

CITY OF WEST DES MOINES



RACCOON RIVER EAST GREENWAY MASTER PLAN CONCEPT PACKAGE

SEPTEMBER 2023





EXECUTIVE SUMMARY



SERVICES

Architecture

- Architecture
- Interior Design
- Landscape Architecture
- Planning

Engineering

- Civil
- Drone
- Electrical
- Land Surveying
- Mechanical
- Municipal
- Refrigeration
- Structural
- Technology
- Telecommunications
- Transportation
- Water/Wastewater
- 3D Scanning

Environmental

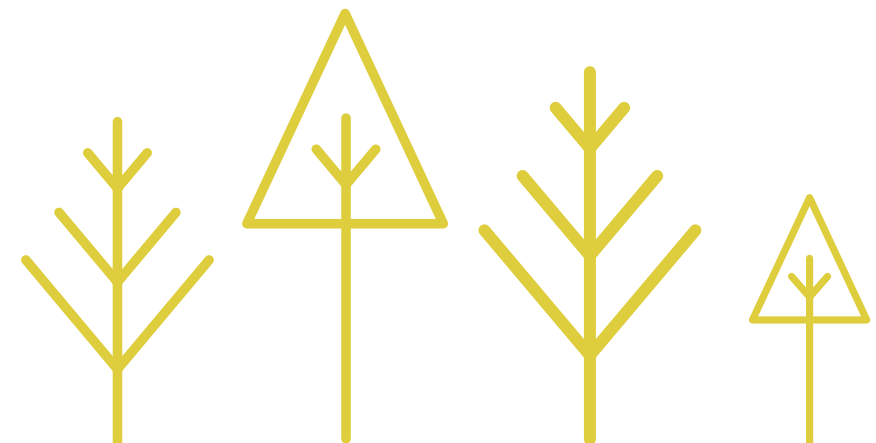
- Assessments + Review
- Geographic Information Systems
- Permitting + Compliance
- Planning + Feasibility
- Testing + Monitoring

Planning

- Development
- Engagement
- Funding
- Planning
- Project Evaluation

TABLE OF CONTENTS

Summary Of Planning Process + Timeline.....	1
Stakeholder Input.....	2
Site Analysis.....	6
Project Context - Central Iowa.....	6
Project Context - West Des Moines.....	7
Floodway Permitting.....	8
Environmental Analysis.....	9
Flood Levels.....	10
Land Use Analysis.....	11
Historic Imagery.....	12
Final Concept.....	14
Bike Trails.....	15
Passive Recreation.....	17
Boats.....	19
Camping.....	21
Playscapes + Art Features.....	23
Wayfinding.....	24
Project Visualizations.....	25
Project Budget.....	28



SUMMARY OF PLANNING PROCESS + TIMELINE

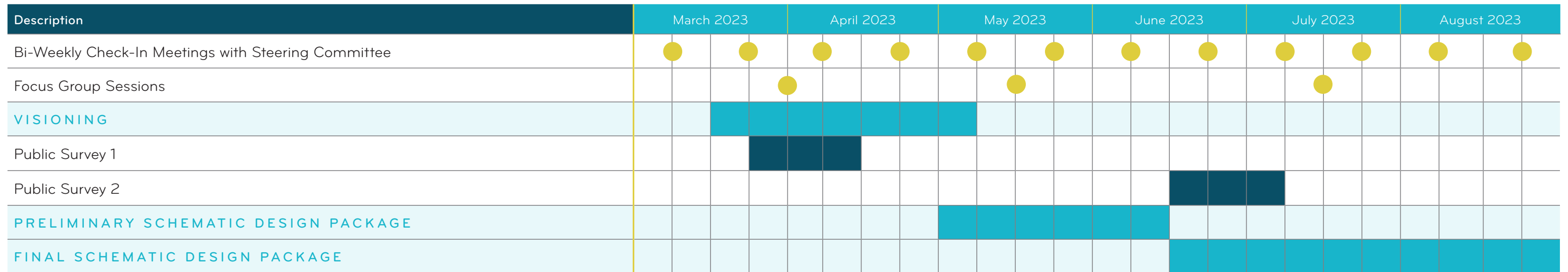
SUMMARY

Kicked off on February 23, 2023, the Raccoon River East Greenway Master Plan process has included bi-weekly Steering Committee coordination meetings, meetings with stakeholder focus groups, published online content, and public open houses. The six-month project has received feedback and review from many contributors to arrive at the final concept in this design package.

Following the kickoff meeting, a site visit was conducted on March 24, 2023. An existing site conditions memorandum was issued in March, which included historical aerial imagery, property owners, existing and planned recreational facilities, floodplain extents, and potential wetlands. The first public survey was available from March 22 to April 12, 2023. Based on this feedback and comments from three focus groups, three preliminary concepts were developed and reviewed to define the direction of the preferred concept. The project website also provided the proposed final concept for community members to view. A second public survey was available from June 14 to July 5, 2023. Feedback helped update the final preferred concept that was reviewed by focus groups and shared with the public on July 27, 2023.

TIMELINE

● Milestone ■ Duration



STAKEHOLDER INPUT

PUBLIC SURVEY | ROUND 1

MARCH 22-APRIL 12, 2023

88
Responses
From Round 1

Stakeholders and community members provided input throughout the planning process through two rounds of online surveys and open house events. The open house events were held in the Valley Junction Activity Center in West Des Moines where community members were encouraged to provide input and recommendations on site design and programming. Input from both forms of public involvement were used to ensure the goals, objectives, and concepts offered in the final plan aligned with community expectations.

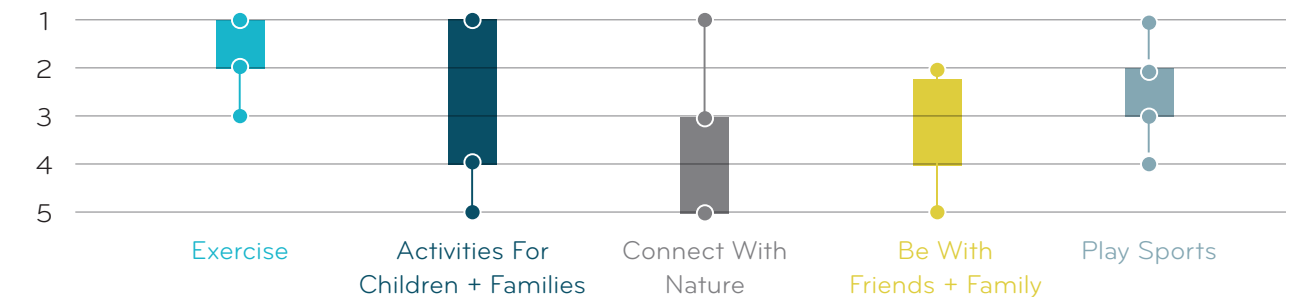
Public Open House



Online Survey Responses

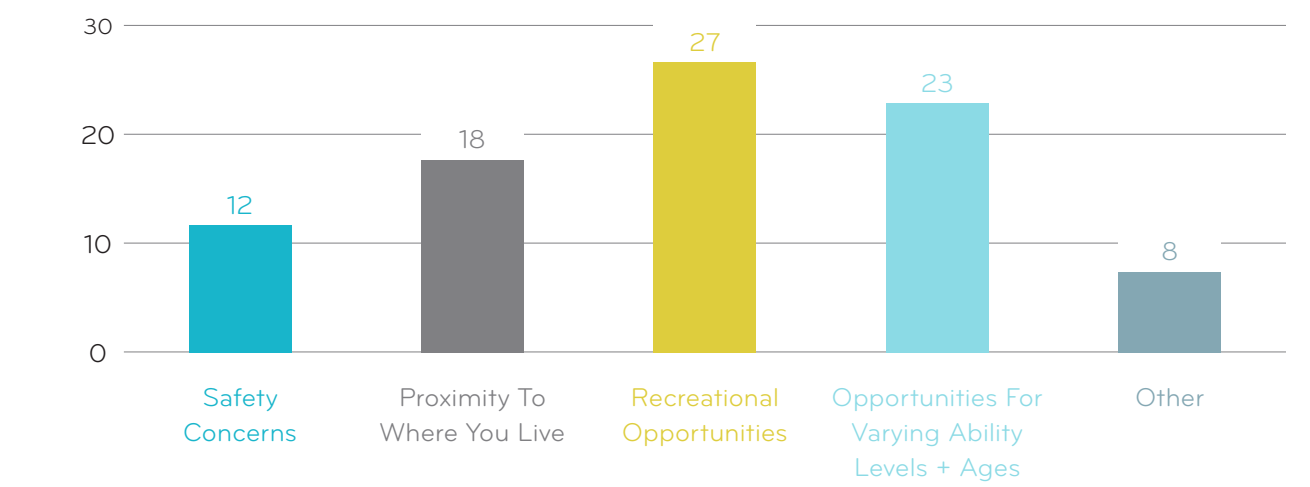
Why do you visit the park or trail system in West Des Moines?

Score: 1-5 with 1 being most used activity, 5 being least used



What barriers prevent you from using the proposed park and trails?

Select all that apply



Comments Received

NATURE PRESERVATION

Memphis Botanic Gardens in Memphis, TN has an amazing **outdoor children's playscape** with lots of nature features. It's been a bit, but I believe there were tunnels in mounds to encourage crawling and learn more about worms. They just have a lot of hands on **nature play** areas that also had signs encouraging children to **learn more about nature** in the community.

I hate to see trees being taken down in the name of "progress". I want to see areas for **wildlife preserved**

The addition of mountain biking trails separate from hiking trails would be a wonderful draw. I love thinking about opportunities for additional **"natural" hiking trails** being developed as part of this project. Finally, seeing a **natural play scape** would be awesome!

I would like to see it left **as natural as possible** in order for it to be a **quiet place** to hike and enjoy natural **wildlife**.

"I'm hoping to make it to the open meeting tonight but in case I don't I really just want to reiterate that it is so very important we leave the area as **natural as possible**. I absolutely love the ideas of adventure park area and ziplining but honestly, people have proven time and time again they just can't have nice things. If we invite more people to the area there will be more destruction of what is home to many **species of trees, plants, insects, fish, invertebrates, mammals, and birds**. We already have the Rec Plex for the sport people. There will soon be more built in that area. There is an existing adventure course at Living History Farms which is probably underutilized.

Aim for remarkable. Make extra room for **natural systems, especially the river**. Thanks!

ADJACENT PARKS

We often use Raccoon River Park, especially when there has been wet weather or during the thaw since it is **gravel**. We also frequently kayak at raccoon River park with our own kayaks. We also frequently go to walnut woods state park for hiking and picnics, as well as hiking at Browns woods.

My family and I are avid Raccoon River Park users. We fish, kayak, and hike year round. I purchased my home in 2016 in order to be closer to the park and the river. We also enjoy the Purple Martin area, Walnut Woods and Brown's Woods. We spend a lot of time in the wooded area for exploring and nature photography.

I love living in West Des Moines and the **bike trails and kayaking** available at Raccoon River Park. I would love to be able to kayak on the Raccoon River and would love **well marked and safe access** points.

A natural camping area that was intended for cyclist and hikers with rentable kayaks, cabins, a place to hand your **hammocks** and a zipline over the river would be ideal. Some signature attraction like the High Trestle Bridge /camping out in Woodward would be a nice addition. I think its important to **keep it woodsy** as the trail community feels a devastating loss of nature with the building of large buildings on the way to Cumming, and out West. We don't want manicured lawns, **we want trees/ shade and nature** with a great meeting area off to the side of a bridge to keep that clear for passing.

Regularly ride all of the dirt trails in the metro. Sycamore, Center, Ewing (and others outside of the metro/region). Love to ride my mountain bike on the trails. Take my kids there to ride and hike as well. Hike at Browns Woods as well, wish it was open to cycling. **We kayak the river through town** and like to visit Raccoon River Park and Maffitt Lake too. Regularly visit Greenwood park, Water Works park, Raccoon River park.

Do not over commercialize or create commercial like activities within the parks. I don't want to feel like we have amusement parks. First priority should be protecting the **habitat of wildlife** and creating natural ways to be with and observe nature. All of the amenities bring more people and more people impact the wildlife and also change the **peaceful/quiet/tranquility of outdoors**

I'd like to see the trail systems in the eastern part of Raccoon River Park connected to a network of trails along the Raccoon River out to Booneville/Van Meter and into downtown Des Moines (via the Des Moines Water Works park). I believe there are plans for such trails, but I think those should be of a high priority. I'd also like to see **signs describing the types of wildlife and plant life** found in the parks.

HIGH-INTENSITY PROGRAMMING

It would be great if we could get a **single-track** trail network on the west side!

Make it easier to get here, give them a place to meet, and a reason to stop and stay a while. Make it easier to access Valley Junction District by bike or foot, and they will come.

I enjoy the outdoor amenities at Triumph Park in Waukee. Accessibility on the playground and water features, including the fishing pier and trout, are really well done.

More **water activities for kids** would be great for summer. West Des Moines has done a phenomenal job of planning family-based activities- we love living here because of it !!

Consider a **ropes course** or zip lining and mountain bike trails please! Something new that we don't have out west

Bentonville Arkansas! Has created a **biking destination** without huge change in elevation, a smaller scale of that in West Des Moines would be amazing as a **tourist destination** as well as local benefit.

There is a growing cyclist population that carry all camping gear on bikes. These are the people who ride to the start of Ragbrai, and camp along the way, and then ride home. If we had more woodsy **cyclist/ hiker / group camping areas**, I think that would be very unique, and a wonderful opportunity for WDM to be the **destination** place, instead of the place to get away from.



