

# Crystal City/Potomac Yard Transit Corridor Community Workshop

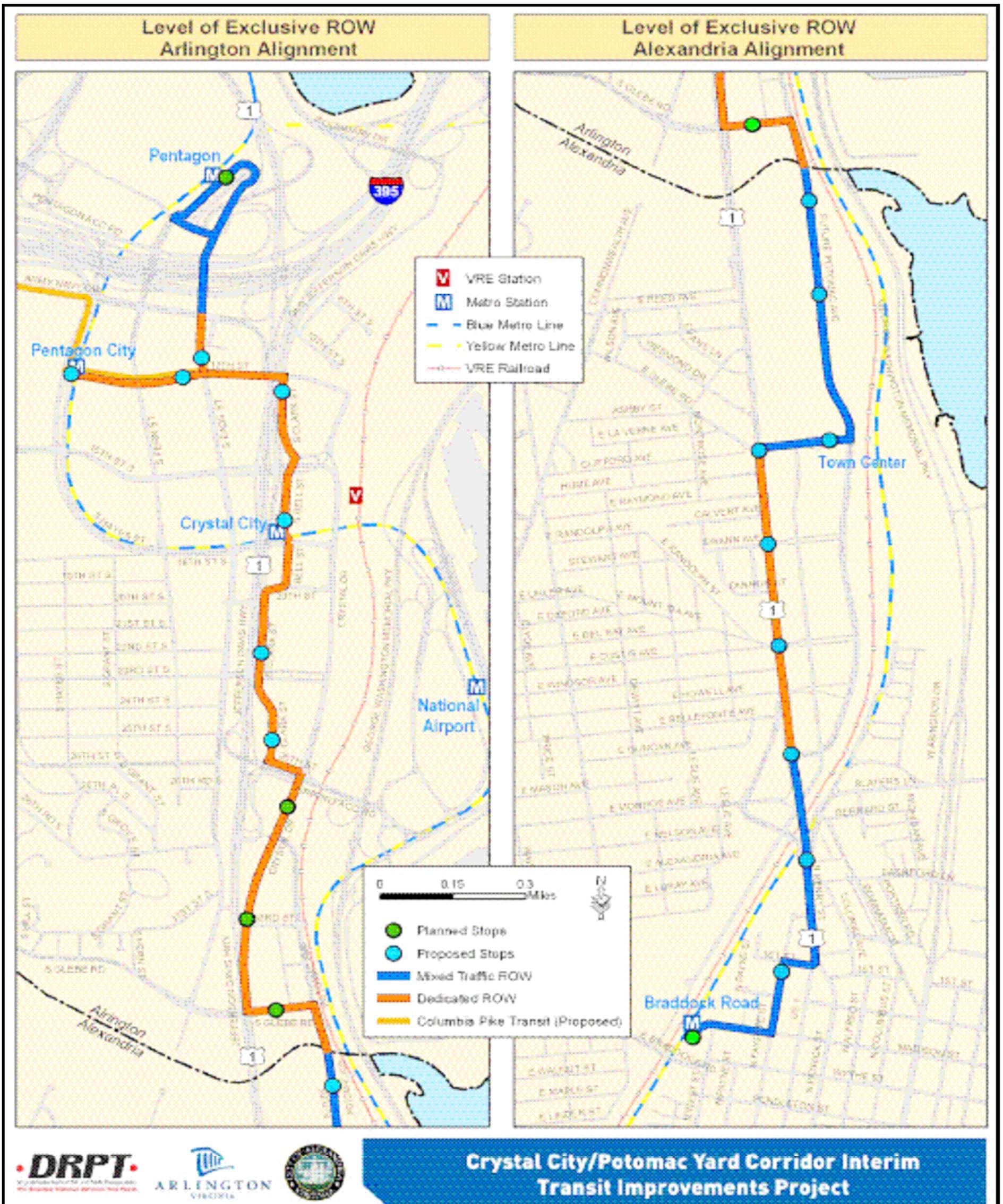
March 2, 2006  
7:00 to 9:00 PM  
George Washington Middle School

## Agenda

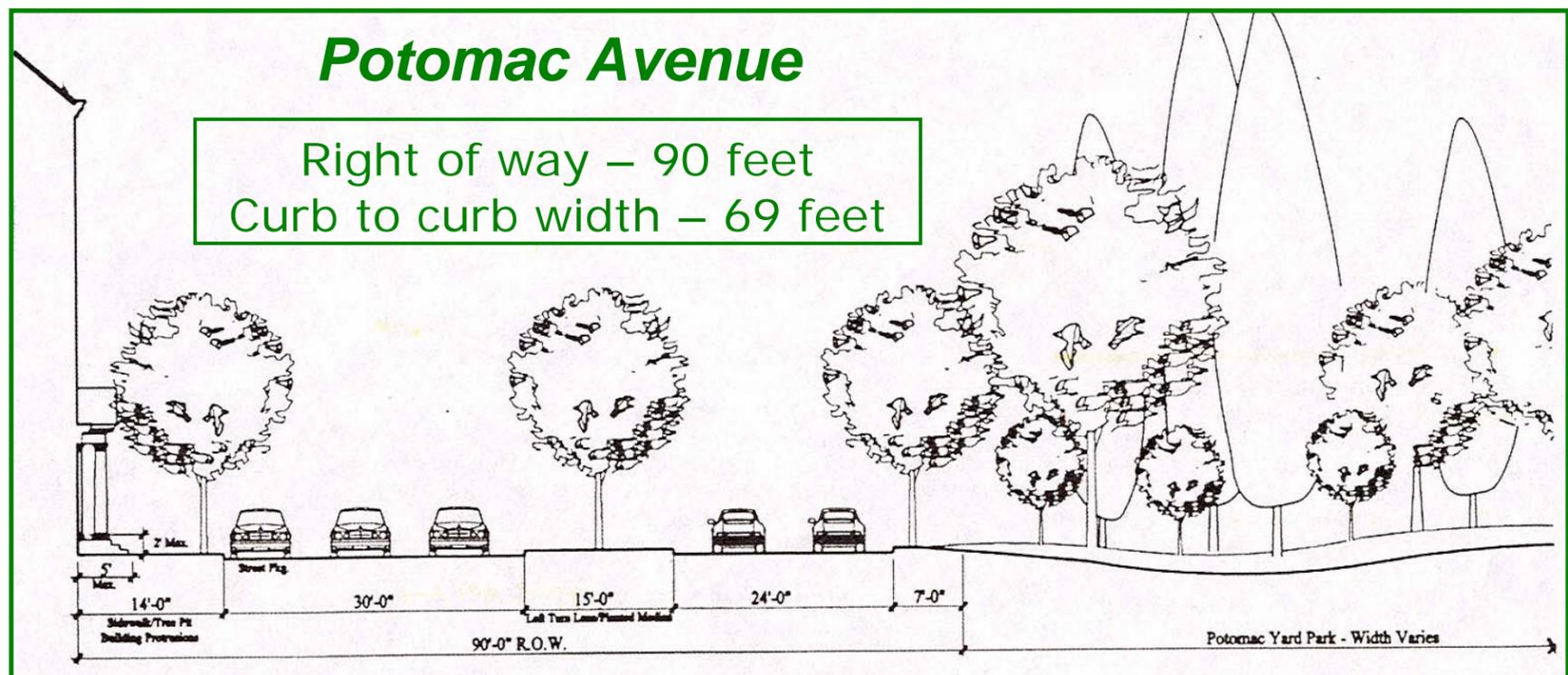
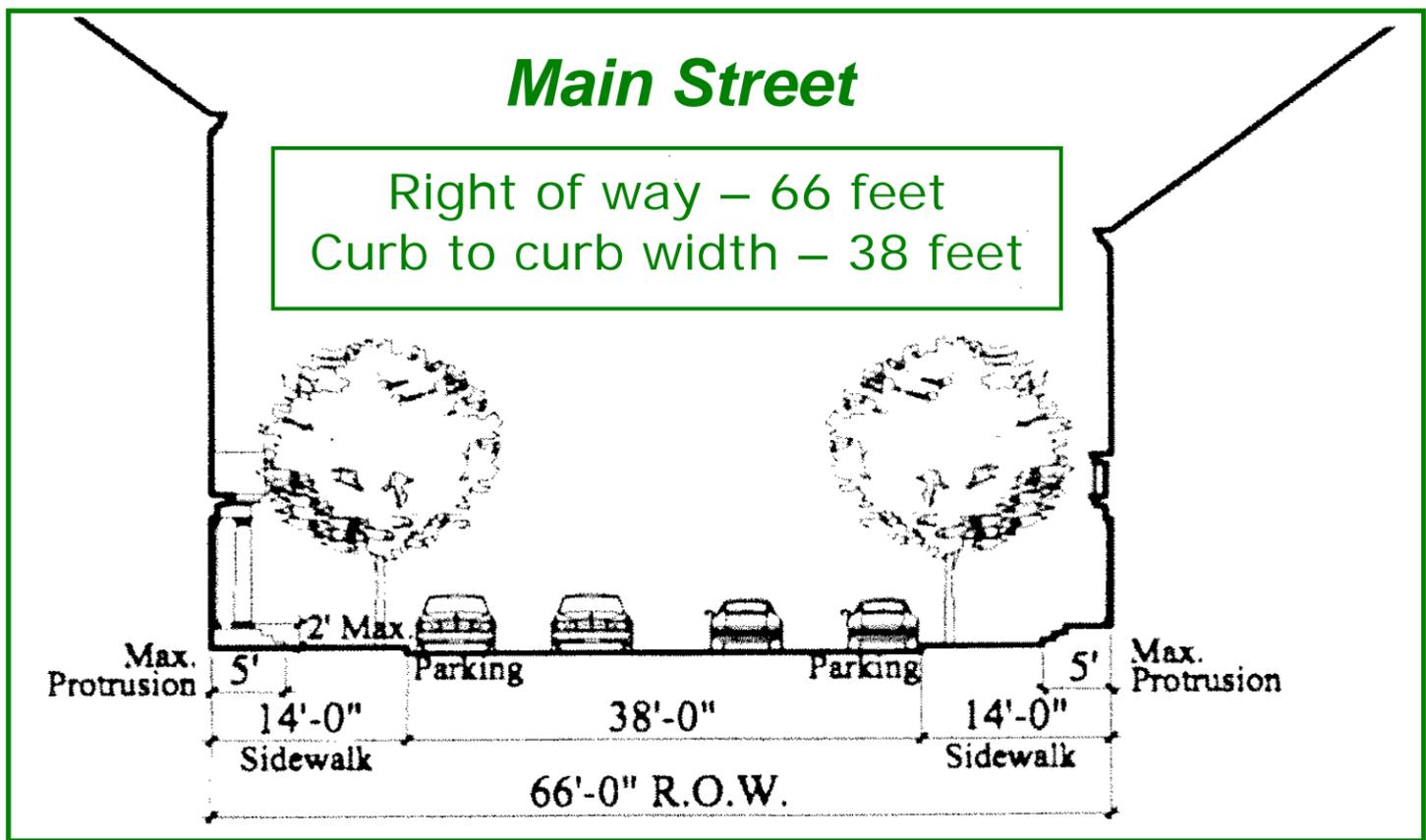
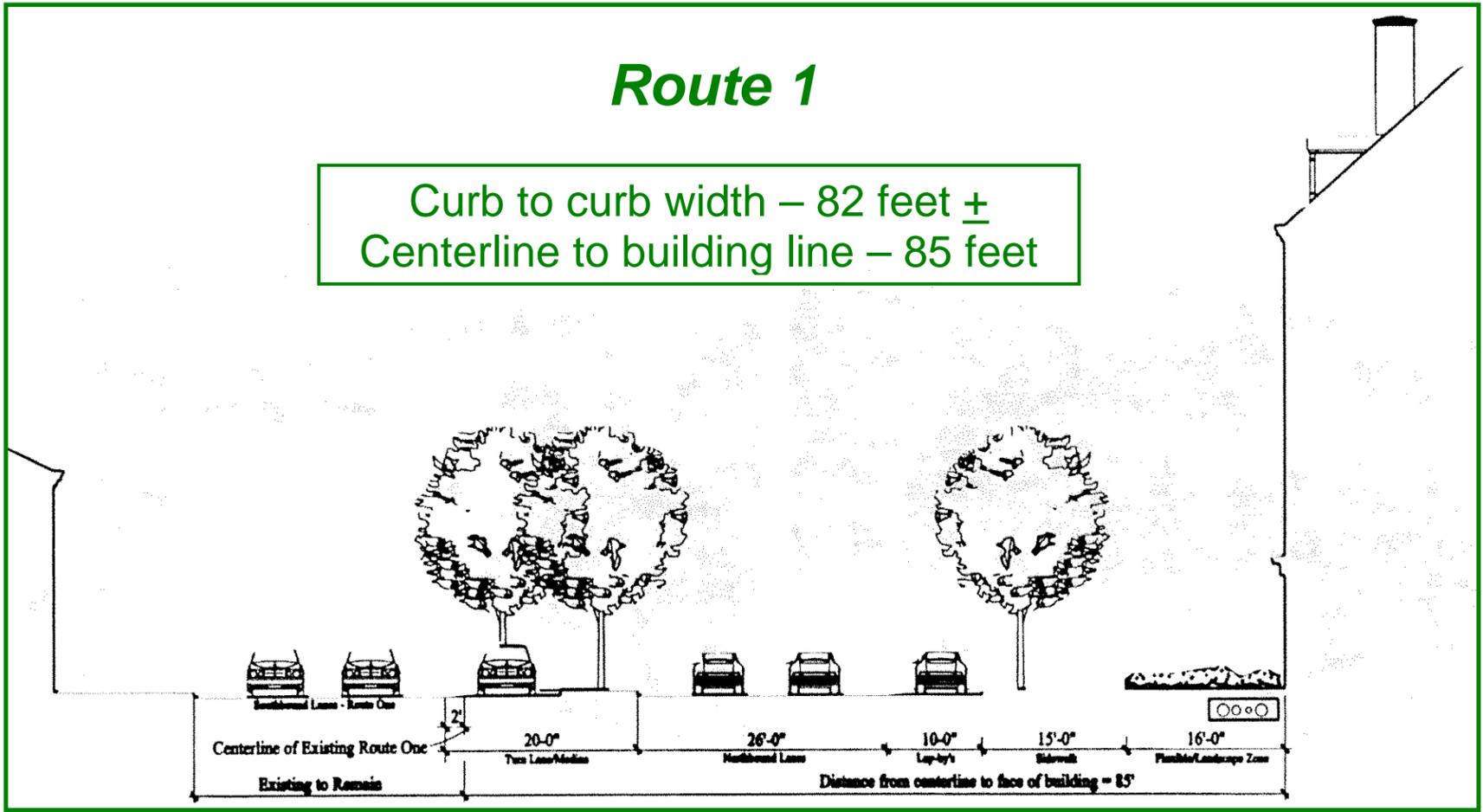
Sign-In .....	6:45 PM
Welcome .....	7:00 PM
Project Overview and Background .....	7:10 PM
Alternative Transit Corridor Configurations And Group Exercise .....	7:30 PM
Wrap Up and Next Steps.....	8:30 PM

