



## **Rolling Road (Rte. 638) Widening Project**

From: 0.369 Mile North of Fairfax County Parkway (Route 286)

To: Old Keene Mill Road (Route 644)

State Project No. 0638-029-156, P104, R204, C504; UPC 5559

### **Public Information Meeting**

June 22, 2016

6:30 to 8:30 PM (Presentation at 7 PM)

# Meeting Agenda

- **Introduction and Project Overview**  
**Nick Roper, VDOT**
- **Pedestrian & Bike Facilities**  
**Tom Biesiadny, Fairfax County**
- **Conceptual Alternatives**  
**John Maddox**
- **Questions and Comments**

# Project History & Background

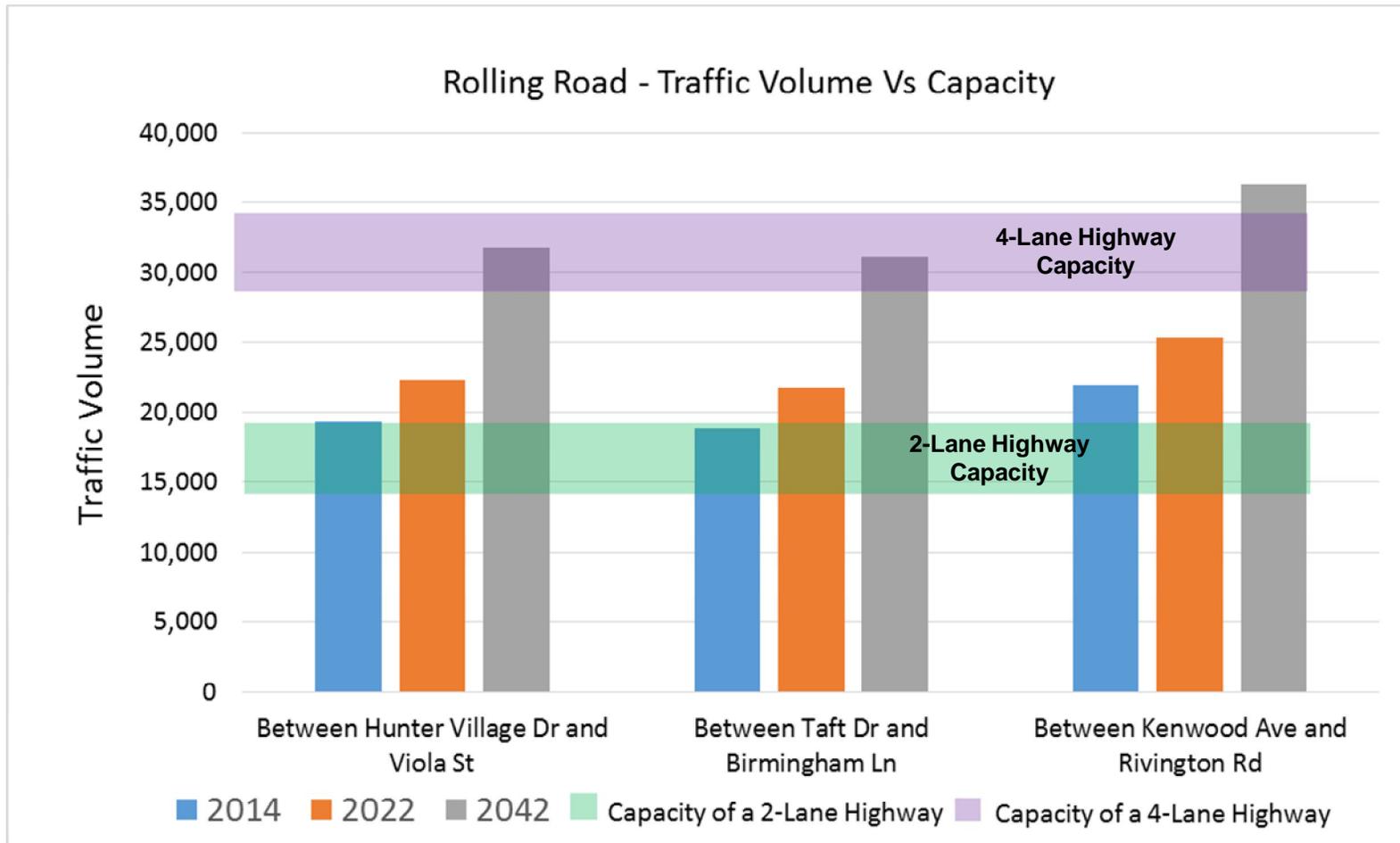
- **First initiated in 1988**
- **Project Development initiated early 2000s**
- **Public Hearing conducted 2008**
- **Funds removed in 2009 & project put on hold**
- **Funds restored in 2015; Began Survey & Conceptual Design Fall 2015**
- **Meetings with Elected Officials & HOA Representatives – May 2016**

# Project Purpose & Goals

- Improve safety
- Reduce congestion
- Widen roadway to four lanes
- Reduce right-of-way impacts to adjacent properties
- Provide Pedestrian and Bicycle Facilities



