



THE CITY OF KEY WEST

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To: Stakeholder Groups
From: Division of Community Development Services
Date: May 12, 2014
Subject: Building Height – Referendum and LDR Amendment Process

Statement of Problem

The City of Key West is a low lying island with a maximum topographic elevation of 16' above sea level, leaving the city, its residents and assets vulnerable to flooding from high tides, storm surge and sea level rise. Furthermore, the island substrate is permeable limestone and cannot be buffered from water inundation. The City's adopted Climate Action Plan, consistent with regionally adopted standards, anticipates an increase in the number of intense storms in the region and predicts that sea levels will rise between 3" and 7" feet by 2030. According to NOAA tidal gauges, the tide has risen 9" since 1870, causing an increase in flooding throughout the city on a regular basis, limiting access to homes and businesses, and causing water damage during marginal rain storm events and/or high tides.

According to the FEMA NFIP rate maps nearly 80% of the City is currently located within the Special Flood Hazard Area and susceptible to the negative effects of sea level rise. In order for the city to adequately protect the city's tax base and private property from high insurance cost and water damage it is critical that the City's Land Development Regulations facilitate the ability for property owners to elevate their property above the flood levels.

Conversely, the current building height restrictions do not anticipate the city's need to adapt for sea level rise and are too low to effectively adapt the existing and future housing stock and commercial structures, built on small properties within a dense urban land fabric. Further, the height restrictions in the Land Development Regulations are restricted by the charter and subject to change only upon approval of a majority public vote at a general municipal election (Charter Section 1.05 (a)).

Solution Statement

Staff will recommend that the City Commission consider placing a referendum item on the November election ballot to consider allowing additional height for buildings that elevate their structures in order to construct livable area above flood levels, but that the maximum amount of height continue to be limited. Staff is providing four distinct approaches to the referendum for discussion and consideration based on the following facts, issues and their possible solutions.

Why go through the process of amending LDR's related to building height?

1. *Roadblock to property protection* - Current building height restrictions create a roadblock for property owners attempting to protect their assets.
2. *Stable tax base* - Protecting property facilitates stability of property values.
3. *BW 12* - October 1, 2013 Biggert-Waters Flood Insurance Reform Act of 2012 became effective eliminating the National Flood Insurance Policy subsidy program. Although emergency corrective legislation has postponed the new flood insurance rates from taking effect, they are inevitable. For nonconforming properties located below required flood levels, which constitute a majority of the City, the rate increase will be significant. Cumulatively, and highly likely in the near future, large substantial insurance rate discounts are provided for elevating structures out of the floodplain; with steeper discounts for freeboard (additional height above freeboard) protection (see definition below and Exhibit 2 for examples).
4. *CRS Rating* - Creating mandatory building height elevation would elevate our CRS rating, systematically lowering everyone's flood insurance rates. Minimal relief from existing height restrictions would help alleviate the legislative barrier that City's has created in order to facilitate the mitigation of our low CRS rating/ flood prone properties (see Exhibit 10 for additional information).
5. *FEMA NFIP Rate Map Changes looming* – In the next few years FEMA will begin the process of amending the local Flood Maps that indicate to what elevation a building has to be raised and dictates flood insurance rates. Likely the Map changes will result in a loss of 1 foot BFE citywide. This means structures that were previously elevated 1' above BFE will now only be at BFE and lose the insurance rate discount for the freeboard. This also results in the need to elevate structures even higher in order to meet FEMA requirements.
6. *Climate Change Action Plan* - Adopted science for Sea Level Rise anticipates 3-7" of rise by 2030 and 9-24" by 2060. Meets Adaptation needs for City's Adopted Climate Change Action Plan.
7. *New BPAS units* - Maximum of 910 new residential BPAS units to be constructed by 2023 required to be built 1.5' above BFE.
8. *Timely* - LDR Amendment Overhaul Process beginning now.
9. *Best interest of Community* – A height allowance that is directly related to flood proofing supports property owners by modifying regulations that prohibit them from protecting their property.
10. *Consistent with existing Comprehensive Plan Policy:*
Comprehensive Plan Policy 1.1.12.5: Increased Height: The City shall consider allowing increased heights for new construction or redevelopment if such additional height is justified based on adopted Coastal High Hazard Maps and Storm Surge Flood Maps in order to promote safe new development and redevelopment based on sea level rise predictions. Such additional height must be compatible with surrounding development.
11. *Proactive approach* – Facilitates mitigation before the next disaster. Referendum is a lengthy process that should not be in reaction to a disaster but facilitates adaptation before or in response to damage caused by the next big event.

Elements Taken into Consideration of Approaches

The following were analyzed by staff in order to formulate the referendum text approaches proposed.

- Amend height restrictions by changing the point where height is measured from instead of using the reference point of the crown of the road use:
 - Base flood elevation as depicted in the NFIP Maps; or

- Elevation of existing property based on individual flood elevation certificates.
- Future changes to flood insurance maps; future rate hikes; storm surge; sea level rise; and mitigation for flood insurance risk for 910 new Building Permit Allocation System units.
- Limit the number of stories allowed?
- Savings in flood insurance rates for elevating a structure above Base Flood Elevation (BFE).
- Changing character of the structural design pattern of the City, from ground floor entries to more structures on stilts, is not voluntary nor is it controlled by the City, the elevation of structures is *REQUIRED* by FEMA a Federal Agency.
- Require building elevation to build to an established freeboard levels or continue with voluntary program.
- Balance protection of the built environment (people’s homes, businesses and public infrastructure) with protection of the City’s character by:
 - Creating design standards in future LDR amendments to mitigate changing character of neighborhoods.
 - Coordinate with HARC to balance protection of the historic structures with protection of the character of the historic district.
 - Provide a minimum and maximum height allowance.
- Consider Florida Building Code exception for historic contributing structures (FBC Ch. 11). The Building Code exception does not provide relief from the rising flood insurance rates.
- Consider whether the amendments should allow for protection of most of the existing structures or just some:
 - How much height is needed to protect almost all of the existing residential housing stock on the island? (Worst case scenario) Will the approach accommodate existing structures in the lowest lying areas (SF district)?
 - Is it more important to protect the character of the island at street level or moderately above, or to take a long-range approach to sea level rise and allow more significant height changes?
- November 4, 2014 – Timeline for ballot request (see Exhibit 1 attached schedule).
- The holding of a referendum is no cost to the City.

Flood Insurance Terms and Savings

Base Flood Elevation (BFE) – The height to which a building within a special flood hazard area is required to be elevated to as it relates to sea level as depicted on the FEMA National Flood Insurance Rate Maps (FIRM).

Flood Insurance Rate Map (FIRM) - The official map of the community, on which FEMA has delineated both special flood hazard areas and the risk premium zones applicable to the community [Also defined in FBC, B, Section 1612.2.].

Freeboard – the area between the Base Flood Elevation (BFE) and the joist of the first floor of the structure. The Florida Building Code requires new and substantially renovated residential structures to elevate one foot (1’) of freeboard above Base Flood Elevation. The cost of flood insurance for residential and commercial properties decreases for every foot of freeboard for up to 3’.

