

FRANCIS STREET BEACH IMPROVEMENTS PROJECT

WASHINGTON STREET RESILIENCE FRAMEWORK

FOCUS GROUP WITH NEIGHBORS

JULY 2024



SCAPE



REMAIN

AGENDA

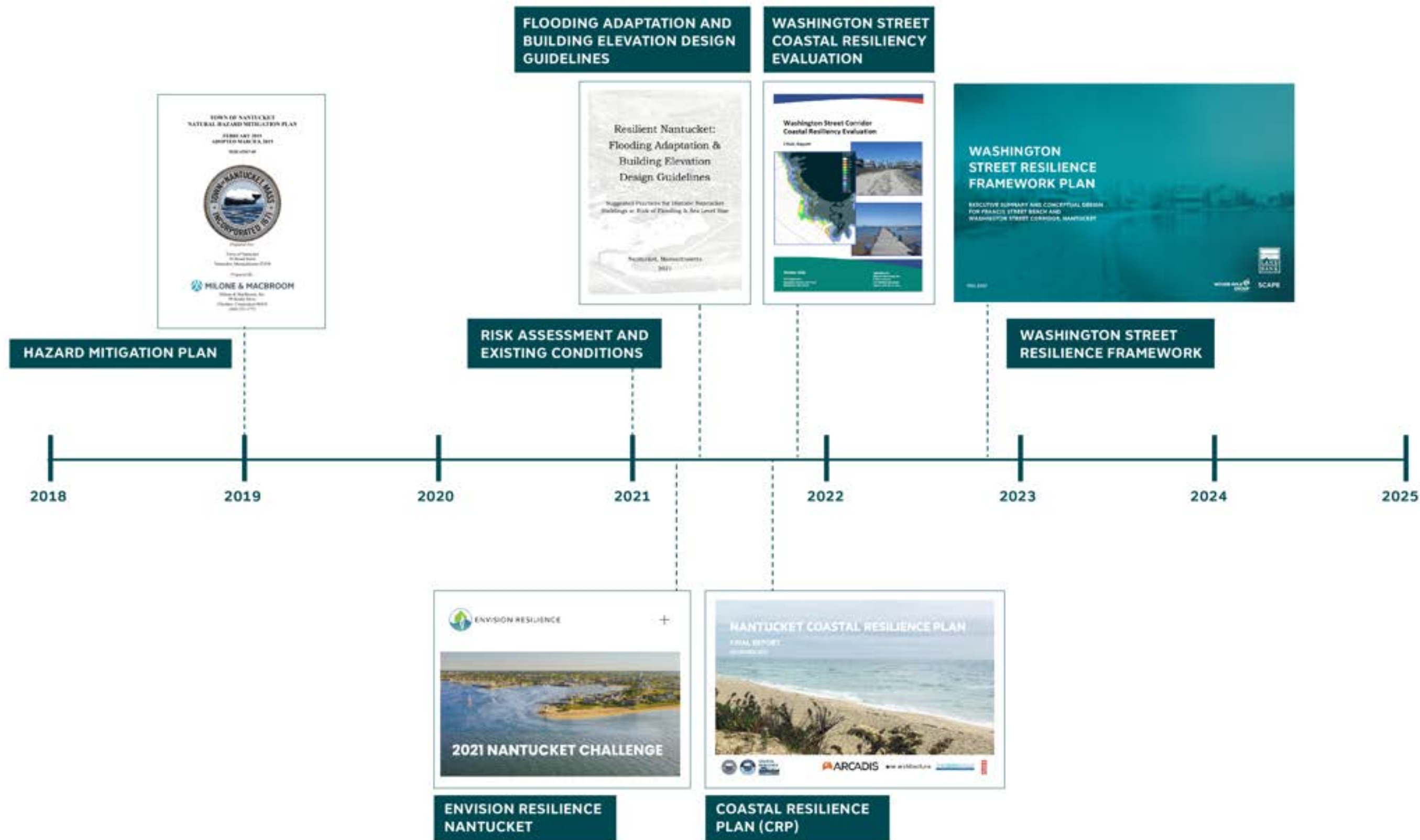
- **Welcome and Introductions (5 Minutes)**
- **Presentation (20 Minutes)**
- **Breakout Discussion (1 Hour)**
- **Wrap Up (5 Minutes)**

PURPOSE OF TODAY

- Discuss flooding experiences and future flood risk
- Briefly review Washington Street Resilience Framework
- Focused discussion on Francis Street Beach Improvements Project
- Understand your priorities and any areas of concern

GOALS AND PLANNING CONTEXT

PLANNING TIMELINE



WASHINGTON STREET RESILIENCE FRAMEWORK



WASHINGTON STREET RESILIENCE FRAMEWORK



WASHINGTON STREET: A KEY LINK FOR NANTUCKET



LEGEND

- Potential Connective Water Trail
- Multi-use Connective Coastal Recreational Trail
- Land Bank parcel
- Open Space
- Open Water

TRANSPORTATION, RECREATION, & ACCESS

LEGEND

Concept Parcels

Master Plan Extent

Shoreline Bulkhead

Sandbags

Marina

Boat Access

Beach Access

Regional Transit/ Bus Stop

Long Term Parking

Pedestrian Crossing

Sidewalk

Bike Route

Freight Route

Land Bank Parcels

Town Parcels

MHW 2008

PROJECT AREA

**WASHINGTON STREET RESILIENCE
FRAMEWORK: PROJECT AREA**

**FRANCIS STREET BEACH
IMPROVEMENT PROJECT AREA**

WASHINGTON STREET

FAMETTE STREET

MEADER STREET

FRANCIS STREET

PROJECT GOALS

ENVIRONMENTAL GOALS

- Improve the capacity of natural ecosystems to adapt to sea level rise and reduce adverse impacts to them
- Absorb, buffer, and manage water

SOCIAL GOALS

- Reduce flood risk to cultural and community assets
- Create public, universally accessible waterfront experiences for people
- Engage in dialogue with community members about climate risks and adaptation pathways

OPERATIONAL GOALS

- Reduce flood risk to sustain the long-term use of Washington Street
- Enhance multi-modal transportation infrastructure, critical to mobility and safety
- Develop feasible, adaptable, maintainable, and permittable solutions
- Clearly communicate economic benefits and anticipated project costs

FLOOD RISK TODAY
JANUARY 13, 2024



NANTUCKET WASHINGTON STREET
July 2024

FUTURE FLOOD RISK AT WASHINGTON STREET



ALIGNMENT WITH THE NANTUCKET COASTAL RESILIENCE PLAN



From Nantucket Coastal Resilience Plan Final Report, November 2021
Arcadis Team

ALIGNMENT WITH THE NANTUCKET COASTAL RESILIENCE PLAN



From Nantucket Coastal Resilience Plan Final Report, November 2021
Arcadis Team

ALIGNMENT WITH THE NANTUCKET COASTAL RESILIENCE PLAN



Conceptual design of the Downtown Neighborhood Flood Barrier intended to reduce risk from future high tide flooding. This example shows a typical street condition, similar to Washington Street in Downtown. This is one way that a road elevation could serve as a barrier to flooding and be integrated within the character and experience of the Downtown streetscape.

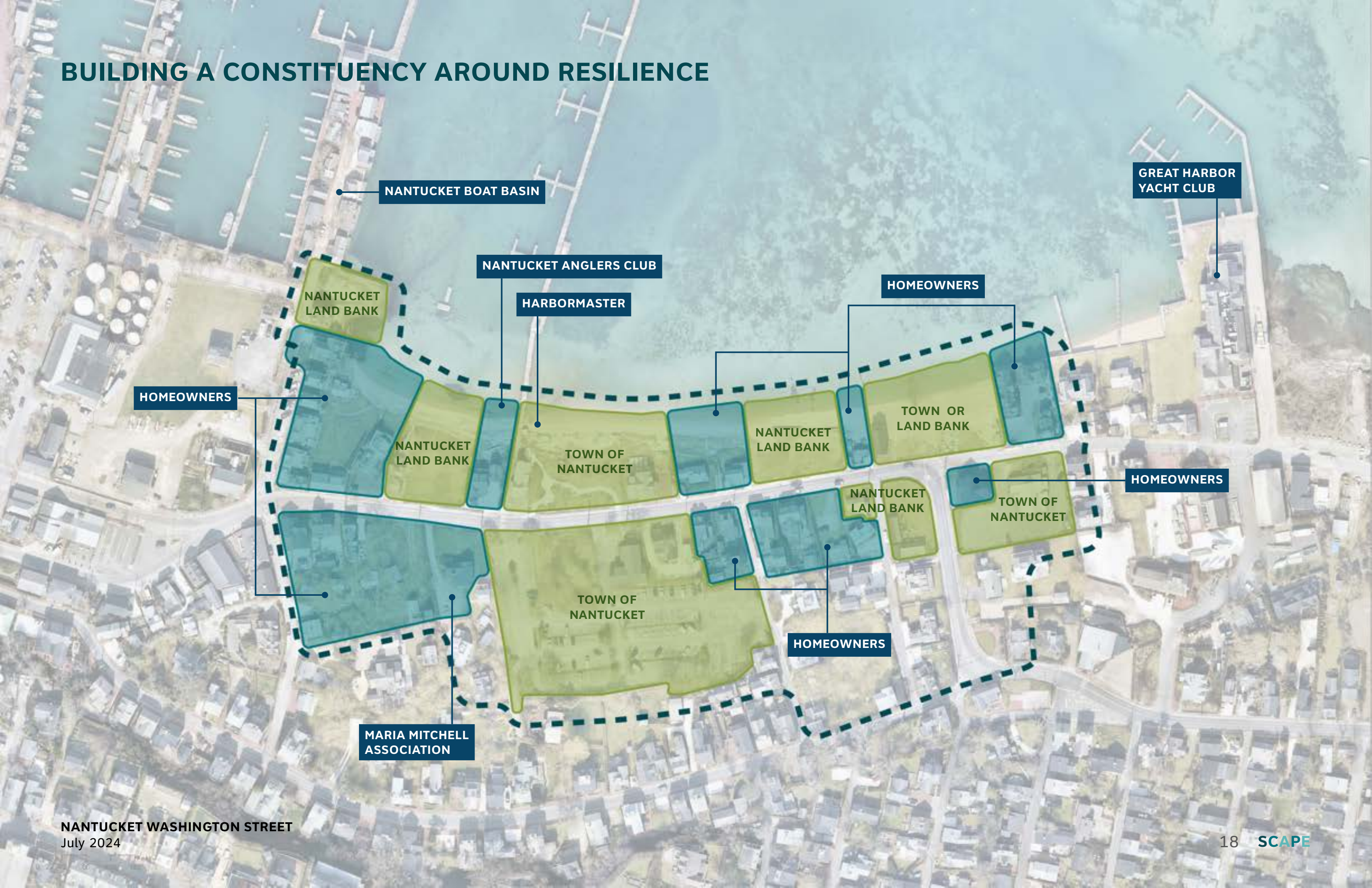


Conceptual design of the Downtown Neighborhood Flood barrier during a flood event. The barrier is designed to protect against future flooding up to 7.5' NAVD88.

