty and engineering feats, gathering places and places of solitude, rare plant communities and migratory routes.

Sharing this richness is an opportunity to interest and engage Trail users, whether they are Movers, Seekers, Meeters, or Dreamers. Interpretive themes help in connecting, organizing, and highlighting features of the Trail and its stories for Trail users. Grounded in local history, natural history, culture, and ecology, interpretive themes and subthemes give visibility to what is present in a setting, left as a trace from the past, although not immediately apparent. Expressed through siting, design, experience, and occasionally text, interpretive themes help reveal rather than instruct; suggest rather than tell; evoke rather than explain what is present, significant, and of interest to the Trail user.



- Node 1. Kaposia Landing**
- Node 2. South St. Paul + Stockyards**
- Node 3. Wakota Bridge**
- Node 4. Swing Bridge**
- Node 5A + B. Pine Bend Bluffs**
- Node 6. Spring Lake Park 1**
- Node 7. Spring Lake Park 2 Schaar's Bluff**
- Node 8. Town of Nininger**
- Node 9. Lock + Dam No. 2**
- Node 10. Hastings**

INTRODUCTION TO THE MRT

OVERARCHING THEMES

A robust set of interpretive themes relating to a length of Trail and its nodes should:

- Bring coherence to a large number of stories
- Accommodate variety and allow uniqueness of nodes to emerge
- Reveal relationships and meaning through experience
- Allow some thematic overlap

RIVER OF DREAMS

River of Dreams is an overarching theme for the Mississippi River Regional Trail. Over the centuries, among both Native Americans and European settlers, the River has inspired dreams of settlement for native dwellers and promised new futures for immigrants. The River launched follies that lasted only a day as well as an unintended sports legacy lasting a century.

SUB-THEMES

The richness of the River of Dreams is played out through three subthemes each of which carries multiple stories:

- **Movement + Connection:** The River is a working river. A long-time transportation route, it has moved people and products along its length and been the departure point for other adventures. It has generated power for milling and manufacturing. At the same time it has challenged inhabitants, settlers, and travelers to surmount the barrier posed by its width with ferries, bridges, and bigger bridges.
- **Transformation + Change:** The River is constantly changing, with seasons and across time, by natural forces and through human interventions. As people have changed the River, harnessing it for power and navigation, the River has, in turn, changed the landscape and communities along its course.
- **The Pull of Place:** A rich resource, the River has attracted animals and drawn people to it, providing food and shelter. People have depended on the River for their livelihood. Inspired by its natural beauty and magnificence they have celebrated life's ceremonies at the River.

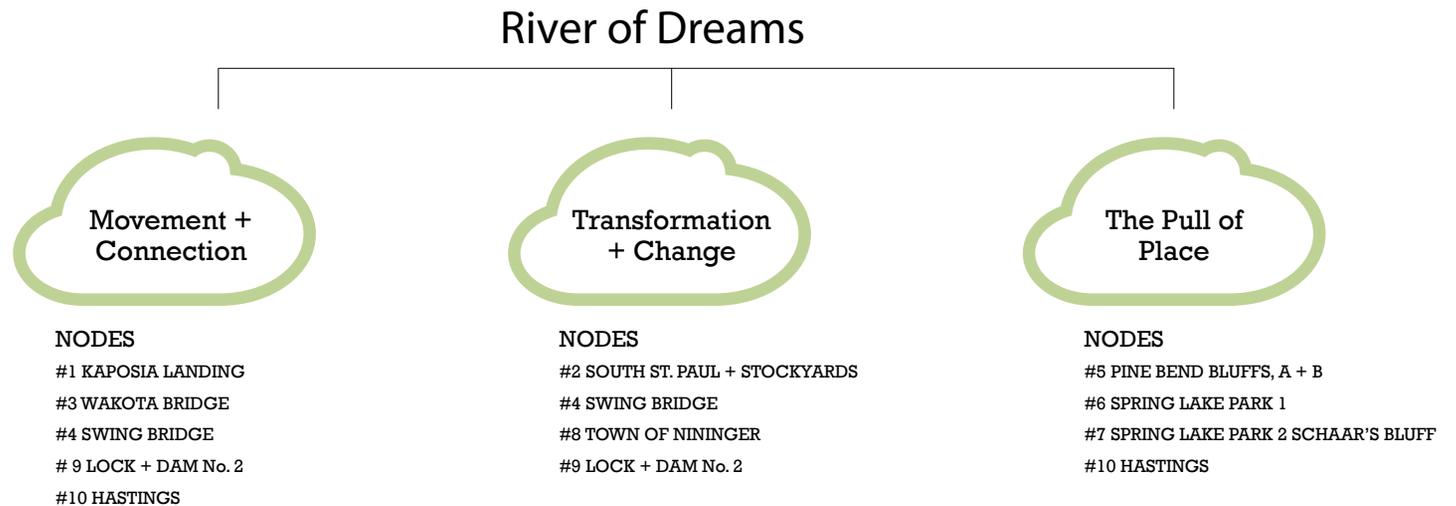
INTRODUCTION TO THE MRT

NODES + TRAILS

Interpretive themes inform an interpretive approach that:

- Reflects Tilden's Principles of Interpretation
- Is experience based
- Respects existing interpretation along the Trail
- Maintains a light touch

The interpretive approach, in turn, guides development of experience and design strategies for each node and, as needed, for stretches along the Trail. Viewing a node and its natural, historical, and cultural significance through the lens of themes, stories begin to emerge that reveal the site's significance. Together the story and theme point to views to frame, bring to mind artifacts, suggest a visual vocabulary, and shape evocative experiences that engage users in varied ways.



INTRODUCTION TO THE MRT

River of Dreams

Movement + Connection

#1 KAPOSIA LANDING

Many views and experiences of a working river and transportation at this site.

#3 WAKOTA BRIDGE

Intramodal transportation overcomes barriers.

#4 SWING BRIDGE

Bridge focuses on movement of people, cars; and trains.

#9 LOCK + DAM No. 2

Engineering the river moved connections up river.

#10 HASTINGS

Transportation and connection are the reasons this river city survived.

Transformation + Change

#2 SOUTH ST. PAUL + STOCKYARDS

Industry and floods have changed the shape of this site.

#4 SWING BRIDGE

The bridge has had many incarnations.

#8 TOWN OF NININGER

Originally envisioned as a blooming city, now a very different landscape.

#9 LOCK + DAM #2

Engineering the Lock + Dam has changed the river upstream to make cities accessible in a way impossible before.

The Pull of Place

#5 PINE BEND BLUFFS A + B

The beauty of this location inspired Medicine Bottle to settle here.

#6 SPRING LAKE PARK 1

The Spring Lake site is on the path of migration for all kinds of animals and was place for early hunts.

#7 SPRING LAKE PARK 2 SCHAAR'S BLUFF

Settlement, farming, and milling happened here.

#10 HASTINGS

The city at the confluence of two rivers and multiple transportation routes.

NODE THEMES

Interpretive themes inform the Trail's interpretive approach and design.

TILDEN'S PRINCIPLES OF INTERPRETATION

1.

Any interpretation that does not somehow relate what is being displayed or being described to something within the personality or experience of the visitor will be sterile.

2.

Information, as such, is not interpretation. Interpretation is revelation based upon information. They are entirely different things. However, all interpretation includes information.

3.

Interpretation is an art which combines many arts whether the materials presented are scientific, historical, or architectural. Any art is in some degree teachable.

4.

The chief aim of interpretation is not instruction, but provocation.

5.

Interpretation should aim to present a whole rather than a part and must address itself to the whole man rather than any phase.

6.

Interpretation addressed to children should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

PROVOKE. RELATE. ENGAGE.

MRT EXPERIENCE DESIGN FRAMEWORK

The Experience Design Framework builds on an understanding of the audience, the intended experience, and the site to deliver messages, information, and insights that support a strong connection to content, history, and each other. The Framework characterizes the voice, the feel, and the nature of the messages that are salient to the MRT experience for both children and adults. Attentive to materials and grounded in the experience of each place along the trail, it includes branded elements, material palette, and signage standards. Finally, the experience Nodes + Trails bring together text, images, drawings, materials, and location for experiences.

Our approach to designing experiences is to consider all stages of the experience.

ANTICIPATE.
ENGAGE.
RECALL.

GOALS

1. Provide more than one sensory modality or experience at each location.
2. Make it easy for Trail users to engage with content and stories.
3. Create a multi-layered experience that allows visitors to go deeper into content or have a new experience each time they visit.
4. Design “Durable Experiences” —those that engage and provide positive, memorable experiences for users.
5. Design experiences that connect users to each other and to the history and site and make them curious about other locations along the Trail.

VISUAL LANGUAGE: THE CURRENT BRAND OF THE TRAIL

CURRENT BRANDS

The brand of the Dakota County Parks has been clearly designed with a tag line of "Forever Wild." The elements of the current trail wayfinding and interpretive signing have variations but generally include a corten steel application along with wood and limestone. A graphic curve is subtly expressed on interpretive signs and more visible on wayfinding signs. For the purpose of this exercise we are attempting to extend the brand and refine it by the addition of graphic elements and standard seating lighting and core components.



EXISTING CONTEXT



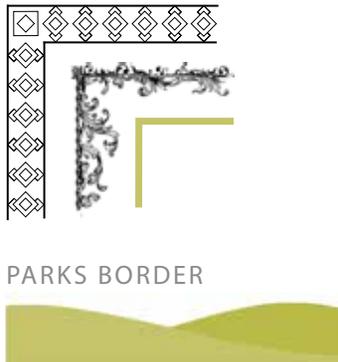
There are many brands that may be visible along the trail. Currently there is no hierarchy for the implementation of this house of brands. In light of this, our approach is to create a visual language that supports existing brand materials and standards.

VISUAL LANGUAGE: VISUAL ICONS + PATTERNS PROPOSED MRT BRAND ENHANCEMENT

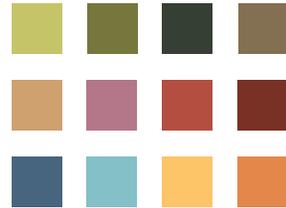
TRAIL ICONS



BORDER ELEMENTS



PARKS PALETTE



MATERIALS



BRAND LANGUAGE

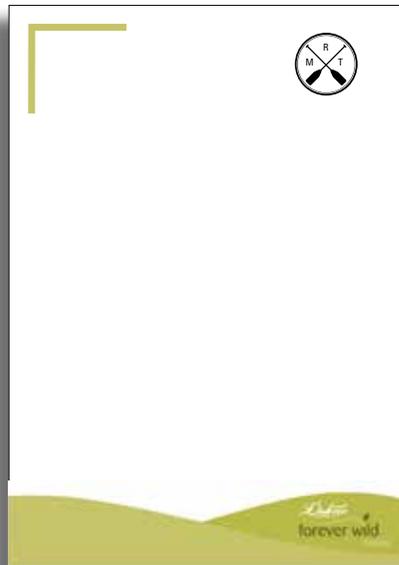
The primary intent of the Trail icons, visual language, materials, and palette is to create orientation to the Mississippi River Trail. We want our users to not only feel oriented but also be able to clearly identify when they are on and off the Trail.

The materials and site furniture selected can serve as a guide to create a consistent visual language through the Trail, so that the individual nodes will feel like they are part of the whole experience.

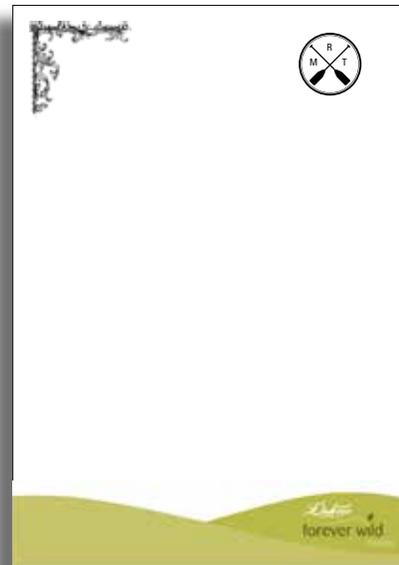
VISUAL LANGUAGE - SITE ELEMENTS

Site Furnishings along the Trail should be both experiential and functional. The use of specific materials, the form or shape of an object, or its placement along the trail or at a node helps to tell the story and enhance the experience.

VISUAL LANGUAGE: VISUAL INTERFACE + FORMATS



TRANSPORTATION



HISTORY



PREHISTORY

THE SYSTEM

We recommend a consistent use of brand elements on all methods of communication— such as signage, Trail markers, didactic interpretive panels and MRT App. The borders already used by Dakota County and these additional brand elements create a cohesive experience and help our users know that the content they are seeing, whether on a sign panel or their own mobile device, is seamless, consistent, and additive.



VISUAL LANGUAGE: MARKERS + PANELS

ORIENTATION

Interpretive panels, sign panels and mile markers can help Trail users orient themselves to the trail and their location on it.

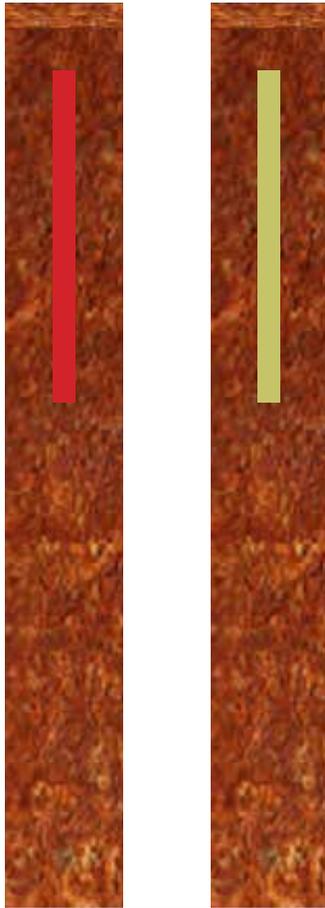


INTERPRETIVE PANEL



TRAIL MARKER

VISUAL LANGUAGE: LIGHTING + STANDARD SIGNAGE

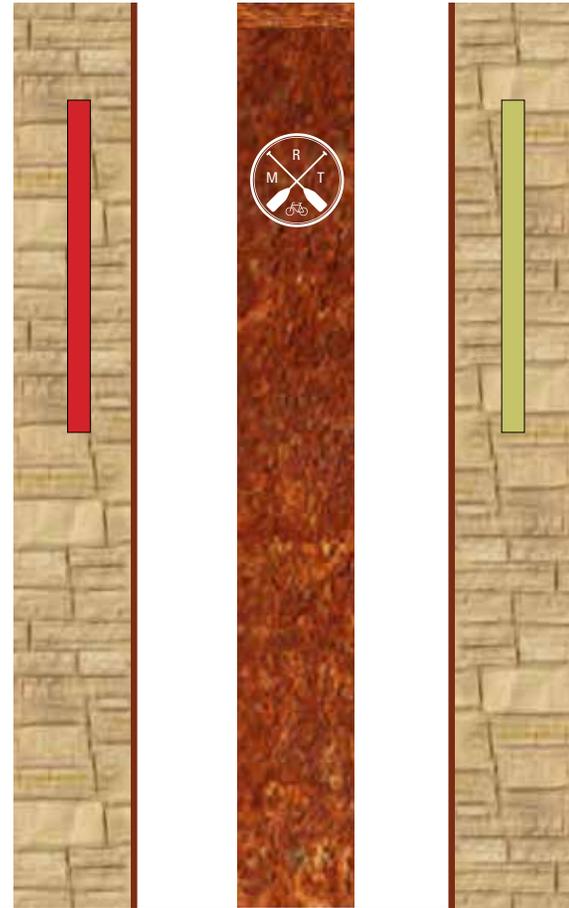


TRAIL MARKERS



TRAIL MAP:
ALL NODES

We recommend incorporating the Trail map and panel at each of the nodes and at any natural stopping points.



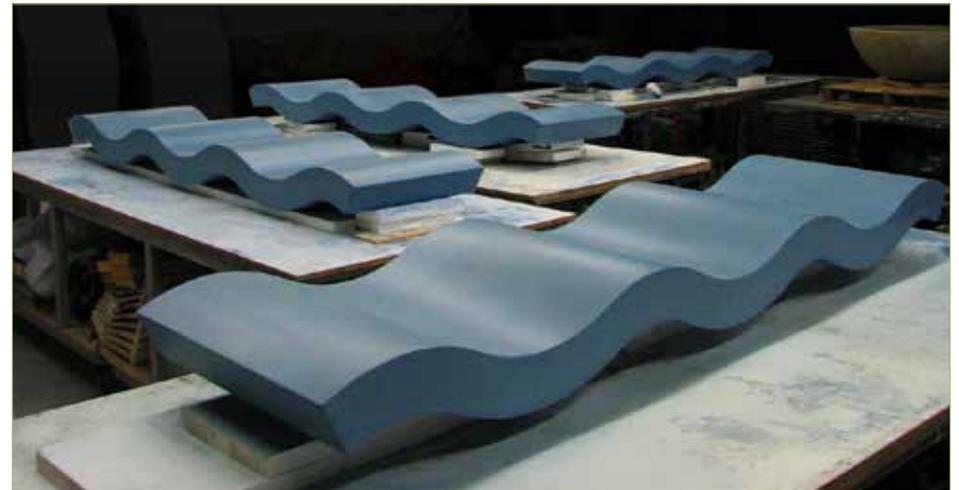
TRAIL MARKERS

Markers and custom lights can reflect the navigation system of the river and can be interpreted at periodic locations along the Trail.

VISUAL LANGUAGE: SITE ELEMENTS

SEATING

The seating can be prefabricated or custom and made of steel, wood and stone. These materials relate to the historic materials used along the river trail and are in the development of node experiences beyond the site furnishings. There is also an opportunity to create custom seating that in a pattern that relates to the river. All seating is designed to promote sitting and discourage lying down or sleeping.



WAVE BENCH SEATING

VISUAL LANGUAGE: SITE ELEMENTS

TRASH RECEPTACLES AND BIKE RACKS

Trash Receptacles and Bike Racks are primarily steel with some opportunity for wood accents. These elements would be located at each node.

TRASH RECEPTACLE



BICYCLE RACK

VISUAL LANGUAGE: SITE ELEMENTS

SURFACING

A variety of surfacing is found along the trail. Bituminous paving is the surface used for the trail. This surface can be enhanced through the introduction of markings of text or patterns to help with way finding, mile markers, and location. These markings can enhance the interpretive aspect of each node and create an identity for the trail.

CHILD PLAY SURFACE TO CODE



FLAGSTONES



CUSTOM PATTERNS ON TRAIL SURFACE

VISUAL LANGUAGE: SITE ELEMENTS

LANDSCAPE

To enhance the nodes along the trail, landscaping will define the space of each node and indicate its arrival. The landscape will primarily consist of mass plantings of grasses and perennials to create edges and add color and texture. Deciduous and coniferous trees will be used to provide screening and shelter when needed.



NATIVE LANDSCAPE; PRAIRIE GRASSES, SCREENINGS



NODE 1. KAPOSIA LANDING

NODE 1. KAPOZIA LANDING

HISTORY SUMMARY

Kaposia Landing

On May 8th, 1888, the City of South St. Paul attracted national attention with the inaugural run of a monorail up Bryant Avenue to what is now 17th Avenue North. The one-ride wonder monorail carried a handful of international dignitaries up the South St. Paul bluff in 1888 on its maiden and final voyage. Real estate developer Charles W. Clark and his business partner John Bryant built the wood and iron transportation innovation to provide important access to railroad transportation from St. Paul to Hastings for South St. Paul residents and workers in neighborhoods on the bluffs above Concord Street. The City of St. Paul refused to grant the monorail a permit to enter the city, dooming it from the start. The monorail was dismantled a few years later, but not before Clark and Bryant saw major increases in the value of their landholdings. The South St. Paul monorail was the first of its kind in Minnesota and one of the first in the world.

The famous Kaposia Village has already been interpreted at a nearby location, immediately west of Concord Street at the bottom of Simon's Ravine. Kaposia or "Kap'ozá" is the name given to several sites in and near present-day St. Paul that were associated with Little Crow and his band of Dakota Indians. The name means "those who traveled unencumbered with much baggage". In the early 1800s, Kaposia village was located below the bluffs of Mounds Park on St. Paul's east side. During the 1820s the village was within present downtown St. Paul near where the St. Paul Union Depot is today. By the mid-1830s, the village moved to a permanent location on the South St. Paul side of the Mississippi River. The bluffs above this location long had been used as a burial place by several bands of Dakota Indians. Explorer Zebulon Pike, passing by in 1805, noted that there were 11 lodges in the vicinity.

Little Crow was chief of the Kaposia band and became a primary leader of the Dakota Indians in the United States-Dakota War of 1862. He was the fifth and last of a line of Dakota leaders bearing the same name, a name given by the French to one of the earlier chiefs who wore the wings and skin of a crow on his shoulders.

INTERPRETATIVE OPPORTUNITIES:

- Little Crow
- Kaposia Village
- Simon's Ravine WPA
- Monorail

NODE 1. KAPOSIA LANDING

AT A GLANCE

The working river, then and now captures the essence of this bustling location near bridges, train traffic, and access to park and trail. One of the primary characteristics of the site are the views of active rails and river traffic, and so the stories of River of Dreams will be easily set against this backdrop. The Monorail Experience is proposed as an entry point to the multifaceted stories about the theme of connection and transport.

One of the primary functions of this site is to create an opening and gateway to the trail. The interpretive node will be a gateway element over the trail and lead visitors to the interactive equipment and didactics.

THE NORTH GATEWAY

At both ends of the trail experience, users will have a clear sense of entry to the Node and more importantly to the Trail itself. The visual language of framing views will be used throughout the Trail, with the northernmost and southernmost Nodes having a more iconic framing element to create a sense of entry.



NODE 1. KAPOSIA LANDING

EXPERIENCE ASSESSMENT + CONTEXT

Experience opportunities Location 1

Flight paths of planes + geese

Landfill: how did this used to look?

Monorail: the story and the disappearance

Pig's Eye Lake

Bird watching

Experience opportunities Location 2

Contemplation

Artifacts from Monorail

1912 Ghost bridge

Views up and down river

Disconnects

Distant from some trail access

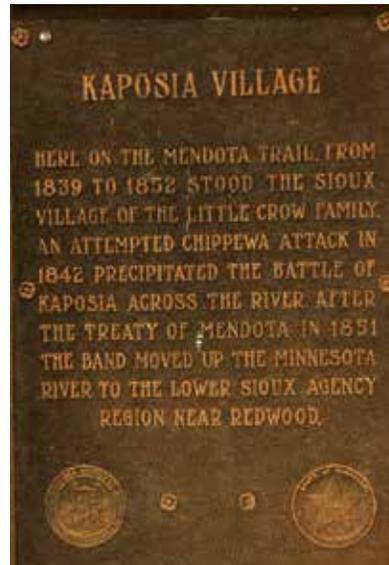
Awareness of the trail and where it goes

Inadequate information about trail at parking area

The Kaposia site has an extensive master plan in place which, when fully implemented, will contain multiple options for activities at the site. There will be ball fields and playgrounds; an existing dog park will be retained.

The Kaposia site currently has interpretation of the Native American dwellers including Little Crow, European settlers, reburials, and public art in three locations: in the park, at the historic marker node, and at the entry of Simon's Ravine.

The preferred location of the MRT Node is near the trail, positioned slightly away from the park's activity areas.



Existing interpretation + information at three Kaposia sites



NODE 1. KAPOSIA LANDING

SITE IMAGES



NODE 1. KAPOSIA LANDING

HISTORIC REFERENCE: MONORAIL STORY



NODE 1. KAPOSIA LANDING

HISTORIC REFERENCE: MONORAIL STORY + ARTICLES

*d
86
Mrs. Moraczyk*

I WANT TO RIDE ON THE

I WANT TO RIDE ON A MONORAIL
IN SOUTH SAINT PAUL
I WANT TO GET THERE FAST
I WANT TO SEE IT ALL
I WANT TO GO FROM HERE TO CITY HALL
I WANT TO RIDE ON A MONORAIL

IT LOOKS LIKE A CABOOSE
THAT'S UPSIDE DOWN
THE TRACKS ARE UP IN THE AIR
THEY ARE NOT ON THE GROUND
ELECTRICITY MAKES THE WHEELS ROLL AROUND
I WANT TO RIDE ON A MONORAIL

ONE HUNDRED YEARS HAVE PASSED AWAY
IF YOU WANT TO RIDE THE MONORAIL
IT'S NOT HERE TODAY
IT FRIGHTENED THE HORSES
AND THEY RAN AWAY
I WANT TO RIDE ON THE MONORAIL

He rode South St. Paul monorail in 1888

By ANNE GILLESPIE
Minneapolis Star Staff Writer

South St. Paul monorail was the first practical application.

Franchise
The company applied to the St. Paul City Council for a franchise to run the line into the city, but the council, after talking things over for months, apparently refused to grant the franchise.

One contemporary report of the inaugural run of the monorail appeared in the May 18 issue of the *Minneapolis Tribune*.

"Fully two carloads of representative men from Minneapolis and St. Paul, prominent among whom were a majority of the board of aldermen and city officials of the Twin Cities, as well as a large number of representative businessmen and capitalists took the South Park (now part of the city of South St. Paul) motor at noon.

"The object of the excursion was to witness the trial as to the practicability of the new interurban electric motor at South Park. The motor worked to perfection, not a hitch occurring to mar the success of the inaugural trip, and all interested were unusually enthusiastic over the outlook. At the conclusion of the experiment, lunch was served, which was followed by brief speeches by a number of those present."

Into St. Paul
The monorail, which ended at 10th and Thompson, curved around down the Bryant Ave. to Concord St. It was proposed that the line be extended out along Thompson to S. Robert St., where it was to turn north and go into St. Paul.

Raised about 115 feet from the ground in South Park, the monorail was to be elevated several stories high as it ran into St. Paul.

Reports on the speed of the monorail differ. One account said it ran at 12 miles per hour. Other reports say that it reached a speed of 70 miles per hour as it raced down Bryant Hill.

Quiet
Kochendorfer said he doesn't recall that it was very noisy. Also, he said that an electric generator to provide power for the monorail was located on the banks of the Mississippi.

It is not clear whether the St. Paul Council refused to grant the franchise because councilmen didn't feel there was sufficient financing or because they were afraid the noise would scare horses or because property owners objected to the unsightly structure.

Bogged down
At any rate, the monorail didn't get beyond South St. Paul.

Officials at the Metropolitan Transit Commission say that monorails today are used primarily for a limited task. There is a monorail operating between the parking lot at the terminal at the Dallas-Fort Worth Airport and terminals built for the Seattle and Munich world fairs still are operating. All three have nice cars and seat about 100 people.

"There has been a proposal to build a monorail to connect the airport to the town of Las Vegas, still is under consideration."

Framework
Fred Lawshe, curator of the Dakota County Historical Museum in South St. Paul, has acquired pieces of the South St. Paul monorail framework and exhibits them. Lawshe is the son of C. W. Clark and John Bryant, who built the monorail. Lawshe is "laid" in tremendous facial lines on the people "that they paid every penny back and it is years," he said.

MI. AND MRS. KARL KOCHENDORFER
He remembers the 1888 monorail




NODE 1. KAPOSIA LANDING

HISTORIC REFERENCE: MONORAIL STORY



NODE 1. KAPOSIA LANDING

HISTORIC REFERENCE: BRIDGE + TRAIN STORY

EXTRA

**FIND BODY OF
DEAD ENGINEER**

SSPDR — 10-16-1912

Large Force of Men With Wrecker
Clear Away Wreck Debris at
Bridge.

SSP — RA

**ENGINEER CRAMER'S
BODY FOUND LATE TODAY**



A terrible gash over the right eye sufficient to cause death was found. He went to his death in three feet of water. The body was caught in the wreckage but not pinioned down by heavy weight. The throttle of the engine was closed tight and the air brakes set.

NODE 1. KAPOSIA LANDING

SITE PLAN + AMENITIES

Existing

- Walking trails
- Off-leash dog park
- Picnic table
- Benches
- Geese
- Restroom
- Parking
- Garbage cans

Future (Excludes existing)

- Softball fields
- Baseball field
- Playgrounds
- Small breed dog park (in addition to existing, which will be for large breeds)
- Bocce courts
- Horseshoes
- Picnic and performance building
- Amphitheater
- Spotting scopes
- Concession stand (not always open)
- Some lighting

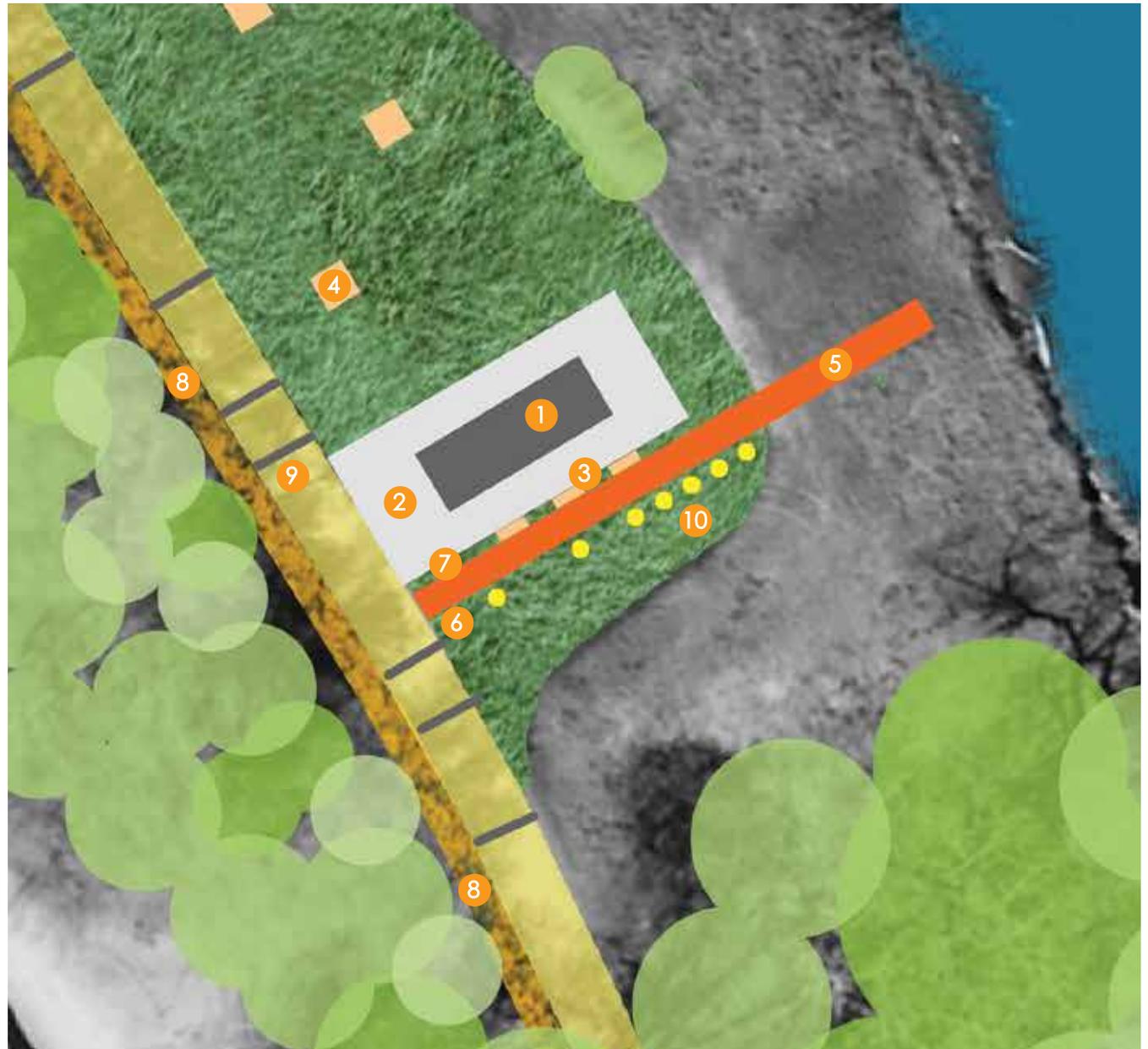


NODE 1. KAPOSIA LANDING DETAILED SITE PLAN + AMENITIES

1. Monorail ride
2. Plaza
3. Seating
4. Picnic tables
5. Overlook path to river
6. Litter receptacles
7. Bike racks
8. Ornamental grasses along trail
9. Trail node indicators
10. Interpretative columns

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 1. KAPOSIA LANDING

STORY STRUCTURE

THEME Connection

STORY	The working river, then and now.
CONTENT	Monorail + transportation routes
TITLE	A monument to dreams
AUDIENCE	Movers Connectors Seekers Dreamers
METHODS	Play equipment Didactic storytelling Framed landscape
EXPERIENCE[S]	Full body immersion Visual imagery Sculptural elements
CONNECTING THE DOTS	The monorail is one of many examples of dreams + transport
SITE CONSIDERATIONS	Site option near trail can accommodate a larger structure
COMPONENTS + EXHIBITS	

Rail rhythm in pavement on surface

Interpretive panels leading to river from Trail

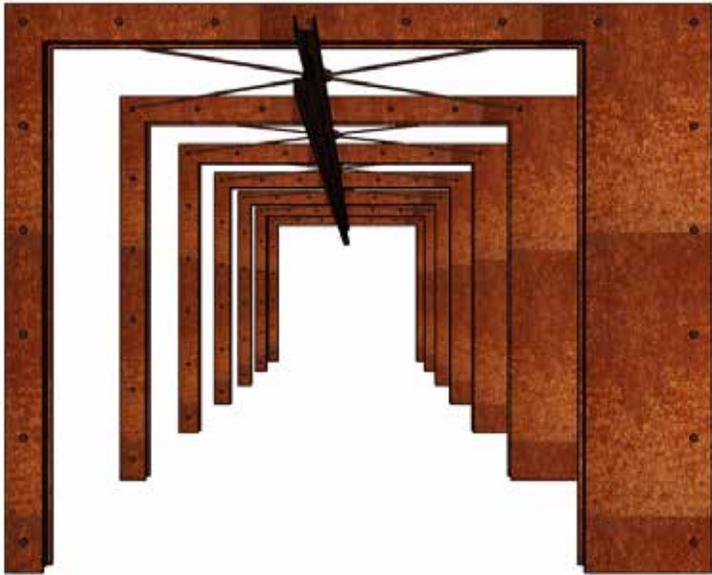
Play monorail structure with images on panels

Light elements along Trail or at posts

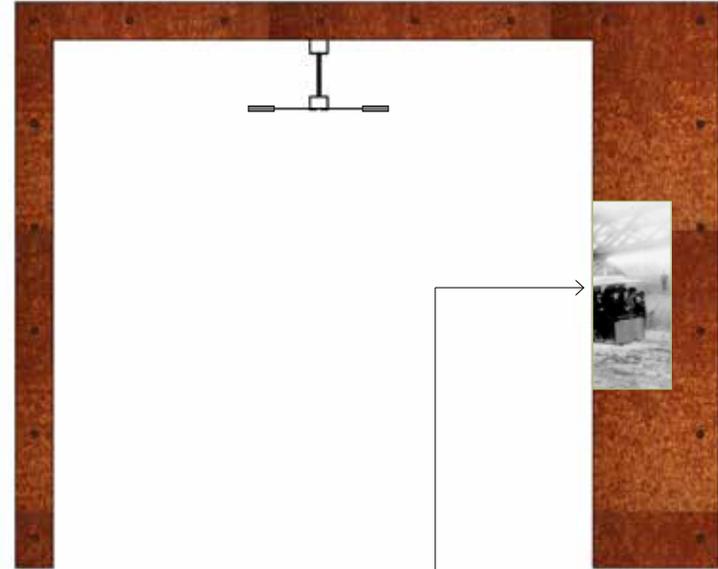
Plantings and seating areas

NODE 1. KAPOSIA LANDING

INTERACTIVE: MONORAIL



MONORAIL INTERACTIVE FRAME: AN IMPORTANT VIEW OF THE WORKING RIVER AND AN ICONIC GATEWAY STRUCTURE AT THIS FIRST NODE OF THE MRT



SEGMENTED IMAGE OF MONORAIL MOUNTED TO VERTICAL ON EACH OF 7 SUPPORT PANELS

NODE 1. KAPOSIA LANDING

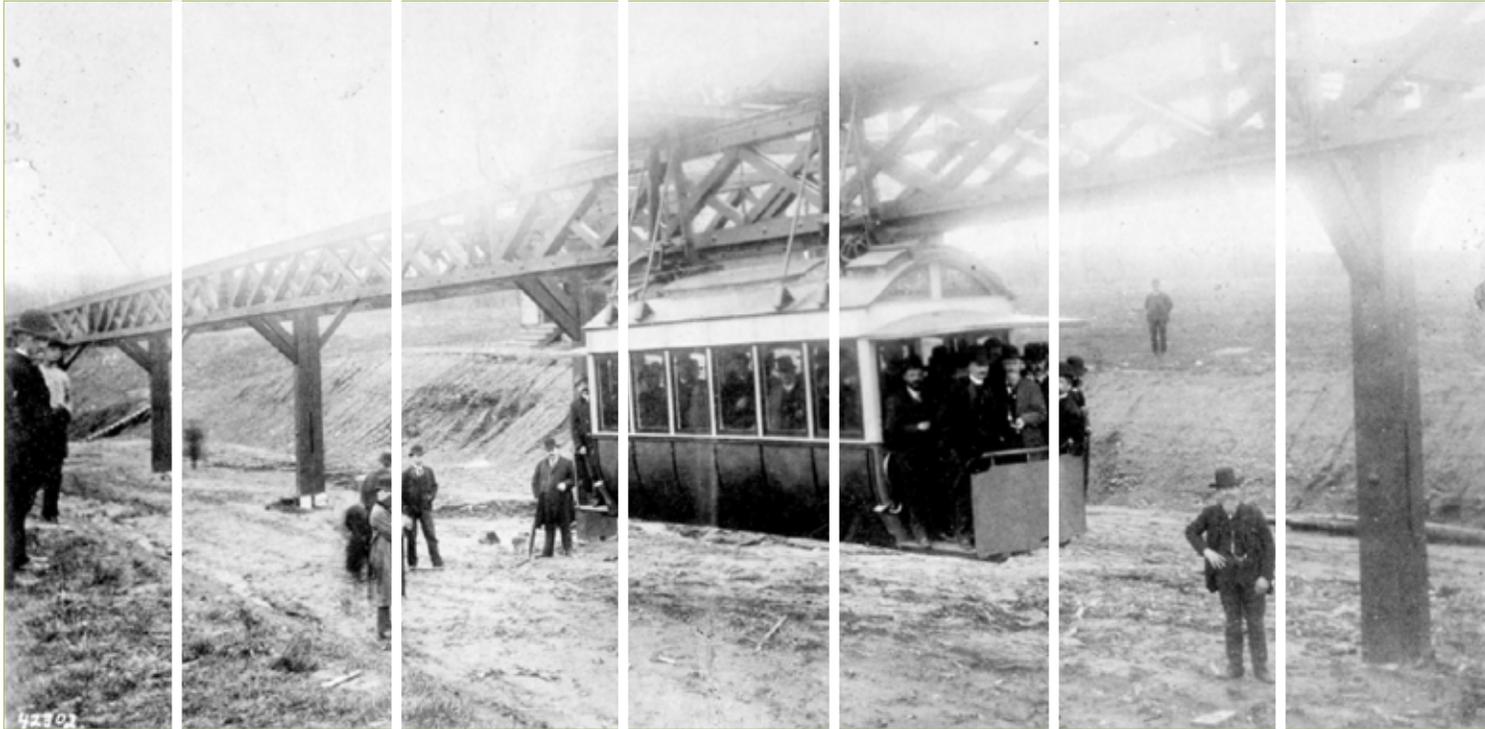
INTERACTIVE: MONORAIL



MONORAIL INTERACTIVE REFLECTS THE ARCHITECTURAL + ENGINEERING OF NEARBY RAIL BRIDGE AND ORIGINAL MONORAIL STRUCTURE.

