

Village Commission Workshop on
Potential Zoning Modifications for

North Bay Island

February 4, 2021



Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

Agenda

- Meeting Goals
- Background
 - NBV100 Master Plan
 - Next Milestone
- Focused Topics
 - Flow
 - Topic #1 – Building Placement
 - Topic #2 – Lot Coverage
 - Topic #3 – Building Height
 - Topic #4 – Water View Structures
 - Topic #5 – Understory
- Facilitated Discussion
- Other Topics or Issues
- Next Steps

Tonight's Goals

To receive guidance from the Village Commission regarding general approach to North Bay Island zoning

To address and prioritize specific regulatory topics

To discuss resident participation process / next steps

Background: NBV100 Master Plan

- Vision: "To equip North Bay Village with the tools to become a more livable, sustainable and prosperous community that can adapt to the challenges of a changing climate."
- Overarching Goals
 - Livability
 - Resilience
 - Prosperity



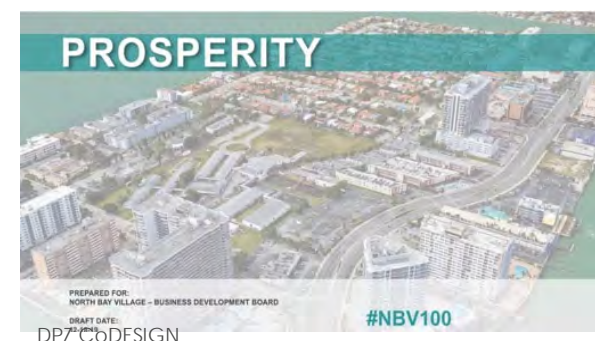
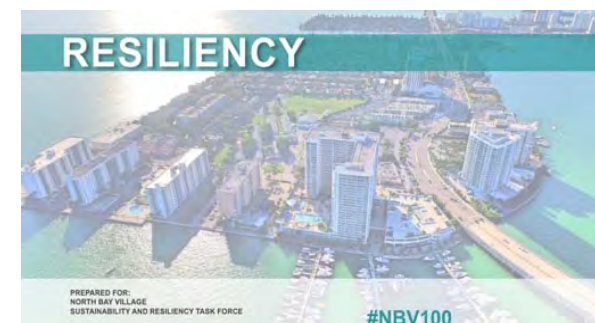
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Next Milestone: North Bay Island (NBI)

- Encourage homeowners to build sustainably.
- Enable homeowners to maximize their homestead's potential creatively.
- Facilitate approaches by private property owners to address resilience issues.

IMPROVE QUALITY OF LIFE

INCREASE PRIVATE PROPERTY VALUE

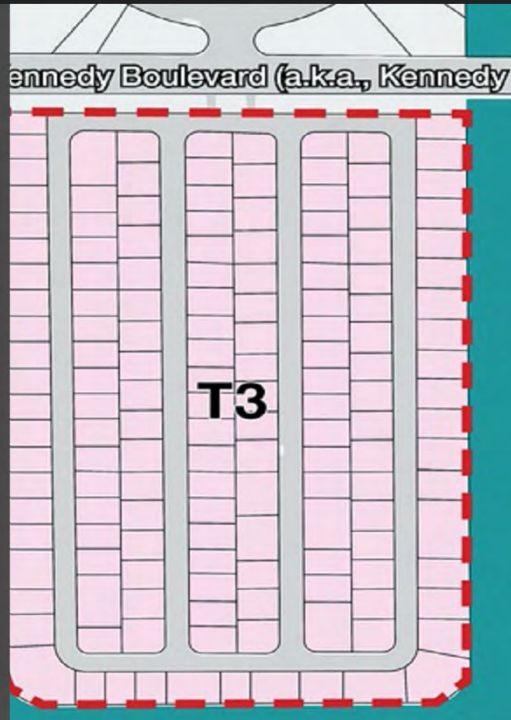


NBV100 Zoning Concept for NBI

T3 Zone (Suburban Zone)

The T3 zone would consist of "low-density areas, primarily comprised of Single-Family units with relatively deep setbacks, streetscapes with swales, and with or without sidewalks."

T3 aimed at helping "create better street frontages and increase resilience to flood waters, while maintaining privacy."

