



Niagara River Greenway Commission Project Consultation & Review Submission

NORTH TONAWANDA BOTANICAL GARDENS LIVING SHORELINE

September 2018



PROJECT INFORMATION

Project Name: ___ North Tonawanda Botanical Gardens Living Shoreline _____
Location: ___ North Tonawanda Botanical Gardens _____
Site Address: ___ 1825 Sweeney Street, North Tonawanda _____
State: ___ New York _____ Zip Code: ___ 14120 _____
Minor Civil Division(s): _____
County: ___ Erie _____
Project Proponent Property Interest (own, lease, easement or other): Other _____

AUTHORIZED OFFICIAL

Name: ___ Jill Jedlicka _____ Title: ___ Executive Director _____
Business Address: ___ 721 Main St _____
State: ___ New York _____ Zip Code: ___ 14203 _____
Telephone Number: ___ 716-852-7483 x21 _____ Cell Number: _____
Fax Number: _____
E-Mail Address: ___ jedlicka@bnwaterkeeper.org _____

PROJECT POINT OF CONTACT

Name: ___ Emily Sadowski _____ Title: ___ Senior Program Manager _____
Organization/Firm: ___ Buffalo Niagara Waterkeeper _____
Business Address: ___ 721 Main Street, Buffalo _____
State: ___ New York _____ Zip Code: ___ 14203 _____
Telephone Number: ___ 716-852-7483 x16 _____ Cell Number: ___ 240-643-6036 _____
Fax Number: ___ 716-885-0765 _____
E-Mail Address: ___ esadowski@bnwaterkeeper.org _____

1. IN A BRIEF PARAGRAPH, DESCRIBE THE PROJECT AND ITS PURPOSE, HOW AND WHEN IT WILL BE ACCOMPLISHED, AND WHY IT IS IMPORTANT.

This project is a continuation of Buffalo Niagara Waterkeeper's (Waterkeeper's) Niagara River Riparian Restoration Program (also referred to as Living Shoreline Program). The program was developed in response to several planning initiatives and data analysis revealing the vast loss in natural shorelines and coastal wetland habitats within the Niagara Region. Modeling best practices from similar shoreline restoration programs around the nation, Waterkeeper's Living Shoreline Program aims to address the gap between interested waterfront landowners and required resources for on-the-ground restoration. This program leverages the skills and existing resources of conservation partners to increase riparian restoration activities in the Niagara River Greenway while increasing community engagement and awareness of shoreline best management practices. To date, Waterkeeper has implemented three successful shoreline restoration projects through this program at Sandy Beach Park Club, Hyde Park Lake, and Ellicott Creek Park, with a fourth beginning in the next few months at Tiffit Nature Preserve. The completed projects have been successful in restoring degraded shoreline areas while demonstrating the benefits of nature-based landscape management.

The project area is located at the North Tonawanda Botanical Gardens- 1825 Sweeney Street, North Tonawanda NY. This 12-acre park includes specimen trees, shrubs and flowers, along with a gazebo for lease and a public boat launch on the western banks of the Erie Canal just north of East Robinson Street.

The goal of this project is to transform the existing, degraded shoreline into a more natural, resilient, and self-repairing form which will better support a sustainable, protective, and higher-functioning ecosystem. This will be accomplished from December 2018 through October 2020 (see timeline below), during which time Waterkeeper will oversee design, review, and implementation by convening with project partners, design consultants, and a construction contractor hired through a formalized bidding process. Numerous ecological benefits will be achieved through this project, including increased aquatic and shallow water habitat to create important spawning, resting, feeding, and nesting areas for a variety of fish and wildlife species, vegetation to improve water quality by filtering runoff and other inputs from entering Tonawanda Creek, and shoreline vegetation to shield the soil from erosive forces, creating a self-sustaining habitat that grows stronger over time. The improvements achieved through this project will contribute towards the revitalization of a regionally significant waterfront resource and draw people to this unique destination offering educational and recreational opportunities that fit a wide array of ages and abilities.

Methods:

Waterkeeper will lead this project. The existing conceptual design will serve as a starting point for the design process. Waterkeeper will convene partners in order to gather feedback on the conceptual design to ensure all project components are consistent with landowner/operator goals and current and future uses of the site. A design consultant, selected through a competitive bid process, will then move forward with developing the design from schematic to full construction documents based on feedback. The consultant will also be responsible for identifying whether additional pre-design analyses and surveys need to be completed and will gather all necessary information. Waterkeeper will meet with the consultant several times throughout design development to ensure all elements and details remain consistent with goals and objectives. Waterkeeper will lead the permitting process with the design details provided by the consultant. Upon completion of construction documents and specifications, Waterkeeper will complete a competitive bid process for a contractor. Waterkeeper will oversee all construction activities which may include the consultant as needed. In addition, Waterkeeper will develop educational signage to be installed by the construction contractor.

TIMELINE:

December 2018 – February 2019

- Secure landowner agreements with NYS Canal Corps and City of North Tonawanda

- Convene partners to review current schematic design and gather feedback
- Develop and release RFP for design consultant, review proposals, conduct interviews as necessary, select consultant and execute contract
- Begin to identify State and Federal permits necessary for implementation

March 2019 – May 2019

- Consultant identifies survey/data collection needs and completes data collection
- In coordination with Waterkeeper, consultant develops schematic designs, construction documents and specifications
- Permits submitted by Waterkeeper

June 2019 – August 2019

- Construction documents and specifications finalized
- Develop and release RFP for contractor, review proposals, conduct interviews as necessary, select contractor and execute contract
- Permits secured
- Waterkeeper develops educational signage

September 2019 – October 2019

- Restoration implementation and plantings, and installation of educational signage
- Protective fencing is installed to protect restoration area for first year of establishment
- One-year Period of Establishment begins

October 2019- October 2020

- Waterkeeper completes monthly site visits to ensure project is establishing successfully
- Contractor to complete repairs and replacements as needed
- Waterkeeper develops long-term maintenance plan and reviews with North Tonawanda personnel prior to end of Period of Establishment

2. REFERRING TO THE NIAGARA RIVER GREENWAY PLAN, CLEARLY DOCUMENT AND DESCRIBE HOW THE PROPOSED PROJECT WILL ADVANCE THE NIAGARA RIVER GREENWAY VISION INCLUDING THE GOALS, PRINCIPLES, AND CRITERIA THAT DEFINE THAT VISION.