PUBLIC SURVEY | ROUND 2

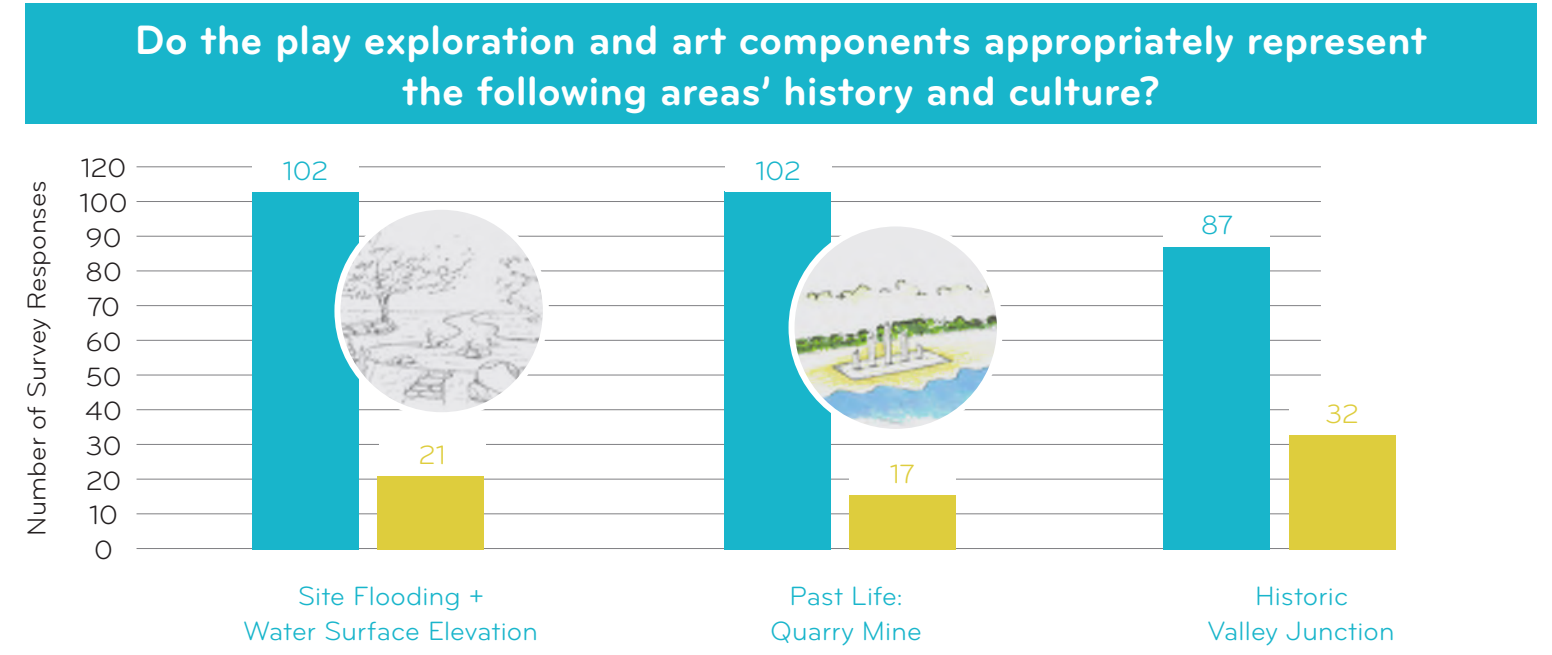
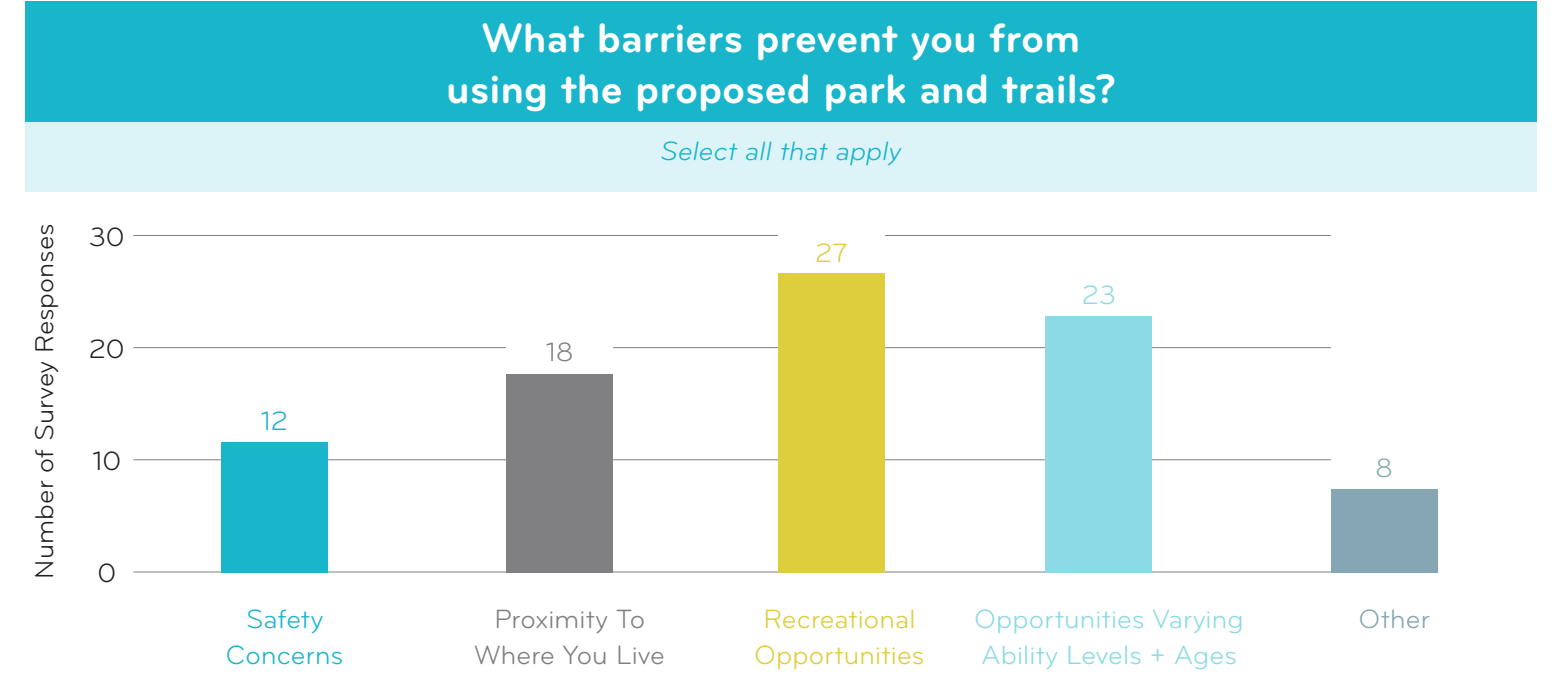
JUNE 15-JULY 5, 2023

Public Open House

138
Responses
From Round 2

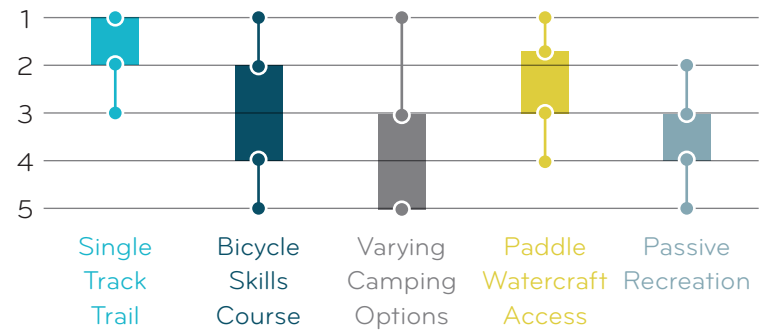


Online Survey Responses

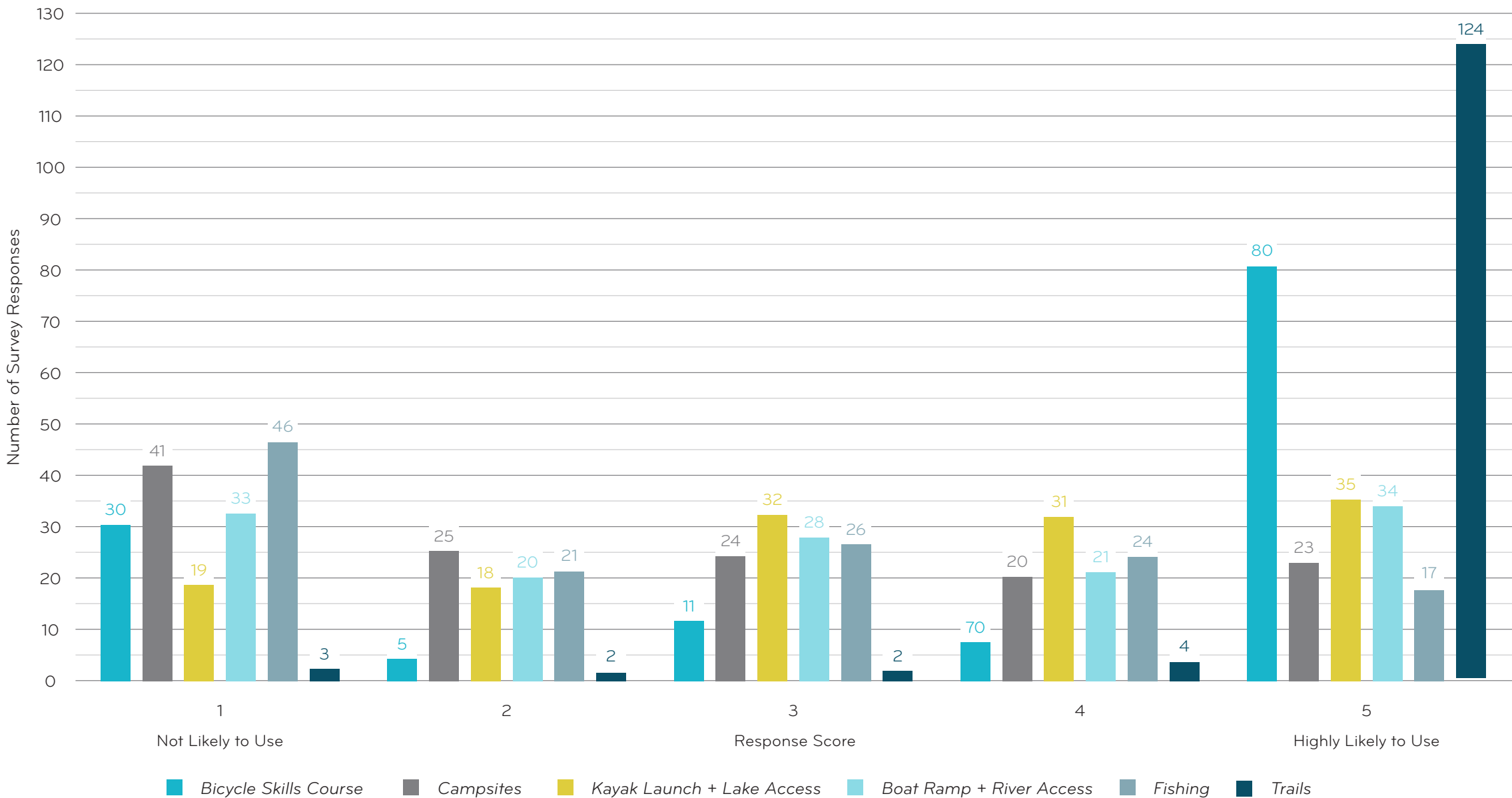


What types of amenities and improvements do you think are most important for the Raccoon River East Greenway to include?

Score: 1-5 with 1 being most important



How likely are you to use the following?



SITE ANALYSIS

PROJECT CONTEXT

CENTRAL IOWA

The project site is shown with one-mile increment circles to display the proximity to regional amenities. Creating a destination that serves as a regional attraction requires coordination with existing amenities and a unique opportunity for users to enjoy. Parks and recreation locations and specific amenities such as boat ramps, single-track biking, hiking, birding, and camping are shown in relation to the project site.

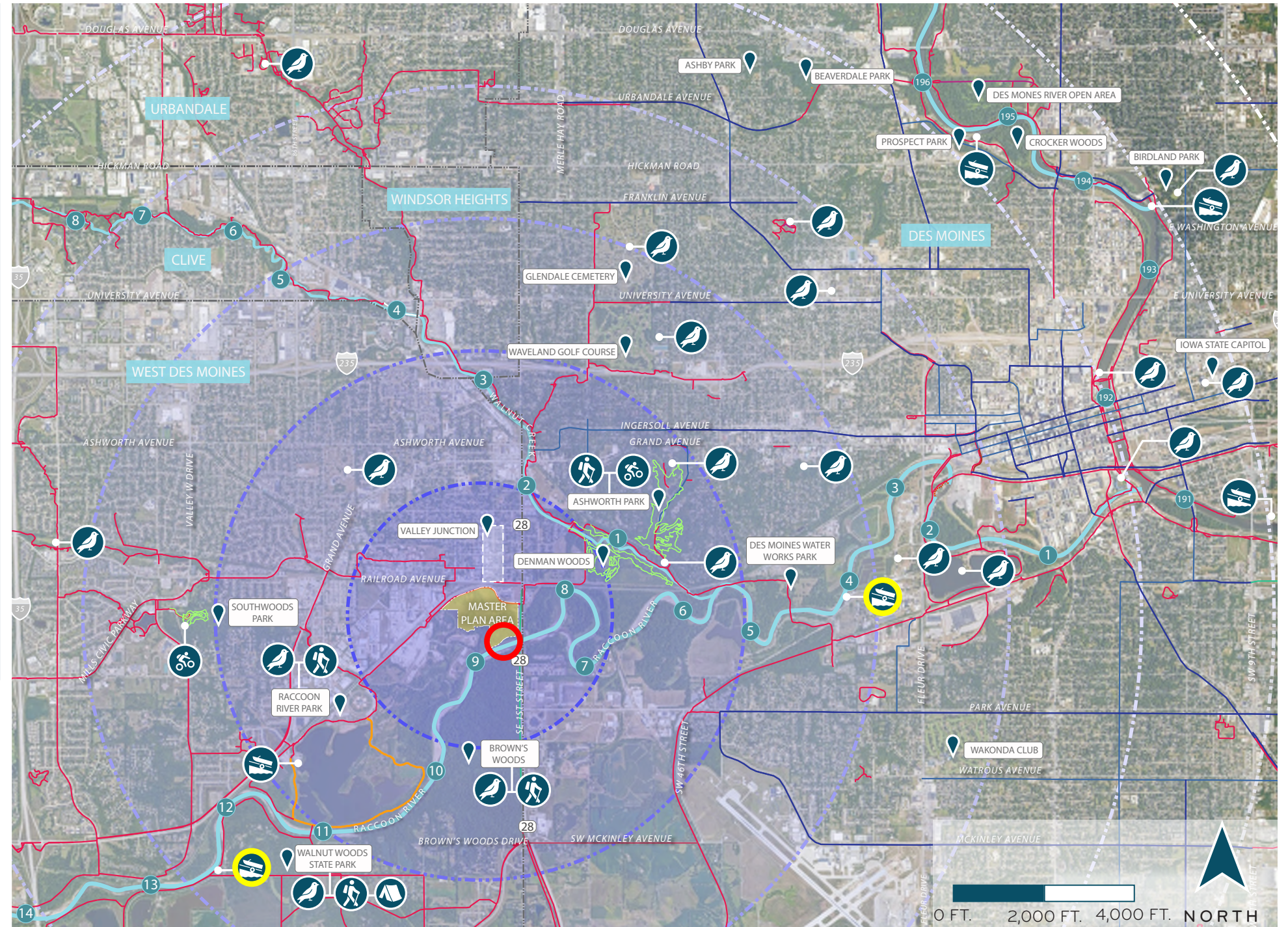
Water access has increased in popularity. Multiple access points allow river users to have options of where to put in and take their boats from the river, as well as enjoy flatwater.

Single-track trail facilities and users are increasing across the Des Moines metro. Facilities neighboring the Raccoon River project area include Southwoods Park, Denmans Woods, and Ashworth Park—all within a three miles.

Hiking trails can be found at Walnut Woods State Park, Brown's Woods, and Ashworth Park. Soft trails with managed tree canopy contribute to the nature-preserve feeling that park users seek at these facilities.

There are many options for urban birding. However, each location is dependent on habitat quality and being able to quietly observe without distributing the birds. Nearby facilities include Raccoon River Park, Walnut Woods, Brown's Woods, and the Bill Riley Trail.

Designated campgrounds for urban camping can be found in Walnut Wood's State Park. Walnut Woods offers a variety of site styles for both recreational vehicle (RV) connection, car, and tent camping.



PROJECT CONTEXT

WEST DES MOINES, IA

The park can be accessed from the south by trail or road, from the east by road, and from the north by trail. Connection points are important to note as the levee trail on the west side is removed from the bustle of Valley Junction. Intentional signing and directions from existing amenities and trail connections will increase park visibility.

The extension and connection of the trail is critical to complete a 10-kilometer loop in conjunction with the Raccoon River Park Trail. The paved trail also completed a north-south connection that will extend to the south in coming years.

Valley Junction has several opportunities to benefit the park, in addition to its thriving businesses that attract locals and visitors. A visual bridge would encourage pedestrians in Valley Junction to visit the historic site and experience the rich culture. Local events such as Taste Of The Junction have celebrated the site's history and recorded stories of users who live south of the railroad tracks—in the same space that will become part of the Raccoon River East Greenway.