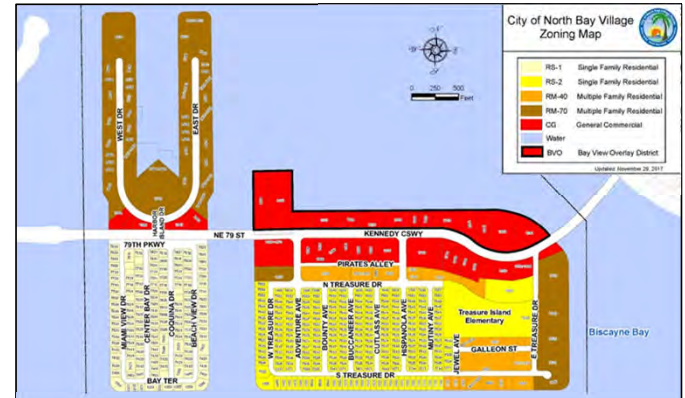


Current Zoning (Sec. 8.10 of ULDC):
RS-1 Low Density
Single-Family Residential

The purpose of this District is to provide for low-density single-family residential development in a spacious setting, together with other principal uses as may be approved as use exceptions and such accessory uses as may be necessary and compatible.

The Choice of a Form-Based Approach

- Unlike in the Kennedy Boulevard District, a form-based approach may not be essential to achieve the NBV100 goals in NBI.
- Fine-tuning the current zoning and other Code sections may be sufficient and appropriate.
- Hybrid codes are common



Focused Topics



Flow



Introduction of Topics



Guest Speaker
Reinaldo Borges



Facilitated Discussion

Topic #1: Building Placement

Shift front setback slightly towards the street.

Purpose: To create better spatial definition of the street and more usable backyard space while preserving buildable area.

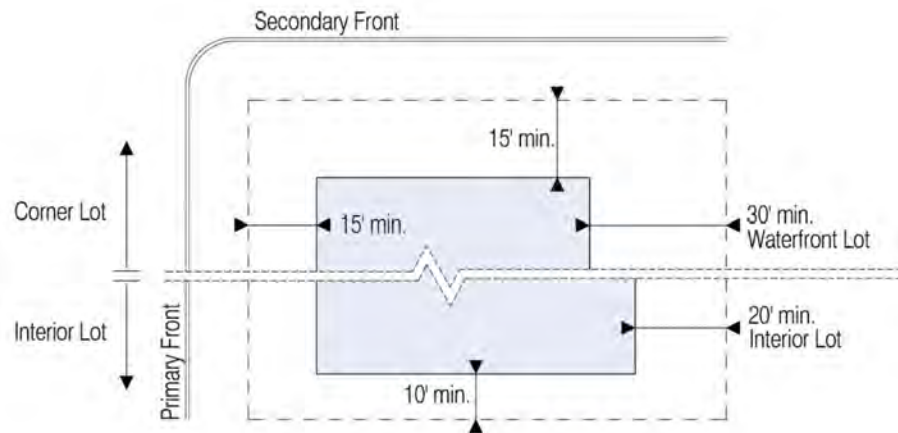
ii. BUILDING SETBACK	
a. Primary Front – Street	15 ft. min.
b. Primary Front – Waterfront	30 ft. min.
c. Secondary Front	15 ft. min.
d. Side	10 ft. min.
e. Rear – Interior Lot	20 ft. min.

"Setback. The distance from the Base Building Line to the point where a Building may be constructed. This area must be maintained clear of permanent Structures except for encroachments described in each Transect Zone."

Current Zoning Standard (Sec. 8.10):

Setback	Distance (Feet)
Front	20
Side (corner)	20
Side (interior)	10
Rear	15
Waterfront	25

Applicable except for Lots 1 through 7 of Block 1 and 1 through 4 of Block 2, respectively, of the subdivision known as North Bay Island, which shall have a minimum waterfront setback of 20 feet.



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*Setbacks for primary buildings could be adjustable via a waiver by no more than 10%.

Topic #2: Lot Coverage

Establish impervious area limits in single-family districts.

Purpose: To improve water management, reduce flooding, and protect water quality.

Lot Occupation	Standard
Lot Coverage:	50% max
Green Space	20% lot area min
Open Space	40% lot area min

Lot Coverage. The area of the lot occupied by all Buildings, excluding structures such as decks, pools, and trellises.

Green Space. An open space outdoors, at grade, unroofed, landscaped and free of impervious surfaces.

Open Space. Any parcel or area of land or water essentially unimproved by permanent buildings and open to the sky; such space shall be reserved for public or private use.

Current Zoning Standard

Sec. 8.10: No lot coverage or minimum pervious for RS-1 or RS-2 zoning districts today.

However, per Sec. 8.15:

- ...the front yard area may be paved up to 40% of the total linear footage, and the balance may only be paved if a greenspace is created between the Village's sidewalk and the paved area, for a depth of no less than 48 inches; and
- ...on NBI, at least 60% of the linear footage of any property's street front Village easement or right-of-way area must be maintained as greenspace (pervious) area from the street to the property line.

