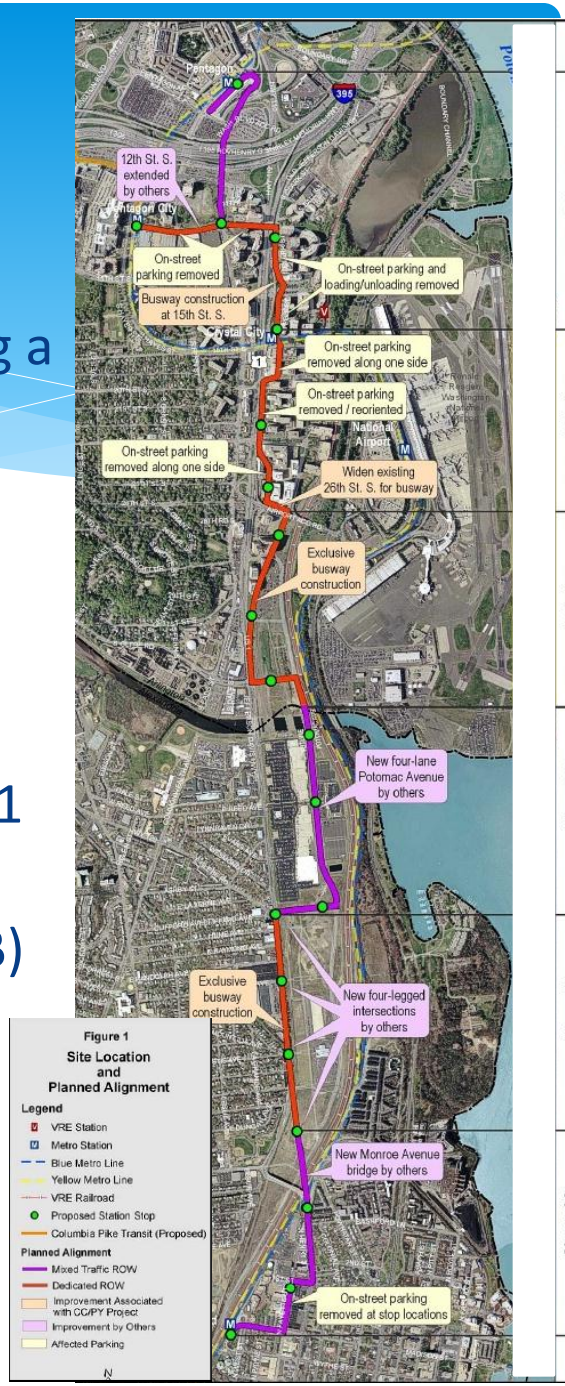
City of Alexandria, Virginia

Route 1 Bus Rapid Transit-60% Design Review

Public Meeting
April 18, 2012

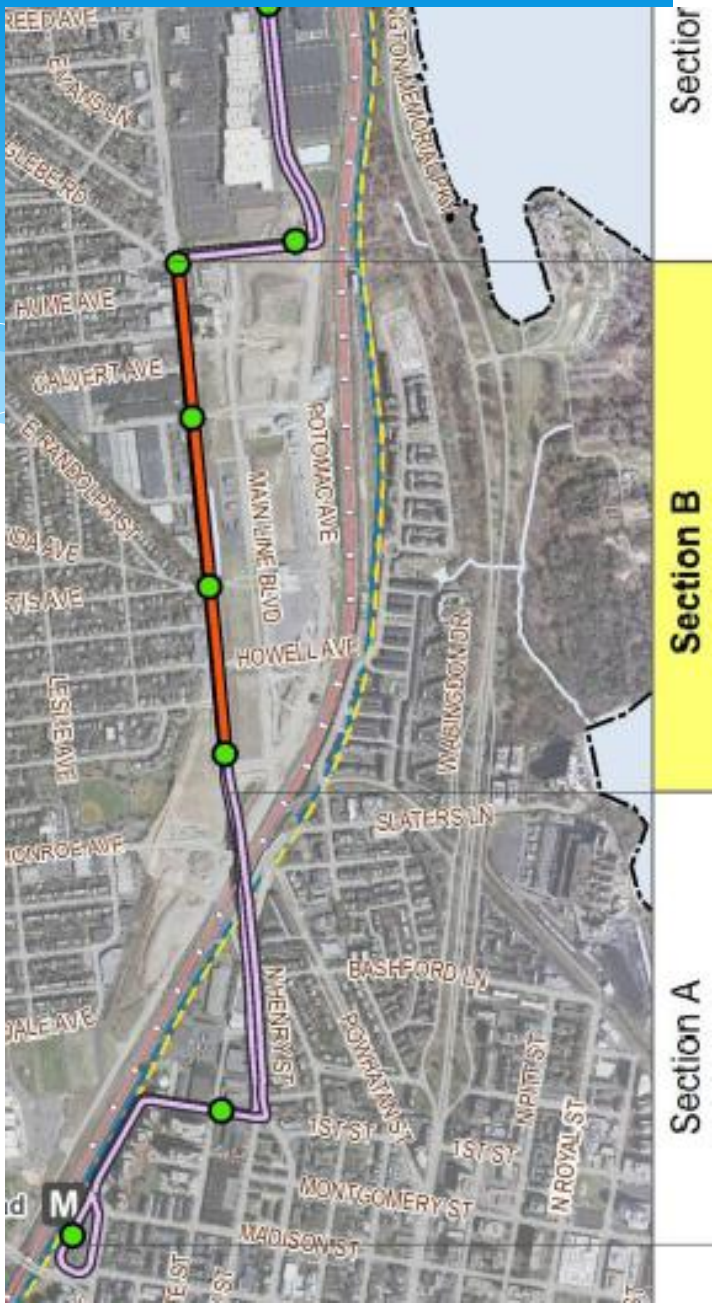
Overview

- City of Alexandria City Council approved building a Bus Rapid Transit facility in Route 1 within the median (April, 2011).
- Crystal City-Potomac Yard (CCPY) Transitway – 5-mile length of priority transit service between Pentagon City and Braddock Road Metrorail Stations.
- TIGER grant (federal stimulus money) for Route 1 Bus Rapid Transit (BRT) facility - $8.5 million.
- Route 1 BRT is a portion of the CCPY (Segment B) from Potomac Avenue to East Glebe Road.
- Design-Build contract began in November 2011; construction scheduled to begin in July 2012; with an opening date of December 2013.



Project Specifics

- Route 1 northbound being widened by Potomac Yard South Developer. Northbound lanes will be relocated to the east. Existing northbound lanes will be repurposed for Bus Rapid Transit lanes.