# Crystal City / Potomac Yard Transit Corridor

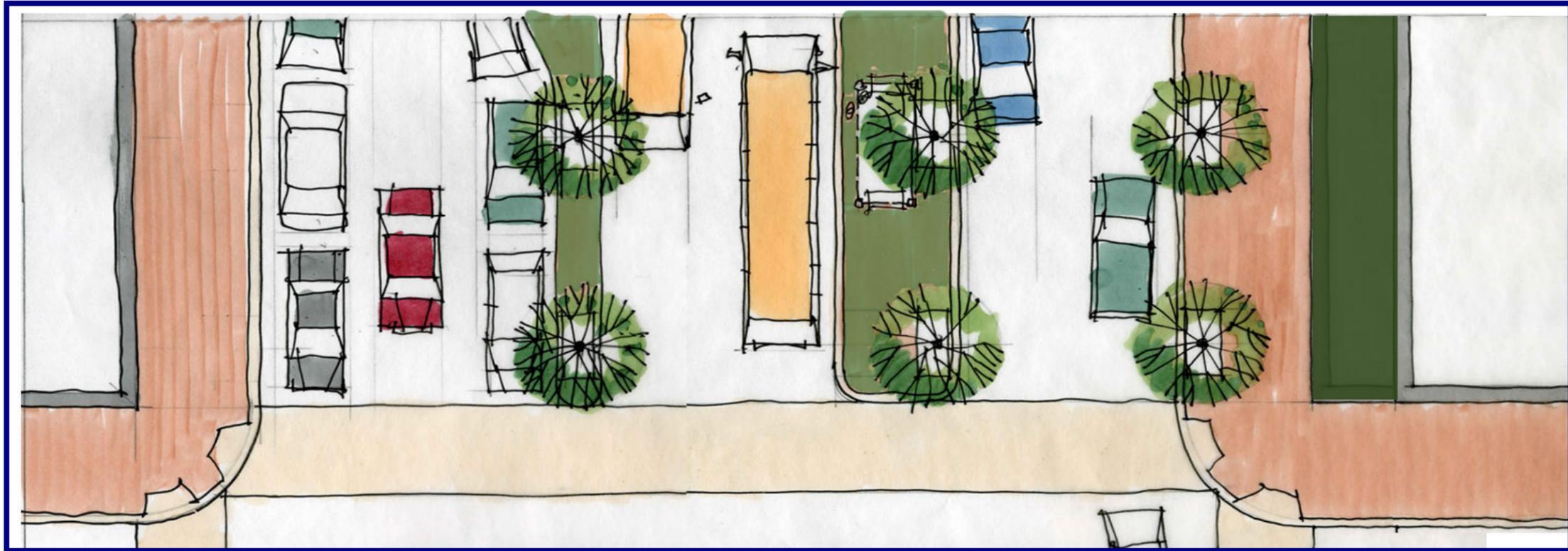
## Proposed Corridor Alignment and Level of Exclusive Right-of-Way



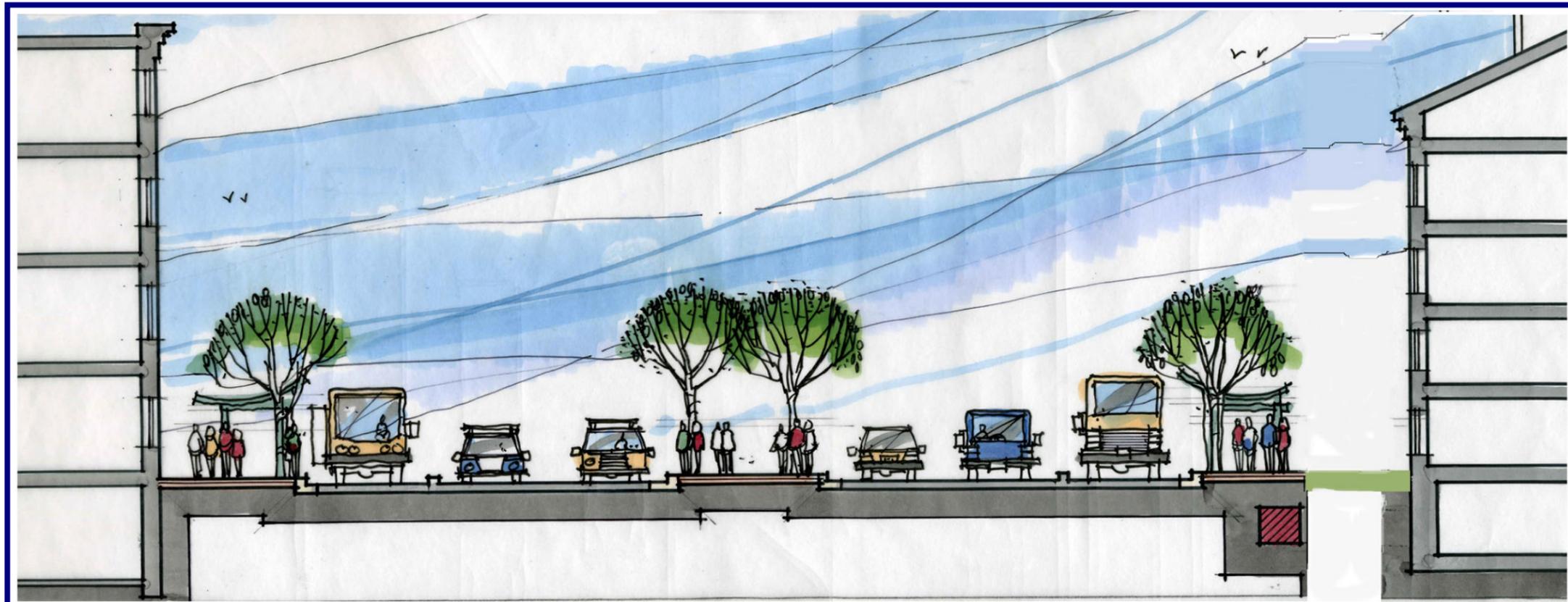
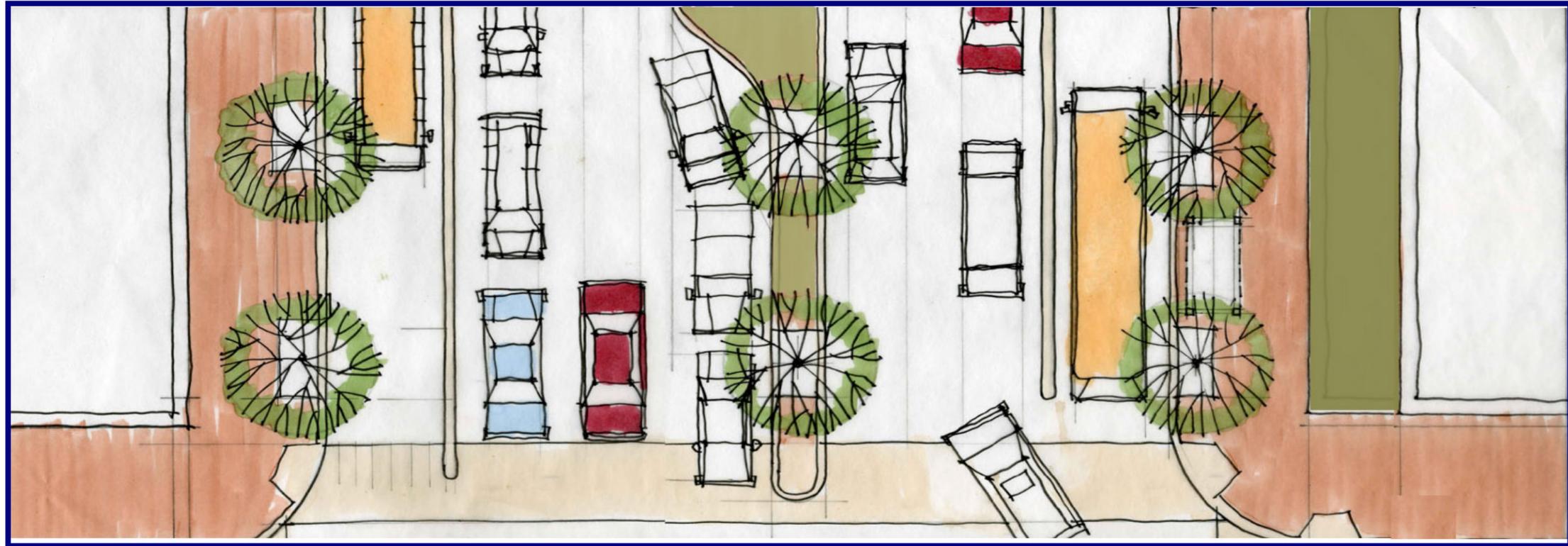
### Crystal City/Potomac Yard Corridor Interim Transit Improvements Project



