

**PROMOTING FLOOD  
RESILIENCE, PRESERVING  
AFFORDABILITY**

**EAST VILLAGE | LOWER EAST  
SIDE | TWO BRIDGES**



## ***East Village | Lower East Side | Two Bridges***

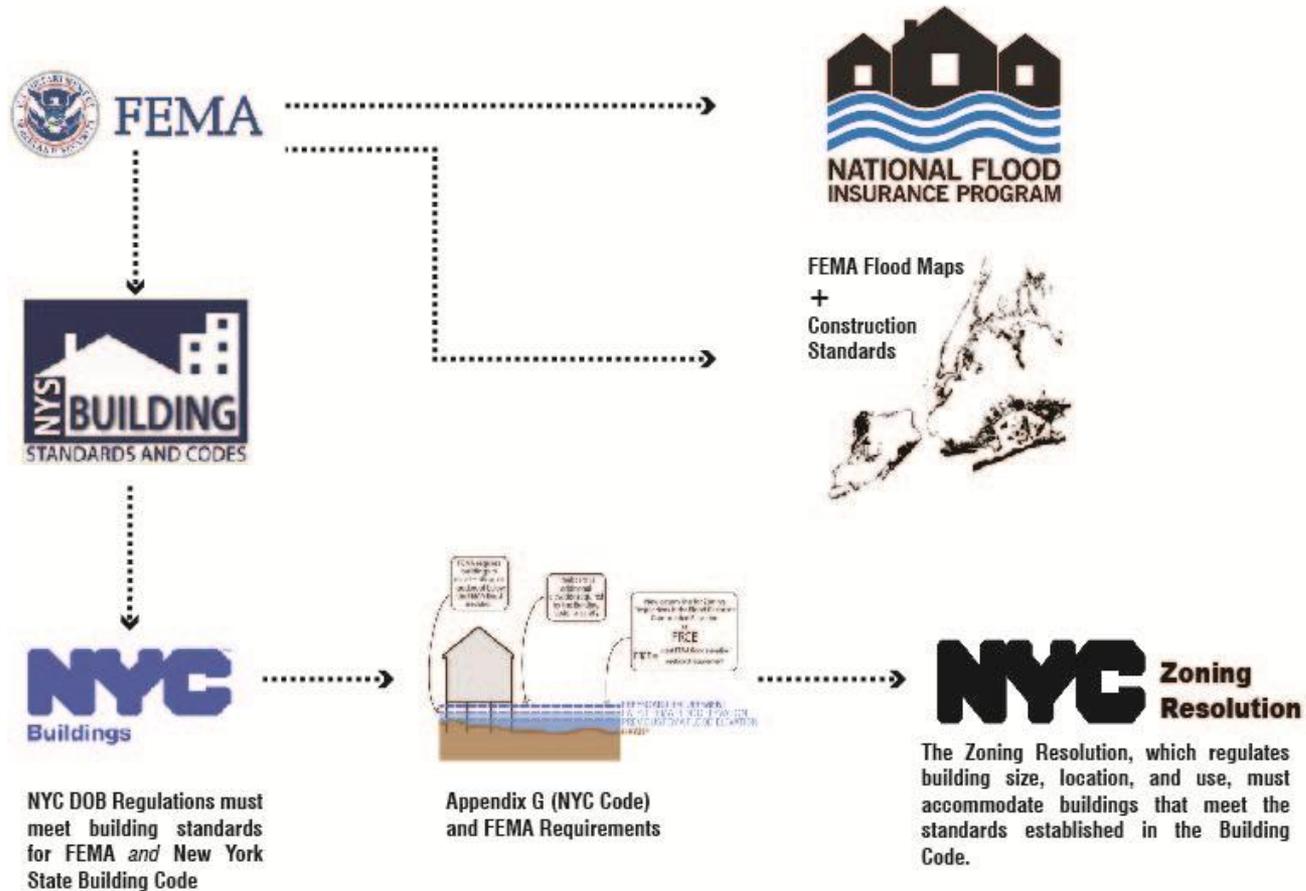
### AGENDA

- 1) NYC Resiliency Overview
- 2) DCP Resilient Neighborhoods Initiative
- 3) Study Overview
  - Study Area Context
  - Study Themes
  - Schedule



## ***East Village | Lower East Side | Two Bridges***

### RESILIENCY INITIATIVES FROM FEDERAL TO LOCAL LEVEL



## NYC Resiliency Challenges

- Wholesale retreat is not an option for NYC.
- A lesson from Sandy: Buildings can be protected if built to contemporary code standards.
- Changes to flood maps and the National Flood Insurance Program (NFIP) pose a new economic challenge.