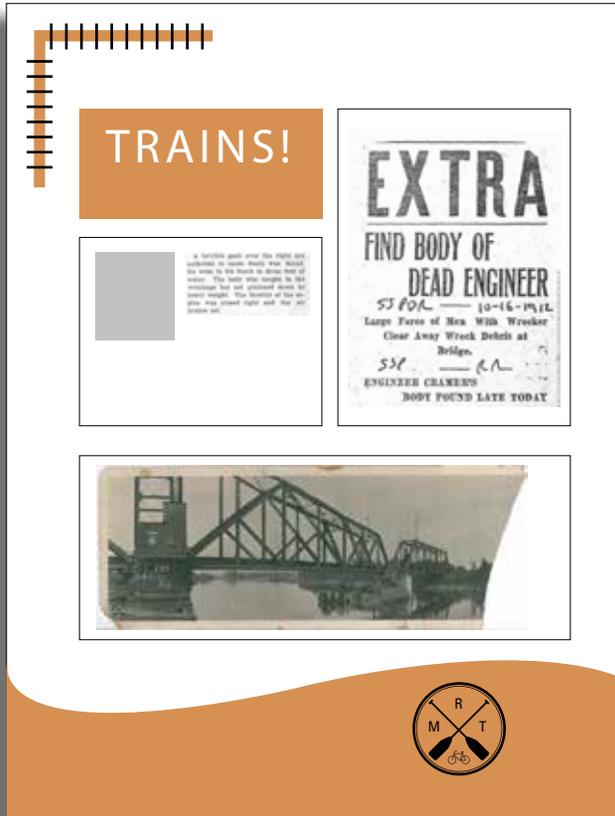
NODE 1. KAPOSIA LANDING

IMAGE FOR INTERPRETIVE: MONORAIL PANEL



NODE 1. KAPOSIA LANDING

SAMPLE INTERPRETIVE PANEL: BRIDGE + TRAIN STORY

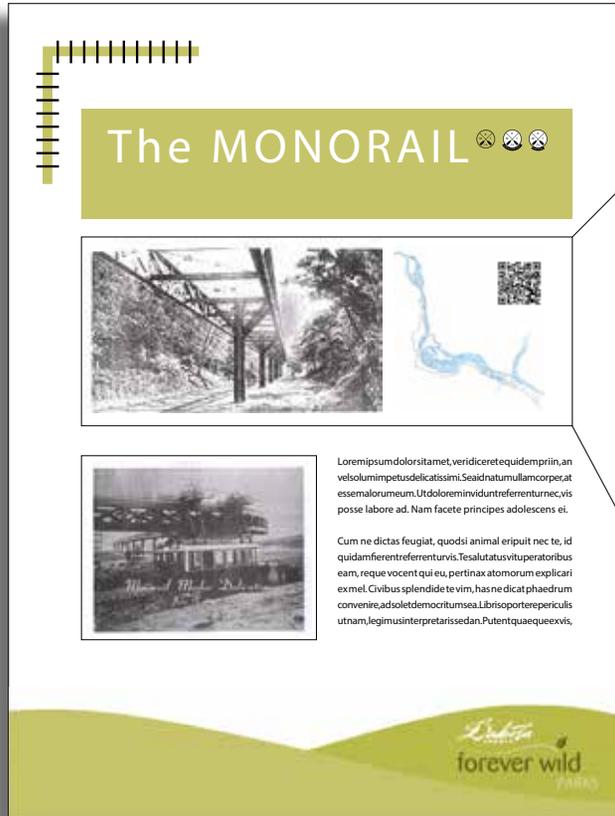


KEY SITE STORIES

1. Kaposia settlement
2. Train wreck
3. Electric Railway
4. Working river
5. The immigrants
6. Monorail

NODE 1. KAPOSIA LANDING

SAMPLE INTERPRETIVE PANEL: MONORAIL STORY + LINK TO TRAIL APP



NODE 1. KAPOSIA LANDING
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Monorail interactive
- 2. Monorail images
- 3. Interpretive panels
- 4. Software application

PROFESSIONAL FEES

- Design
- Writing
- Software engineering
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

This does not include Corten panels at each frame.

PROFESSIONAL FEES \$ 85,000 - 100,000

- Design
- Writing
- Architecture

EXHIBIT FABRICATION + GRAPHICS \$ 18,000 - 24,000

- Fabrication
- Graphics
- Installation

SITE IMPROVEMENTS + AMENITIES \$ 50,000 - 65,000

- Grading
- Installation
- Furniture

CONSTRUCTION \$ 75,000 - 95,000

- Footings
- Engineering
- Construction
- Coordination

TOTAL FEES FOR NODE 1. \$ 228,000 - 284,000

2

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

HISTORY SUMMARY

South St. Paul Stockyards

By the 1970s, South St. Paul was the nation's largest stockyards, wrangling 3 million head of cattle annually that were worth more than \$500 million. At the peak in 1943, more than 7 million head went through the stockyards here. Many were used to feed the war effort. Starting with the first trainload of cattle in 1887 the stockyards and related businesses relied on the river for drinking water, washing, transportation, ice to cool the meat during shipment and waste disposal. Only a few related businesses remain today.

Swift & Company of Chicago established a packing plant in South St. Paul in 1897 with 300 employees. By World War I the plant had 3,500 employees, a total that grew to 5,000 during World War II when the annual payroll reached \$23 million. During both World War I and World War II canned meat was a staple product of the plant. Swift & Company produced an average of one million pounds of canned bacon and beef weekly during World War I.

Constructed between 1917 and 1919 at a cost of \$2 million, the Armour & Company plant opened for business with 2,500 employees. It was a state of the art meat packing facility with 22 separate buildings and a total of 1.6 million square feet of floor space. The plant complex occupied 49 acres of land. The daily slaughtering capacity was 13,000 animals. Peak employment during World War II reached 4,000 people.

Major Mississippi River flooding in 1951 and 1952 convinced the U.S. Army Corps of Engineers to study and design a flood control structure to protect South St. Paul and the stockyards. Congress authorized the project in 1958, but no funding was appropriated until 1962. Construction of the \$4.6 million South St. Paul flood control project began in 1965 and was completed in 1968. Today the flood wall still protects the Concord area businesses from the river.

Interpretative Opportunities:

- Stockyards
- Swift & Company
- Armour & Company
- The Shippers Club
- Flooding & Flood Control
- Waterous
- Flood Control
- Redevelopment

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

AT A GLANCE

The stockyards once defined South St. Paul, but are now only a memory. This Node pays homage to the cattle business by creating signage that refers to the past through design and typography. A minimal roof structure on the walking access bridge to the Trail conveys the story of the cattle chutes and other stockyard stories.

This location is primarily used for trail access rather than egress so the cattle signs call attention to commerce in an understated way. The primary attribute and experience at this site is one of motion: the trains going by, the river flowing, and the bikers and bladers moving along the Trail. There are no adequate spaces for stopping to enjoy the view, so the other interpretive elements are motion triggered sounds which interpret the various uses and past and present stories of the area.



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Known as “Fort Knox on the Hoof”
2. Immigration and acculturation
3. South St. Paul “boom town”; here solely because of the river

Experience opportunities

Trail next to train

Movement

Stone retaining wall

Access over bridge similar to Kaposia Landing

More coming to Trail than leaving it

10 mph experience

Fire hydrants built here: another water story

More jobs than the Stockyards

Multiple modes of transportation

Disconnects

Precarious trail (high)

Loud

No view of Livestock Exchange building from Trail

Graffiti

The South St. Paul location of the Stockyards holds great pride for those from the area. The history of the Stockyards is rich. The businesses have changed over time but are still vibrant. The area boasts more jobs now than in its stockyard heyday, but that is not the common perception.

Access to this site is over a bridge passing rail tracks. The bridge and the Trail both provide a unique opportunity to celebrate the history of the area.



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

SITE IMAGES



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

HISTORIC REFERENCE: THE PEOPLE



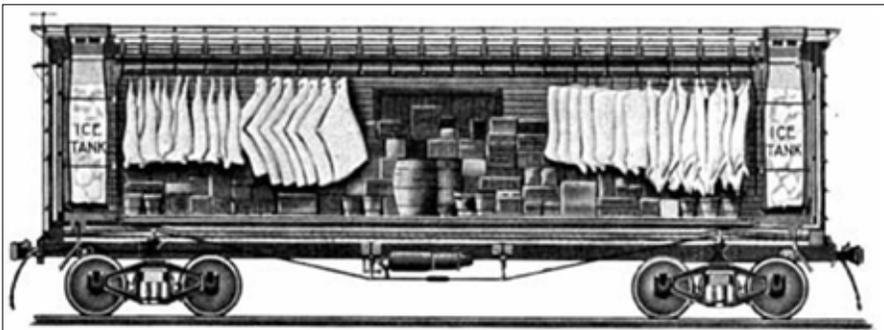
NODE 2. SOUTH SAINT PAUL + STOCKYARDS

HISTORIC REFERENCE: THE FLOODS



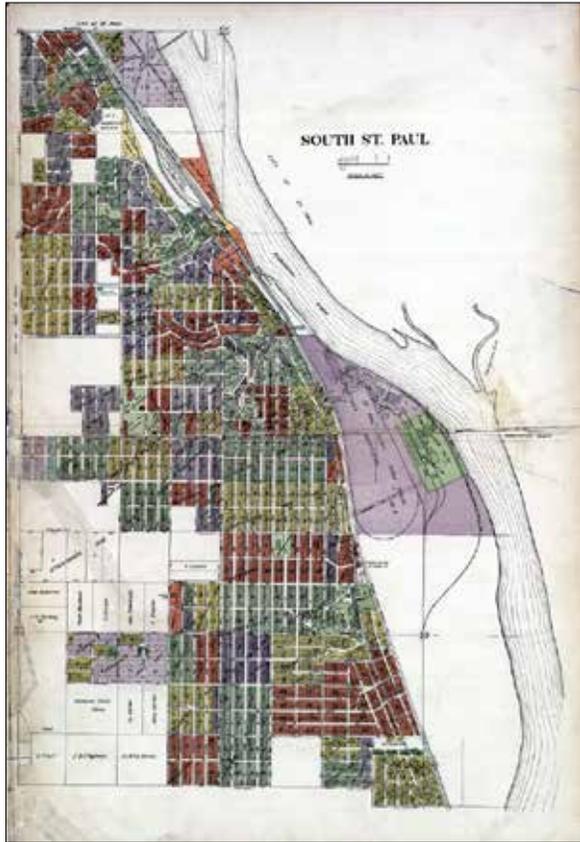
NODE 2. SOUTH SAINT PAUL + STOCKYARDS

HISTORIC REFERENCE: INDUSTRY ON THE RIVER



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

HISTORIC REFERENCE: INDUSTRY + SETTLEMENT ON THE RIVER



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

SITE PLAN + AMENITIES

- Existing
Portapotty
- Future
Bathroom & Drinking Water



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

DETAILED SITE PLAN

BRIDGE INTERACTIVE

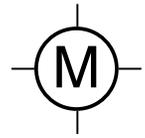
AUDIO EXPERIENCES

MOTION SENSORS



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

DETAILED SITE PLAN



MOTION SENSORS



AUDIO CONTENT 1



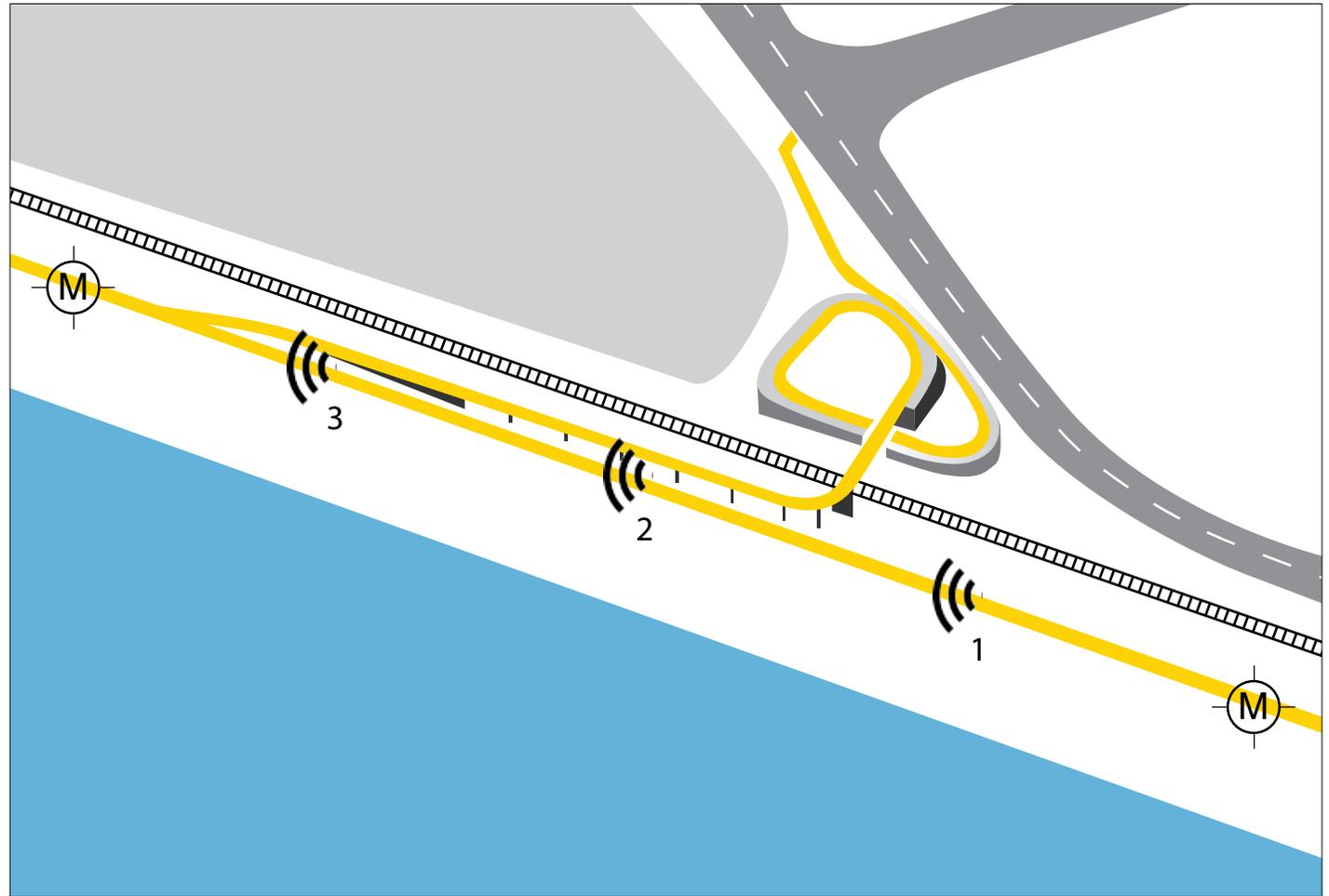
AUDIO CONTENT 2



AUDIO CONTENT 3

CONTENT

HONKS
COW BELLS
VARIOUS LANGUAGES



SOUTH SAINT PAUL FIGHT SONG
AUCTIONEER
DIFFERENT ANIMALS

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

STORY STRUCTURE

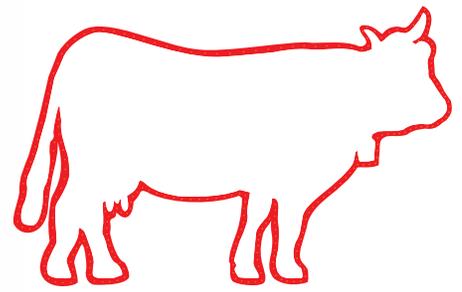
THEME Transformation

STORY	The changing river + floods
CONTENT	The Stockyard
TITLE	Cow was spoken here
AUDIENCE	Movers Connectors Dreamers
METHODS	Signage elements Didactic storytelling Soundscape
EXPERIENCE[S]	Audio Visual imagery Lighting + sculptural elements
CONNECTING THE DOTS	The levee made it all possible / pride of place
SITE CONSIDERATIONS	Scale important, Visible from distance and up close Bridge

COMPONENTS + EXHIBITS

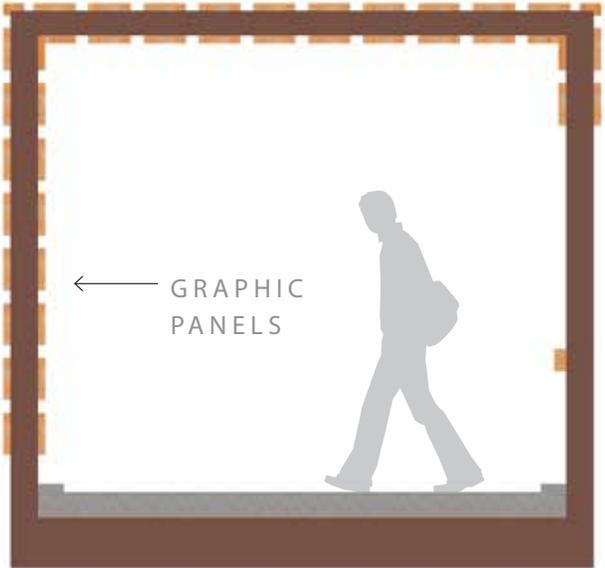
- Lighting elements cow shaped on bridge
- Didactic panels on interior of bridge
- Roof wrap creates experience of the cattle chute
- Motion triggered soundscape includes cattle: | cow bell | horns | rodeo along trail

NODE 2. SOUTH SAINT PAUL + STOCKYARDS
INTERACTIVE: THE BRIDGE



CREATING AN
EXPERIENCE OF
CATTLE IN THE CHUTE.

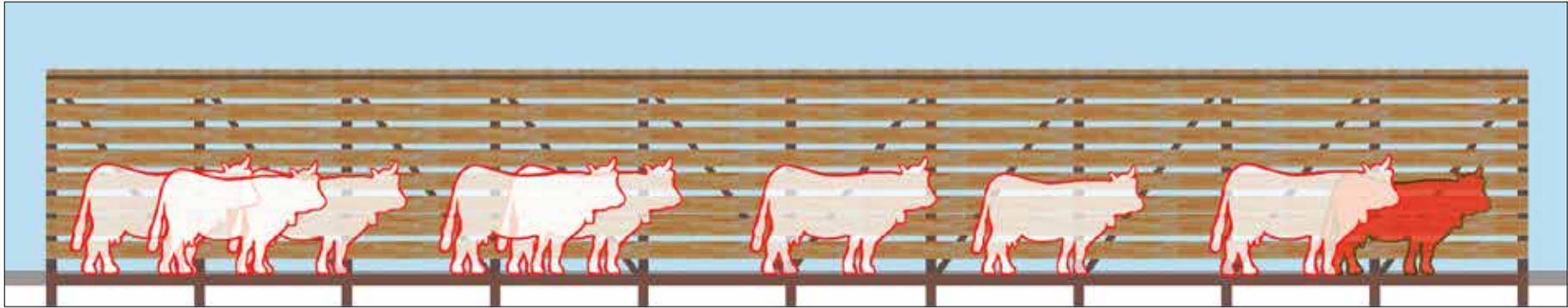
NODE 2. SOUTH SAINT PAUL + STOCKYARDS
INTERACTIVE: HUMANS IN THE CHUTE



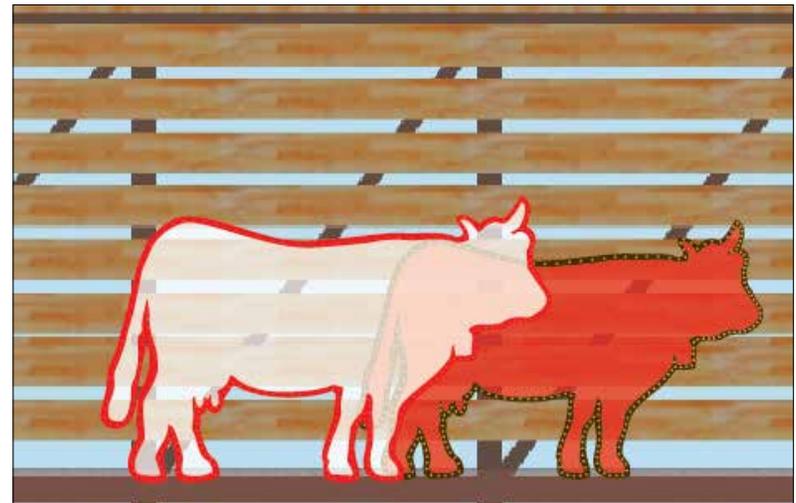
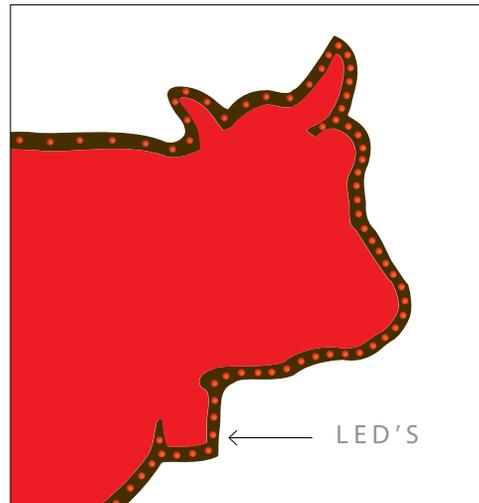
CREATING AN EXPERIENCE OF CATTLE IN THE CHUTE.

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

INTERACTIVE: ONE RED COW

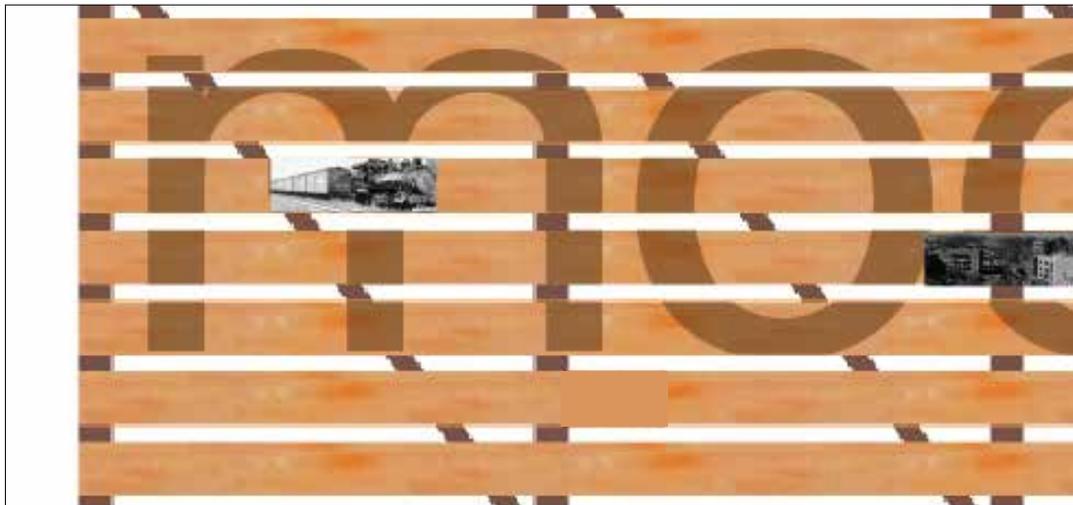
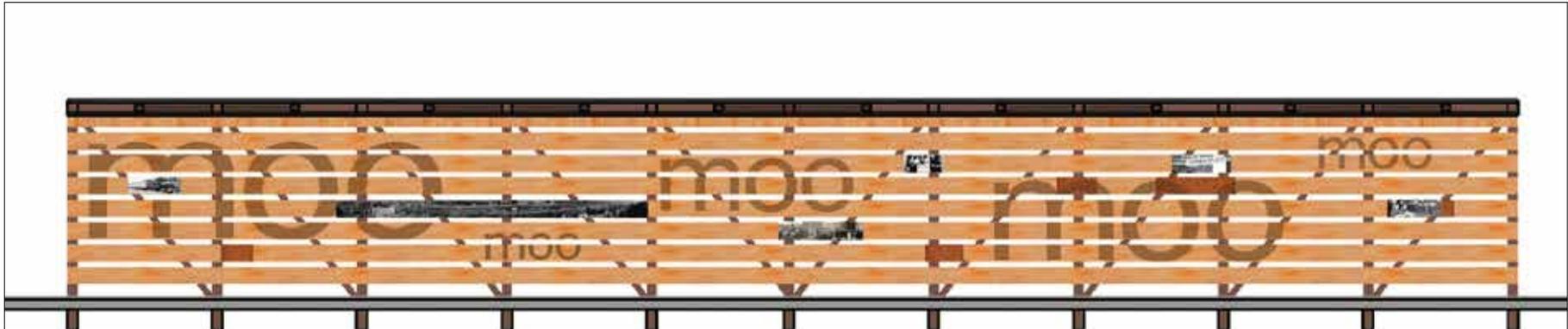


TRANSLUCENT COWS
LIGHT IN SEQUENCE
FROM LEFT TO RIGHT,
MOVING UP TOWARD
CONCORD.



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

INTERACTIVE: THE BRIDGE



← INTERPRETIVE PANELS WITH SOUTH ST. PAUL IMAGES

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

SAMPLE INTERPRETIVE PANEL: COW WAS SPOKEN HERE



KEY SITE STORIES

1. Cash Cows
2. The floods
3. PU
4. Sounds of the Stockyards
5. Immigrant stories
6. Industry on the river
7. Political history: river access

NODE 2. SOUTH SAINT PAUL + STOCKYARDS

SAMPLE INTERPRETIVE PANEL: THE PEOPLE



|||||

COW BUSINESS



Lorem ipsum dolor sit amet, veridicere quidem priin, an
 vesolum impetus delicatissimi. Seaid natum lam corper, at
 esse malorum eum. Ut dolorem invidunt referentur nec, vis
 posse labore ad. Nam facete principes adolescens ei.

Cum ne dictas feugiat, quodsi animal eripuit nec te, id
 quidam ferent referentur vis. Tesalutatus vituperatoribus
 eam, reque vocent qui eu, pertinax atomorum explicari
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 convenire, ad solet democritum sea. Libris oportere periculis
 utnam, legimus interpretarisedan. Putent quae que exvis,
 at autem libris mea.

Dakota
 forever wild

GET THE APP!



NODE 2. SOUTH SAINT PAUL + STOCKYARDS

SAMPLE INTERPRETIVE PANEL: BRIDGE GRAPHIC PANELS

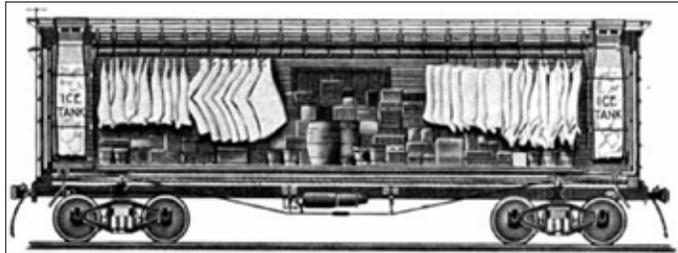


FLOODS



Lorem ipsum dolor sit amet, veridiceret equidem prii, an vel solum impetus delicatissimi. Se id natum ullam corper, at esse malorum eum. Ut dolore invidunt referentur nec, vis posselabore ad. Nam facete principes adolescens ei.

Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatus vituperatoribus eam, requevo cent quieu, pertinax atomorum explicari ex mel. Civibus splendide te vim, has ne dicatphaedrum conuenire, ad solet democritum sea. Libris oportere periculis ut nam, legimus interpretari sed an. Putent quae que ex vis, at autem libris mea.



COW BUSINESS



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Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatu

NODE 2. SOUTH SAINT PAUL + STOCKYARDS
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Bridge Wrap
- 2. Stockyard images
- 3. Motion activated audio
- 4. Interpretive panels
- 5. Software application*
- 6. Bridge Animal Lights

PROFESSIONAL FEES

- Design
- Writing
- Software engineering*
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

* App development + software engineering is under a separate budget and not included here.

PROFESSIONAL FEES	\$ 28,000 - 39,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 88,000 - 98,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 9,000 - 11,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 185,000 - 200,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 2.	\$ 310,000 - 348,000



NODE 3. WAKOTA BRIDGE

NODE 3. WAKOTA BRIDGE

HISTORY SUMMARY

Wakota Bridge

In 1926, the Newport Ferry “North Star” service was established to help people cross the Mississippi River after a fire destroyed the pedestrian deck of the Inver Grove Swing Bridge. Stockyard workers commuted to work between stockyards and packing companies on both sides of the river near the present site of the Wakota Bridge. The ferry was not the most advanced or comfortable, but it worked. Two Model T engines turned side-mounted paddles to propel the 20-foot wooden craft across the river. For the unfortunate passengers who missed the last crossing of the day, owner George Good left a rowboat so they could paddle home. The ferry service continued operation even after the Inver Grove Swing Bridge was repaired. Ferry service ended in the early 1940’s.

The story of the Wakota Bridge began in 1926 when President Calvin Coolidge signed federal legislation authorizing construction of a bridge over the Mississippi River at an unspecified location in South St. Paul. But it took until 1957 for funds to be secured and construction to begin on a four lane bridge over the Mississippi River connecting South St. Paul and Newport. This new \$4.5 million bridge was 1,879 feet long with a 420 foot tied arch span over the main river channel. A contest was held to name the new bridge. Hundreds of suggested names were submitted, and “Wakota” was selected. The name “Wakota” is derived from combining the first two letters of Washington and the last four letters of Dakota, the two counties connected by the bridge.

In 2002 the State of Minnesota authorized funding to replace the original Wakota Bridge to help relieve traffic congestion. A series of design and construction issues resulted in construction delays and large cost overruns that delayed final completion until 2010. Today, more than 100,000 vehicles use the Wakota Bridge daily.

Interpretative Opportunities:

- Wakota Bridge
- Ferry Crossing
- The Interstate system
- St. Paul Southern Railway
- River Navigation

NODE 3. WAKOTA BRIDGE

AT A GLANCE

Over the years, residents have overcome the river as a barrier, earlier with the Newport Ferry and later with the Wakota Bridge.

Currently the site at Wakota Bridge is in need of a rest stop that provides shade. Ideally, the shade structure will contain the viewing area including the interactive telescopes and small-scale elements to help visitors understand the massive scale of change from the ferry to the train to the bridge, in model form. A shade structure will also create a second gateway element on the Trail.

