

# **EAST SHORE BUYOUT AREA REZONING PROPOSAL & UPDATE ON CITYWIDE ZONING FOR FLOOD RESILIENCE**

Update for SI AIA

March 16, 2017



- 1. Recap of DCP's resiliency work program**
- 2. Staten Island Buyout Areas rezoning**
- 3. Discussion on Flood Text II**
  - Issues of height
  - Issues of floor area
  - Climate change preparedness
  - Bungalow typologies and small lots
  - Nonconforming Uses
- 4. Open Discussion**



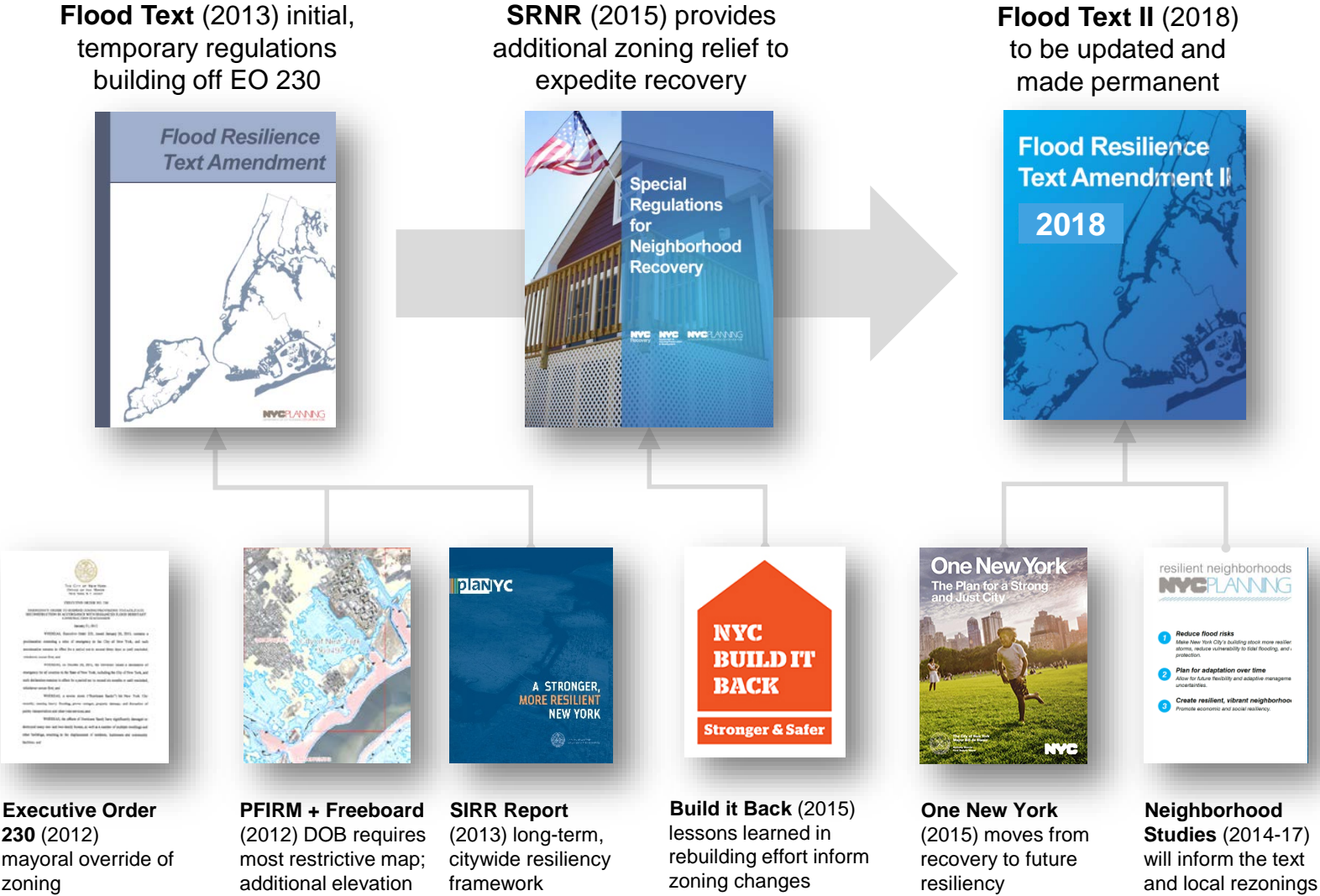
**A more resilient NYC is one where neighborhoods, buildings, and infrastructure can withstand and recover quickly from flooding and climate events.**

**#ONENYC**

This requires **multiple lines of defense:**

- Infrastructure hardening where feasible, such as the Army Corps of Engineers' Line of Protection and Park's East Shore Master Plan,
- Emergency preparedness, and
- Utilizing building code and zoning as tools so buildings are more resilient against future flooding

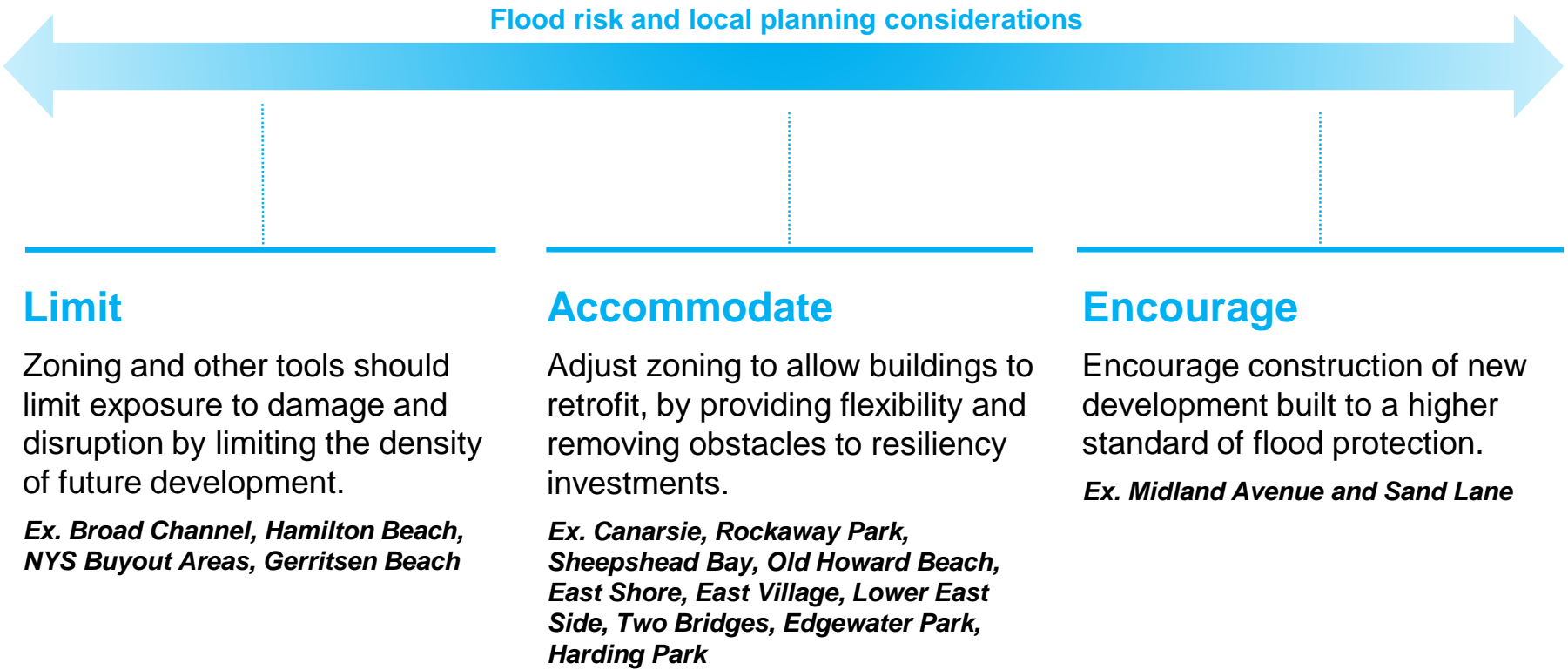
# Resiliency planning at DCP





*Where flood risk is exceptional, including where sea level rise will lead to future daily tidal flooding.*

*Where risk from extreme events can be managed and infrastructure and context support growth.*



*\*stakeholder input factored into zoning and land-use strategy throughout*

# Staten Island Buyout Areas Rezoning







The **Resilient Neighborhoods East Shore Report** is scheduled for release in early Spring.

The study's key recommendations include:

- Working to reduce flood risk by supporting the U.S. Army Corp's Line of Protection
- Preserving ecologically sensitive natural environments and open spaces by limiting density and ensuring review of development near wetlands and in other hazardous areas
- Advancing resilient building by creating a new zoning envelope for detached and semi-detached homes in the floodplain and reducing zoned density in New Dorp Beach
- Strengthening key waterfront destinations by exploring rezoning options for Midland Avenue and Sand Lane to encourage attractive mixed-use development

