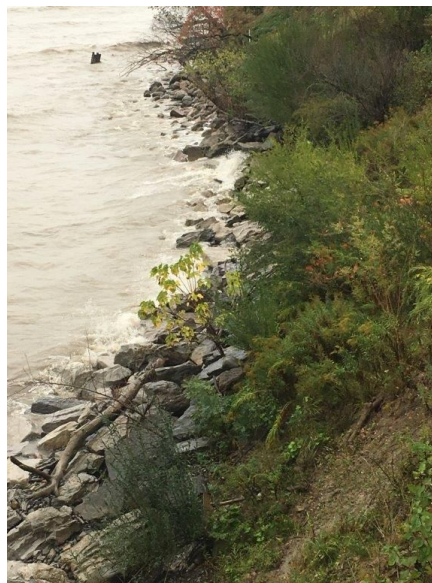




TOWN OF  
**PORTER**  
NEW YORK

## Niagara County, New York



### Fort Niagara Beach Shoreline Restoration Project

**Submitted by:**  
Town of Porter  
Supervisor Duffy Johnston  
3265 Creek Road  
Youngstown, NY 14174

**Submitted to:**  
Niagara River Greenway Commission  
PO Box 1132  
Niagara Falls, NY 14303

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SEQRA	
Engineering Report Planting / Re-Vegetating Plan	
Engineer's Estimates	

Project Registration Number \_\_\_\_\_

*Niagara River Greenway Commission  
 Consultation and Review Form*

Type of Review Required:  Mandatory Consultation  
 Voluntary Review and/or Endorsement

**PROJECT SPONSOR INFORMATION**

Name: Town of Porter  
 Mailing Address: 3265 Creek Road. Youngstown  
 State: New York Zip Code: 14174  
 Federal Id# 16-6002338 Charities Registration # N/A

**PROJECT TYPE**

Check all that apply:

Environmental  Cultural/Heritage  Land or Water Public Access  
 Cultural  Trail  Educational/Interpretive  
 Waterfront or Land Based Development  Signage  
 Recreational  Other

Funding Committee Request:  Host Community Standing Committee  
 Buffalo and Erie County Standing Committee  
 Ecological Standing Committee  
 State Parks Standing Committee  
 Unsure at this time

Amount Requested: **\$93,500.00** \_\_\_\_\_

Matching Funds Available: **\$348,312.00** \_\_\_\_\_

**PROJECT INFORMATION**Project Name: Fort Niagara Beach Shoreline Restoration ProjectLocation: Town of Porter; Fort Niagara BeachSite Address: 3265 Creek RoadState: New York Zip Code: 14174Minor Civil Division(s): Porter, New YorkCounty: NiagaraProject Proponent Property Interest (own, lease, easement or other): The Town of Porter is the sole owner of the property. SBL 45.32-1.1**AUTHORIZED OFFICIAL**Name: Duffy Johnston Title: SupervisorBusiness Address: 3265 Creek Rd. YoungstownState: New York Zip Code: 14174Telephone Number: (716) 745-3730 Ext 5 Cell Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-Mail Address: portersupervisor@roadrunner.com**PROJECT POINT OF CONTACT**Name: Duffy Johnston Title: SupervisorBusiness Address: 3265 Creek Rd. YoungstownState: New York Zip Code: 14174Telephone Number: (716) 745-3730 Ext 5 Cell Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-Mail Address: supervisor@townofporter.net**1. PROJECT NARRATIVE**

From January 2017, the Fort Niagara Beach shoreline sustained significant and irrevocable damage due to substantial erosion caused by the combination of record rainfall in the Great Lakes basin and the historically high water level in Lake Ontario. This combination of high water, increased wave height and soft soil caused significant erosion to the unprotected shoreline and the bluff above the shoreline. Without erosion control reinforcement, there is noteworthy risk of serious injury to visitors and Town of Porter residents who walk along the bluff, as well as the longer-term potential of loss of homes and other dwellings should the erosion continue.

There are two adjacent parcels of land which had been protected with erosion control protection and thus sustained no erosion. The section of Fort Niagara Beach proposed in this application did not have any protection on approximately 80 feet of shoreline and minimal protection for an additional 180 feet of shoreline to the east. These areas, particularly the 80-foot section, sustained massive erosion of the shoreline losing almost 12 feet on the bluff and 15 feet at the shoreline level. The current erosion has made the bluff susceptible to further collapse and could cause serious injury to individuals if the bluff collapsed while an individual was standing on the bluff, as the drop to water level is between 40-50 feet almost straight down. There are over 100 residents who live within 500 feet of the shoreline in question including a significant number of children who use the area to recreate. If this area remains unprotected, there is tremendous risk to these residents.

The Town owns approximately 1.89 acres of land at Fort Niagara Beach with shoreline along Lake Ontario. Lakeshore flooding has caused significant erosion and the Town is proposing to stabilize the existing embankment in order to protect lakeshore property and mitigate future flooding impacts.

The Town is proposing to stabilize approximately 300-feet of existing embankment with stone rip-rap\* in order to protect lakeshore property and mitigate future flooding impacts. The project includes the reinforcement of approximately 180-feet of existing stone-rip rap and the construction of approximately 120-feet of new stone rip-rap protection. Total project cost was estimated at \$350,000 inclusive of engineering design, permitting, construction oversight, and grant administration.

*\*(Riprap, also known as rip rap, rip-rap, shot rock, rock armor or rubble, is rock or other material used to armor shorelines, streambeds, bridge abutments, pilings and other shoreline structures against scour and water or ice erosion. It is made from a variety of rock types, commonly granite or limestone, and occasionally concrete rubble from building and paving demolition. It can be used on any waterway or water containment where there is potential for water erosion.)*

The project will be implemented by following NYSDEC guidelines on erosion control activities including tying into the neighboring erosion protection structures and reinforcing the bluff with vegetation and native plantings. This project will significantly reduce the risk of serious injury to pedestrians walking along the bluff by stabilizing the shore both at the water level using rip-rap and at the higher levels with a vegetation plan that will further strengthen the embankment. Similar erosion control projects on neighboring parcels have seen no erosion over the past eight years. Stabilizing the bluff with erosion control protection will greatly enhance the safety of all Town of Porter residents who walk on the bluff on a regular basis.

A Community Development Block Grant was awarded in 2018 in the amount of \$348,312 for this project. However, as our engineering and design consultants prepared the necessary map, plan and report for the project the original cost for the complete project was under estimated. The engineering consultant has redesigned the rip rap construction for this stabilization project with NYSDEC-approval in order to stay within the grant award. This has resulted in no money for the proposed restoration and we are asking for \$93,500 to complete this project.

## 2. Advancement of Greenway Vision/Consistency with Greenway Goals, Principles and Criteria

**Niagara Greenway Vision Statement:** *The Niagara River Greenway is a world-class corridor of places, parks and landscapes that celebrates and interprets our unique natural, cultural, recreational, scenic, and heritage resources and provides access to and connections between these important resources while giving rise to economic opportunities for the region.*

The Porter Fort Niagara Beach Project will promote and further the vision of the Niagara River Greenway by increasing access to and connections between the Town's natural and scenic resources, historical and cultural facilities and recreational destinations through an ambitious effort to improve parklands in the Town. The proposed project will tie together existing and developing connections between the various on and off-road trail systems, waterways, and the communities that comprise the Niagara River Greenway, NYS Scenic Trails advancing local and regional agendas for community livability, recreation, public health, tourism and economic development.

Driven by this unforeseen natural disaster with this shoreline erosion, leadership by Town officials became an initiative that aims to enhance public safety & well-being.

This project incorporates several of the goals, principals and criteria of the Niagara River Greenway Commission, as it will support an attractive, accessible, unified, environmentally friendly, and revitalized corridor of the Niagara River and the NYS Seaway & Scenic Byways Trail System. The **goals** are as follows:

### **Improve Access & Make Connections**

Fort Niagara Beach is located along RT 18 which serves as Niagara County's Seaway & Scenic Byways Trail System along Lake Ontario which will contribute to the continuous linear Park system. The project will provide safe public access to the water's edge and secure the potential for future park development.

### **Protect and Restore Environmental Systems**

This project (rip rap) and restorations will provide the Town of Porter's residents, visitors, and community groups with safe access to the Town-owned parkland. The Porter Highway Dept. is in charge of all park maintenance and upkeep, and will dedicate the necessary resources to ensuring the proposed property remains well-kept and environmentally sound. Our request will be to restore environmental shoreline by utilizing coconut fiber to act as a ground cover while native plants and seed mix get established. In addition, the project will include a pollination habitat with pollinating plants and some berry plans to attract wildlife.

### **Spark Revitalization and Renewal**

As part of the Living Shorelines Initiative, this project is a component of a larger effort that is inspiring ecosystem revitalization throughout the Niagara River and Lake Ontario Riparian Corridor.

**Promote Long Term Sustainability**

A variety of environmental features will be incorporated to ensure this Living Shoreline is ecologically sustainable. These features include native plantings native grass seeds and native pollinator plants, and devices for erosion protection (ex. Rip rap).