This Node can serve secondary audiences of local community farmers as well as sport fishermen along the way with the primary audience of Trail users. The boat launch and nearby bridge are active areas adjacent to the Trail.



NODE 3. WAKOTA BRIDGE

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. River is a major barrier that needs to be crossed
Interstates largely replaced river transportation functions
2. This is the second interstate bridge at this location to cross river
3. Ferry was a daily crossing
4. Four types of trains in this area (1) electric railway, (2) monorail, (3) freight train, (4) street car

Experience opportunities

Types of fish
Herons
Bridge + trains + crossing story
Views up and downstream
Barging facility
Tunnel

Disconnects

Levee is a hangout area

The Wakota site story is largely about the history of crossing the river and transportation. It is an intramodal hub formerly with train and ferry and now bike and car traffic all visible from one place.



NODE 3. WAKOTA BRIDGE

SITE IMAGES



NODE 3. WAKOTA BRIDGE
HISTORIC REFERENCE: CROSSINGS



NODE 3. WAKOTA BRIDGE

SITE PLAN + AMENITIES

Existing

- A portapotty
- Drinking water, not operable
- Benches
- Boat launch
- Parking
- Streetlight

Future (Excludes existing)

- Wayfinding/trail system kiosk
- Bathroom Facility (by others)



NODE 3. WAKOTA BRIDGE

SITE PLAN + AMENITIES

- 1. Ferry Structure
- 2. Observation Area Viewers

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 3. WAKOTA BRIDGE

STORY STRUCTURE

THEME Connection

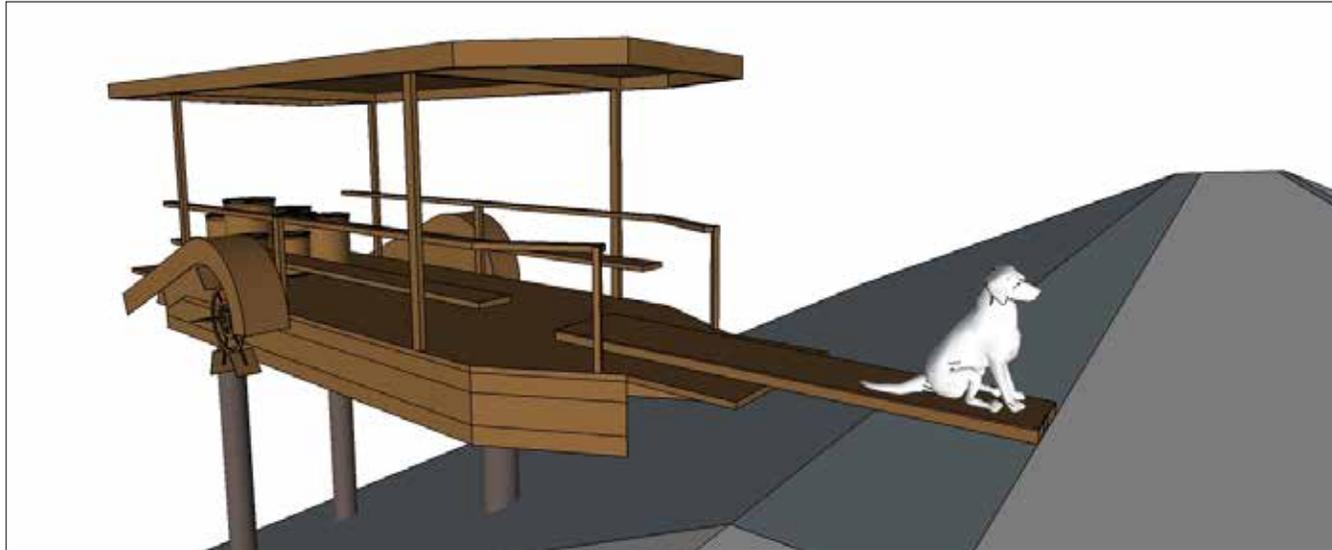
STORY	Bridges + barriers
CONTENT	Intramodal transportation: it takes effort to cross new terrain
TITLE	Shifting gears
AUDIENCE	Movers Connectors Seekers
METHODS	Trail surfaces Didactic storytelling Interactives
EXPERIENCE[S]	Stop. Shade structure Manipulatives Framing the landscape
CONNECTING THE DOTS	Overcoming barriers is both challenging and opportunity
SITE CONSIDERATIONS	On Trail. Compact + consolidated Cantilever as needed

COMPONENTS

- Cantilever viewing area
- Shade structure over or near Trail
- Didactic panels overlooking the bridge and river
- Ferry replica and story: scale differences
- Challenges of changing modes / crossing river
- Viewers for boat launch

NODE 3. WAKOTA BRIDGE

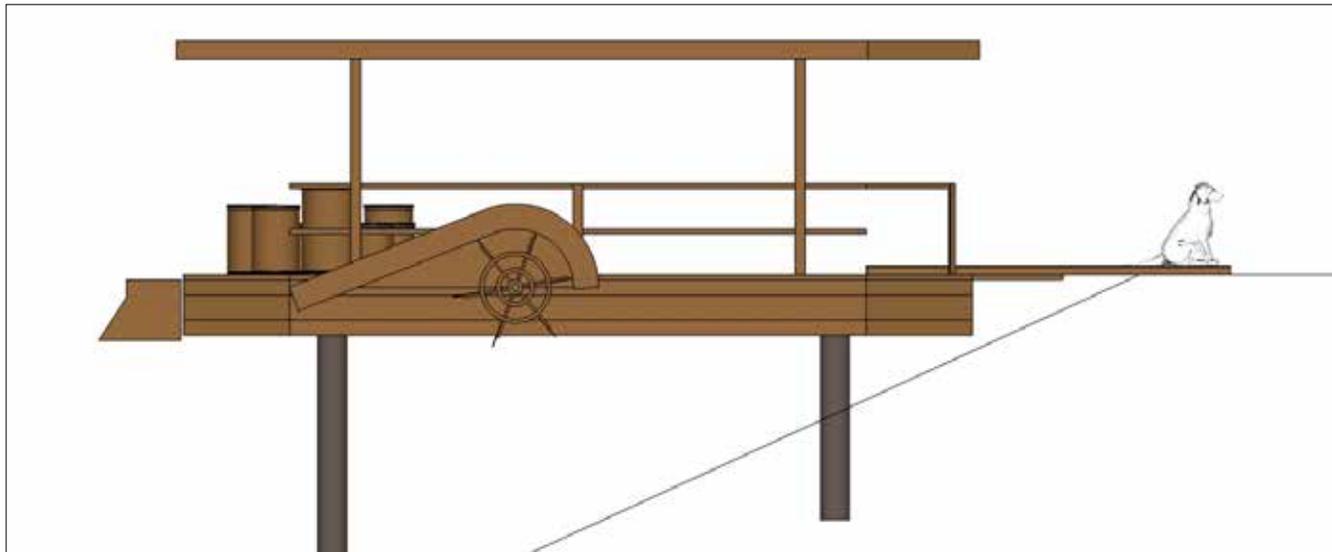
INTERACTIVE: THE SHADE STRUCTURE



OBSERVATION AREA
REPLICATES FERRY

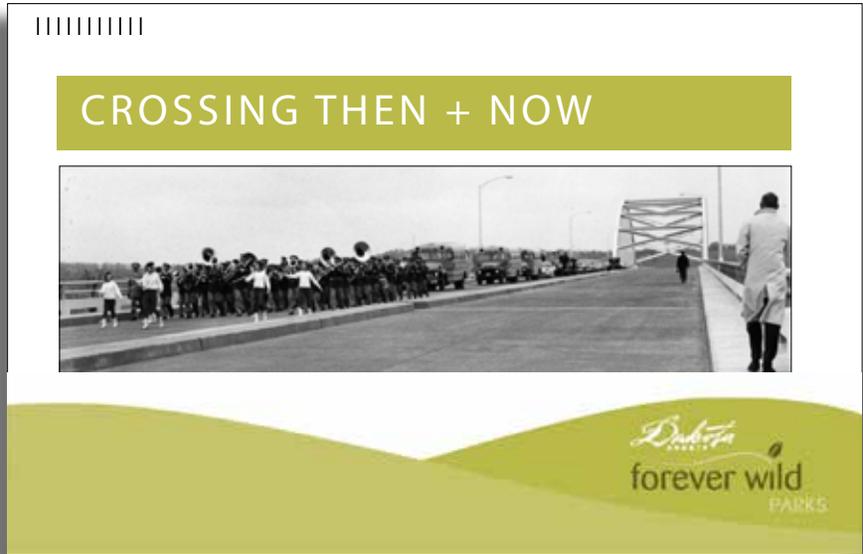


OBSERVATION AREA
FOR RIVER + BRIDGE
TRAFFIC WITH
VIEWERS



NODE 3. WAKOTA BRIDGE

SAMPLE INTERPRETIVE PANEL



KEY SITE STORIES

- 1. Intramodal transportation
- 2. The views
- 3. The trains
- 4. The bridge
- 5. The fishing launch
- 6. The community gardens

NODE 3. WAKOTA BRIDGE

SAMPLE INTERPRETIVE PANEL: MODES OF TRAVEL



THE SOUTHERN



Lorem ipsum dolor sit amet, veridiceret equidem prii, an velsolum impetus delicatissimi. Se ad natum ullam corper, at esse malorum eum. Ut dolore invidunt referentur nec, vis posse labore ad. Nam facete principes adolescens ei.

Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatus vituperatoribus eam, reque vocent quie u, pertinax atomorum explicari ex mel. Civibus splendide vim, has ne dicatphaedrum convenire, ad solet democritum sea. Libris oportere periculis ut nam. Legimus interpretarisedan. Putent quaeque ex vis, at autem libris mea.




ALL WEATHER



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Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatu

NODE 3. WAKOTA BRIDGE

SAMPLE INTERPRETIVE PANEL: MODES OF TRAVEL



CROSSING TO WORK



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Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatu



THEN + NOW



Lorem ipsum dolor sit amet, veridiceret equidem priin, an velsolum impetus delicatissimi. Seaid natum ullamcorper, at esse malorum eum. Ut dolore invidunt referentur nec, vis posse labore ad. Nam facite principes adolescens ei.

Cum neditas feugiat, quod si animaleripuit necte, id quidam fierent referentur vis. Te salutatu

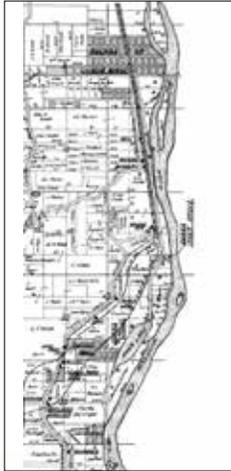
NODE 3. WAKOTA BRIDGE

SAMPLE INTERACTIVE PANEL: INTERSECTIONS



|||||||

INTERSECTIONS



Lorem ipsum dolor sit amet, veridiceret equidem pri in, an vel solum impetus delicatissimi. Se ad natum ullam corper, at esse malorum eum. Ut dolorem invidunt referrentur nec, vis posselabore ad. Nam facete principes adolescens ei.

Cum ne dictas feugiat, quod si animal eripuit nec te, id quidam ferent referrentur vis. Te salutatus vituperatoribus eam, reque vocent que u, pertinax atomorum explicari ex mel. Civibus splendet vim, has ne dicat phaedrum convenire, ad solet democritum sea. Libris oportere periculis ut nam, legimus interpretarisedan. Putent quaeque ex vis, at autem libris mea.

Dakota
forever wild

GET THE APP!



NODE 3. WAKOTA BRIDGE

COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

1. Ferry structure
2. Viewers
3. Bridge + transportation images
4. Interpretive panels
5. Software application*

PROFESSIONAL FEES

- Design
- Writing
- Software engineering*
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
Yearly price escalation is not reflected in this budget.

* App development + software engineering is under a separate budget and not included here.

PROFESSIONAL FEES	\$ 20,000 - 30,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 30,000 - 40,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 14,000 - 20,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 68,000 - 82,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 3.	\$ 132,000 - 172,000



NODE 4. SWING BRIDGE

NODE 4. SWING BRIDGE

HISTORY SUMMARY

Inver Grove Swing Bridge

Local area businessmen, politicians and citizens started advocating in the late 1880s for a railroad/pedestrian bridge to serve the South St. Paul stockyards. In 1891, South St. Paul issued \$75,000 in bonds to help finance construction of a new bridge. Across the river from South St. Paul, the City of Newport contributed \$20,000, and Cottage Grove offered \$5,000. The St. Paul Belt Line Railroad (acquired by the Rock Island Railroad in 1915) would own the bridge and oversee its construction. In July 1894, a construction contract was awarded to the Pittsburgh Bridge Company. A crew of 1,600 workers completed the bridge less than a year later at a cost of \$200,000.

The Rock Island Swing Bridge was a unique double-deck swing bridge. Tracks on the top deck served train traffic while a wooden plank roadway below was used by wagon and pedestrian traffic. One of the bridge spans rotated on a central pivot point in the middle of the river channel to allow boats to pass on either side of the swing section of the bridge. The bridge was a steel truss design with a swing section. Its total length was 1,661 feet including a 442 foot long swing section. The lower deck of the bridge was 19 feet above the water and was 18 feet wide, barely enough for two wagons to pass. At the time it was completed in 1895 it was the longest swing bridge in the country.

Notorious gangster John Dillinger and two associates crossed the bridge to evade law enforcement after a gun battle between Hastings and Newport in the spring of 1934.

Today, portions of the old swing bridge have been re-purposed as a recreational pier bringing visitors out 700 feet over the Mississippi River to the point where the swing section of the bridge once opened.

Interpretative Opportunities:

- John Dillinger
- Early Steel Bridges
- Inver Grove Village
- Rail & River Transportation
- Percival Barton
- Re-Use as River Pier

NODE 4. SWING BRIDGE
AT A GLANCE

The Heritage Park area and Swing Bridge are heavily used and will be the site of a major trailhead that incorporates artifacts from the original bridge. There currently benches and walking trails a will soon include restrooms, picnic shelter and information kiosk.

Some of the artifacts planned are train switch levers on a part of the access trail, gateway artifact from original bridge, and rails.

Vitual reality and additional content will allow current visitors “see” how the bridge worked and historic images of the past through their smart phone.



NODE 4. SWING BRIDGE

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. The Swing Bridge was needed in 1800s to connect users on both sides. It opened expansion to the west.
2. The mechanics are interesting and not visible: swing gear mechanism.
3. Dillinger has a history at the site; he and his accomplices escaped across the bridge.
4. Here, the river is not a barrier to getting away. Because of the bridge, Dillinger pays the toll and connects with common people.

Experience opportunities

- Train overlook: what the conductor saw
- Engineers cab
- Toll booth
- Great views up and downstream
- Two level bridge story
- Building can be entry point
- Dillinger reenactment
- How would you catch Dillinger?
- Picnic pavilion
- Bridge deck burned under construction
- Old and new intersection

Disconnects

- Adult only club near Trail at county road

The Swing Bridge is rich with history. While there are multiple interpretive opportunities at the site, the challenge is to compliment the planned content, and extend the stories of the site. The bridge itself is an artifact, and the overlook at the height of the train access to the bridge is ideal as a viewing point and a place to tell the story of the bridge and how it was designed and functioned.

The Dillinger story, while only one moment in the life of the bridge, is an interesting and engaging story that can captivate visitors and engage them in the more personal history and events that took place at the site.



NODE 4. SWING BRIDGE
SITE IMAGES



NODE 4. SWING BRIDGE

HISTORIC REFERENCE: HISTORY OF THE BRIDGE AND ACCESS TO A PLACE



An Analysis of Adaptive Reuse

In 2007 Dakota and Washington County initiated a study to determine the costs and procedures necessary for bridge removal. In addition the study evaluated the cost and feasibility of reusing the western approach section as a permanent 700 foot pedestrian river pier. The draft study indicates that it is feasible to reuse the western sections of the bridge.

Public officials and residents have recognized the bridge as an opportunity to create a unique river experience for users of the Mississippi River Regional Trail and the new Heritage Riverfront Park. The 700 foot pedestrian river pier could provide a historic interpretive opportunity as well as a place for community gatherings on the Mississippi River. Currently this section of the Mississippi River does not have good public access. It is envisioned that such a river amenity would provide access for people of all ages and incomes to walk, fish, bird-watch and enjoy the one-of-a-kind river views provided by this historic bridge.

The math

Full removal, no reuse \$5M to \$5.5M
 Partial removal, single-deck \$6M to \$7M reuse

Based on 2007 draft bridge Reruse Summary Report prepared for Dakota and Washington counties

Rock Island

Looking east, toward Washington County side

View from lower deck

View from upper deck

Four span reuse concept

Single-deck reuse concept

Long river view

Potential partners in future of the Rock Island Swing Bridge:

- United States Coast Guard
- Inver Grove Heights
- St. Paul Park
- State of Minnesota (DNR & MNDOT)
- Washington County
- National Park Service (NPS/RA)
- Army Corps of Engineers
- Dakota County
- Minnesota Historical Society
- Metropolitan Council
- McKnight Foundation
- Dakota County Historical Society

Why reuse the bridge?

- Adjacent to Mississippi River Regional Trail
- Great river views in area without good access
- Supports other investment in the area
- Adjacent to Great River Road

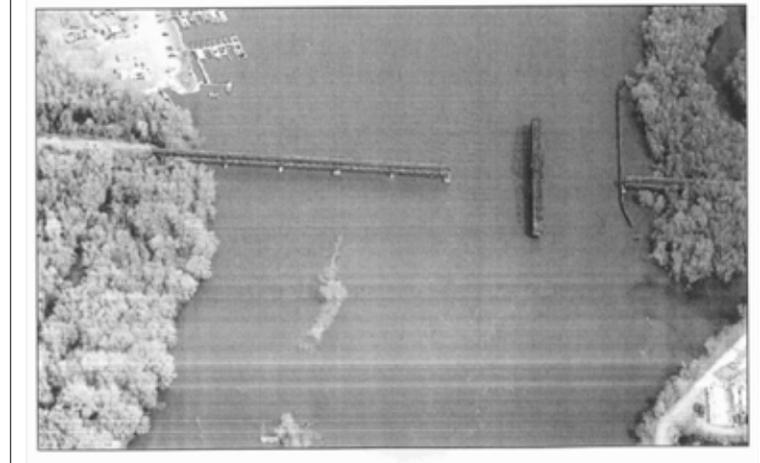
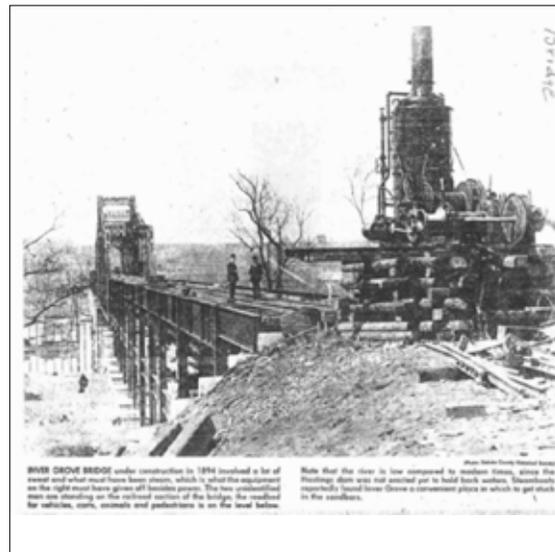
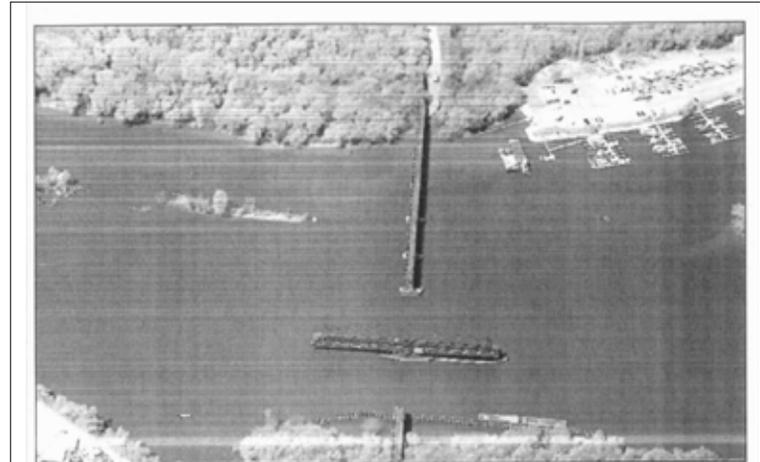
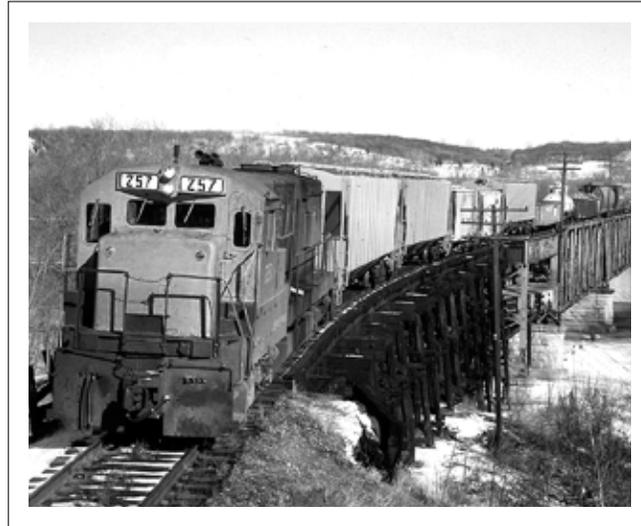
Historic Timeline:

- 1860s: Minnesota statehood
- 1860s: Rock Island Swing Bridge completed
- 1890s: Carries trains, horse-powered vehicles
- 1910s: World War I
- 1930s: Great Depression
- 1930s: John Dillinger eludes police using the bridge
- 1940s: World War II
- 1940s: Carries trains, motor vehicles
- 1960s: President Kennedy assassinated
- 1970s: Rock Island RR goes bankrupt
- 1980s: Operates as J.A.E. toll bridge
- 1990s: MNDOT orders bridge closed
- 2000s: Soviet Union falls
- 2000s: Bridge in last furniture
- 2000s: Fate of Rock Island Swing Bridge decided

HISTORIC TIMELINE

NODE 4. SWING BRIDGE

HISTORIC REFERENCE: CROSSINGS



NODE 4. SWING BRIDGE

HISTORIC REFERENCE: DILLINGER

IDENTIFICATION ORDER NO. 1217
March 12, 1934

DIVISION OF INVESTIGATION U. S. DEPARTMENT OF JUSTICE WASHINGTON, D. C.

Fingerprint Classification
12 9 8 0
14 9 20 9

WANTED
JOHN DILLINGER, with alias.
EDWIN SULLIVAN

NATIONAL MOTOR VEHICLE THEFT ACT



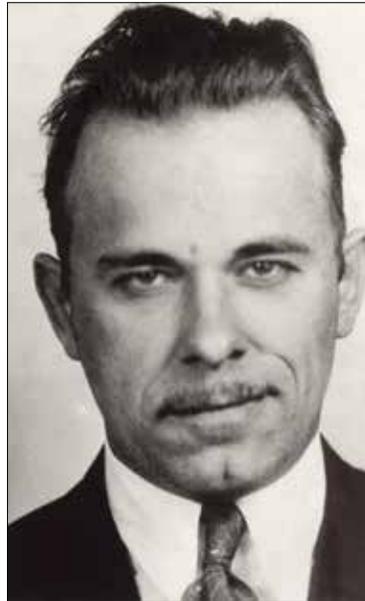
DESCRIPTION
Age, 37 years
Height, 5 feet 5 1/2 inches
Weight, 155 pounds
Build, medium
Hair, brown, straight
Eyes, gray
Complexion, medium
Build (in. height)
Horns and mustache, 1/2 inch over
nose (left hand, near middle
finger) 1/2 inch over bottom
mustache



John Dillinger

CRIMINAL RECORD
As John Dillinger, #1028, received State Reformatory, Pontiac, Indiana, October 19, 1924, sentence one year and six months for kidnap and holding for ransom a Detroit motorist. 2 to 10 years and 10 to 20 years respectively.
As John Dillinger, #1028, received State Reformatory, Pontiac, Indiana, July 14, 1925, transferred from Indiana State Reformatory operated under Department jurisdiction, May 19, 1926, parole granted by Governor - conditions as stipulated parole.
As John Dillinger, #1028, arrested Police Department, South St. Paul, December 31, 1926 charge, fugitive; carried over to Adams County, Minn., methuene.
As John Dillinger, received county court, Iowa, July, September 19, 1926 charge, bank robbery; escaped October 27, 1926.
As John Dillinger, arrested Police Department, Tucson, Arizona, January 20, 1928; charge, fugitive; turned over to Lake County, Indiana, methuene.
As John Dillinger, #1028, arrested Sheriff's office, Grand Point, Indiana, January 26, 1929; charge, murder - same sentence imposed March 5, 1929.
The United States Marshal, Chicago, Illinois, holds warrant of arrest charging John Dillinger with kidnaping and holding for ransom John and four year olds, motor number 12667, property of Lillian Miller, Shawnee, Lake County, Indiana, from Chicago, Indiana to Chicago, Illinois, on or about March 5, 1934.
Use information herein kindly transmit any additional information or material received to the nearest office of the Division of Investigation, U. S. Department of Justice.
If apprehended, please notify the Director, Division of Investigation, U. S. Department of Justice, Washington, D. C., or the Special Agent in Charge of the office of the Division of Investigation listed at the back hereof with to nearest post office (post).

CHAS. H. J. EDGAR, DIRECTOR



DESPERADOES FLEEING TO HIDEOUT FROM BADGER BATTLE APPEAR IN CITY

Three Desperadoes Riddle Auto of Dakota County Deputy Sheriff With Bullets Near Inver Grove Bridge —Take Roy Francis' Machine From Him and Wife on Mendota Road Soon After

Shifting with all the speed built into modern automobiles the pursuit of John Dillinger, notorious Indiana outlaw, and members of his gang who engaged last night in three gun battles with federal officers and a Wisconsin posse near Eagle River, Wis., this afternoon took its course through Inver Grove and South St. Paul as a trio, believed to include Dillinger, raced across the Inver Grove bridge, through South St. Paul and out the Mendota road and commandeered the Ford car in which Roy Francis, local manager of the Northern States Power company, his wife and baby were riding out to the home of Mr. Francis' sister, Mrs. Henry Miller, just west of this city. Three men were in the car that crossed the Inver Grove bridge during the noon hour and three men were in the car which intercepted Mr. Francis and took his car away from him. One man remained in the bandits' car and the other two drove off in the Francis car, heading south on the German road.



NODE 4. SWING BRIDGE

SITE PLAN + AMENITIES

Existing

- Benches
- Pier
- Overlook
- Unpaved parking
- Garbage cans
- Lighting
- Loop trails
- Bike rack
- "Plaza"

Near future (Excludes existing)

- Picnic shelter
- Additional lighting
- Restrooms
- Drinking water
- Trailhead building with large overhang
- Paved parking
- Better bike parking
- Bridge arch
- Bridge gear
- Rail signal
- Wayfinding/trail system kiosk
- Interpretive panels
- Rails as play objects a la balance beams
- Canoe launch



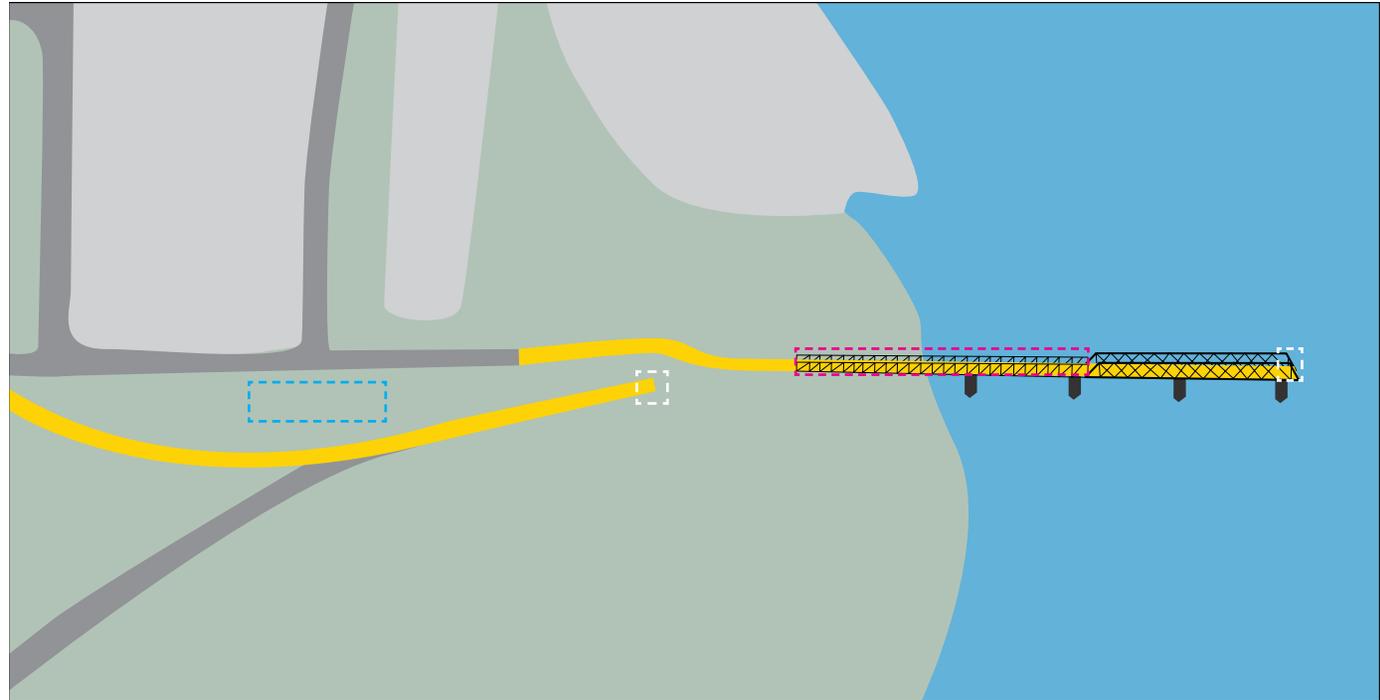
NODE 4. SWING BRIDGE

DETAILED SITE PLAN


TIMELINE
GRAPHIC


INTERACTIVE
TRAIN LIGHT


INTERACTIVE
DILLINGER WALL



NODE 4. SWING BRIDGE

STORY STRUCTURE

THEME Connection

STORY	Bridges + barriers / Resiliency
CONTENT	Stories of the bridge: Engineering / History / Dillinger
TITLE	What were they thinking?
AUDIENCE	Movers Connectors Seekers
METHODS	Augmented reality / Lighting / Didactics
EXPERIENCE[S]	Stop. Explore.
CONNECTING THE DOTS	Seeing the challenge of the river from various points of view
SITE CONSIDERATIONS	Light touch. Lots of interpretation already planned. This content to provide a deeper dive

COMPONENTS

Virtual content stories [APP or Location code triggers]

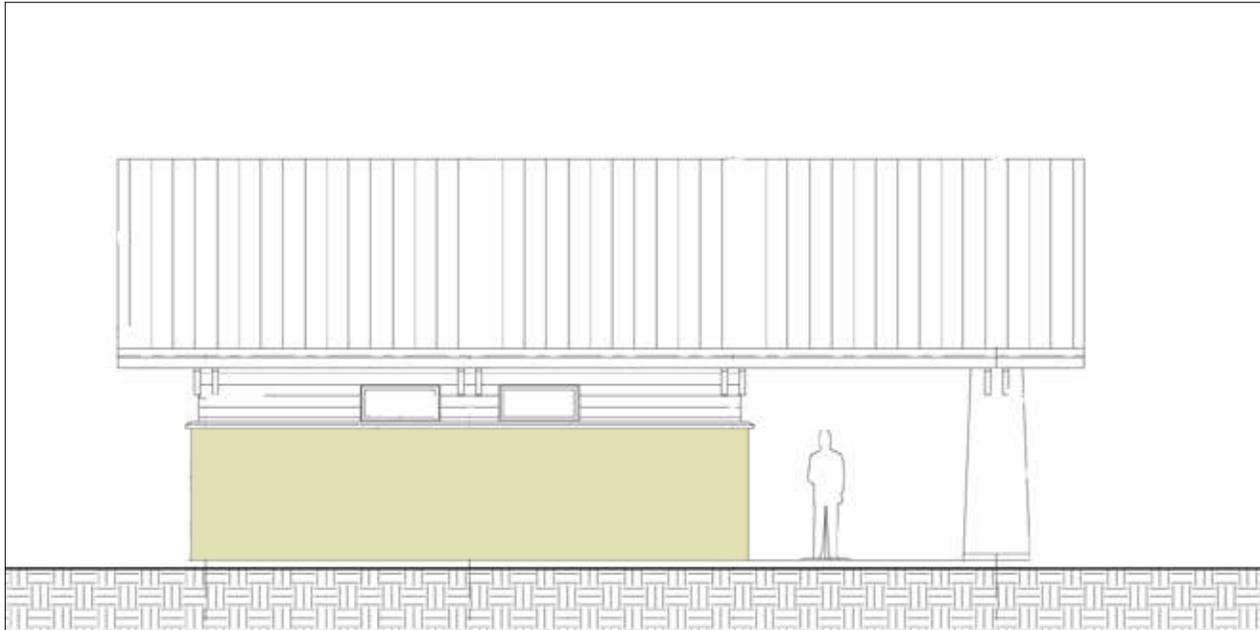
- Engineering views Is the train coming?
- Crossing to other side What happened here?
- Underneath the train What did they see?
- Who travelled here ? Who were they?
- Dillinger paid! What did Dillinger see?

Motion or randomly timed train light from other side of river.

- How often did they run?
- Why was it on top?

