Pedestrian and Bicycle Master Plan Update

Park & Recreation Commission

November 19, 2015
Primary Project Objectives

- Update Pedestrian and Bicycle Chapters of Transportation Master Plan
  - Improve safety for pedestrians and bicyclists

- Develop Complete Streets Design Guidelines
  - Design guidance for staff, developers, and community
Project Schedule

Late May 2014: **Project Launch**

June - Sept: **Existing Conditions Analysis, Public Meeting #1**

Sept - Dec: **Needs Assessment, Goals & Objectives**

Jan – June 2015: **Strategies, Network, Focus Areas**

Spring 2015: **Project Prioritization**

Summer 2015: **Implementation Strategies**

Early Fall 2015: **Public Meeting #2**

Winter 2015: **Draft Plan/Guidelines**

Spring 2016: **Completion**
Civic Engagement

- Community Events
- Public Meetings
- Council and Commission Meetings
- Ad Hoc Advisory Committee (8 meetings)
- Technical Advisory Committee
- Over 800 comments through online interactive map, survey and project website
What We’ve Heard and Response

Key themes:
• Improve maintenance
• More education and outreach
• Reduce conflicts between pedestrians and bicyclists
• Provide Complete Streets
• Need for protected bike facilities

Example goals/strategy responses to key themes:
• Safety, engineering, encouragement, education goals
• Reduce fatalities through Vision Zero program
• Close sidewalk gaps, expand bike network, including protected bikeways
• Citywide promotion and education on safety, rights, and responsibilities
Draft Citywide Bicycle Network
Parks Accessible via Existing Designated Bicycle Facilities
Parks Accessible via Planned Designated Bicycle Facilities

Legend:
- Yellow: Designated Bicycle Facilities
- Green: Accessible
- Pink: Not Accessible

Source: Esri, USGS, NOAA
# Pedestrian Case Study Areas

<table>
<thead>
<tr>
<th>CASE STUDIES</th>
<th>1-395 and Landmark Mall</th>
<th>Hammond Middle School Area</th>
<th>Duke Street Corridor</th>
<th>Commonwealth and Braddock</th>
<th>Mount Vernon Ave/ Four Mile Run</th>
<th>King Street Station</th>
</tr>
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</table>

![Pedestrian Case Study Areas Map](image-url)
Pedestrian Case Study Areas

Recommendations

Case Study Area: Seminary Road/Hammond Middle School

Pedestrian Recommendations:

- A. Install New Sidewalk
- B. Repair/Upgrade Sidewalk
- C. Install New Curb Ramp
- D. Replace/Upgrade Existing Curb Ramp
- E. Install New Crosswalk
- F. Repair/Upgrade Existing Crosswalk
- G. Install New Pedestrian Signal
- H. Modify/Repair Existing Pedestrian Signal
- I. Install/Upgrade Wayfinding
- J. Install Pedestrian Scale Lighting
- K. Improve Bus Stop Access
- L. Upgrade Existing Median/Pedestrian Island
- M. Improve Pedestrian Access Through Private Lot
- N. Adjust Parking to Improve Sightlines
- O. Consolidate Driveways
- P. Install Bicycle Spot Improvement
- Q. Reconfigure Roadway/Intersection

Other

- M. Metro Station
- N. Bus Stops

Pedestrian and Bicycle Master Plan Update
Draft Sidewalk Prioritization
Draft Bicycle Network Prioritization

Top 10 On-Street Bike Projects

Existing and Proposed Bike Network

Future Street
Draft Trail Transition Improvements

PRIORITIZED TRAIL CROSSING IMPROVEMENTS (DRAFT)

1. Mt. Vernon Trail near Jones Point Park
2. Mt. Vernon Trail and Royal Street
3. Bridge across Holmes Run
4. Four Mile Run and Route 1 Intersection
5. Potomac Yard Trail near Shoppers/Barnes and Noble
6. E. Abingdon Street from Mt. Vernon to Slaters Lane
7. Mt. Vernon Trail and Canal Center Plaza Intersection
8. Potomac Yard Trail at Braddock Road Metrorail Station
Draft Capital Bikeshare Locations

Note: The recommended station locations are shown as generalized areas where bike share stations could be installed. Identification of a bike share station does not commit a bike share station to that specific location. Final station placements will require additional public outreach and field work to confirm the availability of space, identify right of way and property ownership, and meeting the specific needs of the equipment vendor (such as solar exposure requirements).