**Extend Olmsted's Legacy**

The Town of Porter has been working to increase the recreational activities available to its residents through the newly develop Porter on the Lake Park. Porter on the Lake provides both passive and active recreation, access to the water front and provide a place for community gathering. Fort Niagara Beach is currently under developed however is still part of the Town's and regional linear park system. Through this restoration the Town will greatly increase its ability to provide access to the waterfront experiences and to contribute to the establishment of the Niagara River Greenway. By restoring the area with native landscaping will even more so make this area a viable park that is in line with Olmsted's vision for our regional parks.

## GUIDING PRINCIPALS

### **Excellence**

Through this restoration site along Lake Ontario, additional natural amenities are being currently developed and will provide the Town of Porter residents and all visitors continual access along the Greenway linear park system, improving overall quality of life and the experiences visitors have in Western New York. The Town of Porter will also enhance its coastal resiliency, increasing the safety of its residents and restore environmental stability.

### **Sustainability**

The Town of Porter fully supports this proposed initiative and is committed to the long-term economic and physical care of its facilities and future improvements. The proposed project will adhere to handicap-accessible standards as the Park is developed. The project will be conscientiously maintained by the Town and its Highway Department to accomplish these long-term results.

### **Accessibility**

The Fort Niagara Beach project will offer physical access to the water front for a full range of users. The project's main goal is to protect the existing shoreline to provide access where there currently is none.

### **Ecological Integrity**

Ecological integrity has become a key focal point of the Town's ongoing community park development. With the completion of the Town of Porter's Local Waterfront Revitalization Plan (LWRP), attention has now been given to protect and enhance ecological integrity of the municipal owned property along its waterfront. While Park enhancements such as picnicking areas and its amenities, playground equipment and recreational play fields are important, however the ecology, and environment and its surrounding habitat are also part of the overall plan for each of our Parks (Porter on the Lake, 4-Mile Creek and Fort Niagara Beach).

### **Public Well-Being**

Both the physical and emotional wellness of the public are priorities of the Town of Porter as its population continues to increase each year particularly for young families, senior citizens, and residents and visitors of all ages requiring special needs. Improving Porter's Linear Park system will promote public well-being for the long-term in the area that connects trail users directly to the Lake Ontario waterfronts that further encourages and promotes healthy lifestyles.

### **Connectivity**

As a rural community, Porter's physical connections to neighboring communities, regional parks and trail systems, and the diverse natural and built assets of the State Seaway Trail and Scenic Byways Corridor is essential to our Town's identity and historical place in our region. This project will facilitate increased access to the waterfront and neighboring communities through the connection of the Seaway Trail, and will provide a connection southbound on 18F (River Road) to the Village of Lewiston and east to Olcott beach and further.



**Authenticity**

Town of Porter is the Niagara Greenway northern most point and gateway to Lake Ontario. This project will draw attention to outdoor recreation, regional trails and parks, area landmarks and local history, and help define a clear sense of community, identity and “place” that the growing Town of Porter contributes to the Greenway character and Seaway Trail and Scenic Byways Corridor, as well as the Niagara Wine Trail.

**Celebration**

While Fort Niagara Beach is underdeveloped, the importance of providing safe access to the waterfront and become part of the linear park system has been included in the Town’s LWRP for future development. Porter on the Lake, which now has become a location for annual public events, a safe place for those using Lake Road as a trail system in many social events, fundraisers, and those traveling to visit our historical region. Plans to restore the area with native plants will serve as a location to experience the lakefront as it was meant to be. Throughout its history the Town of Porter has been a close-knit community within itself, as well as with surrounding municipalities. Its heritage and pride of its park system lies in the waterfront property at Fort Niagara Beach, 4-Mile Creek and Porter-on-the-Lake.

**Partnerships**

On June 15th, 2008, The Town had its “Porter-on-the-Lake, Preview Day” with a vast reception with over 340 people in attendance. Events since its opening have exponentially grown annually ever since that day. Also in June 2008, the Town of Porter conducted a Recreational Needs Survey of its residents using the NYS SCORP guidelines. The results identified the need for additional recreational facilities and parklands and waterfront access encouraged the Town Board to make parks and recreation, land preservation, and facilities improvements a priority. As the median age within the Town of Porter is 40 years old and 32.1% of households have children under the age of 18, the increased use and demand of recreational and leisure activities has taken on a higher priority. The Town’s residents have strongly pursued the need for its own Town Water Front access and projects like this has been included with the LWRP being completed in 2020.

**Community Based - Partnerships**

This project directly reflects Porter’s commitment to the plans and preferences of the local community, while respecting other stated goals and the communal vision of the Niagara River Greenway. To support the Town’s continued growth, the project represents its commitment to providing state-of-the-art facilities and amenities to the residents and visitors to the community and the Niagara River Greenway corridor.

## CRITERIA

### **Priority Status**

Restoration of Lake Ontario is called out as a priority because high water levels are destroying water front property. The project will offer a solution to maintain its Town owned shoreline and improved access to waterfront resources and provide a restored natural habitat to the area.

### **Focus Area**

This project is located at the northern end of the Niagara River Greenway Corridor, which is a continuation of Greenway's expansive linear park and trail system, which extends from Erie and Niagara County, taking users along the waterfronts of Lake Erie, the Upper & Lower Niagara River and entry way to Lake Ontario, providing connections to other Greenway resources in nearby communities.

### **Environmental Soundness**

While the original plan was just to restore the shoreline using the rip rap construction method with basic landscaping, this all-encompassing project now includes important environmental issues to restore the native and natural habitat of land along the Lake. This funding request will address the need to provide proper maintenance of landscaping and plant life, as well as return any disturbed ground to its original native condition. The Town of Porter will seek out guidance from the DEC as well as the Buffalo Niagara River Keepers to ensure planting material used will be appropriate, while providing sustainability of the project.

### **Implementable**

The Town of Porter has secured a substantial grant through NYS CDBG for almost \$350,000.00. This gap funding requested from the Greenway Ecological Standing Committee will complete the installation of native plants and landscaping which will make the overall project a success and begin the development for the future. Construction is slated to begin and be completed by August/September of 2020, the landscaping restoration is scheduled for this fall.

### **Economic Viability and Local Sponsor / Matching Funding/Leveraging**

The economic viability of this project is based on the NYS CDBG award of almost \$350,000.00 and this requested funding from the Ecological Standing Committee will support the Town's financial commitment of the project costs. Through its ownership the Town of Porter will assume the long-term responsibility for the stewardship, maintenance and security of the park.

### **Consideration of Other Planning Efforts**

This project is consistent with the Town of Porter's new 2020 LWRP and reflects the recreational needs of the community.

### **Clear Benefits**

The Porter Fort Niagara Beach Project demonstrates the clear benefits to the Niagara River Greenway's vision as a world-class trail corridor. As stated in the Greenway Plan, the Erie Canal Greenway, the Niagara River Greenway and the Hudson Valley Greenway, collectively make up the "Empire State Greenway". The Town of Porter is growing each year and offers an array of recreational assets and linkages to regional parks and trail systems and waterfront

attractions. As a lakefront community it will complement efforts by the Town and New York State to fill critical gaps in the existing trail systems that pass through the Town of Porter and Lower Niagara River Greenway including the gateway into Lake Ontario.

**3. Provide a Sources and Uses Budget. Identify all sources of funding and the amount of funding expected from each source. Identify and quantify funds that are already on hand or have been allocated for the proposed project. Explain how the project will be operated and maintained. Complete the Sources and Uses Budget for the proposed project and include the following:**

<b>SOURCES OF FUNDS</b>	
Loan #1	\$0
Loan #2	\$0
Grant #1 (requested funds)	<b>\$ 93,500</b>
Other Source #1 (CDBG Restoration Grant)	<b>\$ 348,312.00</b>
Other Source #2 (in-house service)	<b>\$</b>
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$441,812.00</b>
<b>USE OF FUNDS</b>	
Planning & Design	\$40,071
Construction restoration landscaping	<b>\$93,500.00</b>
Construction (rip rap)	\$308,241.00
Administration	\$0 (in-house)
Operation and Maintenance / Year	\$0 (in-house)
<b>TOTAL USES OF FUNDS Greenway</b>	<b>\$93,500.00</b>
<b>TOTAL PROJECT COST</b>	<b>\$441.812.00</b>

The Town of Porter respectfully requests support and funding assistance from the Ecological Standing Committee in the amount of \$93,500.00 to support the construction and restoration of the Fort Niagara Beach Project.

**4. Describe the measures taken at the local level to gain community and government support for this project (hearings, petitions, public surveys, resolutions of support or other methods). If this project has been cited or described in a local planning document or some equivalent thereof, attach copies of that documentation highlighting the sections that are relevant to the proposed project. Describe the role of municipal agencies, stakeholder groups, consultants, volunteers or others who will be involved in the proposed project.**

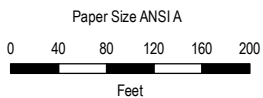
The Town of Porter has passed a resolution in the amount of \$79,500 request to the Niagara River Greenway Ecological Standing Committee in support of this project. Community Development Block Grant has awarded and implemented almost \$350,000 in support of this project to ensure that the project is complete, and will meet all the criteria for the shore line stabilization of this project.

