Bike Ramp & Bike Lane Project – Past Presentations

- **2015, October** - RIOC Ops. Committee meeting – Discussion of the AKRF’s preliminary Bike Ramp study. Study concluded that fixing of Motorgate Escalator for use by bicycle riders was not an option.
- **2016, June** – Cornell Tech Town Hall update on the AKRF Bike Ramp study
- **2016, October** – Cornell Tech Construction & Community Task Force – presentation on the AKRF study.
- **2017, March** – Cornell Tech Roosevelt Island Community Town Hall Meeting – presentation on the AKRF study.
- **2017, April** – NY State Governor Cuomo announces $2.93 million in federal funds to the Roosevelt Island bike ramp project.
- **2018, June** – RIOC board approves procuring Dewberry Engineers for the design of the bike ramp and the bike lane project.
- **2018, November** – RIOC conducts a community “Walk and Talk” to discuss the bike lane and the bike ramp. RIOC also releases a survey for those who could not participate.
- **2020, February** – REDAC Meeting presentation on the bike ramp and bike lane project.
- **2020, November** – Ops. Meeting presentation on the bike ramp and the bike lane project.
Bike Ramp & Bike Lane Project – Statistics

New York City Wide:

- **In 2019**, NYCDOT announced the “Green Wave Plan” – plan to expand the bicycle network to part of Astoria and Brooklyn.
- **In Dec. 2020**, Mayor Bill de Blasio announced -NYCDOT constructed 28.6 lane miles of new protected bike lanes and 35.2 miles of conventional bike lanes across all five boroughs in 2020.
- **In Jan. 2021**, Mayor announces, “Bridges for the People”, plan to close a lane on both the Brooklyn and Queensboro Bridges and reserve them for bicyclists.

Roosevelt Island:

- Average monthly 2,480 Citibike rides on the island. (July 2020 to Jan 2021)
- Survey conducted by RIOC Communications team in Dec. 2020 show:

**How interested are you in a separate bike ramp at the Roosevelt Island Bridge Helix?**

- Somewhat Interested
- Very Interested
- Not Interested
- No Opinion

**Where would you most like to see bike lanes on Roosevelt Island?**

- Nowhere
- Main St.
- The East Promenade
- The West Promenade
- Other

- Somewhat Interested: ~33 (17.7%)
- Very Interested: ~84 (45.2%)
- Not Interested: ~101 (54.3%)
- No Opinion: ~98 (52.7%)
Bike Ramp Project - Background

- **2014**: NYC DCP’s Queens transportation study proposed a dedicated bike ramp to the Roosevelt Island.
- **2015**: Cornell Tech hired AKRF Inc. to conduct a feasibility study for a bike ramp on the island.
- Study concluded that a bike ramp is feasible, and it showed a conceptual ramp layout on the East waterfront side of the Motorgate Garage.
- **2017**: RIOC applied for and received State DOT’s Transportation Alternatives Program (TAP) grant of $2.96M in 2016 to construct a Bike Ramp on Roosevelt Island.
- **2018**: RIOC procured Dewberry Engineers to design a Bike Ramp and a Bike Lane.
Bike Ramp Project Budget & Goals

- Project Budget: $4M
  - TAP Grant Funds: $ 2.96M
  - RIOC funds : $ 1.04M

- Goals:
  - Meet State Department of Transportation (SDOT) requirements and American Association of State Highway and Transportation (AASHTO) standards.
  - Create a safe connection across the Roosevelt Island bridge that eliminates the vehicular/bike conflicts on the Helix ramp.
  - Provide a solution that enhances pedestrian and bicyclist experience.

Helix Ramp – the only vehicular connection to the island
Ramp Configuration Study – East Waterfront Layout 1

- AKRF’s feasibility study proposed a water side connection which was 560’ long after the first turn.
- Upon in-depth site survey and review of existing conditions Dewberry laid out a ramp configuration on the water side.
- To meet SDOT and AASHTO requirements the ramp would:
  - Extend 600 linear feet and travel past the Capobianco Field
  - Pier supports will need to be installed throughout the Motorgate Plaza area and east road.
  - Restrict Emergency vehicle access along East Promenade (access required per the General Development Plan)
Ramp Configuration Study – other layouts

- Does not meet project or grant goals due to stairs
- Does not meet AASHTO slope guidelines for Bike Ramp
- Does not meet project or grant goals due to stairs
- Does not meet project budget, requires cantilever above water & foundations on steam tunnel
- Does not meet AASHTO slope guidelines for Bike Ramp
- Does not meet project goals, loss of open space

Bike Ramp & Bike Lane Presentation
Ramp Configuration Study – East Waterfront Layout 2

- Requires multiple code variances from SDOT and AASHTO.
- Low design speed: speed limit/ warning signs need to be posted as a result of steeper grade and turning radii.
- Low speed is hard to maintain for bicyclist going down the ramp.
- Ramp layout will impact pedestrian experience at Motorgate Plaza
- Ramp layout will impact eastern entrance at the Motorgate Atrium.
- This layout also impacts any future upgrades to the atrium.