The Living Shorelines Program has been found consistent with the Greenway Plan and the Settlement Agreement by the Greenway Commission. Protection and habitat enhancement, such as wetland and meadow habitat creation along Tonawanda Creek and its tributaries is specifically called out as a priority in the Niagara River Greenway Plan. In addition, threats from bank erosion, pollution, and stormwater runoff were noted as key issues, all of which will be addressed by this project.

GUIDING PRINCIPLES

The proposal meets all eleven principles as defined by the Niagara River Greenway Plan:

Excellence

In congruence with the history of success of our Living Shorelines projects, Waterkeeper is committed to ensuring that this project is completed with excellence. Through the restoration this site along Tonawanda Creek, additional natural amenities will be provided to North Tonawanda residents and visitors to the Gardens, improving overall quality of life and the experiences visitors have in Western New York. Through this Living

Shorelines project, the City will also enhance its coastal resiliency, increasing the safety of its residents and environmental stability.

Restoration

The location of the proposed project ensures that it will be guided by the principle of restoration. Degraded shoreline along Tonawanda Creek will be directly addressed through planning, design, and implementation efforts that correct previously degenerative effects on the ecosystem and return it to a state of ecological health. Restoration outcomes of the project will include increased aquatic and shallow water habitat to create important spawning, resting, feeding, and nesting areas for a variety of fish and wildlife species, vegetation to improve water quality by filtering runoff and other inputs from entering Tonawanda Creek, and shoreline vegetation to shield the soil from erosive forces, creating a self-sustaining habitat that grows stronger over time.

Celebration

This project will be designed to celebrate the natural water resources that typify this region in Western New York. As beneficiaries of this environmental restoration, local residents and visitors to the Living Shoreline Project at the Botanical Gardens will experience the beauty, tranquility, and joy generated from visiting a thriving natural setting. Public events, tours, and gatherings held at the site will amplify this sense of celebration and increase the personal and interpersonal benefits of this project on the local community.

Sustainability

Long-term sustainability of the property will be achieved through continued partnership with the North Tonawanda Botanical Gardens, which as owner of the site will ensure its maintenance as an environmental restoration site. Every effort will be made to ensure that the restoration master plan incorporates design concepts that will not only protect but also enhance the habitat value of the site. Our environmental restoration techniques will repair and enhance the shoreline into a natural system that is functional and self-repairing.

Authenticity

The North Tonawanda Botanical Gardens Living Shoreline Project promotes authenticity as it directly addresses and reverses degradative effects on the Tonawanda Creek system, restoring the shoreline to its true natural state. Human activities which have altered the natural setting, such as mowing to the shoreline, will be halted in order to promote the site return to its normal ecological conditions.

Accessibility

Restoration and enhancements will occur immediately north of an existing boat launch along Tonawanda Creek at the site. Project enhancements will facilitate further amplification of already-growing visitor presence along the shoreline in designated public access points while also ensuring shoreline protection measures are successful and sustained.

Ecological Integrity

The North Tonawanda Botanical Gardens rest along important habitat on Tonawanda Creek that has experienced long-term degradation due to human activity and presence. Currently, the site is devoid of true riparian vegetation, contains very few trees, and features grasses which are mowed to the shore's edge. Restoration, enhancement, and preservation of habitat within the property presents a great opportunity for ecological integrity to be restored at this site, contributing to the creation of the Greenway.

Partnerships

Through Waterkeeper's collaborative efforts with the City of North Tonawanda, NYS Canal Corporation, the North Tonawanda Botanical Garden Organization, consultants, contractors, and others, this project will engender new and improved partnerships united toward environmental improvement in the Western New York region.

Public Well-Being

Increased public use of the site, initially prompted by the installation of a paddle sport launch by the North Tonawanda Botanical Garden Organization several years ago, will grow exponentially following additional shoreline, riparian and upland improvements to the project area. Public access to Tonawanda Creek will foster increased environmental awareness as well as personal and interpersonal well-being as individuals and groups come together to enjoy and benefit from the restored site.

Community Based

The project will enhance land immediately north of a publically accessible boat launch put in several years ago which brought increased activity to the area. The high profile of public activity at this cultural heritage site offers a large potential for community benefits to grow exponentially following further restoration activities.

Connectivity

The site affords connectivity to other Living Shorelines in the Niagara River Riparian Corridor (such as at Hyde Park, Sandy Beach) and is also located within the Greenway Focus Area. Thus, connectivity to other Living Shoreline sites and to the Greenway as a whole will certainly be a guiding principle of this restoration effort.

GOALS

The proposal meets all seven goals as defined by the Niagara River Greenway Plan:

Improve Access and Make Connections

Access to the boat launch at the site will be improved through this project which will provide designated public access to the water to allow the community to experience the valuable natural and cultural resources at the site. A network of low-impact pathways and educational signage will allow the public to make connections and illustrate the site's importance as a natural shoreline.

Promote Long Term Sustainability

A variety of environmental features will be incorporated to ensure this Living Shoreline is ecologically sustainable. These features include bioretention and rain gardens, wet meadow, upland meadow, wildflower meadow, forested areas, wetlands, islands, native plantings, and devices for erosion protection (eg. limestone stackers). Strengthening the hydrology and ecology of the creek at our project site will foster the growth of a natural system that is self-sustaining, self-repairing, and generates positive feedback from the local community for years to come.

Extend the Legacy of Fredrick Law Olmsted

The City of North Tonawanda has been working to increase the recreational activities available to its residents through installations such as the boat launch at this site. Through restoration of the Botanical Gardens Living

Shoreline, the City will greatly increase its ability to provide a wider array of outdoor experiences and to contribute to the establishment of the Niagara River Greenway. Existing mature vegetation will be protected and preserved to the greatest extent possible at the site, trails will be installed, and an existing parking area will be partially reclaimed by the project to be re-transformed into a natural landscape. These features of the project will restore the shoreline and allow people access to nature while in the city, in line with Olmsted's vision for our region's parks.

Protect and Restore Environmental Systems

The location of the proposed North Tonawanda Botanical Gardens Living Shoreline Project ensures that it will be guided by the principle of restoration. Degraded shoreline along Tonawanda Creek will be directly addressed through planning, design, and implementation efforts that correct previously negative effects on the ecosystem and return it to a state of ecological health. Restoration outcomes of the project will include increased aquatic and shallow water habitat to create important spawning, resting, feeding, and nesting areas for a variety of fish and wildlife species, vegetation to improve water quality by filtering runoff and other inputs from entering Tonawanda Creek, and shoreline vegetation to shield the soil from erosive forces, creating a self-sustaining habitat that grows stronger over time.