**5. Describe and document the environmental setting and existing conditions at the proposed project site. If you are not the owner of the property include a letter(s) or resolution(s) evidencing support for the project by the owner. Provide photographs, conceptual plans and drawings that show the site as it presently exists and the how the site will change with the addition of the proposed project. Describe how your project will comply with the State Environmental Quality Review Act (SEQRA). The existence of wetlands, significant upland and aquatic habitats, and plant or animals species that are classified as rare, threatened, or endangered should be noted. Explain how such natural resources will be protected and / or enhanced. Cite any relevant project related studies.**

The Town completed a SEQRA review as an Unlisted Action and passed a Negative Declaration (documentation attached). No wetlands or rare, threatened or endangered plant or animal species are noted.

## **6. Maps & Photographs**

Legend  
 □ Land parcel



TOWN OF PORTER  
 FORT NIAGARA BEACH SHORLINE STABILIZATION

Project No. **XX-12345**  
 Revision No. -  
 Date **12/13/2017**

**SITE MAP**

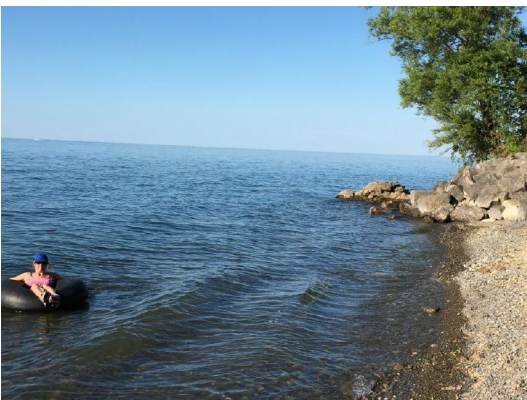
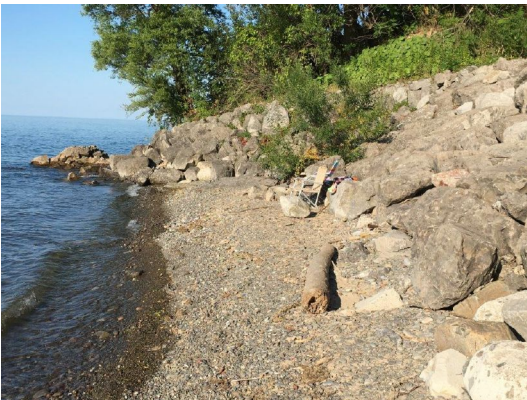
**FIGURE 2**

Pictures of Shoreline  
Fort Niagara Beach  
Town of Porter NY

**Project Location**

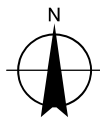
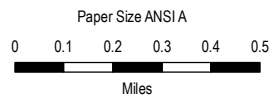
**43 16' 06.18" N**

**79 02' 36.65" W**





**Project Location**  
 43 16' 06.18" N  
 79 02' 36.65" W



**TOWN OF PORTER**  
**FORT NIAGARA BEACH SHORELINE STABILIZATION**

Project No. 11146098  
 Revision No. -  
 Date 12/13/2017

Map Projection: Transverse Mercator  
 Horizontal Datum: North American 1983  
 Grid: NAD 1983 UTM Zone 18N

**PROJECT LOCATION MAP**

**FIGURE 1**



## **7. Local Planning Documents**

Authorizing Resolution  
SEQRA  
Engineering Report  
Planting / Re-Vegetating Plan  
Engineer's Estimates

Town of Porter

RESOLUTION 03/9/2020

For The Town of Porter Fort Niagara Beach Restoration Project through the  
Greenway Ecological Fund Standing Committee

I, Kara Hibbard, acting Town Clerk of The Town of Porter located at 3265 Creek Road,  
Youngstown New York 14174, do hereby certify that the following resolution  
was adopted at a regular meeting of the Town of Porter held on March 9<sup>th</sup>, 2020, and  
is incorporated in the original minutes of said meeting and that said resolution has not  
been altered, amended or revoked and is in full force and effect.

Resolved:

That the Town of Porter will submit to the Greenway Ecological Fund Standing Committee  
a proposal for sponsoring the Town of Porter's Fort Niagara Beach Restoration Project  
Grant funding request in the amount of \$93,500

This motion was carried.

---

Kara Hibbard, Town Clerk

Please note: This will be replaced with the  
official signed document on March 10<sup>th</sup>, 2020



December 13, 2017

Reference No. 11146098

New York State Homes and Community Renewal  
Office of Community Renewal  
38-40 State Street  
Albany, New York 12207

To Potentially Involved/Interested Agencies:

**Re: Town of Porter SEQR Coordination  
Fort Niagara Beach Shoreline Stabilization**

GHD is writing on behalf of the Town of Porter (Town) to initiate a coordinated review with interested and involved agencies under the New York State Quality Review Act (SEQR).

The Town owns approximately 1.89 acres of land at Fort Niagara Beach with shoreline along Lake Ontario. Lakeshore flooding has caused significant erosion and the Town is proposing to stabilize the existing embankment in order to protect lakeshore property and mitigate future flooding impacts. The Town Board has classified this project as an unlisted action and is coordinating the review pursuant to SEQR. Enclosed for your review are the following documents:

- Part 1 of the Short Environmental Assessment Form
- Project Location Map and Site Map
- SEQR Coordination Mailing List

You and your agency are hereby notified that the Town is requesting Lead Agency under SEQR for this project. Please note that lead agency must be agreed upon within 30 days of this notice. Therefore, your agency has until **January 12, 2018** to consent or contest, in writing, the establishment of the Town as lead agency for the environmental review of this action. Upon completion of your review, please provide written comments to the contact person below. Thank you for your consideration in this matter.

**Project Contacts**

Gregory D. Keyser  
285 Delaware Avenue, Suite 500  
Buffalo, New York 14202  
(716) 856-2142  
(716) 934-3240

Yours truly,

GHD

Gregory Keyser  
Environmental Planner

GDK/jap/NYSHCR-1

cc: Dave Britton, PE



December 13, 2017

Reference No. 11146098

New York State Department of Environmental Conservation  
Region 9 Office  
270 Michigan Avenue  
Buffalo, New York 14203

To Potentially Involved/Interested Agencies:

**Re: Town of Porter SEQR Coordination  
Fort Niagara Beach Shoreline Stabilization**

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(716) 934-3240

Yours truly,

GHD

Gregory Keyser  
Environmental Planner

GDK/jap/NYSDEC-1

cc: Dave Britton, PE



December 13, 2017

Reference No. 11146098

New York State Office of Parks, Recreation and Historic Preservation  
Division for Historic Preservation  
P.O. Box 189  
Waterford, New York 12188-0189

To Potentially Involved/Interested Agencies:

**Re: Town of Porter SEQR Coordination  
Fort Niagara Beach Shoreline Stabilization**

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(716) 934-3240

Yours truly,

GHD

Gregory Keyser  
Environmental Planner

GDK/jap/NYSOPRHP-1

cc: Dave Britton, PE



December 13, 2017

Reference No. 11146098

Tribal Historic Preservation Office  
Seneca Nation of Indians  
90 Ohi:yo' Way  
Salamanca, New York 14779

To Potentially Involved/Interested Agencies:

**Re: Town of Porter SEQR Coordination  
Fort Niagara Beach Shoreline Stabilization**

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(716) 856-2142  
(716) 934-3240

Yours truly,

GHD

Gregory Keyser  
Environmental Planner

GDK/jap/THPO-1

cc: Dave Britton, PE

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 - Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

<b>Part 1 - Project and Sponsor Information</b>			
Name of Action or Project: Fore Niagara Beach Shoreline Stabilization			
Project Location (describe, and attach a location map): Fort Niagara Beach, Town of Porter, Niagara County			
Brief Description of Proposed Action: Lakeshore flooding has caused significant shoreline erosion at Fort Niagara Beach in the Town of Porter. The Town is proposing to stabilize approximately 350-feet of existing embankment with stone rip-rap in order to protect lakeshore property and mitigate future flooding impacts. The project includes the reinforcement of approximately 140-feet of existing stone-rip and the construction of approximately 210-feet of new stone rip-rap protection.			
Name of Applicant or Sponsor: Town of Porter		Telephone: (716) 745-3730	
Address: 3265 Creek Road		E-Mail:	
City/PO: Youngstown		State: New York	Zip Code: 14174
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO <input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: NYS Department of Homes and Community Renewal (Grant Funding), NYSDEC (Protection of Waters Permit), NYSHPD/THPO (Referral), Town of Porter (Flood Plain Development Permit)			YES <input checked="" type="checkbox"/>
3.a. Total acreage of the site of the proposed action? _____		1.89 acres	
b. Total acreage to be physically disturbed? _____		0.32 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____		3.43 acres	
4. Check all land uses that occur on, adjoining and near the proposed action.			
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)			
<input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____			
<input checked="" type="checkbox"/> Parkland			

