REBUILD BY DESIGN
- RESIST - DELAY - STORE - DISCHARGE -
HUDSON RIVER
CAG MEETING - DESIGN ELEMENTS AND AMENITIES UPDATE
Meeting Agenda

Project Update .................................................. Dewberry
Alternatives 1, 2, & 3 .............................................. Dewberry
Resist ..................................................................... OMA
Delay, Store, Discharge ........................................... SCAPE
Breakout .................................................................. All
THE PROCESS

we are here

Alternative Analysis

NOI
Purpose & Need
Scoping
Screening Criteria / Metrics
Concept Screening
Draft EIS
Final EIS
ROD

June 2015
Aug 2015
Sept 2015
Oct 2015
Feb 2016
July 2016
Nov/Dec 2016
Mar/Apr 2017
Apr/May 2017

NEPA PROCESS

FEASIBILITY ASSESSMENT

PUBLIC INVOLVEMENT

REBUILD BY DESIGN HUDSON RIVER: RESIST - DELAY - STORE - DISCHARGE
Upcoming Meetings

Community Meeting (CAG) Flood Modeling .................................................. July 12

Community Meeting (CAG) Alternatives Analysis ........................................... Week Of July 25th

Public Meeting for Preferred Alternative ......................................................... Week Of August 15th
Alternatives
ALTERNATIVE 1

Resist alignment which provides highest level of storm surge risk reduction benefits with waterfront structures.

Characteristics:
- Provides greatest level of coastal flood risk reduction benefits
- Potentially least amount of transportation network (roadway and parking) disruption
- Highest cost and complexity to construct compared to the other alternatives
- Most impact on existing waterfront views/access

Legend:
- Stormwater Tank
- Stormwater Tank Bump-out
- Multipurpose Stormwater Facilities
- Pumps
- Existing Structure
- Municipal Boundaries
- Study Area
- Preliminary FEMA 100 Year Flood Plain
  * Approximate Structure Height to meet FEMA Certification and 2075 flood level rise.

(6/16) DRAFT IDEAS FOR DISCUSSION PURPOSES ONLY
ALTERNATIVE 2

(6/16) DRAFT IDEAS FOR DISCUSSION PURPOSES ONLY

Resist alignment which provides storm surge risk reduction benefits using public right-of-way.

Characteristics:
- Does not impact waterfront views or existing waterfront access
- Less costly to construct compared to Alternative 1
  - May require reduction in space along Washington Street for structure footprint
  - May have impact on roadway/traffic flow on 13th Street

Legend:
- Stormwater Tank
- Stormwater Tank Bump-out
- Multipurpose Stormwater Facilities
- Pumps
- Existing Structure
- Municipal Boundaries
- Study Area
- Preliminary FEMA 100-Year Flood Plain
  - Approximate Structure Height to meet FEMA Certification and 2075 sea level rise.
Resist alignment which provides storm surge risk reduction benefits using alleyway easement.

CHARACTERISTICS:
- Does not impact waterfront views or existing waterfront access
- Less costly to construct and maintain compared to Alternative 1
- Reduced traffic and circulation impacts compared to Alternative 2 by using alleyway for portion of alignment
- May enhance the urban design and existing use of public space within the alleyway
- May require reduction in space along Washington Street for structure footprint

Legend:
- Stormwater Tank
- Stormwater Tank Bump-out
- Multipurpose Stormwater Facilities
- Pumps
- Existing Structure
- Municipal Boundaries
- Study Area
- Preliminary FEMA 100 Year Flood Plain
- * Approximate Structure Height to meet FEMA Certification and 2075 sea level rise.
Urban Design
Study Area

3 Cities

- Approximately 62,500 Residents
- 1,020 Acres

- Commuter Node
  Hoboken Terminal

- Utilities
  North Hudson Sewage Authority (NHSA)
  Public Service Enterprise Group (PSEG)
  United Water
  Verizon
  Cablevision
City-wide Interventions

**Resist**
- Alternative 1
- Alternative 2
- Alternative 3

**Delay, Store, Discharge**
- Large Sites
- Public Right of Way Sites
Regions

- **Activation Design** - Public spaces, with greatest opportunity for designing community amenities, programming, and place making.
- **Passive Design** - Publicly visible spaces, facade treatments and minimally designed structures to provide resist and communal services.
- **Programming Design** - Programming spaces to facilitate community amenities independent of structure.
- **Gate Location** along alignment
- **Large Delay Store Discharge Sites**
Toolkit - Performative Barrier

Technical Performance + Urban Performance

How does it perform as flood protection?

What urban amenities does it need to provide?

Height Performance

Context Integration

Construction Method

Functionality

Scouring Performance

Look & Feel
The height of the barrier and its ability to expand or contract is determined based on its location in the study area.

