

Sunset Neighborhood Enhancements

Roadway and Drainage Improvements

City of Bay Village



CT Consultants

- 90 Years of Service
- 9 Offices
- 160 Employees
- Municipal Engineer to 25 Communities



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Professional Services

- Comprehensive and Multi-Disciplined
- 5 Landscape Architects
- 3 Architects
- 2 Planners
- 54 Professional Engineers
- 9 Professional Surveyors

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Roadway Reconstruction Experience

- Extensive Municipal Roadway Reconstruction
- Familiar with Various Construction Methods
 - Drainage Improvements
 - Underground Utilities
- Aesthetic Enhancements



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Professional Services

□ Municipal Engineering	□ Transportation Engineering
□ Landscape Architecture	□ Construction Administration & Inspection
□ Planning & Funding Services	□ Bridge Engineering
□ Water Distribution, Storage & Treatment	□ Project and Program Management
□ Surveying	□ Community Development & Housing
□ Geographic Information Systems	□ Architecture, Mechanical & Electrical Engineering
□ Structural Engineering	
□ Traffic Engineering	
□ Wastewater Collection & Treatment	

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City of Bay Village Sunset Area

Context Sensitive Design

Creating public works projects that meet the needs of the users, the neighboring communities, and the environment.

In the future, street corridors will not be designed as in the past.

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City of Bay Village Sunset Area



Lake Erie
Starts
Here

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Exploration of Conditions

- Summary of Limitations
 - Narrow Right-of-Way, 40' and 20' on Lakeview Drive
 - Limited Means of Conveying Stormwater
 - Mature Trees Close to Roadway
 - Potential Clean Water Connections to the Sanitary
 - Potential Sanitary Connections to the Storm System

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Limitation – 40' ROW



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Limitation – 20' ROW



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Limitation – Existing Drainage System



INEFFECTIVE
DRAINAGE
SYSTEM

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Limitation – Existing Tree Location



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Limitation – Unauthorized Connection



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Exploration of Conditions

- Summary of Opportunities
 - Enhance Pleasing Neighborhood Character
 - Preserve Mature Trees and Canopy
 - Combine Transportation Functionality and Ecological Sustainability.



Opportunities – Existing Tree Canopy



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Opportunities–Neighborhood Character



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Opportunities–Neighborhood Character



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Exploration of Conditions

- Review of Regulatory Drivers
 - City' Standard Design Requirements for Residential Streets
 - EPA Water Quality/Quantity Regulations
 - Effort to go "beyond compliance" through community partnering, environmental stewardship, and improved transportation functionality.

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Concept Development

- ❑ Evaluate Limitations/Opportunities
- ❑ Develop Alternative Concepts
- ❑ Present Concepts to Stakeholders
- ❑ Refine Concept Approaches

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Concept Development

1. Traditional Approach
 - Crown road profile
 - 24' to 28' wide pavement
 - Addition of storm sewers and curb inlets
 - Possible retrofit of rain gardens for storm water treatment

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TRADITIONAL APPROACH

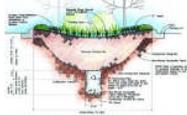
Use Traditional Approach for Road Construction with crown and curb and gutter profile




Couple with Bay Village Green Team efforts to encourage raingardens

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TRADITIONAL APPROACH






Develop standards for Stormwater treatments such as rain gardens and roadside bio-swales in conjunction with curbs

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Concept Development

2. Green Lane Initiatives
 - Inverted crown cross-section
 - Road width of 16' to 18' – road diet
 - Reduced grading due to limiting work limits
 - Pervious pavement to address storm water treatment
 - Pervious pavement used as a visual amenity
 - Pervious pavement creates drier surface conditions

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GREEN LANE INITIATIVES

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Preliminary Design

- Revise/refine concepts based on public and city comment
- Develop preliminary plan
- Calculate storm water quantities
- Develop preliminary costs

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Costing & Financing

- Preliminary Budget to be Established with City
- Construction Cost Estimates will be developed and updated based on Alternative Development Features
- Project Funding Opportunities will be researched and application assistance can be provided if needed:
 - OPWC, Enhancement, SWIF Grants, WPCLF

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Review with City

- Schedule a workshop with the City that allows an open forum to discuss material choices, construction methods and anticipated maintenance that can be expected.
- Present to Council in a public forum to allow for comment on the preliminary design

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Improvement Plans

- Develop final improvements plans
- Compile specifications
- Develop cost estimate
- Finalize maintenance plan
- Bid process

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Questions?

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