# Rolling Road – Existing and Future Traffic Volume vs Capacity



# Project Description

- Rolling Road Widening Project – 1.4-mile long roadway



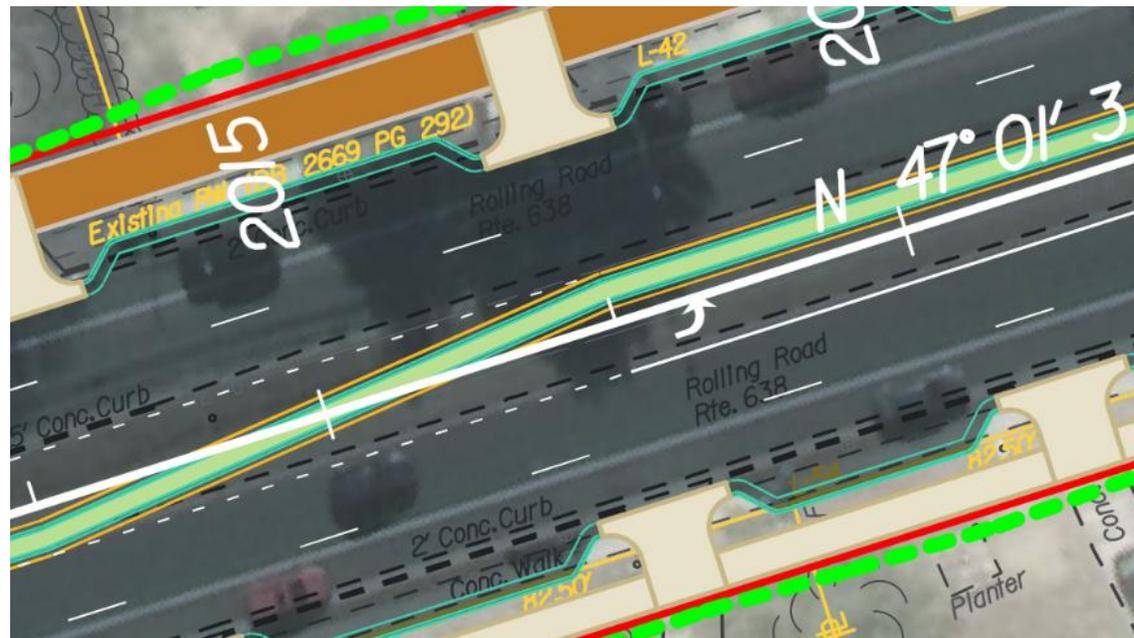
Phase 2

Phase 1

Interim Intersection Improvement

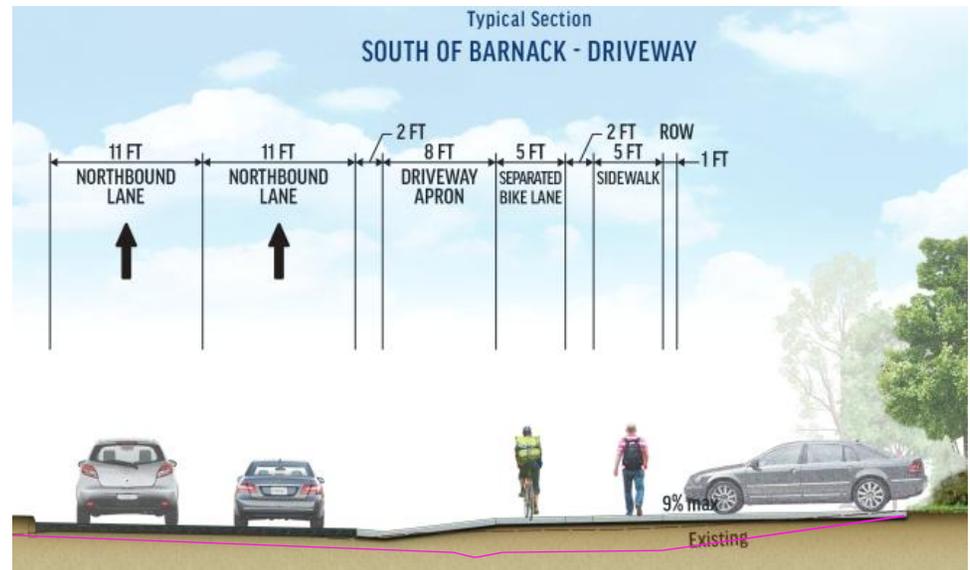
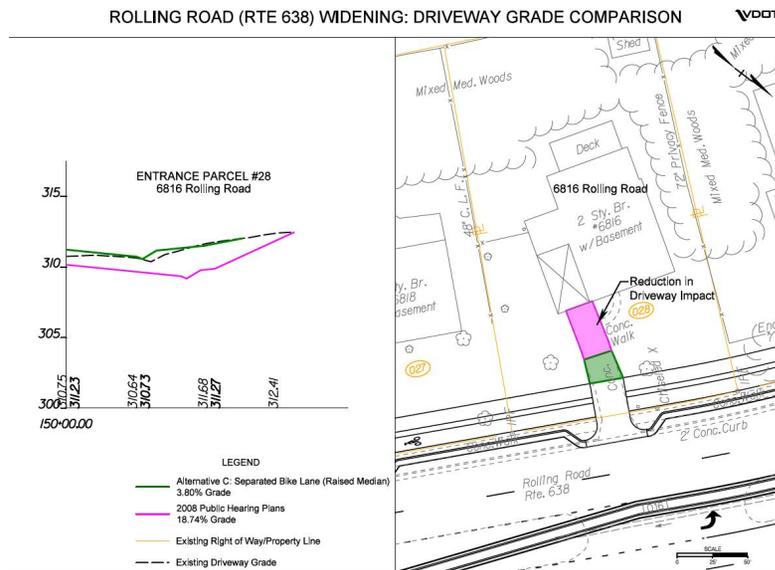
# Enhancements from 2008 Design

- Reduction in Design Speed from 40 mph to 35 mph
  - Posted Speed Limit 30 mph
- Parking Concept Revised
- Utilities Changed – Located within Typical Section
- More narrow travel lanes



# Enhancements from 2008 Design

- Raised Profile of Rolling Road to Minimize Impacts to Driveways



# Phasing & Schedule

VA 638 Widen Rolling Road to 4 Lanes	
Jurisdiction(s)	Fairfax County
Submitting Agency	VDOT
Secondary Agency	None specified
Projected Completion Date	2020
Total Cost	\$31.139 million
Project Category	System Expansion
Project Type	Secondary
Facility Name	VA 638 Rolling Road
From	VA 7100 Fairfax County Parkway
To	VA 644 Old Keene Mill Road
From Number of Lanes	2
To Number of Lanes	4
Accommodation	Bicycle/pedestrian accommodations included
Project Manager	Hamid Misaghian
Contact Info	H.Misaghian@VDOT.Virginia.gov
Project Website	
Link to CLR Database	<a href="#">More info</a>
CLRP Parent Project Name	VA 638 Rolling Road Widening
CLRP ID	1936