Crystal City / Potomac Yard Transit Corridor  
Median Transit Corridor – Route 1



Crystal City / Potomac Yard Transit Corridor  
Curbside Transit Corridors (Directional) – Route 1



Crystal City / Potomac Yard Transit Corridor  
Curbside Transit Corridor (One-Way) – Main Street

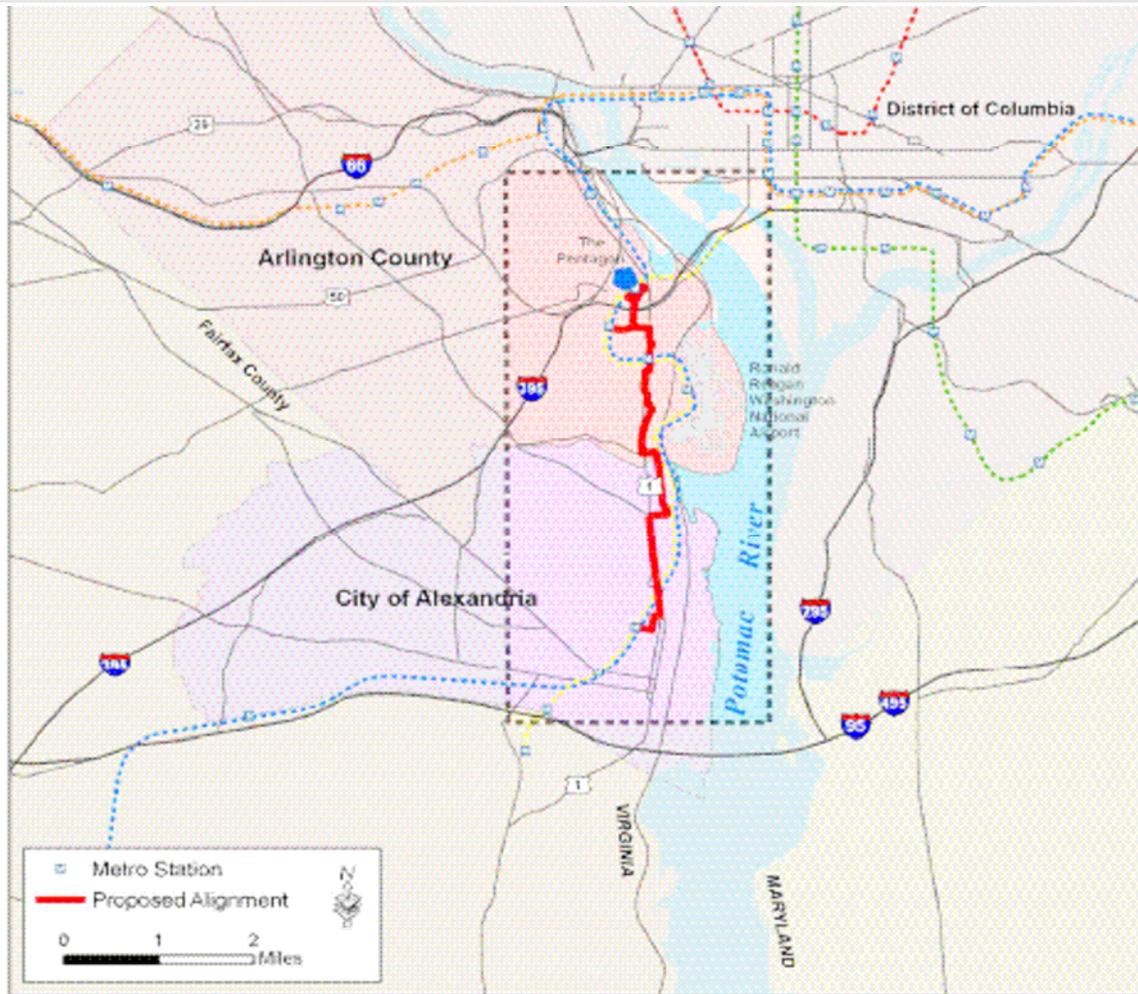


Crystal City/Potomac Yard  
Transit Corridor

**Community Workshop**

March 2, 2006

# Crystal City/Potomac Yard Transit Corridor



## Goal

Develop a high-capacity transit alternative for travel within the Crystal City/Potomac Yard area

# Crystal City/Potomac Yard Transit Corridor

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## Development Studies

Crystal City/Potomac Yard Area Transportation Study (SJR 406, HJR 567), October 1999

Crystal City/Potomac Yard Corridor Transit Alternatives Analysis, March 2003

Crystal City/Potomac Yard Corridor Interim Improvement Project, December 2005

# Crystal City/Potomac Yard Area Transportation Study

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## Recommendations (Transit Needs):

- Shuttle bus service from the site to existing Metro stations until a higher level of transit is in place
- Implementation of light rail or equivalent transit service. Additional study should be conducted to determine appropriate service requirements and characteristics
- Reservation for a Metro Station at Potomac Yard should be maintained, so as not to preclude future options.

# Crystal City/Potomac Yard Corridor Transit Alternatives Analysis

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## Recommendations:

- BRT should be advanced as locally preferred alternative for FTA New Start Evaluation
- BRT, LRT and Metrorail are all viable options and should be carried forward to EIS
- Selection of BRT should not preclude construction of one or more future Metrorail stations

# Crystal City/Potomac Yard Corridor Interim Transit Improvement Project

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- Developed phased service and corridor improvement plan (immediate, short-term and mid-term) for implementing high-capacity transit service
- Proposed a corridor alignment and levels of exclusive right-of-way desired for mid-term service
- Identified proposed stop locations and station design guidelines
- Developed project development checklist and general cost estimates
- Defined necessary “next steps” in project development

# Crystal City/Potomac Yard Transit Corridor Public Involvement

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## CC/PY Area Transportation Study

- Citizen outreach meeting

## CC/PY Corridor Transit Alternatives Analysis

- Extensive Public Participation Program
- Community and Group Meetings

## CC/PY Corridor Interim Transit Improvement Project

- Stakeholder Meetings
- Civic Associations, Committees and Associations Meeting
- Public Workshop and Open House

# Crystal City/Potomac Yard Transit Corridor Public Involvement

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## CC/PY Corridor Transit Alternatives Analysis

### Public Participation Program:

- Mailing database
- Toll-free telephone hotline and project website
- E-mail links to project staff
- Briefings for local officials
- Individual meetings with community groups
- Meetings with local governing boards and agencies
- Two public information meetings near beginning of project
- Two public information meetings near end of project
- Educational materials and comments database

# Crystal City/Potomac Yard Transit Corridor Public Involvement

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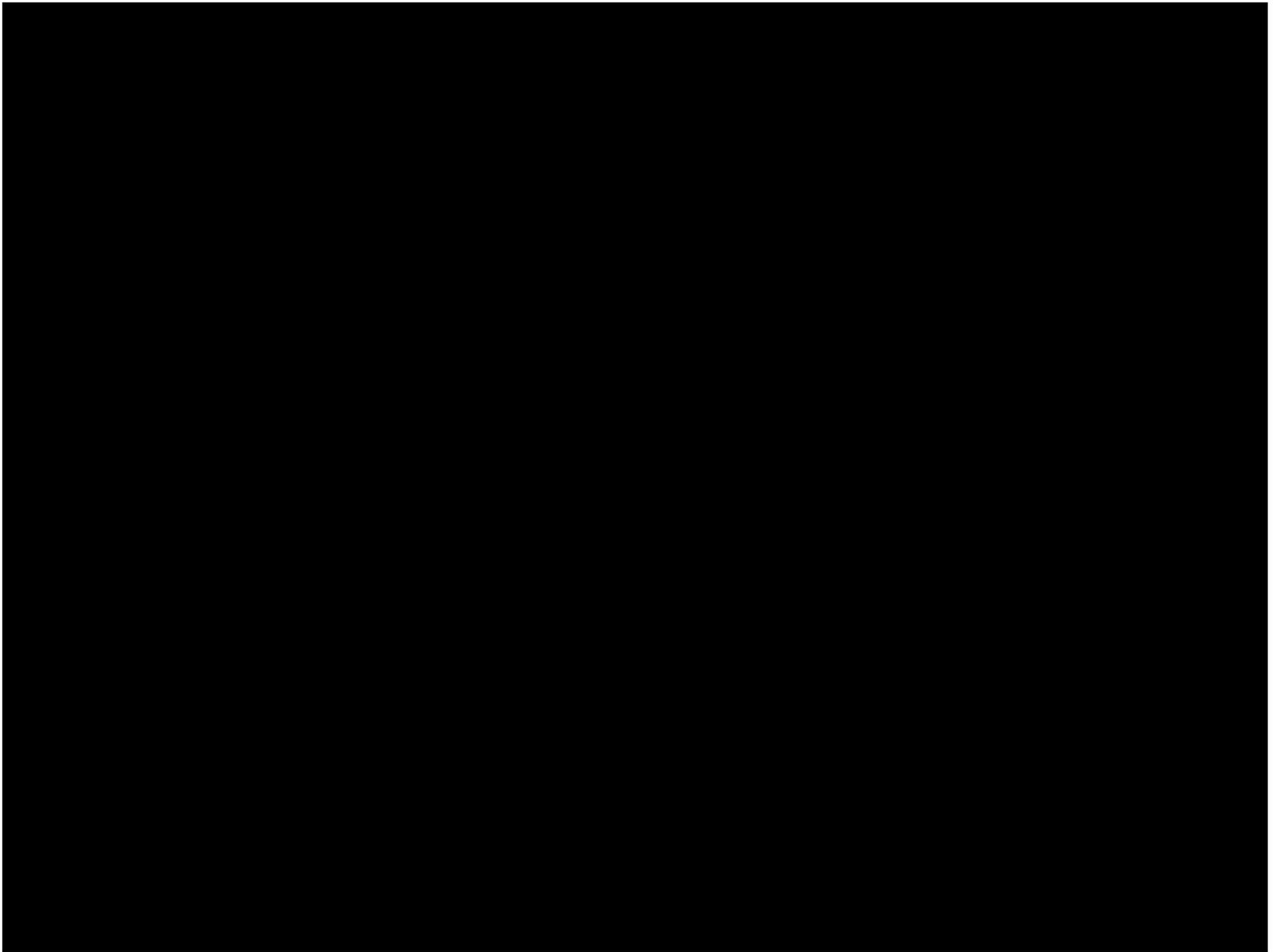
## CC/PY Corridor Transit Alternatives Analysis

### Community and Group Meetings:

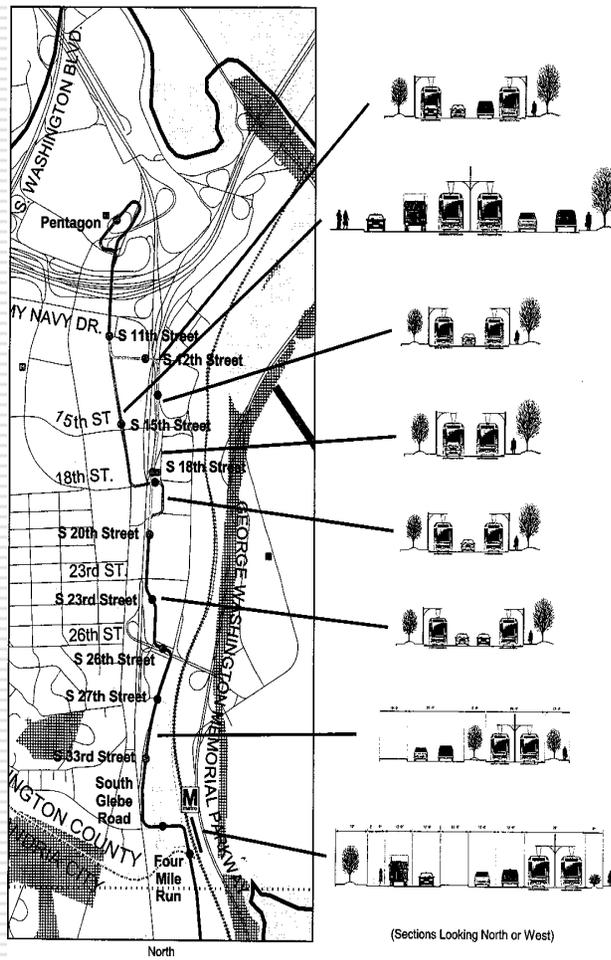
- Alexandria Chamber of Commerce
- Northeast Citizens Association
- Mount Jefferson Civic Association
- Del Ray Citizens Association
- Lynhaven Civic Association
- Colecroft Owners Association