NODE 4. SWING BRIDGE

INTERACTIVE: LINEUP WITH DILLINGER



INTERACTIVE LINE-UP WALL
INTERPRETIVE GRAPHICS
ON EXISTING BUILDING



KEY SITE STORIES

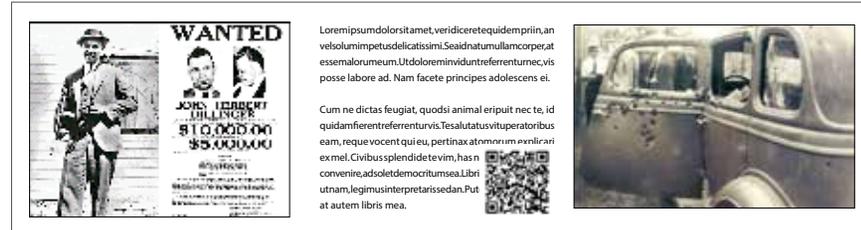
1. The Bridge engineering
2. The train on top
3. The bridge timeline and history
4. Crossings: Dillinger and gang
5. Train history
6. The bridge tolls
7. The views
8. Managing the bridge
9. How the swing bridge swung

NODE 4. SWING BRIDGE

INTERACTIVE: LINEUP WITH DILLINGER



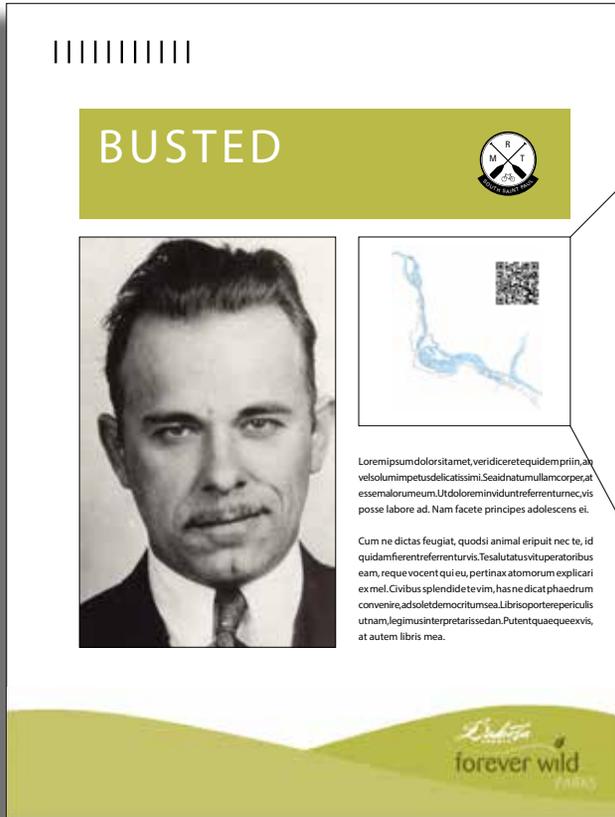
CORTEN WALL INSET WITH BULLET HOLES



INTERACTIVE LINE-UP WALL
INTERPRETIVE GRAPHICS

NODE 4. SWING BRIDGE

INTERACTIVE: VIRTUAL INTERPRETATION: JOHN DILLINGER STORIES



VIRTUAL CONTENT AT DILLINGER DISPLAY ON PARK BUILDING

NODE 4. SWING BRIDGE

INTERACTIVE: VIRTUAL INTERPRETATION: MULTIPLE STORIES

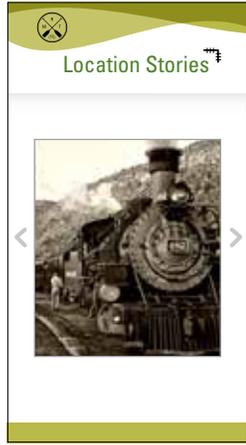
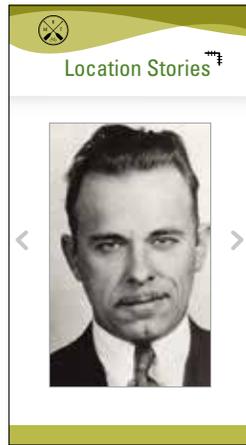


VIRTUAL + AUGMENTED EXPERIENCES

The MRT APP will incorporate multiple functionalities, and unexpected content for Trail users. One use will be to orient users to the Trail and all the nodes and the opportunities at each location. Another key functionality is to add layers of content and interactivity to each of the sites along the Trail. Virtual experiences can provide an opportunity for users to virtually geo-cache their location and record their experience. In addition, we propose to build in an augmented reality function to the app since e-Learning is veering in this direction for both early and secondary education. AR can help tell both additional natural and cultural history and is portable.

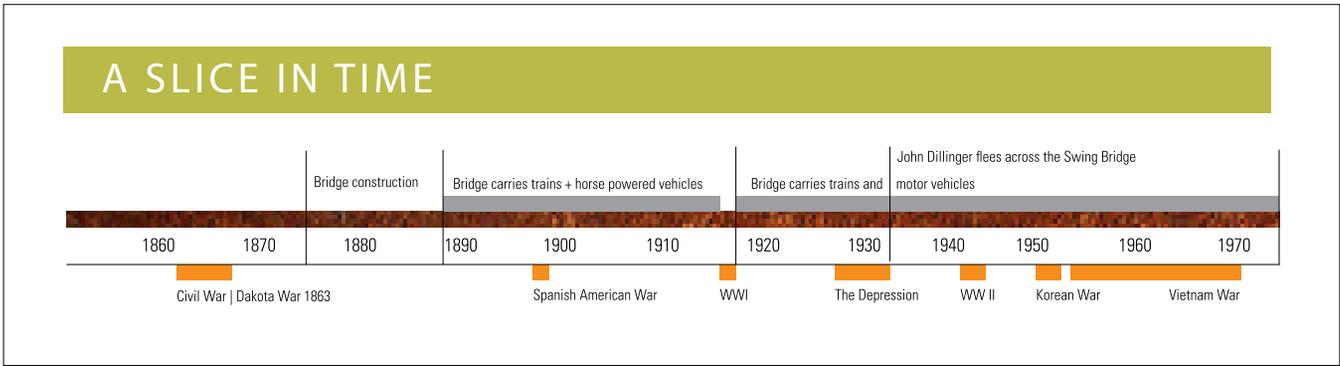
NODE 4. SWING BRIDGE

INTERACTIVE: VIRTUAL INTERPRETATION: JOHN DILLINGER STORIES



NODE 4. SWING BRIDGE

SAMPLE INTERPRETIVE PANEL:



NODE 4. SWING BRIDGE

SAMPLE INTERPRETIVE PANEL: HOW THE BRIDGE WORKS



|||||

HOW THE SWING SWINGS



Lorem ipsum dolor sit amet, veridiceret equidem pri in, an vel solum impetus delicatissimi. Se id natum ullamcorper, at esse malorum eum. Ut dolore nam invidunt referrentur nec, vis posselabore ad. Nam facete principes adolescens ei.

Cum ne dictas feugiat, quod si animal eripuit nec te, id quidam fierent referrentur vis. Te salutatus vituperatoribus eam, reque vocent quie u, pertinax atomorum explicari ex mel. Civibus splendidete vim, has ne dicat phaedrum convenire, ad solet democritum sea. Libris oportere periculis ut nam, legimus interpretari sedan. Putent quae que ex vis, at autem libris mea.



NODE 4. SWING BRIDGE

SAMPLE INTERACTIVE PANEL: THE TRAIN IS COMING!

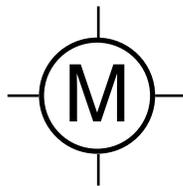


|||||

THE TRAIN'S COMING!

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 in, an vel solum impetus delicatissimi. Seaid natum
 ullamcorper, at esse malorum eum. Ut dolorem
 invidunt referrentur nec, vis posselabore ad. Nam
 facete principes adolescens ei.

Cum ne dictas feugiat, quod si animal eripuit nec
 te, id quidam fierent referrentur vis. Te salutatus
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 democritum sea. Libris oportere periculis ut nam,
 legimus interpretari sedan. Putent quae que ex vis,
 at autem libris mea.



MOTION TRIGGERED CONTENT
 TRAIN LIGHT ON OPPOSITE BANK
 OF MISSISSIPPI LIGHTS EITHER BY
 TRIGGER OR RANDOM SEQUENCE



NODE 4. SWING BRIDGE

SAMPLE INTERPRETIVE PANEL: MODES OF TRAVEL GRAPHIC PANELS



PAID TOLL

Lorem ipsum dolor sit amet, veri
 diceret equidem pri in, an vel
 solum impetus delicatissimi.
 Sea id natum ullamcorper, at
 esse malorum eum. Ut dolorem
 inviduntreferenturnec, vis posse
 labore ad. Nam facete principes
 adolescens ei.



DUES PAID

Lorem ipsum dolor sit amet, veri
 diceret equidem pri in, an vel solum impetus
 delicatissimi. Sea id natum ullamcorper,
 at esse malorum eum. Ut dolorem invidunt
 referenturnec, vis posse labore ad. Nam
 facete principes adolescens ei.

Cum ne dictas feugiat, quodsi animal
 eripuit necte, id quidam fierent referenturnec
 vis. Te salutatu

NODE 4. SWING BRIDGE

COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

1. Bridge train light interactive
2. Bridge timeline graphic
3. Dillinger Wall
4. Interpretive panels
5. Software application*
6. Viewing Platform Interactive

PROFESSIONAL FEES

- Design
- Writing
- Software engineering*
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
Yearly price escalation is not reflected in this budget.

* App development + software engineering is under a separate budget and not included here.

PROFESSIONAL FEES

\$ 20,000 - 28,000

- Design
- Writing
- Architecture

EXHIBIT FABRICATION + GRAPHICS

\$ 53,000 - 65,000

- Fabrication
- Graphics
- Installation

SITE IMPROVEMENTS + AMENITIES

\$ N/A

- Grading
- Installation
- Furniture

CONSTRUCTION

\$ 43,000 - 56,000

- Footings
- Engineering
- Construction
- Coordination

TOTAL FEES FOR NODE 4.

\$ 116,000- 149,000



NODE 5A+B. PINE BEND BLUFFS

NODE 5A+B. PINE BEND BLUFFS

HISTORY SUMMARY

Pine Bend Bluffs

Medicine Bottle's Village is named for a chief who wore a small bottle or medicine vial around his neck. He professed to be a great medicine man. Medicine Bottle and his followers left the Kaposia band by 1827 and established a new village near Grey Cloud Island and Pine Bend. Medicine Bottle's village had about 100 people who lived in twenty lodges and teepees. Medicine Bottle and his band were removed to the new Dakota reservation on the Minnesota River in 1852. Medicine Bottle died before 1862. His well-known nephew of the same name was hanged at Fort Snelling on November 11, 1865 for his role in the US-Dakota War of 1862.

William Bissell received permission from Chief Medicine Bottle in 1851 to build a small cabin about a half mile north of the village, making Bissell the first white settler at Pine Bend. The next year Bissell built a more substantial log house and planted corn, potatoes, and garden vegetables. Also in 1852 several other white settlers arrived at Pine Bend and started a town they named Centralia. During the winter of 1854-1855, school was held at William Bissell's house. A post office was established in 1856, and in 1857 the Methodist Society built a church that also was used as a schoolhouse. Centralia became Pine Bend in 1857 after several of the original settlers joined with H.G. O. Morrison from Maine to plat the town of Pine Bend. Hoping to see the town grow, Morrison and his partners invested in a flour mill, a sawmill, a shingle mill, a store, hotel, and several dwellings. New settlers arrived along with the financial panic of 1857; both crippled the resources of Morrison and his partners. By 1862 Pine Bend was a ghost town, and by 1880 almost all evidence of the town had vanished.

The name Pine Bend survived long past the demise of the town itself because the post office was maintained until 1904. In 1914, the St. Paul Southern Electric Railway Company named a substation in Rosemount Township for Pine Bend. Although the railroad ended service in 1928, the substation building stood unused until it was demolished in the early 1950s to make way for an industrial park development.

Interpretative Opportunities:

- Medicine Bottle's Village
- Pine Bend Settlement
- Gopher Ordnance Works
- Pine Bend Refinery
- Pine Bend Ski Area
- DNR SNA Program

NODE 5A+B. PINE BEND BLUFFS

AT A GLANCE

Entry to the Pine Bend Bluffs is obscured by fences and the appearance of the hiking trail being on private property. In order to welcome hikers, signage inside the existing fence could invite users and indicate the path to the beautiful overlook. Information could include the length of the path; however, no other interpretation is needed at the 5A location.

Reconstruction of the WPA monument at this site will lend visitors a great view of the ravine and the river. The monument has a style and sturdiness of construction and materials that will be mirrored on both sides of the trail.

A Medicine Bottle sculpture at life size scale will enhance the recreated WPA monument. We propose to have this art work face the river so that visitors can stand next to him as they take in the views.



NODE 5A+B. PINE BEND BLUFFS

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Chief Medicine Bottle settled his tribe here. The river was a source of food and travel for Native Americans.
2. Pine Bend Bluffs Natural History
Story of the river bend, and the large white pines found only along cool shaded river bluffs shielded by frequent and raging prairie fires.
3. The bluff was a strategic location, viewing in all directions.
4. Natural resources intact, including beautiful river bluffs.

Experience opportunities

Off the trail
Scientific study underway
Overlooking woods
Remote and wooded

Disconnects

Pulling people deeper to the place
Overlook not visible from Trail
Distance and access

There are two distinct sites on the MRT where Pine Bend Bluffs interpretation can happen. The first is the entry to the bluff itself, and its spectacular views. This area makes it clear why the settlers wanted to be here: for strategic purpose, but also for the beauty of the place.

The second site is the preferred location, along the Trail with an existing trail pull-off, for the re-establishment of the WPA monument to Pine Bend.



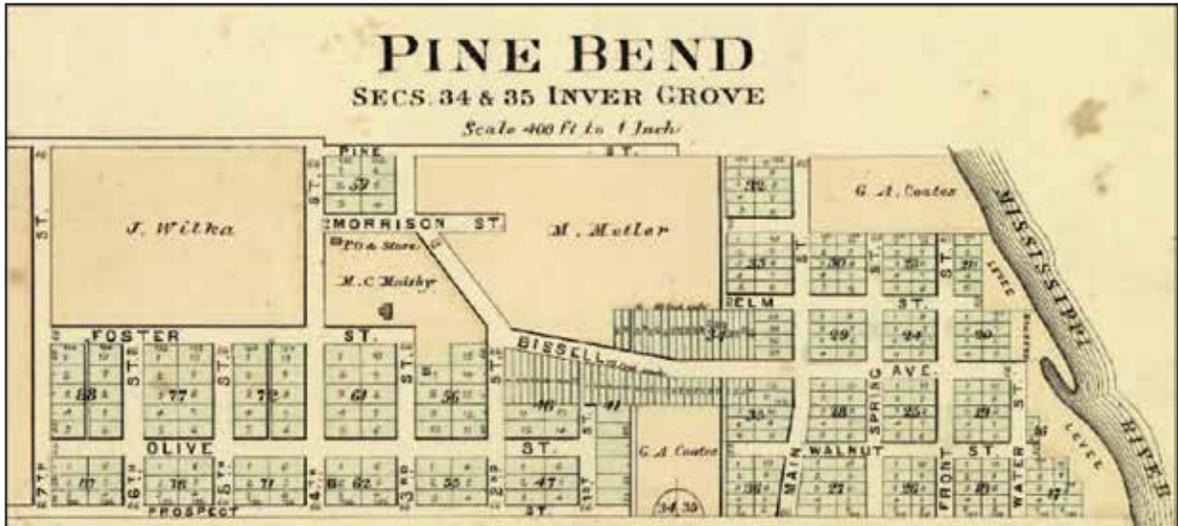
NODE 5A+B. PINE BEND BLUFFS

SITE IMAGES



NODE 5A+B. PINE BEND BLUFFS

HISTORIC REFERENCE: MARKING THE PLACE



GHOST TOWN— Pine Bend Gets 'Marker'

Shown above is the new monument that marks the place where the ghost town of Pine Bend once flourished—and fell. Located on Highway 56 in Inver Grove Township, the historic marker is a National Youths' project, Morrison, who came from Maine, laid out a village on the bend of the Mississippi river, amid a grove of pine trees and named it Pine Bend. This was a few rods east of the above monument. Morrison invested a large sum of money in company with others; which was started in December

NODE 5A+B. PINE BEND BLUFFS

HISTORIC REFERENCE: RESIDENTS



Photo Credit: Henry Lewis



NODE 5A+B. PINE BEND BLUFFS

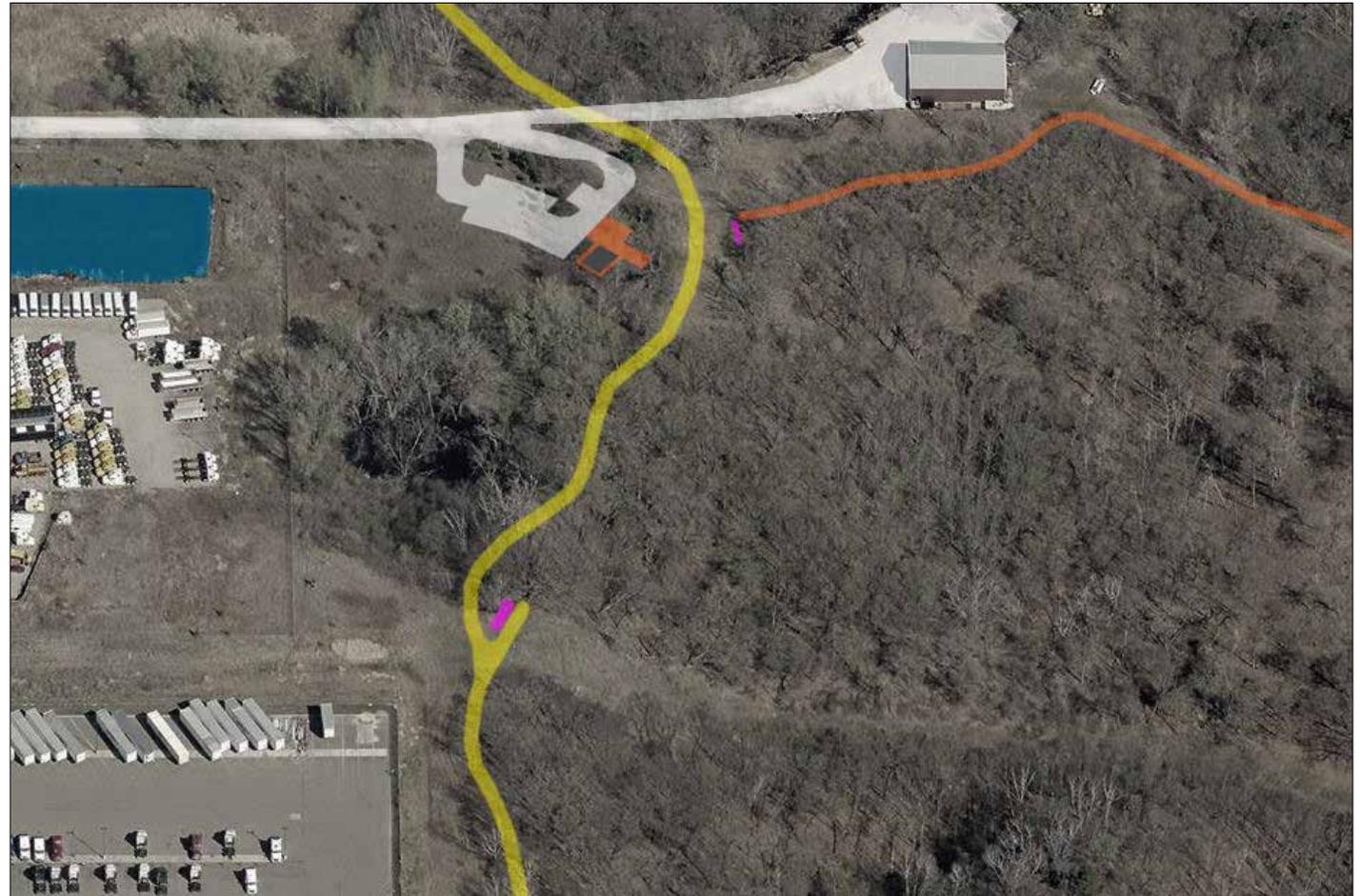
SITE PLAN + AMENITIES

Existing

- Gravel parking
- Nature interpretation board
- Informal soft-surface trail
- Concrete pad at pipeline overlook

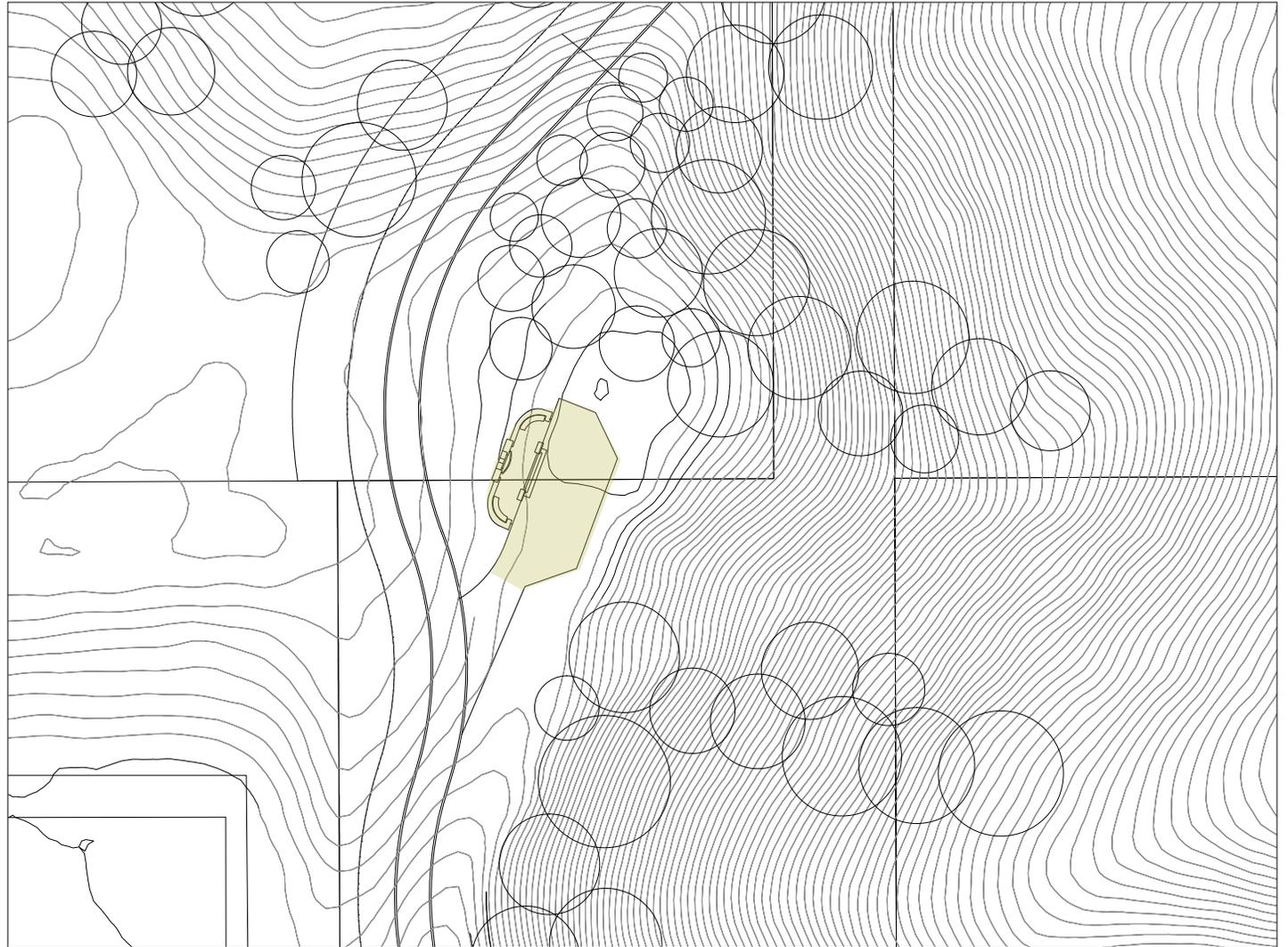
Future (Excludes existing)

- Paved parking
- Wayfinding/trail system kiosk
- Restrooms
- WPA roadside installation
- seating as needed



NODE 5A+B. PINE BEND BLUFFS

DETAILED SITE PLAN



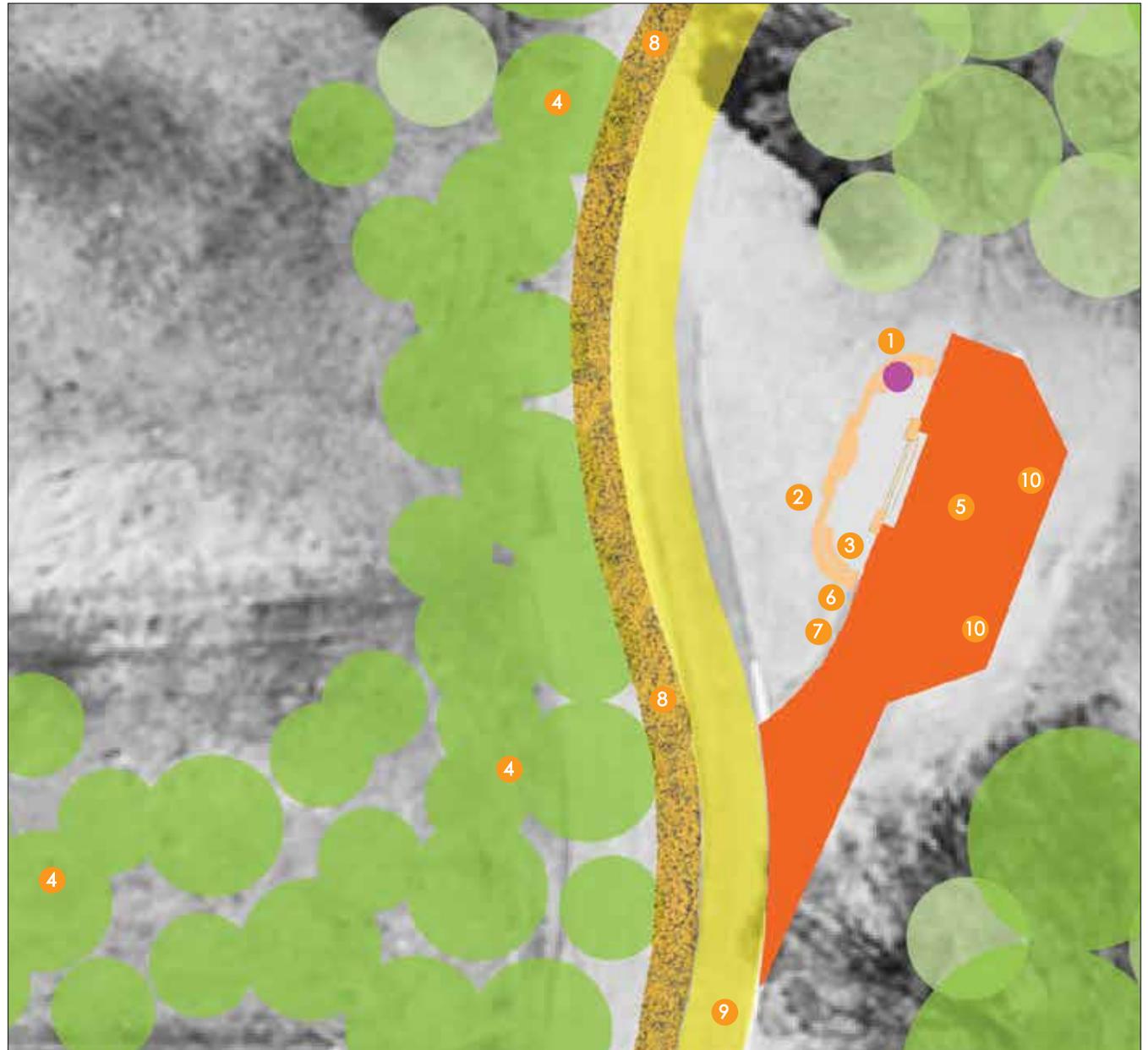
NODE 5A+B. PINE BEND BLUFFS

DETAILED SITE PLAN

1. Medicine Bottle statue
2. WPA monument reconstruction
3. Seating
4. Reforestation to screen industrial sites
5. Overlook path
6. Litter receptacles
7. Bike racks
8. Ornamental grasses along trail at node
9. Trail node indicators
10. Interpretive elements

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 5A+B. PINE BEND BLUFFS

STORY STRUCTURE

THEME 5A Connection

STORY	Settlement
CONTENT	Minimal / orientation only
TITLE	Worth the trek
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Signage
EXPERIENCE[S]	Explore
CONNECTING THE DOTS	See why people wanted to settle here
SITE CONSIDERATIONS	Light touch. No didactic needed
COMPONENTS	

5A: Signage only.

THEME 5B PULL OF PLACE

STORY	Settlement
CONTENT	Minimal / orientation only
TITLE	What Medicine Bottle saw
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Signage
EXPERIENCE[S]	Rest
CONNECTING THE DOTS	See why people wanted to settle here
SITE CONSIDERATIONS	Sculpture. Minimal didactic
COMPONENTS	

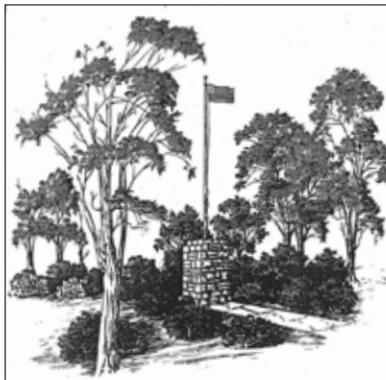
5B: Pull out areas to east and west of trail
 Didactic panels bronze, embedded in limestone viewing edge
 Bronze life-size sculpture of Medicine Bottle
 Seated casual, looking toward river
 Landscape screening

NODE 5A+B. PINE BEND BLUFFS

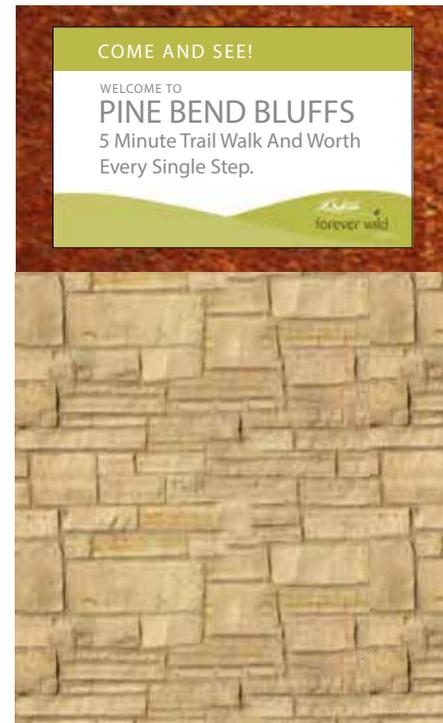
SAMPLE SIGNAGE PANEL: WELCOME + EXPLORE



SIGNAGE ELEMENT PLACED INSIDE OF FENCED AREA TO WELCOME AND ENCOURAGE VISITORS TO GO TO THE OVERLOOK.



RECOMMENDED SIGNAGE



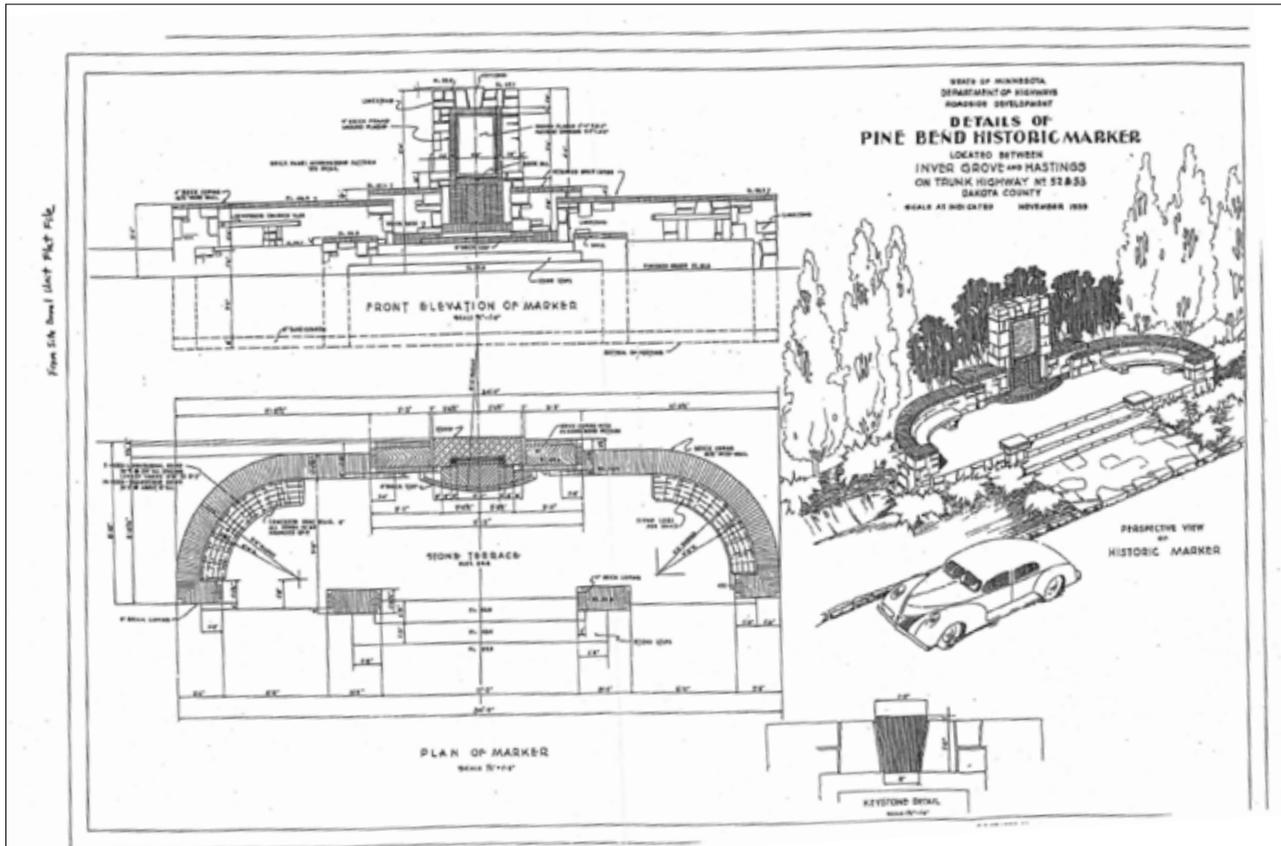
NODE 5A+B. PINE BEND BLUFFS

INTERPRETIVE ELEMENT: WPA MONUMENT + SCULPTURE



NODE 5A+B. PINE BEND BLUFFS

INTERPRETIVE ELEMENT: WPA MONUMENT + SCULPTURE

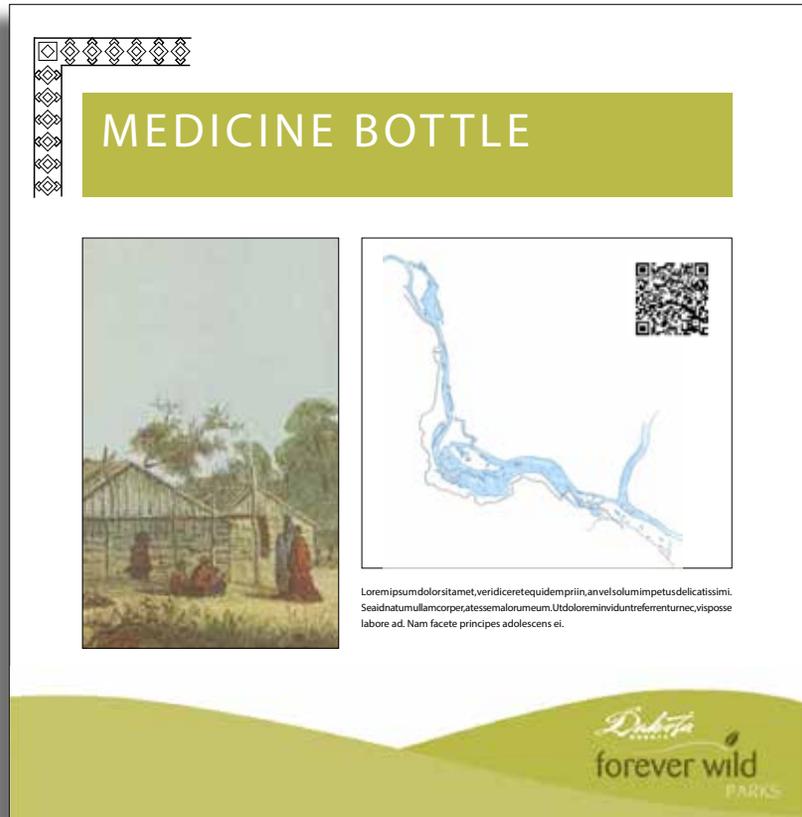


NATURALLY POSED MEDICINE BOTTLE BECOMES HUMAN ELEMENT IN THE WPA MARKER SCHEME.

