



# **Dominion 230kV Underground Transmission Line**

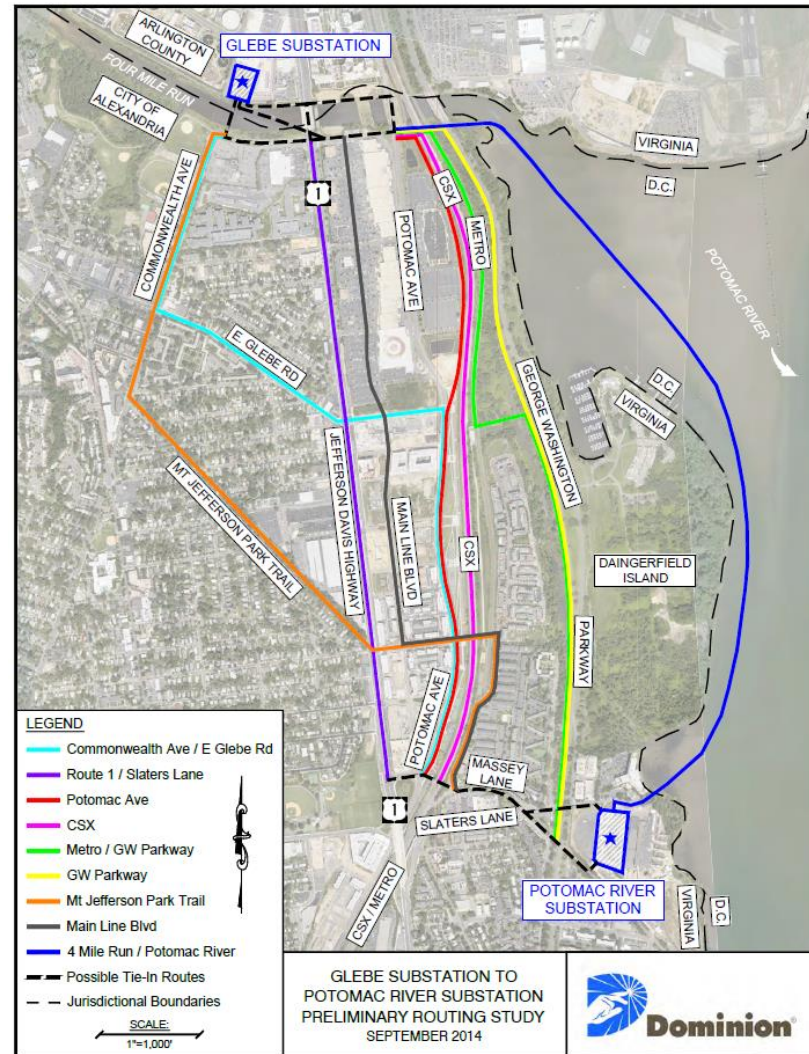
City Council  
May 8, 2018

# Overview

- **Resolution** recommending Potomac Avenue as a 'least objectional alternative' for Dominion's proposed 230kV line
- **Memorandums of Agreement** for terms and process

# Background

- **June 2014:** Project proposed & Working Group established to review 9 alignments
- **May 2016:** City adopts resolution opposing overhead lines, selects CSX railroad corridor as 'least objectionable'
- **December 2017:** Dominion update with major project changes
- **2018:** Working Group reestablished to reconsider Potomac Ave



# 2018 Process

- **Working Group**

- Reconvened for January – March
- Reps from community, business, boards
- January: Decision to hear proposal
- February: Q&A format, informational
- March: Voted 6-2 to reconsider Potomac Ave.

- **Open House (April)**

- Recent community outreach to address remaining specific concerns (EMF)

