CRE DEVELOPMENT outlook in Virginia Coastal and Flood Plain Areas
And how they dealt with flooding
Once upon a time, in a land far, far away

A town was founded on soggy tide flats. It was said that when it rained the mud was deep enough to consume dogs and small children. And because of its proximity to sea level, the sewers flowed both ways with the tide

Eeeyew!
After discovering that a wolf could blow down the buildings that were mostly wooden structures, and a fire that destroyed 25 blocks, the City decided that all new buildings would be made of stone or brick masonry.
This also gave the City the opportunity to rise above the muck so they built retaining walls, filled them and raised the streets 8 feet making them one story higher than the old sidewalks that still ran alongside them.
Then they discovered that people would pay a lot for a cup of coffee and everyone lived dry and caffeinated ever after.
A city was founded in a swamp. The city dwellers did a good job at draining the swamp, but flooding rains would plague them forever.
After several devastating floods that caused the bayou to rise over 50 feet and devastate over 40% of the bridges and buildings, the City decided to form a Flood Control District where they built dams and reservoirs that protected the city for over 60 years.
This was all very hard work and the City took a very long rest break z-z-z-z- until not so long ago, a mitigation plan for 500 year floods was created. But the City decided it was way too costly to implement, so instead of new seawalls and floodgates being constructed, A LOT of homes were built.
Then it rained and poured for many a day and they lived soggily ever after
It was the best of times  It was the worst of times

in this City by the Sea
Plagued with hurricanes throughout the decades, this City was forced to take action after Andrew blew through town in 1992 and caused:

- $16 Billion
- 600,000
- 11
- 930,000
So they adopted their first ever statewide building code

And created Insurance Safety Nets, and...
... joined the NFIP

WILL ELEVATING ROADS IMPACT FLOOD INSURANCE?

- According to FEMA and the City’s Floodplain Manager, elevating roadways and improving storm water drainage in Miami Beach will not medically impact private property flood insurance. Road elevation is not part of the flood insurance criteria. This question can best be answered in two parts:

1. Elevating roadways is one of many positive steps a community can take to mitigate risks and increase their resilience to natural hazards.

   There are conditions that can make buildings unsellable by the National Flood Insurance Program. Elevating public roads and improving storm water drainage do not create these conditions.

2. Understanding how FEMA modeling and elevating the roads may impact the FEMA Flood Zone Maps

   Once completed, the elevations associated with the roadways can be taken into account in modeling applied to FEMA’s Flood Insurance Rate Maps (FIRM), essentially changing modeling results that support the hazards depicted on the maps. Currently, FEMA is updating these maps in Miami-Dade County, including the City of Miami Beach. Completed work will be incorporated, as possible, into ongoing modeling. Future changes, or changes suitable to be incorporated due to existing issues, can be incorporated through the FEMA Letter of Map Change process. Any change in Base Flood Elevation on personal property, regardless of its origin, will impact the flood insurance rating, which is done on an individual structure basis taking into consideration a number of flood risk factors. We expect draft maps for comment by 2018 and final maps by 2021. The City will make sure that FEMA has the best and latest available data before the maps are finalized. Existing maps are located here: https://gloves.miami/dade/govflooded/

WHAT IS THE CITY DOING TO REDUCE YOUR PERSONAL FLOOD INSURANCE PREMIUMS?

The City participates in the National Flood Insurance Program Community Rating System. Our score currently saves residents 20% on their flood insurance premiums - an estimated $6 million annually.

The National Flood Insurance Program rates are governed federal legislation. For the most recent information about your property and building types, speak to your flood insurance agent and visit www.fema.gov/flood insurance reform. The most effective way to reduce the cost of flood insurance in Miami Beach is for the lowest value floor of a property to be above the FEMA Base Flood Elevation (BFE).

10 STEPS TO FLOOD AWARENESS

1. Collaborate: Face flood risk, Miami Beach is a planning and acting to reduce risks.
2. Protect your property with flood insurance. Flood damage is not covered by your homeowner’s or wind storm insurance.
3. Research your flood zone. And being aware of your contact with flood areas.
4. Keep your homes and belongings dry. Locate important machinery, equipment, and personal care.
5. Build sturdy: Leave the locals - Building Code and Miami Beach Code.
6. Natural systems protect from floods. Beach homes, the sea and root, and open green area and natural flood barriers.
7. Stay safe. We can experience flooding from hurricanes and city tissue.
8. Keep it dry. Storm damage is 50% plastic. It will last.
9. Miami Beach residents can help cut damage by reporting the low case.
10. Miami Beach’s plans to help. The Building Department offers two technical assistance.

www.mbrisingabove.com
MIAMI—A new University of Miami (UM) Rosenstiel School of Marine and Atmospheric Science-led study found that Miami Beach flood events have significantly increased over the last decade due to an acceleration of sea-level rise in South Florida.

So the City began a $400 million project to raise roads and install new storm sewers and pumps.
Summary

• City #1 Permanent Fix
• City #2 Long Term Fix with no follow-on plan
• City #3 Pro-active plan with periodic review
• Which one is ‘Just Right’ for you?
To Build or not to Build

Commercial Real Estate Development

Costs

Municipality
Development Costs

- Construction
- Insurance
- Loan
- Incentives
- Building Code
- Code Plus
- NFIP
- Value
- Grants
- Tax Credits
Appraisers Toolbox

COST
Market Data
Sales Comps
Income Capitalization
Flood Protection
LEED
The only thing that is Certain

\[ \Delta p \Delta x \geq \frac{1}{2} \hbar \]

\[ \Delta E \Delta t \geq \frac{1}{2} \hbar \]

Is Uncertainty in the Market
Opportunities

• Work with established groups, agencies and Fed/State/Local Municipalities to Develop Policy

• Take Advantage of municipalities with flood mitigation programs

• Offer services that will reduce property owners’ flood insurance premiums on existing buildings
The City of Hampton Office of Emergency Management is seeking bids for the elevation of residential structures owned by private property owners in special flood hazard areas utilizing Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA) program funding in compliance with all applicable local, federal, and state statutory requirements with special attention paid to requirements for HMGP and FMA grant programs under the Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) grant program.

Non-Mandatory Pre-bid Meeting: Tuesday, October 31, 2017 @ 9AM; Emergency Operations Center located at Fire Station #11 ~ 1304 Big Bethel Road, Hampton, VA

Pre-bid Questions Due: Wednesday, November 8, 2017 no later than 3:00PM (ET)