Celebrate History and Heritage

The North Tonawanda Botanical Gardens are a historical landmark in the Western New York region and draw national and international visitors to this important environmental area beside Tonawanda Creek. Project enhancements will draw these visitors to the restored shoreline ecosystem, where they can tangibly interact with the environmental and aesthetic experience it provides.

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 Riparian Corridor.

CRITERIA

The proposal meets nine of the ten criteria as defined by the Niagara River Greenway Plan:

Consistency with Principles: The project addresses the guiding principles of: *ecological integrity and restoration* through upland habitat creation and in-stream habitat and water quality improvements; *connectivity* in filling a gap in an important riparian corridor along Tonawanda Creek and the Erie Canal; *partnerships* between landowners, local partners, and Waterkeeper; and *community-based* as local residents will be drawn to the restored area and will be educated about the importance of natural landscapes in the community.

Priority Status: Restoration of Tonawanda Creek is called out as a priority conservation project in the Niagara River Greenway Plan. The project will also offer improved access to waterfront resources, provide restored natural habitat in an area that has been degraded, and will offer educational opportunities through signage.

Focus Area: The project is located within the Greenway focus area.

Environmental Soundness: Through the implementation of the Niagara River Riparian Restoration Program, Waterkeeper's team has gained extensive knowledge, partnerships, and technical expertise required to administer and lead restoration projects like the one proposed here, as demonstrated through the success that has been achieved through both phases of that program to date.

Implementable: This project is very implementable, and some of the initial site investigation and schematic design has already been completed, helping to jumpstart progress in implementing this project. Additionally, Waterkeeper has experience in implementing large-scale and complicated projects throughout the region. We will also consult with local partners and utilize the expertise of our consultant and contractor throughout project development and implementation to ensure all aspects remain feasible and implementable.

Economic Viability: This project is economically viable, and will incorporate the highest level of sustainability possible. The long-term sustainability and success of the project will be ensured through maintenance activities provided by the North Tonawanda Botanical Garden Organization, and through volunteer events. Additional matching funds, detailed below, will further add to the economic viability of this project.

Local Sponsors or Partners: Waterkeeper will be the lead sponsor of the project and will work closely with the Canal Corporation and North Tonawanda, along with other partners, to successfully complete this effort.

Consideration of Other Planning Efforts: Consistency with other regional plans is detailed in the section below. The project also advances priorities outlined in the Town of Tonawanda’s Local Waterfront Revitalization Plan (2013) and Comprehensive Plan (2008) and Canal Corporation’s vision for restoration of the canal. The project will build off of existing investments made within the Botanical Garden and surrounding area, and will implement best practices and models set forth in regional, federal, and state documents.

Clear Benefits: Riparian buffers are proven to effectively reduce stormwater and degrade, extract, contain, or immobilize contaminants and excess nutrients from soil and water, and reduce shoreline erosion. Increasing the tree canopy and improving structure in soils will create areas of infiltration that support regional green infrastructure by providing flood protection and reducing nonpoint source pollution. Newly created aquatic, riparian, and upland habitats will provide beneficial resources for a multitude of fish and wildlife species. Enhanced public access and experiences will also help connect the community to the unique ecological and cultural assets that the Niagara River Greenway has to offer.

3. 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.

| Budget Category | Total |
|---|------------------|
| Personnel | \$85,300 |
| General Project Expenses | \$5,900 |
| Travel Expenses | \$1,259 |
| Contractual Services – Design and Construction | \$249,500 |
| <i>Subcontract A - Pre & Post Construction Drone Footage, including aerial topo imagery</i> | \$3,000 |
| <i>Subcontract B - Design Consultant</i> | \$42,500 |
| <i>Subcontract C - Construction Contractor</i> | \$170,000 |
| <i>20% Construction Contingency</i> | \$34,000 |
| Total Cost | \$341,959 |

Personnel: Waterkeeper will coordinate with the landowner, municipal representatives, project partners, and community and stakeholder groups to ensure the project is implemented effectively and efficiently. Design

services will be secured through an open RFP process in which Waterkeeper will manage and work with the selected consultant through design and construction document development. Upon finalization of these documents, Waterkeeper will lead a bid process to secure a contractor to implement restoration activities. Throughout the implementation of the design Waterkeeper will work with the design consultant and contractor and coordinate with all parties. In addition to this Waterkeeper will design educational signage, secure meadow markers, secure landowner agreements, monitor throughout a one-year period of establishment, prepare a maintenance plan, and perform general grant administration activities.

General Project Expenses: Permits, project signage, meadow markers, liability insurance, and printing expenses are all included under this category.

Travel Expenses: Cost estimated for travel is based on the current federal mileage rate of 54.5 cents per mile. It is estimated that staff will need to take 70 trips to the site, which is a 33-mile round trip from the office, to complete this work, totaling \$1,259. Travel to and from the site includes trips for planning and design meetings, outreach events, contractor selection and site walk through, daily construction oversight, and period of establishment monitoring.

Contractual Services – Design and Construction: Drone footage of the project will be taken before and after construction and aerial topographic imagery will be collected to inform design, at a cost of \$3,000. Additional costs associated with contractual services can be broken into two sub-categories, design and construction costs. Design costs are estimated at \$42,500 which will include any necessary surveys, along with the development of construction documents and technical specifications in preparation for implementation. Costs associated with construction include but are not limited to materials, equipment, mobilization, and labor. Based on previous experience, cost estimates, and conversations with local consulting firms, a budget of \$170,000 has been established for construction. A 20% contingency on the construction cost is included, totaling \$34,000.

Matching Funds:

Waterkeeper plans to host at least two public kayak tour events and one Young Environmental Leaders Program (YELP) event, a high school education course, at the site to highlight the project and teach the public about the importance of Living Shorelines. Personnel time and travel costs to execute these 3 events is estimated to be \$5,250 based on the cost of 2018 programs to date. The resources required for these events is not included in this project budget, but will be contributed towards matching funds in order to advance project goals by connecting the community to the successes and important natural resources within the Niagara River Greenway. These events will be completed prior to the end of the grant period. Additionally, the long-term maintenance of the project as described previously is not included in the budget, and will be coordinated with partners and volunteer groups to ensure the long-term success of the project.

