



Empowering our Future
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Town of Tonawanda Waterfront Corridor Landscape Design



Landscape
Feasibility Study
Project # 2189
September 30, 2014

TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

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Project Background



The Niagara River looking north to the I-190 Grand Island Bridge

The Town of Tonawanda has the opportunity to reimagine the corridor in a way that accepts the past but empowers its citizens to see and respect the environment in a new way.

In 2013, the Niagara River Greenway Commission awarded the Town of Tonawanda with a Greenway Grant of \$70,000 to implement the first phase of a multi-phase effort to landscape four roadways the Town designated as waterfront corridors: River Road, Grand Island Boulevard, Sawyer Avenue, and the lower portion of Sheridan Drive. River Road, Grand Island Boulevard, and Sheridan Drive are New York State DOT rights-of way; Sawyer Avenue is a county road. Of these four, the Town identified River Road as a primary corridor of emphasis and the other three as secondary corridors. Landscape improvements for Sheridan Drive have been realized through the Sherwood

Greenway project and will not be a priority corridor for this specific study. The specific Phase I project proposes to perform a feasibility study, engaging citizens, users, and stakeholders, and to prepare preliminary landscape plans with opinions of probable costs to enable the Town and the property owners to pursue funding opportunities to improve corridor aesthetics, visually reconnect with the Niagara River, and to improve bike/pedestrian infrastructure. Other project deliverables include a summary with a map of findings from environmental reports in the corridor area and a GIS file containing data points based upon the proposed physical improvements (proposed trees, new fencing, etc.) within the corridor. Please refer to **Figure 1** for a map of the study area. Please also refer to **Appendix D** for the Project Team Meeting Minutes and a list of project representatives.



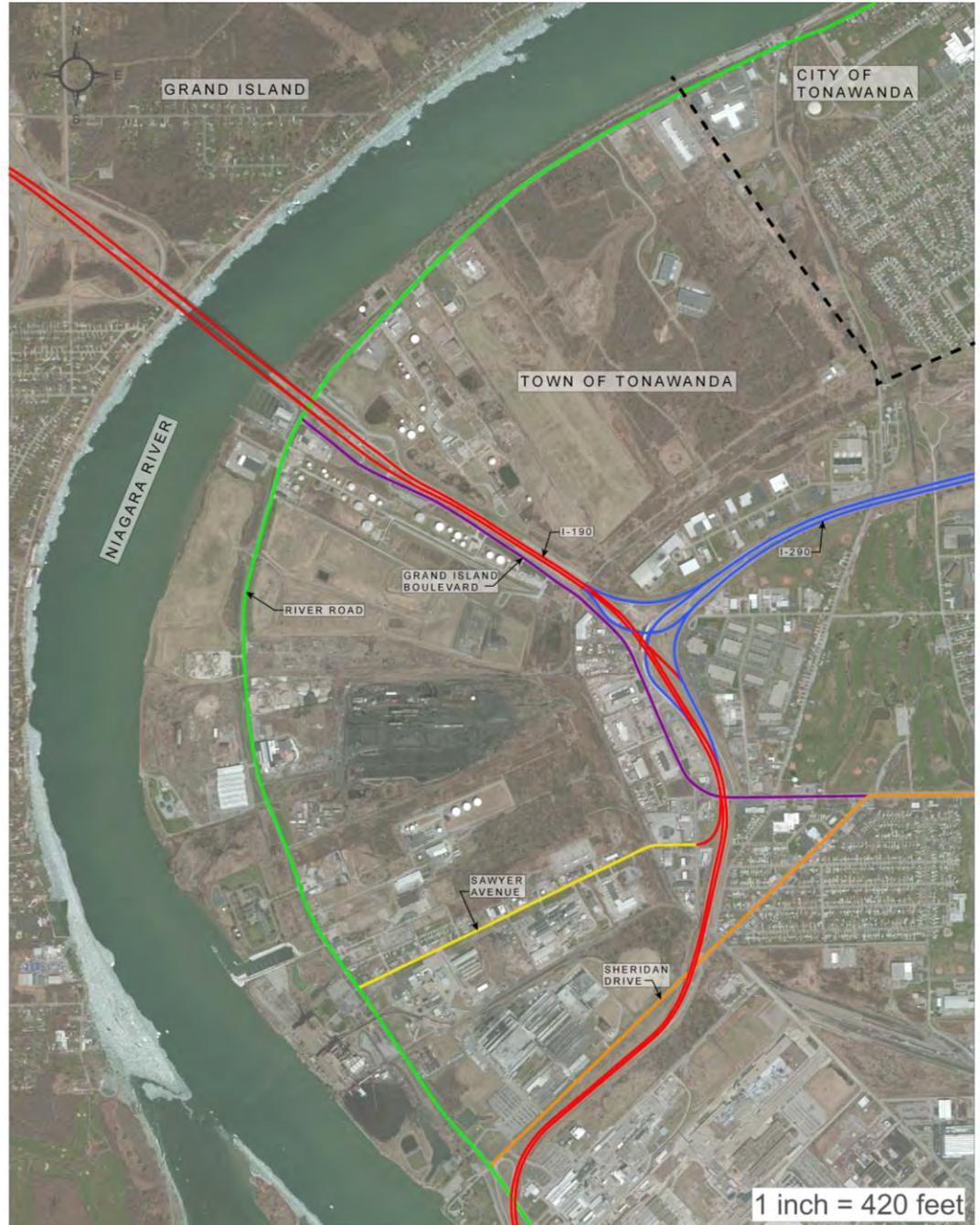
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FIGURE 1: CORRIDOR MAP STUDY AREA





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Riverwalk Trail along River Road

The waterfront corridors are characteristic of abandoned, degraded, or underutilized sites across Western New York. By building on the strength of the Riverwalk Trail which parallels River Road, creating high performance landscapes, and breaking down barriers to the waterfront, this project can link open space, recreational assets, and habitat areas to the greater community.

Our industrial heritage is the very reason we are here today. By acknowledging our industrial heritage and its impact upon the environment, we can move to a new place of understanding and become empowered to rehabilitate and enhance our local green assets. Indeed, environmental

remediation has been a continuing theme across the waterfront landscapes of Western New York. Remediation also should include steps to help us reconnect with these landscapes. Work already underway in the redevelopment of other former industrial sites throughout the region shows us that we can indeed have a new relationship with our waterfront areas.

The Town of Tonawanda selected the project team of Joy Kuebler Landscape Architect, PC, and its partners: KHEOPS Architecture, Engineering, & Survey, DPC; and Panamerican Environmental, Inc.; to conduct the Phase I project. The project contact for the Town of Tonawanda is Jim Jones, Town Engineer. The Erie County project contact is Ken Swanekamp, Director of Business Assistance, Erie County Department of Environment and Planning.



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Based upon the Public Outreach component of the project, the Phase I Feasibility Study must address the following prevalent issues:

Corridor Aesthetics

Blighted properties and structures detract from the enjoyment of corridor roadways and bike paths. Whether large power plants or rusting chain link fencing at the R.O.W., the blight will be difficult to screen from view. The problem is especially acute at the Town of Tonawanda’s I-190 gateway, immediately south of the Grand Island Bridge, where the NOCO and United Refining tank farms come into view. Overhead power lines dominate most views within the corridor. Given the variety of building materials, uses, and levels of vegetation, the corridor lacks a unifying visual theme.

Views to the River

Distances, structures, vegetation, and the landform conspire to block views from River Road to the Niagara River. Many visitors do not realize they are in a waterfront corridor because they rarely see the water.

The Bike/Pedestrian Experience

Riverwalk Trail is a popular trail for bicyclists because of the relatively low volume of vehicular traffic. Improving the experience along Riverwalk Trail will attract more trail users. Common complaints include the lack of spatial separation from River Road, the lack of trail user amenities between Aqua Lane Park and Isle View Park, the lack of connections to a local looped trail network, and the lack of wayfinding signage.

Environmental Contamination

Past industrial activities have contributed a legacy of contaminated soils and groundwater. However, much work has been completed to remediate many of the distressed properties which abut our corridor roadways. Our need to reconnect with the Niagara River will require an understanding of the environmental concerns we are likely to encounter in the corridor, based upon the body of knowledge concerning past spills and remediation efforts.

Town Linkages and Branding

Town residents need physical connections to the Niagara River waterfront. To this end, Erie County has constructed the Sherwood Greenway along Sheridan Drive while the Town is planning other east-west connector trails. Maps and wayfinding signage are necessary to guide trail users from their neighborhoods to the waterfront. Most importantly, residents need these linkages to see that the waterfront is a vital part of the Town of Tonawanda.

Spatial Limitations in the R.O.W.

The Corridor rights-of-way are constrained by a number of issues: distances between the R.O.W boundaries and the edges the roadway pavement; sight triangles; underground and overhead utilities; and encroachments from private structures and pavements. According to current NYSDOT Region 5 guidelines, only trees that will not exceed a caliper size of 4-inches are allowed in the R.O.W.; multi-stem trees or large shrubs are allowed if no individual stem will exceed 4-inches caliper. New trees that will exceed 4-inches caliper are allowed only where protected by guard rails or behind a line of existing utility poles. This current policy however is contrary to trending complete streets objectives.



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Project Approach

Corridor Inventory and a Review of Previous Plans, Studies, and Mapping

The project team and Town representatives toured the project area on bicycles to gain additional perspectives on existing conditions and to informally discuss issues and opportunities. These issues and opportunities were recorded and are reflected in the preliminary landscape plans that have been prepared for the corridor stakeholders. In all, consistent themes include:

- The need to replace blighted chain link fencing with new fencing of a consistent material and color.
- Relocating the fence lines away from the R.O.W. to provide more room for landscape plants.
- A continual landscape treatment to attenuate undesirable views and, through the absorption of carbon dioxide and pollutants, to mitigate poor air quality.
- Additional trail infrastructure, such as parking, seating, or signage, on the long stretch of Riverwalk Trail between Aqua Lane Park and Isle View Park.
- Relocating Riverwalk Trail away from the edge of River Road where little separation exists.
- Installing rain gardens and other planted areas to address poor drainage along the roads and Riverwalk Trail.

The Project Team reviewed previous plans that have been completed for the study area. The plans, completed in the early 1990's by Landscape Architect Roger

Schneckenburger, were used as a starting point for the early Preliminary Planting Plans. These plans proposed a naturalistic style that employed groupings of different species. Given the potential for tree mortality in exposed sites so near the Niagara River and the potential for poor soils, a naturalistic planting approach is preferable to geometric or regimentally-spaced approaches that will amplify the effect of dead or dying trees. In our opinion, the quantity of trees proposed in the Schneckenburger plans would be financially burdensome. Corridor utilities and other spatial constraints also will impede the installation of so many trees. Our updated plans will recommend the same naturalistic style with fewer trees.

KHEOPS prepared corridor mapping showing existing roadways, parcels, wetland areas, and utilities. This information overlaid aerial imagery that would become the base image for the preliminary landscape plans. These area maps appear in **Appendix A**.

Panamerican Environmental reviewed previous historical environmental information, including environmental database RADIUS reports and maps, and aerial photographs indicative of past land uses to assess likely contaminants still present and their potential impacts on future landscape installation activities. Panamerican Environmental also prepared a Construction Contingency Plan template to be utilized by the Town in order to develop health and safety protocols for future landscape operations. Please refer to **Appendix B** for the environmental report and information.

A list of proposed trees for the waterfront corridor appears in **Appendix F**.



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Public Outreach and Engagement of Corridor Stakeholders

Public Outreach is vital to the success of the project. In our experience, public open houses are rarely well-attended. Our approach instead was to garner feedback during scheduled, reoccurring public events. Targeting an audience that represents a broad cross-section of the community (who may not consider themselves “environmentalists” but who may feel invested in the health of and access to the Niagara River) is critical to obtain accurate feedback.

The project team attended three public functions: a Town of Tonawanda Concert Series event, another concert at the Gateway Center in North Tonawanda, and the Kenmore Farmer’s Market. The team had prepared written surveys that could be completed at the event or completed later at home and mailed back to the Town of Tonawanda. In addition, some comments were written on a large notepad; actual conversations allowed us to hear what was important and relevant to attendees. These comments were later transferred to a written version of the survey. An online version of the survey also was created using Survey Monkey; the link was posted on the Town of Tonawanda website. Finally, two recreational clubs active in the corridor were engaged and provided the link to the online survey: The Buffalo Aqua Club (for local scuba divers) and the Niagara Frontier Bicycle Club. Hearing their concerns and engaging them to actively seek design ideas that resonate with them proved to be a meaningful way to gain public input and interest in the future corridor improvements. A copy of the survey and the related findings can be found in **Appendix C**.



Public Feedback during an outdoor concert

Public input was augmented with feedback from a group of corridor stakeholders, selected from the industrial and governmental property owners along the River Road primary corridor. Given the number of constraints within the R.O.W., improvements on private properties that about the R.O.W. will be necessary to enhance corridor aesthetics. Individual meetings were held with stakeholders identified by the Town to discuss improvements in the R.O.W. and, if advantageous, on their property. From these meetings, a preliminary landscape plan and an opinion of probable cost were prepared. Stakeholder meeting minutes would be assembled to document the items of discussion and to recommend next steps. A series of Stakeholder Key Maps appear at the end of the narrative along with Stakeholder Meeting Minutes, Proposed Frontage Improvement Plans for each stakeholder and the related Opinions of Probable Cost.

Coordination with the Town of Tonawanda Planning Board is important to the project. The Team attended an informal meeting with the board to discuss project objectives and to identify broader planning opportunities and constraints. At the end of the project, the team will present the findings of the Inventory and Analysis to the Town Planning Board.



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Riverwalk Trail & the location of the former Erie Canal

Priority Matrix

Identifying potential aesthetic improvements, recreational amenities, and environmental enhancements will allow future implementation to flow efficiently from one established project goal to the next.

A priority matrix for the Town's use was created to develop a long range strategy that builds on strengths, takes advantage of adjacent opportunities and leverages longer range projects with the success of the short range implementation. Collaboration with other municipal or state projects in the corridor should be a high priority when determining the phasing priorities. The costs and potential attributes of each project will determine its prioritization. A copy of the Priority Matrix and an Evaluation Worksheet can be found in **Appendix F**.

Some projects have significant infrastructure already present and only need minor improvements to complete it. Others areas may have significant opportunities but little infrastructure present and would need significant investments to complete it. In short, the determining factors can be summarized as benefit and constructability. Some may have greater opportunities of funding from private sources. All of these factors will allow the Town to weigh the potential projects using consistent scale.

We suggest establishing a tiered level of **implementation packages** that follow:

Level One - Enhancements: Minimum improvements to any specific area.

Level Two - Enhancements: Median range of required improvements.

Level Three - Enhancements: Substantial improvements required.



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Implementation Strategies

Riverwalk Trail along River Road

The Level One Enhancements will include those top priority stakeholders that control great lengths of frontage along River Road. Top consideration will be given to public entities since they are eligible for more grants than private landowners would be. While their overall costs of improvements will be high due to the lengths of their frontages, these stakeholders likely will phase their improvements over time as funds become available. Otherwise, the Level One Enhancements will consist of stakeholders whose projected costs of improvements are less than \$100,000.

The Level Two Enhancements will include those remaining stakeholders we have engaged and whose projected costs of improvements are \$100,000 or greater. The Level Three Enhancements consists of all River Road corridor stakeholders that were not engaged during our process.

The Town should engage potential project partners that can provide technical expertise, volunteer labor, and landscape materials. A list of such partners would include, but not be limited to:

- Buffalo Niagara Riverkeeper
- Re-Tree Western New York
- NYS Department of Environmental Conservation
- Sierra Club Niagara Group
- Buffalo Audubon Society
- WNY Stormwater Coalition
- The Clean Air Coalition of WNY
- Erie County Environmental Management Council
- AmeriCorps

The Town also is encouraged to look within its own list of agencies and organizations to identify potential implementation partners for future projects in the Waterfront Corridor.



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Overall Project Recommendations

Improve Corridor Aesthetics

If nothing else was implemented, replacing all existing chain link fencing and gates along corridor rights-of-way with black, vinyl-clad chain link fencing and gates would improve corridor aesthetics dramatically. The black vinyl-clad fence fades back visually, thus highlighting anything planted in front of it. We recommend a consistent use of 9-gauge 2-inch mesh at a height of 8-feet (the Town may choose to allow a lower height on a case-by-case basis). Only the existing fencing along the R.O.W. and at major entrance drives should be replaced.

New fencing should be installed as far away from the R.O.W. (on private property) as existing structures and vehicular circulation requirements permit in order to maximize space available for future trees and landscape buffer. Even an additional distance of fifteen feet from the R.O.W. would allow small to medium shade trees to be installed behind existing overhead power lines.

The maintenance burden of most shade, evergreen, and ornamental trees is relatively light when compared to that for shrubs, ornamental grasses, and perennials. The corridor should require a 'park-level' of maintenance, meaning that trees are watered only until they are established and that leaves are not raked.

The preliminary landscape plans recommend naturalistic plantings of trees and a native seed mix to establish a meadow appearance along the R.O.W. The native seed mix will require mowing once or twice a year to maintain the



Overhead power lines and industrial uses within the corridor

meadow appearance and to reduce the encroachment of weeds. This also will reduce the maintenance burden of the adjacent property owners, who are required to mow and maintain their R.O.W. frontage.

Where space in the R.O.W. is limited, we recommend tree plantings on private property. Only ornamental trees should be planted beneath overhead power lines. Evergreen trees, which can screen someone standing behind them, should be planted away from trails, walkways, and parking lots. Sight triangles at intersections should be clear of trees and should be mowed frequently to promote visibility. All tree species and their installation shall conform to the Town of Tonawanda standards, provided in **Appendix F**.

In our discussions with National Grid, it is evident that the direct burial of overhead power lines would be prohibitively expensive, potentially costing \$800,000 per mile. Still, the buried lines are not prone to damage from storms and vehicular accidents. Second only to fence replacement, the direct burial of overhead power lines and the removal of poles and other related structures will yield the most



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impact to corridor aesthetics. Where the cost can be borne by others, the direct burial of overhead power and other utilities should be pursued.

Extensive tank farms exist on both sides of I-190 south of the Grand Island Bridge. Repainting those tanks on a frequent basis will present a fresh, vibrant look for travelers. One idea would be a Town-approved palette of earth-tone colors that the property owners can use when repainting these tanks. Another idea is to encourage more artistic designs on those tanks on both sides of I-190.

Enhance Views to the River

Opportunities to enhance views to the river are limited along River Road, due to the landform, existing vegetation, or existing structures. One opportunity exists at the intersection of River Road and Sheridan Drive, where travelers in the west-bound lane of Sheridan Drive are treated to a beautiful vista of the Niagara River. Newly-planted trees along Riverwalk Trail should be relocated in order to optimize and enhance this view. A glimpse of the River for south-bound travelers on River Road can be achieved through the selective removal of existing trees and brush in the extreme southern portion of the NRG Huntley Plant property. Finally, where River Road is higher than Isle View Park, north of the I-190 bridge, selective clearing on the west side of the road will open views to the River.

Improve Bike/Pedestrian Infrastructure

The Town should seek opportunities to increase the separation between the edge of pavement of River Road and Riverwalk Trail. Even a ten-foot separation would provide a greater perception of comfort for trail users. From the NRG Huntley Plant to the Niagara River World development,

most of the west frontage along River World is owned by National Grid; this section provides the least amount of trail separation from the road. According to the Erie County Parks Department, this trail section lies within an easement.

The stretch of Riverwalk Trail from Aqua Lane Park to Isle View Park is very long for a family with young bicyclists. An intermediate parking area for five to six cars would allow for a shorter trip. The unused NRG Huntley Plant parking lot near the intersection of River Road and Sawyer Avenue would be an ideal location for the intermediate lot, especially with the construction of the Sawyer Avenue Trail (see the multi-use trail Map in [Appendix A](#). If this lot is not available, the site of the former National Grid substation south of the NRG Huntley Rail Bridge would be a possible location for a new parking lot, although it is very close to existing parking at Aqua Lane Park. Another prime location for intermediate trailhead parking would be within the Erie County-owned land at the entrance to Cherry Farm. The trailhead parking lots should include seating and wayfinding signage with a trail network map and a mileage chart.

With the development of the Westside Connector Rail Trail and future east-west connector trails, visitors to Riverwalk Trail will have options for a looped local trail network. This will increase the waterfront corridors' status as a destination for recreation and the enjoyment of natural habitats and our region's industrial heritage. The expansion of the trail network as well as the investment in corridor aesthetics also will attract potential employees of the corridor's industries and businesses.



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Tank farms along I-190

Stakeholder Prioritization

Certain stakeholders control large swaths of land along our corridor frontages and should be considered as the top tier opportunities to improve the corridor. Due to the lengths of corridor frontages, some of their projects likely will require phasing. The complete scope of recommendations for each stakeholder is included at the end of the narrative.

- The Erie County Parks Department owns much of the former Erie Canal R.O.W. along the west side of River Road and has indicated its willingness to participate in selective clearing of some trees and the planting of additional trees along Riverwalk Trail. All of this property is in the public realm and would be eligible for the greatest number of grants.
- The New York State Thruway Authority (NYSTA) controls the unofficial gateway to the Town at the foot of the Grand Island (I-190) Bridge. Working with the NYSTA to plant this corridor not only will attenuate the negative views of the adjacent petroleum tank farms, it will enable the Town to obtain screening of the tandem-trailer lots on both sides of I-190, south of the bridge. The NYSTA representative demonstrated a willingness to incorporate our recommendations into the Authority's capital and O&M projects. Again, this property is in the public realm and would be eligible for the greatest number of grants.
- National Grid owns most of the remaining former Erie Canal R.O.W., beginning immediately south of the Erie County-owned portion. The National Grid property contains the longest stretches where the edge of Riverwalk Trail abuts the edge of the pavement for River Road. This is private property.



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Related Projects in the Town of Tonawanda

The Town of Tonawanda has identified a number of ongoing or future projects which either can impact the Town’s waterfront corridors. They are listed below beginning with current projects:

- **2014 Waterfront Land Use Plan Update** – The Waterfront Land Use Plan Update, prepared by Clark Patterson Lee, seeks to foster patterns of smart growth that realizes the waterfront’s full potential for employment, residential, and recreational uses. The Waterfront Corridor Landscape Feasibility Study is a progression of the Waterfront Land Use Plan Update.
- **2014 Comprehensive Master Plan Update** – The Comprehensive Master Plan, prepared by URS, provides guidance for zoning and land use decisions. The Current Comprehensive Plan emphasizes the continuation of revitalization and the development of recreational opportunities in the waterfront area.
- **Trail Development** – The Sherwood Greenway is nearly complete, connecting the existing Two Mile Creek Greenway to Riverwalk Trail. All three trails provide vital access to and along the waterfront area. The Town is planning for other trails in the area: The Rattlesnake Multi-Use Path along Riverwalk Parkway in T.M. Montante Development’s Riverview Solar Technology Park;

The Industrial Heritage Multi-Use Path running East-West north of the Tonawanda Coke property; a trail along Sawyer Avenue; and the Westside Connector in a series of low volume, low speed rail rights-of-way located well east of River Road that would link the previously listed future trails. The Westside Connector would create a looped network for the other waterfront area trails.

- **Future Waterfront Parkland** – Parkland with direct river access or even exceptional views of the river would boost the recreational quality of the Waterfront Corridors. With this in mind, the Town of Tonawanda seeks to improve Aqua Lane Park and to develop new public space at the former Cherry Farm and Wickwire Spencer Steel sites. Proposed improvements to Aqua Lane Park include vegetative screening of the adjacent water treatment plant, other additional plantings, a children’s play area, a natural amphitheater, and angled parking to increase the available space for park uses. Aqua Lane Park affords excellent views of the Niagara River (and Strawberry Island) and boasts a large boat ramp and parking area. The proposed Cherry Farm Park would sit atop a closed landfill; the cap thickness was designed to facilitate proposed paths, roads, parking, and structures. Overall, the design emphasizes passive activities, such as walking, bicycling, boating access, picnics, children’s play, an outdoor performance area, areas for



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reflection, and a small area for court games such as bocce, sand volley ball, tennis, and basketball. The park will retain its current lone vehicular access drive and will include additional trail entrances. Green infrastructure, specifically porous pavements and bioswales, will minimize drainage into riparian and wetland areas. The southern portion of the Wickwire Spencer Steel site has been redeveloped as Niagara River World, a mix of warehousing, distribution, and light industrial uses. The owner and the Town desire to see a recreational component to any development of the unused northern portion of the site that would allow public access to the waterfront. A third, small waterfront park has been proposed for the unused United Refining property directly behind

Industrial infrastructure over River Road

the existing Enbridge Energy pump station at 4650 River Road. Named Riverfront Park, the proposed park emphasizes views to the river and a strolling looped interpretive path through wetlands. The proposed park has no vehicular parking and connects to Riverwalk trail just south of the Enbridge facility.

- Future Pipeline** - A large pipeline project has been mentioned by National Fuel for the potential conversion of the NRG Huntley Plant from coal to natural gas. No routing or schedule has been proposed for this project, though either the River Road R.O.W. or Riverwalk Trail is a likely corridor. With either option, landscape replacement is urged to offset losses from construction.



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I-190 looking south toward the I-290 exit

- **River Road Restriping** – The team has recommended that NYSDOT has discussed restriping River Road north of I-190, converting from a four-lane configuration to a two-lane configuration plus a center turn lane. Initially the width of pavement and the roadway centerline will remain the same, but any future capital project should embrace a complete street approach that emphasizes a roadway pavement diet for River Road as well as rain gardens.



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View of Grand Island Bridge from Cherry Farm

Conclusion

The Town of Tonawanda’s desire for access and recreation along the Niagara River is demonstrated by its commitment to creating aesthetic, inviting roadway corridors and trails, linking the River to the Town core to the east. Our intent is for the individual Stakeholder Frontage Improvement Plans and the Opinions of Probable Costs to serve as ‘grant-ready’ documents, increasing the probability that the stakeholders, the Town, or other entities can obtain the necessary funding to revitalize these corridors. Furthermore, the plans will ensure that, once implemented, the Town’s waterfront corridors will have a consistency of materials and landscape styles.

Until the Town is able to develop new parks along the shoreline, the corridor’s prevalent linkages to the water will be visual and direct. Selective clearing of landscape along the west edge of River Road will open views to the River and establish some sense of connection. Educational signage at the proposed trailhead parking areas will bolster that sense of attachment through information about the corridor’s heritage or ecology. Increasing the separation of Riverwalk Trail from River Road would allow trail users to focus more on the landscape and less on the roadway’s vehicular traffic.

Just as the Frontage Improvement Plans and the Opinions of Probable Costs will inform funding decision-making, the Town’s use of the Priority Matrix will assure a more consistently-weighted process to ensure long-term success. Funding opportunities will change with time; this should be viewed as a dynamic, adaptable process to be used actively by the Town of Tonawanda.

It should be noted that a significant level of the recommendations pertain to areas on private property due to the geometric and field constraints. It is the Town’s expectation that stakeholders will take the recommendations on themselves because it would be complicated and expensive to achieve public investment on private properties. The costs provided are based on typical public works bidding data. Procurement of landscape initiatives by the individual stakeholders is potentially much more nimble and efficient.



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Earlier we suggested establishing a tiered level of *implementation packages* with the following levels:

Level One - Enhancements: Minimum improvements to any specific area, plus the Priority Stakeholders identified in p. 11.

Level Two - Enhancements: Median range of required improvements.

Level Three - Enhancements: Substantial improvements required.

The implementation packages appear below:

Implementation Packages – Level One:

| | |
|--|------------|
| • (V) Triad Recycling | \$ 10,656 |
| • (I) PeroxyChem (FMC) | \$ 13,536 |
| • (M) Town of Tonawanda Water Department | \$ 27,920 |
| • (F) Swift River | \$ 31,952 |
| • (B) ECIDA – 3445 River Road Site | \$ 38,835 |
| • (Q) National Grid – Former Substation Site | \$ 158,440 |
| • (H) Erie County Parks Department | \$ 510,489 |
| • (G) NYSTA | \$ 658,170 |
| • (Q) National Grid – Transmission Corridor | \$ 865,959 |

Implementation Packages – Level Two:

| | |
|---------------------------------------|-------------|
| • (U) Niagara River World | \$ 107,363 |
| • (C) Goodyear Dunlop | \$ 129,888 |
| • (P) NRG-Huntley | \$ 430,697 |
| • (N) United Refining | \$ 464,824 |
| • (F) Riverview Solar Technology Park | \$ 561,650 |
| • (R) NOCO – Black Dirt Properties | \$ 590,008 |
| • (O) Tonawanda Coke | \$ 699,305 |
| • (S) NOCO Terminal Site | \$1,696,376 |

Implementation Packages – Level Three:

| | |
|------------------------------------|------------|
| • (L) LaFarge (Clarence Materials) | \$ 20,160 |
| • (A) 3679 River Road | \$ 29,657 |
| • (D) Mid-River Marina | \$ 46,895 |
| • (J) CSX | \$ 60,794 |
| • (T) Estes Express | \$ 85,113 |
| • (K) INS | \$ 225,730 |



WATERFRONT CORRIDOR LANDSCAPE PROJECT

LEGEND

- (E) RIVERVIEW SOLAR TECHNOLOGY PARK
- (F) SWIFT RIVER ASSOCIATES
- (G) NYS THRUWAY AUTHORITY
- (H) ERIE COUNTY PARKS & RECREATION
- (K) INS SCRAP PROCESSORS
- (L) LAFARGE / CLARENCE MATERIAL CORPORATION
- (M) TOWN OF TONAWANDA WATER RESOURCES DEPARTMENT
- (N) UNITED REFINING
- (P) NRG HUNTLEY
- (S) NOCO ENERGY CORPORATION
- (T) ESTES EXPRESS
- (U) NIAGARA RIVER WORLD

Prepared By:



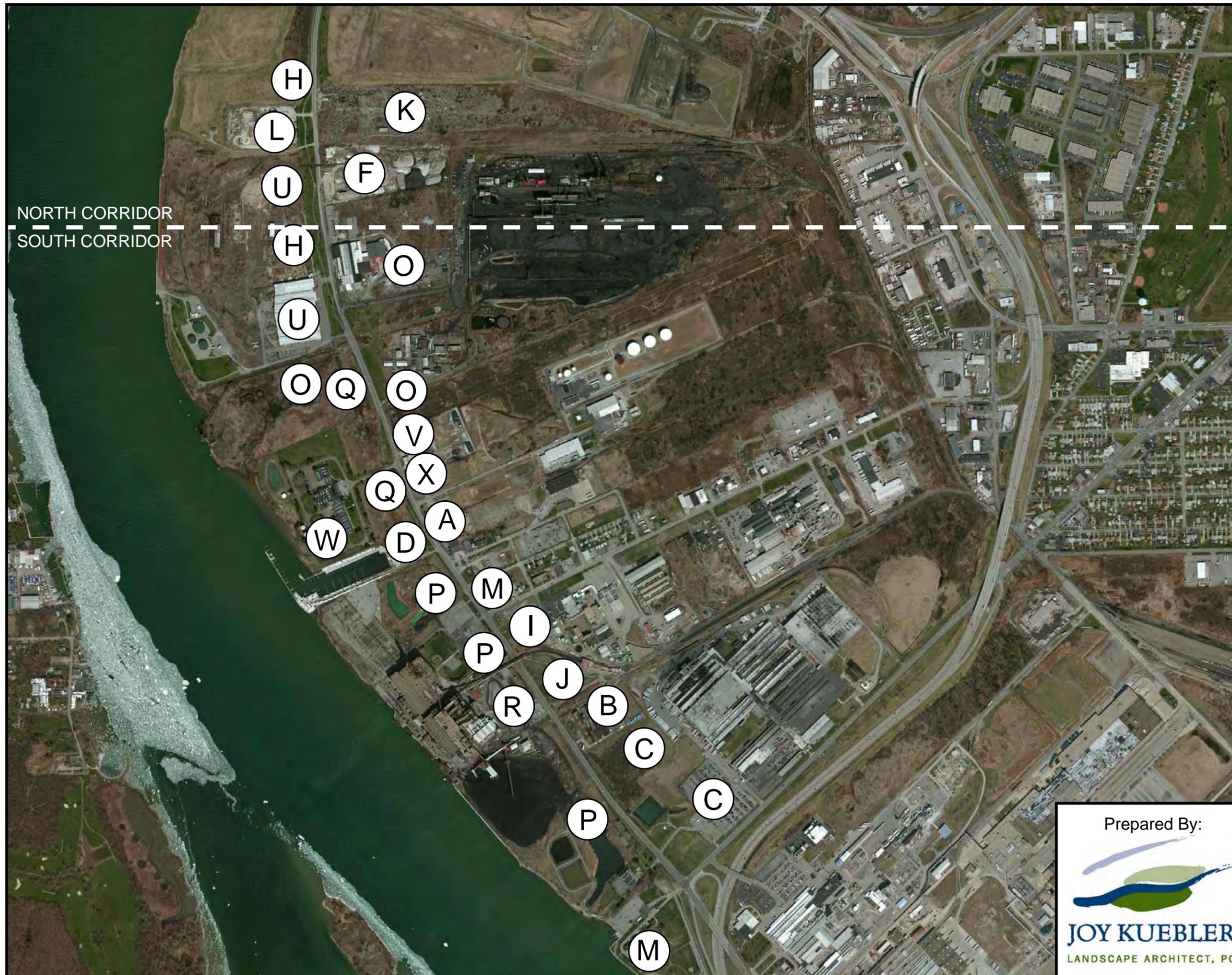
JOY KUEBLER
LANDSCAPE ARCHITECT, PC



NORTH CORRIDOR
SOUTH CORRIDOR

LOCATION MAP - NORTH CORRIDOR

**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**



NORTH CORRIDOR
SOUTH CORRIDOR

LEGEND

- (A) 3679 RIVER ROAD
- (B) ERIE COUNTY INDUSTRIAL DEVELOPMENT AGENCY
- (C) GOODYEAR DUNLOP TIRES NORTH AMERICA
- (D) MID-RIVER MARINA
- (F) SWIFT RIVER ASSOCIATES
- (H) ERIE COUNTY PARKS & RECREATION
- (I) FMC INDUSTRIAL CHEMICALS GROUP / PEROXYCHEM
- (J) CSX
- (K) INS SCRAP PROCESSORS
- (L) LAFARGE / CLARENCE MATERIAL CORPORATION
- (M) TOWN OF TONAWANDA WATER RESOURCES DEPARTMENT
- (O) TONAWANDA COKE CORPORATION
- (P) NRG HUNTLEY
- (Q) NATIONAL GRID
- (R) NOCO BLACK DIRT
- (U) NIAGARA RIVER WORLD
- (V) TRIAD RECYCLING
- (W) ERIE COUNTY WATER AUTHORITY

Prepared By:



LOCATION MAP - SOUTH CORRIDOR



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: 3679 River Road

Address: 3679 River Road, Tonawanda, NY 14150

Location Map: A

Approximate Frontage: 400'

Existing Conditions / Problems: Pavement encroachment into R.O.W., spatial limitations of overhead power lines, minimal landscaping, frontage views limited by parking areas

Designer Approach: Remove asphalt pavement in R.O.W. for north side bldg. (not possible for south side bldg.), install ornamental trees as the R.O.W. depth, overhead power lines, and utilities permit

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: 3679 River Road (A)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [3679 River Road, Inc. \(A\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT. & LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|------------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Asphalt Pavement | 1,472 | SF | \$4 | \$5,888 |
| 3.0 | Chain Link Fencing | 361 | LF | \$5 | \$1,805 |
| 4.0 | New | | | | |
| 5.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 361 | LF | \$45 | \$16,245 |
| 6.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 7.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 8.0 | Meadow Mix Seeded Area | 4,120 | SF | \$0.39 | \$1,607 |
| 9.0 | | | | | |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 23.0 | | | | | |
| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$28,245 |
| | | | | Contingency. @ 5% | \$1,412 |
| | | | | TOTAL | \$29,657 |



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |
| | HIGH VOLTAGE ELECTRICAL TOWER |



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



3679 RIVER ROAD INC (A)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Erie County Industrial Development Agency

Address: 3445 River Road, Tonawanda, NY 14150

Location Map: B

Approximate Frontage: 405'

Existing Conditions / Problems: Blighted chain-link fence / gates, no landscaping, open site following remediation, no established turf

Designer Approach: Fence replacement with black, vinyl-clad chain-link fence, new shade and ornamental trees for season interest, install meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Erie County Industrial Development Agency, 95 Perry Street, Suite 403, Buffalo, NY (B)

Meeting Date: January 16, 2014

Present:

John C. Cappellino, ECIDA
Phil Riggs, ECIDA
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Jim discussed the project and the Town's desire to create a more aesthetic, enjoyable corridor along River Road.
2. John Cappellino explained that ECIDA has fee title to most of its properties, meaning that it owns the properties and leases them back to the tenant. As such, ECIDA will leave the approval of the proposed improvements to each individual tenant.
3. The ECIDA property at 3445 River Road is different, in that the Authority directly owns a former brownfield site that they intend to sell now that it has been remediated. JKLA will provide ECIDA with an illustrative plan for aesthetic improvements to the River Road frontage, so that ECIDA can engage a landscape contractor in March to begin work later in the spring. Currently ECIDA has a \$20,000 budget for these improvements; this amount likely will cover the cost of landscape improvements but not to replace the frontage fencing with vinyl-clad chain link fencing. Phil will provide JKLA with a scanned copy of the Contractors estimate with the number of shade trees.

The foregoing represents the observations during the meeting with ECIDA. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before March 6th, for corrections to be made and redistributed to the Town of Tonawanda.

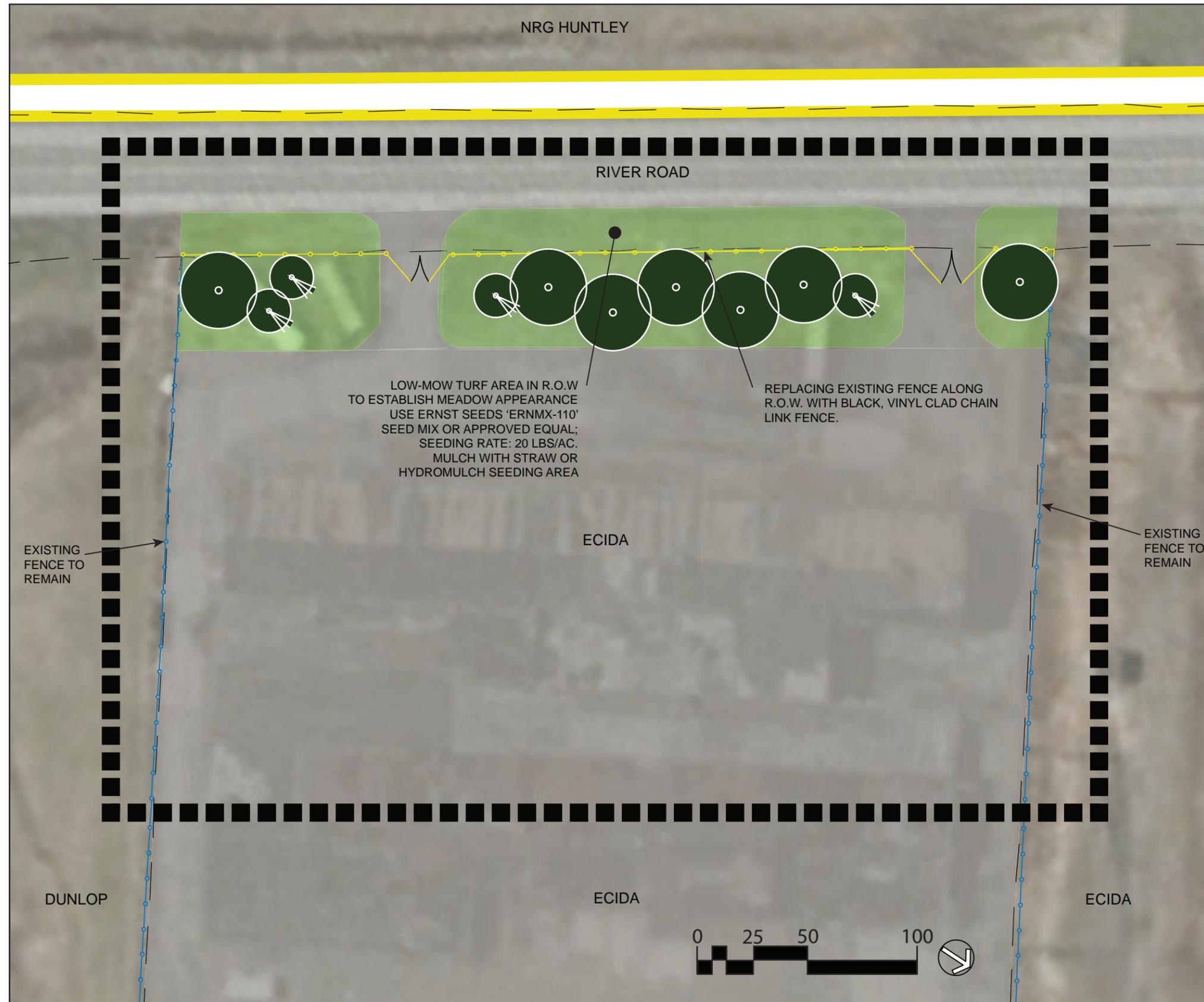
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: **Town of Tonawanda Waterfront Corridor Design**
 Location: **River Road Corridor**
 Owner: **ECIDA (B)**
 Estimated by: **smj**
 Checked by:
 Approved by: **Joy Kuebler Landscape Architect, PC**

Project No.: **13012**
 Revision Date: **04/08/2014**

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT. & LAB. | ESTIMATED AMOUNT |
|-------------|---|--------------------|------|--------------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Chain Link Fencing | 446 | LF | \$5 | \$2,230 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 446 | LF | \$45 | \$20,070 |
| 5.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 2 | EA | \$1,500 | \$3,000 |
| 6.0 | Shade Tree (2" CAL) | 7 | EA | \$400 | \$2,800 |
| 7.0 | Ornamental Tree (1-1/2" CAL) | 4 | EA | \$330 | \$1,320 |
| 8.0 | Meadow Mix Seeded Area | 19,400 | SF | \$0.39 | \$7,566 |
| 9.0 | | | | | |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 29.0 | | | | | |
| 30.0 | | | | | |
| 31.0 | | | | | |
| 32.0 | | | | | |
| 33.0 | | | | | |
| 34.0 | | | | | |
| 35.0 | | | | | |
| 36.0 | | | | | |
| 37.0 | | | | | |
| 38.0 | | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$36,986 |
| | | | | Contingency. @ 5% | \$1,849 |
| | | | | TOTAL | \$38,835 |



| LEGEND | |
|--------|-----------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOW STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |

Prepared by



ECIDA - 3445 River Road (B)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Goodyear Dunlop Tires North America

Address: 10 Sheridan Drive, Tonawanda, NY 14150

Location Map: C

Approximate Frontage: 1,522' on River Road

Existing Conditions / Problems: Very visible property at the intersection of River Road and Sheridan Ave., older chain-link fence dominates the street views, reduce turf maintenance

Designer Approach: Replace existing chain-link with black vinyl-clad chain-link fence, move fence back where spatially possible to provide more room for tree plantings, install trees where the fence can be relocated, plant meadow mix seed to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Goodyear Dunlop Tires North America, 10 Sheridan Drive (C)

Meeting Date: January 15, 2014

Present:

Timothy E. Williams, Jr., Goodyear Dunlop
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Jim discussed the project and the Town's desire to create a more aesthetic, enjoyable corridor along River Road.
2. Goodyear Dunlop's sprawling facility is located at the northeast corner of Sheridan Drive and River Road. This is a very visible intersection. It is located where the new Sherwood Trail joins the Riverwalk Trail and serves as the southern gateway to the Town's designated waterfront corridor areas. The intersection sees considerable traffic at the I-190 interchange and at the entrance to Aqua Lane Park. As the southern gateway, landscaping can establish a positive theme for the remaining River Road corridor.
3. We discussed the conceptual landscape design and proposed improvements for this intersection and along the River Road R.O.W. The design would retain the existing hedge pruned to create the letter 'D' at the corner. Additional trees and perhaps low shrubs would be added on both sides of the pruned hedge. The proposed landscape will remain clear of an existing gate at River Road and a retention pond just north of the gate. We recommend that Goodyear Dunlop moved its fence back 15' to 18' to provide more room for mature shade trees and conifers, behind the existing overhead power line. In keeping with our recommended corridor standard, we would like for the new fence and gate to be black, vinyl-clad chain link fence. We also recommend that Goodyear Dunlop adopts a low-mow approach in its River Road R.O.W. and immediately behind the fence to establish a natural, meadow landscape and to reduce its maintenance costs.
4. Consolidation of the numerous utility poles at this intersection would dramatically improve the aesthetics at this southern gateway. Consolidation will require approval from the various utility providers. Most likely this discussion only peripherally would involve Goodyear Dunlop.