# Crystal City/Potomac Yard Transit Corridor





# Alternatives Analysis Preferred Corridor Alignment

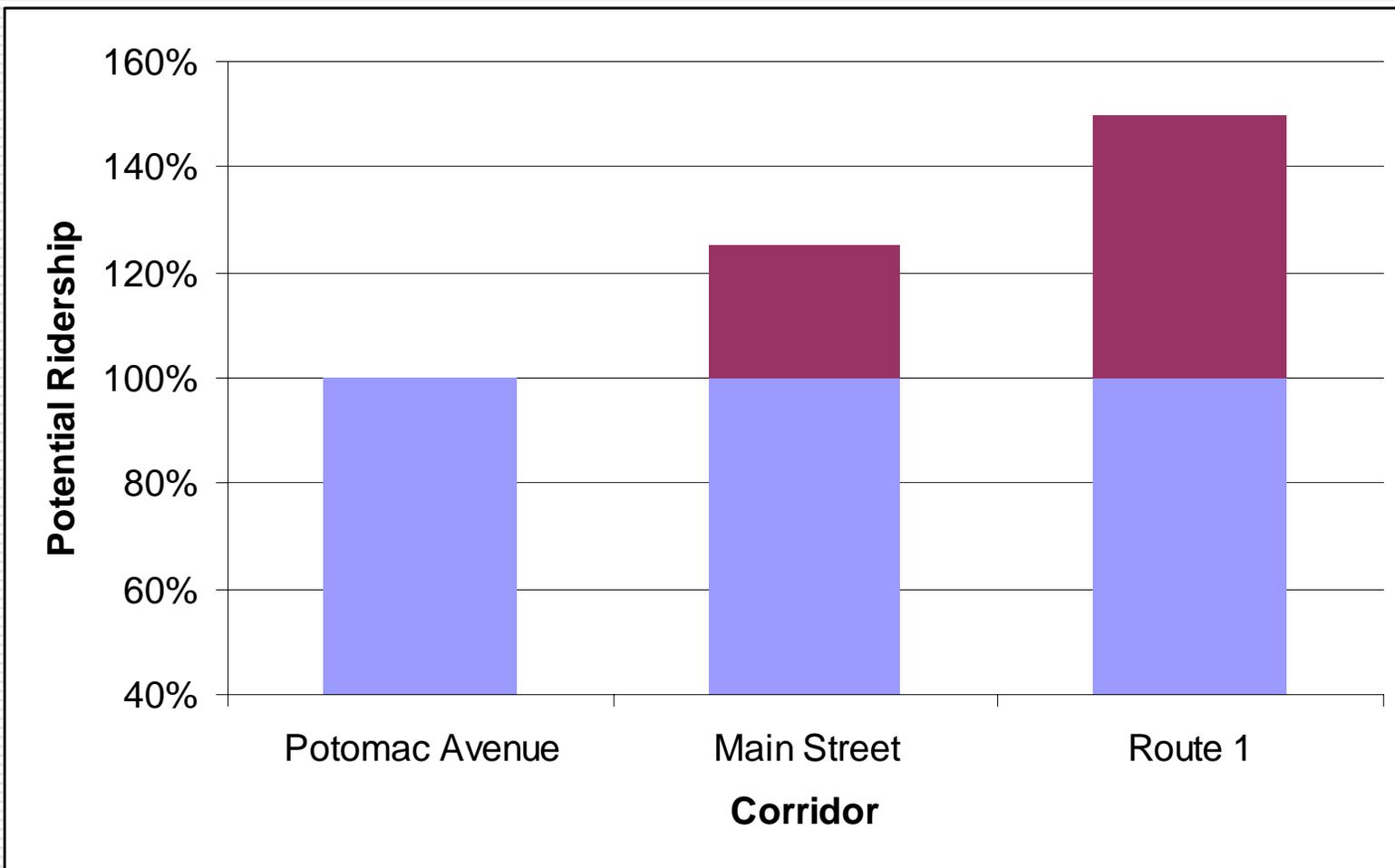


# Proposed Transitway Alignment



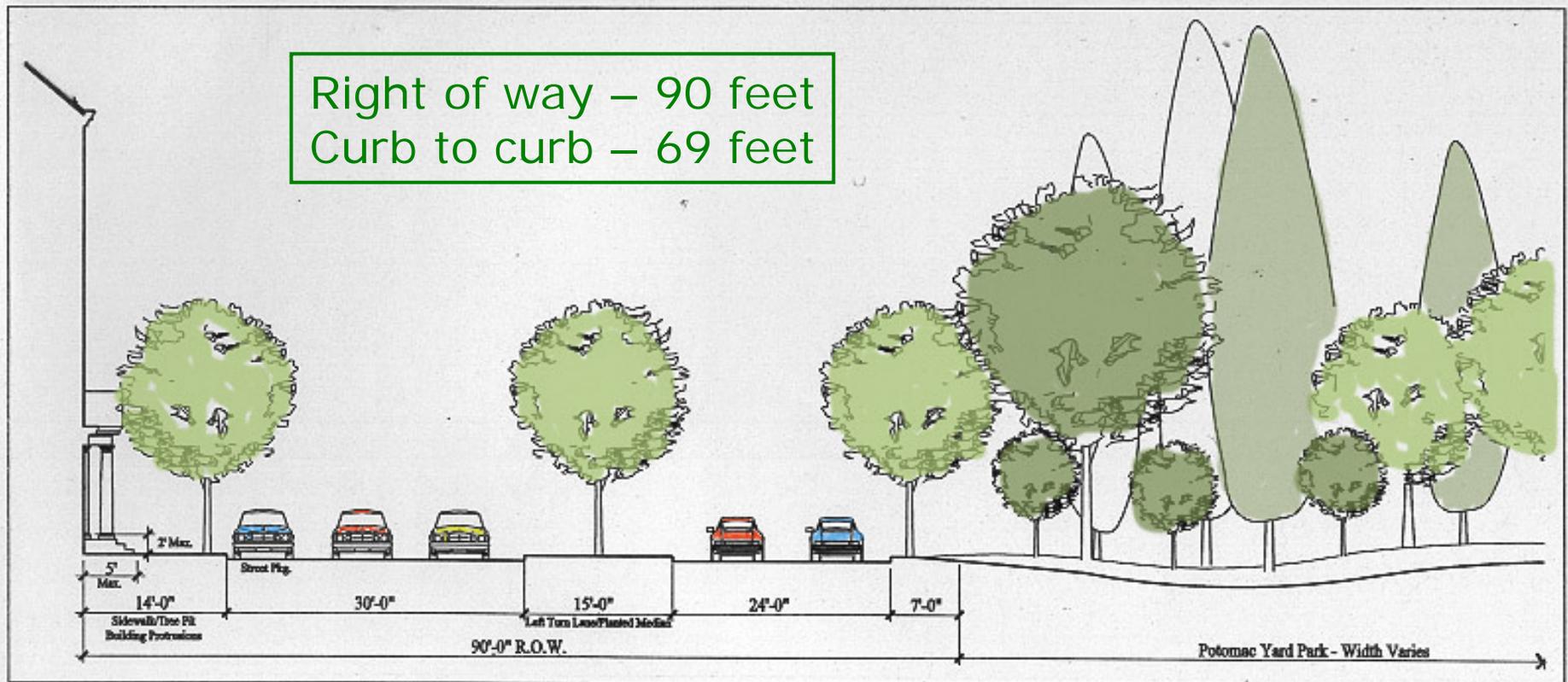
# Why the Route 1 Corridor?

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# Potomac Avenue Design Guidelines

