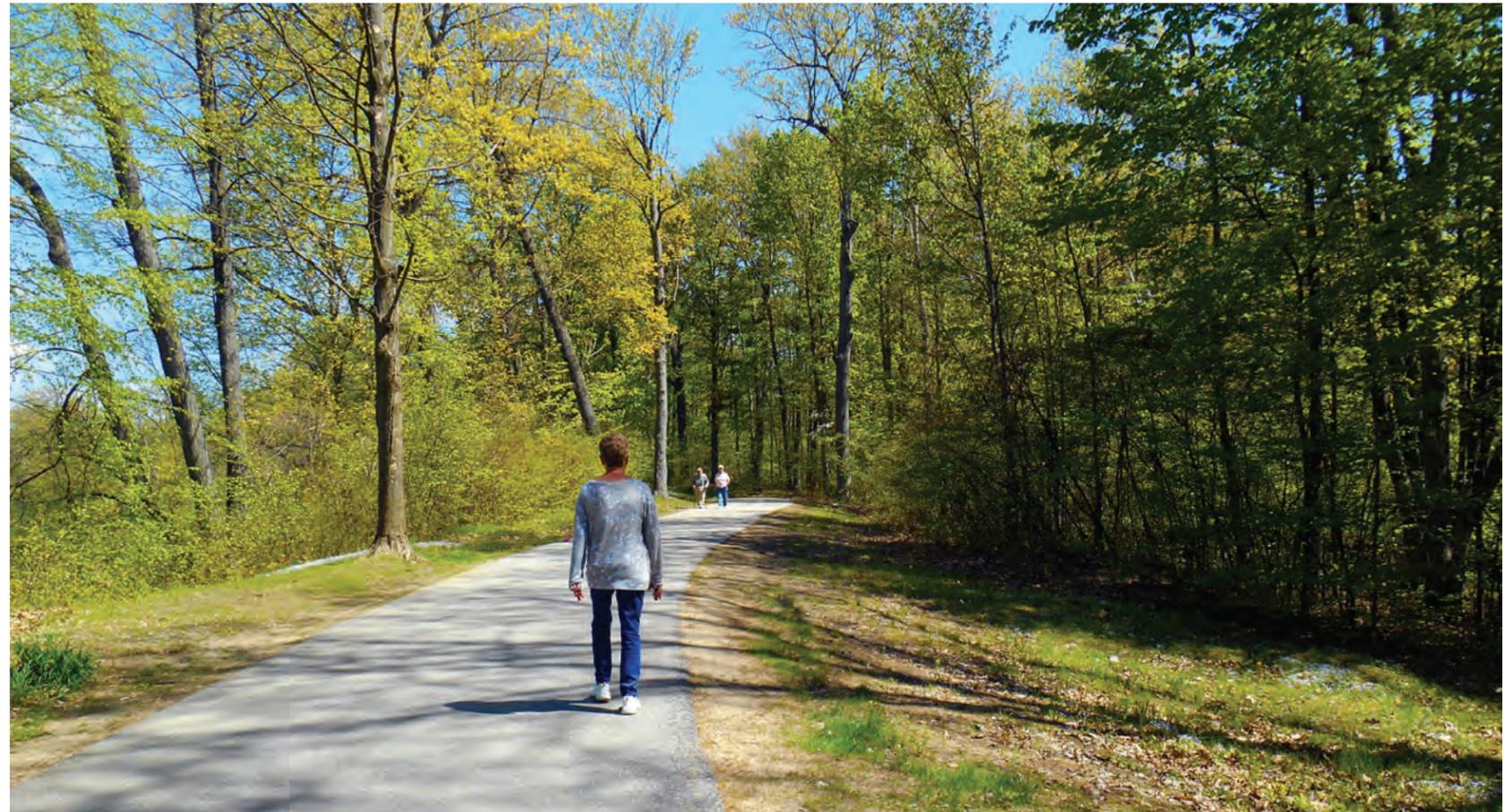


# Moreau Townwide Trails Concept Plan

June 2021



Prepared By:



Prepared For:

The Town of Moreau  
New York  
351 Reynolds Road, Moreau NY  
518.792.1030

Grant funds were provided by  
a Communities Grant through  
Hudson River Valley Greenway.



**Hudson River  
Valley Greenway**



Left: Bog trail loop location (Phase 2C).  
 Right: Ephemeral stream crossing within hemlock grove (Phase 2C).

# Table of Contents

## Moreau Townwide Trails Concept Plan

<b>One.</b>	<b>Overall Townwide Trails</b>	<b>3</b>
	Townwide Summary	3
	Overall Townwide Trail Map	4
	Betar Recreation Park Trail Improvement Plan	5
<b>Two.</b>	<b>Hudson River Waterfront Trail Network at Big Bend</b>	<b>6</b>
	Project Introduction	6
	Phasing Summary	7
	Recommended Development Plan and Summary	8
	Trailhead and Boat Launch Parking Facilities Enlargement	10
	Typical Trail Details	11
	Next Steps - Implementation Strategy	12

### Prepared By



The LA Group (LAG) has over 45 years of experience in providing landscape architecture, civil engineering, planning, permitting, and environmental science services. Through ingenuity, reliability, and an unparalleled work ethic, LAG has designed and developed projects that not only meet the criteria of our clients, but also surpass all of their expectations.

### Grant Funding

Grant funds were provided by a Communities Grant through Hudson River Valley Greenway.



One.

## Overall Townwide Trails

Surrounded by the Hudson River on three sides, the Town of Moreau is unique in its bountiful waterfront, and it has taken great lengths to embrace this natural resource. County forest, conservation lands, and public parkland properties are scattered across the Town, often times enjoying frontage along the river. Beach, boat launch, and trail destinations bring the community to the river, while landlocked properties such as the Moreau Recreation Park / Harry J. Betar Jr. Recreational Park and county forests provide additional recreational opportunities, including sports fields, playgrounds, and equestrian trails.