- 2-lane transit-only corridor with 12-foot landscaped medians on either side of corridor. Medians will taper to allow for left-turn lanes at signalized intersections.
- 7 stations within section
  - East Glebe Rd – SB only
    (NB located in Potomac Yard)
  - East Swann Avenue – two stations – far side
  - East Custis Avenue – two station – far side
  - Potomac Avenue – two stations –
    both on north side of intersection.
- Station design under separate contract.

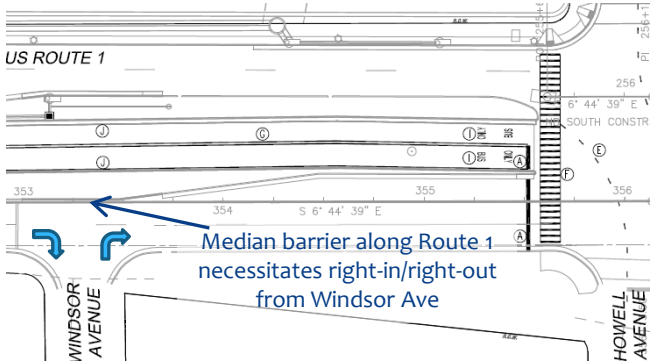


Design - Build Contracts

- Allows for single point of contact for design and construction of the facility.
- Allows for acceleration of design and construction process.
- Contractor has direct input into the design phase – minimizes re-work during construction phase.

Access to/from Route 1

- Access to/from Route 1 will remain as existing with the following exceptions:
  - Signalized intersection at Hume Street is removed and movements are replaced with right-in/right-out only.
  - Right-in/Right-out will be required at:
    - Hume Avenue
    - Raymond Avenue
    - Windsor Avenue
    - Bellefonte Ave

