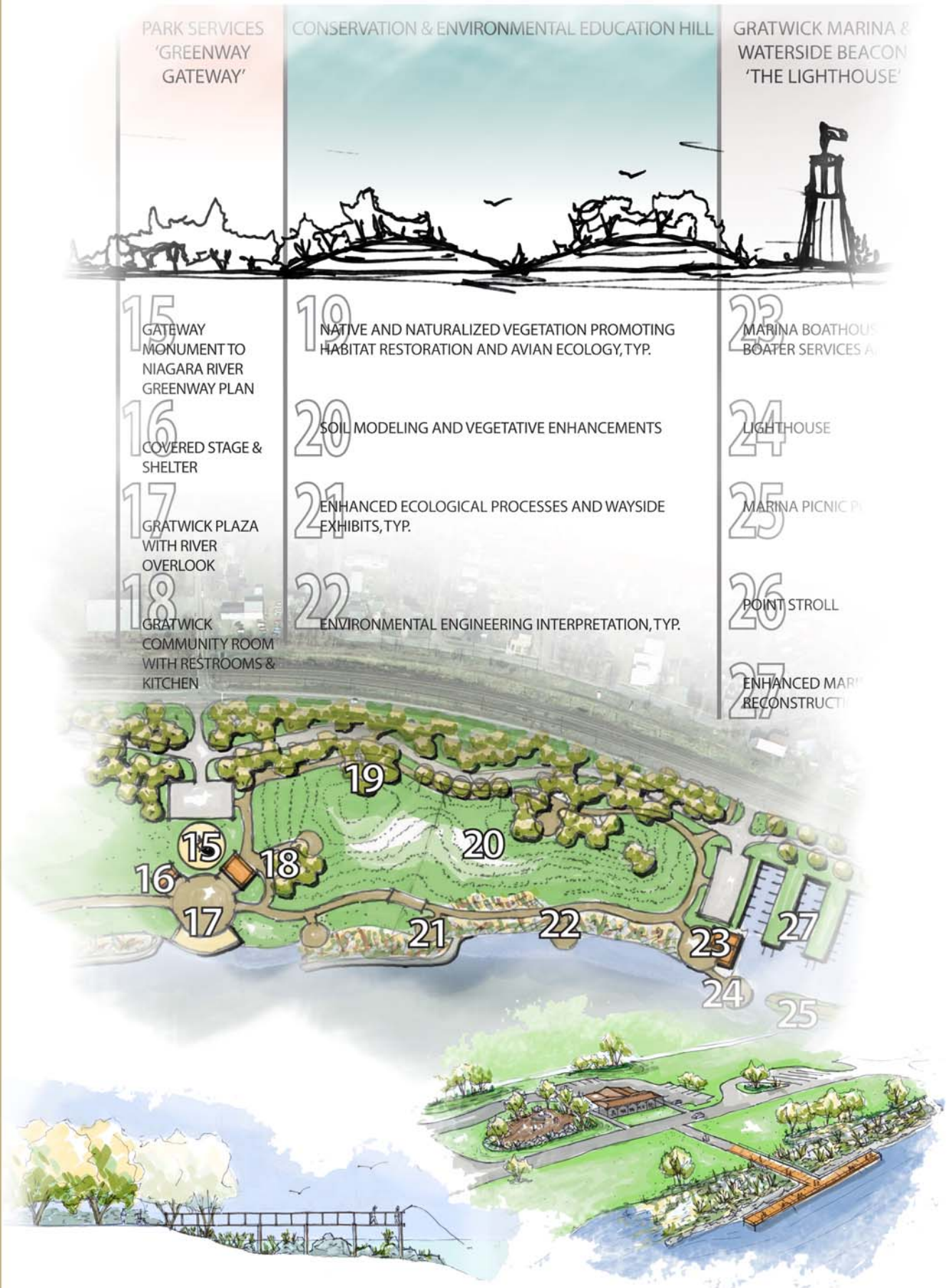


## CONCEPTUAL MASTER PLAN



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**APPENDIX: PLANNING LEVEL COST ESTIMATES**

## 1.0 EXECUTIVE SUMMARY

The City of North Tonawanda seeks to improve and enhance Gratwick Riverside Park as a destination gateway along the Niagara River corridor in accordance with the vision articulated in the regionally approved Niagara River Greenway Plan. This park is an integral part of the majestic Niagara River geographic system, and as such, should be developed, not only as a vital cultural resource, but also as an exemplary prototype of ecological restoration. Gratwick Riverside Park is located west of River Road directly along the Niagara River occupying valuable land of unique environmental, cultural and recreational importance to both the City and the region.

The Conceptual Master Plan for Gratwick Riverside Park strives to exemplify the opportunities that can be realized through adherence to the objectives outlined in the Niagara River Greenway Plan. As a former industrial and landfill site, this park can serve as a means by which to educate the public on the methods utilized for ecological mitigation in order to further promote the restoration of critical waterfront brownfields. Environmental engineering installations can demonstrate the innovative methods utilized to clean Great Lakes waters and soils and restore habitats. With its rich history, unique ecology, and highly visible and accessible location this park will be developed in a manner that attracts eco- and heritage-based tourism. Located on the east channel of the Niagara River directly across from Grand Island, this large site with its expansive waterfront frontage can be developed in a manner that preserves world-class fishery, restores an ecologically functioning shoreline and enhances an internationally recognized avian corridor. Situated as it is, along North Tonawanda's scenic River Road, Gratwick Riverside Park is recognized as a "diamond in the rough;" a park that can be transformed into a jewel worthy for display along the necklace of river open spaces.

Corridor-based planning techniques were utilized in the development of this park's conceptual master plan. These techniques analyzed the broad picture of the prior industrial and commercial development along the River in the context of the corridor's current and future cultural use. This Conceptual Master Plan builds upon the history of this once thriving riverfront and emphasizes how future human use patterns can successfully be interwoven into the restoration and encouragement of natural ecological processes. The restoration of these natural ecological processes is given priority in this plan's development because the health of both the land and water within and surrounding this park is crucial to the well being of park visitors and the community alike. The fulfillment of the Gratwick Riverside Park Master Plan will ultimately serve to contribute to the social, economic and physical health of the region.



PREPARED BY:



**GRATWICK RIVERSIDE PARK**

CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

**KEY PLAN**

FIGURE 1



## 2.0 SITE HISTORY & BACKGROUND

The City of North Tonawanda has a rich history of industry and manufacturing. The settlers and immigrants that flocked to this area in search of prosperity brought with them a strong work ethic, an entrepreneurial spirit and a diversity of cultures. The characteristics of its residents, together with its premier location along the Erie Canal and Niagara River, made North Tonawanda an industrial and manufacturing powerhouse during the 19<sup>th</sup> and early 20<sup>th</sup> centuries.