Layout showing portion of bike ramp in between Helix ramp columns
Ramp Configuration Study – Ramp Within The Helix Layout

- Meets SDOT and AASHTO standards on radii and slope requirements.
- Part of the structure will be covered by the existing helix ramp, prolonging the life of the structure.
- The structure has a low impact on the surround areas and utilizing space not currently used.
- Provides an opportunity to improve the top of helix deck.
- Has no impacts on existing emergency access and service roads on the East promenade.
- Has no impacts on the Motorgate Atrium.

Layout showing bike ramp within unused space at the center of the Helix ramp.
Helix Plaza Level – Bike Ramp Location Diagram
Ground Level – Bike Ramp Location Diagram
Ramp Within The Helix Layout – Existing Conditions

Image #1

Image #2

Image #3

Bike Ramp & Bike Lane Presentation
BIKE RAMP AT GRADE  
WITHIN THE NESTED HELIX  
PROPOSED PLAN VIEW

EXISTING TREE
EXISTING RETAINING WALL
RIPRAP EDGE
BIKE RAMP ABOVE
FLOWERING TREES
SHRUB UNDERSTORY
WARNING STRIP
MAINTENANCE ACCESS

• GRADE SUPPORTED BY RIP RAP EDGE
• REMOVE 6 EXISTING TREES
• INTERNAL HELIX FITS 5 NEW TREES, ADDITIONAL TREE PLANTED OUTSIDE OF HELIX
• SHADE TOLERANT UNDERSTORY PLANTING
• PLANTS SELECTED FOR SEASONAL CHARACTER
BIKE RAMP AT GRADE
WITHIN THE NESTED HELIX
PROPOSED SECTION

ATRIUM-LIKE LANDSCAPE: FOR VIEWING IN
- GRADE SUPPORTED BY RIP RAP EDGE
- SHADE TOLERANT PLANTING
- PLANTS SELECTED FOR SEASONAL CHARACTER

SAMPLE SCHEMATIC PLANT PALETTE

PRUNUS SPP.
CLETHRA ALNIFOLIA 'RUBY SPICE'
SCILLA CAMPANULATA
CAREX PENNSYLVANICA

Landscape TBD - shown for conceptual rendering only
Bike Ramp & Bike Lane Presentation
Landscape & Waterfront connection TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
JOURNEY VIEW: OPEN CANOPY LEVEL

Landscape & Waterfront connection TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
JOURNEY VIEW: COVERED CANOPY LEVEL

Landscape & Waterfront connection TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
Landscape & Waterfront connection TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
Landscape & Waterfront connection TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
MAIN STREET: LOOKING SOUTHEAST

Landscape TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
Current Status & Next Steps

There are four submission requirements per the SDOT specifications:

1. Section 106 Analysis (National Historic Preservation Act)
2. Draft Design Report – Approval of layout needed for this submission
3. Advance Detail Plans
4. Final Design
Bike Lane Project Budget & Goals

Project Budget: $6.25M

TAP Grant Funds: $5M + RIOC funds: $1.25M

Goals:

- Provide safe bicycle and pedestrian access and crossings along the East side waterfront of Roosevelt Island
- Establish a bike lane corridor on the East side waterfront
- Create ADA connections and clear wayfinding to Main Street businesses and other points of interest.
- Accommodate maintenance & emergency vehicles where needed
- Preserve & enhance the existing tree canopy & tree health
Bike Lane - Connection to public spaces

- Sportspark Building
- Towards Southpoint Park & Four Freedoms Park
- Firefighter's Field
- Riverwalk Commons (Future)
- Blackwell House
- Youth Center
- Blackwell Roosevelt Island Library
- Capobianco Field
- Roosevelt Island Library
- Riverwalk Commons (Future)
- Blackwell House
- Youth Center
- Roosevelt Landing
- Main Street
- Towards Southpoint Park & Four Freedoms Park
EAST SIDE BIKE LANE & PEDESTRIAN PATH - NORTH SEGMENT
EAST SIDE BIKE LANE & PEDESTRIAN PATH - SOUTH SEGMENT
VIEW AT ADA RAMP NORTH OF FIREFIGHTERS’ FIELD

Landscape TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation
Landscape TBD - shown for conceptual rendering only

Bike Ramp & Bike Lane Presentation