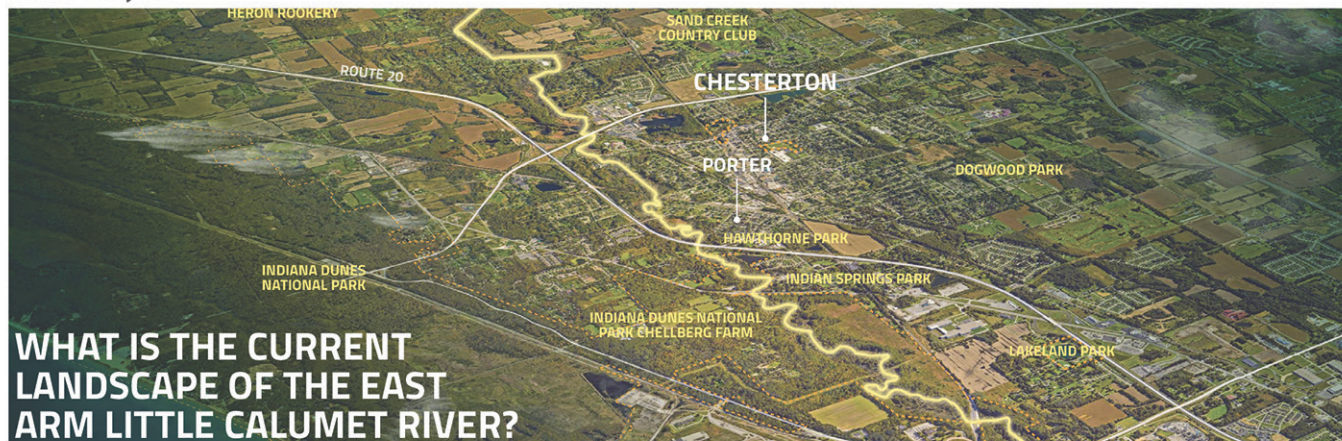




East Arm Little Calumet River Master Plan, IN

Site Analysis



FRAMEWORK FOR POSITIVE CHANGE

HOW CAN WE INCREASE THE PUBLIC'S AWARENESS OF THE VULNERABLE ECOSYSTEMS ALONG THE COAST OF INDIANA?

Sustainable and low-impact development is going to become a priority as we move towards understanding the role of the waterway in the community landscape. Identifying techniques and methods to which local and state municipalities can utilize sustainable development practices will not only address the potential impacts of the natural landscape but also consider the quality of life and socio-cultural fabric of the community. This opportunity for green and sustainable development will inevitably catalyze development around the Indiana Dunes National Park. The waterway and access points along the river will generate tourism-based economic development opportunities, having a spillover impact on the surrounding communities.

ANALYSIS METHODS

1. DEVELOPED INFRASTRUCTURE

Take inventory of existing development in the area, and identify the various types. Recognize low-to-high development in and around communities.



2. AGRICULTURE + FORESTED AREAS

Explore where the trail intersects with existing communities and access points. Identify what structures need to be utilized to safely access trailheads, access points, and amenities.



WAVERY ROAD TO CHESTERTON TRAIL CONNECTIONS



OPPORTUNITIES

- Major Neighborhood/Community Connection Node (E)
- Major Park Connection Node (E)

CONSTRAINTS

- Existing Pedestrian Bridge at Waverly Road Intersection needs Realignment (E)
- Existing Trail Systems lack appropriate access and need improvements to new site (E)

3. TRAIL SYSTEMS OVERLAY

Overlay trail networks in comparison to highest density land use development, to determine what land use is located to proximate to the systems.



4. LAND USE DEVELOPMENT OPPORTUNITY

Identify areas of highest concern and needs within the region to connect the trail network and land development planning. Focus on habitat and green areas due to concerns and potential loss of site.