Throughout the past half-century, however, North Tonawanda has seen many of these industrial enterprises shift, move out and downsize. As some of these economic engines began the process of decline or relocation, the city was left with more than just an endowment of skilled and talented labor. Industry also left future generations of North Tonawandans with a significant amount of contaminated land.

Many of these contaminated brownfield sites have undergone remediation, including this Gratwick Riverside Park site. This site, utilized as a public park since 1965, was operated as a municipal landfill by the City of North Tonawanda during the 1960's. Prior to that time, it was apparently used for the disposal of metals-contaminated sludge.

In 1991 an environmental remediation agreement was signed which called for the installation of a barrier wall, required shore line stabilization, a soil cap and the pumping and treatment of groundwater. Remedial construction was completed in 2001; however, long term operations, monitoring and maintenance are still underway today.

The remediation efforts have made Gratwick Riverside Park publicly accessible and it now currently offers an abundance of open space and trails for people to utilize along the backdrop of the Niagara River as it heads north to Niagara Falls.

With the park now a habitable place for recreation and relaxation, the City of North Tonawanda has begun the process of developing plans to address critical enhancements to the park's ecological resources while also sensitively incorporating much needed infrastructure improvements and programmatic offerings. The goal is to foster numerous collaborations, promote stakeholder involvement and spark community-wide enthusiasm and investment into a concerted effort to transform Gratwick Riverside Park into the envisioned waterfront destination of the Niagara River corridor.

### 3.0 PARK AS A DESTINATION GATEWAY

Gratwick Riverside Park has been identified as a Destination Gateway within the Niagara River Greenway Plan. The Niagara River Greenway Plan is a means to create connections between the various constituents, organizations and municipalities that comprise the Niagara River Greenway. It is an initiative with broad-based support whose goal is to foster consensus throughout the region. Under the umbrella of the Niagara River Greenway, entities such as the City of North Tonawanda can advance local and regional agendas for community livability, environmental sustainability, tourism and economic revitalization.

Destination Gateways, as defined in the Greenway Plan, are gateways into the system that welcome visitors and signal arrival to the special places along the Niagara River Greenway corridor. They are designed to offer wayfinding opportunities along the river corridor and to provide access to and from the river and upland systems. In the hierarchy of gateways, Gratwick Riverside Park is strategically positioned along River Road in the southern portion of Niagara County lying directly across the river from Grand Island. The park is located on the east section of the Niagara River where it divides into two channels as it splits around Grand Island, and as such, the park is situated on one of the only sections of the River where both shores are within the United States. The park already functions as a vital upper river boat launch location and it has a long history of maritime use from the currently abandoned Niagara River Yacht Club marina. It has high visibility, both from the river and from River Road, and consists of over fifty acres of prime waterfront open space. It has tremendous potential for development into a world-class destination that, quoting the Greenway vision, "celebrates and interprets our unique natural, cultural, recreational, scenic and heritage resources."

## 4.0 CONCEPTUAL MASTER PLAN

The vision for Gratwick Riverside Park is to become a premiere waterfront recreational resource, not only for the City of North Tonawanda, but to benefit and beckon the region beyond. The park vision intends to fulfill the desires of the community to protect, preserve, enhance and develop the park in a manner that acknowledges the preeminence of this waterfront's ecological significance in conjunction with its great potential to draw visitors from throughout the region to the river waterfront itself for recreational and educational use. Key features of this conceptual plan directly respond to the goals articulated in the Niagara River Greenway Plan which include celebrating the region's cultural, environmental and industrial heritage while providing public access opportunities and connections along the Niagara River.

### 4.1 MASTER PLAN OVERVIEW

The conceptual master plan developed for Gratwick Riverside Park includes a variety of offerings that provide an inclusive, accessible and diverse recreational and educational experience for visitors. It also places primary importance upon the fact that two of the greatest assets of this park are its proximity to the water and location within a rich, diverse and unique system of natural ecosystems and habitats.

The ecological integrity of this resource requires a continued emphasis on the restoration of naturally functioning systems with due respect to the remediation efforts already in place on this brownfield site. Of critical importance in this park's success is the establishment of a thriving and sustainable plant ecosystem which in turn will directly impact habitat restoration and human health and enjoyment. Successful plant establishment, however, directly depends upon the condition of park soils. There must be a dramatic improvement to the foundational soils of both the upland park and the shoreline in order to achieve the goal of a thriving ecosystem. This conceptual plan proposes the addition of site specific soil mixes to the majority of the park in the form of berms, continuous layers, and wetland pockets that will support the diversity of native and naturalized plantings targeted for each ecological, aesthetic, or functional goal.

Crucial to the overall concept is wildlife habitat enhancement, particularly for the support of fish and bird populations. The Niagara River corridor is vitally important to the success of both as it provides vital fish breeding and habitat zones and constitutes a designated Important Bird Area critical to the function of avian migration.

Central to the development of the physical plan for the park is the recommendation to relocate vehicular traffic to the easternmost edge of the park so that it primarily parallels River Road. This will pull vehicular traffic away from the

river's edge, dramatically reducing the amount of pavement along the shore, and increasing the depth of natural open space edge. This will be accomplished by removing the shoreline portion of the existing asphalt trail and by converting the remaining vehicular roadway to pedestrian use. This converted roadway will be maintained to form a grand pedestrian promenade along the waterfront, generous in width and in distance from the shore. This will allow for safe and comfortable sharing of multiple non-vehicular travel modes along the promenade while freeing up more proportionally appropriate open space for picnicking and enjoyment of the water's edge. This grand pedestrian promenade along the river will be wide enough to comfortably accommodate all pedestrians including bicyclists, skaters, skateboarders and those with wheelchairs and strollers.

The plan's space programming develops the site into primary activity areas and destination points that share use of visitor service transition zones which are strategically located between the designated activity areas. These transition zones are envisioned as gateways into the park itself and are anticipated to include services such as restroom facilities, shelters, wayfinding/interpretive signage, parking and other amenities. Connecting the activity and transition spaces together is the reconfigured system of park roads and trails. These are designed to enhance the recreational and pedestrian-friendly atmosphere critical to the creation of a successful park environment while at the same time maintaining convenient vehicular accessibility through the park and to services. Park connectivity will be further magnified by the restoration of a vibrant marina and preservation of a popular boat launch which serve as major access opportunities between the Greenway system and the River. This access into the system from the river also has the potential to benefit some enhanced economic spin-off activity further inland as well as to encourage tourism of the greater Niagara region.

The park's four primary activity areas include those dedicated to Active Sports, Open/Active Play (The Big Lawn), Conservation and Education (Conservation Hill) and Gratwick Marina. These will provide opportunities for visitors to access boating facilities, have an impromptu picnic, fly a kite, play basketball or volleyball, practice skating, skateboarding and bicycling, learn about environmental and conservation issues, and a myriad of other recreation and educational opportunities not currently available elsewhere within the region in a single destination.