**Images**

- **Meetings with Homeowners' Associations – Summer to Early Fall 2016**
  - **Sign-Up Sheet, if interested**
- **Design Public Hearing – Anticipated Late Fall 2016**
- **Right-of-Way Acquisition – Anticipated Spring 2018**



- **Anticipated Start of Construction**
  - **Phase I – Spring 2017**
  - **Phase II – Spring 2021**
- **Total Project Estimate = \$36 Million**
  - **Fully Funded**
  - **Includes federal funds and is federally eligible**



**Six-Year Transportation Improvement Program Project Map  
2015-2020**

# Bicycling and Walking

## Federal Highway Administration

- Bicycle & pedestrian needs must be given "due consideration" under Federal surface transportation law
- Decision to not accommodate them should be the exception rather than the rule
- There must be exceptional circumstances for denying bicycle and pedestrian access



## *VDOT (2004 Commonwealth Transportation Board Policy)*

- Presume that highway construction projects shall accommodate bicycling & walking.
- Bicycle and pedestrian accommodations should be provided except where special conditions exist
  - small population, adverse environmental/social impacts, safety, cost, scope, state/federal laws

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# Transportation Policy

## Comprehensive Plan states need to move people through a multi-modal transportation system

### COUNTYWIDE OBJECTIVES AND POLICIES

- Objective 1:** Provide for both through and local movement of people and goods via a multi-modal transportation system that provides transportation choices, reduces single-occupancy-vehicle (SOV) use and improves air quality.
- Policy a. Integrate motorized and non-motorized transportation facilities and services in accordance with transportation elements in the Transportation Plan Map (Figure 1), the Countywide Trails Plan Map (Figure 2), Bicycle Network Map (Figure 3) and the Bicycle Master Plan, chapters 1-4 (Appendix 5).
- Policy b. Provide motorized and non-motorized transportation facilities or improvements that best meet county goals as determined by detailed corridor and/or subarea studies. Provide for full public participation in such studies.

# Bicycle Master Plan

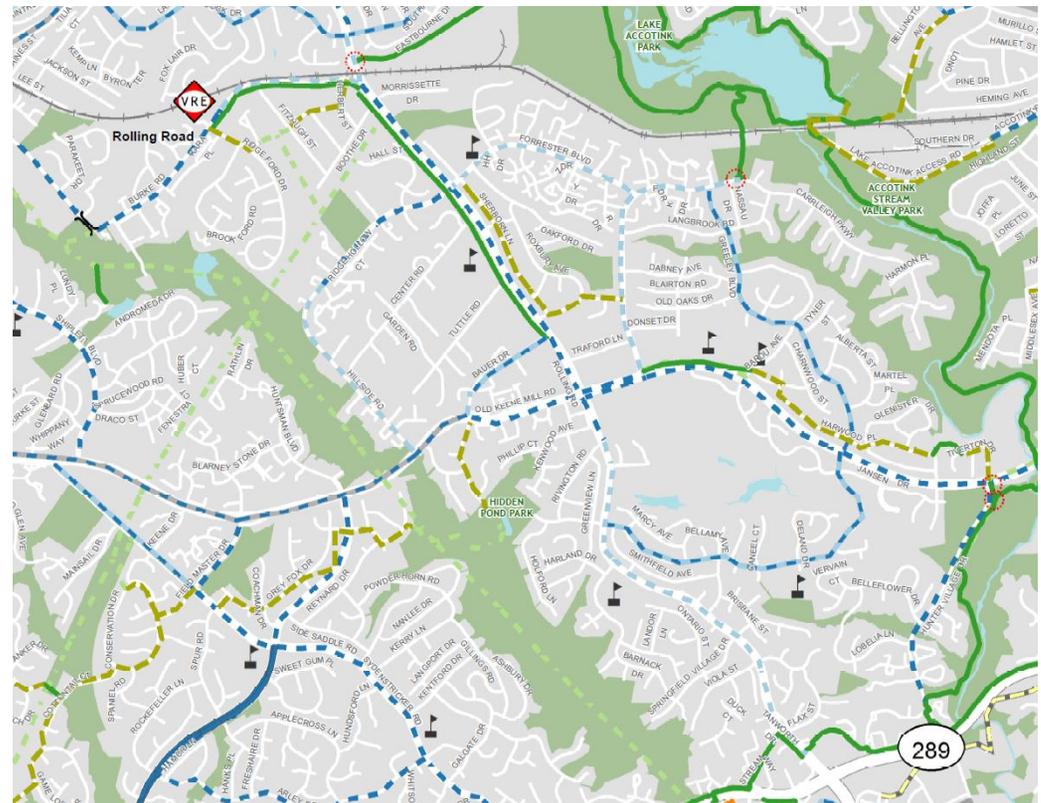
- **Process initiated by Board of Supervisors in 2009**
- **Final Plan adopted by Board of Supervisors on October 28, 2014**
- **Plan is a long-term vision of how to improve bicycling in Fairfax County and make it a regular part of the transportation network**

# Bicycle Master Plan

- **Process involved data collection, bicycle advisory committee, stakeholder meetings, and multiple public meetings**
- **Recommendations include:**
  - **New facility types**
  - **Upgrading existing facilities**
  - **Maintenance strategies**
  - **Policy recommendations**
  - **Funding suggestions**
  - **Performance measures**