*New resilience provisions require participation in Green Building Program through features such as:

- Permeable surface for parking and drives
- Green infrastructure (rain gardens, cisterns, etc.)
- Green roofs



Topic #3: Building Height

1. Measure building height from the Base Flood Elevation (BFE), not from grade.

Purpose: Support resilient design and accommodate changing BFE.

2. Potential maximum height: 25 feet plus understory, and pitched roofs up to 15 feet above max height

Purpose: Offer property owners and designers latitude to design varied architecture.

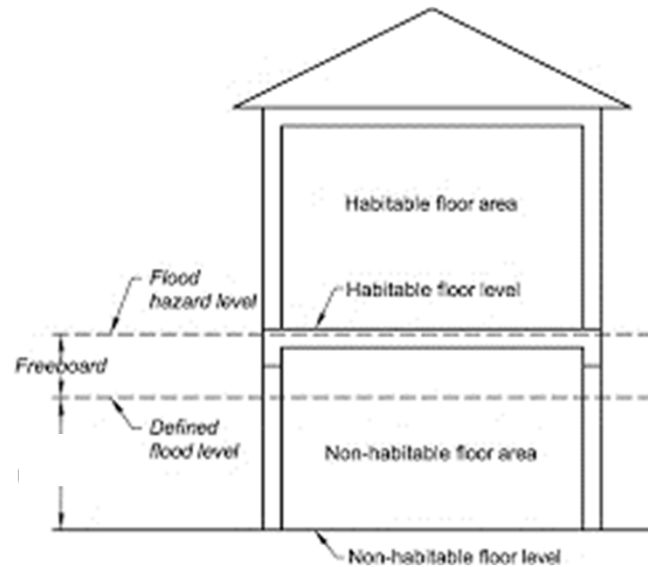
3. If understory concept were endorsed, limit the maximum number of habitable stories to two (2).

Purpose: Promote a cohesive, compatible neighborhood scale while maintaining a generous building envelope.

Current Zoning Standard(s)

Sec. 8.10 (RS-1): Max building height: Three stories not to exceed 35 feet above grade.

- Ch. 3: Height of building. The vertical distance from grade to the highest point of a flat roof; the deck line of a mansard roof; the average height between eaves and ridge of gable, hip, and gambrel roofs; or the average height between high and low points of a shed roof.
- **New Sec. 15.2.C.1.** Unless otherwise specified... the height of buildings shall be measured in feet from the Base Flood Elevation (BFE) plus freeboard.



CDS Architecture

Freeboard. Additional height, usually expressed as a factor of safety in feet, above a flood level for purposes of floodplain management.

Crown of road. The cross-sectional shape of a road surface.

Topic #4: Viewing Towers

Optional water viewing structures.

Purpose: To provide non-waterfront lots access to water views, increasing property value.

- Allowance to go above the maximum building height.
- Limit to 200 sf.
- Require stepbacks to ensure privacy.





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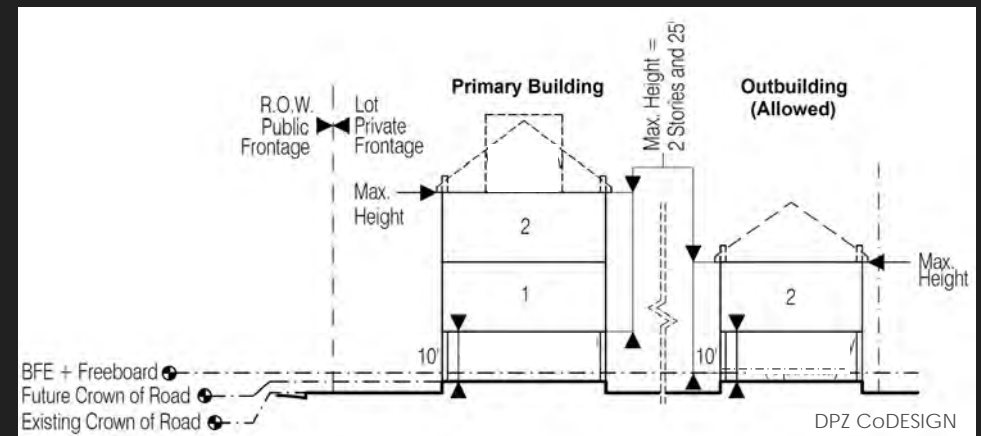
Topic #5: Understory

New houses designed above an open understory.

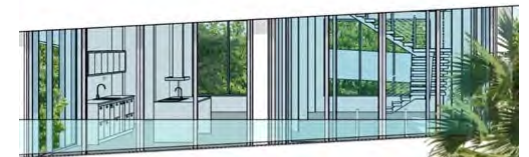
Purpose: To avoid property damage during a flood by elevating structures above the water.