Signature destination features that are highly visible from both land and water are envisioned for both the north and south endpoints of the park's linear layout. The northernmost feature, the Landside Beacon, will be constructed to be one of the highest points in North Tonawanda (The Hill). It will offer expansive views of the Niagara River from an elevated position. The southernmost feature, the Waterside Beacon, is envisioned as an artistic interpretation of a light house, reaching high into the sky and adorned with lights and/or flags (The Lighthouse). These iconic elements are intended to brand the identity of the park and to function as landmarks or beacons visible from far distances while serving as internal destinations for users of the park's Grand Promenade.



## 4.2 CIRCULATION

### 4.21 NEW PARK ROAD SYSTEM

One of the major goals of this concept plan is to prioritize ecological restoration in a manner which enhances human enjoyment of the park. This plan proposes to eliminate one of two parallel pavement systems that currently skirt the waterfront in order to reduce vehicular traffic along the water, thereby removing a large amount of unnecessary pavement at the water's edge and significantly increasing the amount of valuable accessible open space directly along the shoreline.

The existing park road currently brings vehicles directly down to the waterfront from River Road in a looped roadway system that widens at intermittent locations to include designated parking along the portions of the road nearest and parallel to the Niagara River. In its current configuration, park patrons are surrounded by roadway and are cut off from the waterfront by vehicular traffic and parking.

The master plan is designed to limit vehicular incursions into the park, particularly along the waterfront, by relocating the roadway parallel and adjacent to River Road, justified as far to the east as possible, where it will provide a safe and pleasant internal park circulation system that serves as a buffer between park activities and River Road. This new roadway will be designed to feature framed view corridors into the waterfront between landscaped berms to enhance the traveler's park experience. This reconfigured vehicular circulation system will reclaim the waterfront and a majority of the park for pedestrian and recreational activity, while concentrating and isolating vehicular traffic to a narrow band along River Road.

The design intent for the new park road is to provide clear wayfinding, easy access to conveniently located parking and service facilities, a pleasing entry and driving experience, and to buffer park users from River Road. The cross-section of the roadway may vary as it travels between activity areas. For example, the park road section through the conservation/education area might undulate in grade and meander around significant pockets of naturalized plantings while the park road through the open/active play area may be straight and flat with a rhythmic pattern of large shade trees along both sides of the road.

As conceptually envisioned, this newly configured roadway will not only dramatically increase shoreline park use but will better serve to link park activities in an aesthetic and ecologically sensitive manner.

### 4.22 GRAND PROMENADE AND PEDESTRIAN TRAIL

The Grand Promenade is envisioned to be the active spine or backbone that links all of the park's public spaces. This promenade will be reclaimed from the existing roadway along the waterfront, initially utilized with cost effective modifications to surface texture and color that will liven up the experience when traveling between activity areas. When necessary, future repavement of this promenade should utilize

sustainable materials such as porous pavements for its reconstruction. The generous width of the Grand Promenade will allow for multiple users to actively occupy the space at the same time, providing a truly unique regional multi-use trail experience for approximately one mile of Niagara River waterfront.

This promenade will connect to a new park bicycle and pedestrian trail which will circumvent the park linking each service area as well as the northern and southern termini of the park. The full trail system will provide a series of loops of varying distances for the enjoyment of patrons of all ages and abilities.

The combined promenade and pedestrian trail system will total over two miles of recreational trails within the 53 acre park. As part of the trail system, consideration should be given toward the incorporation of exercise and fitness stations as well as periodic skate spots which would provide opportunities for a diverse range of activities which would significantly increase the park's variety and appeal.

### **4.3 ACTIVITY AND SERVICE AREAS**

The following section will provide a narrative explanation of the intent of each of the activity and service areas starting at the north edge of the park and ending at the southern tip. At a mile long, the linear fashion of the park makes it desirable to have multiple service points between activity areas for all patrons to share. With the proposed arrangement, services can be provided at key gateway locations between activity areas, an arrangement that will save resources and make the park more user-friendly and enjoyable.

#### **4.31 LANDSIDE BEACON 'THE HILL'**

'The Hill' is built at the northernmost gateway into the park and is envisioned as an accessible spiral path up to an observation point where one can view the spectacular Niagara River waterfront from an elevated position. It will not only serve as a landside beacon but will feature an interpretive sequence of waysides at each landing focusing on the cultural history of the region and attracting interest and interaction along the route to the top.

#### **4.32 ACTIVE SPORTS AREA**

The Active Sports Area best utilizes the narrowest portion of this site by clustering sport amenities and infrastructure into a safe and protected area of development. It is envisioned to include defined courts for basketball and/or tennis, along with sand surfaces for volleyball, bocce or horseshoes. The portion of the trail through this area could emphasize skate path features including adjacent skate dots and spots which would add vibrancy to this highly active zone by welcoming and encouraging this very popular and healthy recreational activity. The active sports area is intended to be group and family friendly, offering seating and picnic spaces with views into the sports activities and out to the Niagara River. Bermed mounds and naturalized plantings will be strategically placed to help protect the sports facilities from significant onshore winds. The berms in this location will be formed on the river side of stacked boulders that will also serve as informal seating

opportunities. The boulders will be arranged to allow viewing of the sports activities while also adding a recreational and artistic component to the area.

#### 4.33 FAMILY SERVICES 'GRATWICK PAVILION'

This area will serve as the primary family-friendly zone, where groups can gather for picnics, parties and small events to enjoy an afternoon on the waterfront. The Family Services area will also additionally provide services to both the Active Sports Area and the Boat Launch Area. This area will feature a new, environmentally sound, park structure, the Gratwick Pavilion, which adds restrooms and a kitchen facility to the existing open-sided shelter.

This area will also feature a children's natural play area adjacent to the shelter that will function as an innovative application of a learning landscape. It will be constructed of all natural materials: climbable boulders, tree trunks, berms, naturalized plantings, child-friendly water features, sand and pea gravel and it will feature an accessible curvilinear path that weaves around features as well through "caves" and "forests". All of this playground will be designed with utmost safety and visibility in mind, however, its primary purpose will be to delight the child and parent alike as it introduces the child to the wonder of the natural environment.

Also featured here will be a new, fully accessible fishing pier located within view of the shelter. This fishing pier will be perched out over the river just beyond the enhanced wetland shore and revetment zone. The pier area is envisioned to feature sunken fish habitats, filet tables, shade areas and seating. The proximity of all these features to one another within this area will improve the safety, comfort and user-friendliness of this area for all visitors, but especially for children, parents and other family members.

The expanded and relocated vehicular parking area that services this area will be located to the east and south of the new park structure in order to keep views of the waterfront and playground unobstructed by parked vehicles while providing convenient access to the kitchen, restrooms and shelter for visitors. This Family Services area will also include an interpretive feature adjacent to the existing park memorial. This feature will include wayside signage that describes the history of Gratwick Riverside Park and the impetus behind its creation in 1965 and its rebirth in the 21st century.