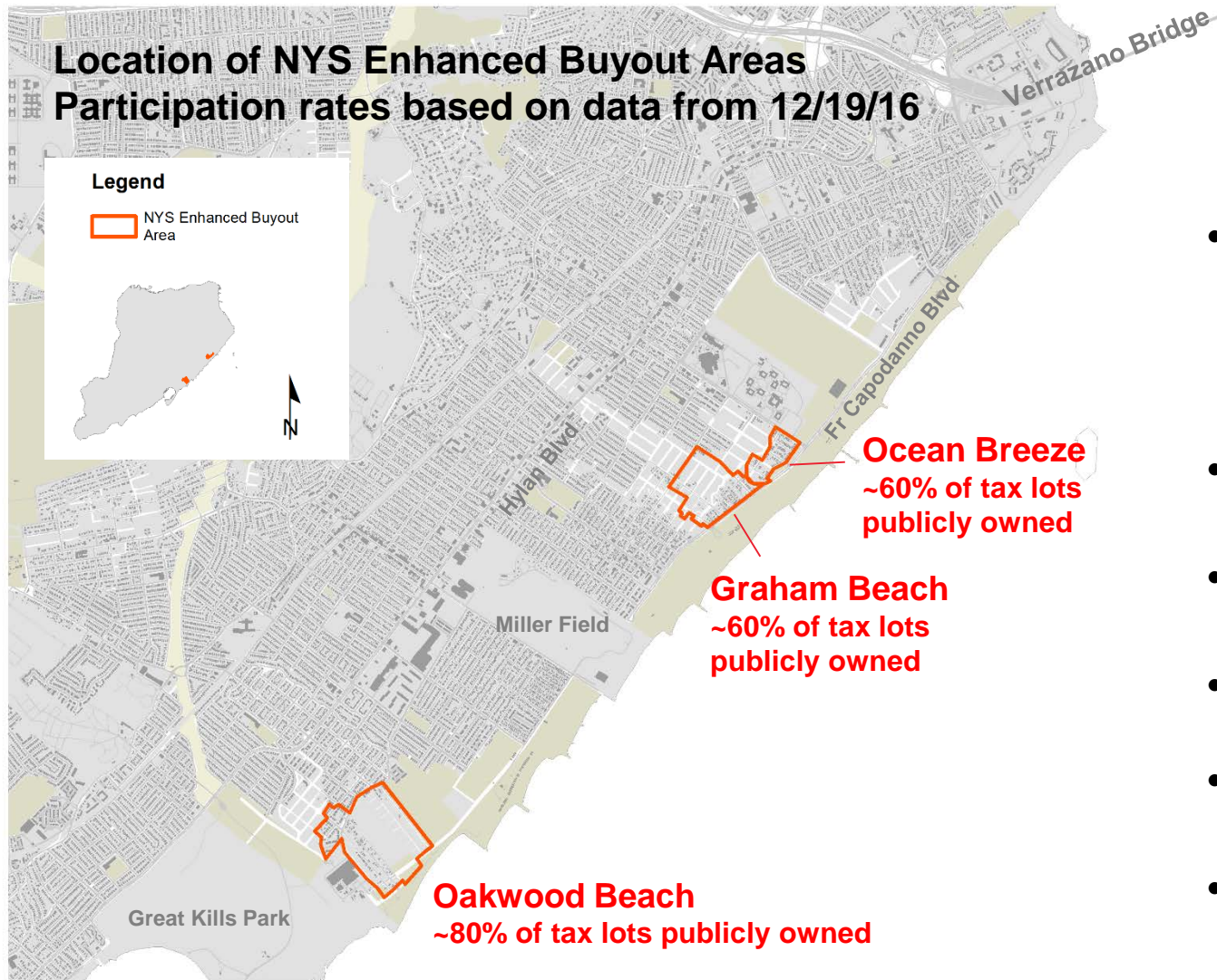


# East Shore project background: Resilient Neighborhoods



Advancing Resilient Building		Strengthen Key Waterfront Destinations	Preserve Natural Environments
Cottage Envelope	New Dorp Beach	Midland Avenue & Sand Lane	Limit Density in NYS Enhanced Buyout Areas





## Key Program Components:

- Acquisition was available to home owners in the **Ocean Breeze, Graham Beach, and Oakwood Beach** neighborhoods, which were designated on the basis of flood risk and majority of homeowner's desire to depart.
- Eligible homes purchased at pre-storm value
- Homes and vacant land are eligible for buyout
- Commercial properties are ineligible for buyout
- **Post-acquisition use restricted to open space**
- Program is voluntary and some homeowners will choose to remain in Buyout Areas



Oakwood Beach Buyout Area in September 2016

**Given the unique set of built and natural conditions existing and planned for the Buyout Areas, a set of land-use objectives has been developed in collaboration with community stakeholders:**

- Align local zoning regulations with NYS's long-term vision for the Buyout Areas as open space
- Reduce risk to public safety by limiting future residential development in areas highly vulnerable to flooding and other natural hazards, while ensuring preservation of ecologically sensitive areas
- In commercial areas in Graham Beach, provide commercial buildings relief from high off-street parking requirements that may make reconstruction after a storm more challenging and enable new retail development in a key beachfront location

**The proposed zoning strategy would establish a new Special Coastal Risk District (SCRD) aligned with the Buyout Areas.**

**Lots acquired by the State are deed restricted and no development of any kind will be permitted on these lots regardless of zoning**

For new developments on *private vacant land* and *reconstructions* of existing residences:

- The SCRD would limit all new development on privately-owned lots to single-family detached residences and create a new CPC authorization for all new development and enlargements to ensure no increases in residential density or additional effects on sensitive natural areas or constrained infrastructure within the buyout areas. *See following slides for more information on criteria for authorization.*
- It will also prohibit community facilities with sleeping accommodations. LDGMA limitations on certain community facility uses will be applied consistently across existing R3X, R3-1, and R3-2 districts such that the strictest limitations always apply.
- All existing homes may be completely rebuilt if substantially damaged as a single-family detached residence.

The proposed zoning strategy would establish a new Special Coastal Risk District (SCRD) aligned with the Buyout Areas.

Lots acquired by the State are deed restricted and no development of any kind will be permitted on these lots regardless of zoning

For existing residences *not being* reconstructed:

- All existing buildings are allowed to elevate and make minor repairs as-of-right.
- All buildings damaged by Sandy may be rebuilt as-of-right.



These rules would likely govern new development on smaller zoning lots under 9,500 square feet

To authorize construction of one new residence, the CPC would consider a range of criteria, including:

- The development's potential impacts on natural drainage, open spaces, and wetland areas
- Whether or not the development would be located on an improved street serving other existing residences
- That the proposed development includes reasonable measures to minimize risks to public safety from natural hazards, including flooding and wild fires
- That useable yard areas are provided outside of DEC wetland adjacent areas

The CPC would have the ability to modify bulk modifications to the extent they are necessary to provide buffering from wetlands and wetland adjacent areas.



These rules would likely govern new development on larger zoning lots over 9,500 square feet

To authorize construction of more than one new residence, the CPC would consider a range of criteria, including:

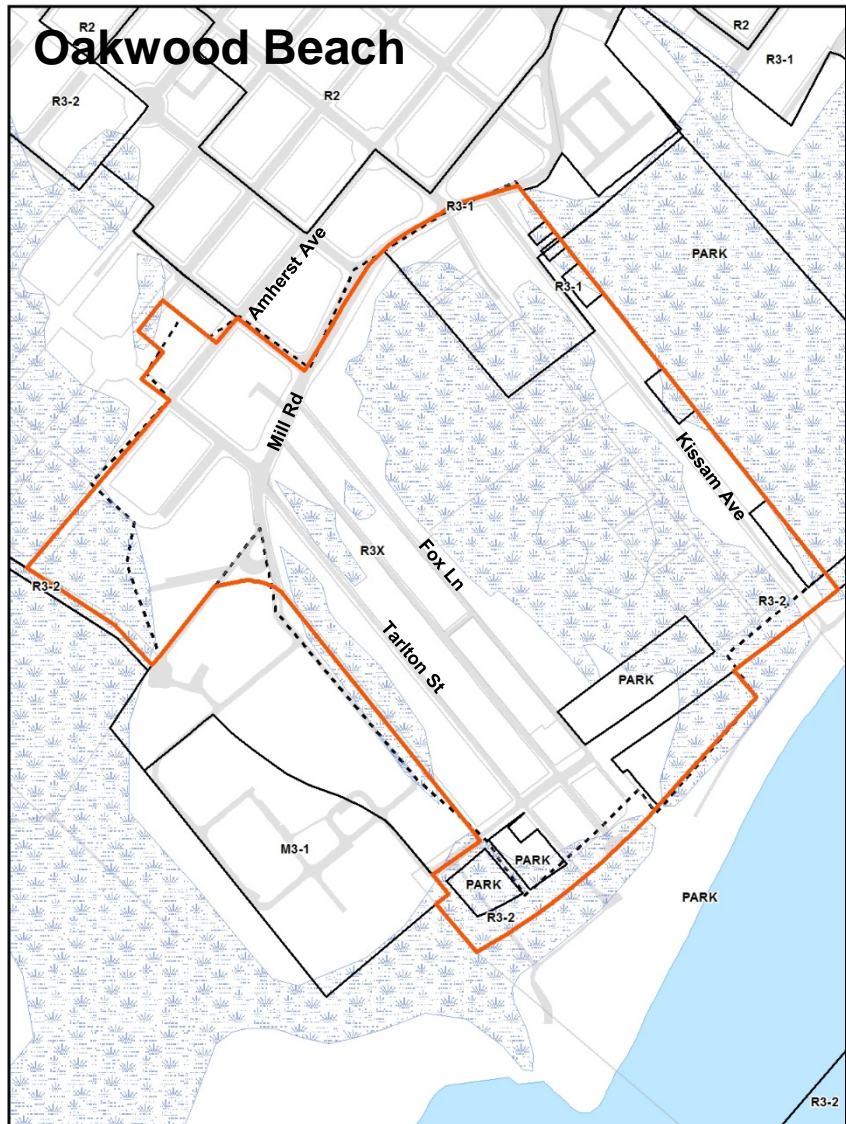
- Regardless of the underlying district, that the maximum number of residences on the resulting zoning lot is calculated based on a minimum of 9,500 SF of lot area per residence, excluding delineated wetland area.
- The CPC may modify bulk regulations (except FAR) to allow permitted residences to be sited in a manner that would achieve a superior site plan.
- Criteria for a superior site plan include that the configuration of residences facilitates the preservation of wetlands, open space, and natural resources, and limits the need for new roadways; the scale and character of the proposed development would be consistent with the surrounding area; and that new residences are located in proximity to other existing residences.