LEGEND

- EXISTING PAVED TRAIL
- EXISTING GRAVEL TRAIL
- EXISTING SINGLETRACK TRAIL
- CITY OF DES MOINES TRAIL
- FUTURE PHASE TRAIL
- WEST DES MOINES LEVEE
- CITY LIMITS

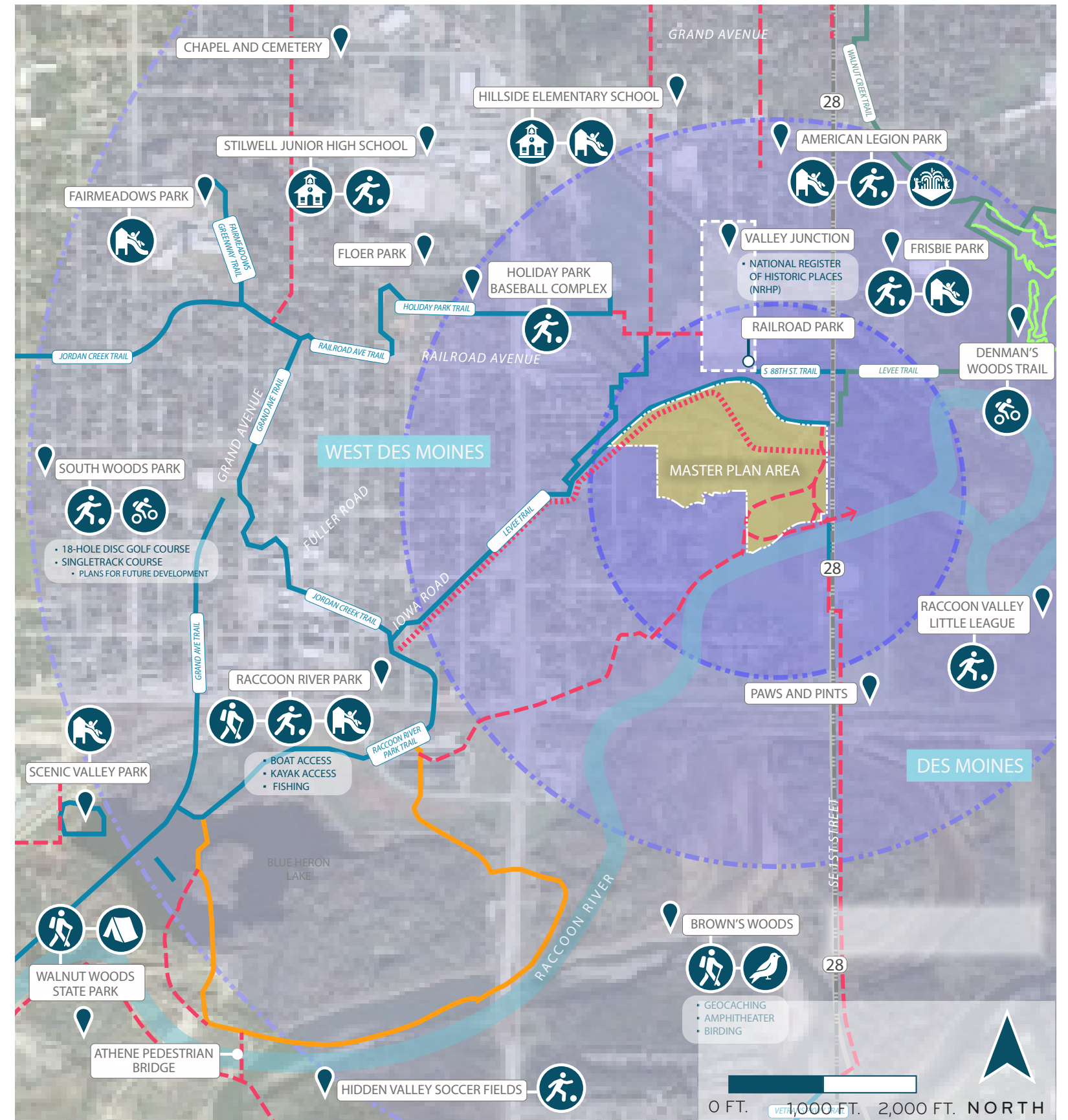
28 STATE HIGHWAY 28

EXISTING PROGRAMING / AMENITY

CAMPING	HIKING
SCHOOL	PLAYGROUND
SPORT COURT / RECREATION FIELD	SPLASH PAD
SINGLETRACK COURSE	BIRDING LOCATION

PROJECT PROXIMITY

- 2 MILE RADIUS WITHIN PROJECT SITE
- 1 MILE RADIUS WITHIN PROJECT SITE
- 1/2 MILE RADIUS WITHIN PROJECT SITE



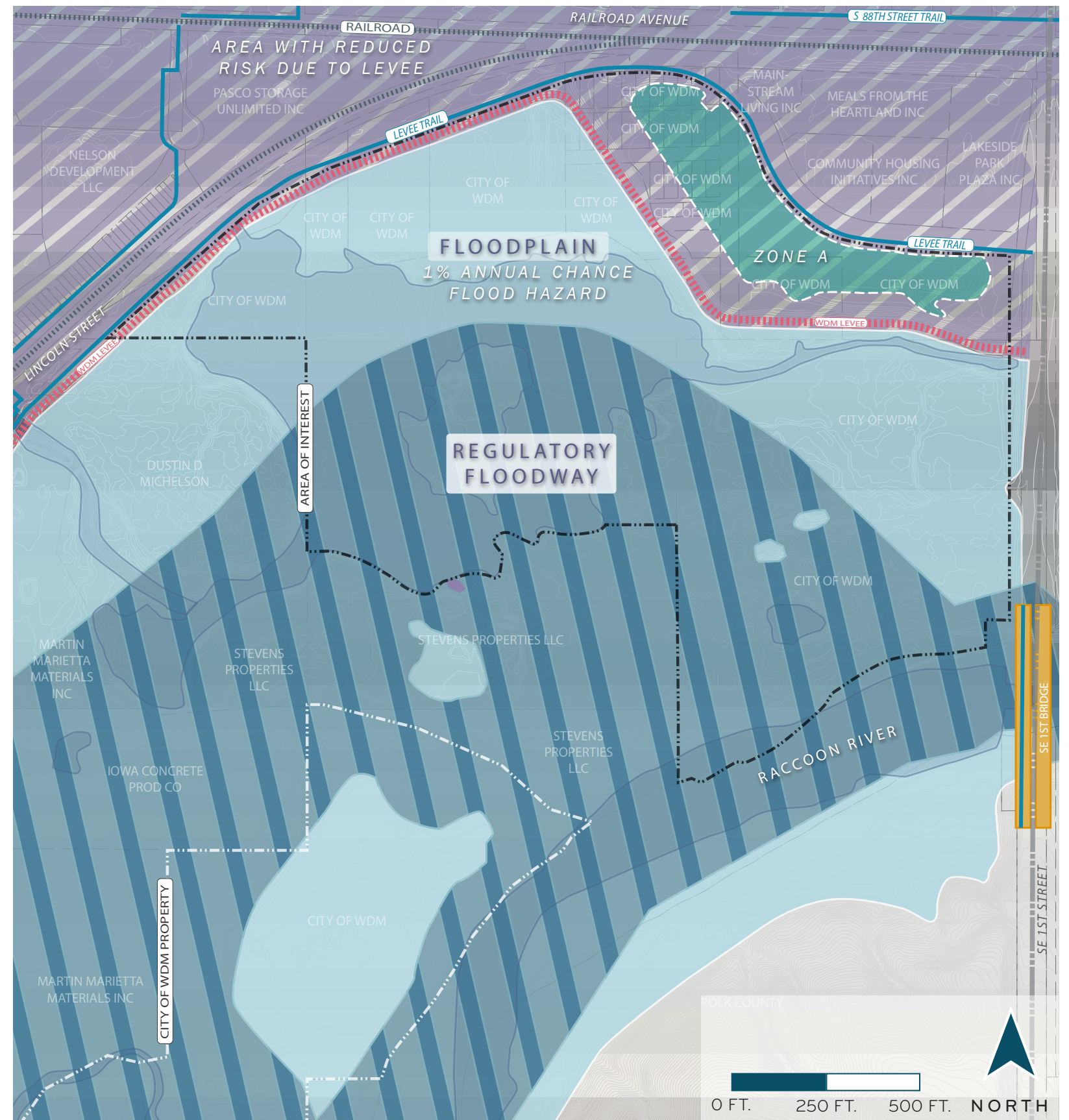
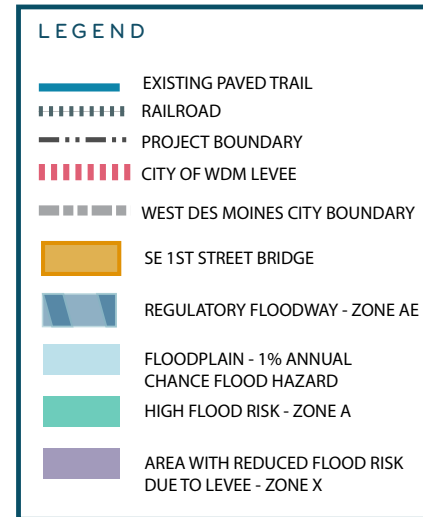
FLOODWAY PERMITTING

The levee that runs along the northern boundary of the site provides flood protection for Valley Junction and neighboring areas.

The regulatory floodway boundary shown denotes the zone that will require a modeled review to confirm the proposed construction and will not adversely impact future flood conditions. Permanent, walled structures or other dramatic changes to the existing ground cover may prove challenging to meet no-rise requirements. While the floodplain is expected to be inundated during flood events, the process for a modeled review does not require the same review as the regulatory floodway.

The Raccoon River will continue to migrate as it erodes and deposits its current banks. The management of the regulatory floodway allows for careful consideration of development impacts that may prevent the river from flexing to a high surface water level as expected. The effective model is critical to the maintenance of the levee to ensure that the properties protected by the levee will not have an increased risk of damage due to changes in the regulatory floodway.

With the permanent improvements, roadways and buildings, there is greater concern for the stability of the left bank of the river that runs along the south edge of the site. Due to the geometry of the river, this section will be at risk for continued erosion. Armoring and increasing the stability of this section of the bank will allow for safe access down to the water and protect the infrastructure from future stability concerns. The location of the water access at the further point upstream of the 1st Street bridge is intentional to allow water users as much distance possible to position the water craft appropriately before passing under the bridge.



ENVIRONMENTAL ANALYSIS

Previous studies and historical documents note abandoned appliances and other evidence of dumping within the park. While there is no documented record of a landfill, it has been noted that the northern section of the park was used as a landfill. There are no current plans for excavation, and there is not an expectation to disturb the potential contaminants below grade. If the use for this area changes, sampling and containment should be planned.

WETLANDS

The wetland delineation has noted the areas in green as confirmed wetlands. While the entire site contributes to some level of water quality filtering and infiltration following flood events, the areas in green will be protected. Planned trails will utilize construction techniques to conserve the ecological function of the wetlands, which filter nutrients, sediment, and pollution before they enter the river, improving water quality downstream.

VEGETATION RESTORATION, EDUCATION, AND PARTNERSHIPS

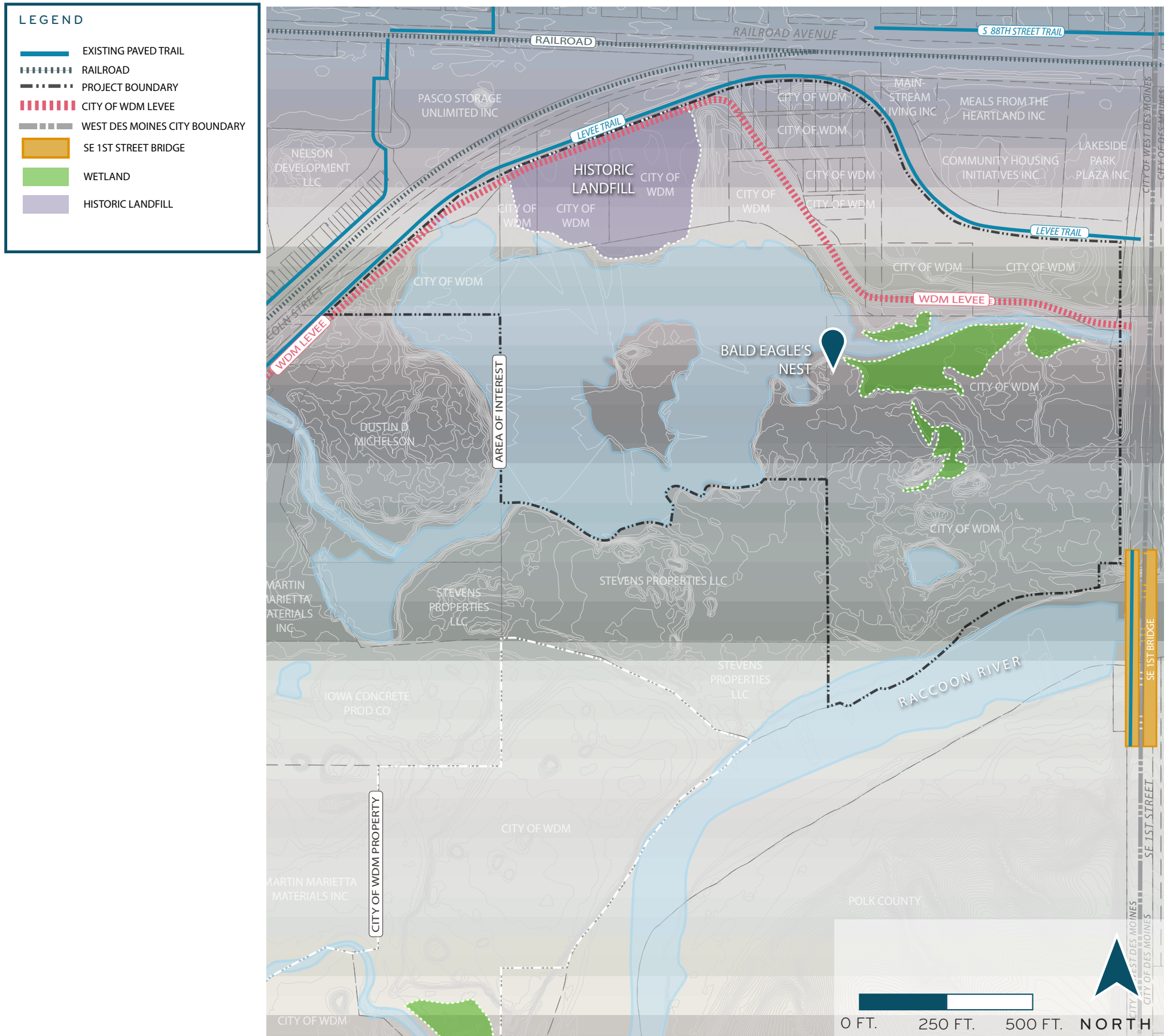
Further enhancements are recommended to restore native wet meadow vegetation, which will help aid this process by slowing water, settling sediments, and absorbing nutrients through physical and biochemical processes. This creates an opportunity educate users and stakeholders how green infrastructure and wetlands work and benefit the environment. Park enhancements such as this could build on existing partnerships and initiatives within the state, including Clean Water Iowa, Soil & Water Conservation Districts, the Iowa Department of Agriculture and Land Stewardship, and the United States Department of Agriculture, in addition to the potential for new partnerships.

FOREST COMPOSITION IMPROVEMENTS

The woodland stand of the southern portion of the park will be most impacted by the programming and interwoven trail segments. The alignment will require some tree clearing, though this process is recommended to preserve high-value trees and work to enhance the woodland stand quality. Enhancing native vegetation provides wildlife habitat for birds, pollinators, and fish. The deep, fibrous root systems of native herbaceous plants physically strengthens and stabilizes the soil along the riverbanks, reducing the risk of erosion. The removal of invasive, woody species enhances the quality of native plant communities. The improvements contribute to the overall forest composition and condition by reducing competition and releasing healthy, mature, native trees adapted to the floodplain ecosystem.

OTHER CONSIDERATIONS

Nature-based solutions within a place-based design regenerate and preserve healthy, adaptive habitats that provide numerous ecological and social values to our community. The existing fish population has not been studied. However, future access for fish management and monitoring by the Iowa Department of Natural Resources has been considered to allow access for their equipment to reach the lake. The bald eagle's nest has been noted and will be considered for all future programming in proximity.