#### 4.34 BOAT LAUNCH AREA

It is the intention of the master plan to provide space programming recommendations that facilitate efficient, family-friendly and convenient use of the Park. Activity areas should be situated in a manner that allows for shared use of service amenities and for complementary programming. Currently, the existing boat launch and trailer parking areas are situated in the central portion of the park right in the midst of prime family picnic, recreational activity, and play areas.

An alternative to leaving the boat launch and parking lots in their existing location is to relocate these large scale vehicular elements to an area adjacent to the public

marina where uses are complementary and facilities could more efficiently and effectively be shared. The placement of these services proximate to one another provides several advantages. The first is that vehicular boater and trailer traffic and parking would then be concentrated near the marina and not in the midst of the active recreation areas. The second is that this would enable a full range of necessary boater services to be managed and operated from one location at the boathouse facility. Third, is that by providing boating activities that are linked, these services will more effectively respond to visitor's interests and therefore will better contribute to the creation of a vibrant destination marina atmosphere.

There are two primary factors that detract from the advantages presented by relocation of the boat launch. The first is the cost and lifecycle of the previous investment. In 2001, a significant amount of monies were spent to install the existing boat launch in its current location, and the facility is far from reaching the end of its useful life, thus its relocation may not be seen as cost effective. Second, the feasibility and costs of construction for a new location near the marina are unknown at this time. In addition, the existing barrier wall and the leachate collection system that were installed along the shoreline would most likely be impacted by construction of a new boat launch. Also, there are potential permitting and remediation efforts that would coincide with the launch's relocation due to the contamination of soils below the cap.

For the purposes of this concept level master plan, the boat launch is being kept in its present location. However, it is recommended that further investigations be completed regarding the feasibility of relocating the boat launch adjacent to the marina, in concert with a market and financial analysis of the added value of the synergies between the two facilities. This would provide a clearer picture of the appropriate long term investment and disposition strategy for the marina and boat launch.

#### 4.35 OPEN/ACTIVE PLAY AREA 'THE BIG LAWN'

'The Big Lawn' is envisioned to be the site's primary open space for events and activities that require a large amount of land. This area will remain much as it is today; however, significant earthen berms and native and naturalized plantings will be located as a buffer along River Road. These buffer berms will be located throughout the park supporting masses of native and naturalized plantings with good deep soils acting as buffers, framing views, and also serving to provide an elevated vantage point for patrons from which to view the area's activities.

Currently, Gratwick Riverside Park is a venue for multiple large events, including a kite flying festival, a car show and hydroplane races. It is envisioned that the programming of this area will continue to permit 'The Big Lawn' to remain flexible for a diversity of event configurations.

#### 4.36 PARK SERVICES 'GRATWICK OVERLOOK'

This area serves as the primary park gateway, the hub of activity and the central meeting space within Gratwick Riverside Park. The main entrance into this area will

feature a monument or interpretive feature that commemorates the Niagara River Greenway Plan. This wayside will give a historical account of the process and dedication required to achieve the Plan and also to educate the public on the long range goals and objectives of this accomplishment, including how the development of Gratwick Riverside Park fits into the overall vision.

The Park Services Area will provide services to both the Open/Active Play area and the Conservation and Education area. This service area will feature the new Riverfront Community Room and Gratwick Plaza, a central paved space designed for event gatherings and daily community usage. The plaza will extend out to the water with an Overlook that brings the visitor right out to the water's edge. This dynamic plaza area can be utilized for events or dining and will serve to make the most of the dramatic sunset views of a west facing waterfront. A covered stage area adjacent to the plaza is intended to accommodate either performance events or be utilized as a shelter. As well, the plaza will include night sky friendly lighting, event infrastructure requirements, skater friendly plaza features and peripheral seating. It could also be developed to include amenities such as a fountain, raised planters and/or an outdoor fireplace.

The focal point of Gratwick Plaza is envisioned to be a sculptural/structural interpretive feature that serves a dual purpose. The feature's wayside signage will discuss both the history of industry in North Tonawanda as well as provide environmental education. This feature might be constructed of timber and steel to reflect the region's industrial heritage with interpretive/educational elements that function as the jumping-off point for the structured educational sessions taking place within the conservation/education activity area.

The Riverfront Community Room will face out onto Gratwick Plaza and will be a multi-use facility with class-room space, meeting space, restrooms and a kitchen facility. This structure will exemplify green design and construction technologies, incorporating alternative energy features and innovative materials. The potential for this structure to be two-stories should be carefully explored. Although a two story structure would take advantage of the dramatic views up and down the river, in order for it to be fully accessible as a public facility, it would require the installation of an elevator. This community room has tremendous potential to serve numerous kinds of service organizations and especially can be utilized as a waterfront education center.

The covered stage area or shelter will be open sided so it can serve both smaller crowds and events that gather in the plaza and/or larger events that are located out toward 'The Big Lawn'. This structure, as well, should be constructed of high quality sustainable materials and should include all necessary utility infrastructures so that it can be utilized for ceremonial purposes by both the government and general public, taking advantage of its location along the Niagara Riverfront.



#### 4.37 EDUCATION and CONSERVATION AREA 'CONSERVATION HILL'

The Education/Conservation Area will serve not only to preserve and enhance the wild natural ecosystem of this area but will also provide a recreational experience that will allow for interpretive and educational offerings on multiple themes. The potential themes could focus on the environmental remediation of the site and could include demonstrations of proposed phytoremediation techniques and hydraulic engineering methodologies, the enhancement of the riparian habitat, water quality of the Niagara River, avian ecology and the potential increase in bird watching, and interpretation of the interface of the river and land with the complex processes of ecological connectivity taking place along the shoreline.

These themes offer potential opportunities for structured educational sessions that can be programmed with the help of multiple environmental organizations and area educational institutions for use as an in-field classroom. As well, even outside the formal educational opportunities, the general public will be exposed to these concepts by visiting and enjoying the park, thereby creating a greater overall awareness for the community at-large. It is envisioned that this area of the park will become a primary attraction and a focal feature of this destination gateway to the Niagara River Greenway.

Figure 5 depicts a possible programmatic sequence of educational opportunities which include the following features:

1. *Pocket wetland enhancements*

Provides enhancements to pocket wetlands by installing additional boulders and wetland soils, deep rooting trees, dormant live stakes and other wetlands vegetation. Provides wayside signage that describes the values, functions and benefits of wetland vegetation types and provides the history of fish habitats in this part of the Niagara River from American Indians, to early settler, to the industrial age.

2. *Rock vane hydraulic engineering exhibit*

Constructs a rock vane exhibit at a location where bank erosion is present and provides wayside signage that discusses how rock vanes work to reduce bank erosion and migration of sediments by disrupting currents. This exhibit will show examples of the beneficial effects of rock vanes; how they work, how they are built and what kind of rock is used to construct them and why.