Beginning in the western corner of the Town, Moreau Lake State Park provides water recreation and trail opportunities. It will also serve as a major regional trail gateway for the planned multi-community spanning Palmertown Range spine trail. Once complete, the trail will connect Moreau Lake State Park in Moreau to the Saratoga Spa State Park in Saratoga Springs. Moreau Lake State Park's existing trail network links Moreau Lake to Lakes Ann and Bonita, as well as riverside destinations like Cottage Park and Potter Park.

Moving north east down the Hudson River, the next destination is Big Bend Point, 885 acres of wild forest and conservation lands. Ownership of the property is currently in transition from the Open Space Institute (OSI) to the New York State Office of Parks, Recreation, and Historic Preservation (Parks). Once complete, Parks will begin developing it into a multi-use trail network, which will have the opportunity to directly connect to the equestrian trail system of the County Forest lands to the south, as well as the proposed Hudson River Waterfront Trail Network at Big Bend and Nolan Road. The park will have two parking facilities for vehicular access, as well as canoe / kayak launches for water access to the Hudson.

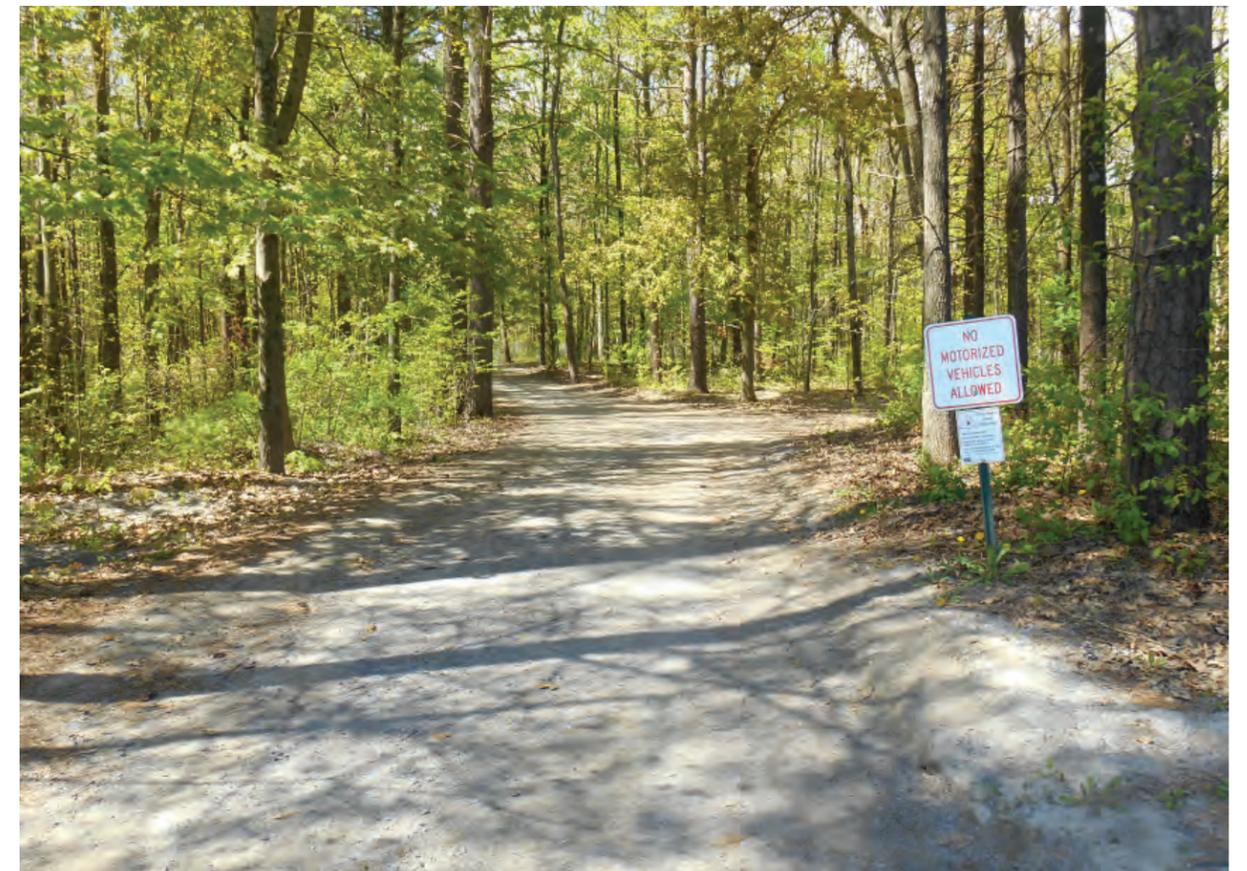
Continuing eastward down Old Bend Road, the Town plans an extensive trail network at Big Bend. Crossing under the Northway (I-87), the proposed Hudson River Waterfront Trail Network will offer trail users a wealth of ecological wonder, with direct access to the Hudson River waterfront, as well as bogs, marshlands, hemlock groves, and other unique natural features, all within a relatively small area. This local trail network will have trailheads and parking on either end, as well as several smaller loop trails along the primary spine to allow for additional variety for trail users. Interpretive elements are planned to bring additional historic and ecological education to the community. Boat launch enhancements, fishing piers, and accessible kayak launches are planned as well.

Further downstream, the Moreau trail network crosses into the Village of South Glens Falls. The Upper and Lower Betar Byway multi-use trail connects the Tanglewood community to Sandbar Beach, the South Glens Falls Historical Park, Cooper's Cave historic site, and the Main Street / Glen Street bridge connection to Glens Falls and the Feeder Canal Trail.

Roadside connection trail improvements are recommended to improve the connections between all of these waterfront recreation sites. Striping, wayfinding signage, sidewalk or shoulder installations can all help improve pedestrian and bicyclist safety. These improvements can also increase the community's access to these recreation destinations. Refer to the Overall Townwide Trail Map for detailed routing of the improvements in the Village, through the Tanglewood community, and along Dyke, Butler, Potter, and Redmond roads.