# Zoning proposal: Example of authorized wetland adjacent development





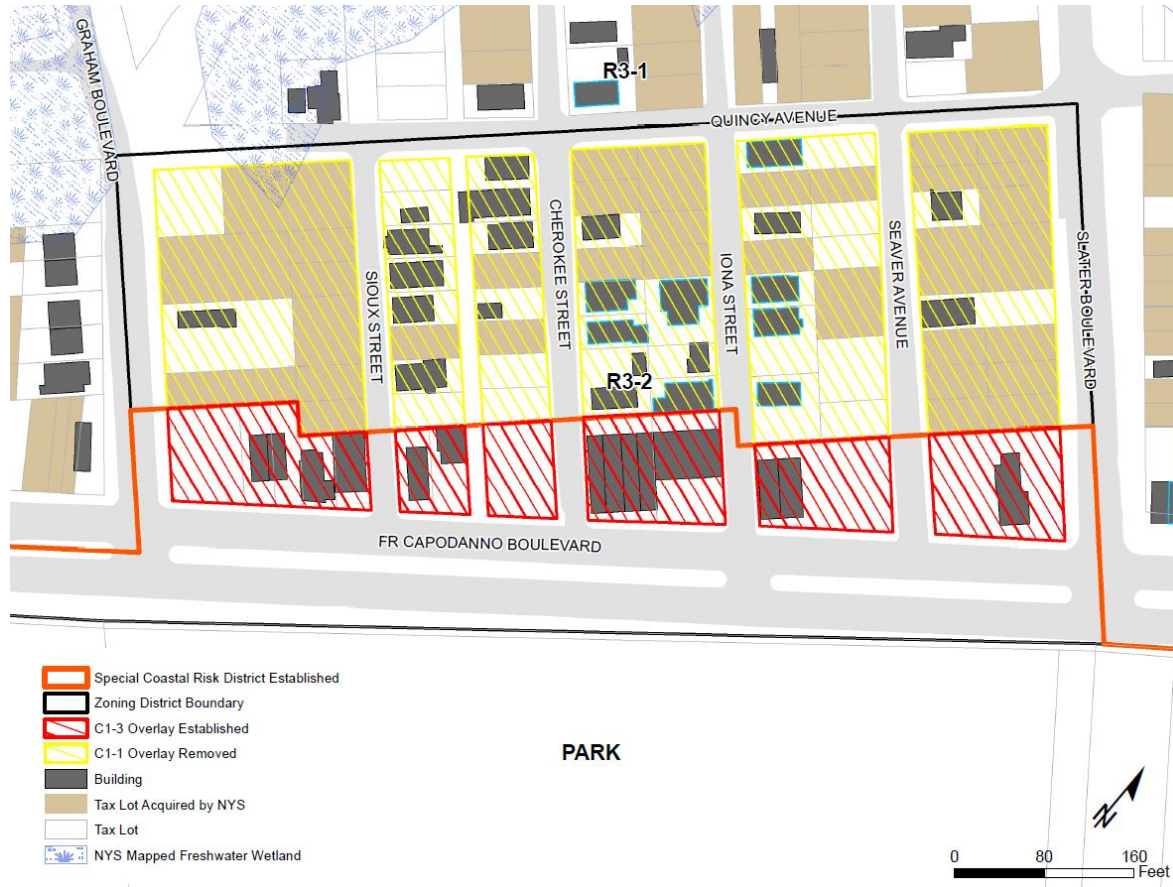
# Zoning proposal: Zoning boundaries



*Note: Special Coastal Risk District Boundaries extend beyond NYS Buyout boundaries only to include lots under public ownership or planned for acquisition for DEP Bluebelts.*

*See next slide for detailed view of proposed commercial overlay*

# Zoning proposal: Commercial overlay in Graham Beach

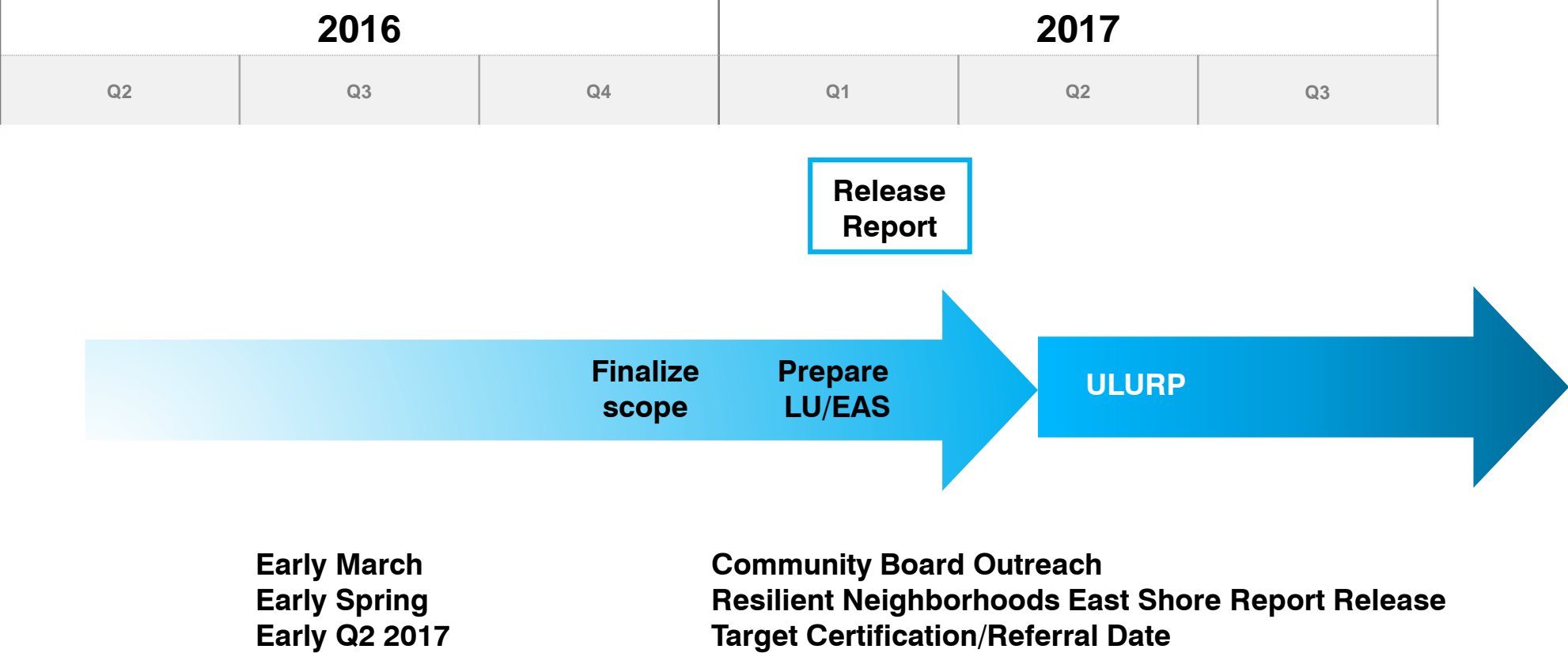


## The proposed zoning strategy would alter the current C1-1 Commercial Overlay in Graham Beach

- A rezoning from C1-1 to C1-3 is proposed to match existing commercial uses and development patterns
- C1-3 generally requires one space per 400 sq ft of commercial floor area (general retail or service uses), comparable to existing parking in area
- C1-1 and C1-3 permit the same range of commercial uses to serve local shopping needs and have the same maximum 1.0 FAR for commercial uses
- The C1-3 Overlay and underlying R3-2 zoning would not be included in the Special Coastal Risk District

# Buyout areas draft zoning proposal: Project schedule through Q3 2017

Due to the timing of the buyouts and other considerations, including political and community support, it is necessary for DCP’s proposal for the Buyout Areas to advance ahead of other zoning changes.

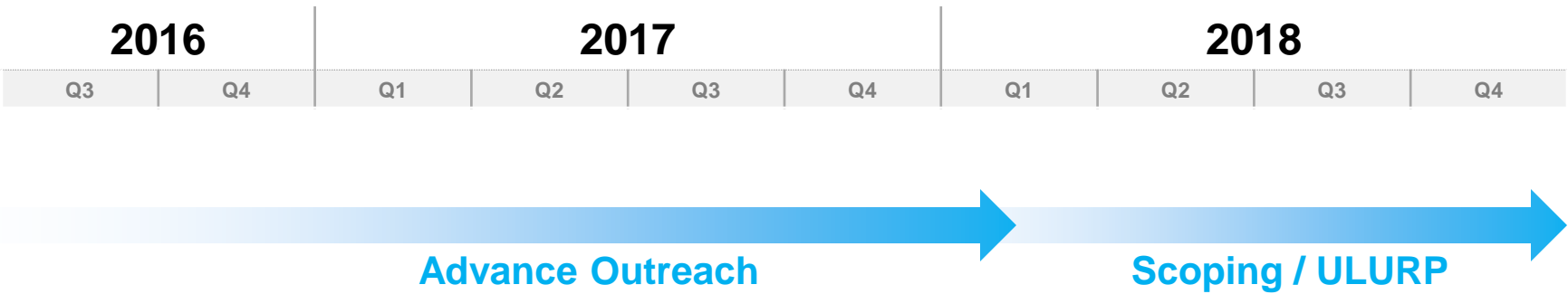


## Flood Resilience Text Amendment II





Given the difficult issues involved, DCP plans a robust public engagement process:



Advance outreach will include:

- **Identify key stakeholders**, including local and citywide organizations and elected officials.
- **Brief CB's and other groups** on resiliency and zoning issues, prepare for more in depth conversations.
- **Public presentations and workshops on the zoning issues** and work through options for addressing them.
- **Public presentations on full, draft proposal.**

**\*Schedule is tentative and subject to change**



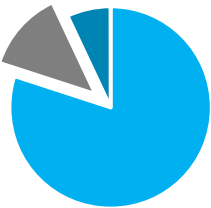
## NYC's flood risk is high.

The floodplain affects a large geography and most community and council districts.