5. Tim said that if the Town could pay for the new fence that Goodyear Dunlop would support the fence replacement and relocation.
6. Tim mentioned that Goodyear Dunlop would like to replicate the Sherwood Greenway plantings on its side of Sheridan Drive, saying that the corporation is willing to 'step up to the plate'. Jim will email PDFs of the landscape plan to Tim so that Goodyear Dunlop can secure the trees to plant on its property. Tim would be interested in tying the tree installation to Arbor Day or to coordinate the installation with Re-Tree WNY, still using Dunlop's employees and any interested volunteers to plant the trees.

The foregoing represents the observations during the meeting with Tim Williams. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before February 7th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Dunlop \(C\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Chain Link Fencing | 1,654 | LF | \$5 | \$8,270 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 1,654 | LF | \$45 | \$74,430 |
| 5.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 6.0 | Shade Tree (2" CAL) | 14 | EA | \$400 | \$5,600 |
| 7.0 | Evergreen Tree (6' HT) | 7 | EA | \$300 | \$2,100 |
| 8.0 | Ornamental Tree (1-1/2" CAL) | 14 | EA | \$330 | \$4,620 |
| 9.0 | Meadow Mix Seeded Area | 69,700 | SF | \$0.39 | \$27,183 |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 29.0 | | | | | |
| 30.0 | | | | | |
| 31.0 | | | | | |
| 32.0 | | | | | |
| 33.0 | | | | | |
| 34.0 | | | | | |
| 35.0 | | | | | |
| 36.0 | | | | | |
| 37.0 | | | | | |
| 38.0 | | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$123,703 |
| | | | | Contingency. @ 5% | \$6,185 |
| | | | | TOTAL | \$129,888 |

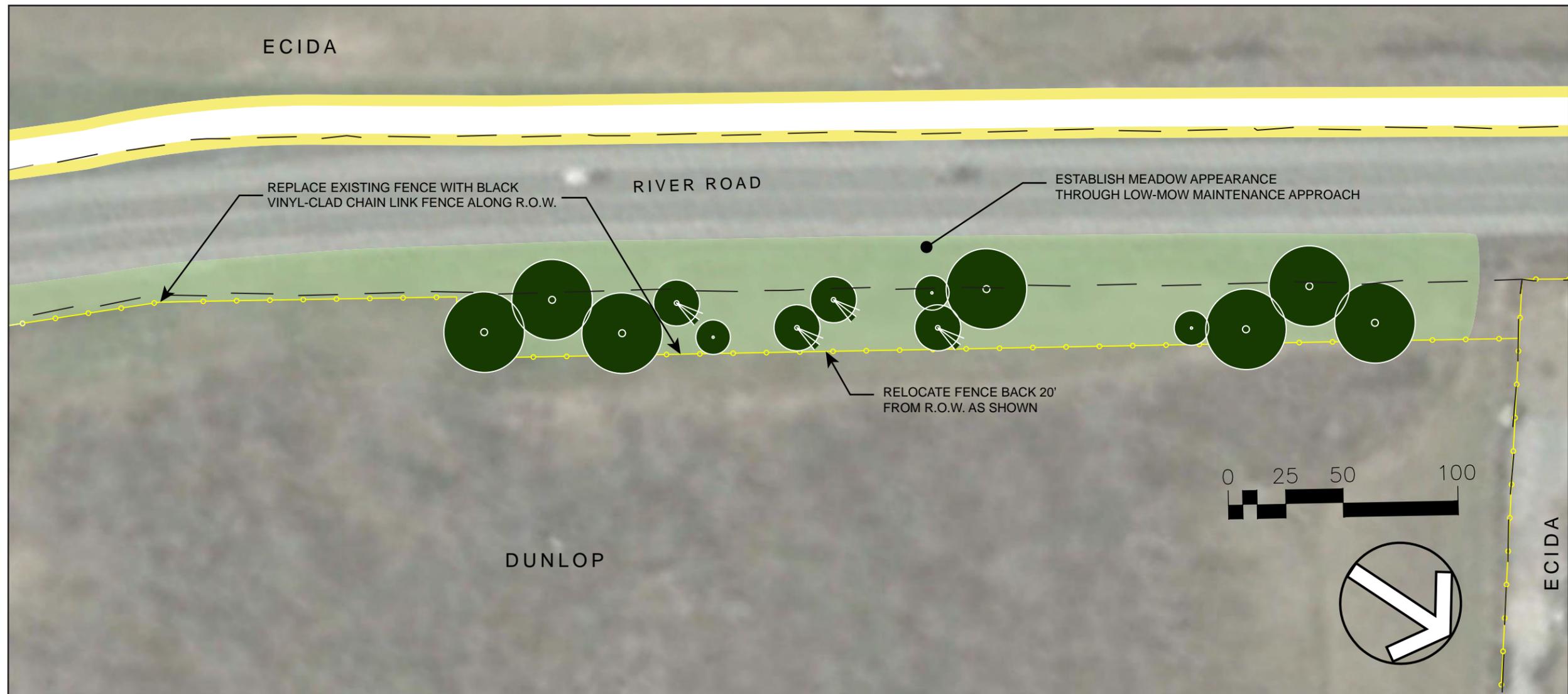
LEGEND

- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- ▬ BIKE PATH WITH 5' MOWED STRIP
- ☁ EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



DUNLOP (C) - NORTH



DUNLOP (C) - SOUTH

*REFER TO PAGE A5 FOR THE ILLUSTRATIVE SECTION A - B.



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Mid-River Marina

Address: 3670 River Road, Tonawanda, NY 14150

Location Map: D

Approximate Frontage: 200'

Existing Conditions / Problems: Unsightly collection of scrap, vehicles, and equipment from River Road frontage, Gravel and compacted soil impedes the growth of health turf, screen views of overhead power lines on adjacent property, reduce turf maintenance where the turf has established

Designer Approach: Remove all scrap, vehicles and equipment from roadway frontage, strip all gravel and compacted earth and replace with topsoil, install trees to screen views of power lines, plant meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Mid-River Marina (D)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Mid River Marina \(D\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT. & LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|--------------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Gravel | 4,407 | SF | \$3 | \$13,221 |
| 3.0 | New | | | | |
| 4.0 | New Topsoil (12" Depth) | 4,407 | SF | \$5 | \$22,035 |
| 5.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 6.0 | Evergreen Tree (6' HT) | 2 | EA | \$300 | \$600 |
| 7.0 | Ornamental Tree (1-1/2" CAL) | 1 | EA | \$330 | \$330 |
| 8.0 | Meadow Mix Seeded Area | 18,656 | SF | \$0.39 | \$7,276 |
| 9.0 | | | | | |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$44,662 |
| | | | | Contingency. @ 5% | \$2,233 |
| | | | | TOTAL | \$46,895 |



LEGEND

- PROJECT AREA
- PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



MID-RIVER MARINA INC (D)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Riverview Solar Technology Park

Address: 5201 River Road, Tonawanda, NY 14150

Location Map: E

Approximate Frontage: 2,390', most of frontage is naturally vegetated

Existing Conditions / Problems: Only the northern parcel needs trees to attenuate views into the site, need to connect proposed Riverview Pedestrian Trail to Isleview Park, this will require a pedestrian crossing across River Road and a series of ramps to descend the bluff just beyond River Road.

Please note that the series of ramps extend into Isleview Park. As such, it requires the review and approval of Erie County Department of Parks and Recreation.

Designer Approach: Install trees in R.O.W. along the northern property's frontage, provide pedestrian crossing at intersection of River Road and Riverwalk Parkway, install a series of ramps to connect the Montante Riverview Trail in Isleview Park

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Riverview Solar Technology Park, 2760 Kenmore Avenue (E)

Meeting Date: December 3, 2013

Present:

Tim Vaeth, President, TM Montante Dev.
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Tim mentioned trail for Riverview Solar Tech Park.
2. Montante has talked to DOT about getting a light at their entrance.

a. Speeds transition from 45 mph



55 mph @ Riverview

(which presents a problem for a crossing at Montante's Riverview Entrance)



30 mph City of Tonawanda

3. Trail Options:
 - a. Pedestrian Light near the park entrance to River Road w/crossing and a switchback down the steep slope into Isle View Park → Tim and Jim prefer this option.
 - b. Run another trail on east side of River Road to existing pedestrian crossing for Two Mile Creek Greenway → Tim and Jim do not like. The existing bridge across Two Mile Creek will not facilitate a pedestrian walkway on its north bound (east) side. The pedestrian lane on the south bound (west) side of the bridge is closed.
4. Discussed connection to proposed "Industrial Heritage Trail"
 - a. Would be located in an existing National Grid/CSX Right-of-Way behind Riverview Solar Park (to the east).
5. Montante would build its internal trail system, which could extend to the east of the Montante-owned parcel to provide a connection to the future Industrial Heritage Trail. The internal trail is a design component of the environmental impact statement for the Riverview Solar Technology Park.
6. Jim suggested that there is an opportunity for a looped trail system:

- a. Riverview Trail → Riverwalk → Two Mile Creek Greenway → Industrial Heritage Trail (future).
7. Montante bought adjacent lot to north along River Road for access
- a. Part of the site is contaminated and has undergone environmental remediation. A change in use may require additional clean-up.

The forgoing represents the observations during the meeting with Tim Vaeth. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before January 15th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

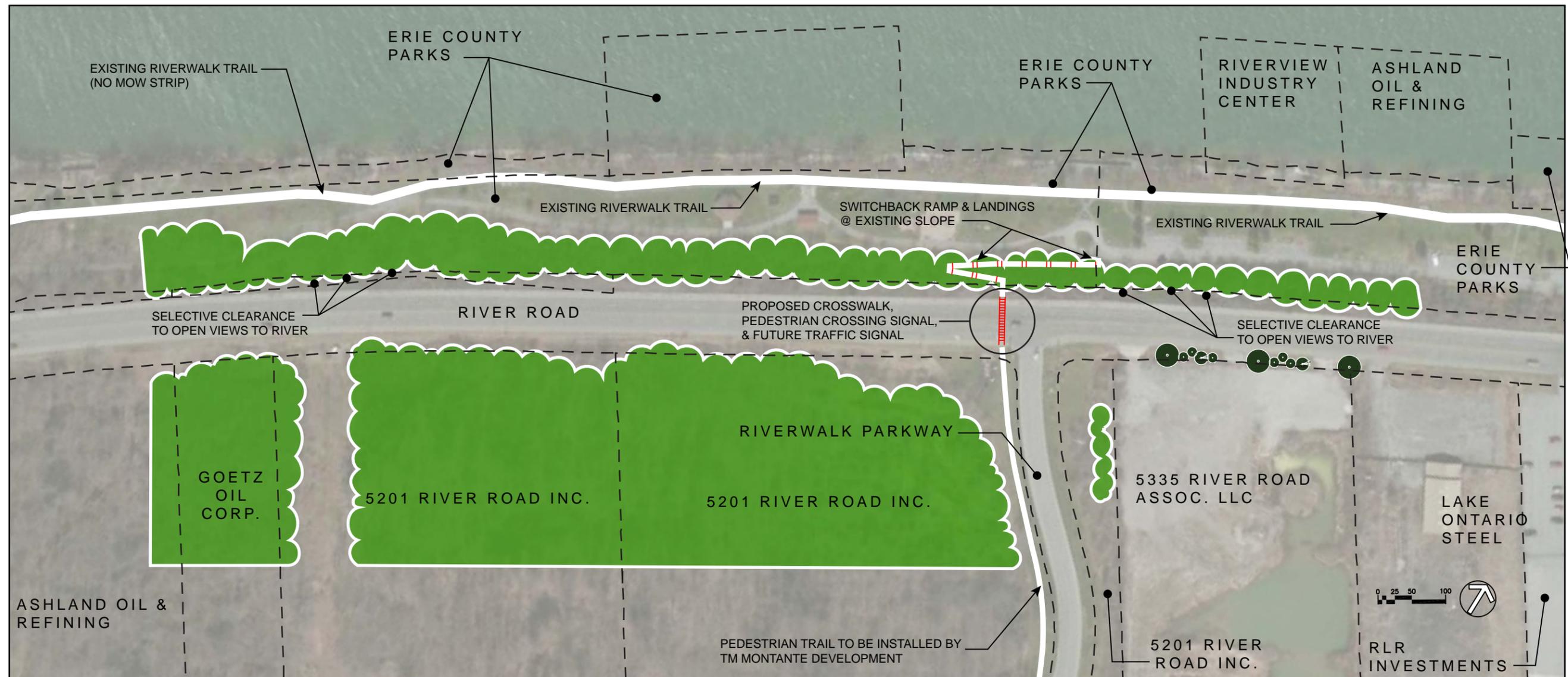
Project Title: **Town of Tonawanda Waterfront Corridor Design**
 Location: **River Road Corridor**
 Owner: **Riverview Solar Technology Park (E)**
 Estimated by: **smj**
 Checked by:
 Approved by: **Joy Kuebler Landscape Architect, PC**

Project No.: **13012**
 Revision Date: **04/08/2014**

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT. & LAB. | ESTIMATED AMOUNT |
|----------|---|--------------------|------|--------------------------|------------------|
| 1.0 | New Trail | | | | |
| 2.0 | 12' Asphalt Trail | 5375 | LF | \$75 | \$403,125 |
| 3.0 | Switchback Ramp with Railing (Conc. piers with wood structure) | 1 | LS | \$128,000 | \$128,000 |
| 4.0 | New Landscape | | | | |
| 5.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 6.0 | Evergreen Tree (6' HT) | 2 | EA | \$300 | \$600 |
| 7.0 | Ornamental Tree (1-1/2" CAL) | 6 | EA | \$330 | \$1,980 |
| 8.0 | | | | | |
| 9.0 | NOTE: Road Crossing and Signalization: Done by others | | | | |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$534,905 |
| | | | | Contingency. @ 5% | \$26,745 |
| | | | | TOTAL | \$561,650 |

| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



RIVERVIEW SOLAR TECHNOLOGY PARK (E)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Swift River Associates

Address: 4051 River Road, Tonawanda, NY 14150

Location Map: F

Approximate Frontage: 500'

Existing Conditions / Problems: Limited room in R.O.W., inability to relocate fence due to operations, overhead power lines, blighted chain-link fence, turf maintenance

Designer Approach: Plant ornamental trees beneath power lines, install black vinyl-clad chain-link fence, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Swift River Associates, 4051 River Road (F)

Meeting Date: November 13, 2013

Present:

Tony Pariso, Swift River
Ken Rawe, Swift River
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Swift River would be amenable to the following landscape improvements along River Road:
 - a. Ornamental trees, shrubs, grasses, and perennials in the R.O.W. beneath the OH power lines..
 - b. Replacing the existing chain link fencing along the R.O.W. with black vinyl-clad chain link fencing. Instead of a chain link fence, the representatives from Swift River suggested a wooden privacy fence similar to one installed at Triad Recycling, located at 3755 River Road.
2. Jim Jones stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if Swift River can fund these improvements on its property.
3. Swift River recycles granite curbs, concrete, and corian counter tops into aggregate and mulch. One idea we discussed was to feature their product in a new landscaped bed directly across River Road, possibly with signage about recycling and these recycled products.
4. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and Swift River. JKLA also will prepare a preliminary opinion of probable costs.

The forgoing represents the observations during the meeting with Tony Pariso and Ken Rawe. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 29th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Swift River \(F\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Chain Link Fencing | 455 | LF | \$5 | \$2,275 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 455 | LF | \$45 | \$20,475 |
| 5.0 | Black, Vinyl-Clad Chain Link Gate (8' HT) | 2 | EA | \$1,500 | \$3,000 |
| 6.0 | Ornamental Tree (1-1/2" CAL) | 8 | EA | \$330 | \$2,640 |
| 7.0 | Meadow Mix Seeded Area | 5,231 | SF | \$0.39 | \$2,040 |
| 8.0 | | | | | |
| 9.0 | | | | | |
| 10.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 29.0 | | | | | |
| 30.0 | | | | | |
| 31.0 | | | | | |
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| 36.0 | | | | | |
| 37.0 | | | | | |
| 38.0 | | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$30,430 |
| | | | | Contingency. @ 5% | \$1,522 |
| | | | | TOTAL | \$31,952 |



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



SWIFT RIVER (F)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: NYSTA

Address: N/A

Location Map: G

Approximate Frontage: 4955' both sides of I-190 from the on-ramp from I-290 to the Grand Island Bridge over River Road

Existing Conditions / Problems: Visibility of the tank farms and terminal facilities of both NOCO and United Refining, views of overhead power transmission lines, underground utilities, views to large tandem trailer drop-off parking areas, extensive rip rap slopes, turf maintenance, drainage issues on tandem trailer parking areas, tree planting restrictions along thruway.

Designer Approach: Install trees along I-190 travel lanes only where separated by guardrails on slopes, screen both tandem trailer parking areas with landscape and low berms, replace existing tandem trailer parking area with new pavement, use bioswales to infiltrate drainage from the new pavement, plant willow stakes between rip rap boulders to encourage vegetation on the slopes, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: NYSTA (G)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder, as the stakeholder's representative, Tom Moore, regularly attended the steering committee meetings. Please see the 10/21/13 project team meeting minutes in Appendix D.

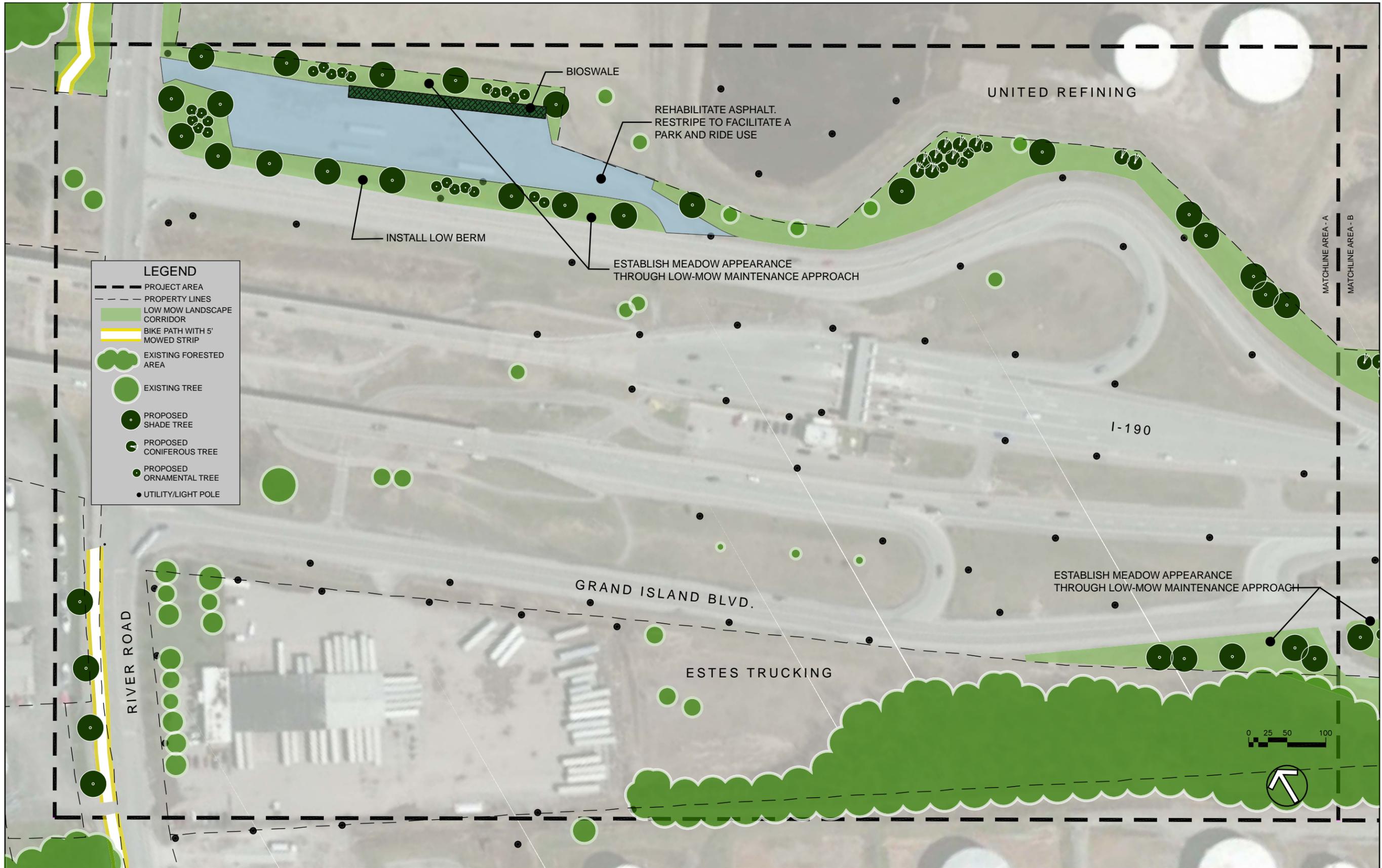
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [New York State Thruway Authority \(G\)](#)
 Estimated by: [smj](#)
 Checked by: [jll](#)
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/28/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT. & LAB. | ESTIMATED AMOUNT |
|-------------|---|--------------------|------|--------------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Remove Asphalt Pavement for Bioswales | 16,128 | SF | \$4 | \$64,512 |
| 3.0 | Mill Asphalt Pavement (1-1/2") | 11,130 | SY | \$2.75 | \$30,608 |
| 4.0 | New | | | | |
| 5.0 | Overlay & Restripe Asphalt Pavement (1-1/2") | 11,130 | SY | \$6.25 | \$69,563 |
| 6.0 | Shade Tree (2" CAL) | 92 | EA | \$400 | \$36,800 |
| 7.0 | Evergreen Tree (6' HT) | 101 | EA | \$300 | \$30,300 |
| 8.0 | Ornamental Tree (1-1/2" CAL) | 114 | EA | \$330 | \$37,620 |
| 9.0 | Meadow Mix Seeded Area | 420,078 | SF | \$0.39 | \$163,830 |
| 10.0 | Bioswale (w/ 12" soil depth, mulch, & plants at 3' o.c. avg.) | 16,128 | SF | \$7 | \$112,896 |
| 11.0 | Willow Staking in Rip Rap Area | 11,680 | SY | \$4.80 | \$56,064 |
| 12.0 | Berms for Tandem-Trailer Parking Areas (6" topsoil over fill) | 1 | LS | \$90,700 | \$90,700 |
| 13.0 | | | | | |
| 14.0 | | | | | |
| 15.0 | | | | | |
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| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$692,892 |
| | | | | Contingency. @ 5% | \$34,645 |
| | | | | TOTAL | \$727,537 |



Prepared for:

 Town of
 Tonawanda

By:


 JOY KUEBLER
 LANDSCAPE ARCHITECT, PC

TOWN OF TONAWANDA WATERFRONT CORRIDOR LANDSCAPE PROJECT:
 STUDY AREA "A" - NEW YORK STATE THRUWAY AUTHORITY (G)



TOWN OF TONAWANDA WATERFRONT CORRIDOR LANDSCAPE PROJECT:
 STUDY AREA "B"- NEW YORK STATE THRUWAY AUTHORITY (G)



TOWN OF TONAWANDA WATERFRONT CORRIDOR LANDSCAPE PROJECT:
STUDY AREA "C" - NEW YORK STATE THRUWAY AUTHORITY (G)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Erie County Parks & Recreation

Address: Edward A. Rath County Office Building, 12th Floor, 95 Franklin Street, Buffalo, NY

Location Map: H

Approximate Frontage: 11,890'

Existing Conditions / Problems: Lengthy frontage to maintain, must ensure sight triangles for crossing drives, tree root damage to Riverwalk Trail, must ensure safe visual distances between trail and vegetation, potential contaminated soils where former Erie Canal has been filled, tree density prohibit views to the Niagara river along isle view park, lack of bike infrastructure along Riverwalk Trail, reduce turf maintenance

Designer Approach: Install meadow seed mix to reduce mowing (w/ 10' mowed strip on each side of trail), maintain clear sight triangles where crossing driveways abut River Road, install new trees away from trail, create new tree planting detail that minimized the depth of excavation, selective clearing of existing trees to open view to the Niagara River, provide trailhead park with benches and informational signage, plant meadow seed mix to reduce mowing.

The design for Riverview Solar Technology Park proposes the construction of a switchback ramp into Isleview Park from River Road. This may be a shared cost with Erie County Parks. Please see the plan and opinion of probable cost for Riverview Solar Technology Park (E) for more information.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Erie County Parks & Recreation, Edward A. Rath
County Office Building, 12th Floor, 95 Franklin Street, Buffalo, NY (H)

Meeting Date: November 25, 2013

Present:

Dan Glowacki, Erie County Parks
Chuck Schweikert, Erie County Parks
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Erie County owns a continuous parcel of land along the west side of the River Road, beginning at 4000 River Road and running north through the remainder of that corridor. Riverwalk Trail is located in the parcel. A number of businesses are located between the Erie County-owned land and the Niagara River; the County requires easements for the driveway and utility crossings through its property. The Erie County-owned parcel is the old Erie Canal R.O.W. This parcel is maintained by the Erie County Department of Parks, Recreation, and Forestry.
2. Through earlier conversations with Ken Swanekamp, Parks Director Troy Schinzel emphasized the need for low-maintenance landscape plants. Dan echoed that desire in our meeting. Our conceptual plan shows only shade trees, evergreen trees, and ornamental trees within the Erie County-owned parcel.
3. We discussed another maintenance management strategy, a low-mow approach to the turf on this property. Parks must mow four to five feet from the edge of the trail. Beyond that, we recommend mowing the remaining ground plane no more than twice a year...once a year would be preferable.
4. Chuck mentioned that many of the existing trees are too close to the trail, resulting in localized pavement failure. New trees should be eight to ten feet away from the edge of the trail. In the case of evergreen trees, more clear space promotes visibility and trail safety.
5. Dan and Chuck would support selective thinning of existing vegetation to enhance views to the River
6. Dan said that Parks would need to review plans for a switch-back trail ramp to access Isle View Park from the Riverwalk Trail across from Montante Development's Riverview Solar Technology Park to

determine the impacts to the existing slope and the park itself. It is unlikely that Parks would fund a switchback ramp system.

7. Parks would be amenable to the construction of trailhead parking just off the existing entrance to the Cherry Farm site, on the County-owned parcel. The trailhead parking area could include seating and permanent (non-changeable) information signage. Also, there could be selective thinning at Cherry Farm site to expose the Historical marker and further thinning as Cherry Farm develops. Parks does not have funding available to construct these trail amenities at this time.
8. Jim stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if Parks can fund these improvements on its property.
9. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and Parks. JKLA also will prepare a preliminary opinion of probable costs.

The forgoing represents the observations during the meeting with Dan Glowacki and Chuck Schweikert. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before December 16th, for corrections to be made and redistributed to the Town of Tonawanda.

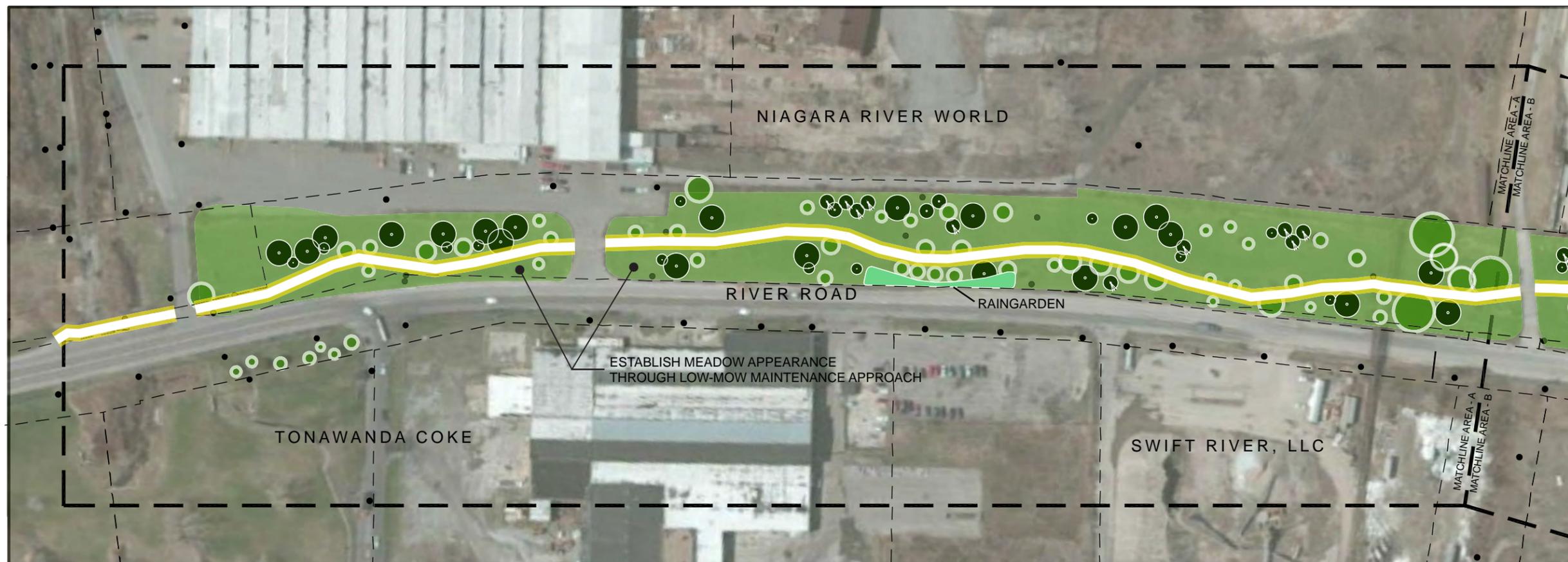
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Erie County Parks Department \(H\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

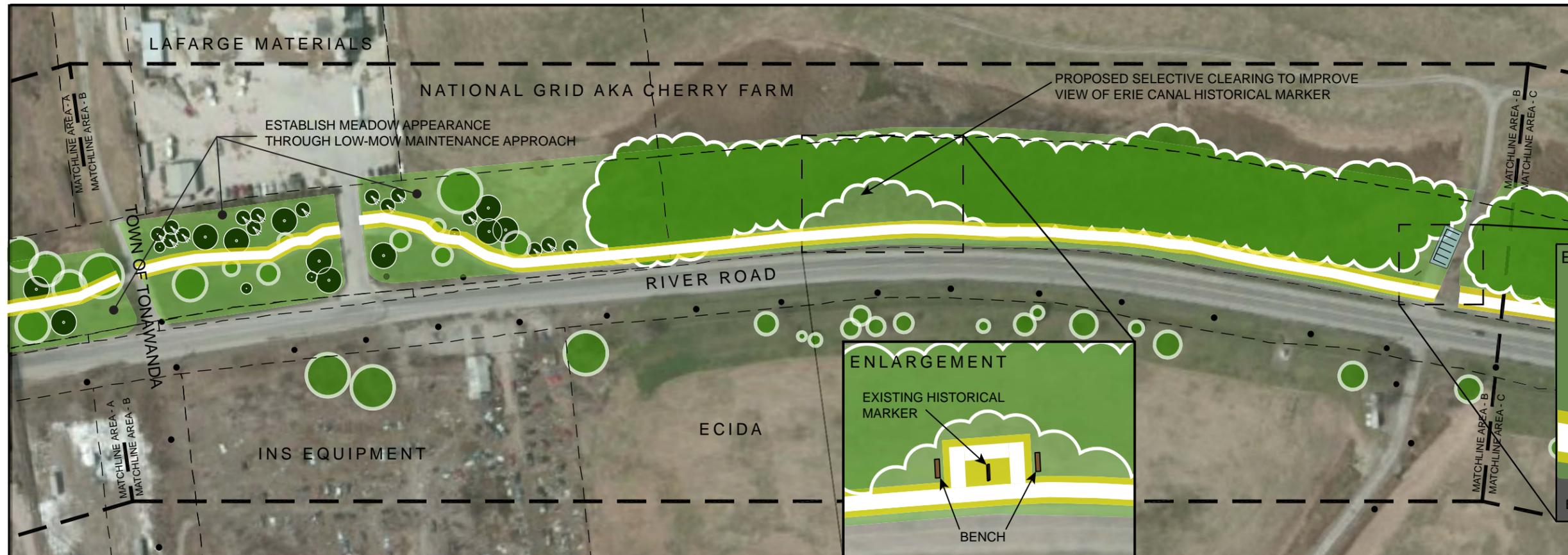
| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Asphalt Pavement | 22,851 | SF | \$4 | \$91,404 |
| 3.0 | Tree | 8 | EA | \$1,000 | \$8,000 |
| 4.0 | Brush Clearing at Historical Marker | 1 | LS | \$5,000 | \$5,000 |
| 5.0 | New | | | | |
| 6.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 1,332 | SF | \$12 | \$15,984 |
| 7.0 | Benches (with back, 6' length) | 3 | EA | \$1,700 | \$5,100 |
| 8.0 | Informational Sign | 1 | EA | \$4,000 | \$4,000 |
| 9.0 | Shade Tree (2" CAL) | 61 | EA | \$400 | \$24,400 |
| 10.0 | Evergreen Tree (6' HT) | 43 | EA | \$300 | \$12,900 |
| 11.0 | Ornamental Tree (1-1/2" CAL) | 49 | EA | \$330 | \$16,170 |
| 12.0 | Meadow Mix Seeded Area | 777,492 | SF | \$0.39 | \$303,222 |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$486,180 |
| | | | | Contingency. @ 5% | \$24,309 |
| | | | | TOTAL | \$510,489 |



ERIE COUNTY DEPARTMENT OF PARKS, RECREATION, AND FORESTRY (H) - AREA A

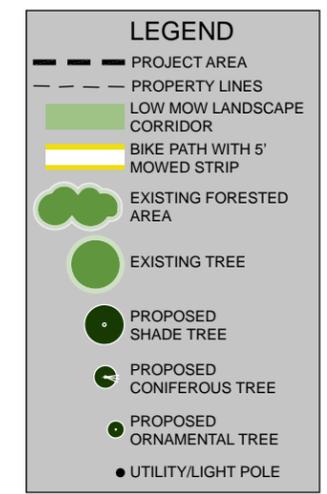
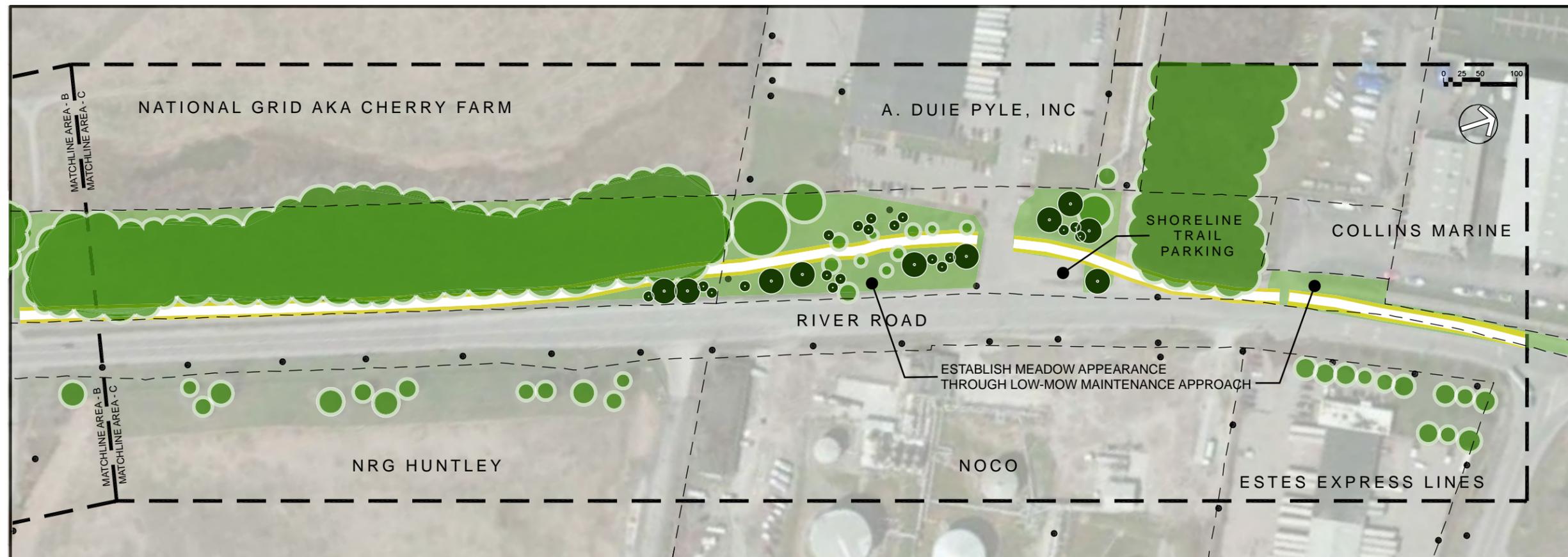


Prepared by

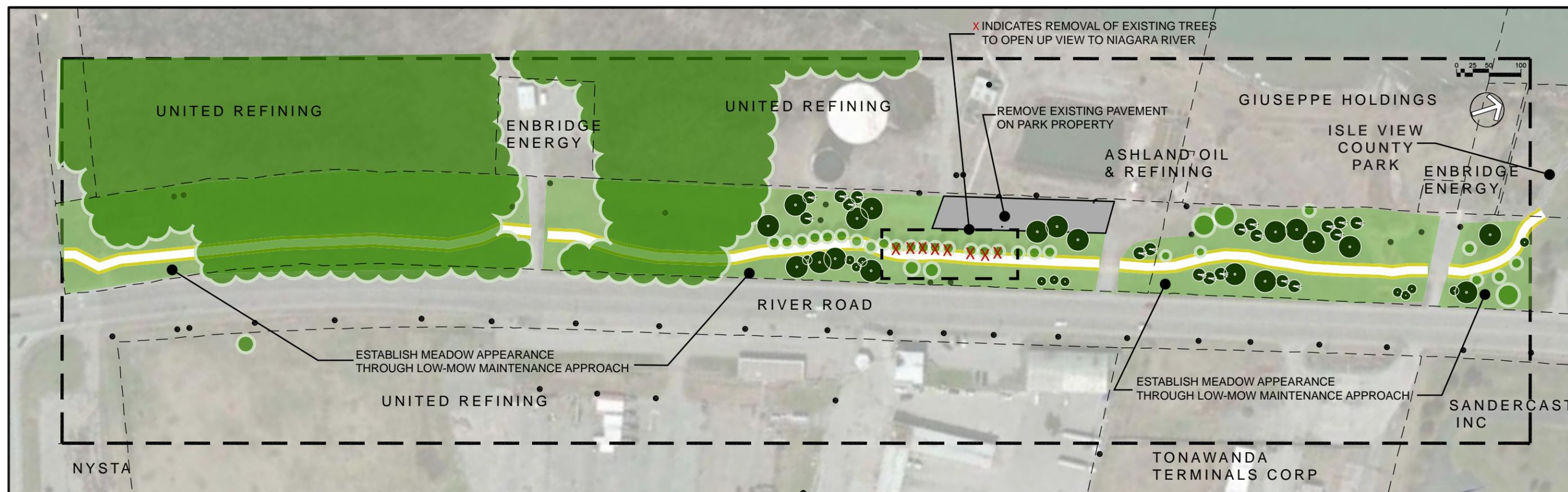


ERIE COUNTY DEPARTMENT OF PARKS, RECREATION, AND FORESTRY (H) - AREA B





ERIE COUNTY DEPARTMENT OF PARKS, RECREATION, AND FORESTRY (H) - AREA C



ERIE COUNTY DEPARTMENT OF PARKS, RECREATION, AND FORESTRY (H) - AREA D



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: PeroxyChem (FMC Industrial Chemicals Group)

Address: 78 Sawyer Avenue, Tonawanda, NY 14150

Location Map: I

Approximate Frontage: 340' on River Road, 1220' on Sawyer Ave (frontage along Sawyer Ave. belongs to National Grid)

Existing Conditions / Problems: Wish to attenuate views into facility and parking areas from River Road, cannot plant trees under National Grid overhead transmission lines, reduce turf maintenance

Designer Approach: Plant new trees off River Road R.O.W., plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: PeroxyChem (FMC Industrial Chemicals Group),
78 Sawyer Avenue (I)

Meeting Date: January 6, 2014

Present:
David Vance, Plant Manager, FMC
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road and future trail along Sawyer Avenue

Discussion:

1. Jim discussed the project and the Town's desire to create a looped trail system off of the existing Riverwalk Trail.
2. The preferred location of a trail along Sawyer Avenue would be the south edge of the R.O.W. This routing would benefit from the following advantages:
 - a. The south edge of the roadway contains far fewer street and driveway connections, resulting in fewer potential safety issues at crossings.
 - b. The land use either is industrial or commercial along the south side of Sawyer Avenue; as a general rule, these employees would be more safety-conscious about the trail crossing their entrance drives than would be most drivers on the intersecting streets on the north edge of Sawyer.
 - c. Due to the existing National Grid high-voltage overhead power line easement, the entrances to these industrial sites are set back away from the roadway, which would provide more time for trail users to react to vehicular traffic leaving the industrial site.
 - d. Many of these industrial entrances are gated, which would add to the reaction time for vehicular traffic leaving these sites.
 - e. The low vegetation in the National Grid easement would lend more of a naturalistic aesthetic look to the trail than would the residential / small commercial frontage along the north side of Sawyer Avenue
3. David supports the trail concept along the south side of Sawyer Avenue. He is concerned about the safety of trail users related to vehicles turning off of Sawyer Avenue. Here, the reaction time would not be as great. One solution, which is used on Riverwalk Trail, is the placement of stop signs for the trail users in the few instances where the trail crosses an entrance drive. David is satisfied with this solution since it places the responsibility of safety onto the trail users.