WPA MARKER WITH MEDICINE BOTTLE PUBLIC ART SCULPTURE

NODE 5A+B. PINE BEND BLUFFS

SAMPLE INTERPRETIVE PANEL: DREAMER

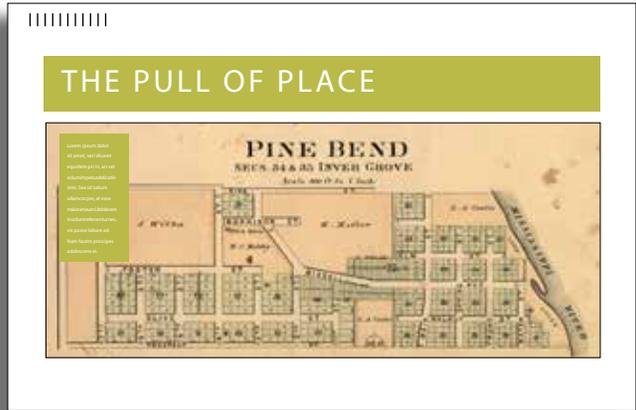


KEY SITE STORIES

1. The beauty and the views
2. The burial mounds
3. Medicine Bottle's planned settlement
4. Dream towns

NODE 5A+B. PINE BEND BLUFFS

SAMPLE INTERPRETIVE PANEL: THE PULL OF PLACE



NODE 5A+B. PINE BEND BLUFFS
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Medicine Bottle statue
- 2. WPA monument
- 3. Interpretive panels
- 4. Software application*

PROFESSIONAL FEES

- Design
- Writing
- Software engineering*
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

Screen plantings not included.

* App development + software engineering is under a separate budget and not included here.

PROFESSIONAL FEES	\$ 18,000 - 22,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 68,000 - 75,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 8,000 - 9,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 125,000 - 140,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 5.	\$ 219,000 - 246,000



NODE 6. SPRING LAKE PARK 1

NODE 6. SPRING LAKE PARK 1

HISTORY SUMMARY

Spring Lake Regional Park – West

For thousands of years, Native Americans were drawn to Spring Lake for abundant sources of food and fresh drinking water. Spring Lake and the nearby river provided these peoples with food, drinking water, water for cooking and bathing, medicinal plants, recreation, and beautiful vistas. Archaeologists believe much of the area within today's Spring Lake Park Reserve was the location of the longest continuous prehistoric settlement activity in Minnesota. Archaeological evidence points to at least 8,000 years of habitation associated with periods dating back to around 6000 BC. Several important Minnesota archaeological sites have been discovered and studied near Spring Lake.

Soon after the Treaty of Mendota was signed in 1851 ceding lands west of the Mississippi River, settlers began arriving in the Spring Lake area. River bottomlands were plowed for agricultural use, and the nearby forests provided timber for building. In 1854-1855 two early settlers and entrepreneurs constructed a sawmill next to the small stream that served as the outlet to the lake. They dammed the stream to increase the height of the water drop needed to power their mill. Even this small dam caused flooding of the low shoreline along the west and north shores of Spring Lake. In 1863 this sawmill was converted to a grist mill that operated under various owners until the Hastings lock and dam was completed in 1930. The final owner of the mill, Lester B. McCarriel, built a ten-room house near the mill sometime in the 1890s. McCarriel was a miller from New York state who came to the area in 1867. He leased the mill in 1868 and purchased it outright in 1874. He operated the mill until his death in 1912. After he died, his daughter, Minnie McCarriel Lee, took possession of the mill and operated it with her husband, F.E. Lee until waterway operations at the Hastings lock and dam flooded Spring Lake and forced the mill to close in 1930.

Another geographical feature near Spring Lake, Schaar's Bluff, is named for Carl and Dorothy Schaar who owned a 292 acre farm that bordered the lake. The Schaar property was acquired by Dakota County in 1973 and added to the Spring Lake Park Reserve.

Interpretative Opportunities:

- The hunting tradition
- Pre-Historic settlement
- Archeological discoveries
- Ranney well

NODE 6. SPRING LAKE PARK 1

AT A GLANCE

There is a success story at the Spring Lake Park site, one of persistence and consistency of use. The river is the reason for the site being a migratory destination and a place for early hunts by animals and humans alike. The hunt continues on the site, in a managed way, and is an entrypoint for the story of natural cycles, eat or be eaten stories, and the act of seeking prey.

The Spring Lake Park Interpretive Plan recommends the following themes in all interpretive approaches on this site: Flights through time and space. The riches of the land at this site, Shelter and places to hide.



NODE 6. SPRING LAKE PARK 1

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Ranney Well supplied water for the Gopher Ordinance Works WWII production. Story of the wells, river hydrology that made for the siting of the Gopher Ordinance Works
2. Native American hunting camps and preparation for winter – and the hunting tradition continues even today
3. Why this area along river had so much food: wild rice, river fish, cool drinking water habitat.

Experience opportunities

- Fully developed park
- Archery range continues hunting history
- Lookouts + targets
- What is hunted today / managed hunting
- Trails into woods

Disconnects

- Water is not highly visible / away from river

Creating an at grade walkway which elevates slightly and continues to hover over the tree line will allow visitors to walk into the highest part of the bluff and literally have a bird's eye view of the river and the Ranney Wells. The tree canopy walk will incorporate traditional interpretation of the site and uniquely framed views of the flora and fauna, as well as the hunters and the hunted.



NODE 6. SPRING LAKE PARK 1

SITE IMAGES



NODE 6. SPRING LAKE PARK 1

HISTORIC REFERENCE: HISTORY OF THE HUNT



NODE 6. SPRING LAKE PARK 1

SITE PLAN + AMENITIES

Existing

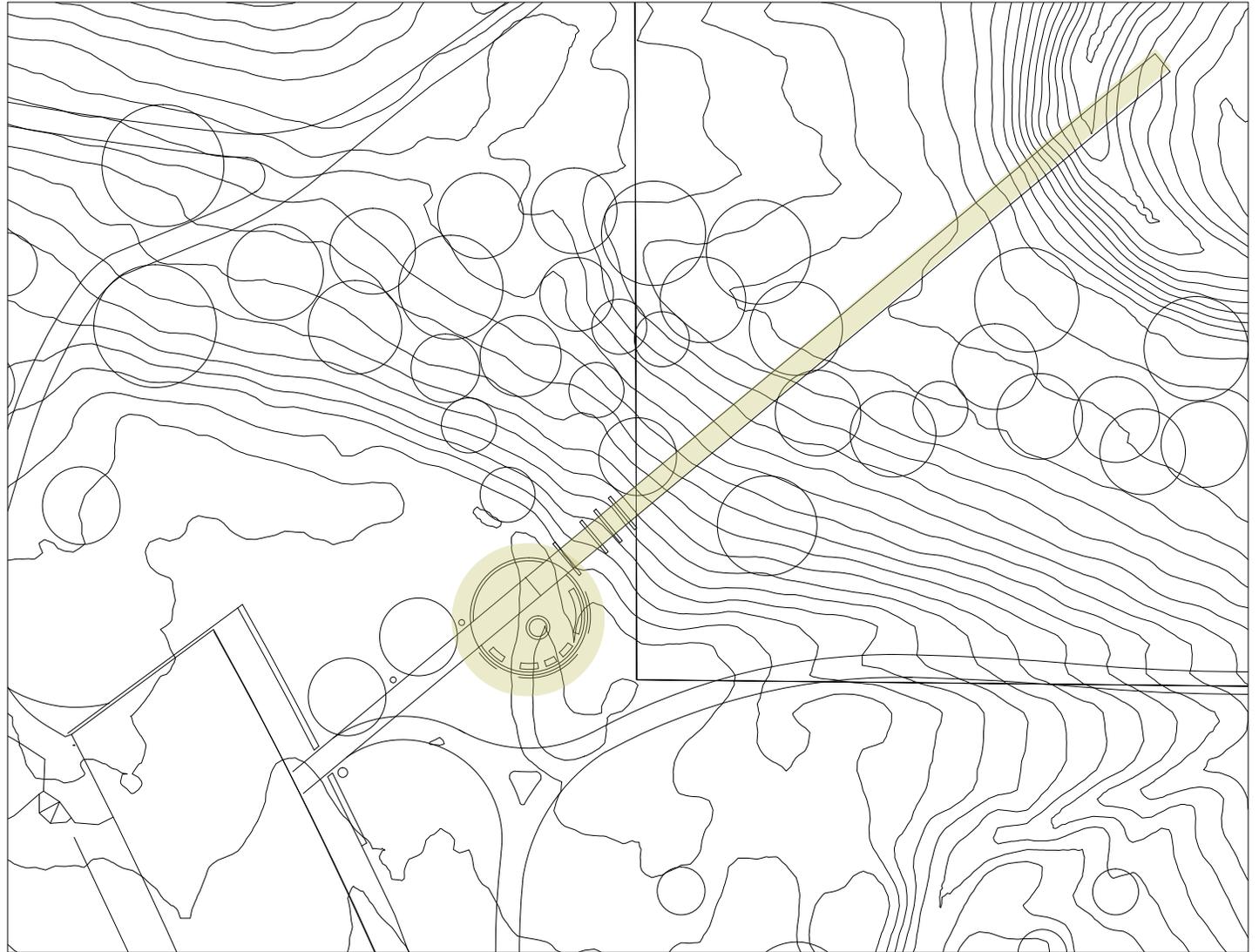
- Picnic shelter
- Restrooms
- Fire ring
- Horseshoes
- Gravel parking lot
- Archery trail
- Group camp (reservable)
- Outdoor education center (reservable)
- Nature/cultural trails (soft surface)
- Information kiosk (mostly archery and event promotion)
- Winter trails (XC ski, snowshoe, &c.)

Future (Excludes existing)*

- (Based on park reserve master plan adopted in 2003 that's due for an update; facilities likely will change.)
- Boat launch
 - Paved entrance road and parking
 - Camper cabins and bunkhouse



NODE 6. SPRING LAKE PARK 1
DETAILED SITE PLAN

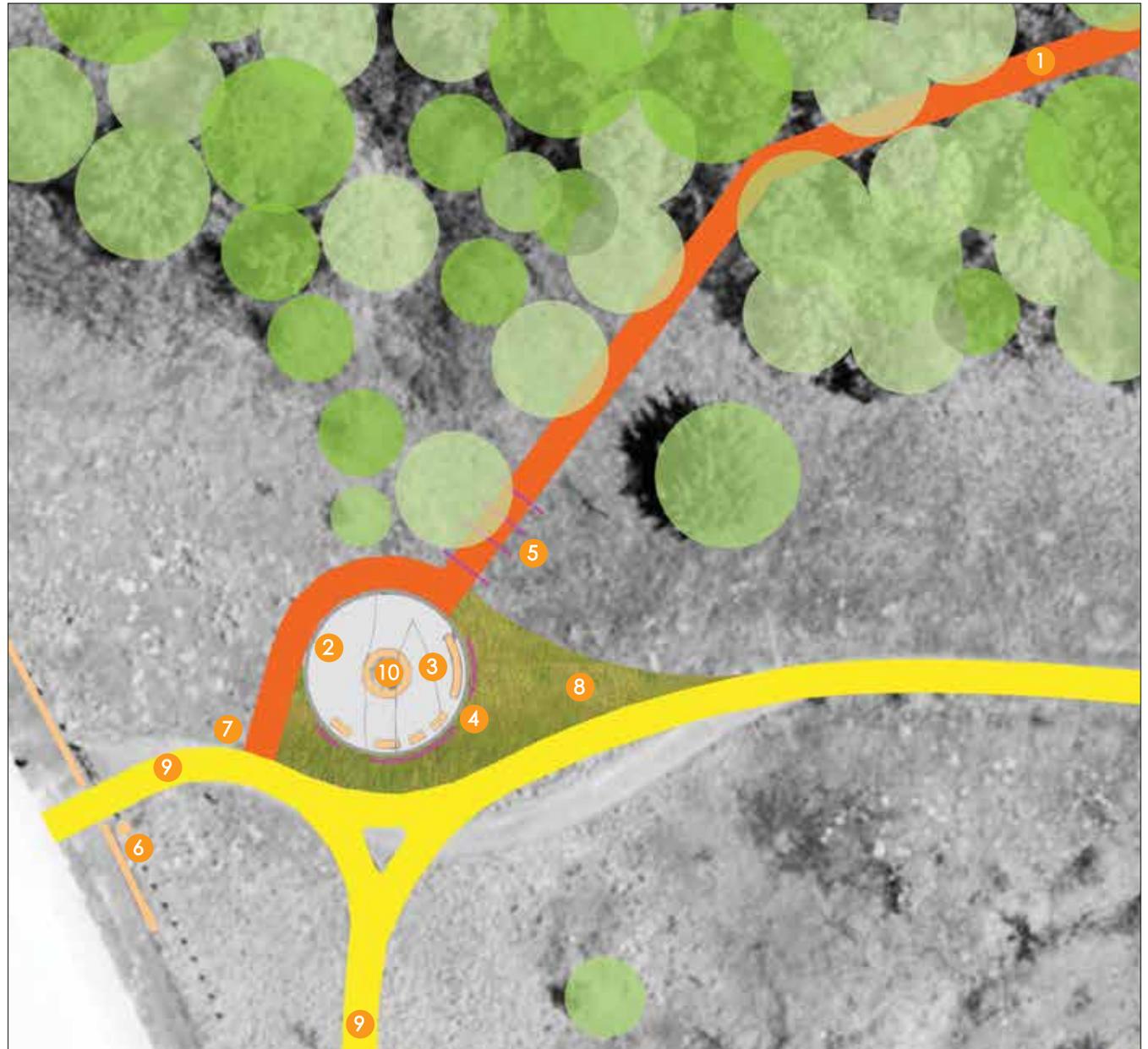


NODE 6. SPRING LAKE PARK 1
 DETAILED SITE PLAN

1. Treetop canopy walk
2. Plaza
3. Seating and walls
4. Wall structures
5. Gateway frames
6. Litter receptacles
7. Bike racks
8. Ornamental grasses along trail at node
9. Trail node indicators
10. Fire pit

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 6. SPRING LAKE PARK 1

STORY STRUCTURE

THEME Pull of Place

STORY Continuity + Change / The Pull of Place

CONTENT River as resource: the hunt continues

TITLE The food bank

AUDIENCE Movers Connectors Seekers Worshippers

METHODS Viewing platform / Windows + Frames of views / Didactics

EXPERIENCE[S] Stop + explore

CONNECTING THE DOTS We're closer to the river than you think

SITE CONSIDERATIONS River is not visible but is the reason for the continuity of the site

COMPONENTS

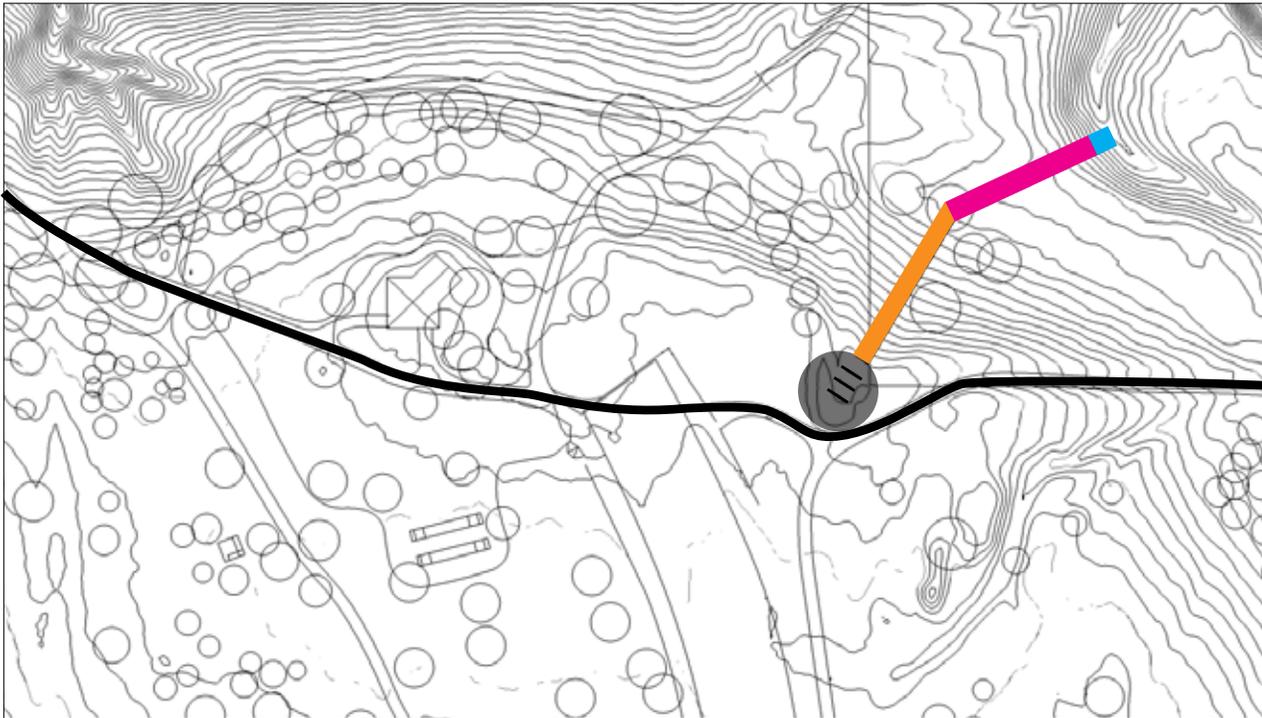
Tree canopy walk built structure at tree line

Viewing windows and frames to see hunt or hunted

Didactic panels connect to railings, orient visitors to true north, river views

NODE 6. SPRING LAKE PARK 1

INTERACTIVE: TREE CANOPY WALK STRUCTURE



SKYWALK PLAN

- GROUND ANIMALS
- CANOPY ANIMALS
- SKY ANIMALS

KEY SITE STORIES

1. Natural history
2. Hunt or be hunted
3. The canopy of the forest
4. Migrations
5. Settlement

NODE 6. SPRING LAKE PARK 1

INTERACTIVE: TREE CANOPY WALK STRUCTURE



TREE CANOPY WALK ENTRY FRAMES



NODE 6. SPRING LAKE PARK 1

INTERACTIVE: TREE CANOPY WALK STRUCTURE



SKYWALK MID WAY



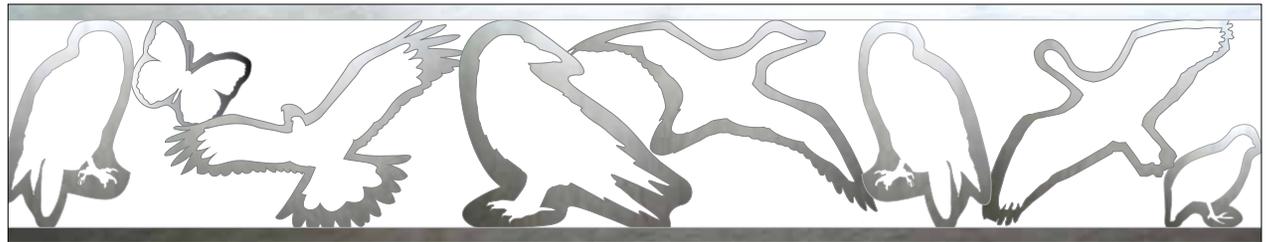
SKYWALK TOWER

NODE 6. SPRING LAKE PARK 1

INTERACTIVE: TREE CANOPY WALK STRUCTURE



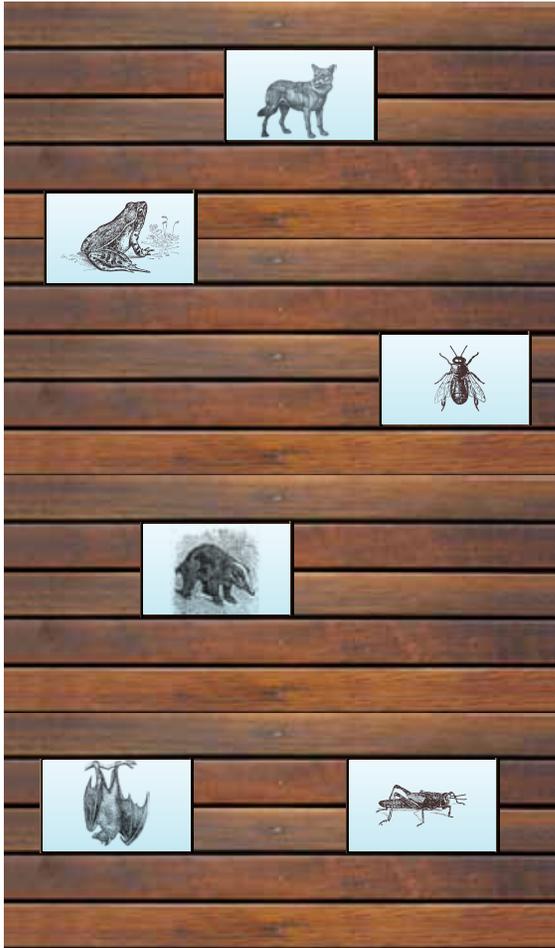
TREE CANOPY WALK TOWER ELEVATION



SKYWALK ARTWORK + INTERPRETIVE ELEMENTS

NODE 6. SPRING LAKE PARK 1

SAMPLE INTERPRETIVE PANEL: PREDATORS + PREY



WINDOWS IN DECK TO VIEW ANIMALS BELOW TREE CANOPY WALK.



HUNT! 

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HIDE! 

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RAILING PANELS: PEEK INTO HUNTING GROUNDS.

NODE 6. SPRING LAKE PARK 1
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Trees Canopy Walk
- 2. Canopy tower with metal artwork
- 3. Interpretive panels

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

Does not include Corten Wrap or Interactive Panels.

PROFESSIONAL FEES	\$ 30,000 - 40,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 16,000 - 19,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 53,000 - 60,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 350,000 - 375,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 6.	\$ 449,000 - 494,000

7

NODE 7. SPRING LAKE PARK 2 SCHAAAR'S BLUFF

NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

HISTORY SUMMARY

Scharr's Bluff

Minnie McCarriel was born at Spring Lake in 1870. She was the daughter of mill operator Lester B. McCarriel. Growing up around the mill, she learned the milling trade from her father. Contemporary accounts mention that she was educated, cultured, a good marksman, and an accomplished horsewoman. She also was a musician. At age 25 she married William Sorg, but she soon divorced him. For five years she performed with the American Ladies Brass Band that toured the United States with 65 female musicians. Later, she worked for Gorton and Ferguson, a St. Paul furrier, and performed with the company band. After her father died in 1912, Minnie ran the mill by herself for a time before she married F.E. Lee. Together they kept the mill running until the Hastings dam flooded Spring Lake, forcing the mill to close in 1930.

Local lore ties Minnie Lee to liquor bootlegging activities during the prohibition era between 1920 and 1933. There were suggestions she was involved with gangsters, as well. After prohibition ended in 1933, Lee rented rooms in her house to hunting and fishing parties. Stores of free-flowing liquor, gambling, and other illicit entertainment abound. Minnie Lee lived out her last years alone in three rooms of the house her father had built. She kept company with 28 goats, 12 dogs, and about 100 pigeons that nested in the old mill building near the house. Known as "The Goat Lady of McCarriel's Mill", she was found dead in her house in February 1944.

Interpretative Opportunities:

- Pre-Historic Settlement
- Early Archaeological Work
- Lee Mill Cave
- Early Settlement
- Minnie Lee
- Old Mill Liquor Ring
- Spring Lake
- Road to the Mill

NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
 AT A GLANCE

Spring Lake Park 2 Scharrs Bluff is a highly developed site, with structures, gathering places, a fire pit, and viewing areas with substantial interpretation of the pre-history of the site, as well as the natural landscape.

The intent of this plan is to pull from the Spring Lake Park Interpretive Plan, and further develop those themes not currently represented on the site.

While Spring Lake Park 1 explores the needs for settlement by animals and humans, Spring Lake Park 2 explores the stories that emerge from the history of this particular place: stories of settlement, agriculture, businesses, and family. Always intriguing, unexpected, or hidden stories.

Another function of this node will be to encourage visitors, once developed and access provided, to visit the Minnie McCarriel homestead and former mill site by the river.



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. The Mill was at this site because of tributary drainage to river created by river bluffs
2. Minnie Lee story of life along river (Native Americans, liquor ring, goats, river driftwood mini-mill)
3. Science Museum archeological site
4. The original Spring Lake

Experience opportunities

Fully developed park
Beautiful building + interpretive walk
Minnie's house below
The amateur archeologist: finds
Beautiful ravine
Fire ring: Native stories / local stories
Picnic shelter
Grain container / grainery
Rock cut on trail: story of the sedimentary rock
Pre-history

Disconnects

Lots of interpretation at site already

The Spring Lake Park Interpretive Plan identified stories of cultures and agriculture through the industry of milling at this site. The current interpretation addresses pre-history and the gathering locations requested by community members, and the opportunity is to invite people along the trail to discover the many ways the area was inhabited, farmed and leveraged over time.

Like the 8,000 year Trail, this will be a linear, sequential, time based experience.



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
SITE IMAGES



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
CONTEXT: NATURAL PLACES TO GATHER



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

HISTORIC REFERENCE: WORKING THE LAND AND WATER



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

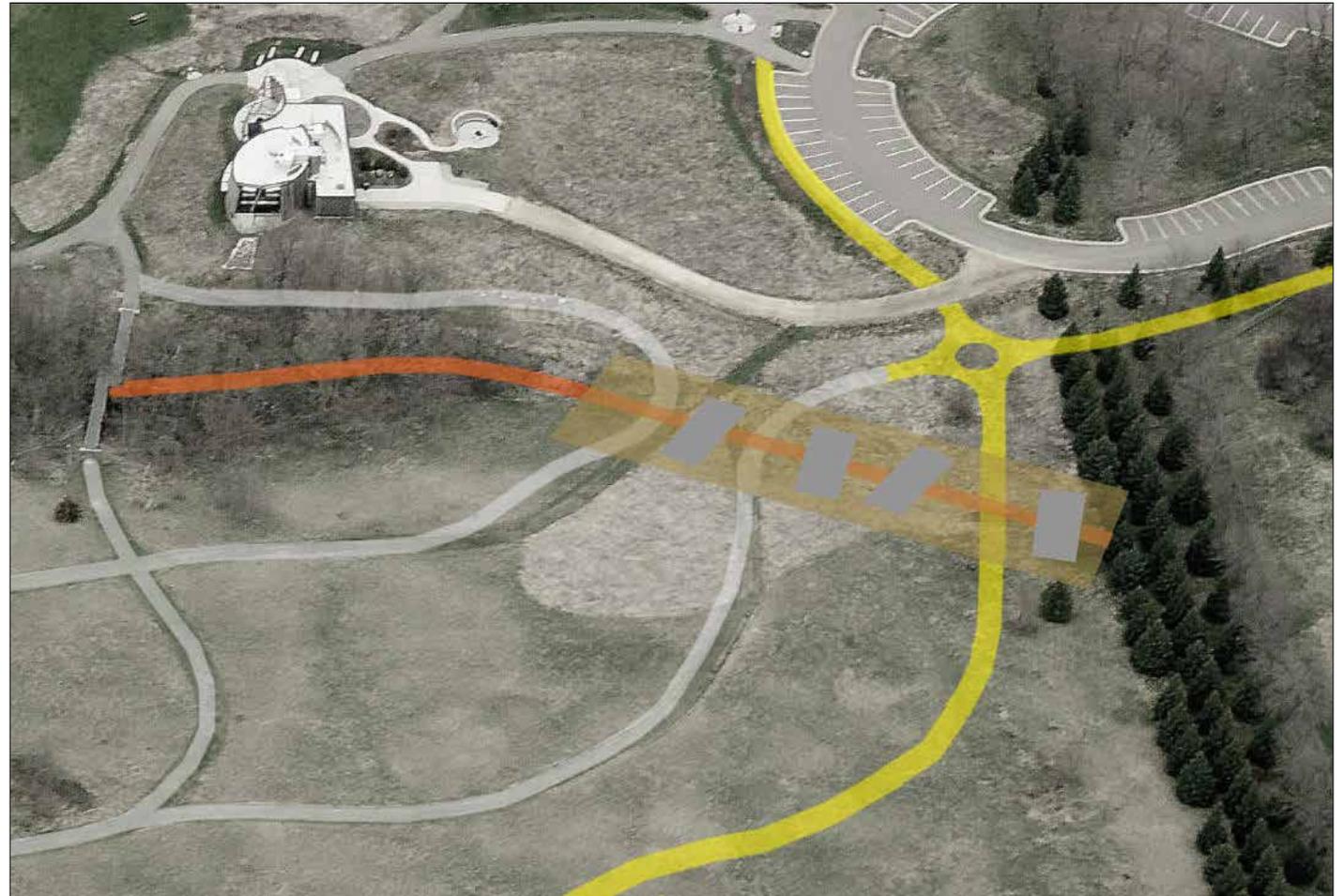
SITE PLAN + AMENITIES

Existing

- Paved trails
- Nature/culture trails (soft surface)
- Picnic shelters
- Playground
- Sand volleyball pit
- Fire rings with seating
- Picnic areas
- Community gardens
- Barbecue grills
- Restrooms
- Event/gathering/meeting/wedding center
- Patio gathering areas
- Horseshoes
- Winter trails
- Parking

Future (Excludes existing)

- Overlooks MRT extension into park
- Alcoves



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

DETAILED SITE PLAN

- 1. Seating
- 2. Interpretive seating
- 3. Litter receptacles
- 4. Bike racks
- 5. Ornamental grasses along trail at node
- 6. Trail node indicators
- 7. Historic artifacts

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
 STORY STRUCTURE

THEME Pull of Place

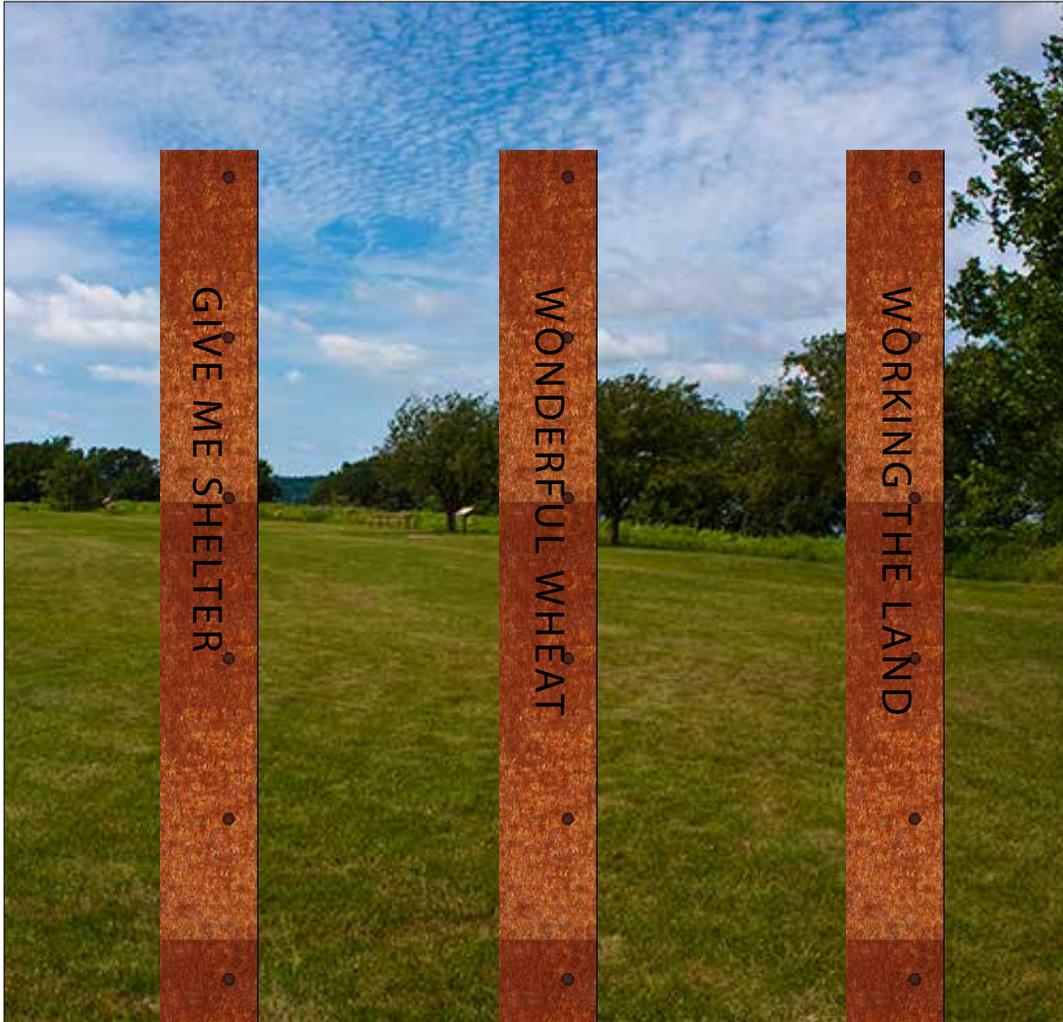
STORY	Continuity + Change / the Pull of Place
CONTENT	Connect to the land
TITLE	A site full of stories
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Trail centered pullouts uncover the stories of the place
EXPERIENCE[S]	Agriculture 101 Milling 101 Distilling 101
CONNECTING THE DOTS	A collection of stories creates connection across time
SITE CONSIDERATIONS	Are there other gathing places identified? Shade

COMPONENTS

- A linear series of pullouts on the trail near the access point
- Blade area markers with the pull of individual stories
- Interpretive panels
- Artifacts of the various industries and activities of the site
- Seating and gathering for bikers

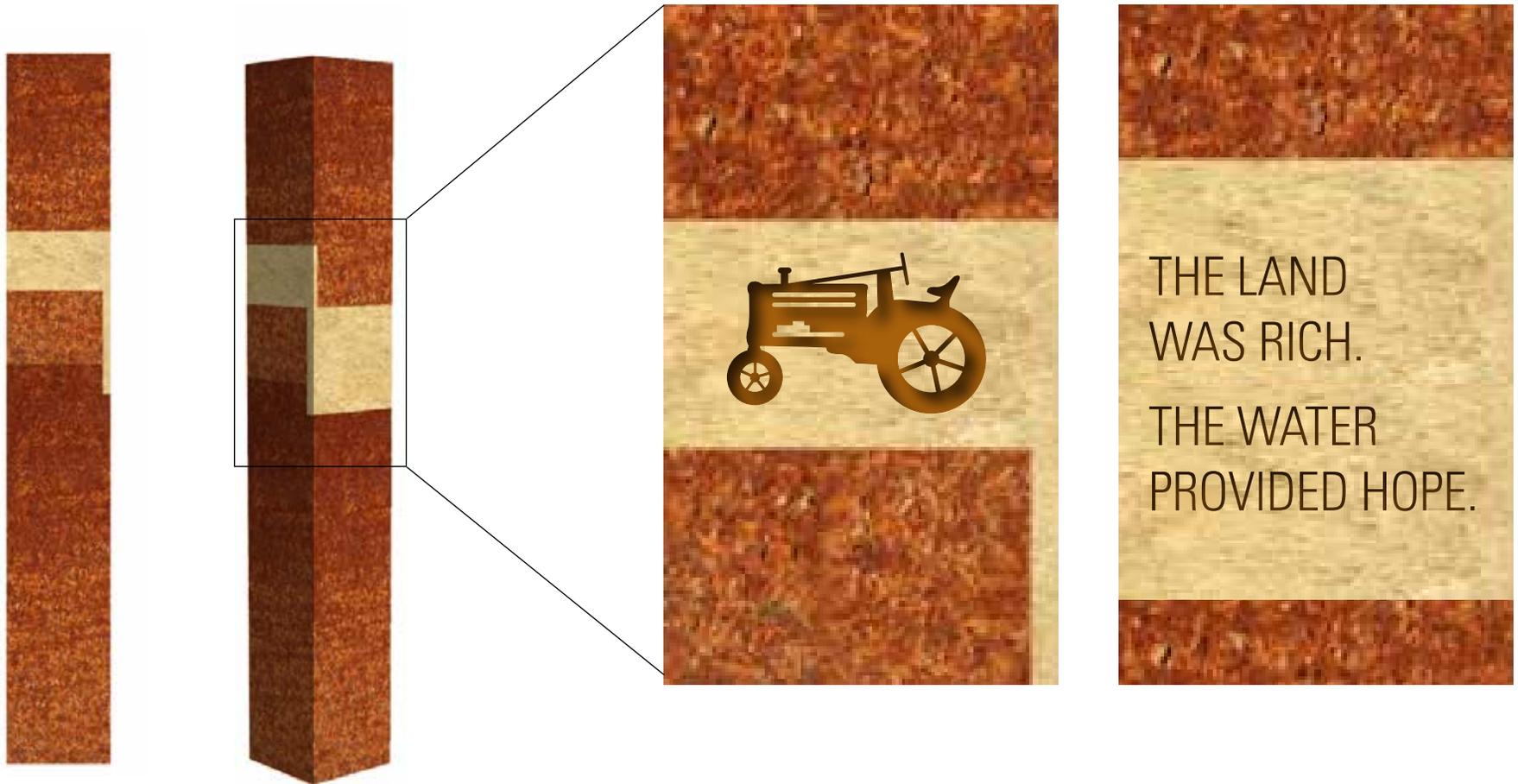
NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

SAMPLE CONTENT: A PLACE FULL OF STORIES



BLADES ANNOUNCE THE TOPICS FOR MULTIPLE PULLOUT AREAS ALONG TRAIL, SEQUENCING THE STORIES OF THE PLACE FROM EARLY AGRICULTURE TO MILLING TO DISTILLING.

NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
PULL OUT 1: AGRICULTURE



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
 PULL OUT AREAS: AGRICULTURE, MILLING, DISTILLING

The sequenced gathering areas at Spring Lake Park 2 provide an additive experience across several locations. These locations will provide pull-outs for gathering of groups, and also create curiosity about the milling location near Minnie's homestead on the river. The gathering areas tell the stories of the site, and lead to what may be an access point and stair to the bluff and the McCarriel home at a future date. Each gathering area refers to the unique richness of the land and how it was used for different eras.

Agriculture

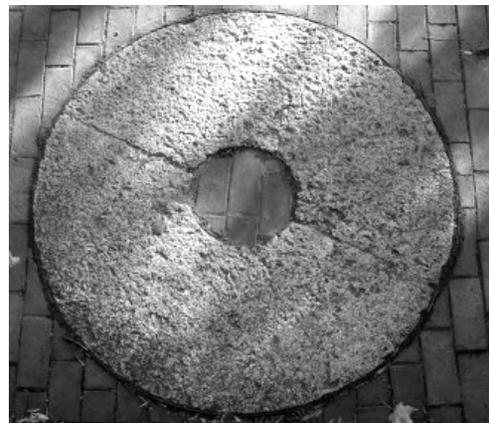
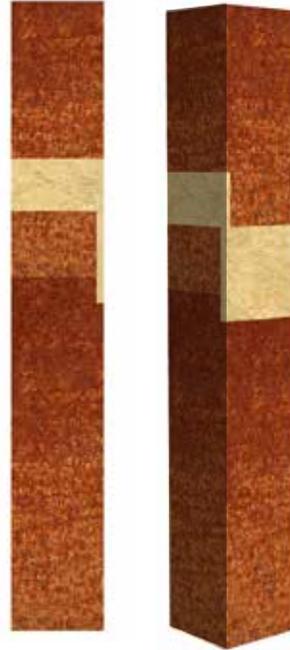
Agriculture changed the landscape and the way in which people lived. Traditional hunter-gatherer lifestyles were swept aside in favor of permanent settlements and a reliable food supply.

Milling

The emergence of the agricultural society led to the advancements in food production. Mills were constructed to grind corn and wheat to make flour – a basic staple of many ancient and present day foods.

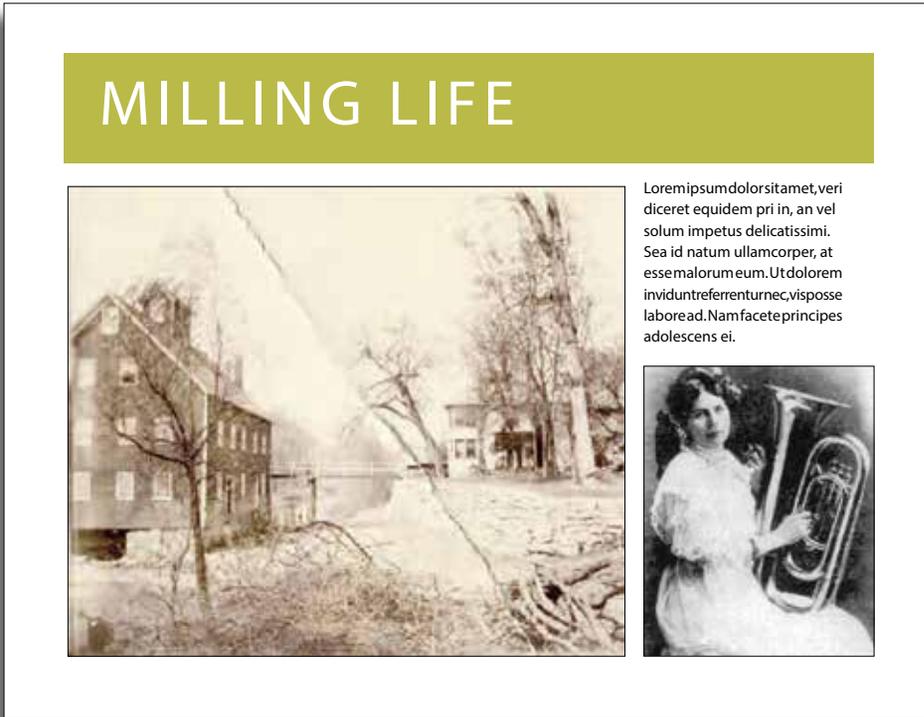
Distilling

The milling industry and the Prohibition era gave rise to yet another industry, distilling. Various grains and hops created the ability to produce spirits, beer among other drinks.



NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

SAMPLE INTERPRETIVE PANEL: RESIDENTS



KEY SITE STORIES

- 1. Minnie's life
- 2. The mill
- 3. Celebrations + gatherings
- 4. The bootleg business
- 5. Farming

NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF

SAMPLE INTERPRETIVE PANEL: USES OF THE LAND



MAKING THE PLACE



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BOOTLEG



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1920's



Lorem ipsum dolor sit amet, veridiceret equidem pri in, an vel solum impetus delicatissimi. Sea id natum ullamcorper, at esse malorum eum. Ut dolore invidunt referentur nec, vis posse labore ad. Nam facete principes adolenscens ei.

Cummedicinas feugiat, quod si animal eripuit necte, id quidam ferent referentur vis. Te salutatu

NODE 7. SPRING LAKE PARK 2 SCHAAR'S BLUFF
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Gathering area pillars
- 2. Interpretive panels
- 3. Artifacts

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

PROFESSIONAL FEES	\$ 16,000 - 24,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 63,000 - 70,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 52,000 - 60,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 60,000 - 68,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 7.	\$ 191,000 - 222,000



NODE 8. TOWN OF NININGER

NODE 8. TOWN OF NININGER

HISTORY SUMMARY

Nininger City

Ignatius Donnelly convinced several friends and associates from Philadelphia, including John Nininger for whom the proposed town was named, to invest in the development of a new community between Hastings and St. Paul. Donnelly, Nininger, and their fellow investors purchased 800 acres of land for \$22,000. Most of this property was surveyed into 3,800 lots, many of which were quickly sold. The official name of Donnelly's development was "Nininger and Donnelly's Addition to St. Paul".

Almost overnight, Nininger City boomed, and Donnelly and his friends realized quick profits from the sale of lots. By July 4, 1857 the new town had 100 houses with 20 more under construction. The town also had a hotel, several saloons, a newspaper, a post office, a law office, several shops, a dance hall, and a baseball field. Some 1,000 or so people were said to be living in Nininger by the summer of 1858.

Nininger City was short-lived, however. In 1857, just a year after the town was first established, the financial Panic of 1857 hit. Almost overnight, Donnelly and his fellow investors were broke. Nininger City collapsed as residents fled and newly-constructed homes and business buildings were abandoned or moved to nearby Hastings. Donnelly's dream vanished before his eyes.

In 1857 Nininger City was the home of the first organized baseball in Minnesota following the rules established in New York known as the "Knickerbocker Rules". It is believed that the Nininger town ball was established in part to market and attract settlers to Nininger City. On Saturday August 8, 1857, officers were elected, and the first practice was held. The first game was played a week later as an intrasquad competition.

Interpretative Opportunities:

- Ignatius Donnelly
- Early Minnesota Baseball
- City Under a Dome
- Fisherman John
- Emigration to Minnesota

NODE 8. TOWN OF NININGER

AT A GLANCE

Nininger is the story of great hopes and dreams and betting on the river to provide a home for a new settlement. Ignatious Donnelly is the star of the story, investing his personal and political capital in the development of what he hoped would be the next New York.

He also fancied himself a prophet and foretold the end of the world in 1988. His intuition proved wrong in both cases.

Secondarily, though ultimately longer lasting, the town of Nininger was the home to the birthplace of “town ball,” the origins of baseball in Minnesota. The link of the Trail between this site and the new St. Paul Saints ball park can be celebrated as one of our first teams in Minnesota.



NODE 8. TOWN OF NININGER

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Broken dreams of a river town
2. Why Ignatious Donnelly was a famous Minnesotan
3. Lost city of Atlantis parallel to the lost environment of Spring lake?
4. Birthplace of baseball

Experience opportunities

Town grid visibility
 Dots along trail: size of lots
 Farm implements (already there)
 What is no longer there
 Hopes + dreams
 Grad study models
 A utopian planned city
 What if we had a New York?

Disconnects

Crossings are challenging
 Location for node not clear

Nininger is the town that never was. It is in some ways a monument to broken dreams. The current monuments are at the site of the town hall; homage is paid to both the town, some of the structures, and to Ignatious Donnelly's ambitious vision.

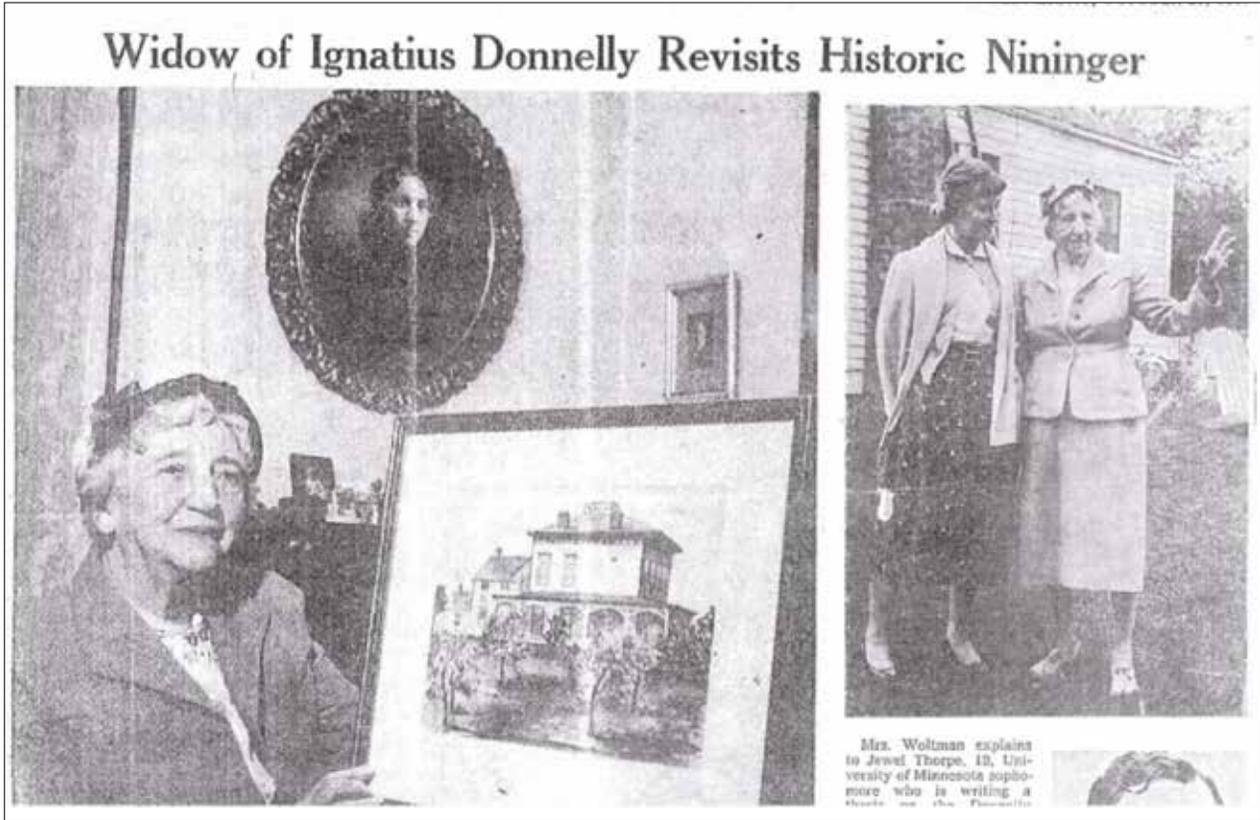
Since this is also the birthplace of baseball in Minnesota, a site or node near the fields in which the games may have been played is ideal. There could be a re-enactment of the Field of Dreams that links to the new St. Paul Saints stadium, and references to the still active Minnesota-wide town ball league.



NODE 8. TOWN OF NININGER
SITE IMAGES



NODE 8. TOWN OF NININGER
HISTORIC REFERENCE: THE DREAM



NODE 8. TOWN OF NININGER
 HISTORIC REFERENCE: THE DREAMER




EMIGRATION



UP THE MISSISSIPPI RIVER.

The attention of Emigrants and the Public generally, is called to the now rapidly improving **TERRITORY OF MINNESOTA**, Containing a population of 150,000, and goes into the Union as a State during the present year. According to an act of Congress passed last February, the State is munificently endowed with Lands for Public Schools and State Universities, also granting five per cent. on all sales of U. S. Lands for Internal Improvements. On the 3d March, 1857, grants of Land from Congress was made to the leading Trunk Railroads in Minnesota, so that in a short time the trip from New Orleans to any part of the State will be made in from two and a half to three days. The

CITY OF NININGER,

Situated on the Mississippi River, 35 miles below St. Paul, is now a prominent point for a large Commercial Town, being backed by an extensive Agricultural, Grazing and Farming Country; has fine streams in the interior, well adapted for Milling in all its branches; and Manufacturing **WATER POWER** to any extent.

Mr. JOHN NININGER, (a Gentleman of large means, ideas and liberality, speaking the various languages,) is the principal Proprietor of Nininger. He laid it out on such principles as to encourage all **MECHANICS, Merchants, or Professions** of all kinds, on the same equality and footing; the consequence is, the place has gone ahead with such rapidity that it is now an established City, and will annually double in population for years to come.

Persons arriving by Ship or otherwise, can be transferred without expense to Steamers going to Saint Louis; or stop at Cairo, and take Railroad to Dunleith (on the Mississippi). Steamboats leave Saint Louis and Dunleith daily for **NININGER**, and make the trip from Dunleith in 36 to 48 hours.

NOTICES.

1. All Railroads and Steamboats will fix this card a conspicuous place, or *gentle insertion* in their cards, **AIDS THE EMIGRANT**, and forwards their own interest.
2. For authentic documents, reliable information, and all particulars in regard to Occupations, Wages, Preempting Lands on neighborhood, Lumber, Price of Lots, Expenses, &c., apply to

THOMAS B. WINSTON, 27 Camp street, New Orleans.
ROBERT CAMPBELL, St. Louis.
JOSEPH E. FORBES, Dunleith.



IGNATIUS DONNELLY
 1831-1901

For forty-odd years, the name of Ignatius Donnelly dominated Minnesota politics. And in our own day he is attaining new fame as a prophet—read the startling predictions in his novel, "Caesar's Column," and see how clearly he foresaw the world-cataclysm in which we find ourselves.

NODE 8. TOWN OF NININGER

SITE PLAN + AMENITIES

Existing
NA

Future
NA

Lighting



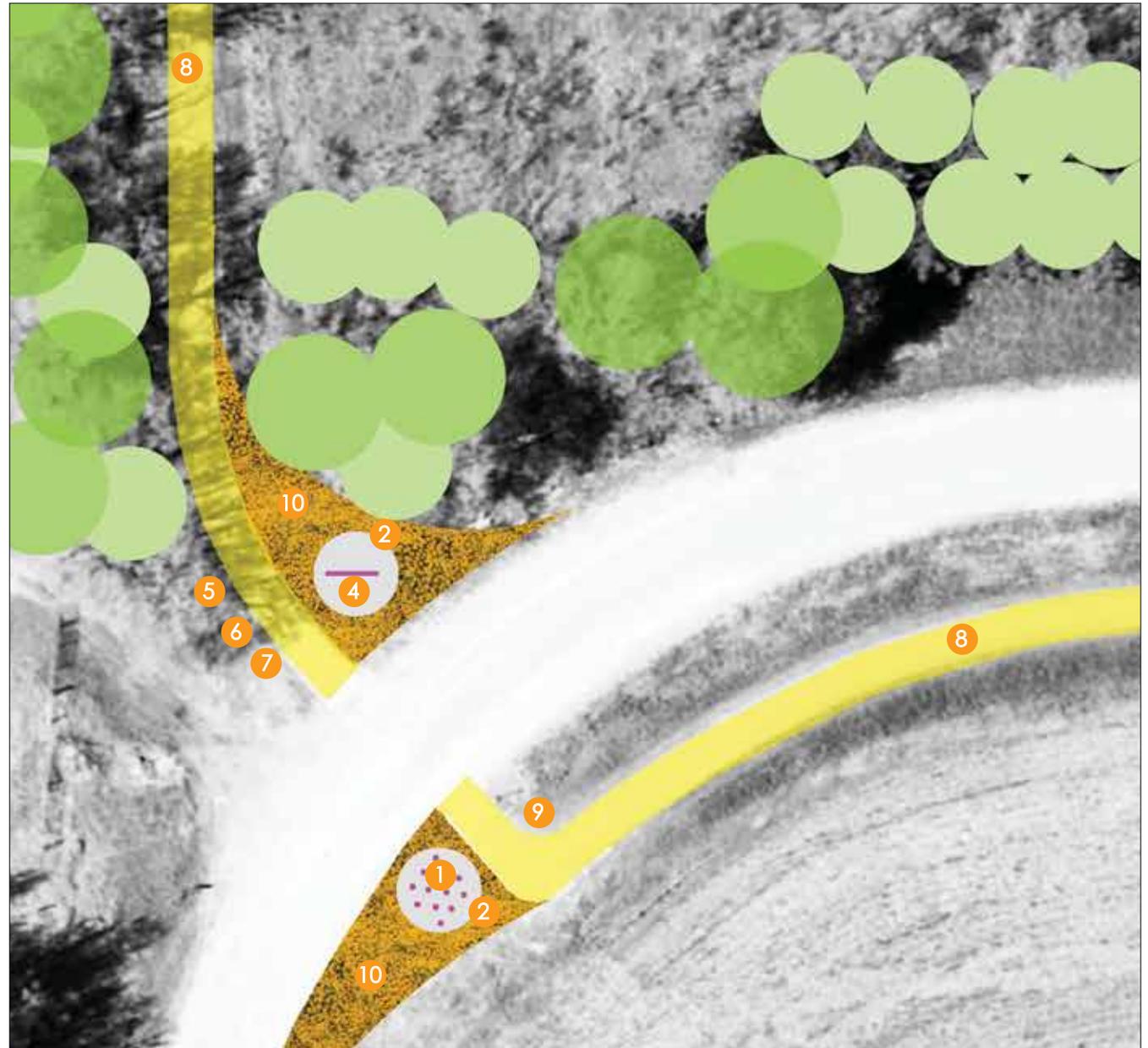
NODE 8. TOWN OF NININGER

DETAILED SITE PLAN

- 1. Street signs
- 2. Plaza
- 3. Seating
- 4. Town ball scoreboard
- 5. Litter receptacles
- 6. Bike racks
- 7. Ornamental grasses along Trail at node
- 8. Trail node indicators
- 9. "For Sale" sign
- 10. Ornamental planting at node

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 8. TOWN OF NININGER

STORY STRUCTURE

THEME Pull of Place / Transformation

STORY	Then + Now
CONTENT	Envisioning a city and a life
TITLE	One ball Three strikes
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Sign posts Augmented reality
EXPERIENCE[S]	Notice the place
CONNECTING THE DOTS	This place was the birthplace of baseball
SITE CONSIDERATIONS	Trail crossing makes application of iconic signage ideal at this turn in the road.

COMPONENTS

A crowd of street signs indicates the names of many of the Nininger street names that existed at the time the town was established

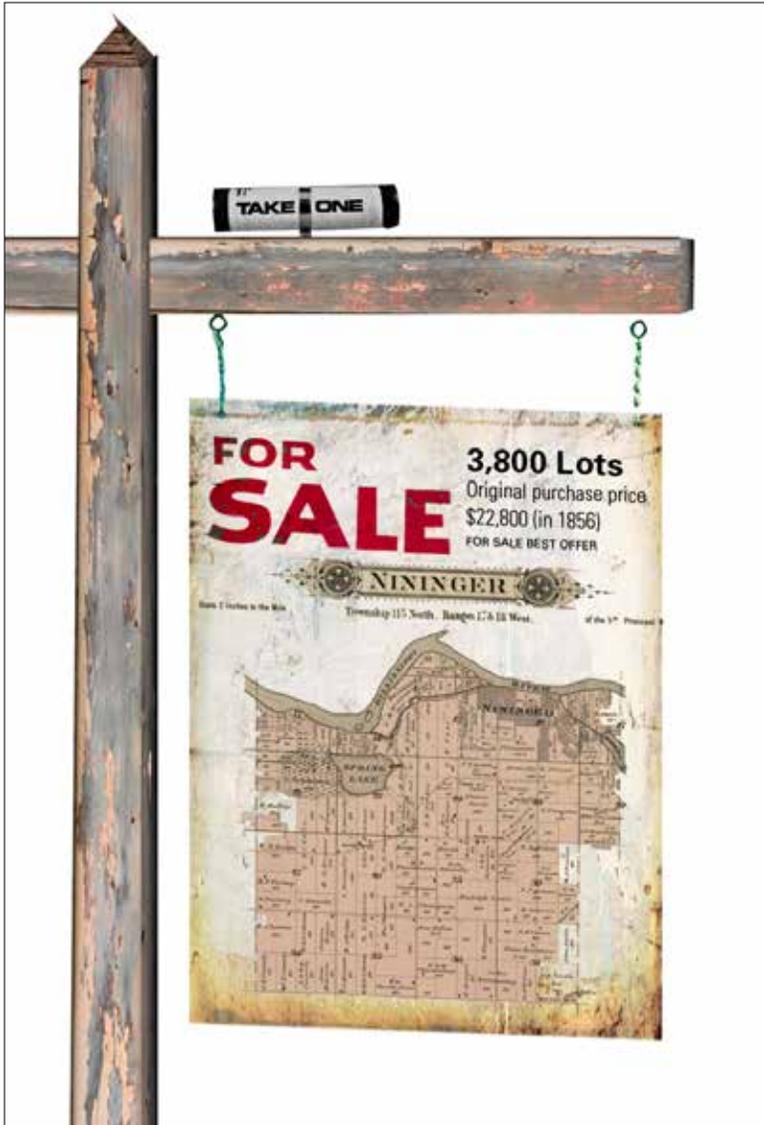
A baseball scoreboard shows total number of home runs in Minnesota to date in league ball: Millers Twins

Saints and the Nininger team [Name?]

Lighting

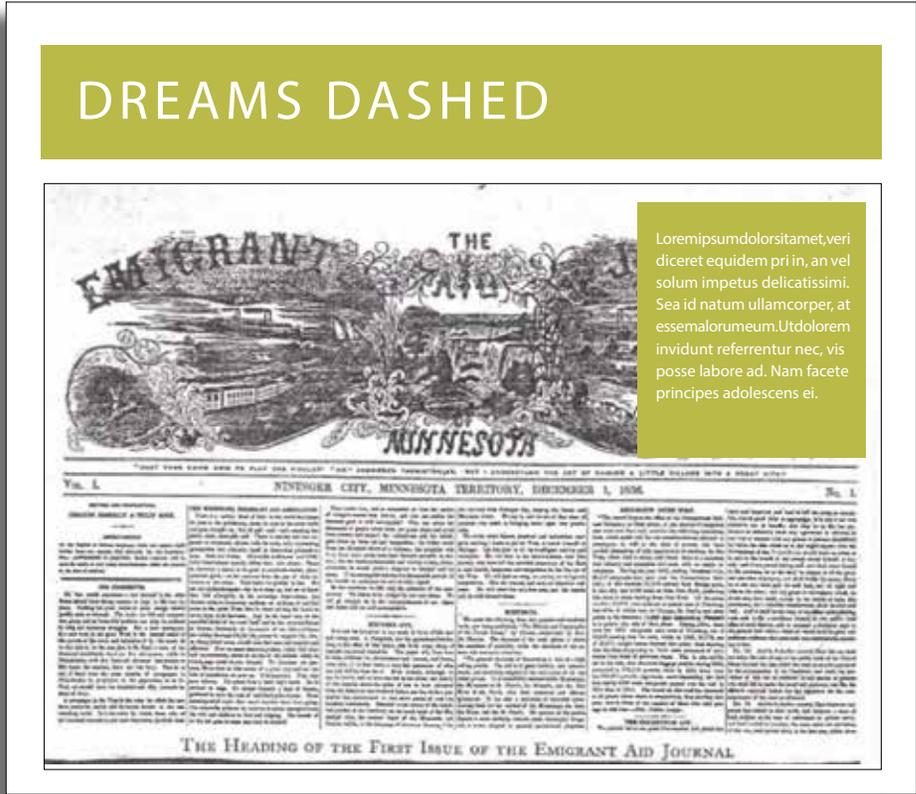
NODE 8. TOWN OF NININGER

SAMPLE INTERPRETIVE PANEL: NININGER FOR SALE



NODE 8. TOWN OF NININGER

SAMPLE INTERPRETIVE PANEL: DREAMS DASHED

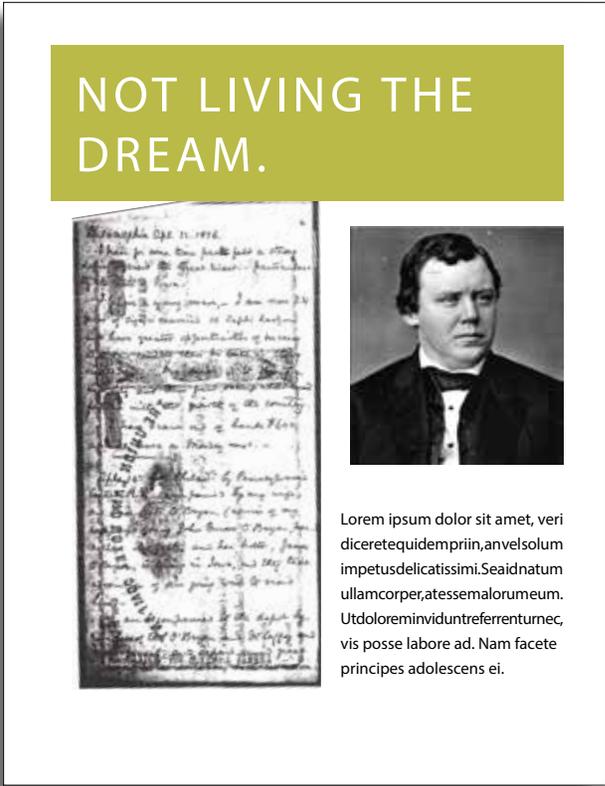
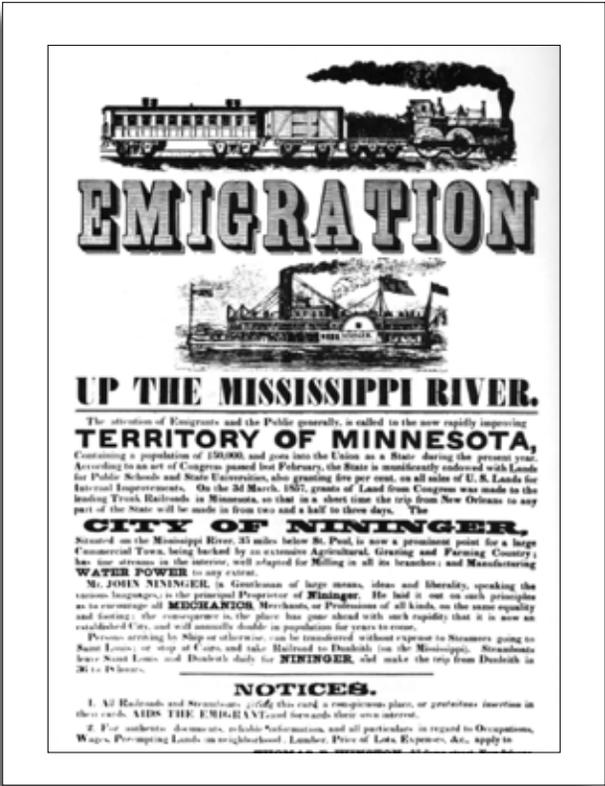


KEY SITE STORIES

1. Ignatious Donnelly's Dream
2. Town ball (Baseball then)
3. Town plat then and now
4. The Donnelly house
5. Where are they now
6. Follow me to St. Paul Saints
7. Why Nininger evaporated

NODE 8. TOWN OF NININGER

SAMPLE INTERPRETIVE PANEL: STORIES OF THE PLACE AND THE DREAMS



NODE 8. TOWN OF NININGER

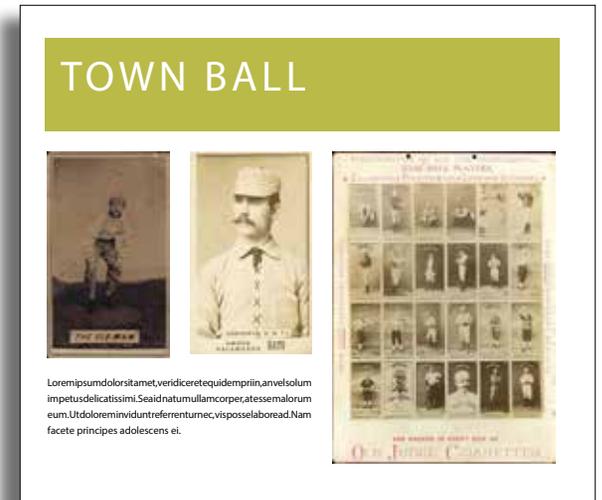
SAMPLE INTERPRETIVE PANEL: BASEBALL HISTORY



NININGER AND BASEBALL: WHO WON?



PROPOSED LIGHTING





PLAY BALL!

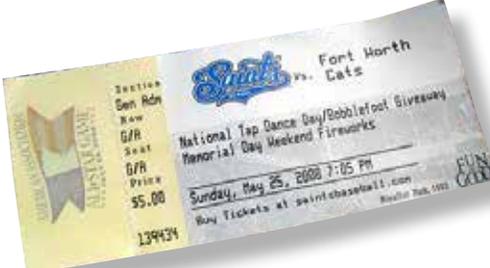


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 delicatissimi. Seaid natum ullam corper, atesse malorum eum. Utdolorem in-
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PLAY BALL!



Lorem ipsum dolor sit amet, veridicere quidem priin, an vel solum impetus
 delicatissimi. Seaid natum ullam corper, atesse malorum eum. Utdolorem in-
 vidunt referrentur nec, vis posse labore ad. Nam facite principum adulescenti
 ei.



This site can link to the new Saint Paul Saints stadium and create a link between the origins of baseball and how and where it's currently played.

NODE 8. TOWN OF NININGER
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Street Signs
- 2. Town ball scoreboard
- 3. For Sale sign
- 4. Nininger + townball images
- 5. Interpretive panels

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

PROFESSIONAL FEES

\$ 8,000 - 12,000

- Design
- Writing
- Architecture

EXHIBIT FABRICATION + GRAPHICS

\$ 19,000 - 22,000

- Fabrication
- Graphics
- Installation

SITE IMPROVEMENTS + AMENITIES

\$ 31,000 - 36,000

- Grading
- Installation
- Furniture

CONSTRUCTION

\$ 17,000 - 20,000

- Footings
- Engineering
- Construction
- Coordination

TOTAL FEES FOR NODE 8.

\$ 75,000 - 90,000



NODE 9. LOCK + DAM No. 2

NODE 9. LOCK + DAM NO. 2

HISTORY SUMMARY

Lock and Dam #2

In 1928 the U.S. Army Corps of Engineers awarded a \$4.5 million contract to Fegles Construction Company of Minneapolis to construct a lock and dam at Hastings. This lock and dam would be the second in a sequence of similar structures at various locations on the Upper Mississippi River between St. Paul and St. Louis. The new lock was 100 feet wide by 520 feet long, large enough to allow a fleet of six barges and a towboat to pass through without needing to uncouple. A temporary channel was dredged to allow towboats and barges to pass while the first section of the dam was being built. A construction crew of 300 men worked two shifts a day to complete the massive project by late 1930. Most of the construction workers lived in two large bunkhouses and took their meals in a dining hall at the site.