### 100 Year Floodplain FEMA 2013 PFIRM

Population: **400,000**  
Buildings: **71,500**

**50** of 59 Community Boards  
**45** of 51 Council Districts

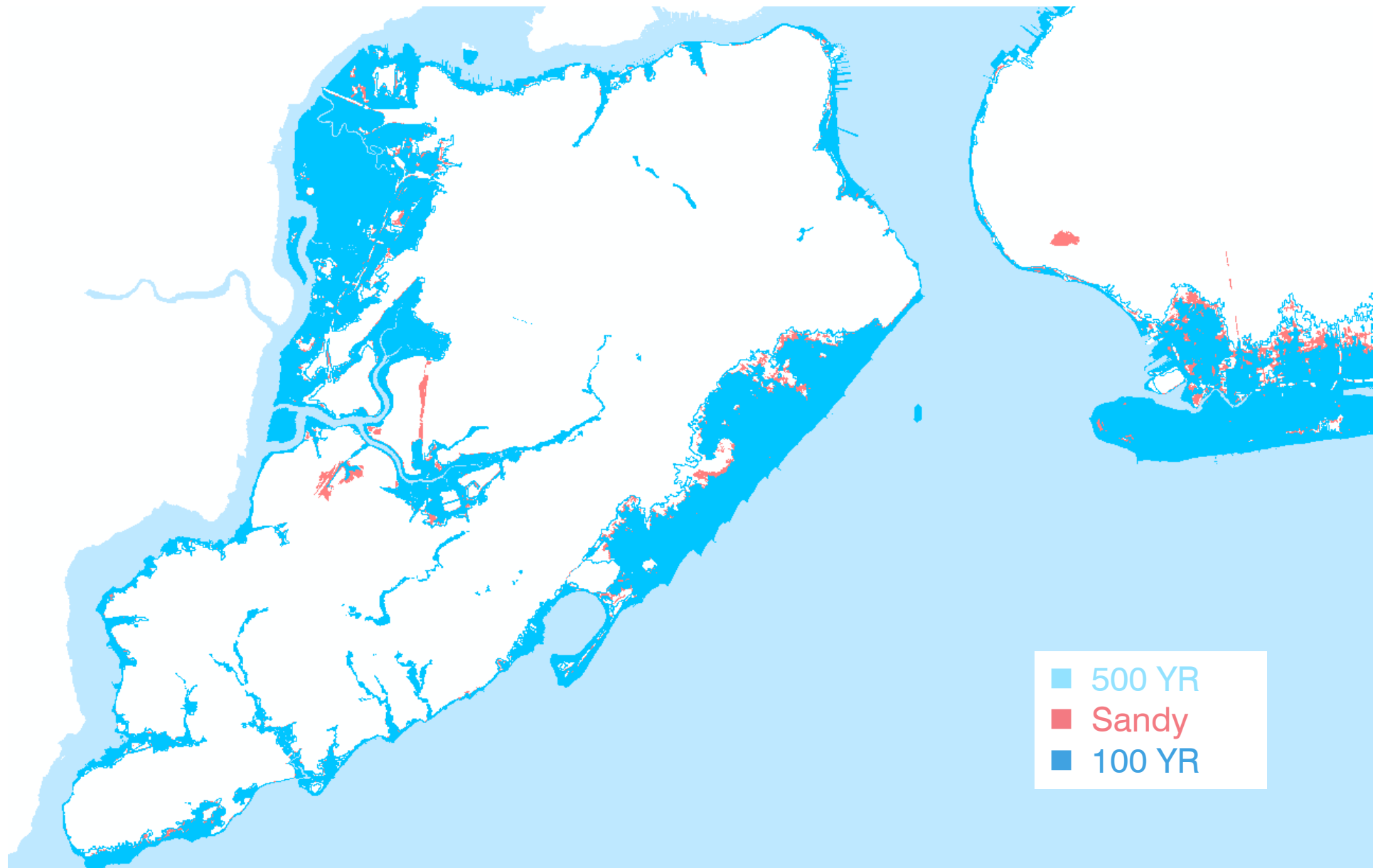


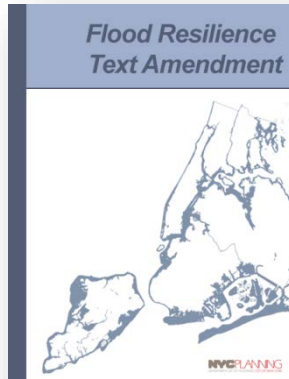
Buildings:  
**80%** 1-4 units  
**7%** 5+ units  
**13%** nonresidential



Residential  
Units:  
**30%** 1-4 units  
**70%** 5+ units

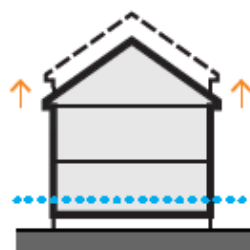
# Flood risk in Staten Island



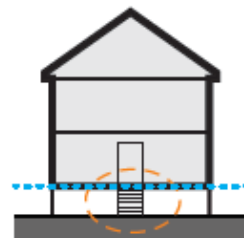


**\*Intended to be updated based on lessons learned, expires 1 year after adoption of PFIRMs.**

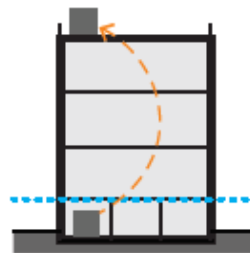
- **Height:** increases the height limit of all buildings in the floodplain by allowing height to be measured from the Design Flood Elevation (DFE), and in some cases, a higher reference point
- **Floor area:** allows discounting of floor space when lost in order to come into compliance with the latest building standards (raised entryways, mechanical space, floodproofed areas)
- **Retrofitting older buildings:** overrides typical zoning rules for non-complying and non-conforming buildings, giving them wide latitude to retrofit and rebuild.
- **Design standards:** requires elevated buildings to mitigate their impact on the streetscape



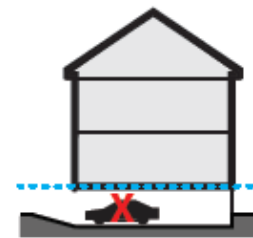
**Height**  
must recognize elevation requirements in flood zones



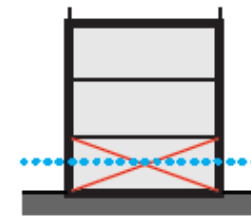
**Access**  
need for stairs/ramps requires imaginative solutions



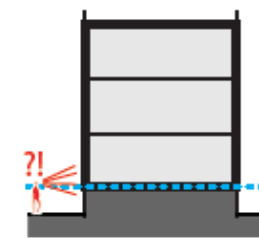
**Mechanical Systems**  
must allow relocation out of flood-prone areas



**Parking**  
may not be possible below ground



**Ground Floor Use**  
buildings may be allowed only limited use of ground floors



**Streetscape**  
limit negative effect of blank walls on streetscape

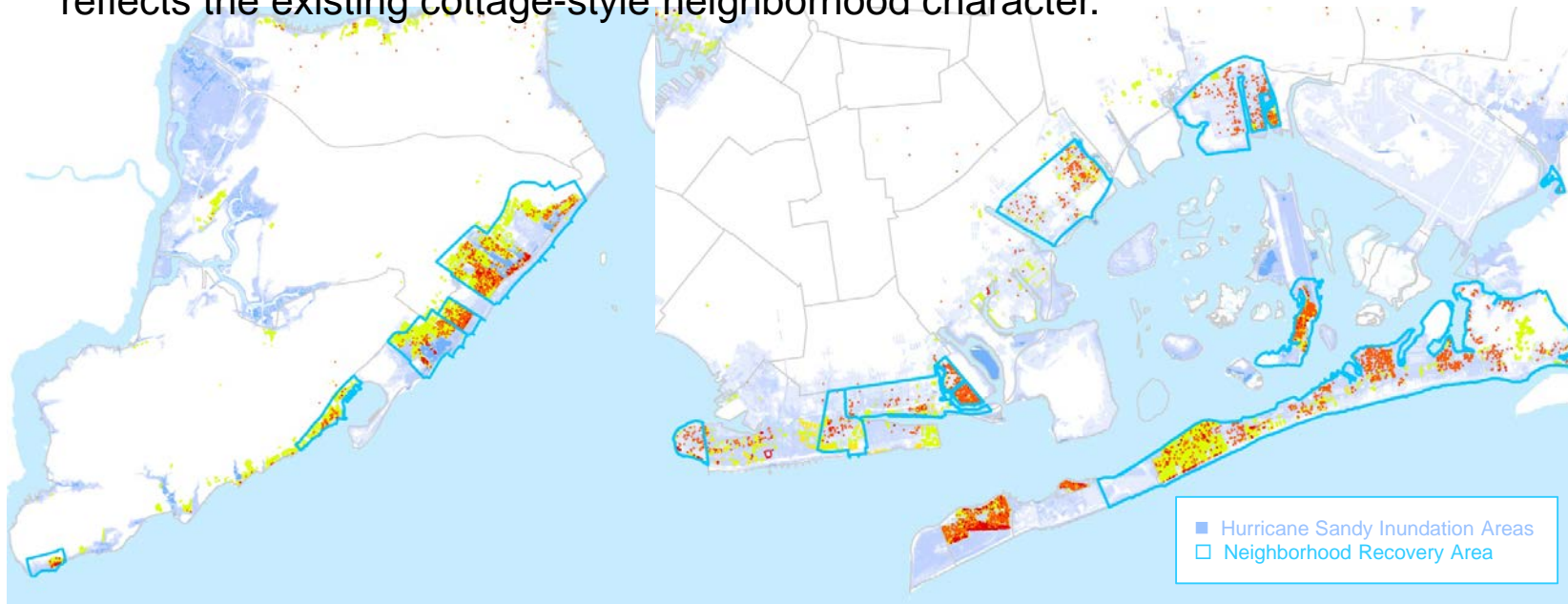


**Special rules for select neighborhoods to accelerate recovery from**

**1. Simplifying the process** for documenting non-compliances for Sandy-damaged homes,

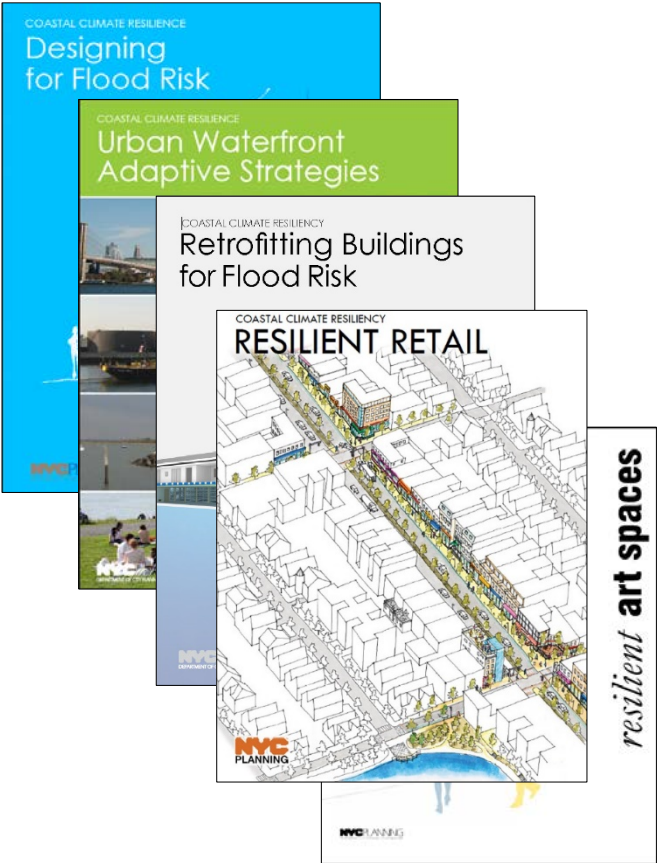
**2. Remove disincentives** for property owners to make resilient investments, by allowing additional habitable space to be elevated to comply with flood-resistant construction standards, and

**3. Establishing a new zoning envelope**, so reconstructed homes are more accurately reflects the existing cottage-style neighborhood character.





## Citywide DCP Studies:



## Neighborhood Studies:







**Construction/retrofitting activity in the flood zone:**

The zoning relief we provided may not be achieving our goal of increasing code-compliant, flood-resistant projects.