4. It would enhance the trail experience if it can meander. However, this likely would require the trail to cross into the National Grid easement and would require permission and perhaps a revision to the easement documents.
5. Likewise, additional landscaping would enhance the trails aesthetics. Again, this would require permission of National Grid and, for height reasons, be limited to ornamental trees, shrubs, grasses, and perennials. We would advocate for a low-mow approach for the new trail whereby only a four to five foot band parallel to each edge of the trail is maintained, allowing the remaining vegetation to establish a meadow appearance that is mowed only once or twice a year.
6. If a trail is installed along the FMC frontage, David would like for it to swing clear of an existing small building just outside of the fence for the parking lot. FMC uses this building for environmental sampling. David did ask if the Town would like FMC to paint this building another color.
7. David likes the proposed landscape design along FMC's River Road frontage. The concept does not show a solid screen of landscape but, instead, utilizes separate masses of trees. Under Overhead power lines, the plan shows only ornamental trees.
8. FMC maintains an attractive property along Sawyer Avenue. Jim did mention that the Town recommends black, vinyl-clad chain link fencing as the standard for this corridor along the roadway frontages and would prefer that style whenever fence replacement is necessary.
9. FMC is considering purchasing the former Polymer Applications brownfield site at 3445 River Road. This site recently has been cleaned by DEC. David would like to see more landscaping along this property's River Road frontage.
10. FMC tentatively has sold the Industrial Chemicals Group. The new buyer should be announced soon.

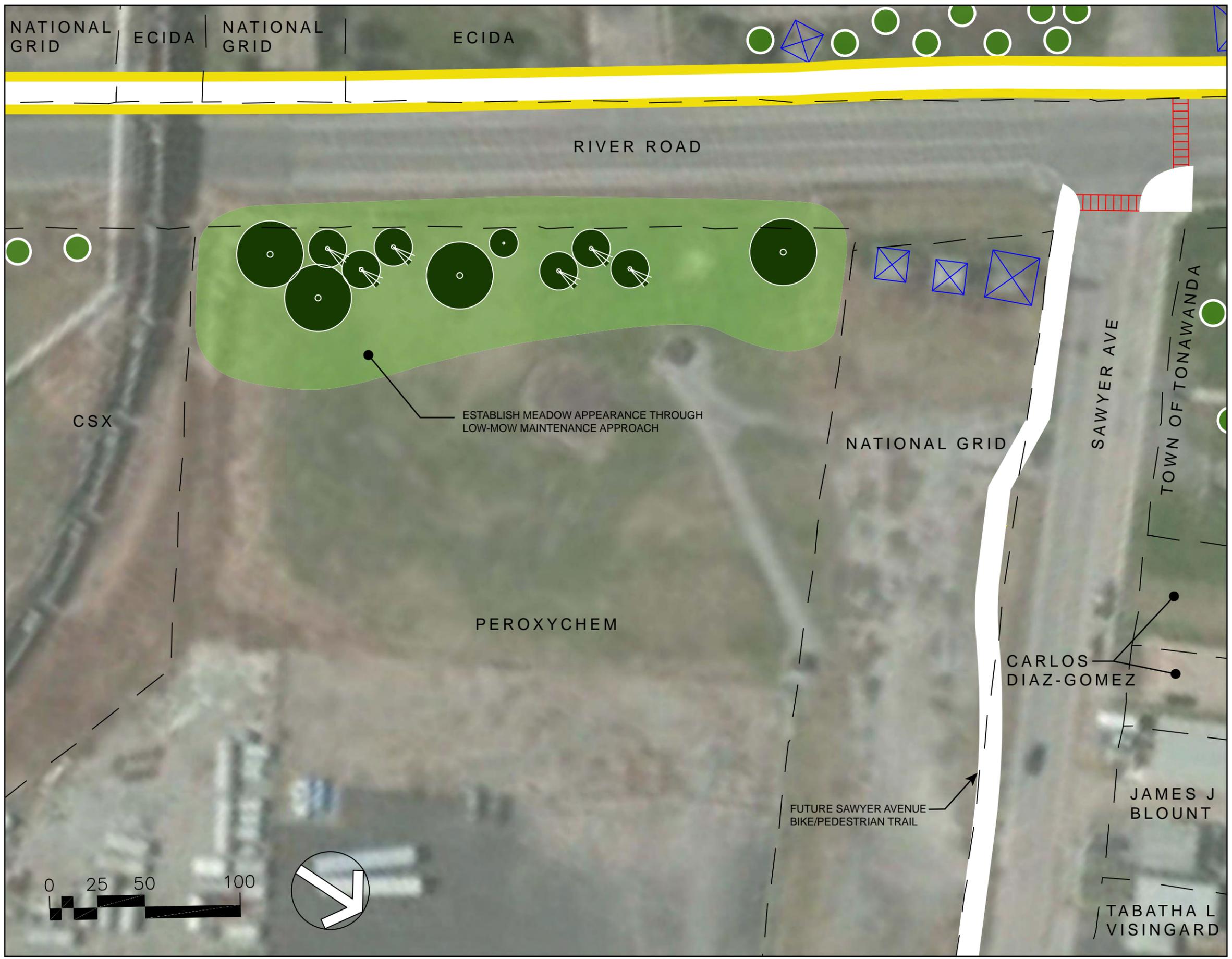
The forgoing represents the observations during the meeting with Tim Vaeth. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before January 21st, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [PeroxyChem / FMC Industrial Chemicals Group \(I\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|-------------------|-----------------------|------------------|
| 1.0 | New | | | | |
| 2.0 | Shade Tree (2" CAL) | 4 | EA | \$400 | \$1,600 |
| 3.0 | Evergreen Tree (6' HT) | 6 | EA | \$300 | \$1,800 |
| 4.0 | Ornamental Tree (1-1/2" CAL) | 1 | EA | \$330 | \$330 |
| 5.0 | Meadow Mix Seeded Area | 23,490 | SF | \$0.39 | \$9,161 |
| 6.0 | | | | | |
| 7.0 | | | | | |
| 8.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 29.0 | | | | | |
| 30.0 | | | | | |
| 31.0 | | | | | |
| 32.0 | | | | | |
| 33.0 | | | | | |
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| 36.0 | | | | | |
| 37.0 | | | | | |
| 38.0 | | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$12,891 |
| | | | Contingency. @ 5% | | \$645 |
| | | | TOTAL | | \$13,536 |

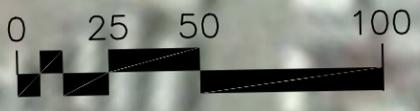


| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |
| | HIGH VOLTAGE ELECTRICAL TOWER |



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



PEROXYCHEM (I)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: CSX

Address: 800 Riverview Boulevard, Tonawanda, NY 14150

Location Map: J

Approximate Frontage: 713'

Existing Conditions / Problems: Blighted fence and gates, no landscaping, significant turn to maintain

Designer Approach: Fence replacement w/ black vinyl-clad chain-link fence, new shade, evergreen, and ornamental trees for seasonal interest, meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: CSX (J)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [CSX \(J\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|-------------------|-----------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Chain Link Fencing | 728 | LF | \$5 | \$3,640 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 728 | LF | \$45 | \$32,760 |
| 5.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 6.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 7.0 | Evergreen Tree (6' HT) | 5 | EA | \$300 | \$1,500 |
| 8.0 | Ornamental Tree (1-1/2" CAL) | 2 | EA | \$330 | \$660 |
| 9.0 | Meadow Mix Seeded Area | 42,665 | SF | \$0.39 | \$16,639 |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$57,899 |
| | | | Contingency. @ 5% | | \$2,895 |
| | | | TOTAL | | \$60,794 |



LEGEND

- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:





Town of Tonawanda Waterfront Corridor Landscape Design

Owner: INS Equipment Co. Inc.

Address: 4111 River Road, Tonawanda, NY 14150

Location Map: K

Approximate Frontage: 531'

Existing Conditions / Problems: Existing private pavement in R.O.W., blighted chain-link fence, unsightly view of scrap yard from River Road, turf maintenance

Designer Approach: Remove private pavement in the R.O.W. and replace with a parking area off the R.O.W., replace existing fence with black vinyl-clad chain-link fence, install trees to screen views, plant meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: INS (K)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

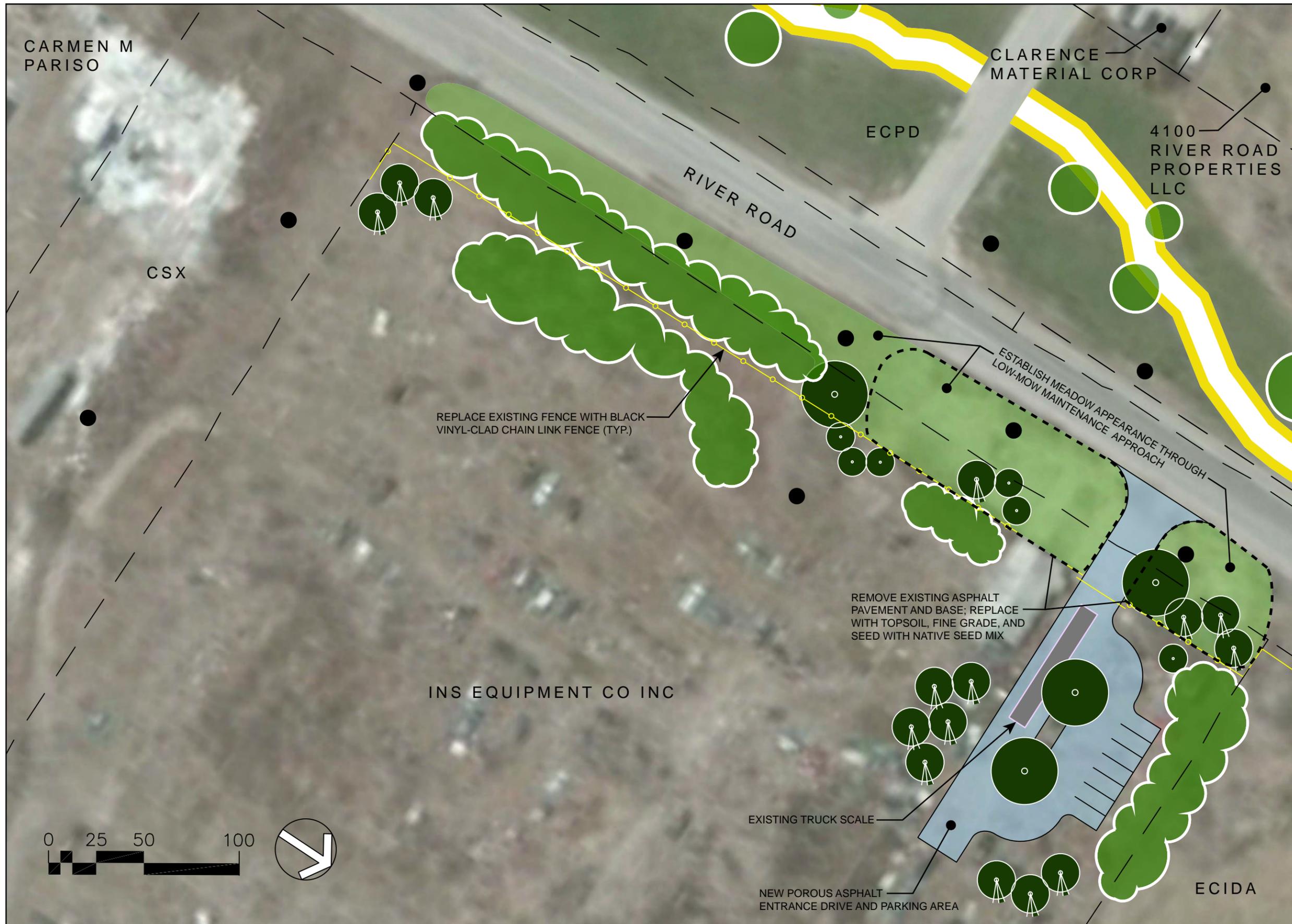
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [INS \(K\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Asphalt Pavement | 12,190 | SF | \$4 | \$48,760 |
| 3.0 | Chain Link Fencing | 542 | LF | \$5 | \$2,710 |
| 4.0 | New | | | | |
| 5.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 9,916 | SF | \$12 | \$118,992 |
| 6.0 | Concrete Curb (6") | 162 | LF | \$25 | \$4,050 |
| 7.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 542 | LF | \$45 | \$24,390 |
| 8.0 | Black, Vinyl-Clad Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 9.0 | Shade Tree (2" CAL) | 4 | EA | \$400 | \$1,600 |
| 10.0 | Evergreen Tree (6' HT) | 15 | EA | \$300 | \$4,500 |
| 11.0 | Ornamental Tree (1-1/2" CAL) | 6 | EA | \$330 | \$1,980 |
| 12.0 | Meadow Mix Seeded Area | 16,664 | SF | \$0.39 | \$6,499 |
| 13.0 | | | | | |
| 14.0 | | | | | |
| 15.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$214,981 |
| | | | | Contingency. @ 5% | \$10,749 |
| | | | | TOTAL | \$225,730 |



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



INS EQUIPMENT CO INC (K)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: LaFarge

Address: 4100 River Road, Tonawanda, NY 14150

Location Map: L

Approximate Frontage: 355' behind Erie County Parks owned property along River Road

Existing Conditions / Problems: Older chain-link fencing

Designer Approach: replace existing fence with black vinyl-clad chain-link fence

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: LaFarge (L)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

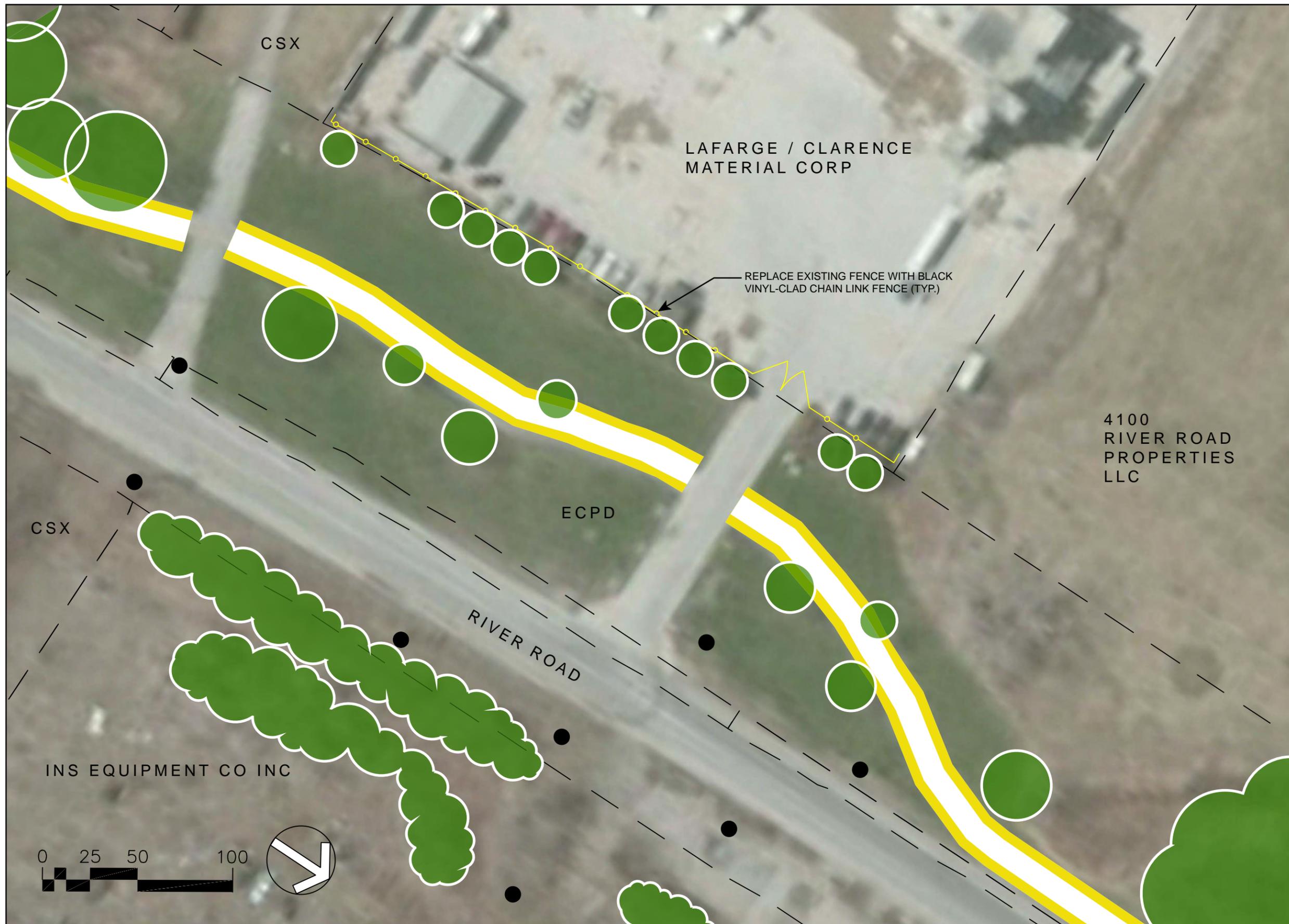
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [LaFarge \(L\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Chain Link Fencing | 354 | LF | \$5 | \$1,770 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 354 | LF | \$45 | \$15,930 |
| 5.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 6.0 | | | | | |
| 7.0 | | | | | |
| 8.0 | | | | | |
| 9.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 29.0 | | | | | |
| 30.0 | | | | | |
| 31.0 | | | | | |
| 32.0 | | | | | |
| 33.0 | | | | | |
| 34.0 | | | | | |
| 35.0 | | | | | |
| 36.0 | | | | | |
| 37.0 | | | | | |
| 38.0 | | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$19,200 |
| | | | | Contingency. @ 5% | \$960 |
| | | | | TOTAL | \$20,160 |



LEGEND

- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



LAFARGE / CLARENCE MATERIAL CORP (L)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Town of Tonawanda Water Resources Dept.

Address: 218 Aqua Lane, Tonawanda, NY 14150

Location Map: M

Approximate Frontage: 320' direct frontage on River Road

Existing Conditions / Problems: Existing trees block views to river near the treatment plant, utility conflicts, turf maintenance

Designer Approach: Remove trees as necessary to open views to river, plant trees where possible, install black vinyl-clad chain-link fence at the bridge pump station, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Town of Tonawanda Resources Dept., 218 Aqua Lane (M)

Meeting Date: January 22, 2014

Present:

Kirk Rowland, Town of Tonawanda
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Jim discussed the project and the Town's desire to create a more aesthetic intersection and a southern gateway to the corridor at Sheridan Drive and River Road.
2. Kirk emphasized the need for safety around the water treatment plant. Due to Homeland Security regulations, we cannot plant or build anything within 10-feet of the perimeter fencing. Given the distance of the site's perimeter fencing from the River Road R.O.W., there is no need for the Town to replace its existing chain link fence with vinyl-clad chain link fencing.
3. An existing waterfront land use plan document by Clark Patterson Lee proposes a dense planting of shade trees between the water Plant and the pavement for the boat ramps and parking. Unfortunately these trees will interfere with desirable views to the Niagara River. We recommended that these trees not be planted.
4. The Town is considering building a sound wall for the adjacent Aqua Lane Park, either between the I-190 R.O.W. and Aqua Lane or on the west side of the Aqua Lane R.O.W. The existing Riverwalk Trail would present spatial constraints between Aqua Lane and the DOT R.O.W. However, locating the sound wall to the west of Aqua Lane would impede visibility into the park from Aqua Lane. Given both choices, replacing existing chain link fence along the DOT R.O.W. with a sound wall, if DOT approves, would be more preferable. The sound wall would be protected by an existing guardrail along the I-190 on-ramp from River Road.

The foregoing represents the observations during the meeting with Tim Williams. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before March 6th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Town of Tonawanda Water Authority \(M\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

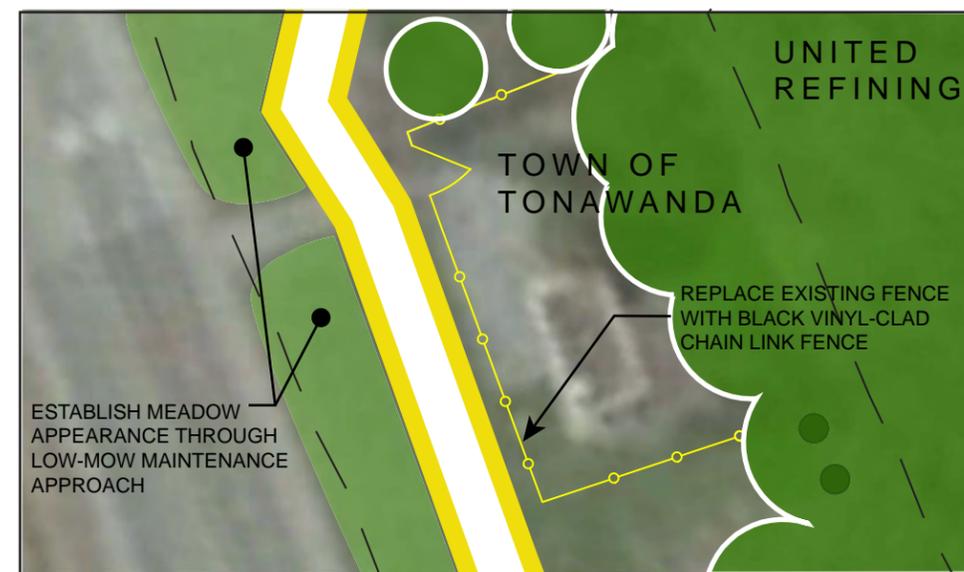
| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Chain Link Fencing | 209 | LF | \$5 | \$1,045 |
| 3.0 | Trees | 5 | EA | \$1,000 | \$5,000 |
| 4.0 | New | | | | |
| 5.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 209 | LF | \$45 | \$9,405 |
| 6.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 7.0 | Shade Tree (2" CAL) | 7 | EA | \$400 | \$2,800 |
| 8.0 | Evergreen Tree (6' HT) | 7 | EA | \$300 | \$2,100 |
| 9.0 | Ornamental Tree (1-1/2" CAL) | 6 | EA | \$330 | \$1,980 |
| 10.0 | Meadow Mix Seeded Area | 7,079 | SF | \$0.39 | \$2,761 |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
| 14.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$26,591 |
| | | | | Contingency. @ 5% | \$1,330 |
| | | | | TOTAL | \$27,920 |



TOWN OF TONAWANDA WATER TREATMENT FACILITY (M)



SAWYER AVE PUMP STATION



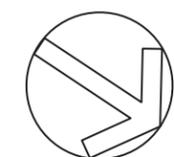
BRIDGE PUMP STATION



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |
| | REMOVE/RELOCATE EXISTING TREE |
| | HIGH VOLTAGE ELECTRICAL TOWER |

Prepared By:





Town of Tonawanda Waterfront Corridor Landscape Design

Owner: United Refining

Address: 4545 River Road, Tonawanda, NY 14150

Location Map: N

Approximate Frontage: 1,580' plus 1,746' behind Erie County Parks frontage along River Road

Existing Conditions / Problems: Views of tank farm buildings and other industrial facilities, blighted chain-link fence, overhead power wires, parking pavement encroachment into R.O.W., turf maintenance

Designer Approach: Plant trees where spatially possible to attenuate views, plant ornamental trees beneath R.O.W., build new parking area off of River Road R.O.W., install black vinyl-clad chain-link fence, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: United Refining, 4545 River Road (N)

Meeting Date: November 20, 2013

Present:

Rick Brant, United Refining
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. United Refining (UR) would be amenable to the proposed landscape improvements:
 - a. Sawcut and remove portions of asphalt along the R.O.W. to create landscape beds.
 - b. Install ornamental trees, shrubs, grasses, and/or perennials beneath the OH power lines along the east side of River Road.
 - c. Install ornamental trees, shrubs, grasses, and/or perennials in front of both the garage and the office building near the R.O.W. UR likes that these beds would discourage drivers from using the existing paved areas for parking just off of River Road.
 - d. Install additional shade and ornamental trees along River Road frontage south of the terminal entrance.
2. Jim Jones stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if UR can fund these improvements on its property.
3. Rick Brant disclosed that UR plans to paint the existing petroleum tanks on its property west of River Road. We also discussed the visual improvements of replacing the existing chain link fencing on both sides of River Road with black vinyl-clad chain link fencing.
4. Eventually, once other higher-priority site improvements have been completed, UR will remove its river terminal facilities; this removal should have limited visual impact.
5. Erie County owns and maintains the parcel of land between the west edge of River Road and UR's property along the Niagara River. Currently pines have been planted on the County-owned parcel; JKLA may ask for the removal of just a few of these to open views to the River. Landscape plants also will be selectively located on the county-

owned parcel as needed to screen unattractive views on the eastern UR property.

6. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and UR. JKLA also will include a preliminary opinion of probable costs for the improvements.

The forgoing represents the observations during the meeting with Rick Brant. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 29th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: **Town of Tonawanda Waterfront Corridor Design**
 Location: **River Road Corridor**
 Owner: **United Refining (N)**
 Estimated by: **smj**
 Checked by:
 Approved by: **Joy Kuebler Landscape Architect, PC**

Project No.: **13012**
 Revision Date: **04/08/2014**

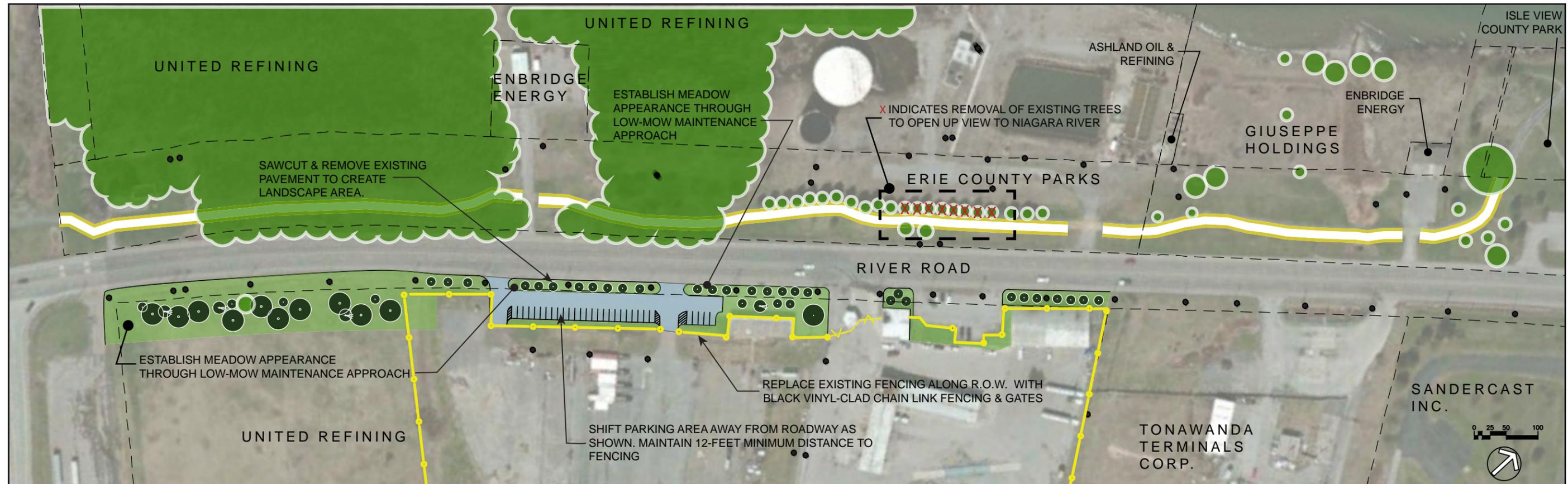
Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Asphalt Pavement | 17,750 | SF | \$4 | \$71,000 |
| 3.0 | Chain Link Fencing | 2,039 | LF | \$5 | \$10,195 |
| 4.0 | New | | | | |
| 5.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 17,750 | SF | \$12 | \$213,000 |
| 6.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 2,039 | LF | \$45 | \$91,755 |
| 7.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 4 | EA | \$1,500 | \$6,000 |
| 8.0 | Shade Tree (2" CAL) | 11 | EA | \$400 | \$4,400 |
| 9.0 | Evergreen Tree (6' HT) | 4 | EA | \$300 | \$1,200 |
| 10.0 | Ornamental Tree (1-1/2" CAL) | 36 | EA | \$330 | \$11,880 |
| 11.0 | Meadow Mix Seeded Area | 85,280 | SF | \$0.39 | \$33,259 |
| 12.0 | | | | | |
| 13.0 | | | | | |
| 14.0 | | | | | |
| 15.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$442,689 |
| | | | | Contingency. @ 5% | \$22,134 |
| | | | | TOTAL | \$464,824 |

| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |

Town of Tonawanda
WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared by



UNITED REFINING COMPANY (N)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Tonawanda Coke Corporation

Address: 3875 River Road, Tonawanda, NY 14150

Location Map: 0

Approximate Frontage: 1,960'

Existing Conditions / Problems: Unsightly views to operations and blighted buildings, blighted chain-link fencing, parking pavement encroachment into River Road R.O.W. at Vanocur facility, turf maintenance, overhead power lines

Designer Approach: install block vinyl-clod chain-link fencing, plant trees where spatial possible, plant ornamental trees beneath power lines, build new parking area at the Vanocur site off the R.O.W., plant meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Tonawanda Coke Corporation, 3875 River Road (O)

Meeting Date: January 8, 2014

Present:

Paul Saffrin, Chief Executive Officer, Tonawanda Coke
Michael Durkin, President, Tonawanda Coke
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Jim discussed the project and the Town's desire to create a more aesthetic, enjoyable corridor along River Road.
2. Tonawanda Coke owns property on both the west and east sides of River Road. The west property contains remnants of a former river terminal plus storage tanks. Regrowth is occurring on this site, yielding a wilder, more naturalistic vegetative character. The landform also has a rolling quality. The combination of the river's edge, the industrial ruins, the vegetation, and the landform makes this location a potential park site, depending on existing levels of soil contamination from past uses. The town is interested in the future of this parcel for public access purposes. Currently, vital functions for the plant still occur on this site.
3. Riverwalk Trail crosses the west property and is located at the edge of the River Road pavement. Moving the trail away from the edge of the road would enhance the trail experience for users (This was a common request during public outreach portion of the project). While a meander would ensure a more interesting trail, even a straight trail at consistent distance of 15 feet from the existing road edge would be appreciated by the trail users. Both representatives from Tonawanda Coke would consider this change if funded and maintained by others.
4. On the east side of River Road, Tonawanda Coke has a chain-link fence at the R.O.W. with a large berm behind the fence. The project recommends the eventual adoption of black, vinyl-clad chain-link fencing along the rights-of-way throughout the corridor. That said, when Tonawanda Coke needs to replace their existing fencing and gates (at the R.O.W. only) we request that they install black, vinyl-clad chain-link fencing and gates.
5. We requested Tonawanda Coke to augment their berms along the east side of River Road with additional shade, evergreen, and shade

trees. JKLA will provide an illustrative landscape plan with a separate plant list for Tonawanda Coke's use.

The foregoing represents the observations during the meeting with Paul Saffrin and Michael Durkin. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before January 27th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Tonawanda Coke \(O\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Chain Link Fencing | 2,027 | LF | \$5 | \$10,135 |
| 3.0 | New | | | | |
| 4.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 41,810 | SF | \$12 | \$501,720 |
| 5.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 2,027 | LF | \$45 | \$91,215 |
| 6.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 3 | EA | \$1,500 | \$4,500 |
| 7.0 | Shade Tree (2" CAL) | 24 | EA | \$400 | \$9,600 |
| 8.0 | Evergreen Tree (6' HT) | 14 | EA | \$300 | \$4,200 |
| 9.0 | Ornamental Tree (1-1/2" CAL) | 23 | EA | \$330 | \$7,590 |
| 10.0 | Meadow Mix Seeded Area | 94,987 | SF | \$0.39 | \$37,045 |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
| 14.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$666,005 |
| | | | | Contingency. @ 5% | \$33,300 |
| | | | | TOTAL | \$699,305 |



TONAWANDA COKE (O) - ENTRANCE BERM



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



WATERFRONT CORRIDOR LANDSCAPE PROJECT

Prepared By:



TONAWANDA COKE (O) - VANOCUR NORTH



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



TONAWANDA COKE (O) - VANOCUR SOUTH





Town of Tonawanda Waterfront Corridor Landscape Design

Owner: NRG Huntley

Address: 3500 River Road, Tonawanda, NY 14150

Location Map: P

Approximate Frontage: 2,840'

Existing Conditions / Problems: Overhead power transmission lines, blighted chain-link fences and broken pavements in parking area, lack of bike / pedestrian infrastructure where the future Sawyer Avenue Bike / Pedestrian Trail meets Riverwalk Trail, little separation between Riverwalk Trail and River Road, no room in the R.O.W. to plant trees, Homeland Security Clear Zone requirements around fencing, existing trees on site obstructing views to river, drainage issues along R.O.W. in one location, turf maintenance , a need for more trees on bermed property to naturalize that landscape.

Designer Approach: Install new black vinyl-clad fence 15 feet behind existing fence line, move Riverwalk Trail away from roadway edge of pavement, remove trees as necessary to open views of river, install bioswale to infiltrate excess drainage where necessary, plant meadow seed mix to reduce mowing, plant more trees on bermed property, create trailhead paving area for Riverwalk Trail in underutilized NRG Huntley parking lot.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: NRG Huntley (P)

Meeting Date: November 20, 2013

Present:

Kevin Schroeder, NRG Huntley
Joseph Pietro, NRG Huntley
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. The NRG Huntley representatives listened to our proposed amenity improvements and will forward our information to the management team for evaluation:
 - a. Near the intersection of River Road and Sawyer Avenue, relocate the existing chain link fence to provide room for trailhead parking for 5 to six cars. The trailhead parking entrance may use the existing northern drive entrance to the parking lot; the other parking lot entrance is used sporadically for large vehicles that cannot make the sharp turn into the lot just past the main entrance security gate. Additional trailhead parking amenities possibly would include limited seating, landscape, and a wayfinding/informational sign. Landscaping in this area would be beneath OH high power transmission lines and could not include shade trees.
 - b. The NRG Huntley representatives were intrigued by the possibility of a sign that could display information about their firm, the plant, or customer safety tips, in addition to information about the River Walk trail.
2. The idea to relocate the frontage chain link fence south of the railroad bridge also was presented. The Huntley representatives mentioned an existing swale and noted that the fence most likely will need to be placed behind this swale. New landscaping would be planted in front of the fence.
3. We also discussed the visual improvements of replacing the existing chain link fencing to be relocated with black vinyl-clad chain link fencing.
4. Erie County maintains a mowed strip of 4 to five feet along the River Walk Trail. We encouraged NRG Huntley to adhere to a 'no-mow'

concept for the remaining area around the trail to foster a natural meadow aesthetic.

5. Jim Jones stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if NRG Huntley can fund these improvements on its property.
6. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and NRG Huntley. JKLA also will include a preliminary opinion of probable costs for the proposed improvements.

The forgoing represents the observations during the meeting with Kevin Schroeder and Joseph Pietro. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 29th, for corrections to be made and redistributed to the Town of Tonawanda.