5. Is the proposed action, a. A permitted use under the zoning regulations?	NO	YES	N/A	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO	YES		
	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____ _____	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	b. Are public transportation service(s) available at or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
10. Will the proposed action connect to an existing public/private water supply?  If No, describe method for providing potable water: _____ Not applicable for a bank stabilization project.	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
11. Will the proposed action connect to existing wastewater utilities?  If No, describe method for providing wastewater treatment: _____ Not applicable for a bank stabilization project	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. Is the proposed action located in an archeological-sensitive area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES		
	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ Lake Ontario _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input checked="" type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input type="checkbox"/> Suburban				
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
16. Is the project site located in the 100 year flood plain?	NO	YES		
	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	NO	YES		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: _____ _____	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES			



<p>18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?</p> <p>If Yes, explain purpose and size: _____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?</p> <p>If Yes, describe: _____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p>20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?</p> <p>If Yes, describe: _____</p> <p>_____</p>	<p>NO</p> <p><input checked="" type="checkbox"/></p>	<p>YES</p> <p><input type="checkbox"/></p>
<p><b>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b></p> <p>Applicant/sponsor name: <u>Gregory D. Keyser</u> Date: <u>12/13/2017</u></p> <p>Signature: <u>Gregory D. Keyser</u></p>		

**Town of Porter**  
**Fort Niagara Beach Shoreline Stabilization**  
SEQR Coordination Mailing List

**New York State Homes and Community Renewal**

Office of Community Renewal  
38-40 State Street  
Albany, New York 12207

**New York State Department of Environmental Conservation**

Region 9 Office  
270 Michigan Avenue  
Buffalo, New York 14203

**New York State Office of Parks, Recreation and Historic Preservation**

Division for Historic Preservation  
P.O. Box 189  
Waterford, New York 12188-0189

**Tribal Historic Preservation Office**

Seneca Nation of Indians  
90 Ohi:yo' Way  
Salamanca, New York 14779



# Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO  
Governor

ROSE HARVEY  
Commissioner

December 14, 2017

Mr. Gregory Keyser  
Environmental Planner  
285 Delaware Ave  
Suite 500  
Buffalo, NY 14202

Re: HCR  
Fort Niagara Beach Shoreline Stabilization  
Porter, Niagara County, NY  
17PR08422

Dear Mr. Keyser:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, the New York SHPO has determined that no historic properties will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Michael F. Lynch, P.E., AIA  
Director, Division for Historic Preservation

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 146 SECTION 7209, FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY.

## REVEGETATION PLAN

- SOIL MOISTURE CONDITIONS AND FERTILIZER REQUIREMENTS SHOULD BE DETERMINED BEFORE SELECTION OF VEGETATION.
- QUICK-GROWING PERENNIAL RYEGRASS OR WHEATGRASS SHALL BE USED IN CONJUNCTION WITH SEED MIX TO PROVIDE IMMEDIATE INTERIM STABILIZATION.
- CONTOUR WATTLES MAY BE USED WHEN PLANTING SHRUBS IN STEEPER LOCATIONS.
- SEEDED AREAS AND NEW PLANTINGS SHALL BE MULCHED WITH STRAW, ANCHORED WITH JUTE NETTING TO KEEP MULCH IN PLACE ON SLOPES. JUTE NETTING SHOULD WEIGH ABOUT 1.2 LBS/LINEAR YARD AND HAVE APPROXIMATELY 78 WARP ENDS PER WIDTH OF CLOTH AND 41 WEFT ENDS PER LINEAR YARD. STRAW BLANKET MAY ALSO BE USED.
- EXISTING MAJOR TREES LEFT IN PLACE SHOULD BE MONITORED FOR SIGNS OF UNDERCUTTING OR IMMINENT TOPPLING. TREES IN DANGER OF TOPPLING SHALL BE CUT BEFORE THEY FALL AND THE ROOT SYSTEM SHALL BE LEFT INTACT.
- TURF GRASS SEED OR SOD SHALL BE USED TO RESTORE THE PORTION OF ACCESS ROAD THAT LIES ABOVE THE BLUFF.
- SEED SHALL BE APPLIED AT THE RATE RECOMMENDED BY THE SEED SUPPLIER. REVEGETATED AREA SHALL BE FERTILIZED IN ACCORDANCE WITH RECOMMENDATIONS FROM SEED SUPPLIER.
- MOWING IS NOT PERMITTED IN REVEGETATED AREA.

### "NATIVE STEEP SLOPE MIX" (ERNMX-181; ERNST SEEDS):

Indiangrass	32%
Annual Ryegrass	20% (cover crop)
Virginia Wildrye	10%
Big Bluestem ('Niagara')	9.6%
Canada Wildrye	5%
Autumn Bentgrass	5%
Switchgrass (shelter)	4%
Deertongue	3%
Little Bluestem ('Camper')	2%
Partridge Pea	1.3%
Purple Coneflower	1.2%
Purpletop	1.2%
Lanceleaf Coreopsis	1%
Blackeyed Susan	1%

### "SHOWY NORTHEAST NATIVE WILDFLOWER & GRASS MIX" (ERNMX-153; ERNST SEEDS):

Little Bluestem ('Camper')	35%
Sideoats Grama ('Butte')	24%
Virginia Wildrye	10%
Purple Coneflower	3.5%
Partridge Pea	3%
Lanceleaf Coreopsis	3%
Blackeyed Susan	3%
Butterfly Milkweed	2%
Oxeye Sunflower	2%
Tall White Beardtongue	2%
Smooth Blue Aster	1%
Marsh (Dense) Blazing Star	1%

### RECOMMENDED SHRUBS

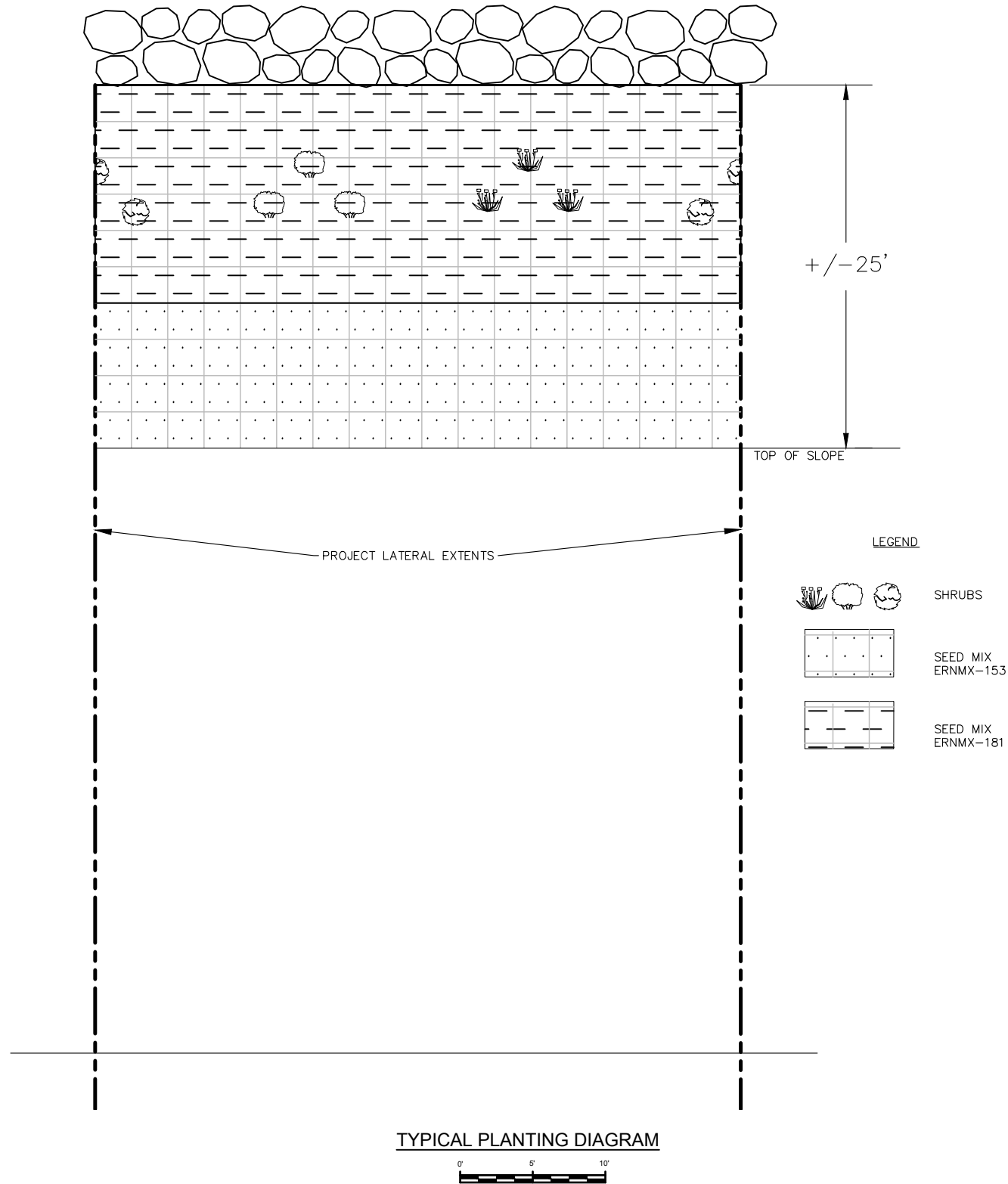
American cranberry  
Ninebark  
Bush honeysuckle  
Buttonbush  
Clethra

(Native shrubs chosen for bloom time to attract pollinators & berries to attract wildlife, low maintenance and local availability. A mixture of varieties shall be used.)