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## DOB Permit Filings

in the flood hazard area, 10/2013 – 1/26/2016

NB	Alt-1	Alt-2
1,021	1,090	15,573
All 1,021 are code compliant	113 (10%) code compliant	532 (3%) code compliant
149 (14%) approved 451 (44%) underway 179 (17%) complete	36 (31%) approved 24 (21%) underway 0 (0%) complete	245 (46%) approved 122 (23%) underway 9 (1%) complete
25% rejected/pending	48% rejected/pending	30% rejected/pending



A new citywide resiliency text amendment is necessary for the following reasons:

## 1. Make the provisions of the 2013 Flood Text permanent

so as not to lose the much-needed zoning relief currently given to **resilient, fully Appendix G compliant**, new and retrofitted buildings in the flood zone.

## 2. Improve provisions based on lessons learned

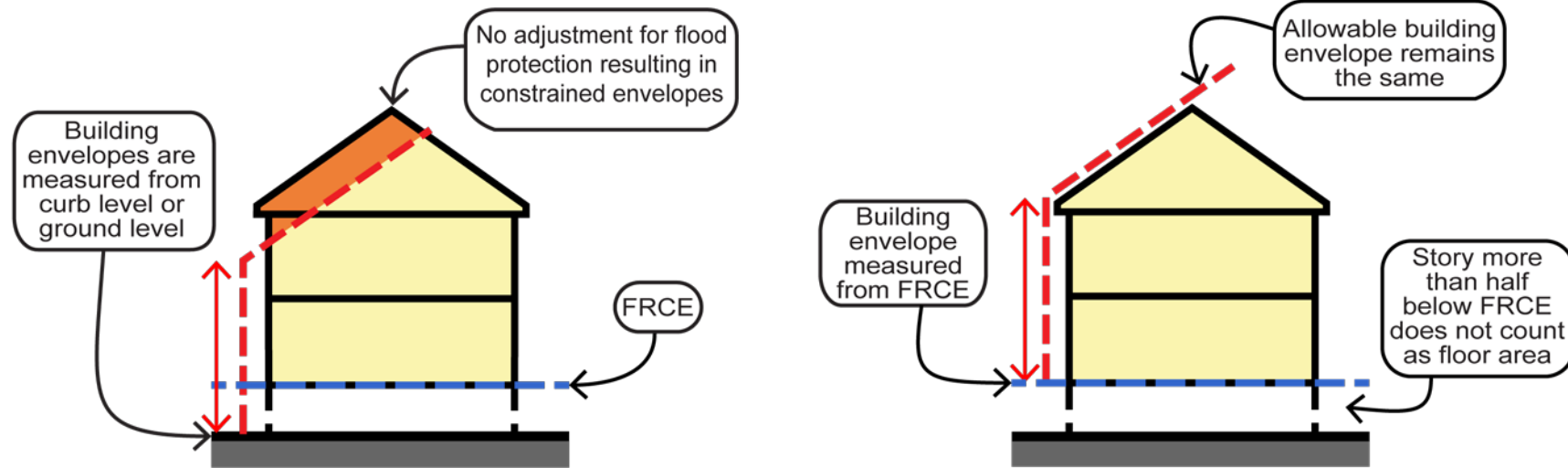
analysis of post-Sandy construction activity, as well as engagement with floodplain communities, has highlighted **six key areas** where further zoning relief could be offered

- |  |  |
|--|--|
| 1. Need for additional height in some cases  | 4. Old bungalow homes on very small lots       |
| 2. Floodproofing + commercial corridors      | 5. Non-conforming homes in C8 / M Districts    |
| 3. Planning for climate change + future risk | 6. Limiting density in highly vulnerable areas |

## 3. Promote new development and proactive retrofitting.

To achieve a greater degree of **building-scale flood resilience**, further incentives could be offered to overcome disincentives to making investments in resiliency.

The 2013 Flood Text allowed for zoning envelopes to be adjusted to the height of the flood elevation.



Where **flood elevations-above-grade are moderate**, additional height is given to ensure that large spaces beneath buildings can be utilized effectively:

1+2 Family Homes: **3'** ( $6' > 9'$ )

Commercial Buildings: **7'** ( $5' > 12'$ )

Multifamily: **5'** ( $5' > 10'$ )

The 2013 Flood Text allowed for zoning envelopes to be adjusted to the height of the flood elevation.

## ISSUE

- Should apply more broadly to single-family homes
- Should apply more extensively to large building due to the unique access issues they face
- Does not address the loss of subgrade space (which is expensive to preserve in the flood zone)

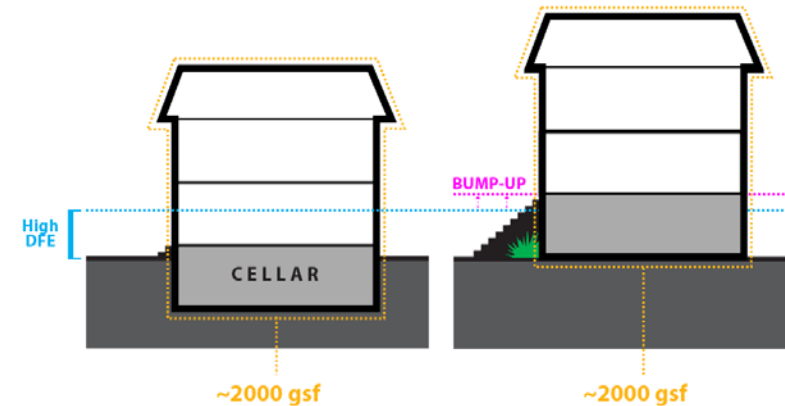


Fig 1. Replacement of 'cellar' story in a high-DFE retrofit

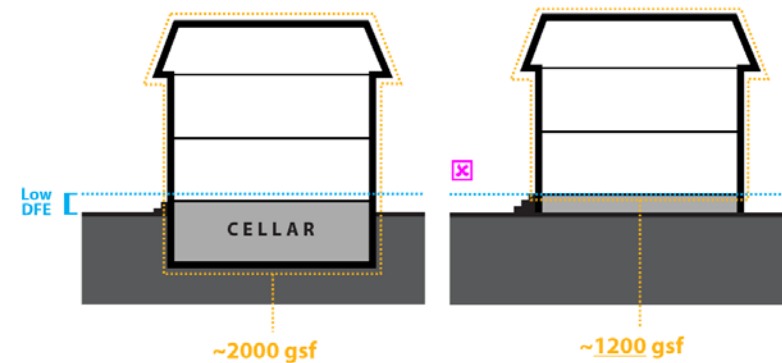


Fig 2. Loss of 33% of home in a low-DFE retrofit

The 2013 Flood Text allowed for zoning envelopes to be adjusted to the height of the flood elevation.

## ISSUE

- Prevents certain access solutions in “packed” envelopes

**Without  
bump-up**

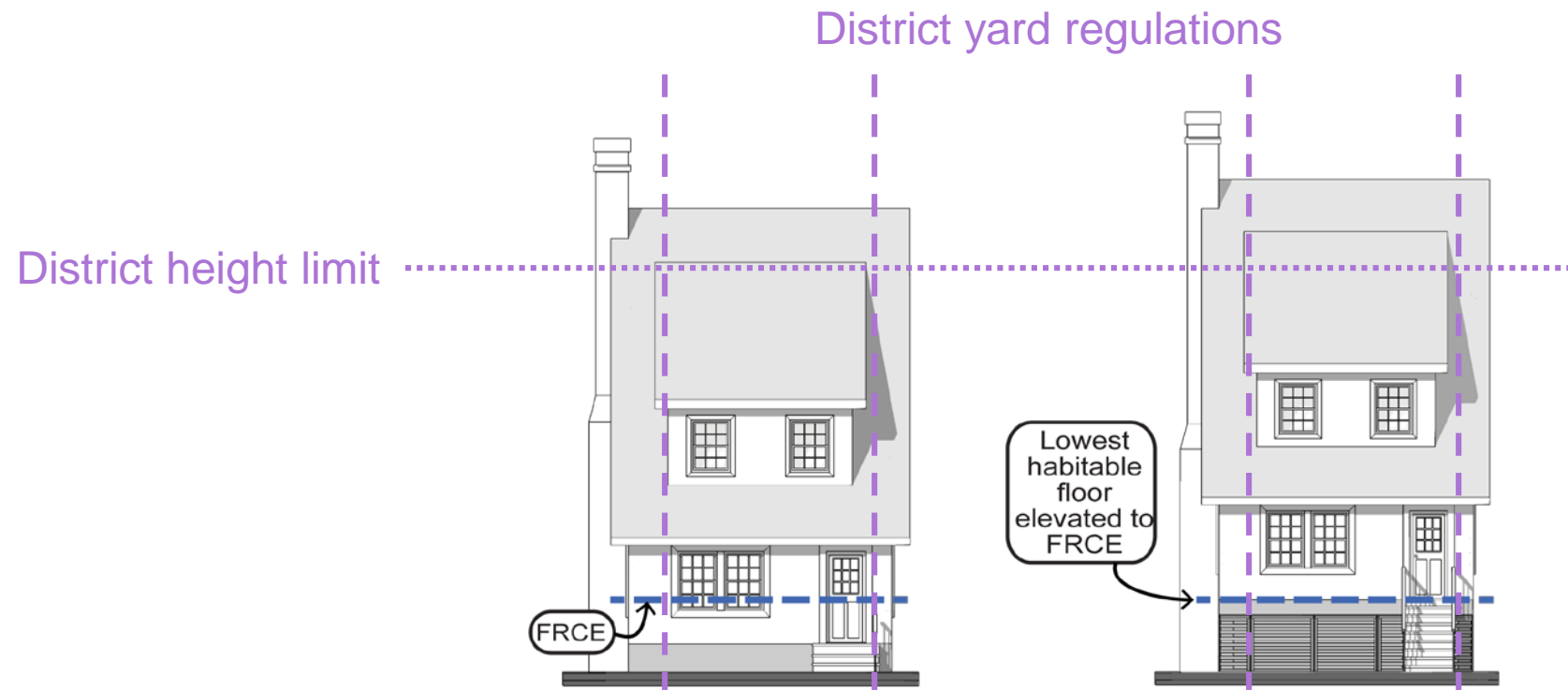


**With  
bump-up**



The 2013 Flood Text also allowed existing 1+2 family homes to be physically raised to the DFE.

- Even if these buildings were non-compliant, they were permitted to be raised regardless of height, yard, floor area, and other regulations.