Operation and Maintenance Plan:

For one year following substantial completion of restoration activities, the selected contractor will be held to a Period of Establishment which ensures that any project components under to contractor's control that are not successful are replaced or repaired. Following this, the North Tonawanda Parks Department and the NTBGO will conduct maintenance activities at the site. The restoration design development will consider the need for long-term maintenance activities, ensuring that they are simple and easy to follow. In implementing the suite of living shorelines projects to date, Waterkeeper has gained knowledge of how to design the features of a project to consider the width and turning radius of maintenance equipment and other relevant factors. The landscape is designed to require little maintenance, and to reduce the amount of work and frequency of maintenance activities from current regimes. Waterkeeper will develop an easy-to-use guide for maintenance activities and will review them on site with maintenance personnel prior to the end of the period of establishment. The guide is also intended to be clear to read and understand for future personnel. If any maintenance activities are required over

the years that are beyond the capabilities of North Tonawanda personnel, Waterkeeper has a vast network of volunteers including our RestoreCorps program that can be convened to ensure the project remains successful.

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 land that makes up the Botanical Gardens is owned by NYS Canal Corporation, and is operated and maintained by the City of North Tonawanda. Initial project development included coordination with both partners, and as the project continues to progress both entities are in support of the project. A letter of support from North Tonawanda is provided. Project partners will be involved in weighing in on design development. Additionally, North Tonawanda Parks Department and NTBGO will be involved in developing and implementing a long-term maintenance plan for the project in order to ensure its' success over time. In addition to these partners, Waterkeeper anticipates that consultation will occur with other entities including NYS DEC, USACE, US Fish and Wildlife Service, and the US Coast Guard at various stages of the project including design development, permitting, and implementation as needed.

The restoration of shoreline and coastal habitats is a regional priority outlined in numerous local and state-wide planning efforts. The vitality of coastal habitats provides a broad range of social, ecological, and economic benefits including: protection and improvement of water quality, improved community resiliency and mitigation of impacts from climate change, reduced runoff and shoreline erosion, enhanced access and enjoyment of local water resources, and sustained populations of native wildlife species.

The Niagara River Remedial Action Plan cites the loss of fish and wildlife habitat and biodiversity along with degradation of nearshore habitats as major issues affecting the health of the Niagara River ecosystem. The Living Shoreline Program directly addresses this critical impairment, while advancing goals found in other important documents including: the Niagara River Greenway Habitat Conservation Strategy, Great Lakes Regional Collaboration Strategy, NY State Forest Action Plan, NY State Open Space Plan, NY Wildlife Action Plan, Great Lakes Action Agenda, and NYS Comprehensive Wildlife Conservation Strategy.

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 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 ANIMAL 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 project focuses on an area of land around an acre in size located immediately north of the boat launch. The project will reclaim a portion of the existing parking area, transforming it into natural landscape. Site photos and analysis can be found below. This part of the property is currently devoid of true riparian vegetation, including

only minimal trees and lawn areas that are mowed directly down to the water's edge. The shoreline edge includes minor slumping of soils, remnants of stone stabilizing blocks, and sections of crushed stone fill. Canada Geese are a major problem in this area and their droppings add excess nutrients into the water especially from the accumulations, which flow over the lawn and directly into Tonawanda Creek.

Restoration implemented through this project will achieve a seamless transition between the land and water and will create valuable wetland and shallow water habitat. Additionally, green infrastructure and bioretention components will be built into the project in strategic areas in order to collect and filter runoff. The project will be designed to maintain sight lines, and provide designated public access to the water to allow the community to experience the valuable natural and cultural resources at the site. A preliminary concept design is attached to the proposal.

Restored conditions will:

- Provide for more natural shoreline protections to reduce erosion;
- Establish much needed fish spawning and resting habitats along Tonawanda Creek, supporting such species as walleye and northern pike;
- Create an adequate riparian buffer environment that supports lower water temperatures and native habitat for numerous wildlife species;
- Provide natural green infrastructure that filters creek water and inputs from runoff, improving water quality in the creek; and,
- Improve the sustainability of the shoreline environment, helping to reduce Canal and Park maintenance and operations activities.

Waterkeeper does not anticipate the requirement of SEQR for the proposed project. We will hold a pre-application consultation with US Army Corps of Engineers prior to submitting a joint application for the project in order to determine the required state and federal permits and approvals. Waterkeeper will also seek necessary permits and approvals from Canal Corps and North Tonawanda prior to construction. Waterkeeper is not the owner of this property; a letter of support from North Tonawanda is provided.

PHOTOS OF NORTH TONWANADA BOTANICAL GARDEN- EXISTING CONDITIONS

Photo 1: Existing Conditions- Looking NE from Boat Launch



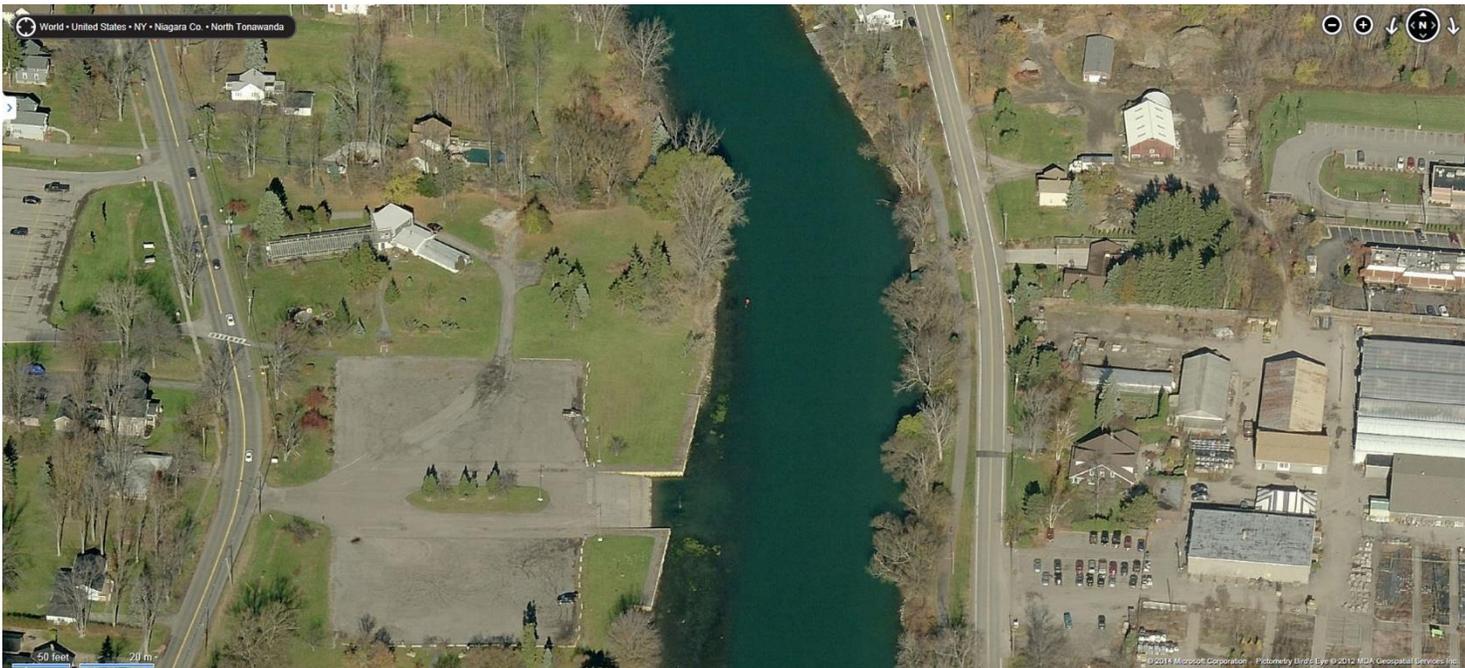
Photo 2: Existing Conditions/Lawn Area- Looking E from Existing Path