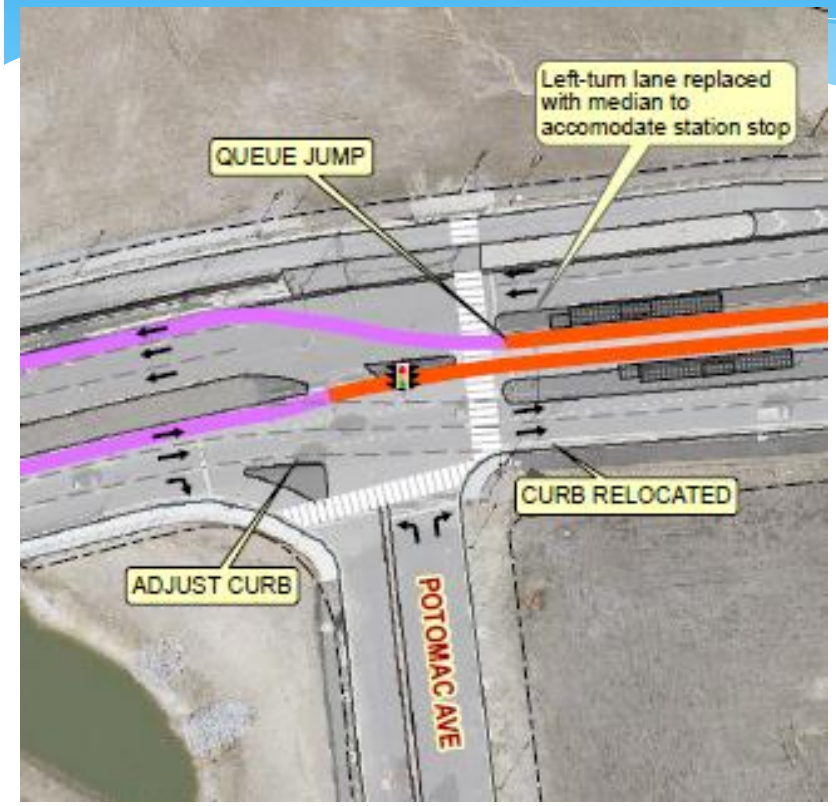


- Transit access to BRT lanes at Potomac Avenue and East Glebe Road
- Emergency Services can utilize BRT lanes

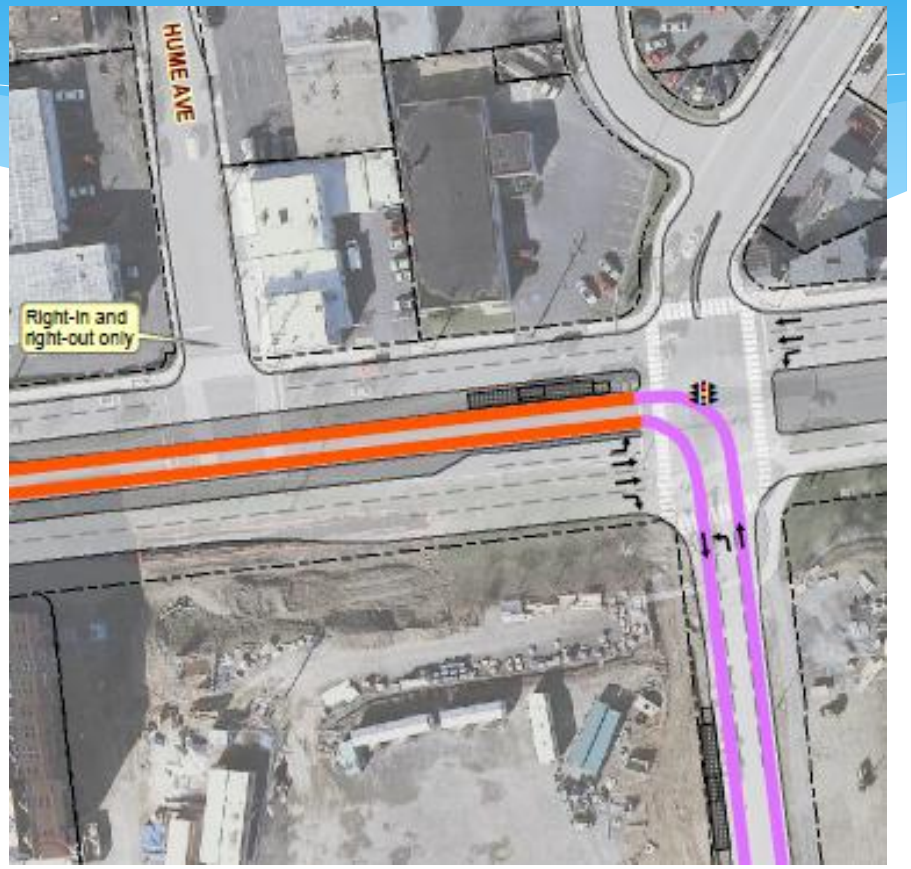
Elements of the Project

- Median dedicated Bus Rapid Transit (BRT) lanes providing service that is:
  - fast
  - reliable
  - safe
- Pedestrian safety and accessibility
- Maintain urban boulevard character of Route 1
- Maintain adequate traffic flow on Route 1
- Provide environmentally and context-sensitive design elements
- Set a standard for future transitway(s) within City

Entrance/Exit of Transitway



At Potomac Avenue



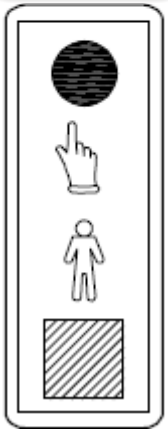
At East Glebe Road

Note: the graphics shown above are from the Categorical Exclusion document for the CCPY Transitway. The design of the transition at Potomac Avenue northbound currently includes removing part of the median for a bus-only pocket directly across from the BRT lanes and maintaining the current two-thru and one-right turn only lanes for vehicles. At East Glebe Road, the westbound direction is currently designed to include one left turn only lane and one left-thru lane.