### MAINTENANCE PLAN

(CONSULT 30-YEAR MAINTENANCE PLAN AGREEMENT FOR ADDITIONAL REQUIREMENTS)

DESCRIPTION	METHOD	FREQUENCY	TIME OF YEAR
WATERING	WATER TRUCK/ HAND HOSE	AT PLANTING, ONCE/WEEK FOR 1ST MONTH IF < 1" RAIN RECEIVED. AS NECESSARY THEREAFTER TO MAINTAIN HEALTH OF PLANTS	MAY-NOVEMBER
INSPECTION	VISUAL	ONCE PER WEEK FOR FIRST TWO MONTHS MONTHLY THEREAFTER	APRIL-NOVEMBER
REPLACEMENT	ROOT STOCK OR SEED, AS NECESSARY	AS NEEDED DURING FIRST TWO YEARS OF GROWING SEASON PER VISUAL INSPECTION	GROWING SEASON



TYPICAL PLANTING DIAGRAM

NOTE  
1. PLANTING DIAGRAM WILL BE EXPANDED TO WIDTH OF PROJECT EXTENTS AS APPROPRIATE.

DATE	BY	REVISION	NO.
2/29/20	KLP		

REVISIONS RECOMMENDED SHRUBS TO INCLUDE ONE THAT ATTRACT POLLINATORS

**EnSol, Inc.**  
Environmental Solutions  
661 MAIN STREET  
NIAGARA FALLS, NY 14301  
PHONE (716) 285-3920  
FAX (716) 285-3928

CLIENT:  
TOWN OF PORTER

SITE:  
FORT NIAGARA BEACH  
TOWN OF PORTER  
COUNTY OF NIAGARA  
STATE OF NEW YORK

PROJECT:  
FORT NIAGARA BEACH  
SHORELINE STABILIZATION  
PROJECT

TITLE:  
REVEGETATION PLAN

ISSUE:  
DES: BPB DRN: BPB CHK: JBB

PROJECT NO: 19-0011 DATE: JULY 2019

GRAPHIC SCALE:  
AS NOTED

FILE:  
19-0011 Shoreline Stabilization-r1.dwg

REV NO: 0 SHEET NO: 4

<b>Ft. Niagara Beach</b>	<b>Town of Porter</b>	<b>OCR Project #942IT220-17</b>
<b>Bank Restoration - Scope &amp; Cost Estimate</b>		<b>Date prepared: 2/27/2020</b>
<b>Project area is approximately 300' x 25'</b>		

**Scope of work**

Furnish all labor, materials, and equipment necessary to finish-grade and place topsoil on the slope restoration area; seed, fertilize and mulch the slope; supply, plant, fertilize and mulch all shrubs; and inspect vegetation and plantings for the first two months of the first growing season. Plantings that fail within one year after planting will be replaced.

**Materials**

**Topsoil**

**Grasses & wildflowers (Hydroseed/Hydromulch)**

**Native Steep Slope Mix ERNMX-181**

**Winter Wheat (for fall planting)**

**Showy Northeast Native Wildflower & Grass Mix ERNMX-153**

**Native Shrubs**

**American cranberry**

**Ninebark**

**Bush honeysuckle**

**Buttonbush**

**Clethra**

*(Native shrubs chosen for bloom time to attract pollinators & berries to attract wildlife, low maintenance and local availability. A mixture of varieties shall be used.)*

**Straw mulch**

**Fertilizer**

**Jute netting**

**Staples**

**Cost**

<b>Subtotal</b>	<b>85,000</b>
<b>Contingency (5%)</b>	<b>8,500</b>
<b>Total</b>	<b>\$93,500</b>

**Fort Niagara Beach Shoreline Stabilization Project**  
**JOINT APPLICATION FORM**  
**Item 9 Project Description and Purpose**

Project Description and Purpose

On behalf of the Town of Porter, owner of approximately 1.89 acres of land at Fort Niagara Beach, EnSol, Inc. has prepared this application and plan for the installation of a shoreline protection system along Lake Ontario in the Town of Porter, Niagara County. The Town's property lies between the lake and the following residential properties to the south (see Figure 1):

- 443 Powell Drive
- 445 Powell Drive
- 447 Powell Drive
- 446 Powell Drive
- 455 Powell Drive
- 457 Powell Drive
- 459 Powell Drive

The property is not part of Fort Niagara State Park.

A large portion of the bluff on the unprotected portion of the Fort Niagara Beach property has significantly eroded due to changes in water levels and storm events. Erosion has caused loss of property, trees and soil, unstable (undercut) banks, and has created difficult and hazardous conditions for the owners of the adjacent residential properties. In 2017, an 80-foot section of the property collapsed, losing almost 12 feet of the bluff. Erosion has made the bluff susceptible to further collapse, which could cause serious injury to residents who walk along the bluff, as the drop to the water level is 40-50 feet straight down. Unchecked, erosion poses a threat to adjacent residents' properties and homes. After consideration of proposed alternatives such as relocating structures or doing nothing, the property owner feels that this course of action is reasonable and necessary.

This project is an effort to establish shoreline protection in areas where either no shoreline protection previously existed or a previous system has deteriorated. The new system would span approximately 300 feet from the existing neighboring system to the west (constructed in 2009) and the property boundary to the east. The proposed project is intended to prevent further deterioration of the bluff and shoreline, loss of property and vegetation, and provide safe access to the bluff for the adjacent property owners and nearby residents.

The project has been designed to keep excavation and riprap placement above the mean high water level of 247.50' ILGD85. The Department has stated that the materials from failed structures within the project limits should be either removed or repaired. However, in order to perform this work, entry into the water would be necessary. As seen in Photo #2 there are remnants of a previous structure that lie below the mean high water level. If DEC can approve the retrieval of old structure materials from the shoreline and water as part of this permit application, this work will be performed as part of the project. If not, materials that can be reached from the shoreline without entering the water will be removed. Boulders may be used in the new structure as appropriate. Concrete will not be used in the new structure.

### Description of Current Conditions

Recent aerial photography (Google Earth) was used to depict existing conditions at the project site and adjacent properties, as shown on Sheet 1. Recent photographs (c. March 2019) show the current condition of the bluff on the property. The photos demonstrate the loss of property and trees, and unstable bluff areas at the project site. It is not possible to safely access the bluff.

### Project Design

The system comprises structural measures along with re-establishing native (or suitable) vegetation. The detail on Sheet 3 illustrates the typical design for installation of the rock revetment. The system has been designed to span the shoreline between stable areas where little to no erosion is occurring. No work (excavation and riprap placement) will take place below the mean high water level of 247.50' IGLD85. A 1.5H:1V slope has been used for the revetment structure, with a slope of 2H:1V for the revegetated area from the top of the structure to the top of the bluff. The area of disturbance is less than ½-acre.

The project area will be revegetated as illustrated on the planting diagram on Sheet 4. The project contractor will be responsible for completing revegetation in accordance with the approved plan.

A 30-year Maintenance Plan Agreement is included in this submittal. After the permit is issued, and before work begins, the agreement will be completed by the property owner (Town of Porter) and the Department of Environmental Conservation. The agreement details structure components, vegetation plan and additional long-term maintenance requirements, which are illustrated on Sheets 4.

### Types and Quantities of Materials

Cross section and construction details are shown on Sheets 2 and 3. Woven geotextile fabric will be placed over the filter stone on the lower portion of the bluff and extended into the keyway. Large limestone boulders (4000-8000 lbs) will be placed in the keyway, and up the slope. Angular quarry stone boulders (approximately 500-1000 lbs) shall be placed over the filter stone. It is anticipated that the stone will be obtained from a local limestone quarry. Smaller limestone stones will be used for chinking. Topsoil will be placed on the bluff face and graded in preparation for planting. The Revegetation Plan (Sheet 4) specifies the types, locations and method of placement for plant materials that will be used to stabilize the bluff face. All materials used in construction will be approved by the Department.

### Equipment

A Caterpillar 345D excavator or similar machine will be used to prepare the slope, keyway and subgrade. Dump trucks will be used to transport soil and smaller stone materials. Large boulders will be transported by dump truck or flatbed trailer. The excavator will be used to place the boulders. A small bulldozer will be used for fine grading and placement of topsoil. Placement of geotextile and chinking stones will be performed by hand.

