Study Team:

- Town of Irondequoit
- Fisher Associates
  - HDR
  - Ravi Engineering
- Steering Committee
Agenda

- Project purpose
- Study Tasks
- Development of Alternatives
- Next steps
- Breakout stations
Study Purpose:

The purpose of the study is to explore options to provide year-round access across the Bay Outlet, creating a better regional transportation system for all modes of travel. The feasibility study will provide a mechanism to assess whether any reasonable design solutions are available to provide year-round access to all travelers, including vehicles, boats, bikes, and pedestrians while preserving the Irondequoit Bay’s ability to serve as a Safe Harbor.
Study Tasks:

- Project Initiation
- Existing Conditions Analysis
  - Public Information Meeting
- Development of Alternatives
  - Identify impacts & costs
- Alternative Ranking based on Evaluation Criteria
- Present Ranking Results
  - Public Information Meeting
- Complete Report
Project Tasks Completed:

- Steering Committee meetings
- Public information meeting (April 2017)
- Business owner meetings
- Online surveys
- Collected and evaluated traffic data
- Vessel survey interviews with marina operators
- Identified concept alternatives
Concept Alternatives

- Null Alternative
- Rehabilitation of existing bridge for year round operation
- Fixed bridge at existing location (Girder)
- Fixed bridge at existing location (Truss)
- Tunnel at existing location
- Moveable bridge at existing location (Rolling Lift)
- Extension of the ramps at Irondequoit Bay Bridge
- Route 104 to Ridge Road connection
- Ferry
Alternatives Eliminated

- Null Alternative
- Rehabilitation of existing bridge for year round operation
- Fixed bridge at existing location (Girder)
- Fixed bridge at existing location (Truss)
- Tunnel at existing location
- Moveable bridge at existing location
- Route 104 to Sea Breeze Drive Connection
- Route 104 to Ridge Road Connection
- Ferry
Alternatives for Further Consideration

- Null Alternative
- Rehabilitation of existing bridge for year round operation
- Moveable bridge at existing location (Rolling Lift)
- Route 104 to Sea Breeze Drive Connection
- Route 104 to Ridge Road Connection
Jurisdictional Information
Current Physical Conditions

- Channel has a horizontal clearance of 100 feet and is 12-16 feet deep.

Note: Channel depth of 16 Feet
Current Physical Conditions

Vessel Survey: Review of the local mariners was performed

• Discussions with marina owners
• Count of the slips within the Bay
• ~90% of the vessels berthed within the Bay are recreational craft from 10'-30' long; Some larger craft up to 50’ long
• The bay is also home to sailing vessels in 15-30’ range.
• Based upon a count of slips, the bay can accommodate approximately 1800 small craft.

50’ – 100%, 40’ – 95%, 20’ to 30’ – 80%, 10’ – 75%
Environmental Screening:

- State Wetland Mapped Boundary (requires delineation to confirm)
- Landward Extent of the State Wetland Check Zone
- Federal Wetland Mapped Boundary (requires delineation to confirm)
- NYSDEC Primary Aquifer Boundary
- NYS Parklands
- NYSDEC Superfund Sites (Hazardous Waste Sites)
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Current Traffic Conditions:
2010 ADT
Open for Cars

Source: GTC Regional Travel Demand Model Estimates
Current Traffic Conditions:
2010 ADT
Closed for Cars

Source: GTC Regional Travel Demand Model Estimates
Development of Alternatives:

- Environmental impacts & considerations
- Traffic and safety evaluation
- Property impacts
- Required mitigation
- Economic impacts
- Steering Committee, Stakeholder & Public Input
Moveable Bridge at Existing Location (Retrofit)

- Installation of traffic gates (150 feet each end)
- Potential vertical clearance increase of 4 to 5 foot – bridge under clearance at 9 to 10 feet
- Type of Bridge
  - Swing (retrofit existing)
Moveable Bridge at Existing Location (Retrofit)
Moveable Bridge at Existing Location (Rolling Lift)

- Installation of traffic gates (150 feet each end)
- Potential vertical clearance increase of 4 to 5 foot – bridge under clearance at 9 to 10 feet
Moveable Bridge at Existing Location (Rolling Lift)
Moveable Bridge (bridge operation cycle)

- Lower safety gates and signals change to red – 90 seconds
- Open bridge span – 90 seconds
- Marine traffic passage (5 mph) – 120 seconds
- Close bridge span – 90 seconds
- Open gates and signals to green – 30 seconds

- Total opening time approximately 7 minutes
Moveable Bridge (vehicle queue weekend)

Vehicle queue clears in approximately 1.5 minutes

Eastbound queue 1,100 feet

Westbound queue 1,200 feet
Moveable Bridge (vehicle queue week day)

Vehicle queue clears in approximately 2 minutes

Westbound queue 1,400 feet

Eastbound queue 1,400 feet

0 feet

0 feet

500 feet

500 feet

1000 feet

1000 feet

1500 feet

1500 feet

500 feet
Route 104 to Sea Breeze Drive Connection

- Limited to 5% grade
- 75 feet of elevation difference
- Bridges required for Titus Ave Extension
- Property acquisitions
  - (17 parcels)
- Pedestrian and bicyclist accommodations limited
- Traffic operations
  - 8600 AADT NB
  - 3500 AADT NB and SB Ramps
Route 104 to Ridge Road Connection

- Limited to 5% grade
- Bridges replacements required for Route 590
- Pedestrian and bicyclist accommodations limited
- No property acquisitions
## Life Cycle Cost Summary (75 Year Program)

<table>
<thead>
<tr>
<th></th>
<th>Null Alternative</th>
<th>Moveable Rehabilitate Existing Bridge</th>
<th>Moveable New Rolling Lift Bridge</th>
<th>Route 104 to Sea Breeze Drive Connection</th>
<th>Route 104 to Ridge Road Connection</th>
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<td>Construction Cost</td>
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<td>Expected Repair Costs (75 Years)</td>
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<td>Total Life Cycle Costs</td>
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Alternative Evaluation Criteria:

- Cost
- Property Impacts
- Economic Impacts
- Environmental Impacts
- Emergency Access
- Improved Year Round Access
- Aesthetic Impacts
- Operation and Maintenance Costs
- Improved Non-Motorist Access
- Impacts on Highway User Costs
- Construction Impacts
Next Steps:

- Complete economic analysis
- Quantify environmental impacts
- Coordinate with agencies having jurisdiction
- Finalize alternative rankings
- Final Public Information Meeting
- Complete and submit final report
Schedule

**October 2017**
- Public Informational Meeting

**November 2017**
- Final Public Informational Meeting
- Steering Committee Meeting

**December 2017**
- Submit Draft Report
- Address Comments & Submit Final Report
Breakout Stations