INDIANA DUNES HERON ROOKERY AND BRUMMITT ROAD TRAILS

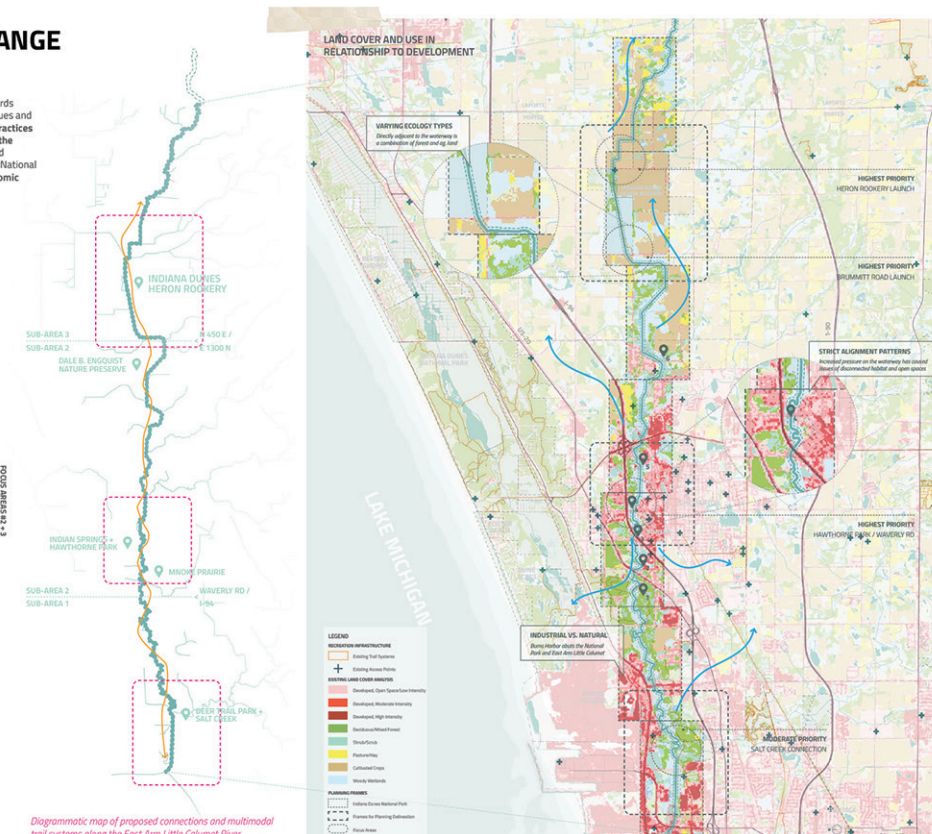


OPPORTUNITIES

- Major Habitat and Green Space Connection Node (E)
- Major Park Connection Node (E)

CONSTRAINTS

- Existing portion of the river needs bighorns and debris removed to clear waterway (E)
- Existing Trail Systems lack appropriate access and need improvements to focus area (E)

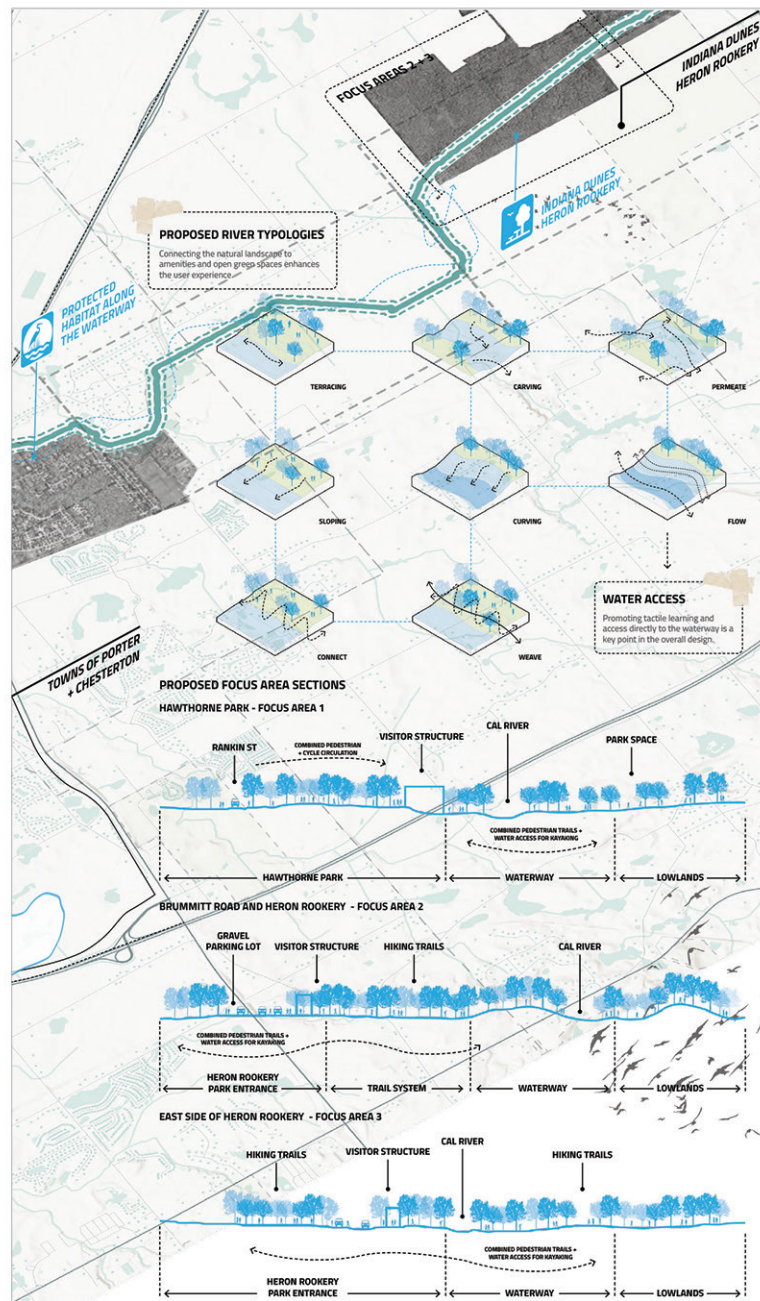
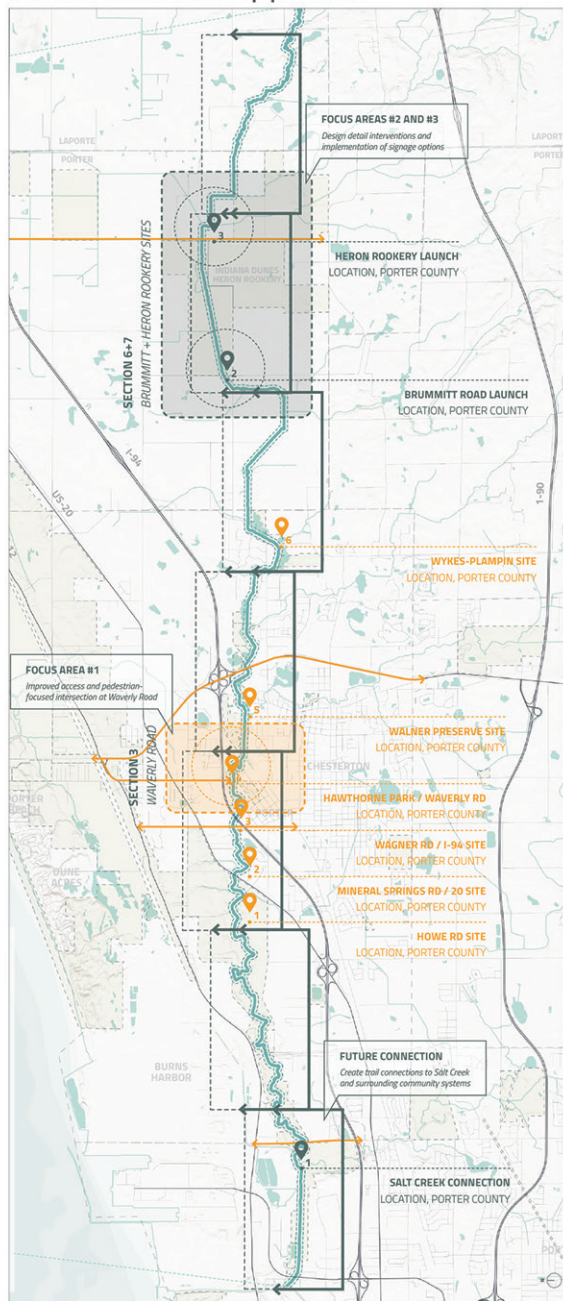