### Access

The access point for construction equipment and materials will be via the north end of Park Avenue, which is in the approximate center of the work area. Areas disturbed by equipment access will be restored in accordance with the Revegetation Plan on Sheet 4.

### Work Progression

Construction will begin when high water levels have subsided. The project will begin at the west end of the project area. The work shall proceed eastward in a continuous, uniform fashion until it is completed at the east end of the project area. Care will be taken not to disturb existing vegetation outside the project area.

### Control and Mitigation of Impacts

Erosion and sediment control measures will be used to protect water quality at the project site during construction. Silt fencing and careful material placement will prevent material from entering the lake. Vegetation will be established in areas disturbed during construction. Disturbance of existing topography and vegetation is temporary, and surfaces will be stabilized as soon after completion as practicable. The detail on Sheet 4 shows the proposed vegetation plan. Final conditions will result in a system that will protect the shoreline and bluff from erosion.

Noise and emissions due to equipment and vehicle operation will occur during the project. Due to the short duration of the project (approximately four weeks for excavation, boulder placement, grading and planting/seeding), impacts are expected to be minimal. As a mitigating measure, work hours will be limited to 8:00 am to 5:00 pm, Monday through Saturday.





Source: <http://gis2.erie.gov>

<b>EnSol, Inc.</b> Environmental Solutions 661 Main Street, Niagara Falls, NY 14301 Ph:716-285-3920 Fax: 716-285-3928	<b>FORT NIAGARA BEACH SHORELINE          STABILIZATION</b>	<b>FIGURE 1</b>
Prepared By: KLP Date: 5/15/19 Filename: 19-0011 Figures	<b>Town of Porter          Niagara County</b>	<b>Project Location</b>  PN: 19-0011 June 2019





Photo #1: View of proposed shoreline stabilization area, looking west.

EnSol, Inc. Environmental Solutions 661 Main Street, Niagara Falls, NY 14301 Ph: 716-285-3920 Fx: 716-285-3928	<b>Existing Conditions</b>	<b>PROJECT PHOTOGRAPHS</b>	
Prepared By : KLP Date Taken: March 2019 File Name : Photographs	<b>Shoreline Stabilization Project Fort Niagara Beach Youngstown, NY 14174</b>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 24px; font-weight: bold;">1</span> </div>	Page No.
Town of Porter		PN: 19-0011 March 2019	



Photo #2: View of proposed shoreline stabilization area, west end.

EnSol, Inc. Environmental Solutions 661 Main Street, Niagara Falls, NY 14301 Ph: 716-285-3920 Fx: 716-285-3928	<b>Existing Conditions</b>	<b>PROJECT PHOTOGRAPHS</b>	
Prepared By : KLP Date Taken: March 2019 File Name : Photographs	<b>Shoreline Stabilization Project Fort Niagara Beach Youngstown, NY 14174</b>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 24px; font-weight: bold;">2</span> </div>	Page No.
Town of Porter		PN: 19-0011 March 2019	



Photo #3: View of proposed shoreline stabilization area, looking east.

EnSol, Inc. Environmental Solutions 661 Main Street, Niagara Falls, NY 14301 Ph: 716-285-3920 Fx: 716-285-3928	<b>Existing Conditions</b>	<b>PROJECT PHOTOGRAPHS</b>	
Prepared By : KLP Date Taken: March 2019 File Name : Photographs	<b>Shoreline Stabilization Project Fort Niagara Beach Youngstown, NY 14174</b>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <span style="font-size: 24px; font-weight: bold;">3</span> </div>	Page No.
Town of Porter		PN: 19-0011 March 2019	



Photo #4: View of adjacent (west) stabilized shoreline.

EnSol, Inc.  
 Environmental Solutions  
 661 Main Street, Niagara Falls, NY 14301  
 Ph: 716-285-3920 Fx: 716-285-3928

---

Prepared By : KLP  
 Date Taken: March 2019  
 File Name : Photographs

**Existing Conditions**

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**Shoreline Stabilization Project**  
**Fort Niagara Beach**  
**Youngstown, NY 14174**

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Town of Porter

**PROJECT**  
**PHOTOGRAPHS**

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	<b>4</b>
Page No.	

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PN: 19-0011 March 2019

# TOWN OF PORTER FORT NIAGARA BEACH SHORELINE STABILIZATION PROJECT

JUNE 2019

## INDEX OF DRAWINGS

SHEET NO.	TITLE
C-01	EXISTING CONDITIONS PLAN
C-02	PROPOSED SYSTEM OVERVIEW
C-03	CONSTRUCTION DETAILS & MAINTENANCE PLAN
C-04	REVEGETATION PLAN



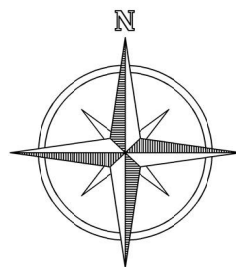
SOURCE: Google Maps

**REGIONAL MAP**  
NTS

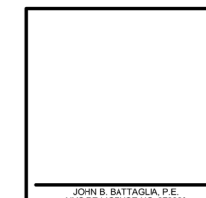


SOURCE: GoogleEarth

**VICINITY MAP**  
NTS



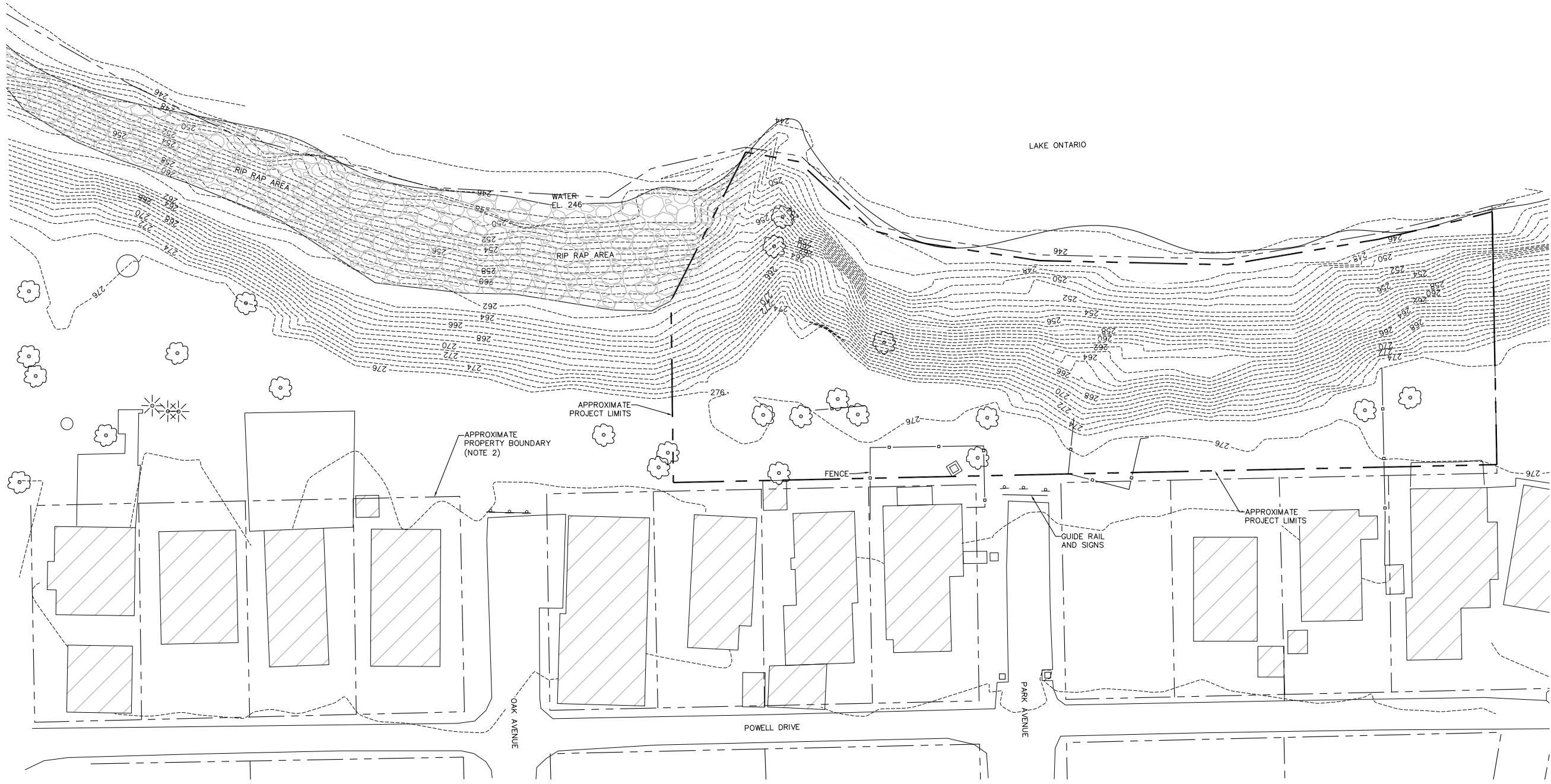
PREPARED FOR:			
TOWN OF PORTER 3265 CREEK ROAD YOUNGSTOWN, NEW YORK 14174			
PREPARED BY:			
<b>EnSol, Inc.</b> Environmental Solutions 661 MAIN STREET NIAGARA FALLS, N.Y. 14301 PHONE (716) 285-3920 FAX (716) 285-3928			
DATE:	DWG:	CHECKED BY:	PROJ. NO.:
JUNE 2019	19-0011-000-TITLE SHEET	JBB	19-0011



IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY.



