LMCR OVERVIEW

PURPOSE OF STUDY:
1. Develop long-term strategy and feasible concept design for all of Lower Manhattan
2. Prioritize project concepts toward implementation and conduct advanced planning when possible
3. Engage with community on core design principles and priorities

STUDY FUNDING
+ $7.25M CDBG-DR
  ($3.75M GOSR; $3.5M NYC)
IMPLEMENTATION FUNDING IN PLACE

TWO BRIDGES
- $176M (CDBG-NDR)
- $27M (City Capital)
- Total: $203M

FIDI+BPC
- $100M (City Capital)
- $8M for The Battery
- Total: TBD
THE CHALLENGE

To develop a feasible strategy and concept design for a flood protection system in Two Bridges.
CORE MISSION

FLOOD RISK REDUCTION + PUBLIC BENEFIT
LMCR PROJECT APPROACH

WHERE DOES FLOOD INFRASTRUCTURE BEST SERVE THE COMMUNITY?
CONSTRUCTABILITY
- Cost
- Structural requirements
- Impacts on utilities
- Disruptions to existing structures and transportation
- Failure risk

SCHEDULE
- Regulatory actions
- Environmental impacts
- Jurisdictional coordination

RESILIENCE
- Buildings, residents, and infrastructure protected
- Adaptability

OPERATIONS & MAINTENANCE
- Accessibility
- O&M requirements

PUBLIC REALM BENEFITS
- Opportunity for community amenities, placemaking, and urban design
CONCEPTUAL ALIGNMENTS

EDGE

UPLAND

HYBRID
HEIGHT OF INTERVENTION
- 0-6FT
- 6-10FT
- 10+ FT

VULNERABLE POPULATIONS

ALIGNMENT STUDY AREA BOUNDARY

2050s 100 YEAR FLOODLINE
The preferred project footprint allows the project team to maximize opportunity for public benefit, streamlines coordination with property owners and stakeholders, preserves inland/neighborhood operations, minimizes permanent disruptions to traffic, and provides maximum protection for residents, utilities, and infrastructure. Pier 36 will require building level resiliency measures.
HOW CAN LMCR SHAPE A BETTER WATERFRONT FOR TWO BRIDGES?
DESIGN OBJECTIVES
DESIGN OBJECTIVES

1. PRESERVE VIEWS + ACCESS

2. DISTRIBUTE PROGRAM EQUITABLY

3. INTEGRATE INFRASTRUCTURE INTO THE PUBLIC REALM
PRESERVE VIEWS + ACCESS
INFRASTRUCUTRE TOOLKIT | USE DEPLOYABLE GATES TO PRESERVE VIEWS + ACCESS

PASSIVE INFRASTRUCTURE

FLOOD WALL

GATES HIDDEN WHEN STORED

FLIP-UP BARRIER

GATES VISIBLE WHEN STORED

SWING GATE

ROLLER GATE
FLIP-UP GATE FEATURES

A.  
- Cover plates will hide seams and protect gate hinges.
- Gates and cover plates can be designed flush with existing grade.

B.  
- Flip-up gates can be clad with pavers that match the surroundings.

C.  
- Adjacent gates will be sealed against an intermediate structural post.
- Furnishings cannot be permanently installed on top of the flip-up gates.
ADAPTING INFRASTRUCTURE | MAINTAIN WATERFRONT CONNECTIONS

FLOOD WALL + DEPLOYABLE
PHYSICAL CONSTRAINTS

- Cannot jeopardize structural integrity of the bulkhead
- Structural supports cannot interfere with subsurface utilities
- Cannot interfere with FDR Viaduct columns + foundations
LINE OF PROTECTION | WEAVE THROUGH EXISTING INFRASTRUCTURE

- Flood Wall
- Steel Post Between Panels
- Flip-Up Barrier
- Enable Access and Preserve Views
LINE OF PROTECTION | DEPLOYED

STEEL POST CREATES WATERTIGHT SEAL BETWEEN PANELS
PROJECT ZONES

ZONE 1
PRIMARILY FLOODWALL

- MOSTLY UNDER BROOKLYN BRIDGE WITH COMPLEX OVERHEAD OFF-RAMPS AND COLUMNS;
- EXISTING DOT LOT FOR STAGING AND PARKING.

ZONE 2
USE FLIP-UP GATES TO PRESERVE VIEWS AND ACCESS

- EXPANSIVE VIEWS OF BROOKLYN BRIDGE AND MANHATTAN BRIDGE;
- EXISTING AND PLANNED AMENITIES ARE PART OF EAST RIVER ESPLANADE;

ZONE 3
PRIMARILY FLOODWALL

- VIEWS ALREADY BLOCKED BY EXISTING BUILDINGS;
- EXISTING CONDITION INCLUDES A STRETCH OF WALL AND FENCE;
- LOWER HEIGHT OF INTERVENTION.

2050s 100 YR FLOODLINE
At view corridors, flip-up gates will be installed to preserve views and access to the waterfront. Additional flip-up gates could be inserted to accommodate programs and access points.
DISTRIBUTE PROGRAM EQUITABLY
NEIGHBORHOOD INVENTORY:
- 8 PLAYGROUNDS
- 12 BASKETBALL COURTS
- 1 KICKBALL COURT
- 1 SOFTBALL FIELD
- 1 BASEBALL FIELD
- 1 HOCKEY RINK
- 1 FITNESS PARK
- 1 SKATE PARK
INSERT LINE OF PROTECTION
ENABLE VIEWS AND ACCESS

ACTIVE

PASSIVE
CREATE POCKETS FOR PROGRAM | CONCEPT IDEA
POCKETS FOR PROGRAM | CONCEPTUAL MIX OF SMALL ACTIVITIES
POCKETS FOR PROGRAM | CONCEPTUAL MIX OF SMALL + MEDIUM ACTIVITIES
POCKETS FOR PROGRAM | CONCEPTUAL MIX OF SMALL + LARGE ACTIVITIES
INTEGRATE INFRASTRUCTURE INTO THE PUBLIC REALM
INFRASTRUCTURE | SET UP

CONCEPT – FOR DISCUSSION PURPOSES ONLY
INFRASTRUCTURE | SET UP

CONCEPT – FOR DISCUSSION PURPOSES ONLY
INFRASTRUCTURE | AS FITNESS PROGRAM

CONCEPT – FOR DISCUSSION PURPOSES ONLY
INFRASTRUCTURE | AS PLAYGROUND
CONCEPT – FOR DISCUSSION PURPOSES ONLY
INFRASTRUCTURE | DEPLOYED

CONCEPT – FOR DISCUSSION PURPOSES ONLY
INFRASTRUCTURE | AS WALL ACTIVITIES

CONCEPT – FOR DISCUSSION PURPOSES ONLY
CONCEPT VIEWS
TIEBACK | FLOOD INFRASTRUCTURE

CONCEPT – FOR DISCUSSION PURPOSES ONLY
TIEBACK | STORM

CONCEPT – FOR DISCUSSION PURPOSES ONLY
EVENT SPACE

CONCEPT - FOR DISCUSSION PURPOSES ONLY