LESTER RIVER NEIGHBORHOOD:
AREA CHARACTER

Visual analysis of the Lester River Neighborhood reveals the valuable resources throughout the area. In many ways it is here at the Lester River that the Duluth landscape first embodies the experience of the North Shore. This environment became the inspiration for the over riding design concept. The integration of land, water and people has created a relationship, and thus, and experience truly unique to Minnesota’s North Shore of Lake Superior. This interconnected system.

DESCRIPTION OF PHOTOGRAPHS:

A. View looking upstream to the tressel crossing
B. Lester Park historic pedestrian bridge
C. Lester River Business District
D. Fishing on the river
E. London Rd. approach to the Lester River Crossing
F. Limnology Station
G. Historic Lester River Bridge
H. Eastbound view from the Lester River bridge
I. Westbound view from the Lester River bridge
J. Arrival to Brighton Beach and park drive
K. Winter experience
L. Southbound View to proposed Brighton Beach Gateway site

LESTER RIVER NEIGHBORHOOD: OBLIQUE VIEWS
DESIGN STRATEGIES

LESTER RIVER NEIGHBORHOOD:
PLAN FOR LINKING GATEWAY RESOURCES

The existing site resources embody the elements of the North Shore experience. A picturesque lake front, historic structures and landscapes, river gorge, geological outcrops, mixedwood forests and community create the foundation for design. By using the movement of water as inspiration and the establishment of new North Shore Meadow plantings, the integration of “Land, Water & People” have been composed into the North Shore experience. This “Gateway” to the North Shore beautifully transitions from urban environment to the natural wilderness of the Superior Highlands.

LONDON ROAD
- Problems of pedestrian access and traffic are addressed by reconfiguring the existing road, adding a planted median and turn lanes, new Lester River Bridge, placement of a traffic light at the 60th St. intersection, restricting parking during rush hours to permit four lanes of traffic, and new sidewalks. The changes occur within the current alignment so that no changes to property occur.
- The historic Lester River Bridge is preserved for bicycle and pedestrians.
- A crosswalk and an underpass provide access between Gateway Park and the trail along the Lester River.

LESTER RIVER BUSINESS DISTRICT
- Widened sidewalks, new paving at intersections, street trees, and renovations of building facades create a welcoming experience to the neighborhood business district.
- New pedestrian connections to the Lester River and Lake Superior make movement between the local businesses and these amenities easier and more enjoyable.
- The widened sidewalk and new street trees along 60th create a new connection for the Lake Walk to Run from the Railroad easement to the Lake with a new controlled intersection at 60th and London Road making access to the public park along Lake Superior easier and safer for neighborhood residents and visitors.

LESTER PARK
- A new Lester Park addition follows the River Gorge on the East bank. The removal of S 61st Ave E. allows for new forest plantings, trail, and rain garden swales to create a new naturalized landscape that connects the existing Lester Park to Lake Superior and trail system.
- The park incorporates interpretive design at rain garden locations and historic quarried ponds.
- A new access Road maintains the E.P.A. access while providing new parking.
- The extension of Lester park to the lake connects Lester Park and Brighton Beach creating an ecologically sustainable landscape with new recreational opportunities.
LESTER RIVER NEIGHBORHOOD:
PLAN FOR LINKING GATEWAY RESOURCES

GATEWAY TRAILS
- Interpretive rain gardens layer cultural, historic, geologic and ecological resources in an ecologically sustainable design.
- The trail meanders through coastal meadows and a mixed wood forest to locations with splendid views of Lake Superior.
- The new alignment allows for the continuation of the Lake Walk through Brighton Beach.

UNIVERSITY OF MINNESOTA LIMNOLOGY STATION
- The redesigned London Road increases the size of the campus, providing room for rainwater gardens and an additional building.
- The redesigned London Road / 60th Street intersection provides an attractive, safer entrance to the station’s campus for arrival by foot, bicycle, or car. A 30 car parking lot is provided for visitors and staff.
- The rainwater gardens and a naturalized lakeshore provide interpretive/educational opportunities for a new Lake Superior Observatory and Interpretive Center.