FLOOD LEVELS

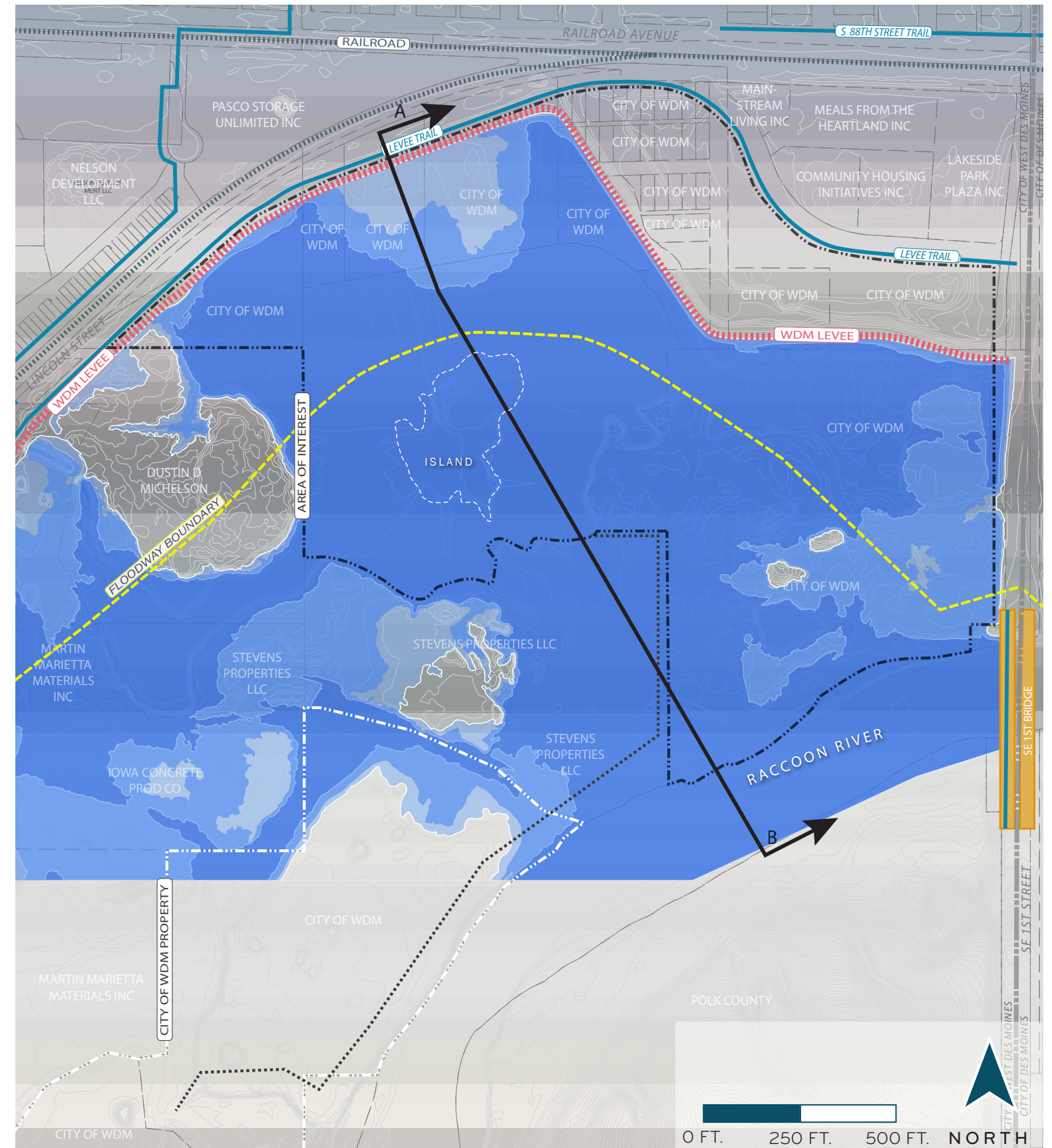
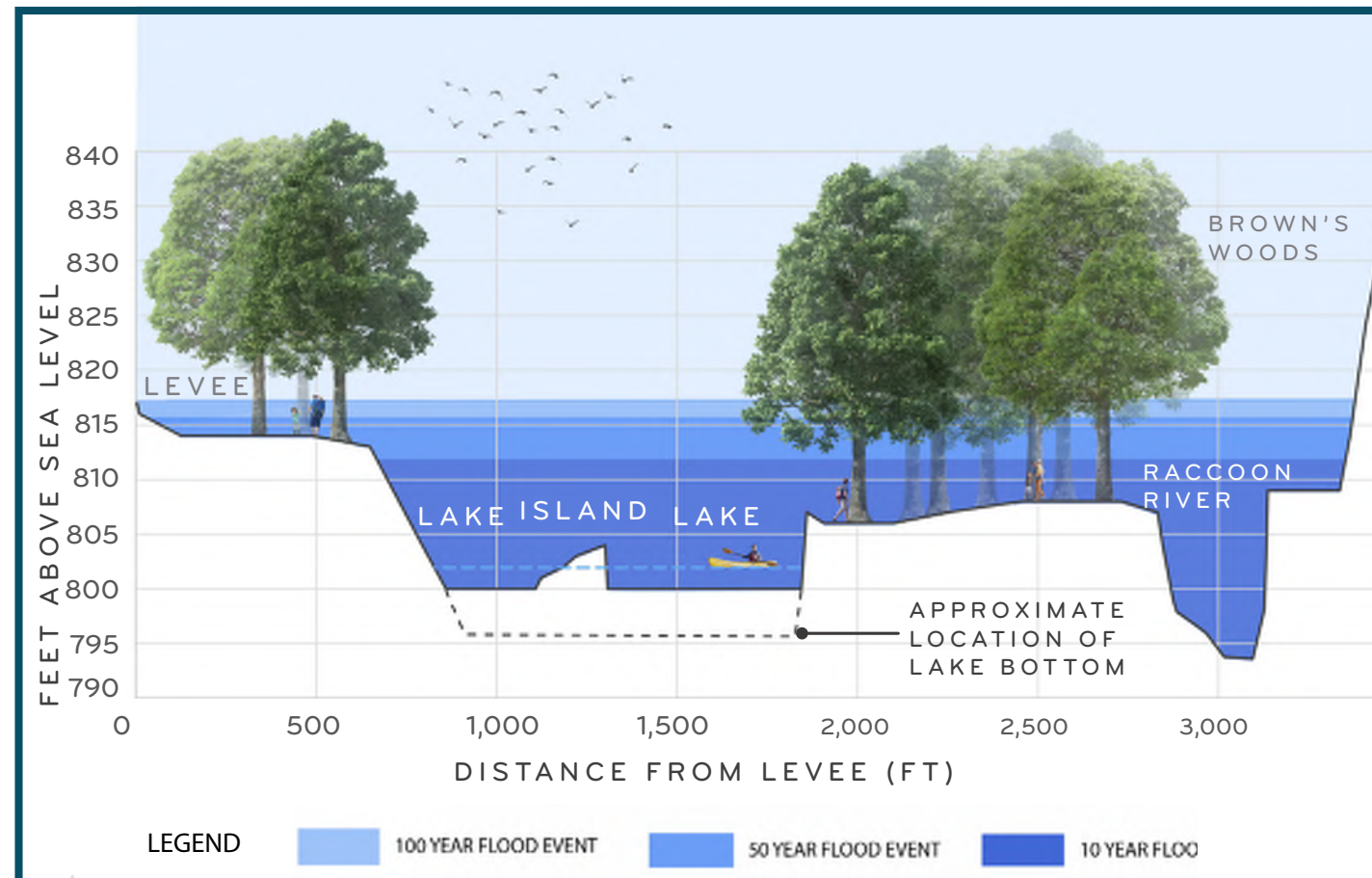
One of the project goals is to increase water recreation. However, increasing river access also poses a challenge for development, because nearly all of the project site is expected to flood during a flood event with a 1% annual change of occurrence.

At the displayed varying flood levels, much of the site is designated as floodplain. This means that when the river is high, all of the planned amenities will temporarily get wet. Recognizing the important role this section of land plays for the watershed enables us to plan for compatible uses within the park.

A permit will need to be submitted and obtained for future construction within the floodplain. The accompanying model will require a precise design and plan set. All designs and recommendations to date have been completed with this goal in sight. In addition to concerns of high water, the integrity and protection of the levee was discussed throughout. Avoidance of habitat for burrowing animals, construction within the levee prism, and appropriate setbacks from the levee were considered during design.

In addition to permitting considerations, the design has been reviewed for concerns of operation and maintenance during and after flood events. The programming has been selected to be an appropriate compatible use and recognizes that clean-up, re-establishing soft paths, and drying time on trails may be necessary after high river events.

SITE SECTION



LAND USE ANALYSIS

Rain on any of the colored parcels shown will eventually move through the project site prior to moving downstream to the Raccoon River. This unique position between the urban environment and the greater river system offers an opportunity to capture and settle pollutants that would have otherwise been mobilized and transported a much greater distance.

LAND USE









The land use in the watershed is shown by color. Single family residential is the greatest by acreage, followed by industrial and open space. Pollutants coming off these parcels are specific to the land use. For example, suspended solids come off of roadways, and more phosphorus comes off of open space and residential lawns. These pollutants move via roadways and underground pipes before outletting to the park's lake, as shown with arrows.

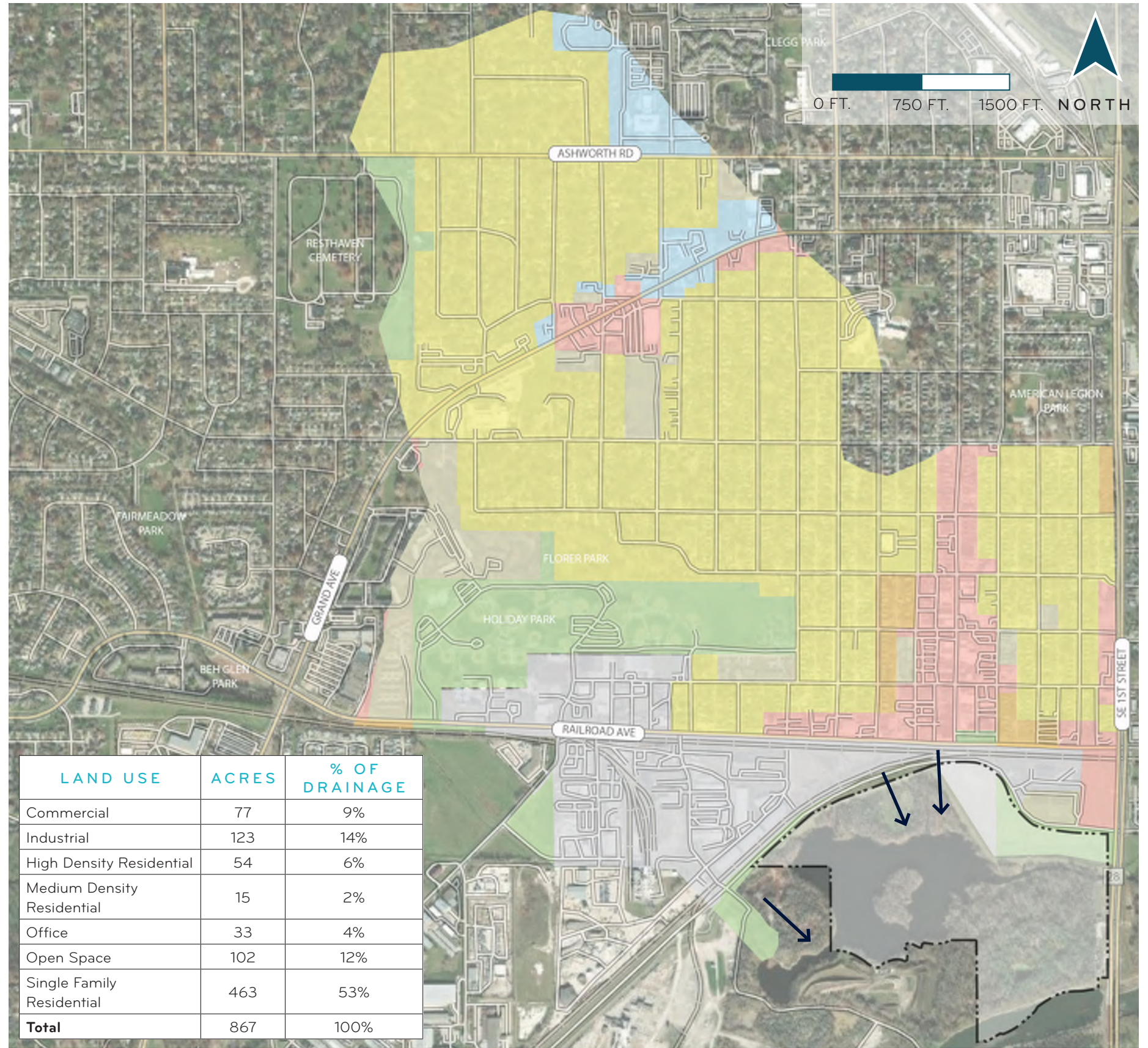
CHANNEL OPPORTUNITIES

Channels connect the pipe outlet to the lake, which poses an opportunity to use a pretreatment channel to slow the flow of stormwater runoff and allow time for pollutants to settle in the channel. This would allow for a designed and managed location to build up and clean out pollutants at the interception point between the urban piped network and the receiving waterbody, the lake. A slower release velocity will also reduce erosion within the lake.

The northeastern portion of the site is on the landward side of the levee. This stormwater basin is used as an interior drainage basin when the river is high and the levee is actively protecting the city from flooding damage. If a rain event occurs over the watershed, the pipe network will direct water towards this storage basin to allow the watershed to drain.

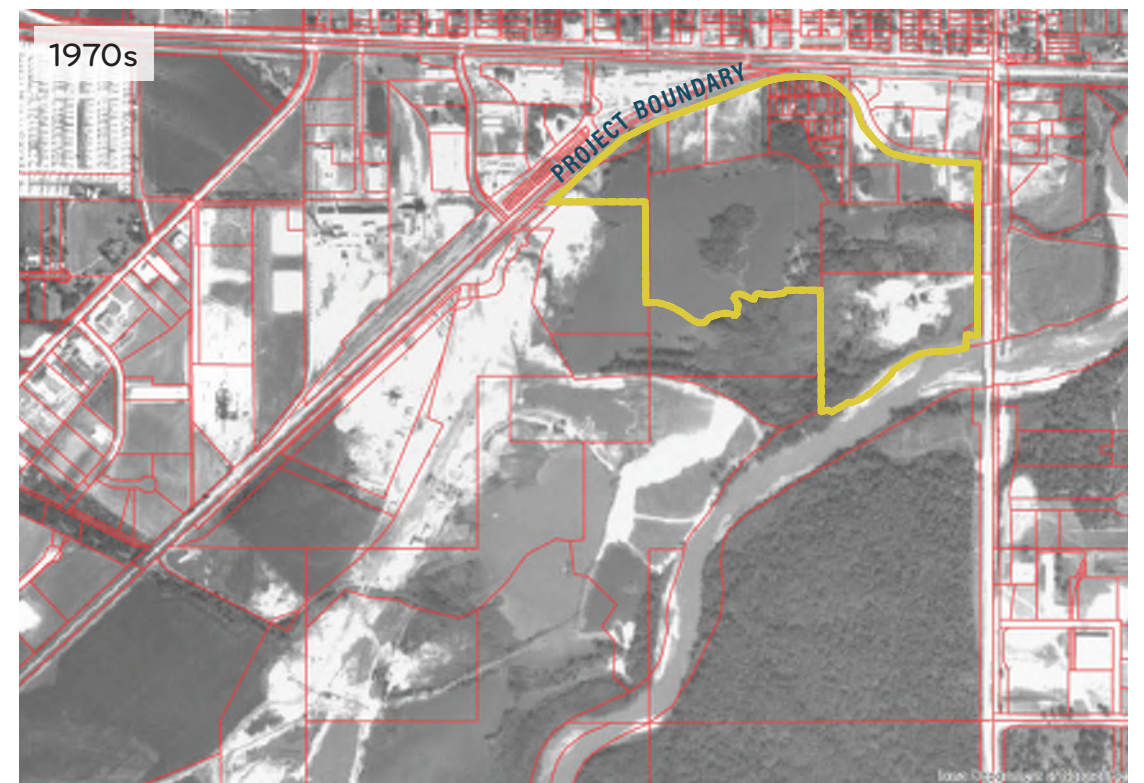
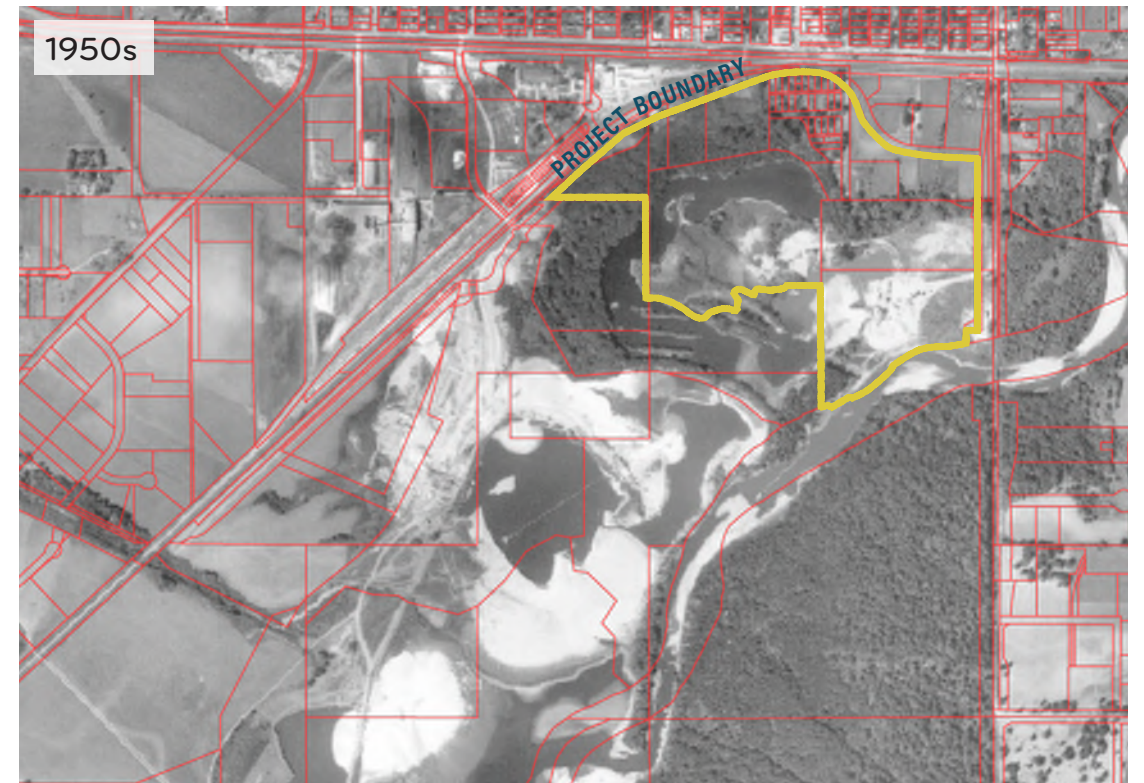
LEGEND

-  AREA OF INTEREST
- LAND USE**
-  COMMERCIAL
-  INDUSTRIAL
-  HIGH DENSITY RESIDENTIAL
-  MEDIUM DENSITY RESIDENTIAL
-  OFFICE
-  OPEN SPACE
-  SINGLE FAMILY RESIDENTIAL



HISTORIC IMAGERY

Each of the aerial images display the progression of the site, from agriculture to a quarry. The 1950s image shows the transformation of row crops to excavated pool. In the 1960s and 1970s, ponds are visible and higher roads bisect the grounds, which can be seen at a raised elevation. The 1970s images shows the shape and boundaries of the lake as they are observed today, complete with the three-acre island in the center.



