



Roosevelt Island Operating Corporation

KATHY HOCHUL
Governor

B. J. JONES
President / CEO

BOARD OF DIRECTORS

RuthAnne Visnauskas, Chair, Commissioner of NYSHCR
Blake G. Washington, Director of BUDGET
Marc Jonas Block
Fay Christian
Conway Ekpo
Dr. Michal L. Melamed
Howard Polivy
Prof. Lydia W. Tang
Melissa A. Wade

Agenda Item V. 4. October 22, 2026

PROPOSED RESOLUTION

AUTHORIZATION TO ENTER INTO CONTRACT WITH ARCADIS OF NEW YORK, INC. FOR FLOOD RISK ASSESSMENT SERVICES

RESOLVED by the Board of Directors of the Roosevelt Island Operating Corporation of the State of New York ("RIOC"), as follows:

- Section 1. that RIOC is hereby authorized to enter into contract with Arcadis of New York, Inc. for flood risk assessment services, upon such terms and conditions substantially similar to those outlined in the Memorandum from Mary C. Cunneen, Chief Operating Officer & Vice President to the Board of Directors and B. J. Jones, President and Chief Executive Officer, dated October 13, 2026, attached hereto;
- Section 2. that the President and Chief Executive Officer or President's designee is hereby authorized to take such actions and execute such instruments as deemed necessary to effectuate the foregoing; and
- Section 3. that this resolution shall take effect immediately.



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MEMORANDUM

To: RIOC Board of Directors/B.J. Jones, President and Chief Executive Officer
From: Mary C. Cunneen, Chief Operating Officer & Vice President
Re: Authorization to Enter into a Contract with Arcadis of NY, Inc. for Flood Risk
Assessment Services
Date: October 13, 2026

Background

Climate change-driven sea level rise, coupled with increasingly frequent and intense storm surges, poses a significant threat to coastal communities around the world. Superstorm Sandy accentuated the impacts of these types of events in the New York City area in 2012. Many coastal communities face the significant challenge of identifying how to address these types of impacts through resiliency improvements, while simultaneously prioritizing design strategies that will improve the quality of life in city spaces.

As part of its efforts to plan for future climate risk, RIOC has elected to undertake an islandwide flood risk assessment which will identify key vulnerabilities on Roosevelt Island and propose interim flood protection measures where appropriate. The findings of this assessment will be the foundation for a larger resiliency infrastructure study.

The selected flood risk consultant team will be responsible for, but not limited to, the following tasks:

- Conducting a detailed evaluation of Roosevelt Island's exposure and susceptibility to coastal storm events, projected sea level rise, extreme precipitation, and cloudburst conditions, incorporating relevant climate change projections and multiple return periods.
- Performing coastal, hydrodynamic, and hydraulic modeling to quantify flood extents, depths, velocities, and associated risk profiles under multiple hazard scenarios.
- Identifying flood hazards and determining which structures and infrastructure are most vulnerable.
- Assessing existing drainage conditions and recommend improvement measures to address the most critical and recurrent areas of concern.
- Completing all necessary topographic, boundary, and utility survey work.
- Identifying interim protection measures for RIOCs most vulnerable assets.

Procurement Process

On August 20, 2026, RIOC issued a request for proposals (“RFP”) seeking a flood risk consultant who could provide a comprehensive flood risk assessment for the entirety of Roosevelt Island. In response to the RFP, RIOC received bids from 11 firms, all of which were deemed eligible. RIOC’s evaluation selection committee evaluated, rated and ranked the bid proposals based on the following selection criteria: qualifications, labor rates, experience and commitment to providing the flood risk assessment services; demonstrated relevant experience with public entities; and the overall quality and clarity of the proposal.

A consensus was reached by RIOC’s evaluation selection committee that interviews be conducted with the top three (3) firms that were rated and ranked above a 93-point technical threshold. These firms were Arcadis of New York, Inc. (“Arcadis”), Buro Happold, and Jacobs Civil Consultants, Inc. (“Jacobs”). After interviewing the top three firms, on October 8, 2026, the proposals were reevaluated and rescored by the evaluation selection committee.

Post Interview Scoring

Firm	Post Interview Score	Total Cost
Arcadis of NY	96.3	\$1,419,551.28
Buro Happold	91	\$1,072,000.00
Jacobs Civil Consultants Inc.	95.3	\$1,352,138.00

After the interviews, Arcadis was identified as the top firm, offering best value to RIOC with their effective approach, schedule, and methodology. While all firms were capable of providing the services, Arcadis stood out amongst the firms due to their experience providing similar services to the New York City Economic Development Corporation, New York Health and Hospitals, New York City Department of Design and Construction, the Metropolitan Transportation Authority, the Battery Park City Authority and the Port Authority of New York and New Jersey, among others. In addition, Arcadis showed significant success in working with clients to obtain funding for resiliency projects and for identifying the costs and benefits of various interim flood solution measures.

As part of the evaluation RIOC conducted reference checks to verify Arcadis’s experience and ability to successfully perform the required scope of work. Their references confirmed Arcadis’s strong track record delivering similar projects, including work performed for government agencies with comparable oversight and technical requirements. The expected duration of the flood risk assessment is 12 months.

Recommendation

Based on the above, I recommend authorization to enter into a contract with Arcadis in the amount of \$1,419,551.28 to provide RIOC with flood risk assessment services.

An aerial photograph of New York City, showing the dense urban landscape of Manhattan on the left, the East River in the center, and Roosevelt Island in the middle. The island is a small, elongated landmass with some greenery and buildings. The lower right shows a less dense urban area, likely Queens. The image is used as a background for the presentation slide.