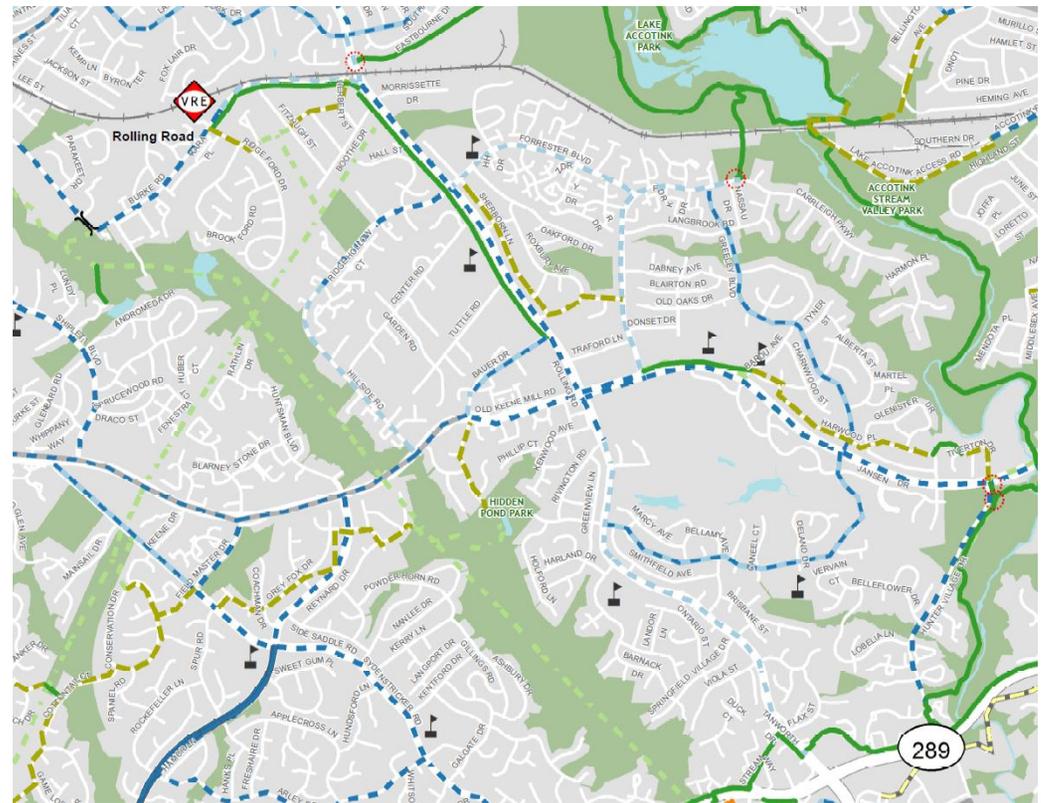
# Bicycle Master Plan – Rolling Road

- Current bike master plan calls for bike lanes on 4-lane section of Rolling Road and sharrows on 2-lane section
- Sharrows not recommended on 4-lane, 35mph roadways
- Based on existing conditions and constraints, not the ultimate based on future road widening



# Countywide Trails Plan – Rolling Road

- Current countywide trails plan calls for a paved shared use path along one side of Rolling Road
- Combined with bike plan need for bike lanes on 4-lane, 35mph roadway
- FCDOT recommending separate bike and pedestrian facilities adjacent to one another



# On-Road Facilities

- **Bicycle Master Plan has long list of facility types with varying range of comfort and protection for bicyclists**
- **A majority of the implementation of the Bicycle Master Plan has occurred concurrently with VDOT repaving**
- **In 2015, 35 bicycle lane miles implemented**
- **Approximately 16 miles will be added in 2016**

# On-Road Facilities

- **Bicycle Lanes; Standard design treatment for bicycle infrastructure. Width and design varies based on roadway placement (next to curb, parking lanes, right turn lanes). The wider the bicycle lane, the higher the level of comfort and more likely it is to be used.**



*Sully Park Drive*

# Bicycle Master Plan

- **Bicycle Facility Recommendations**
  - **Off-Road**
    - Shared Use Paths
    - Cycletracks or Protected bike lanes
- **Shared use paths represent a standard design that VDOT is familiar with: 10' wide, 8' buffer**
- **Cycletracks (can be on-road or off-road) are a new type of facility that is like a shared use path, but only for bicyclists, separate from pedestrian facility 1-way or 2-way**

# Off-Road Facilities

Fairfax County Parkway Shared Use Path



Cambridge, MA – Off-Road Protected Bike Lane



# Bicycle Master Plan

- **This section of Rolling Road provides connection to the existing Fairfax County Parkway Trail and future Old Keene Mill bike infrastructure**
- **Board of Supervisors approved \$9.10 million for bike infrastructure on Old Keene Mill (Design starting January 2019)**

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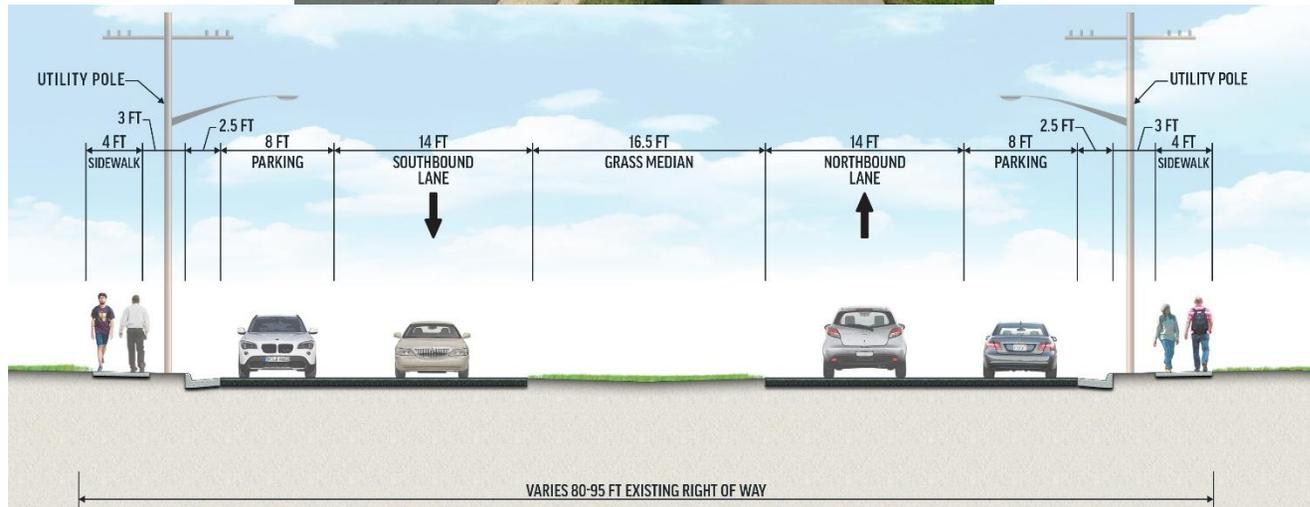
# Project Description