Diagrammatic map of proposed connections and multimodal trail systems along the East Arm Little Calumet River.



East Arm Little Calumet River Master Plan, IN

Focus Areas and Approach





East Arm Little Calumet River Master Plan, IN

Hawthorne Park and Educational Signage

INTERACTIVE INFOGRAPHIC #1
OPTION 1 - EDUCATIONAL SIGNAGE + CHILDREN'S ACTIVITY

WYKES-PLAMPAI NATURE PRESERVE
SHELBY-HUNTSVILLE TRAIL

Identify wildlife habitat and natural resources. Explore the preserve and learn about the importance of protecting natural resources. Discover the importance of water quality and how it affects our lives.

Maple Grove and Old Orchard are two of the many natural areas in the preserve. Explore the preserve and learn about the importance of protecting natural resources. Discover the importance of water quality and how it affects our lives.

TOWN OF OXFORD, PORTER COUNTY

WHAT DO YOU SEE?
EAST ARM LITTLE CALUMET RIVER

The first wildlife preserve created in Indiana is a state of 400 acres in the heart of the city. The preserve is a beautiful area with many different types of trees and plants. It is a great place to go for a walk and enjoy nature. The preserve is a beautiful area with many different types of trees and plants. It is a great place to go for a walk and enjoy nature.

WILDLIFE CHECKLIST

- Green Frog
- Common Noddy
- Ring-billed Gull
- Blue Jay
- Starling
- Green Heron
- American Coot
- Kingfisher
- Osprey
- Great Egret
- American Osprey
- Virginia Opossum

WHAT ANIMALS DO YOU SEE?
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EXPLORE MORE.

CHILDREN'S INFOGRAPHIC

FIND A WAY TO GET YOUR STICKERS.