From Nantucket Coastal Resilience Plan Final Report, November 2021
Arcadis Team

WASHINGTON STREET RESILIENCE FRAMEWORK PLAN

BUILDING A CONSTITUENCY AROUND RESILIENCE



RESILIENCE FRAMEWORK: PRELIMINARY VISION



RESILIENCE FRAMEWORK: OPPORTUNITIES FOR COLLABORATION



WASHINGTON STREET - EXISTING CONDITIONS



2050 PROJECTED MEAN HIGH WATER WITHOUT PROJECT

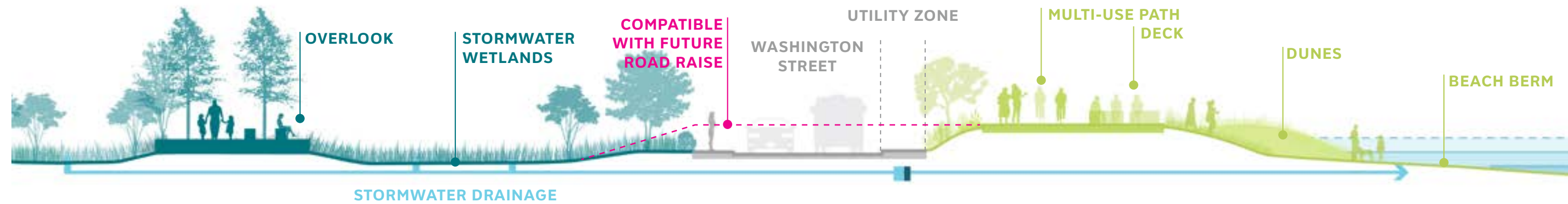


2050 PROJECTED MEAN HIGH WATER WITH PROJECT

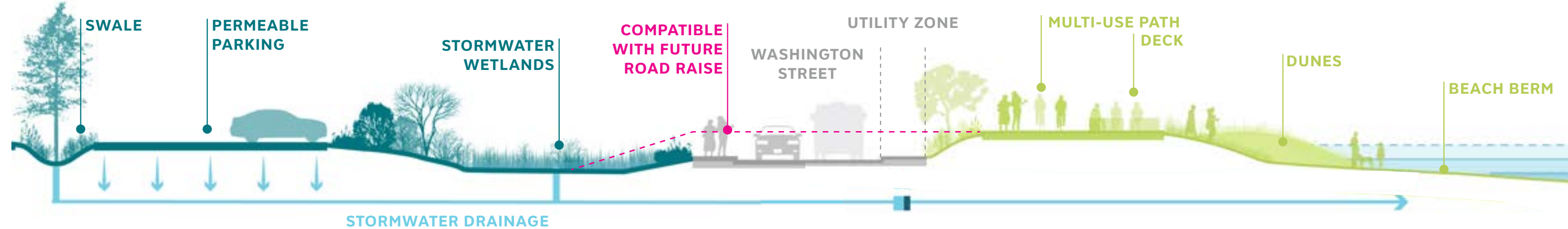


DESIGN FOR ADAPTABILITY

STORMWATER WETLANDS & DUNES



STORMWATER PARKING

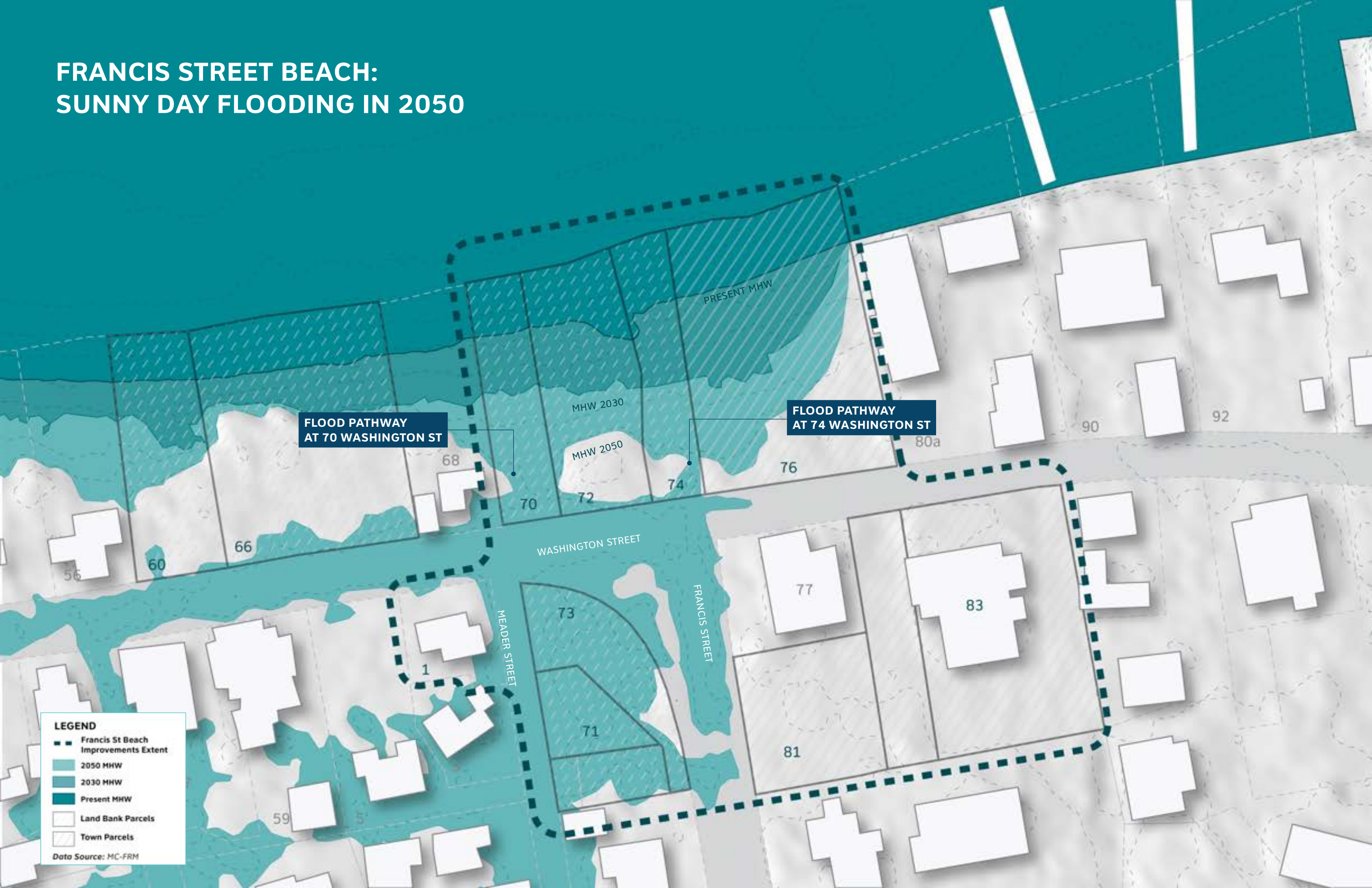


COMMUNITY BENEFITS

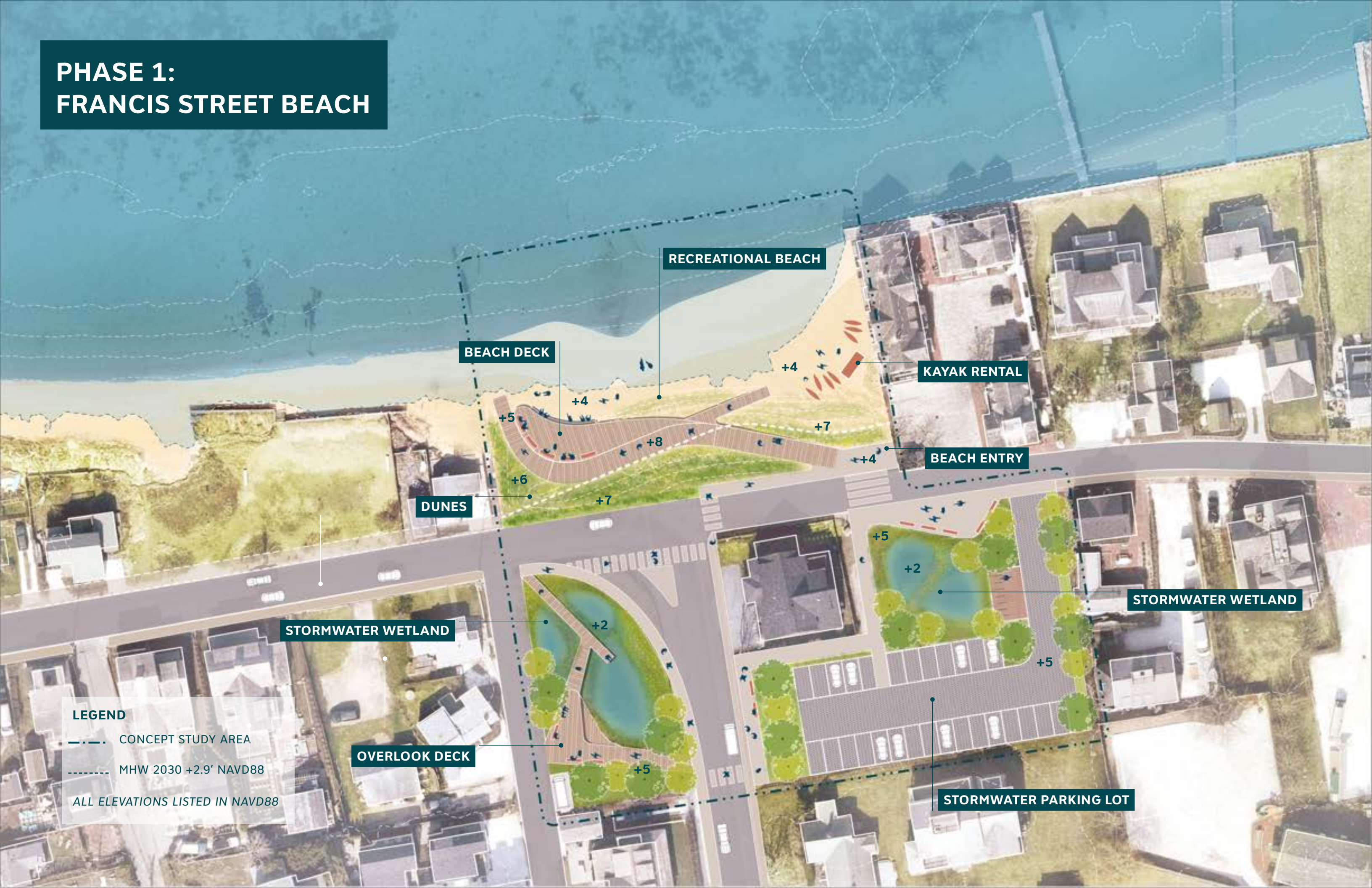
- **Implementation of Coastal Resilience Plan recommendations (Neighborhood Flood Barrier)**
- **Town stormwater infrastructure improvements and backflow prevention**
- **Enhancing public access to the waterfront downtown**
- **Prolonging the use of Washington Street as critical transportation infrastructure**
- **Implementing the Washington Street bike path**
- **Establishing a model of collaboration between the Town and the Land Bank**

PHASE 1: FRANCIS STREET BEACH

FRANCIS STREET BEACH: SUNNY DAY FLOODING IN 2050



PHASE 1: FRANCIS STREET BEACH



RECREATIONAL BEACH

BEACH DECK

KAYAK RENTAL

BEACH ENTRY

DUNES

STORMWATER WETLAND

STORMWATER WETLAND

OVERLOOK DECK

STORMWATER PARKING LOT

LEGEND

--- CONCEPT STUDY AREA

..... MHW 2030 +2.9' NAVD88

ALL ELEVATIONS LISTED IN NAVD88

FRANCIS STREET BEACH ACCESS & RECREATION



ADA ACCESSIBLE
RAMP

Rosa rugosa

Pitch pine

BEACH DECK WITH
SEATING (8' NAVD88)