*Curvilinear in alignment and park-like in character."*

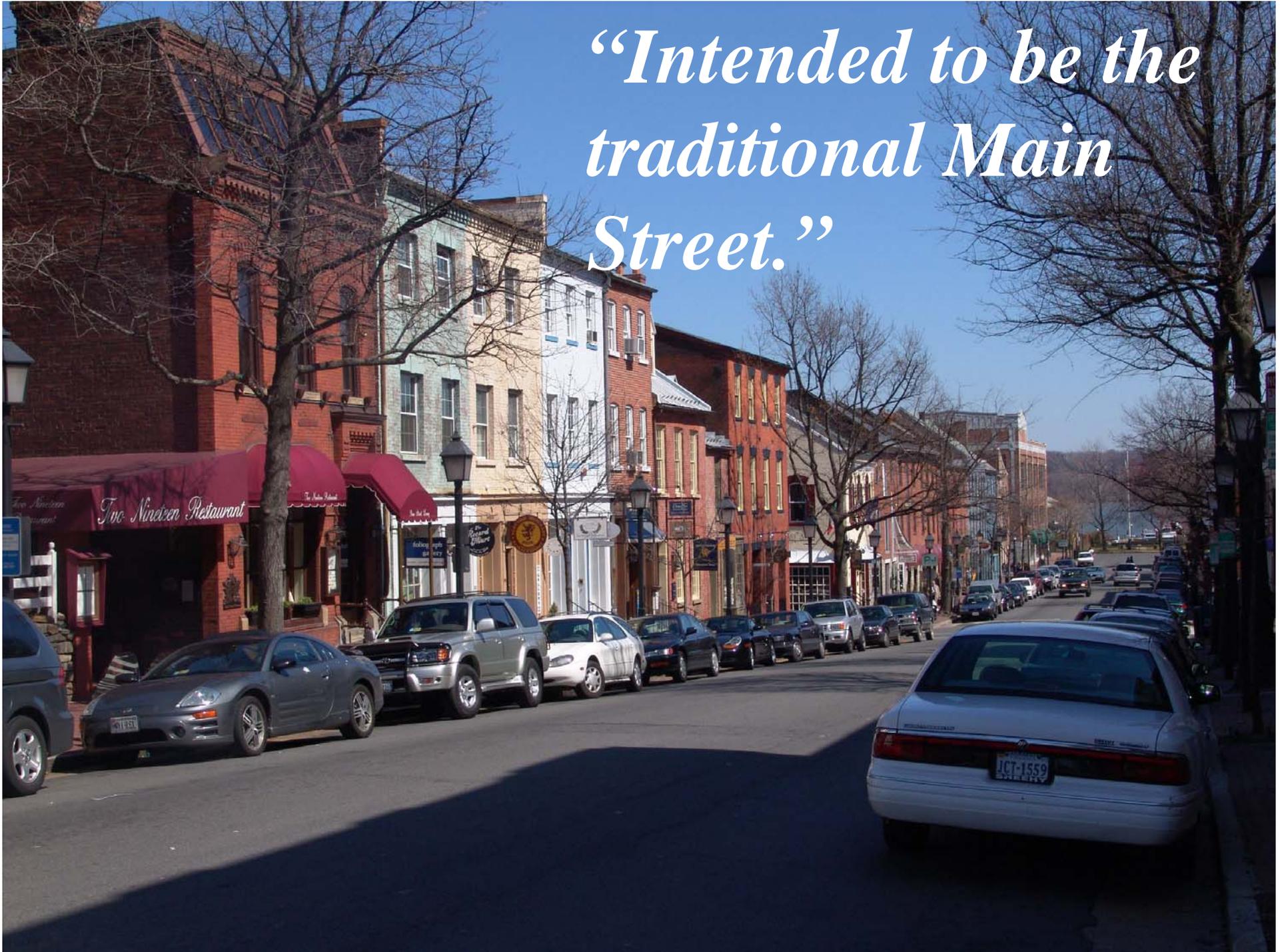


# Alternative Corridor Alignments

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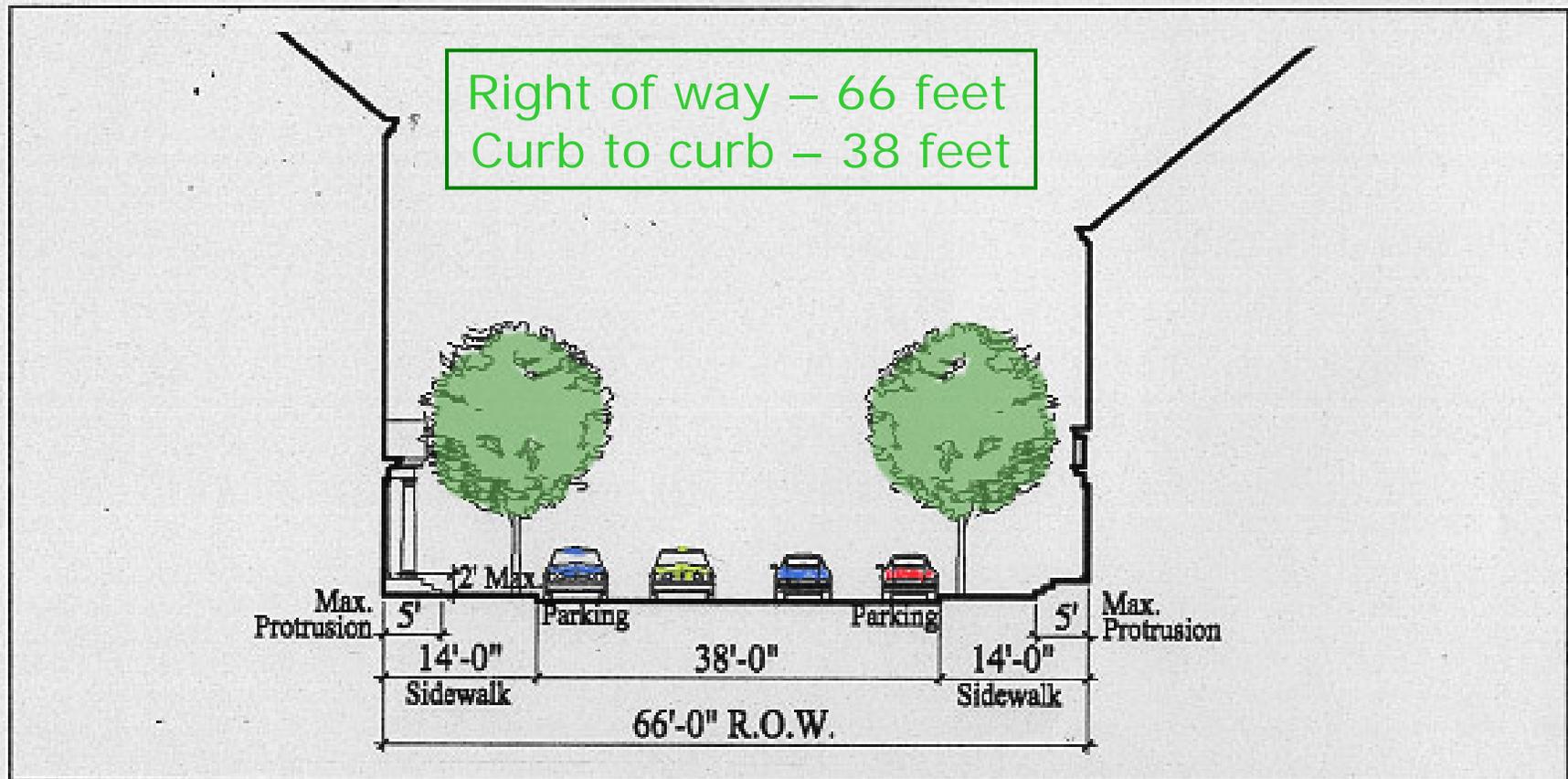
Alignment	Positive Features	Negative Features
Potomac Avenue	<ul style="list-style-type: none"> <li>• Least conflict with existing or future auto traffic.</li> <li>• Could be constructed with no intersections (Type IV).</li> </ul>	<ul style="list-style-type: none"> <li>• Lowest potential ridership</li> <li>• Reduced service area – no ridership on east side.</li> <li>• Would require widening to provide dedicated transit lanes</li> <li>• Widening would eliminate a significant amount of open space –landscaping within the future park to the east.</li> <li>• Widening would result in the reduction or elimination of the central median.</li> <li>• Use adjacent to Potomac Avenue are lower density townhomes and residential uses.</li> <li>• Widening for BRT would eliminate the curvilinear street that was intended to function as a green landscaped Parkway.</li> <li>• Negative impacts for pedestrian crossings to the future park.</li> </ul>

*“Intended to be the  
traditional Main  
Street.”*



# Main Street Design Guidelines

*Intended to be a traditional main street*



# Alternative Corridor Alignments

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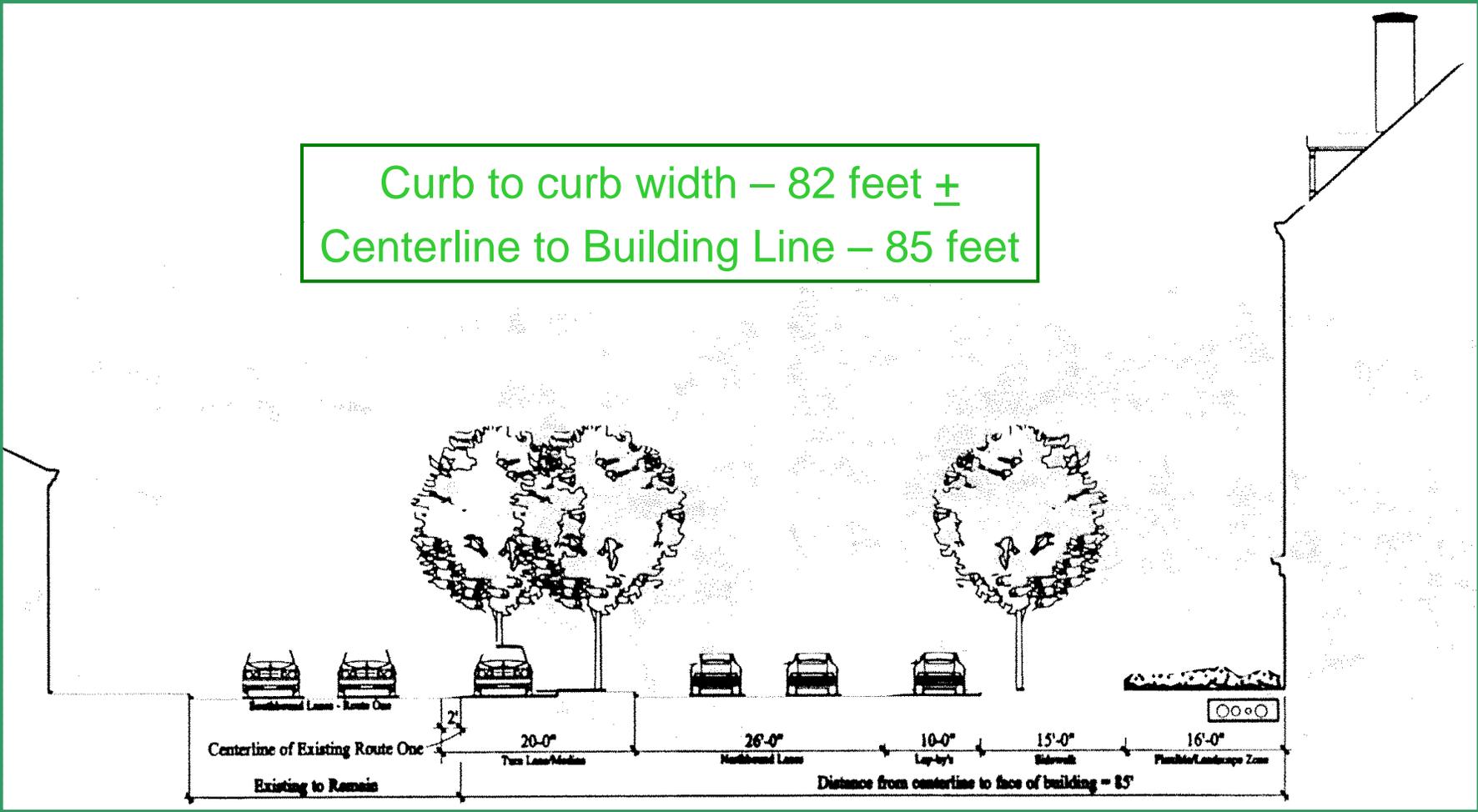
Alignment	Positive Features	Negative Features
Main Street	<ul style="list-style-type: none"> <li>• Increases potential ridership 10% to 25% above Potomac Avenue alignment</li> <li>• Best service to Potomac Yards development.</li> <li>• Best service to commercial areas.</li> <li>• Potomac Yards residents would not need to cross any major roadway to access service.</li> </ul>	<ul style="list-style-type: none"> <li>• A high speed dedicated transit way on Main Street would significantly impact the character of this street as the primary north-south pedestrian spine for the development.</li> <li>• BRT service would eliminate the on-street parking , which will negatively impact the retail uses on Main Street.</li> <li>• Elimination of parking will significantly impact the pedestrian environment and walkability of Main Street.</li> <li>• Express transit operations not compatible with pedestrian focus of Main Street</li> <li>• Would require widening and parking removal to provide dedicated transit lanes.</li> <li>• Residents west of Route 1 would have to fully cross Route 1 to access service.</li> </ul>