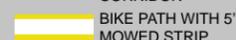
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

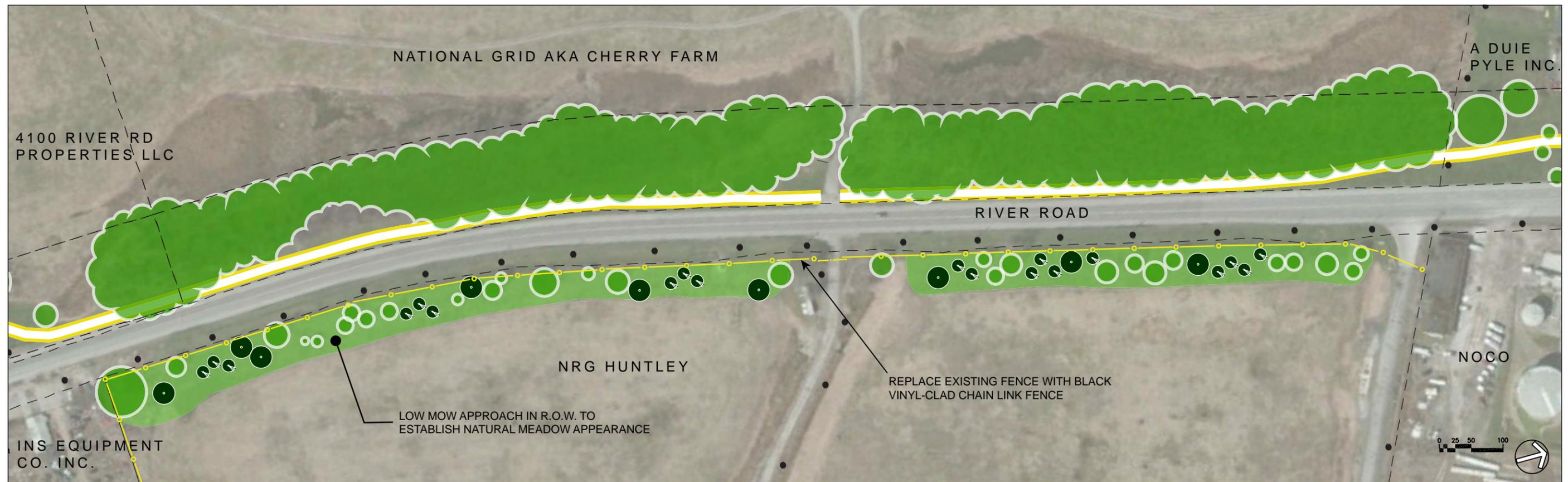
Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [NRG - Huntley \(P\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

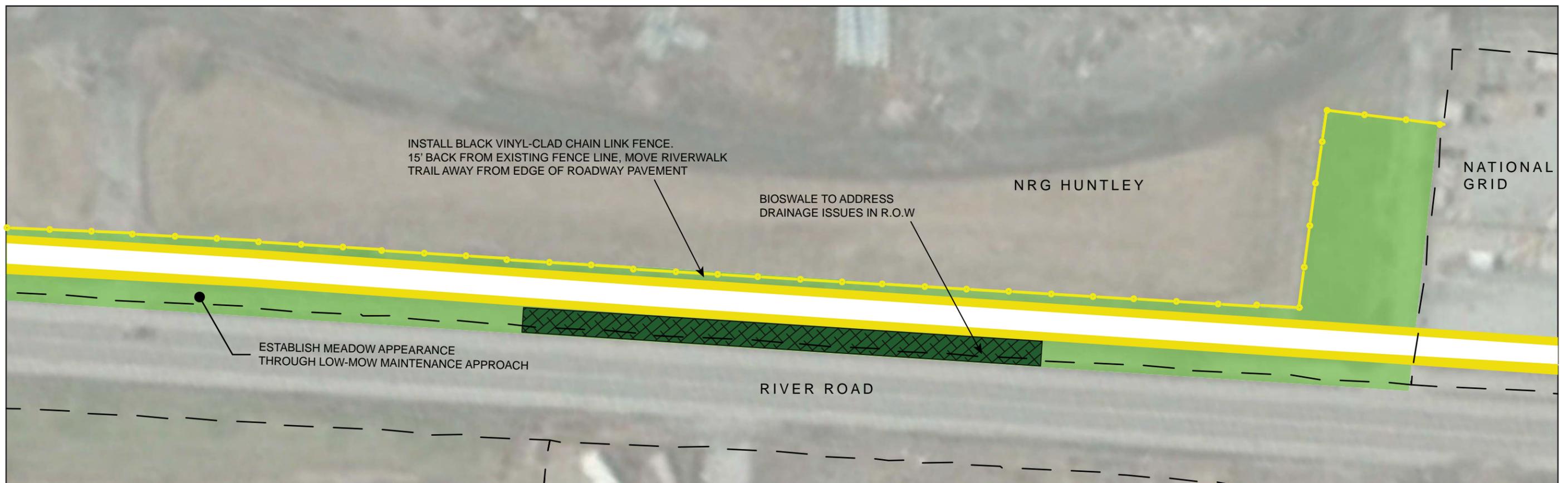
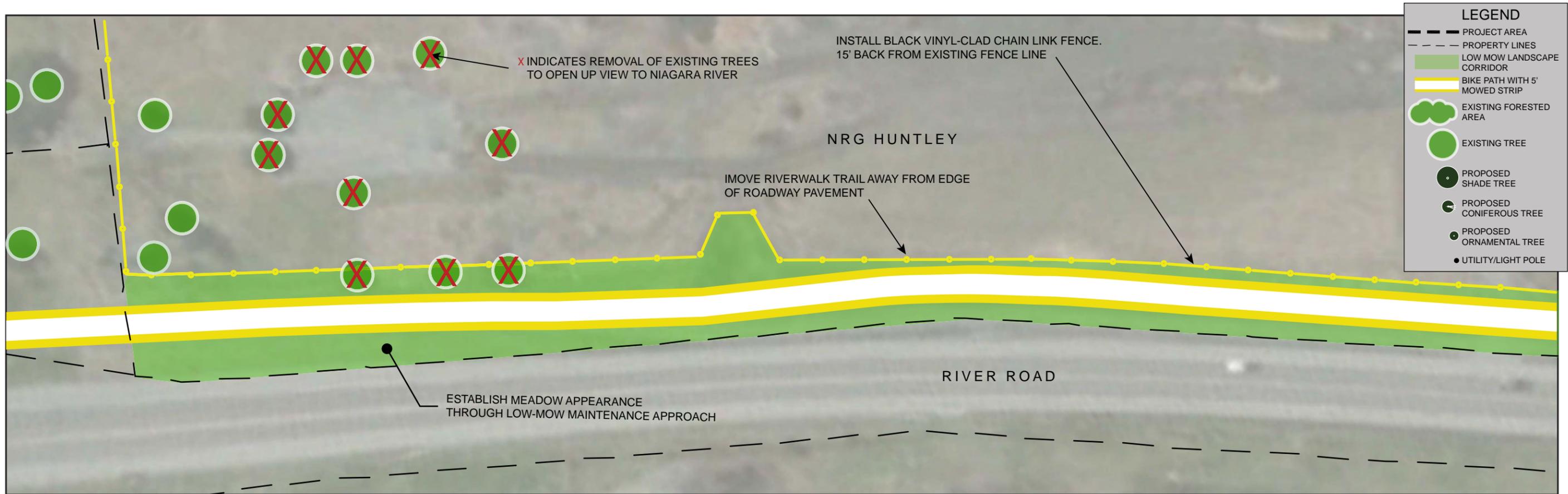
Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Asphalt Pavement | 6,300 | SF | \$4 | \$25,200 |
| 3.0 | Chain Link Fencing | 3,920 | LF | \$5 | \$19,600 |
| 4.0 | Trees | 10 | EA | \$1,000 | \$10,000 |
| 5.0 | New | | | | |
| 6.0 | Porous Asphalt pavement (w/ 10" permeable base) | 6,300 | SF | \$12 | \$75,600 |
| 7.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 3,920 | LF | \$45 | \$176,400 |
| 8.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 1 | EA | \$1,500 | \$1,500 |
| 9.0 | Shade Tree (2" CAL) | 9 | EA | \$400 | \$3,600 |
| 10.0 | Evergreen Tree (6' HT) | 19 | EA | \$300 | \$5,700 |
| 11.0 | Meadow Mix Seeded Area | 154,948 | SF | \$0.39 | \$60,430 |
| 12.0 | Bioswale (w/ 12" soil depth, mulch, & plants at 3' o.c. avg.) | 4,594 | SF | \$7 | \$32,158 |
| 13.0 | | | | | |
| 14.0 | | | | | |
| 15.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$410,188 |
| | | | | Contingency. @ 5% | \$20,509 |
| | | | | TOTAL | \$430,697 |

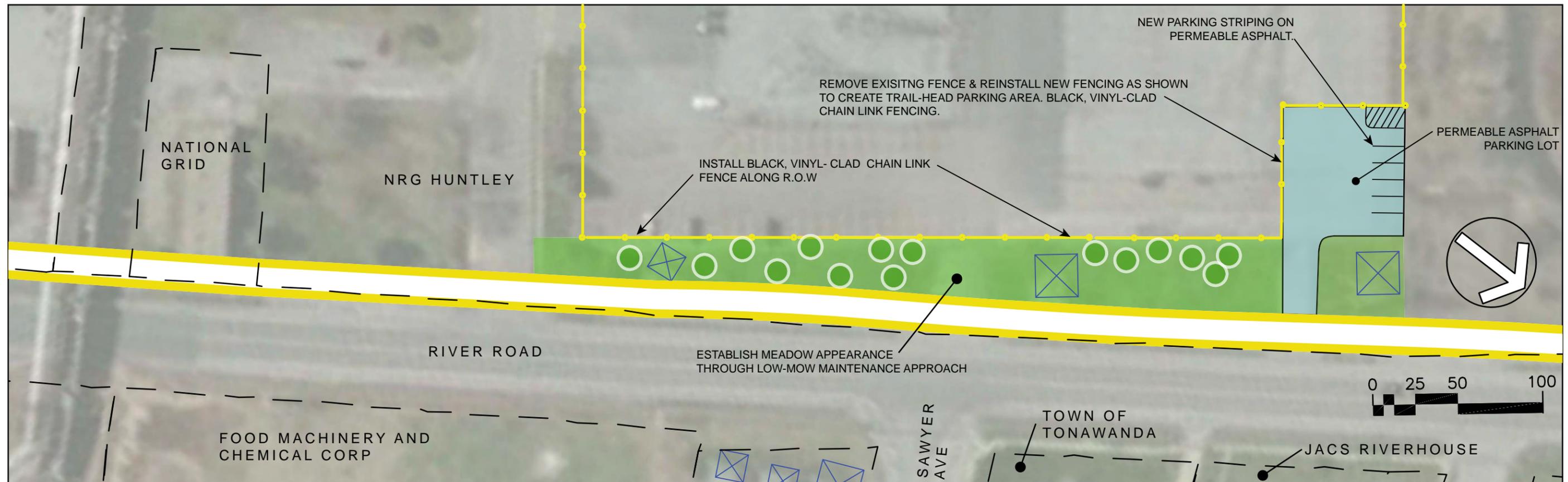
| LEGEND | |
|---|-------------------------------|
|  | PROJECT AREA |
|  | PROPERTY LINES |
|  | LOW MOW LANDSCAPE CORRIDOR |
|  | BIKE PATH WITH 5' MOWED STRIP |
|  | EXISTING FORESTED AREA |
|  | EXISTING TREE |
|  | PROPOSED SHADE TREE |
|  | PROPOSED CONIFEROUS TREE |
|  | PROPOSED ORNAMENTAL TREE |
|  | UTILITY/LIGHT POLE |





NRG HUNTLEY (P) - SOUTH

| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |
| | HIGH VOLTAGE ELECTRICAL TOWER |



NRG HUNTLEY (P) - NEAR SAWYER AVE. INTERSECTION



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: National Grid

Address: Substation - 3510 River Road, Tonawanda, NY 14150

Location Map: Q

Approximate Frontage: 2,742'

Existing Conditions / Problems: Lack of separation between Riverwalk Trail and River Road edge of pavement, lack of bike/pedestrian infrastructure along Riverwalk Trail, views to overhead power transmission lines, views into cleared site of former substation, turf maintenance

Designer Approach: Relocate Riverwalk trail away from River Road where spatially possible, creation of trailhead parking area at former substation with benches and informational signage, bioswale to infiltrate drainage from trailhead parking, black vinyl-clad chain-link fencing to separate trailhead parking from remainder of former substation site, install trees along Riverwalk Trail, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: National Grid (Q)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder. National Grid's representative, Kevin Kennedy, attended the 9/23/13 steering committee meeting. Please refer to those project team meeting minutes in Appendix D.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: **Town of Tonawanda Waterfront Corridor Design**
 Location: **River Road Corridor**
 Owner: **National Grid (Substation) (Q)**
 Estimated by: **smj**
 Checked by:
 Approved by: **Joy Kuebler Landscape Architect, PC**

Project No.: **13012**
 Revision Date: **04/08/2014**
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | New | | | | |
| 2.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 7,000 | SF | \$12 | \$84,000 |
| 3.0 | Concrete Curb (6") | 184 | LF | \$25 | \$4,600 |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 568 | LF | \$45 | \$25,560 |
| 5.0 | Benches (with back, 6' length) | 1 | EA | \$1,700 | \$1,700 |
| 6.0 | Informational Sign | 1 | EA | \$4,000 | \$4,000 |
| 7.0 | Shade Tree (2" CAL) | 6 | EA | \$400 | \$2,400 |
| 8.0 | Evergreen Tree (6' HT) | 10 | EA | \$300 | \$3,000 |
| 9.0 | Ornamental Tree (1-1/2" CAL) | 4 | EA | \$330 | \$1,320 |
| 10.0 | Meadow Mix Seeded Area | 37,165 | SF | \$0.39 | \$14,494 |
| 11.0 | Rain Garden (w/ 12" soil depth, mulch, & plants at 3' o.c. avg.) | 1,403 | SF | \$7 | \$9,821 |
| 12.0 | | | | | |
| 13.0 | | | | | |
| 14.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$150,895 |
| | | | | Contingency. @ 5% | \$7,545 |
| | | | | TOTAL | \$158,440 |

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

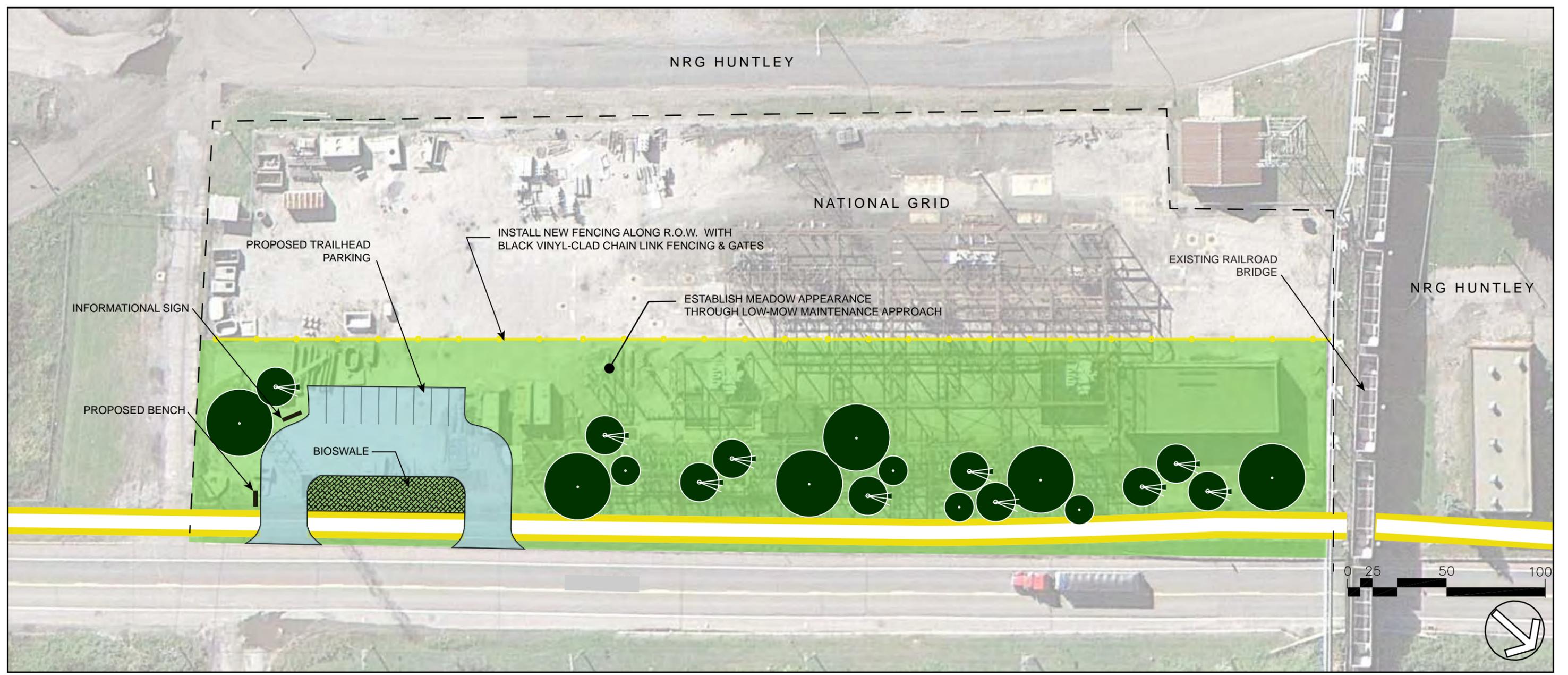
Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [National Grid \(Transmission Corridor\) \(Q\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

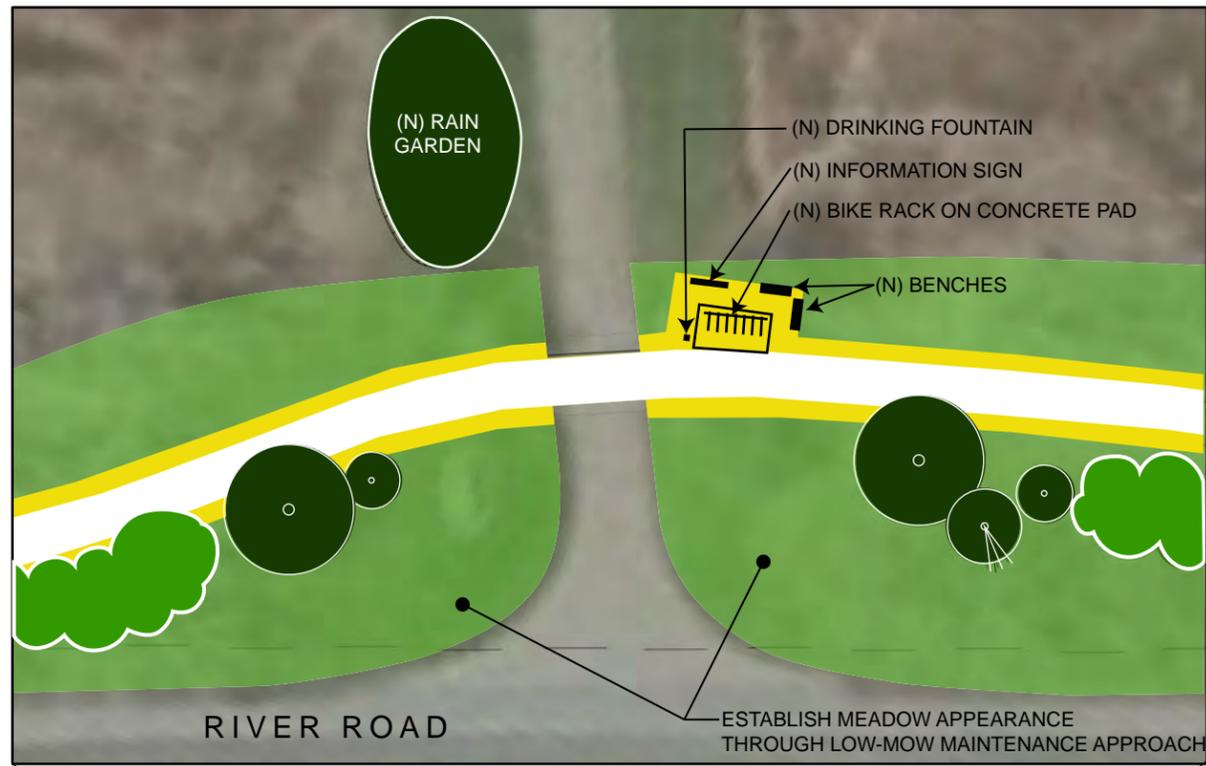
| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removals | | | | |
| 2.0 | Asphalt Pavement (Trail Section) | 9,036 | SF | \$4 | \$36,144 |
| 3.0 | Clearing for New Trail/Seating/Rain Garden | 1 | LS | \$4,000 | \$4,000 |
| 4.0 | New | | | | |
| 5.0 | New Trail | 9,036 | LF | \$75 | \$677,700 |
| 6.0 | Concrete Pad | 240 | SF | \$5 | \$1,200 |
| 7.0 | Bike Rack | 1 | EA | \$1,060 | \$1,060 |
| 8.0 | Benches (6' Length) | 2 | EA | \$1,700 | \$3,400 |
| 9.0 | Informational Sign | 1 | EA | \$4,000 | \$4,000 |
| 10.0 | Water Fountain (Does not include related utilities) | 1 | EA | \$6,500 | \$6,500 |
| 11.0 | Shade Tree (2" CAL) | 4 | EA | \$400 | \$1,600 |
| 12.0 | Evergreen Tree (6' HT) | 8 | EA | \$300 | \$2,400 |
| 13.0 | Ornamental Tree (1-1/2" CAL) | 3 | EA | \$330 | \$990 |
| 14.0 | Meadow Mix Seeded Area | 181,532 | SF | \$0.39 | \$70,797 |
| 15.0 | Rain Garden (w/ 12" soil depth, mulch, & plats at 3' o.c. avg.) | 2,133 | SF | \$7 | \$14,931 |
| 16.0 | | | | | |
| 17.0 | | | | | |
| 18.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$824,722 |
| | | | | Contingency. @ 5% | \$41,236 |
| | | | | TOTAL | \$865,959 |

LEGEND

- PROJECT AREA
- PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



NATIONAL GRID (Q) - FORMER SUBSTATION SITE



LEGEND

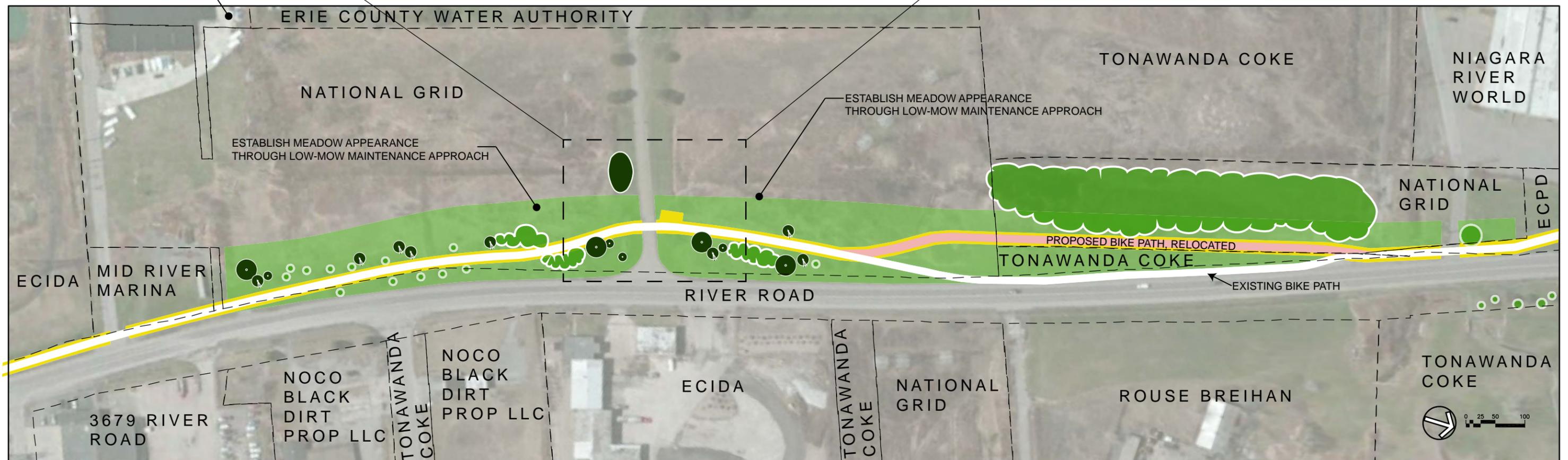
- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE

Town of Tonawanda
WATERFRONT CORRIDOR
LANDSCAPE PROJECT

Prepared by



MID RIVER MARINA



NATIONAL GRID (Q) - TRANSMISSION CORRIDOR



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Noco- Black Dirt

Address: 3701 River Road, Tonawanda, NY 14150

Location Map: R

Approximate Frontage: 467'

Existing Conditions / Problems: Blighted buildings and pavements, turf maintenance, overhead utilities

Designer Approach: Replace existing broken asphalt pavement with new pavement, install trees to attenuate views into site, plant meadow seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Noco- Black Dirt (R)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

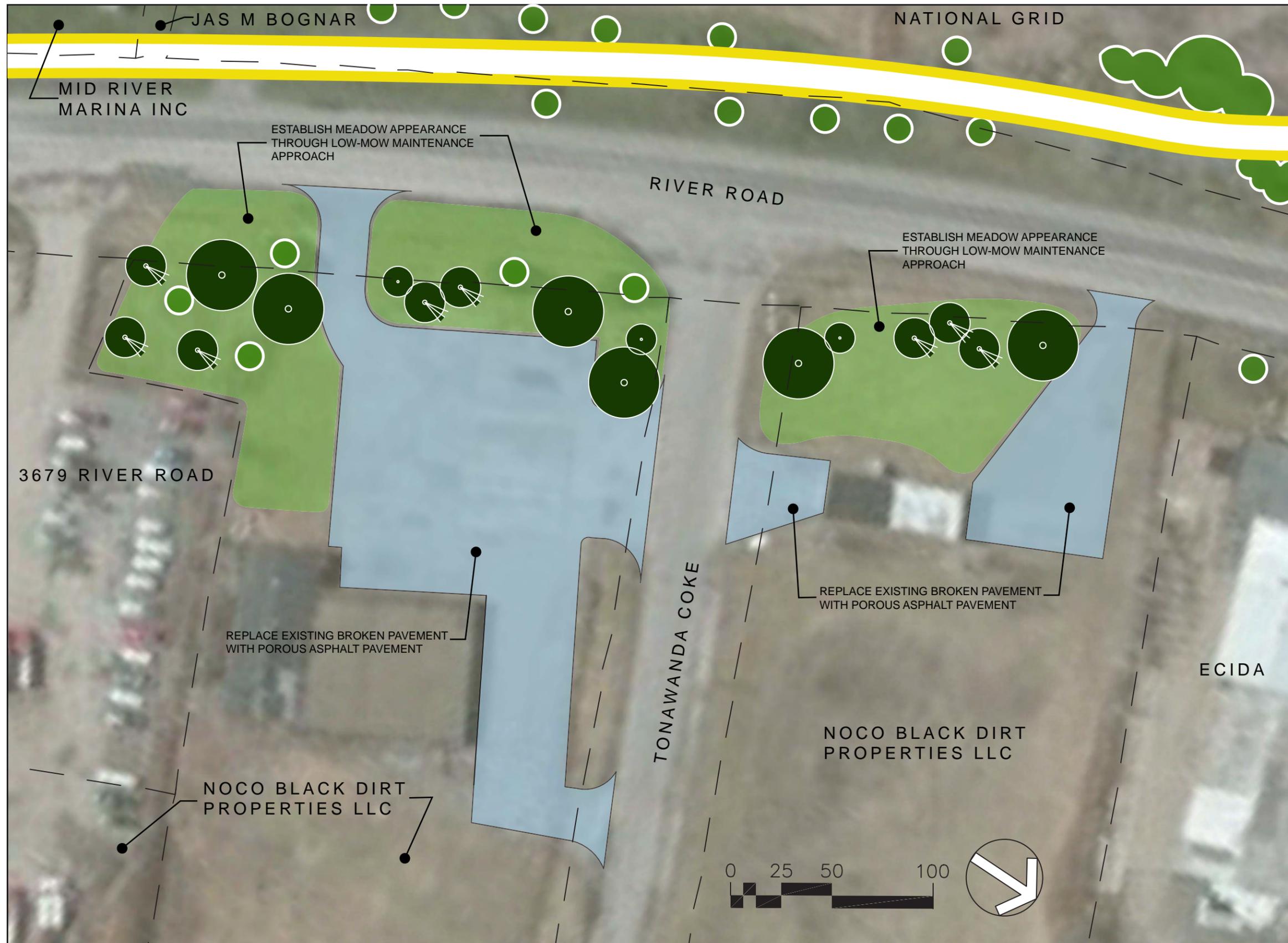
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [NOCO \(R\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Asphalt Pavement | 33,860 | SF | \$4 | \$135,440 |
| 3.0 | New | | | | |
| 4.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 33,860 | SF | \$12 | \$406,320 |
| 5.0 | Shade Tree (2" CAL) | 6 | EA | \$400 | \$2,400 |
| 6.0 | Evergreen Tree (6' HT) | 8 | EA | \$300 | \$2,400 |
| 7.0 | Ornamental Tree (1-1/2" CAL) | 3 | EA | \$330 | \$990 |
| 8.0 | Meadow Mix Seeded Area | 36,826 | SF | \$0.39 | \$14,362 |
| 9.0 | | | | | |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$561,912 |
| | | | | Contingency. @ 5% | \$28,096 |
| | | | | TOTAL | \$590,008 |



LEGEND

- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



NOCO BLACK DIRT PROPERTIES (R)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: NOCO Energy Corporation

Address: 700 Grand Island Boulevard, Tonawanda, NY 14150

Location Map: S

Approximate Frontage: 739' on River Road, 2,610' on Grand Island Blvd

Existing Conditions / Problems: Very visible petroleum tanks from I-190, major utilities in the roadway R.O.W., Homeland Security Clear Zone requirements around fencing, blighted chain-link fencing, nuisance dust from vehicular areas, turf maintenance

Designer Approach: Replace existing fence with black vinyl-clad chain-link fence, plant trees where spatially possible, maintain 10-foot clear zone around fencing, install new pavement at River Road vehicular areas to reduce dust, plant meadow seed mix to reduce mowing.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: NOCO Energy Corporation, 700 Grand Island Boulevard (S)

Meeting Date: November 26, 2013

Present:
Val Speaks, NOCO
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along Grand Island Boulevard and River Road

Discussion:

1. Val said that Homeland Security requires ten feet of clear space on both sides of their perimeter fencing. This can be turf or pavement but not landscape plants. If the clear zone can be maintained, NOCO would consider additional green space along their River Road frontage.
2. Val also mentioned that there are a number of on-site utilities at their terminal facility. He will provide JKLA with a marked-up site plan so that we can adjust the proposed landscaping as necessary.
3. NOCO would be amenable to the idea of replacing the existing chain link fencing with black, vinyl-clad chain link fencing if funding was available; NOCO has a copious amount of perimeter fencing since it borders both River Road and Grand Island Boulevard.
4. Val mentioned the existence of a United Refining pipeline that runs along a portion of its Grand Island Boulevard frontage before it turns to run beneath I-190 to the United Refining terminal property on the other side. We need to locate the pipeline and its easement on our mapping to see if landscaping along this section of Grand Island Boulevard is feasible.
5. Val also mentioned future plans for a National Fuel gas pipeline to run from a point just north of the I-190 bridge to the NRG Huntley Plant, if the Huntley Plant converts from coal to natural gas. This still is very preliminary...no routing has been announced. If the pipeline is located along River Road, it can impact our project. Such a conversion will require a significant amount of time for state approval, easement acquisition, and construction.
6. Jim stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if NOCO can fund these improvements on its property.

7. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and NOCO. JKLA also will prepare a preliminary opinion of probable costs.

The forgoing represents the observations during the meeting with Val Speaks. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before December 16th, for corrections to be made and redistributed to the Town of Tonawanda.

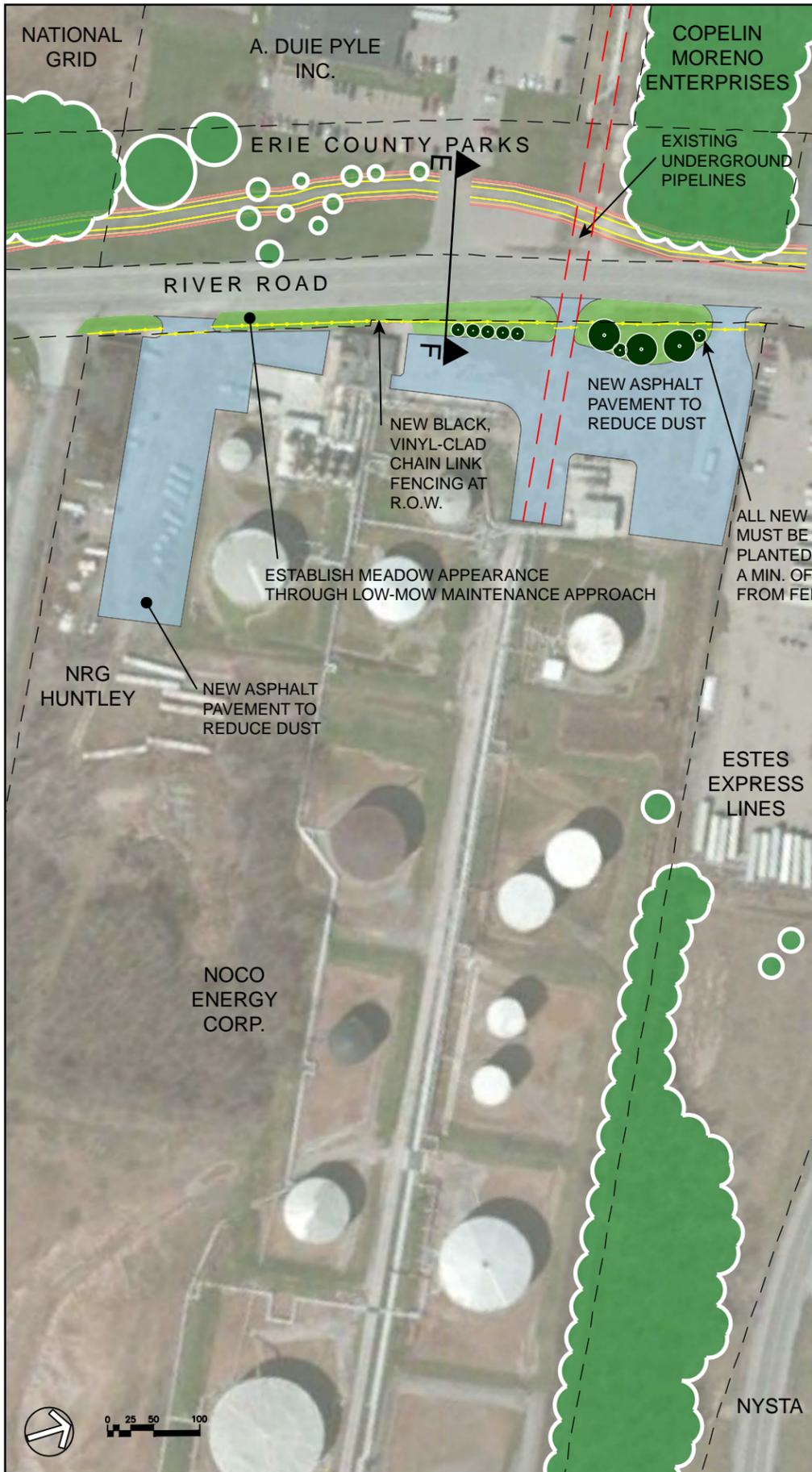
OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [NOCO \(S\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

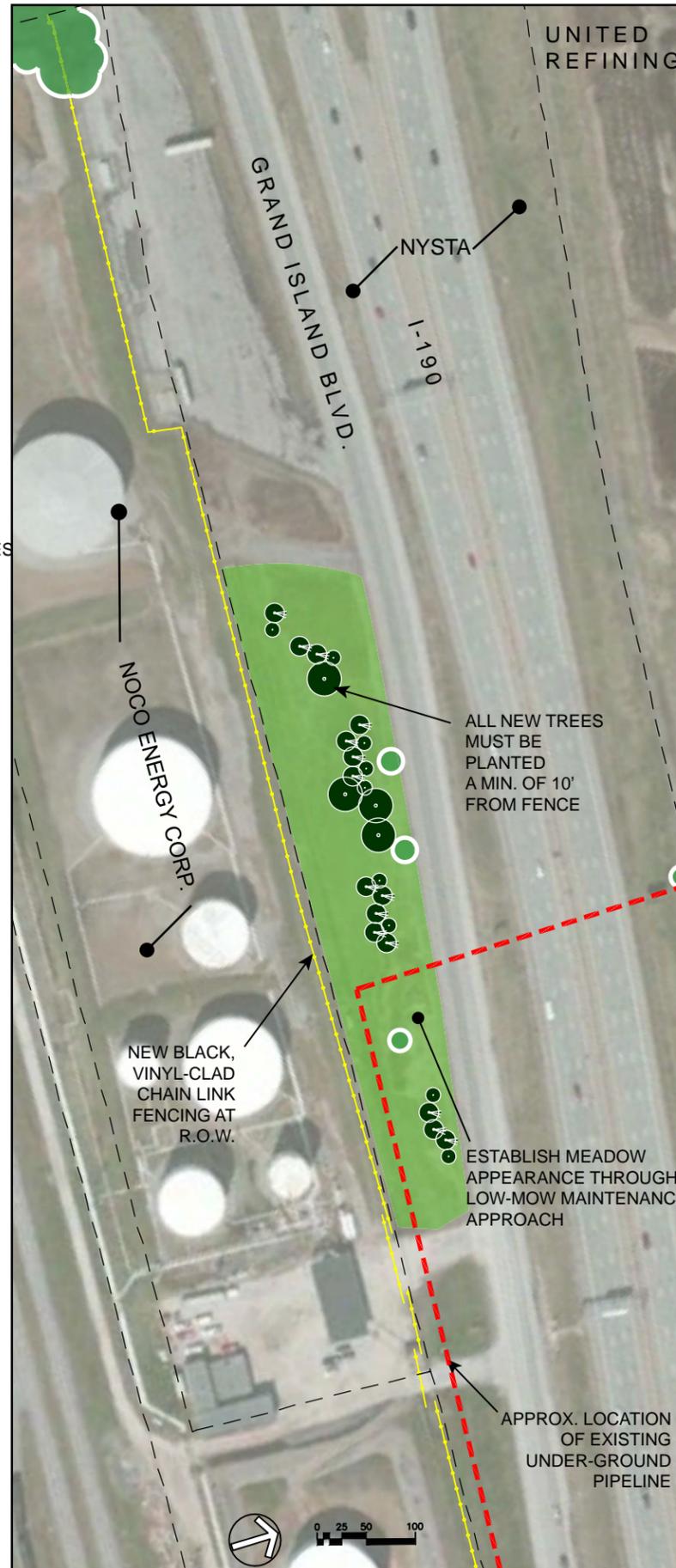
Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|--------------------|
| 1.0 | Removal | | | | |
| 2.0 | Asphalt Pavement | 89,413 | SF | \$4 | \$357,652 |
| 3.0 | New | | | | |
| 4.0 | Porous Asphalt Pavement (w/ 10" permeable aggregate base) | 89,413 | SF | \$12 | \$1,072,956 |
| 5.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 2,860 | LF | \$45 | \$128,700 |
| 6.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 7 | EA | \$1,500 | \$10,500 |
| 7.0 | Shade Tree (2" CAL) | 7 | EA | \$400 | \$2,800 |
| 8.0 | Evergreen Tree (6' HT) | 15 | EA | \$300 | \$4,500 |
| 9.0 | Ornamental Tree (1-1/2" CAL) | 16 | EA | \$330 | \$5,280 |
| 10.0 | Meadow Mix Seeded Area | 85,150 | SF | \$0.39 | \$33,209 |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$1,615,597 |
| | | | | Contingency. @ 5% | \$80,780 |
| | | | | TOTAL | \$1,696,376 |



NOCO ENERGY CORPORATION (S)



Town of Onawanda
WATERFRONT CORRIDOR
LANDSCAPE PROJECT

LEGEND

- PROJECT AREA
- - - PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE

Prepared by





Town of Tonawanda Waterfront Corridor Landscape Design

Owner: ESTES Trucking

Address: 4425 River Road, Tonawanda, NY 14150

Location Map: T

Approximate Frontage: 340' on River Road

Existing Conditions / Problems: Very visible property at the intersection of River Road and Grand Island Blvd, existing underground utilities prohibit plantings in the roadway R.O.W., blighted chain-link fence need replacement, the adjacent NOCO tank farm needs to be screened along Grand Island Blvd.

Designer Approach: Replace existing chain-link fence with a black vinyl-clad chain-link fence, screen the NOCO tank farm with additional trees on the ESTES property.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: ESTES Express (T)

Meeting Date: NA

Present: NA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion: No meeting occurred with this stakeholder

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Estes Express \(T\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Chain Link Fencing | 945 | LF | \$5 | \$4,725 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 945 | LF | \$45 | \$42,525 |
| 5.0 | Black, Vinyl-Clad Chain Link Gate (8' HT) | 2 | EA | \$1,500 | \$3,000 |
| 6.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 7.0 | Evergreen Tree (6' HT) | 12 | SF | \$330.00 | \$3,960 |
| 8.0 | Ornamental Tree (1-1/2" CAL) | 1 | SF | \$300.00 | \$300 |
| 9.0 | Meadow Mix Seeded Area | 65,000 | SF | \$0.39 | \$25,350 |
| 10.0 | | | | | |
| 11.0 | | | | | |
| 12.0 | | | | | |
| 13.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$81,060 |
| | | | | Contingency. @ 5% | \$4,053 |
| | | | | TOTAL | \$85,113 |



LEGEND

- PROJECT AREA
- PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



ESTES EXPRESS LINES WEST (T)



LEGEND

- PROJECT AREA
- PROPERTY LINES
- LOW MOW LANDSCAPE CORRIDOR
- BIKE PATH WITH 5' MOWED STRIP
- EXISTING FORESTED AREA
- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ORNAMENTAL TREE
- UTILITY/LIGHT POLE



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



ESTES EXPRESS LINES EAST (T)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Niagara River World

Address: 4000 River Road, Tonawanda, NY 14150

Location Map: U

Approximate Frontage: 1,875'

Existing Conditions / Problems: Blighted chain-link fence

Designer Approach: Install black vinyl-clad chain-link fence

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Niagara River World, 4000 River Road (U)

Meeting Date: November 25, 2013

Present:

Bonnie Leto, Niagara River World
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. The Erie County continuous parcel begins at Niagara River World and runs north. Niagara River World requires easements for driveway and utility access.
2. Niagara River World would be amenable to the following landscape improvements in the Erie County-owned parcel: shade trees, ornamental trees, and large shrubs.
3. Bonnie was amenable to the idea of replacing the existing chain link fencing along the shared boundary with Erie County with black, vinyl-clad chain link fencing at a time when the existing fence needs replacement. Niagara River World also should install black, vinyl-clad chain link gates where the existing fence turns ninety degrees to terminate at the northeast corner of the warehouses.
4. I stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if Niagara River World can fund these improvements on its property.
5. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and Swift River. JKLA also will prepare a preliminary opinion of probable costs.

The forgoing represents the observations during the meeting with Bonnie Leto. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before December 16th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

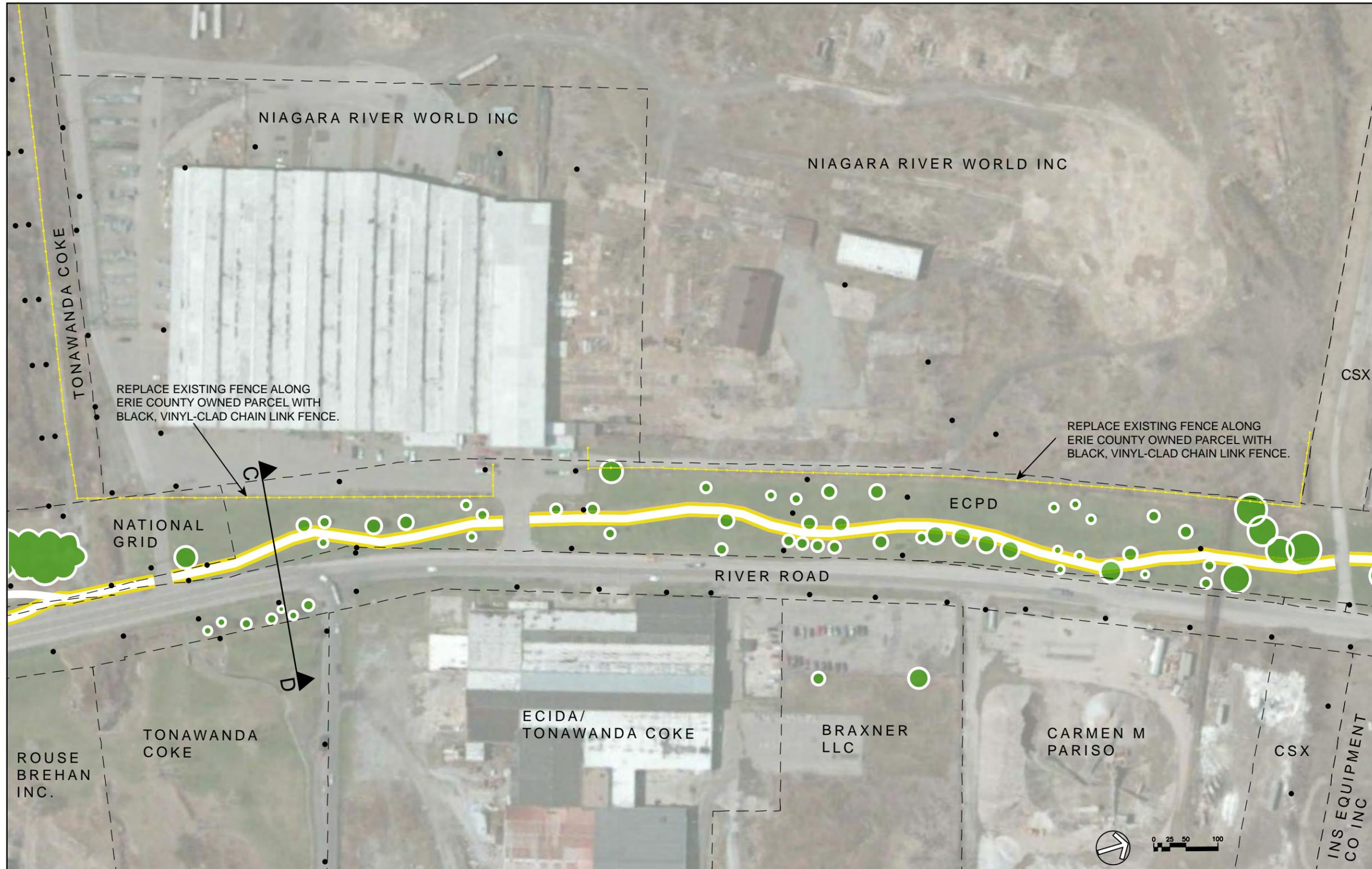
Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Niagara River World \(U\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)

Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|------|-----------------------|------------------|
| 1.0 | Removal | | | | |
| 2.0 | Chain Link Fencing | 1,955 | LF | \$5 | \$9,775 |
| 3.0 | New | | | | |
| 4.0 | Black, Vinyl-Clad Chain Link Fencing (8' HT) | 1,955 | LF | \$45 | \$87,975 |
| 5.0 | Black, Vinyl-Clad Chain Link Fence Gate (8' HT) | 3 | EA | \$1,500 | \$4,500 |
| 6.0 | | | | | |
| 7.0 | | | | | |
| 8.0 | | | | | |
| 9.0 | | | | | |
| 10.0 | | | | | |
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| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$102,250 |
| | | | | Contingency. @ 5% | \$5,113 |
| | | | | TOTAL | \$107,363 |

**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |

Prepared by



NIAGARA RIVER WORLD (U)

*REFER TO PAGE A6 FOR THE ILLUSTRATIVE SECTION C - D.



