MIAMI BEACH
Adapting To Climate Change
MIAMI BEACH

- Area: 7m²
- Low and relatively flat terrain
  - Manmade islands
  - Coastal ridge/dune
  - Mangrove swamp
- Highly pervious limestone layer
- High groundwater table
- Population: 90,000
Miami Modern (MiMo)

Mediterranean Revival

Art Deco
SEA LEVEL RISE

• Higher groundwater
• Higher tides
• Increased flooding (tide, ground, and storm water)
• Decreased effectiveness of the existing stormwater system
SUSTAINABILITY

Mass Transit

Alternative Transportation

Dune Management

Sea Turtle Protection

EV Incentives

Urban Tree Canopy
The electronic control system is situated in a higher level to prevent malfunction in case of big floodings due to hurricanes.

Biscayne Bay

The water is treated before coming back to the sea.

Sea wall

Water capture

Reservoir

Pump
STORMWATER UPGRADES

- Elevated Electrical Panel
- Water Quality Upgrades
- Upsized Pump
New Elevated Streets

520 WEST AVENUE
(ANTHONY’S PIZZA)
Sunset Harbour
18 Street & Purdy Avenue
Sunset Harbour
20 Street & Purdy Avenue
Sunset Harbour
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Sunset Harbour
20 Street & Purdy Avenue
Raised Public Seawall
SEAWALL UPGRADES
BEACH & DUNE
The Future. . . ?

My plan for South Beach will have High and Dry streets. I call it The Waffle!

I'm the #1 clean Mayor and don't you forget it.

I'm moving to Colorado.

David Bolger (www.miaminewtimes.com)
## CODE REVIEW

<table>
<thead>
<tr>
<th></th>
<th>Existing Requirements</th>
<th>Proposed Requirements</th>
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<tbody>
<tr>
<td><strong>1.</strong></td>
<td>Base Flood Elevation (BFE)</td>
<td>5.44 Feet NAVD (7 Feet NGVD)</td>
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<tr>
<td></td>
<td>Freeboard</td>
<td>0 feet above BFE</td>
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<tr>
<td><strong>2.</strong></td>
<td>Seawall Elevation (Private)</td>
<td>3.2 FT NAVD 4.76 FT NGVD</td>
</tr>
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<td>Seawall Elevation (Public)</td>
<td>3.2 FT NAVD 4.76 FT NGVD</td>
</tr>
<tr>
<td><strong>4.</strong></td>
<td>Minimum required yard elevation</td>
<td>No minimum required</td>
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</tbody>
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King Tide + (1 ft.) SLR by 2030 = (3.95 ft. NAVD)

**Typical Existing Conditions**
- Lot Grade: 3.0 ft.
- Seawall: 3.0 ft.
- FFE: 3.5 ft.
- Road crown: 3.0 ft.

**Proposed Codes**
- Lot Grade: 5.0 ft.
- Seawall: 4-5.7 ft.
- FFE: 7.44 ft. (includes 1-ft freeboard)
- Road crown: 3.7 ft.
1. Resiliency Strategy
   • Risk & Vulnerability Assessment

2. Mayor’s Blue Ribbon Panel on Sea Level Rise & Resiliency
   • Green Infrastructure
   • Historic Structures / Neighborhoods
   • Building Height & Floor to Area Ratio Options