



Howard Beach
Program Information Meeting
Committee Meeting #6

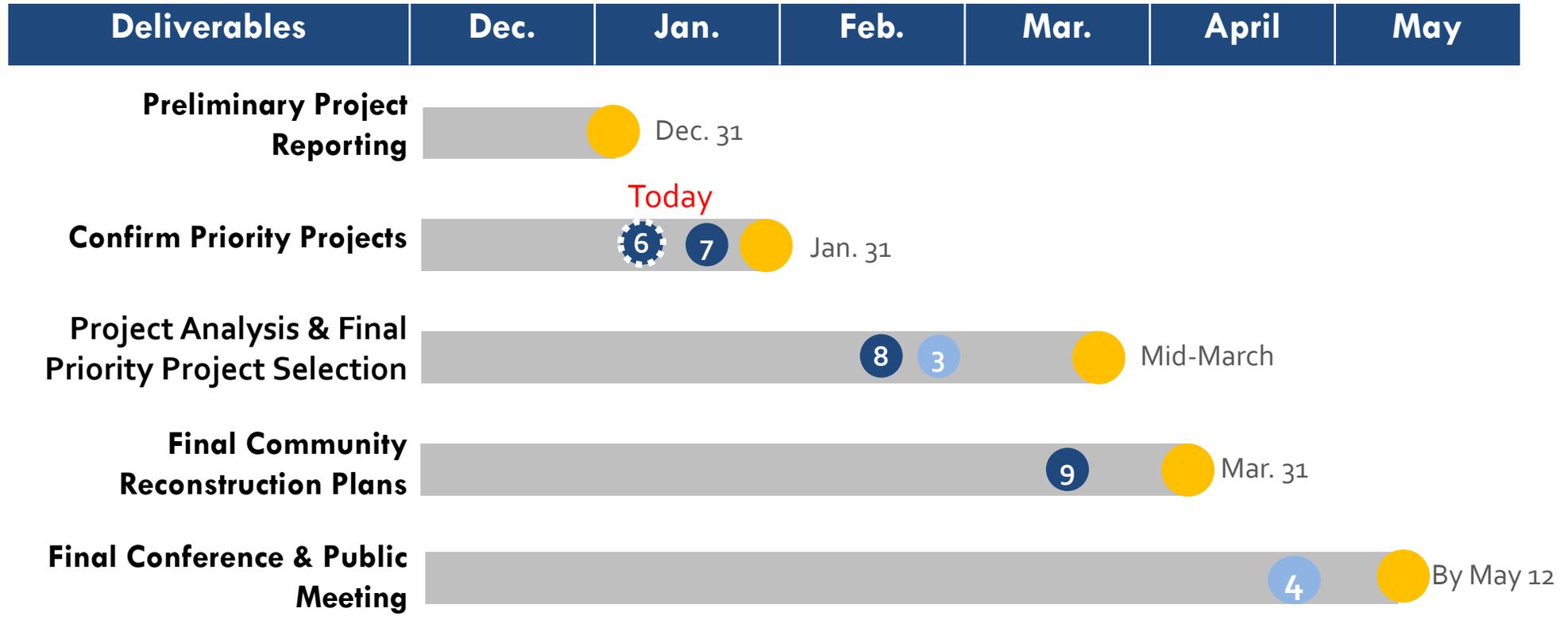
January 13, 2014

Agenda

- Updated State Guidance 7:00 – 7:15
- Project Screening Process 7:15 - 7:30
- Coastal Protection Strategy 7:30 – 7:45
- Recovery Campus 7:45 – 8:00
 - Catholic Charities
- Public Meeting Discussion 7:45 – 8:00
- Project Prioritization 8:00 – 9:00

Project Schedule

- Planning Committee Meeting
- Public Meeting
- Deliverable Due Date



Revised DOS Delivery Schedule

January

- **Identify and classify “Priority CDBG-DR Projects” and “Featured Projects” for Howard Beach**
 - Current list of priority projects may exceed \$18.3 million allocation
 - Projection should conform to a range of \$18 million to \$21 million
 - Meet with Coleman Square and Cross Bay Blvd merchants to forward Economic Resilience strategy

February

- **Finalize priority project list**
 - Analyze, Cost and Screen priority projects for final list
 - Gov Office of Storm Recovery determination of eligibility for priority projects and recipients
 - Develop draft of final plan
 - Present priority and featured projects list to community

March

- **Committee will continue to coordinate mid-March which project(s) to submit for NY Rising funding**

April

- **Public Meeting to present final plan**

Clarification on Project Definitions

Priority Projects

- Projects that will be funded by the CDBG – DR allocation
 - \$18.3million target for Howard Beach

Example – harden the Catholic Charities building

Featured Projects

- projects that the committee would recommend that will not be funded through this allocation but are integral to the long-term resiliency plan for the community

Example – Lower Spring Creek project extend to protect Old Howard and Hamilton Beach

Other Projects

- additional projects identified during the process (could be an appendix to the plan)

Regulatory Reforms

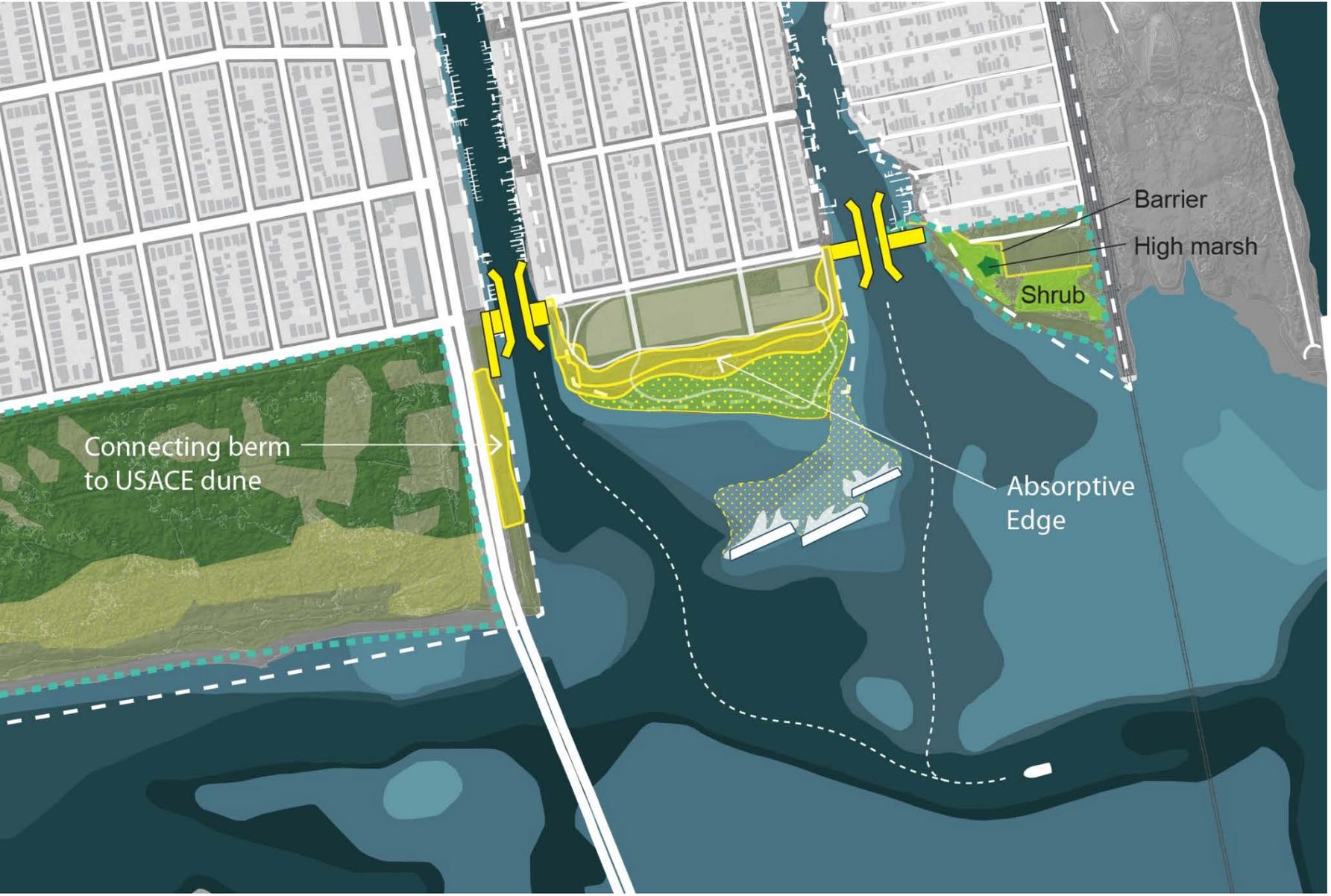
- recommendations made by the committee to modify, enhance or change current agency policies that would conform to long-term resilience plans for community