* Infill stations will be added in future years. These may be city initiated or installed in conjunction with development activity.
Complete Streets Design Guidelines

- Develop Complete Streets Design Guidelines
  - Integrate design guidance (e.g. green sidewalks)
  - Incorporate range of pedestrian/bicycle facilities
  - Create reference for staff, developers & public

<table>
<thead>
<tr>
<th>Major Elements</th>
<th>Guidelines</th>
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<tbody>
<tr>
<td>Street Typologies</td>
<td>Street character based on adjacent land uses</td>
</tr>
<tr>
<td>Sidewalk Zones</td>
<td>Design, materials, trees, plantings, wayfinding, bicycle parking, transit, lighting</td>
</tr>
<tr>
<td>Roadways</td>
<td>Speed, lane widths, traffic calming, truck and emergency vehicle access, transit, bicycle facilities</td>
</tr>
<tr>
<td>Intersections</td>
<td>Geometry, access, crossings, control, signalization, pedestrian signals, transit, bicycle treatment</td>
</tr>
<tr>
<td>Curbsides</td>
<td>Parking, bicycle parking, parklets, charging stations</td>
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</tbody>
</table>
Park Road Typology

- total sidewalk widths 11’-20’
- porous sidewalk treatments preferred
- 1’ gutter pans on road

- pedestrian zone 6’-10’
- amenity zone 5’-10’
- no frontage zone

- maintains park-like character & protect natural resources
- preferred lane widths 11’
- operating speeds ≤ 35mph
Next Steps

**FALL 2015:** Continued public outreach

**WINTER 2016:** Public Release of Draft Plan

**SPRING 2016:** Planning Commission, Transportation Commission and Council Review for Approval / Amendment to Master Plan
Questions?

www.alexandriava.gov/pedbikeplan
Resource Slides
Example Engineering Strategy

Reduce conflicts between bicyclists, pedestrians and other sidewalk users

• In areas with significant pedestrian traffic, provide dedicated, on-street bicycle facilities

• Explore revisions to the City code to better address conflicts between users
Example Engineering Strategy

Prioritize ongoing maintenance and repair of the sidewalk and bicycle network

- Promote Call-Click-Connect as a means for residents to report maintenance and safety concerns
- Improve snow removal practices on trails, prioritizing popular commuter trails
Draft Program/Policy Strategies

Key Topics:

1. Safe Routes to School
2. Reduce bike and pedestrian fatalities / Vision Zero
3. Ongoing performance measurement
4. Adequate funding and staffing to implement the plan
5. Partnerships with Alexandria Health Department, Police, Schools, and community groups
6. Citywide promotion and education on promote traffic safety, rights and responsibilities, and benefits of active transportation
Pursue funding to oversee education and outreach for multimodal transportation safety initiatives citywide

Example Program/Policy Strategy

- Pursue grants for safety campaigns, staffing and coordination
  - VA Highway Safety Office (402 Grants)
  - DMV Safety Grants
  - VA Safe Routes to School
  - Transportation Alternatives

Norfolk, VA “We Roll Together” Campaign
- Safety
- Encouragement
- Branding
- Videos
- Swag
- Billboards
- Bus ads
- Events
Pedestrian Case Study Areas

Case Study Areas were selected because they represent certain themes or challenges that are found throughout the City. Recommendations may apply to other similar locations.

**Themes/Challenges:**
- Major Barriers/Freeway Interchanges
- Schools and Neighborhoods
- Transit Access and Integration
- Neighborhood Main Streets
- Suburban Commercial Connectors
- Trail/Roadway Transitions
- Lack of connectivity around large apartment complexes/ commercial buildings
- Curb ramps/ADA upgrades
- Maintenance of sidewalks
- Sidewalk gaps and narrow sidewalks
- Conflicts between people walking and people biking
## Sidewalk Prioritization

### Step 1: Identify sidewalk projects
- Focused on remaining sidewalk gaps identified in 2008 Master Plan

### Step 2: Input data and run prioritization model

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<tr>
<th>Factors</th>
<th>Variables</th>
<th>Weight</th>
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<tbody>
<tr>
<td>1. Safety</td>
<td>• Wikimap Comments (&quot;Barrier to walking&quot;)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>• Crashes (fatalities and non-fatal collisions)</td>
<td></td>
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<tr>
<td>2. Demand</td>
<td>• Population and employment density</td>
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<td></td>
<td>• Future population</td>
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<td>• Pedestrian mode share</td>
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<td>• Wikimap comments (place I walk/want to walk)</td>
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<td>• Proximity to libraries, community centers, Metro stations, parks, schools, bike share stations, bus stops</td>
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<tr>
<td>3. Geography</td>
<td>• Promote projects on west side of City</td>
<td>3</td>
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Enhanced Bicycle Corridor

- Standard Bicycle Lane
- Painted Bike Lanes
- Advisory Bike Lane
Enhanced Bicycle Corridor

- 2-way Separated Bicycle Lane
- 1-way Separated Bicycle Lane
- Buffered Bike Lanes

Sidepath
Shared Roadway

Signed Route on Shared Roadway

Priority Shared Lane Markings

Shared Lane Markings

Neighborhood Bikeway
Trails
## Bicycle/Trail Project Prioritization

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<td>• Favors projects on the west side of City</td>
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<tr>
<td>4. Connectivity</td>
<td>• Connection to existing bike lanes and paved trails</td>
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