- **Rolling Road – 1.4-mile long roadway**
  - Segment One: Viola Street to Birmingham Lane
  - Segment Two: Birmingham Lane to Barnack Drive
  - Segment Three: Barnack Drive to Old Keene Mill Road

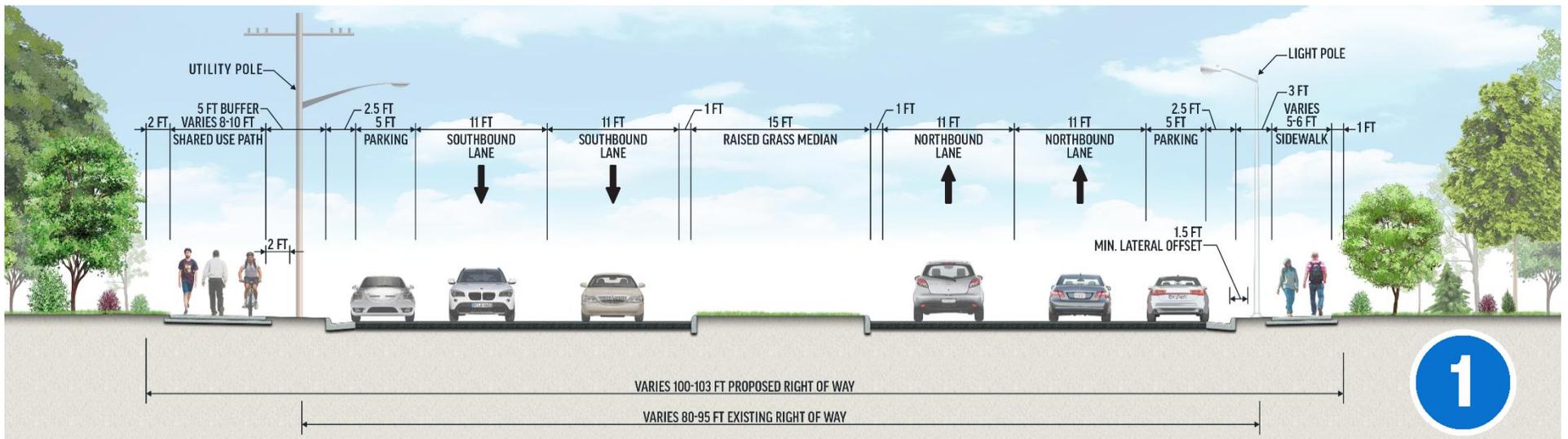


# Existing Conditions

## Segment One: Viola Street to Birmingham Lane



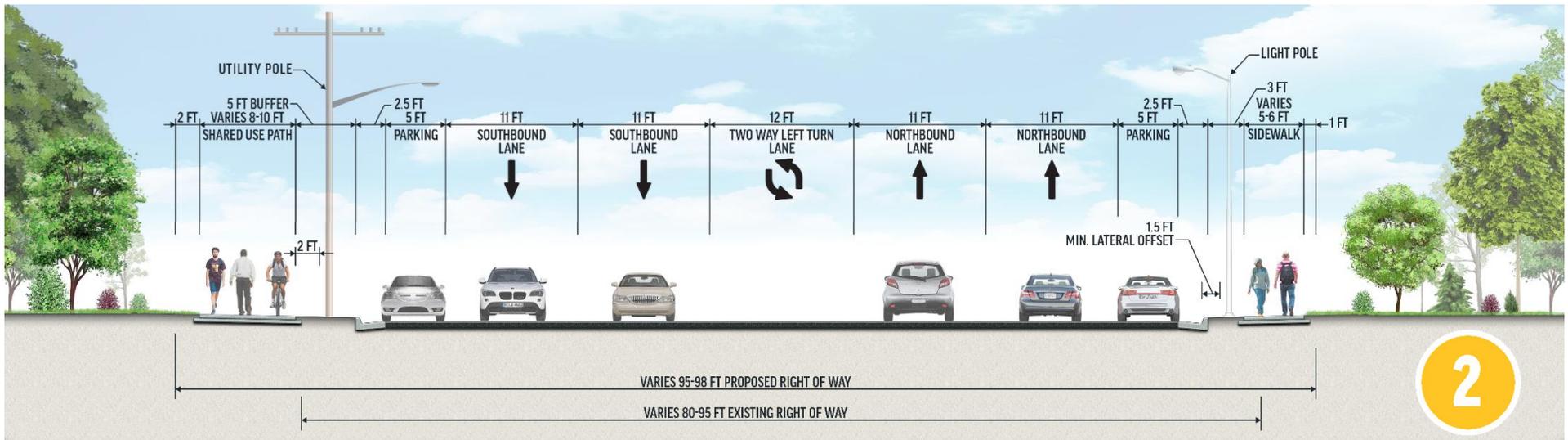