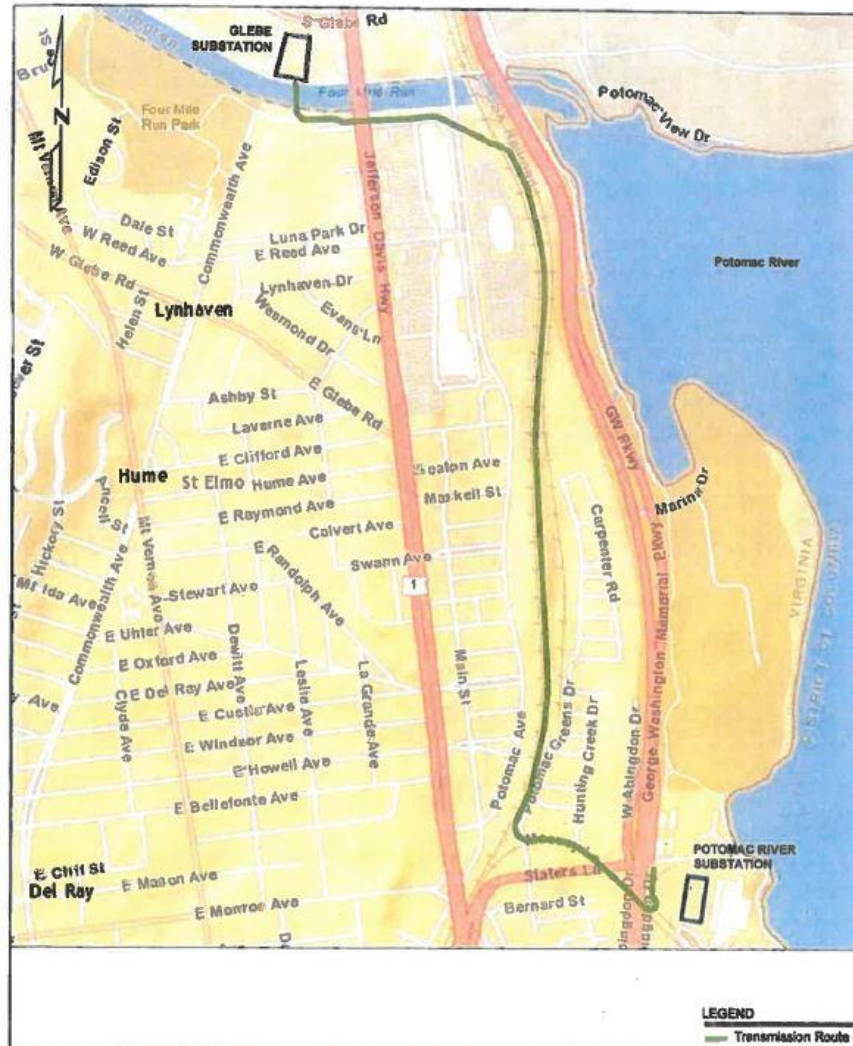
# Potomac Avenue Alternative



- Primarily open trench
- 9-12 months on Potomac Ave, 1-2 blocks at a time (3 years total)
- Underground lines in Four Mile Run, relocate substation