Existing dedicated bike routes along Routes 9 and 197 connect the Wilton, Glens Falls, and Fort Edward to Moreau. Additional road for connections along Nolan Road, Bluebird Road, and Fort Edward Road will help further connect the communities to the Big Bend Hudson River Waterfront Trail Network, the Moreau Rec. Park, the Chase Sports Complex, and potentially the future Moreau Riverfront Park off Fernan Road. These improvements will also help access to the boat launches on the eastern side of town off West River Road as well as the western side at Nolan Road.

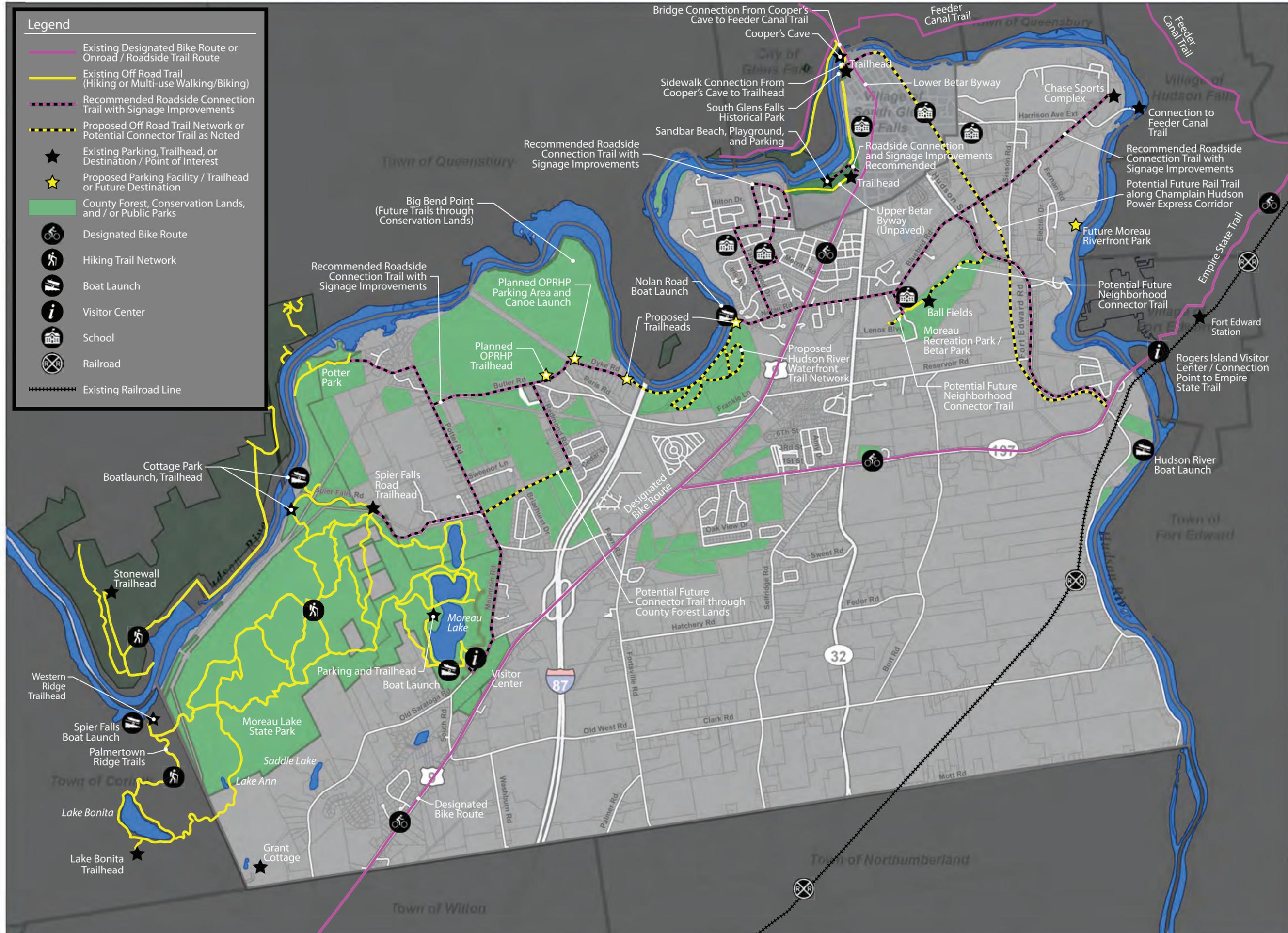
In tandem with the development of roadside connection trails, it is recommended that the Town further develop neighborhood connection trails adjacent to the Rec. Park to directly connect the new and planned subdivisions to the Park's amenities. The nearby Champlain Hudson Power Express Corridor should also be examined and considered for a future rail trail that would connect the Hudson River Boat Launch to the Village of South Glens Falls and Cooper's Cave.



Above: existing Betar Byway trail.  
Lower: interpretive signage near Cooper's Cave.

**Legend**

- Existing Designated Bike Route or Onroad / Roadside Trail Route
- Existing Off Road Trail (Hiking or Multi-use Walking/Biking)
- Recommended Roadside Connection Trail with Signage Improvements
- Proposed Off Road Trail Network or Potential Connector Trail as Noted
- ★ Existing Parking, Trailhead, or Destination / Point of Interest
- ★ Proposed Parking Facility / Trailhead or Future Destination
- County Forest, Conservation Lands, and / or Public Parks
- Designated Bike Route
- Hiking Trail Network
- Boat Launch
- Visitor Center
- School
- Railroad
- Existing Railroad Line



Unauthorized alteration or addition to this document is a violation of Section 7209 of the New York State Education Law.  
 © the LA group 2021

**Town of Moreau Townwide Trail Concept Plan**

**Map / Plan Title**  
**Overall Townwide Trail Map**





**Moreau Townwide Trails Concept Plan**

**Betar Recreation Park Trail Improvement Plan**

Town of Moreau, New York  
June 11, 2021

## Two.

# Hudson River Waterfront Trail Network at Big Bend

### Project Introduction

Nestled along the curve of the Hudson River, the town-owned lands at Big Bend offer a wealth of natural resources and recreational opportunity. The existing Nolan Road boat launch and gravel parking facility offer an initial point of beginning for further development of the lands to the west of the launch site. Populated with dense forestland, marshes and wetlands, colorful bogs, and idyllic hemlock groves, the lands boast a surprising amount of ecological variety within their borders.