PRESENTATION INTERVIEW



Roosevelt Island Operating Corporation

Flood Risk Assessment Services

October 8, 2026

Agenda



Our Team



Our Approach



Our Schedule



Major Challenges



Similar Projects



Funding



Q&A



»» 1. Our Team

Committed Leadership



Russ Dudley
Project Manager



Dena Prastos
Coastal Lead

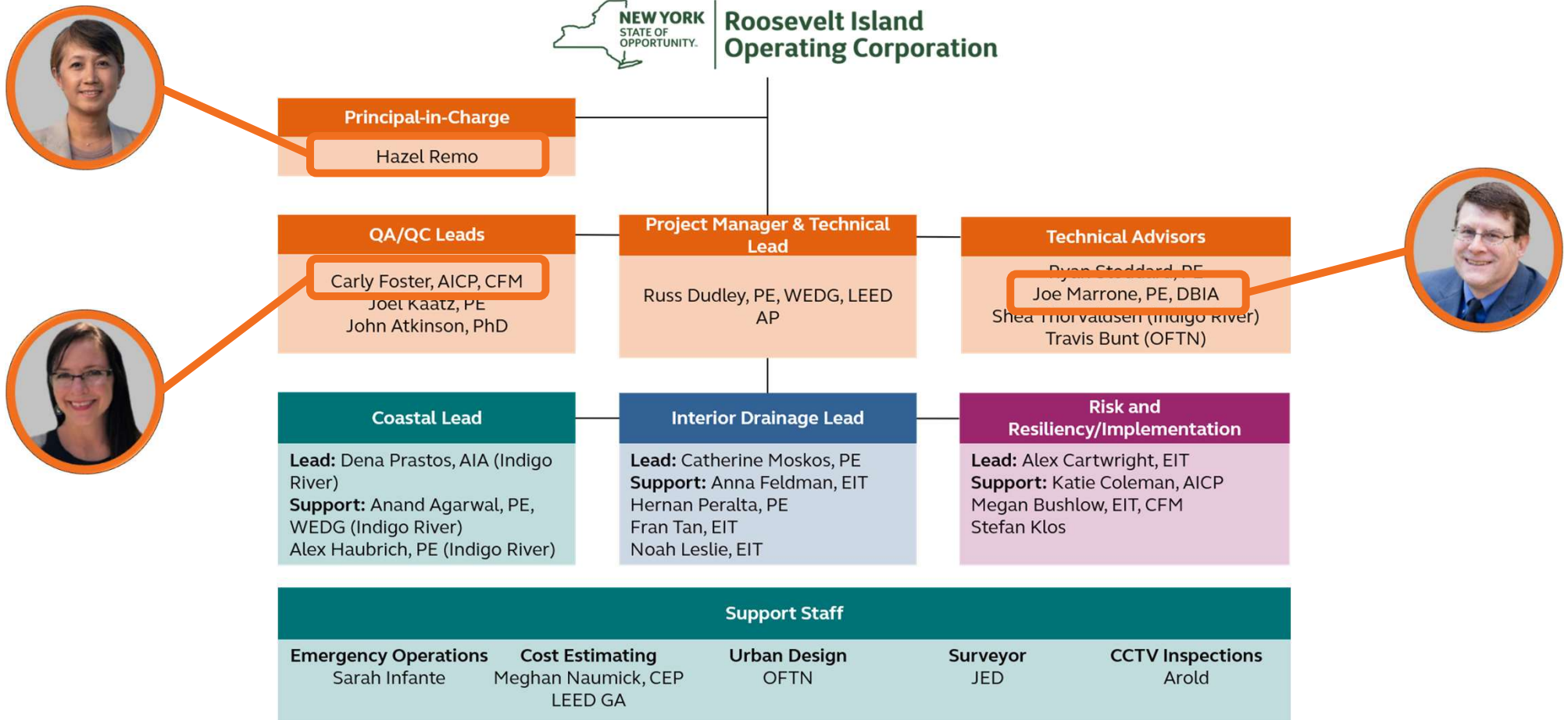


Catherine Moskos
Interior Drainage Lead



Alex Cartwright
Risk and Resiliency /
Implementation Lead

Supported by a Robust Team



With Intentional, Dedicated Partners



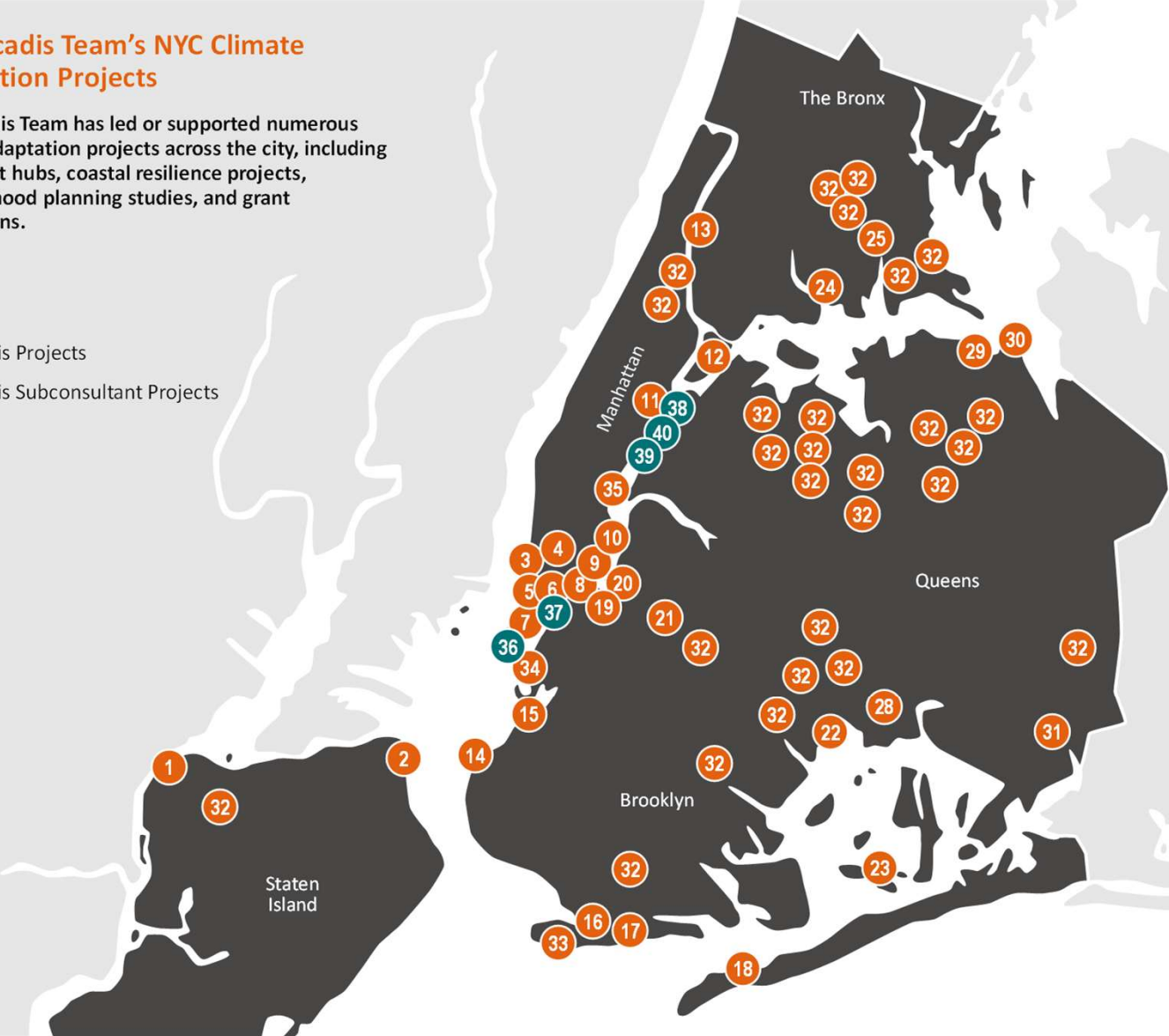
The logo for Indigo River, with the words 'INDIGO RIVER' in a purple, serif, uppercase font.	WBE	Coastal and shoreline workstream lead
OFFICE FOR THE NEXT ENVIRONMENT	SDVOB	Urban design workstream lead
The logo for Arol Construction Company, Inc., featuring the word 'AROLD' in a large, bold, yellow, sans-serif font, with 'CONSTRUCTION COMPANY, INC.' in a smaller, black, sans-serif font below it, and 'A CERTIFIED WBE CONTRACTOR' in an even smaller, black, sans-serif font at the bottom.	WBE	CCTV inspections
The logo for JED Engineering & Land Surveying, P.C., featuring the letters 'JED' in a white, serif font on a blue background, with 'Engineering & Land Surveying, P.C.' in a white, serif font below it.	MBE	Surveying lead

The Arcadis Team's NYC Climate Adaptation Projects

The Arcadis Team has led or supported numerous climate adaptation projects across the city, including cloudburst hubs, coastal resilience projects, neighborhood planning studies, and grant applications.

Legend

- Arcadis Projects
- Arcadis Subconsultant Projects



Coler Specialty Hospital Flood Resilience and RIOC Steam Tunnel — direct Roosevelt Island/coastal infrastructure relevance from Arcadis and Indigo River



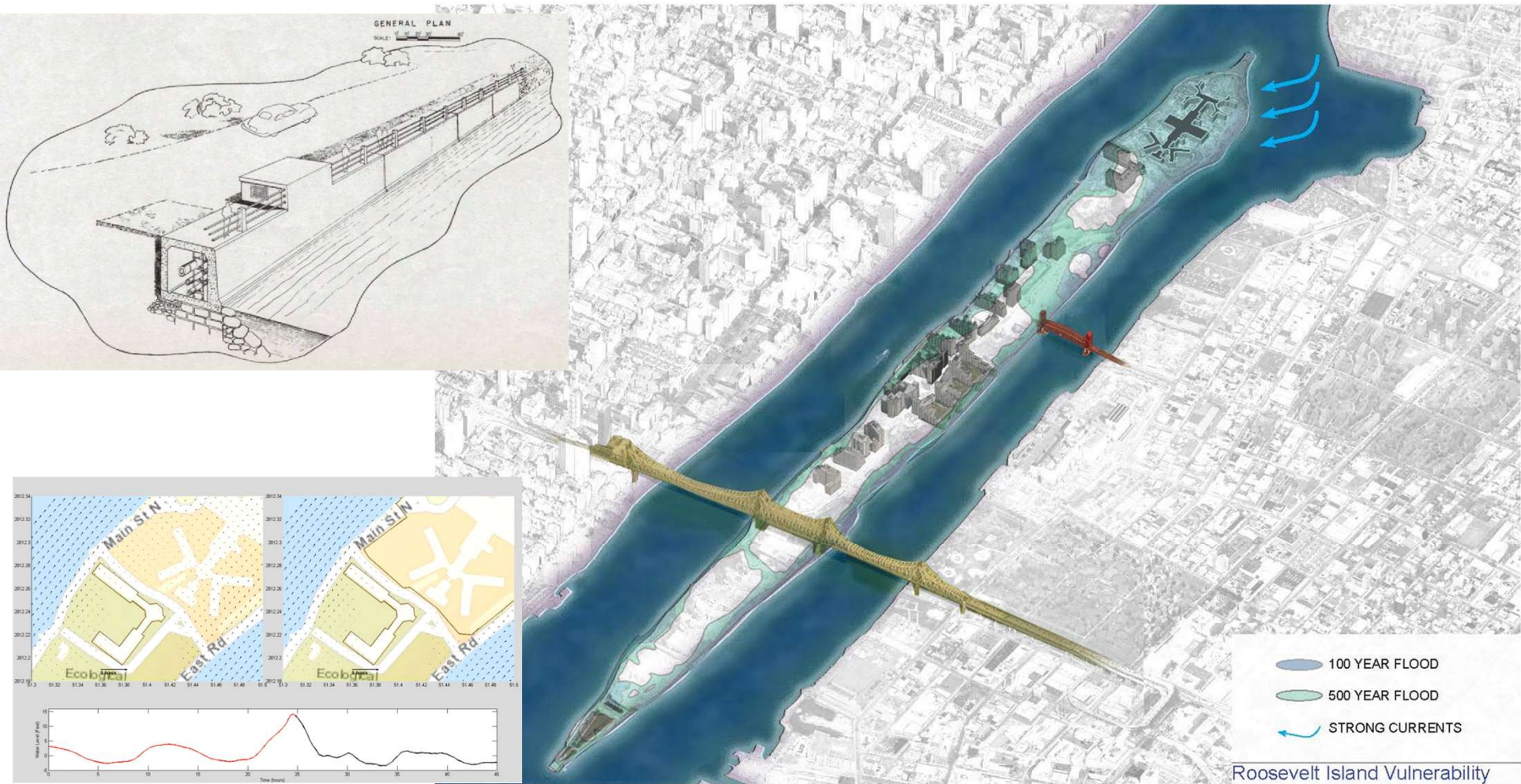
Financial District and Seaport Climate Resilience Master Plan — waterfront public realm, coastal protection, economic vitality, public access, long-term phasing