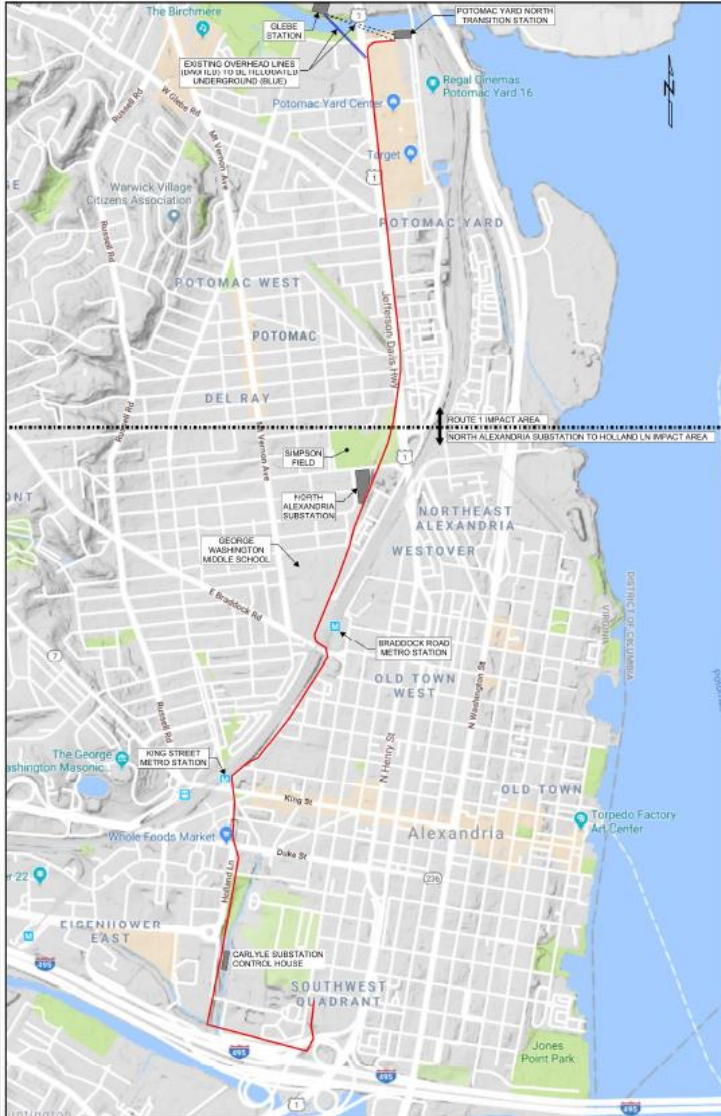


# Railroad Corridor Alternative



- Microtunneling
- CSX coordination
- Fewer impacts to City property
- 3 years construction
- Underground lines in Four Mile Run, relocate substation

# Rebuild Alternative



- Excavation
- 3-4 years with work from Carlyle to Potomac Yard
- 24/7 work at 11 manholes, traffic disruption
- Underground lines in Four Mile Run, relocate substation

# Route Comparison Chart

	Potomac Avenue	Railroad Corridor	Rebuild Alternative
<b>Construction Type:</b>	Primarily open trench	Microtunnel	Underground & excavation
<b>Duration:</b>	3 years, mainly at substations (9-12 months on road), 2 blocks at a time	3 years, mainly at substations	3-4 years, double work (one circuit at a time)
<b>Traffic &amp; Construction Impacts:</b>	Daytime lane closures; temporary impacts to park	Daytime; no night work expected	Night & day construction, 72+ days lane closures on Route 1, temp impacts to parks, neighborhoods
<b>Cost:</b>	\$330 million	\$420 million	\$290 million