- Residential Properties Cost Benefit: Estimated local insurance cost savings for residential structures is maximized at an elevation of three (3’) of freeboard above Base Flood Elevation:

- +1' Freeboard = approximately 87% annual savings
- +2' Freeboard = approximately 90% annual savings
- +3' Freeboard = approximately 94% annual savings
- Commercial Properties Cost Benefit: For commercial properties there is a similar insurance cost savings for elevating or floodproofing a structure, when the minimum floodproofing height is exceeded. As with the freeboard discount for residential properties, the floodproofing freeboard credit is maximized at +3' above BFE.

****Please note that during the next few years FEMA will be revising the local flood maps and likely each flood zone will be increased by 1'. This means that structures that elevate 3' of freeboard today, will only have 2' of freeboard in the near future and their insurance rates will rise accordingly. It is for this reason that 4' of freeboard is suggested as an alternative for maximum height allowance in all referendum language.**

Special flood hazard area - An area in the floodplain subject to a one-percent or greater chance of flooding in any given year. Special flood hazard areas are shown on FIRMs as Zone A, AO,A1-A30, AE, A99, AH, V1-V30, VE or V [Also defined in FBC, B Section 1612.2.].

Draft Approaches – Referendum Language (75 words or less): In order to provide the City with the most reasonable approach to changing height possible. Staff has provided the following options for consideration of referendum language:

Option 1. To protect against flood damage and lessen the cost of flood insurance citywide, should the building height restrictions contained in the land development regulations be amended, in areas wherein the maximum building height is 35 feet or less, to allow one foot of additional building height for each one foot of elevation necessary to achieve the base flood elevation or above for up to 5 feet within the regulated flood zones **on NFIP's rate map?**

Positive and Negative Considerations of Option 1.

Positive

1. Protects the existing height and character of districts outside of the Special Flood Hazard Areas such as the majority of the Historic District.
2. All of residential neighborhoods would still maintain a maximum height of 35-40'. Below Tree height.
3. Responds to Federal and local request to improve the City's Community Rating System (CRS) by FEMA.
4. Shows leadership on a national level.
5. Provides flexibility for future FEMA Flood Map amendments.
6. Accommodates potential 3' sea level rise predictions.
7. In some cases it may provide space for property owners to park or have storage beneath the house.
8. Potential to invite development – raising property values.
9. Limits amount of legislative changes necessary (see below).

Negative

1. The character of the traditional, ground level neighborhoods, characteristic of the single family zoning district, will begin to change. Particularly in the lowest places on the island.
2. Perception of massing and scale.

Option 2.

To protect against flood damage and lessen the cost of flood insurance citywide, should the building height restrictions contained in the land development regulations be amended, in areas wherein the maximum building height is 35 feet or less, to allow one foot of additional building height for each one foot of elevation necessary to elevate buildings to the minimum flood elevation and up to 3-4' of freeboard within the regulated flood zones?

Positive and Negative Considerations of Option 2.

Positive

1. Provides protection of the height restrictions while ensuring that **most** existing buildings (particularly residential) can be elevated to meet FEMA and Florida Building Code requirements (BFE +1).
2. Provides flexibility for voluntary elevation of the structure of up to 3-4' of freeboard in order to prepare for sea level rise and changing NFIP Maps.
3. Allows property owners to maximize flood insurance savings for up to 3' above freeboard.
4. Protects the existing height within reason
5. Responds to Federal and local request to move towards improvements to the City's Community Rating System (CRS) by FEMA.
6. Shows leadership on a national level.
7. Provides flexibility for future FEMA Flood Map amendments.
8. Accommodates potential 3' sea level rise predictions.
9. Potential to invite development – raising property values.
10. Limited amount of legislative changes necessary (see below).

Negative

1. The character of the traditional, ground level neighborhoods, characteristic of the single family zoning district, will begin to change. Particularly in the lowest places on the island.
2. Perception of massing and scale.
3. This approach would not guarantee a max height of 35-40'.

Option 3.

To protect against flood damage and lessen the cost of flood insurance citywide, should the definition of building height contained in the land development regulations be amended to require height be measured from the NFIP Rate Map Base Flood Elevation, instead of the crown of the road, to protect buildings against flood damage and lessen the cost of flood insurance citywide?

Positive and Negative Considerations of Option 3.

Positive

1. Based on the Federal elevation requirements for flood prevention

2. Responds to Federal and local request to improve the City’s Community Rating System (CRS) by FEMA.
3. Shows leadership on a national level.
4. Provides flexibility for future FEMA Flood Map amendments.
5. Accommodates potential 3’ sea level rise predictions.
6. In some cases it may provide space for property owners to park or have storage beneath the house.
7. Potential to invite development – raising property values.

Negative

1. The character of the traditional, ground level neighborhoods, characteristic of the single family zoning district, will begin to change. Particularly in the lowest places on the island.
2. This option allows the greatest height changes
3. This approach changes where height is measured from therefore changing the baseline that has already been used to create the city’s massing and scale.
4. More legislative changes necessary (see below).

Option 4. To protect against flood damage and lessen the cost of flood insurance citywide, should the definition of building height contained in the land development regulations be amended to require height to be measured from the existing grade of the property as measured by a property specific Elevation Certificate instead of the crown of the road?

Positive and Negative Considerations of Option 4.

Positive

1. Based on the actual elevation of a property
2. May respond to Federal and local request to improve the City’s Community Rating System (CRS) by FEMA.

Negative

1. Difficult to understand.
2. The character of the traditional, ground level neighborhoods, characteristic of the single family zoning district, will begin to change. Particularly in the lowest places on the island.
3. Perception of massing and scale
4. Does not provide flexibility for future FEMA Flood Map amendments.
5. This approach changes where height is measured from therefore changing the baseline that has already been used to create the city’s massing and scale.
6. This approach will help the least amount of properties.
7. More legislative changes necessary (see below).

Option 5. Do nothing

Positive and Negative Considerations of Option 5.

Positive

1. Protects the existing height of the city
2. No additional work for staff

Negative

1. Does not respond to Federal and local request to improve the City’s Community Rating System (CRS) by FEMA.
2. Does not provide a mechanism to alleviate the FEMA elevation requirements.
3. Limits ability to adapt to future FEMA Flood Map amendments.
4. Will result in additional height variances.
5. May result in more costly demolition of existing structures instead of the retrofit or elevation of existing structures.
6. May result in takings
7. More and more private and public property will be subject to flooding and or insurance defaults due to height restrictions that prevent existing structures
8. Land Development Regulations will continue to prevent new or existing structures from elevating to protect themselves from rising sea level, storm surge, high tides, heavy rain events and raising insurance rates. The city may be subject to lawsuit.
9. Many properties may go into foreclosure due to inability to pay high flood insurance costs.
10. Tax base may be negatively affected.
11. The City’s CRS rating will remain stagnant and low, and citywide flood insurance rates will remain high.

Legislative Considerations:

Options 1-4 are supported by Comprehensive Plan Policy 1.1.12.5 for Increased Height as described above; although, other legislative changes would be required dependent on the approach as follows:

Option #1 and #2 supports limited policy amendments to the Land Development Regulations and HARC Guidelines as follows:

- **Changes to the LDR’s would be limited to new language in Chapter 122** including: the Supplemental District Regulations, and perhaps the addition of references to each zoning district Section for clarity.
- **HARC Guidelines Amendments:**
 - New Construction (p. 38, #2) – Revise policy related to elevation of building above FEMA requirements.