The primary project area is composed of several parcels of land. While most of the project area is owned by the Town of Moreau, stretches of the trail corridor or recommended site improvements may require easements from Erie Boulevard Hydropower LP, or purchase of additional lands from private owners. A centrally located, rectangular shaped Town-owned parcel was once owned by Finch, Pruyn & Co. Inc., and it was used as a recreational camp. Employees and their families would go to this site and camp, fish, hold fires and relax. Many of these remnants remain onsite in the form of old platforms, benches, fire pits, rope swings over the river, wooden step access points to the waterfront, and the like. Trail improvements to this area should include the clean up and removal of these former relics.

The large Town-owned parcel south and east of the old Finch, Pruyn parcel are comprised mostly of forested lands and the waters of the inlet that stretches back along the eastern property line. The southern end of this parcel includes the Town's landfill site. The Town's parcel west of the old Finch, Pruyn parcel contains wetlands, marshes, a bog area, and hemlock groves. Further west, a second, larger inlet crosses the land, cutting off the western most parcel from the main project area.

Extending along the waterfront edge of the western most parcel, an old road bed acts as berm between the river and the wetlands beyond. This road bed's alignment follows the water's edge upriver, passing under the I-87 Adirondack Northway, and connects to the terminus of Old Bend Road.

Recommended trail network development begins with Phase 1, which focuses on creating a trailhead at the Nolan Boat Launch site, establishing the primary waterfront trail loop - centrally located on the site, and the installation of fishing piers and a kayak launch. Development of Phase 1 should hold minimal complications, as the majority of the trail alignment has already been established and cleared. DEC Permitting may be required, as well as establishing any easements or permitted use of the thin strip of waterfront land owned by Erie Boulevard Hydropower LP.

Phase 2 is comprised of three smaller project areas. 2A will see upgrades to the boat launch and boat-trailer parking facility. 2B focuses on the creation of a secondary woodland trail loop on the eastern half of the main site. 2C recommends an additional secondary wetland/bog trail loop on the western half of the main site. Additional permitting is anticipated for the trailwork throughout the wetland areas, as well as for adding fill along the waterfront berm in 2C.

Phase 3 will fully connect the western end to the eastern half of the trail network. This phase establishes a trailhead at the terminus of Old Bend Road, and follows a historic road bed along the waterfront, and makes the connection to the main project area's lands by establishing a bridge crossing at the large inlet. In addition to the complicated logistics of installing a bridge at this remote location, this phase will require additional permitting with DEC for the construction adjacent to the wetlands and water bodies, permitting with NYSDOT for crossing under the Northway, and the purchase of additional land from private owners in order to establish the connection to the Old Bend Road trailhead.