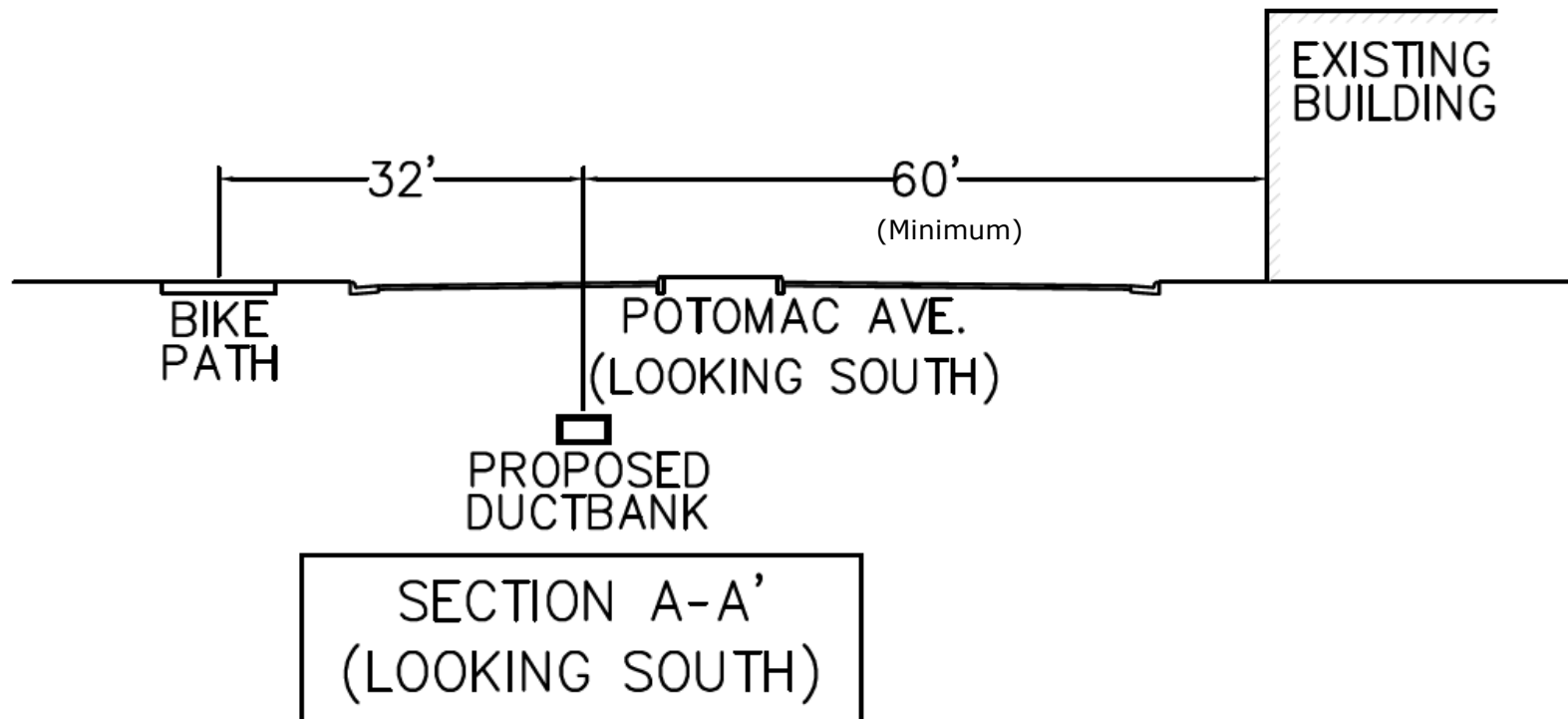


# Primary Concerns

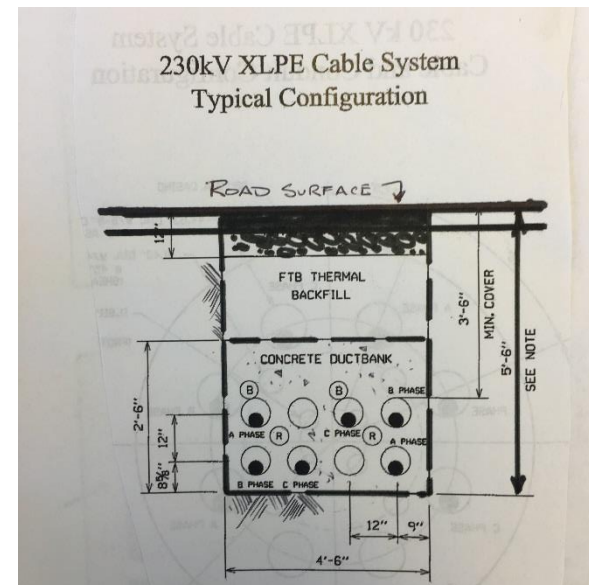
Issue (Alternative)	Response
Trees (Potomac Avenue)	No trees removed on street, very limited in parks. 1:1 replacement.
Open Space (Potomac Avenue)	Some impacts to recreation areas, temporary structures possible, full restoration
Electric and Magnetic Fields (Potomac Avenue)	Greatly reduced electric field with underground line; magnetic field rapidly decreases in intensity as distance increases
Construction Impacts (Potomac Avenue)	No night work except in emergency; strict limits in residential areas
Construction & Traffic (Rebuild)	72+ days on Route 1, many neighborhoods, businesses. Significant traffic delays.
Need & Demand (All)	NERC violations remain, load reduction/energy efficiency does not negate need for line

# Magnetic Field

- Underground installation of power lines reduces electric fields to almost zero
- Magnetic field remains (reduced) & diminishing as distance from source increases
- No conclusive evidence that EMF affects health



# Construction Impacts



# Agreements

	Potomac Avenue	Railroad Corridor	Rebuild
<b>Form:</b>	Memorandum of Agreement	Memorandum of Agreement	None- subject to franchise agreement
<b>Terms:</b>	Perpetual easement, expanded access	Perpetual easement, expanded access	Franchise agreement
<b>Utility:</b>	Fiber optic connection for City broadband	Fiber optic <u>subject to CSX</u>	None
<b>Right-of-Way Compensation:</b>	\$43.3 million	\$14.6 million	\$0



# Staff Recommendation & Next Steps

- City Council adopt the resolution
- Authorize Manager to enter MOA's
- Dominion submission to SCC in July
  - Additional public meetings, input possible
  - City expects to participate, testify
- If a new line route is approved (12-18 months), complete easement process
  - Construction start likely 2020
  - Substations first, road impacts managed
  - Line in service approx. 2023

# Questions & Discussion