Evaluation Criteria for Project Prioritization

Term	Feasibility	Cost	Risk Reduction	Co-Benefits	Funding Availability	Public Support	Potential CDBG-DR Eligibility
Short (1-2yrs), Mid (2-5yrs), Long (5+yrs)	High, Medium, Low	High, Medium, Low	High, Medium, Low	Resiliency Co-Benefits, Non-Resiliency Co-Benefits	High, Medium, Low	High, Medium, Low	High, Medium, Low

Local Coastal Protection Strategies

Option 2: Protect Shellbank and Hawtree Basin (Phase II)



The Nature Conservancy's Plan

Alternative 1:

Natural infrastructure (shoreline)

Capital Cost: \$40 M

Annual O&M: \$373 K

1-in-100 yr. damage: \$465 M

Avoided damage: \$29 M

Annual Ecosystem Services Benefit: \$662 K

B/C Ratio: 0.73

Elements: +14' NAVD berms, restored marsh and ribbed mussel hard toe in Spring Creek Park; rock groin at Charles Memorial Park; breakwater at entrance to Shellbank Basin.



Source: CH2M Hill

Alternative 2:

Natural infrastructure (wetlands)

Capital Cost: \$88 M

Annual O&M: \$772 K

1-in-100 yr. damage: \$462 M

Avoided damage: \$32 M

Annual Ecosystem Services Benefit: \$279 K

B/C Ratio: 0.38

Elements: +14' NAVD berms, restored marsh and ribbed mussel hard toe in Spring Creek Park; restored and new marsh in Jamaica Bay.



Source: CH2M Hill

Alternative 3:

Hybrid with removable walls

Capital Cost: \$248 M

Annual O&M: \$913 K

1-in-100 yr. damage: \$146 M

Avoided damage: \$348 M

Annual Ecosystem Services Benefit: \$662 K

B/C Ratio: 1.39

Elements: +14' NAVD berms, restored marsh and ribbed mussel hard toe in Spring Creek Park; berm and rock groins at Charles Memorial Park; removable flood walls along Crossbay Boulevard, Shellbank Basin, west side of Howtree Basin and portions of the Belt Parkway.



Source: CH2M Hill

Alternative 4:

Hybrid with operable flood gates

Capital Cost: \$76 M

Annual O&M: \$895 K

1-in-100 yr. damage: \$28 M

Avoided damage: \$466 M

Annual Ecosystem Services Benefit: \$662 K

B/C Ratio: 6.00

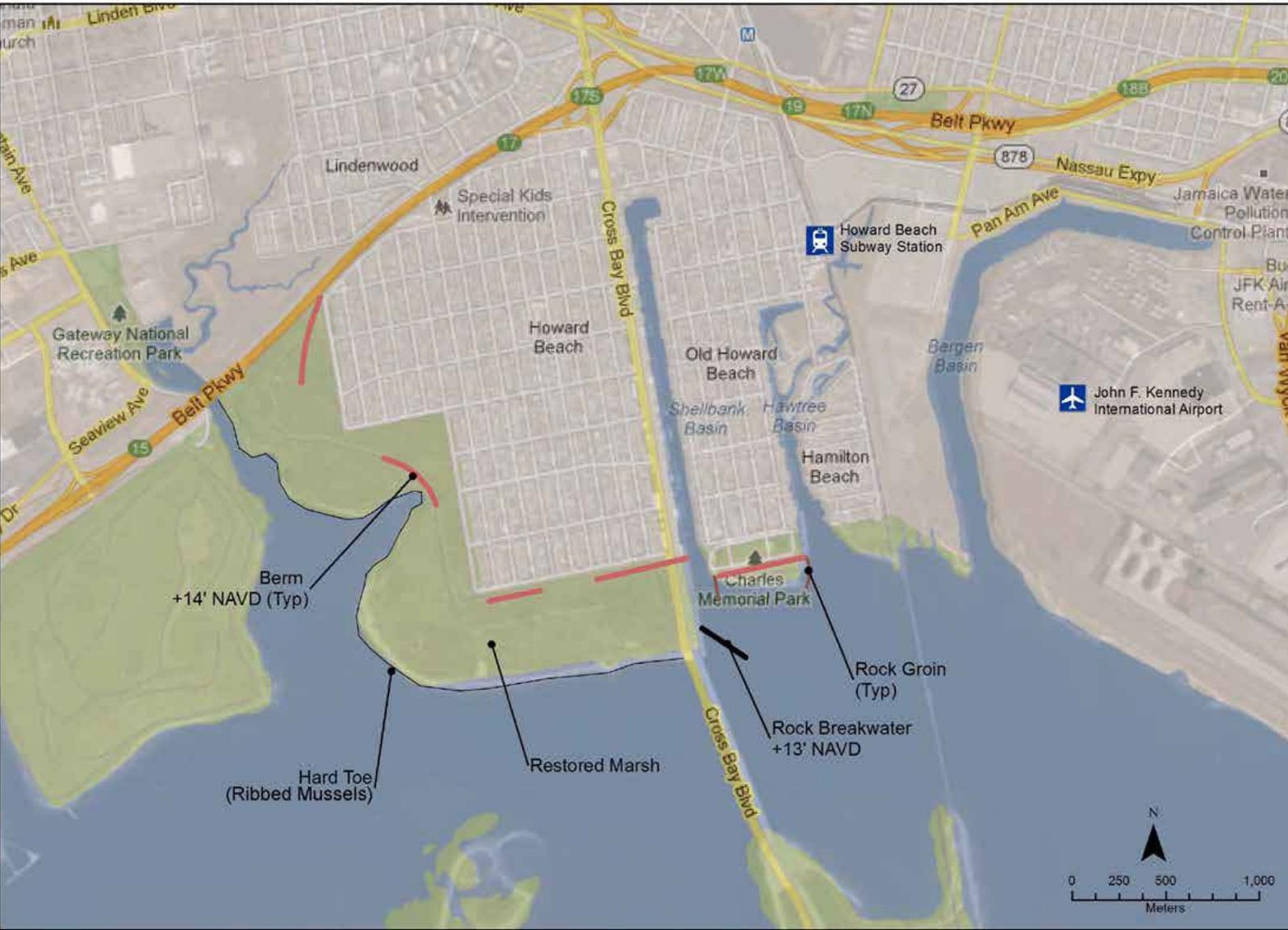
Elements: +14' NAVD berms, restored marsh and ribbed mussel hard toe in Spring Creek Park; berm and rock groins at Charles Memorial Park; movable flood gates at entrances to Shellbank and Howtree Basins; berm at parkland in Hamilton Beach.



Source: CH2M Hill

Source: Freed, Adam and Erin Percifull, Charlotte Kaiser, Jonathan Goldstick, Matthew Wilson, and Emily Maxwell. "Integrating Natural Infrastructure into Urban Coastal Resilience: Howard Beach, Queens" The Nature Conservancy, New York, NY, December, 2013.

Alternative 1



Source: Freed, Adam and Erin Percifull, Charlotte Kaiser, Jonathan Goldstick, Matthew Wilson, and Emily Maxwell. "Integrating Natural Infrastructure into Urban Coastal Resilience: Howard Beach, Queens" The Nature Conservancy, New York, NY, December, 2013.