WAYFINDING + SIGNAGE

DESTINATION SIGNAGE - OPTION 1

↑ Destination Name
1.1 MI

INFORMATIONAL SIGNAGE - OPTION 1

EAST ARM LITTLE CALUMET RIVER
LOCATION NAME HERE
PROGRAM / PARK HERE

A PROJECT OF / PROJECTO DE
Organizational Name Here
Line Text If Needed

MANAGED BY / ADMINISTRADO POR:
Organizational Name Here
Line Text If Needed

Call 911 for emergencies. Clave
911 para emergencias.
Número de Teléfono: 911 XXX-XXXX

Porter County, Indiana

COMPACT SIGNAGE

EAST ARM LITTLE CALUMET RIVER
1.000

MILE MARKERS

EAST ARM LITTLE CALUMET RIVER
5.5
MILE MARKER HERE

EAST ARM LITTLE CALUMET RIVER
1.000
MILE MARKER HERE

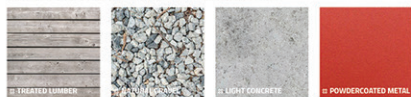
HAWTHORNE PARK THROUGH WAVERLY ROAD INTERSECTION

TRAIL CONNECTIONS + TIES INTO HAWTHORNE PARK

The first intervention for this site was the implementation of a parking lot, mainly due to the lack of access and ability to pull off from Waverly Road. This new parking area would be composed of gravel, allowing for enough space for parking to access the trailhead and be lighter on the landscape. The proposed trail system through Hawthorne Park and around the East Arm Little Calumet River is a combination of soft surface (earth) and boardwalk trails, connecting various amenity and access points in the area. These trails will lead to an ADA-accessible EZ Dock kayak launch, allowing paddlers to access this key point along the river.

SITE MATERIALITY

Materials chosen for the site will be composed of low-impact, affordable materials to accommodate accessibility along the waterway. These materials will also have a specific color palette that complements each other, making the space feel comfortable and inviting. When considering materials for accessibility, they need to recognize the spectrum of people's needs relating to their senses and perception of the designed spaces.



SITE FURNISHINGS

The site furnishings for the Hawthorne Park and Waverly Road trailhead point will provide a variety of programming activities ranging from hiking and walking to picnicking and kayaking. These furnishings include educational and interpretive signage, boardwalks, durable picnic tables, and the EZ ADA Dock set up along the river for easy and safe access. In combination, these furnishings accommodate all visitors' and individuals' needs.



Student Project

By: David Armbruster



NPS RTCA

RIVERS, TRAILS & CONSERVATION
ASSISTANCE PROGRAM

www.nps.gov/rtca

Client: Gary Parks

Partners:

Advisors: Purdue - Aaron Thompson



2020 Indiana ASLA Stu-
dent Merit Award

Gary Parks: Updating Public Perception, IN



Gary Parks: Updating Public Perception, IN

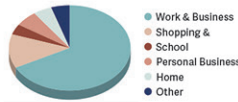
Site Analysis

INFLUENCING SOCIAL PERCEPTION

When crime, vacancy, and depopulation define a city in the public eye, it will surely be cut off from its neighbors. For Gary, being cut off from neighbors means that vital links to natural resources have not only been forgotten, but fought against. Nearby communities are actively keeping Gary's residents isolated, fearing what might happen if "those people" are allowed to walk through their backyards. Perception of Gary is poor enough that few outsiders come to visit the city, and opportunities to positively influence this perception are few and far between. The South Shore line, however, hauls commuters, families, and weekend explorers right through the heart of Gary, providing an unparalleled chance to reach neighbors. Three parks, positioned right along the rail, have the power to transform the public perception of creativity, vitality, and play within Gary. Currently, however, they corroborate notions of insecurity with towering fences, jungles of overgrown plants, and loads of trash. They are forgotten, unknown and unknowable. Because they don't support it and don't show it, life in Gary is invisible to the passerby. Each time a commuter rolls by vacant parks, Gary loses a chance for financial investment, recreational visitors, and invitations to come and enjoy the retail and nature in neighboring communities, further isolating the city from the life around it.

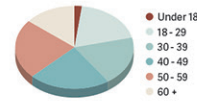
8.5K Average number of daily South Shore Line riders.

REASON FOR TRAVEL



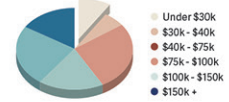
\$30K Average income of residents in Gary, IN.

AGE OF RIDERS



\$88K Average income of South Shore Line passengers.

INCOME



North Indiana Commuter Transportation District 2018 South Shore Line Onboard Passenger Survey

GARY GREEN LINK TRAIL

A 0.5 mile trail segment connects to small residential streets and sidewalks to form the Gary Green Link Trail



The trail is often intensely close to private property, blurring lines of private and public use.



A FIELD OF FENCES

Baseball fields and basketball courts, long out of use, are surrounded by tall fences covered in vegetation.



It is nearly impossible to see the river through vegetation in this "river education park".



Plants envelope play equipment while a cell tower looms above.

FINDING A PATH

The Gary Green Link trail has to meander through residential sidewalks and across roads and rail.