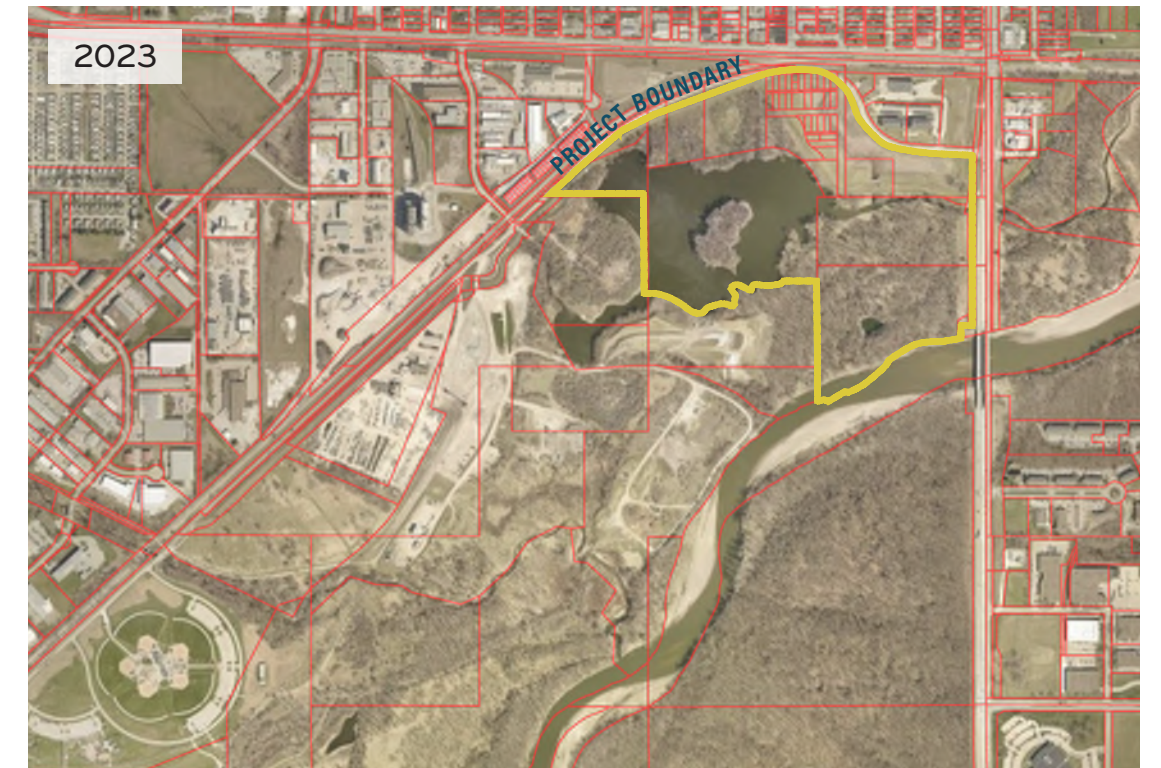
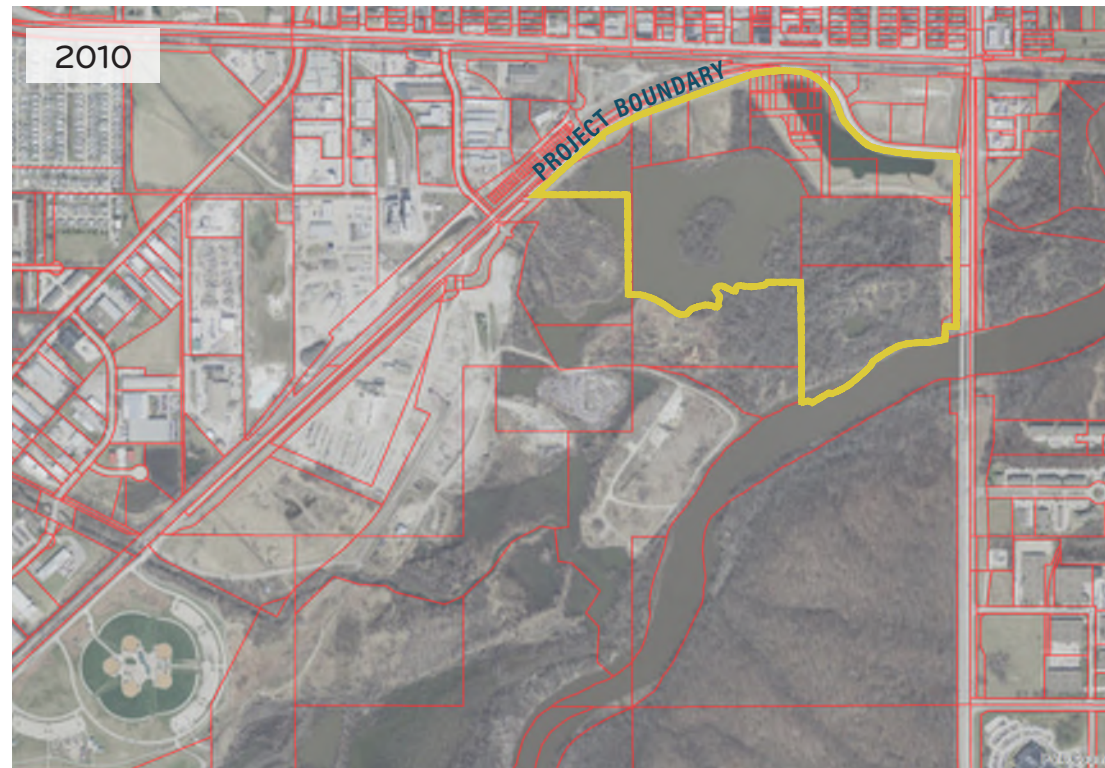
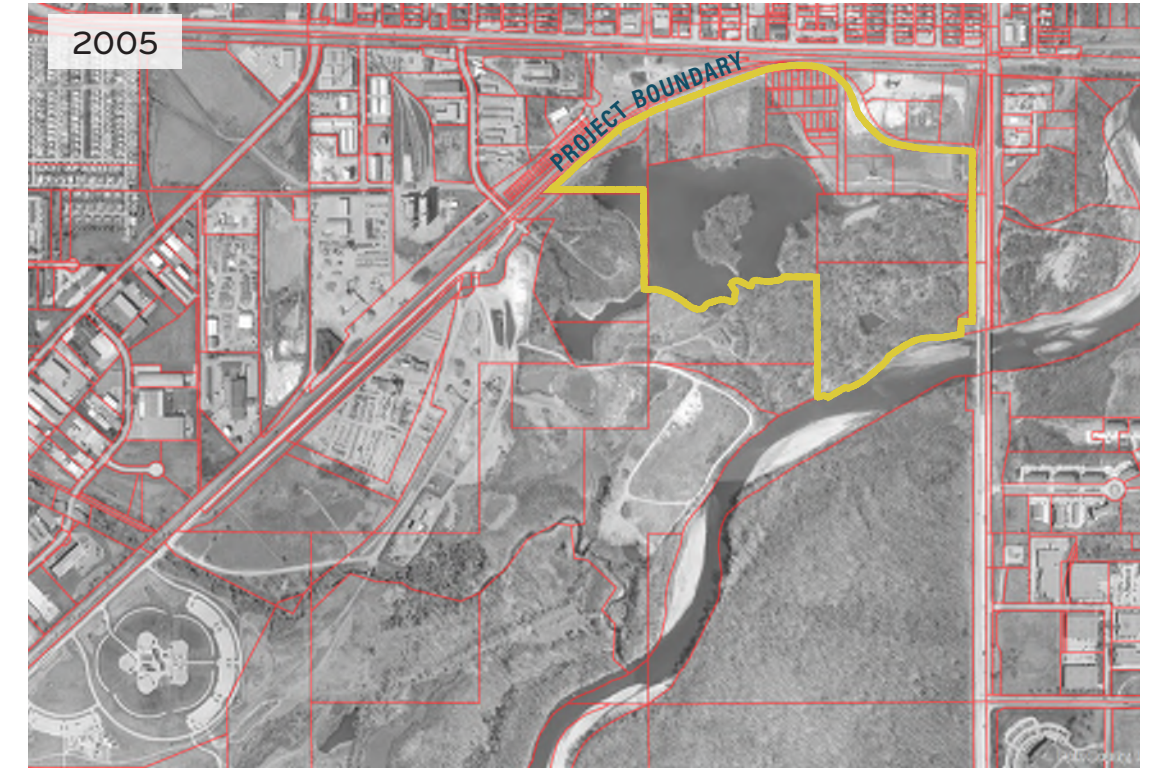
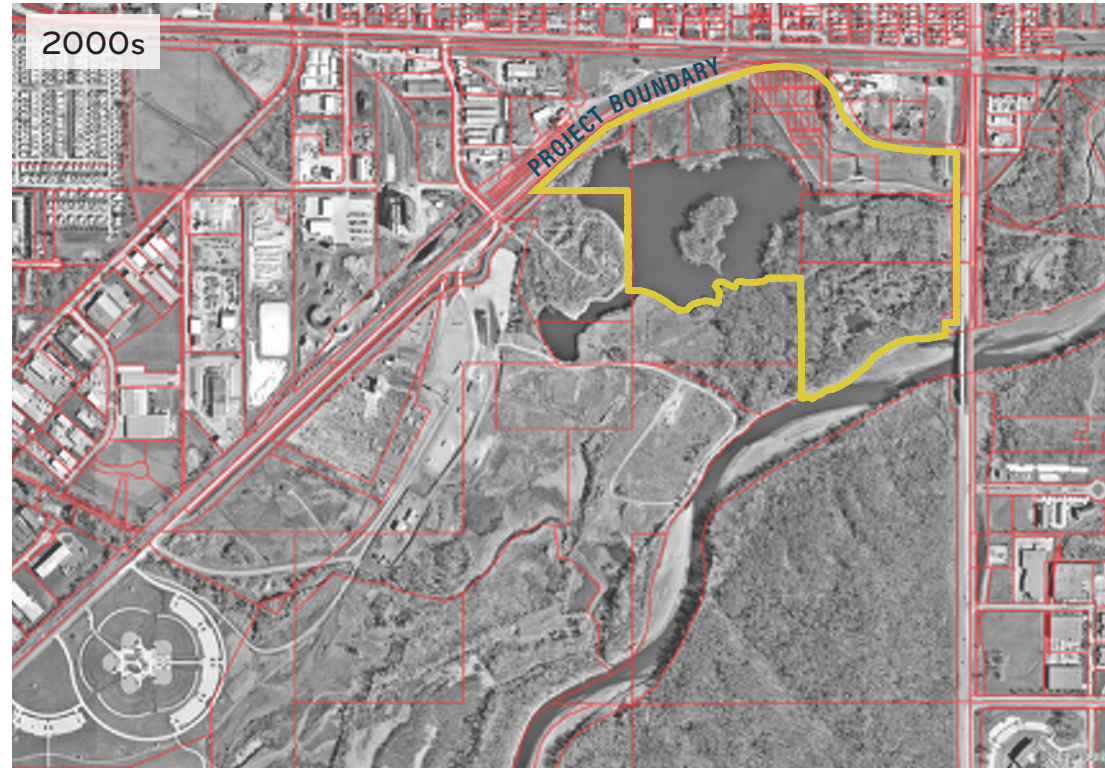
HISTORIC IMAGERY

Continued

By the 2000s, the land use between the Raccoon River Park and the Raccoon River East Greenway has shifted from quarry ponds and returned to vegetated area. The path of Jordan Creek winds towards the Raccoon River. The woodlands within the Raccoon River East Greenway have also expanded and grown.

The levee shown along the northern edge of the park was constructed in 1997. The levee wraps from the Jordan Creek tie-off along Raccoon River, toward the north along Walnut Creek to protect 3,000 residents and a current property value of \$550 million.

There have not been significant changes in land use in the area in the 2000s.



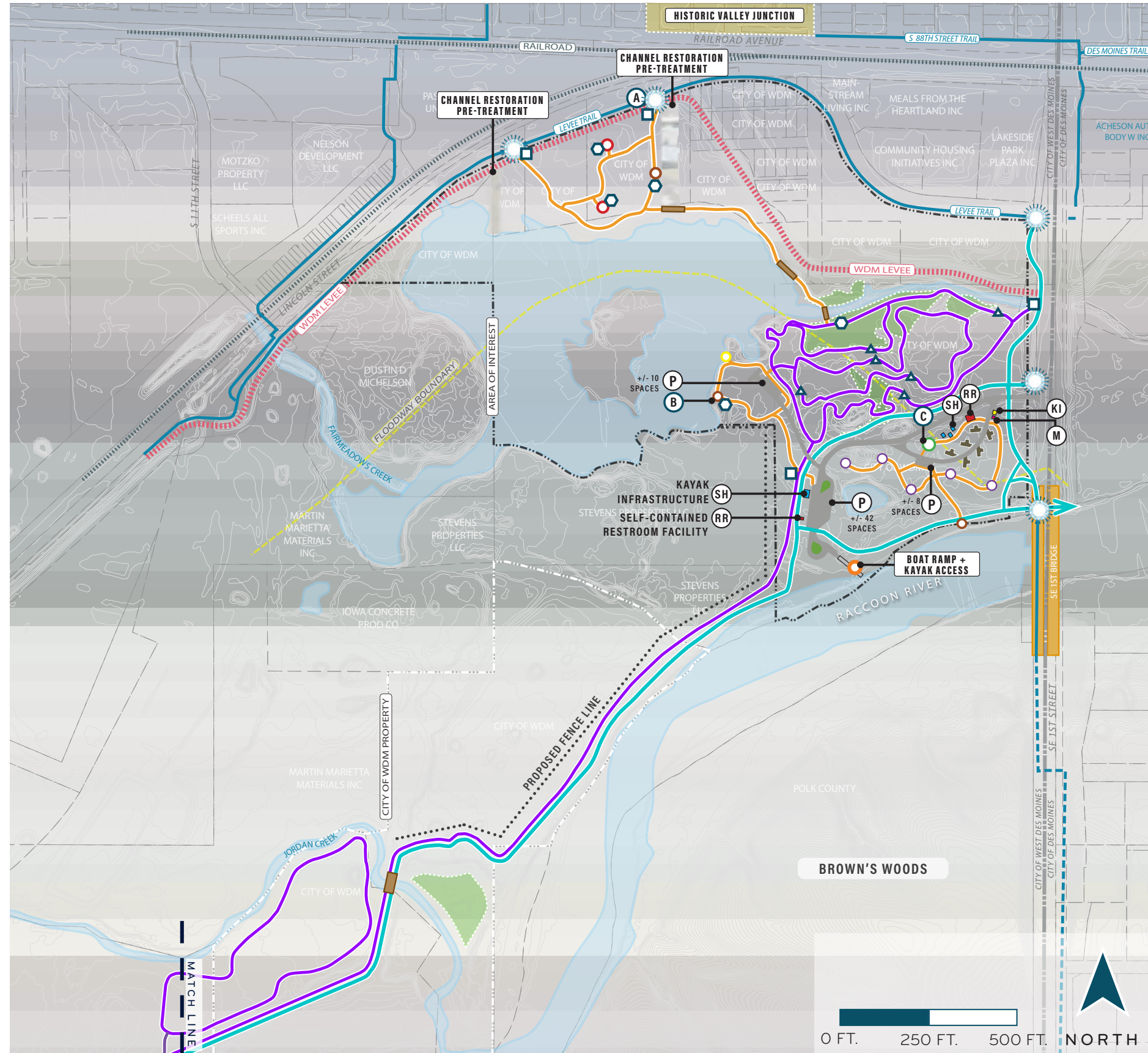
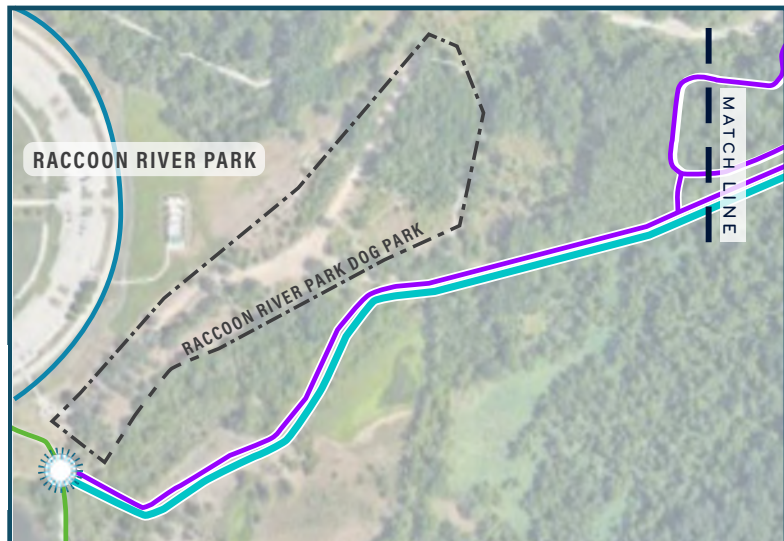
FINAL CONCEPT

The Raccoon River East Greenway aims to establish West Des Moines as an outdoor recreation destination for residents and visitors while offering innovative ways to explore and enjoy the great outdoors. The park preserves land, protects wildlife for future generations, and enhances businesses' ability to attract and retain employees.