American Beachgrass

STORMWATER WETLANDS AND BOARDWALK



Red Maple

Sassafrass

Red Maple

FRESHWATER WETLAND
PLANTING

Snowy Egret

Black Grass

ADA ACCESSIBLE
BOARDWALK

OBSERVATION DECK



STORMWATER WETLANDS
& PARKING

STORMWATER WETLANDS
& BOARDWALK

ELEVATED DUNE
HABITATS

ADA ACCESSIBLE
RAMP

KAYAK LAUNCH
AREA

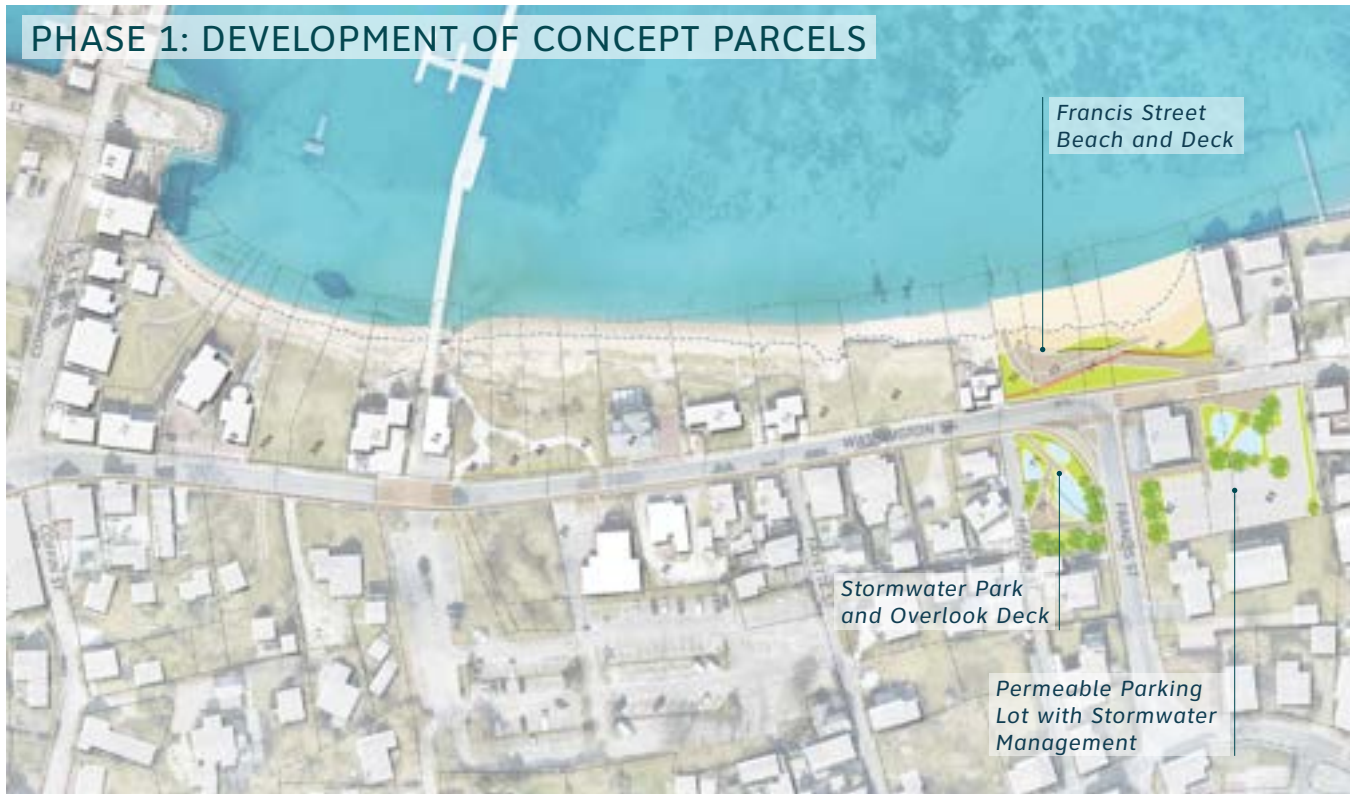
TABLE DISCUSSION

- **Discussion Question #1: Experience with Flooding (20 minutes)**
 - Has your property been flooded? If so, how frequently?
 - Are there ways that you have already adapted your property to deal with flooding?
 - How do you anticipate adapting to increased flood risk in the future?
- **Discussion Question #2: Washington Street Resilience (20 minutes)**
 - How can the Town, Land Bank, and neighbors collaborate to reduce flood risk and enhance access?
- **Discussion Question #3: Francis Street Beach Improvements (20 minutes)**
 - How do you use the site today?
 - What would you like to see here in the future?

THANK YOU!

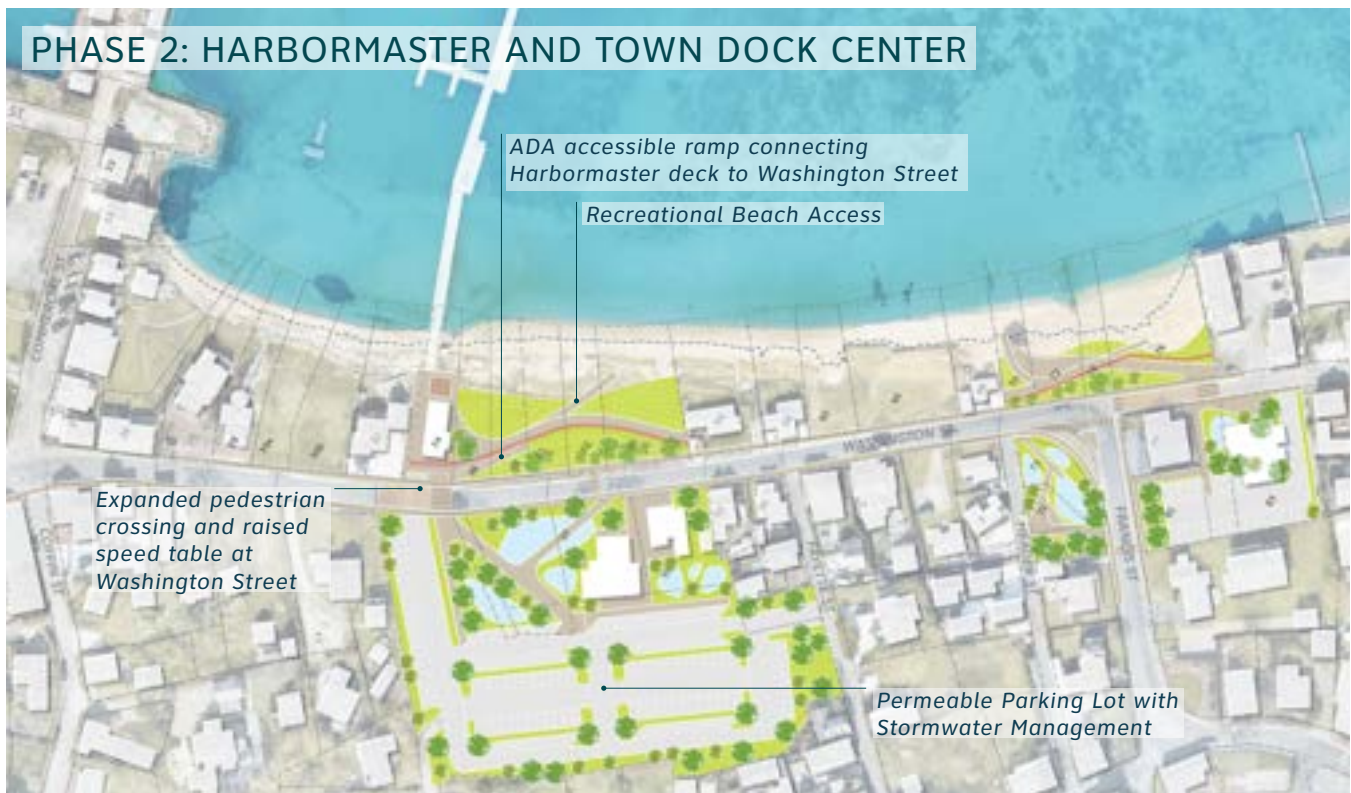
FRAMEWORK PLAN PHASING

PHASE 1: DEVELOPMENT OF CONCEPT PARCELS



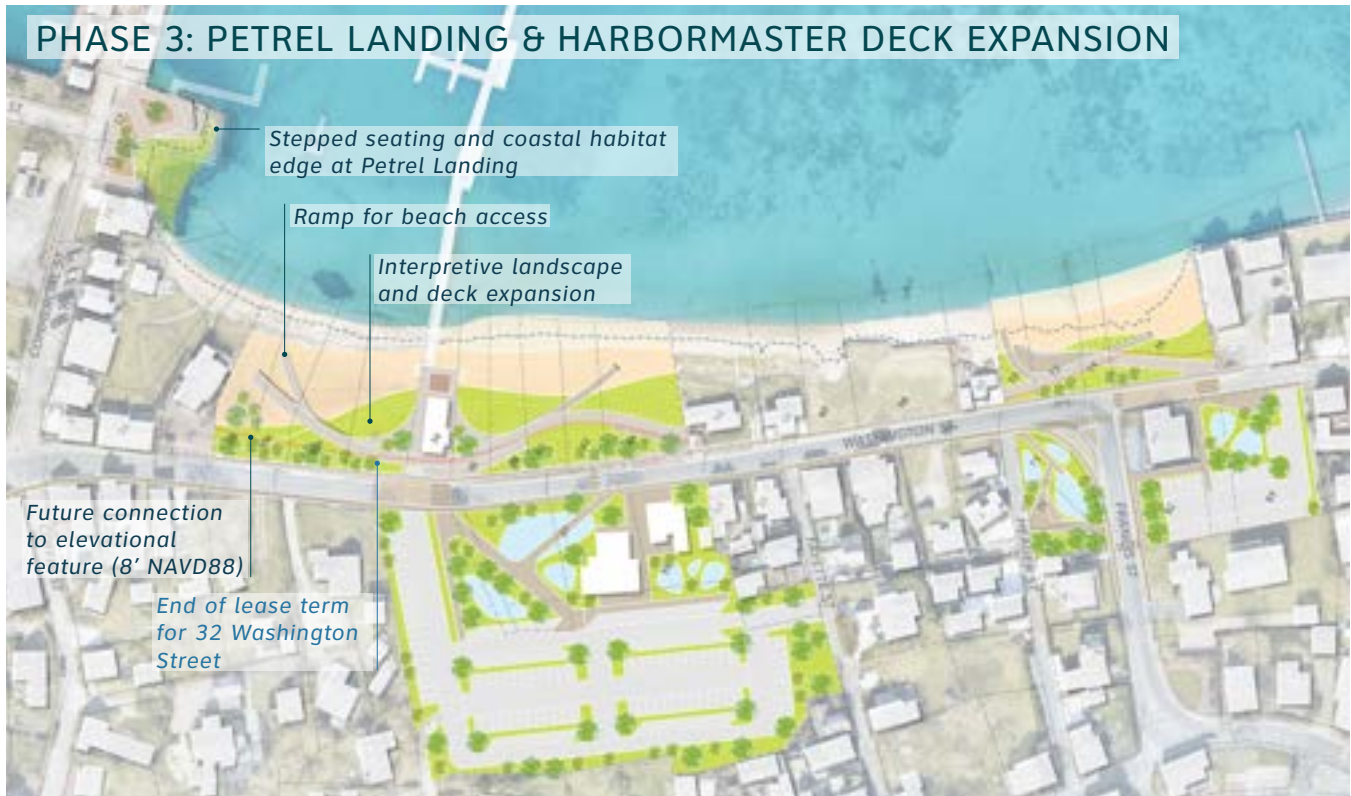
The first phase of implementation of the framework plan will encompass the Francis Street Beach parcels on the harbor side of Washington Street (70, 72, 74 and 76 Washington Street) and the adjacent inland parcels including 71, 73, 81 and 83 Washington. The first phase will include a beachfront viewing deck, stormwater gardens, and a permeable parking area.