Options #3 and #4 require changes to the Comprehensive Plan, Land Development Regulations and HARC Guidelines as follows:

- **Amend Comprehensive Plan Policy 1-1.1.3: Intensity Defined:**
Policy 1-1.1.3: Intensity Defined. ...The term "building height" as used in the Land Development Regulations shall mean the vertical distance from the crown of the nearest adjacent street to the highest point of the proposed building....
- **Amend the Land Development Regulations for:**
 - Chapter 86-9 - definition of “Building Height”.

- Section 122-1149. Height.
- **HARC Guidelines Amendments:**
 - New Construction (p. 38, #2) – Revise policy related to elevation of building above FEMA requirements.

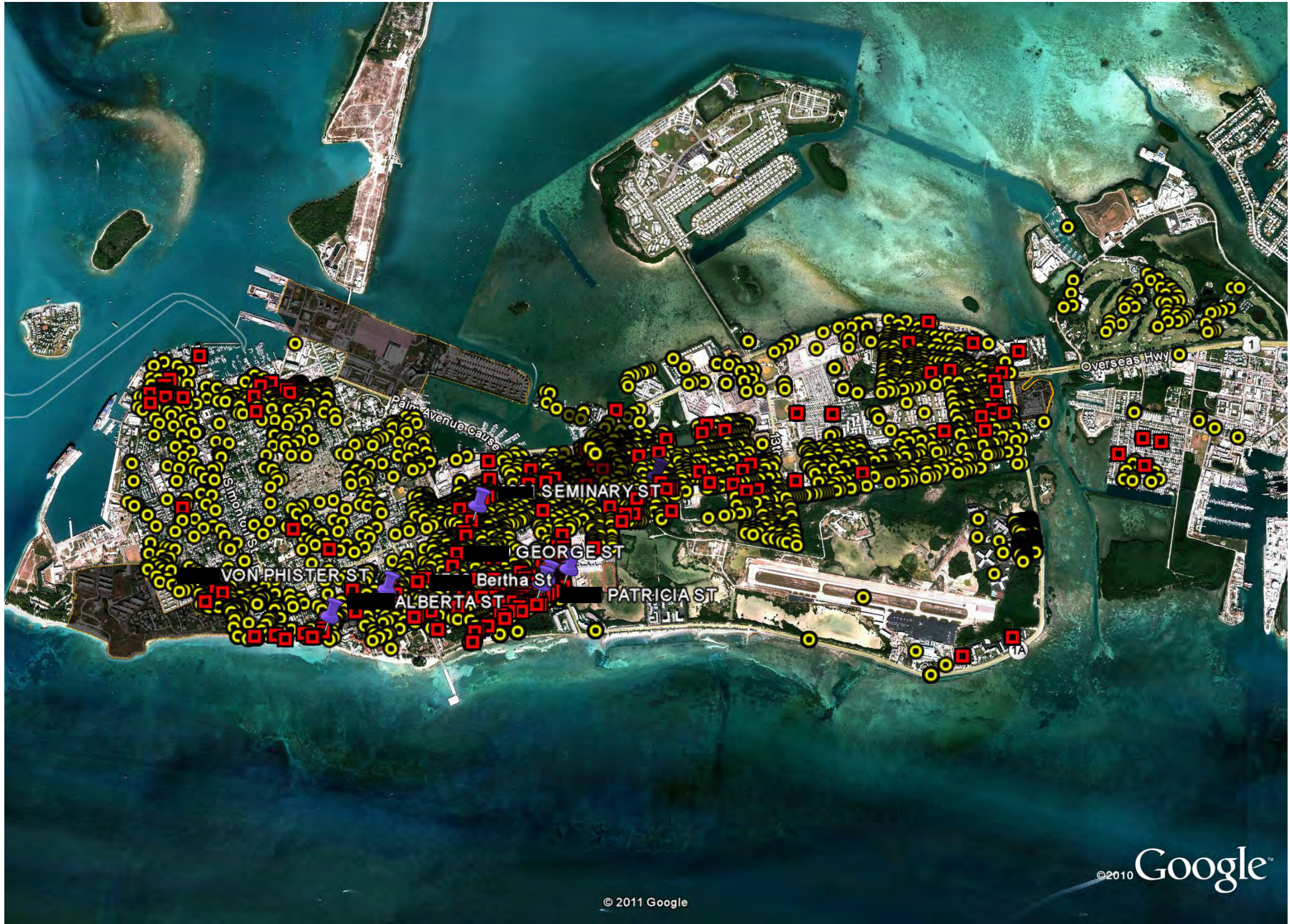
Option #5 does not require any legislative changes

Focus Groups and Key Partners

FIRM, Board of Realtors, Sustainability Advisory Board, Last Stand, USGBC, GLEE, HARC, Insurance Companies, Architect organizations, Planners Forum, County and State, Developers and Public Participants, Historic Preservation groups, Chamber of Commerce and the Business Guild.

Attachments:

1. Exhibit 1 - 2014 Referendum and LDR Amendments Timeline
2. Exhibit 2 – BW 12 Update. 20140305 email from Scott Fraser
3. Exhibit 3 – Massachusetts Coastal Zone Management Smart Cost information
4. Exhibit 4 - FEMA NFIP rate maps (X-zone) and complete City BFE Map
5. Exhibit 5 - District Map
6. Exhibit 6 – 2011 Key West Stormwater Master Plan Topography Map
7. Exhibit 7 – City of Key West Storm Surge Map, Engineering Services, 2012
8. Exhibit 8 – Adopted Comprehensive Plan Coastal High Hazard and Storm Surge Map
9. Exhibit 9 – FEMA Repetitive Loss and Severe Repetitive Loss Map
10. Exhibit 10 – CRS points system and insurance rates description






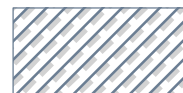


This map shows areas of the City that are subject to inundation by storm surge associated with hurricane events. The Category 1 Surge Area is the City's Coastal High Hazard Area. Data Source: Statewide Regional Evacuation Study Program.