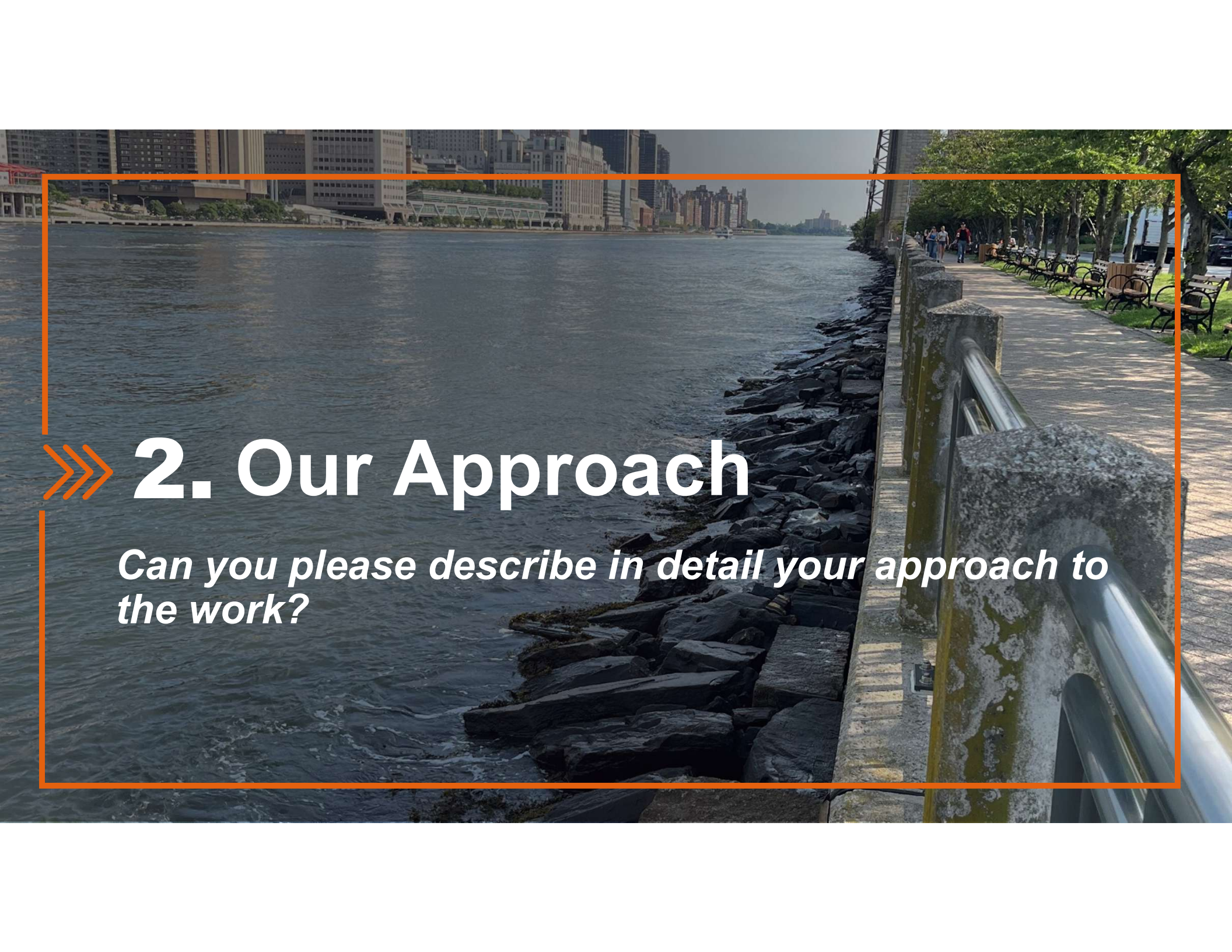


East Side Coastal Resiliency — flood protection integrated with parks and public realm design, public access, and complex NYC implementation



Roosevelt Island Understanding





»» 2. Our Approach

Can you please describe in detail your approach to the work?

Task 1 | Existing Conditions Assessment and Engagement

Build a reliable, islandwide foundation before we model.



We get informed early

- ✓ Compile existing information into a **single asset inventory** using data from RIO, NYC Open Data, and state and federal sources.
- ✓ Identify Roosevelt Island's **essential functions** and the systems supporting them.

then we close the gaps in the field.

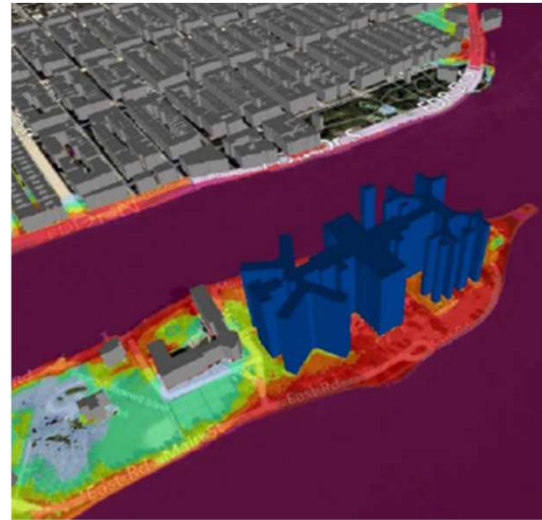
- ✓ JED Engineering delivers islandwide **topographic, utility, and boundary surveys, with targeted CCTV** by Arold at known flood hot spots.
- ✓ **Staff interviews and site visits** confirm what desktop datasets often miss: asset elevations, flood pathways, system connectivity, dependencies and operational information.

Our **ready-to-use citywide Building Inventory** and **prior work at Coler Hospital and Water Tunnel #3** mean we arrive *already knowing the Island*.

Task 2 | Integrated Flood Modeling

Understand how water gets onto and across the Island, leveraging existing work rather than starting from zero.

- *Coler Hospital coastal hydrodynamic model*
- *Citywide NYC stormwater/sewer modeling*



We model the water coming from the East River

- ✓ Update the Delft3D/SWAN coastal model to current conditions and **evaluate present and future coastal flood risk** from storm surge and sea level rise out to 2150.
- ✓ Focus on East River velocities, which will shape which **shoreline protection strategies** are actually viable.



and the rain falling on the Island.

- ✓ Advance InfoWorks ICM rain-on-mesh modeling - where rainfall is applied directly to the Island, allowing **runoff pathways and ponding** to develop based on local topography.
- ✓ Integrate coastal results to evaluate **compound flooding**.
- ✓ You receive flood extents, depths, velocities, and durations – plus the models themselves, creating the hazard information Task 3 needs to assess **exposure and risk**.

Task 3 | Flood Risk Assessment

Exposure alone does not equal priority. We are looking at consequence, criticality, dependencies and redundancy so RIOC knows where intervention matters most.