PHASE 2: HARBORMASTER AND TOWN DOCK CENTER



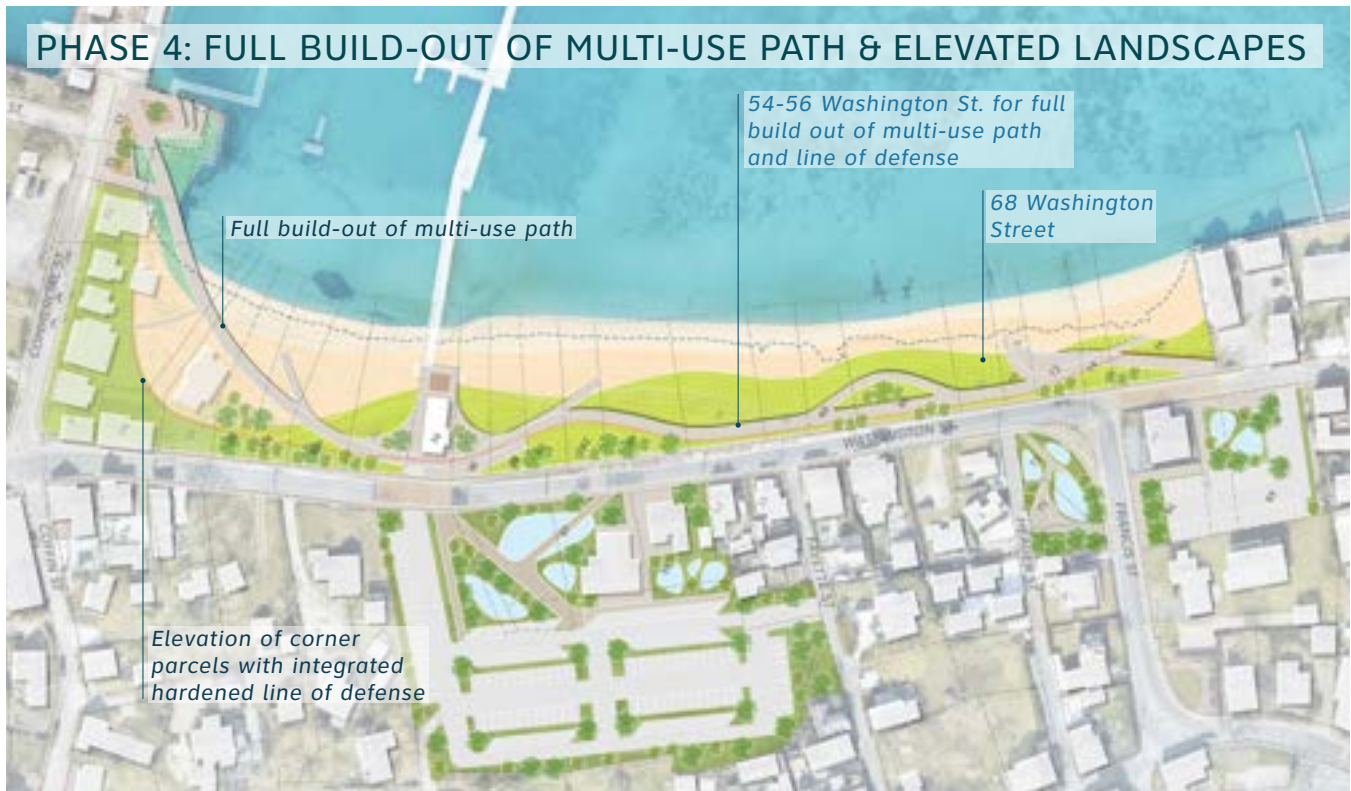
Phase 2 introduces a raised deck at the harbormaster building, and a raised trail and recreational beach access along the waterside parcels from 34-44 Washington. On the inland side, the plan envisions a series of stormwater gardens surrounding the existing town facilities and a renovated permeable town parking lot.

PHASE 3: PETREL LANDING & HARBORMASTER DECK EXPANSION



Phase 3 will expand the harbormaster deck and waterfront access to the north across 28, 30a, 30b, and 32 Washington Street. At Petrel Landing (15 and 17 Commercial Street), a new water's edge destination park will include gathering spaces, terraced seating, and a living shoreline.

PHASE 4: FULL BUILD-OUT OF MULTI-USE PATH & ELEVATED LANDSCAPES



Phase 4 assumes the need for collaboration with owners of parcels not currently controlled by the Nantucket Land Bank or Town of Nantucket. In this phase, both a 12' multi-use path and a continuous hardened elevational feature reaching at least elevation 8' NAVD88 would extend from Francis Street Beach to Petrel Landing.

PROJECT AREAS



REMAIN



LEGEND

- PROJECT AREA
- 2070 MHW
- 2050 MHW
- 2030 MHW
- Present MHW
- Land Bank Parcels
- Town Parcels

Data Source: MC-FRM

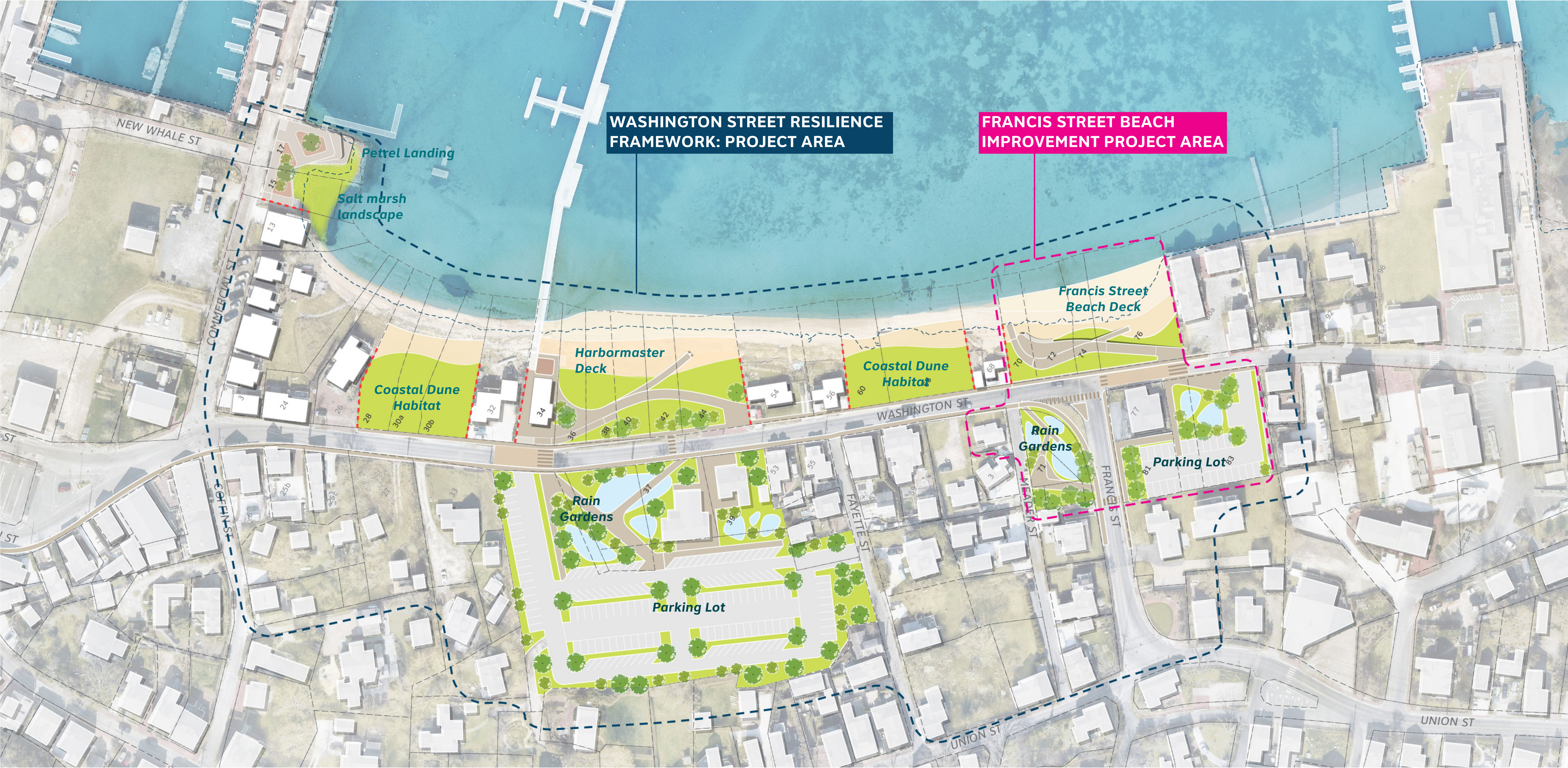
NOTE: ALL ELEVATIONS ARE IN THE NAVD88 VERTICAL DATUM

Map labels include: MHW 2050, MHW 2030, PRESENT MHW, EL: 2.5', EL: 3.5', EL: 3', EL: 7', EL: 3.5', EL: 4', EL: 5', EL: 5', MHW 2070, WASHINGTON STREET, FAYETTE STREET, MEADER STREET, FRANCIS STREET, and various parcel numbers (e.g., 17, 15, 13, 3d, 24, 26, 28, 30a, 30b, 32, 34, 36, 38, 40, 42, 44, 54, 56, 60, 66, 68, 70, 72, 74, 76, 77, 80a, 81, 83, 89, 90, 92, 96, 73, 71, 59, 57, 55, 53, 39, 37, 27, 33, 25b, 25c, 6, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97).

OPPORTUNITIES FOR COLLABORATION



REMAIN



THE SITE TODAY

FRANCIS STREET BEACH IMPROVEMENT PROJECT



HOW DO YOU USE THE SITE AT FRANCIS STREET BEACH TODAY?



PLEASE SHARE YOUR THOUGHTS!

To help inform next phases of the design, we would like to understand how you use the project area today.

- Do you visit Francis Street Beach?
- Do you go kayaking at Francis Street Beach?
- Do you ride your bike to or along Francis Street Beach?
- Do you utilize the town public parking lot?
- Do you walk along the Washington Street side walks or do you walk along the shoreline?

PLACE A PIN!

Each color pin represents a different program activity. If you use the site in any of the ways listed below, please place your pin on the existing conditions map!

- | | | | |
|--|------------------|--|-------------------|
| | BEACH RECREATION | | WALK |
| | KAYAK | | DRIVE |
| | RIDE BICYCLE | | PARK CAR |
| | PUBLIC TRANSIT | | SALT MARSH CENTER |

FUTURE SITE OPPORTUNITIES

FRANCIS STREET BEACH IMPROVEMENT PROJECT



HOW WOULD YOU LIKE TO USE THE SITE IN THE FUTURE?



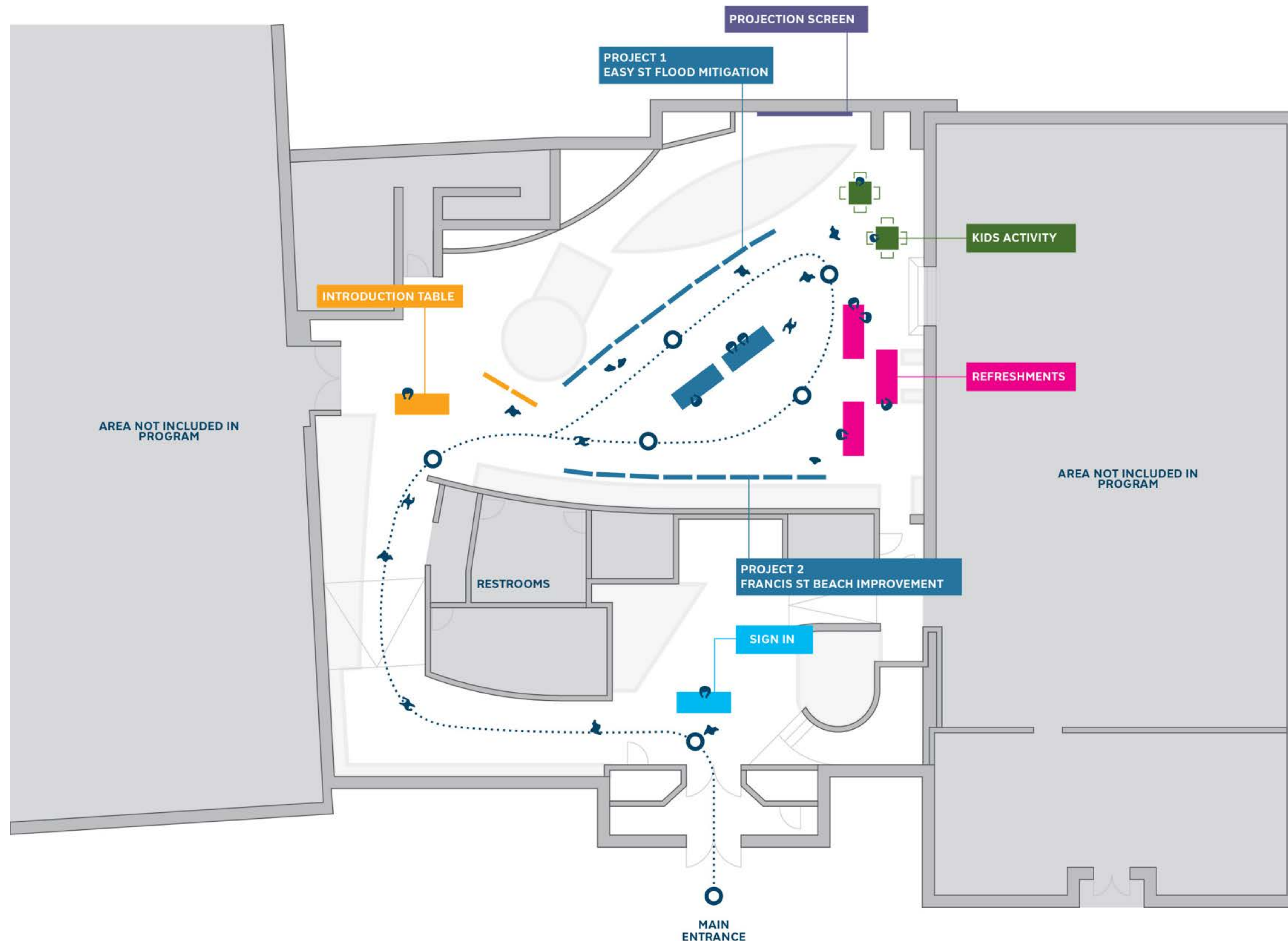
PLEASE SHARE YOUR THOUGHTS!