3. *Riparian corridor and riverine habitat and ecology demonstration*

This exhibit will construct a 150 ft. wide and 300 ft. long mini-riparian corridor along the shore. It will include appropriate vegetation such as deep rooting trees adjacent to the river, and shrubs/grasses away from the river. Wayside signage will be provided communicating what riparian corridors are, their many values, the vegetation associated with typical riparian corridors and examples of local communities that are protecting and/or restoring riparian corridors.

4. *Ice jamming and river hydraulics exhibit*

This feature will focus on river hydraulics and the control of ice jamming in the Niagara River. A pole can provide a gage for the 10, 50, 100 and 500 year flood event levels and the height of the water during the flood of record and the date of occurrence. A discussion of the National Flood Insurance Program could also include the limits of the 100 year flood on the ground, the floodway line, and regulations governing development in flood plains.

5. *Marina wayside signage*

The furthest point south of this conservation area will feature a wayside exhibit area that describes the how boat marinas are designed. This area will serve as a transition between the marina and conservation areas. Here visitors will learn about the many factors that need to be considered in marina design such as navigation geometry, safety and hazard lighting and the purpose of jetties and their design.

6. *Site environmental remediation signage*

This location will provide waysides that describe the history of this site prior to the industrial age, during the industrial age, and into the present day including exhibits that detail the modern day efforts that were made to remove contaminants from the site and descriptions of the installation of an impermeable cap that prevents the escape of remaining, residual contaminants. A discussion of the environmental laws that governed the clean-up effort and how present laws protect the environment from a recurrence similar to this can also occur at this location.

7. *Bird identification and habitat creation project*

This project will focus on efforts to improve the native and naturalized habitat for local and migratory avian populations. This approach will be utilized throughout the entire park in order to increase the likelihood of successful habitat creation. A series of waysides at this location will help identify the most common birds for this corridor which could include discussions on migratory bird patterns and the significance of the Niagara River corridor as an Important Bird Area. Simple bird identification waysides alone will serve a wide range of patrons with delight throughout the year as they introduce a wide range of avian populations to the park visitor.

#### 4.38 BOATER SERVICES AREA

This area will primarily service the newly renovated public marina yet will be open to the public to service general park visitors as well. Gratwick Marina will include an improved marina boathouse facility with bathrooms and kitchen. The Marina Boathouse would also house a concessions venue and marina store open to the public. As with the other proposed park structures, the new Boat House should be constructed of sustainable materials and designed with architectural significance as would benefit a world-class facility.

A primary goal of this area is to provide seasonal, transient and liveaboard boaters with necessary and desired services. This transition area will also provide outdoor dining and seating space, convenient parking and a ships store and bait house for use by boaters, fishermen and the general public.

#### 4.39 GRATWICK MARINA

Improvements to this abandoned marina will greatly improve the facility's form and function while focusing on convenience and safety for seasonal and transient users. The public marina area improvements will include numerous upgrades to the marina basin to allow for increased docking space for seasonal boaters, transients and liveaboards. The character, ambiance and overall aesthetic of the marina will be improved such that this facility will be a prime feature of Gratwick Riverside Park.

This area will function not only as a marina, but as a welcoming gateway to the North Tonawanda community for those traveling along the Niagara River. Visitors will be able to dock and access services such as power, water and potentially sanitary pump-out, cable TV, wi-fi, and telephone, making this location a preferred stop for transient boaters and liveaboards. The marina will also be a destination for recreational boaters traveling from close by for daily or afternoon excursions to the various destinations along the Niagara River Greenway.

Marking the Niagara River entrance into the marina and the southernmost tip of the park will be the Point Stroll trail to Marina Point on the south side of the harbor entrance, with the Waterside Beacon, the Lighthouse, on the north. Envisioned as an artistic or architectural destination feature, the Lighthouse will beckon visitors to the marina from within the park and from the river.

## 5.0 MASTER PLAN PHASING

The phasing of the master plan elements for Gratwick Riverside Park should take place at two levels. The first level of phasing is for critical infrastructure improvements. These improvements need to be implemented in a manner that will permit the continued use of the park's existing features, while moving forward with improvements that will provide the additional features and amenities programmed into the master plan. The second level of phasing for the park master plan are those elements that either are independent of infrastructure improvements, or that can be accomplished at any time after required infrastructure improvements have been made.

### 5.1 CRITICAL INFRASTRUCTURE

Critical infrastructure improvements include the three Services Areas, along with the Park Road System. Below is a brief summary of the phasing of these critical infrastructure areas. Planning level cost estimates can be found in Appendix B at the end of the report.

#### 5.11 PHASE 1: FAMILY SERVICES 'GRATWICK PAVILION'

This phase includes the Pavilion addition to the existing picnic shelter, the installation of sanitary sewer and water service to the building, the relocation of vehicular parking to behind the shelter, the installation of landscaping and a natural playground and the construction of an accessible fishing pier. It is envisioned that these improvements would take place initially to provide the park with the much needed family-friendly services that will begin to make this park a destination for groups of people. See Figure 6.

#### 5.12 PHASE 2: BOATER SERVICES AREA

This phase includes improvements to the existing boathouse facility, the construction of an adjacent parking facility, the installation of seating, landscaping and outdoor dining areas, and the construction of the new Park Road improvements from the Marina north to the Ward Road intersection. Improvements made in this phase will permit the future redevelopment of Gratwick Marina to commence at any time in the future. It is envisioned that the marina improvements would need to be phased as well, while the implementation of the new Marina Services Area will supply the necessary infrastructure to move forward with these improvements.

#### 5.13 PHASE 3: PARK ROAD IMPROVEMENTS

This phase includes the construction of the new Park Road System from the Ward entrance to the northern end of the park. The development of these improvements will supply the necessary infrastructure and vehicular circulation patterns that are critical to the development of the remaining master plan program elements.

#### 5.14 PHASE 4: PARK SERVICES 'GRATWICK OVERLOOK'

This fourth phase will complete the implementation of critical infrastructure supplying the park with the foundation for its redevelopment. These improvements include the development of Gratwick Plaza and Overlook, the Plaza Shelter and the Riverfront Community Room, along with centralized parking and landscaping. It may be possible for individual elements of this service area to be phased as well, as funding allows.

As can be seen in the cost estimates developed in Appendix B, the phasing of the remaining elements is less dependent upon one another, and more dependent upon the availability of critical infrastructure in any given area of the park. For example, the Conservation and Education Area and the Open/Active Play Area improvements can be done at any time, regardless of infrastructure. Meanwhile, Gratwick Marina, the Grand Promenade and the Active Sports Area are reliant upon the redevelopment of the Park Road System and adjacent services areas.



## 6.0 CONCLUSION

The development of Gratwick Riverside Park into a world class destination along the Niagara River will be an important impetus in the continued revitalization of the City's waterfront along with having influence on the future of the region as well. The proposed concept master plan recommendations are intended to exemplify the objective of ecological restoration as well as to provide functional and programming improvements that enhance each patron's experience of Gratwick Riverside Park.