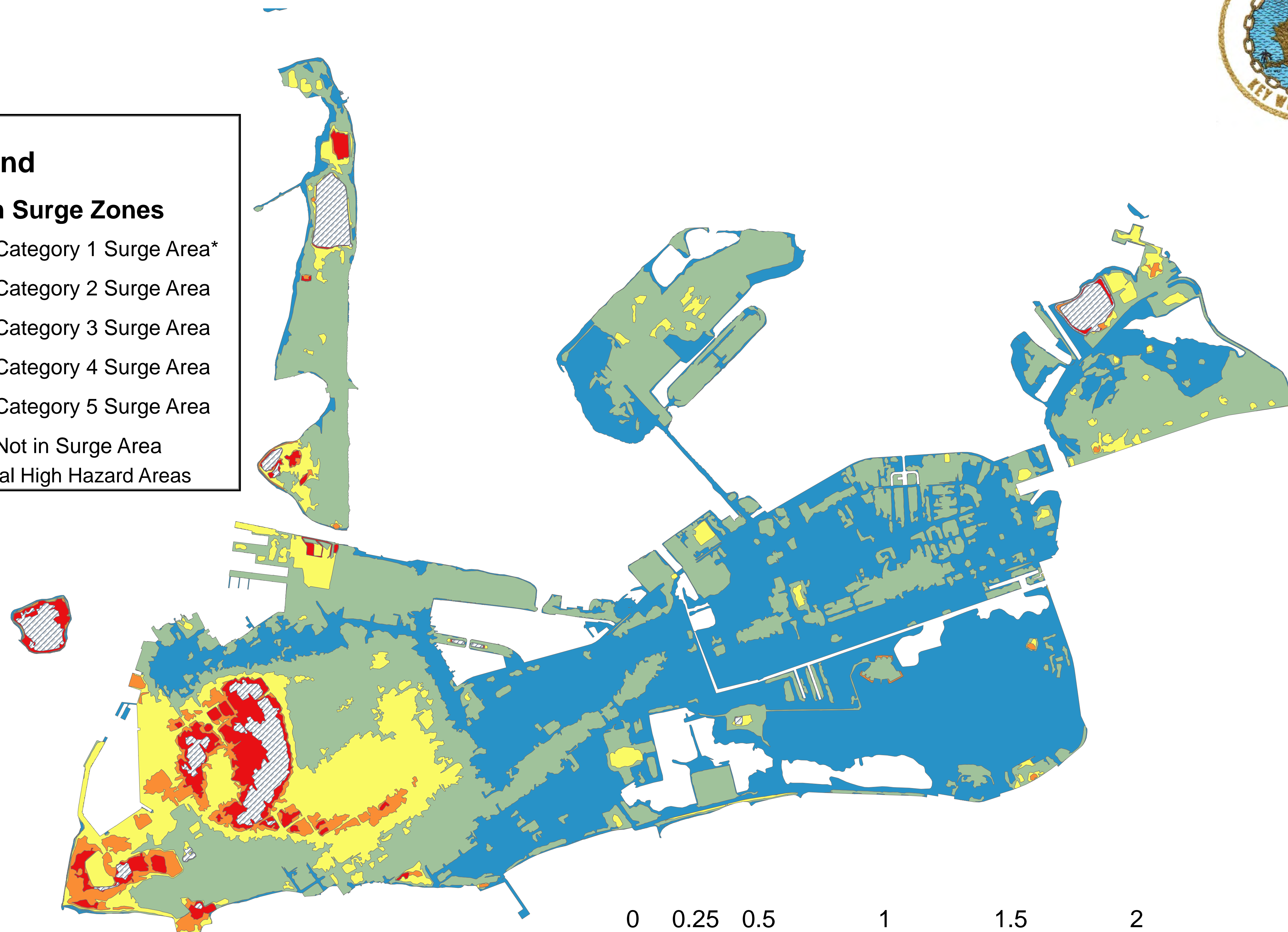


Legend

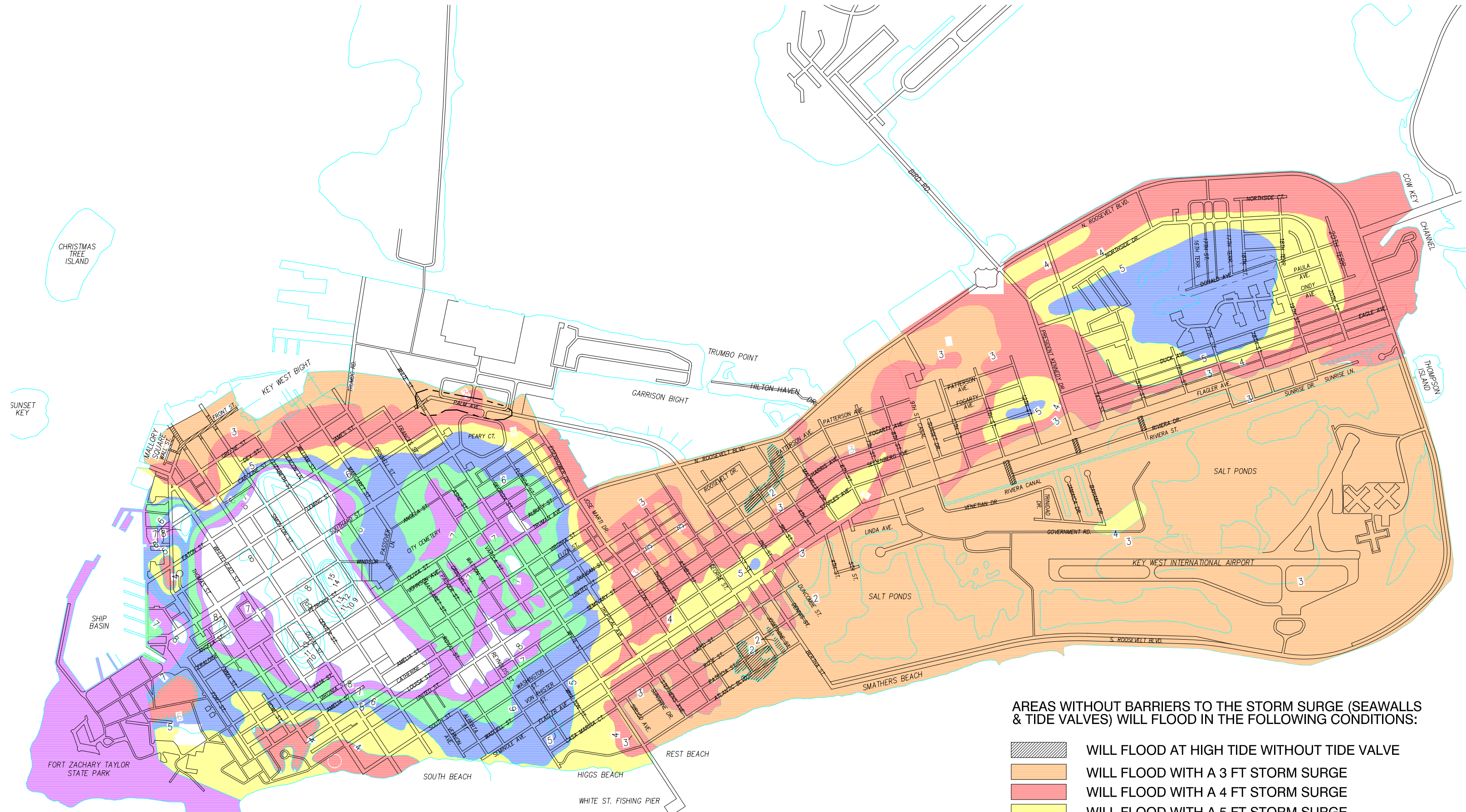
Storm Surge Zones

-  Category 1 Surge Area*
-  Category 2 Surge Area
-  Category 3 Surge Area
-  Category 4 Surge Area
-  Category 5 Surge Area
-  Not in Surge Area


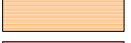


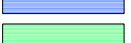
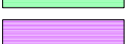

* Coastal High Hazard Areas



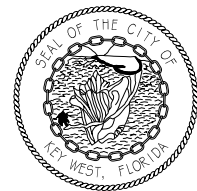
CITY OF KEY WEST - Storm Surge Zones - October 2012