ENVIRONMENTAL PROTECTION AGENCY CAMPUS
- Access to the Environmental Agency is provided off Superior Street and London Road.
- Sustainable meadow, turf, and infiltration ponds characterize the campus.
- Footpaths wind around the historic quarried landscapes and wier structures as interpretive resources.
EXISTING EASTBOUND PASSAGE: CAIRN GATES & SIGNAGE
LESTER RIVER NEIGHBORHOOD:
ILLUSTRATIVE VIEWS

SUPERIOR STREET AND 60TH STREET INTERSECTION
- Benches, crosswalks, streetlights, and renovated store facades define this neighborhood commercial area as a place that has a relationship to both the Lester River and Lake Superior.
- Boulevard trees connect Lester River Business District to Lake Superior

ENTRANCE TO LIMNOLOGY CAMPUS AT LONDON ROAD AND 60TH
- New green space in front of the historic limnology building is created by a the alignment of London Road.
- Sightlines to Lake Superior, limnology building, and cairn gates mark the historic Highway 61 bridge create and experiential gateway.
- New Lighting, paving pattern and vegetation create an inviting entrance with the use of North Shore Meadow plantings to create separation of public and private space.

LESTER RIVER BRIDGES
- The historic Lester River Bridge is converted to pedestrian use. A riverine path meanders over the bridge connecting the green spaces on each bank.
- The new Lester River Bridge reflects the character of the historic bridge and accommodates four lanes of traffic at times of peak traffic.
- The London Road underpass accommodates both pedestrians and storm water that has been retained and cleaned before flowing into the lake.
Superior Street & 60th Street Intersection

Boulevard plantings create an extension of Gateway park to the community node at Superior St. and 60th. Other improvements include benches, crosswalks, street lights and revitalized building facades.

LIMNOLOGY CAMPUS ENTRANCE
AT LONDON RD & 60TH

The new London Rd. alignment creates more green space in front of the Limnology station. The space is used to create an experiential park gateway that highlights the historic Lester river bridge and original Hwy. 61 alignment. The paving pattern in the foreground, acts as an entrance to the naturalized shoreline and shows the entire north shore, a preview to the north shore scenic drive.

Lester River Bridges

The historic Lester river bridge has been preserved and converted to a pedestrian bridge with new paving and turf along its course. The riverine path meanders over the bridge connecting both sides of the Lester river as public green space. The new Lester river bridge reflects the historic aesthetic of the original and accommodates 4 lanes of traffic that solve peak flow and safety issues.
BRIGHTON BEACH/GITCHI GAMMI PARK:
NSSD GATEWAY

The design serves as both an experiential and literal gateway to the north shore. It uses the experience of passage over the Lester River and relationship with Lake Superior to enhance the experience of heading east on the NSSD. The concept uses the understanding of water; its natural, contrived and social aspects to tell the story of the landscape and lake. By creating a place that provides the experience and interpretation of the “North Shore Waters” those who experience the site leave with greater understanding, meaning, and sense of place.

LAND, WATER & PEOPLE

... concept expresses the interconnections between land and water by source, movement and destination. This connection is intrinsically tied to the social landscape through habit and use. It is through the understanding of this relational triad the story of “Land, Water & People” can be interpreted and understood as a North Shore Experience.

OBLIQUE VIEWS OF BRIGHTON BEACH
CONCEPT DEVELOPMENT
DESIGN STRATEGIES

BRIGHTON BEACH: GATEWAY PLAN

VISITORS’ CENTER
- In this plan the visitors’ center provides information on shore wide resources as well as having a small store.
- Restroom facilities allow the center to function for park use as well as a gateway facility.
- Preliminary design work, shown in the appendices, describes a variety of architectural expressions.
- The location of the structure is precisely located to allow for maximum visibility from both road directions while maintaining a secluded lake side.

CAIRN SIGN
- The cairn sign addresses the NSSD as a trail through the natural northwoods landscape.
- It constructed of boulder, stainless metal hardware and timber.
- The timber frame allows for highway signage to be attached to the rock cairn and becomes the highway design standard for NSSD resource locations.

PARK ENTRANCE AND PARKING LOTS
- Realigning the Brighton Beach Park entrance and the park drive eliminates erosion problems and creates a naturalized lake front with new recreational trail.
- The parking lot is placed away from the shore and screened from the highway by trees.
- Stormwater runoff from the parking lot is filtered by rainwater gardens before it enters the lake.
- A small parking lot is provided off Highway 61 for the existing gazebo.