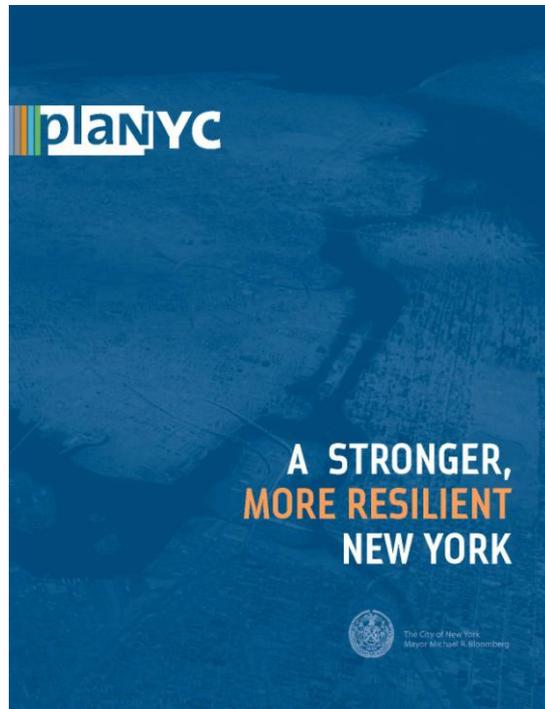
100-Year Flood Zone	
Residents	398,000
Jobs	271,000
Buildings	68,000
1-4 Family	53,000
Floor Area (Sq Ft.)	534M

\* Numbers are rounded for clarity

***NYC is taking a multi-layered approach to resiliency, or the ability to recover from a storm.***

# A Stronger, More Resilient New York

The City's plan to build resiliency and make all New Yorkers safer is a multi-layered approach that is ambitious, achievable, and based on the best available science.



## Strengthen coastal defenses

- Complete existing USACE coastal risk reduction projects
- Expand natural protections and other innovative measures

## Upgrade buildings

- Amend the building code to strengthen new construction
- Incent investments in existing buildings

## Protect infrastructure and services

- Harden critical assets and supply chains
- Expand natural infrastructure systems

## Make neighborhoods safer and more vibrant

- Advocate for flood insurance affordability
- Address underlying challenges during the rebuilding process

The City's 257 initiatives comprise **a comprehensive plan** to reduce the risk of extreme weather and climate change. This innovative plan includes funding, an implementation schedule, and **can be achieved over the next ten years.**

## Purpose

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Work with communities to identify changes to zoning, land use, and other actions that support the vitality of neighborhoods and help residents and businesses withstand and recover quickly from future storms and other climate events.