AREAS WITHOUT BARRIERS TO THE STORM SURGE (SEAWALLS & TIDE VALVES) WILL FLOOD IN THE FOLLOWING CONDITIONS:

-  WILL FLOOD AT HIGH TIDE WITHOUT TIDE VALVE
-  WILL FLOOD WITH A 3 FT STORM SURGE
-  WILL FLOOD WITH A 4 FT STORM SURGE
-  WILL FLOOD WITH A 5 FT STORM SURGE
-  WILL FLOOD WITH A 6 FT STORM SURGE
-  WILL FLOOD WITH A 7 FT STORM SURGE
-  WILL FLOOD WITH A 8 FT STORM SURGE

STORM TIDE = STORM SURGE + ASTRONOMICAL TIDE



City of Key West

ENGINEERING SERVICES
DWG. NO.: B-483 10/03/05

Panel Number:
12087C1504K

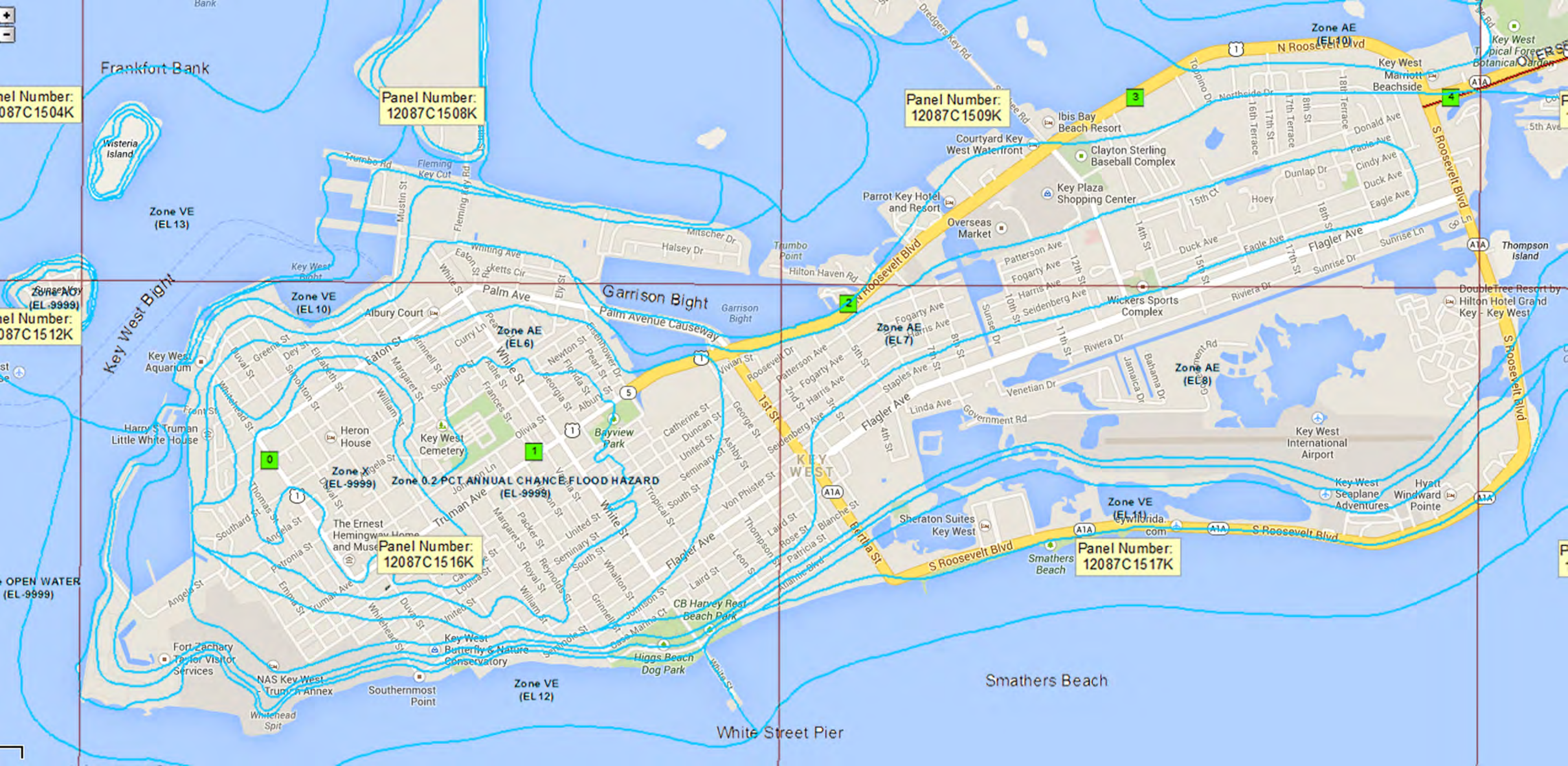
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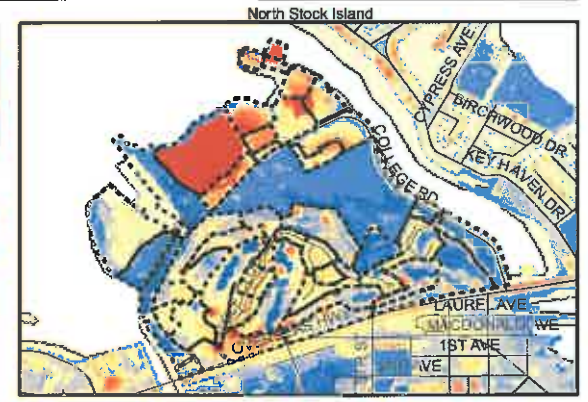
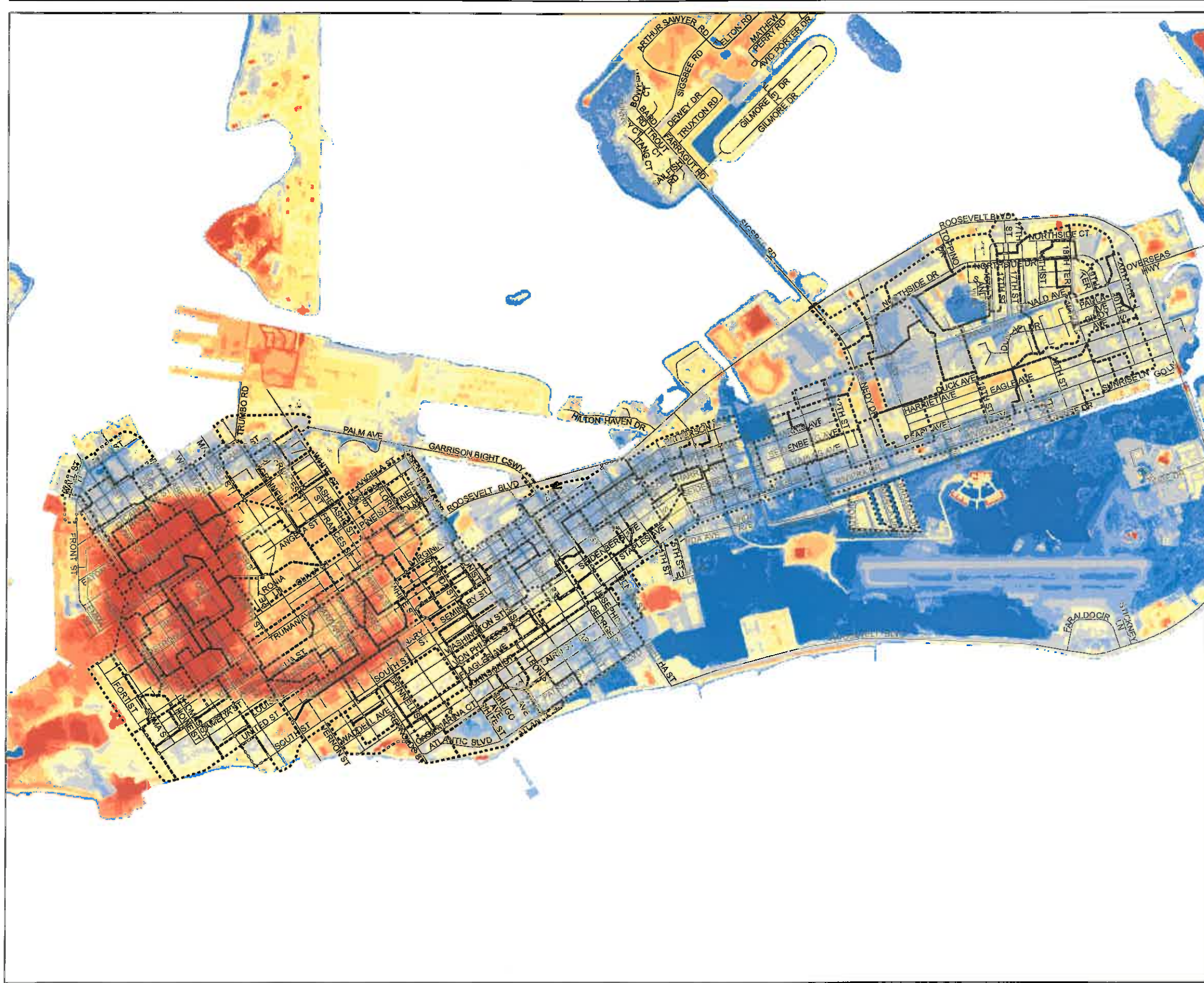
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LEGEND