Two lines of rail with a roadway on each side create a large barrier to park access and trail use.

A MOWED LOT AMIDST VACANCY

Jackson park is clear of debris but has an eerie sense of abandonment due to surrounding vacancy and few users.



ARRIVING IN GARY

A front yard to Gary's most prominent civic buildings, Gateway park is visible as you arrive at the rail station above or exit the highway amidst



An old colonnade structure is surrounded by rectangle pools and groomed toplary.





Gary Parks: Updating Public Perception, IN

Positive Change in a Community



GOAL: IMPROVE COMMUNITY SAFETY

The crime rate is high in Gary, and dead bodies are found within vacant school buildings. Public spaces are easily perceived as unsafe if there are places to hide. The smallest notions of danger can make parks entirely unsuccessful.

- Remove dense vegetation from the edges of parks, opening sight lines from major thoroughfares.
- Envision a series of low-maintenance design patterns and landscape furnishings to retain safety in the event of decreased maintenance.
- Prepare a low-maintenance plant palette
- Create missing road connections so that adjacent residential clusters have better daily connectivity in and through park spaces.
- Design pedestrian friendly crossings where multiple roads and rail lines needs to be crossed at once.
- Re-envision borders that keep children off the streets but increase park access and remove fences.



GOAL: INCREASE NEIGHBORHOOD VIBRANCY

As residents have left the city, vibrant urbanity has trickled off with them. A key ingredient in attracting future residents and involving neighbors in community betterment is the creation of common gather places.

- Design open, flexible spaces for scheduled park programming and festivals hosted by and benefiting community partners and community members.
- Design dynamic, multi-use sports spaces, playgrounds, and water play spaces that combine traditional function with artistic vision.
- Design shelters and event spaces appropriate for family gatherings, outdoor classes, or grilling out.
- Develop pedestrian-level retail, or seasonal shops, around the gateway region to provide trail destinations and encourage recreational use.
- Begin the journey of making the Grand Calumet River an amenity by increasing visibility and providing stormwater education.
- Ensure there is enough highly-visible parking for residents coming from a distance.



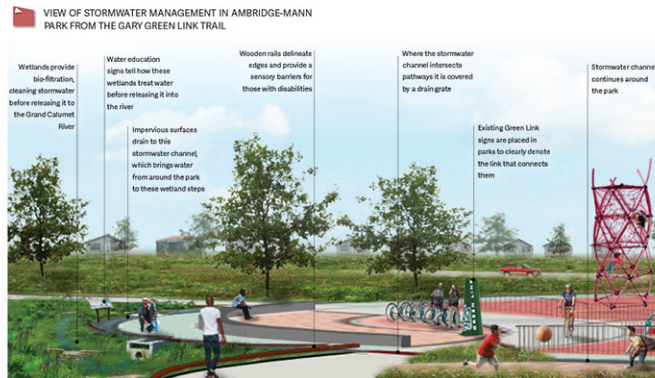
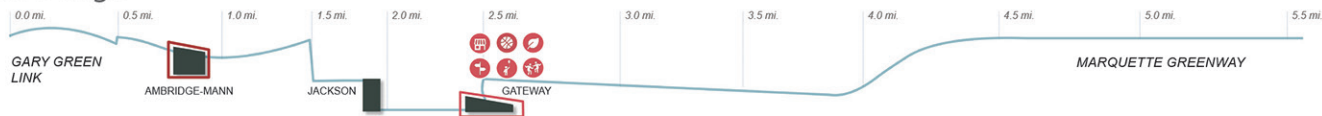
GOAL: IMPROVE REGIONAL PERCEPTION AND CONNECTION

Gary holds a reputation of being an undesirable place to live. Creating a necklace of lively parks and trails around major transportation routes will transform the image of Gary as a place worth investing in and connecting to.

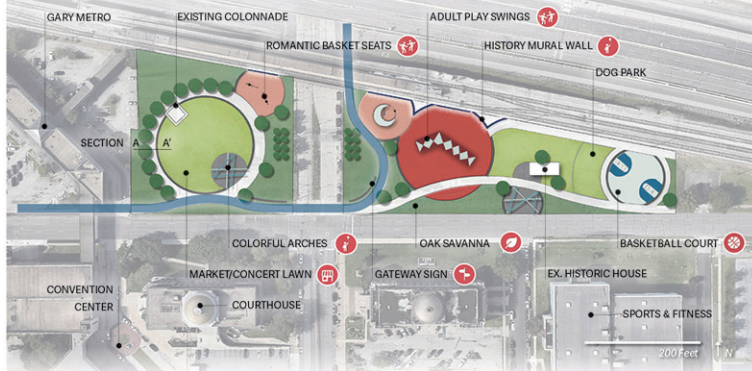
- Forgo the old Marquette Greenway path around the outskirts of Gary in favor of a corridor through the heart of Gary's civic center.
- Create monumental signage that connects the Marquette Greenway, the Gary Green Link, and Gary Parks.
- Introduce clear signage that greets you immediately after exiting Gary Metro so that visitors understand the recreational system they are a part of.
- Paint the South Shore Line overpass near Gateway park to serve as a giant banner announcing arrival in the lively city of Gary.
- Bridge the languages of urban and national park ecology with naturalized planting swaths demonstrating native sustainability.
- Maximize views from the South Shore Line train that will attract riders to exit in Gary and visit these parks.