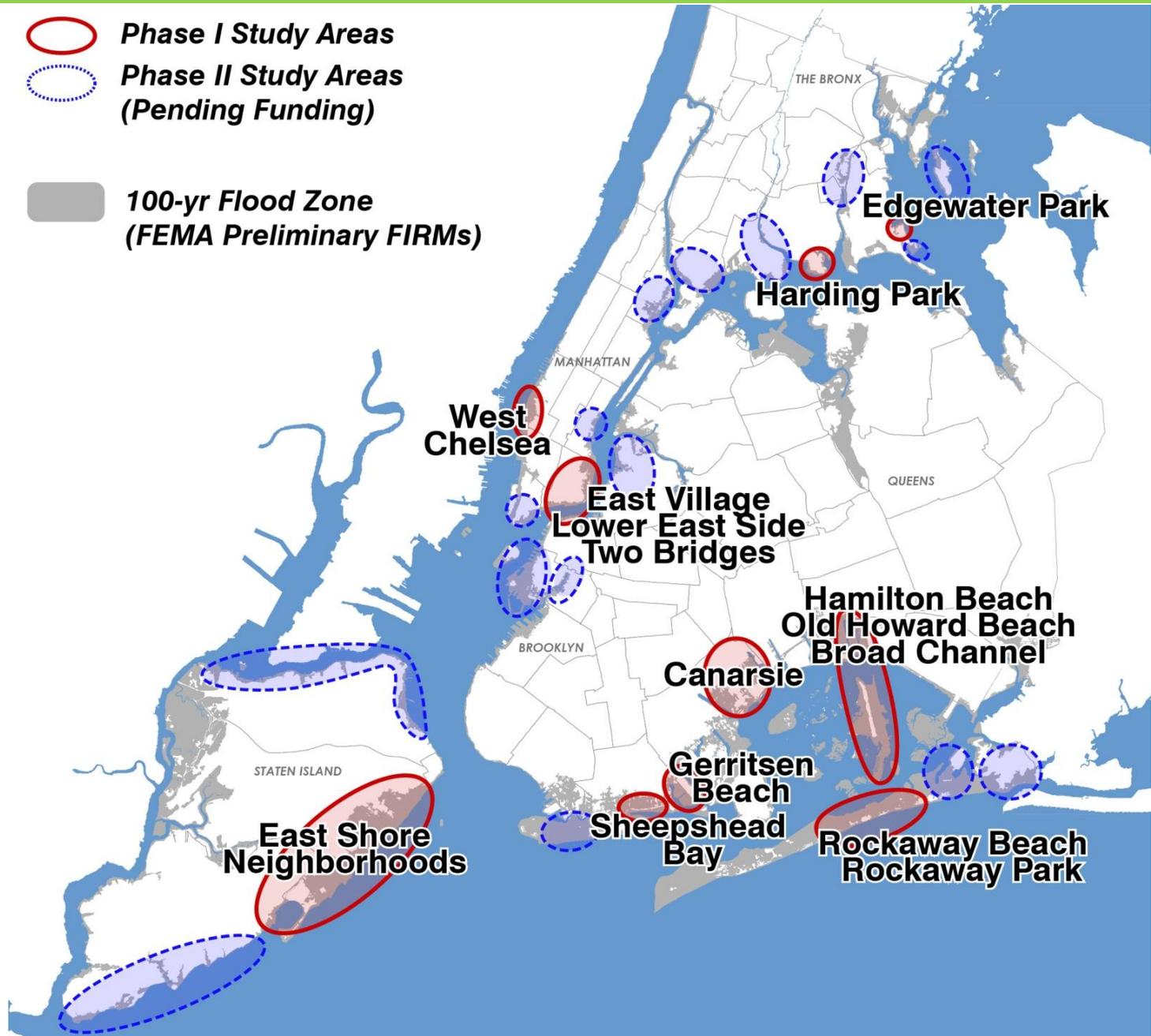
***Make every community better than it was before Hurricane Sandy***

## Overall Planning Goals

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- 1 Reduce risks from natural hazards such as flooding and coastal storms.**
- 2 Foster economically and socially-vibrant communities that are able to adapt to changing conditions.**
- 3 Coordinate land use planning with rebuilding activities and infrastructure investment.**

-  Phase I Study Areas
-  Phase II Study Areas (Pending Funding)
-  100-yr Flood Zone (FEMA Preliminary FIRMs)