Photo 3: Existing Shoreline Conditions- Looking S, Upstream along Tonawanda Creek



Photo 4: Aerial of Proposed Project Area and Surrounding Conditions



EXAMPLES OF COMPLETED RESTORATION PROJECTS THROUGH BNW'S LIVING SHORELINE PROGRAM

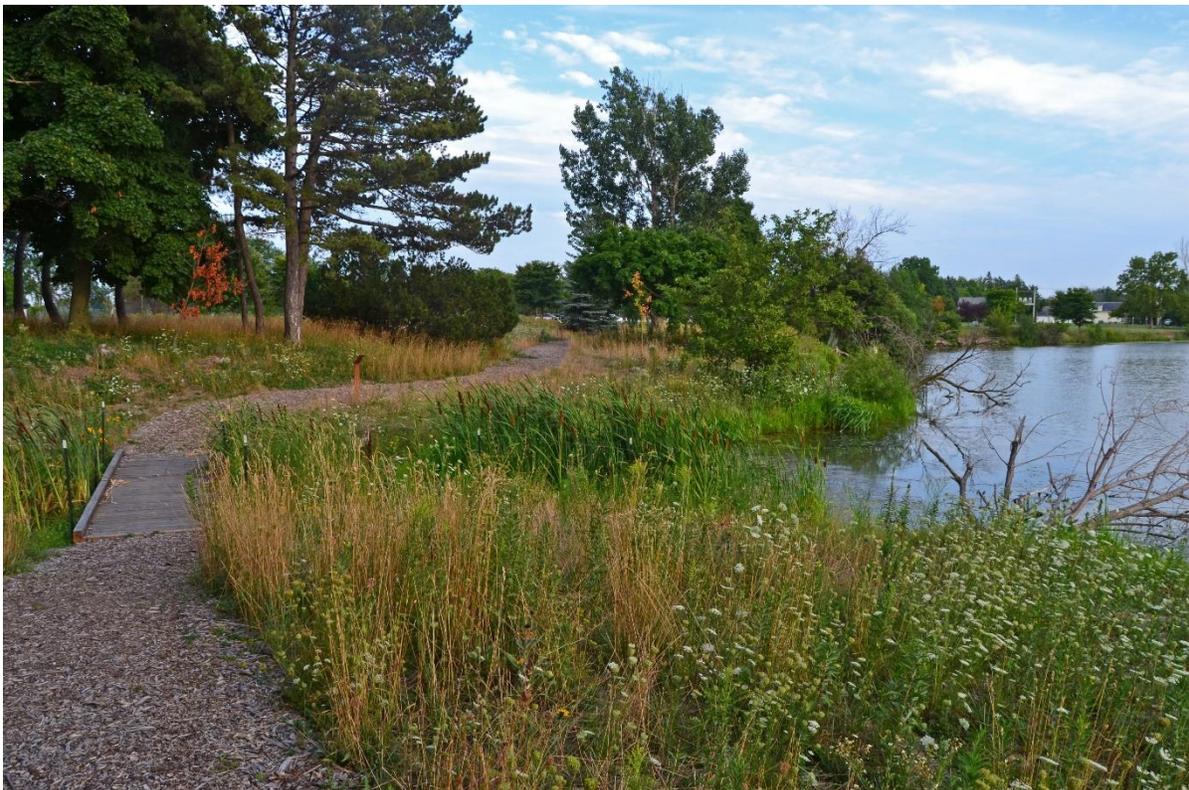
Sandy Beach Park Club, Grand Island NY- Before and After



Hyde Park Lake, Niagara Falls NY- Before and After



Hyde Park Lake, Niagara Falls NY- Restored Shoreline Habitat



CITY OF NORTH TONAWANDA

Office of the Mayor

ARTHUR G. PAPPAS

New York Power Authority
Steve Schoenwiesner
123 Main Street
White Plains, NY 10601
914-287-3457

Mr. Schoenwiesner,

On behalf of the City of North Tonawanda, I am writing to confirm our support and participation in the living shoreline restoration project at the North Tonawanda Botanical Gardens proposed by Buffalo Niagara Waterkeeper. We fully support the application to the Niagara River Greenway Commission.

The project aims to transform current conditions along the shoreline to a more natural and self-sustaining ecosystem. The restoration completed through this project will create unique in-water and shoreline habitats that support fish and wildlife; address erosion and sedimentation issues with innovative bioengineering techniques and best management practices; create sustainable riparian buffers that lessen maintenance, improve water quality and limit the spread of invasive species; and create interactive spaces that improve the public's enjoyment of our waterfront.

This project will directly advance the goals of our Local Waterfront Revitalization Plan and Comprehensive Plan. As one of seven community park spaces in North Tonawanda the Botanical Gardens are an important resource within our municipality that has the potential to be a unique destination offering educational, recreational, and visual interest. Situated within the Niagara River Greenway, and along the Erie Canal, investments in improving this currently underutilized area will contribute towards the revitalization of a regionally significant waterfront resource.