NO.	REVISION	DATE	BY
1			
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- NOTES:**
1. BASE MAP PREPARED FROM TOPOGRAPHIC SURVEY CONDUCTED BY ENSOL, INC. AND LEE GREEN CONSULTING, LLC. DATED MARCH 27, 2019.
  2. PROPERTY LINES ARE TAKEN FROM TAX MAPS AND ARE APPROXIMATE.
  3. NO EXCAVATION OR FILL WILL TAKE PLACE BELOW THE ORDINARY HIGH WATER LEVEL OF LAKE ONTARIO.

**LEGEND:**

	PROJECT AREA
	APPROXIMATE PROPERTY LINE (NOTE 2)
	EXISTING FENCE
	EXISTING CONTOUR (1-FOOT INTERVAL)
	EXISTING EROSION CONTROL SYSTEM
	EXISTING STRUCTURE
	EXISTING TREE

**EnSol, Inc.**  
**Environmental Solutions**  
 661 MAIN STREET  
 NIAGARA FALLS, NY 14301  
 PHONE (716) 285-3920  
 FAX (716) 285-3928

CLIENT:  
**TOWN OF PORTER**

SITE:  
**FORT NIAGARA BEACH**  
 TOWN OF PORTER  
 COUNTY OF NIAGARA  
 STATE OF NEW YORK  
 PROJECT:  
**FORT NIAGARA BEACH  
 SHORELINE STABILIZATION  
 PROJECT**

TITLE:  
**EXISTING CONDITIONS  
 PLAN**

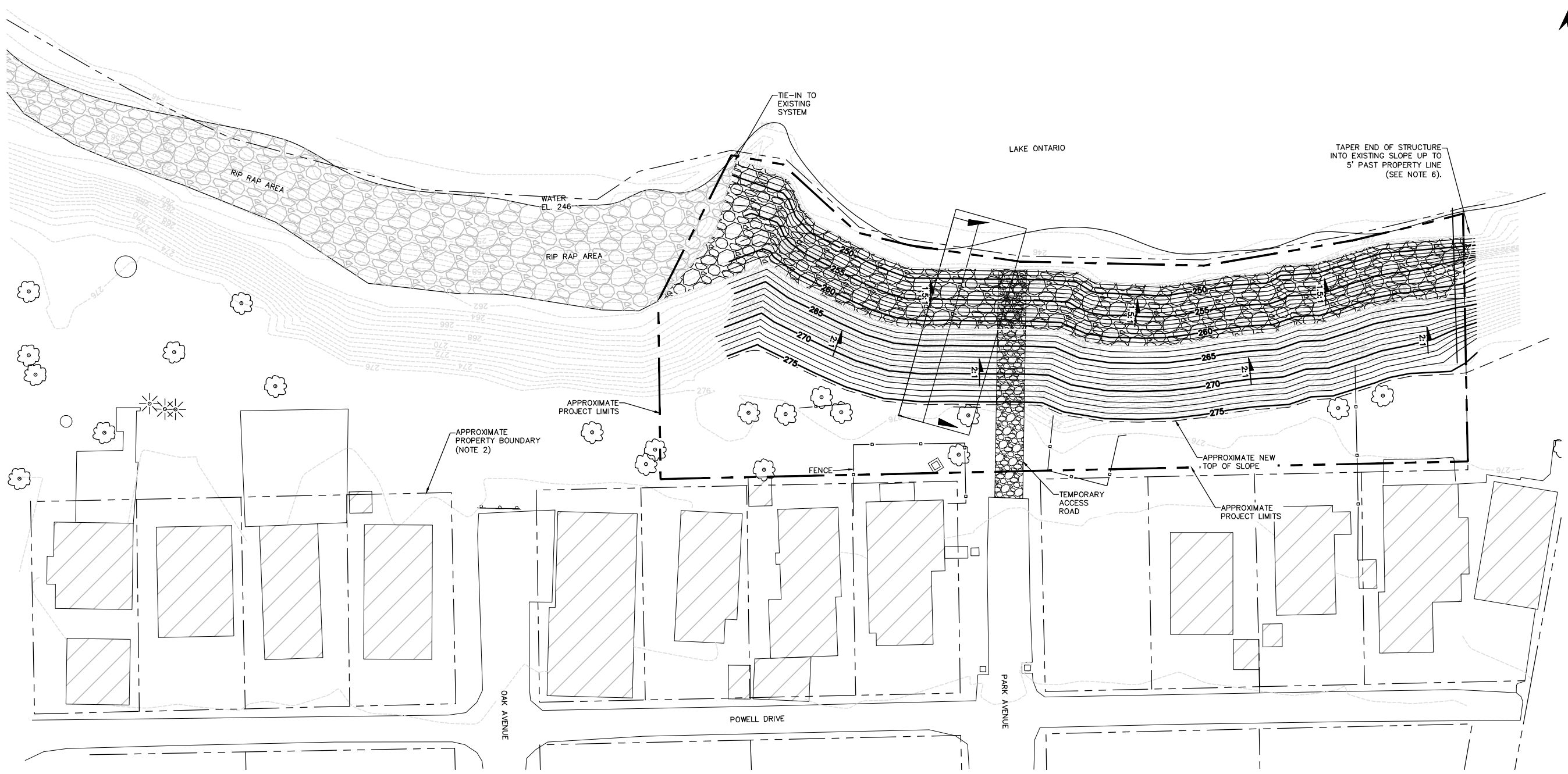
ISSUE: ---

DES:	DRN:	CHK:
BPB	BPB	JBB
PROJECT NO:	DATE:	
19-0011	JUNE 2019	

GRAPHIC SCALE:  
 0' 20' 40'

FILE:	19-0011 Shoreline Stabilization.dwg	
REV NO:	SHEET NO:	
<b>0</b>	<b>1</b>	

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 SECTION 7209, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY.



NO.	REVISION	DATE	BY

**EnSol, Inc.**  
Environmental Solutions  
661 MAIN STREET  
NIAGARA FALLS, NY 14301  
PHONE (716) 285-3920  
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CLIENT:  
TOWN OF PORTER

SITE:  
FORT NIAGARA BEACH  
TOWN OF PORTER  
COUNTY OF NIAGARA  
STATE OF NEW YORK  
PROJECT:  
FORT NIAGARA BEACH SHORELINE STABILIZATION PROJECT

TITLE:  
PROPOSED SYSTEM OVERVIEW

ISSUE:		
DES:	DRN:	CHK:
BPB	BPB	JBB
PROJECT NO:	DATE:	
19-0011	JUNE 2019	
GRAPHIC SCALE:		
0' 20' 40'		
FILE:		
19-0011 Shoreline Stabilization R.dwg		
REV NO:	SHEET NO:	
0	2	