In the box below, please use a sticky note to add any additional program you would like to see at the Francis Street Beach Improvement Project.

ADDITIONAL PROGRAM THOUGHTS HERE

MEETING LAYOUT

NANTUCKET DOWNTOWN RESILIENCE OPEN HOUSE



1 PROJECT CONTEXT

WASHINGTON STREET RESILIENCE FRAMEWORK



REMAIN

PROJECT OVERVIEW

Washington Street provides essential transportation infrastructure along Nantucket Harbor, connecting Downtown Nantucket to the greater island. The Washington Street corridor experiences significant flooding during coastal storms, which disrupts this key transportation route and poses a threat to emergency access. As sea level rises, scientists predict an increased probability of flooding during storms and high tides (i.e. sunny day flooding). This Resilience Framework Plan is a long-range plan that proposes adaptations including dune restoration and coastal flood infrastructure to mitigate flooding impacts on Washington Street.



PROJECT STATUS:
LONG TERM PLANNING

PROJECT GOALS

ENVIRONMENTAL GOALS

- Improve the capacity of natural ecosystems to adapt to sea level rise and reduce adverse impacts to them
- Absorb, buffer, and manage water

SOCIAL GOALS

- Reduce flood risk to cultural and community assets
- Create public, universally accessible waterfront experiences for people
- Engage in dialogue with community members about climate risks and adaptation pathways

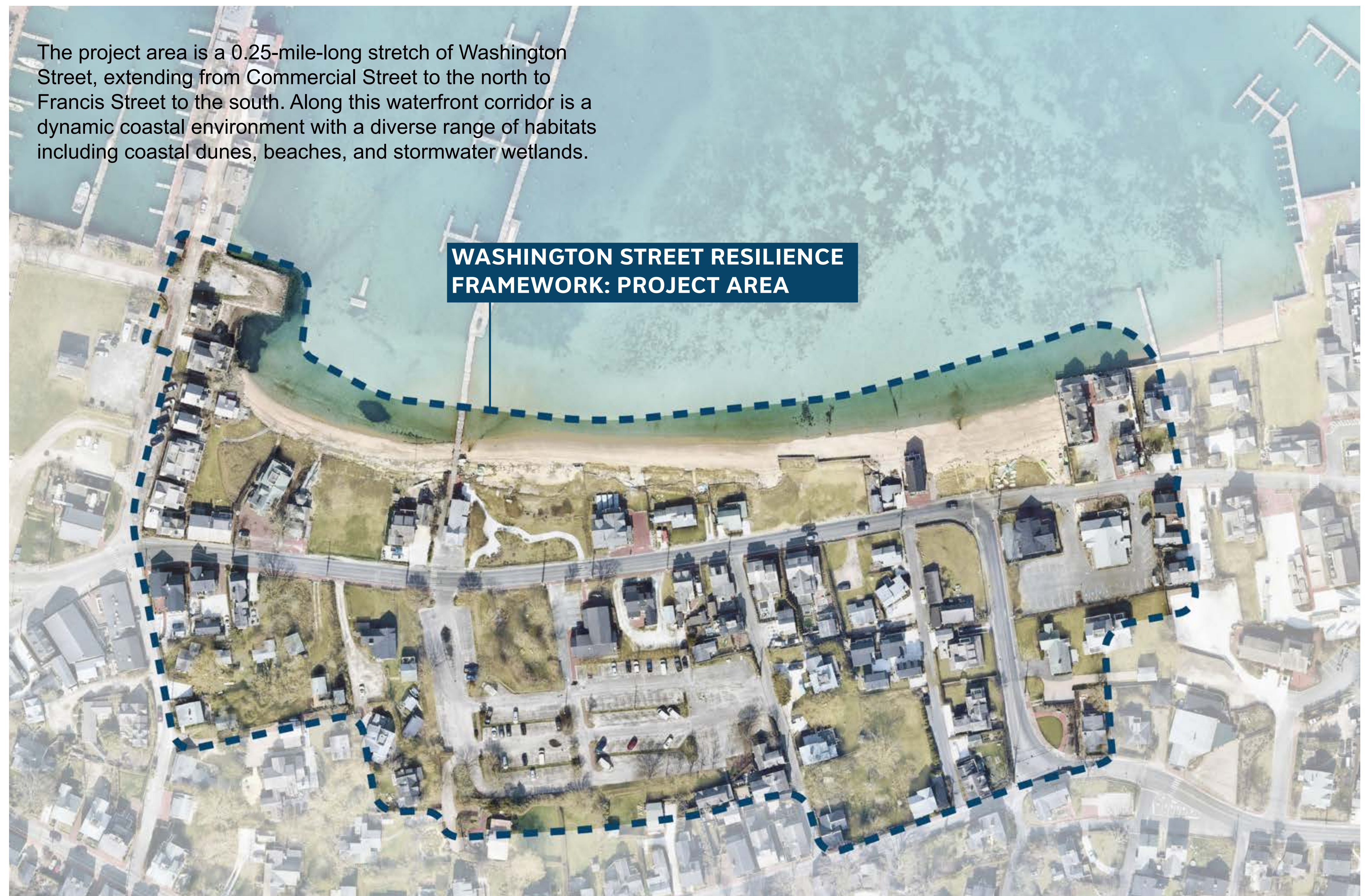
OPERATIONAL GOALS

- Reduce flood risk to sustain the long-term use of Washington Street
- Enhance multi-modal transportation infrastructure, critical to mobility and safety
- Develop feasible, adaptable, maintainable, and permissible solutions
- Clearly communicate economic benefits and anticipated project costs

PROJECT AREA

The project area is a 0.25-mile-long stretch of Washington Street, extending from Commercial Street to the north to Francis Street to the south. Along this waterfront corridor is a dynamic coastal environment with a diverse range of habitats including coastal dunes, beaches, and stormwater wetlands.

**WASHINGTON STREET RESILIENCE
FRAMEWORK: PROJECT AREA**



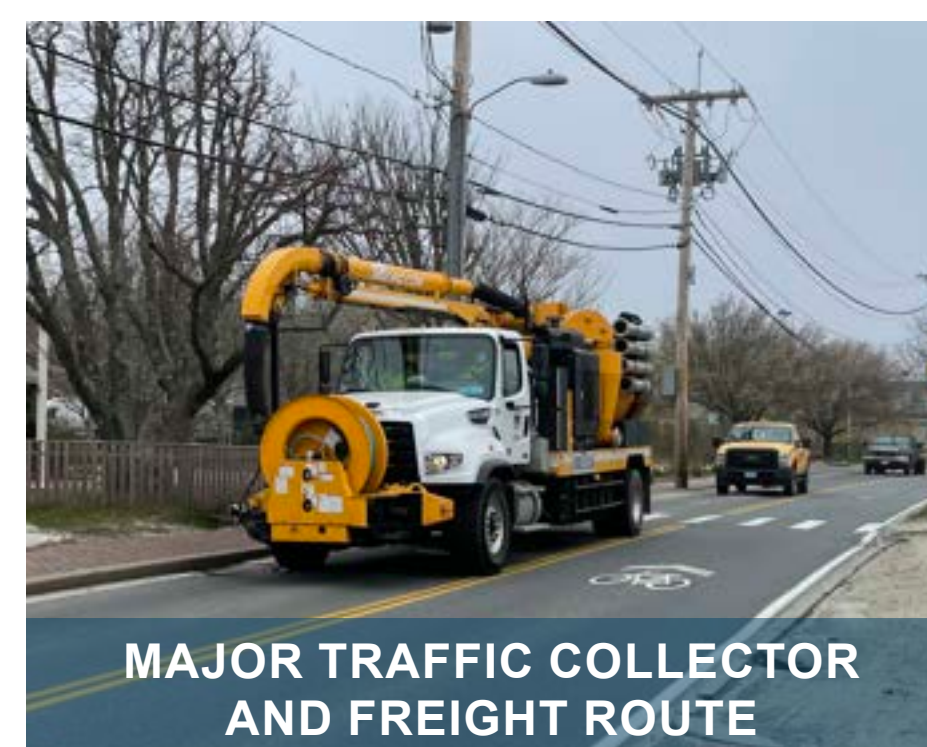
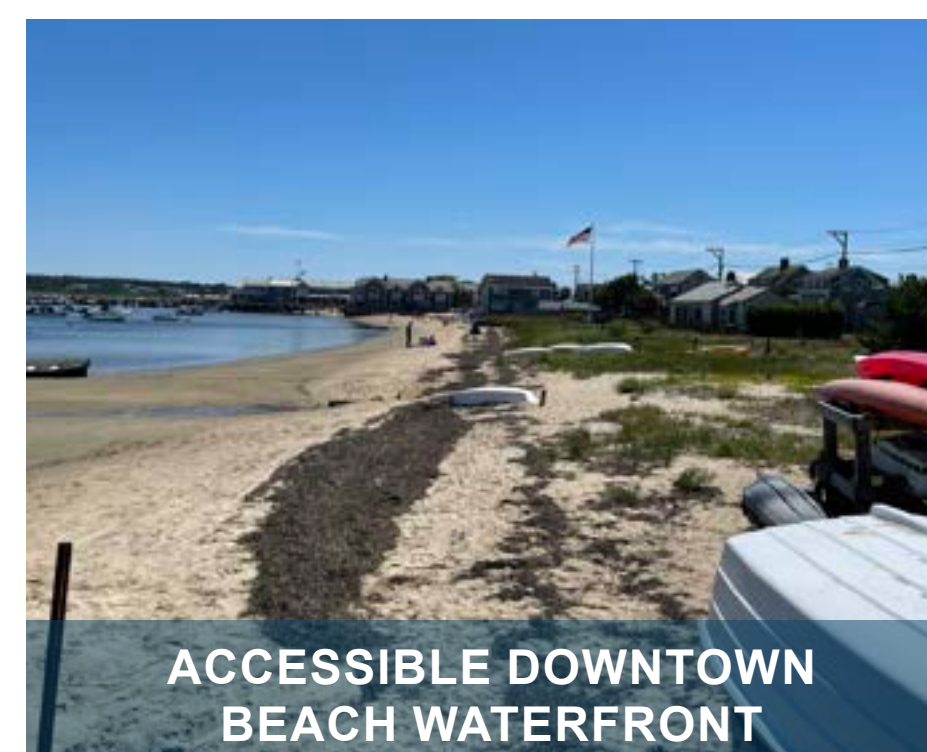
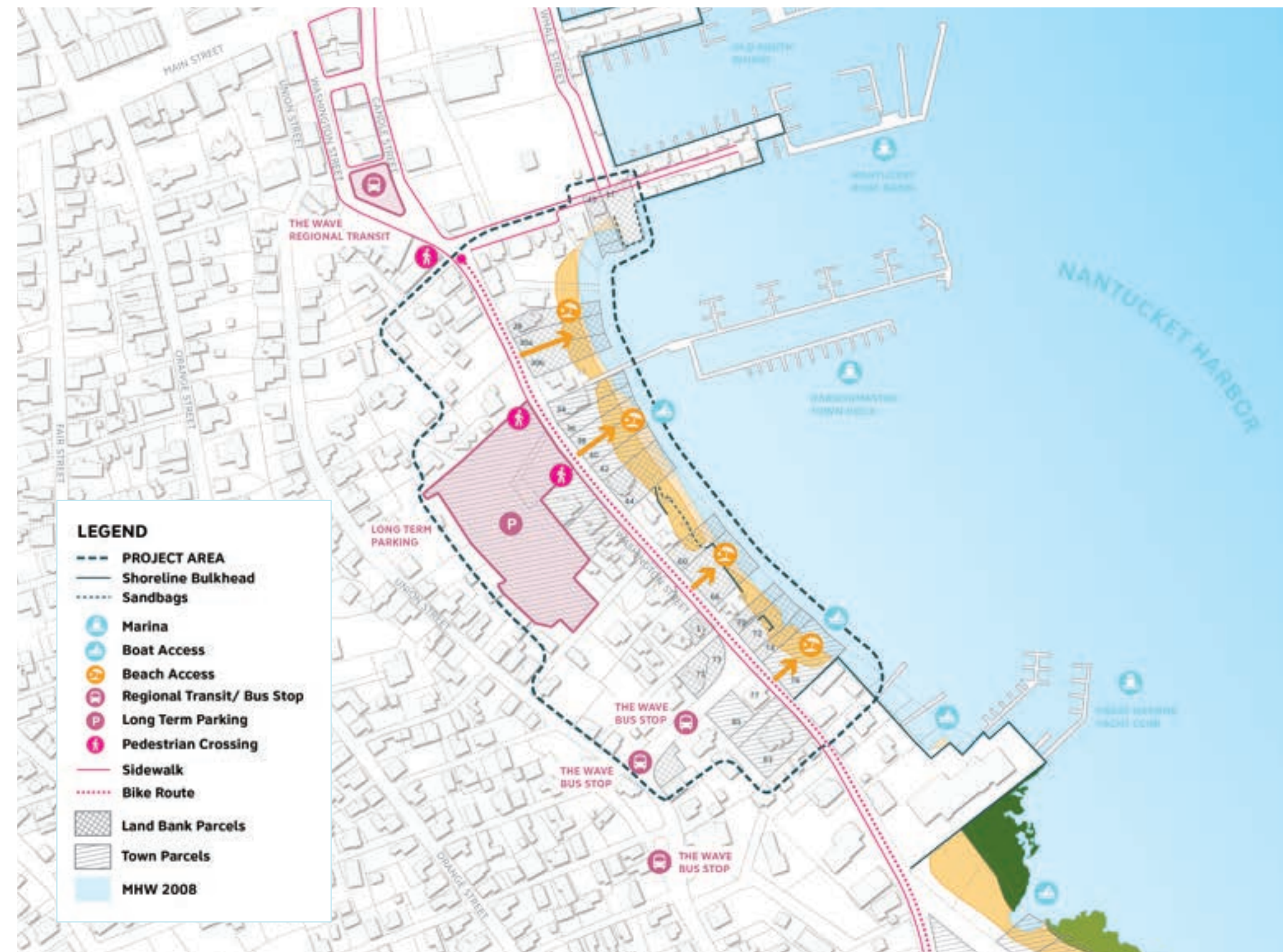
2 WASHINGTON STREET CONDITIONS