The land that makes up the Botanical Gardens are owned by NYS Canal Corporation and operated and maintained by the City of North Tonawanda. The North Tonawanda Botanical Garden Organization (NTBGO) has been working to revitalize the property over the past several years. In addition, the installation of a kayak launch several years ago has increased public use of the site for boating and fishing. Further improvements to the site through his project will

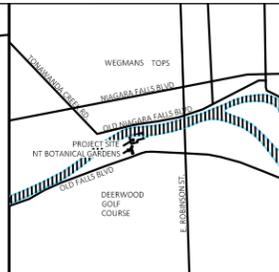
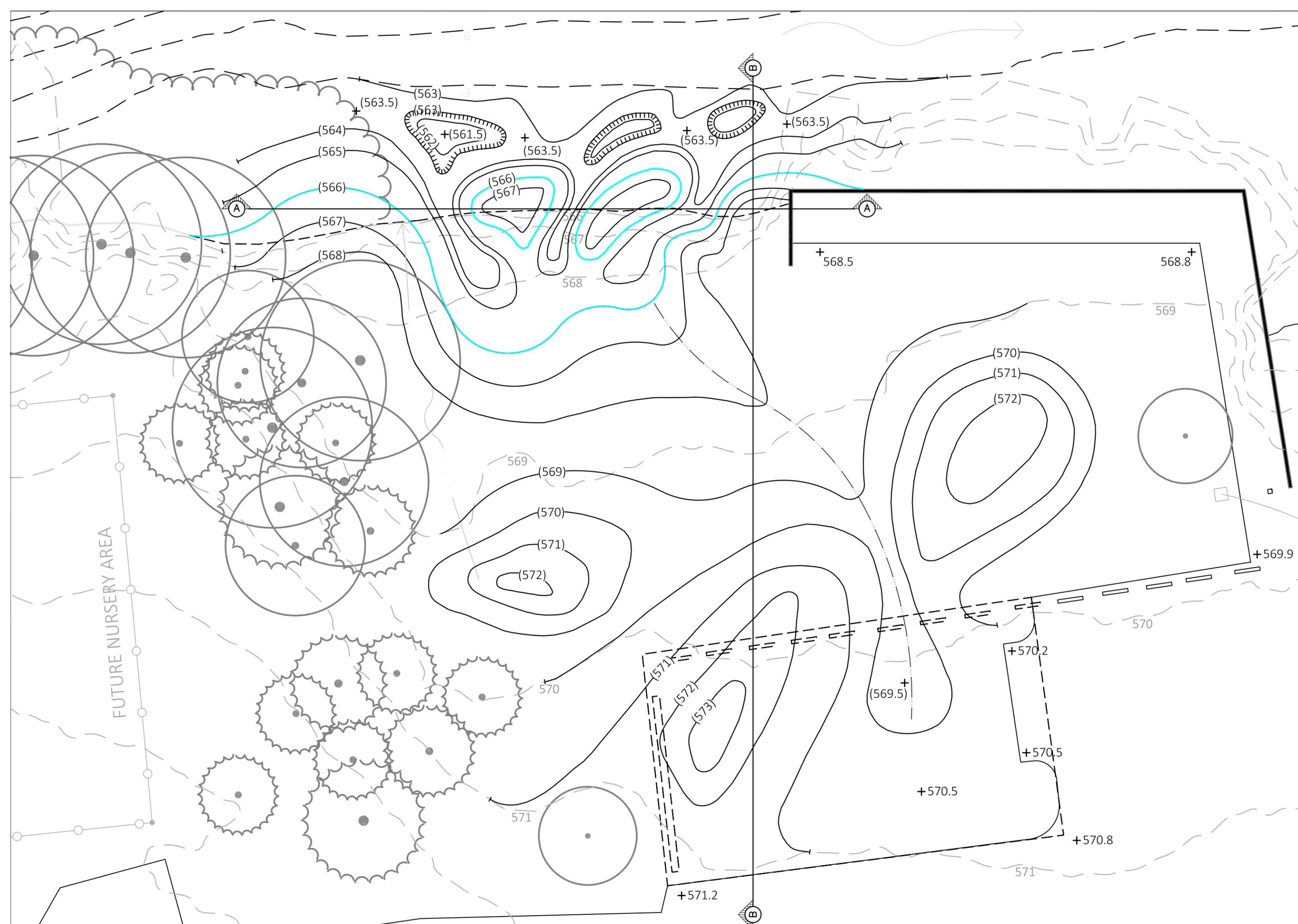
help to improve the ecological health of the park and surrounding areas, achieve aesthetic improvements, and connect the community to the cultural and environmental resources of the area. Improved aquatic habitat will also enhance fishing activities.

The City of North Tonawanda and NTBGO look forward to working with Buffalo Niagara Waterkeeper to achieve shoreline restoration at the site and are committed to providing input into design development for the project and will maintain the project long-term. If you have any questions, feel free to contact me at 716-695-8540

Sincerely,



Arthur G. Pappas
Mayor



KEY MAP: NTS

KEY:

Buffalo Niagara RIVERKEEPER®
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 p: (716) 852-7483
 e: info@bnriverkeeper.org

PROJECT:
**North Tonawanda
 Botanical Gardens**
 1825 Sweeny Street
 North Tonawanda New York
 14120