The Gratwick Riverside Park Conceptual Master Plan aims to significantly raise the visibility and stature of what could become the City's premiere waterfront park. This will be done through the programming of interpretive wayside exhibits, the creation of iconographic elements such as the Landside and Waterside Beacons and the development of gateway elements including the reconstruction of a public marina. These efforts focus on connecting people to the shore and waters of the Niagara River with access points, fishing opportunities, and boating and learning landscapes which together should draw visitors to the park, not just for recreational purposes, but for the experience and enjoyment of the waterfront.

In addition, the phasing presented herein should not be considered proscriptive. The needs and desires of the community may change with time, directly impacting the phasing and implementation schedule of the Gratwick Riverside Park Conceptual Master Plan. However, it is believed that with the proper phasing and resource allocation the master plan could be implemented within a 10-15 year time horizon. While this is a potentially aggressive timeline, the value of this resource to the City of North Tonawanda should be capitalized upon with a sense of urgency, in an effort to provide a completed, exemplary product of which the entire region can be proud.

## APPENDIX: PLANNING LEVEL COST ESTIMATES

***Phasing is important for these infrastructure components*****Phase 1: Family Services 'Gratwick Pavillion' (except trailer parking relocation)**

|   | units | \$/unit | total            | 10% cont        | Total            |
|---|-------|---------|------------------|-----------------|------------------|
| Gratwick Pavillion shelter improvements (SF)  | 960   | 325     | \$312,000        | \$31,200        | \$343,200        |
| Sanitary sewer (LF)                           | 3800  | 30      | \$114,000        | \$11,400        | \$125,400        |
| Parking (SF)                                  | 15680 | 8       | \$125,440        | \$12,544        | \$137,984        |
| Natural Play Area & Wetland Enhancements (LS) | 1     | 85000   | \$85,000         | \$8,500         | \$93,500         |
| Accessible Fishing Pier (LS)                  | 1     | 141000  | \$141,000        | \$14,100        | \$155,100        |
|   |       |         | <b>\$777,000</b> | <b>\$78,000</b> | <b>\$855,000</b> |

**Phase 2: Boater Services Area (includes Park Road improvements)**

|                                   | units | \$/unit         | total              | 10% cont         | Total              |
|-----------------------------------|-------|-----------------|--------------------|------------------|--------------------|
| Boathouse (SF)                    | 3000  | 160             | \$480,000          | \$48,000         | \$528,000          |
| Parking (SF)                      | 20000 | 8               | \$160,000          | \$16,000         | \$176,000          |
| Seating & Picnic Areas (LS)       | 1     | 50000           | \$50,000           | \$5,000          | \$55,000           |
| Landscaping (LS)                  | 1     | 25000           | \$25,000           | \$2,500          | \$27,500           |
| Park Road: Marina to Ward Rd (LF) | 1500  | 400             | \$600,000          | \$60,000         | \$660,000          |
| Boat Launch relocation (LS)       | 1     | 568000          | \$568,000          | \$56,800         | \$624,800          |
|                                   |       | w/o boat launch | <b>\$1,315,000</b> | <b>\$132,000</b> | <b>\$1,450,000</b> |
|                                   |       | w/ boat launch  | <b>\$1,883,000</b> | <b>\$188,000</b> | <b>\$2,071,000</b> |

**Phase 3: Park Road Improvements**

|                                  | units | \$/unit | total              | 10% cont         | Total              |
|----------------------------------|-------|---------|--------------------|------------------|--------------------|
| Park Road: Ward Rd to N end (LF) | 3700  | 400     | <b>\$1,480,000</b> | <b>\$148,000</b> | <b>\$1,628,000</b> |

**Phase 4: Park Services 'Gratwick Overlook'**

|                                | units | \$/unit | total              | 10% cont         | Total              |
|--------------------------------|-------|---------|--------------------|------------------|--------------------|
| Gratwick Plaza (SF)            | 30000 | 10      | \$300,000          | \$30,000         | \$330,000          |
| Bandshell (SF)                 | 1600  | 50      | \$80,000           | \$8,000          | \$88,000           |
| Riverfront Community Room (SF) | 4000  | 250     | \$1,000,000        | \$100,000        | \$1,100,000        |
| Parking (SF)                   | 22000 | 8       | \$176,000          | \$17,600         | \$193,600          |
| Landscaping (LS)               | 1     | 75000   | \$75,000           | \$7,500          | \$82,500           |
| Gratwick Overlook (LS)         | 1     | 250000  | \$250,000          | \$25,000         | \$275,000          |
|                                |       |         | <b>\$1,630,000</b> | <b>\$163,000</b> | <b>\$2,065,000</b> |

***Phasing not as critical for these components*****Conservation and Environmental Area 'Conservation Hill' (anytime)**

|   | units | \$/unit | total | 10% cont | Total |
|---|-------|---------|-------|----------|-------|
| Pocket wetland enhancements             | TBD   |         |       |          |       |
| Rock vane hydraulic engineering exhibit | TBD   |         |       |          |       |
| Ice jamming & river hydraulics signage  | TBD   |         |       |          |       |
| Riparian corridor & riverine ecology    | TBD   |         |       |          |       |
| Marina signage                          | TBD   |         |       |          |       |
| Site environmental remediation signage  | TBD   |         |       |          |       |
| Avian ecology & identification project  | TBD   |         |       |          |       |

**Gratwick Marina Area (anytime after Phase 2, with potential phasing for this work, as well)**

|          | units | \$/unit | total              | 20% cont         | Total              |
|----------|-------|---------|--------------------|------------------|--------------------|
| Option A | 1     | 4160000 | <b>\$4,160,000</b> | <b>\$832,000</b> | <b>\$4,992,000</b> |
| Option B | 1     | 3488000 | <b>\$3,488,000</b> | <b>\$697,600</b> | <b>\$4,185,600</b> |

**Active Sports Area (anytime after Phase 3)**

|                        | units | \$/unit | total            | 10% cont        | Total            |
|------------------------|-------|---------|------------------|-----------------|------------------|
| Basketball Courts (EA) | 4     | 38000   | \$152,000        | \$15,200        | \$167,200        |
| Parking Area (SF)      | 9700  | 8       | \$77,600         | \$7,760         | \$85,360         |
| Picnic shelters (EA)   | 2     | 20000   | \$40,000         | \$4,000         | \$44,000         |
| Wind break (LF)        | 360   | 250     | \$90,000         | \$9,000         | \$99,000         |
|                        |       |         | <b>\$360,000</b> | <b>\$36,000</b> | <b>\$396,000</b> |

**Open/Active Play Area 'The Big Lawn' (anytime)**

|                          | units | \$/unit | total            | 10% cont        | Total            |
|--------------------------|-------|---------|------------------|-----------------|------------------|
| Landscaping & Berms (AC) | 17    | 6000    | <b>\$102,000</b> | <b>\$10,200</b> | <b>\$112,200</b> |