UNDERSTANDING EXISTING USES, CRITICAL INFRASTRUCTURE AND FLOOD RISK ALONG THE WATERFRONT



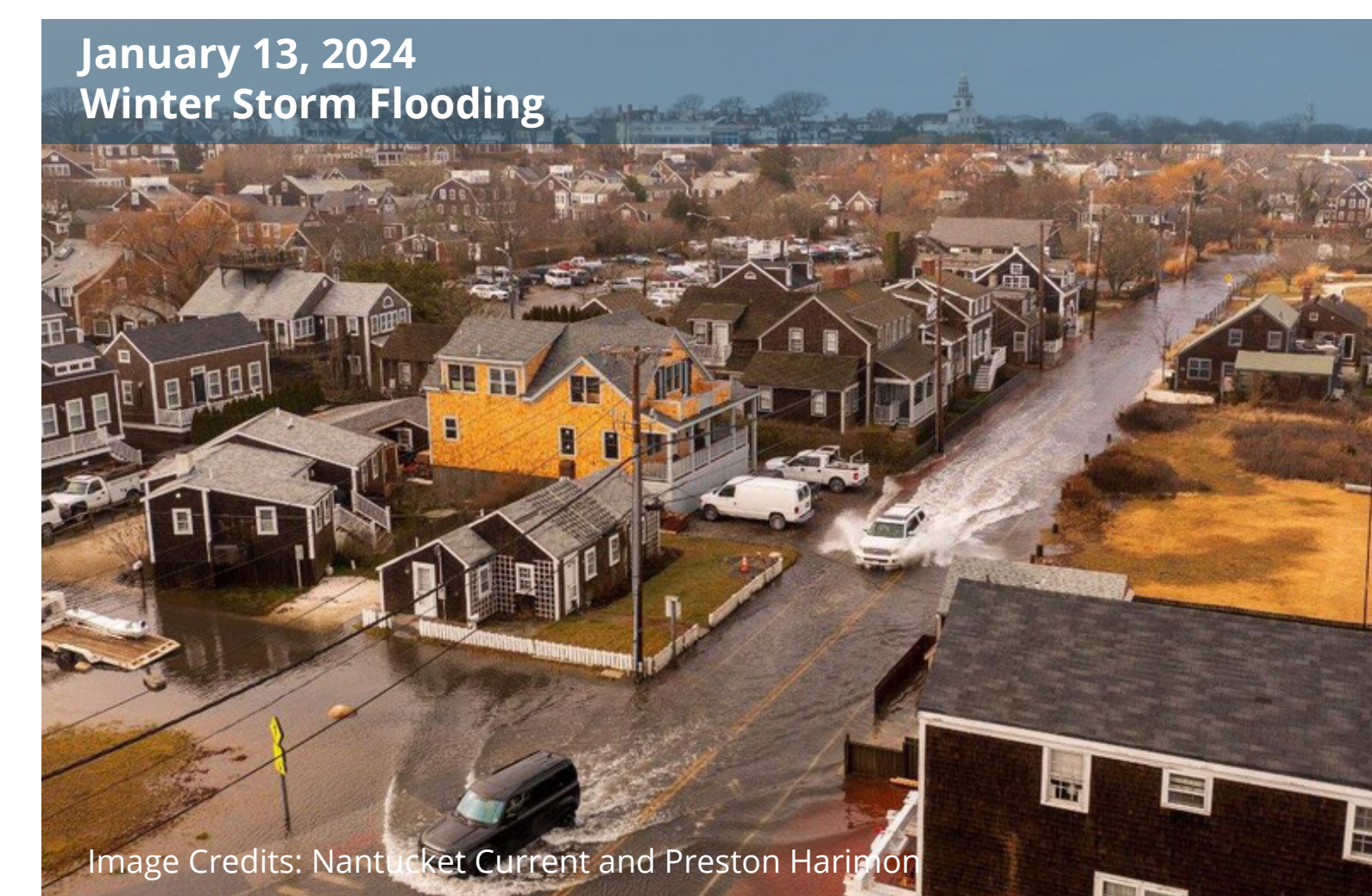
REMAIN

COMMUNITY ASSETS AND CRITICAL INFRASTRUCTURE



FLOOD RISK TODAY

Today, Washington Street floods during coastal storm events. The images below are records of flood events that have occurred over the past decade, limiting the functionality of an essential transportation route for Nantucket.



FUTURE FLOOD RISK AT WASHINGTON STREET



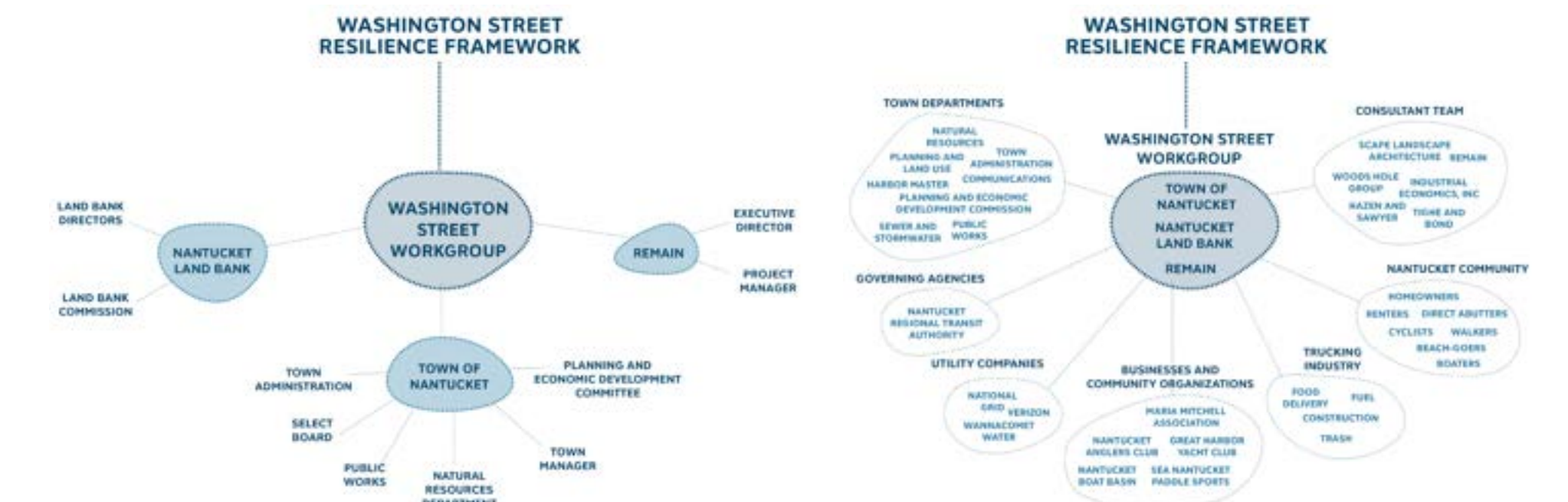
3 CREATING A FUTURE VISION FOR WASHINGTON STREET RESILIENCE



BUILDING A CONSTITUENCY AROUND RESILIENCE



STAKEHOLDER MAPPING



PRELIMINARY CONCEPTS

Plan renderings below are presented to initiate larger community discussions about potential adaptations for Washington Street over the next several decades.



4 FRANCIS STREET BEACH IMPROVEMENT PROJECT

PHASE 1: WASHINGTON STREET RESILIENCE FRAMEWORK



REMAIN

PROJECT OVERVIEW

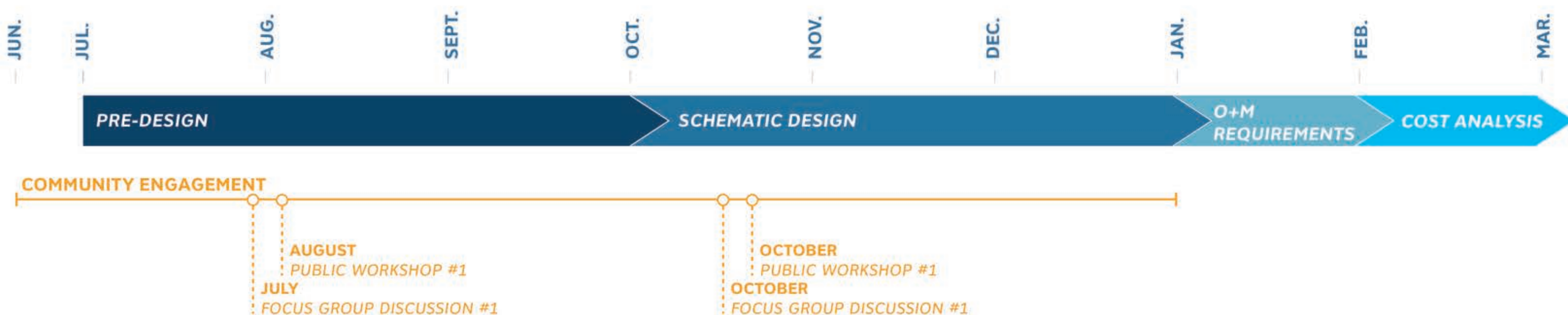
The Francis Street Beach Improvement Project represents a catalytic segment of the Washington Street Resilience Framework by demonstrating the critical relationship between coastal flood risk reduction and inland stormwater management. Waterside, the design includes a flood protection structure embedded beneath an elevated multi-use path and coastal dunes. Inland of Washington Street, a stormwater wetland park helps to mitigate inland flooding and creates spaces of refuge and pause near the busy Washington Street and Francis Street intersection.