During 1931, the first full year of operation, 1,424 vessels passed through the new lock. This total included 134 towboats, 667 small craft, 32 excursion boats, and 591 barges.

The U.S. Army Corps of Engineers estimated that the new dam at Hastings would flood 10,000 acres to a depth of two to seven feet and extend some 15 miles upstream. Some 700 property owners would be affected, while 100 people would lose their houses and need to relocate. A series of court hearings determined compensation amounts awarded to the affected property owners.

Lock and Dam No. 2 at Hastings was constructed for a six-foot deep channel. Within 20 years the river channel would be deepened to nine feet requiring the lock to be modified.

Interpretative Opportunities:

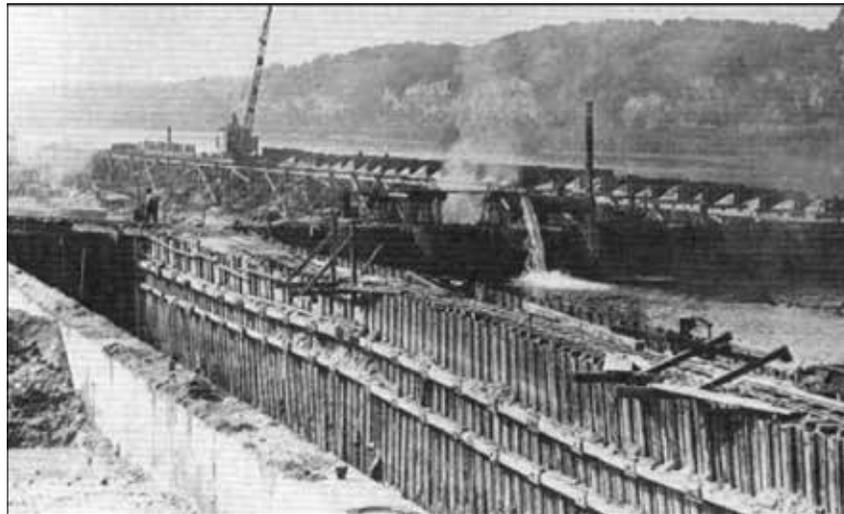
- River Commerce
- Army Corp of Engineers
- Mississippi River Flyway
- Clean Energy "Water Power"

NODE 9. LOCK + DAM NO. 2

AT A GLANCE

A interactive dam building allows visitors to experience the effects first hand of stopping and channeling water. Steping into the shoes of towns allows the visitor to see how some towns survive and some are flooded and don't survive once the waters have risen.

The story of Lake Rebecca and the stump field help convey that much of the natural landscape has been in some ways manipulated or transformed.



NODE 9. LOCK + DAM NO. 2

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Transformation of the river by the lock and dam system
2. Importance of this particular lock and dam to move the reliable head of river navigation up to Minneapolis and St. Paul

Experience opportunities

- Make a dam / model dam
- How dams work / bring water to site
- Barge tie up with scopes for viewing
- St. Paul and Minneapolis wouldn't have its current prominence without this dam
- River and lake area
- Fishing all times of year: catch and release

Disconnects

- Crossings are challenging
- Location for node not clear

The dam is a natural draw and attraction and provides an opportunity to add to visitors' understanding of how this dam was engineered and how it functions.

The site has plenty of amenities including a viewing area for the dam with interactives, restrooms, and parking. It is currently a natural stopping point and place to explore.

A miniature working lock and dam can raise the water and provide a hands-on interactive on how these systems work and their effect on water flow.

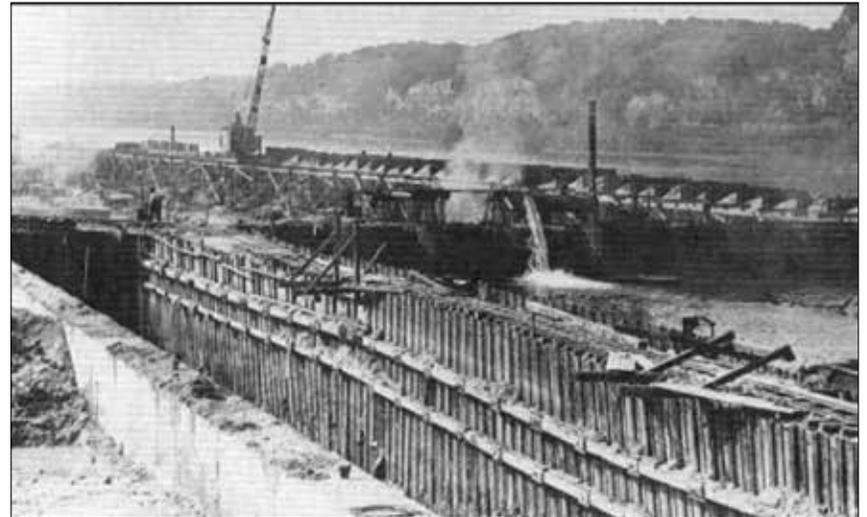


NODE 9. LOCK + DAM NO. 2
SITE IMAGES



NODE 9. LOCK + DAM NO. 2

HISTORIC REFERENCE: THE DAM + CONSTRUCTION

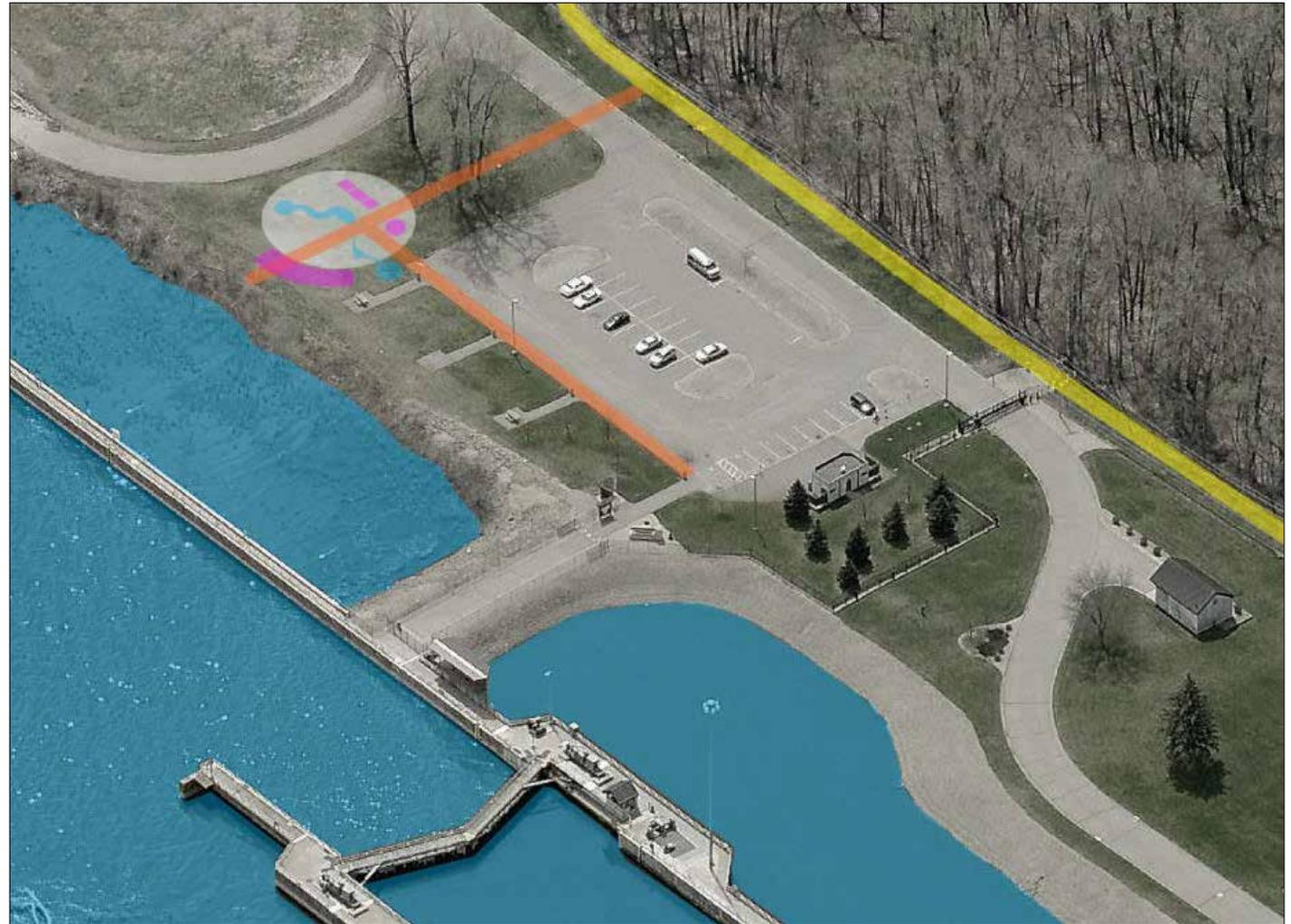


NODE 9. LOCK + DAM NO. 2

SITE PLAN + AMENITIES

- Existing
- Viewing platform
- Audio interpretation of lock operation
- Interpretive kiosk
- Restrooms
- Parking
- Guided tours by appointment

- Future
- NA



NODE 9. LOCK + DAM NO. 2

DETAILED SITE PLAN

- 1. Shade structure
- 2. Plaza
- 3. Seating
- 4. Water feature
- 5. Litter receptacles
- 6. Bike racks
- 7. Play surface
- 8. Interpretive elements
- 9. Play elements
- 10. Overlook

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 9. LOCK + DAM NO. 2

STORY STRUCTURE

THEME Connection + Transformation

STORY	Working the River
CONTENT	Engineering feat of the dam
TITLE	Going down: an elevator for water
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Interactive Full body kinesthetic Didactics
EXPERIENCE[S]	Change the place
CONNECTING THE DOTS	Good news bad news: St. Paul / Nininger
SITE CONSIDERATIONS	Next to entry to Dam overlook

COMPONENTS

A build it yourself working dam

Landscape / hardscape / water access

NODE 9. LOCK + DAM NO. 2

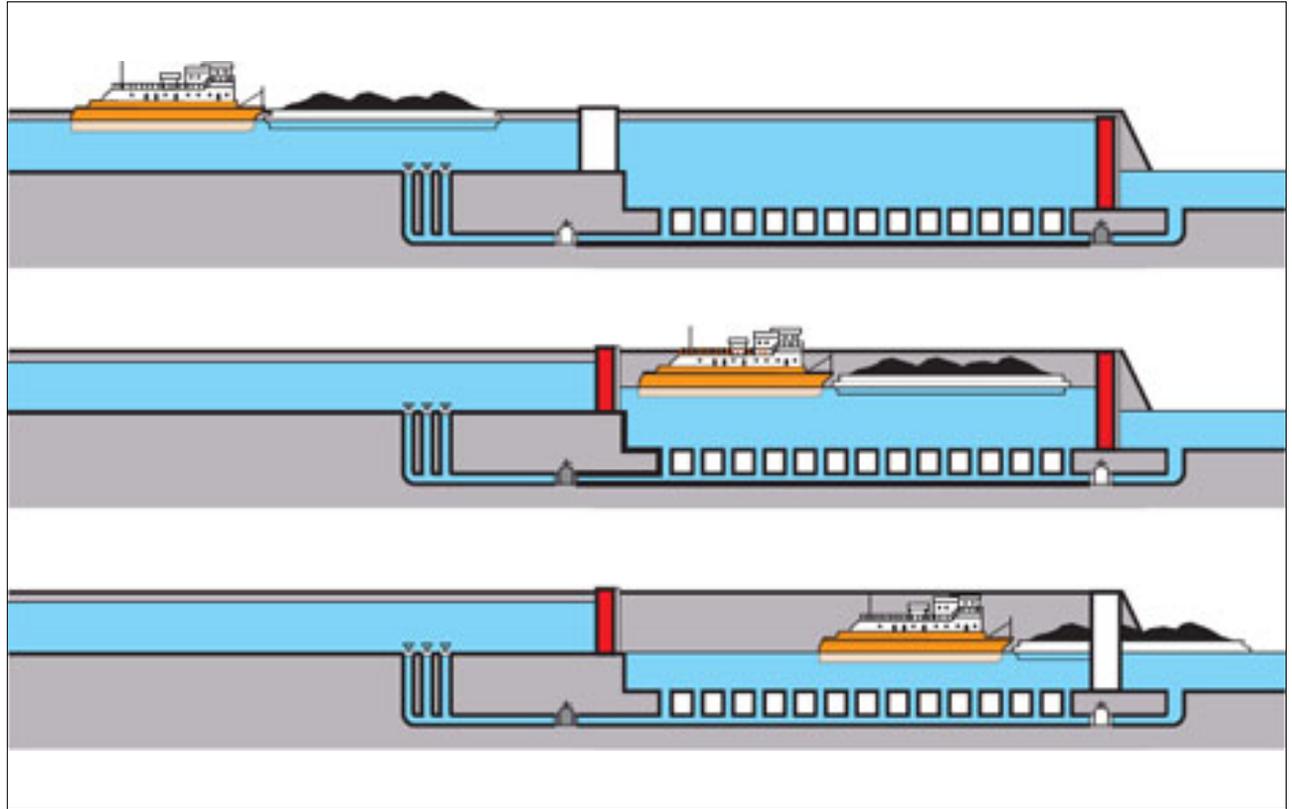
INTERACTIVE: LANDSCAPE ELEMENT



INTERACTIVE PLAY
LANDSCAPE ELEMENTS TO
EXPLAIN FUNCTION AND
DESIGN OF LOCK + DAM.

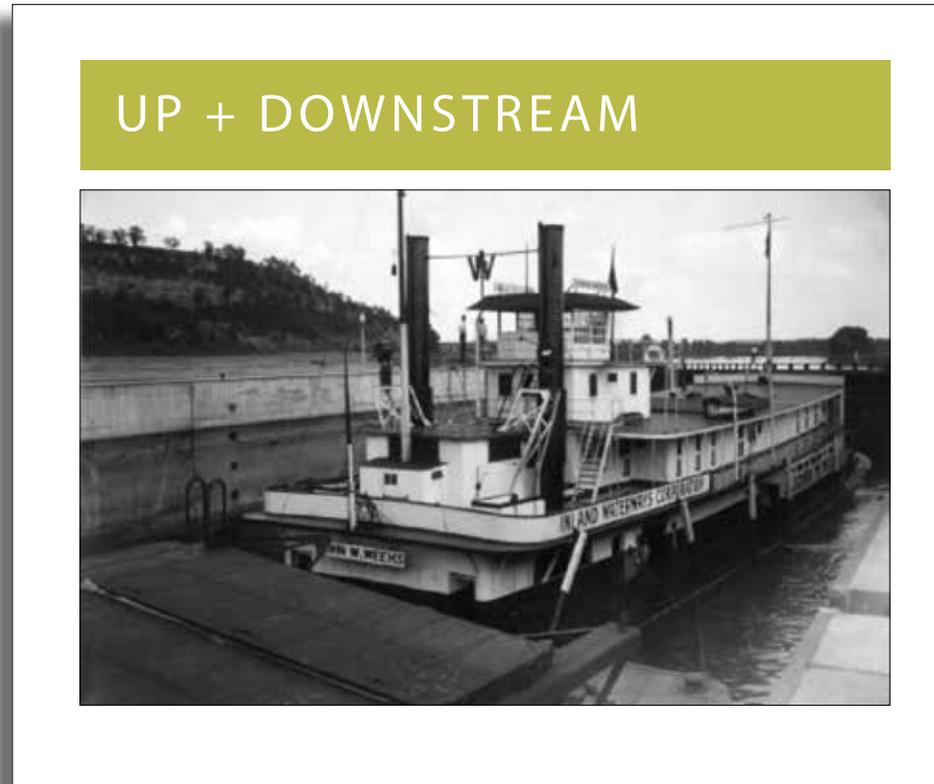
NODE 9. LOCK + DAM NO. 2

SAMPLE INTERPRETIVE PANEL: IMAGE + INFOGRAPHICS: HOW IT WORKS



NODE 9. LOCK + DAM NO. 2

SAMPLE INTERPRETIVE PANEL: WE CHANGE THE RIVER | THE RIVER CHANGES US



NODE 9. LOCK + DAM NO. 2
 COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

- 1. Shade structure
- 2. Water feature + interactive
- 3. Interpretive panels

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
 Yearly price escalation is not reflected in this budget.

Water feature and water filtration system.

PROFESSIONAL FEES	\$ 20,000 - 39,000
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 12,000 - 18,000
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 285,000 - 350,000
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 145,000 - 175,000
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES FOR NODE 9.	\$ 462,000 - 582,000

10

NODE 10. HASTINGS

NODE 10. HASTINGS

HISTORY SUMMARY

Downtown Hastings

Hastings' most famous historic landmark was the spiral bridge that provided a welcome alternative to crossing the river by ferry. Named for its unusual spiral approach in downtown Hastings, this bridge served the community and region from 1895 until 1951, when a new, larger bridge was completed. The spiral approach allowed traffic from the downtown area to gain the height needed to reach the bridge without having to travel along a lengthy approach from several blocks away.

The Hastings spiral bridge was completed in 1895 at a cost of \$39,000. Constructed of steel and wood by the Wisconsin Bridge and Iron Company, it was 1,970 feet long, 18 feet wide, and 60 feet above the river. It could carry a total of 256 tons. The roadway was designed for horses, wagons, and pedestrian traffic that traveled slowly on the white oak bridge deck.

As early as 1928 and continuing throughout the 1930s and 1940s several efforts were made to get funding for a new bridge. These efforts finally were successful, and a new, larger bridge known as "Big Blue" was completed in 1951 at a cost of \$2.5 million. This new through-truss bridge was 1,825 feet long and 32 feet wide and cleared the river at 63 feet. The new bridge was located about 200 feet west of the old spiral bridge.

This second Hastings bridge served until it was replaced by an even larger steel arch bridge that opened to traffic in late summer of 2013. Using modern engineering and construction technology, the new bridge's main span was constructed on land near the Hastings lock and dam, floated downstream, and hoisted into place.

Interpretative Opportunities:

- Historic River Town
- River Bridges
- Hudson Sprayer Innovation
- William G. LeDuc
- Steamboats and Trains
- Milling
- Early Agriculture Center

NODE 10. HASTINGS
AT A GLANCE

Hastings has prevailed. It has transformed from an early river town to a diversified bedroom community with a strong sense of place. Without certain key components over time, Hastings could have been a ghost town like Nininger or Medicine Bottle's settlement.

The bridges of Hastings played a primary role in the continued evolution of the community. Interpretation of this allows insight into what has made this river town a dream come true in contrast to some of the other dashed hopes and dreams on other faded parts of the Trail.



THE SOUTH GATEWAY

At both ends of the Trail experience users have a clear sense of entry to the Node and more importantly to the Trail itself. The visual language of framing views is used throughout the Trail, with the northernmost, middle and southernmost nodes incorporating iconic framing elements to create a sense of entry and identity.

NODE 10. HASTINGS

EXPERIENCE ASSESSMENT + CONTEXT

Good to know

1. Hudson Sprayer: an early connection to the river
2. Transformation of a classic river town from industry to recreation

Experience opportunities

- Bridge artifacts
- Augment reality to “see” original bridge
- Sprayer building story
- Under the bridge: where you stand
- Downtown
- Industries
- River uses today: how the river acts as catalyst for change

Disconnects

- Re-development of Sprayer building is in the future
- Location matters

Hastings is a study in what makes a river town thrive. In contrast to Nininger, Hastings had three important factors going for it, all transportation related. First, the bridge, second the railroad and railroad bridge, and last but not least, the steam boats were able to easily dock at Hastings.

Now a thriving community, Hastings has rebuilt the bridge three times. The stories of this city are of crossing and barriers, and how being a hub has kept the city alive.

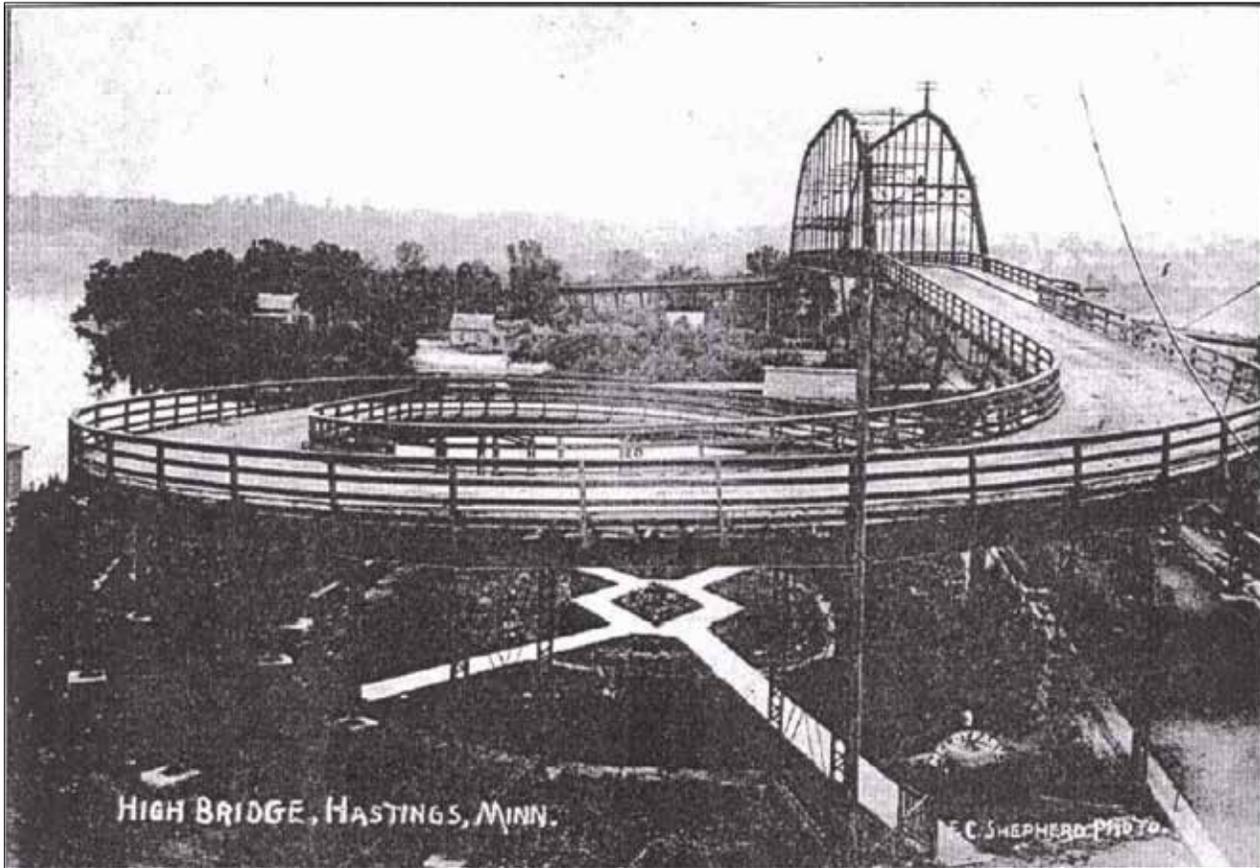


NODE 10. HASTINGS
SITE IMAGES



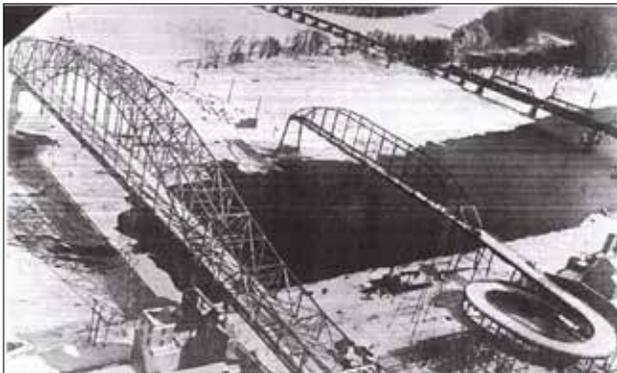
NODE 10. HASTINGS

HISTORIC REFERENCE: THE BRIDGES



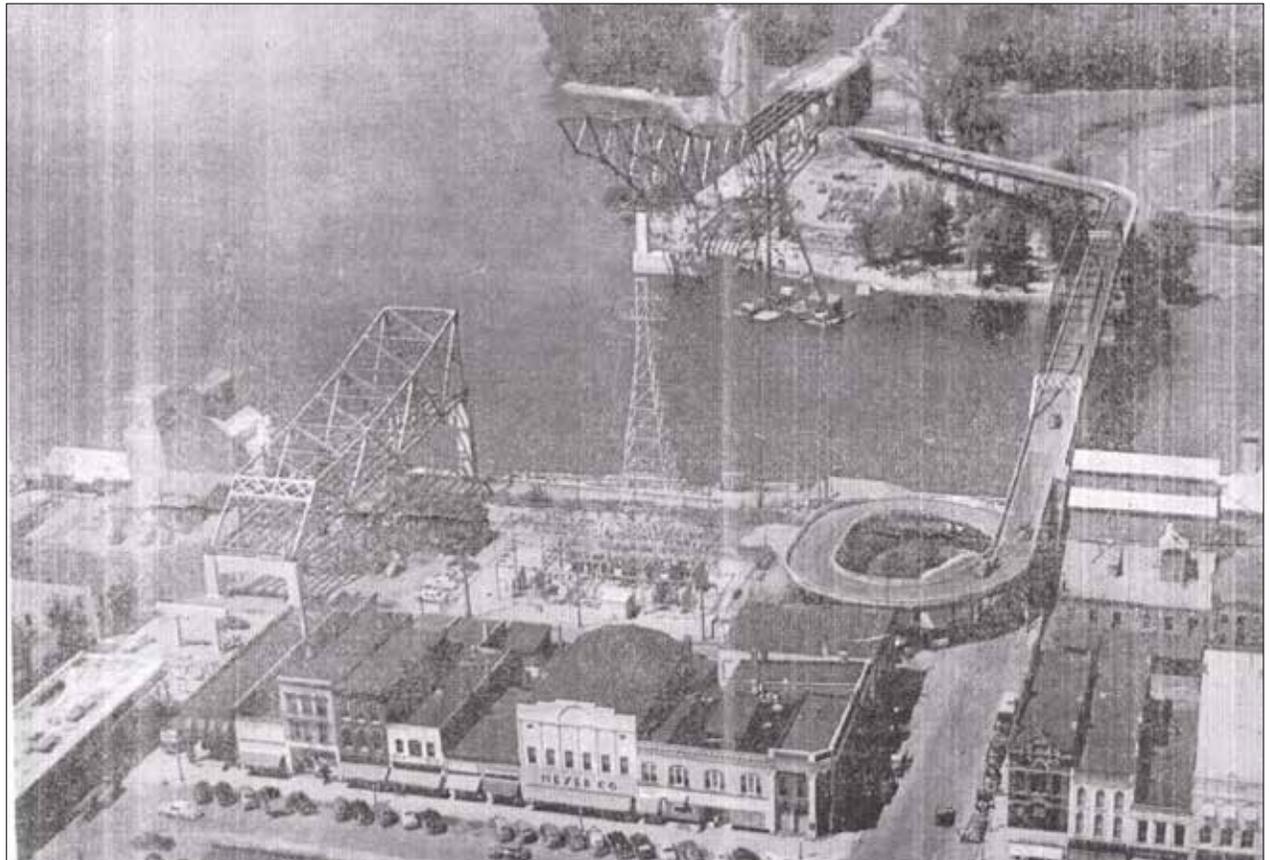
NODE 10. HASTINGS

HISTORIC REFERENCE: THE BRIDGES



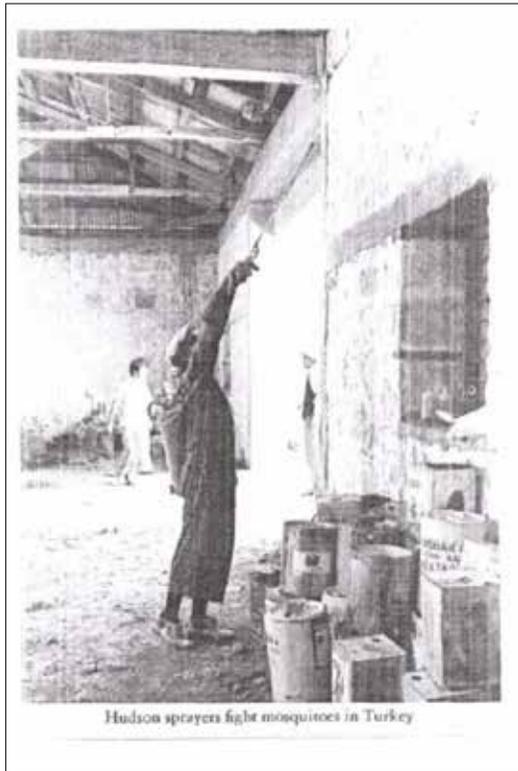
NODE 10. HASTINGS

HISTORIC REFERENCE: THE BRIDGES



NODE 10. HASTINGS

HISTORIC REFERENCE: INDUSTRY HUDSON SPRAYER



November 1945

BACK FROM THE WAR AND
Ready to Ship Now!

The Post-war HUDSON "ADMIRAL" Duster
 with New "Sell-on-Sight" Features

Your Distributor is ready — right now — to take and ship your order for the post-war HUDSON ADMIRAL Duster. With a basic design so sound that the Armed Forces used hundreds of thousands all over the world — with many new features and still further refinements — the ADMIRAL is the perfect Duster for DDT and other powder insecticides and fungicides. And because it's packed with features your customers want, you'll move the ADMIRAL in profitable volume. Double right now to have a stock on your counter.

H. D. HUDSON MANUFACTURING CO.
 264 East Illinois Street, Chicago 11, Ill.
 Branches in Principal Cities

ORDER From Your Jobber Now!
 (Pursue to make big deliveries to your right now.)

Features that make your customers want the "Admiral":

- Easy Stroke — Smooth, after one action.
- Perfect Control — Fully adjustable for spray.
- No Waste of Duster — You can shut it better off.
- Long Reach — Reach over your own head.
- Directional Nozzle — Spray, wherever.

Every Gardener, Every Grower, Every Farmer, Every Livestock and Poultry Raiser, Every Homeholder a Prospect!

NODE 10. HASTINGS

SITE PLAN + AMENITIES

- Existing
 - Grills
 - Parking
 - Canoe launch (nearby)
 - Fishing pier
 - Boat dock
 - Observation platform
 - Spotting scopes
 - Kiosk
 - Portapotty
 - Concessions, beer garden, carnival and lots of activity during Rivertown Days (four days in July each year)
 - Picnic tables
 - Benches
 - Interpretive panels
 - Boat launch
- Future
 - Redevelopment at Hudson Sprayer, possibly including community/interpretation center



NODE 10. HASTINGS
 DETAILED SITE PLAN

- 1. Large frames
- 2. Plaza
- 3. Seating
- 4. Lawn
- 5. Access path
- 6. Litter receptacles
- 7. Bike racks
- 8. Ornamental grasses along trail at node
- 9. Trail node indicators
- 10. Interpretive elements

KEY

- Structure or building
- Plaza
- Trail
- River
- Path



NODE 10. HASTINGS

STORY STRUCTURE

THEME **Conneciton + Place**

STORY	Why Here? Why Did it Persist?
CONTENT	Stories of the transportation to and from Hastings over time
TITLE	Still here
AUDIENCE	Movers Connectors Seekers Worshippers
METHODS	Images + panels Lighting
EXPERIENCE[S]	Viewing Contemplative Gateway
CONNECTING THE DOTS	Connect to Nininger: without the steamboat + train...
SITE CONSIDERATIONS	Under bridge on trail

COMPONENTS

A frame in the landscape shapes an important view of the river and the two bridges

Seating elements with text and didactics reference the three reasons Hastings persisted over time

Bridges: stone

Rail: steel box girder

Steamer: steel or wood

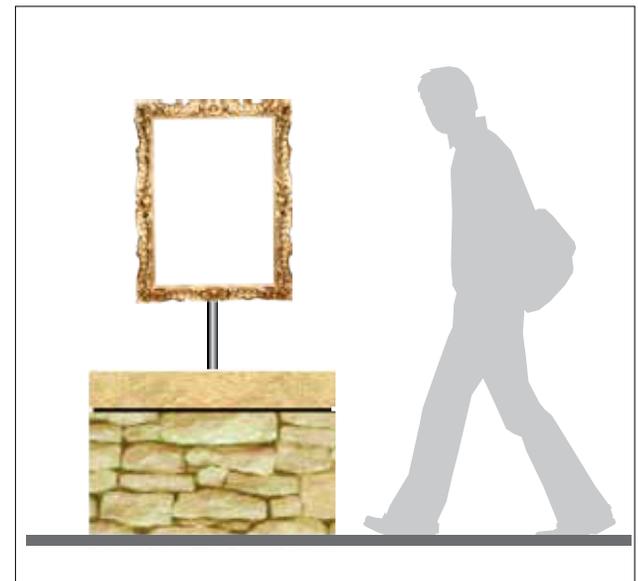
NODE 10. HASTINGS

INTERACTIVE: FRAME VIEW OF BRIDGES



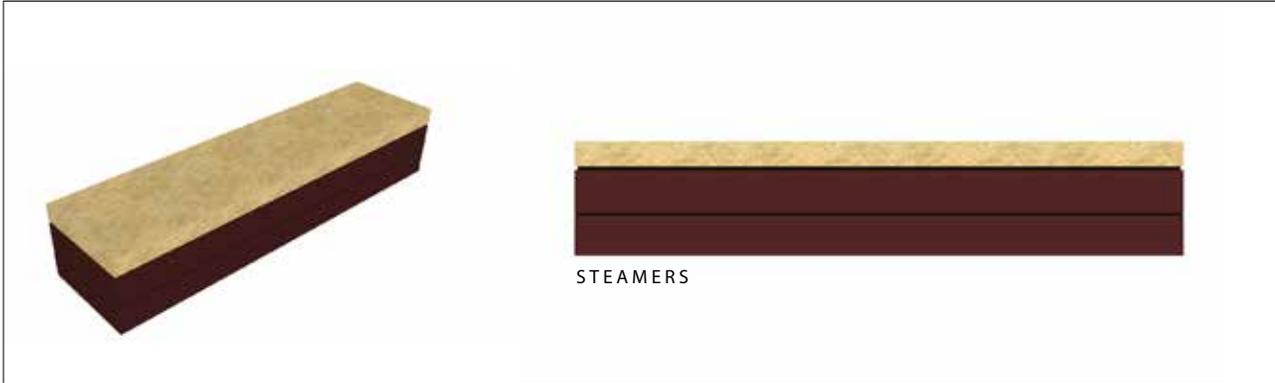
HEROIC SCALE GATEWAY ELEMENT:
GILT FRAME SHAPES VIEWS OF BRIDGES +
HASTINGS + CREATES PHOTO OPPORTUNITIES

In addition to the large gateway element, interactive rotating frames mounted to each of the benches allow users to notice and frame various views of the river and nearby bridge. Benches also tell the stories about why Hastings survived as a city, while other dreams of settlement did not have the same outcome.