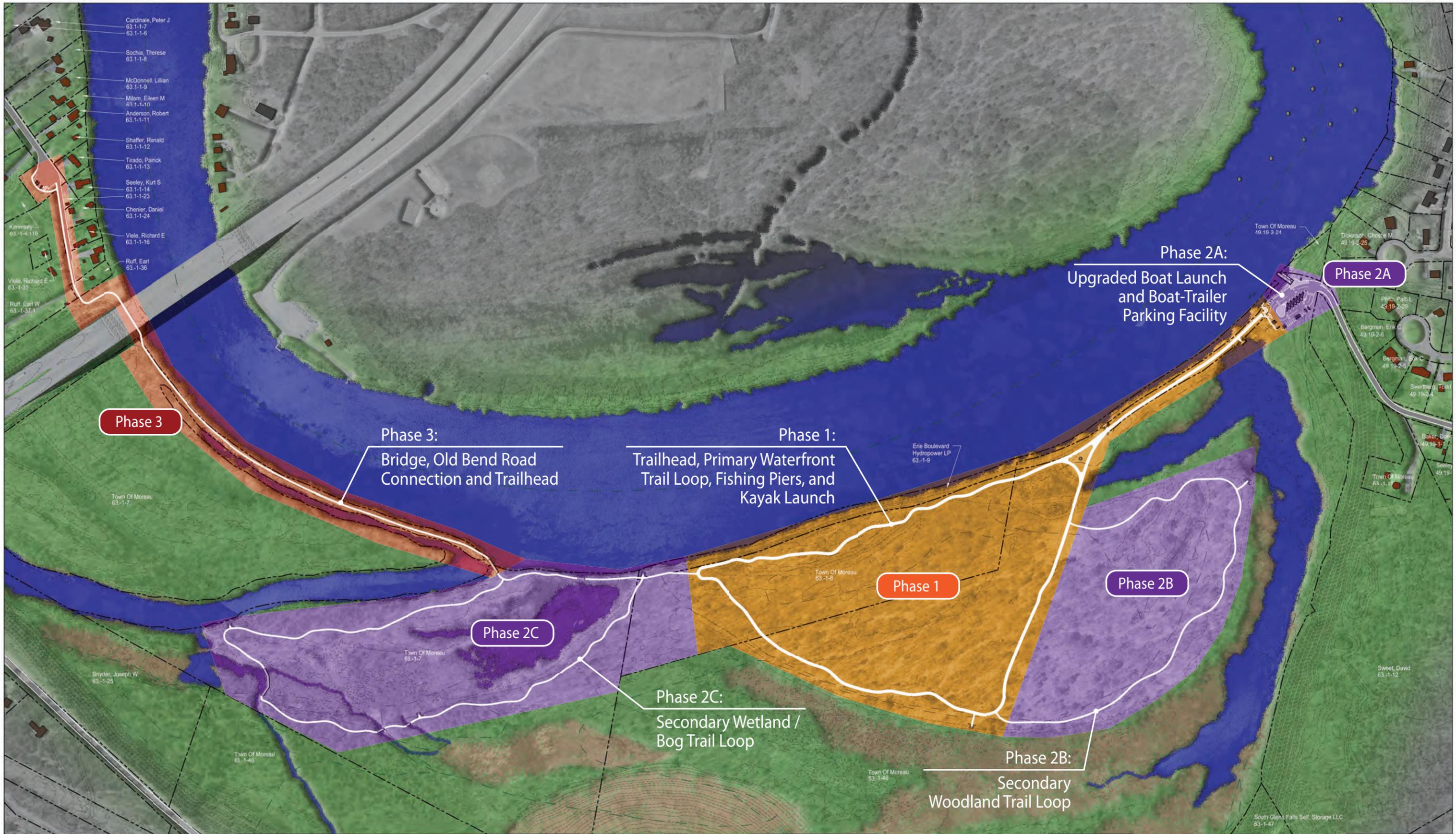
Phase 1



Phase 2A



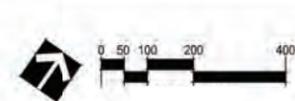
Phase 3



## Moreau Townwide Trails Concept Plan

## Phasing Summary: Hudson River Waterfront Trail Network

Town of Moreau, New York  
June 11, 2021



The LA GROUP  
Landscape Architecture & Engineering P.C.

Grant funds were provided by a  
Communities Grant through  
Hudson River Valley Greenway.



## Phase 1

Beginning at the existing Nolan Road Boat Launch Facility, Phase 1 recommended improvements include a new Trailhead and Parking area at the western edge of the existing parking facility (1). The parking area would include two accessible parking spaces sharing an aisle and six standard spaces. Signage and connecting walkway would be included in the improvements (see enlargement, page 10). Gateway improvements for the trailhead would include a trailhead kiosk/orientation sign, a new ornamental gate to prevent vehicle access (except for maintenance and emergency), landscape boulders and planting improvements. Directly adjacent to the trailhead, a new accessible kayak launch (2) would provide quick access to the waterfront.

Moving westward, an established berm of land / gravel roadbed separates the Hudson River from the eastern inlet of the project area and will act as the spine of the trail alignment. A fishing pier (3) is proposed on the inlet side of the trail corridor, and will include an accessible fishing platform, benches, and picnic tables. Further west along the trail corridor, a second riverfront site is perfect for an additional fishing pier (4). Adjacent to the river fishing pier, the trail enters a larger opening that can act as a central hub before splitting west and south. This area would be ideal for allowing small encampments, such as boyscout and girls scout groups, and a central communal campfire ring (5) is recommended to formalize the space and accommodate typical gatherings.

The primary trail loop (7) circumnavigates a large portion of the lands, its alignment already established from prior clearing and pre-development roadways. To formalize the trail, it is recommended that a crushed aggregate stone pavement be installed along the trail's corridor. Shoulders and additional horizontal and vertical clearing should accompany the 12-ft. wide trail installation. At the southern end of the loop, a rest node (6) should be installed. The overlook area can include a bench, felled tree edging for spatial definition, and interpretive signage if desired. Page 11 includes typical trail installation details and example imagery of typical trail enhancements, site features, and improvements.

## Phase 2

Phase 2A recommends upgrades to the existing Nolan Road Boat Launch site, beginning with an upgraded parking facility (8). The existing lot offers no indication of preferred circulation or parking layout. Once the trail has been constructed, the increase in visitorship to the project area may cause safety concerns unless the whole parking facility is formalized and properly laid out. The new parking facility has six dedicated boat-trailer pull through spaces, two staging spaces, one tie-down space, and eight standard spaces for cartop boating or trail overflow parking. In addition to the parking improvements, regulatory and site I.D. signage and landscape improvements should also be considered. Phase 2A also includes an upgraded boat launch and floating dock (9).

Spanning off the eastern edge of the primary waterfront trail loop, Phase 2B features a secondary woodland trail loop (13) as well as an additional rest node (10) overlooking the inlet. Phase 2C is developed off the western edge of the primary waterfront trail, and features a secondary wetland/bog trail loop (14). Both secondary trail loops would consist of the same crushed aggregate stone pavement as Phase 1, as material consistency is important in creating a site identity for the trail network. However, as secondary loops, it is recommended that a 6-ft. wide trail width be utilized. In addition to cost savings, the narrowed trail section will allow for less woodland clearing, creating a more natural and intimate trail experience.

Phase 2C's loop will be crossing through or adjacent to several unique micro-ecologies, including marshlands, wetlands, bogs, and hemlock groves. Additional rest nodes (10) can be installed to provide overlooks highlighting these distinct ecologies, as well as potentially providing interpretive signage opportunities. With these distinct ecological zones comes trail building challenges. Small ephemeral streams connecting wetlands to bogs and marshes will require wooden pedestrian bridges (11), approximately 12-ft. in length with curbed edges. Bringing the trail through the marsh will require a section of boardwalk (12), timber piles, decking, and curbs. These trail features often become destinations unto themselves.

## Phase 3

Phase 3 utilizes the old road bed that runs along the river's edge, forming a berm between the Hudson and the adjacent wetlands. A large inlet cuts off this land from the primary site. A bridge will be required to span the inlet and connect to the trails of Phase 1 and 2. It is anticipated that the pedestrian bridge (15) will be a prefabricated truss bridge, and will require precast concrete abutments installed at either end of its approximate 75-ft. length. Additional fill may be required along either end of the trails alignment to provide enough staging grounds for the construction machinery for the bridge.