Potential understory approaches:

- Understory required for primary buildings, does not count towards maximum building height (DPZ proposed)
- Understory counts toward height, but height is adjusted
- Understory optional for outbuildings (DPZ proposed)
- Understory required for all buildings
- Understory incentivized for all structures
- Coordinate with proposed resilience amendments



- Height: Ten (10) feet clear from the crown of road to the underside of the ground floor structure.
- Allowances:
 - Enclosed entry vestibule facing the street.
 - Parking and/or storage, including a garage with flow-through or breakaway walls.
- Require: Attractive finishes and screening from the street, the water and neighbors.
- Mechanical systems and lighting fixtures concealed by a finished ceiling.



CDS Architecture



NBV Examples

Miami Beach Understory Provisions

- Design Review Board approval required
- More stringent submittal requirements (with lots of visuals)
- Building height measured from BFE of the lot plus minimum freeboard measured to the top of the structural slab for a flat roof and to the mid-point of the slope for a sloped roof.
- Understory minimum height of 12 feet as measured from BFE + freeboard to the underside of the first-floor slab (waivable by DRB)
- Enclosed entry vestibule, parking and/or storage including garage with flow-through/breakaway walls
- Screening required

<http://toddmicrohlool.com/properties/10604/>



Praxis Architecture



Todd Michael Glaser (Domo Architecture?)