*“Urban Boulevard, center median  
and larger right-of-way.”*

# Route 1 Design Guidelines

Curb to curb width – 82 feet ±  
Centerline to Building Line – 85 feet

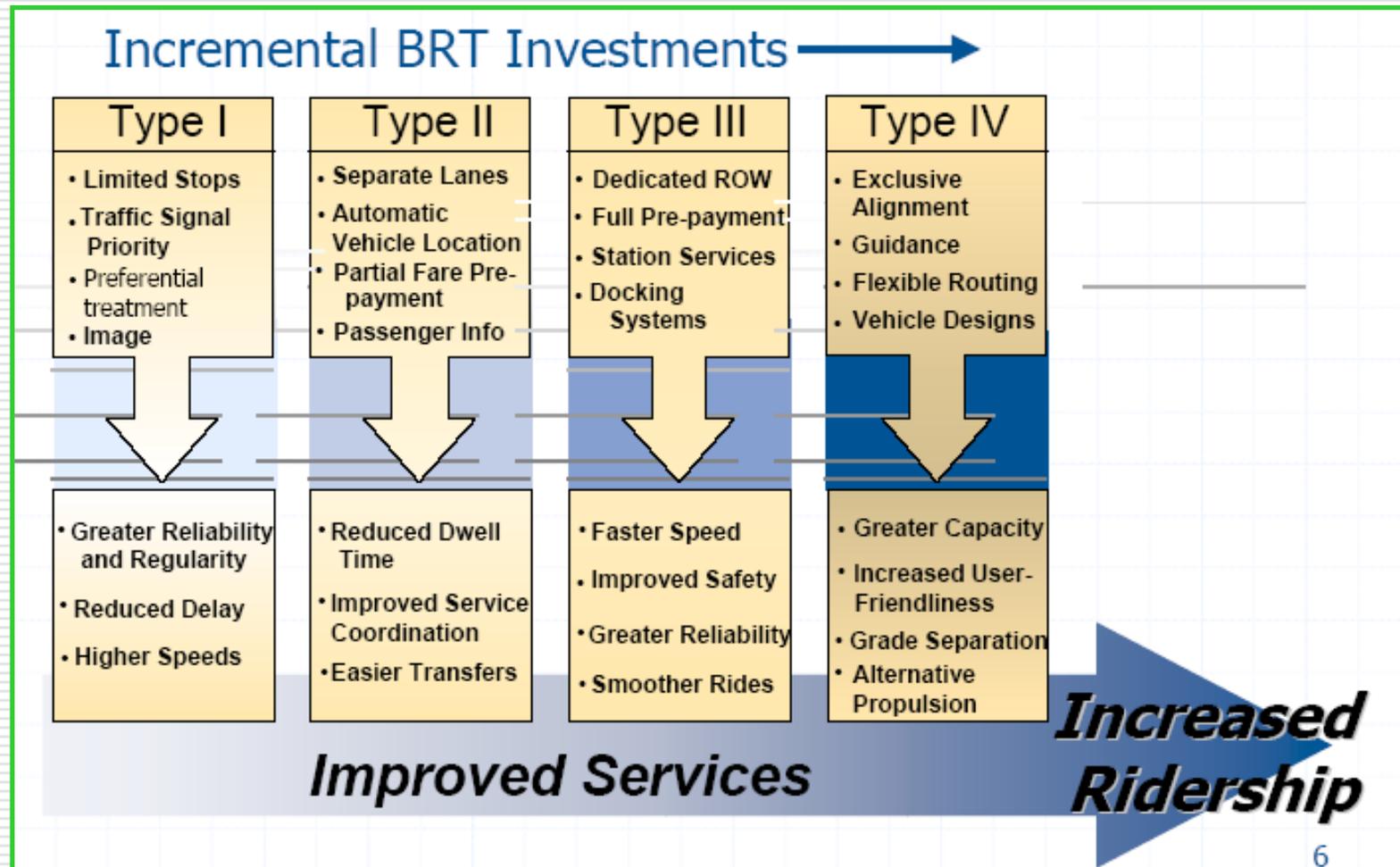


# Alternative Corridor Alignments

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Alignment	Positive Features	Negative Features
Route 1	<ul style="list-style-type: none"> <li>• Increases potential ridership 25% to 50% above Potomac Avenue alignment</li> <li>• Balanced service for both Potomac Yard and areas west of Route 1.</li> <li>• High-capacity transit most compatible with roadway and adjacent uses.</li> <li>• Alignment would best connect to Arlington and Fairfax systems and future BRT.</li> <li>• Higher density (multi-family uses) adjacent to Route 1.</li> <li>• Commercial office and retail uses adjacent to Route 1.</li> <li>• Sidewalk, landscaping and street trees and setback of approximately 30 ft. provided on Route 1.</li> <li>• Stations within the central median enable landscaping and green median to be retained, except where turn lanes are provided.</li> </ul>	<ul style="list-style-type: none"> <li>• Greatest conflicts with auto traffic.</li> <li>• Would require widening to provide dedicated transit lanes.</li> <li>• Transit signal priority could impact turns and cross-traffic.</li> <li>• Impacts to Route 1 frontage and character.</li> </ul>

# BRT Systems

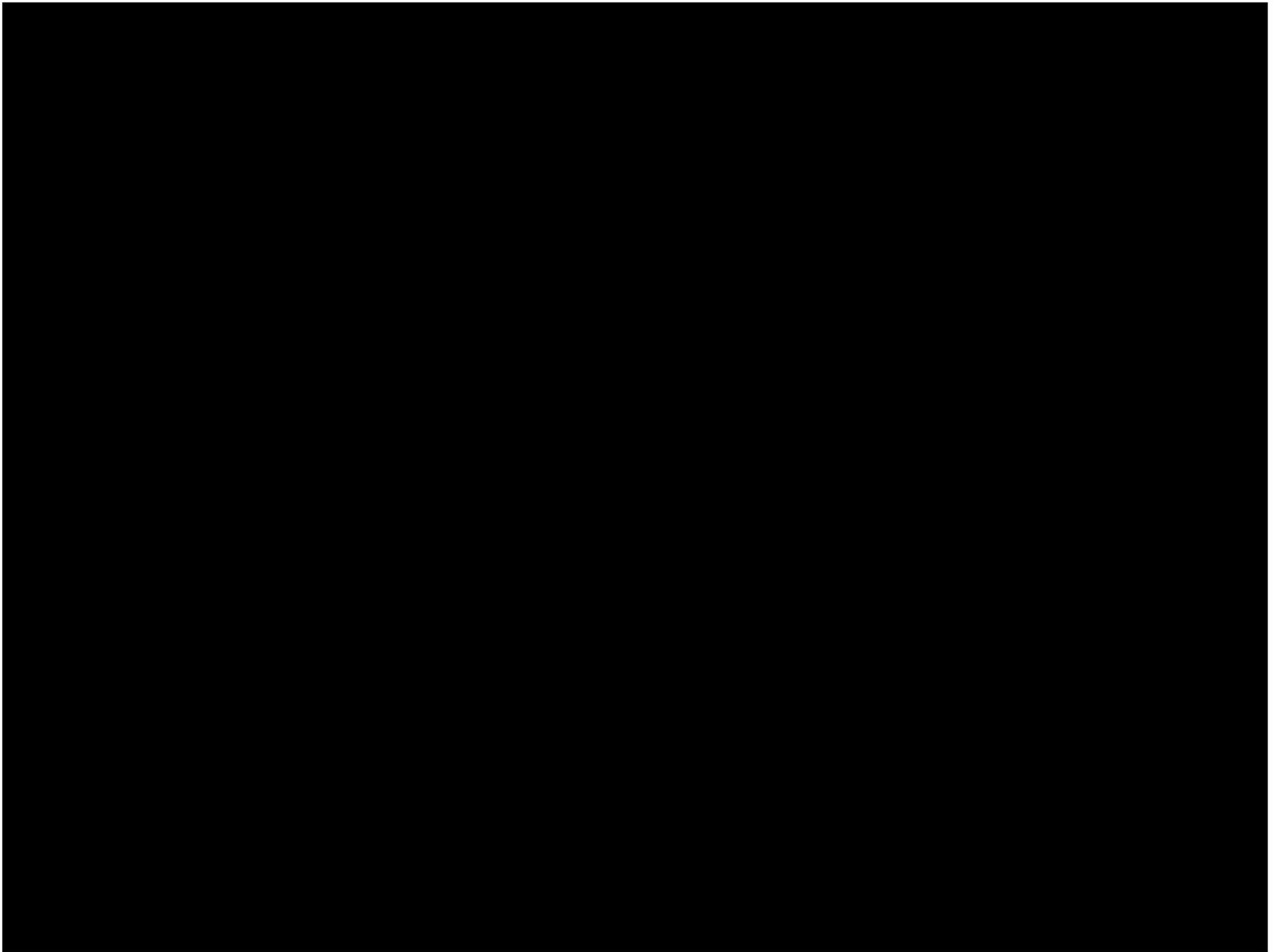


# Bus Rapid Transit vs Light Rail

## Rapid Transit Mode Comparisons

Statistic	Rapid Transit Mode	
	<i>BRT</i>	LRT
ROW Options	Exclusive or Mixed Traffic	Exclusive or Mixed Traffic
Station Spacing	1/4 to 1 Mile	1/4 to 1 Mile
Vehicle Seated Capacity	40 to 85 Passengers	65 to 85 Passengers
Average Speed	15-30 mph	15-30 mph
P/H/D (exclusive ROW)	Up to 30,000	Up to 30,000
P/H/D (arterial)	Up to 10,000	Up to 10,000
Capital ROW Cost/Mile	\$0.2M to \$25M/Mile	\$20M to \$55M/Mile
Capital Cost/Vehicle	\$0.45M to \$1.5M	\$1.5M to \$3.5M
O&M/SH	\$65 to \$100	\$150 to \$200

Source: SpeedLink- A Rapid Transit Option for Greater Detroit. June 2001.



# Alternative Transit Corridor Configurations

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1. Two-way transit corridor in median of Route 1
2. Two-way transit corridor on east side of Route 1
3. Directional transit corridors on east and west sides of Route 1 (northbound on east side and southbound on west side)
4. Directional transit corridors on Route 1 and Main Street (northbound on east side of Route 1 and southbound on west side of Main Street)