Quantify risk

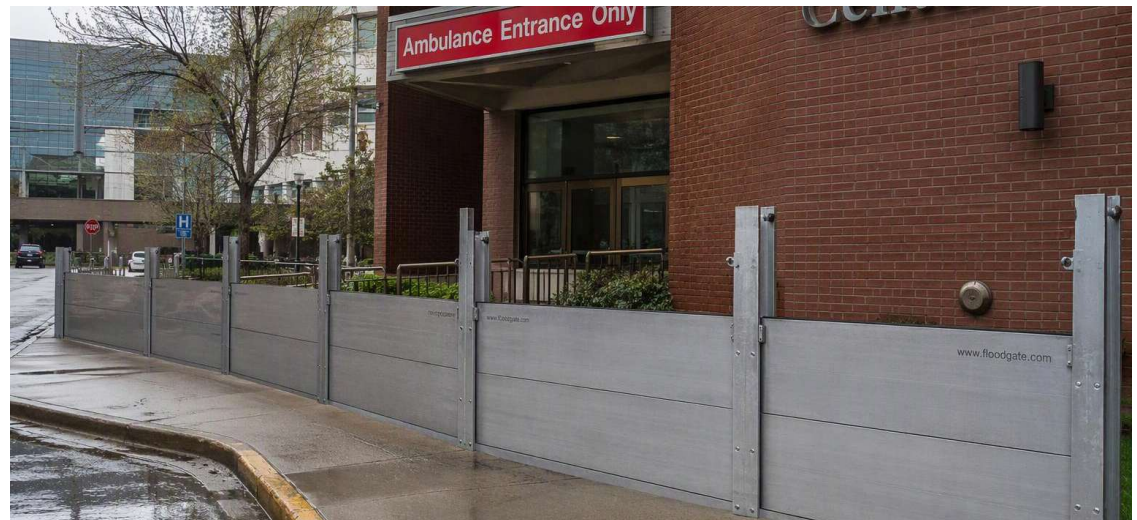
- ✓ A **systems hierarchy diagram** maps dependencies and redundancies across systems, helping identify where a flooded ramp with no alternate route can matter more than a higher-exposure asset with backup access.
- ✓ **Climate Risk Nexus** quantifies physical damage, human impacts, economic loss, and loss of service for every building on the Island.

to establish priority areas.

- ✓ An online dashboard filters results by scenario, year, system, and owner – **built to make the case** to residents, officials, and funders.
- ✓ Findings converge into **ranked priority areas** and a **flood resilience toolkit** that feeds straight into Task 4.

Task 4 | Interim Protection and Roadmap

Convert the highest priority risks into concept designs, costs, and a roadmap RIOC can carry into design, funding, and construction.

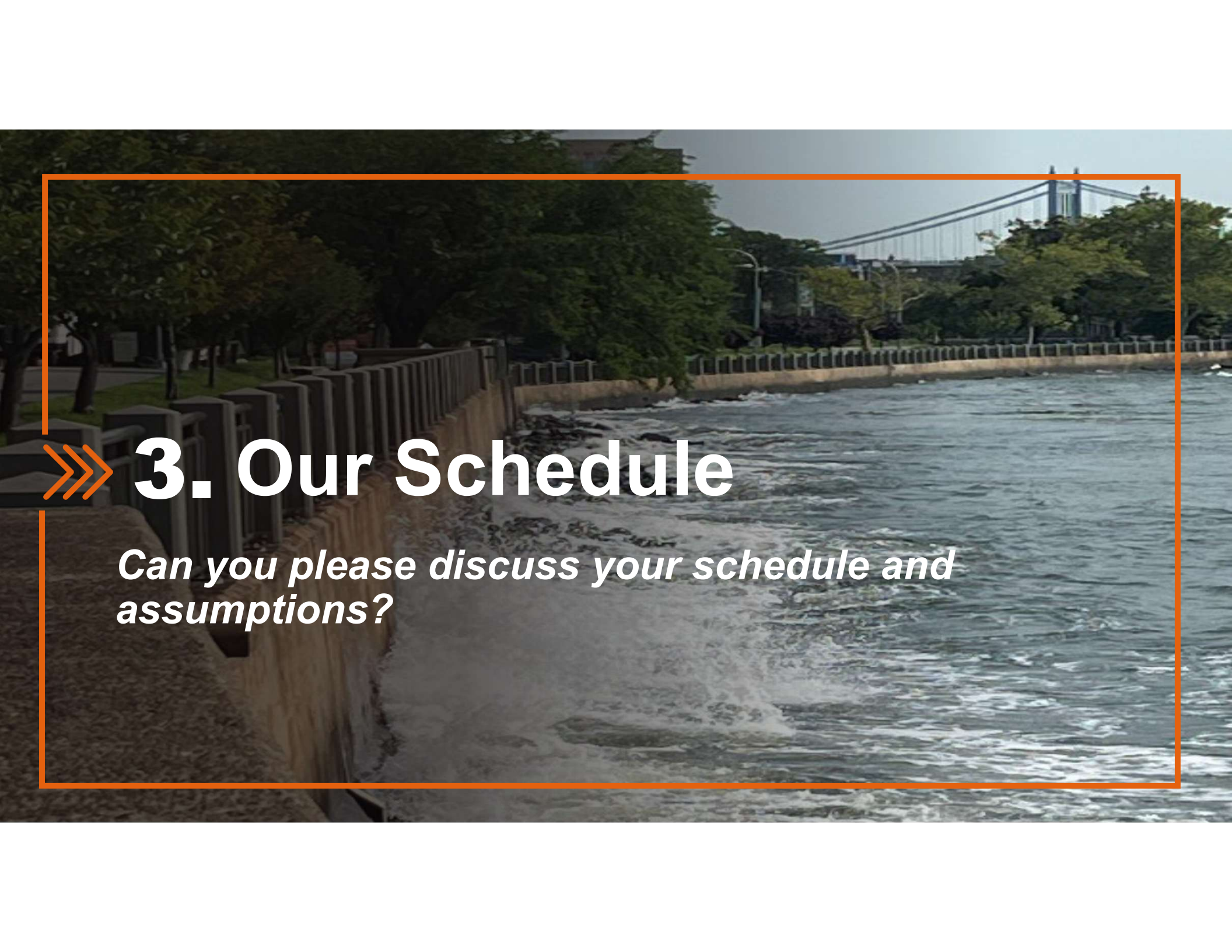


Options you can defend

- ✓ At least **two alternatives per priority area at 5–10% design**, each with Class 5 cost estimates and, where appropriate, planning-level benefit-cost analysis.
- ✓ Evaluation criteria co-created with RIOC up front – constructability, risk reduction, O&M, permitting, equity – so every decision has a **defensible rationale**.

and a roadmap you can act on.

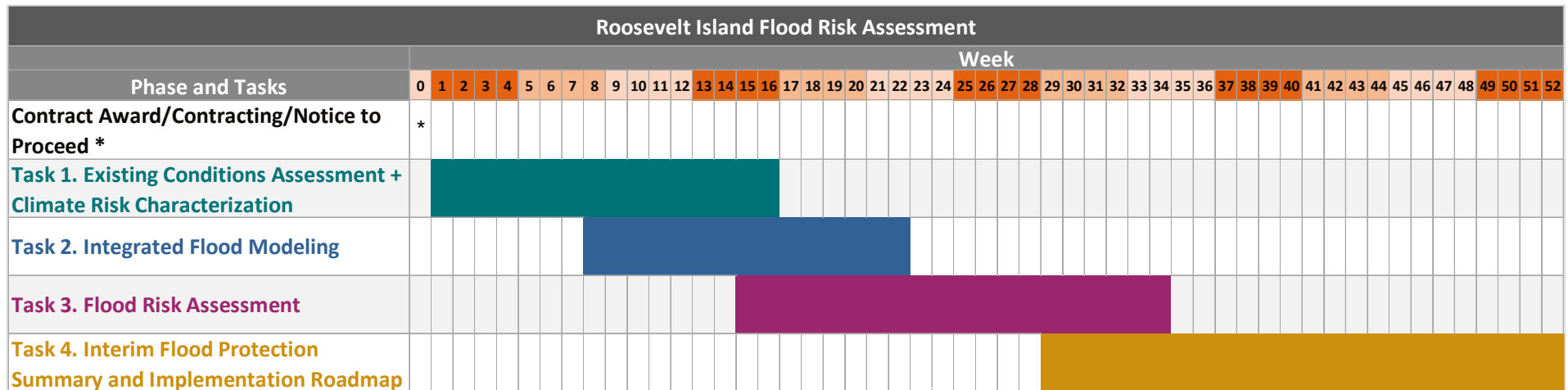
- ✓ Project summary sheets for each preferred solution: concept plans, cost, benefit-cost information, next steps, and **implementation pathway**.
- ✓ **Funding opportunities and near-term findings** that feed directly into capital plans and the **Islandwide Infrastructure Assessment**.