# ALTERNATIVE A Raised Median



## Segment One Viola Street to Birmingham Lane

# ALTERNATIVE B

## Two-Way Left Turn Lane

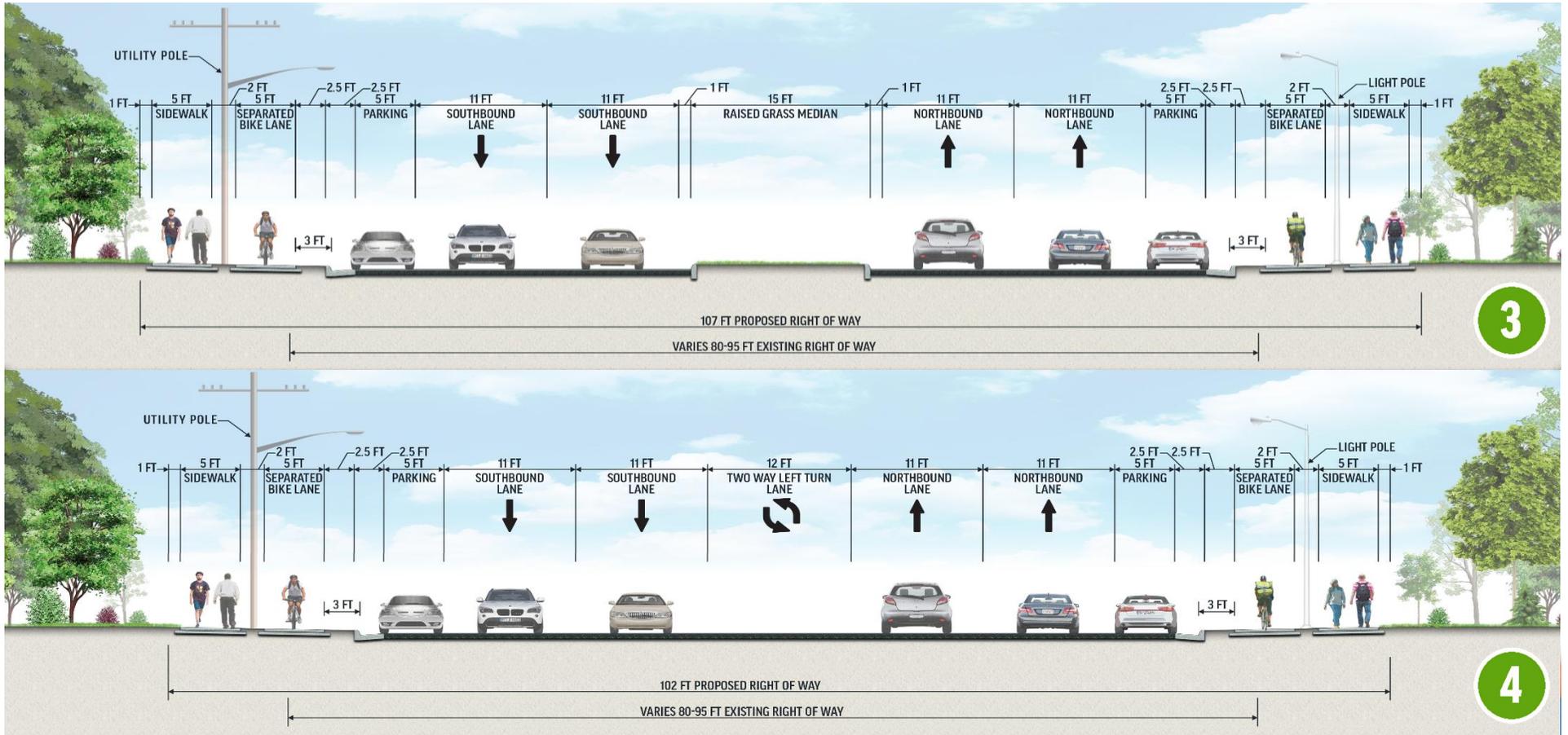


## Segment One

### Viola Street to Birmingham Lane

# ALTERNATIVE C

## Separated Bike Lanes

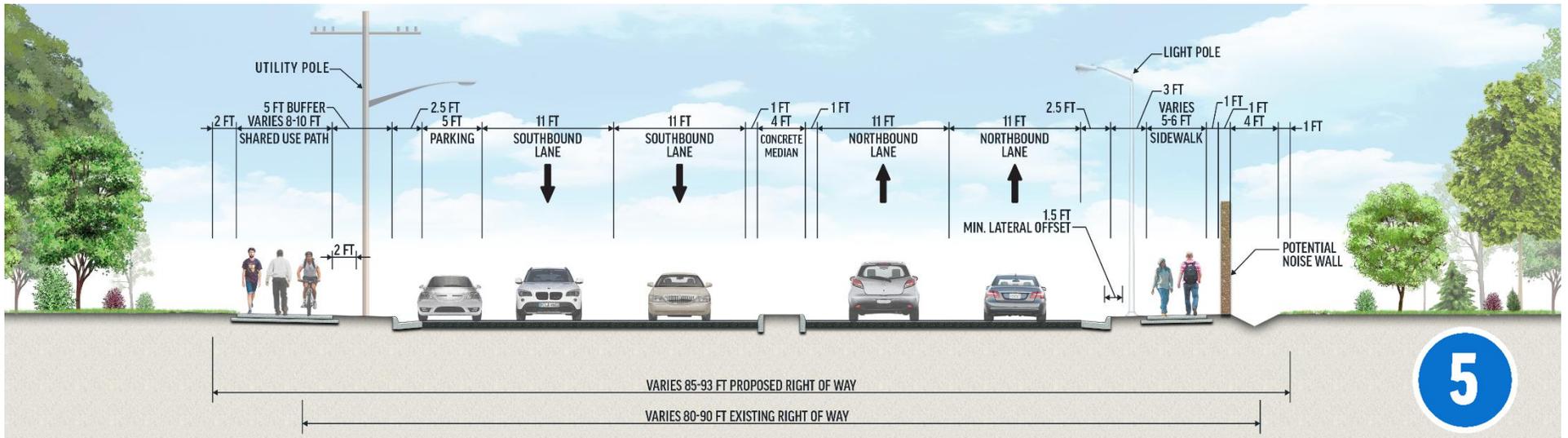