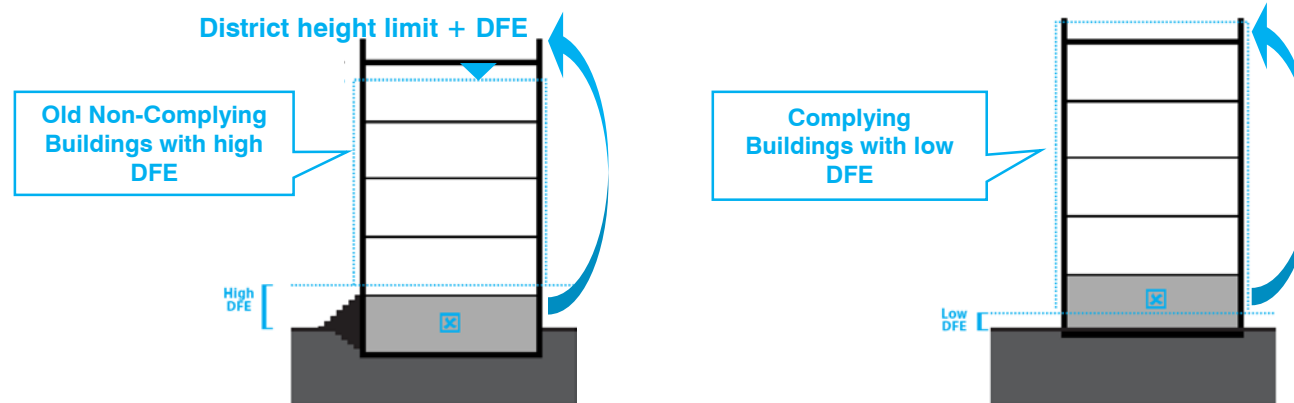




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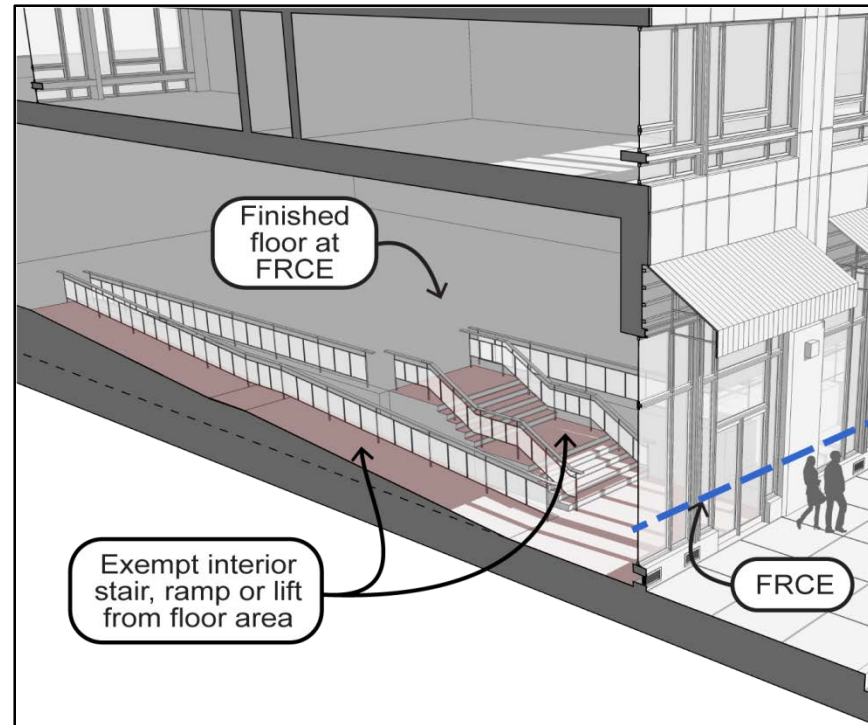
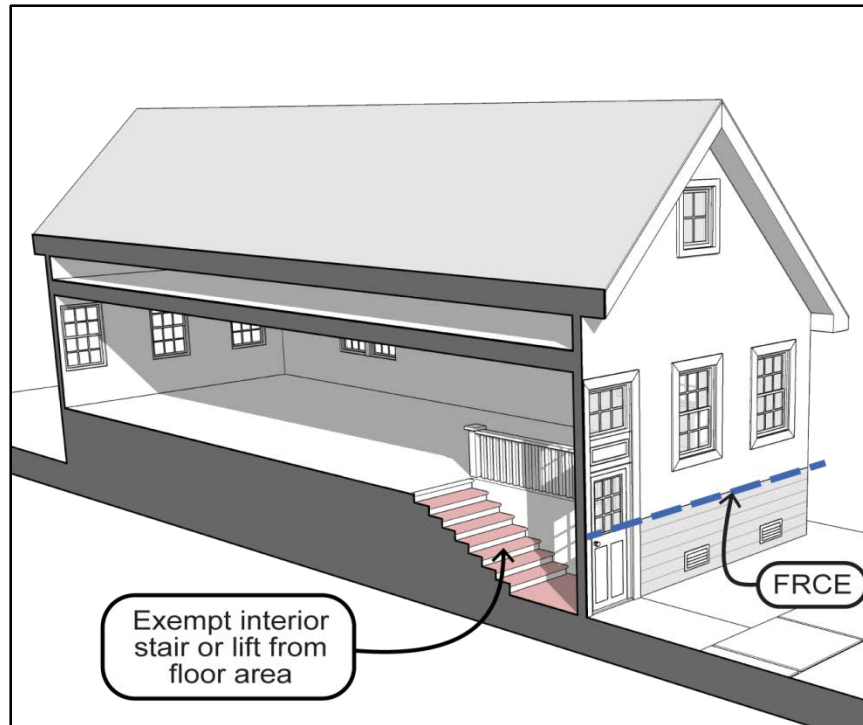
## ISSUE

- Doesn't apply to other building types (3 fam., MF, non-residential)
- Doesn't allow the bump-up to apply
- Doesn't allow elevation to any higher level (i.e., BFE+3)
- Doesn't provide a solution for non-raisable building typologies.



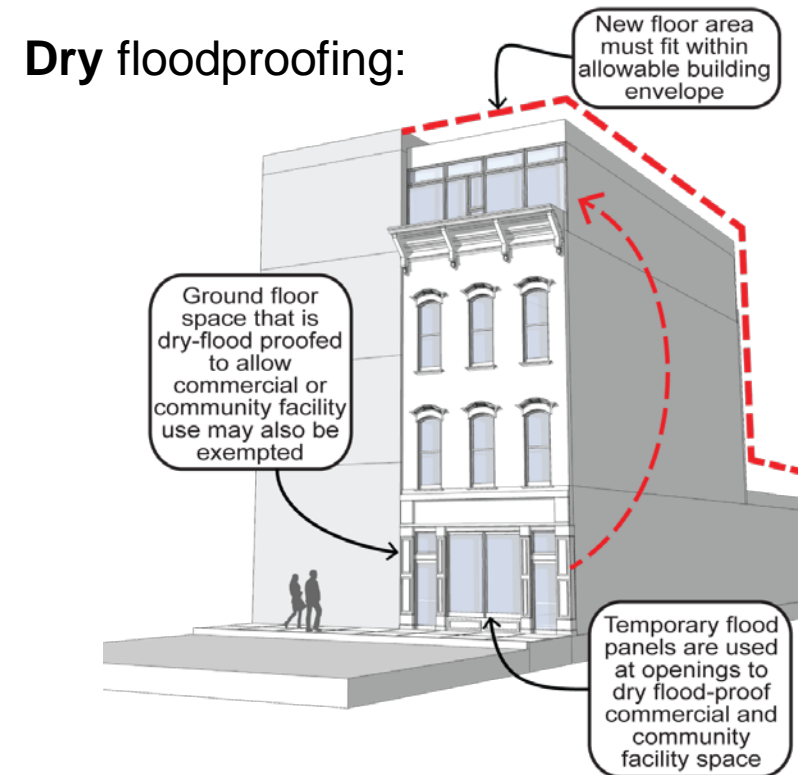
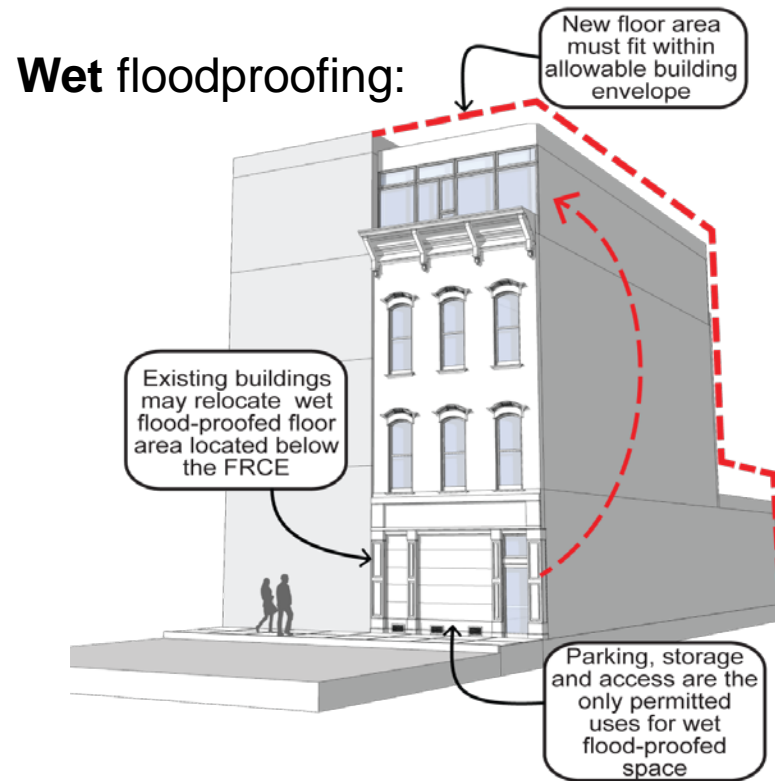
## The 2013 Flood Text exempted resilient entryways from floor area

- Intended to ensure that compliance with new Appendix G requirements wouldn't constitute a penalty against development rights.



To incentivize the retrofitting of existing buildings, the 2013 Flood Text allowed any floodproofed space to be exempted from floor area

- This space could be relocated to a new addition atop the building, helping finance a retrofit project.