Alternative 2



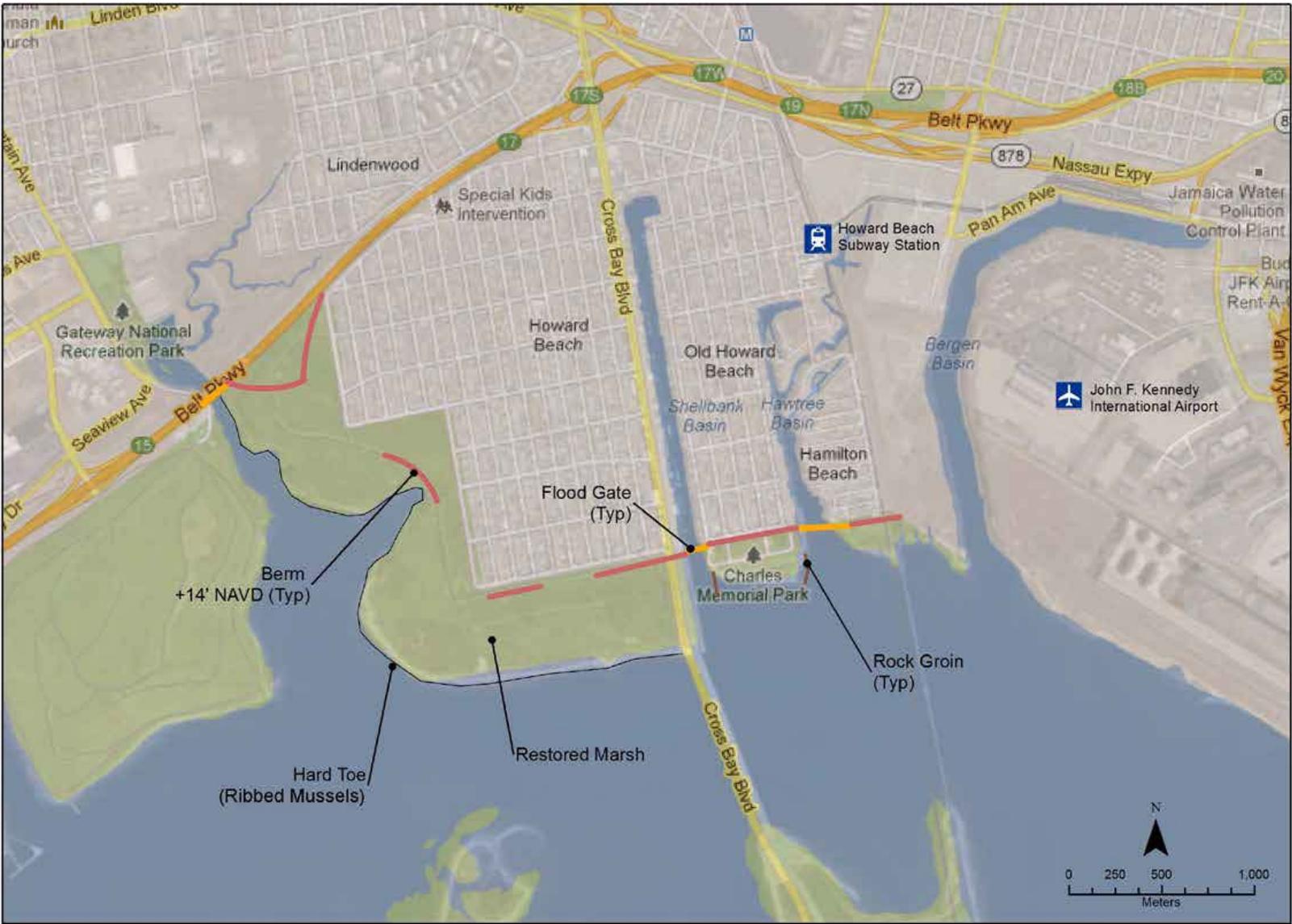
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Alternative 4



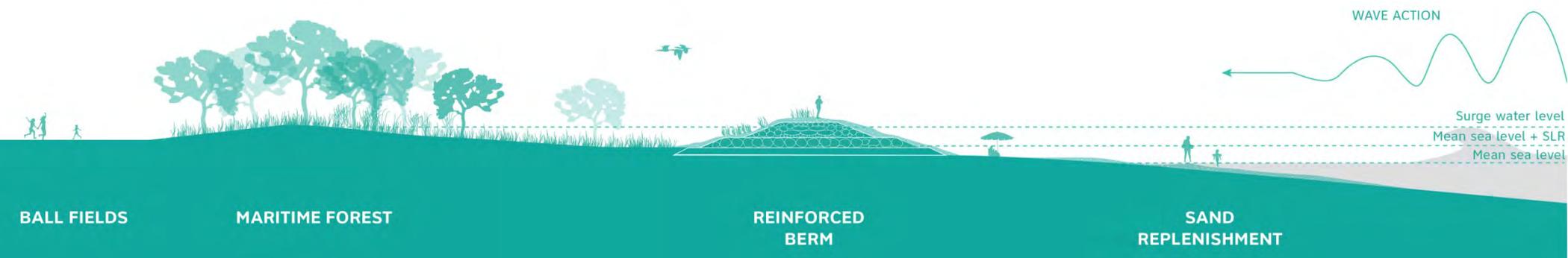
Source: Freed, Adam and Erin Percifull, Charlotte Kaiser, Jonathan Goldstick, Matthew Wilson, and Emily Maxwell. "Integrating Natural Infrastructure into Urban Coastal Resilience: Howard Beach, Queens" The Nature Conservancy, New York, NY, December, 2013.

The Nature Conservancy's Plan

- Integrating natural infrastructure into urban coastal resilience, Howard Beach, Queens, December 2013
- Part of SIRR
- Basis for NYS funding of USACE Spring Creek ecosystem restoration plus storm damage reduction measures
- 4 Alternatives – Alternative 4 is most similar to preferred NY Rising strategy