DRAWING TITLE:
**GRADING AND
 DEMOLITION PLAN**

DRAWN BY: JT/MB

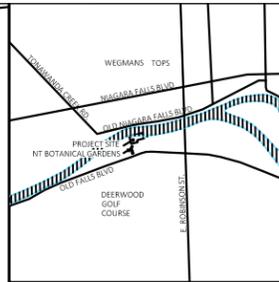
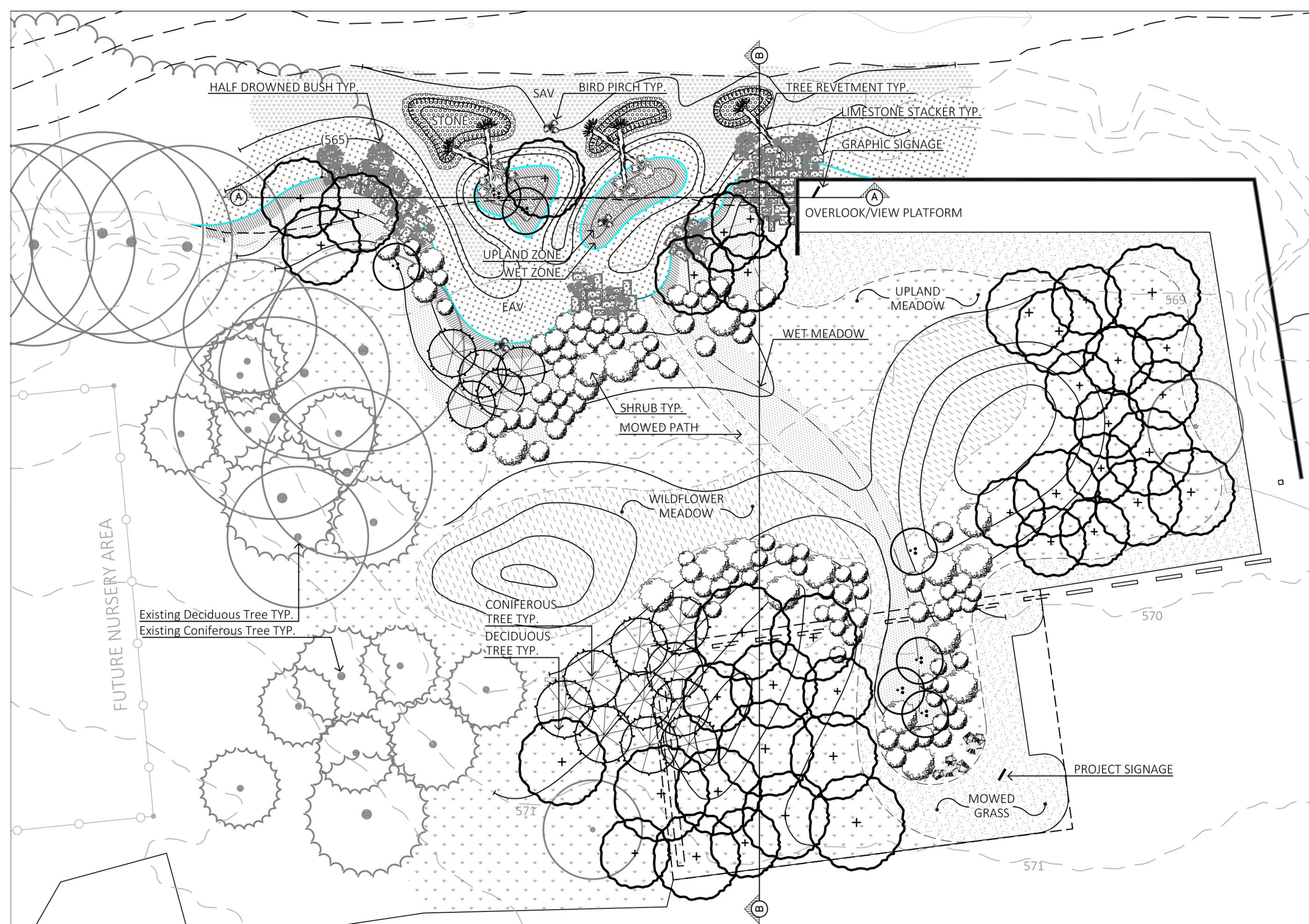
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SCALE: 1"=20'

DATE:

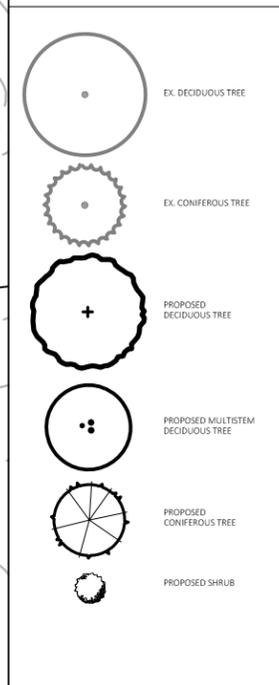
SHEET:
1 of 5

PROJECT NUMBER: 2013004 NRRRP II



KEY MAP: NTS

KEY:



Buffalo Niagara RIVERKEEPER®
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PROJECT:
North Tonawanda Botanical Gardens
 1825 Sweeny Street
 North Tonawanda New York
 14120

DRAWING TITLE:
PLANTING LAYOUT

DRAWN BY: JT/MB

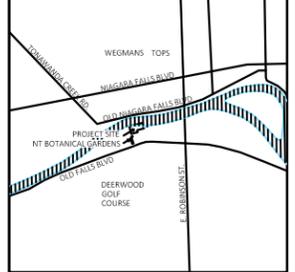
CHECKED BY: MM

SCALE: 1"=20'

DATE:

SHEET:
2 of 5

PROJECT NUMBER: 2013004 NRRRP II



KEY MAP: NTS

KEY:

Buffalo Niagara RIVERKEEPER®
 721 Main Street
 Buffalo New York
 14203
 p: (716) 852-7483
 e: info@bnriverkeeper.org

PROJECT:
North Tonawanda Botanical Gardens
 1825 Sweeny Street
 North Tonawanda New York
 14120