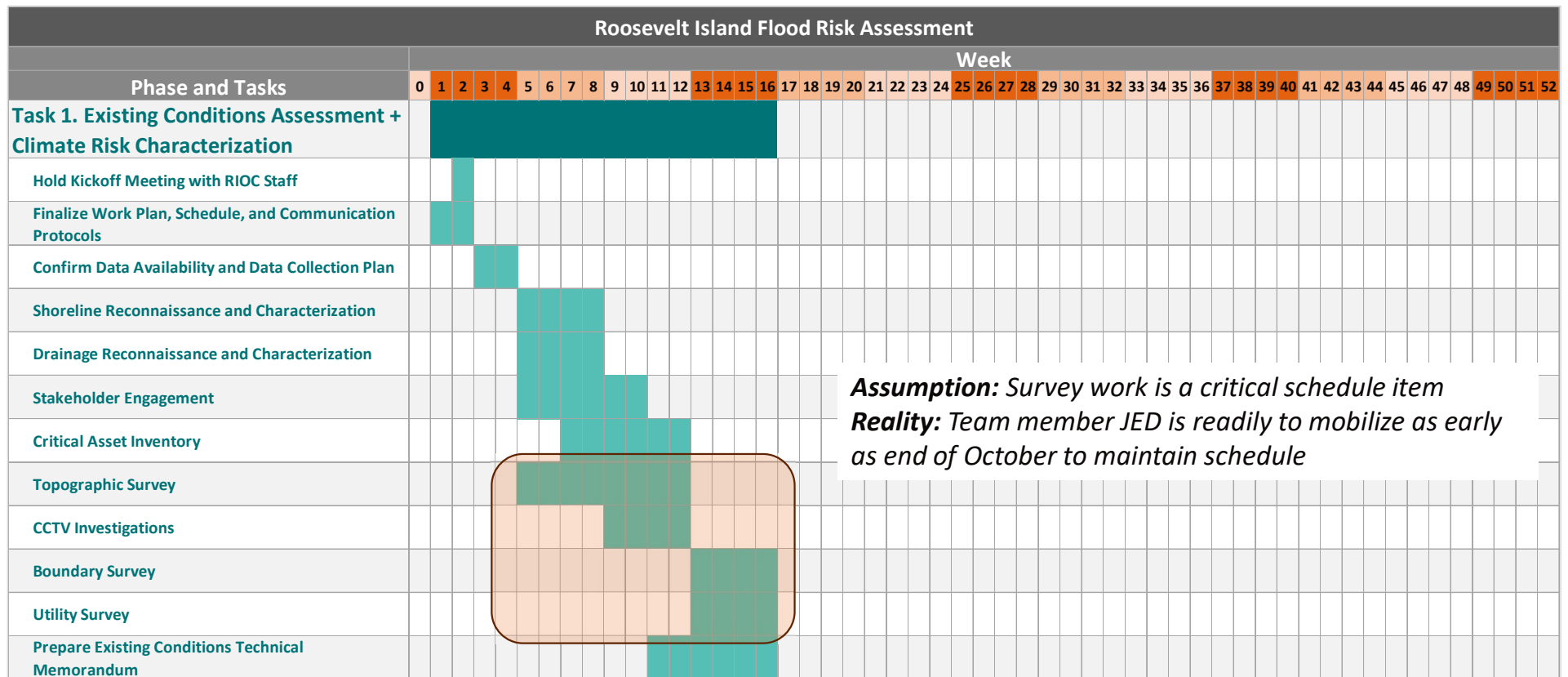
»» 3. Our Schedule

Can you please discuss your schedule and assumptions?