Charles Memorial Park

CHARLES MEMORIAL PARK - PROTOTYPICAL SECTION OF REINFORCED BERM AT SHORLINE

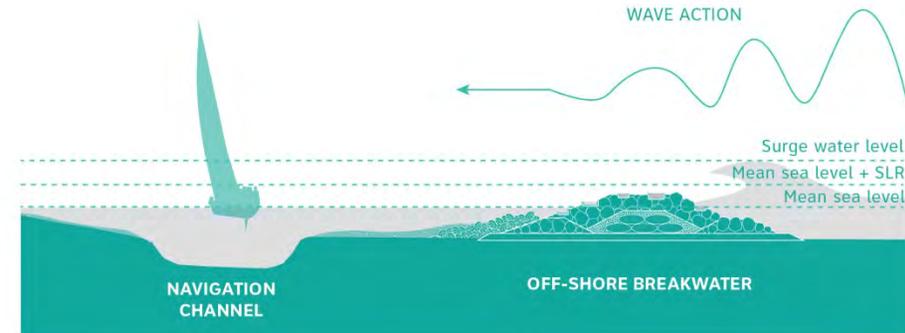


Charles Memorial Park – with Breakwater

CHARLES MEMORIAL PARK - PROTOTYPICAL SECTION OF REINFORCED BERM AT BALL FIELDS AND OFF-SHORE BREAKWATER

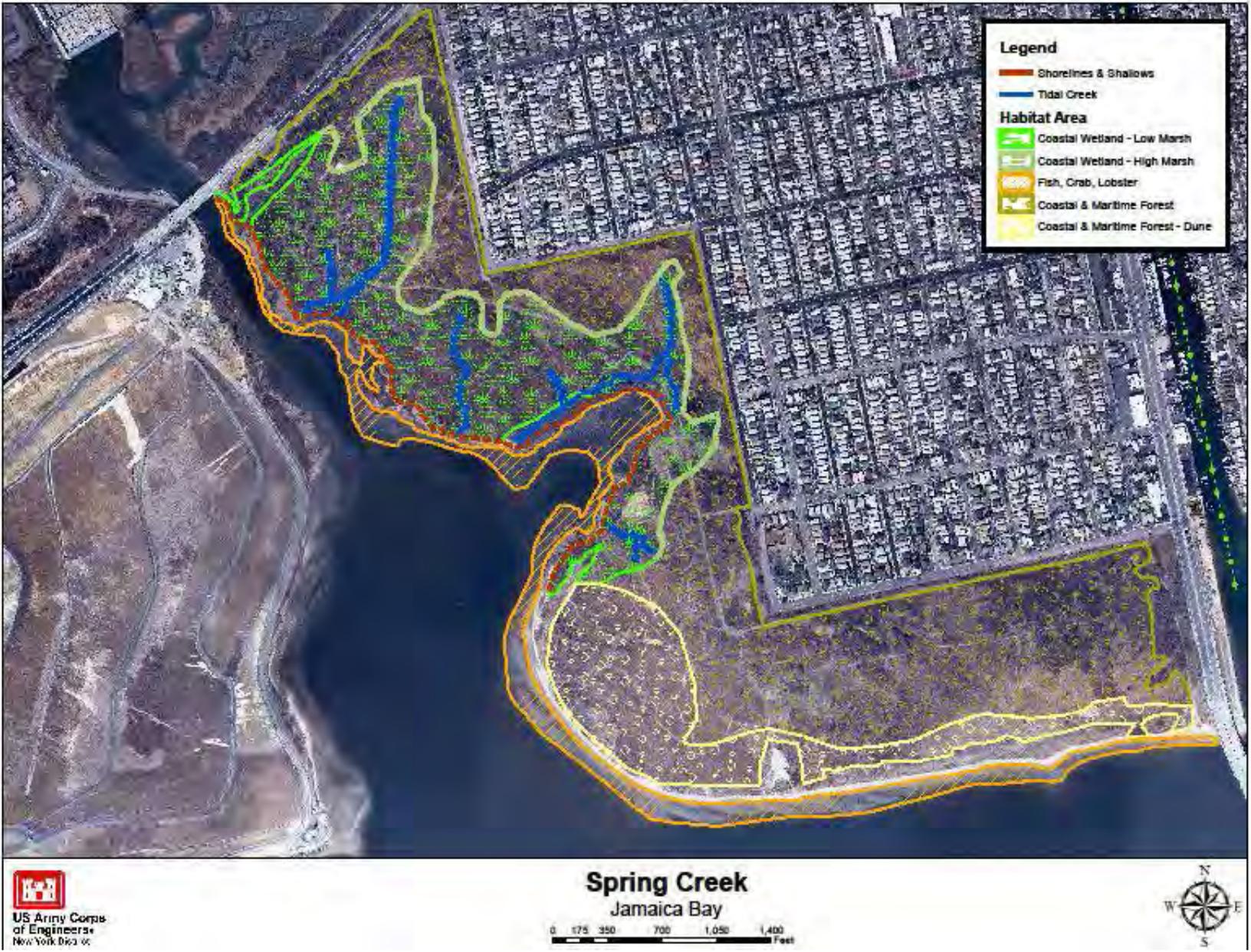


MIN 1/4 MILE



Local Coastal Protection Strategies

Lower Spring Creek



Local Coastal Protection Strategies

Upper Spring Creek



Local Coastal Protection – Next Steps

- Research Costs for Tide Gate construction
- Meet with NPS to forward approach to Charles Memorial Park protection
- Develop scope and price for feasibility assessment so that committee can target funding

Creating a Howard Beach relief center

Priority project

Create a relief center campus and satellite locations to provide emergency services during a disaster

What is a relief center?

- Provides emergency services (access to health and social services, food, water, supplies)
- Information hub during an emergency
- Gathering place for evacuation
- *It is not a shelter or evacuation center*

Considerations

- How the center functions 365 days a year (stewardship, maintenance, programming)
- Location within community
- Overall ownership and governance – day-to-day and in an emergency



Catholic Charities building entrance

Relief center screening criteria

LOCATION

- Outside of extreme flood-risk zone
- Proximity to:
 - Evacuation route or near road with quick, reliable access to route
 - Vulnerable populations
 - Commercial centers, corridors
- Has a large outdoor space to accommodate possible building expansion and outdoor space
- Ease of access and approachability from street

BUILDING

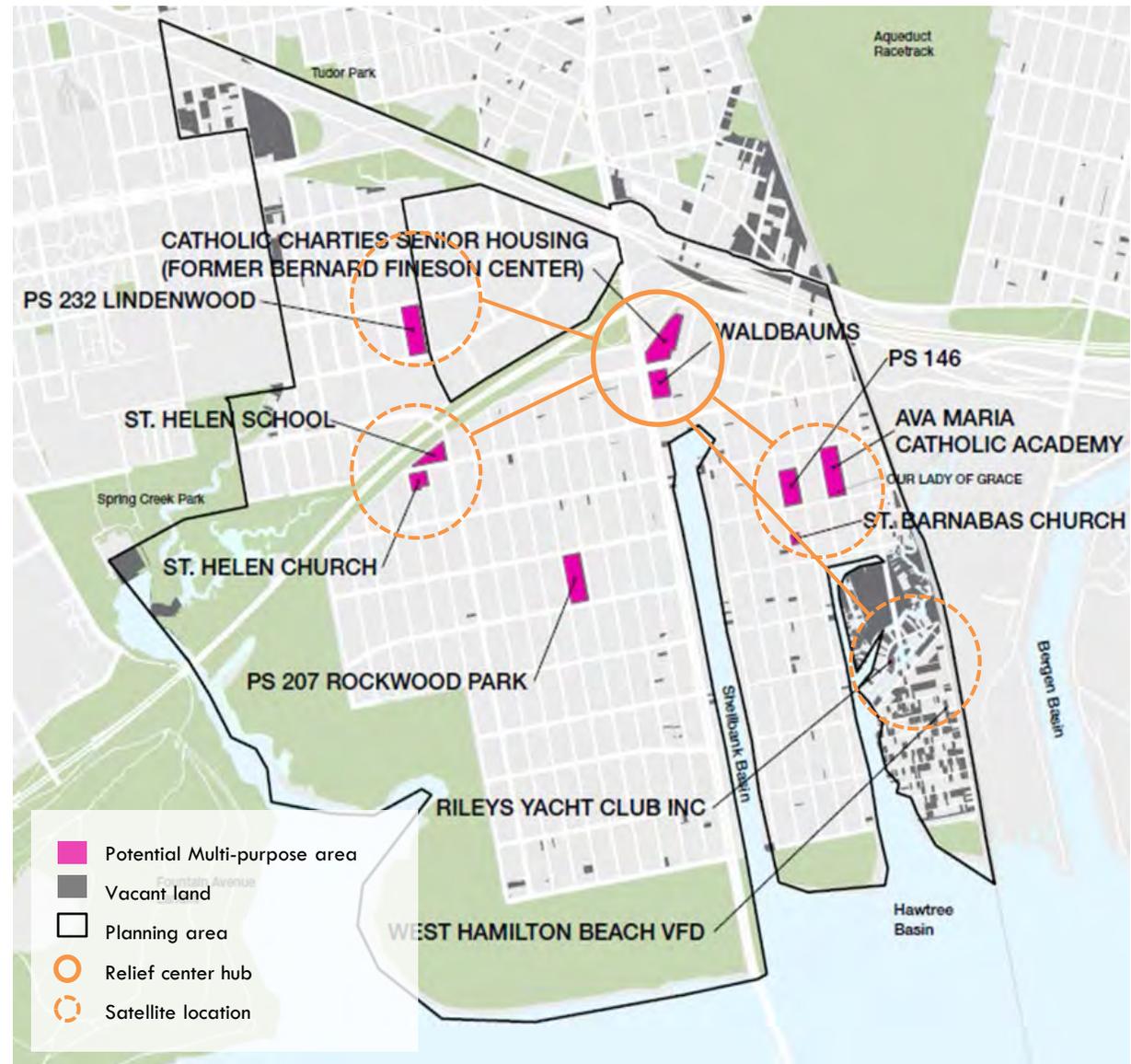
- Floodproof: building must be able to be hardened
 - Should not be an unreinforced masonry building or made of lightweight materials
- Reliable source of power and heat/cooling
- Potable water system
- Restrooms with showers
- Parking lot/car-accessible
- Large space on ground floor
- Must be capable of accommodating and providing services to people within designated catchment area
- ADA-accessible

ORGANIZATION

- Manages programming and operations
- Has a long history of community engagement
- Provides regular programming and has capacity to provide emergency programming
- Conducts outreach to vulnerable populations
- Has capacity to provide social and health services
- Has a long-term occupancy agreement
- Is open 6 days a week
- Has a business continuity plan
- Is financially stable