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Triad Recycling

Address: 3755 River Road, Tonawanda, NY 14150

Location Map: V

Approximate Frontage: 480'

Existing Conditions / Problems: Need for additional screening of buildings and operations, turf maintenance

Designer Approach: Install trees along R.O.W. plant meadow mix seed mix to reduce mowing

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Triad Recycling (V)

Meeting Date: November 13, 2013

Present:

Tony Pariso, Swift River
Ken Rawe, Swift River
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

1. Swift River would be amenable to the following landscape improvements along River Road:
 - a. Ornamental trees, shrubs, grasses, and perennials in the R.O.W. beneath the OH power lines..
 - b. Replacing the existing chain link fencing along the R.O.W. with black vinyl-clad chain link fencing. Instead of a chain link fence, the representatives from Swift River suggested a wooden privacy fence similar to one installed at Triad Recycling, located at 3755 River Road.
2. Jim Jones stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if Swift River can fund these improvements on its property.
3. Swift River recycles granite curbs, concrete, and corian counter tops into aggregate and mulch. One idea we discussed was to feature their product in a new landscaped bed directly across River Road, possibly with signage about recycling and these recycled products.
4. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and Swift River. JKLA also will prepare a preliminary opinion of probable costs.

The forgoing represents the observations during the meeting with Tony Pariso and Ken Rawe. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 29th, for corrections to be made and redistributed to the Town of Tonawanda.

OPINION OF PROBABLE CONSTRUCTION COST WORKSHEET

Project Title: [Town of Tonawanda Waterfront Corridor Design](#)
 Location: [River Road Corridor](#)
 Owner: [Triad Recycling \(V\)](#)
 Estimated by: [smj](#)
 Checked by:
 Approved by: [Joy Kuebler Landscape Architect, PC](#)

Project No.: [13012](#)
 Revision Date: [04/08/2014](#)
 Drawing No.:
 File Name:

| ITEM NO. | DESCRIPTION | ESTIMATED QUANTITY | UNIT | UNIT PRICE MAT.& LAB. | ESTIMATED AMOUNT |
|----------|--|--------------------|-------------------|-----------------------|------------------|
| 1.0 | New | | | | |
| 2.0 | Shade Tree (2" CAL) | 3 | EA | \$400 | \$1,200 |
| 3.0 | Evergreen Tree (6' HT) | 1 | EA | \$300 | \$300 |
| 4.0 | Ornamental Tree (1-1/2" CAL) | 9 | EA | \$330 | \$2,970 |
| 5.0 | Meadow Mix Seeded Area | 14,561 | SF | \$0.39 | \$5,679 |
| 6.0 | | | | | |
| 7.0 | | | | | |
| 8.0 | | | | | |
| 9.0 | | | | | |
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| 24.0 | | | | | |
| 25.0 | | | | | |
| 26.0 | | | | | |
| 27.0 | | | | | |
| 28.0 | NOTE: Unit Pricing based upon 2014-2015 market rates for public works projects. Unit prices for private projects may vary. | | | | |
| 39.0 | | | | | |
| 40.0 | Corridor Subtotal | | | | \$10,149 |
| | | | Contingency. @ 5% | | \$507 |
| | | | TOTAL | | \$10,656 |



| LEGEND | |
|--------|-------------------------------|
| | PROJECT AREA |
| | PROPERTY LINES |
| | LOW MOW LANDSCAPE CORRIDOR |
| | BIKE PATH WITH 5' MOWED STRIP |
| | EXISTING FORESTED AREA |
| | EXISTING TREE |
| | PROPOSED SHADE TREE |
| | PROPOSED CONIFEROUS TREE |
| | PROPOSED ORNAMENTAL TREE |
| | UTILITY/LIGHT POLE |



**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



TRIAD RECYCLING (V)



Town of Tonawanda Waterfront Corridor Landscape Design

Owner: Erie County Water Authority

Address: 3750 River Road, Tonawanda, NY 14150

Location Map: W

Approximate Frontage: The ECWA property does not front the River Road R.O.W.. The improvements discussed in the stakeholder meeting minutes would occur on property owned by National Grid. Please refer to the plans and opinion of probably cost for National Grid for more information.

Photos:





Town of Tonawanda Waterfront Corridor Landscape Design

Stakeholder Meeting: Erie County Water Authority, 3750 River Road (W)

Meeting Date: November 7, 2013

Present:

Wes Dust, ECWA
Jim Jones, Town of Tonawanda
John Lutz, JKLA

Purpose: Meeting to discuss proposed landscape initiatives along River Road

Discussion:

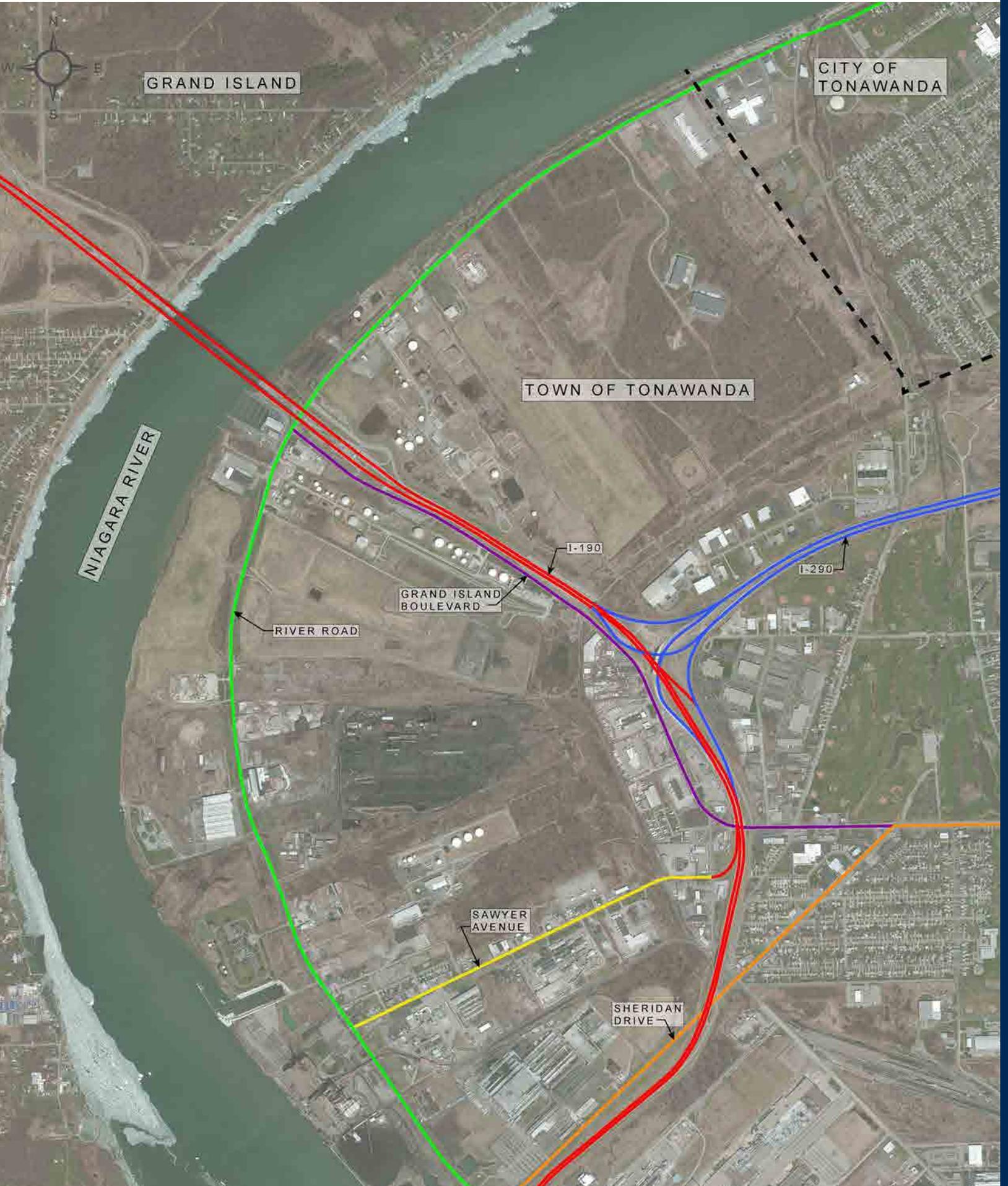
1. The Erie County Water Authority (ECWA) would be amenable to the proposed landscape improvements:
 - a. Trailhead parking (5 to 6 cars) if it is closer to the River Walk trail than the security gate.
 - b. Benches near the parking area.
 - c. Informational Signage, which could include information about the ECWA or water quality.
 - d. Rain Garden on one or both sides of the low point in the entrance drive.
2. Wes mentioned that the ECWA is considering replacing the existing water fountain, just north of the entrance drive. JKLA recommended a fountain with additional spigots for pets and/or to fill water bottles. The current fountain is connected to the existing fire line loop around the building and must continually run to prevent stagnancy.
3. Jim Jones stated the Town's limitations to obtaining funding for improvements outside of the R.O.W. It would be preferable if ECWA can fund these improvements on its property.
4. Wes thinks that the ECWA would appreciate the positive press that this small project could generate.
5. JKLA will prepare an illustrative plan showing landscape locations and other proposed site improvements for use by the Town and the ECWA. JKLA also will prepare a preliminary opinion of probable costs. **Since our meeting, Wes informed Jim Jones that National Grid owns a parcel of land directly between the ECWA property and River Road. ECWA will need to obtain National Grid's approval for the proposed improvements which actually will be on National Grid's property. For the time being, these improvements will appear on the illustrative**

plan of improvements for National Grid and will be reflected in National Grid's opinion of probable cost.

The forgoing represents the observations during the meeting with Wes Dust. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 29th, for corrections to be made and redistributed to the Town of Tonawanda.

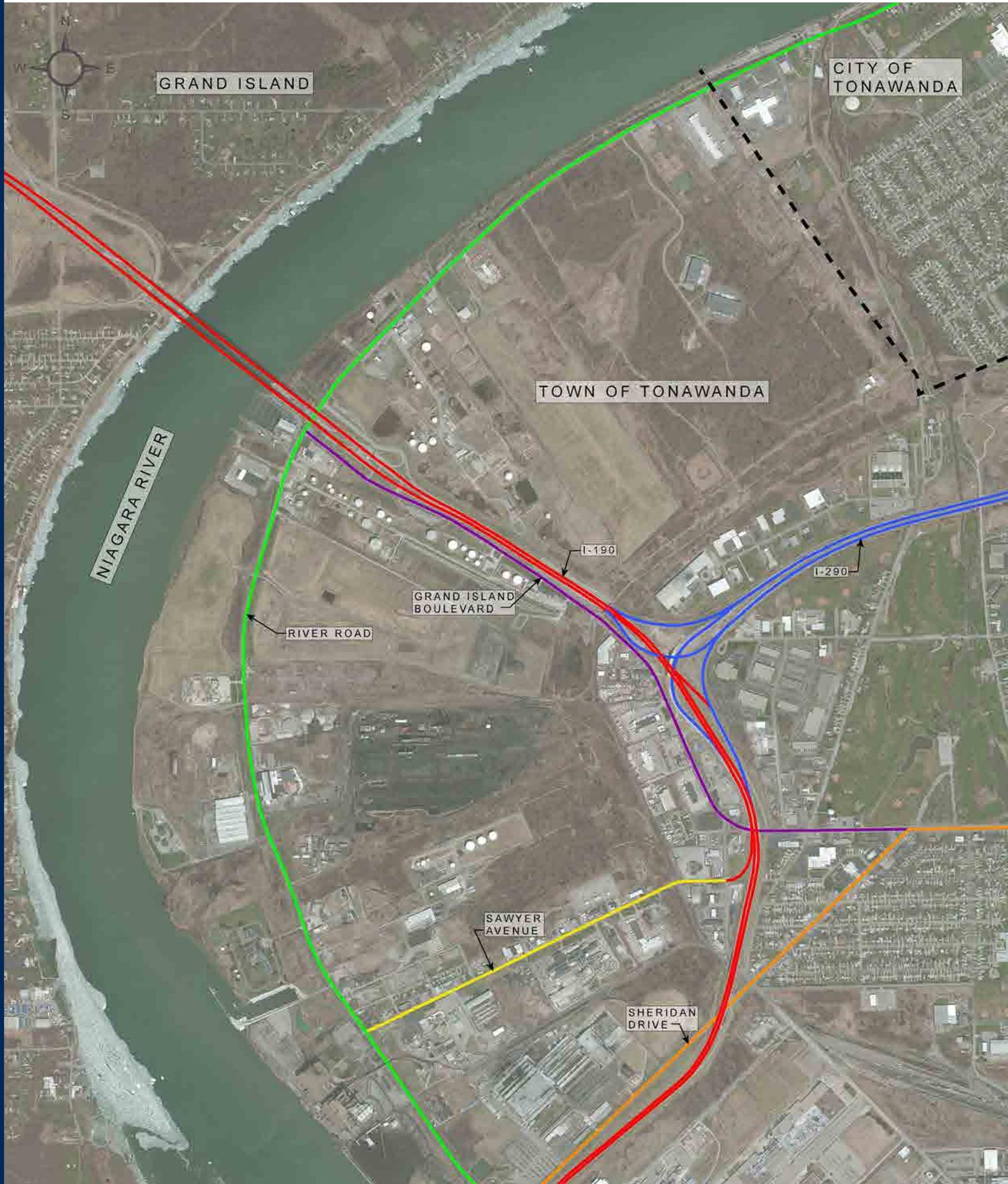
TOWN OF TONAWANDA

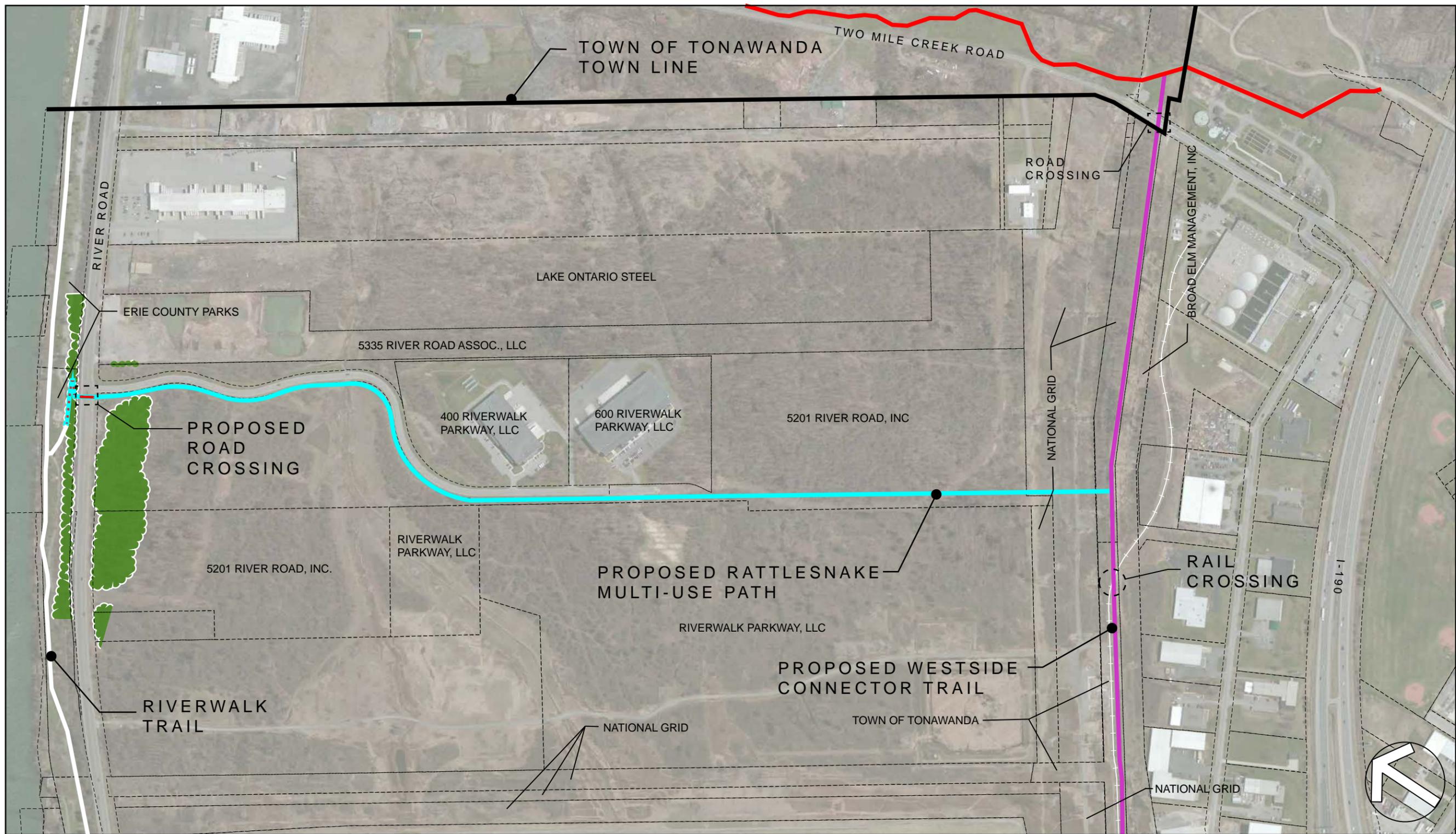
Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study





TRAIL MAP - NORTH

1" = 500'

| LEGEND | |
|---|-------------------------------------|
|  | TWO MILE CREEK GREENWAY |
|  | PROPOSED WESTSIDE CONNECTOR TRAIL |
|  | RIVERWALK TRAIL |
|  | PROPOSED RATTLESNAKE MULTI-USE PATH |

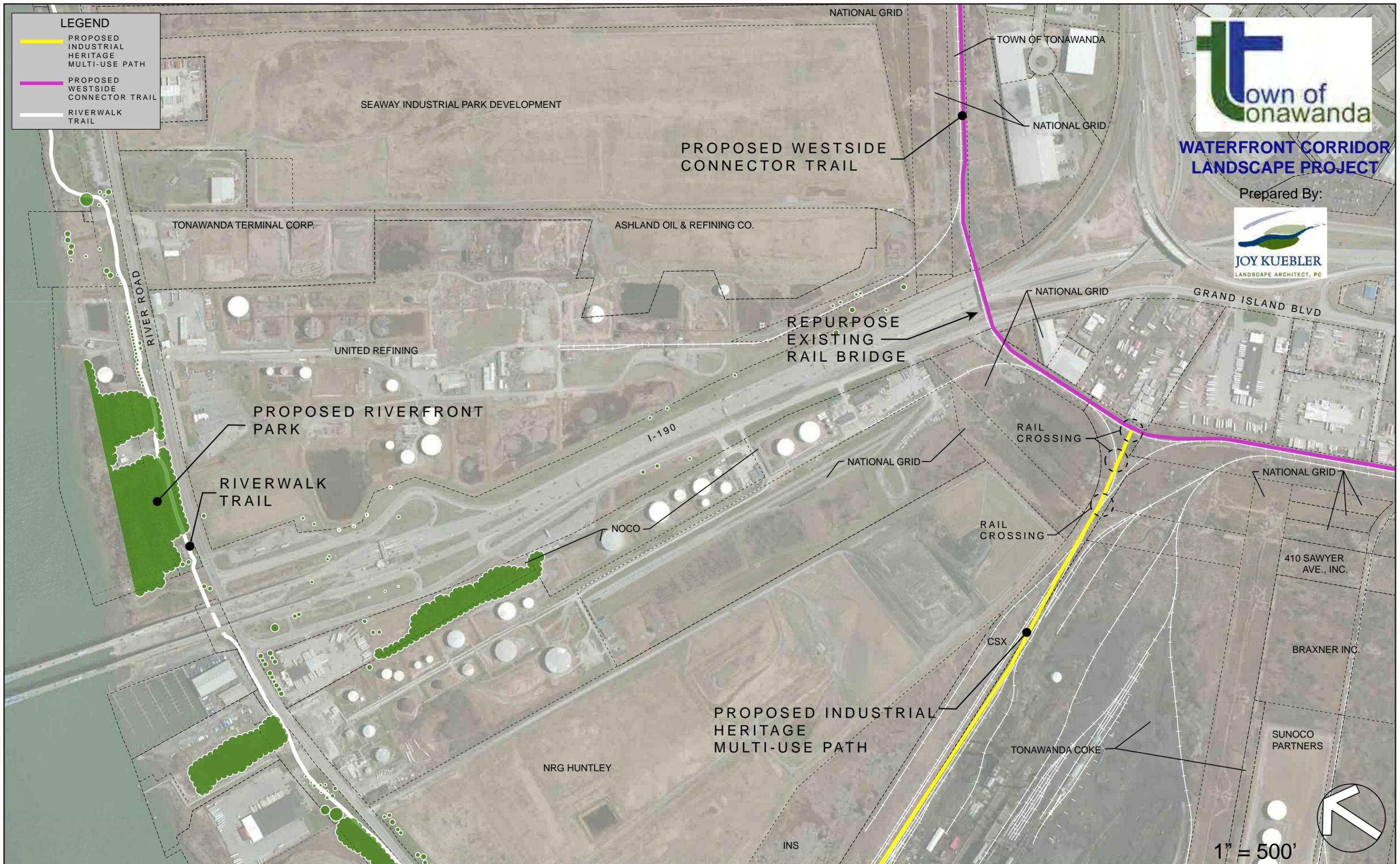


**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



JOY KUEBLER A1
LANDSCAPE ARCHITECT, PC



TRAIL MAP - THRUWAY



| LEGEND | |
|---|---|
|  | PROPOSED INDUSTRIAL HERITAGE MULTI-USE PATH |
|  | RIVERWALK TRAIL |



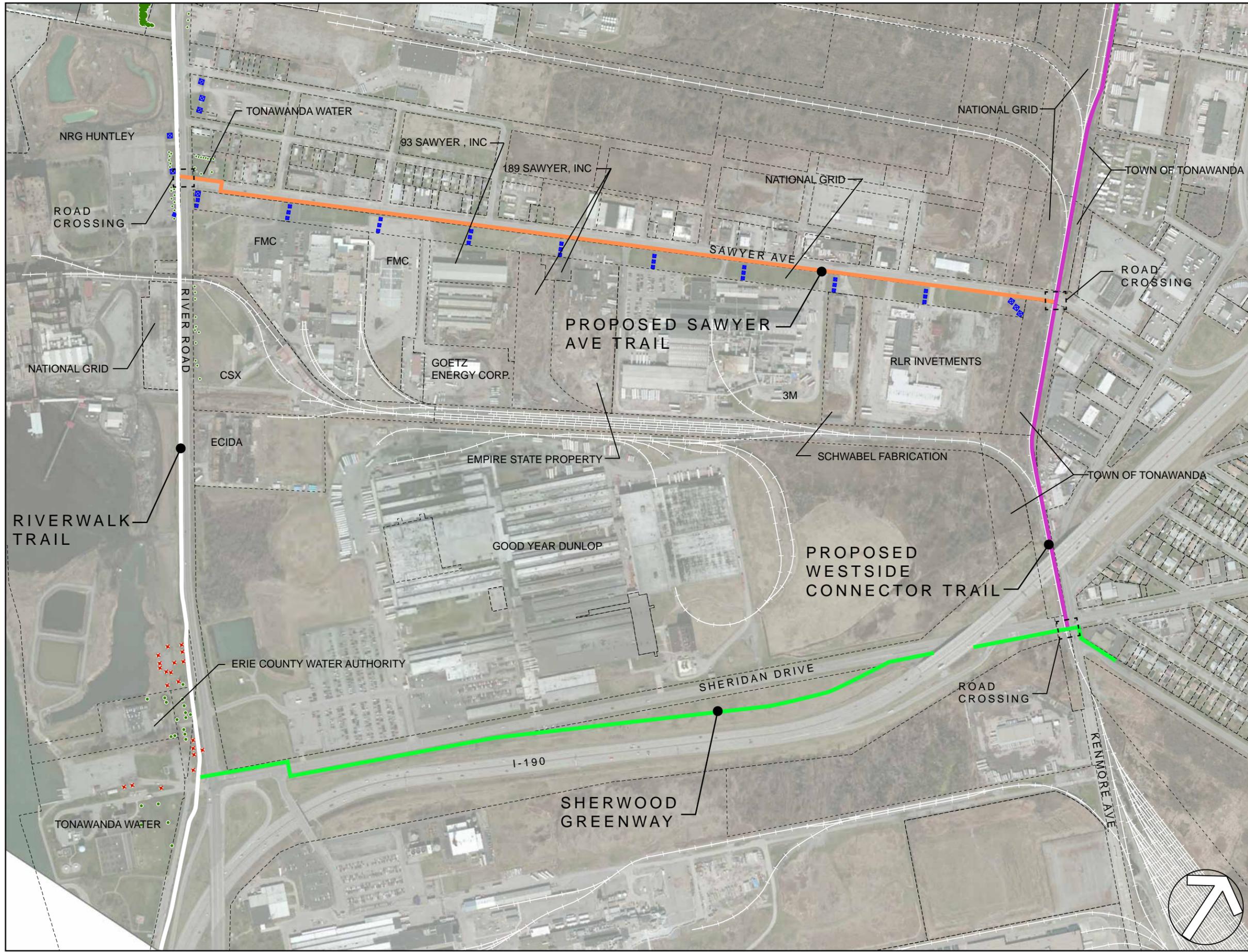
**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:



TRAIL MAP - WEST

1" = 500'



| LEGEND | |
|---|-----------------------------------|
|  | SHERWOOD GREENWAY |
|  | PROPOSED WESTSIDE CONNECTOR TRAIL |
|  | RIVERWALK TRAIL |
|  | PROPOSED SAWYER AVE TRAIL |

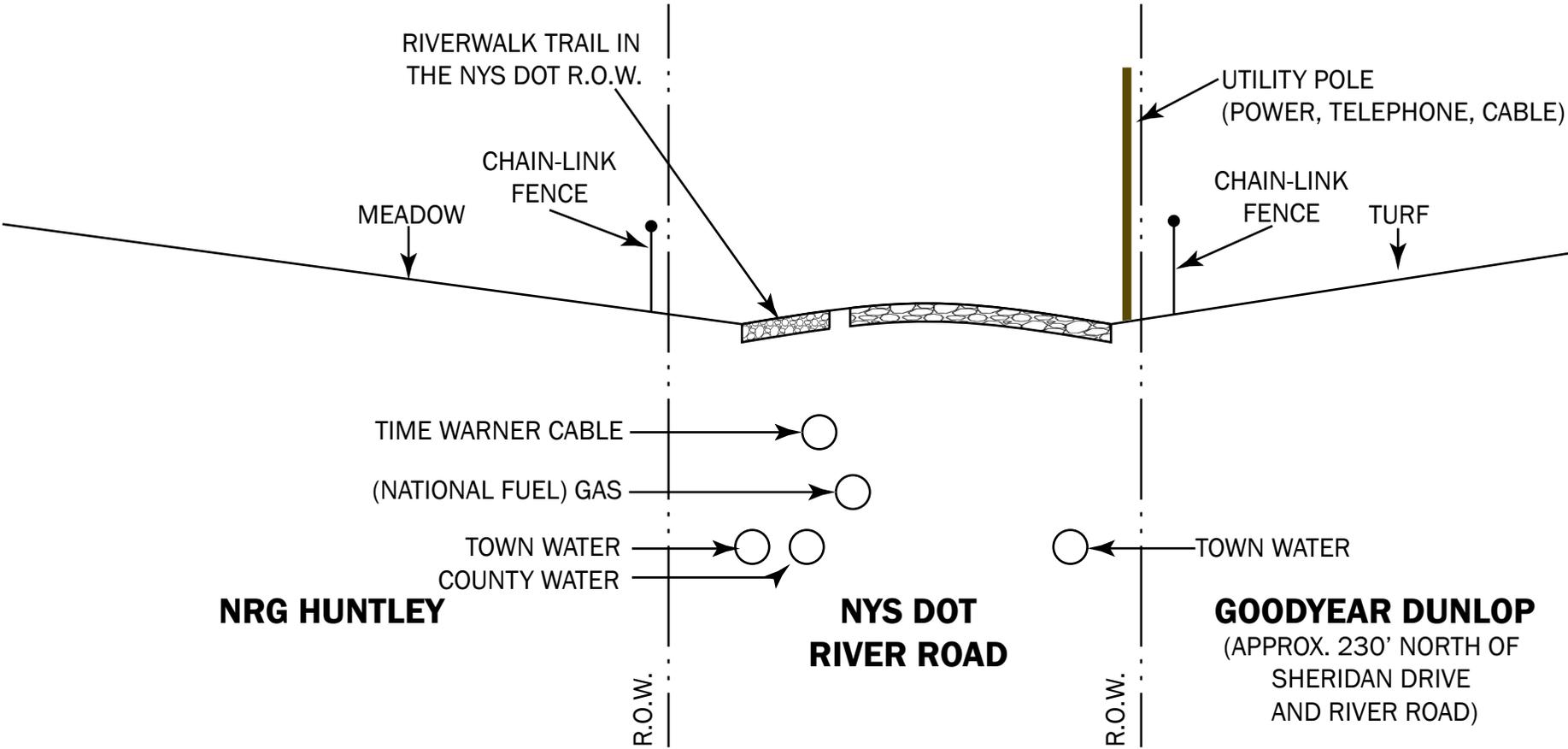


**WATERFRONT CORRIDOR
LANDSCAPE PROJECT**

Prepared By:

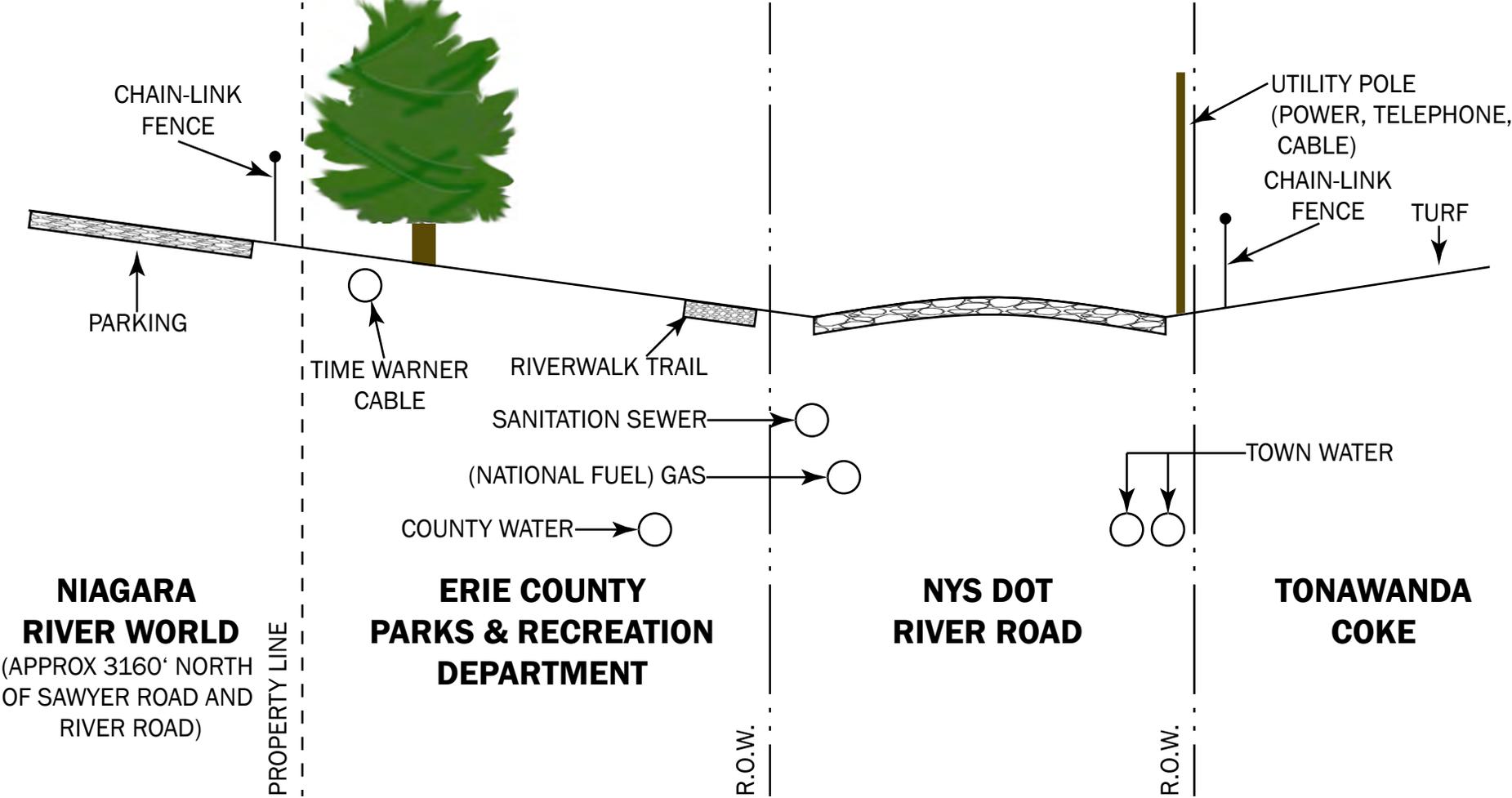


SECTION AT GOODYEAR DUNLOP



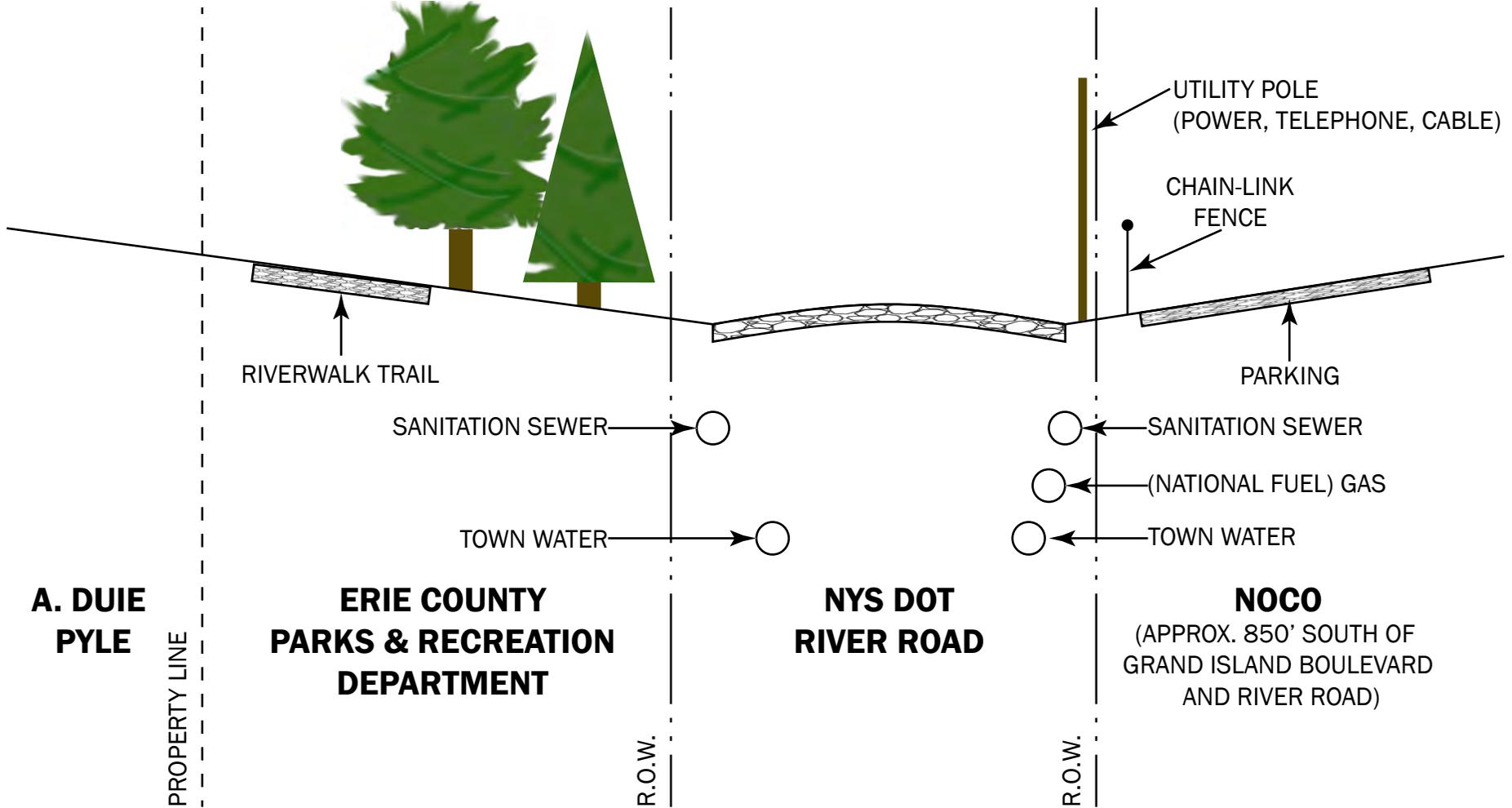
- NOTES:
- THE UTILITY INFORMATION SHOWN IS ILLUSTRATIVE, BASED ON GIS MAPPING. ALL UTILITY LOCATIONS & DEPTHS SHALL BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION ACTIVITIES.
 - REFER TO PAGES 28 AND 29 FOR THE ILLUSTRATIVE PLANS FOR GOODYEAR DUNLOP.

SECTION AT NIAGARA RIVER WORLD



- NOTES:
- THE UTILITY INFORMATION SHOWN IS ILLUSTRATIVE, BASED ON GIS MAPPING. ALL UTILITY LOCATIONS & DEPTHS SHALL BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION ACTIVITIES
 - REFER TO PAGE 119 FOR THE ILLUSTRATIVE PLAN FOR NIAGARA RIVER WORLD

SECTION AT NOCO



NOTES:

- THE UTILITY INFORMATION SHOWN IS ILLUSTRATIVE, BASED ON GIS MAPPING. ALL UTILITY LOCATIONS & DEPTHS SHALL BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION ACTIVITIES.

- REFER TO PAGE 109 FOR THE ILLUSTRATIVE PLAN FOR NOCO ENERGY CORPORATION.

TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



PANAMERICAN

Town of Tonawanda - Waterfront Corridor Landscape Design Project

In support of the Town of Tonawanda Waterfront Corridor Landscape Design Project, Panamerican Environmental, Inc. (PEI) reviewed the previous environmental related issues associated with properties within the corridor and the corridor in general. The review generated a list of significant sites and environmental concerns/contaminates.

The purpose was to support the project by providing potential environmental concerns and assist in the inventory and description of existing physical and environmental conditions especially as it relates to potential contamination that might:

- Impact landscape design demands
- Create environmental and health and safety Issues associated with future landscape intrusive activities
- Require contaminate control for landscape design potential

The following tasks were completed:

- Review historical information
- Obtain, review and assess a corridor environmental database radius report
- Obtain, review and assess historical maps
- Obtain and review aerials photographs

Additionally, a meeting was held with New York State Department of Environmental Conservation (NYSDEC) representative to introduce the project and to determine if any significant site was located along the project area. The NYSDEC information indicated that the area was highly industrial and may contain fill and other impacts from past industrial operations.

A summary of the tasks and findings follows:

HISTORICAL INFORMATION/SUMMARY

Source: Information from various reports completed by Panamerican Consultants, Inc. in the project area for confidential clients

Over the course of about 150 years, the project area has gradually shifted from rural farm land to heavily industrialized, including railroad tracks, extensive roads, and large industrial complexes. Seven historical maps were reviewed for the project area (Stone and Stewart 1866; Beers 1880; USGS 1901, 1948; Century Map Company 1909; Century Atlas Company 1915; Niagara Frontier Planning Board. 1937). One historic “structure” was shown within the area on most of these maps—the remains of the Erie Canal.

By the end of the nineteenth century, the Erie Canal was practically obsolete and required extensive modernization to accommodate newer, larger and mechanically powered boats. The Erie Barge Canal would be the end result of this transformation and would terminate in Tonawanda, where the Tonawanda Creek met the Niagara River, in 1918. This reconstruction allowed the abandonment of the old canal and redevelopment for former canal lands near the Niagara River. By the late 1890s electric power from Niagara Falls was available for use by industry. As a result, sections of the town developed, notably along the Niagara River and River Road into industrial areas while others became residential areas. Industry moved into the western part of the town, as steel, oil and chemical companies acquired the town’s waterfront property along Niagara River. Workers at these plants resided in the Riverside section of Buffalo, near the factories.