To incentivize the retrofitting of existing buildings, the 2013 Flood Text allowed any floodproofed space to be exempted from floor area

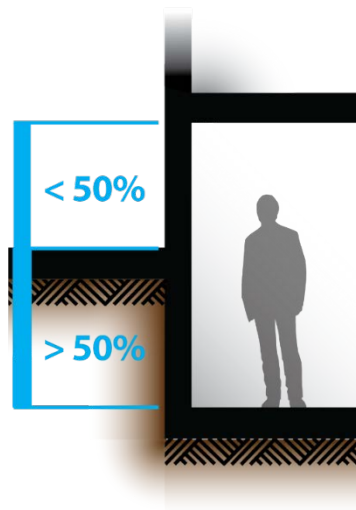
## ISSUE

- Analysis of DOB permitting indicates this incentive likely has not been used since it was introduced.
- Restrictions accompanying this flexibility (only applies in certain districts, up to 10,000 sq. ft., C space cannot be replaced atop R, prohibition against creating new units, requirement to provide new parking spaces) may be too onerous.
- Only applies to existing buildings – not new buildings.

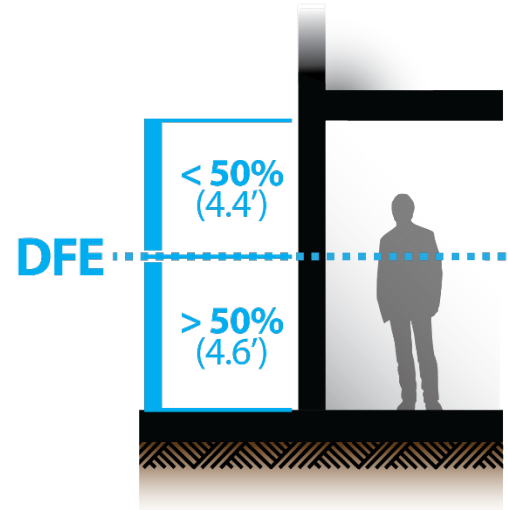


To incentivize the floodproofing of at-grade spaces the 2013 Flood Text redefined “cellar” to exempt at-grade stories in certain cases.

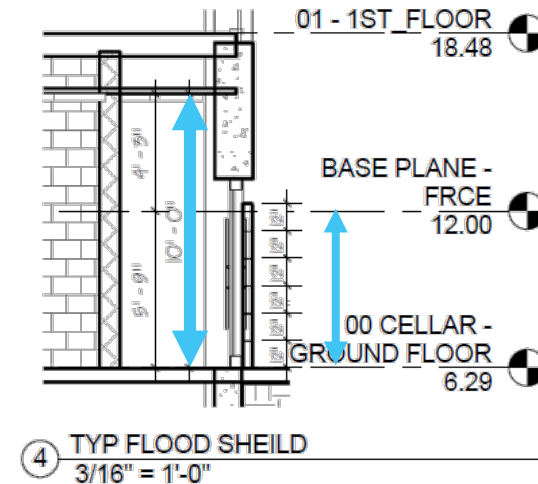
- Allowed up to an additional 1 FAR in areas with an above-grade flood elevation of 4' or more.



**Typical cellar space**  
(Exempt from floor area)



**Above-grade cellar space**  
(In flood zones where DFE > 4.6')



**Example of 'squished' retail**  
(1809 Emmons Ave., BK)

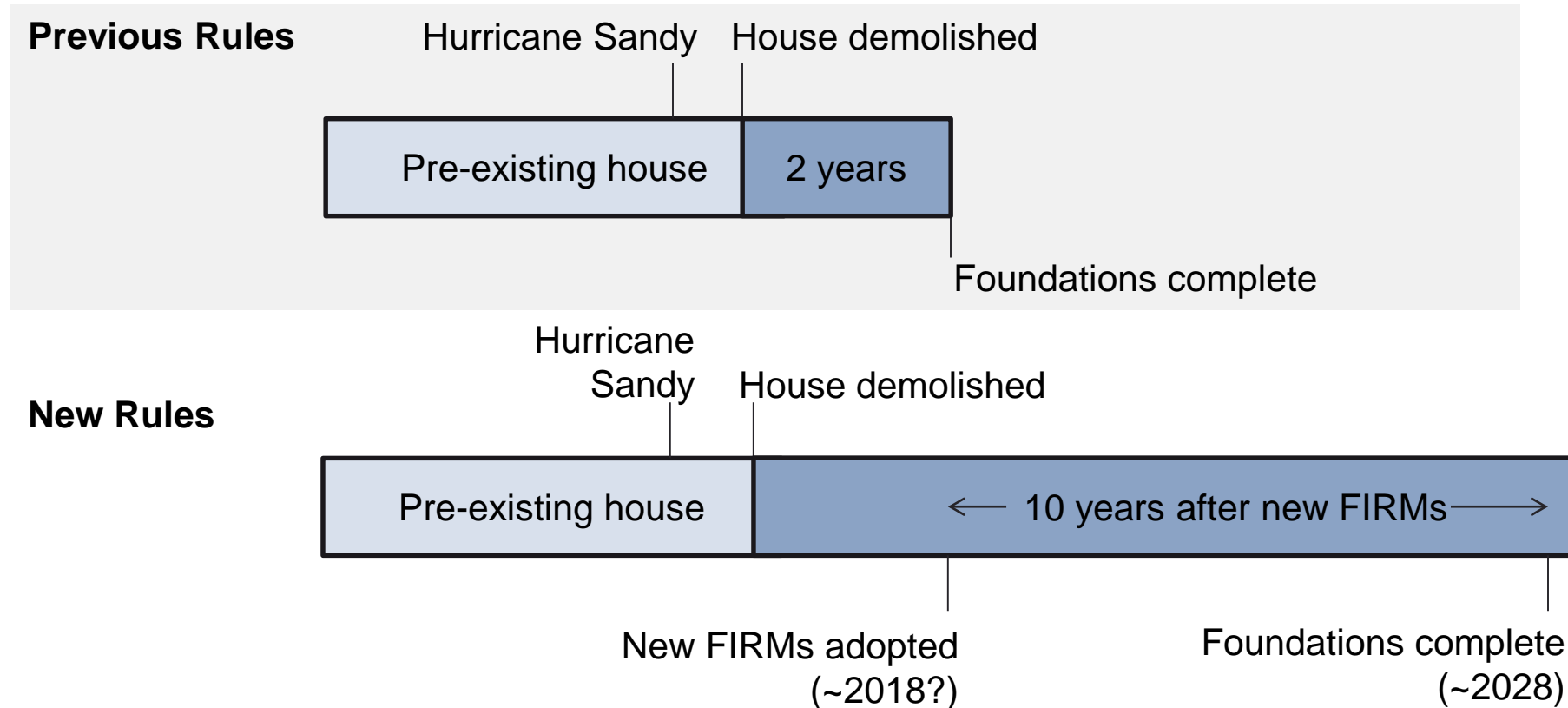
To incentivize the floodproofing of at-grade spaces the 2013 Flood Text redefined “cellar” to exempt at-grade stories in certain cases.

## ISSUE

- Bad urban design outcomes due to “squishing” – dark, low-ceilinged establishments.
- Causes lower-grade commercial stock, limits the types of retail tenants and services that can locate in the building, such as restaurants.
- Doesn’t apply to [at least half] of the floodzone.
- Doesn’t create a zoning incentive to prefer **dry floodproofing** implementations over wet floodproofing (active over passive).

To facilitate the recovery of non-conforming and non-complying homes, the 2013 Flood Text gave greater relief to these homes

- Non-conforming uses were allowed to remain even if they surpassed the damage and destruction thresholds.



To facilitate the recovery of non-conforming and non-complying homes, the 2013 Flood Text gave greater relief to these homes

## ISSUE

- **Over 500 residential buildings left out of 2013 relief:**
  1. **300 1+2 Family Homes**
  2. **200 Multifamily Buildings**
- **Underlying Article V** rules always allow 1+2 family homes to be rebuilt, regardless of level of damage, **except R in C8/M**
- **FT I** allowed any non-conforming building damaged >50% by Hurricane Sandy to rebuild, **except R in C8/M**



100y Flood Zone - PFIRMS (2015)

Non-Conforming Single-Two Family Lots

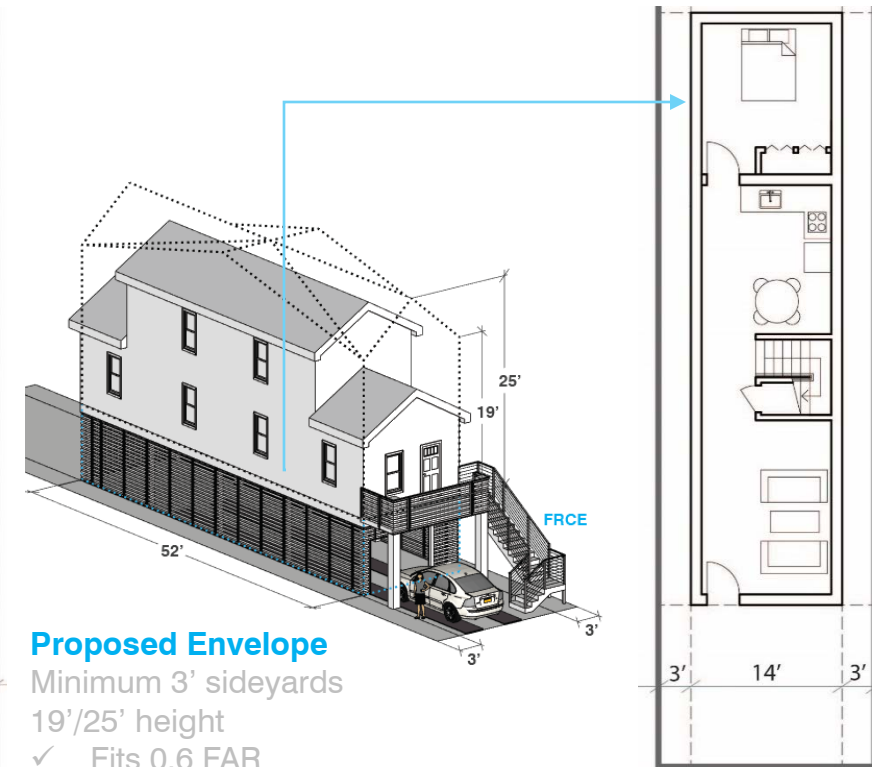
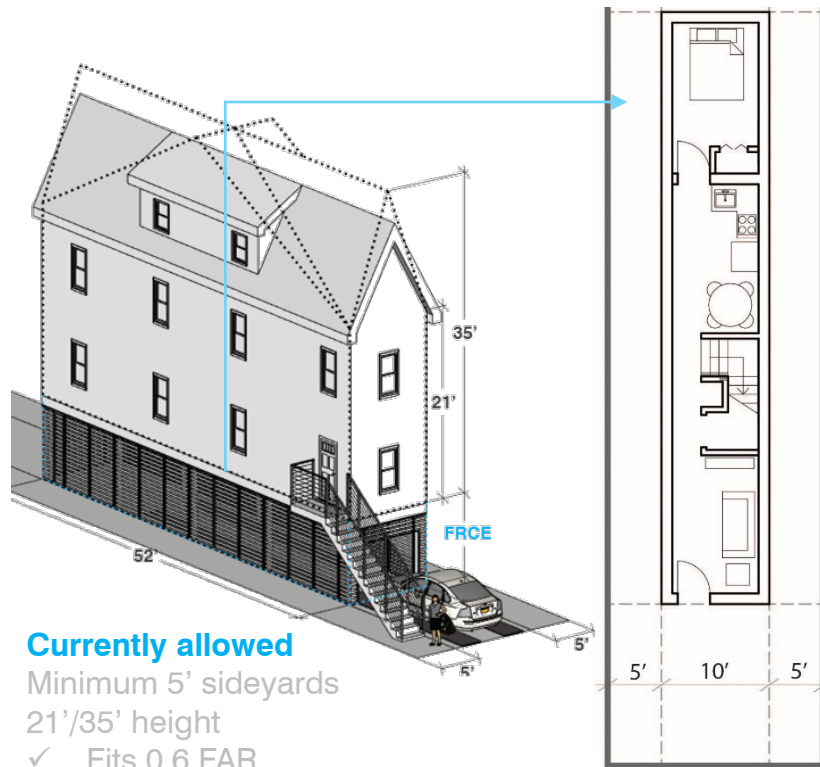
Non-Conforming Multi-family Lots