TRAIL
- The park’s trail sinuously moves through a signature north shore coastal landscape of meadow, forest, rocks, and water.
- The 12’ multiuse trail runs through Brighton beach an connects to the adjacent rest stop interpretive trail.
North shore meadow
NSSD cairn sign
Pine plantings
Existing trees
Rain garden
Visitor's center
New intersection & potential road alignments
NSSD timber signage
Possible trail alignment
Rain swale
Turf area
Parking (55 stalls)
Visitor's center
NSSD kiosk
Rain swale
Spruce, birch, dogwood & wildflower plantings
3 stem clump river birch
Rain swale
The 4 interpretations
Visitor's center
North shore meadow restoration
NSSD kiosk
Wood & steel deck: elevated 12"
Floating turf deck
Perspective view A
The 4 interpretations
Parking (55 stalls)
BRIGHTON BEACH:
PHASING STRATEGY

PHASE I
- Site grading for cairn.
- North Shore Scenic Drive cairn Land forms, vegetation, and signs mark this intersection as a gateway.
- Pine plantings

PHASE II
- Parking lot
- Site grading
- Rain swale and rain garden
- North Shore Scenic Drive kiosk
- Deck
- Four interpretations
- Additional plantings
- Road removal
- New entrance and driveway

PHASE III
- Visitors Center
- Deck extensions
- New entrance and driveway
- Turn around
- Trail construction
- New parking at existing gazebo
- Additional north shore plantings
- Lakeside turf areas
- Additional trees
BRIGHTON BEACH: CONCEPT DETAILS

The “Land, Water, & People” concept is an expression of the North Shore experience, that being an experience of water. The “North Shore Waters” is truly understood as a relationship or more appropriately, as a series of relationships. These consist of interactions taking place in coastal environments, native undisturbed landscapes, industrial mining or forested areas, in places of varying soils or glacial histories, and in areas of differing social history. Details are used in the design to visualize these varying interactions, provide interpretive or education opportunities, and creates a sustainable place. The experience of water movement, natural environments, and the hardscapes of built environments are interwoven as a series of complementary and contrasting spaces to convey the northshore story. Through the use of sinuous form and meandering circulation that contrasts with geometric social spaces, this relationship provides a unique and memorable “Gateway” indicative the place we are gaining passage.

THE FOUR INTERPRETATIONS

- A raised turf deck floats above the naturalized landscape, allowing the rain swale to pass under the deck.
- The swale is revealed in a open central circle that allows visitors to interact with materials, vegetation and water.
- The seating wall that supports the deck has four inscribed granite plinths that tell the story of land, water, people, and orientated on a vista axis from the structure, Lake Superior.

RAIN SWALE

- The collects, moves and infiltrates storm water flows.
- The boulder channel is planted with native wildflower and grass species.
- The system of channel boulders, rocks, and weirs collect, store and move water facilitating the absorption and filtration of water nutrients by plants, soil and rocks.
- Rain swales serve as interpretive opportunities visualizing the complex relationship of hydrological systems interacting with natural landscapes and built environments.

FOOTBRIDGE

- The footbridge is used to provide pedestrian circulation at difficult grade changes and over water.
- Bridges are used at specific locations to enhance experience, provide vistas and interpretation.
- It is made of the North Shore Scenic Drive’s signature vocabulary of steel and timber.
The 4 Interpretations
A raised turf deck floats over the landscape allowing a continuous course for the rain swale. The deck supports a seating wall with 4 interpretive granite plinths telling the story of land, hydrology, social history and Lake Superior.

Rain Swale
This swale collects, moves and infiltrates storm water flows. The swale is constructed of a boulder channel with native wildflower and grass species planted in the channel course and banks.

The Footbridge
The footbridge is a crucial element in acknowledging the movement of water through experience. The steel and timber materials follow the NSSD design vocabulary.

Rain Swale Sections
These sections describe how a system of channels, boulders, rock, and weirs collect and move water while allowing for infiltration and nutrient uptake by native plant species.
SCENIC DRIVE INTERCHANGE:
STRATEGIES FOR NSSD, HWY. 61 EXPRESSWAY, SUPERIOR ST., RAILROAD, AND RECREATION.

The existing area of the NSSD interchange consists of automobile, train, and pedestrian circulation. Steep slopes, grade separated lanes and a series of turn off lanes has created a dangerous intersection with few visual cues marking the change from expressway to residential neighborhood. The following represents a concept for dealing with grade issues, traffic speed mitigation, NSSD signage, locomotive and pedestrian circulation.

