IMPLEMENTATION OF THE WATERFRONT SMALL AREA PLAN

PLANNING COMMISSION HEARING
Waterfront Landscape and Flood Mitigation Design

June 3, 2014
PROJECT SCHEDULE

- WATERFRONT COMMISSION MEETING
- COMMUNITY MEETING
- WORKSESSION
- PUBLIC HEARING

ODBC DECISION
OUTCOME OF THE CITY & ODBC NEGOTIATIONS – MOVE OFFER

- BEACHCOMBER
- ODBC PARKING LOT
- ODBC
NEW ODBC PARKING LOT 45 SPACES
NEW ODBC CLUBHOUSE
NEW ODBC PIERS

MOVE OFFER
ILLUSTRATIVE SITE PLAN
developed through City of
Alexandria and Old
Dominion Boat Club
negotiations 3/14/2014
MOVE OFFER

ILLUSTRATIVE SITE

PLAN developed through City of Alexandria and Old Dominion Boat Club negotiations 3/14/2014

OUTCOME OF THE CITY & ODBC NEGOTIATIONS – MOVE OFFER
OPEN SPACE
Preserve the Strand walk through Point Lumley Park
THE STRAND - ORGANIZATIONAL ELEMENT
CORE AREA - DESIGN ALTERNATIVE D

OLIN
WATER FEATURE - REFLECTIVE
SEASONAL PROGRAMMING

WATERFRONT WINTERFEST – PHILADELPHIA, PA
SEASONAL PROGRAMMING

WATERFRONT WINTERFEST – PHILADELPHIA, PA
WATERFRONT PARK - CONCERT (1,000 PEOPLE STANDING)
WATERFRONT PARK - OUTDOOR MOVIE (500 PEOPLE SEATED)
VIEW FROM WALES ALLEY TO RIVER
FOOT OF KING STREET LOOKING NORTH - EXISTING
FOOT OF KING STREET LOOKING NORTH
FOOT OF KING STREET LOOKING NORTH
FITZGERALD SQUARE – INTERACTIVE WATER FEATURE

OLIN
FITZGERALD SQUARE – INTERACTIVE WATER FEATURE

OLIN
FITZGERALD SQUARE WATER FEATURE - TERMINUS
FITZGERALD SQUARE WATER FEATURE - REFLECTIVE
FITZGERALD SQUARE – DURING EVENTS
FITZGERALD SQUARE – WINTER
VIEW SOUTH FROM OVERLOOK
Flood Mitigation

15% Design – Core Area
Flood Mitigation Study

- July 2010
- Comprehensive evaluation of flood levels and mitigation
- Protect to Elevation 6.0’
- Elevated walkway concept
- Balances flood mitigation, cost and maintaining views

www.alexandriava.gov/waterfront
Flood Levels

Figure 2-2: Flood Levels Studied

- 13.2 ft: Extreme with 3 feet freeboard
- 10.2 ft: Extreme (100-year flood level)
- 8.8 ft: Hurricane Isabel
- 8.0 ft: Intermediate
- 4.0 ft: Nuisance
- 2.2 ft: Mean High Water
- 0.9 ft: Mean Low Water

River Bank

* NAVD 88
EXISTING CONDITIONS - NUISANCE FLOODING AT RIVER ELEVATION = 2.0 FT
EXISTING CONDITIONS - NUISANCE FLOODING AT RIVER ELEVATION = 3.0 FT
EXISTING CONDITIONS - NUISIBLE FLOODING AT RIVER ELEVATION = 4.0 FT
EXISTING CONDITIONS - NUISANCE FLOODING AT RIVER
ELEVATION = 5.0 FT
EXISTING CONDITIONS - NUISANCE FLOODING AT RIVER ELEVATION = 6.0 FT
Recent Flooding

River elevation 4.4’
Flood Mitigation

- URS Corporation
- Build upon 2010 study
- Incorporate into Olin Landscape Design
- 15% Design for the core area
- Drainage and infrastructure analyses
- 3 main components
  - Raised bulkhead
  - Pump stations (2)
  - Separated storm sewer system
Bulkhead/Promenade

- New bulkhead to Elev. 6’ with promenade
- Lower boardwalk
- Is Elev. 6’ high enough?
Flood Extents
USGS Tide Gage

Maximum Monthly Water Surface Elevations

100 YEAR STORM ELEVATION: 10.2'

FLOOD WALL ELEVATION: 6'

Date

Pump Stations Schematic

- Emergency generator, located above 100 yr. flood
- Stormwater runoff into system from core area
- Discharge into Potomac River
- Wet well
- Submersible pumps
- Valve vault
CONCEPT DESIGNS OUTSIDE CORE AREA

OLIN
ORONOCO BAY PARK - EXISTING
RALPH’S GUT - PROPOSED
FOUNDERS PARK - EXISTING
<table>
<thead>
<tr>
<th></th>
<th>SOCIAL</th>
<th>MATERIALS</th>
<th>HABITAT ENHANCEMENT THROUGH PLANTING</th>
<th>ENERGY</th>
<th>WATER</th>
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<td>• Quality of the space • Opportunities for interaction • Financial</td>
<td>• Durability / Maintenance • Local • Responsible production</td>
<td>• Native / Adaptive • Biodiversity • Low maintenance</td>
<td>• Renewable Solar • Urban heat island mitigation • Efficient Lighting</td>
<td>• Quality • Stormwater Management • Potential for Reuse</td>
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**SUSTAINABILITY & ECOLOGICAL SYSTEMS**
CONTINUOUS PATH WITH STEPPING STONE PATH ABOVE RIPRAP
CONTINUOUS PATH WITH BOARDWALK OVER BREAKWATER
PROMENADE WITH LOWER DECKING
MATERIALS

CLAY BRICK
STONE DUST
STONE COBBLE
GRANITE PAVING
EXPOSED AGGREGATE
CONCRETE
STEPPING STONES IN STONE FINES
BOARDWALK
RESIN BONDED
AGREGATE
GRANITE CURB
1 GRANITE SEAT WALL
2 LOUNGE CHAIRS
3 GLIDER SEATING
4 ROOFTOP OUTDOOR DINING
5 WATERFRONT STEPS
6 FLEXIBLE SEATING
7 MOUNTING BLOCKS
8 STEEPED SEATING AT FOUNTAIN
9 BOULDER STEPS
10 PICNIC TABLES
11 ADIRONDACK LOUNGE CHAIRS
12 PROMENADE CLASSIQUE

COMMON ELEMENTS - FURNISHINGS