Transportation and Parking

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Transportation & Parking \ How do people get to the waterfront?
Guiding Transportation Principles

1. Alexandria will develop innovative local and regional transit options.
2. Alexandria will provide quality pedestrian and bicycle accommodations.
3. Alexandria will provide all its citizens, regardless of age or ability, with accessibility and mobility.
4. Alexandria will increase the use of communications technology in transportation systems.
5. Alexandria will further transportation policies that enhance quality of life, support livable, urban land use and encourage neighborhood preservation, in accordance with the City Council Strategic Plan.
6. Alexandria will lead the region in promoting environmentally friendly transportation policies.
7. Alexandria will ensure accessible, reliable and safe transportation for older and disabled citizens.
Transportation & Parking \  Resources to date

How do people get to the waterfront?
- Metro
- Bus / Trolley
- Car
- Bicycle
- Boat
- Walk
- Other
King Street is preferred corridor
- Character, amenities, intermodal
- Proposed Potomac Yard station will be the closest to the waterfront
Transportation & Parking \ Bus

- Closest bus route 3 or 4 blocks from waterfront
- Less convenient south of King Street
- Trolley loop offers great East / West connectivity
- No north / south counterpart
Transportation & Parking \ Personal Vehicle

- Regional Connectors: I-95, I-495, Route 1, George Washington Parkway
- King Street is the dominant connection to the water
- Lack of designated "routes to the water" north and south of King Street
- MVT is used mostly by bicyclists
- Wilson Bridge Crossing is an added attraction
- Support services are emerging
- Potential for greater connectivity near Daingerfield Island
Pedestrian / bike / car conflicts are increasing

Areas of greatest conflict are along North Fairfax Street and at King and Union

Signage, parking, traffic calming can improve safety
Transportation & Parking \ Boat

- Public (3), Private (3), and Day Cruise (3)
- Concentrated zone of boating activity
- Antiquated support services & high demand
- No official public launch area for kayaks etc.
- Inactive boat launches could be an opportunity
Transportation & Parking \ Boat

- **Water Taxi**
  - Between Alexandria and National Harbor
  - Expansion to the Ball Park and the airport

- **Cruises**
  - Connect regional marinas
Transportation & Parking \ Off-Street Parking

- Where is it located?
- How much is there?
- Is it in the right place?
Almost 1400 Spaces within Zones 1 & 2
90% Public
Private parking garages underutilized at night
Potential for valet services connected to existing parking facilities
East of Union Street

- A significant amount of valuable waterfront is devoted to vehicle storage and circulation
Removing parking from dead-end streets at the shoreline can allow those streets to become public spaces.
Serve access is necessary infrastructure, but it doesn’t have to detract from the public realm.
Transportation & Parking \ Summary

- Getting to the waterfront is part of the waterfront experience
- Improving access is critical to maintaining a great waterfront
- Reducing the need for vehicles near the shoreline will open up significant opportunities for waterfront amenities
- Surface parking on the waterfront is an inappropriate use
- Key is to use existing resources better (additional capacity)
Open Space, Environment and Sustainability

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Define pedestrian range
Important to visitor direction
Define larger ‘neighborhood’
Open Space, Environment & Sustainability \ Views

- No single, all-encompassing view
- 7-8 segments or viewsheds
- Impediment to continuity
- Highly divided
- Barrier in all areas
- Solvable
Example #1: Torpedo Factory

Anti-climactic arrival

Confusing, non-ADA compliant primary route

Unclear connection

Poor visual connection

Path relates to building rather than to park

Confusing pathways lack hierarchy

Confusing pathway involving stairs

Fire/EMS access problems
Example #2: Oronoco Bay
Open Space, Environment & Sustainability \ Open Space Zones

- Groupings/areas of similar nature
  - Landscape
  - Pathways
  - Architecture
Organizational challenges

- Historic Elements/objects
- Art
- Amenities
Zones have distinct history
- Archaeology
- Point Lumley & West’s Point
Open Space, Environment & Sustainability \ Open Space Zones - History

- Place names
  - Historic uses
  - Historic events or people
Place names

- Historic uses
- Historic events or people
Urban Environment – Challenges and Opportunities