- Roads
- Sub-Basin
- Digital Elevation Model
- Elevation in Feet

| | |
|--|---------|
| | <0 |
| | -0.1- 1 |
| | 1- 2 |
| | 2- 3 |
| | 3- 4 |
| | 4- 5 |
| | 5- 6 |
| | 6- 7 |
| | 7- 8 |
| | >8 |

Only City sub-basins contributing runoff to City-maintained outfalls are shown. City areas draining directly to Gulf, Ocean, or canals are not modeled, but are still managed for potential water quality effects.

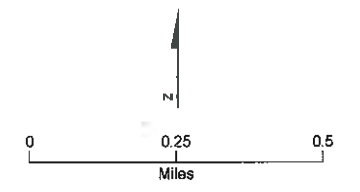
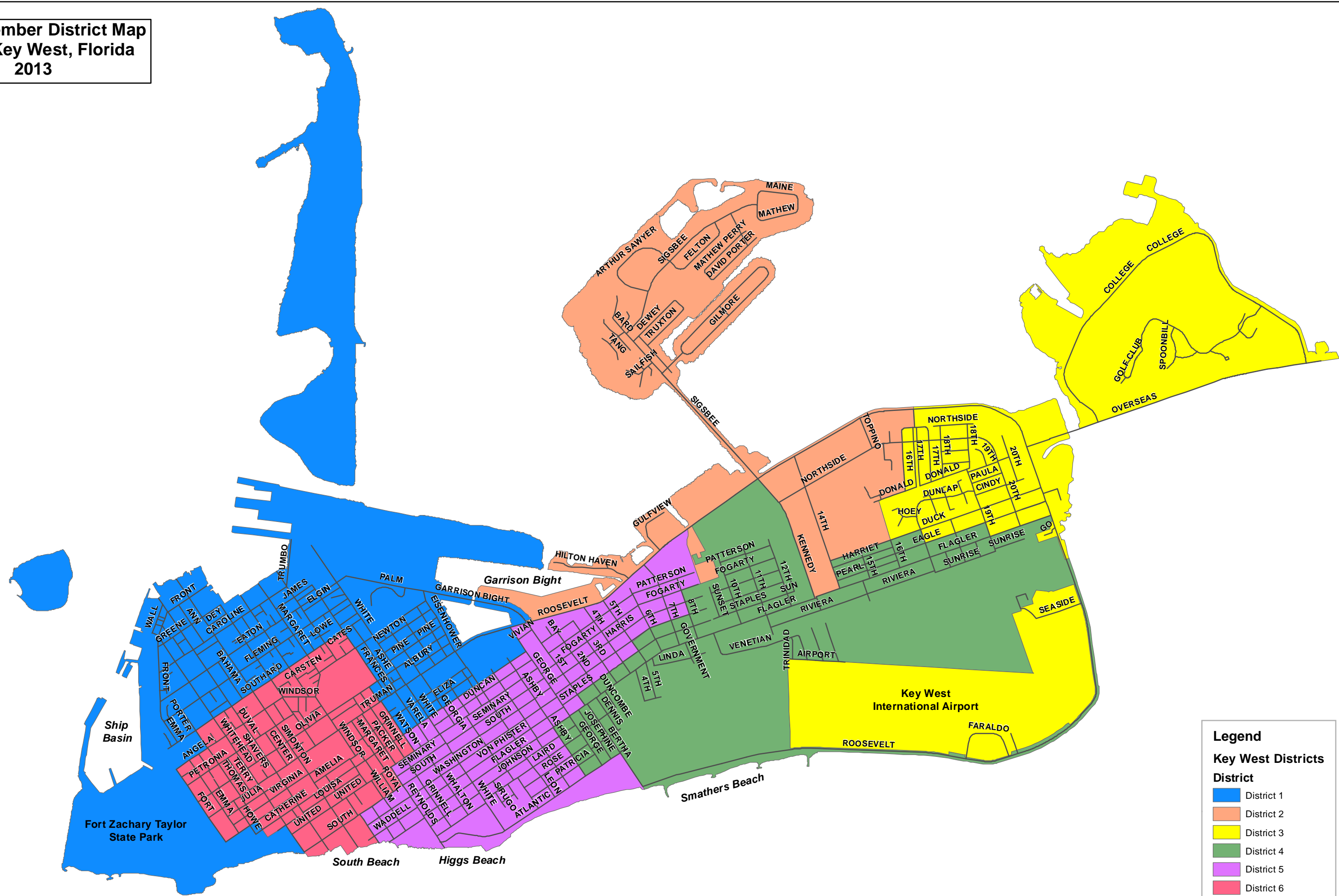


Exhibit 2-2
Topography
 Key West Stormwater Master Plan
 Key West, Florida

**Single Member District Map
City of Key West, Florida
2013**



Legend

Key West Districts

District

- District 1
- District 2
- District 3
- District 4
- District 5
- District 6



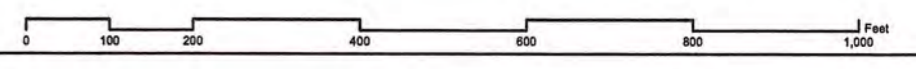
X-Zones Shaded Areas



0.2 PCT ANNUAL CHANCE FLOOD HAZARD

FEMA Flood Zones
X Flood Zone
0.2 % Annual Chance Flood Hazard
Parcels

VE BFE 12







Raise Your Home, Lower Your Monthly Payments

Protect buildings and reduce monthly expenses with freeboard

Without Freeboard



Annual flood insurance: **\$5,499**

With 3' of Freeboard



Annual flood insurance: **\$2,084**

Elevating a home a few feet above legally mandated heights has very little effect on its overall look, yet it can lead to substantial reductions in flood insurance, substantially decrease the chances the home will be damaged by storms and flooding, and help protect against sea level rise.