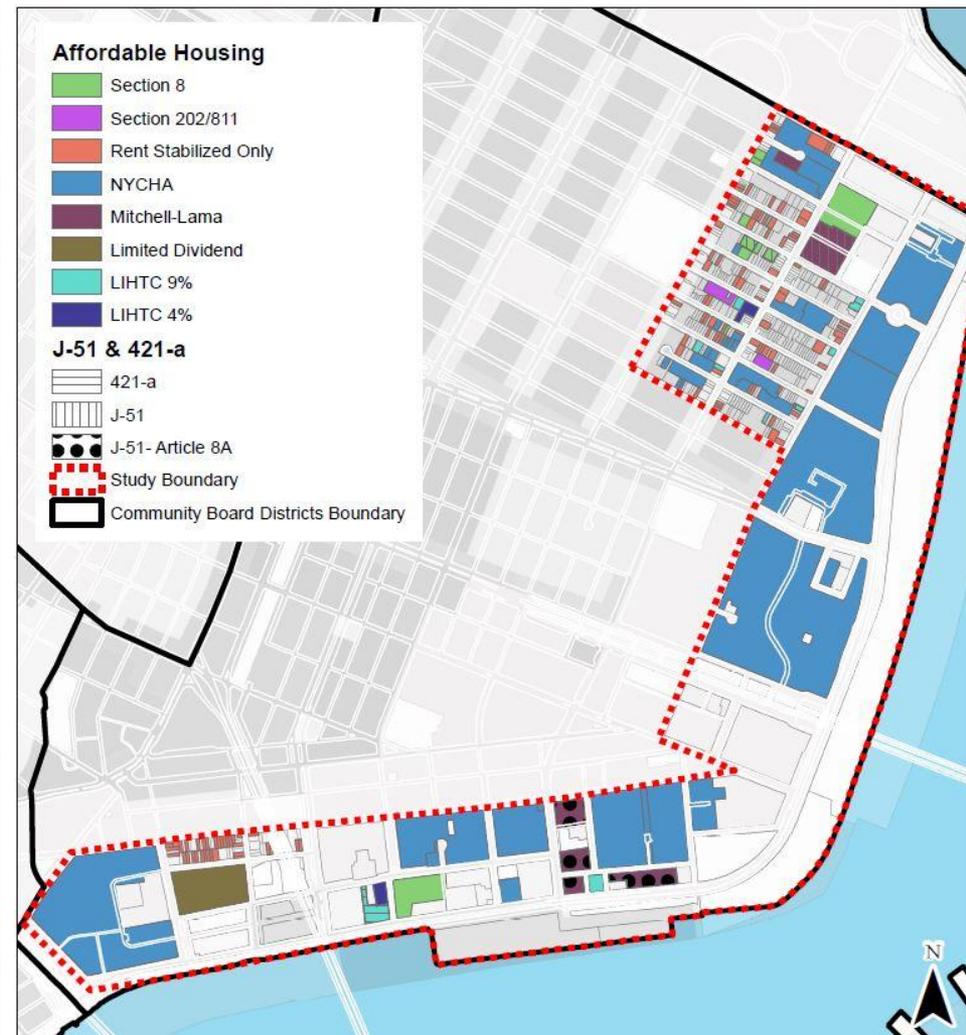
## **East Village | Lower East Side | Two Bridges** STUDY AREA OVERVIEW

### The Basics

- 54 Blocks
- 2.2 Miles of Shoreline
- 70,000 Residents
- 26,000 Dwelling Units
- 700 Buildings