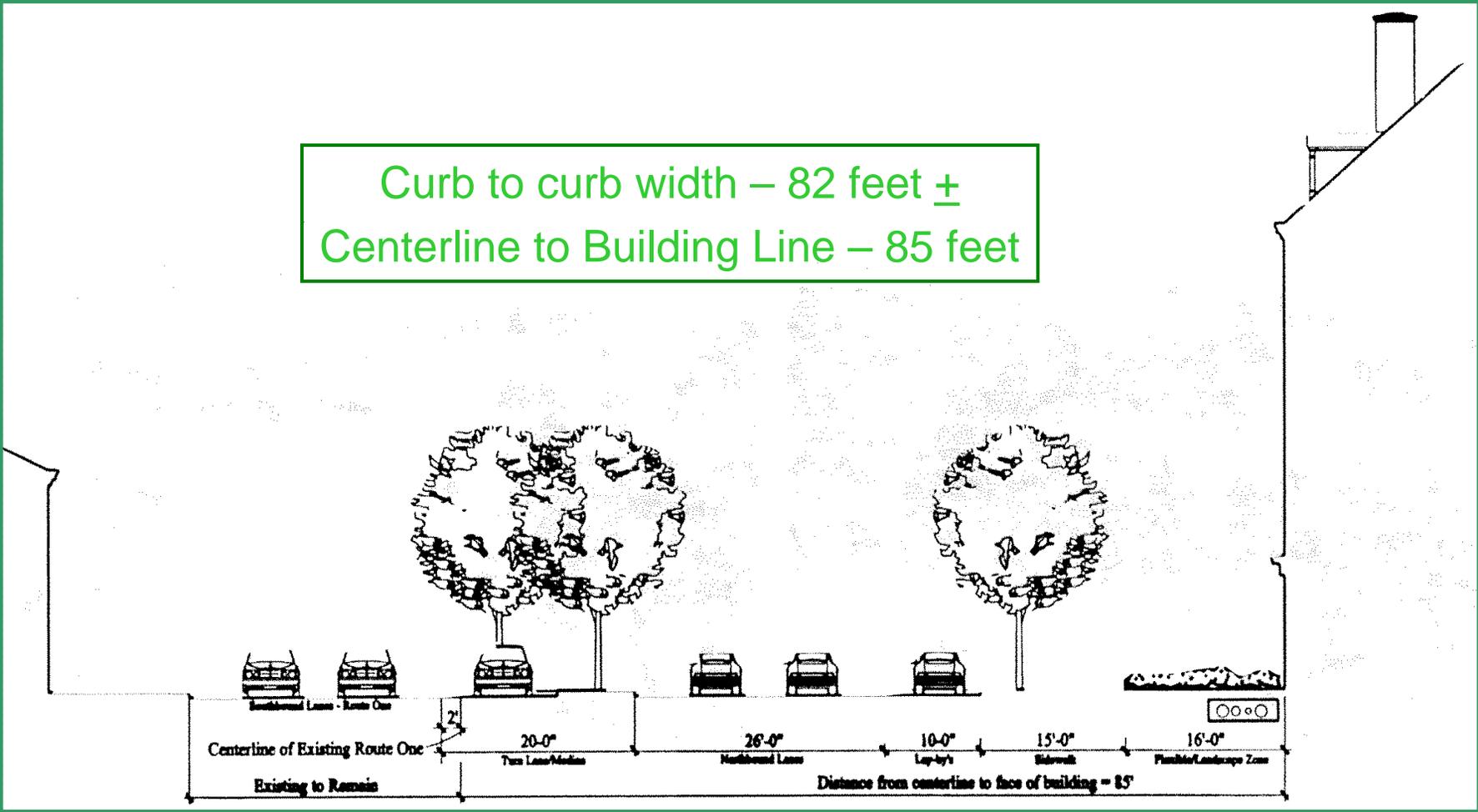
# Considerations

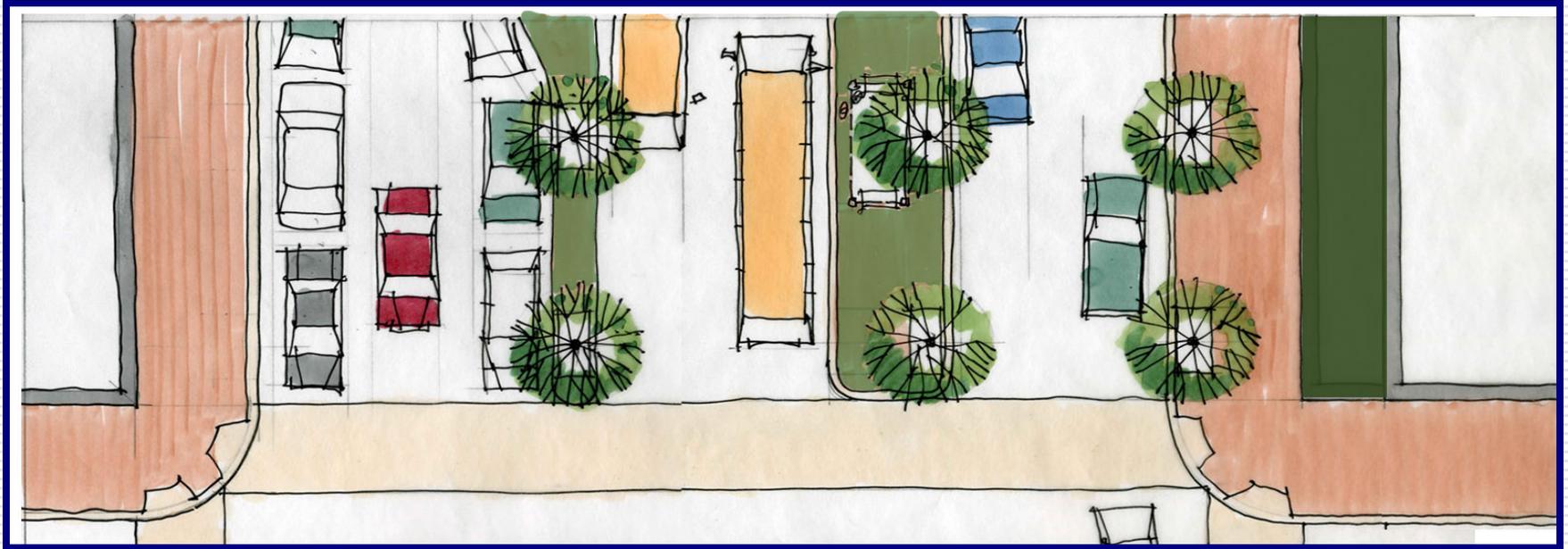
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- ✓ Market area for transit services (potential ridership)
- ✓ Access to transit services
- ✓ Compatibility with adjacent land use
- ✓ Compatibility with street function
- ✓ Impacts on other modes of travel, especially pedestrian and bicycle
- ✓ Impacts on visual environment and landscaping
- ✓ Adaptability to multiple transit systems (i.e. bus rapid transit to light rail)
- ✓ Implementation barriers
- ✓ Efficiency of transit operation