**CEILING**  6’-8” – 13’

**EYE-LEVEL**  4’-2” – 6’-8”

**TABLE**  3’ – 4’-2”

**CHAIR**  1’ – 3’

**GROUND**  0’ – 1’
# Toolkit - Amenity Matrix

<table>
<thead>
<tr>
<th>Functions</th>
<th>Bike Storage</th>
<th>Seat</th>
<th>Table</th>
<th>Garbage</th>
<th>Wayfinding</th>
<th>Canopy</th>
<th>Light</th>
<th>Services</th>
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</thead>
<tbody>
<tr>
<td>Heights</td>
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<td>Eye-Level</td>
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<td>Seat</td>
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<td>Ground</td>
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</table>
## Toolkit - Planting Matrix

<table>
<thead>
<tr>
<th>Planting</th>
<th>Tree</th>
<th>Shrub</th>
<th>Grass</th>
<th>Mixed</th>
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<tr>
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<td><img src="enfolded_grass.png" alt="Image" /></td>
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<td><img src="stepped_shrub.png" alt="Image" /></td>
<td><img src="stepped_grass.png" alt="Image" /></td>
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<td>In Planter</td>
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<td><img src="in_planter_shrub.png" alt="Image" /></td>
<td><img src="in_planter_grass.png" alt="Image" /></td>
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<tr>
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<td><img src="sidewalk_grass.png" alt="Image" /></td>
<td><img src="sidewalk_mixed.png" alt="Image" /></td>
</tr>
</tbody>
</table>
Toolkit - Application and Activation

Application of texture and color creates visual interest while establishing identity and variety along the barrier, and integrating urban amenities strategically along the barrier encourages community interaction.

Texture

Color

Amenities

- Colored orientation markers
- Add: Lighting
- Add: Bench

Integrating wayfinding through texture
Design Zones
Design Zones

Zone 1 — Weehawken Tie In
Alternative 1 @ Waterfront to Lincoln Tunnel
Alternative 2, 3 @ Inland to 19th Street

Zone 2 — Weehawken Cove
Alternative 1, 2, 3 @ Boathouse to Park Space

Zone 3 — Residential
Alternative 1 @ Waterfront along Tea Building
Alternative 2 @ 15th St to Washington St.
Alternative 3 @ Alleyway to Washington St.

Zone 4 — North Waterfront
Alternative 1 Only

BASF Site
DSD - Alternative 1, 2, 3

NJ Transit Site
DSD - Alternative 1, 2, 3

Block 10 Site
DSD - Alternative 1, 2, 3

Zone 5 — South Waterfront
Alternative 1 Only

Zone 6 — Observer Highway
Alternative 1, 2, 3 @ Street or along rails

Zone 7 — Jersey Avenue Underpass
Alternative 1, 2, 3 @ Underpass
Zone 2 & 3

Zone 2 — Weehawken Cove
Alternative 1, 2, 3 @ Boathouse to Park Space

Zone 3 — Residential
Alternative 1 @ Waterfront along Tea Building
Alternative 2 @ 15th St to Washington St.
Alternative 3 @ Alleyway to Washington St.
Harborside Park Strategies

Water Oriented

Urban Oriented

Multi-Oriented

ALT-1

ALT-2

ALT-3

Recommended
Sloping Landscape
15th St. Landscape
Alt. 2 - Washington Street
Alt. 2 - Washington Street

Community Stoop + Sidewalk + Parking

Seating & view down Washington

Playground

Parking

Parking: 41

Parking: 25
Alt. 2 - Washington Street

Community Stoop + Sidewalk

View down Washington

Playground

Playground

Parking: 41

Parking: 18
Alt. 2 - Washington Street

Community Stoop + Sidewalk + Parking
Alt. 3 - Garden St. and Alleyway

- Harborade Lofts
- Parking Garage
- Tea Building
- 1450 Washington
West Alleyway - No Ramp Option

Bloomfield St.

Garden St. Lofts

Garden St.

Hudson Tea Parking Garage
East Alleyway

Parking: 31 Spaces (-10 Net Loss)
East Alleyway

Parking: 41 Spaces

Washington St.

14th St.

Bloomfield St.
Zone 5

Zone 5 — South Waterfront

Alternative 1 Only
Zone 6 — Observer Highway
Alternative 1, 2, 3 © Street or along rails
Bicycle Parking
Zone 1 — Weehawken Tie In

Alternative 1 @ Waterfront to Lincoln Tunnel
Alternative 2, 3 @ Inland to 19th Street
Shrub Planter
Alt. 3 Harbor Blvd Before
Alt. 3 Harbor Blvd After

Graphic Concrete - Mural

Mural Wall

Planter

Seating
Alt. 3 Harbor Blvd After

Graphic Concrete - Figural

- Concrete Texture
- Lighting
- Seating
- Planter
Alt. 3 Harbor Blvd After

Graphic Concrete - Abstract
Graphic Concrete - Figural
Graphic Concrete - Texture and Pattern
Painted Mural
Delay
Store
Discharge
Citywide Strategy
Right of Way Sites
UNDERGROUND WATER STORAGE UNIT

TYPICAL CONDITION
Wide Sidewalk - Alternative Amenities
Narrow Sidewalk - Alternative Amenities
BASF Site
BASF Site - Cross Section

- Track/Winter Skate Rink
- Playground
- Gathering Space
- Splash
Block 10 Site
New Jersey Transit Site
NJ Transit - Option 02 - Passive
Breakout

Zones 2-3 (North Hoboken)

Zones 4-5 (North and South Waterfront)

Zones 1, 6-7 (Weehawkek South Hoboken) + Toolkit

Delay, Store, Discharge
END