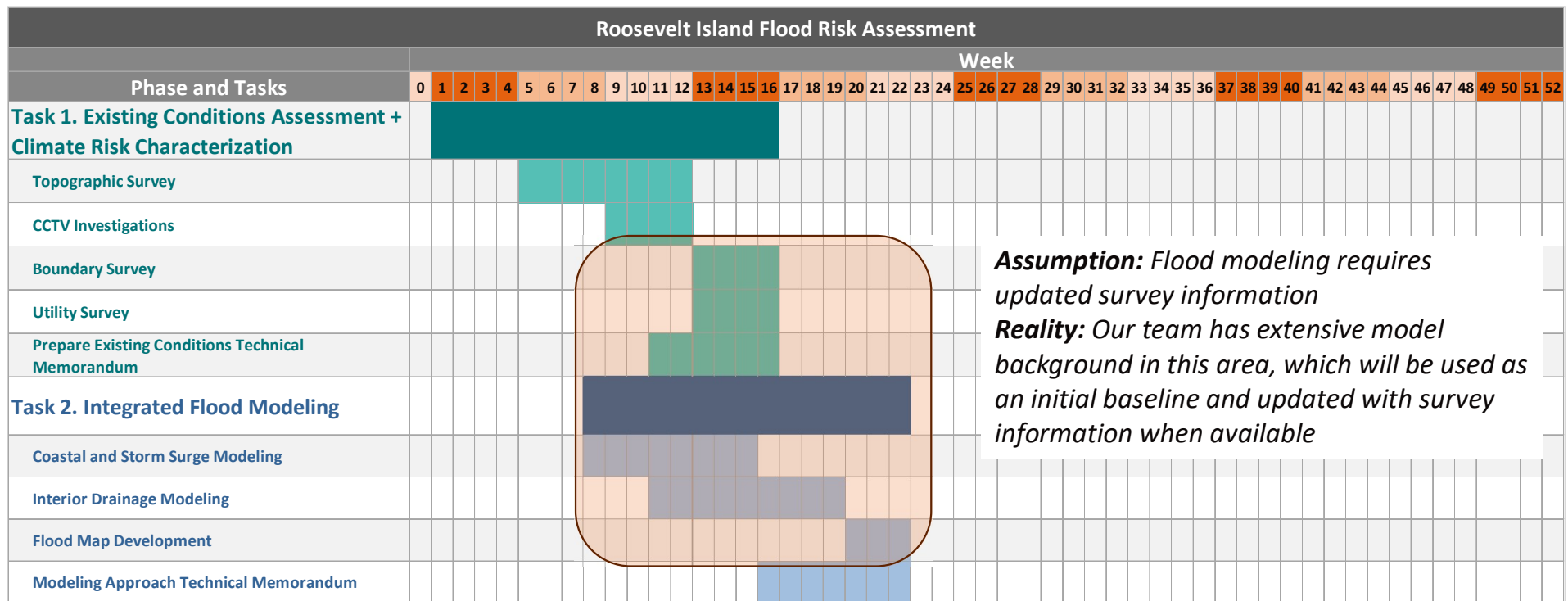
A focused 12-month schedule

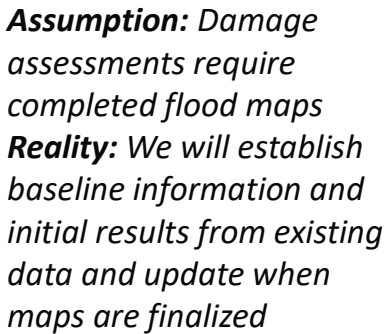


Field investigations as a key early action

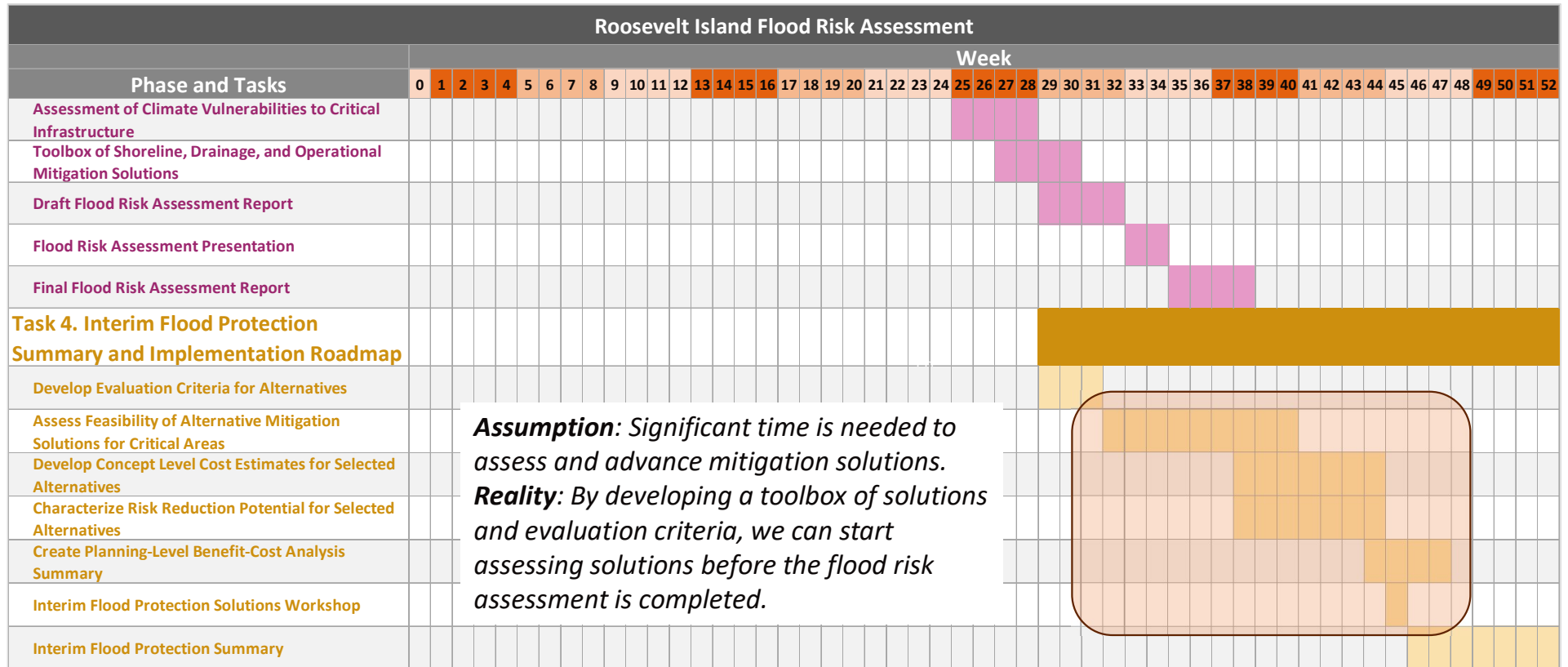


Flood modeling needs to represent current conditions





Effort is focused on identifying and advancing implementable and effective solutions

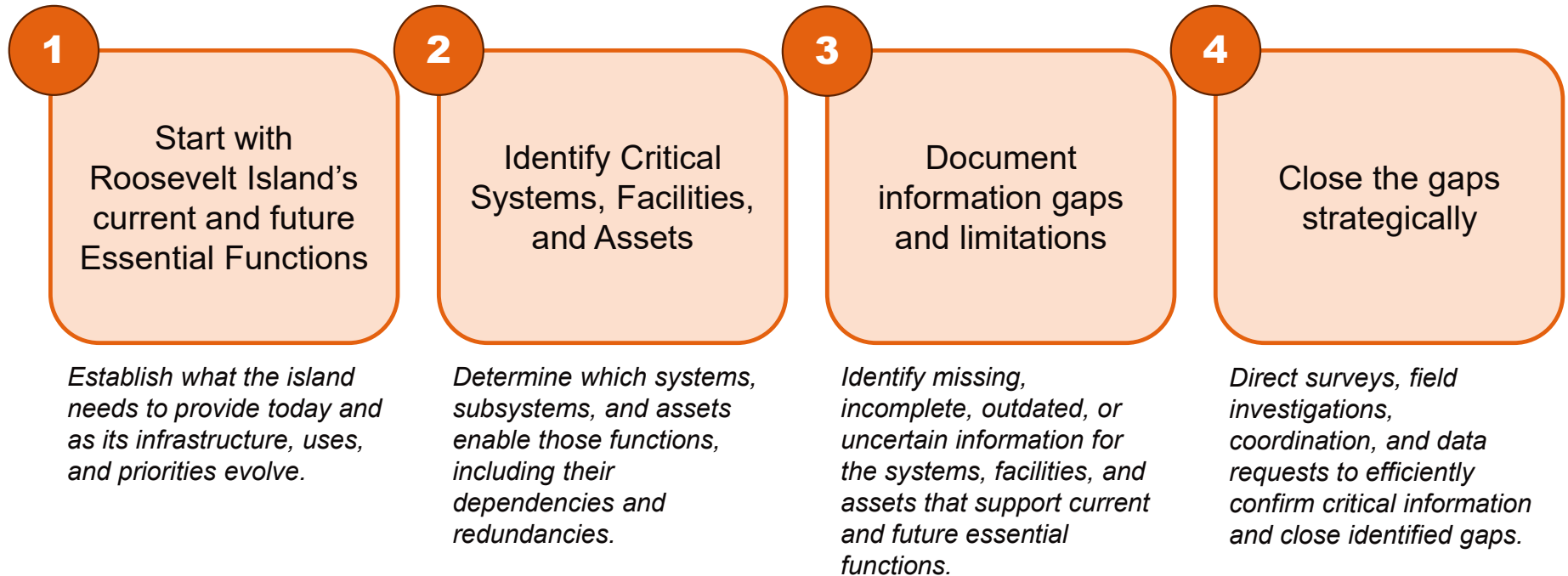


The background image shows a city street scene. In the foreground, there is a paved road with a crosswalk. To the right, a bus stop shelter is visible with a sign that reads "DUANE REA by Walgreen". In the background, there are several tall, modern buildings with many windows. The sky is blue with some light clouds. The entire image is framed by a thick orange border.

»» 4. Major Challenges

What do you see as some of the major challenges prior to undertaking the work outlined in the RFP?

Challenge: The right data is not available



Challenge: Solutions won't reduce risk



1

Start with risk, not the flood map.



2

Build the solution toolbox.



3

Match measures to risk drivers.



4

Test with the models.

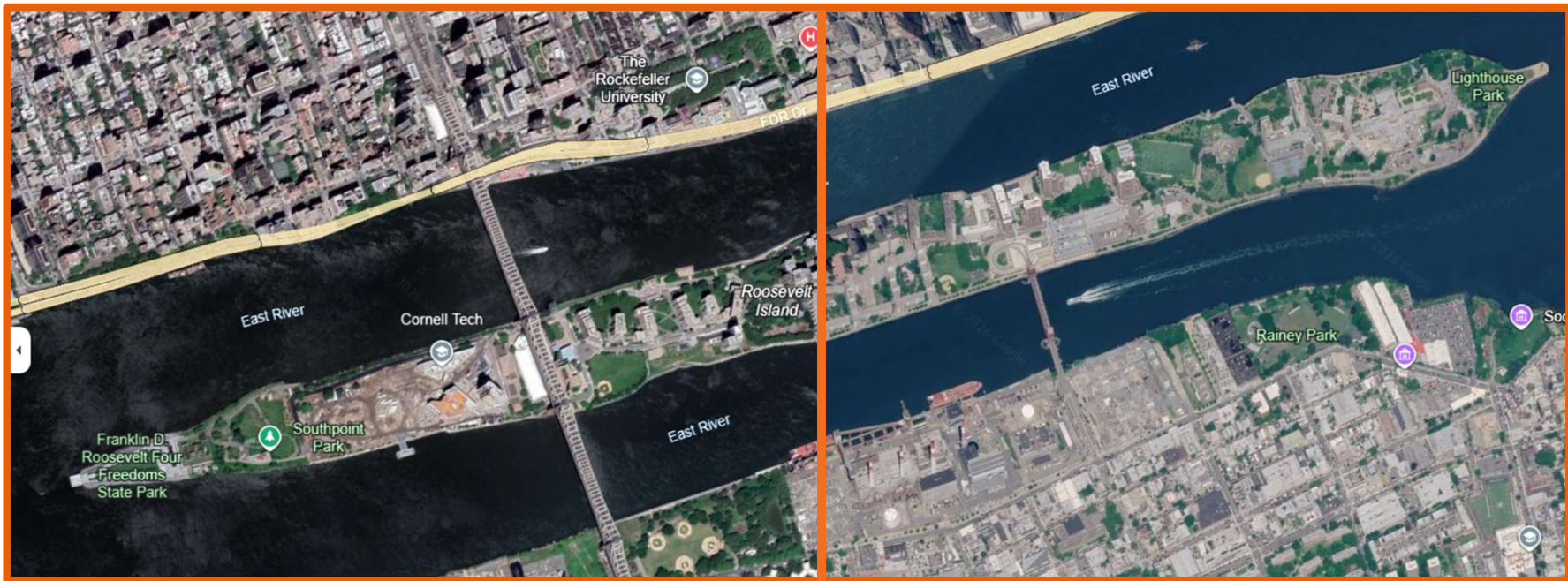


5

Screen for constructability.