Pavement Design

- For transitway – concrete preferred for:
  - Durability
  - Lifespan under bus operations
  - Distinctive features can be added (color)
  - Visual distinction from NB/SB travel lanes.
- Colored concrete at station platform to further draw eye to station as a user and delineate from NB/SB lanes.
- Colored concrete for crosswalks on Route 1 to alert vehicles to the presence of pedestrians.

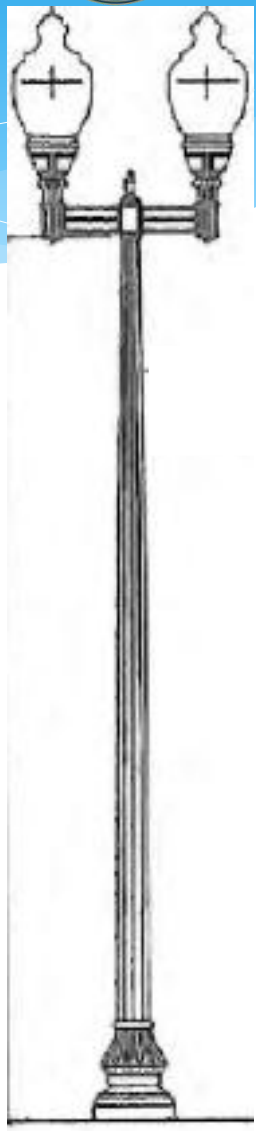
Pedestrian Amenities



- Colored concrete crosswalks along Route 1
- High emphasis crosswalks on cross-streets to Route 1
- Countdown pedestrian signals
- High-visibility pedestrian-crossing signage
- Additional time allocated to pedestrians in the signal timing
- Additional lighting at stations
- Landscaping to direct pedestrians to use crosswalks
- Way-finding signage at the stations