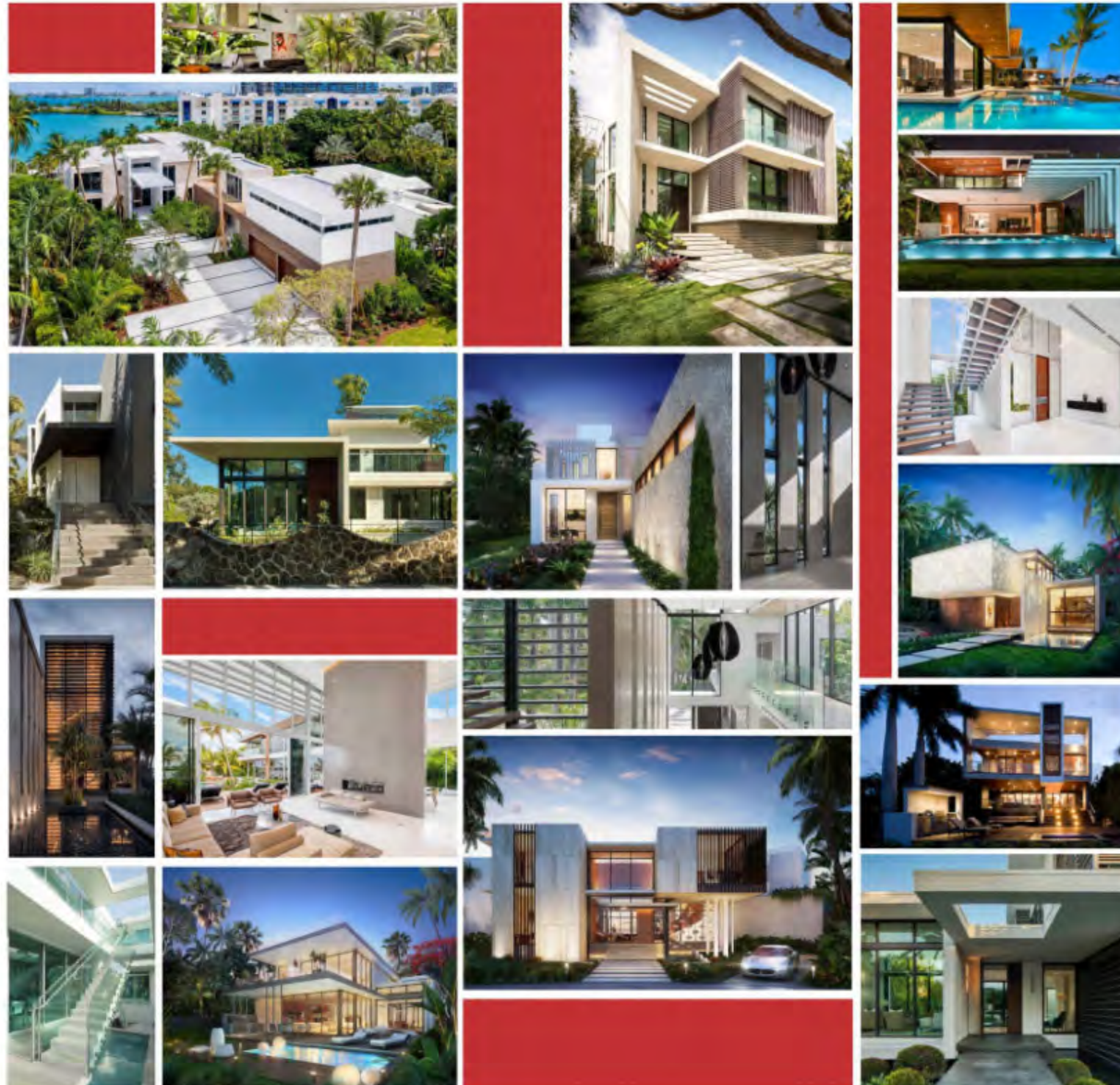
Key Biscayne Understory Provisions

- Elevated home definition
- Provisions for one and two-family dwellings
 - New construction: Min elevation of lowest floor or bottom of the lowest horizontal structural member at or above BFE plus one (1) foot
 - Substantial improvement/damages: To BFE
- Building height for elevated buildings is 35 ft measured from BFE to the top of the highest point of the building roof
- Enclosures: limited storage of maintenance equipment, entry to living area (stairway or elevator) and parking (garage). Unfinished and nonpartitioned interior



Presentation by Reinaldo Borges

- Principal/Founder of Borges + Associates
- Co-chair on the Sea Level Rise Task Force at the American Institute of Architects (AIA Miami)
- Board member of the City of Miami Sea Level Rise and the Climate Resilience Committees
- Chair of Real Estate Council and member of the Executive Board of Governors of the Miami Beach Chamber of Commerce
- Featured in Season 2 of YEARS OF LIVING DANGEROUSLY documentary series on the effects of Climate Change
- Active member of the Urban Land Institute and the US Green Building Council



THE AMERICAN INSTITUTE OF ARCHITECTS; Sustainability Initiative

Architects of Resilience



Buildings and communities are subjected to destructive forces from fire, storms, earthquakes, flooding, and even intentional attack. The challenges facing the built environment are evolving with climate change, environmental degradation, and population growth. Architects have a responsibility to design a resilient environment that can more successfully adapt to natural conditions and that can more readily absorb and recover from adverse events. The AIA supports policies, programs, and practices that promote adaptable and resilient buildings and communities. -AIA Position Statement on Resilience

Design is the solution:

no one-size-fits-all approach

Each community is unique in its challenges. One community faces sea level rise and skyrocketing housing costs, while another community addresses vacant properties and job loss. These wide-ranging and complex risks and conditions preclude the use of cookie cutter solutions. Complex challenges require innovative solutions.

Role of the architect:

Architects are uniquely positioned to develop innovative approaches for improving our nation's resilience across a wide variety of scenarios. Architects are:

systems thinkers who blend environmental science, building science and social science

project leaders absorb incredible amounts of information, prioritize issues to guide decision-making