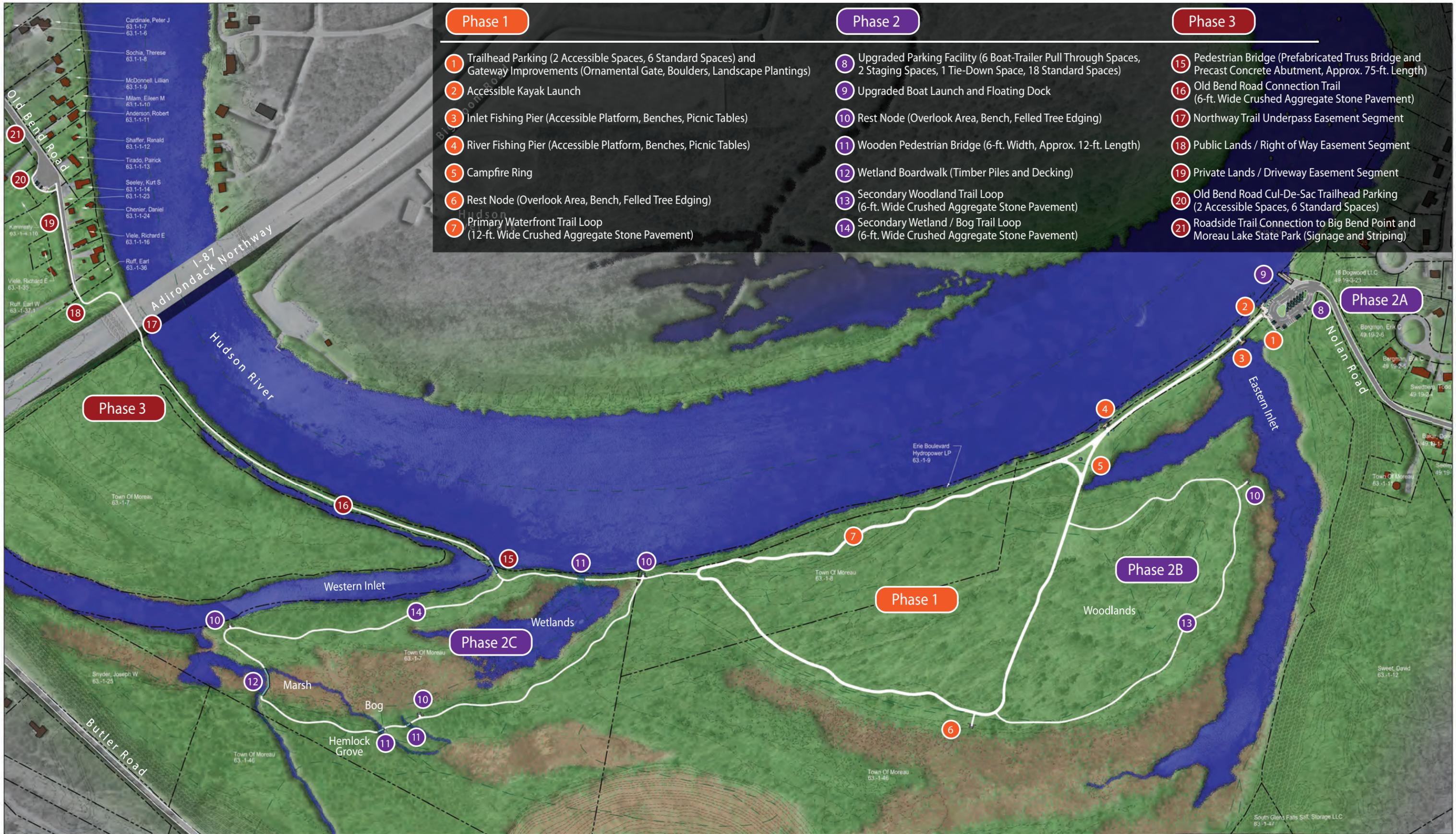
Once the inlet has been spanned, the trail corridor will resume with the final connection trail to Old Bend Road (16). The connector trail segment should consist of the same crushed aggregate stone pavement, and may be either 6-ft. or 12-ft. wide, depending on the Town's preference. The trail alignment continues along the waterfront, passing under the Adirondack Northway (17) making a quick turn to follow the highway's right-of-way (18) before again turning to follow along the existing private driveway at Old Bend Road's terminus (19).

At the end of Old Bend Road, it is recommended a second trailhead and parking facility be established. The Old Bend Road Cul-De-Sac trailhead parking facility (20) will feature two accessible spaces sharing an aisle, and six additional standard spaces. Landscape improvements, an information/orientation kiosk, and regulatory signage should also be included in the parking facility installation.

Lastly, roadside trail enhancements (21) should be considered, connecting the proposed Hudson River Waterfront Trail Network at Big Bend to the planned Big Bend Point conservation lands and trail network. Road striping and signage will help trail user wayfinding as well as safety.



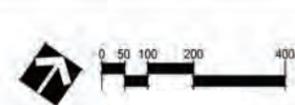
Top: Existing dirt access road along Phase 1 trail corridor.  
Middle: Secondary woodland trail loop location (Phase 2B).  
Lower: Secondary wetland / bog trail loop location within hemlock grove (Phase 2C).