Schematic of Route 1 in Vicinity of Transit Stops

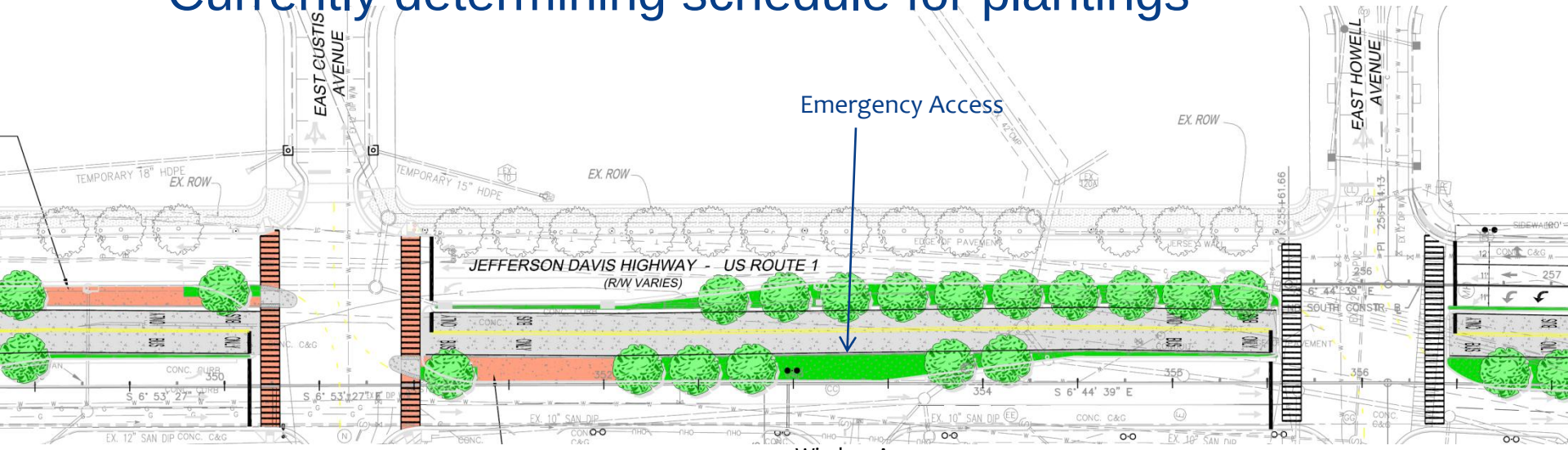
Lighting

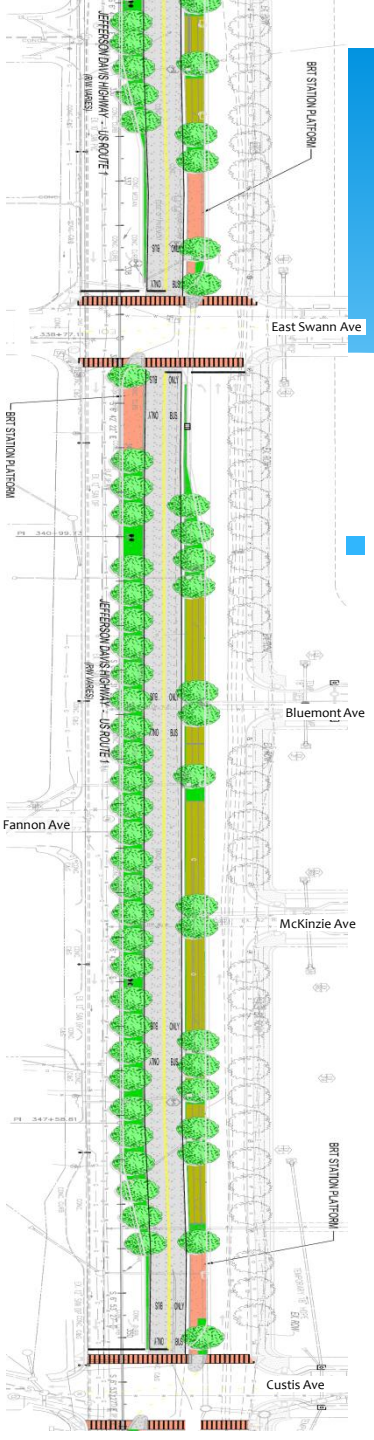


- Concentrated at station locations and crosswalks.
- Along transitway, minimal additional lighting. Proposed double acorn lights if needed.
- Lighting at stations to be at 2.0 luminosity (same as parking lot lighting level).

Landscaping

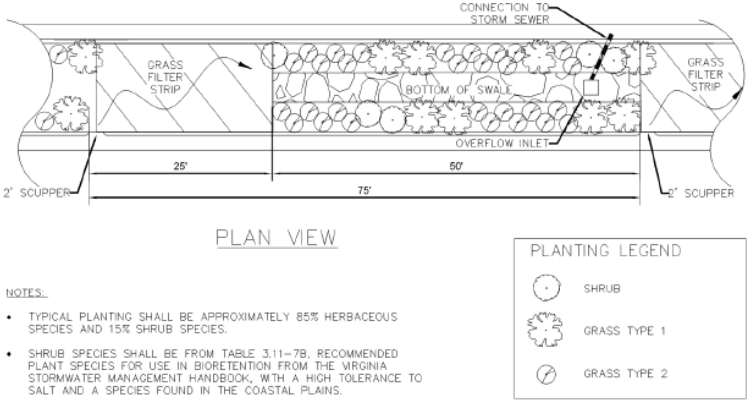
- Trees in both medians will mimic east side of Route 1 except due to:
  - Emergency Access needs (Hume Ave; Raymond Ave; Windsor Ave; Bellefonte Ave)
  - Need for lightpoles
- Currently determining schedule for plantings





Stormwater

- Required by State Watershed Implementation Plan to treat as much stormwater as possible affecting Chesapeake Bay.
  - South of Maskell flowing to Pond 2
  - North of Howell flowing to Pond 3
  - Only small location available for stormwater treatment



NOTES:

- TYPICAL PLANTING SHALL BE APPROXIMATELY 85% HERBACEOUS SPECIES AND 15% SHRUB SPECIES.
- SHRUB SPECIES SHALL BE FROM TABLE 3.11-7B, RECOMMENDED PLANT SPECIES FOR USE IN BIORETENTION FROM THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK, WITH A HIGH TOLERANCE TO SALT AND A SPECIES FOUND IN THE COASTAL PLAINS.
- HERBACEOUS SPECIES SHALL BE FROM TABLE 3.11-7C, RECOMMENDED PLANT SPECIES FOR USE IN BIORETENTION FROM THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK, WITH A HIGH TOLERANCE TO SALT.

For more information on this project or other capital or planning projects in Potomac Yard see:

www.alexandriava.gov/potomacyard

THANK YOU

COMMENTS / QUESTIONS?