Howard Beach relief campus satellite system

- Hub: Main relief center that provides communication and distribution
- Satellite: A smaller distribution center linked to central hub that can also provide information and supplies



Advantages of locating relief center at Catholic Charities

Organization and programming alignment

- Catholic Charities of Brooklyn and Queens is part of a national social service agency
- The Howard Beach location opened in summer 2013 and hosts the local senior center and a 83-unit housing facility (seniors and disabled)
- Provides 160 programs and services, including:
 - Senior center and housing facility
 - Food and medicine delivery
 - Case management for Hurricane Sandy recovery

Building is recently renovated

- Catholic Charities has ongoing rehabilitation plans and a capital budget (though limited)

Ideal location

- Near intersection of two evacuation routes and off the Belt Parkway
- Adjacent to commercial corridor and other critical emergency service providers

Advantages of locating relief center at Catholic Charities

LOCATION

- Located outside extreme risk flood zone
- Proximity to:
 - Two OEM evacuation routes
 - Belt Parkway
 - Senior population
 - Commercial corridor
- Has a large indoor gymnasium and adjacent to Waldbaums parking lot
- Easy to access from street

BUILDING

- Flood proof: building is newly renovated and has capital program
- Building has reliable source of power and heat/cooling and potable water system
- As a housing organization, has access to rooms, including restrooms with showers
- Has a parking lot/car-accessible
- Has large gymnasium on ground floor, easy to access from lot
- Is ADA-accessible

NEEDS

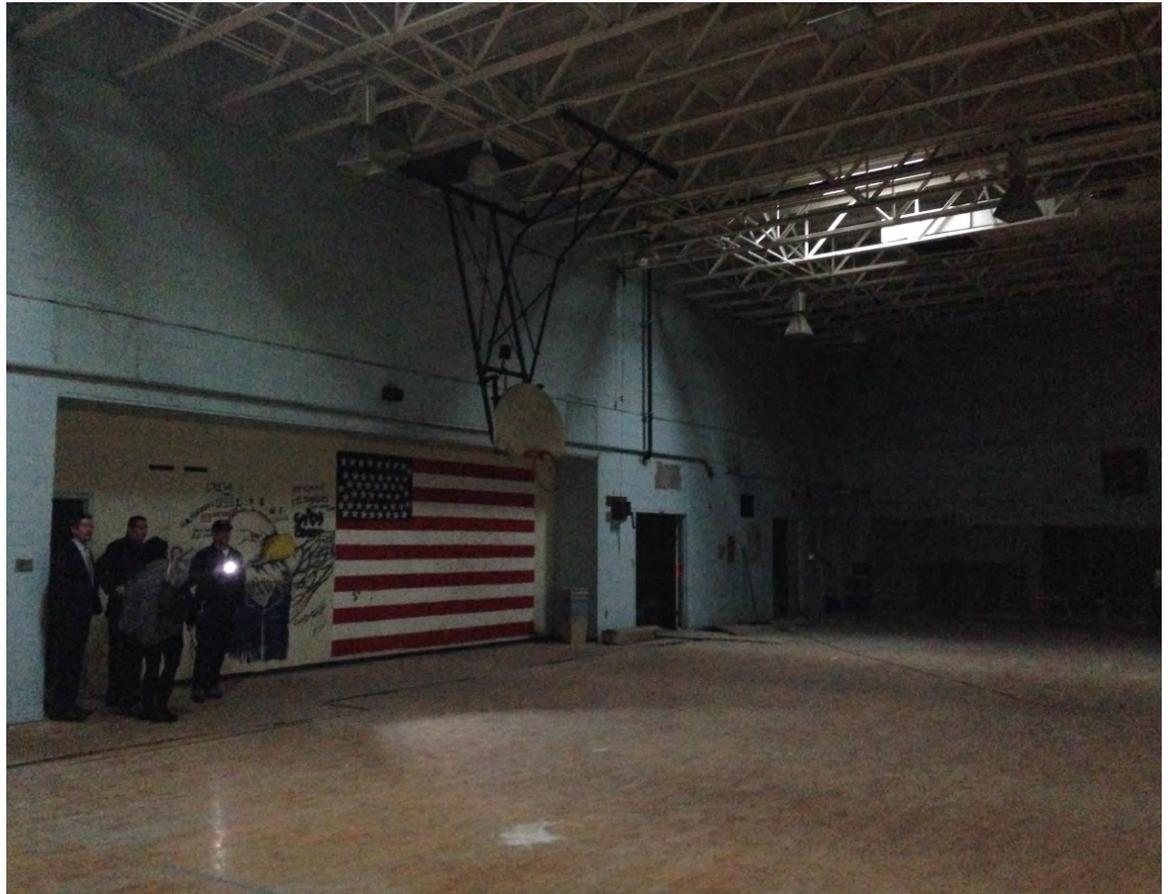
- Renovation of gymnasium
- Building hardening

ORGANIZATION

- Manages existing senior programming and building operations
- Operating for 110+ years in Brooklyn and Queens
- Conducts outreach to senior populations and people with developmental disabilities
- Has capacity to provide emergency social and health services

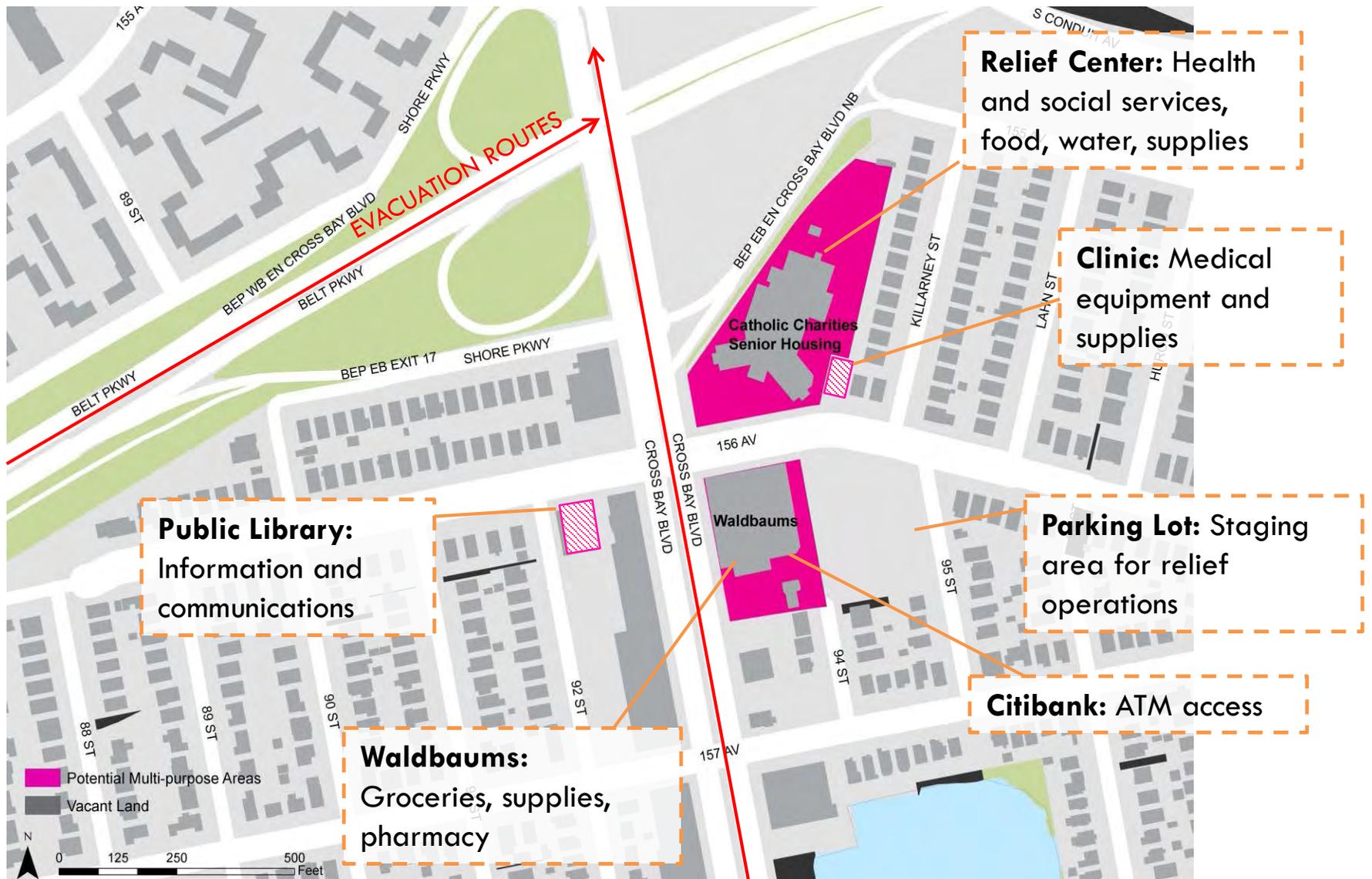
Catholic Charities gymnasium can serve as catchment area