The available footprint has been carefully programmed to allow users with unique needs to fully enjoy their activities:

- The northern section of the site allows for passive recreation and wildlife viewing.
- The boardwalk allows for a waterside stroll and dedicated spaces to fish.
- The southern section incorporates bicycle skills obstacles peppered throughout the single-track trail.
- Unique camping sites allow for a new type of adventure camping.
- Kayak access allows for a calm flatwater experience.
- Boat access to the river allows users to plan connections to neighboring points for either longer trips or shorter jaunts through the metro.
- The trail system allows for improved connectivity with a parallel paved multi-use trail and soft single-track trail extending west from the park and connecting in Raccoon River Park.
- The paved multi-use trail connects users north to south, providing a future connection to underpass the Southeast 1st Street bridge.

Detailed programming is shared in the following pages.



LEGEND

- EXISTING PAVED SHARED TRAIL
- EXISTING GRAVEL TRAIL
- FUTURE PHASE PAVED SHARED TRAIL
- PROPOSED PAVED SHARED TRAIL
- PROPOSED SOFT TRAIL
- PROPOSED SINGLE-TRACK TRAIL
- PROPOSED FENCE
- WDM LEVEE
- RAILROAD
- PEDESTRIAN BRIDGE
- EXISTING WETLAND
- PROPOSED TRAIL ACCESS POINT
- BIRD BLIND / BIRDING LOCATION
- TENT + HAMMOCK CAMPING
- NORTH KAYAK ACCESS
- SOUTH BOAT + KAYAK ACCESS
- OVERLOOK
- SITE PARKING
- RESTROOM
- SHELTER
- CAMPING CHECK-IN KIOSK
- MAINTENANCE BUILDING

SITE SIGNAGE

- TRAILHEAD SIGNAGE
- MILE MARKER
- EDUCATION SIGNAGE

PLAY EXPLORATION + ART OPPORTUNITIES CELEBRATING SITE HISTORY

- PROXIMITY TO HISTORIC VALLEY JUNCTION + HISTORICAL SIGNIFICANCE OF SITE
- SITE FLOODING + CHANGE OF WATER ELEVATION
- SITE PAST LIFE: QUARRY MINE

PROGRAMMING | BIKE TRAILS

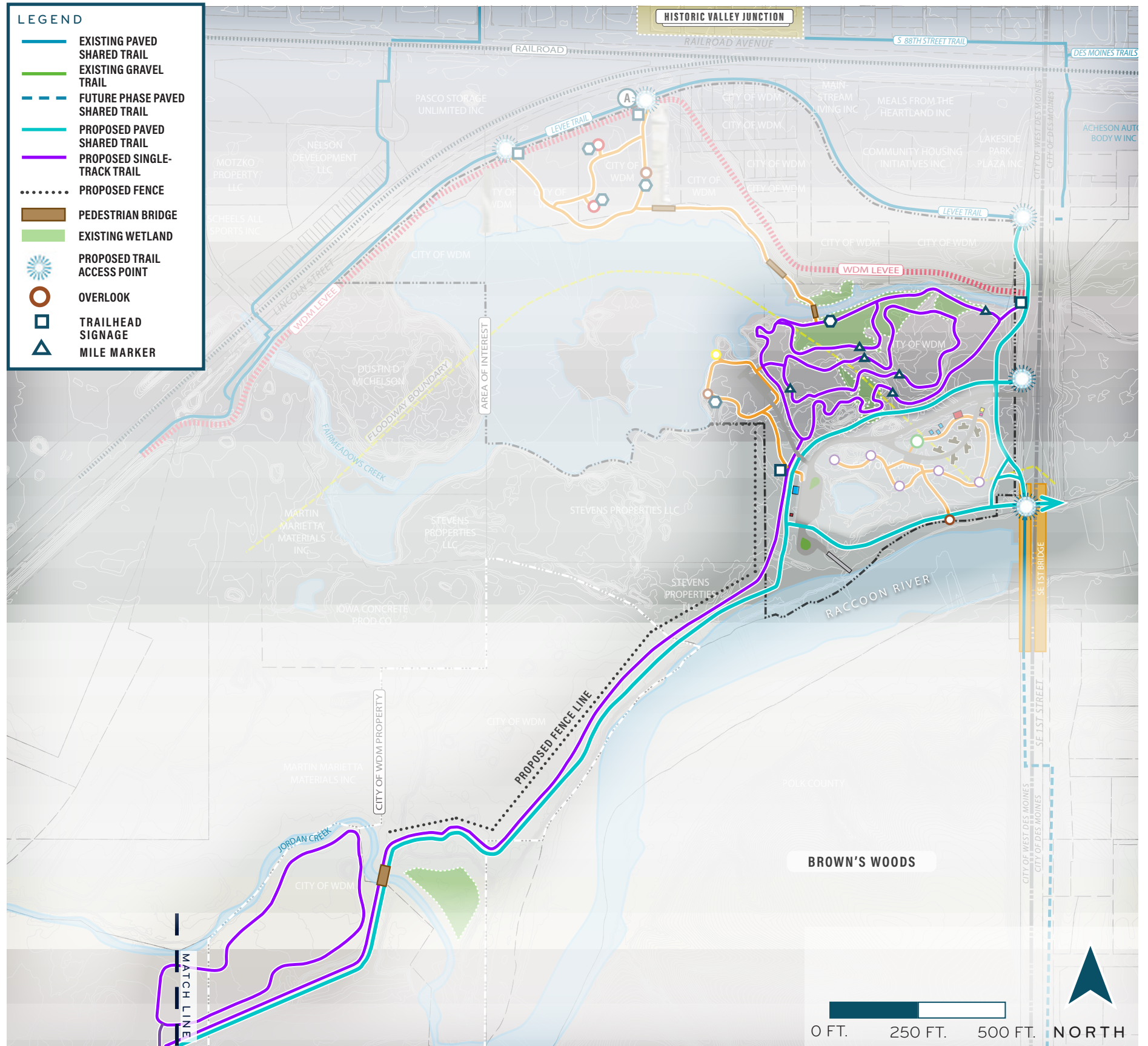
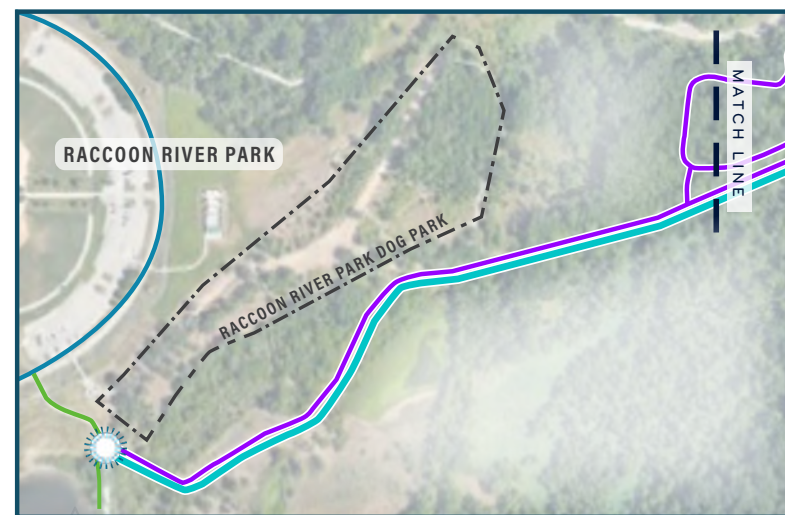
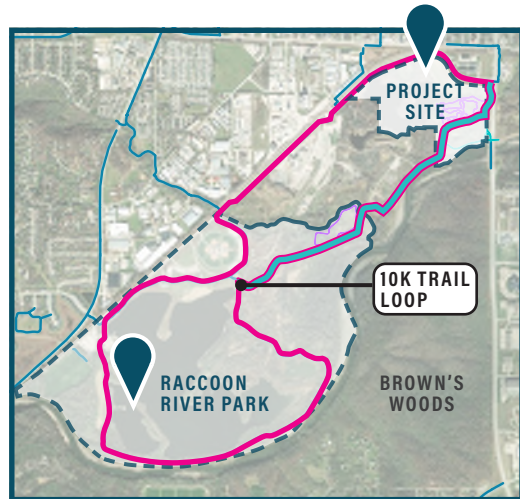
The cycling community was active and present in each stage of community engagement. The program reflects the interest and needs presented in the surveys and open houses.

The proposed trail completes a 10-kilometer loop in combination with the levee trail and the gravel loop surrounding Raccoon River Park, as shown in the inset map. There are two parallel paths—one paved and one earthen. The multi-use trail and the single-track trail allow for different types of bicycles, runners, or cross country skiers to use the critical connection in the greater West Des Moines trail system.

A bridge over Jordan Creek is expected to be an approximately-65-foot crossover.

The single-track course is populated with skills obstacles and can be used as a training park or as a stop between adjacent courses. The course makes use of the available footprint and elevation changes. Floating docks and skinnies are recommended to traverse the delineated wetlands and environmentally sensitive areas. Milemarkers shown as navy triangles denote the distance traveled through the course.

PROPOSED 10K TRAIL LOOP CONTEXT PLAN



PROGRAMMING | BIKE TRAILS

Single-Track Skills Course

TECHNICAL FEATURE: ROCK ARMORING



TECHNICAL FEATURE: WOOD SKINNY



TECHNICAL FEATURE: ROCK SKINNY



TECHNICAL FEATURE: ROCK DROP



SINGLE-TRACK TRAILHEAD



FLOATING DOCK TRAIL



PAVED + SINGLE-TRACK TRAIL INTERFACE



PAVED + SINGLE-TRACK TRAIL INTERFACE



PROGRAMMING | PASSIVE RECREATION

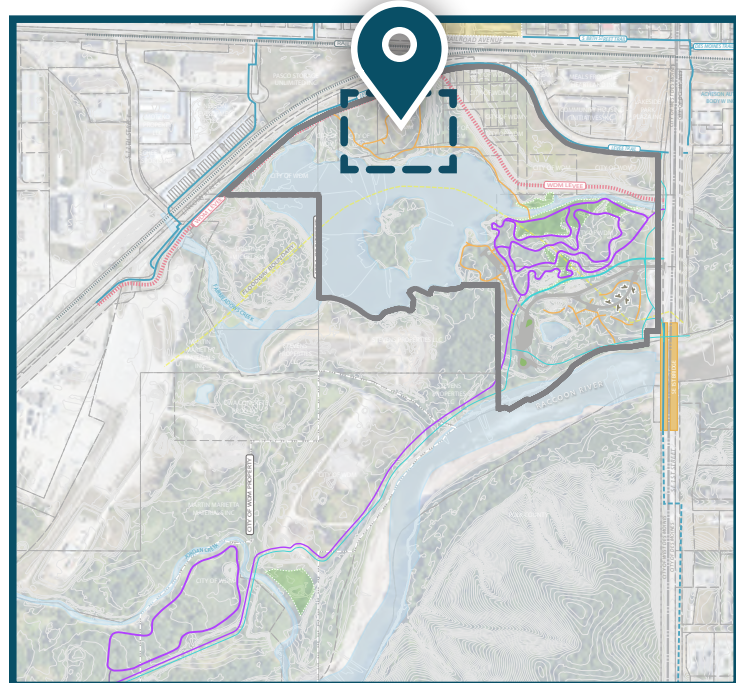
The northern section of the park provides an opportunity users to be immersed in nature, observe wildlife, and take a moment to move slower. The soft trails wind through the woodland stand towards a re-established natural prairie. Nature nooks and bird blinds provide a unique way to observe the wildlife without startling them.

The overlook provides a vantage to observe the pretreatment channel creating pools and settling pollutants from the stormwater runoff on its way to the outlet at the lake's edge. Channel restoration protects from erosion due to higher velocities while slowing the flow of stormwater runoff.

The lakeside boardwalk and trail provide opportunities for fishing and views over the water.

Educational signage honors Valley Junction's history and overlooks the previous area where railroad workers and families resided.

OVERALL SITE PLAN



- WATER FLOW
- TRAILHEAD SIGNAGE
- ◻ EDUCATIONAL SIGNAGE



PROGRAMMING | PASSIVE RECREATION

SOFT TRAILS



NATURE NOOKS + BIRD BLINDS



NATURE NOOKS + BIRD BLINDS



PEDESTRIAN BRIDGE + PIER FISHING



CHANNEL RESTORATION PRETREATMENT



CHANNEL RESTORATION PRETREATMENT



OVERLOOK



OVERLOOK



PROGRAMMING | BOATS

Access to the Raccoon River and the lake allow users to choose their challenge. The lake offers flatwater for kayaking or stand-up paddleboarding. River access also allows for connectivity to plan your paddle adventure.

NORTH KAYAK LAUNCH

Parking spaces are closer to this access point. A turnaround allows users to drive water craft as close to the water as possible before parking their vehicle. A soft trail loop of aggregate-based walking paths connects the parking lot to the kayak launch while providing a scenic view of the lake. These trails provide an accessible route to a diverse range of visitors while reducing the amount of pavement in the area.