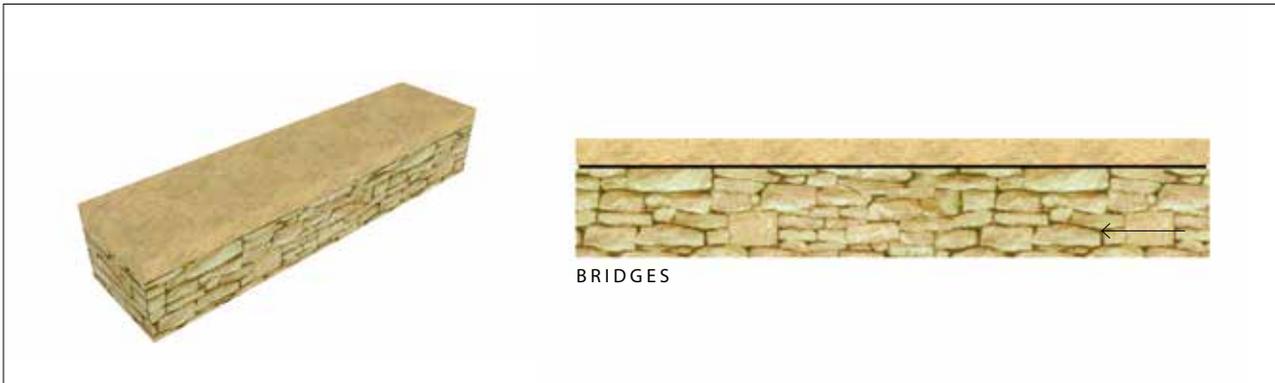


NODE 10. HASTINGS

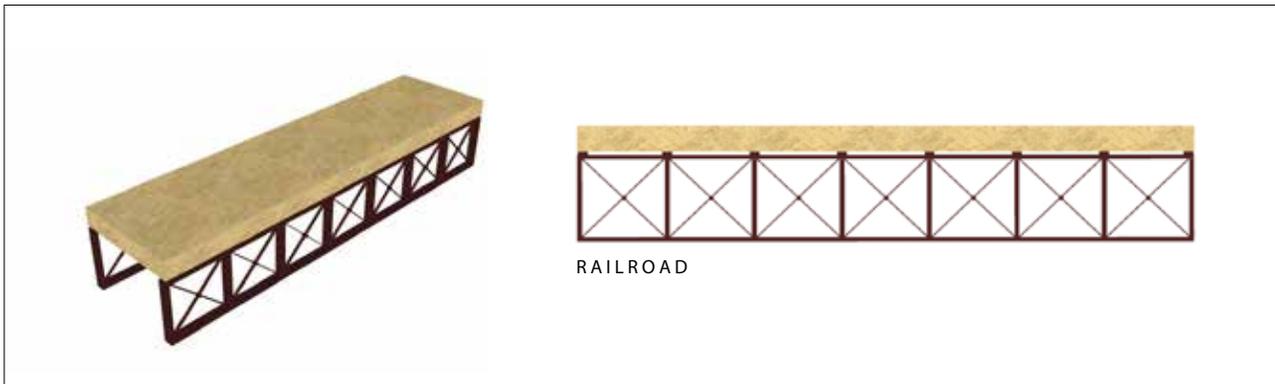
INTERPRETIVE BENCHES: PUBLIC ART SEATING ELEMENTS



BENCHES REPRESENT THE REASONS
HASTINGS PERSERVED:
STEAMERS
BRIDGES
RAILROAD



Interactive rotating frames allow user to frame various
views of the river and nearby bridge.



NODE 10. HASTINGS

INTERPRETIVE BENCHES: DIDACTIC ELEMENTS



BENCH TOPS:
CONNECT
PERSEVERE
BRIDGE
NAVIGATE



BENCH TOPS:
STEAMER
TRAIN
BRIDGE

NODE 10. HASTINGS

SAMPLE INTERPRETIVE PANEL: WE CHANGE THE RIVER | THE RIVER CHANGES US



UP | DOWNSTREAM



Lorem ipsum dolor sit amet, veri diceret equidem pri in, an vel solum impetus delicatissimi. Sea id natum ullamcorper, at essemalorumeum. Ut dolorem inviduntreferenturnec, visposse laboread. Nam facete principes adolescens ei.

NODE 10. HASTINGS

COST ESTIMATE FOR NODE ELEMENTS

KEY SITE ELEMENTS

1. Oversized frame
2. Benches/seating
3. Interpretive panels
4. Site improvements
5. Frame

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
Yearly price escalation is not reflected in this budget.

PROFESSIONAL FEES

\$ 8,000 - 12,000

- Design
- Writing
- Architecture

EXHIBIT FABRICATION + GRAPHICS

\$ 53,000 - 60,000

- Fabrication
- Graphics
- Installation

SITE IMPROVEMENTS + AMENITIES

\$ 32,000 - 40,000

- Grading
- Installation
- Furniture

CONSTRUCTION

\$ 9,000 - 10,000

- Footings
- Engineering
- Construction
- Coordination

TOTAL FEES FOR NODE 10.

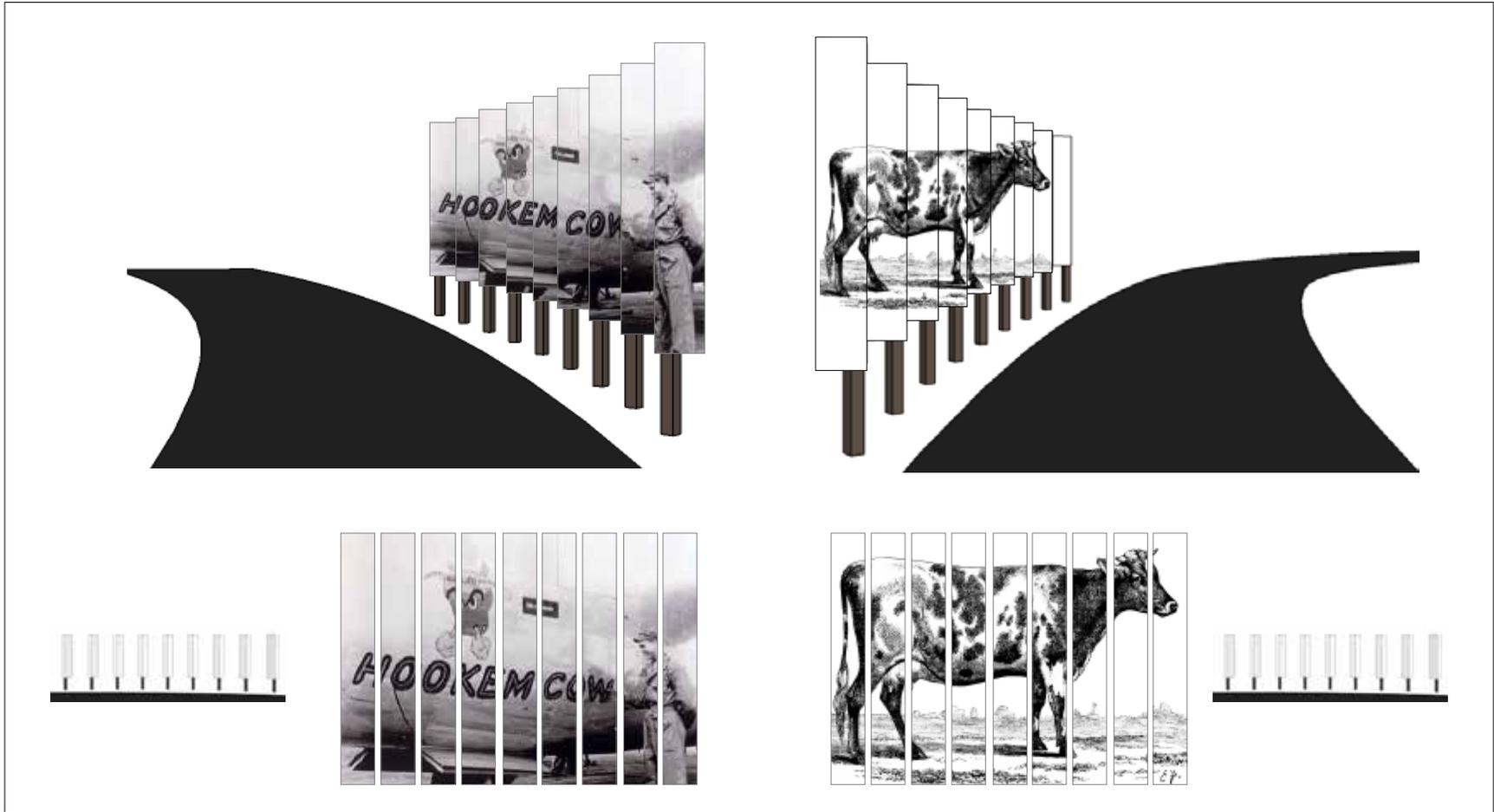
\$ 102,000 - 122,000



TRAIL. LENTICULARS

TRAIL. LOCATION TBD

INTERPRETIVE PANEL: HOOKEM COWS



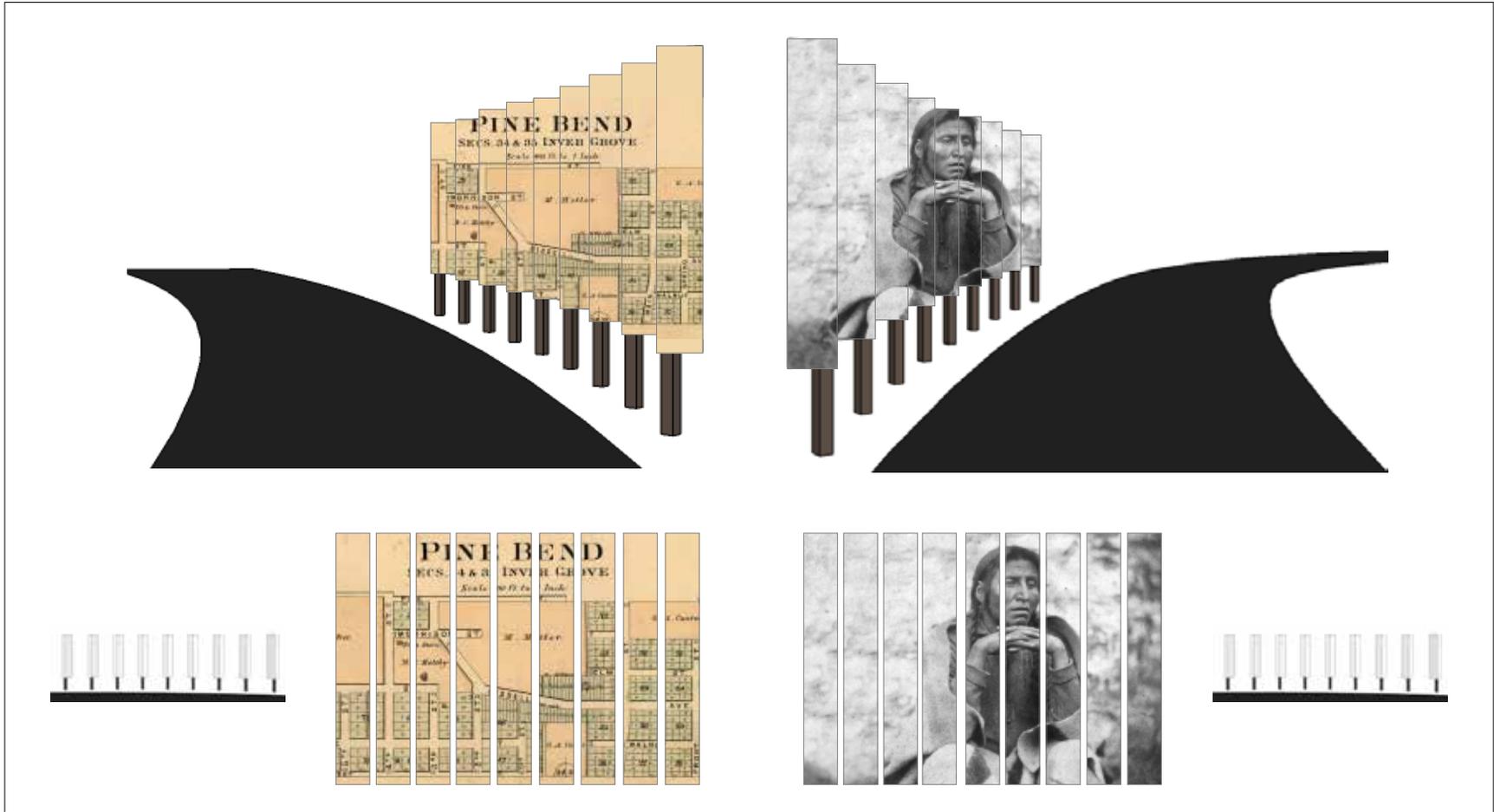
POSSIBLE LOCATION: NEAR SOUTH SAINT PAUL + STOCKYARDS

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: DILLINGER



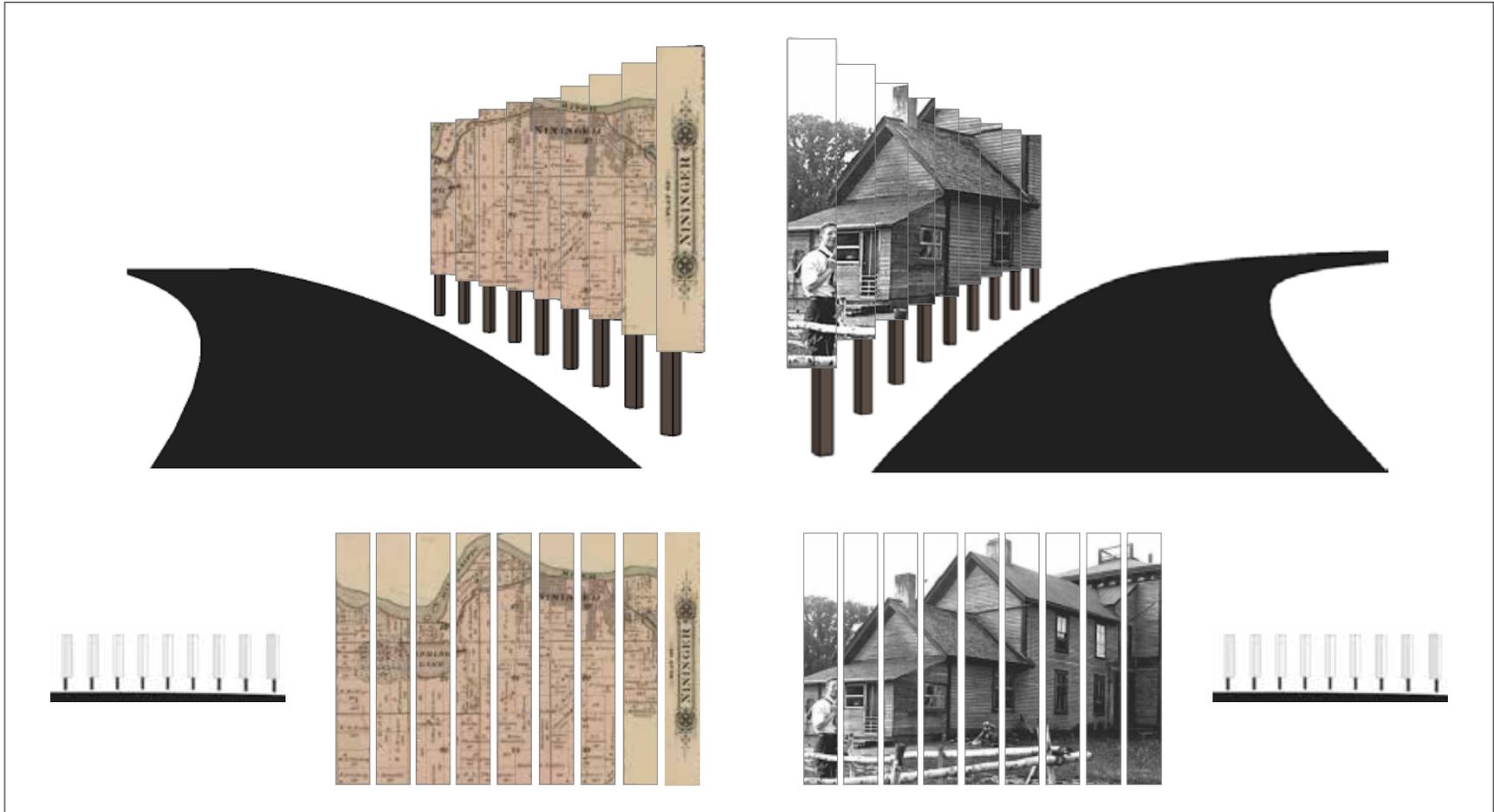
POSSIBLE LOCATION: NEAR SWING BRIDGE

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: PINE BEND



POSSIBLE LOCATION: NEAR PINE BEND BLUFFS

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: NININGER



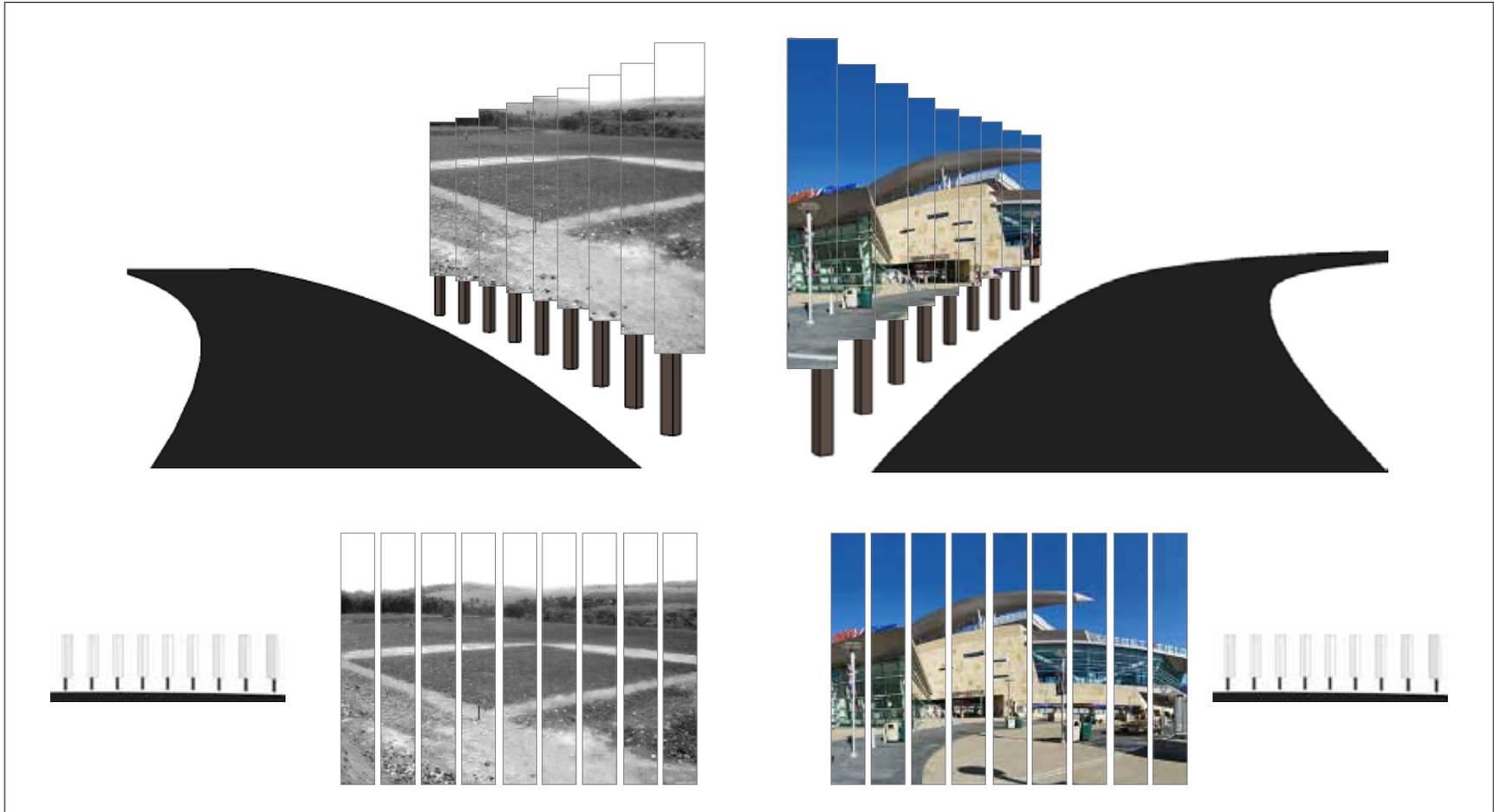
POSSIBLE LOCATION: NEAR NININGER

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: NININGER



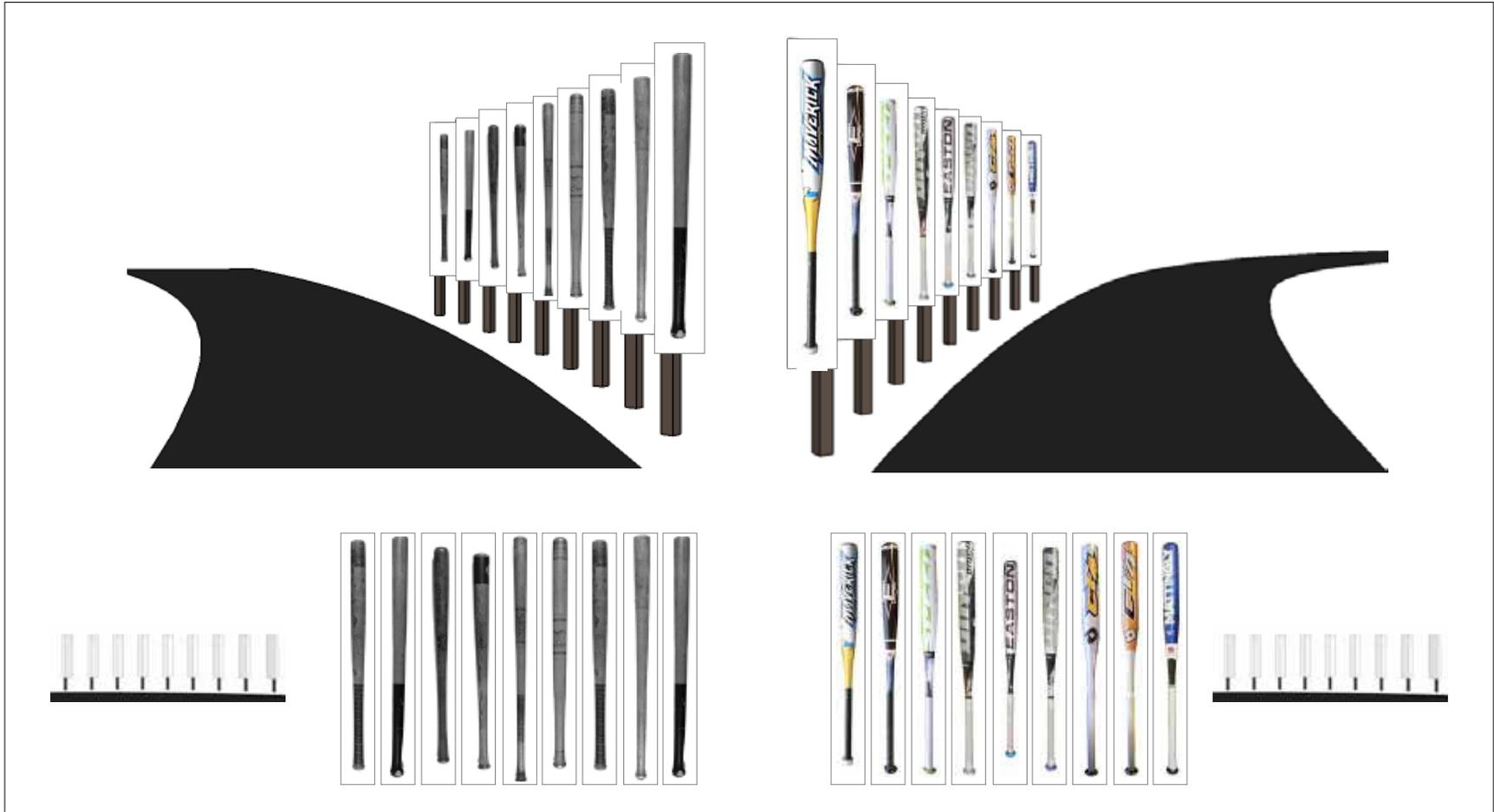
POSSIBLE LOCATION: NEAR NININGER

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: NININGER



POSSIBLE LOCATION: NEAR NININGER

TRAIL. LOCATION TBD
INTERPRETIVE PANEL: NININGER



POSSIBLE LOCATION: NEAR NININGER



TRAIL. LOCATION TBD
 INTERPRETIVE LENTICULAR PANELS

KEY SITE ELEMENTS

- 1. Graphic panels
- 2. Footings
- 3. Posts

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
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Each lenticular application assumes 7 double-sided panels and posts.

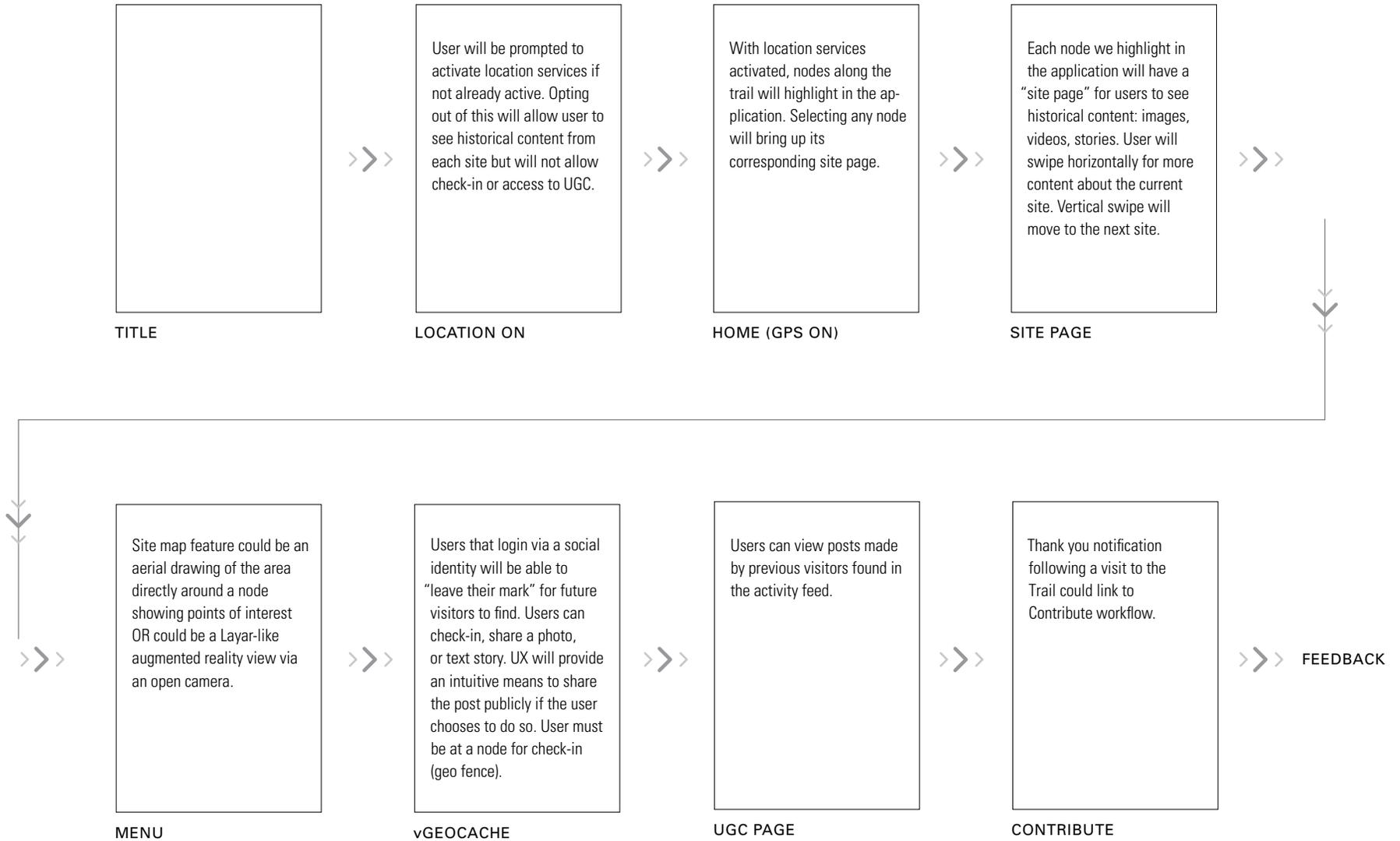
PROFESSIONAL FEES	\$ 3,000 - 4,000/per
Design	
Writing	
Architecture	
 EXHIBIT FABRICATION + GRAPHICS	 \$ 2,500 - 3,000/per
Fabrication	
Graphics	
Installation	
 SITE IMPROVEMENTS + AMENITIES	 \$ 5,000 - 8,000/per
Grading	
Installation	
Furniture	
 CONSTRUCTION	 \$ 1,000 - 2,000/per
Footings	
Engineering	
Construction	
Coordination	
<hr/>	
TOTAL FEES PER LENTICULAR APPLICATION	\$ 11,500 - 17,000



TRAIL. VIRTUAL EXPERIENCES

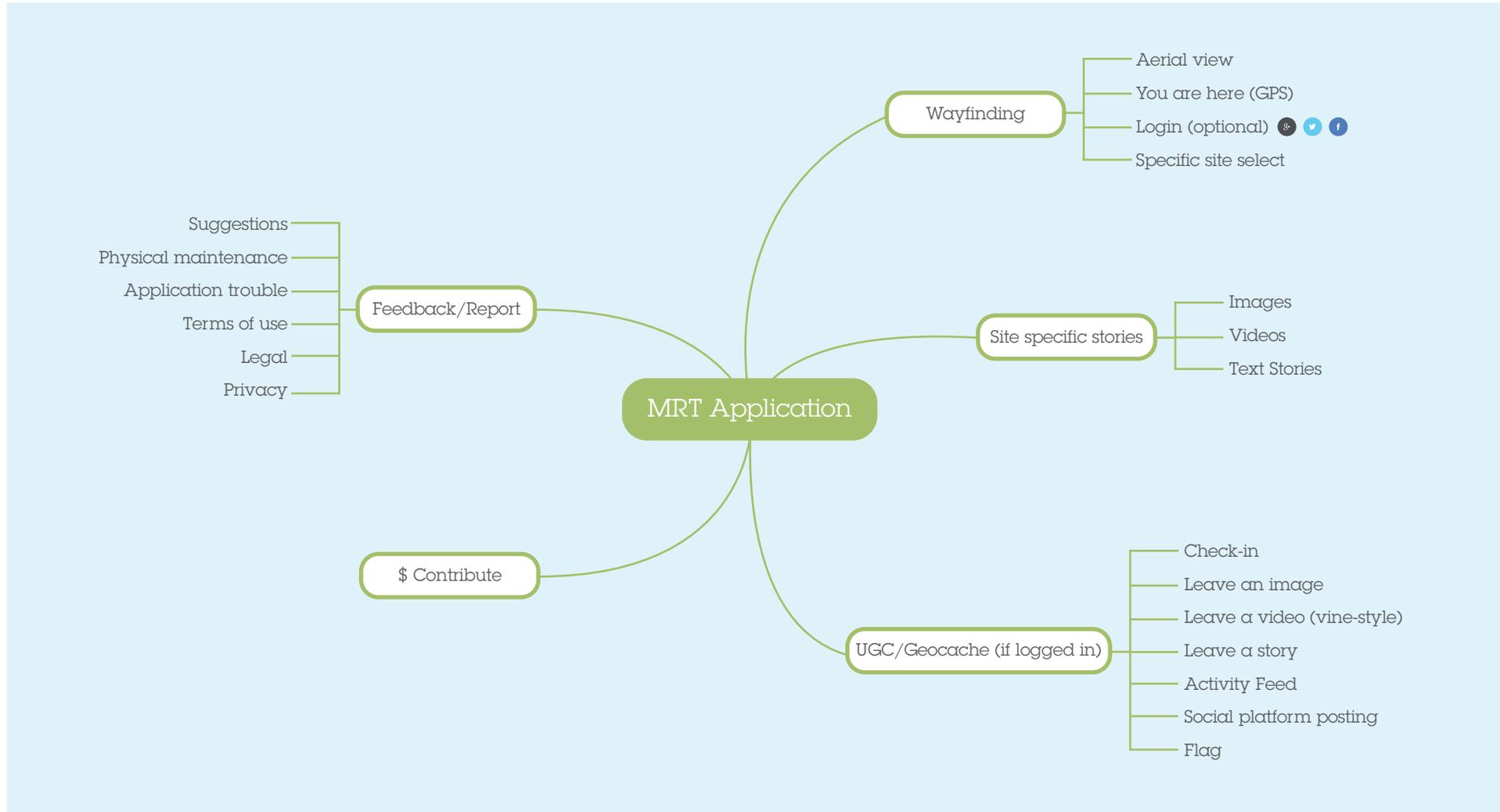
NODE 1. KAPOSIA LANDING

VIRTUAL INTERACTIVE: EXPERIENCE WIREFRAME



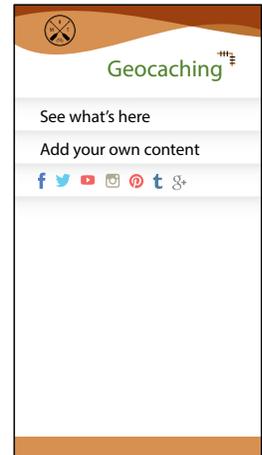
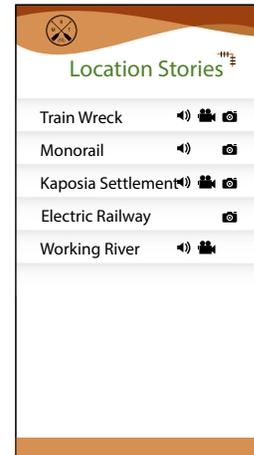
NODES. VIRTUAL

VIRTUAL INTERACTIVE: MINDMAP



NODE 1. KAPOSIA LANDING

VIRTUAL INTERACTIVE: POSSIBLE APPEARANCE OF MAPS, ADDITIONAL CONTENT + GEOCACHING





NODES. VIRTUAL

VIRTUAL INTERACTIVE: MINDMAP

KEY SITE ELEMENTS

1. Interactive design
2. App development IOS + Android
3. CMS storage and delivery

PROFESSIONAL FEES

- Design
- Writing
- Architecture
- Engineering

ASSUMPTIONS

Pricing is based on 2014 dollars.
Yearly price escalation is not reflected in this budget.

Professional fees include user interface design to be applied to all nodes of the Trail.

PROFESSIONAL FEES	\$ 18,000 - 25,000
Design	
Writing	
Architecture	
EXHIBIT FABRICATION + GRAPHICS	\$ 320,000 - 400,000 (app dev)
Fabrication	
Graphics	
Installation	
<hr/>	
TOTAL FEES	\$ 338,000 - 425,000

THANK YOU!