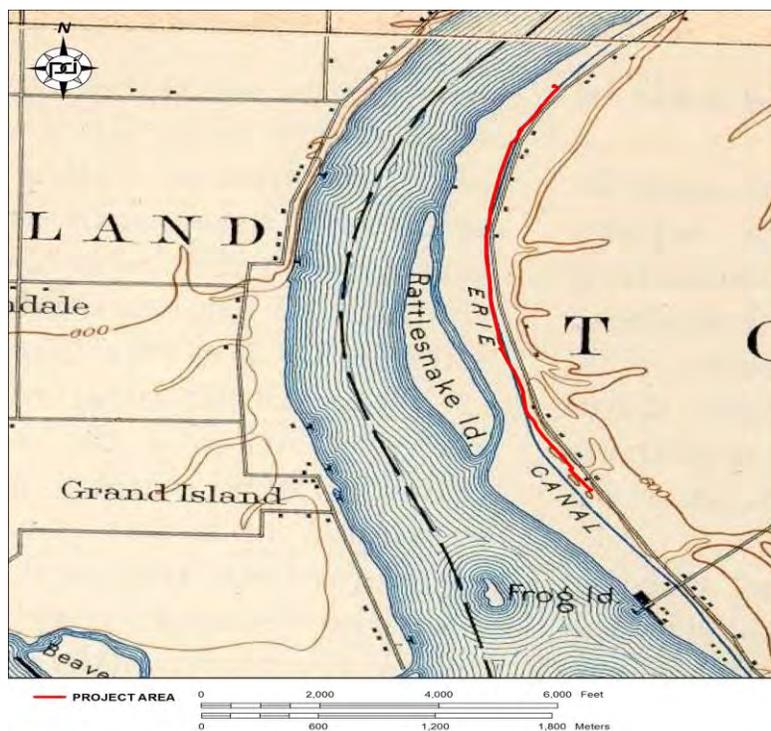
Located near what is now Sheridan Drive, the Hazard Powder Company facility (later controlled by DuPont) was the only major industrial operation situated along the Niagara River before 1907. In that year the Wickwire Steel Company initiated development of Rattlesnake Island (now no longer an island) with the erection of a mill to make pig iron. The year 1916 saw increased industrial development of former farmland located in proximity to the Niagara River and the former location of the Erie Canal. Buffalo General Electric Company initiated construction of what would become the coal-fired, steam-generating Charles R. Huntley Station on River Road west of the canal to supplement power generated by the Falls, the McKaig-Hutch Company built a drop forge plant and Wickwire Steel expanded their operation to include the manufacture of steel billets, rods, and wire (it became Wickwire-Spencer Steel Company in 1920). The Solvay Process Company, which became the Semet-Solvay Company, erected a coke and gas plant to the east of the Wickwire Steel complex. Shortly thereafter, Acheson Graphite Company and United States Alloys, Inc. constructed factories near the Wickwire complex.

Other industrial operations were attracted to the Niagara River area in Tonawanda on or near River Road between the end of World War I and the beginning of World War II. These facilities included the Dunlop Tire and Rubber Company plant (1922), the DuPont Fibersilk Company (a subsidiary of E.I. DuPont de Nemours & Co., and later DuPont-Yerkes, the plant produced rayon and cellophane beginning in 1926), Beacon Oil, Sun Oil, Breul and Bennett Oil and Shell Eastern Petroleum (all were operating or constructing offices, storage tanks, or docking facilities in this area by the end of 1930), the Frontier Oil (later Ashland Oil) tank farm and refinery (ca. 1935) and the Chevrolet Division of General Motors automobile engine plant and office buildings (1937-1938;

during World War II the factory made airplane engines). The Curtiss Aeroplane & Motor Company (soon Curtiss Wright) opened a plant on the north side of Vulcan Street south of the project area during the 1930s. The Curtiss airfield near the intersection of what are now Sheridan Drive and Niagara Falls Boulevard, served as the main airport for the area until 1926, when construction of the Buffalo Niagara International airport in Cheektowaga was initiated.

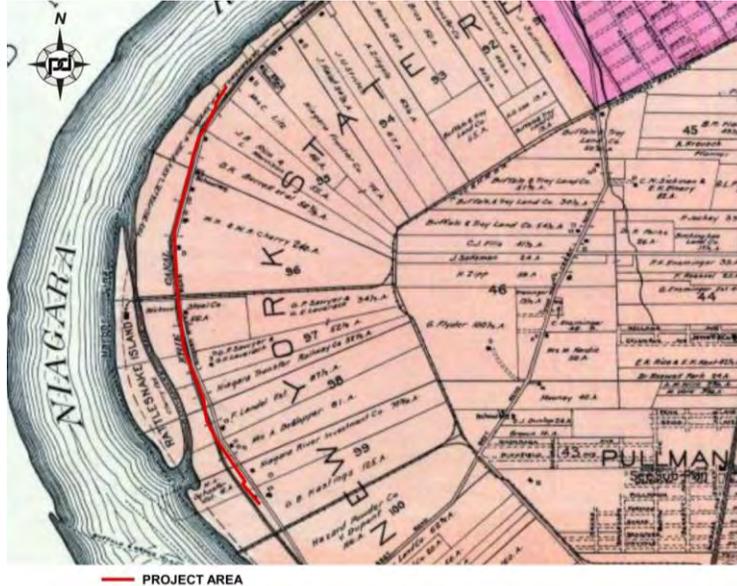
The abandoned canal became home to a fishing community called “the Marsh,” north of Vulcan Street, which existed until the construction of the Thruway extension in 1957. Beginning in the 1930s, Erie County began to fill in the old Erie Canal by using Works Progress Administration funding. With the growth of gas-powered transportation, the need for improved roadways increased after World War I. Plans to construct a 12-mile highway, east to west, across the towns of Tonawanda and Amherst were developed. Opened in 1925 as Two Mile Creek Drive, the crosstown boulevard became Sheridan Drive, the main east-west thoroughfare through the town. In the 1935, a bridge was erected over the Niagara River connecting Tonawanda to Grand Island. Later in the 1950s a portion of the Niagara extension of the New York State Thruway (Interstate-190) was constructed in the right-of-way of the former Erie Canal and over Grand Island, providing greater access for residents into the City of Buffalo and fueling the suburban expansion after World War II.

The 1866 and 1880 maps depicted the Erie Canal and River Road east of the canal in proximity to the project area. These maps also rendered several dispersed structures along the east side of River Road; no structures were depicted along the canal or on the west side of River Road. The 1901 USGS map showed both River Road and the path of the old Erie Canal. Twelve structures were arrayed along the east side of River Road and two along the west side of River Road between the road and the canal on this map. Further, one structure was shown well west of the canal along the Niagara River. No structures other than the Erie Canal were shown in or adjacent to the project area on this map.



**The project area
in 1901 (USGS 1901).**

The project area in 1909 (Century Map Co. 1909).



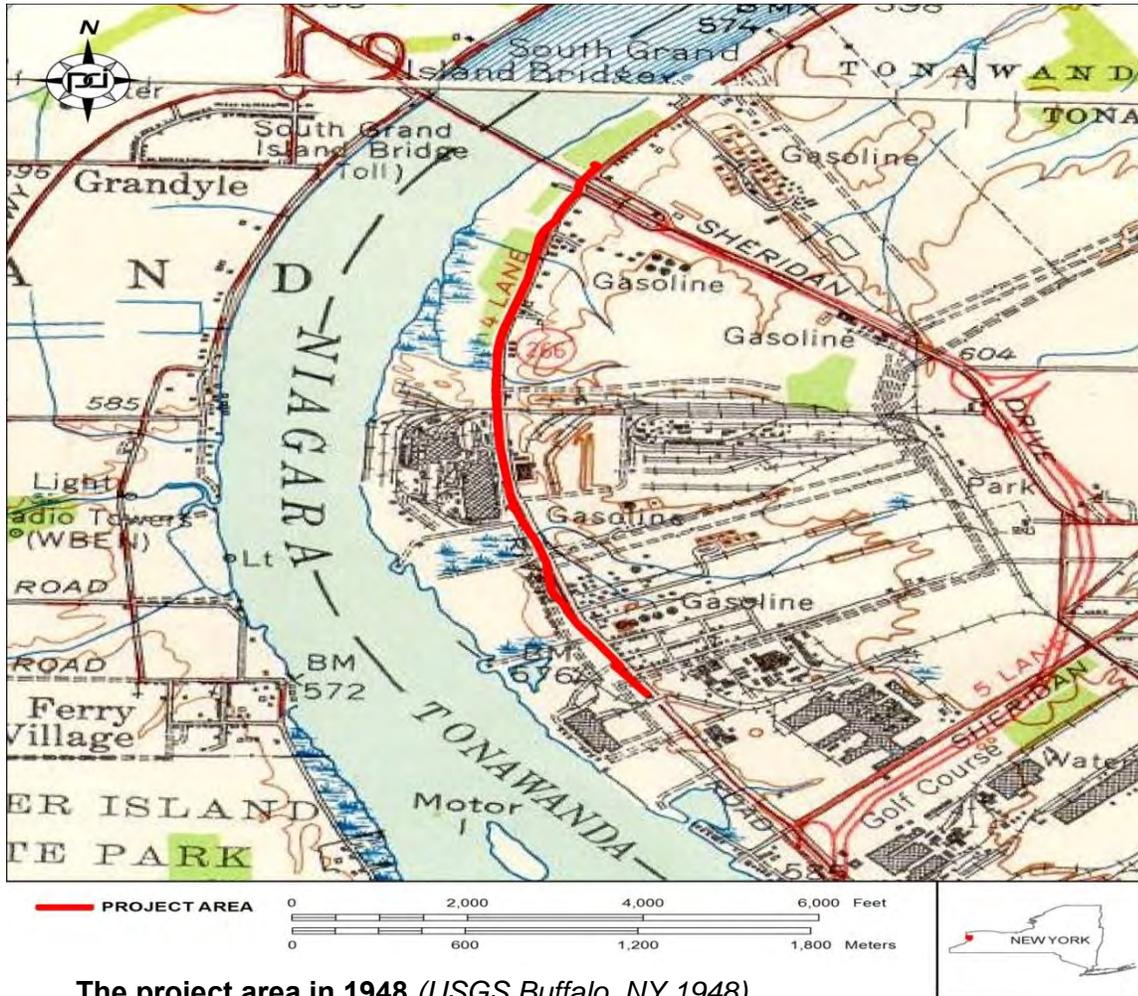
The mid-twentieth century topographic map (USGS 1948) illustrated the full industrial extent of the River Road-Niagara River corridor in Tonawanda, although several open areas in the northern part of the general project area remain, including a wetland area. The South Grand Island Bridge was shown and the path of the Erie Canal was no longer extant. Numerous structures lined the east side of River Road, and an extensive industrial complex (the former Wickwire-Spencer steel mill complex; what is now the Roblin Industrial Park), supplemented by railroad tracks, was rendered on the west side of the project area. The Semet-Solvay coke plant was depicted east of the project area and the steel mill. The 1968 USGS map of this area illustrated that several of the industrial areas in this area had closed by that time. Note the various areas noted as gasoline.

Erie Canal Historic Site. Plaques identifying the former presence of the “Erie Canal Historic Site” and an access path are within the area and a cleared area and depression for the site is adjacent to the west side. Two exposed boulders along what would have been the western side of the canal are present.

Three potentially historic structural features were identified near Lafarge North America, Inc. including a pipe bridge, a wooden bridge abutment, and a concrete wall:

- **Pipe Bridge.** An iron bridge supporting a pipe crosses River Road south of Lafarge North America, Inc.’s south driveway.
- **Wooden Bridge Abutment.** A wooden train bridge abutment is present on the front lawn of Lafarge North America, Inc. (construction supply). It has a north-south orientation and is located 15 feet south of the southern driveway and 40 feet west of River Road.

- **Concrete Wall.** A concrete wall and metal fence runs along the west side between 4000 River Road (Niagara River World Inc.) and Lafarge North America, Inc. Its location roughly corresponds with the west side of the map-documented Erie Canal



The project area in 1948 (USGS Buffalo, NY 1948).

Shallow soil tests completed for cultural resources surveys indicated disturbed soils - the color, texture and stratigraphic profile varied greatly, including combinations of silt, sand, and clay textures and ranges of hues for brown, reddish brown, gray, and yellow. Rubble fill was found in some test pits (e.g., concrete, crushed-stone gravel, asphalt, brick, slag, coal) and intermixed modern and historic artifacts (plastic, Styrofoam, rubber, cloth, metal [nails, miscellaneous unidentifiable pieces, aluminum foil], ceramic shards [whiteware, ironstone, redware], clear and brown bottle glass, and flat window glass) were found. Buried pavement was found in some areas.

CORRIDOR ENVIRONMENTAL DATABASE RADIUS REPORT - STANDARD REGULATORY/AGENCY RECORDS REVIEWED

A review of readily available government agency records was conducted by PEI using the government records search firm, Environmental Data Resources (EDR). EDR provides an ASTM Detailed Radius Corridor Report based on information obtained from publicly available data sources and other secondary sources. A significant number of database records were identified in this corridor. A summary of the findings is presented below. The database records are identified by location and type and correspond to locations identified on the attached map. These include Map Numbers 1 through 62. **Items in bold indicate issues that may impact a Right-of-Way (R.O.W.) in our corridor area.**

Map Number 1

Ashland Oil – River Rd. and Grand Island Blvd. - FINDS

Map Number 2

Crossett Trucking – River Road/NOCO Terminal – Spill #9103438-Hose break – oil spill

Map Number 3

NOCO Terminal – Grand Island Blvd. - Spill #1551464 – hose failed

Map Number 4

- 1) NOCO Energy - Spill # 8803345 – **old lines under street and soil impacts**
- 2) Agway – River Road – Spill #9205796 – leaking tanks

Map Number 5

1) NOCO – 700 Grand Island Blvd. Multiple databases - ERNS, Spill # 9707742 – flange open and fuel oil in ditch under Grand Island Bridge, Spill #9502206 – asphalt leaking from tank, Spill # 8803345 – **old lines under street and soil impacts**

Many other spills – tank removal and soil contamination

- 2) Occidental Chemical Corp – 700 Grand Island Blvd. – RCRA, Manifest
- 3) GA FOSS Transport – 700 Grand Island Blvd.

Map Number 6

NOCO-Sun Pipeline – Grand Island Blvd. – Leaking Tanks – Spill #9501236 – spill from waste petroleum holding tank, Spill # 9508914- gas spill during maintenance, Spill # 9104623 – leaking valve – soil contamination

Map Number 7

NRG Huntley – 3500 River Road – Fly Ash – hazardous waste disposal site

Map Number 8

NRG Huntley – 3500 River Road - Coal Ash, Solid Waste Landfill, ERNS

Map Number 9

Blackhorse carriers – I-190 – Spill #8900335 – Truck leak at Grand Island Bridge

Map Number 10

Rich Products- I-190 Exit Ramp and River Rd. – Spill #9201249 – Spill to ditch

MAP Number 11

INS Equipment – River Road – CERCLA

Map Number 12

1) Buffalo Welding Supply – 396 Grand Island Blvd. - UST, Historic UST

2) Coleman Service –Flyder Rd. – Spill #8607410 – oily product on shoulder down Flyder from Coleman

Map Number 13

O & K Truck Repair – 370 Grand Island Blvd. – Spill # 1751081- tank removal and soil contamination

Map Number 14

ABF Freight Systems – 50 Flyder Ave. – AST and multiple Hazardous materials transport issues, RCRA, Spill #0601936 – small spill, Spill # 1010807 – 100-gallons of diesel spill to concrete, Spill #9003636 – drum fuming and spill to ground, Spill #0507173 – spill from diesel fuel tank AST to ditch and train tracts, Spill # 0514213 – tank overfill

Map Number 15

Tonawanda Coke – Chemical Bulk Storage

Map Number 16

1) LaFarge - 4010 River Road – FINDS database

2) Clarence Materials Corp. – RCRA and FINDS

3) IVACO Steel Processing New York, LLC – 3937 River Road – FINDS, Tanks, Chemical bulk storage, ICIS, Spill # 9105569 – tank rusted through spilling waste oil, Spill # 9008357 – tank

split and water/acid into dike area, Spill #9406083- ruptured line during demo, Spill # 9306513 – Sulfuric Acid spill onto pavement, Spill #8900993 – Ferric Hydroxide in ditch

4) Atlantic Steel Industries – 3937 River Road – FTTS database

5) Vanocur Refractories – 3937 River Road – Spill #1304868 – petroleum spillage from stored equipment

6) New York Wire Mills – 3937 River Road – FINDS database

7) Envirotech II PRP Group – 4000 River Road – ICIS

8) Honeywell Groundwater Treatment Plant – 4000 River Road – PRP, CERCLA, CORRECTS, FINDS, Corrective Action 2020 databases

9) Hohl Industries – 4000 River Road – RCRA, State hazardous waste site, engineering and institutional control databases – 62-acre Roblin Steel property at 4000 River Road. River Road east, Niagara River west, Tonawanda Coke and Marathon Ashland Petroleum to south, Lafarge concrete and vacant River Road site to north. Subsite – Envirotech site – 2.5 acre chemical waste treatment plant. Site is fenced with large building along River road. Roblin Steel site has 4 operable units – 3 of which are part of Envirotech. Was a steel making facility – Wickwire Spencer Steel (see Sanborn maps)/Colorado Fuel Corp – filed bankruptcy in 1963. Was backfilled with slag and other industrial debris, **RAD Potential**. Erie Canal and Rattlesnake Creek filled in with industrial debris; Roblin Steel took over site disposed 1-2-million gallons of spent pickle fluid. Shallow groundwater and soils contaminated with chlorinated solvents and metals/PAHs

10) Lake Erie Rolling Mill – 4000 River Road - RCRA

11) Niagara River World – 4000 River Road – RCRA

12) Others – all part of issues noted above

Map Number 17

1) Pallet Services Inc. / Pallet City – 310 Grand Island Blvd. – Airs database, FINDS, Solid Waste Landfill

2) Sunoco right-of-way – Grand Island Blvd. – Spill # 8607846 – **Contaminated soil in Right-of-Way**

3) Groll Residence – 51 Richie Ave. – small spill – no issue

Map Number 18

DuPont – Solid waste landfill – address not listed

Map Number 19

1) Petroleum Sales & Service – 211 Grand Island Blvd. – Tanks, Spill #9409981

- 2) Niagara Mobil Home Park – Kenmore Ave. at Grand Island Blvd. – Spill #9202862 – contaminated soil
- 3) Universal Joint Sales – 2843 Kenmore Ave. – Spill # 9403331 – tank removal and soil contamination
- 4) U-Haul – 2843 Kenmore Ave. – UST, Spill #9211260 –waste oil in ditch
- 5) Ryder Transportation Services – 2834 Kenmore Ave. – UST, FINDS, Spill #9514650

Tanks, soil and groundwater contamination

- 6) First Recovery – 2834 Kenmore Ave. – RCRA, FINDS

Map Number 20

- 1) 10 Grand Island Blvd. – Historical auto station
- 2) Ryder Commercial Leasing – Grand Island Blvd. – Spill # 9314476 – fuel line failure
- 3) CME Associates – 861 Sheridan Drive – RCRA, FINDS, Manifest, Spill # 901173 – leaking waste oil tank to surface. **Historical auto service station**
- 4) Former Roberts Equipment – 829 Sheridan Drive – Spill #0475176 – down-gradient of former gasoline station (see 5 below)
- 5) Sparkle Service Center – 817 Sheridan Drive – Spill #9975459 – major petroleum clean-up – removal of tanks and soil

Map Number 21

Ed's Garage- Two Mile Creek Rd. and Grand Island Blvd. – Spill # 9504150 tanks and soil removal

Map Number 22

Spill in Niagara River – I-90/Grand Island Bridge– Spill #9807403

Map Number 23

Tonawanda Coke – 3875 River Road – RCRA large quantity generator, multiple other databases. Spill # 1304468, Spill # 0750710 – oil from transformers on coal fields, Hazardous Waste Site, TSCA etc. – 3 operable units – fly ash, coal tars etc. Allied Site located south and Roblin Steel site west on River Road and River Road site is north

Map Number 24

- 1) Kenton Center – 151 Two Mile Creek Road - UST
- 2) Erie 1 BOCES – 151 Two Mile Creek Road – RCRA, Tanks, Spill - Spill #0175204 – contaminated soil found during removal of waste oil tank

Map Number 25

Allied Corp – 3821 River Road – RCRA Corrective Action site

Hazardous waste site – 1-acre area contains pools of coal tar – 1,000-feet east of Niagara River
Located on the east side of River Road and 2,100 feet northwest of the intersection of River Road and Sawyer Avenue. **Coal Tar, PAHs, chlorinated solvents and chromium and other metals**

Map Number 26

- 1) Sawyer Ave. & Kenmore Ave. – Spill #8502165 – no info provided
- 2) Site Assessment Vacant lot – 2800 Kenmore Ave. – Spill # 9607536 – excessive rain caused flooding and oil from oil-water separator to impact ground surface
- 3) U-Haul – 2801 Kenmore Ave. – Spill #9403242 - soil contamination found while removing UST.
- 4) Niagara Mohawk – National Grid - 2788 Kenmore Ave. – FINDS, RCRA and Manifest databases
- 5) B&W Heat Treating Co. - 2780 Kenmore Ave. – RCRA, FINDS, Manifest databases
- 6) Old Blue Bird Bus - 2765 Kenmore Ave. – tanks and spill – Spill #0075623 – impacted soil found during removal of waste and fuel oil tank
- 7) 2760 Kenmore Ave. – **Old gas station site**
- 8) J&N Leasing (Valley Tire) - 2760 Kenmore Ave. – Spill #9805505 – contaminated soil and water during tank (UST) removal
- 9) O&K Truck Repairs - 2760 Kenmore Ave. – RCRA
- 10) 2750 Kenmore Ave. – **Historical auto service station.**
- 11) CIR Electrical Construction – 2750 Kenmore Ave. – RCRA, FINDS database

Map Number 27

- 1) 454 Sawyer Ave. – small release of hazardous material during loading of truck
- 2) Central Transport – 454 Sawyer Ave. – USTs
- 3) Central Transport - Spill #98285 – tractor trailer role over – **product clean-up side of road and ditch.**
- 4) Central Transport – Spill # 9612250 – truck leaking hydraulic fluid from equipment being transported from Tonawanda Coke – **pool on side of road.**
- 5) Central Transport – Spill # 9104439 – contaminated soil during tanks removal

6) Robert Patterson – 460 Sawyer Ave. – Spill # 9214438 – removal of leaking tank, soil impacts with gasoline and diesel

7) Valley Re-Treading Co – 483 Sawyer Ave. – FINDS database

8) Quackenbush Company Inc. Warehouse - 483 Sawyer Ave. – RCRA, FINDS Solid Waste Landfill & Manifest databases

Map Number 28

Drums in Field at James Ave. and Mildred St. - Spill # 9513877 – empty drums removed from field next to playground

Map Number 29

Chemcentral Corporation – 3709 River Road - Chemical bulk storage

Map Number 30

7-11 Gas Station – 740 Sheridan Ave. – Spill #1301118 – small leak near pump island leaked to storm sewer, Spill # 9100843 – Tank test failure on 8,000-gallon UST – **tank removal/soil contamination**. Spill #9806510 and other spills

Map Number 31

1) 382 Sawyer Ave. – Hazardous Materials reporting – cleaning compound

2) Patterson-Stevens Inc. – 400 Sawyer Ave. - UST

3) Roadway Express – 383 Sawyer Ave. – Tanks, Spills, FINDS, RCRA database – Spill #8707586 – contaminated soil found during tank removal, Spill # #9507129 – **tank overflow which sent product onto parking lot, drainage ditch and manholes – cleaned**, Spill # 9005832 – **leaking UST that impacted soil and groundwater**, Spill # 9609817 – **soil and groundwater contamination from UST**, Spill # 9507916 – forklift accident allowed 1-gallon of chemical release – soil from drainage ditches were removed and placed on rear of property. Other spills reported as well as small leaks of hazardous materials

4) K&T Pump & Tank – 370 Sawyer Ave. – RCRA, FINDS and Manifest databases and **Historic Auto service station**, UST and ASTs.

Map Number 32

1) Northeast Machine – 71 Two Mile Creek Road – historical auto repair – RCRA and FINDS; Spill # 8900676 –Flushed out sewer packed with oil

2) Spill on Two Mile Creek Road – Spill #853933

Map Number 33

1) Unknown Truck –678 Sheridan Drive- Spill #9509761-accident caused tank to rupture

2) ACC Raymart Corp – 678 Sheridan Drive – UST

Map Number 34

1) American Freight Systems Inc. – 340 Sawyer Ave. – USTs

2) Schwable Contracting– 340 Sawyer Ave. – UST and FINDS

Map Number 35

1) Niagara Mohawk Transformer – 140 Parkedge Ave. - Spill #9202508 - 2 transformers on pole behind house

2) 644 Sheridan Drive – **Historic gas station site.**

3) Ed's Auto – 644 Sheridan Drive – AST

Map Number 36

1) Guard Contracting Corporation -3755 River Road – Spill #9975620

2) G O Service Company - 344 Vulcan Street – RCRA, Spills, Tanks, Solid Waste - Spill #9975620 – petroleum contamination found during property assessment. Petroleum contamination found during site assessment

3) Triad Recycling and Energy Corp – FINDS database

4) Guard. Environmental – 3755 River Road – FINDS database

5) SJT-De-Man (Sun Oil) – 3755 River Road – Small quantity generator

6) Buffalo Marketing Terminal – 3755 River Road - Petroleum storage UST and AST

7) Goetz Energy Buffalo Terminal – 3755 River Road – Petroleum storage

8) Sun Mark Petroleum Terminal – RCRA

9) Sun Refining and Marketing – Chemical Bulk Storage

Map Number 37

1) Amherst Printing/NYSTA Amherst Printing – 318 Sawyer Ave. – Small quantity generator

2) Ward Printing – 318 Sawyer Ave. - Spill # 97012540 – damaged drums of organic peroxide

3) Sawyer Welding – Spill # 0000607 – repairs gas tankers – tanker dripping gasoline to ground

4) Sawyer Ave. pesticide release – 300 Sawyer Ave. – dinoseb pesticide release from underground source

5) Ground behind 300 Sawyer Ave. – Spill # 0904767 – Unknown yellow oil found during digging a utility trench

6) 300 Sawyer Ave. pesticide response

7) 3M Tonawanda Site - Spill # 0806192 – air conditioner leak – no issue. Other air releases, Risk Management plan

8) O-Cell-O Sponge – Hazardous waste site – owned by 3M – 1-acre site associated with carbon disulfide tank; former drainage swale – southeast portion of site. Release within earthen berm surround tank and overflow into drainage swale

9) Western NY Drum and Barrel – Spill # 8910284 – Drums wash out into sewers – no finding

Map Number 38

1) Niagara Mohawk National Grid

2) Synres Chem Corp. – 2716 Kenmore Ave.

3) Pat Forsah Auto Collision

4) Shanco Plastics – Spill #9005581

5) Oil Debris – I-190 at Kenmore Ave. - oil debris found under bridge - Spill # 9004178

Map Number 39

Storm Sewer – 39 DuPont. Spill # - black oil flows out along street during sewer cleanout

Map Number 40

1) Sunoco Terminal – 3733 River Road - Petroleum Bulk Terminals and stations - Spill # 0314280 – and Spill # 0375526. Groundwater Monitoring found contamination

2) Tonawanda Atlantic Terminal – 3733 River Road

3) Chem Central Corp/Univar – 3709 River Road - Spill # 9806311 – tractor fuel tank puncture. Large Quantity generator

4) Chem Central - Spill # 9806307 –

5) River Road Ditch – Spill # 8600786

6) Ashland II – 3701 River Road –FUSRAP Site – radioactive soil transferred to this site; Bulk Storage of chemicals

7) Atlas Painting & Sheeting – leaking tanks and spills

Map Number 41

1) Polymer Application – Spill #9000989 - **Brown Material in Ditch**

2) CPC Division of AMC - Spill #8706246

- 3) Oil in Niagara River – Spill # 8906476
- 4) FMC – Spill # - 9004341 - SPDES failure and 8907709
- 5) Smith Boys Marina – Spill # - 8903951 – river spill
- 6) Town of Amherst – Truck leaked hydraulic oil on pavement across from Ashland - Spill #9006487
- 7) FMC – DuPont – River Road - Spill #8701415
- 8) Green Color Niagara River – Spill #9807445 NOCO Dye testing sewers
- 9) Sun Terminal – River Road - Spill #9108133 - contaminated soil found during tank removal
- 10) Spill # 9801007 - Sheen noticed in drainage and separator pond

Map Number 42

- 1) Leed Steel Company

Spill # 0652060 – oil spill from drum storage area

- 2) Parking lot – 225 Sawyer – Spill #1304499 – Buffalo Biodiesel spill into storm drain

Map Number 43 &44

NOCO Property –100 James Ave. - James Ave. at River Rd. - Spill #9409453 – oil found in monitoring wells

Multiple spills and Tanks - **Possible impacts to corridor**

Map Number 45

James Ave. Service– Spill # 0609796 petroleum spill to catch basin – soil cleaned

Map Number 46

Shanco Chemical and Plastics – Hazardous Waste Site

Map Number 47

85-87 Sawyer Ave.

- 1) Pole on Sawyer Ave. – small amount of non-PCB transformer oil leak – no apparent issue to soil in corridor

- 2) Broskin Enterprise/Goetz Energy/Tonawanda Truck Terminal – 87 Sawyer Ave. - Spill #9103953 – tank failure/soil cleanup. Oil seeping into Niagara River from bank – Impact to corridor soil is unlikely

Spill #9110841 – tank truck used for storage tipped over

3) Kurk Fuel Oil

4) Laughlin Services – 130 Sawyer Ave. Spill #8910457 – sloppy housekeeping spill of waste oil – Spill #0485630 Laughlin Rigging – tank removal/spill - **Cleanup noted layer of fly ash in soil**

5) Niagara Mohawk - Spill #9303272 – transformer exploded – non-PCB Sawyer Ave. & Cherry Ave.

Map Number 48

Spill # 9700993 - Chemical Odor – 83 Kaufman Ave. – no apparent issue to corridor soil

Map Number 49

Parriso Trucking - River Rd. at James Ave.

Spill # 9406893 – oil and tar migration to storm from truck washing

No apparent impact to corridor

Map Number 50

1) Buffalo BioDiesel – 225 Sawyer Ave. – NY Spills # 1204359

Small amount of waste vegetable oil was released and cleaned up – no migration – no impact to corridor

Spill # 0909320 – 2 galls of diesel – cleaned – no impact to corridor

Spill #1202327 – 20 gallon veg oil spill inside facility – no impact to corridor

2) Western NY Barrel and Drum Company – 225 Sawyer Ave.

Map Number 51

1) 37 Sawyer Ave. – reactor tank leak

2) **FMC – 37 Sawyer Ave. - spills and SEQRA, Hazardous waste site, tanks - Spill # 9506125 and 9606903 and 9311145 and 8601585, and 0306062, and 9301378 and 9514925 – significant run off to Sawyer Avenue and River Road – River and ditch contamination – Remediation of soils – Chemical warehouse fire and explosion. (see radius page 1467)**

Map Number 52 –

1) Manhole at Sawyer Ave. and River Rd. – quantity generator

2) Huntley North Yard – large quantity generator

3) Roadway – Spill - #0613420 3587 River Road – National Grid – Hydraulic hose leak

Map Number 53

FMC Corp. Peroxygen Division – 78 Sawyer Ave.

Spill Number # 0103646 release to storm drain

Spill # 0812423 – sewer overflow into a manhole

Spent Solvent waste storage

Map Number 54

Niagara Mohawk Power Corp. 3528 River Road

Map Number 55

Spill on road – 3507 River Road small spill

Map Number 56

3497 River Road – Huntley Terminal ST

Spill # 0613686 – small spill from transformer

Map Number 57

DuPont River Road Site

Spill Number 9003092 – see polymer Applications - Drums in building on fire Spill #9003092 – may really apply to Polymer Applications

Map Number 58

3445 River Road – Polymer Applications (Map 58) –

State Hazardous Waste Site 0.3 miles north of River Road/Sheridan – behind building on east side of site was remediation area. East Side of River Road directly across from Huntley and adjacent to Goodyear – phenolic resins, formaldehyde, plastics and rubber, petroleum leached into lagoon, storage tank area. Contaminated soil removed – see description of fill – page 1616.

Spill #8804653

Map Number 59

DuPont – Yerkes – Sheridan Drive

Spill # 0485114 – minor spill

Map Number 60

NRG Huntley Site (Map 60) – 3400 River Road

Spills – Spill number 8804653 – black smoke

Map Number 61

3300 River Road - Jerome D. Van De Water Raw Water Pump Station

Bulk Storage of Chemicals – Risk management Plan

Map Number 62

1) Town of Tonawanda Water Treatment Plant (Map # 62)

Foot of Sheridan Drive and River Road

RCRA and MANIFEST records

No apparent issue along corridor

2) DuPont Boat Club - (Map Issue 62)

Aqua Drive at River Road

Spills (Spill # 9009390) closed 11-28-90

Spill along water /Marina– no apparent issue to corridor

3) DuPont – Yerkes Plant (Map Issue 62 and 57)

Sheridan Drive and River Road –

Spills (Spill # 9205560) Spill closed 12-23-98

Leaking Tanks (Spills # 9810847) Spill closed 12-26-97

Dike leaking (Spills #0006788) Spill closed 9-2000

Drums in building on fire Spill #9003092 – may really apply to Polymer Applications

Small spills – number 6 fuel oil - to asphalt and gravel – cleaned and removed to landfill

4) Air Products Truck – River Road at Sheridan Drive - **Spill from truck on roadway – effect to shoulder and grass** (Spill # 9802390) closed 6-11-98

Affected underground valve vault and soil stored on water pumping station parking lot

5) 10 Sheridan Drive - Goodyear – Dunlop

Hazardous waste site (915018), Vapor Reopen, Spills, AST, Leaking tanks

Testing around concrete pad that had transformers for PCBs – PCB contamination removed

Various spills - Spill #'s 8600997, 9309309 spill near guard shack, 9102556, 9008790 spills at settling pond, 8804602 waste oil tank overfill, 0111950, 0109085

SUMMARY REVIEW AND ASSESSMENT OF HISTORICAL MAPS SANBORN MAPS

Sanborn maps were obtained through EDR for the following years: 1950 and 1986. Complete coverage of the corridor did not exist. The following is a summary of the maps obtained:

Sanborn Maps 1106 – 3875 River Road – Tonawanda Coke (see Regulatory Database map # 15 and 16 above)

Very large chemical manufacturing plant quarter mile from River road – manufacturer of coke and its byproducts

1950 Map

Plant is labeled the Semet-Solvay Company – Manufacturers of Coke and its by-products. The Allied Chemical & Dye Corp is located south

1986 Map

Plant is labeled Allied Chemical Corp. 300,000-gallon fuel oil storage and 300,000-gallon tar tanks south.

Sanborn Maps 1107 - River Road – (see also see regulatory database Map # 16 above)

West of Tonawanda Coke (Map 1106) and along both sides of River Road

1950 and 1986 Maps

Very large The Colorado Fuel & Iron Corp. Wickwire Spencer Steel Division east and west of River Road with a coal conveyor crossing River Road on the south side of the plant. Large fuel tanks and ore yards along the River, factory buildings/parking along and adjacent to River Road. The Semet-Solvay Company, manufacturers of coke and its by-products, was located east of the eastern portion of the Colorado Fuel & Iron Corp and a significant distance from the corridor.

Parking along the west side of River Road and facility buildings along the east side.

Sanborn Maps 1108 - River Road – Huntley Station (see regulatory database map 7 and 8)

1950 and 1986 Maps

Niagara Mohawk Power Corp. Charles Huntley Stations 1&2 on the west side of River road towards the river. Substations and terminals along River Road. 1950 – Allegheny Ludlum Steel Corp. east of River Road and large coal yards west

Sanborn Maps 1109 - Sawyer Avenue from River Road to Wickwire Place

1950 Map

This map shows:

The Buffalo Electric Chemical Co. Inc. (manufacturer of Hydrogen Peroxide) from just northeast of River Road to Cherry and the Buffalo Pipe and Foundry Corp from Cherry to just southwest of Wickwire Place along the southeast side of Sawyer Road. The Niagara

Falls Power Company transmission lines are along Sawyer Road and separate these plants from Sawyer Ave. Also the Buffalo Niagara Electric Corp. and rail tracts are shown along the south side of this plant and along River Road.

The Buffalo Pipe and Foundry Corp. is located east of the Buffalo Electric Chemical Co. on the south side of Sawyer from Cherry to almost Wickwire Place – large foundry

The Buffalo Wallcraft Company – manufacturers of wallpaper and paint is located adjacent to the The Buffalo Pipe and Foundry Corp. across from Wickwire Place

These represent significant manufacturing areas with many tanks, process vessels and foundry.

The Buffalo Electro Chemical Company is located at 86 Sawyer Ave.

Filling Stations are located at 3613 River Road and 3545 River Road

A Junk Yard is shown at the northern corner of James and River

1986 Map

The FMC Corp. – Inorganic chemical Division (formerly Buffalo Niagara Electric Chemical Co. Inc. in 1950) (manufacturer of peroxygen chemicals) from just northeast of River Road to Cherry and the Buffalo Pipe and Foundry Corp from Cherry to just southwest of Wickwire Place along the southeast side of Sawyer Road. The Niagara Mohawk Power Corp. transmission lines are along Sawyer Road and separate these plants from Sawyer Ave. Also the Buffalo Niagara Electric Corp. and rail tracts are shown along the south side of this plant and along River Road.

The Buffalo Pipe and Foundry Corp. is located east of the Buffalo Electric Chemical Co. on the south side of Sawyer from Cherry to almost Wickwire Place – large foundry

The Buffalo Wallcraft Company – manufacturers of wall pare and paint is located adjacent to the The Buffalo Pipe and Foundry Corp. across from Wickwire Place

These represent significant manufacturing areas with many tanks, process vessels and foundry.

The Buffalo Electro Chemical Company is located at 86 Sawyer Ave.

Parking lots, transfer yards and auto repair are located along the north side of Sawyer.

Sanborn Maps 1110 – Sheridan Drive west to River Road – Dunlop

1950 and 1986 Maps

Very large Dunlop Tire & Rubber Corp. Truck garage and Fuel oil tanks along Sheridan Drive

Sanborn Maps 1118 - Sawyer Avenue from Wickwire Place east to Adam Place

1986 Map

Gas tank along Sawyer Ave. at 296-318 and 360-370 at Plastic manufacturer. O-Cell-O at 305 Sawyer Ave. See regulatory database Map #37.

REVIEW OF AERIAL PHOTOGRAPHS

Aerial Photographs from 1951 were obtained from the Town of Tonawanda. This aerial should be overlaid on the final plan to review if specific past use is located where project work will proceed.

RECOMMENDATIONS

Construction Contingency Plan (CCP)

PEI recommends that a construction contingency plan (CCP) be developed to provide contingency protocols to follow should unplanned for environmental concerns arise. This CCP should include health and safety planning. A sample CCP is attached in the Appendix section to be used as a reference.