# Cottage Envelope

To facilitate the reconstruction of the very small homes on small lots, the 2015 SRNR created a new contextual envelope.

- Shorter, but has a more rational layout





To facilitate the reconstruction of the very small homes on small lots, the 2015 SRNR created a new contextual envelope.

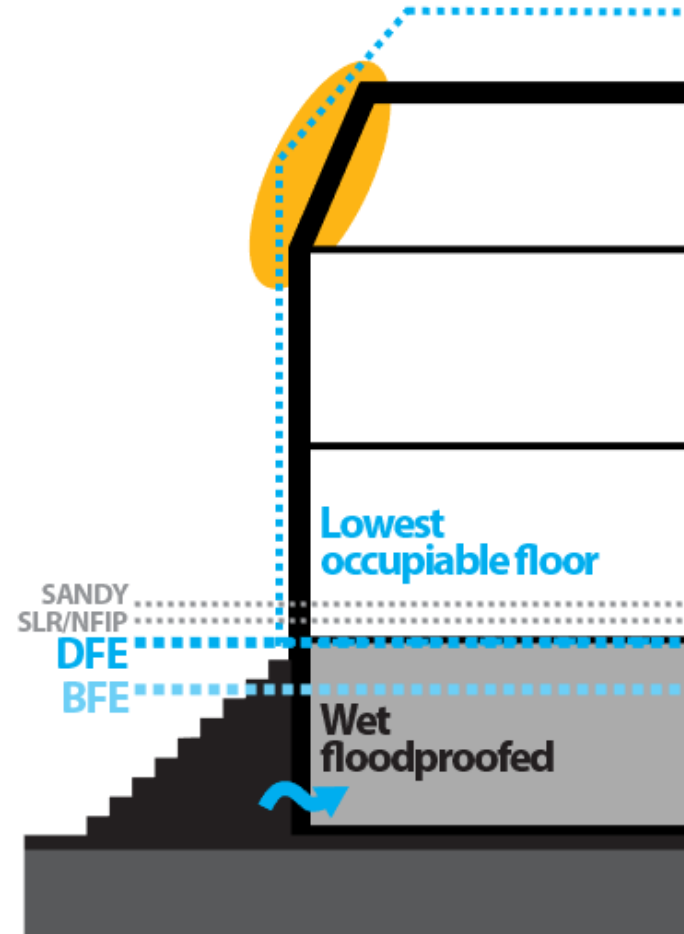
## ISSUE

- Not available permanently (past 2022)
- Doesn't apply outside of "Neighborhood Recovery Areas"
- Doesn't prevent "candlesticks" on currently vacant lots

## ISSUE

The current flood risk doesn't provide zoning relief for accommodating future flood risk

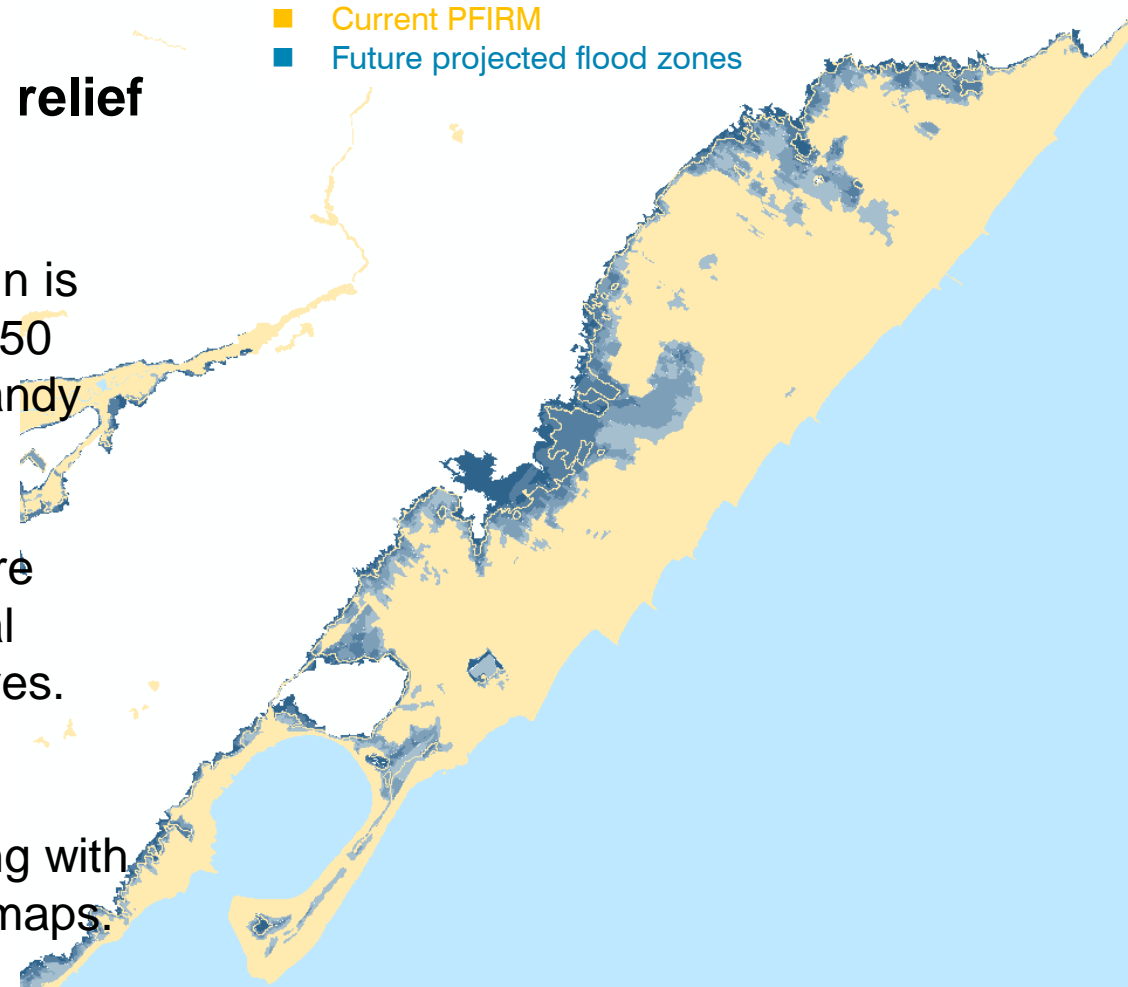
- Zoning relief is “minimum necessary” to elevate only to the DFE – nothing higher
- Some building owners may want to take sea level rise, future flood heights, or more powerful storms (e.g., Hurricane Sandy) into account when building.
- Maximum NFIP premium reduction reached when house is BFE+2.5'



### ISSUE

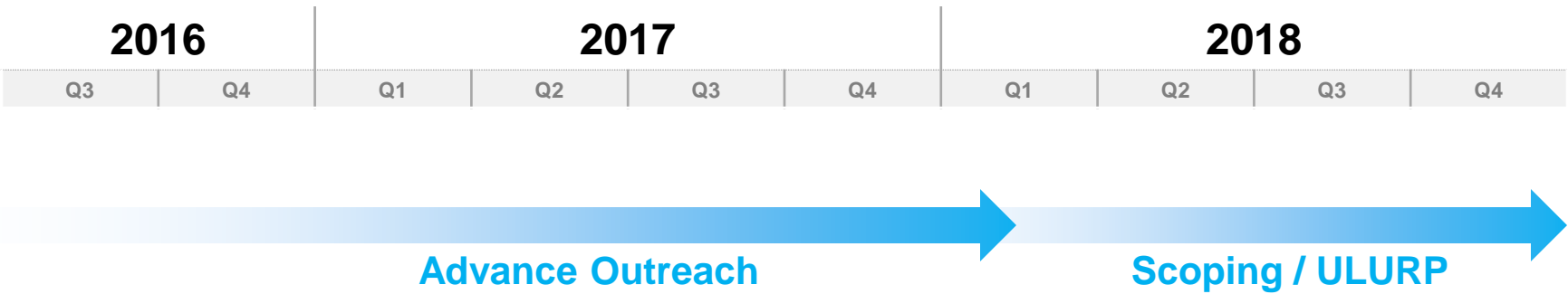
#### The current flood text doesn't provide zoning relief to the future floodplain

- Today's 500YR floodplain is roughly equivalent to 2050 100YR, and includes Sandy inundation area.
- Construction in this future floodplain has no special requirements or incentives.
- Close coordination is necessary to align zoning with FEMA "Climate Smart" maps.





Given the difficult issues involved, DCP plans a robust public engagement process:



Advance outreach will include:

- **Identify key stakeholders**, including local and citywide organizations and elected officials.
- **Brief CB's and other groups** on resiliency and zoning issues, prepare for more in depth conversations.
- **Public presentations and workshops on the zoning issues** and work through options for addressing them.
- **Public presentations on full, draft proposal.**

**\*Schedule is tentative and subject to change**

# Flood risk in Staten Island