PROJECT STATUS:

DESIGN



PROJECT TIMELINE

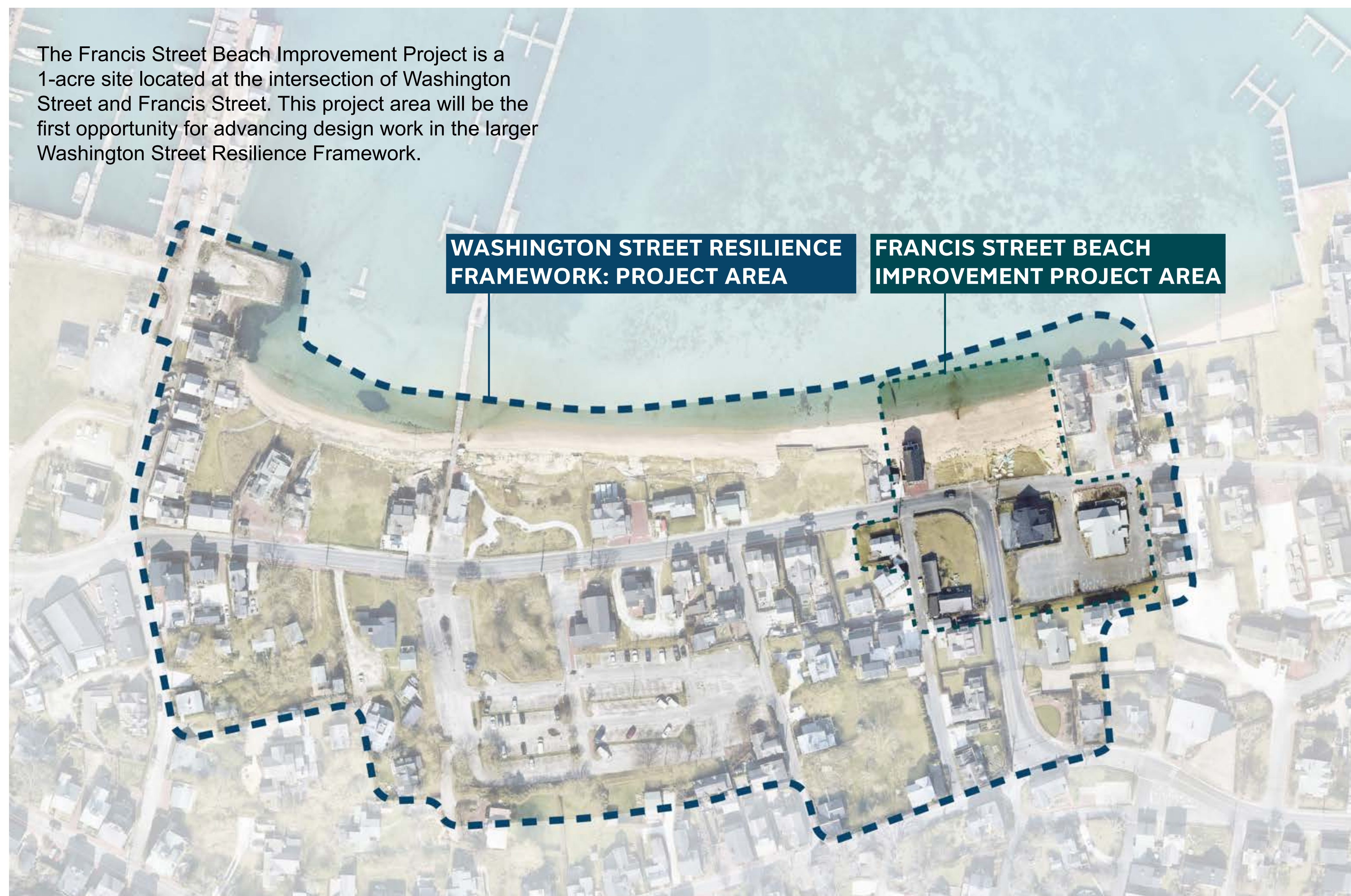


PROJECT AREA

The Francis Street Beach Improvement Project is a 1-acre site located at the intersection of Washington Street and Francis Street. This project area will be the first opportunity for advancing design work in the larger Washington Street Resilience Framework.

WASHINGTON STREET RESILIENCE FRAMEWORK: PROJECT AREA

FRANCIS STREET BEACH IMPROVEMENT PROJECT AREA



5 PRELIMINARY DESIGN FOR THE FRANCIS STREET BEACH IMPROVEMENT PROJECT

PRELIMINARY CONCEPT FOR FRANCIS STREET BEACH

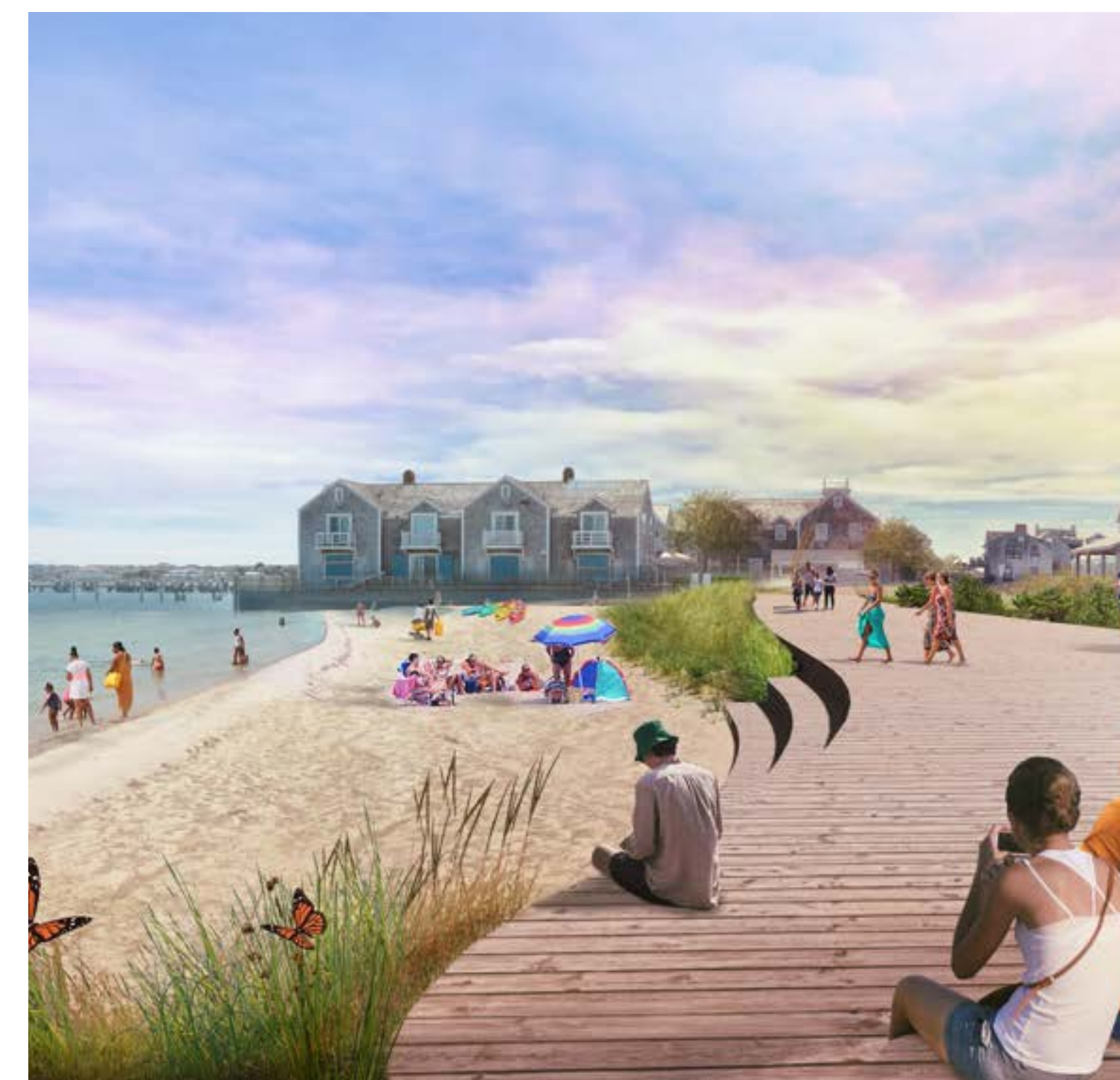


A CATALYTIC PROJECT



BEACH DECK RENDERING

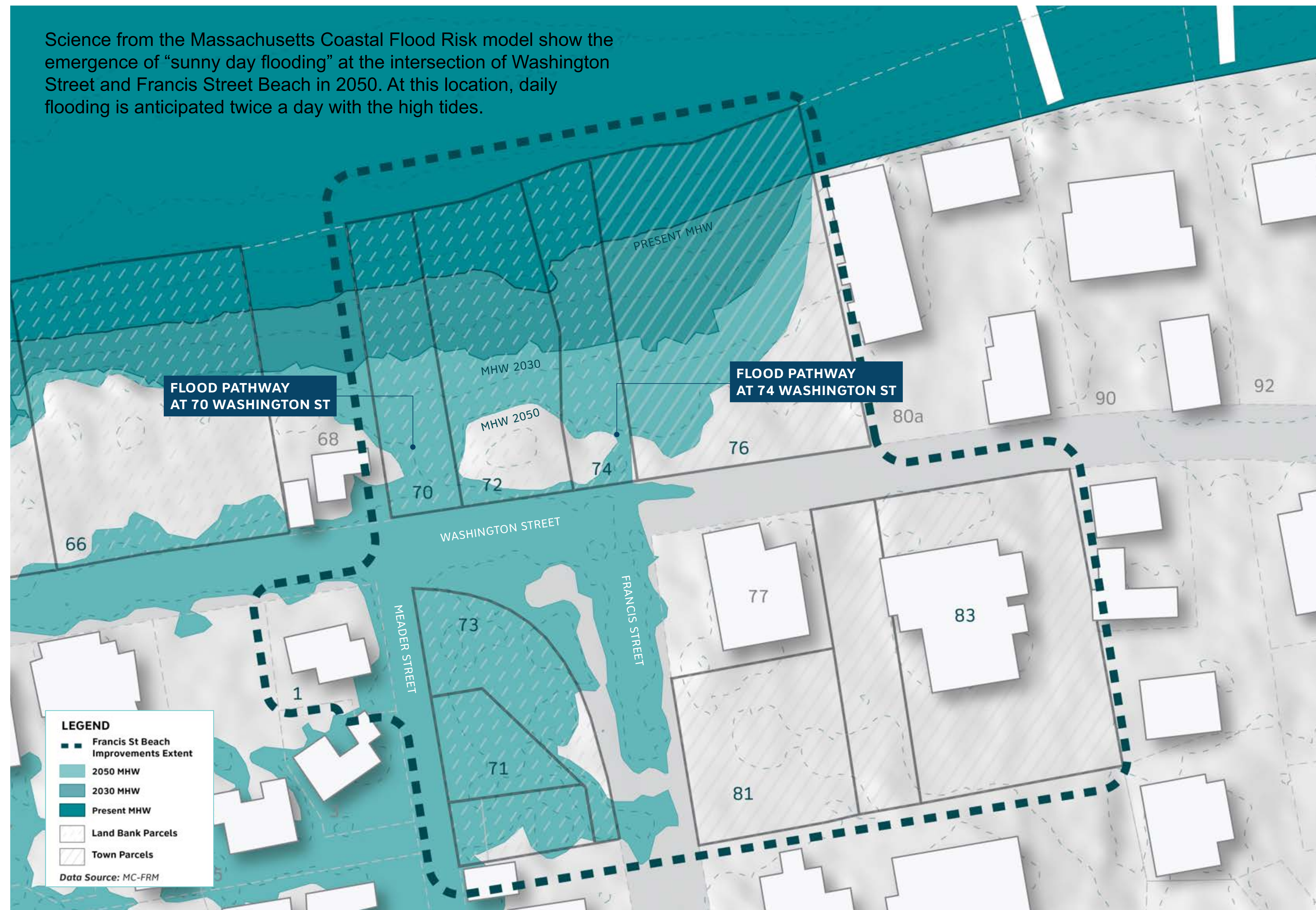
STORMWATER OVERLOOK



6 THE SITE TODAY

COASTAL FLOOD RISK AT THE FRANCIS STREET BEACH IMPROVEMENT PROJECT

SUNNY DAY FLOODING IN 2050



WINTER STORM FLOODING

The image below highlights the flood pathway at 70 Washington Street. Water is moving across the roadway and into the adjacent parcel at 73 Washington Street.