The following is an outline of a recommended scope of the CCP

1.0 INTRODUCTION

1.1 General Description of Project

1.2 Purpose and Objectives of the Construction Contingency Plan

1.3 Site Description and History

1.4 Codes Regulations and Standards

1.5 General Recommendations

2.0 HAZARDOUS/PETROLEUM WASTE AND MATERIALS MANAGEMENT

2.1 Chemical

2.2 Petroleum

2.3 Undocumented Drums and Underground Storage Tanks

3.0 SOILS MANAGEMENT STRATEGIES

3.1 General

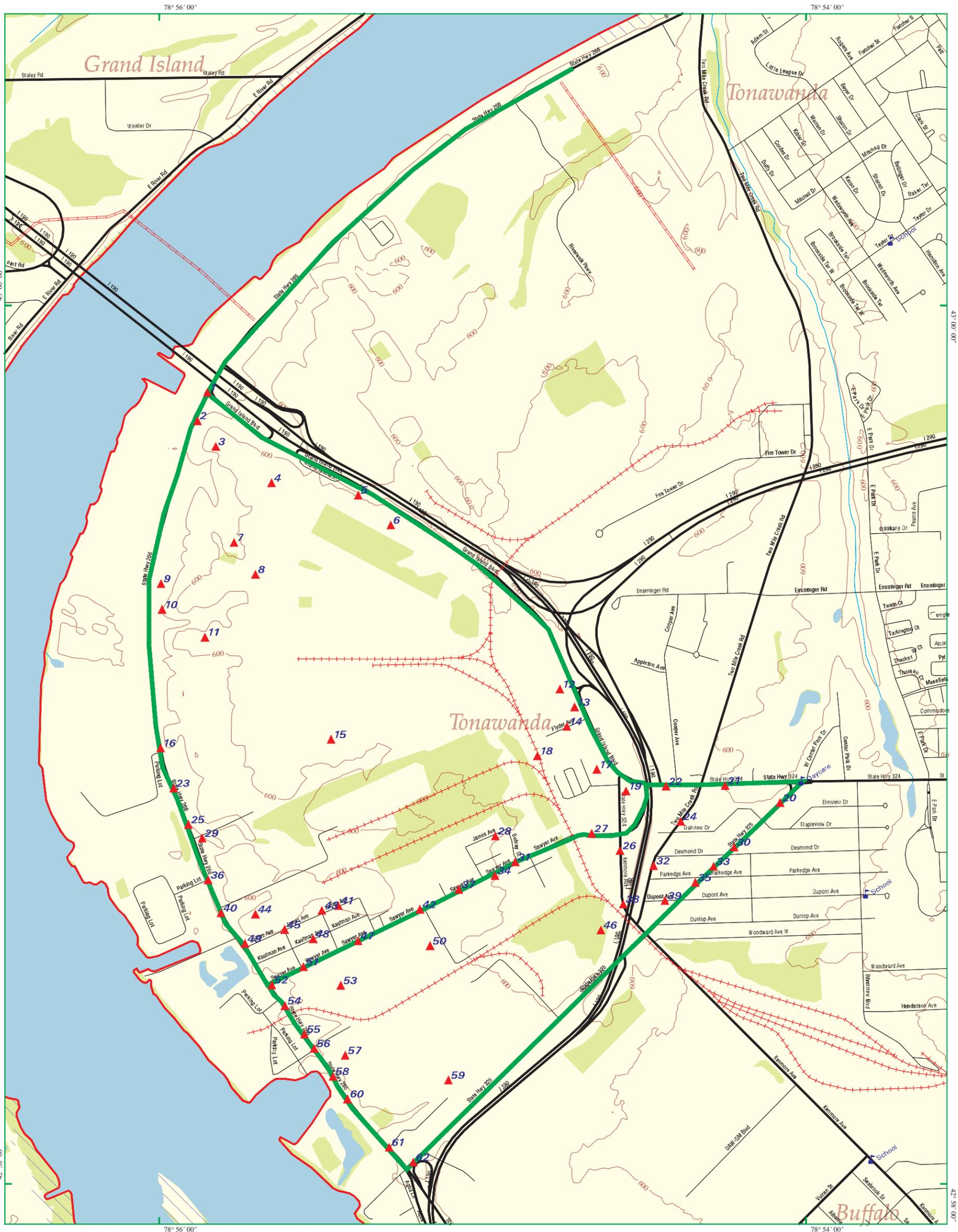
3.2 Contractor Soils Management/Handling Procedures

4.0 HEALTH AND SAFETY

4.1 Worker

4.2 General Public

5.0 REPORTING



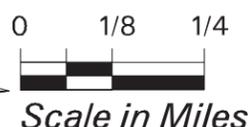
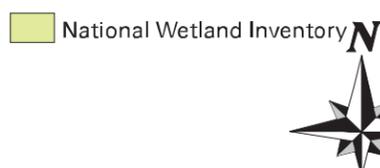
EDR DataMap® - Corridor Study

Tonawanda Waterfront Corridor Design



Tonawanda, NY

- | | | | |
|--|---------------|-------------|-------------------------|
| Listed Sites | Major Roads | Pipelines | Superfund Sites |
| Earthquake Epicenters (Richter 5 or greater) | Waterways | Powerlines | Federal DOD Sites |
| Search Boundary | Railroads | Fault Lines | Indian Reservations BIA |
| Roads | Contour Lines | Water | 100-Yr Flood Zones |





Tonawanda Waterfront Corridor Design

Tonawanda Waterfront Corridor Design

Tonawanda, NY 14150

Inquiry Number: 3760927.1

October 17, 2013

Certified Sanborn® Map Report

Certified Sanborn® Map Report

10/17/13

Site Name:

Tonawanda Waterfront
Tonawanda Waterfront
Tonawanda, NY 14150

Client Name:

Panamerican Environmental,
2390 Clinton Street
Buffalo, NY 14227



EDR Inquiry # 3760927.1

Contact: Pete Gorton

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Certified Sanborn Results:

Site Name: Tonawanda Waterfront Corridoe Design
Address: Tonawanda Waterfront Corridoe Design
City, State, Zip: Tonawanda, NY 14150
Cross Street:
P.O. # NA
Project: NA
Certification # 8CA6-4181-8F1F



Sanborn® Library search results
Certification # 8CA6-4181-8F1F

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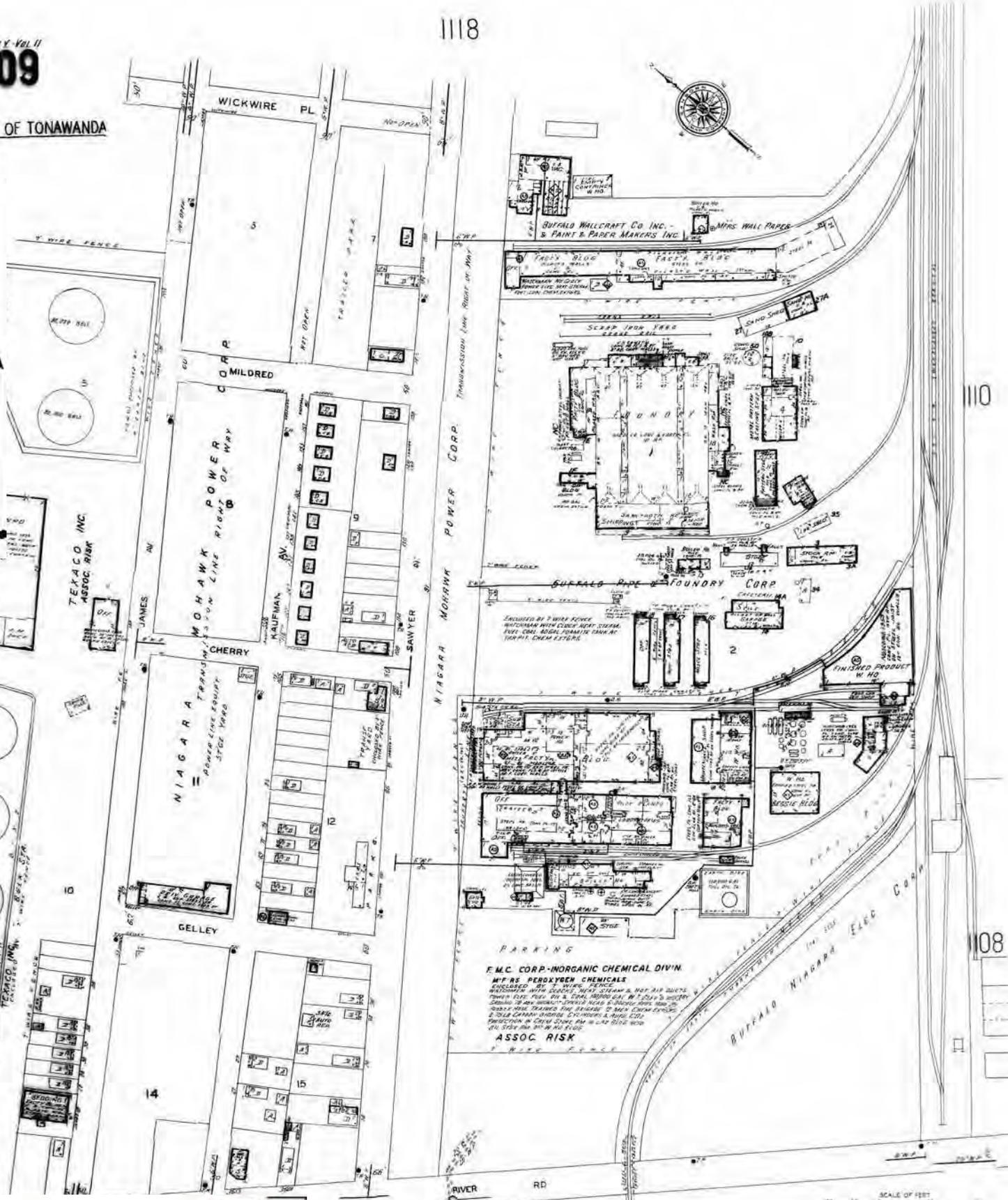
BUFFALO, N.Y. - Vol II
1109

TOWN OF TONAWANDA

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Certification # 8CA6-4181-8F1F

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 Address: Tonawanda Waterfront Corridor Design
 City, ST, ZIP: Tonawanda NY 14150
 Client: Panamerican Environmental, Inc
 EDR Inquiry: 3760927.1
 Order Date: 10/17/2013 3:25:23 PM
 Certification # 8CA6-4181-8F1F
 Copyright: 1986

B25

1986 Certified Sanborn Map

BUFFALO, N.Y. Vol. II

1106

TOWN OF TONAWANDA

ALLIED CHEMICAL CORP. IN
PLASTICS & COAL CHEMICALS DIV. IN
TONAWANDA PLANT
ASSOC. RISK

SEMET-SOLWAY DIV. IN
ALLIED CHEMICAL CORP. IN
MFRS. OF COKE & ITS BY PRODUCTS
ASSOC. RISK

ENCLOSED BY 5' WIRE FENCE
LAMPING, OPERATING, WAREHOUSE, WALK, DRIVE, ETC. I.E. W. DIVISION, WYOMING
COUNTY, PENN. WYOMING COUNTY, PENN. WYOMING COUNTY, PENN. WYOMING COUNTY, PENN.
WYOMING COUNTY, PENN. WYOMING COUNTY, PENN. WYOMING COUNTY, PENN. WYOMING COUNTY, PENN.

E. D. H. I. S. T. R. I. B. E.



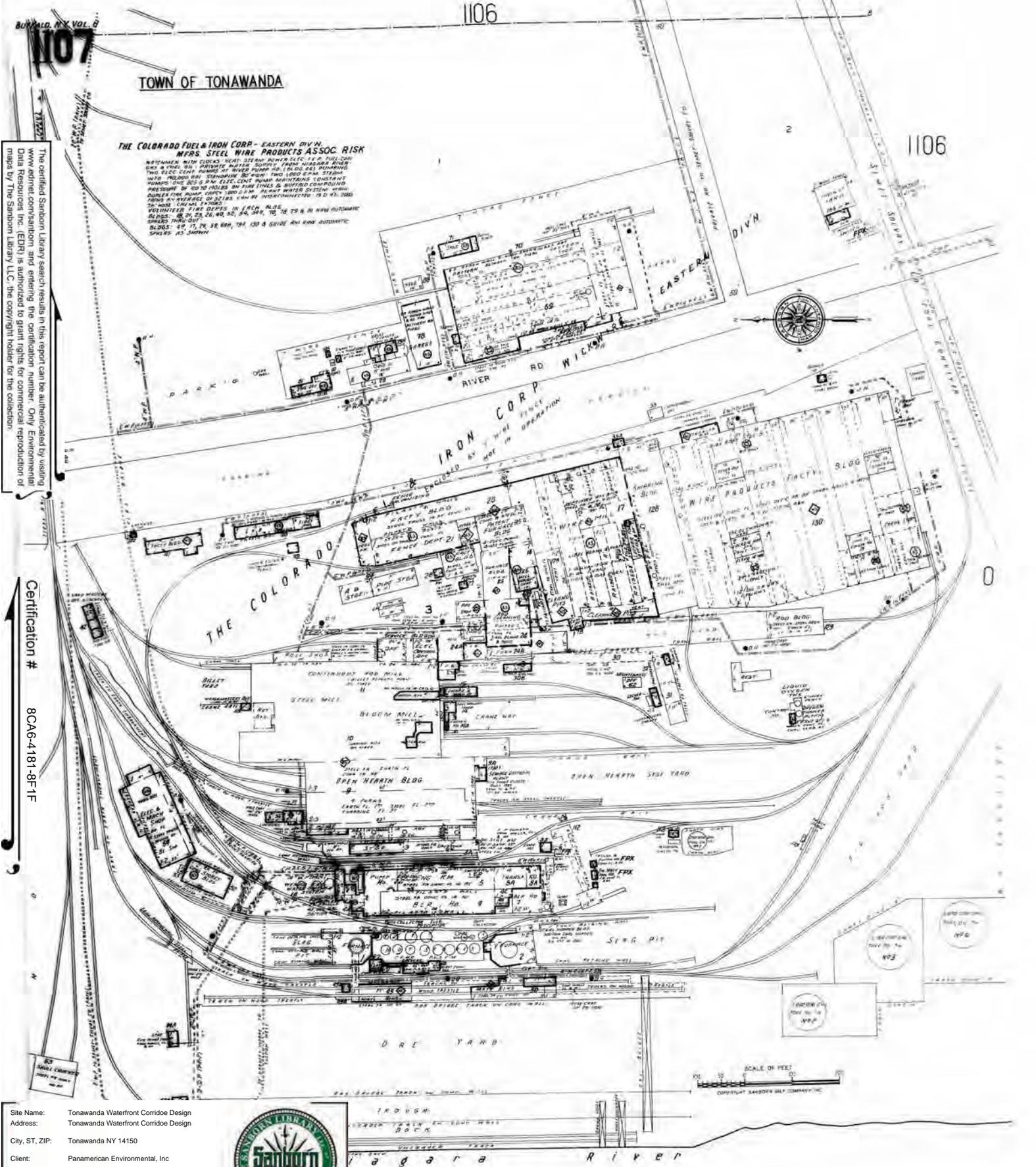
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 Copyright: 1986



Certified Sanborn® Map Report

10/17/13

Site Name:

Tonawanda Waterfront
Tonawanda Waterfront
Tonawanda, NY 14150

Client Name:

Panamerican Environmental,
2390 Clinton Street
Buffalo, NY 14227



EDR Inquiry # 3760927.1

Contact: Pete Gorton

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Certified Sanborn Results:

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Address: Tonawanda Waterfront Corridoe Design
City, State, Zip: Tonawanda, NY 14150
Cross Street:
P.O. # NA
Project: NA
Certification # 8CA6-4181-8F1F



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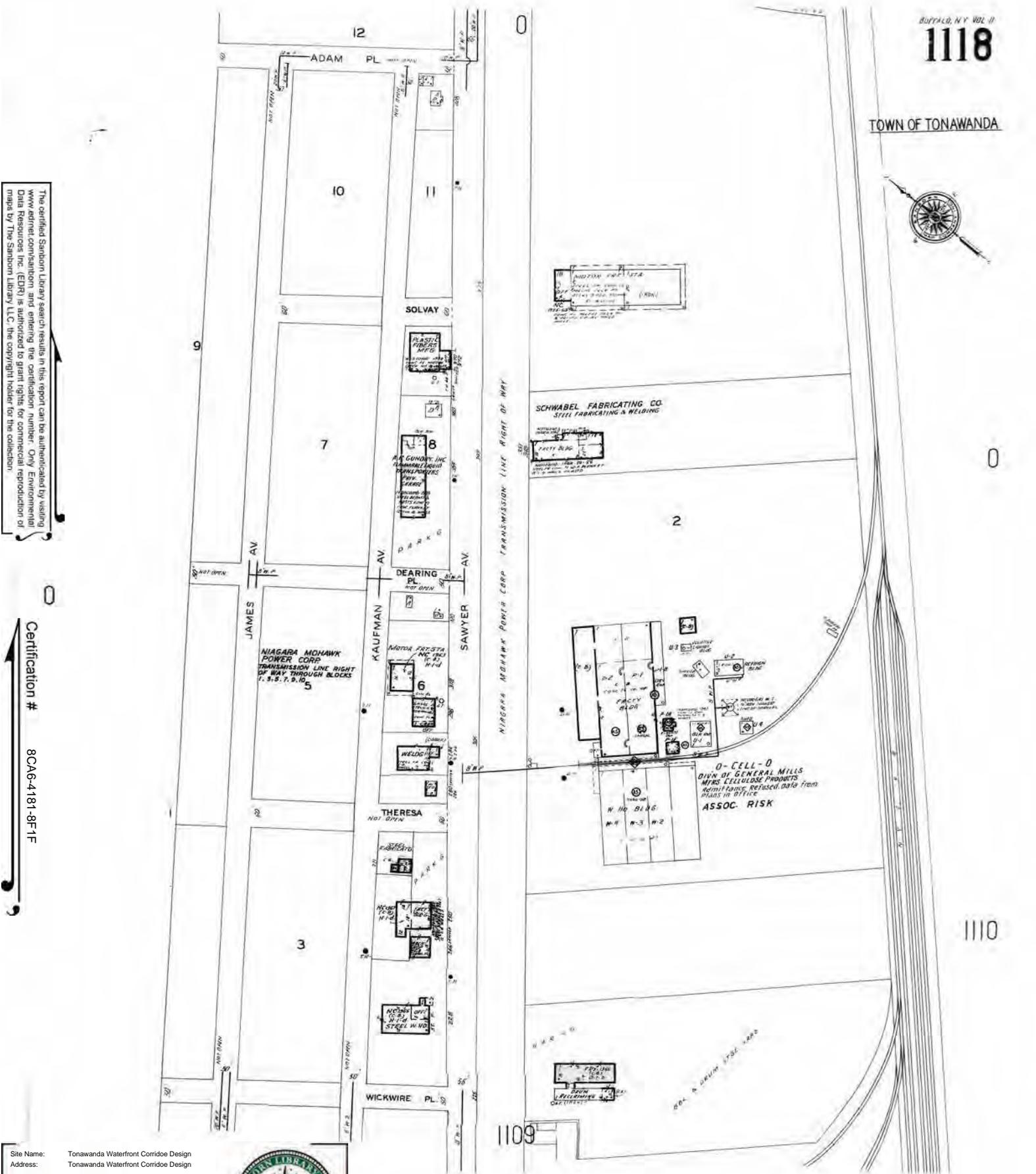
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TOWN OF TONAWANDA



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 Address: Tonawanda Waterfront Corridor Design
 City, ST, ZIP: Tonawanda NY 14150
 Client: Panamerican Environmental, Inc
 EDR Inquiry: 3760927.1
 Order Date: 10/17/2013 3:25:23 PM
 Certification # 8CA6-4181-8F1F
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town of tonawanda

Waterfront Corridor Landscaping Project

"Yes, We know it needs work... Help us make it Better!"

Please Give Us Your Thoughts and Ideas

JOY KUEBLER
LANDSCAPE ARCHITECT, PC

TVGA
CONSULTANTS

Reclaiming Our Waterfront
Enhancing Tonawanda's Economy, Environment and Community



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



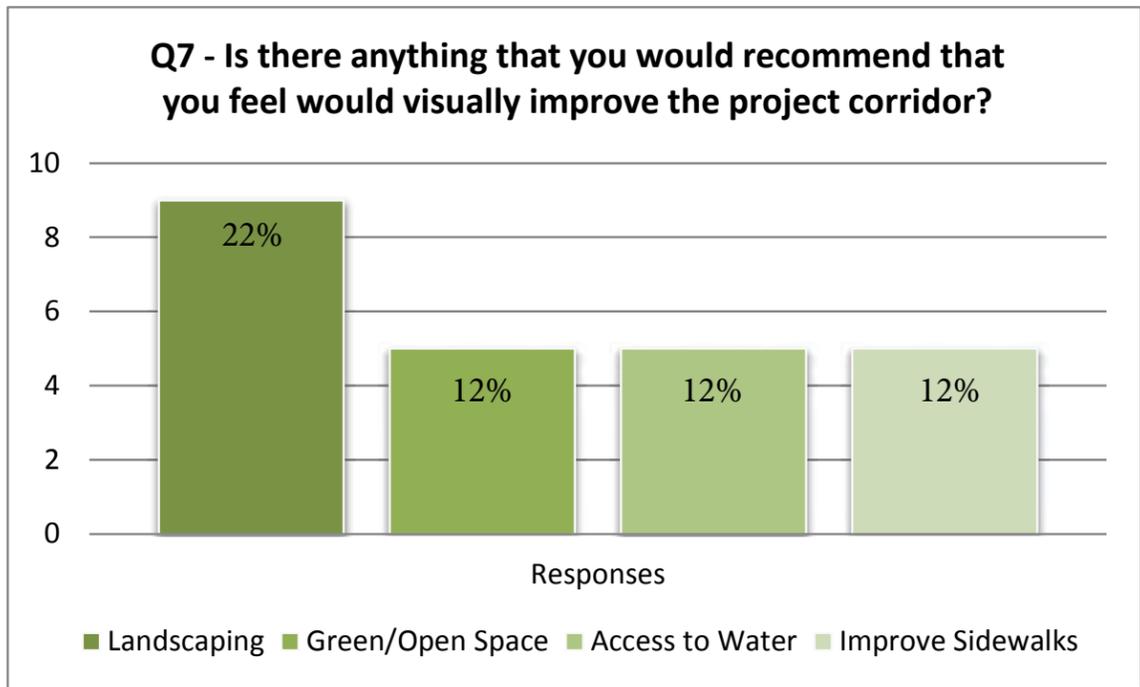
Waterfront Corridor Landscaping Project

"Yes, We know it needs work...
Help us make it Better!"

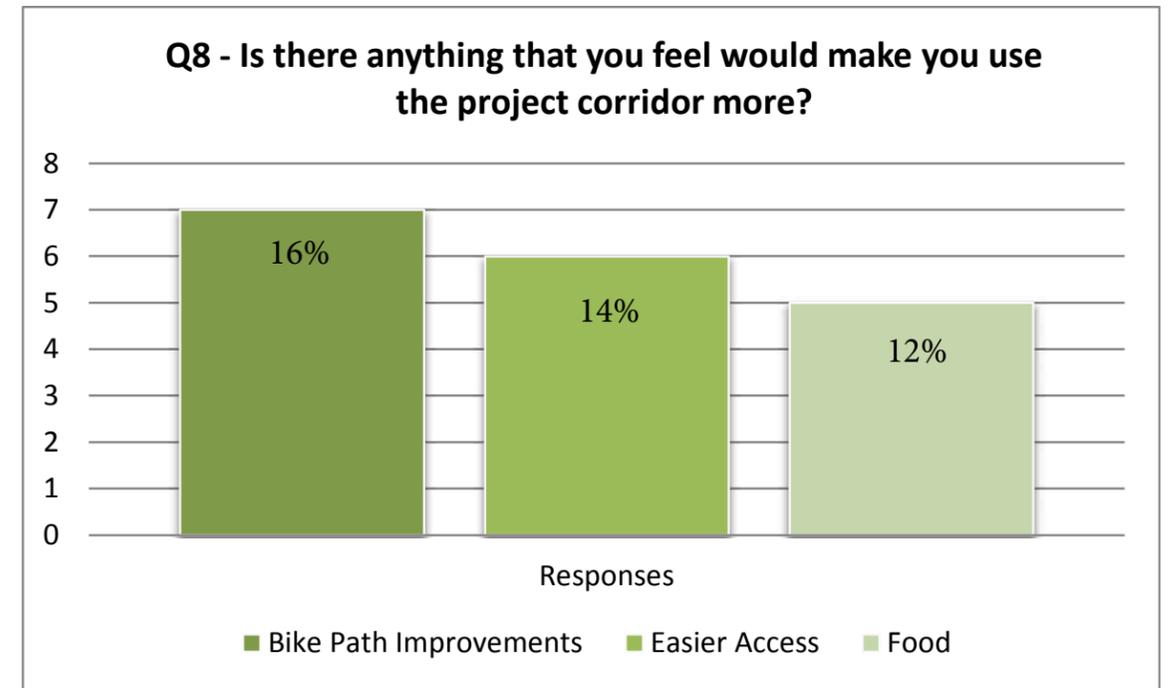


Please Give Us Your
Thoughts and Ideas





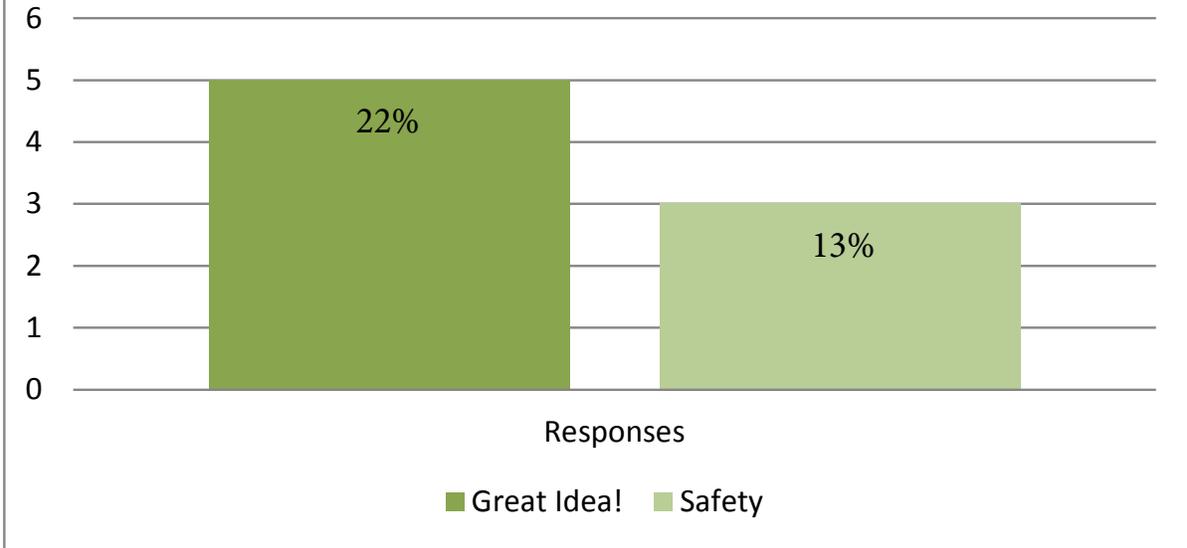
Total # of responses = 41



Total # of responses = 43



Q9 - Indicate any other comments/concerns you may have about the proposed project



Total # of responses = 23



Please take a few moments to provide your input.

1. Do you live and/or work within the project corridor?

Yes No

2. How often do you drive within the project corridor?

Daily
 Occasionally (>2 x per month)
 Seldom (< 2 x per month)

3. Do you use the public recreational Riverwalk Trail within the project corridor?

Yes No

a. If yes, how often do you use it to bicycle?

Daily
 Occasionally (>2 x per month)
 Seldom (< 2 x per month)

b. If yes, how often do you use it to walk?

Daily
 Occasionally (> 2 x per month)
 Seldom (< 2 x per month)

4. What time of day do you most often use the project corridor for:

Car Travel/Public Transit? _____

Walking/Using Strollers/Biking? _____

5. Do you feel that the connections to the waterfront along the project corridor is

Easily accessible
 Somewhat accessible
 Not accessible

6. Wayfinding is the organization and communication of our dynamic relationship to space and the environment. Successful design to promote wayfinding allows people to determine their location within a setting, determine their destination, and develop a plan that will take them from their location to their destination. Is way-finding signage connecting Riverwalk Trail to the surrounding areas of interest important to you?

Yes No

7. Is there anything that you would recommend that you feel would visually improve the project corridor?

8. Is there anything that you feel would make you use the project corridor more?

9. Please indicate any other comments/concerns you may have about the proposed project.

Thank you for your time.

PLEASE PLACE IN DESIGNATED DROP BOX

OR MAIL TO ADDRESS BELOW:

Town of Tonawanda
Attn: Jim Jones
2919 Delaware Avenue
Kenmore, NY 14217

Project Overview

The Town of Tonawanda has retained the services of Joy Kuebler Landscape Architect, PC to conduct a feasibility study and prepare preliminary plans to landscape various Tonawanda waterfront corridors, with primary emphasis on River Road and secondary, broader emphasis on the connecting corridors of Grand Island Boulevard, Sawyer Avenue, and the lower portion of Sheridan Drive.

These corridors are characteristic of abandoned, degraded or underutilized sites across Western NY. The Niagara River waterfront in particular poses great challenges but also provides a great opportunity. Work already undertaken in the redevelopment of our former industrial sites throughout the region shows us we can indeed have a new relationship with our waterfront areas.

Tonawanda has the opportunity to reimagine an industrial corridor in a way that embraces the past industrial heritage of the community, but will now empower its citizens to see and respect their environment in a completely new way. This project strengthens the continuous link from Buffalo to Youngstown along the mighty Niagara and will indeed be part of the continued renaissance of Buffalo.

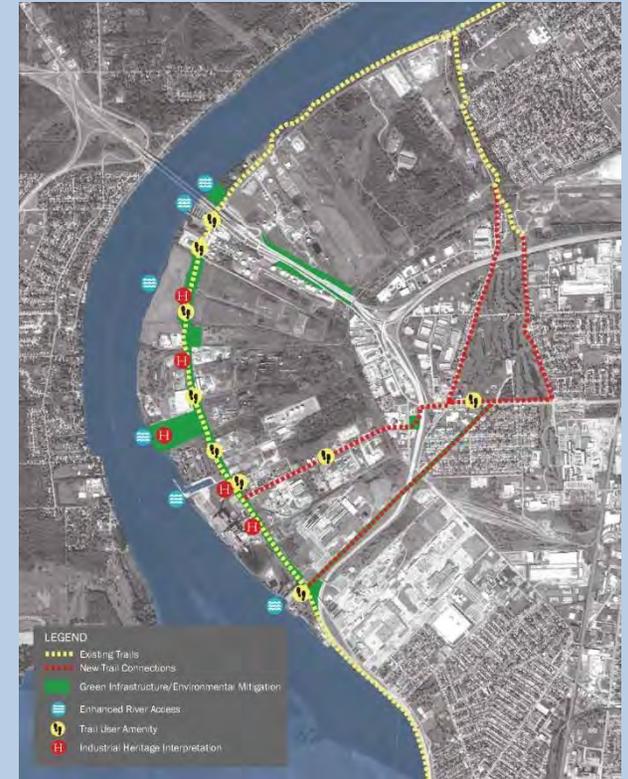


Waterfront Corridor Landscape Design

Your Opinion Counts!

Town of Tonawanda
Attn: Jim Jones
2919 Delaware Avenue
Kenmore, NY 14217

PLACE
STAMP
HERE



Town of Tonawanda Waterfront Corridor Landscape Design Public Outreach

Large Notepad: Summary of Ideas from the Public

| <u>Number</u> | <u>Ideas</u> |
|---------------|--|
| 2 | Outdoor Theater (Buffalo Suzuki Strings -1) |
| 2 | Restroom ('Safe' – 1) |
| 2 | Water Fountain |
| 2 | Sitting Places |
| 2 | Eating Facilities |
| 2 | Waterfront Restaurants ('Miss Muds') |
| 2 | Dog Park (separate puppies from older dogs -1) |
| 1 | Green Buffers |
| 1 | Trees |
| 1 | Walking-Friendly Surface |
| 1 | Traveling Petting Zoo |
| 1 | Traveling Library – Children's Activities & Crafts |
| 1 | Fishing Access |
| 1 | Exercise Stations |
| 1 | Boat Docking |
| 1 | Tall Ship Visitation |
| 1 | Parking |
| 1 | Water Access & Views |

TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study





Town of Tonawanda Waterfront Corridor Landscape Design

Project Team Meeting Participants

Town of Tonawanda:

Jim Jones, Michael Kaiser, Robert Dimmig

Erie County Dept. of Planning & Environment:

Ken Swanekamp

Community Foundation of Greater Buffalo:

Jean McKeown

NYS DOT:

Jim Cuozzo, Michael Christner, Ron Hayes

NYSTA:

Tom Moore, Tom Hurley

National Grid:

Kevin Kennedy

NYS DEC:

Greg Sutton

Grantmaker's Advantage, Inc.:

Sue Anne Barnes

Panamerican Environmental Inc.:

Pete Gorton

KHEOPS Architecture, Engineering, & Survey, DPC:

Michelle Bodewes, Angela Keppel

Joy Kuebler Landscape Architect, PC:

Joy Kuebler, John Lutz, Crystal Surdyk, Natalie Spinola



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting to Discuss Corridor Stakeholders

September 3, 2013

Present:

Jim Jones, Town of Tonawanda
Michael Kaiser, Town of Tonawanda
Michelle Bodewes, TVGA Consultants
Joy Kuebler, JKLA
John Lutz, JKLA

Purpose:

The project team met with Jim Jones and Michael Kaiser of the Technical Support Department of the Town of Tonawanda to discuss and prioritize the major private and public stakeholders based upon total corridor frontage, parcel locations, and past relationships with the Town. Please see the inserted document at the end of the meeting minutes for stakeholder contact information.

Corporate Outreach Opportunities:

1. Most of the frontage along the west side of the River Road R.O.W. (NY Hwy. 266) is the former Erie Canal, now owned by Erie County. The landowners to the west of the former canal must have access easements with the County to connect to River Road and to utilities in the R.O.W. The Riverwalk Trail extends along River Road in the County-owned parcel.
2. The County-owned parcel extends north along River Road past the municipal boundary of the City of Tonawanda. To the south, the County-owned land ends at a parcel owned by the Tonawanda Coke Corporation. At this point, the Riverwalk Trail is separated from River Road by a narrow turf strip. Except for a portion through a National Grid parcel, the Trail remains relatively close to the River Road edge of pavement as it proceeds south.
3. National Grid owns a parcel amongst the NRG Huntley holdings. The former power substation has been removed from their site. The Town believes that National Grid would be open to landscaping improvements on their property.
4. A future high-end apartment complex is planned near the northern end of the River Road corridor, at 4630 River Road. The Town is encouraging the developer to provide public access to the water, but the developer is not required to do so.

5. TM Montante Development, the developer of Riverview Solar Technology Park, would like to build a bike trail on their property that would extend across River Road to the County-owned Isle View Park. Due to changes in grade from the road R.O.W. to the County Park, a series of switchback will be required for the bike trail. We also would have to install a gap in the existing guard rail.
6. Where River Road is higher than Isle View County Park affords great views of the Niagara River. This would require selective thinning and pruning of the vegetation on County property.

Other Considerations:

1. Once closed, the canal bed became a dumping ground for private and municipal waste and debris. Jim Jones noted that any major excavation atop the old canal bed should be discouraged.

Recommendations:

1. First Tier Stakeholders:
 - a. Erie County – By far the owner of the longest frontage on River Road, the county is amenable to this project to improve corridor aesthetics and to encourage use of the County-owned Riverwalk Trail and Isle View Park. Jim recommends that we also contact Troy Schintzel, the County Parks Director.
 - b. NYS Thruway Authority (NYSTA) – owns a parcel for trailer parking along River Road adjacent to the I-190 twin bridges. NYSTA also owns the parking lot for the toll plaza employees, between the I-190 bridges.
 - c. NYSDOT – River Road, Sheridan Drive, and Grand Island Boulevard are DOT designated highways. In a number of instances parking lots and other private improvements are encroaching into the DOT R.O.W.'s; perhaps some landscape improvements can occur in lieu of the removal of these encroachments.
2. Mid-Tier Stakeholders:
 - a. National Grid (NG) – NG tends to be open to projects for the greater public good.
 - b. NOCO – is looking to do landscape initiatives...not sure where. We should ask for a no-mow policy in order to foster a meadow-like growth. Also, could they reduce the amount of pavement inside the facility to restore green space

- c. Dunlop – owns a considerable length of frontage along Sheridan Drive as well as River Road. We should ask for a no-mow policy in order to foster a meadow-like growth.
- d. FMC – We should ask for a no-mow policy in order to foster a meadow-like growth.
- e. TM Montante – would be a partner to construct the bike trail connection to Riverwalk Trail and Isle View Park. With respect to any planned landscaping on their parcels, Montante should be amenable to landscape improvements along River Road. Tom Montante would be our contact.

3. Other Possible Stakeholders:

- a. United Refining – Owns a parcel where the parking lot encroaches into the River Road R.O.W. Their building face is located on the R.O.W. Would they be open to painting their building?
- b. Lafarge – owns very little frontage on River Road.
- c. Swift River – owns very little frontage on River Road. There could be need for coordination with NYSDOT in order to make landscape improvements.
- d. NRG Huntley – owns considerable frontage along the southern portion of River Road.
- e. Mid River Marina – Would the owner be open to public access to the waterfront? Would the owner be willing to remove the trailer and other junk at the River Road R.O.W.? The contact person is Mike Bognar.

Next Meeting: Thursday, September 19th, 9:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before September 12th, for corrections to be made and redistributed to team.

| Property | ContactName | ContactAddress | ContactCity | ContactST | ContactZip | ContactPhone | ContactEmail |
|---------------------|-------------------|-----------------------|-------------|-----------|------------|----------------|-------------------------------|
| Tonawanda | Ken Maving | 779 Two Mile Creek Rd | Tonawanda | NY | 14150 | (716) 893-4900 | kmaving@tonawanda.ny.us |
| Erie County | Charlie Sickler | 85 Franklin Street | Buffalo | NY | 14202 | (716) 858-8372 | sicklers@bfla.co.erie.ny.us |
| GIM | Steve Hodges | 2096 River Road | Buffalo | NY | 14207 | 7168795299 | stephen.hodges@gm.com |
| NRG Huntley | Kevin Schroeder | 3500 River Road | Tonawanda | NY | 14150 | (716) 319-8233 | kevin.schroeder@nrgenergy.com |
| FMC | David Vance | PO Box 845 | Tonawanda | NY | 14150 | (716) 879-0401 | David.Vance@fmc.com |
| Natl Grid | Dennis Eisenbeck | 144 Kensington Ave | Buffalo | NY | 14214 | (716) 831-7748 | Dennis.Eisenbeck@us.ngrid.com |
| Neco | Val Speek | 700 Grand Island Blvd | Tonawanda | NY | 14150 | 7168685420 | vspeek@neco.com |
| NYSTA | Tom Moore | 485 Cayuga Road | Cheektowaga | NY | 14225 | (716) 635-6291 | Tom.Moore@thruway.ny.gov |
| ECWA | Wes Dust | 350 Ellicott Sq. Bldg | Buffalo | NY | 14203 | (716) 849-8444 | wedust@ecwa.org |
| Dunlop | James Zawadzinski | 10 Sherman Drive | Buffalo | NY | 14150 | (716) 879-8200 | jzawadzinski@goodyear.com |
| United Refining | Rick Brant | 4545 River Road | Tonawanda | NY | 14150 | (716) 874-8850 | rbrant@urc.com |
| NYSDOT | James Cuzzo | 100 Seneca Street | Buffalo | NY | 14203 | | James.Cuzzo@dot.ny.gov |
| Mid River Marha | Mike Bognar | 3670 River Road | Tonawanda | NY | 14150 | | |
| ECIDA | John Cappellone | 3500 River Road | Tonawanda | NY | 14150 | (716) 856-6125 | jcappell@ecidany.com |
| LaFarge Concrete | | 4010 River Rd | Tonawanda | NY | 14150 | (716) 876-8788 | |
| Swift River Concret | Tony Pariso | 4051 River Road | Tonawanda | NY | 14150 | (716) 995 6196 | tpariso@swifttrucking.com |



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

September 16, 2013

Rev: October 1, 2013

Present:

Jim Jones, Town of Tonawanda
Michael Kaiser, Town of Tonawanda
Jim Cuozzo, NYSDOT
Michael Christner, NYSDOT
Pete Gorton, PanAmerican Environmental
Michelle Bodewes, TVGA Consultants
Joy Kuebler, JKLA
Natalie Spinola, JKLA
John Lutz, JKLA

Purpose:

The primary goal of the meeting was to wrap up the discussion of how to engage the corridor stakeholders and to review 1993 Schneckenger corridor landscape plan. Jim Cuozzo and Michael Christner were present and discussed NYSDOT's guidelines for landscape plants in their rights-of-way.

Discussion:

1. Erie County Water Authority (ECWA) will be a Tier One stakeholder. JKLA will contact Wes Dust the week of Sept. 30th. Fortunately the remaining Tier One stakeholders have representatives on the project team. The Tier One stakeholders are:
 - a. NYSDOT
 - b. The Thruway Authority (NYSTA)
 - c. Erie County
 - d. ECWA

2. Jim Jones of the Town of Tonawanda will contact the Tier Two stakeholders in order to introduce the project and JKLA. The goal of the project team is to meet as many of the Tier Two stakeholders as possible at a single meeting, with the expectation that we still will need to meet with some of these contacts one-on-one. The Tier Two stakeholders are:
 - a. T.M. Montante Development
 - b. National Grid
 - c. FMC
 - d. Dunlop
 - e. NRG Huntley
 - f. NOCO
 - g. United Refining

h. Mid-River Marina

3. Michael Christner discussed the landscape guidelines for trees in the NYSDOT R.O.W.:
 - a. NYSDOT limits trees to a 4-inch maximum caliper. When a tree grows beyond that caliper, the owner is expected to replace the tree with another with less than a 4-inch caliper. The owner fronting the R.O.W. is expected to maintain the turf, landscape, and other improvements allowed in the R.O.W. All landscape must respect all sight triangle guidelines.
 - b. Shade trees typically will surpass a 4-inch caliper. The project will request flexibility from NYSDOT in order to plant shade tree which may exceed the 4-inch caliper maximum.
 - c. For multi-stem trees, the stems are counted individually, not added together. In other words, a tree with three stems of 3-inch caliper each would not be counted as a 9-inch caliper tree and, therefore, would be permitted in the R.O.W.
 - d. If utility poles are present in the R.O.W., trees with calipers greater than 4 inches are allowed if they are further away from the edge of pavement than the line of utility poles.
 - e. Infrequent mowing to establish a naturalistic meadow appearance is allowed, sight triangles permitting.
4. **NYSDOT discourages private asphalt pavement for parking in its R.O.W. If NYSDOT determines that the encroachment presents a hazard, then the property owner would be required to remove the encroachment. If deemed to be not hazardous, the encroachment may be allowed if the Owner obtains a Use and Occupancy Permit from NYSDOT. If the encroachment is inconsistent with the goals and recommendations of NYSDOT, municipalities, or land use master plans, the property owner may be required to remove the encroachment.**
5. A road diet for River Road may be in its future. **NYSDOT suggested that a three lane roadway be investigated. Any recommendation regarding lane reductions or cross-sectional changes would need to be studied to determine the implications of such a change on capacity and safety.** JKLA suggested holding the western edge of pavement in its current location and shrink the road from the eastern edge in order to provide more room for landscape improvements. The R.O.W. width would not change.
6. Wendel is preparing plans for the Sherwood Greenway along the north side of Sheridan Drive. This project includes landscape improvements and continues across River Road to the Riverwalk Trail. The Wendel plan proposes two Red Oaks on the west side of

River Road. JKLA will review the plan with regards to maintaining existing views of the River and other existing landscape.