# Route 1 Design Guidelines

Curb to curb width – 82 feet ±  
Centerline to Building Line – 85 feet





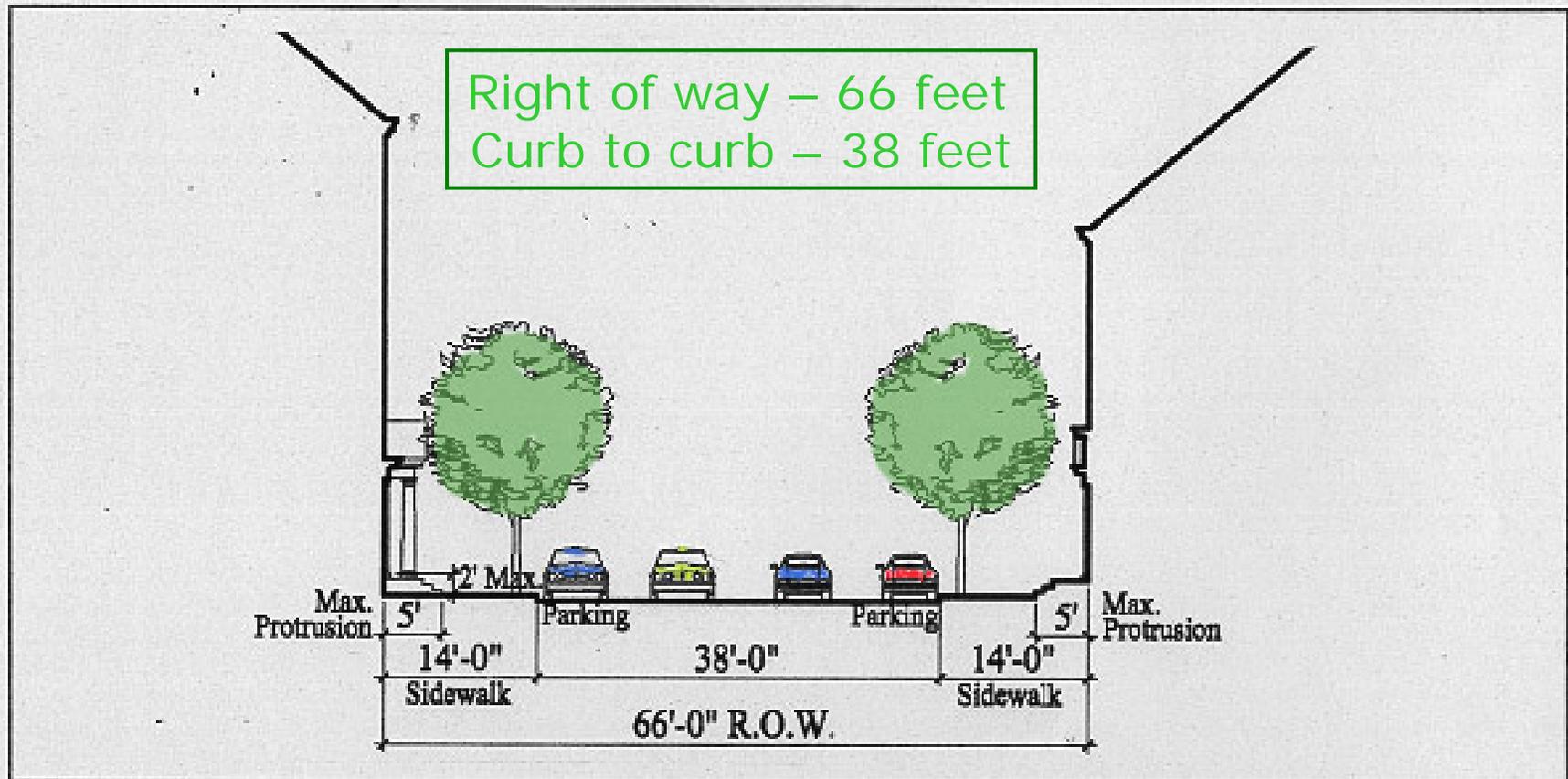
**Median Transit Corridor – Route 1**

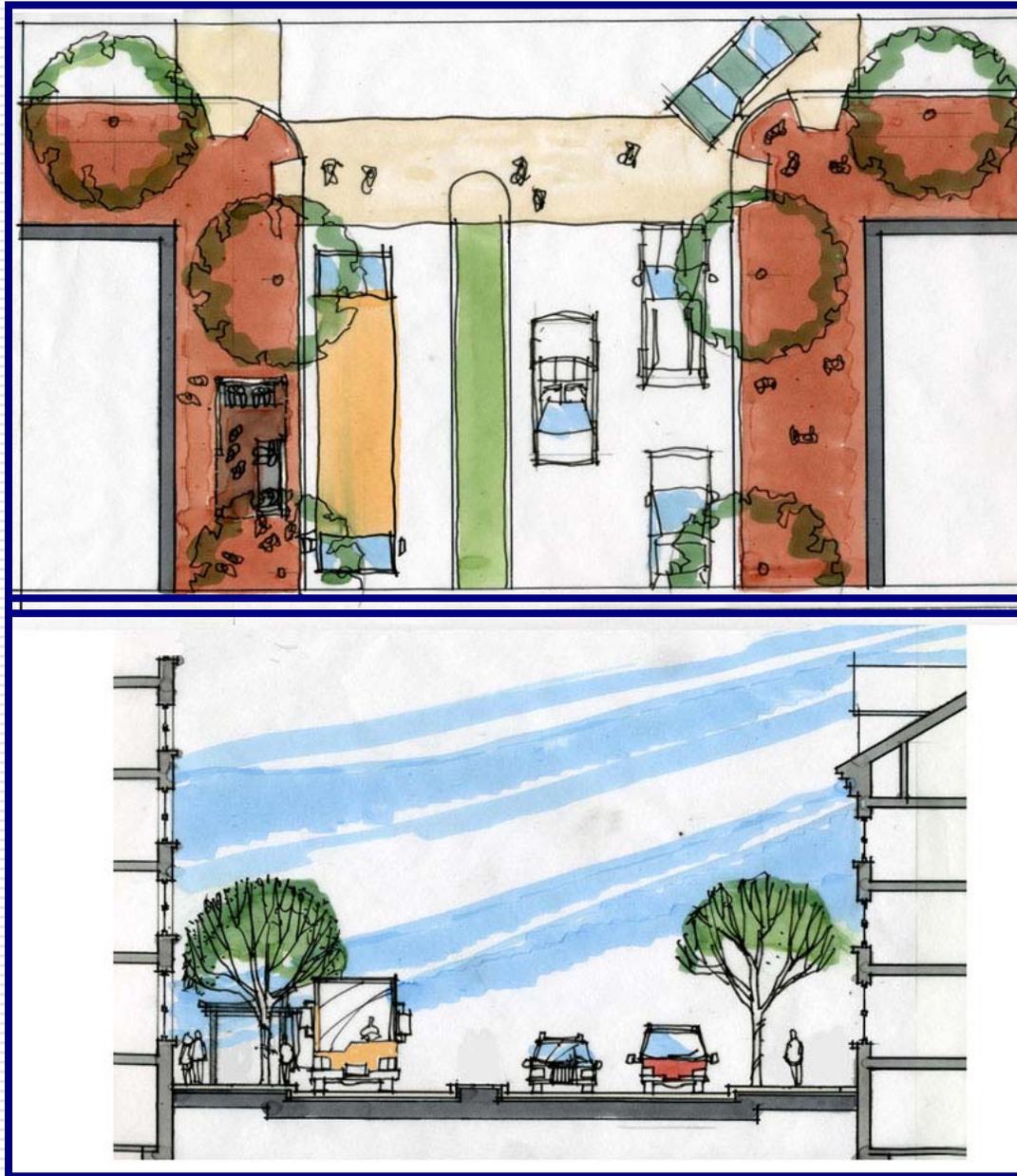


**Curbside Transit Corridor (Two-Way) – Route 1**

# Main Street Design Guidelines

*Intended to be a traditional main street*

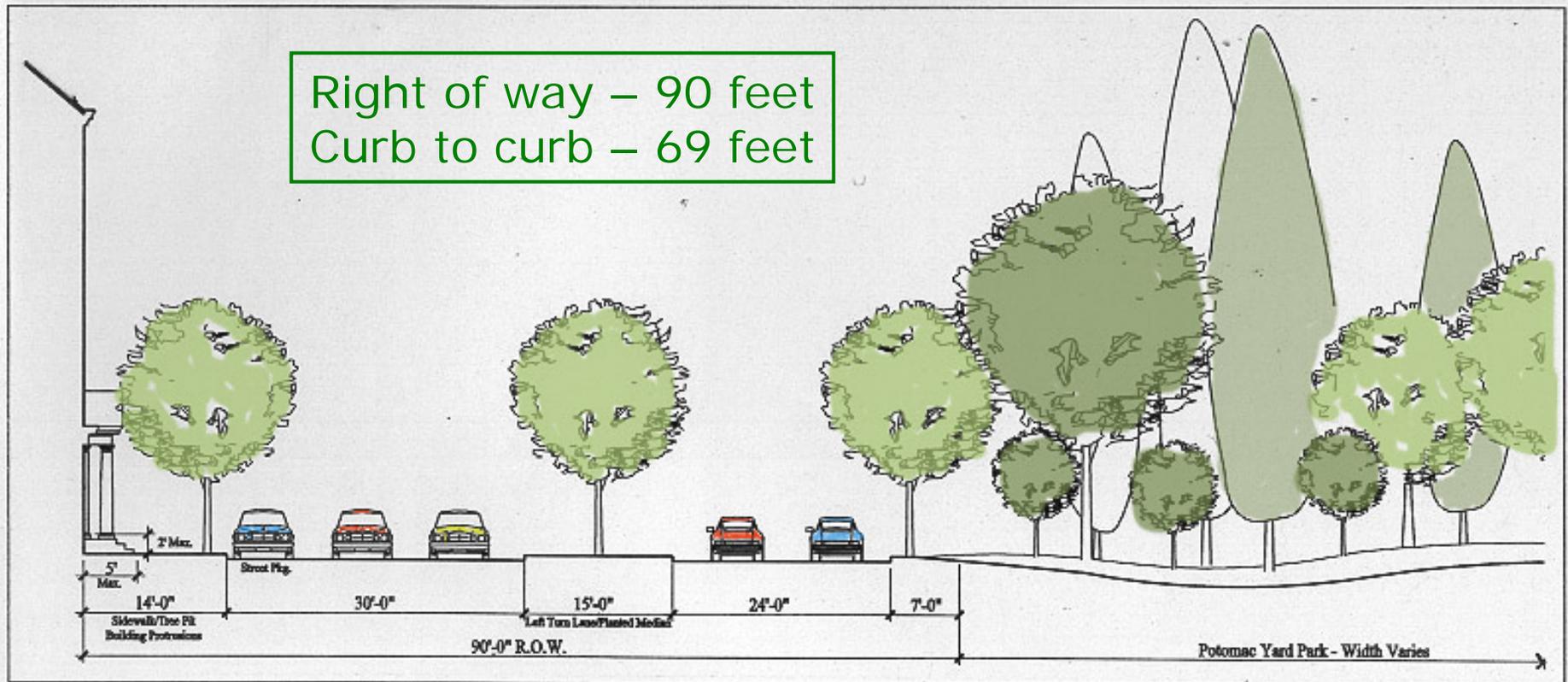


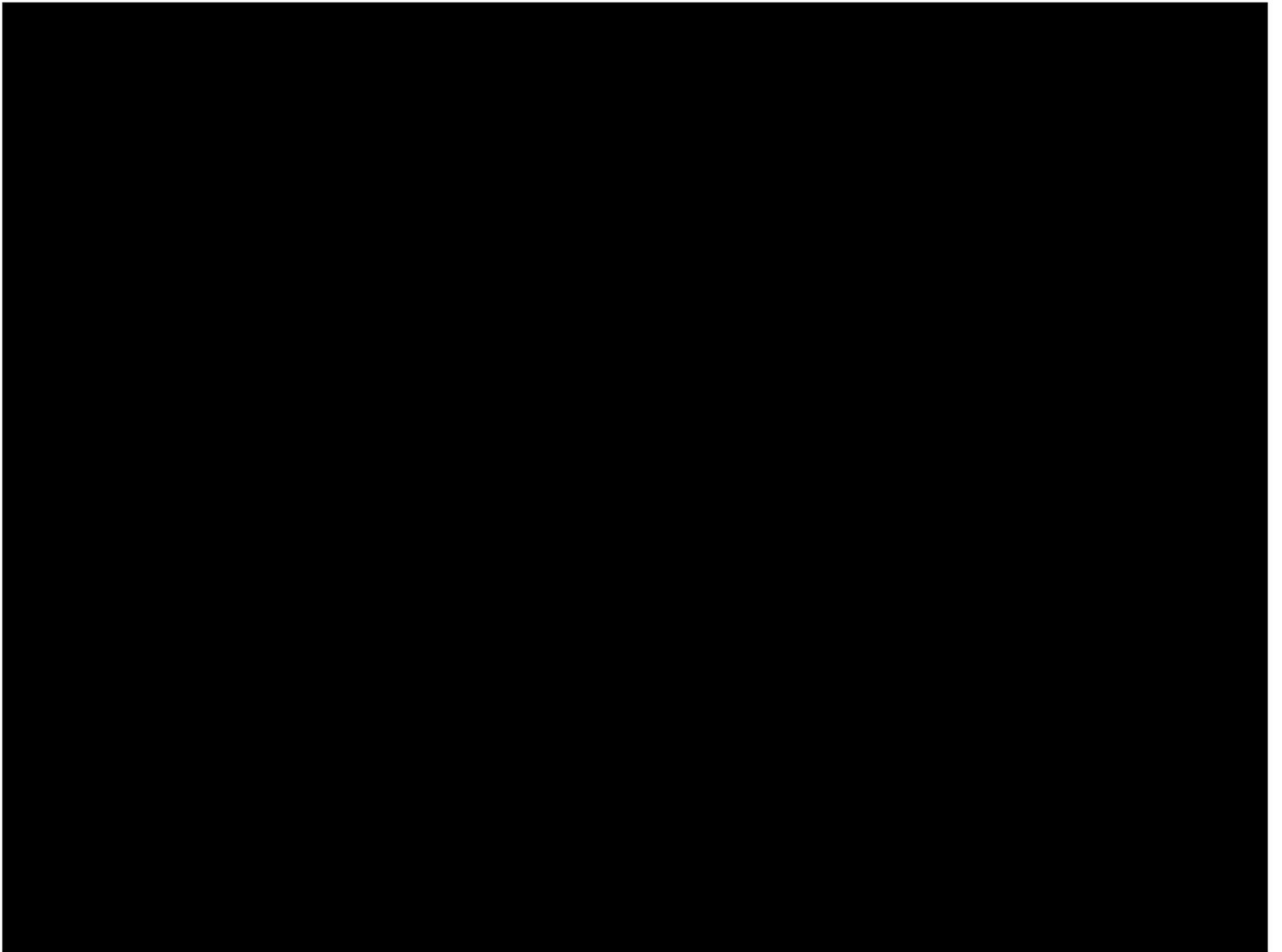


**Curbside Transit Corridor (One-Way) – Main Street**

# Potomac Avenue Design Guidelines

*Curvilinear in alignment and park-like in character."*





Advantages, Disadvantages and Ranking of Alternatives

	<b>Alt 1: 2-Way in Median of Route 1</b>	<b>Alt 2: 2-Way on East Side Route 1</b>	<b>Alt 3: Curbside on Route 1</b>	<b>Alt 4: Split Route 1 &amp; Main Street</b>
<b>Advantages</b>	<p>Creates more green space breaks in the roadway Serves both Potomac Yard &amp; Del Ray Larger sidewalks Better curbside visibility &amp; accessibility Access to Potomac Yard &amp; Del Ray One wide median Most accessible to Potomac Yard &amp; Del Ray Facilitates pedestrian access Consolidate infrastructure &amp; amenities Best route to extend to Braddock Metro Convey &amp; promote service Dedicated right of way Convey &amp; promote service Shortest distance for wheelchair, and everyone else, to cross car traffic Pedestrian crosses only 2 lanes at a time</p>	<p>Advantageous for Potomac Yard residents Better designed for shoppers None Put BRT on curb lanes Reduces pedestrian &amp; turning vehicles conflicts Easy to promote &amp; communicate More sidewalk/median for pedestrians Buses away from cars Locate closest to most potential development Pedestrians more sheltered from vehicles</p>	<p>Easier pedestrian access/safer pedestrian access BRT lanes could be used off hours to accommodate additional HOV capacity or other buses Easiest to implement Serves both Potomac Yard &amp; Del Ray communities Can accommodate <u>CYCLISTS</u> Pedestrian access to transit Easier access for handicap Sidewalk access to BRT Relocate west curb to widen curb Easy to communicate &amp; promote Only if west curb are widened &amp; dedicated <u>lanes</u> Best pedestrian access to buses Largest sidewalks Easiest access to Monroe bridge Only have to cross street once/day Trigger more development on west side Not in middle of street</p>	<p>No one street becomes excessively large Wider sidewalks Who thought of this one? Most accessible for pedestrians Easier to impact Main St. as it hasn't been constructed yet Buses move faster, do not stop across path Gives improved access to businesses, less people on Potomac Ave side Street at more pedestrian scale</p>
<b>Disadvantages</b>	<p>Pedestrian access is difficult/unsafe Widens Route 1 too much (6 lanes) Incongruous with northern connections in Arlington Only stretch in Metro area with this configuration Pedestrian safety in median Awkward return to standard configuration on south side of PY Passenger accessibility Passengers crossing in front traffic Traffic conflict w/ pedestrian movement User discomfort Vehicular conflict w/turns Slows down Route 1 traffic People uncomfortable standing in middle of Route 1 Curb cuts everywhere Left turn lane into Potomac Yard - Does bus override car traffic at lights? Wider street to cross for pedestrians</p>	<p>Disadvantageous for Del Ray residents Widens Route 1 to 6 lanes Awkward turn from Potomac Yard side onto NB Route 1 Awkward return to standard configuration on south side of Potomac Yard Dangerous traffic flow with headlights Smaller sidewalks Median divided into narrow stripes Disorientated drivers Can't easily cross the bridge May not be able to cross at all One side has easy access, one site crosses all of Route 1 twice a day Wider street to cross 2 lanes to cross on east side</p>	<p>Widens Route 1 to 6 lanes Auto/taxi access to curb Lack of visibility for retail business Closer to Del Ray accessibility Power line conflict None that we can think of If curb cuts &amp; widening west curb does not happen – bad plan Everyone crosses all of Route 1 once a day Wider street to cross Limiting access to businesses i.e. gas stations, carry out Traffic crossing lanes how do they deal with this in other cities</p>	<p>Del Ray residents disincentive to use NB route Too “unusual” of a concept for most bus riders Transit divided Main St constrained Takes parking from Main St Significant change to planned character of Main St Less of parking on one side of Main St Less intuitive</p>
<b>Table Preference</b>	0, 50%, 2, #2, 1, No way	2, Least favorable, 3, No, No way	1, 50%, 1, 4 for #1, 3, 3	Tie 3 & 4, Not favorable, 1(2), 2 – favor 5 or 4

**Additional Comments**

	<b>Alt 1: 2-Way in Median of Route 1</b>	<b>Alt 2: 2-Way on East Side Route 1</b>	<b>Alt 3: Curbside on Route 1</b>	<b>Alt 4: Split Route 1 &amp; Main Street</b>
	Too much death potential	Unrealistic	Move road to make west sidewalk as wide as east sidewalk	Need more information
<b>Comments</b>	<p>Preference for busses to stay on Route 1 from South Glebe to Clifford Ave rather than divert to Potomac Ave and extend BRT the entire length</p> <p>Concern over accessibility for wheelchair patrons on all alternatives</p> <p>Each alternative favors Arlington commutation</p> <p>BRT will not run 24 hrs/day</p> <p>Go back to square 1 and design BRT &amp; dedicated transit way before finalizing plans! “Transit Access by Design”</p> <p>Alternative fuels – hybrids/electric</p> <p>Alt 5: Split Route 1 &amp; Potomac Avenue</p> <ul style="list-style-type: none"> <li>    Closer to Potomac Greens, bridges &amp; Route 1</li> <li>    More scenic</li> <li>    Closer access to park</li> </ul> <p>Look at transit way on Main Street (Alt 6)</p> <p>Environmentally safe buses</p>			