- Impervious area (65% buildings, sidewalks, parking, roads)
- Heat island
- Pollution impacts
Waterfront green space
- Urban relief zone
- Human comfort
Park ends

- Daingerfield & Jones Point Park
  - Tree canopy
  - Habitat linkages
Potomac River as challenge
- Pollution
- Debris
Open Space, Environment & Sustainability

- Potomac River as resource
  - Chesapeake Bay
  - Historic & current resource
Open Space, Environment & Sustainability

Potomac River as challenge

- Flooding
Sources of Flooding
- Tidal
- Drainage
- Riverine
- Storm Surge

Study Elevations
- Nuisance
- Intermediate
- 100-year

*All elevations in NAVD88
Shoreline Conditions & Flood Study \ Flooding

- Flood Mitigation Study - Alternatives
  - Dry Flood-proofing
  - Internal Relocation
  - Property Acquisition
  - Elevation of Buildings
  - Floodwall
  - Walkway as a Floodwall
  - Increase Road and Inlet Elevation
  - Improve Floodplain Ordinance
  - Temporary Flood Barriers
Sea Level Rise
- 1 foot rise in MSL observed over last 100 years.
- GCM projections to 2100 range from 1.8 to 2.5 feet rise.
- Other projections as high as 5.2 feet.

Responses: Mitigation, Adaptation, Retreat
Residential

- Must elevate new or substantially improved buildings above BFE.

Non-Residential

- Includes office, retail, commercial and mixed-use.
- May elevate new or substantially improved buildings above BFE.
- May dry flood-proof lower floors.
Marine Planning & Engineering

- Infrastructure Site Inventory/Opportunities
- Navigation & Environmental Permitting Considerations
- City Marina
Shoreline Type
- Bulkhead
- Natural
- Revetment
- Other

6 miles of Shoreline
- 50% revetment
- 34% Bulkhead
- 7% ~2000lf “natural”
Structures
- Wharfs
- Piers
- Floating docks
- 21 structures
- 12 timber pile pier/boardwalk
- 4 wharfs
- 2 floating
- 3 other
Marine Planning & Engineering / Condition Assessment Rating

6 miles of shoreline
- 50% good/satisfactory
- 32% fair/poor
- 6% serious/critical
- 12% na

22 structures
- 18 good / satisfactory
- 4 fair/poor

Rating | Description
--- | ---
Good | No or only minor damage is noted.
Satisfactory | Limited minor to moderate defects.
Fair | Localized areas deterioration.
Poor | Deterioration widespread, moderate urgency.
Serious | Advanced deterioration, urgency.
Critical | Very advanced deterioration.
Constraints

- USACE Bulkhead & Pierhead lines
- Federal Navigation Channel
- Setback 3:1 – 75 ft
- Washington DC Bottom Lands
Marine Planning & Engineering / Environmental Permitting

- State / VDEQ / VMRC
- DC jurisdictional line
  - north of 2nd St. – mhw
  - south - pierhead line
- Federal/USACE
  - Permit Norfolk
  - Operations Baltimore
- Joint Virginia Water Protection Program Permit (401 / 404)
- SEPA / NEPA Process
  - (Nationwide, EA, EIS)
Docking Facilities
- 62 slips plus three "T" heads and bulkhead
- 6 commercial vessels
- Demand exceeds supply in-season

Key Operation / Planning Considerations
- Water Level & Waves
- Sedimentation / Dredging Requirements
- Trash / Debris & Ice
City of Alexandria Waterfront Master Plan

Summary

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Summary / Constraints

- Barriers
- Open Space Needs
- Desired Activities
- Operational Issues
- Underutilized Areas
Summary / Opportunities

**Essential Elements**
- Continuous Access
- Retail and Restaurants
- Art and History
- Activities for All Ages
- Flood Protection

**Opportunities**
- Development Opportunity Areas
- Open Space Opportunity Areas
- Water Opportunity Areas
- Urban Design Opportunity Areas
Summary / Opportunities

- Jones Point Park
- Daingerfield Island
- Mirant/PEPCO Power Plant
Windmill Hill Park
Oronoco Bay Park
Robinson Terminals
King Street to the Torpedo Factory and City Marina
King Street to the Torpedo Factory and City Marina
Founders Park to Torpedo Factory and City Marina
King Street to Waterfront Park and The Strand
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