What Is Freeboard?

Freeboard is elevating a building's lowest floor above predicted flood elevations by a small additional height (generally 1-3 feet above National Flood Insurance Program [NFIP] minimum height requirements). Elevating a home a few feet above legally mandated heights has very little effect on its overall look, yet it can lead to substantial reductions in flood insurance, significantly decrease the chances the home will be damaged by storms and flooding, and help protect against sea level rise.

What Are the Benefits of Freeboard?

Increased protection from floods and storms. Storm waters can and do rise higher than shown on Flood Insurance Rate Maps (FIRMs). Freeboard helps protect buildings from storms larger than those that FIRMs are based on, and provides an added

margin of safety to address the flood modeling and mapping uncertainties associated with FIRMs.

Better preparation for ongoing sea level rise. Massachusetts has experienced a relative sea level rise of approximately 1 foot over the past 100 years. Since elevations on FIRMs do not include sea level rise, freeboard will help keep structures above floodwaters as storm surge elevations increase.

Greatly reduced flood insurance premiums. Recognizing that freeboard reduces flood risk, the Federal Emergency Management Agency (FEMA, which administers the NFIP) provides substantial (sometimes more than 50 percent) reductions in flood insurance premiums for structures incorporating freeboard. These savings can rapidly accumulate, especially over the life of a normal mortgage.

Example of savings on NFIP premiums¹ with freeboard

| V Zone ² | Annual savings in NFIP premiums | | Savings over 30-year mortgage | |
|---------------------|---------------------------------|-------------------------------|---------------------------------|-------------------------------|
| | Annual savings in NFIP premiums | Savings over 30-year mortgage | Annual savings in NFIP premiums | Savings over 30-year mortgage |
| 1' freeboard | \$1,360 (25%) | \$40,800 | \$502 (41%) | \$15,060 |
| 2' freeboard | \$2,730 (50%) | \$81,900 | \$678 (55%) | \$20,340 |
| 3' freeboard | \$3,415 (62%) | \$102,450 | \$743 (60%) | \$22,290 |

¹ **NFIP premiums** based on May 2007 rates for a one-floor residential structure with no basement built after a FIRM was issued for the community (post-FIRM rates differ from pre-FIRM rates). \$500 deductible/\$250,000 coverage for the building/\$100,000 for contents.

² **V zones:** This Flood Insurance Rate Map (FIRM) designation refers to coastal areas that are subject to the highest levels of wave energy and flooding.

³ **A zones:** Also a FIRM designation, coastal A zones are subject to flooding but with less wave energy than V zones (i.e., wave heights less than 3 feet).

What Are the Costs of Freeboard?

The expense of incorporating freeboard into new structures is surprisingly low, generally adding only about 0.25 to 1.5 percent to the total construction costs for each foot of added height, according to a 2006 FEMA-commissioned study (*Evaluation of the National Flood Insurance Program's Building Standards*). The minor resulting increase in monthly mortgage payments is generally more than offset by savings on NFIP premiums. Consequently, adding freeboard typically saves homeowners money.

Consider, for example, a proposed one-story building in the V zone² that will cost \$250,000 to build at minimum legal standards (the NFIP requires that all homes in the floodplain be elevated to at least the base flood elevation [BFE], mapped on FIRMs). According to the study cited above, adding each foot of freeboard to a home on piles or piers adds about 0.4 percent to total construction costs (about \$1,000 a foot in this example). If the owner takes out a mortgage at 6.5 percent APR for the total construction costs, he or she will have lower monthly payments (mortgage plus NFIP premiums) with 3 feet of freeboard, even though the construction costs are higher.

Home at minimum legal height

| | |
|---------------------------|---------------------|
| Monthly mortgage payments | \$1,580.17 |
| Monthly flood insurance | + \$458.25 |
| Total monthly cost | = \$2,038.42 |

Home with 3' of freeboard

| | | |
|---------------------------|---------------------|--------------------|
| Monthly mortgage payments | \$1,599.13 | (+\$18.96) |
| Monthly flood insurance | + \$173.67 | (-\$284.58) |
| Total monthly cost | = \$1,772.80 | (-\$265.62) |

In this example, adding 3 feet of freeboard saves the homeowner \$265.62 per month, or \$95,623.67 over a 30-year mortgage. Benefits in A zones³ are generally less dramatic, but still substantial. To determine NFIP premiums for a specific property, see a licensed insurance agent.

Who Can Benefit from Freeboard?

Nearly everyone building in floodplains can better protect themselves and their property and save on flood insurance by including freeboard into their construction and reconstruction projects. Additional benefits include:

- **Homeowners** - Whether or not you live in the house year-round, having it elevated increases the chances that

it will weather storms safely, decreasing your worry and protecting your investment. If you're building a new home, or doing a renovation, ask your builder/designer about incorporating freeboard.

- **Builders/contractors** - Freeboard provides a competitive edge over other builders, allowing you to market the benefits of reduced flood insurance and flood risk to potential buyers. When doing retrofits (especially those requiring bringing structures up to current NFIP standards), explain the benefits of freeboard to your clients.
- **Municipalities** - Encourage the use of freeboard in appropriate private and public construction throughout your community's floodplain. (NOTE: The Massachusetts Attorney General's office has recently rejected bylaws requiring freeboard, but municipalities may promote its use.)
- **Businesses** - Freeboard helps: protect your buildings, important records, and inventory from flooding; drastically decrease your recovery/clean-up time after storm; and potentially save your business. The Institute for Business and Home Safety reports that more than 25 percent of businesses that close due to storm damage never reopen.

For More Information . . .

- For technical details on costs of using different flood-resistant building techniques (including freeboard), see the American Institutes for Research's *Evaluation of the National Flood Insurance Program's Building Standards* 2006 study at www.fema.gov/library/viewRecord.do?id=2592.
- For general information on the National Flood Insurance Program, see www.FloodSmart.gov.
- For specific questions on flood insurance rates, see a licensed insurance agent.
- Communities looking for more information on the National Flood Insurance Program can contact Richard Zingarelli, Massachusetts NFIP Coordinator: (617) 626-1406, Richard.Zingarelli@state.ma.us.
- For general information on how Massachusetts communities can protect themselves from storms, see the StormSmart Coasts website at mass.gov/czm/stormsmart.
- Businesses looking to prepare for storms and other catastrophic events should visit the Institute for Business and Home Safety's website at www.ibhs.org.



