Beach Green – Phase 1

Mark Ginsberg, FAIA, LEED AP
Site – Edgemere, Queens
• 101 Unit affordable units and small commercial space
• $32.7 million construction cost
• Construction Time: Summer 15 to Spring 17
• HPD/Enterprise project
• Passive House/NYSERDA standards
Building in the Flood Zone

- Raising habitable space above flood plane
- Raising utilities above the flood plane
- Providing emergency power and natural light
- Providing gathering space above the flood plane
- Provide flood relief elements like flood vents and flood barriers
- Passive house provides for weathering in place
Resiliency
Achieving Passive House

This building will be the single largest Passive House multi-family building in the country certified by PHIUS (Passive House Institute of America).

- **Super insulated** Building Envelope – ICF with 7” EPS – keeps a median temp 40-50 F
- **uPVC window** has better energy performance
- **All LED** fixtures
- **Energy Star/Water sense fixtures**
- **Cogen** that provide power and hot water
- **PV** that can provide for backup power
- **Mini split heat pump system** with **Air to air energy recovery system**
Flood Mitigation for Residential Spaces

- All residential units will be located 3’ above current FEMA Base Flood Elevation
- Lobby, Parking, and Crawl space will have flood vents
- Elevator will have automatic control to prevent cab from descending into flood waters, Elevator Machine room is located above the flood plane
- All mechanical spaces are located above the flood plane
- Ground floor finishes will be designed to be flood damage-resistant materials

- Emergency Egress and Area of Rescue is on the community Terrace which is above the Base Flood Elevation
- Photovoltaic System and Co-generation hot water that can provide for Emergency Power
- Daylight corridor and stairwells provide light in case of power outage
- Super Insulated Building envelope that will keep interior space within a comfortable temperature range
Flood Mitigation for Commercial Space

- Flood Barrier will be provided at openings
- Structure will be designed to withstand hydrostatic pressure
- Emergency Egress will be provided above the flood plane
- Sump Pump will be provided to drain accumulated vapor and seepage
- Finishes will be designed to be flood damage-resistant materials
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Resiliency Issues / Solutions
Resiliency Solutions
Insulation Issues
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