RISK REDUCTION

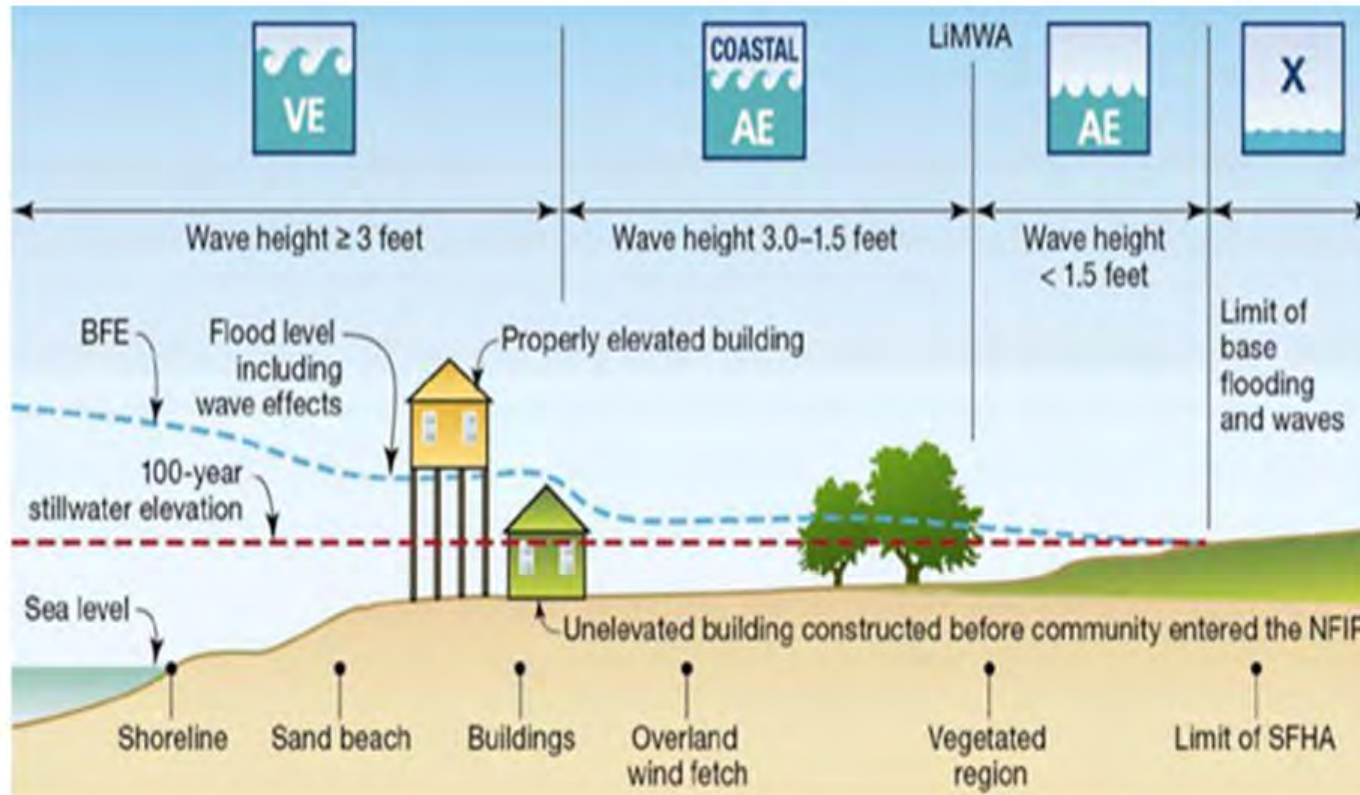
Additional Elevation Requirements

1. Single most cost-effective measure to reduce risk. FEMA Technical Bulletin P-499 recommends at least 3 feet.
2. Reduces frequency and severity of damage
3. Reduce damage.
 - Quicker re-occupation after events
 - Less need for government help
 - Property owners reduce repair expenses
 - Small business more likely to stay open
4. Lower NFIP premiums
5. Provides margin of safety against extraordinary or unknown flood risk.

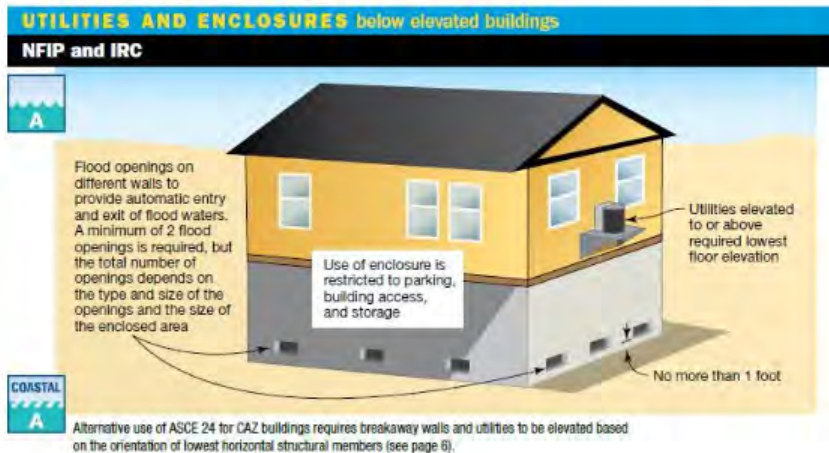
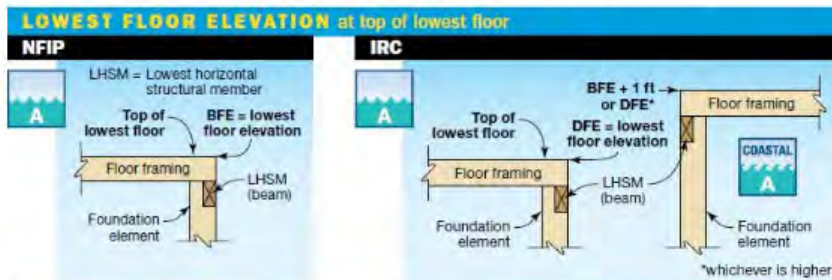
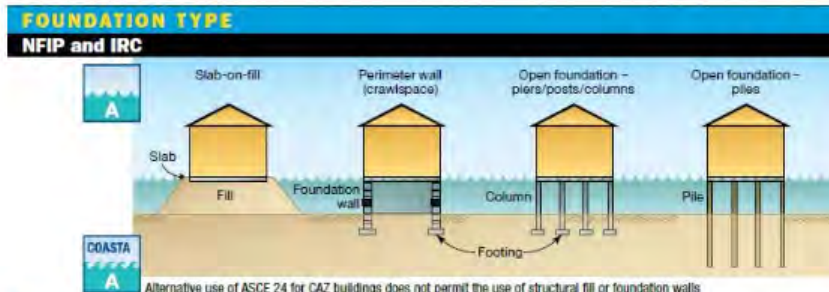
Under the Flood Insurance Reform Act of 2012, You Could Save More than \$90,000 over 10 Years if You Build 3 Feet above Base Flood Elevation