Gary Parks: Updating Public Perception, IN Site Design



GATEWAY PARK



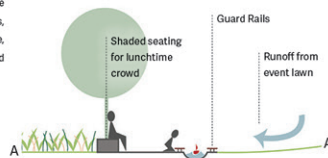
Gateway park is the hub upon which future connections must be founded. When visitors enter the city via the South Shore line, this space generates their initial sense of the city. It determines whether they will stay, eat, shop, and invest. When the Marquette Greenway finally connects to the city, this will be the gateway that indicates to riders and walkers that they are now recreating courtesy of a lively community. Adjacent to key civic and recreational facilities, these spaces are focused on extending the purpose of these building into the landscape, enabling demonstrations, sports, concerts, and markets. They must help extend the life and the safety of the area into the nighttime hours by attracting adults to play.

EVENT SPACES

1. Extends Convention Center - Market, concert, wedding.
2. Extends Council Building - Waiting area & Winter plaza.
3. Extends Rec Center - Outdoor basketball.



DRAINAGE WALK / SEAT @ Gateway & Ambridge-Mann Parks



Water is channeled to a bio-retention basin and children may splash in it or sail items down it during rain showers.



Central to strengthening the social perception of a city is displaying the image, culture, and history unique to that city. Gateway park contains key historic elements, but they are inaccessible, impossible to view from a distance, and out of touch with the energy of urban cultural embodiment, which displays history in art rather than text. Borrowing from the language of mural artwork beneath the bridges to the North, my design proposes expanding and abstracting the presence of historic Gary architecture by creating a mural wall of history that ensures the presence of this history is felt in the civic center of Gary.

Student Project

By: Jacob Battista



NPS RTCA

RIVERS, TRAILS & CONSERVATION
ASSISTANCE PROGRAM

www.nps.gov/rtca

Client: Pictured Rocks National Lakeshore

Partners:

Advisors: NPS - Megan Hedges

Purdue - Aaron Thompson



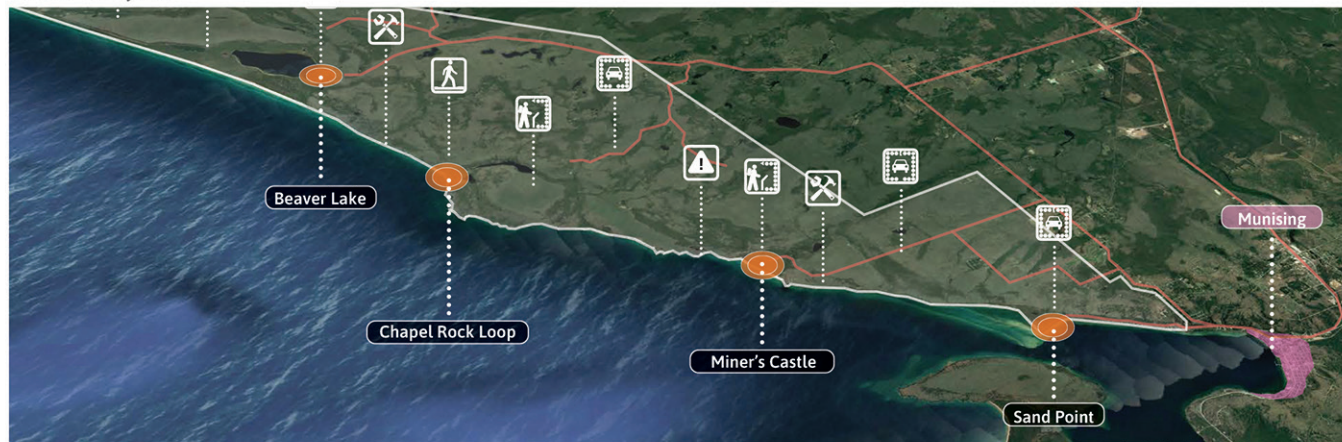
2022 Indiana ASLA Stu-
dent Merit Award

Pictured Rocks National Lakeshore, MI

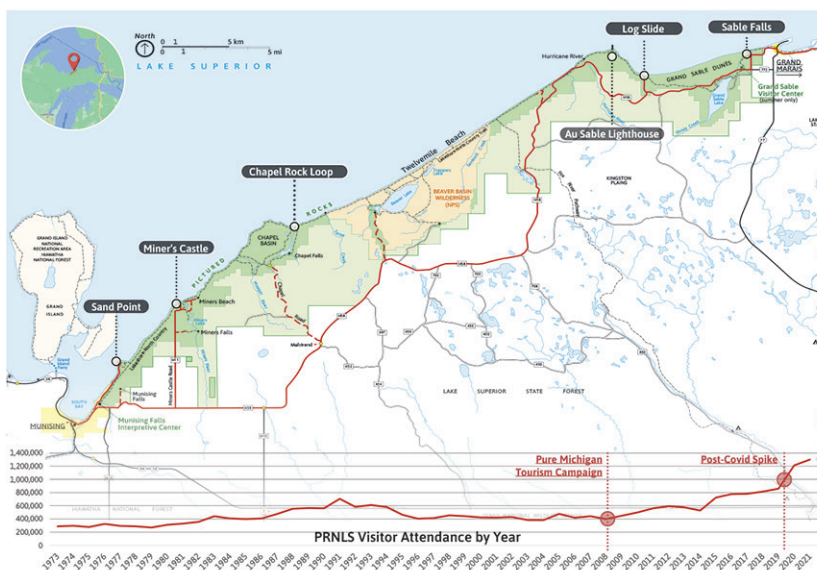


Pictured Rocks National Lakeshore, MI

Site Analysis



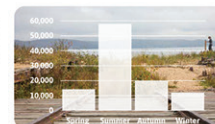
Render Credits: Jacob Battista and Abby Fisher



Sand Point

The Sand Point beach is a popular spot for sunbathing, or walking in the evening to watch the sun go down over Munising Bay. Swimmers often find the shallow bay water of Sand Point warmer than other lakeshore beaches.

- nps.gov/piro



Miners Castle

Miners Castle is one of the most famous landmarks along the Pictured Rocks shoreline, and is the only cliff area in the park accessible by vehicle. A short paved wheelchair accessible trail leads past interpretive exhibits to breathtaking overlooks of Lake Superior and Grand Island. Erosion over long periods of time has created the interesting rock formations that give this place its name.

- nps.gov/piro



Chapel Rock

The Chapel area was named by early European explorers and is found on early maps as La Chappelle. Chapel Rock is a remnant of Cambrian age sandstone that was carved by Lake Nipissing high water some 3800 years ago. The lone white pine on Chapel Rock is estimated to be about 250 years old. Chapel Beach is also a remnant of Lake Nipissing, blocking Chapel Creek to form Chapel Lake.

- nps.gov/piro



Au Sable Point

Built in 1873-1874, the light tower's base diameter is 16 feet with a height of 86 feet. The tower extends 23 feet underground and is anchored in bedrock. It is a 1.5 mile walk (one way) to the lighthouse. From the parking lot, walk east through the campground from the picnic area near the Hurricane River mouth. On the beach below the trail, exposed shipwreck remains dot the shoreline.

- nps.gov/piro



Log Slide

A short walk from the parking lot past historic logging equipment leads to the Log Slide area on top of the dunes. Recent winter storms destroyed the popular overlook platform, but the path that leads to where the platform stood is still open. From this site there is stunning views of the dunes to the east and Au Sable Point to the west.

- nps.gov/piro



Sable Falls

Sable Falls tumbles 75 feet over a cascading slope of Munising and Jacobsville sandstone formations on its way to Lake Superior. The best viewing is from the bottom of a long staircase of 168 steps. The trail from the parking area to this staircase is a short one. The trail continues past the falls for a short walk to a rock beach where Sable Creek flows into Lake Superior.

- nps.gov/piro



Render Credits: Jacob Battista and Abby Fisher



The Pictured Rocks

Unlike any other place on Lake Superior, Pictured Rocks offers the opportunity to explore miles of pristine beaches, hike nearly 100 miles of trails, view towering sandstone cliffs, and experience the serenity of northern woodlands. The power of Lake Superior shapes the park's coastal features and affects every ecosystem, creating a unique landscape to explore. Hiking, camping, sightseeing, and four-season outdoor opportunities abound.