February 13, 2024
Water Level: Approx. 3.8 NAVD88

Image Credits: www.mycoast.org



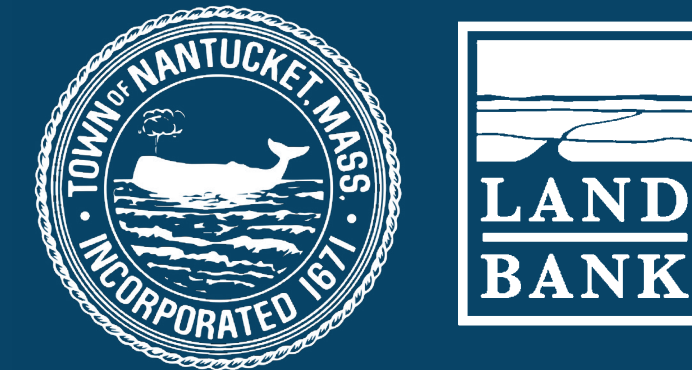
Low elevations at 70 Washington Street provide a direct connection for rising waters to enter the roadway. In the image below, adjacent higher planting areas are not flooded.

March 2, 2018
Water Level: Approx. 3.6 NAVD88

Image Credits: www.mycoast.org



7 THE SITE TODAY



REMAIN

HOW DO YOU USE THE SITE AT FRANCIS STREET BEACH TODAY?



PLEASE SHARE YOUR THOUGHTS!

To help inform next phases of the design, we would like to understand how you use the project area today.

- Do you visit Francis Street Beach?
- Do you go kayaking at Francis Street Beach?
- Do you ride your bike to or along Francis Street Beach?
- Do you utilize the town public parking lot?
- Do you walk along the Washington Street side walks or do you walk along the shoreline?

PLACE A PIN!

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- | | | | |
|--|------------------|--|-------------------|
| | BEACH RECREATION | | WALK |
| | KAYAK | | DRIVE |
| | RIDE BICYCLE | | PARK CAR |
| | PUBLIC TRANSIT | | SALT MARSH CENTER |

8 FUTURE SITE OPPORTUNITIES

HOW WOULD YOU LIKE TO USE THE SITE IN THE FUTURE?



PLEASE SHARE YOUR THOUGHTS!

In the box below, please use a sticky note to add any additional program you would like to see at the Francis Street Beach Improvement Project.

ADDITIONAL PROGRAM
THOUGHTS HERE

9 FUTURE SITE OPPORTUNITIES

FROM THE IMAGES BELOW, WHICH RESONATE WITH YOU THE MOST?

USE THE GREEN (LIKE), RED (DON'T LIKE), AND YELLOW (NO OPINION) STICKERS TO SHARE HOW YOU FEEL!



REMAIN

RECREATION



ECOLOGY



ACCESS



BACKGROUND

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QUESTIONS?

Who to reach out to? Contact information
for Town of Nantucket or Land Bank? info@
stormrecovery.ny.gov; or reached by phone
at 212-480-2321.

LEARN MORE



EAST STREET
MITIGATION PROJECT

Visit the Project Website:
<https://nlaskdjflkasjdfkasdf.com>



FRANCIS STREET BEACH
IMPROVEMENT PROJECT

Visit the Project Website:
<https://nlaskdjflkasjdfkasdf.com>

SUPPORTING ORGANIZATIONS



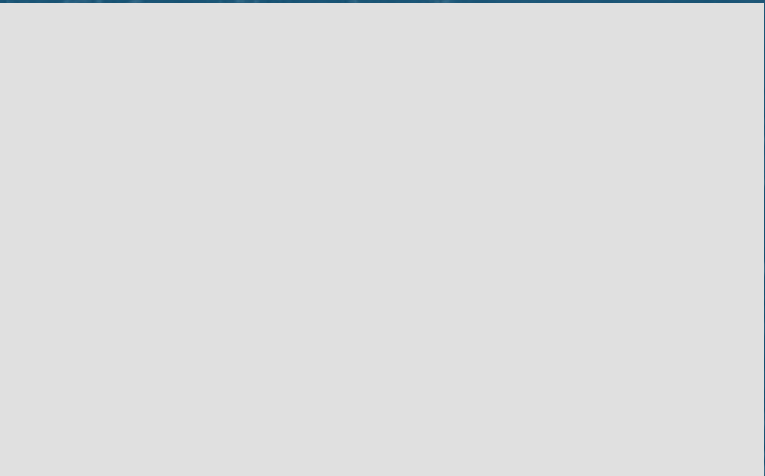
REMAIN

Downtown Resilience
Planning Open House

In the face of rising seas and stronger storms, how can we protect and adapt the coastal places we love? By reviewing the projects below and providing feedback, you are helping us understand how best to build resilience in Downtown Nantucket.

EAST STREET MITIGATION PROJECT

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FRANCIS STREET BEACH IMPROVEMENT PROJECT

The Francis Street Beach Improvement Project represents a catalytic segment of the Washington Street Resilience Framework by demonstrating the critical relationship between coastal flood risk reduction and inland stormwater management. Waterside, the design includes a flood protection structure embedded beneath an elevated multi-use path and coastal dunes. Inland of Washington Street, a stormwater wetland park helps to mitigate inland flooding and creates spaces of refuge and pause near the busy Washington Street and Francis Street intersection.



East Street Mitigation Project

PROJECT OVERVIEW

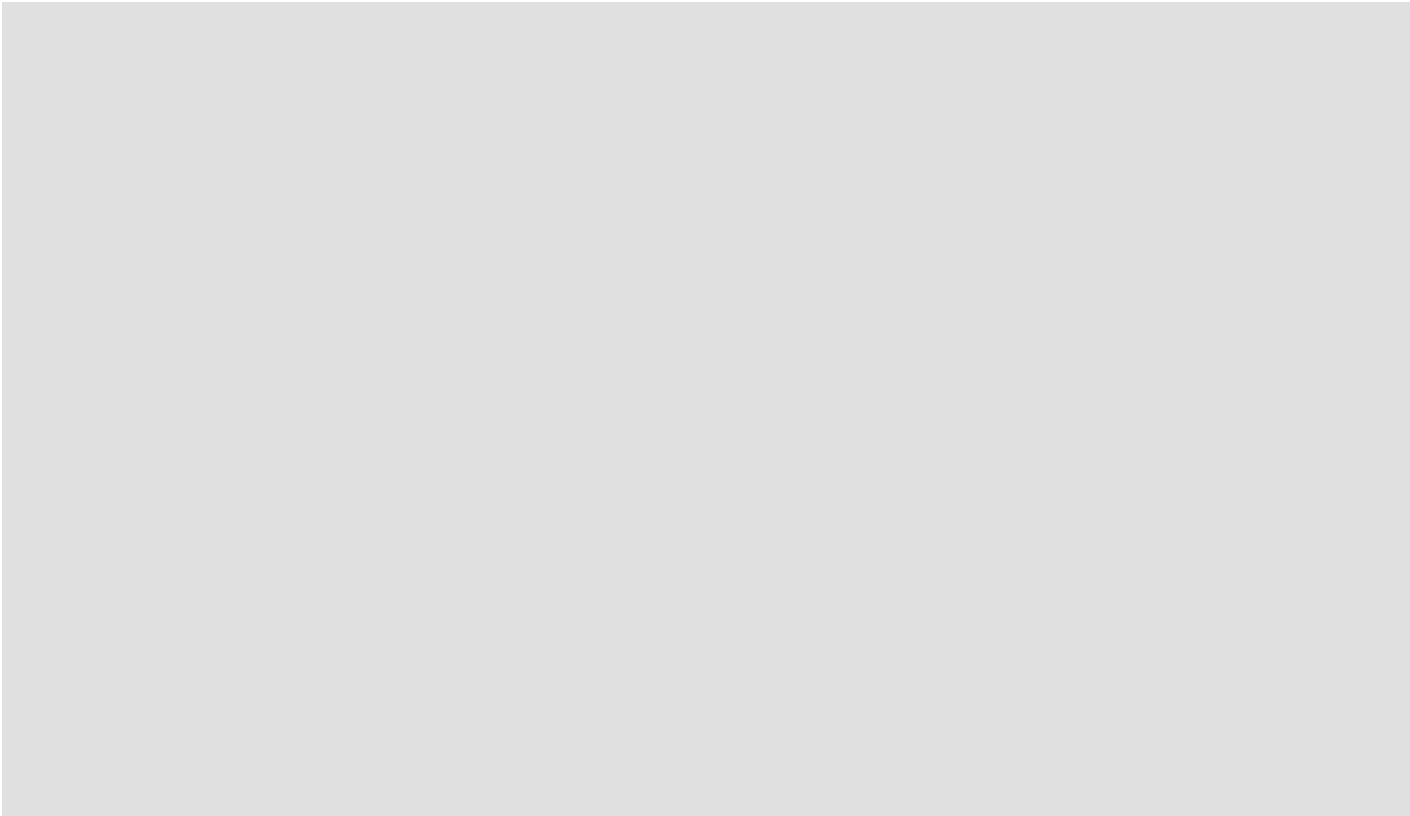
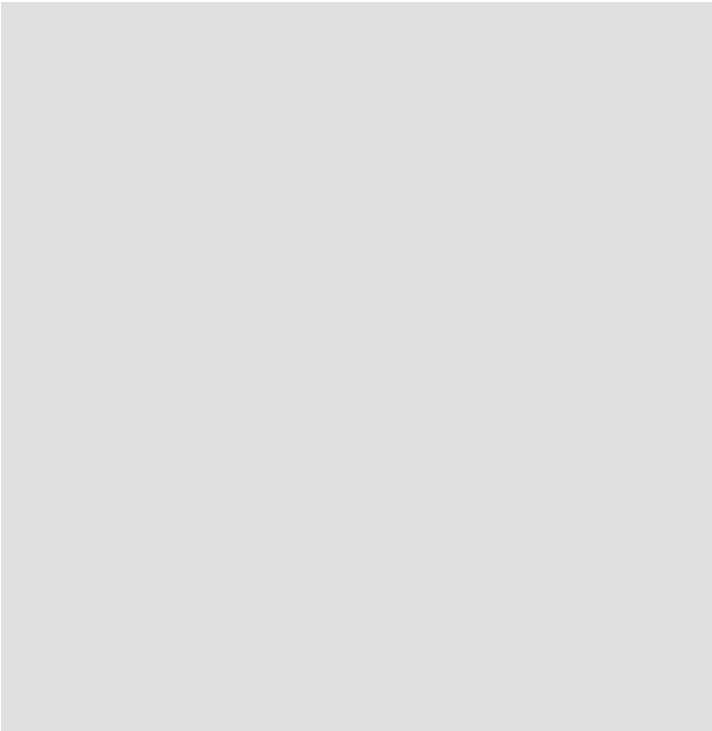
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PROJECT PHASE

Add

CONSULTANT TEAM

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Francis Street Beach Improvement Project

PROJECT OVERVIEW

The Francis Street Beach Improvement Project is a 1-acre site located at the intersection of Washington Street and Francis Street. This project area will be the first opportunity for advancing design work in the larger Washington Street Resilience Framework.

PROJECT PHASE

Design

CONSULTANT TEAM

The Town of Nantucket and The Nantucket Land Bank are working alongside a multi-disciplinary design team lead by SCAPE Landscape Architecture. with Woods Hole Group, Hazen and Sawyer and Industrial Economics Incorporated.