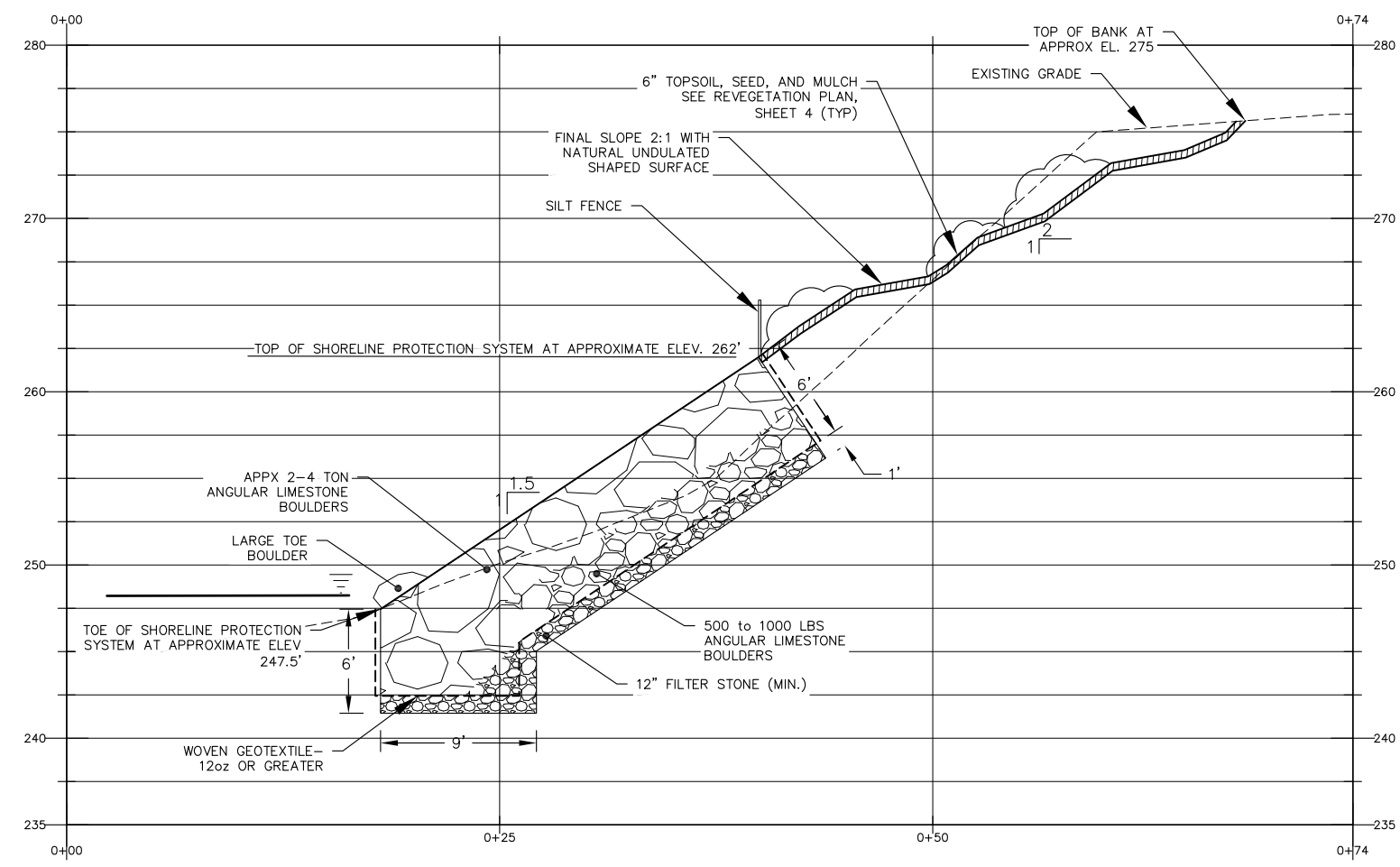
- NOTES:**
- BASE MAP PREPARED FROM TOPOGRAPHIC SURVEY CONDUCTED BY ENSOL, INC. AND LEE GREEN CONSULTING, LLC. DATED MARCH 27, 2019.
  - PROPERTY LINES ARE TAKEN FROM TAX MAPS AND ARE APPROXIMATE.
  - NO EXCAVATION OR FILL WILL TAKE PLACE BELOW THE ORDINARY HIGH WATER LEVEL OF LAKE ONTARIO.
  - LENGTH OF ACCESS ROAD WILL BE ADJUSTED AS NEEDED TO PERFORM EXCAVATION AND CONSTRUCTION.
  - ALL DISTURBED AREAS WILL BE REVEGETATED IN ACCORDANCE WITH THE PLAN ON SHEET 4.
  - STRUCTURE WILL BE TERMINATED/TAPERED AT THE EAST PROPERTY LINE. A SEPARATE JOINT APPLICATION WILL BE SUBMITTED IF STRUCTURE IS TO BE EXTENDED MORE THAN 5 FEET ONTO ADJACENT PROPERTY.

**LEGEND:**

	PROJECT AREA
	APPROXIMATE PROPERTY LINE (NOTE 2)
	EXISTING FENCE
	EXISTING CONTOUR (1-FOOT INTERVAL)
	EXISTING EROSION CONTROL SYSTEM
	EXISTING STRUCTURES
	PROPOSED CONTOUR (1-FOOT INTERVAL)
	PROPOSED CONTOUR (5-FOOT INTERVAL)
	PROPOSED EROSION CONTROL SYSTEM
	PROPOSED ACCESS ROAD
	EXISTING TREE



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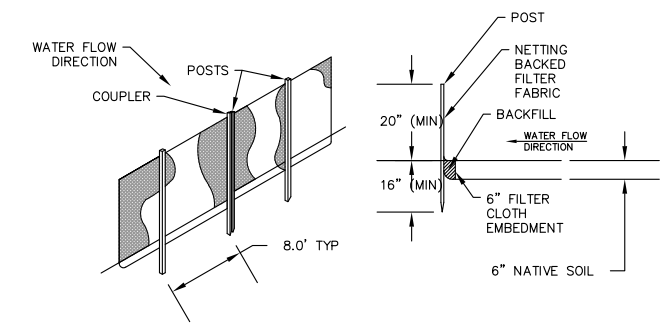


**PROPOSED EROSION CONTROLS AND RE-GRADING SECTION A-A**  
N.T.S.

**NOTES:**

1. THE STRUCTURE WILL BE FIELD-ADJUSTED TO ACCOMMODATE CONDITIONS EXISTING AT THE TIME OF CONSTRUCTION.
2. SLOPE VARIES ALONG THE LENGTH OF THE STRUCTURE. SEE PROPOSED GRADING AND SECTION A-A.
3. MATERIAL FROM DETERIORATED STRUCTURES (CONCRETE, BOULDERS AND REBAR) ABOVE THE MEAN HIGH WATER LEVEL WILL BE RETRIEVED. BOULDERS OF APPROPRIATE SIZE MAY BE USED IN THE STRUCTURE. NO OTHER MATERIALS WILL BE USED.
4. NO EXCAVATION OR FILL WILL TAKE PLACE BELOW THE ORDINARY HIGH WATER LEVEL OF LAKE ONTARIO.
5. EXCAVATED SOIL WILL BE USED IN BACKFILL AREAS OR STOCKPILED AND USED FOR REVEGETATION
6. ROUND FIELD STONE OR SMOOTH-FINISH BOULDERS ARE NOT TO BE USED
7. BOULDERS ARE TO BE PLACED INDIVIDUALLY
8. LIMESTONE CHINKING/FILLING STONES OF VARIOUS SIZES ARE TO BE USED TO ACHIEVE A DENSE, TIGHT FIT WITH A SMOOTH FACE.
9. ALL DEBRIS SHALL BE REMOVED FROM WORK AREA AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. TOPSOIL QUANTITY ASSUMES NO AVAILABLE TOPSOIL ON SITE.

BACKFILL QUANTITIES		
MATERIAL	SIZE	VOL (CYD)
ANGULAR LIMESTONE BOULDERS	2 TO 4 TONS	1460
ANGULAR LIMESTONE BOULDERS	500 TO 1000 LBS	465
FILTERSTONE / CHINKING STONE	NO. 3 ROC	670
TOPSOIL	NA	135



**SILT FENCE DETAIL**  
N.T.S.

**LONG TERM MAINTENANCE PLAN**

IN ACCORDANCE WITH THE 30-YEAR MAINTENANCE PLAN AGREEMENT THE TOWN IS RESPONSIBLE TO MAINTAIN THE STRUCTURE FOR AT LEAST 30 YEARS. INSPECTION AND MAINTENANCE SHALL BE PERFORMED AS FOLLOWS:

- INSPECTION**
- STRUCTURE SHALL BE VISUALLY INSPECTED MONTHLY (FIRST WEEK OF EACH MONTH) AND AFTER SIGNIFICANT STORM EVENTS.
  - INSPECT FOR THE FOLLOWING:
    - OVERALL INTEGRITY AND FUNCTION OF STRUCTURE
    - DISLODGED OR DETERIORATED BOULDERS AND STONES
    - EROSION, SCOURING OR SIGNIFICANT LOSS OF MATERIAL
    - EXPOSED FILTER STONE OR FILTER FABRIC
    - DAMAGED OR MISSING VEGETATION

- MAINTENANCE**
- PERFORM REPAIR OR REPLACEMENT OF DETERIORATED MATERIALS USING LIKE SIZE AND KIND. REPAIR ANY VEGETATION DISTURBED AS A RESULT OF MAINTENANCE ACTIVITIES.

1. THE TOWN SHALL CONSULT MAINTENANCE PLAN AGREEMENT FOR COMPLETE MAINTENANCE GUIDELINES AND REQUIREMENTS.
2. CONSULT A PROFESSIONAL ENGINEER IF SIGNIFICANT DAMAGE OR DETERIORATION OF THE STRUCTURE IS OBSERVED.
3. NORMAL MAINTENANCE OF AN EROSION PROTECTION STRUCTURE DOES NOT REQUIRE A COASTAL EROSION MANAGEMENT PERMIT.

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FORT NIAGARA BEACH SHORELINE STABILIZATION PROJECT

TITLE:  
CONSTRUCTION DETAILS & MAINTENANCE PLAN

ISSUE:

DES: BPB	DRN: BPB	CHK: JBB
PROJECT NO: 19-0011	DATE: JUNE 2019	
GRAPHIC SCALE: NTS		
FILE: 19-0011 Shoreline Stabilization.dwg		
REV NO:	SHEET NO:	
0	3	

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Thank you for your support and  
consideration of our proposal