The outcome: a defensible project for RIOC, not just a recommended measure.

Challenge: How do we reduce near-term coastal risk without constraining Roosevelt Island's long-term adaptation options?



2016

2026



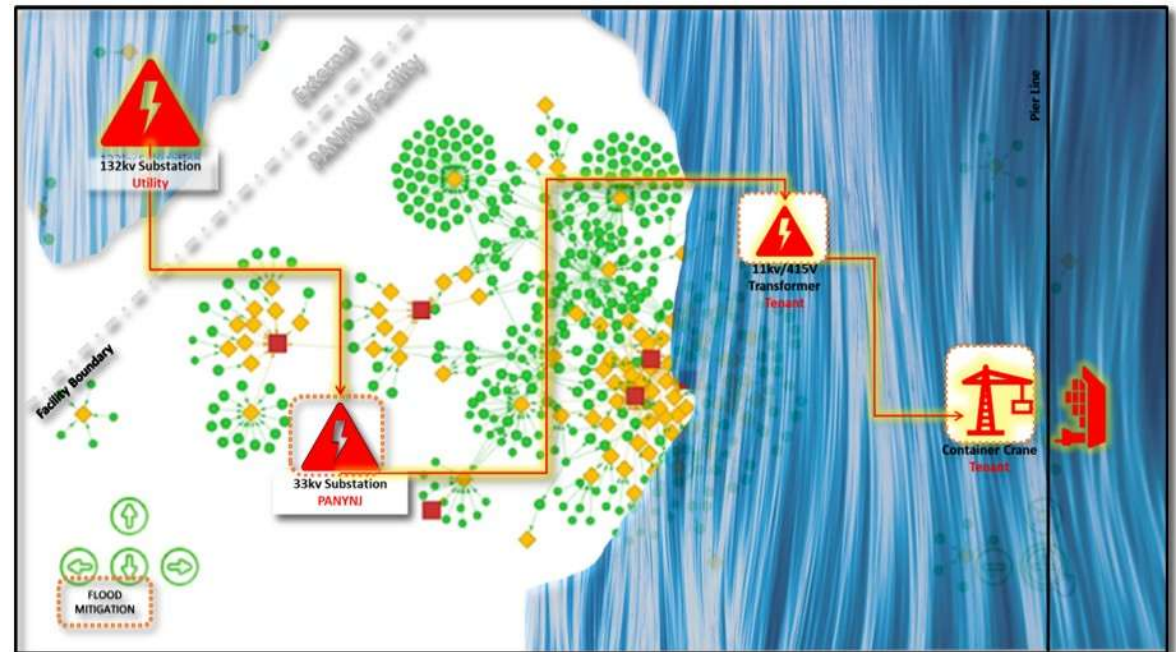
»» 5. Similar Projects

Please discuss a similar project to the one being sought by RIOC.

PANYNJ Portfolio-wide Climate Risk Assessment

PANYNJ Climate Risk Assessment

- Repeatable systems analysis framework
- Critical infrastructure assessment
- Cascading risk and consequence
- Prioritized mitigation solutions



Trust for Governors Island Climate Risk and Maintenance Facilities Study

Trust for Governors Island Resiliency and Facilities Planning

- Island application of systems analysis framework
- Current + future spatial planning needs
- Multi-stakeholder considerations
- Capital strategy