ART + SIGNAGE

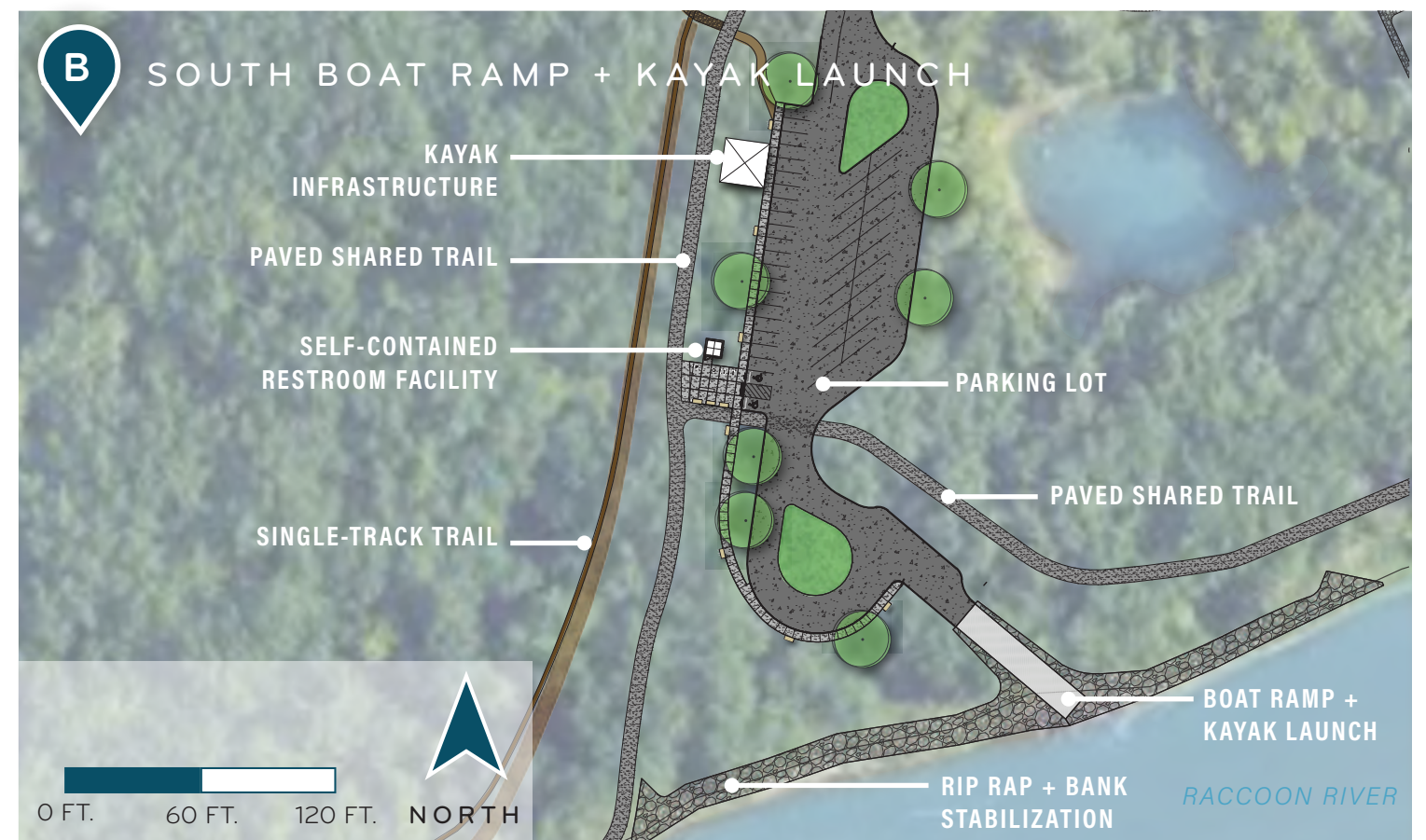
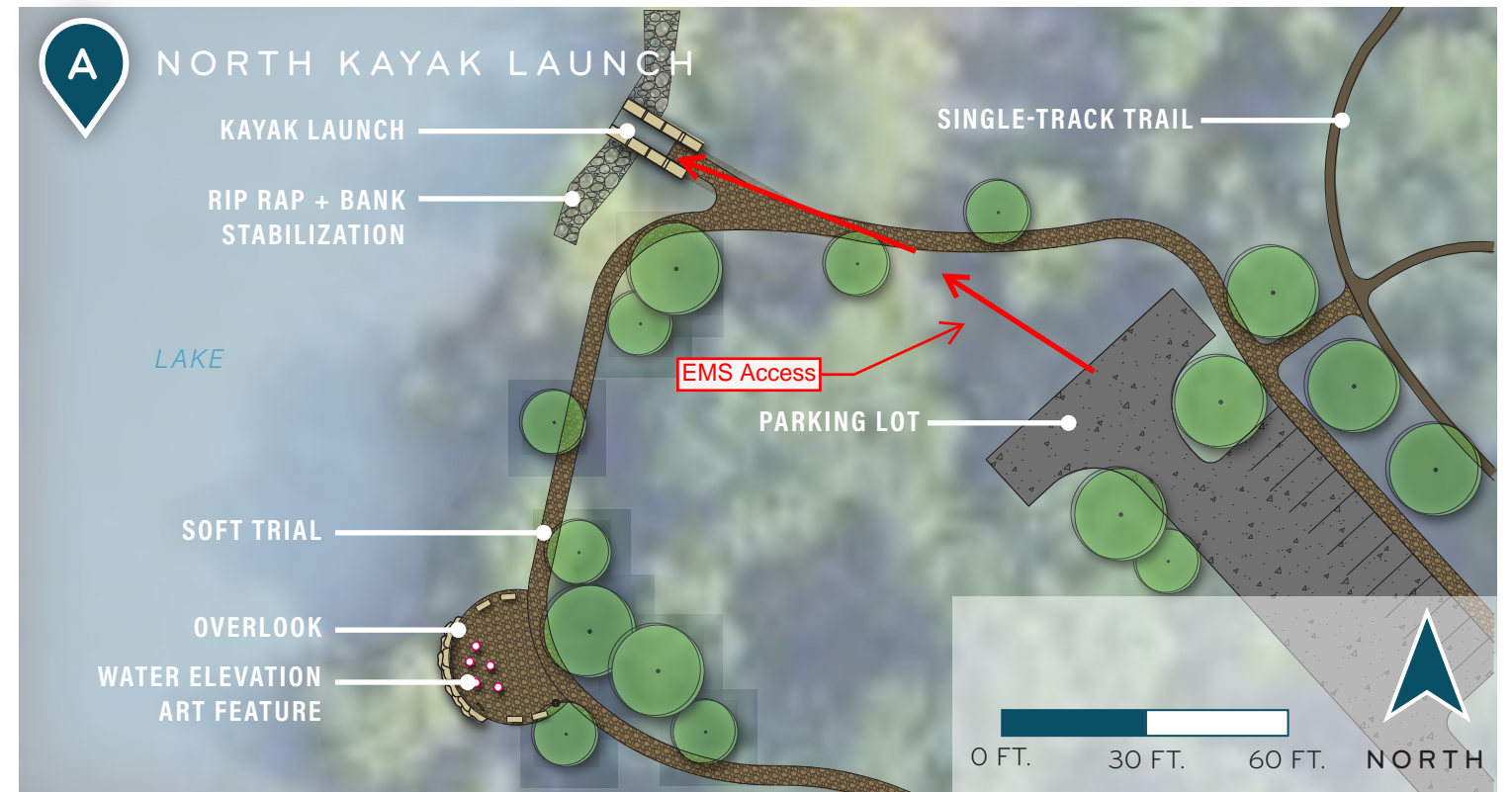
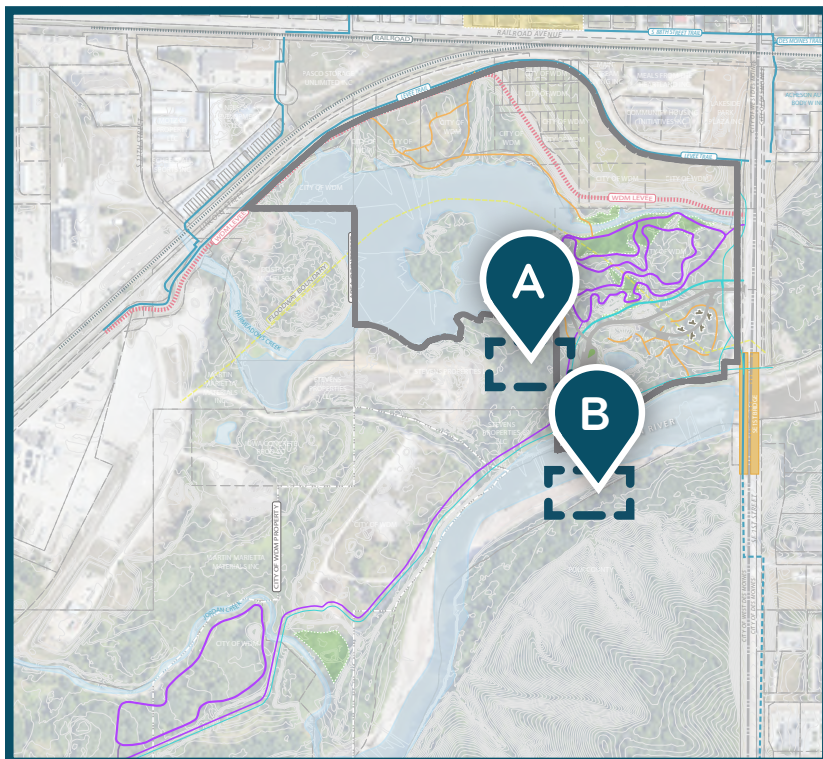
The art installation and educational signage at this location is focused on the behavior of the river and denotes flood heights at this location. The unique flood events are equivalent to the height of each stem of the installation, the scale of which is best understood standing next to it. Educational signage details the importance of the levee and the designated floodway.

SOUTH BOAT RAMP + KAYAK LAUNCH

The parking lot has single stalls and pull through spots for vehicles with trailers. Turnarounds were designed to allow for easy pathways to back watercraft down the paved launch. Restrooms are located adjacent to the parking lot, as well as connection points to soft and paved trails.

The multi-use trail continues along the riverfront to the east towards an overlook and gathering space. Walnut Woods State Park is the nearest water access upstream (approximately 3.75 miles) while Des Moines Water Works park is the nearest water access downstream (approximately 4 miles). This new location allows river boaters additional points and shorter river stretches, making a quick trip possible.

OVERALL SITE PLAN



PROGRAMMING | BOATS

KAYAK LAUNCH



KAYAK LAUNCH



KAYAK LAUNCH



KAYAK LAUNCH



BOAT RAMP + KAYAK LAUNCH



BOAT RAMP + KAYAK LAUNCH



OVERLOOK



SITE AMENITIES



PROGRAMMING | CAMPING

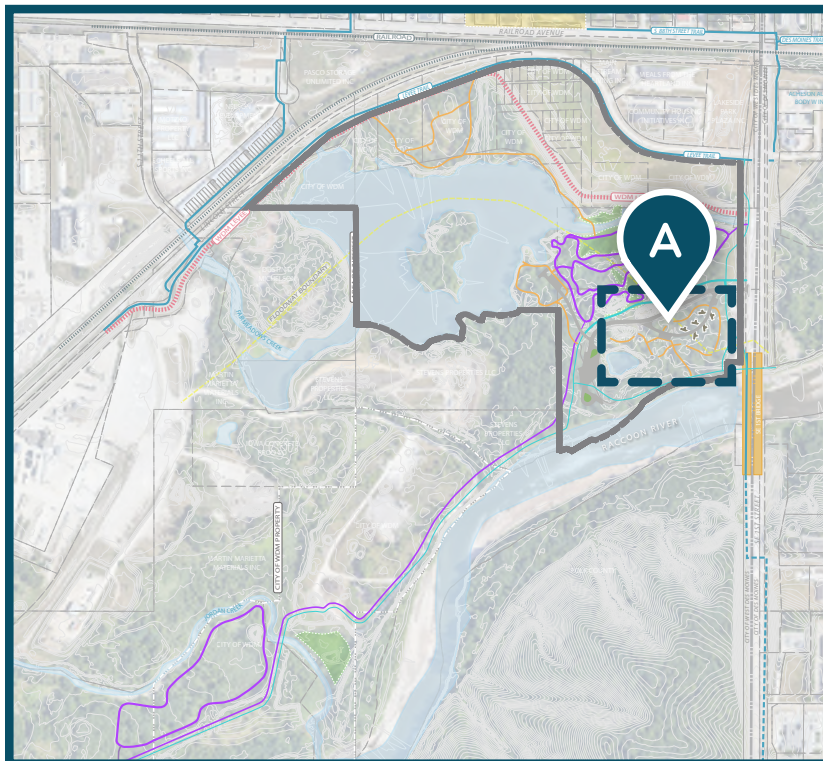
The southern section of the park provides a unique setting for overnight visitors to enjoy the woodland stand and overlook the Raccoon River.

Campers can access the area from 1st Street onto the boat access drive. Vehicle camping spaces are available to pull directly into individual sites. These sites are ideal for tent campers, top rack car tents, and other small-footprint campers. The access drive loops towards a parking lot where campers using dispersed camping locations can park a vehicle before accessing the camp site via soft trail. These sites are best suited for tent camping, hammock camping, and bike touring.

The parking lot is adjacent to the quarry-themed natural playscape, providing access for park goers on a day trip.

Additional facilities in this area include a camping check-in kiosk, a maintenance building, restrooms, and picnic shelters.

OVERALL SITE PLAN



PROGRAMMING | CAMPING

VEHICLE CAMPING



VEHICLE CAMPING



TENT CAMPING + HAMMOCK POSTS



TENT CAMPING + HAMMOCK POSTS



QUARRY-THEMED PLAYScape



QUARRY-THEMED PLAYScape



SHELTERS + SITE AMENITIES



SHELTERS + SITE AMENITIES



PROGRAMMING | PLAYSCAPES + ART FEATURES

WATER ELEVATION ART FEATURE

Much of the planning process for the Raccoon River East Greenway has included the impact and behavior of the Raccoon River. This art installation aims to educate and acknowledge the powerful impact of water.

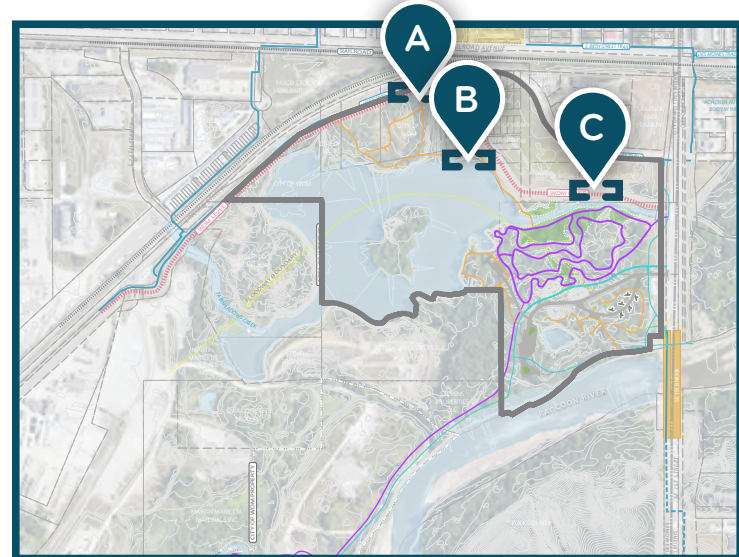
HISTORIC VALLEY JUNCTION ART FEATURE

Historic Valley Junction engages community members to capture history and honor the legacy of the families that once lived where the park now stands. The direction and final concept of the art and education dedicated to the history has not yet been decided. Future discussion and collaboration will ensure the art installation is creative, engaging, and educational.

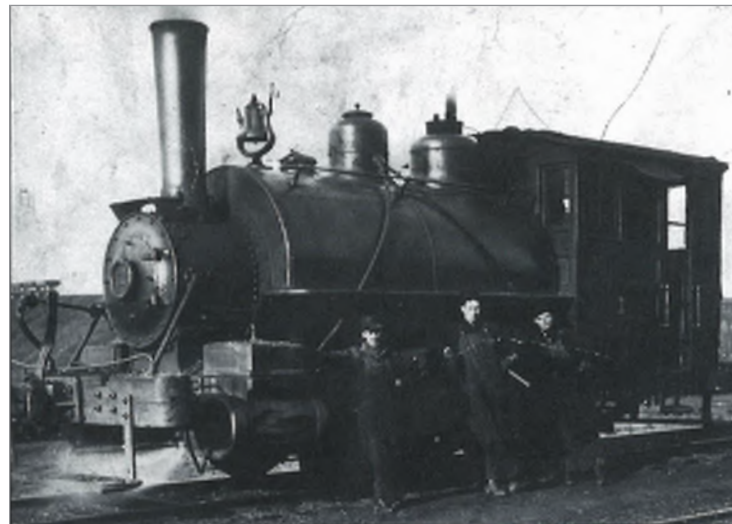
QUARRY-THEMED PLAYScape

The park holds the history of actions taken that have shaped and reshaped the land. The quarry transformed the agricultural land created the deep pool that would eventually transform to the woodland stand and lake. In recognition of the industry that led to the current features of the lake, the playscape uses natural materials to engage and large boulders to climb.