**Grand Promenade Enhancements (anytime after Phase 3)**

|                      | units | \$/unit | total            | 10% cont        | Total            |
|----------------------|-------|---------|------------------|-----------------|------------------|
| Grand Promenade (LF) | 4800  | 50      | <b>\$240,000</b> | <b>\$24,000</b> | <b>\$264,000</b> |

**Boat Launch Services Area (anytime after Phase 3)**

|                                 | units | \$/unit | total            | 10% cont        | Total            |
|---------------------------------|-------|---------|------------------|-----------------|------------------|
| Trailer parking relocation (SF) | 16000 | 8       | <b>\$128,000</b> | <b>\$12,800</b> | <b>\$140,800</b> |

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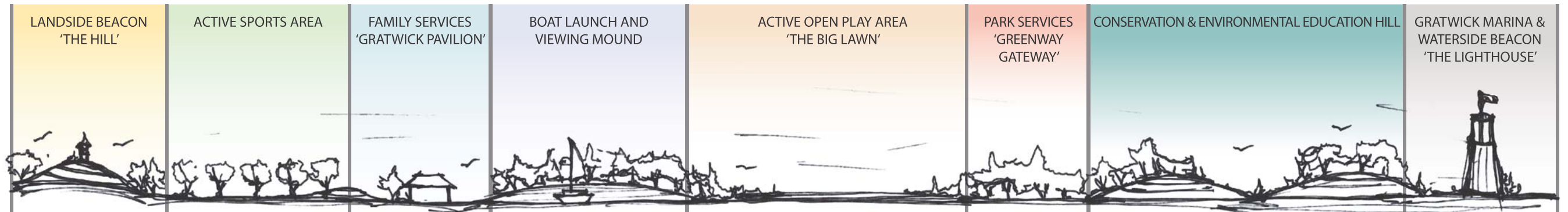
**Total Planning Level Cost Estimate for Gratwick Riverside Park    \$11,075,000**

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- |   |                            |  |                           |   |  |   |   |
|---|----------------------------|--|---------------------------|---|--|---|---|
| 1<br>ACCESSIBLE PATH TO TOP OF VIEWING HILL   | 3<br>MULTI-SPORT AMENITIES | 5<br>NATURAL PLAY AREA AND LEARNING LANDSCAPE        | 9<br>EXISTING BOAT LAUNCH | 11<br>VEGETATIVE BUFFER AND BERMS, TYP. | 15<br>GATEWAY MONUMENT TO NIAGARA RIVER GREENWAY PLAN  | 19<br>NATIVE AND NATURALIZED VEGETATION PROMOTING HABITAT RESTORATION AND AVIAN ECOLOGY, TYP. | 23<br>MARINA BOATHOUSE BOATER SERVICES AREA |
| 2<br>WETLAND ENHANCEMENTS: NEW SOIL, BOULDERS, VEGETATION FOR HABITAT, TYPICAL IN ALL AREAS | 4<br>PARKING, TYP.         | 6<br>SHORELINE ACCESS, TYP.                          | 10<br>VIEWING BERM        | 12<br>RELOCATED PARK ROAD               | 16<br>COVERED STAGE & SHELTER                          | 20<br>SOIL MODELING AND VEGETATIVE ENHANCEMENTS   | 24<br>LIGHTHOUSE                            |
|   |                            | 7<br>RESTROOMS AND KITCHEN ADDED TO EXISTING SHELTER |                           | 13<br>LARGE EVENT FIELD                 | 17<br>GRATWICK PLAZA WITH RIVER OVERLOOK               | 21<br>ENHANCED ECOLOGICAL PROCESSES AND WAYSIDE EXHIBITS, TYP.                                | 25<br>MARINA PICNIC POINT                   |
|   |                            | 8<br>ACCESSIBLE FISHING PIER                         |                           | 14<br>GRAND PROMENADE                   | 18<br>GRATWICK COMMUNITY ROOM WITH RESTROOMS & KITCHEN | 22<br>ENVIRONMENTAL ENGINEERING INTERPRETATION, TYP.  | 26<br>POINT STROLL                          |
|   |                            |  |                           |   |  |   | 27<br>ENHANCED MARINA RECONSTRUCTION        |



PREPARED BY:



## GRATWICK RIVERSIDE PARK

CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

## CONCEPT MASTER PLAN

SCALE: 1" = 400

FIGURE 3





# WAYSIDES

1. POCKET WETLAND
2. ROCK VANE HYDRAULIC ENGINEERING
3. RIPARIAN CORRIDOR AND RIVERINE HABITAT
4. ICE JAMMING AND RIVER HYDRAULICS
5. MARINA DEVELOPMENT
6. SITE ENVIRONMENTAL REMEDIATION
7. BIRD IDENTIFICATION AND HABITAT CREATION



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**GRATWICK RIVERSIDE PARK**

CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

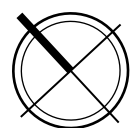
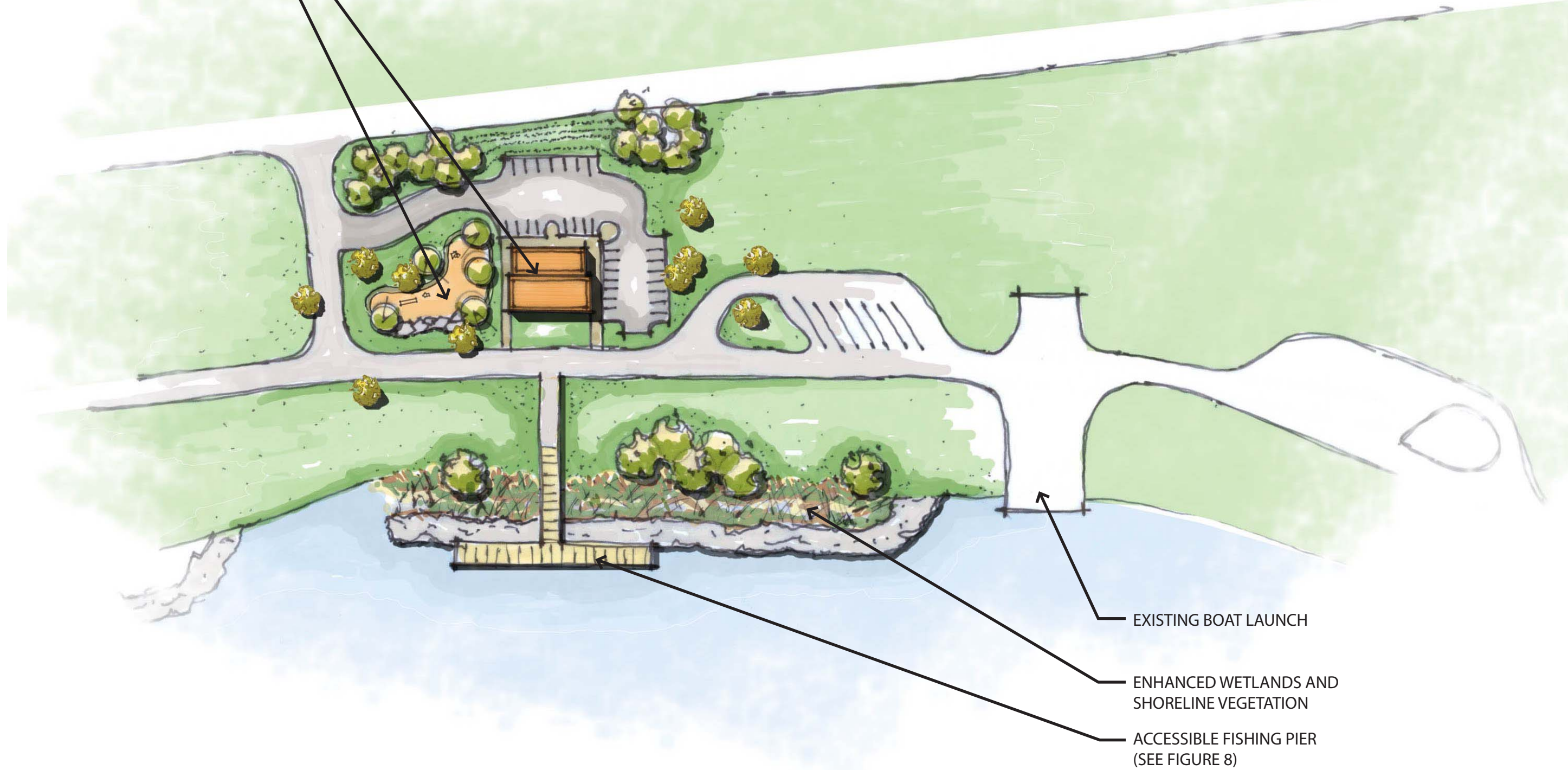
**CONSERVATION & ENVIRONMENTAL  
AREA: 'CONSERVATION HILL'  
CONCEPT MASTER PLAN**