Executive Office of Energy and Environmental Affairs
Ian A. Bowles, Secretary



Commonwealth of Massachusetts
Deval L. Patrick, Governor
Timothy P. Murray, Lieutenant Governor



Massachusetts Office of Coastal Zone Management
Deerin Babb-Brott, Director
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This fact sheet was developed through CZM's StormSmart Coasts program, which supports community efforts to manage coastal floodplains. For further information on StormSmart Coasts, visit www.mass.gov/czm/stormsmart.

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Nicole Malo

From: Scott Fraser
Sent: Wednesday, March 05, 2014 2:56 PM
To: Ron Wampler; Shawn Smith; Larry Erskine; Planning Department
Subject: BW-Fix: House Bill 3370 Passed Last Night

As I feared, the bill passed last night by the US House doesn't seem to forestall massive rate increases for Pre-FIRM properties now being required to produce Elevation Certificates for the first time.

In the past, Pre-FIRM properties - those built prior to the flood maps (before 1975) - were all presumed below flood to some undetermined depth, and all rated essentially the same. BW-12 changed that universal Pre-FIRM rating.

For the first time, Pre-FIRM policy renewals require Elevation Certificates. Each building is then specifically rated relative to its depth below the flood level for that area.

The greatest impact has been to Pre-FIRM properties that are two or more feet below flood. These Submit-For-Rate policies can't be quoted by local insurance agents, and must be quoted by FEMA.

Homes one foot or so below flood will likely experience moderate increases. One property I'm aware of, where the building is about seven inches below flood is increasing from about \$6k annually to \$9k, gradually during the next few years.

Homes four or six feet below flood, are likely to still suffer massive increases.

However, there's a lot of seemingly double-speak in the bill's convoluted language. We likely won't know how this will all flush-out until FEMA interprets this bill and begins to apply it to actual premiums.

Here's bullet-list of changes from last night House vote (still has to return to the Senate for concurrence):

- Eliminates trigger to full actuarial rates on point of sale; allows assumption of existing flood insurance policies by new property owners. *[This should be a great relief to the local real estate, title and banking industries, that experienced an immediate loss of business beginning last Oct. 1st.]*
-
- Creates longer glide path for eventually eliminating the Pre-FIRM subsidy on all properties. Provides for increases of at least 5 percent annually of the current premium (but also subject to the total premium increase cap of either 15 or 25 percent).
-
- Provides for an optional higher deductible (\$10,000) for residential properties.
-
- Eliminates Section 207 related to grandfathered rates when maps change. *[Key West won't likely be remapped until 2017-18.]*
-
- Requires a surcharge on all flood insurance policies to pay for the longer glide path. \$250 per policy for second homes and businesses, and \$25 per policy for all other structures.
-
- Mostly provides relief for certain residences, not policies for commercial properties, second homes nor those considered Repetitive Loss Properties (approximately 230 in Key West).

Bottom Line:

Owners of Pre-FIRM homes, two or more feet below flood, will need to seriously consider elevating their residences to ensure affordability of flood insurance...

or...

Contemplate methods of paying off their federally backed mortgages to escape the flood insurance coverage requirement.

Scott

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Draft 2014 Referendum and LDR Amendments Timeline

| | |
|-------------------------|---|
| January 13, 2014 | Timeline Development |
| January 15 and 17, 2014 | Staff Meetings - Approach |
| February | Draft Referendum language |
| March | Meet with City Commissioners |
| March - April | Draft Ordinance - Referendum Language |
| April 1, 2014 | City Commission Meeting - Discussion item |
| April, 2014 | Focus Group Meetings |
| April 8, 2014 | HARC Review |
| April 10, 2014 | SA Board review |
| May 15, 2014 | Planning Board review of Draft Referendum |
| June 3, 2014 | City Commission Consideration of Referendum language - 1 st reading |
| June 17/July 1, 2014 | City Commission Consideration of Referendum language - 2 nd reading |
| August 19, 2014 | Last day to submit Referendum information to MC Supervisor of Elections |
| August - November, 2014 | Public Workshops - City and Partners |
| November 4, 2014 | Election Day |
| November 20, 2014 | LDR Amendment - Planning Board consideration |
| January 6, 2015 | LDR Amendment - City Commission consideration, 1 st reading |
| January 20, 2015 | LDR Amendment - City Commission Meeting, 2 nd reading. Begin 30 day local appeal period. |
| February 20, 2015 | Transmit LDR Amendment to the State. 60 day a |
| May 10, 2015 | LDR amendment becomes final. NOI posted and appeal period ends. |

Community Rating System (CRS) Points system and insurance rates

This report is intended to explain the freeboard credit opportunities offered by the CRS/ FEMA in order to further reduce insurance rates. It will further inform the reader about additional flood insurance rate opportunities that are available to the City; however, the proposed referendum language does not include freeboard requirements explained below.

The City is currently in the process of reapplying to become part of the FEMA Community Rating System (CRS). Once the City can prove intent to comply with FEMA requirements and is allowed to participate in the Community Rating System overall flood insurance rates will be reduced throughout the City. There are additional regulatory measures the City can take to increase our CRS rating, and reduce insurance rates further, including freeboard credits. In order to receive CRS credit for freeboard the following must be considered:

Although allowing property owners to voluntarily elevate to a desired freeboard elevation **may** generate **minimal** CRS point advantage, the Code needs to have a freeboard requirement in order to receive full freeboard CRS credit. This would result in a Code requirement that new buildings and those substantially improved, must be elevated to a specified freeboard elevation (IE: BFE + 2', 3' or 4').

Commercial Structures:

For **full** CRS points, the freeboard requirement must include that Floodproofed structures also need to be elevated to the required freeboard elevation requirement.

Mechanical Equipment:

For **full** CRS points, the freeboard requirement must include the same elevation - or floodproofing - for all mechanical systems (ductwork*, electrical, heating, ventilation, plumbing, A/C equipment and other service facilities. *No adequate and reasonably priced waterproofing of ductwork has yet been identified).

- If buildings have a freeboard requirement, but the mechanical systems noted above only require elevation to BFE than the CRS credit is 75% of the full credit.
- If buildings have a freeboard requirement, then the mechanical systems listed above must be elevated to at least BFE. If not, there isn't any CRS credit for freeboard.

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CRS Point System Standards and Cost Benefit analysis

For every 500 points the CRS rating is elevated one class, or an additional 5% off insurance rates. CRS Credits are given for up to 3-feet of freeboard as follows:

- Freeboard of 3' = 375 CRS Points (Results in 2' of additional freeboard over the 1' FBC freeboard requirement).
- Freeboard of 2' = 325 CRS points (Results in 1' of additional freeboard over the 1' FBC freeboard requirement).

- Freeboard of 1' = 100 CRS points (presently required by FBC).
- Beyond 3', special credit is only available if the City provides additional information to warrant the higher credit, such as a demonstrated expectation of new growth in the area.

Additional CRS points are awarded if the City creates regulations that:

- Prohibits construction on fill = 80 points
- Requires compensatory storage if fill is utilized = 25 points