### Segment One

## Viola Street to Birmingham Lane

# ALTERNATIVE A Raised Median

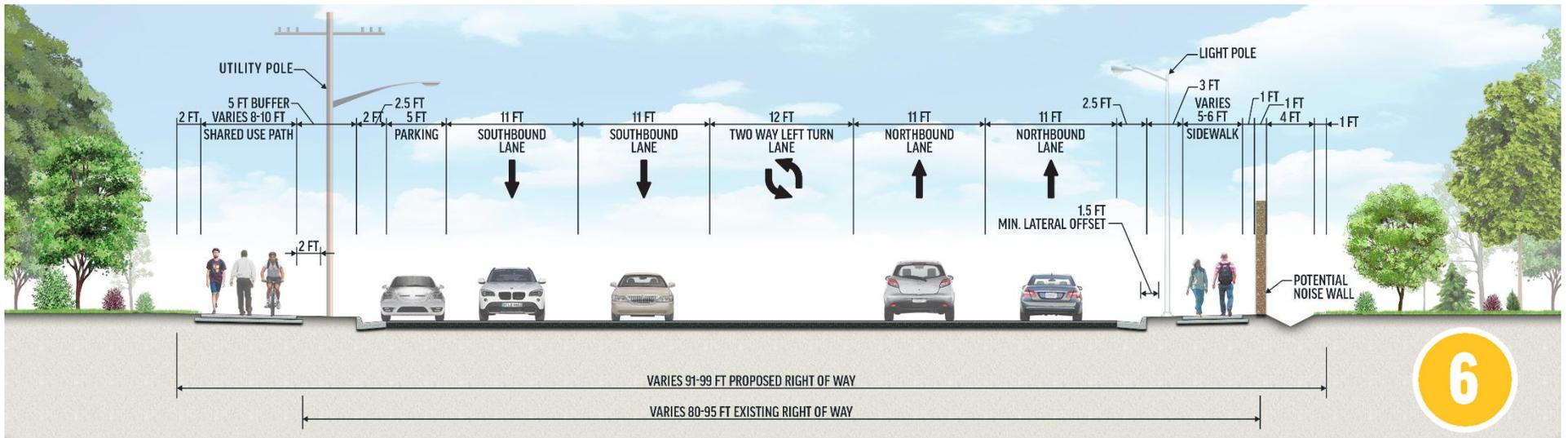
- Median Reduced to 4 Feet



## Segment Two Birmingham Lane to Barnack Drive

# ALTERNATIVE B

## Two-Way Left Turn Lane

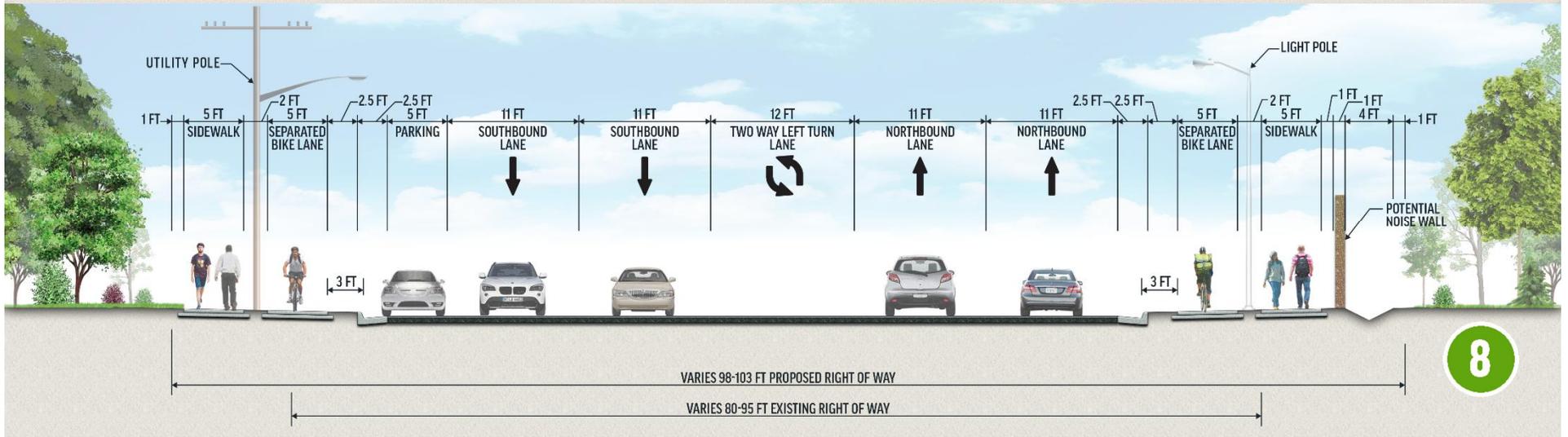
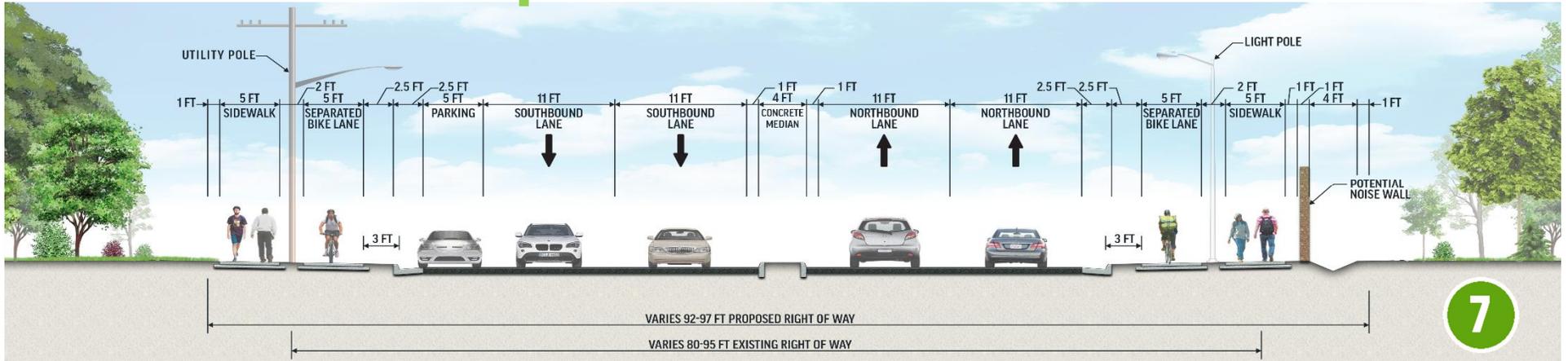