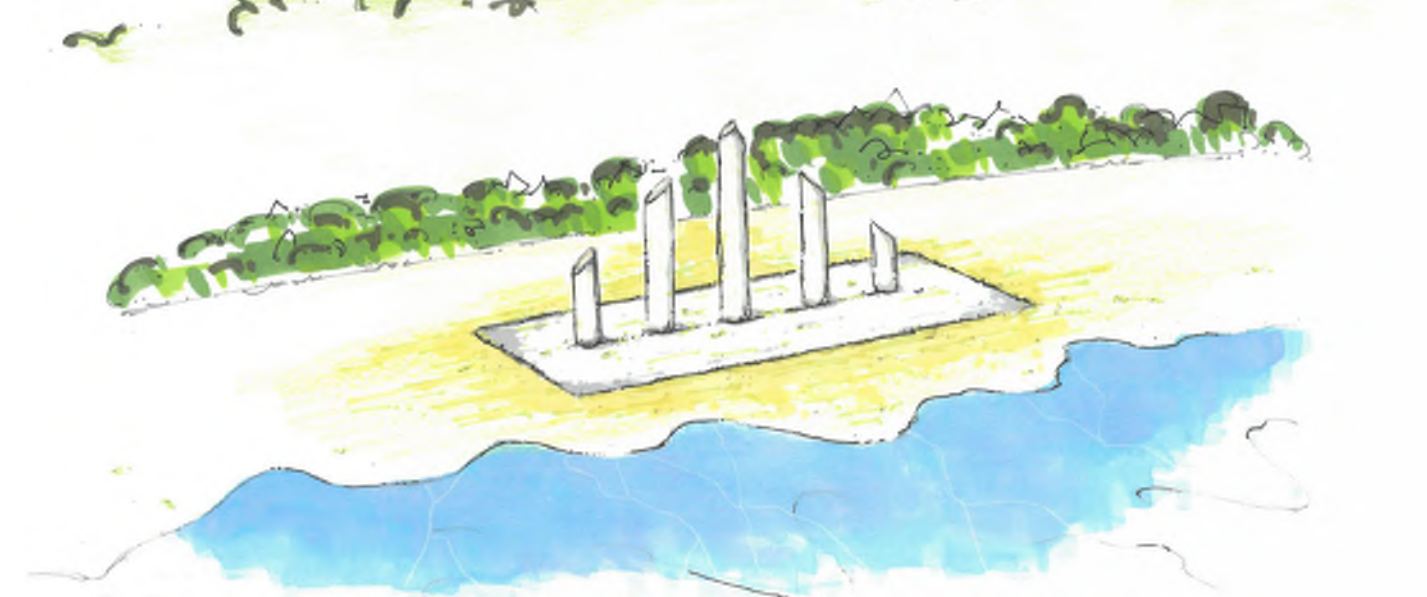
OVERALL SITE PLAN



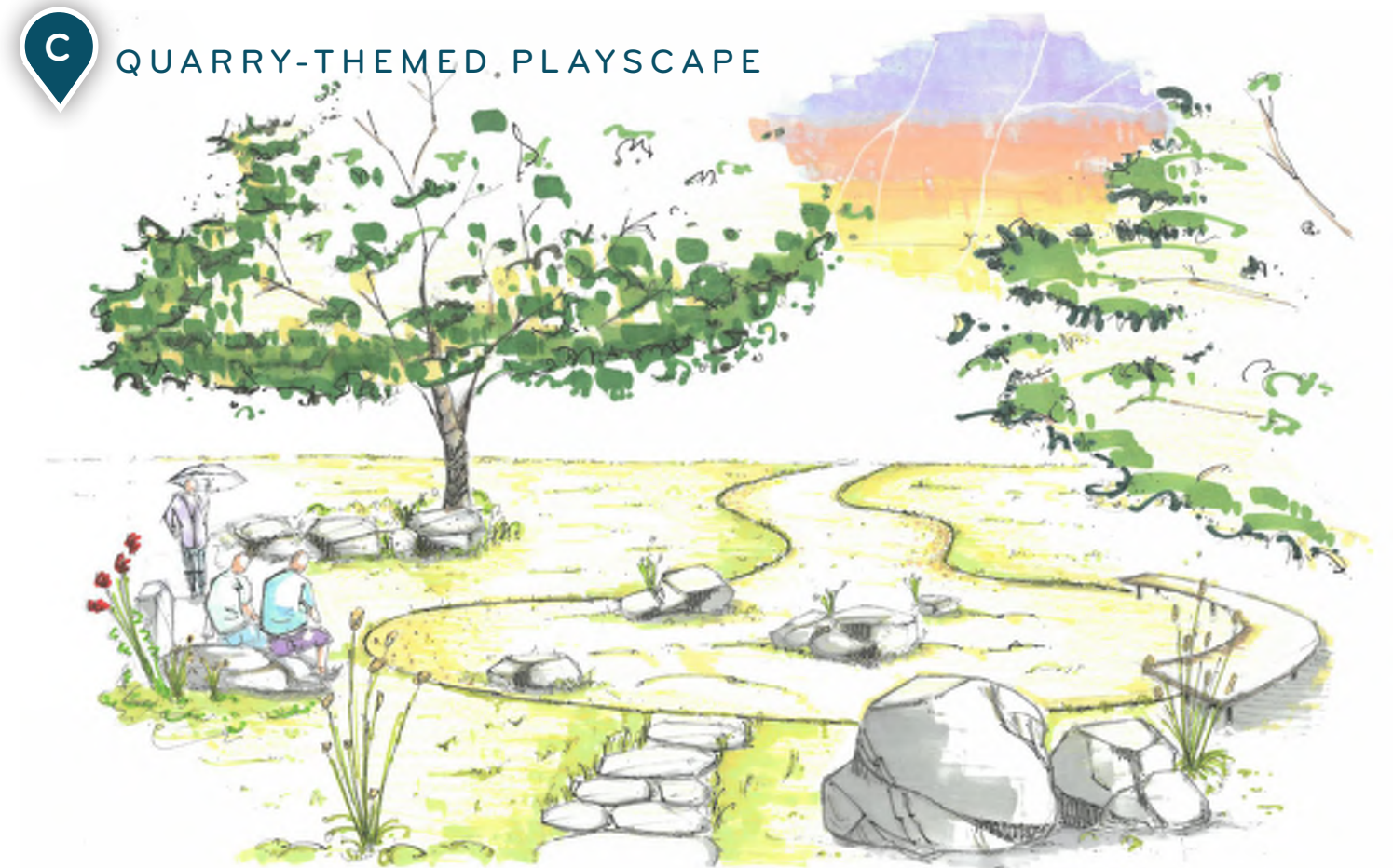
A HISTORIC VALLEY JUNCTION ART FEATURE



B WATER ELEVATION ART FEATURE



C QUARRY-THEMED PLAYScape



PROGRAMMING | WAYFINDING

BRANDING

Extending the Central Iowa Trails system, wayfinding signage and branding along the shared trails and single-track course would follow Central Iowa Trails guidelines. Placement of signage is based on site landmarks, distances, and other features that guide visitors safely across the site's unique terrain and programming.

EDUCATION SIGNAGE

Unique and environmentally-significant areas onsite offer educational opportunities. For example, the story of water pollution entering the site and being captured through the channel restoration pretreatment can teach visitors the significance of the project site location and the impact of treating pollutants and sediments before entering the Raccoon River and beyond.

In addition, designated bird watching locations can be accompanied by signage that explores the site's wildlife and identification of flora and fauna. Signage that explains the thought and consideration behind the planning process can tell the story of wetlands' ecological function and their role in water quality and infiltration of pollutants.

Central Iowa Trails Signage



Education Signage



Information Hub



Off-Trail Directional Sign

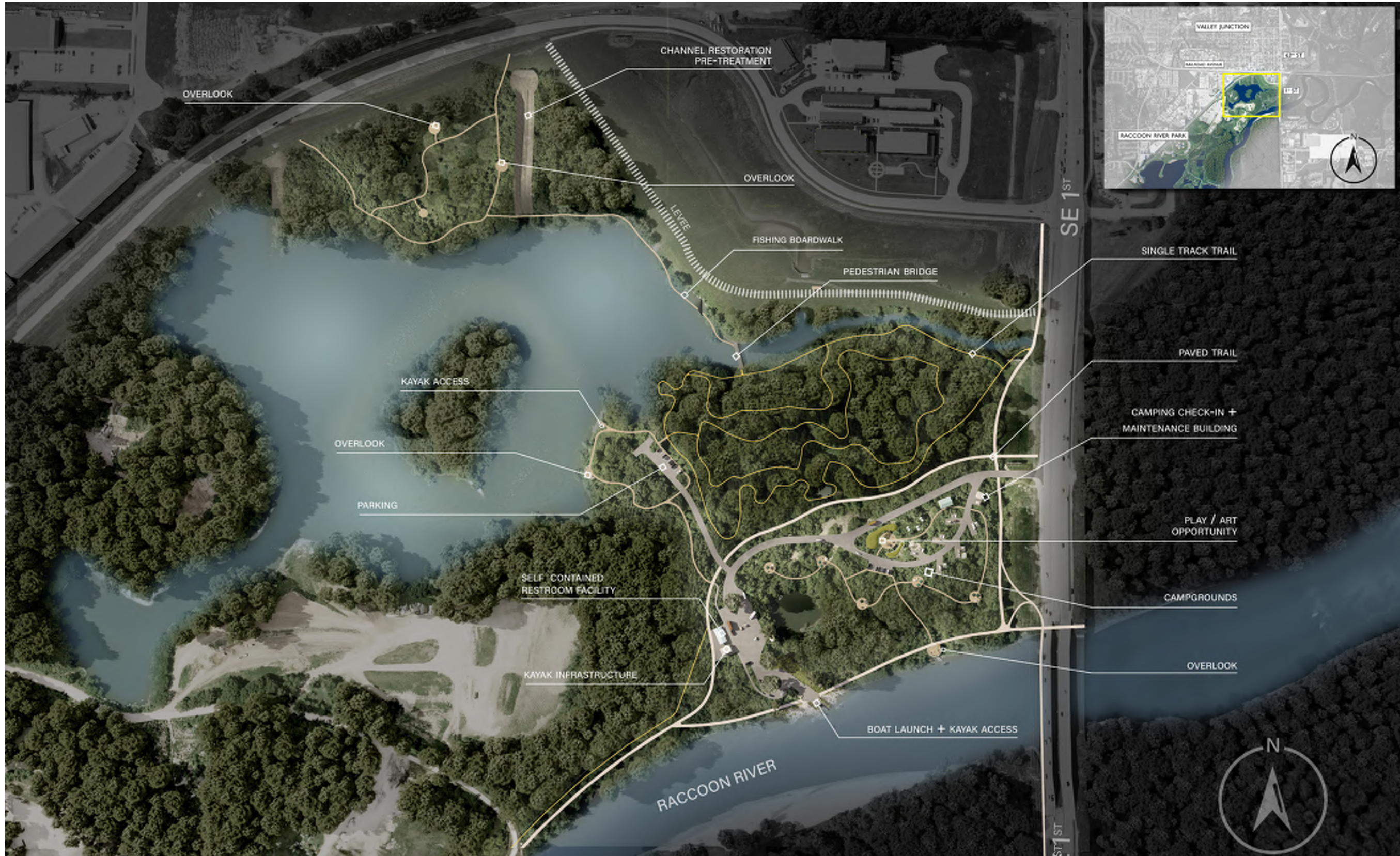


Trail Marker



PROJECT VISUALIZATIONS

PROJECT SITE PLAN



SITE OVERVIEW



BOAT RAMP PERSPECTIVE

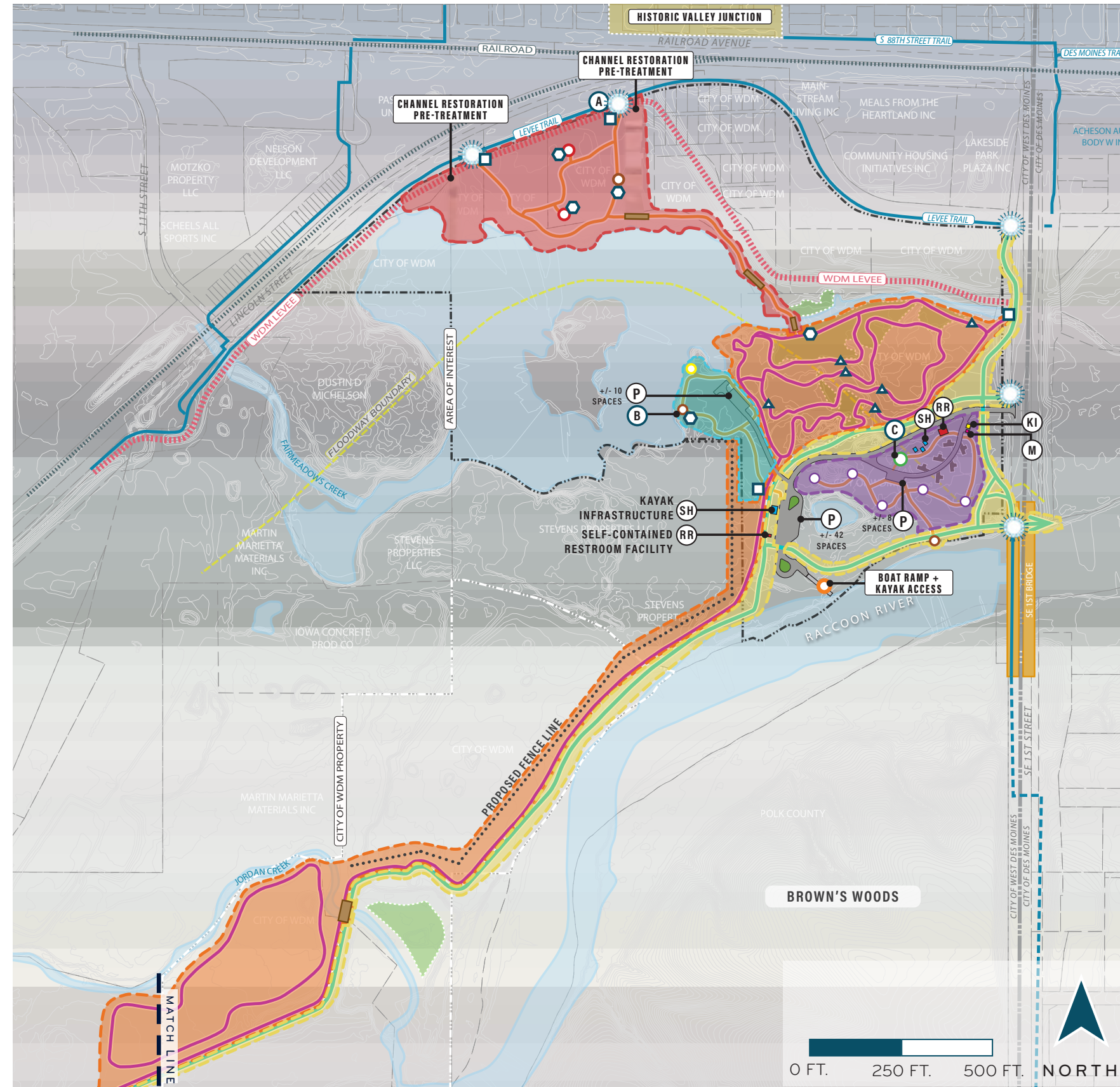


PROJECT BUDGET

PRELIMINARY COST ESTIMATE

- 1. NORTH IMPROVEMENTS: PASSIVE RECREATION | \$1,700,000
- 2. SINGLE-TRACK COURSE | \$710,000
- 3. SHARED TRAIL EXTENSION | \$1,100,000
- 4. KAYAK WATER ACCESS WITH PARKING LOT | \$850,000
- 5. CAMPGROUND + NATURE PLAYScape | \$1,500,000*

*DOES NOT INCLUDE UTILITY CONNECTION



LEGEND

- EXISTING PAVED SHARED TRAIL
- EXISTING GRAVEL TRAIL
- - - FUTURE PHASE PAVED SHARED TRAIL
- PROPOSED PAVED SHARED TRAIL
- PROPOSED SOFT TRAIL
- PROPOSED SINGLE-TRACK TRAIL
- PROPOSED FENCE
- ||||| WDM LEVEE
- ||||| RAILROAD
- ▬ PEDESTRIAN BRIDGE
- ▬ EXISTING WETLAND
- ☀ PROPOSED TRAIL ACCESS POINT
- BIRD BLIND / BIRDING LOCATION
- TENT + HAMMOCK CAMPING
- NORTH KAYAK ACCESS
- SOUTH BOAT + KAYAK ACCESS
- OVERLOOK
- SITE PARKING
- RESTROOM
- SHELTER
- CAMPING CHECK-IN KIOSK
- MAINTENANCE BUILDING

SITE SIGNAGE

- ▣ TRAILHEAD SIGNAGE
- ▲ MILE MARKER
- ⬡ EDUCATION SIGNAGE

PLAY EXPLORATION + ART OPPORTUNITIES CELEBRATING SITE HISTORY

- Ⓐ PROXIMITY TO HISTORIC VALLEY JUNCTION + HISTORICAL SIGNIFICANCE OF SITE
- Ⓑ SITE FLOODING + CHANGE OF WATER ELEVATION
- Ⓒ SITE PAST LIFE: QUARRY MINE