DRAWING TITLE:
PLAN ENLARGEMENT

DRAWN BY: JT/MB

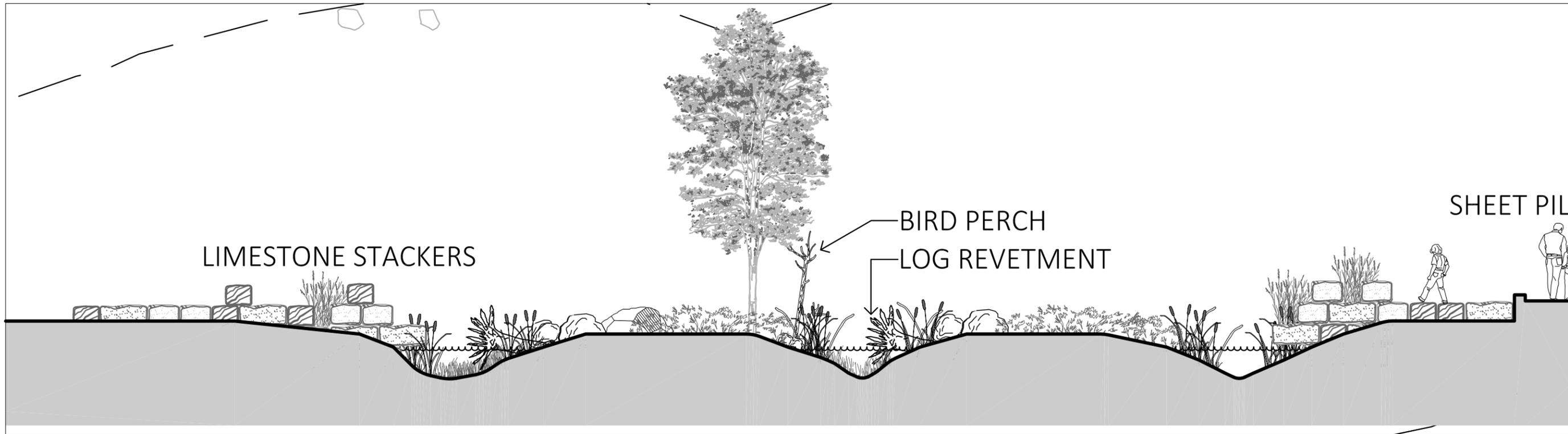
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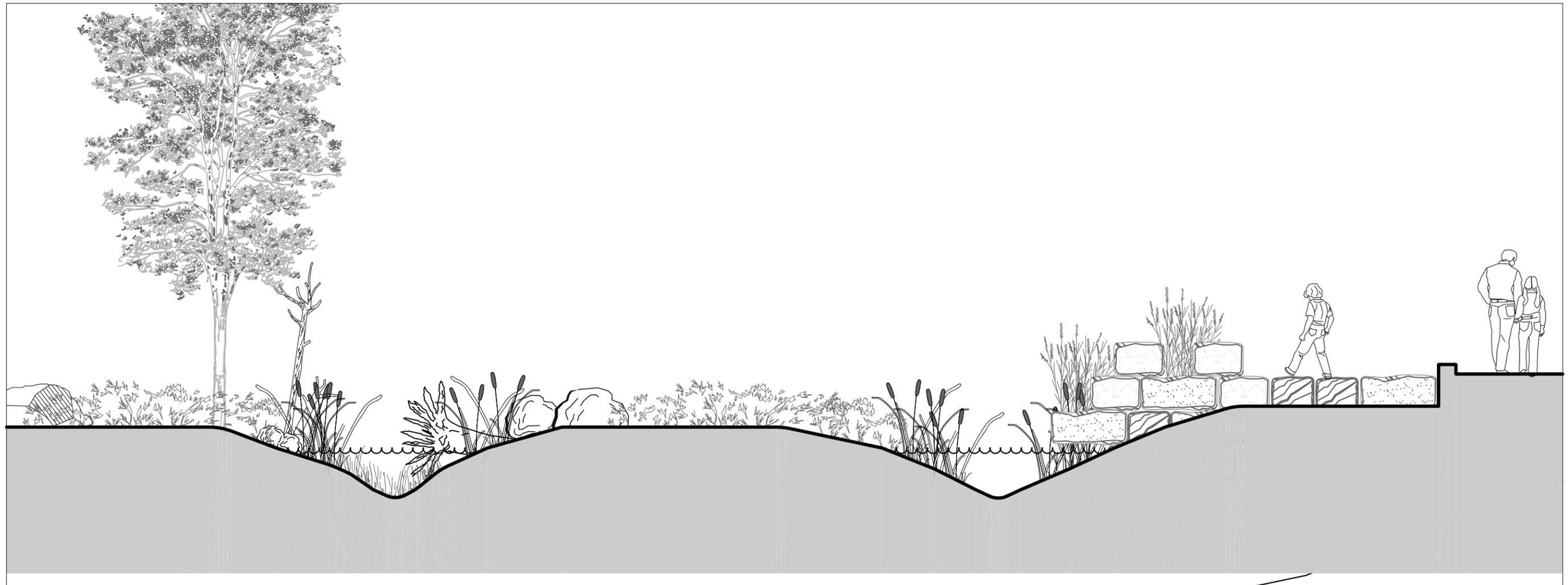
DATE:

SHEET:
3 of 5

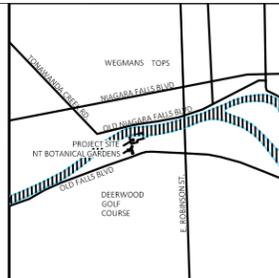
PROJECT NUMBER: 2013004 NRRRP II



ELEVATION A-A' NTS



ELEVATION A-A' ENLARGEMENT NTS



KEY MAP: NTS

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 North Tonawanda New York
 14120

DRAWING TITLE:
ELEVATION A-A'

DRAWN BY: JT/MB

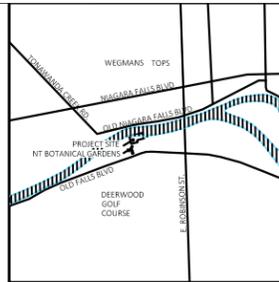
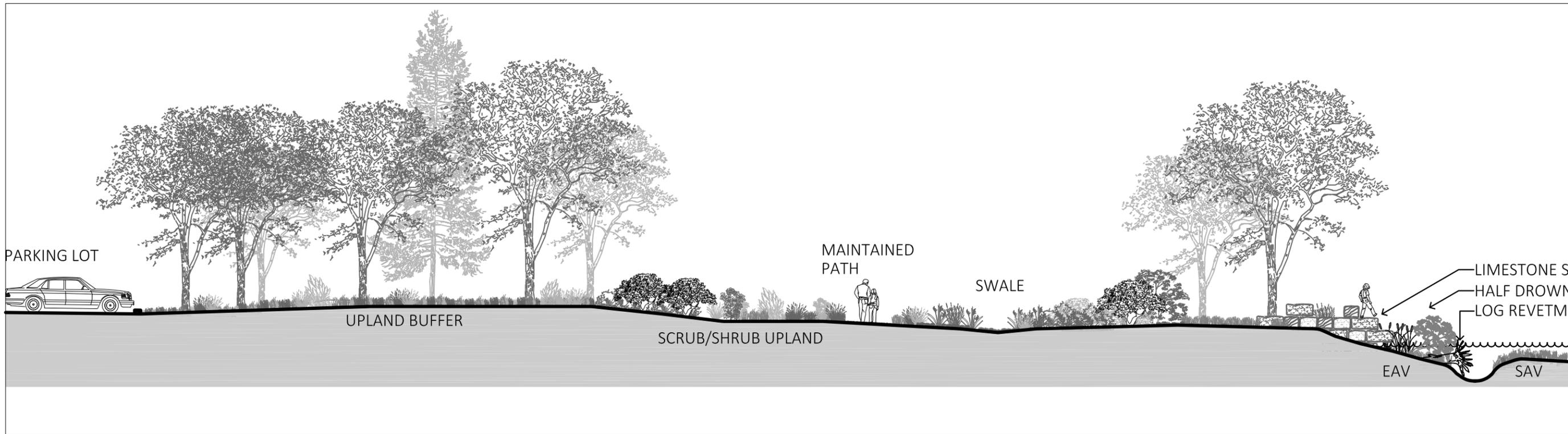
CHECKED BY: MM

SCALE: NTS

DATE:

SHEET:
4 of 5

PROJECT NUMBER: 2013004 NRRRP II



KEY MAP: NTS

KEY:

ELEVATION B-B' NTS



ELEVATION B-B' ENLARGEMENT NTS

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 North Tonawanda New York
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DRAWING TITLE:
ELEVATION B-B'

DRAWN BY: JT/MB

CHECKED BY: MM

SCALE: NTS

DATE:

SHEET:
5 of 5

PROJECT NUMBER: 2013004 NRRRP II