- nps.gov/piro

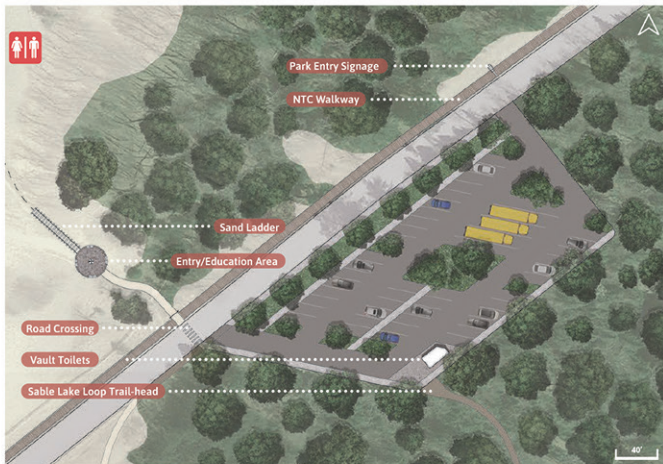
Recreation Opportunities



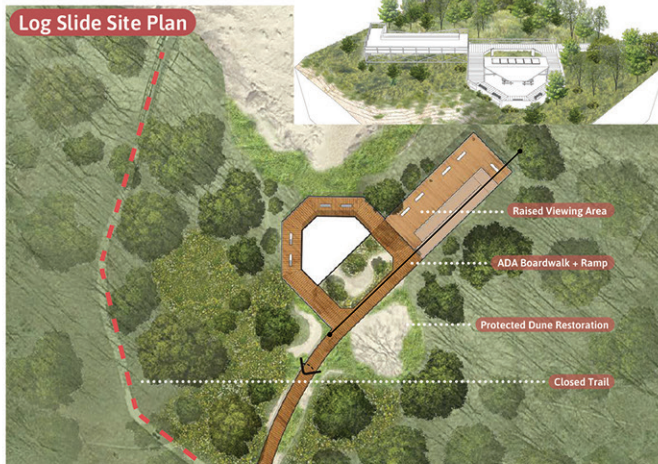


Pictured Rocks National Lakeshore, MI

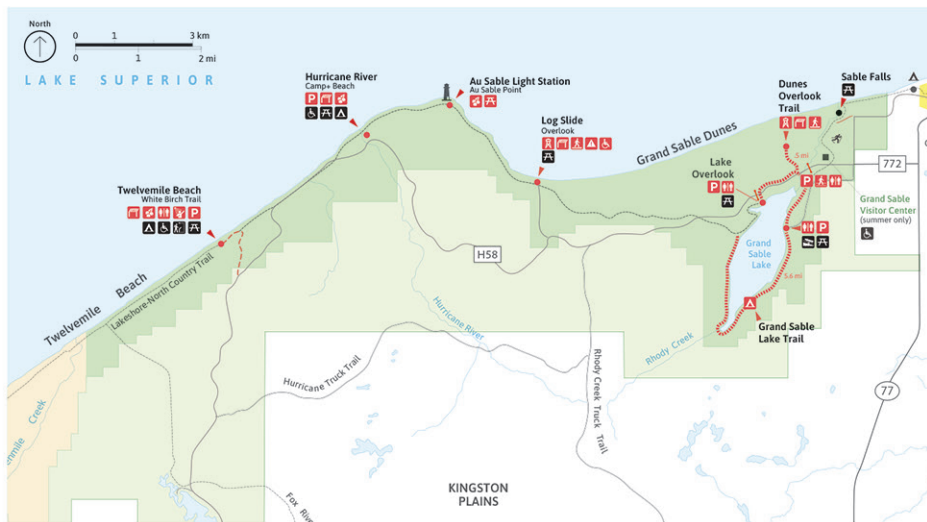
Eastern Edge Site Designs



Render Credits: Jacob Battista



Render Credits: Jacob Battista



Social Media Promotion

The Internet has a strong role to play in the promotion of the eastern edge of the park. While a redesign is much needed, it will all be for nothing if no one knows about it. As of right now if you google Pictured Rocks the first images that pop up are those of the east side attractions. The park staff must re-brand and showcase all the park varied features. Google, Instagram, Facebook, Twitter, and the parks on website will all play an vital role showing future visitors what this park has to offer.



Backcountry Camping

Designated camping zones, fire pits, food lockups, and pit toilets could be established here to further expand eastern edge's camping/backpacking options.



Beach Showers

Showers will make using this beach more appealing and accessible.



Wild Berry Foraging Zone

Native berry bushes could be planted in this region to create a new seasonal recreation activity in this area.



Scenic Picnic Area

Benches, picnic tables, and even grills could be placed here to give visitors a reason to stay in this area longer and enjoy the views.



Observation Tower

The establishment of an observation tower and a short trail system will provide connection to and views of the Sable Dune while limiting visitor impact of the area.



Educational + Navigation Signage

In order to protect these natural systems visitors must be kept on trail and educated on why this is important. Educational and navigational signage will be vital in order to promote responsible visitor habits.



Pedestrian Street Crossings

To prevent pedestrian-vehicle collisions signal crossing areas should be employed. Also, a dedicated walkway should be established along the road to connect the NCT to itself and keep hikers off the road.



Parking Lot Expansion

To accommodate a rise in visitor-ship and avoid another congestion issue like Chapel Road parking lot needs to be expanded.



Trail Safety/ Social Trail Improvement

In areas of significant damage or danger additional signage and fencing should be employed to halt further perpetuation of the issue.



Sand Dune Accessibility

Sand Ladders, Mobi Mats, and Boardwalks should be employed to make this feature accessible to as many people as possible.



Render Credits: Jacob Battista



Center for Community
& Environmental Design



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