## East Village | Lower East Side | Two Bridges NEIGHBORHOOD ASSETS





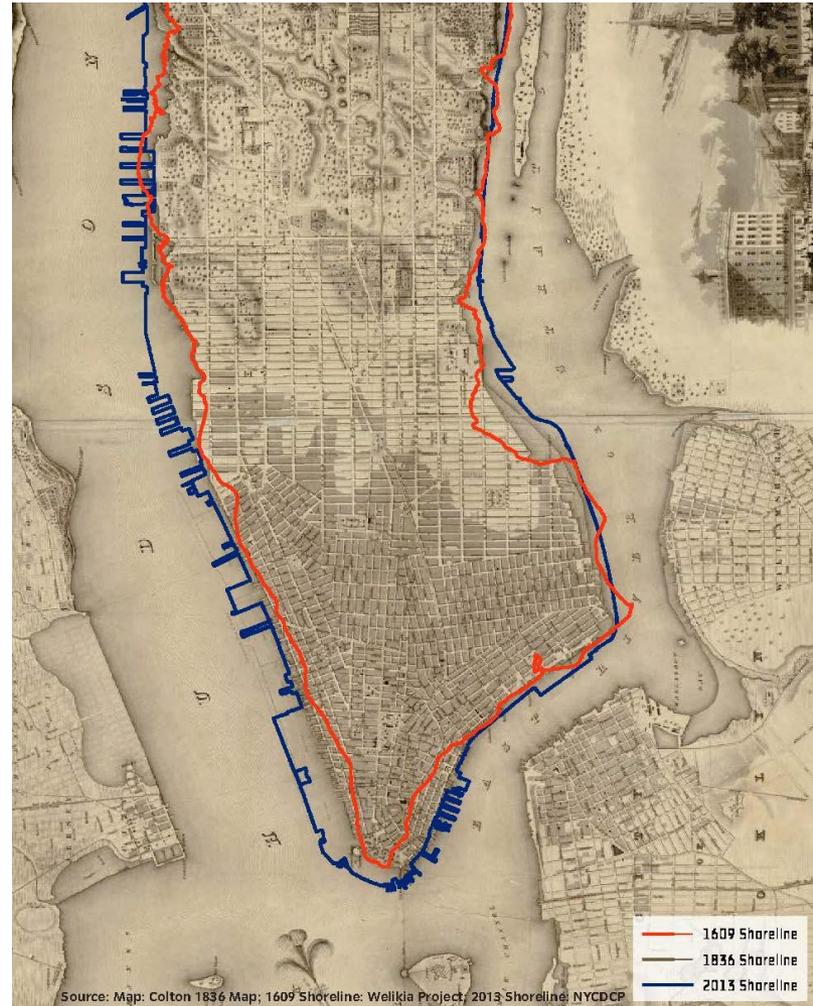
## East Village | Lower East Side | Two Bridges A SHORT HISTORY



Source: "View of New York, from Brooklyn Heights," Currier, Nathaniel, Lithographer, housed in NYPL Mid-Manhattan Library / Picture Collection .



Source: "Map of New York," Hills, John, Surveyor, housed in NYPL Mid-Manhattan Library / Picture Collection .



Source: Map: Colton 1836 Map; 1609 Shoreline: Welikia Project; 2013 Shoreline: NYCDP

## ***East Village | Lower East Side | Two Bridges***

### WHAT'S BENEATH YOUR NEIGHBORHOOD?

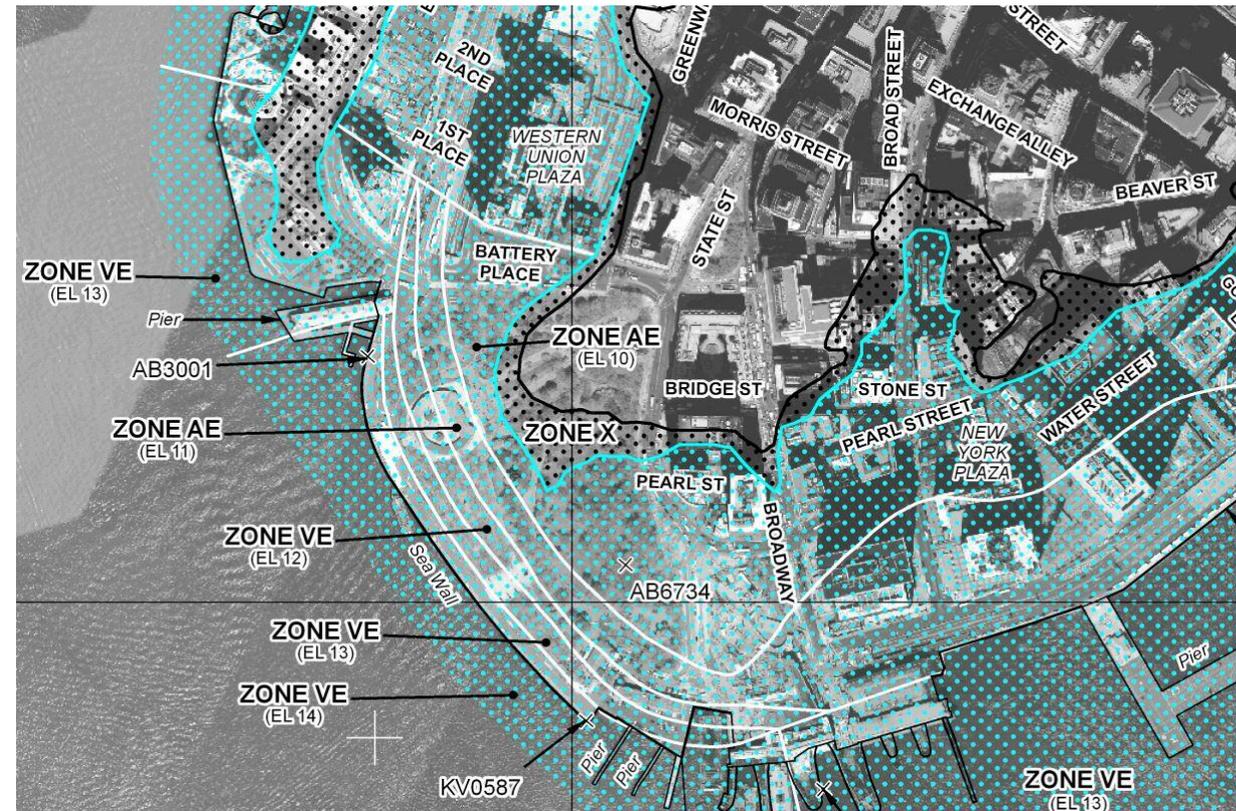
Range throughout study area:

Below 5' to Over 20'

- Much of the study area is low-lying
- Most of the study area has a ground elevation ***below*** 10 feet



## East Village | Lower East Side | Two Bridges MORE ON FEMA MAPS



An example of the FIRM for Department of City Planning, 22 Reade St.

### Key functions:

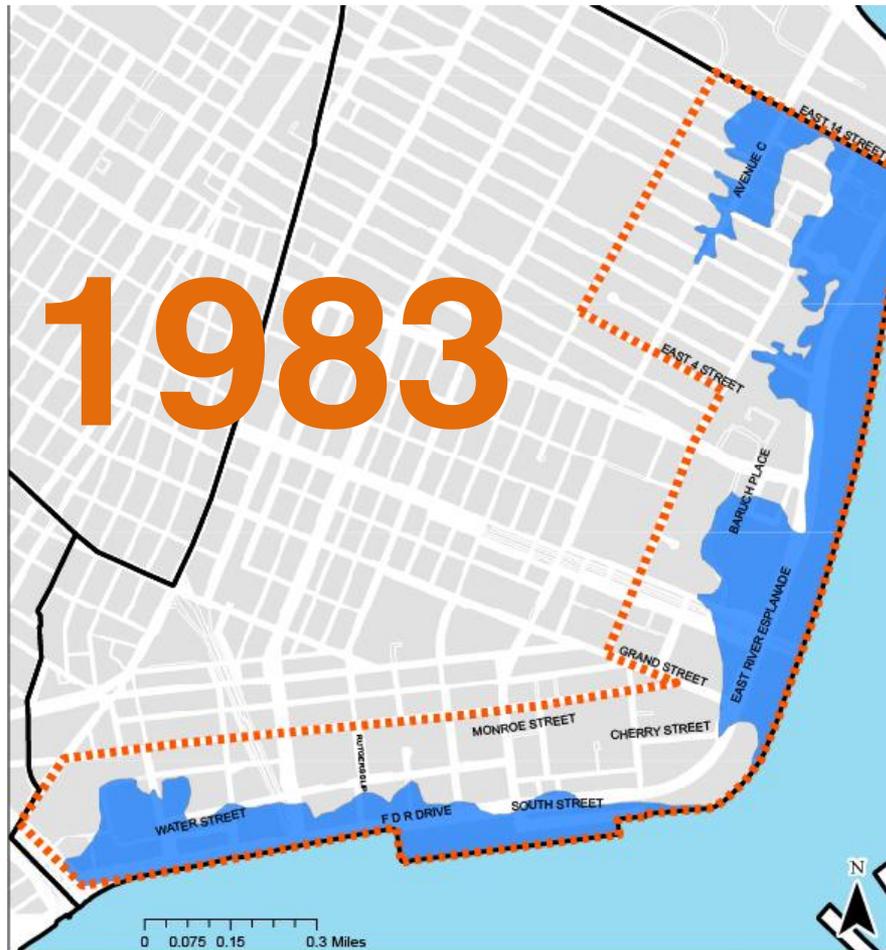
- Developed as part of the National Flood Insurance Program (NFIP)
- Basis for understanding current flood risk
- Inform building code standards