SCALE: 1" = 400

FIGURE 4



GRATWICK PAVILION  
NATURAL PLAYGROUND

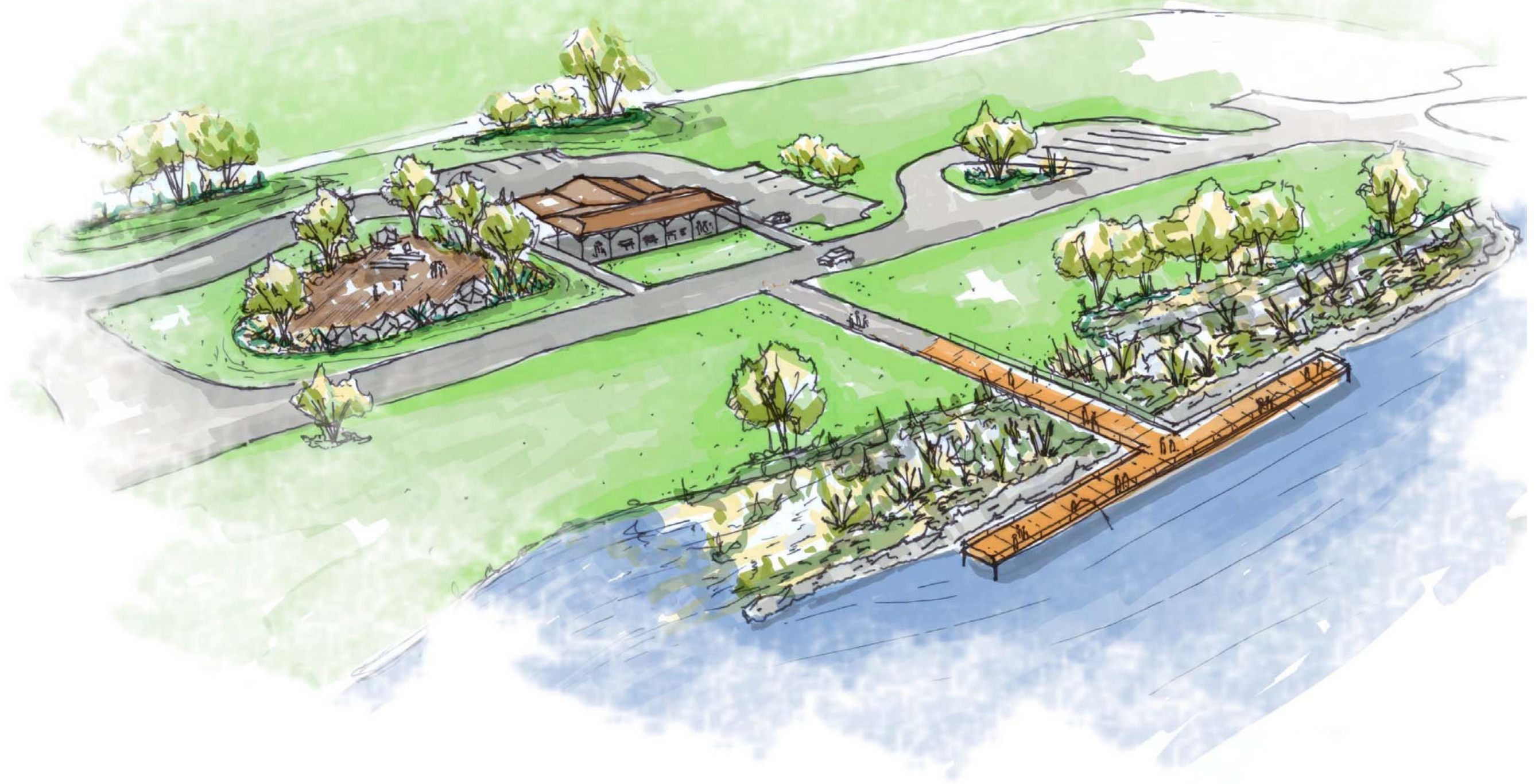


PREPARED BY:  
  
Bergmann  
associates

**GRATWICK RIVERSIDE PARK**  
CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

**PHASE ONE: FAMILY SERVICES  
'GRATWICK PAVILION'  
CONCEPTUAL SITE PLAN**  
SCALE: 1" = 100'





PREPARED BY:



**GRATWICK RIVERSIDE PARK**

CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

**PHASE ONE: FAMILY SERVICES  
'GRATWICK PAVILION'  
CONCEPTUAL BIRD'S EYE SKETCH**

FIGURE

6





GRAND PROMENADE

ACCESSIBLE PIER

NATURAL SHORELINE PLANTINGS

ENHANCED WETLANDS AND  
SHORELINE VEGETATION

HABITAT ENHANCEMENTS

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**GRATWICK RIVERSIDE PARK**

CITY OF NORTH TONAWANDA  
ERIE COUNTY, NEW YORK

**PHASE ONE: FAMILY SERVICES  
'GRATWICK PAVILION'  
ACCESSIBLE FISHING PIER SECTION**

SCALE: 1" = 10'

FIGURE