- Has restrooms and shower facilities
- Three exits, two directly into parking lot
- Needs rehabilitation and potential hardening



Catholic Charities gymnasium

Howard Beach relief campus map



Supporting vulnerable populations during emergencies

- Vulnerable populations include elderly, children, disabled
- Options to track vulnerable populations include a registry, hotline, evacuation plan, or community board
- Committee decided registry was too onerous to maintain and would not be well-utilized by local population
- Instead, Committee members emphasized the importance of using social networks to track and support those in need

Seniors

- 21% of the population is over 65 years of age (as of 2010)
- 11% over 75 years of age
- 3% over 85 years of age

Youth

- 18% of the population is under 18 years of age
- 15% is under 14 years of age

Door-to-door canvassing is most effective way to track and support vulnerable populations during emergencies

Catholic Charities is well-position to support vulnerable populations

- Provides regular meals, health, and social services to local seniors and disabled persons
- Maintains an existing network of volunteers and social service providers and partners
- During emergencies, Catholic Charities is well-positioned to mobilize volunteer and social services networks to locate and support individuals most in need
- Before Sandy hit, Catholic Charities delivered meals to 2,000 homebound seniors



Catholic Charities volunteers distribute supplies after Hurricane Sandy at the organization's Queens Community Center in Astoria

Relief campus project next steps

- Building
 - Explore options for upgrading building and rehabilitating the gymnasium
- Organization
 - Review existing programming and opportunities to build on case management practice to support resiliency coordinator
- Relief center campus and satellite network
 - Waldbaums & Citibank: Discuss business continuity agreement
 - Queens Public Library: Share idea for information and communications center
 - Satellite locations: discuss opportunity with potential satellite locations

Public Meeting Discussion

- Public outreach approach
- Public meeting schedule
- Outreach and advertisement
- Next steps

List of Projects for Screening

HOWARD BEACH LIST

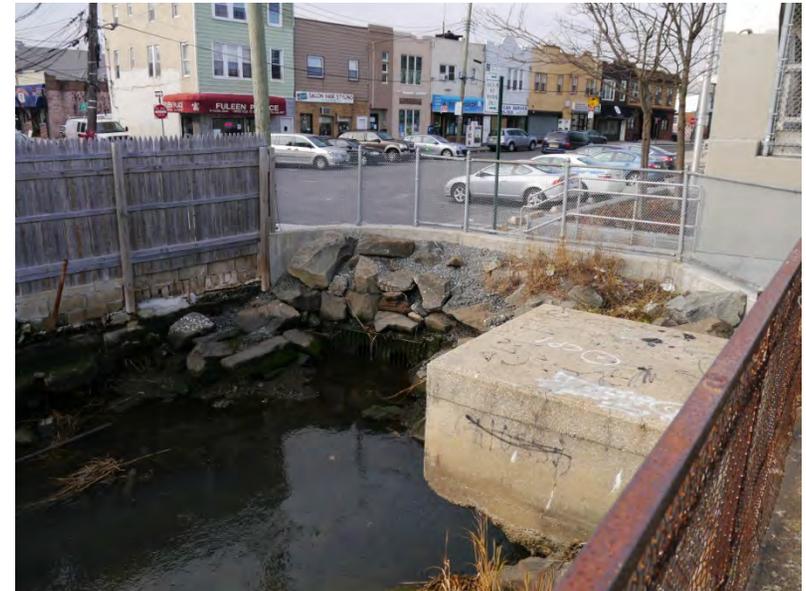
DOS Recovery Function	Project Description		Project Type					Time			Committee Evaluation						Team Action and Next Steps			
	Strategy	Project / Initiative	Priority Project	Featured Project	Other Project	Policy Recommendation	CDBG Eligible?	Short-Term (1-2)	Mid-Term (2-5)	Long-Term (5+)	Public Support	Feasibility	Cost	Risk Reduction	Co-Benefits	Co-Benefit Description	Funding Availability	Public Support	Next Steps	Recent Activity
E	Protect vital economic corridors	Protect Coleman Square "Downtown" commercial area	X				X	X											Develop presentation for business owners in Coleman Square - scheduled for 1/27. Develop specific proposals to support owners and businesses that could be funded through CDBG	F5 set up mtg for 1/27
H+S	Expand healthcare and social infrastructure to support senior and other vulnerable populations	Renovate/restore senior center at Catholic Charities site	X					X											Investigate opportunity for NYC funding to be connected to CDBG funding. ID specific program of improvements for resilience. Cost program. ID whether Cath Charities is eligible recipient. Determine if there is a local partner who can program gym space for non-emergency use for community benefit. Determine how adj sites can be incorporated into Recovery Campus	Toured site and met with Catholic Charities
I	Increase access to isolated sections of the community	Raise 102nd, Russel, 104th Street where flooding is most severe	X				?	X											Meet with NYC DOT to discuss feasibility and DOT ownership of project	Developed map to show areas that would be most significantly impacted
I	Protect the edge	Develop study to determine cost and feasibility of Tide Gate and Charles Mem Park protection for HB	X					X											Price Tide Gates, Scope Study.	Developed mult alts for protection
I	Protect the edge	Develop on-land protection measure in Charles Memorial Park	X					X											Cost estimate. Meeting with NPS	Developed sections for CMP protection- 2 alts. Received NYC EDC study for area
I	Develop a protection strategy for local power stations	Provide local protection to all three ConEdison substations		X		X	NO	X											Poll committee on specific recommendations. Develop Recommendation for Final Report	Con Edison plan of action is to employ Coffey dams at all three local substation locations
E	Protect vital economic corridors	Protect Cross Bay Blvd commercial area		X			X	X											Develop specifics of low-interest loan program opportunity to take back to the Committee and business owners	Met with Frank Russo to commence outreach to Cross Bay Blvd businesses.
I	Increase access to isolated sections of the community	Repair/Replace the DCAS boardwalk that extends from subway station to Hamilton Beach		X															Review with committee to determine committee's next actions	ID'd ownership of boardwalk. Visited to determine boardwalk condition.
I	Protect the edge	Develop Waver break, marina and Shellbank Basin shallowing strategy to reduce wave and surge impacts in Hawtree and Shellbank basins		X					X										Review with Committee to confirm FP status - develop write-up for final report	Received NYC EDC study for area
I	Stop Sewer Back-up and localized flooding	Protect DEP pumping facilities against storm events so that they do not shut down during future events - protect the Howard Beach pump station		X				X											Get Committee confirmation and develop write-up for final report. Follow-up with Max Sokol on opportunity for a community-based outreach effort to report on sewer back-ups and other drainage problems	
I	Stop Sewer Back-up and localized flooding	Protect DEP Sewage Treatment Facility against flooding and storm surge		X				X											Get Committee confirmation and develop write-up for final report.	
I	Stop Sewer Back-up and localized flooding	Develop a protection strategy for Coleman Square		X				X											Research local flooding issues and determine if ST Low cost intervention is feasible	Site visit to look at Hawtree Creek