### NYC's first FIRMs were issued in 1983

- 1983 maps based on outdated topography and weather data
- Post Hurricane Sandy FEMA issues PWMs
- FIRMs to be adopted 2016

## *East Village | Lower East Side | Two Bridges*

HOW MUCH HAVE FLOOD ZONE BOUNDARIES CHANGED?



## *East Village | Lower East Side | Two Bridges*

### WHAT HAS CHANGED?

<b>ATTRIBUTE</b> (By number)	<b>1983 FEMA FIRMs</b>	<b>2013 FEMA PFIRMs</b>
<b>Blocks</b>	38	49
<b>Buildings</b>	217	503
<b>Dwelling Units</b>	16,257	20,706

## ***East Village | Lower East Side | Two Bridges*** COMMUNITY CHARACTERISTICS

- Fixed income
- Aging in place
- Limited mobility
- Deep-rooted
- Affordable housing is a key asset



## ***East Village | Lower East Side | Two Bridges*** STUDY THEME - HOUSING

### To Be Studied

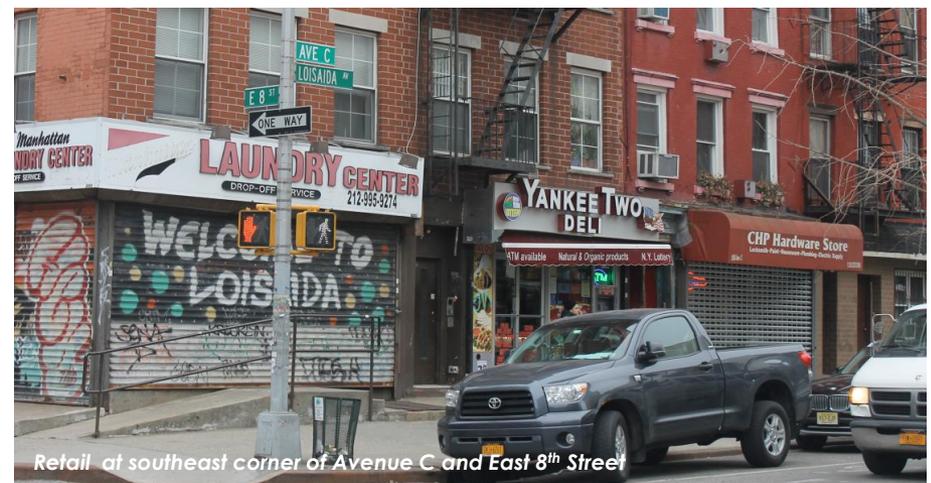
- Insurance and retrofitting costs for multi-family affordable housing developments
- Retrofitting options for multi-family affordable housing developments
- Identification of zoning modifications to support retrofits



## ***East Village | Lower East Side | Two Bridges*** STUDY THEME - RETAIL

### To Be Studied

- Insurance and retrofitting costs for local retail
- Retrofitting options for local retail
- Identification of zoning modifications to support access to local retail



## ***East Village | Lower East Side | Two Bridges*** STUDY THEME - COORDINATION

### Initiatives

- Rebuild by Design
- New York Rising
- LESReady!
- City Agencies



**THE BIG "U"**

**REBUILD  
BY  
DESIGN**

**BIG TEAM**

one STARR WHITEHOUSE

jamesLIMA level Buro Happold

Green Shield Ecology Project Projects

SCHOOL OF CONSTRUCTED ENVIRONMENTS PARSONS THE NEW SCHOOL



## Schedule