THE CONCEPTS
- Superior St., the North Shore expressway, the scenic railroad, and the beginning of the North Shore Scenic bypass all meet in a new controlled intersection.
- Traffic is encouraged to the Lester River Business District via Southbound exit lane.
- Land forms, vegetation, cairns, and signs mark this intersection as a gateway.
- Traffic signals, crosswalks, drop arms, and signs mark change and mitigate traffic speeds.
- Traffic signs and the lack of a highway divide will slow expressway traffic coming down the hill towards Duluth.
- New crosswalks provide potential pedestrian connections to the Lakewalk.
- A southbound turning lane to Superior Street bypasses the intersection; rock is exposed along this new turning lane.
- The new expressway alignment brings traffic together at the crest of the hill in order to create an experiential cue of leaving the high speed expressway.
- Travel is encouraged on the NSSD by cairn sign.
- A potential northbound exit lane to the NSSD would further encourage traffic but, would create more pedestrian crossing for a trail that connects lake walk and Brighton Beach.
- A new road replaces the existing Brighton Beach road. The alignment maintains the lake edge driving experience by meandering inland and back to the shore creating a series of new enlarged park spaces and a ecologically sustainable shoreline.

OBLIQUE VIEWS OF INTERCHANGE & BRIGHTON BEACH
SECTION AT NSSD & EXPRESSWAY INTERSECTION (NORTHBOUND)

Exposed rock face creates a stage for the NSSD cairn sign and creates a gateway.

NSSD logo on exposed rock face

4 lanes of traffic with turning lane

MEDIAN OPTIONS

50ft. median merges to 4 lanes non-divided

Top of hill
Vista to Duluth

50ft. median merges to a 10ft. median

Top of hill
Vista to Duluth

SOUTH BOUND ILLUSTRATIVE
DESIGN STRATEGIES

BYWAY REST STOP / INTERPRETIVE TRAIL
PLACEMAKING ALONG THE NSSD

This is a prototypical environmentally sensitive design for rest stops along the North Shore Scenic Byway. It provides conceptual strategies on using the existing environment to create places along the NSSD where users are encouraged to leave their automobiles and experience the North Shore Landscape.

THE CONCEPTS

- Signature North Shore Scenic Drive design elements are used: signage, kiosk, bridge and native vegetation.
- The site is conceived as a rest area with interpretive trail.
- A variety of unique environments create multiple trail resting locations with interpretation.
- A facility provides restroom, information, water, and bike parking.
- Unique microclimates and planted with native North Shore meadow environments.
- Access to the lake in provided by walking trail in various locations.
- The parking lot is placed away from the shoreline to minimize runoff pollution with large naturalized landscapes encouraging infiltration.
- Rock is exposed where appropriate.
- Interpretation of geology, soils, woodlands, erosion, stream gorge and Lake Superior are interwoven into a story of this place along the North Shore Scenic Drive.

OBLIQUE VIEWS OF REST STOP

![Oblique views of rest stop](image-url)
GATEWAY FRAMEWORK:
FOUR STRATEGIES

The following plan shows an integrated view of the four strategy areas developed in this project. The major moves consisted of:

- Improved integration of the Lester River Neighborhood to Lake Superior and Brighton Beach
- A Plan that promotes the Superior St. Business District.
- Provides new connections and extension of the Lake Walk.
- Uses the Historic Limnology Lab as an interpretive resource and new major center for education, information and other services relating to the Lake Superior region.
- Proposes new London Rd. design to handle peak traffic flows by closing parking during peak hours. The proposal creates a controlled intersection at 60th and London Rd. to improve pedestrian circulation to the lake.
- The historic Lester River Bridge is preserved as a pedestrian crossing.
- Road alignment changes create larger lake front space.
- Lester Park is extended to the lake connect the Lester Park, Lake Superior, and Brighton Beach.
- Native plantings and larger shorelines creates an ecologically sustainable lakefront.
- Parking is provided to maintain beach and river access for fishing, surfing and other recreation.
- Dangerous pullouts are removed and a new enlarged safe pullout is created at the existing gazebo.
- Brighton Beach/Gitchi Gami Park provide a land base for the new NSSD Gateway facility.
- Brighton Beach Rd. is realigned to provide more space along the shoreline for sustainable plantings and recreational use.
- Trails connect rest stop and lakefront environments.
- A new NSSD interchange resolves existing dangerous intersections and provides for signage and pedestrian use.
- The design works as a connected whole to create a “Gateway” to the North Shore experience.