NFIP and IBC ZONES



NFIP and IRC







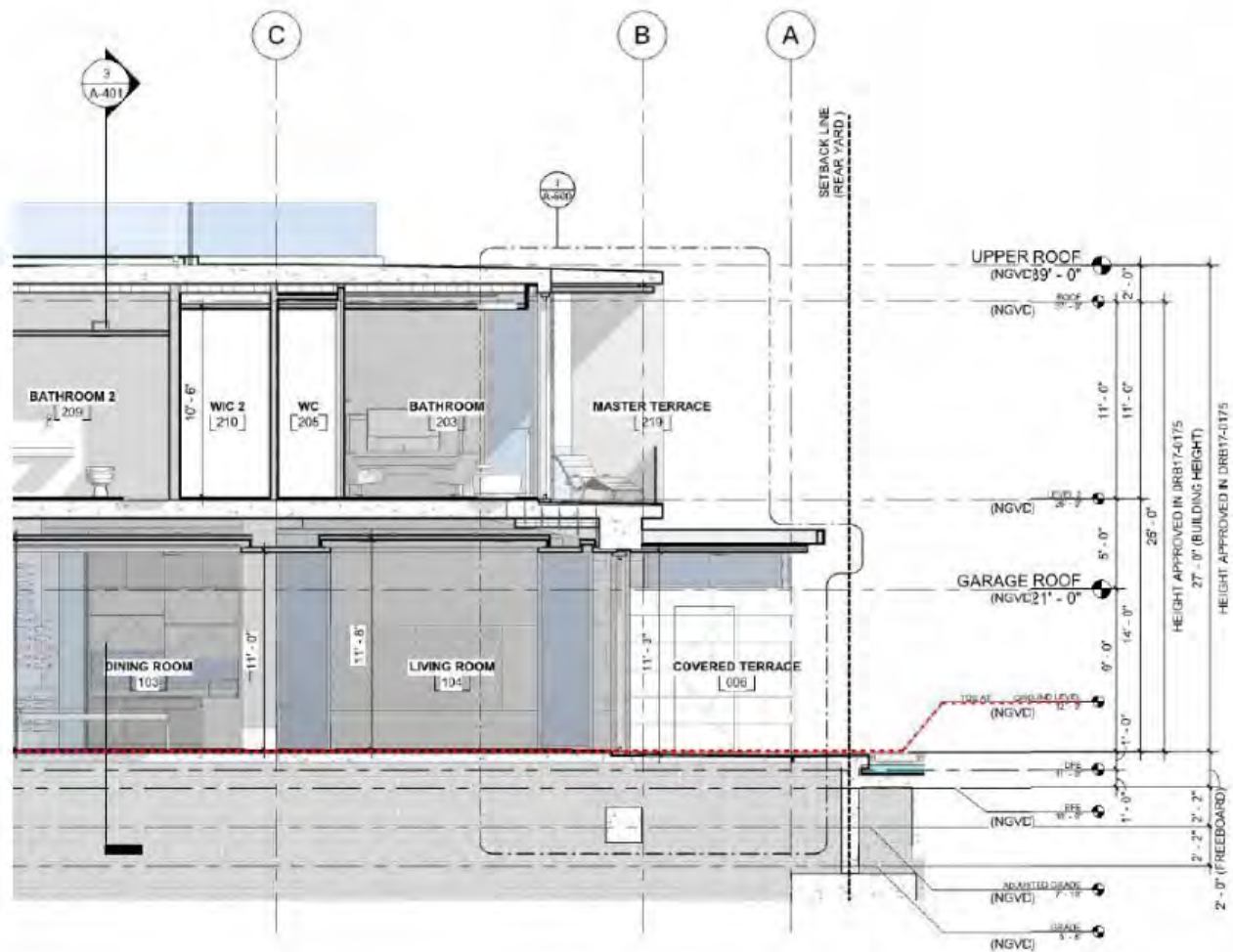




Hibiscus Island Residence

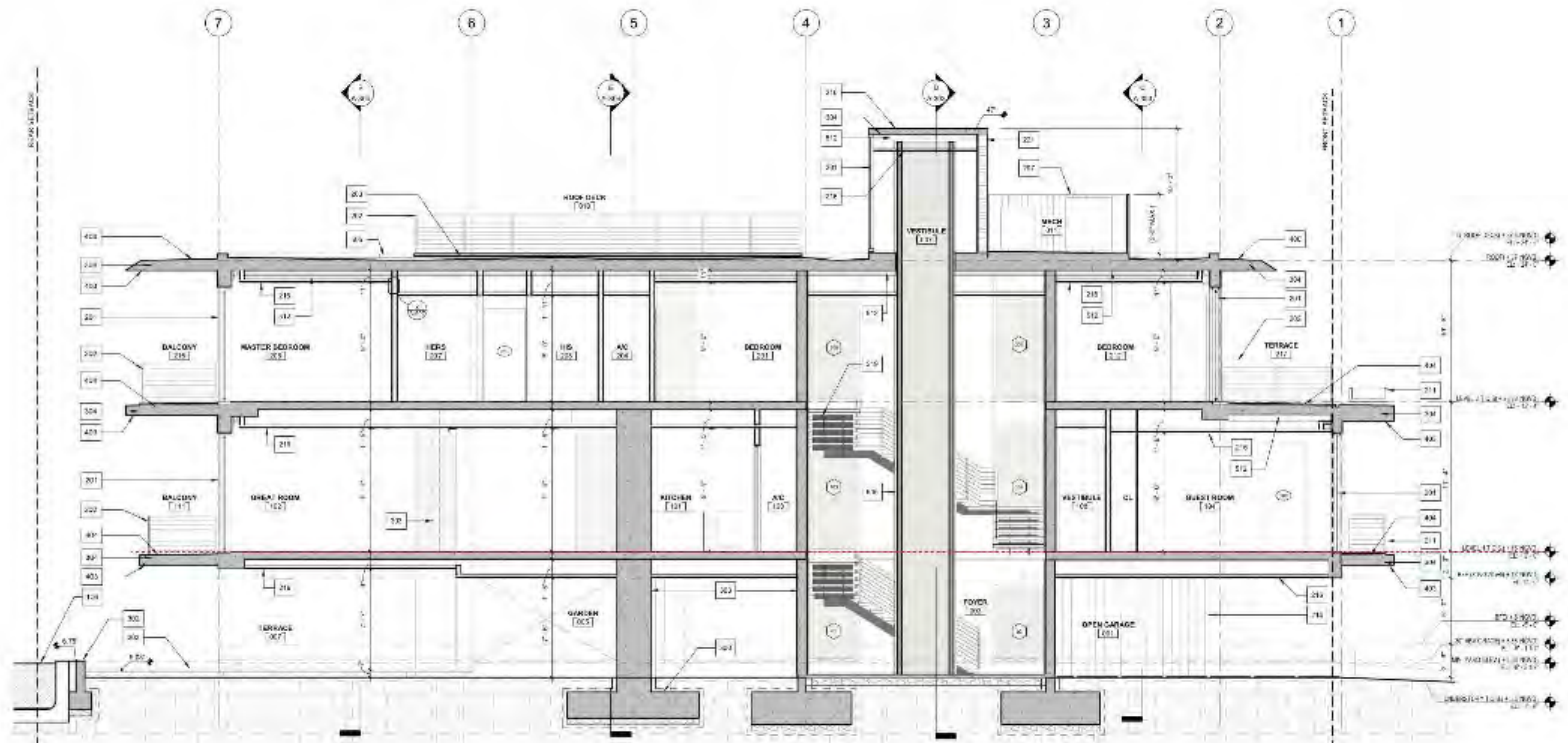
borges architects
+ associates







Sheridan Avenue Residence





Facilitated Discussion





Prompt Questions

- Consider linkages between these items and to other parts of the Code (resilience amendments, Form-Based Code, definitions, etc.)
 - Understory – Favor or discard? Mandatory or optional approach? Limits? Screening?
 - Building height – How to measure? Feet or stories? Limits? Exemptions?
 - Setbacks – Maintain, reduce or enlarge?
 - Lot coverage - direct or indirect approach? Clarify other sections of the Code?
 - Viewing towers – Favor or discard? Height? Size? Stepbacks?
- FBC or amend current zoning?
- DRB?
- Submittal requirements?



Other Topics or Issues

Next Steps

- Summarize Commission input
- Launch public outreach: (webpage content, flyers, etc.)
- Design and hold interactive Town Hall
- Summarize public input
- Present results to Commission for consensus direction before proceeding with Code amendments