7. JKLA reviewed the 1993 corridor landscape plan by Roger Schneckenburger. The plan recommended plantings on private property and was not implemented. Our goal was to suggest modifications to the plan and to recommend where the plan can be applied. The limits of the 1993 plan differ slightly from our project corridors, beginning south of the River Road bridge over I-190 and ending north of the I-190 bridge to Grand Island, near the former Embridge pump station. The plan includes Grand Island Boulevard from River Road to just short of the NYSDOT tandem trailer parking lot. The plan does not include Sheridan Drive or Sawyer Avenue. Overall, there were no objections to our recommendations.
 - a. In general, the 1993 plan includes generous amounts of shade, evergreen, and ornamental trees throughout the River Road corridor. JKLA believes that, given the cost to purchase and install the landscape, the Town should strive to achieve more with fewer plants.
 - b. The 1993 plan utilizes a naturalistic planting style of diverse tree groupings rather than following a more geometric or regular style. JKLA agrees that the naturalistic approach is best for a corridor where constraints will not permit regular spacing and where the exposure to wind and lake-effect precipitation may result in more noticeable tree mortality than would be expected further to the east.
 - c. Care should be given to preserve existing views to the Niagara River. Within the 1993 plan corridor for River Road, these views are best both immediately north and south of the Town's Water Treatment Plant, at the intersection of River Road and Sheridan Drive. The landscape treatment should be thin at best in both locations. The Town should pursue conversations with National grid to selectively thin the existing tree line along the southern frontage at the Cherry Farms site, where the landfill slopes back down to the surrounding grade.
 - d. Dunlop maintains a hedge in the shape of the letter 'D' at the intersection of River Road and Sheridan Drive. Jim Jones confirms that these landscape improvements will need to remain visible.
 - e. An opportunity for landscaping and other improvements exists at the site of a former substation of National Grid, just south of a rail crossing over River Road.
 - f. More opportunities exist for landscape improvements and other amenities in both the continuous County-owned parcel west of River Road and on the property of the ECWA, also on the west side of River Road.

- g. Current landowners should be engaged to relocate fencing and paving away from the R.O.W. to provide more room for landscape improvements.

Next Meeting: Monday, September 23rd, 9:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before October 4th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

September 23, 2013

Present:

Jim Jones, Town of Tonawanda
Kevin Kennedy, National Grid
Pete Gorton, PanAmerican Environmental
Michelle Bodewes, TVGA Consultants
Natalie Spinola, JKLA
John Lutz, JKLA

Purpose:

The primary goal of the meeting was to discuss landscape and other corridor improvements with Kevin Kennedy of National Grid. Kevin will take our requests to his team to determine what is allowable and report back to the project team.

Discussion:

1. Ken Swanekamp of Erie County is unable to attend the Monday morning project meeting. Jim will investigate other possible meeting times and notify the team.
2. National Grid controls corridor frontage along River Road in two locations: Cherry Farm and the site of the former substation near the Huntley plant. In addition, National Grid owns the '130 & 230 Yard' just off the R.O.W. (near Mid-River Marina) and controls easements for high voltage overhead power lines that run east-west.
 - a. Cherry Farm - Eventually the Town would like to manage the surface to develop a passive park at the River and allow National Grid to continue its management of the subsurface remediation activities. In the present, the project team requests is National Grid would consider selective thinning of the tree line along the southern third of the R.O.W. frontage to open views to the River.
 - b. Former Substation Site - National Grid would be amenable to reviewing concepts for this parcel. Kevin is not able to commit to any suggestions such as fence relocations, landscaping, or berming. PCB's from old transformers are likely on the site.
 - c. '130 & 230 Yard' - This substation is here to stay. National Grid wants to keep the public away from this site.

- d. Overhead Power Easements – In the past, National Grid has allowed trails to cross these easements. The project team asks if National Grid would allow trails to run parallel to and inside of these utility easements.
3. Mapping - Pete Gorton has received the maps from TVGA and begin his work to determine any past environmental issues. There is no Sanborn map coverage in our corridors, which PanAmerican would have used to determine historical land use. Jim will make the Town's aerial maps from 1951 available to the project team.

Next Scheduled Meeting: Monday, October 7th, 9:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before October 10th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

October 7, 2013

Present:

Jim Jones, Town of Tonawanda
Jim Cuzzo, NYSDOT
Ken Swanekamp, Erie County Dept. of Environment & Planning
Michelle Bodewes, TVGA Consultants
John Lutz, JKLA

Purpose:

The primary goal of the meeting was to discuss landscape and other corridor improvements with Ken Swanekamp of the Erie County Department of Environment & Planning.

Discussion:

1. Erie County Parks maintains a continuous parcel running along a portion of the west side of River Road. Ken said that the Parks Department would have no problems with the future trail amenities and landscaping as long as they do not have additional maintenance needs and costs. Parks would be amenable to trees since they do not have a significant maintenance burden.
2. Jim Jones discussed the idea of a trail extending from Montante's Riverview Solar Technology Park to the County's Isle View Park. Ken suggested moving the location of the trail to Two Mile Creek Road where there is a pedestrian crossing. Unfortunately, that intersection occurs outside of Town limits.
3. Ken did share that the County Parks Department will need to be able to mow a four-foot wide strip on both sides of the Riverwalk Trail. The County can use a low-mow approach elsewhere outside of roadway and driveway sight triangles.
4. Ken said that there are no upcoming capital improvements planned for Riverwalk Trail.
5. The County would like to preserve and improve viewsheds along River Road. To this end, the County would favor selective thinning if it would open views to the River.
6. Ken is amenable to the idea of a trail along Sawyer Avenue in the location of the current roadside swale. Jim Cuzzo added that NYSDOT can dictate the railroad at-grade crossing for Sawyer Avenue to ensure a smooth crossing.

7. Ken said that the Erie County Department of Environment and Planning really desires a 'green wall' of vegetation along the Thruway at the NOCO tank farms. He recommended for the Town to provide the Thruway with a plan of suggested landscaping in order for them to obtain a grant.
8. Michelle updated the team about TVGA's mapping of the corridors; they are currently working of their plan for environmental features.
9. The upcoming meeting times will be changed to 11:00 am on Mondays to allow Ken Swanekamp to attend.

Next Scheduled Meeting: Monday, October 21st, 11:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 8th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

October 21, 2013

Present:

Jim Jones, Town of Tonawanda
Ken Swanekamp, Erie County Dept. of Environment & Planning
Tom Moore, NYS Thruway Authority
Michelle Bodewes, TVGA Consultants
John Lutz, JKLA

Purpose:

Tom Moore of the NYS Thruway Authority was in attendance which provided an opportunity to discuss our plans with him. The meeting also served as an update to the project team.

Discussion:

1. The Thruway is open to landscape plantings in its R.O.W. Tom was amenable to plantings on the steep slopes, even though it would require a contractor to penetrate the rip rap and the membrane beneath the stone. Ken mentioned his desire for a 'green wall' of vegetation along I-190 to screen the adjacent tank farms. Michelle mentioned that, according to their mapping, a distance of five to six feet existed between the top of the slopes along I-190 and the limits of the R.O.W. If so, John stated his preference to locate the landscape plants at the top of the slope in order to provide better screening of the tanks.
2. TVGA will provide an enlarged view of the Thruway area south of the Grand Island Bridge.
3. Tom said that the Thruway uses standard NYSDOT seed mixes. The Thruway also defers to NYSDOT's approved plant lists.
4. Tom recommends that soil testing should be required before any planting in the Thruway R.O.W.
5. Other items of discussion:
 - a. Jim will follow-up with Kevin Kennedy of National Grid concerning the prospect of landscaping and other amenities on its property.
 - b. Jim requested stationing along the corridor roadways to provide reference points. Michelle pointed out that without a survey, these would be arbitrary and would be based upon

distances overlaying the aerial mapping; that would be acceptable given the need of basic reference points.

- c. Ken met with Troy Schinzel of the Erie County Parks Department; Troy emphasized the Department's limited man-hours and limited funds available for maintenance activities. Improvements on the County-owned parcel along River Road must be low maintenance. John will call Troy to follow-up and schedule a meeting to discuss proposed landscaping and other amenities.
- d. The speeds along River Road and a possible lane reconfiguration were discussed. Currently the posted speed limits are: 30 mph in the City of Tonawanda, 55 mph north of I-190, and 45 mph south of I-190. The section of River Road north of I-190 is scheduled for restriping next year. If the Town wishes to convert from a four-lane reconfiguration to a three-lane configuration, it should submit an action letter to NYSDOT. The restriping will not result in the removal of any pavement nor will it entail milling and overlaying to shift the roadway crown.
- e. The group discussed selective clearing along the River Road frontage at the Cherry Farm site. Ken asked about the preferred locations for clearing. Jim and John will visit the site this week to determine if clearing will provide desirable views to the Niagara River.
- f. The group discussed the Great Lakes Shoreline Trail signage. We should find out if we can add additional information to these signs such as mileage, destinations, and maps for intersecting trail networks.
- g. TVGA will provide JKLA with the utility maps as soon as they've been completed.
- h. John will call Wes Dust of the Erie County Water Authority to schedule a time to meet and present the preliminary ideas for landscaping and other amenities.
- i. Other stakeholders to contact: Huntley, United Refining, Noco, Dunlop, FMC.

Next Scheduled Meeting: Monday, November 18th, 11:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before November 8th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

November 18, 2013

Present:

Jim Jones, Town of Tonawanda
Jim Cuzzo, NYSDOT
Tom Moore, NYS Thruway Authority
Peter Gorton, PanAmerican Environmental
John Lutz, JKLA

Purpose:

The results of the public outreach survey have been summarized into an appendix item in our recommendations report. We also discussed the in-progress environmental report.

Discussion:

1. A draft of the public outreach summary was presented to Jim Jones for his review and comment. Jim recommended a title on this appendix document and an explanation about the public outreach approach. The explanation will appear in the body of the main document. A copy of the public outreach survey also will appear in the appendix with the summary.
2. Preliminary Environmental Report and Map Review:
 - a. The Environmental Report has inventoried past recorded data concerning incidents throughout the River Road corridor. PanAmerican also has reviewed available mapping for indications of past uses and, by deduction, likely contaminants. The numbers in the Environmental report reference corridor locations found on the map; the report contains all reported incidents for a given location. One recommended improvement to the report would be to list the locations in ascending numerical order.
 - b. Pete said that overall, we should expect an elevated count for metals as well as elevated PAH's. Lately, slag containing radioactive material has been an issue in Niagara County; Pete would not be surprised similar issues exist within our corridor. Best Management Practices, such as excavation precautions and how to manage spoil material, will vary depending on the actual contaminants.
 - c. Our aim is to indicate what has happened in the past so we can expect what to find throughout the corridor. This still

does not eliminate the need for testing on a site-by-site basis prior to any excavation or work. Pete notes that just because specific contaminants are not listed doesn't mean that they are not present. This is a broad-based 'toxin characterization' based on past records

- d. Both Jim Cuzzo and Tom Moore agreed to share their agencies' specifications requiring soil testing and guiding the Contractor's actions if contaminated soils are present. A specification template for the Town would be a desirable project outcome.
 - e. It is likely that the specification would refer to a Town of Tonawanda Health and Safety Plan. This plan will be created subsequent to our Corridor project and is likely to require input from the Town, its insurer, and DEC.
 - f. Jim Jones will see if Greg Sutton of DEC can attend our next project team meeting.
3. Jim Jones asked if the current tandem trailer parking lots can be modified to allow room for park-and-ride parking. Tom mentioned that a project is soon approaching that may allow the Thruway Authority to restripe both lots to create designated park-and-ride areas. Tom said that the Thruway Authority can make that recommendation.
 4. Jim Jones and John Lutz walked the Cherry Farm site the previous week to see if clearing the vegetation along the River Road R.O.W. would create views of the Niagara River. Unfortunately, the landfill cap is too high to allow these views to occur. The best potential view, from an aesthetic standpoint, is to the Grand Island Bridge of I-190; this would require selective thinning along the northern portion of the Cherry Farm R.O.W. frontage. However, given the elevations of the landfill cap, any additional selective thinning would not prove beneficial until the Cherry Farm property can be developed as a park. There is an existing Historic Marker for the Erie Canal (near Riverwalk trail) that is hidden by existing vegetation. In this location, clearing should be scheduled as soon as possible to make this marker visible from both the trail and River Road.
 5. The River Road R.O.W. across from the Riverview Solar Technology Park does offer great views to the River. Selective thinning should be scheduled to open up these desirable views.

Next Scheduled Meeting: Monday, December 2nd, 11:00 am, at the Town of Tonawanda Municipal Hall

The forgoing represents the observations during the site visit. Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before December 6th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting

December 2, 2013

Present:

Jim Jones, Town of Tonawanda
Michael Kaiser, Town of Tonawanda
Jim Cuzzo, NYSDOT
Greg Sutton, NYSDEC
Peter Gorton, PanAmerican Environmental
John Lutz, JKLA

Purpose:

The project team discussed the Environmental Report with Greg Sutton of the NYS department of Environmental Conservation. To be diligent, we needed to engage DEC about the riverfront corridors. In the meeting we specified that our corridors are River Road from the City of Tonawanda south to Sheridan Drive, Sawyer Avenue from River Road east to Kenmore Avenue, and Grand Island Boulevard from River Road southeast and east to Sheridan Drive. With the greenway improvements along Sheridan Drive, our scope for Sheridan Drive has diminished to its intersections with River Road and Grand Island Boulevard.

Discussion:

1. Peter asked Greg if there are known issues in the R.O.W.:
 - a. There currently is groundwater contamination from leaks on the United Refining site that has migrated beneath River Road. The contamination is typically ten to twenty feet below ground.
 - b. There is a sporadic oil leak that surfaces at a culvert beneath River Road at the proposed apartment complex at 4630 River Road.
 - c. We can expect to find construction and demolition debris in the corridor, as well as high PAH's and mineral counts.
 - d. The slags in our corridor are not likely to contain radioactive material. Greg still recommends that the Town should screen the slag to determine any radioactive content.

2. Greg will provide JKLA with a copy of DEC's Site Management Plan (received 12/2/13). John will share with Pete to determine which components are applicable to our corridor.
3. The River World site had contained a minimal groundwater plume but has been de-listed. It has been approved for commercial/industrial uses. Greg says that a different use, such as passive recreation, would require additional sampling.
4. The INS Scrap Processing site at 4111 River Road was discussed by the group. Aerial imagery shows that most of the automobiles and other large scrap items have been removed from the site. We do not know if this still is an active business. An abandoned (or undeveloped) CSX R.O.W. abuts the south boundary of the site that has a good potential for reuse as a trail corridor. Pete says that mapping indicates that the INS site is or has been a CERCLA (Superfund) site. This site is very close to the Cherry Farm site and also abuts properties owned by Tonawanda Coke. That said, Ken pointed out that there is the potential for change of use on all of these parcels.
5. Jim said he and Sue Barnes of the Town of Tonawanda discussed the use of Niagara Greenway funds for improvements on private property. It is possible with a signed release from the landowners.
6. There are future plans for a gas pipeline to run from United Refining to the NRG Huntley Plant, if the Huntley Plant converts from coal to natural gas. This still is very preliminary...no routing has been announced. If the pipeline is located along River Road, it can impact our project if the landscape plants have been installed. Such a conversion requires state approval and is many years away from reality.

Next Scheduled Meeting: Monday, January 6th, 11:00 am, at the Town of Tonawanda Municipal Hall

Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before December 16th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting: January 6, 2014

Present:

Jim Jones, Town of Tonawanda
Ken Swannekamp, Erie County (phone)
Michelle Bodewes, KHEOPS Architecture, Engineering, & Survey, DPC
Peter Gorton, PanAmerican Environmental
John Lutz, JKLA

Purpose:

Jim and John discussed the ECIDA owned properties with Ken and presented the most recent stakeholder meetings.

Discussion:

1. The Erie County Industrial Development Agency (ECIDA) only has 'paper-ownership' of various properties in our corridors as necessitated by the PILOT (Payment In Lieu Of Taxes) tax incentive program. As such, the ECIDA does not have the authority to approve revisions to the design of these sites. Nevertheless, the Project team has identified the ECIDA properties and will proceed with a meeting as a courtesy to discuss what we are recommending for these sites.
2. One ECIDA property, located at 3445 River Road, is the former Polymer Applications brownfield site that recently has been cleaned up by the DEC. Ken requests an illustrative plan showing the recommended landscape improvements as soon as possible so that the landscape installation can begin in the spring.
3. Another ECIDA PILOT Program property is the Triad Recycling & Energy Corporation site at 3755 River Road. Ken would like to see denser plantings along River Road to screen more of the site. Ken also would like to see dense plantings along the north side of a private road, just south of the Triad Recycling site.
4. Pete Gorton is adding more information to the PanAmerican environmental report. He will cross-reference with PanAmerican's cultural resource files for this corridor to see if any information should be repeated in our report. Due to the amount of data, Pete also will provide the information from the radius reports on a DVD separate from his report.
5. The Niagara Greenway Commission has agreed to a project extension through March. We discussed the final deliverables:
 - a. Illustrative stakeholder plans showing landscape and other recommended improvements, along with opinions of probable costs.

- b. Overall plan sheets that summarize the stakeholder illustrative plans.
 - c. Overall plan sheet showing the existing and proposed trail networks in the corridor.
 - d. A master plan summary report that presents a project overview, describes the public outreach process, describes the environmental inventory process, and provides a summary section of recommendations for landscape and other improvements.
 - e. Appendices containing the public outreach analysis findings and the environmental report.
6. John and Jim summarized the two most recent stakeholder meetings:
- a. Montante Development Riverview Solar Technology Park – Montante has committed to build an internal trail in the Riverview Solar Technology Park as part of the Environmental Impact Statement. We presented two options to access the Riverwalk Trail in Isle View Park from the internal trail; Montante’s preference would be a pedestrian crossing across River Road and a series of switchback ramps to traverse the steep slope on the west side of River Road. The other option would be to extend a trail up the east side of River Road to access the existing pedestrian crossing located just into the City of Tonawanda limits. One hindrance is the limited width of the bridge across Two Mile Creek; Michelle understands that this bridge is scheduled for replacement in the future. Jim will invite the City of Tonawanda Mayor and Engineer to our next meeting for a project update.
 - b. FMC is very favorable to the proposed bike/ped trail along the south side of Sawyer Avenue and the proposed landscaping along its River Road frontage.
7. John will attend the Planning Board meeting February 5th at 7 pm at the Town of Tonawanda Municipal Hall.

Next Scheduled Meeting: TUESDAY, January 21st, 11:00 am, at the Town of Tonawanda Municipal Hall

Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before January 21st, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting: January 21, 2014

Present:

Jim Jones, Town of Tonawanda
Mike Kaiser, Town of Tonawanda
Robert Dimmig, Town of Tonawanda
Jean McKeown, Community Foundation of Greater Buffalo
Tom Hurley, NYSTA
Jim Cuzzo, NYSDOT
Sue Anne Barnes, Grantmaker's Advantage, Inc
Crystal Surdyk, JKLA
John Lutz, JKLA

Purpose:

The purpose of this meeting was to present the project's progress to its stakeholders

Discussion:

1. Jim discussed the project and the Town's desire to create aesthetic, enjoyable waterfront corridors along River Road, Grand Island Boulevard, and Sawyer Avenue. The aesthetics along lower Sheridan Drive have been addressed with the Sherwood Greenway project, thus reducing its priority for our project.
2. The grant deadline for the project has been extended to March 31, 2014.
3. John discussed the goal of the environmental report: to gather and present recorded data concerning areas of environmental concern in our corridors in order to inform future projects. We should modify the tree planting detail for this corridor to reflect a shallower tree pit.
4. John also discussed the overall project recommendations and the deliverables to the Town of Tonawanda.
5. The marina was discussed; the group would like to see the owner clean up the frontage along River Road.
6. The group also would like to see National Grid remove power supply lines to abandoned sites.
7. NYSDOT will allow rain gardens in its R.O.W.s; it is viewed as a favorable technique.
8. For aesthetic reasons, the group discussed the desirability of burying the existing overhead power lines along the east side of River Road at

NOCO. However, due the magnitude of cost of direct burial, this should not be combined with our project.

There is no upcoming scheduled project team meeting at this time.

Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before March 6th, for corrections to be made and redistributed to team.



Town of Tonawanda Waterfront Corridor Landscape Design

Project Meeting: March 24, 2014

Present:

Jim Jones, Town of Tonawanda
Jim Cuzzo, NYSDOT
Ron Hayes, NYSDOT
Sue Anne Barnes, Grantmaker's Advantage, Inc
Michelle Bodewes, KHEOPS
Angela Keppel, KHEOPS
John Lutz, JKLA

Purpose:

The purpose of this meeting was to discuss the progress of the plan narrative and other opportunities.

Discussion:

1. A draft of the Plan Narrative was provided for Jim Jones to review. Components of the narrative include sections for project background, project approach, and overall project recommendations. A section briefly discussing related projects in the waterfront corridor will be added to the narrative. The plan narrative will be combined with the public outreach summary, the environmental report, the priority matrix for decision-making, any overall mapping, project team meeting minutes, stakeholder list and meeting minutes, and the individual stakeholder plans along with the related opinions of probable costs.
2. Jim J. has requested an extension of the project to the end of April. He had not heard back from the Niagara Greenway Commission at the time of the project team meeting.
3. Jim J. recommended that an overall map of the stakeholder should appear in the report. There also should be a map of the overall study area.
4. Jim J. repeated the goal of the individual stakeholder plans: to give them something that they will implement.
5. Jim J. mentioned the need to include the proposed restriping and road diet for River Road in the Related Projects section of the narrative. Jim C. mentioned NYSDOT's interest in an internal study of River Road. Jim C. added that TAP funding is available but the 80/20 ratio for local funding/state match cannot be changed.
6. Jim J. discussed the proposed east-west Rattlesnake Creek trail in the T.M. Montante Development's Riverview Solar Technology Park as a requirement set forth in the Environmental Impact Statement for the development. The narrative recommends selective clearing of the

existing vegetation on the west side of River Road to open views to the Niagara River. Switchback ramps are necessary for an accessible route from the higher River Road R.O.W. to the lower Riverwalk Trail in Isle View Park. Given the posted speed of this section of River Road (55 mph), a signalized crosswalk is imperative. NYSDOT is considering a signalized intersection at the intersection of River Road and Riverwalk Parkway (the main entrance to the Montante development) once it is warranted by traffic volumes.

7. Jim J. received an email from National Grid concerning the cost to bury its overhead power lines along the east side of the River Road between Grand Island Boulevard and James Avenue. The cost to the Town for that 1-1/2 mile section of River Road would be \$750,000 to \$800,000. This amount does not include the cost of the new lateral service lines that would be required due to the direct burial; typically the property owners would bear the costs of the new lateral lines. In short, while direct burial of the pole-mounted lines would improve corridor aesthetics, the cost would be prohibitive and may suppress a number of other corridor improvements. We also should note that direct burial would not apply for the high-voltage overhead distribution line mounted to the large metal towers throughout the corridor. As such, overhead power lines still would be prevalent in the waterfront corridors. If the Town decides to apply for a grant to bury the pole-mounted power lines in the R.O.W., it probably would need agreement letters from the adjacent property owners to bear the costs of the lateral service lines.
8. The group is curious if Erie County has an easement for the portion of Riverwalk Trail that is on National Grids property along the west side of River Road. JKLA will follow-up with the Erie County Parks Department.

There is no upcoming scheduled project team meeting at this time.

Any corrections to these notes shall be directed to Joy Kuebler Landscape Architect, PC before April 16th, for corrections to be made and redistributed to team.

TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study





Town of Tonawanda
Waterfront Corridor Master Plan
Priority Matrix- Stakeholder Summary



| Introduction | |
|---|--|
| The candidate projects identified below are analyzed in terms of existing conditions, potential benefits and resources. These factors are then summarized in terms of overall value so projects may be ranked in priority. The guiding principles are viability, attractiveness and sustainability. | |

| Project | | | |
|------------------|--|---------------|--|
| Reference Number | | Date | |
| Property Owner | | Revision Date | |
| Location | | | |
| Project Estimate | | | |

| Existing Conditions, Opportunities & Constraints | | | | |
|--|---|--------|--------|-------|
| | | Sample | Answer | Notes |
| Street Lighting | Exists? | Y/N | | |
| | Adequate? | Y/N | | |
| Trail Separation | Distance from Pavement Edge \geq 8' ? | Y/N | | |
| | | Y/N | | |
| Access & Amenities | | Sample | Answer | Notes |
| Important Intersection? | | Y/N | | |
| Connection to Existing Trail Possible? | | Y/N | | |
| Connection to Future Trail Possible? | | Y/N | | |
| Connection to Future Park Possible? | | Y/N | | |
| Utility Constraints? | | Y/N | | |
| Other Physical Obstruction? | | Y/N | | |
| Roadway Crosswalk Needed? | | Y/N | | |
| Roadway Speed Limit Posted | | mph | | |
| Access to Water | Exists? | Y/N | | |
| | Potential? | Y/N | | |
| Trail Head Parking | Desirable to Add? | Y/N | | |
| | Space Allows? | Y/N | | |
| Trail Signage | Desirable to Add? | Y/N | | |
| | Space Allows? | Y/N | | |
| Drinking Water | Desirable to Add? | Y/N | | |
| | Space Allows? | Y/N | | |
| Seating | Desirable to Add? | Y/N | | |
| | Space Allows? | Y/N | | |
| Infrastructure | | Sample | Answer | Notes |
| Drainage | Urgent Need? | Y/N | | |
| | Improvement Desirable? | Y/N | | |

| | |
|---------------|--|
| Date | |
| Revision Date | |

| Existing Conditions, Opportunities & Constraints (continued from Page 1)) | | | |
|---|-------------------|--------|-------|
| Environment | Sample | Answer | Notes |
| Contaminated Soil? | Y/N | | |
| Air Quality Issue / Odor? | Y/N | | |
| Surface Water Quality Issue? | Y/N | | |
| Aesthetic Landscape? | Y/N | | |
| Invasive Plants | L/M/H | | |
| % Plant Coverage of Ground | L/M/H | | |
| View of River | Exists? | Y/N | |
| | Potential? | Y/N | |
| Fence | Can Relocate? | Y/N | |
| | Can Replace? | Y/N | |
| Berms | Desirable to Add? | Y/N | |
| | Space Allows? | Y/N | |
| Culture | Sample | Answer | |
| Significance | L/M/H | | |
| User Interpretation | L/M/H | | |
| Industrial Heritage | Y/N | | |
| Historical Marker | Y/N | | |

| Benefits - Level of Improvement Expected to Result from Project | | | |
|---|--------------|--------|-------|
| Improvement | Sample | Answer | Notes |
| Safety | L/M/H | | |
| Access & Amenities | L/M/H | | |
| Infrastructure | L/M/H | | |
| Environmental Quality | Human Health | L/M/H | |
| | Vegetation | L/M/H | |
| | Aesthetic | L/M/H | |
| Interpretation [1] Environmental & Historical | L/M/H | | |
| Culture [2] | L/M/H | | |
| Recreation | L/M/H | | |

[1] Appreciation of environmental quality and history

[2] Potential for new cultural experiences [e.g. festivals, visual arts (permanent or temporary), performing arts, attractions for interest groups, etc.]

| | |
|---------------|--|
| Date | |
| Revision Date | |

| Resources | | | | |
|-----------------------|-----------|--------|--------|-------|
| | | Sample | Answer | Notes |
| Project Duration | Needed | L/M/H | | |
| | Available | L/M/H | | |
| Capital Expense | Needed | L/M/H | | |
| | Available | L/M/H | | |
| Operating Expense | Needed | L/M/H | | |
| | Available | L/M/H | | |
| Stakeholder Support | Approval? | Y/N | | |
| | Funding? | Y/N | | |
| Maintenance Provider? | | Y/N | | |

| Conclusions | | | |
|--|--------|--------|-------|
| Summary | Sample | Answer | Notes |
| Project Estimate | \$ | | |
| Operating Expense | L/M/H | | |
| Project Duration | L/M/H | | |
| Available Funding & Manintence Support | Y/N | | |
| Community Impact | L/M/H | | |
| Priority Level | 1-3 | | |

TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study



TOWN OF TONAWANDA

Waterfront Corridor Landscape Feasibility Study





Town of Tonawanda Waterfront Corridor Master Plan Recommended Tree List



RECOMMENDED TREE LIST

| TYPE | LATIN NAME | COMMON NAME | HEIGHT (Ft) | SPREAD (Ft) |
|------|---|--------------------------------------|-------------|-------------|
| EV | Juniperus chinensis 'Keteleeri' | Keteleeri Juniper | 15 | 6 |
| EV | Juniperus chinensis 'Perfecta' | Perfecta Juniper | 15 | 6 |
| EV | Picea abies | Norway Spruce | 40 | 25 |
| EV | Picea glauca | White Spruce | 40 | 20 |
| EV | Picea glauca 'Densata' | Black Hills Spruce | 30 | 20 |
| EV | Picea omorika | Serbian Spruce | 50 | 20 |
| EV | Pinus koraiensis | Korean Pine | 30 | 15 |
| EV | Pinus strobus | Eastern White Pine | 30 | 15 |
| OR | Amelanchier x grandiflora 'Autumn Brilliance' | Autumn Brilliance Serviceberry (MS)* | 20 | 15 |
| OR | Amelanchier x grandiflora 'Robin Hill' | Robin Hill Serviceberry (MS)* | 20 | 15 |
| OR | Amelanchier x laevis | Allegheny Serviceberry (MS)* | 20 | 15 |
| OR | Cercis canadensis | Eastern Redbud (MS)* | 20 | 25 |
| OR | Chionanthus virginicus | White Fringetree (MS)* | 15 | 20 |
| OR | Cornus drummondii | Giant Gray Dogwood (MS)* | 15 | 10 |
| OR | Cornus mas | Corneliancherry Dogwood (MS)* | 20 | 15 |
| OR | Corylus americana | American Hazelnut (MS)* | 12 | 10 |
| OR | Malus 'Prairifire' | Prairifire Crabapple (MS)* | 20 | 15 |
| OR | Malus 'Sutyzam' | Sugar Tyme Crabapple (MS)* | 18 | 15 |
| OR | Prunus virginiana 'Schubert' | Canada Red Chokecherry (MS)* | 20 | 15 |
| OR | Viburnum lentago | Nannyberry Viburnum (MS)* | 15 | 8 |
| OR | Viburnum prunifolium | Blackhaw Viburnum (MS)* | 15 | 8 |
| SH | Acer campestre | Hedge Maple | 20 | 15 |
| SH | Acer freemanii x 'Autumn Blaze' | Autumn Blaze Maple | 50 | 40 |
| SH | Acer freemanii x 'Celzam' | Celebration Maple | 45 | 20 |
| SH | Acer rubrum 'Brandywine' | Brandywine Red Maple | 35 | 15 |
| SH | Acer rubrum 'Franksred' | Red Sunset Red Maple | 45 | 35 |
| SH | Acer rubrum 'Karpick' | Karpick Red Maple | 40 | 10 |
| SH | Acer rubrum 'October Glory' | October Glory Red Maple | 45 | 35 |
| SH | Acer rubrum 'Franksred' | Red Sunset Maple | 40 | 35 |
| SH | Aesculus x carnea 'Fort McNair' | Fort McNair Horsechestnut | 40 | 30 |
| SH | Carpinus caroliniana | American Hornbeam | 25 | 20 |
| SH | Carya cordiformis | Bitternut Hickory | 50 | 30 |
| SH | Carya glabra | Pignut Hickory | 50 | 30 |
| SH | Carya ovata | Shagbark Hickory | 60 | 50 |
| SH | Celtis occidentalis | Common Hackberry | 40 | 30 |
| SH | Ginkgo biloba 'Autumn Gold' | Autumn Gold Ginkgo | 45 | 35 |
| SH | Gleditsia triacanthos v. inermis 'Skyline' | Skyline Honeylocust | 45 | 35 |
| SH | Gymnocladus dioicus | Kentucky Coffeetree | 50 | 35 |
| SH | Quercus bicolor | Swamp White Oak | 50 | 45 |
| SH | Quercus imbricaria | Shingle Oak | 50 | 45 |
| SH | Quercus macrocarpa | Bur Oak | 60 | 50 |
| SH | Quercus rubra | Northern Red Oak | 60 | 50 |
| SH | Robinia pseudoacacia | Black Locust | 30 | 20 |
| SH | Tilia americana 'Redmond' | Redmond Linden | 60 | 25 |
| SH | Tilia tomentosa 'Sterling Silver' | Sterling Silver Linden | 50 | 25 |
| SH | Ulmus x 'Accolade' | Accolade Elm | 60 | 35 |
| SH | Ulmus x 'Patriot' | Patriot Elm | 40 | 30 |
| SH | Ulmus x 'Triumph' | Triumph Elm | 50 | 40 |

* MS - Multi-Stem Form



Town of Tonawanda Waterfront Corridor Master Plan Seed Detail



SEED DETAIL

The recommended seed mix will reduce the maintenance burden of mowing down to twice a year, to provide food and cover for wildlife, and to create naturalistic, aesthetic landscapes along the waterfront corridors. The seed mix also will reduce the amount of fertilizer applications, thus bolstering environmental health. Seed should be delayed until the application of herbicide is complete. Seeding may be mechanically broadcasted, hydroseeded, or drilled. Fall and spring are the best times to seed. Light mulching is required in order to protect the soil and retain soil moisture. In lieu of the seed mix listed below, the two commercial seed mixes are acceptable: Ernst Seeds Flight 93 Memorial Upland Meadow Mix (ERNMX-192), or Ernst Seeds Showy Northeast Native Wildflower & Grass Mix (ERNMX-153). Ernst Seeds: (800) 873-3321, 9006 Mercer Pike, Meadville, PA 16335.

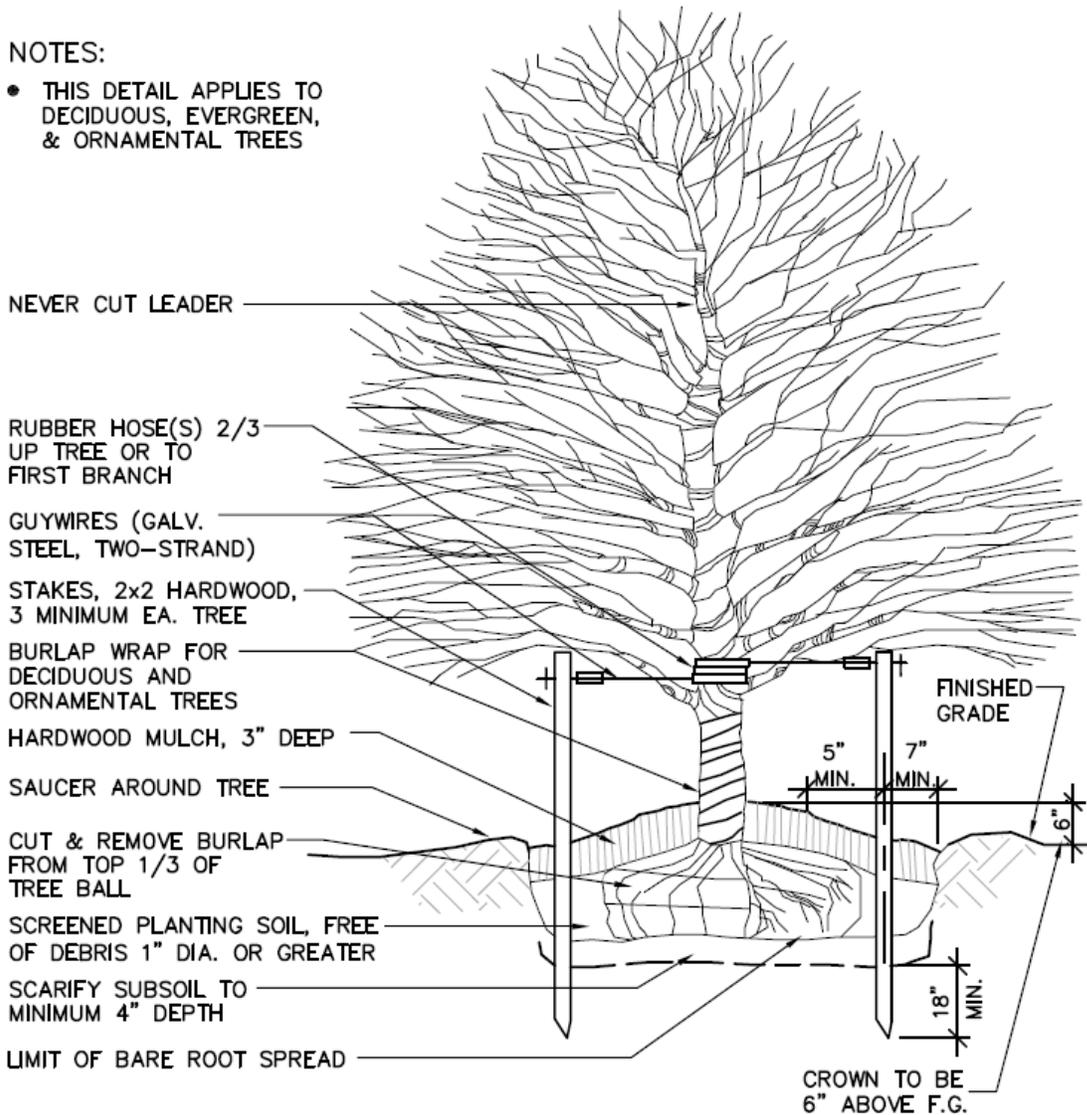
| <u>% of Mix</u> | <u>Botanical Name</u> | <u>Common Name</u> |
|-----------------|--------------------------|------------------------|
| 28% | Schizachyrium scoparium | Little Bluestem |
| 14% | Andropogon virginicus | Broomsedge |
| 10% | Elymus virginicus | Virginia Wildrye |
| 10% | Elymus canadensis | Canadian Wildrye |
| 10% | Sorghastrum nutans | Indiangrass |
| 8% | Bouteloua curtipendula | Sideoats Grama |
| 5% | Panicum virgatum | Switchgrass |
| 5% | Chamaecrista fasciculata | Partridge Pea |
| 2% | Penstemon digitalis | Tall White Beardtongue |
| 2% | Rudbeckia hirta | Blackeyed Susan |
| 2% | Aster novae-angliae | New England Aster |
| 2% | Liatris spicata | Blazing Star |
| 2% | Solidago rugosa | Wrinkleleaf Goldenrod |

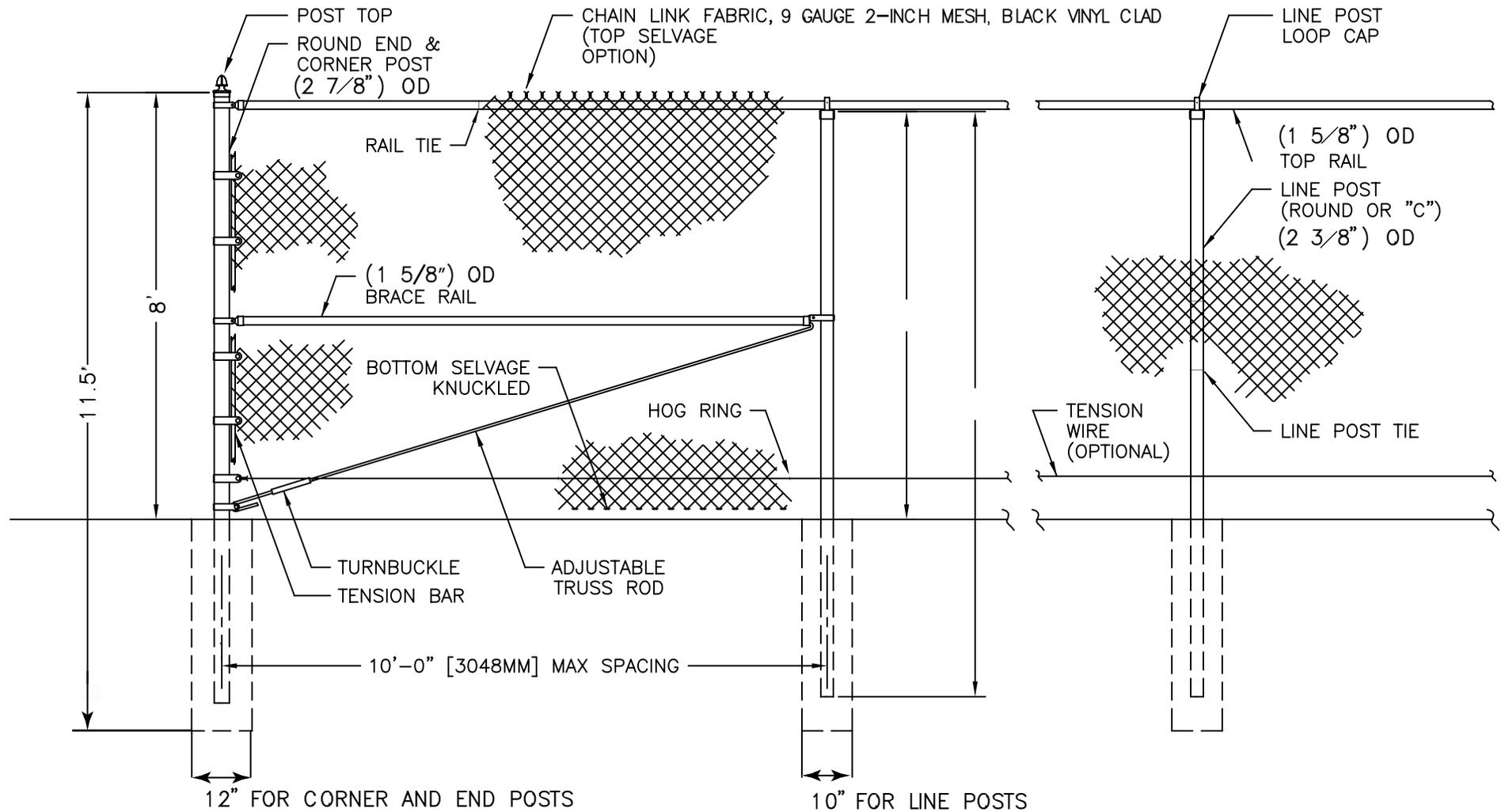
Seeding rate: 20 lb / acre, or 1/2 lb / 1,000, sq. ft.

TREE PLANTING DETAIL WITH STAKES

NOTES:

- THIS DETAIL APPLIES TO DECIDUOUS, EVERGREEN, & ORNAMENTAL TREES





FENCE SECTION ELEVATION – ROUND END POSTS

NOTES

1. ALL POSTS AND RAILS TO BE SCHEDULE 40 PIPE
2. ALL MESH, POSTS, AND FITTING SHALL BE BLACK VINYL-CLAD (PVC COATED) FOR ALL FENCES AND GATES

| |
|---|
| TYPICAL HIGH FENCE |
| ROUND END POSTS, WITH TOP RAIL & WITHOUT BARBED WIRE |