## Moreau Townwide Trails Concept Plan

## Recommended Development Plan: Hudson River Waterfront Trail Network

Town of Moreau, New York  
June 11, 2021

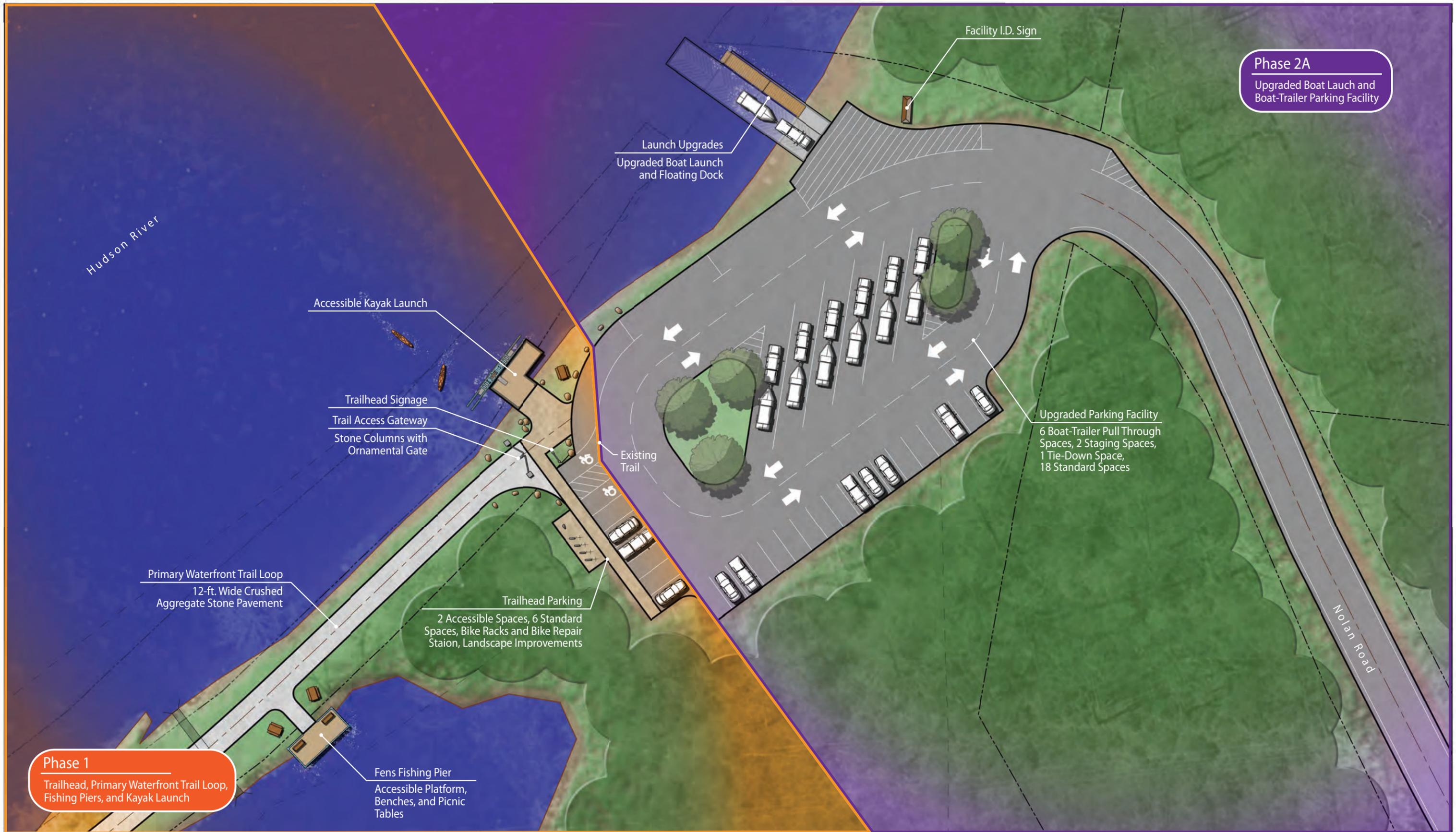


The LA GROUP  
Landscape Architecture & Engineering PC

Grant funds were provided by a  
Communities Grant through  
Hudson River Valley Greenway.

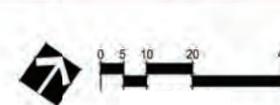


Hudson River  
Valley Greenway



**Moreau Townwide Trails Concept Plan Hudson River Waterfront Trail Network: Trailhead and Boat Launch Parking Facilities Enlargement**

Town of Moreau, New York  
 June 11, 2021

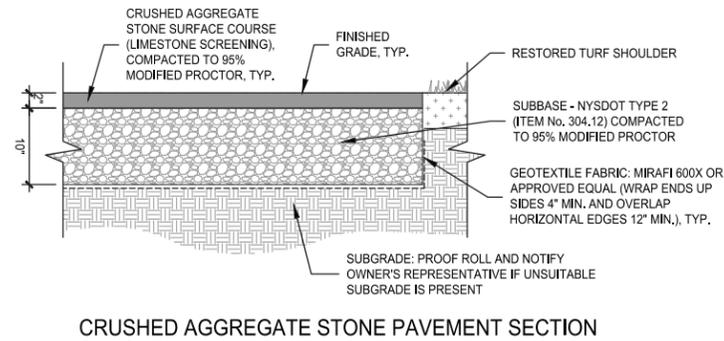


**The LA GROUP**  
 Landscape Architecture & Engineering P.C.

Grant funds were provided by a  
 Communities Grant through  
 Hudson River Valley Greenway.