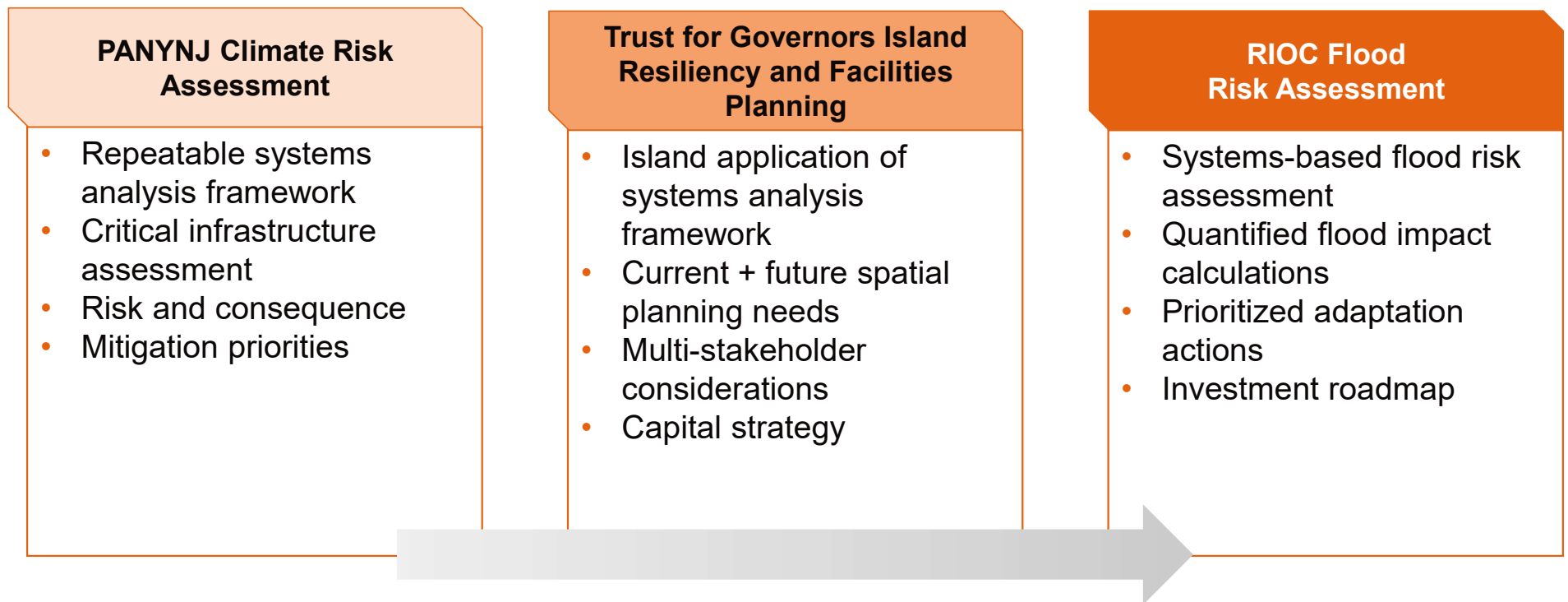
Proposed Near-Term Conditions

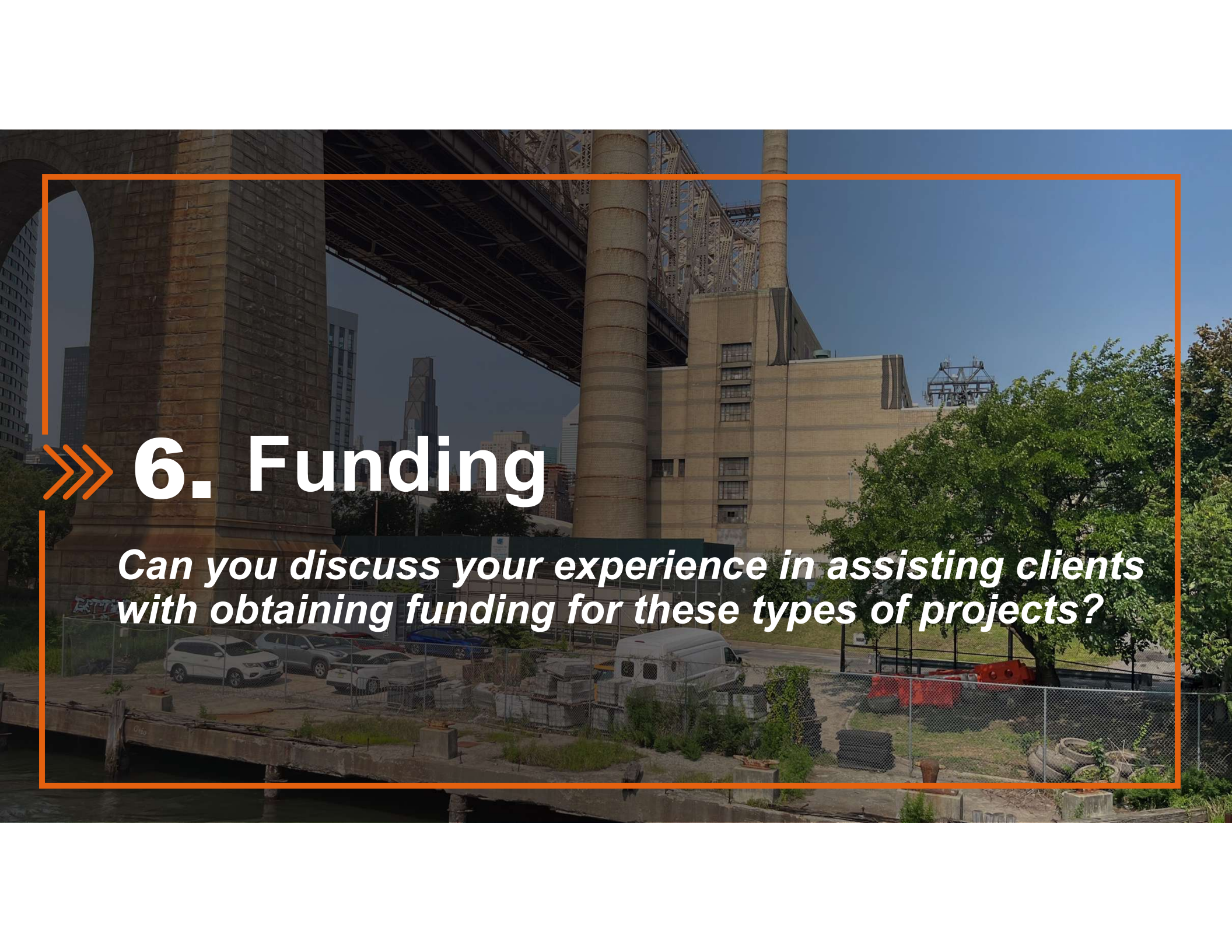


Proposed Future Conditions



How is this relevant for Roosevelt Island?





»» 6. Funding

Can you discuss your experience in assisting clients with obtaining funding for these types of projects?

A Local, Nationally Impactful Resilience Funding Team

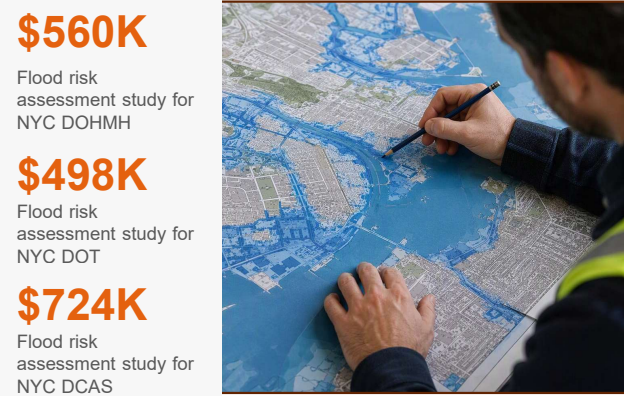
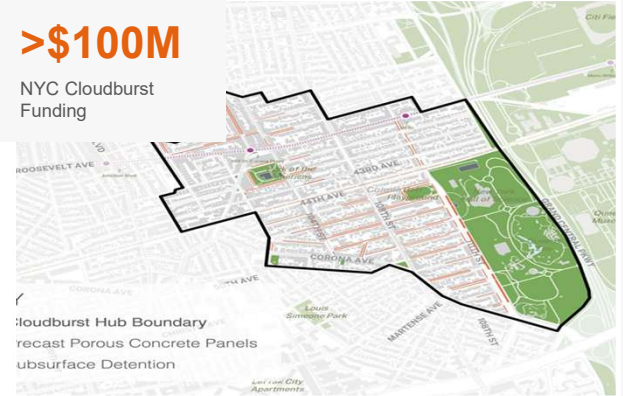
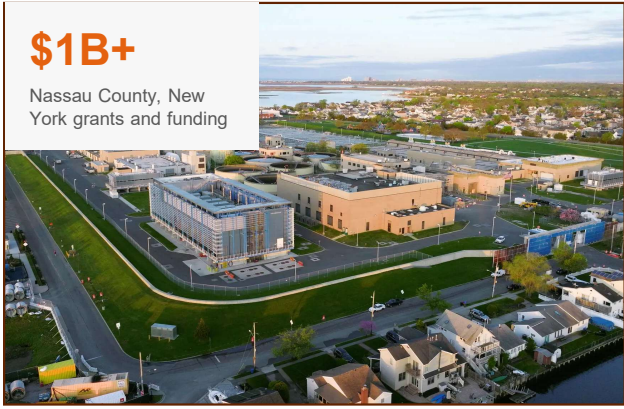
EXAMPLES



Demonstrated Success with Grants & Funding

\$10B+ **40+**
Nationally Staff in Metro Area
(Since 2013)

National Funding Team Led out of NYC



Implementation Playbook

Funding Pathways

Leveraging Internal Resources

Refine

- Tweak planned capital projects
- Leverage existing programs

Refocus

- Redirect existing funding
- Reprioritize programs, policy, or service levels

Raise

- Fees and revenue generation
- Utility creation
- Special assessments

Maximizing External Sources

Partner

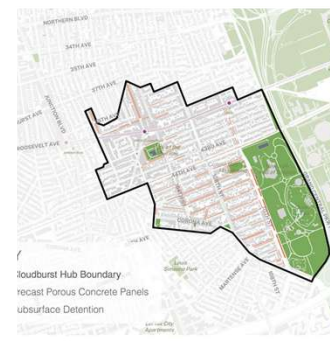
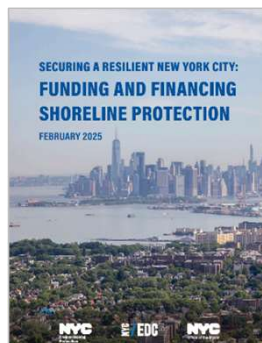
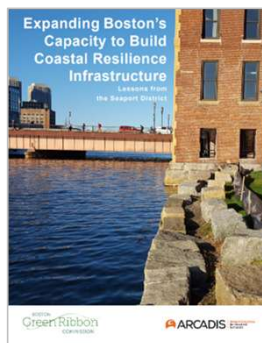
- MOUs and interagency agreements
- P3s
- Third-party implementation support

Prepare

- Position projects for post-disaster and new funding
- Align plans with funding requirements

Pursue

- State and federal grants
- Loans and bonds



Positioning projects and matching funding



STEP 1 Position the project



Begin with the end in mind



Frame the case for funders

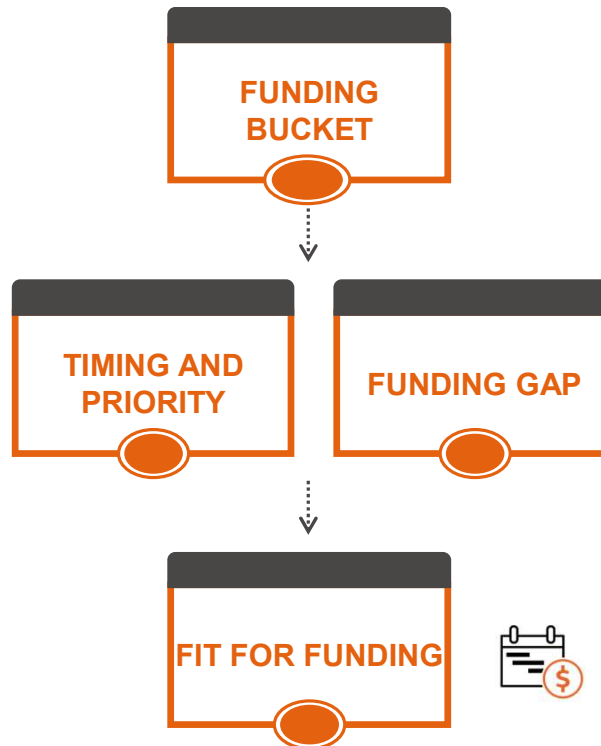


Assign a clear owner



Make the first steps simple

STEP 2 Map to opportunities



GRANT EXAMPLES Alignment with eligibility criteria

FEMA BRIC/FMA

USDOT PROTECT

NYS EFC Green Innovation Grant Program

NYS DEC Climate Smart Communities

NYC EFC Green Resiliency Grant

NYS EFC WIIA

NYS DOS Inland Flooding & Local Waterfront Revitalization Program Implementation



Examples shown are grants only.