List of Projects for Screening

Project Description			Project Type					Time			Committee Evaluation						Team Action and Next Steps			
DOS Recovery Function	Strategy	Project / Initiative	Priority Project	Featured Project	Other Project	Policy Recommendation	CDBG Eligible?	Short-Term (1-2)	Mid-Term (2-5)	Long-Term (5+)	Public Support	Feasibility	Cost	Risk Reduction	Co-Benefits	Co-Benefit Description	Funding Availability	Public Support	Next Steps	Recent Activity
N+C	Protect the edge	Develop Lower Spring Creek on-land and in-water protection		X					X										Meet with Committee to determine committee recommendations	Received initial study details
N+C	Protect the edge	Develop Upper Spring Creek on-land and in-water protection		X					X										PB to reach out to DPR to find out status. TJ to poll committee on level of support	
H	Low-cost financing to help residents fund housing resiliency improvements	Develop a dedicated fund to support the relocation of home utilities to protect against storm events			X		X		X										Develop specific proposals to support owners and businesses that could be funded through CDBG	
H+S	Expand healthcare and social infrastructure to support senior and other vulnerable populations	Build up to 3 dual purpose or multi-purpose service centers			X				X	X										
H+S	Protect vital recovery functions located in Howard Beach	Enhance the resiliency of NYPD Harbor Unit in New Howard Beach - new boats			X			X											Poll Committee on interest in supporting this effort	
H+S	Protect vital recovery functions located in Howard Beach	Enhance the resiliency of W Hamilton Beach Vol Fire Dept			X				X										Poll Committee on interest in supporting this effort. Determine if there are any improvements needed	
I	Increase access to isolated sections of the community	Create new pedestrian access at southern edge across Hawtree Basin			X					X									Review with community - ID as Long-Term item to be mentioned along with Hawtree and Shellbank tide gate development	
I	Protect Jamaica Bay	Develop a regional Jamaica Bay strategy to protect Howard Beach through protection at the mouth of Jamaica Bay			X					X									Regional coordination mtg to be held on 1/14 - update committee based upon that mtg. Have committee develop a recommendations - hopefully in concert with all Jamaica Bay communities	NYS DOS has set up regional coord mtg
N+C	Improve the recreation areas accessible to Howard Beach residents	Develop a maintenance strategy for NPS lands in Howard Beach			X				X	X									Poll committee to determine if this is a recommendation and then develop a proposal for final submission	
N+C	Wetland and edge improvements to reduce surge in Jamaica Bay and protect against future storm events	Create oyster reefs to reduce storm energy and combat eutrophication			X				X										ID where they would recommend oyster reef or other in-water protections for wave breaks	

Coleman Square

- **Permanent protection along open edge(s)**
 - Permanent flood barrier that would shield the area from common flooding
- **Create merchant association**
 - Could coordinate and implement corridor-level improvements and promote economic development
- **Streetscaping/Complete Streets pilot**

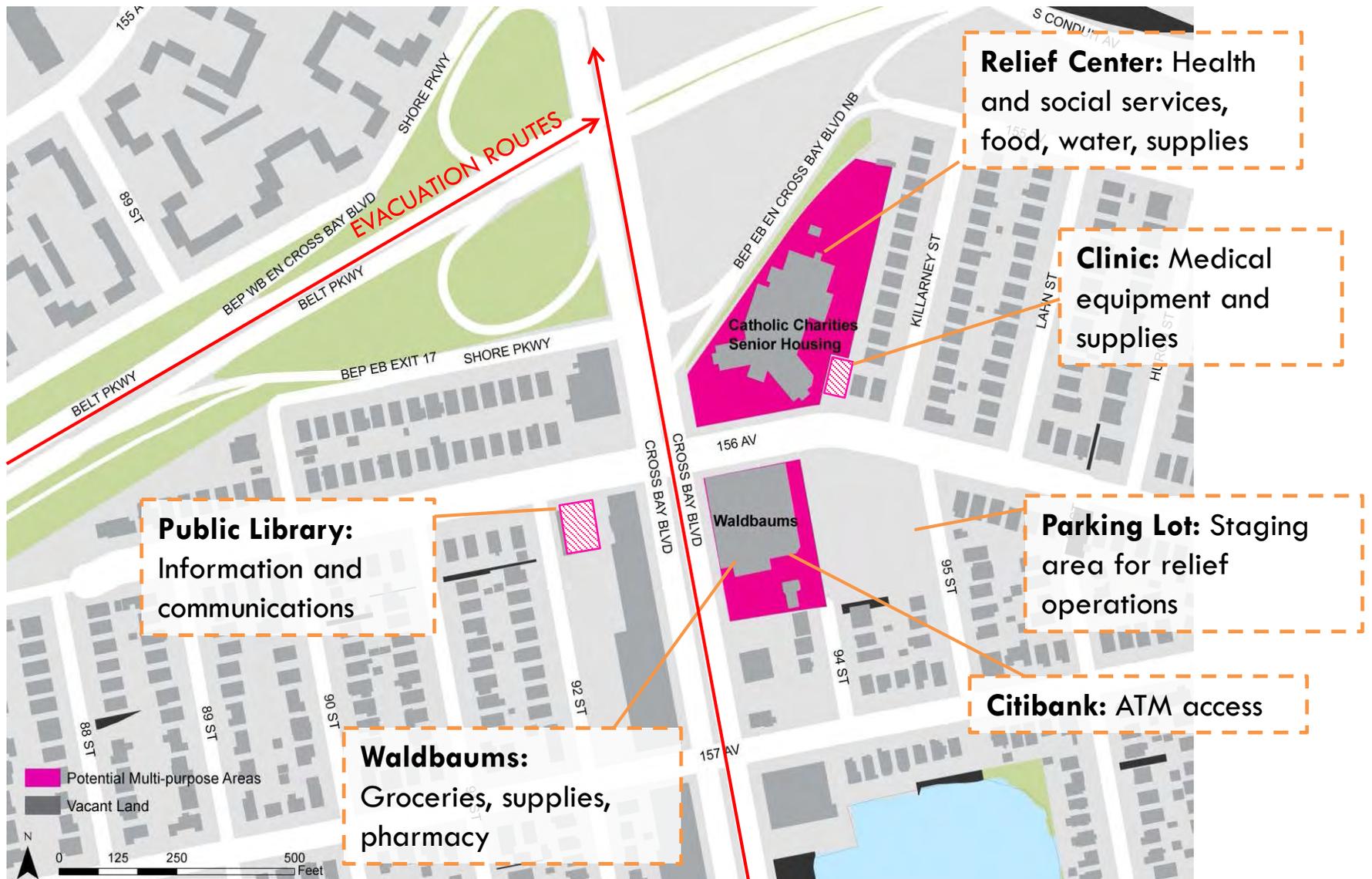


Open edge in Coleman Square



Example of a permanent flood barrier

Howard Beach relief campus



Local Coastal Protection Strategies

Next Steps:

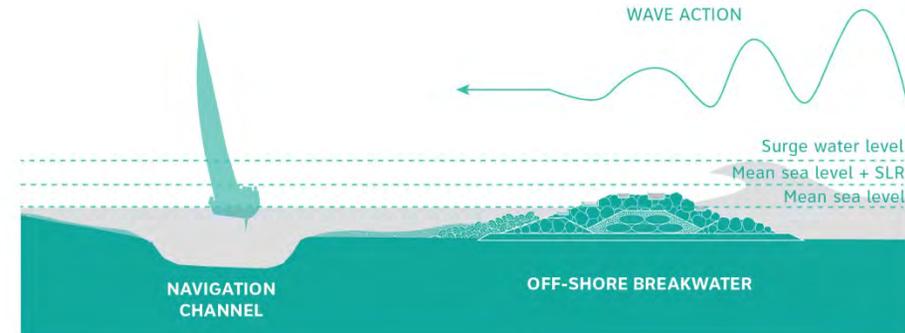


Charles Memorial Park – with Breakwater

CHARLES MEMORIAL PARK - PROTOTYPICAL SECTION OF REINFORCED BERM AT BALL FIELDS AND OFF-SHORE BREAKWATER

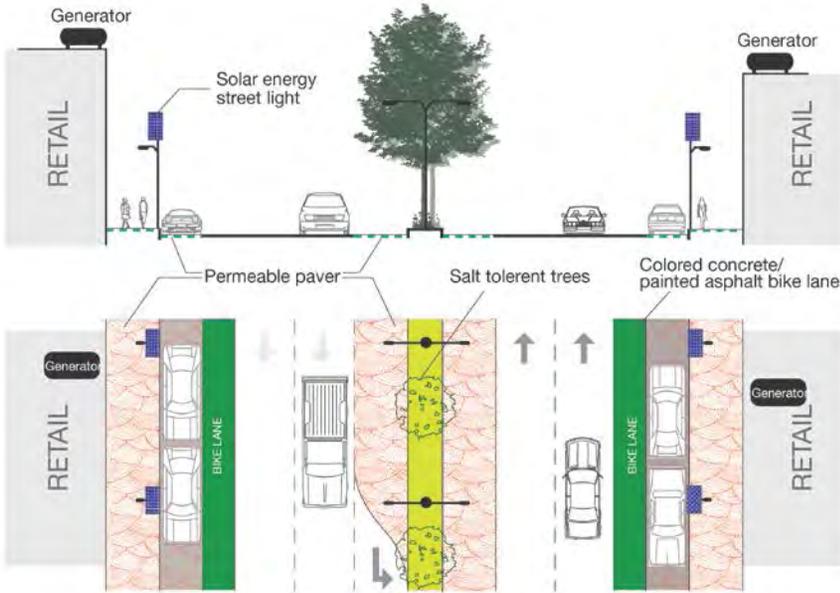


MIN 1/4 MILE



Cross Bay Boulevard

- **Streetscaping/Complete Streets pilot**
 - Complete Streets is an approach that plans for all modes of transit and incorporates design measures to create a more pedestrian-friendly environment
 - Can incorporate soft landscaping to increase groundwater absorption and sloped streets to improve water drainage
- **Deployable flood wall**
 - Models, such as an aqua fence, that can be set up to cover long distances before flooding expected to occur
- **Creation of merchant association**
 - Could coordinate and implement corridor-level improvements and promote economic development



Example of Complete Streets proposal in Broad Channel



AquaFence

Mitigation strategies for damage to homes

Short term ideas:

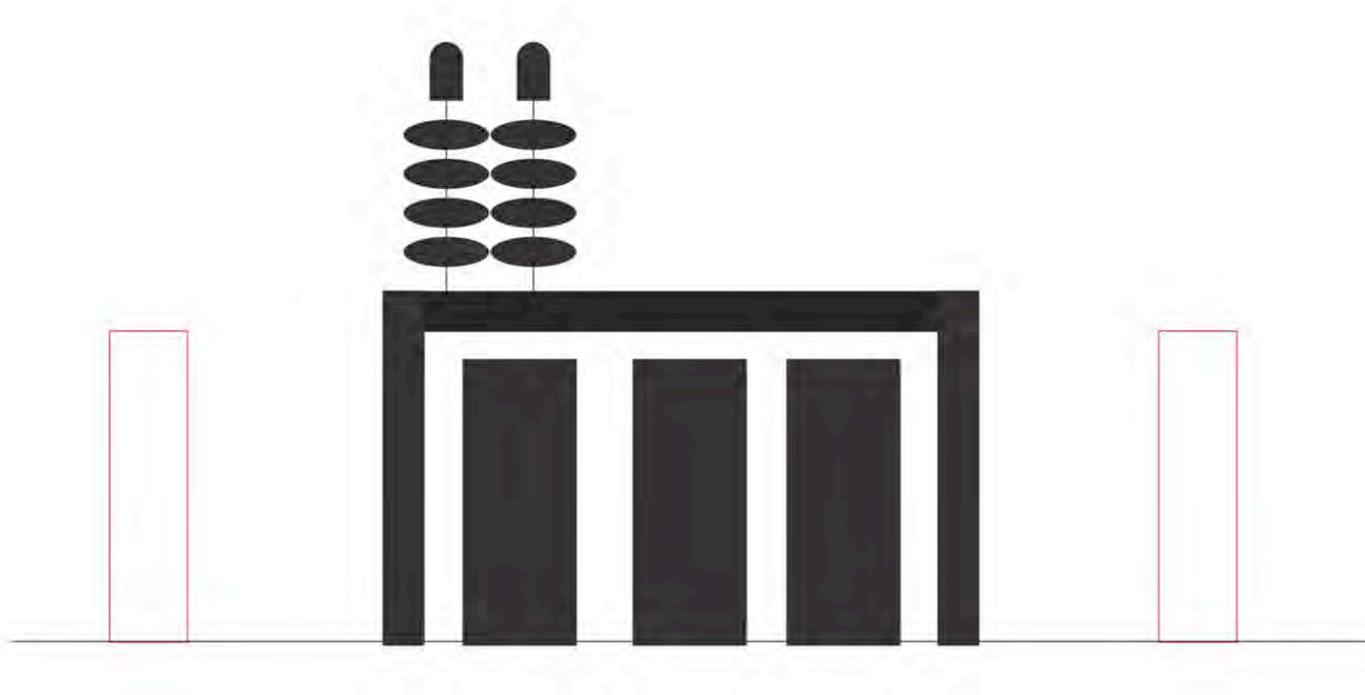
- 1. Develop brochure with tips and check-off list of mitigation strategies specific to Howard Beach housing stock**
- 2. Experts available at no or low cost to visit and assess individual's homes for appropriate mitigation strategies**
- 3. A program that could provide assistance to property owners to implement those strategies**



Potential Strategies: Protect Distribution System

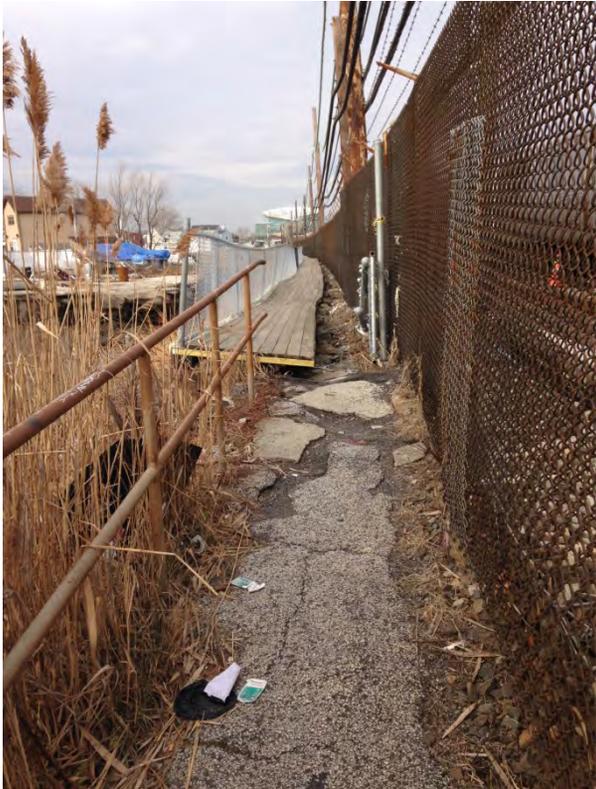
Protect substations from future flood damage

- Floodwalls to protect perimeters
- Raise equipment
- Install backup generators, flood sensors, submersible equipment, etc.
- Install backup connections to be ready for temporary mobile substations



ConEdison has made temporary repairs and identified long-term mitigation and permanent projects for the three area substations.

Extend Howard Beach Train Station Platform



Sewer System



Howard Beach Pumping Station

Recommended Adaptation Strategy:
Construct Barrier

Adaptation Cost:
\$8,165,000



Jamaica Wastewater Treatment Plant

Use sandbags along the substation to minimize service disruptions in Queens during flood events, reduce sewage bypasses, and protect public health

Featured projects

- Develop Lower Spring Creek on-land and in-water protection
- Develop Upper Spring Creek on-land and in-water protection
- Develop Waver break, marina and Shellbank Basin shallowing strategy to reduce wave and surge impacts in Hawtree and Shellbank basins

Other projects

- Enhance the resiliency of NYPD Harbor Unit in New Howard Beach - new boats
- Enhance the resiliency of West Hamilton Beach Volunteer Fire Dept
- Create new pedestrian access at southern edge across Hawtree Basin
- Develop a regional Jamaica Bay strategy to protect Howard Beach through protection at the mouth of Jamaica Bay
- Develop a maintenance strategy for NPS lands in Howard Beach
- Create oyster reefs to reduce storm energy and combat eutrophication



Howard Beach
Program Information Meeting
Committee Meeting #6

January 13, 2014