**Hudson River  
 Valley Greenway**



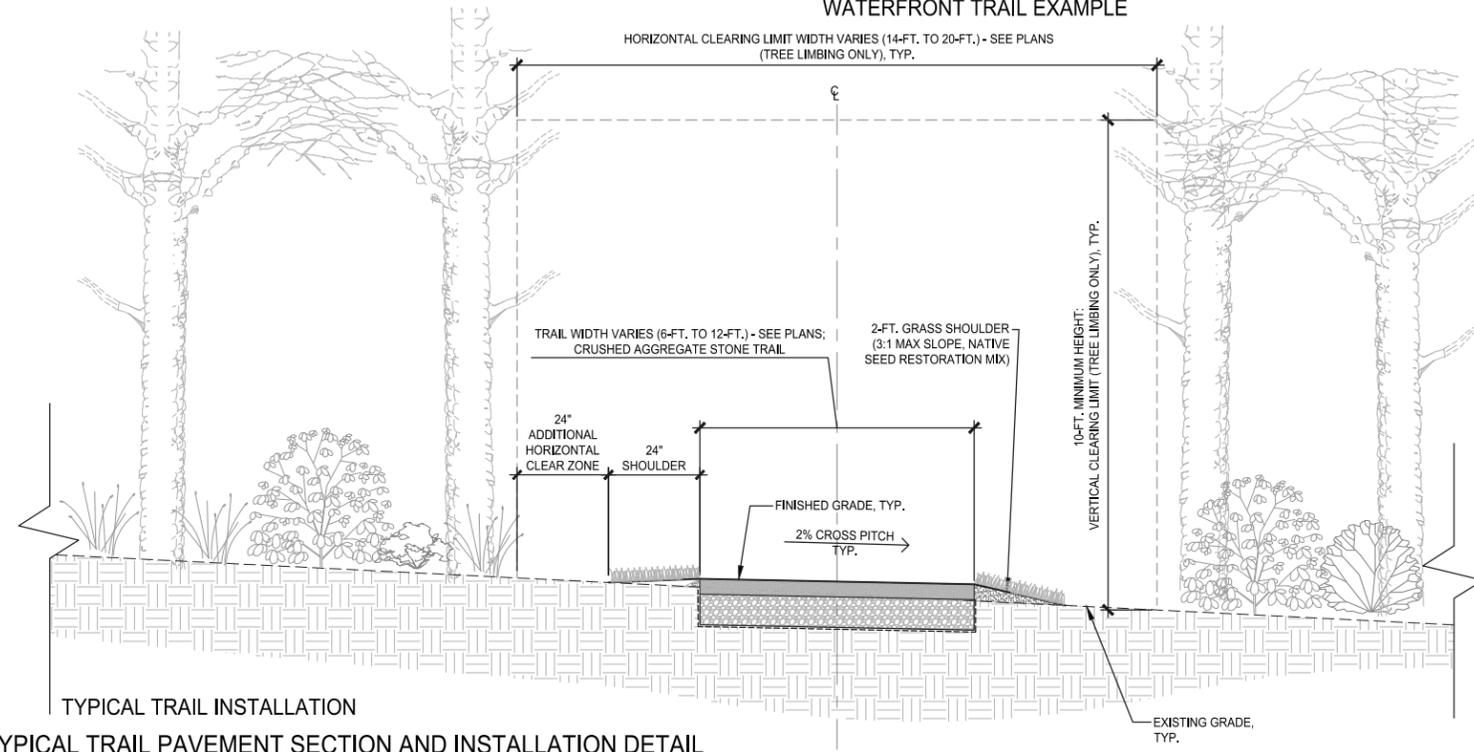
**WATERFRONT TRAIL EXAMPLE**



**WETLAND BOARDWALK WITH CURBING**



**REST NODE WITH FELLED TREE BENCHING AND LOW PROFILE INTERPRETIVE SIGNAGE**



**WOODEN PEDESTRIAN BRIDGE WITH CURBING**



**PREFABRICATED TRUSS BRIDGE**



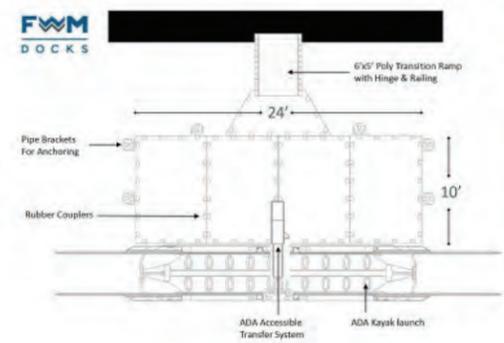
**COMMUNAL CAMP FIRE RING**



**LANDSCAPE BOULDER EDGING**

**1** TYPICAL TRAIL PAVEMENT SECTION AND INSTALLATION DETAIL

Scale: NTS



**2** EXAMPLE ACCESSIBLE KAYAK LAUNCH

**3** ADDITIONAL TRAIL ENHANCEMENTS AND SITE FEATURE EXAMPLES

**Moreau Townwide Trails Concept Plan**

Town of Moreau, New York  
June 11, 2021

**Typical Trail Details**



Grant funds were provided by a Communities Grant through Hudson River Valley Greenway.



**Next Steps / Implementation Strategy**

A detailed planning level order of magnitude cost summary has been prepared on behalf of the Town and has been supplied via separate attachment. This cost summary breaks each phase down into individual improvement components to allow the Town to pick improvement projects in an ‘a-la carte’ fashion, breaking down the greater project into smaller, affordable pieces.

The New York State’s Regional Economic Development Council’s recently released the 2021 CFA resources, which includes NYSOPRHP’s Recreational Trails Program (RTP) grant. The grant allows for federal funding requests up to \$250,000 with a 20% match requirement, creating an eligible project budget of \$300,000.

The Town of Moreau utilized The LA Group’s consultant services to pursue the 2021 CFA RTP grant. Coupled with the Town of Moreau’s advantageous position along the waterfront and its commitment to recreation and trail improvements, the Hudson River Waterfront Trail Network at Big Bend is a great eligibility fit for the RTP. Obtaining a grant at its maximum project cost will allow the Town to begin the design and construction of Phase 1’s Primary Waterfront Trail Loop (7 on the Recommended Development Plan - page 9). Scope would include general requirements, site preparation and erosion control, materials for the trail, and any stormwater management and landscape restoration required. The budget should also include pre-development costs, and should consider permitting and other soft costs as well. The Town may utilize in-kind services as its match for the grant funding.

Additional grant programs will be occurring later in the year, including those through the Hudson River Valley Greenway and Parks and Trails New York. The LA Group will reach out to the Town at a later date to offer additional services for grant applications and design implementation.



Existing mulched trail / access road corridor along the Primary Waterfront Trail Loop’s trail alignment (Phase 1).

<b>Opinion of Probable Construction Costs</b>	<b>Planning Level Order of Magnitude</b>
<b>Moreau Townwide Trails Concept Plan</b>	
<b>Town of Moreau, New York</b>	
<b>Phase 1: Trailhead, Primary Waterfront Trail Loop, Fishing Piers, &amp; Kayak Launch</b>	
<b>General Requirements (Mobilization, Temp. Fencing, Survey &amp; Stakeout, Etc.)</b>	\$18,498
<b>Existing Conditions Site Preparation, Erosion Control, and Demolition</b>	\$47,687
<b>Primary Waterfront Trail Loop</b>	\$157,673
<b>Stormwater Management, Utilities, Restoration, and Landscape Improvements</b>	\$37,003
<b>Phase 1: Trailhead, Primary Waterfront Trail Loop, Fishing Piers, &amp; Kayak Launch</b>	
<b>Planning Level Order of Magnitude Construction Costs</b>	<b>\$260,859</b>
<b>Phase 1 Pre-Development Costs</b>	
Design, Construction Documents [plans, specifications, estimates], Bidding Services (±12%)	\$ 31,303
Construction Administration, Support, Observation (±3%)	\$ 7,826
<b>Phase 1: Trailhead, Primary Waterfront Trail Loop, Fishing Piers, &amp; Kayak Launch</b>	
<b>Total Project Cost</b>	<b>\$299,988</b>

\* Estimated Construction Costs include Design Contingency, Subcontractor Mark-Up, 1-Year Escalation, and General Conditions