## Segment Two

### Birmingham Lane to Barnack Drive

# ALTERNATIVE C

## Separated Bike Lanes



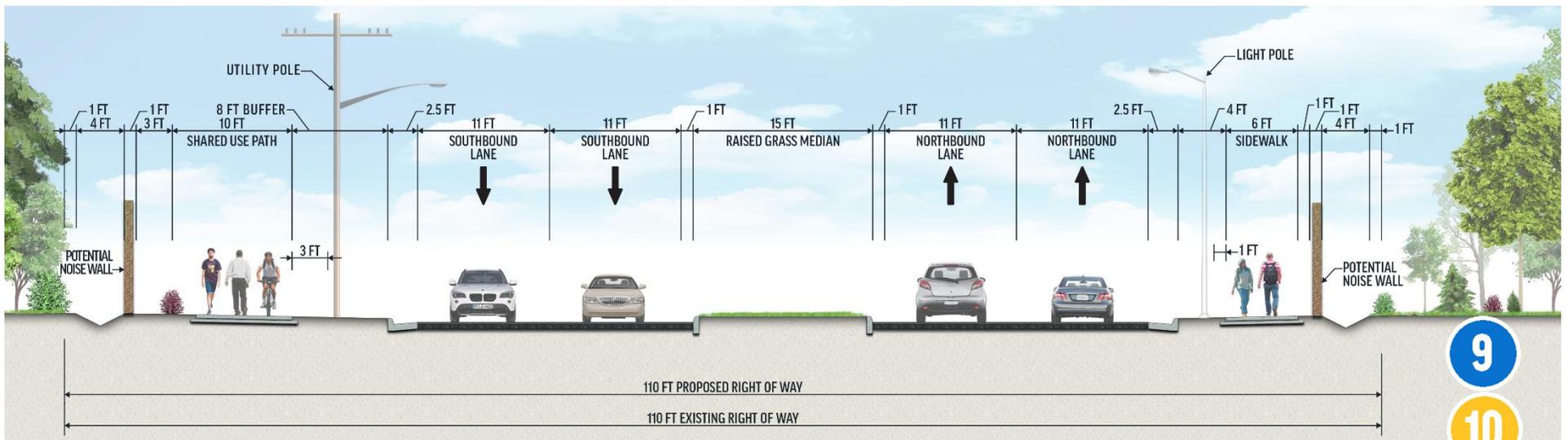
## Segment Two

### Birmingham Lane to Barnack Drive

# ALTERNATIVES A & B

## Raised Median

- Raised Median
- Potential for Noise Walls/Retaining Walls



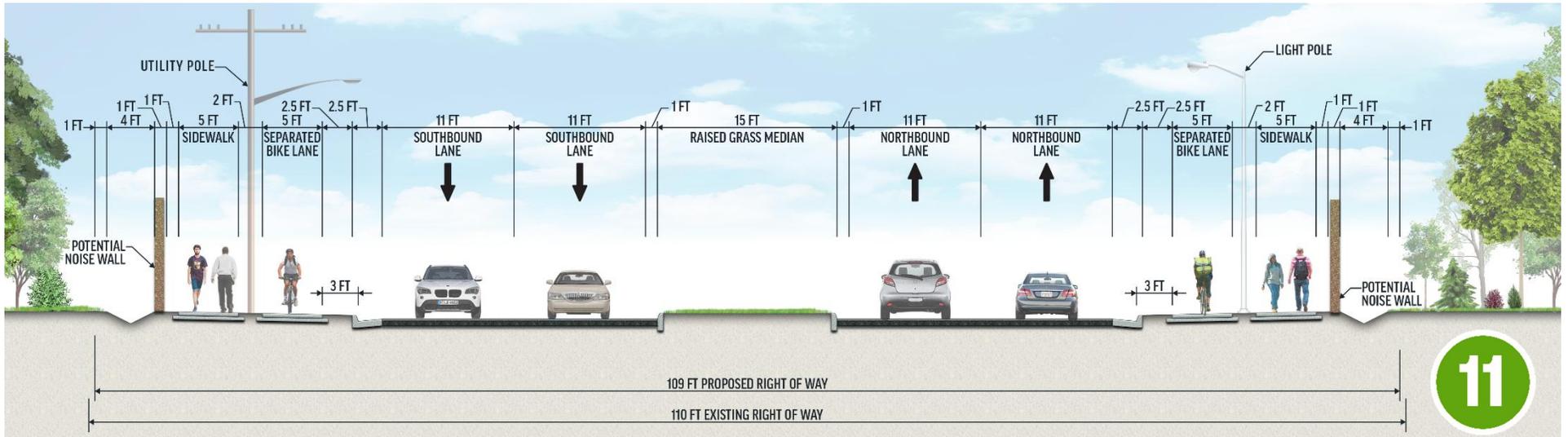
## Segment Three

### Barnack Lane to Old Keene Mill Road

# ALTERNATIVE C

## Separated Bike Lanes

- Raised Median
- Potential for Noise Walls/Retaining Walls



32 Rolling Road Widening

### Segment Three

### Barnack Drive to Old

### Keene Mill Road

# Phase I: Interim Improvements at Old Keene Mill Road



# Phase I: Interim Improvements at Old Keene Mill Road

- Maximum benefits of northbound dual left turn lanes are obtained during the PM peak hour when the traffic volume is highest
- Future Traffic Conditions
  - NB Left Turn Delay is Reduced by 2 min/veh



PM Peak Hour Traffic  
Rolling Road SB

# Phase I & II Corridor Improvements

## Travel Time from Viola Street to Old Keene Mill Road Intersections

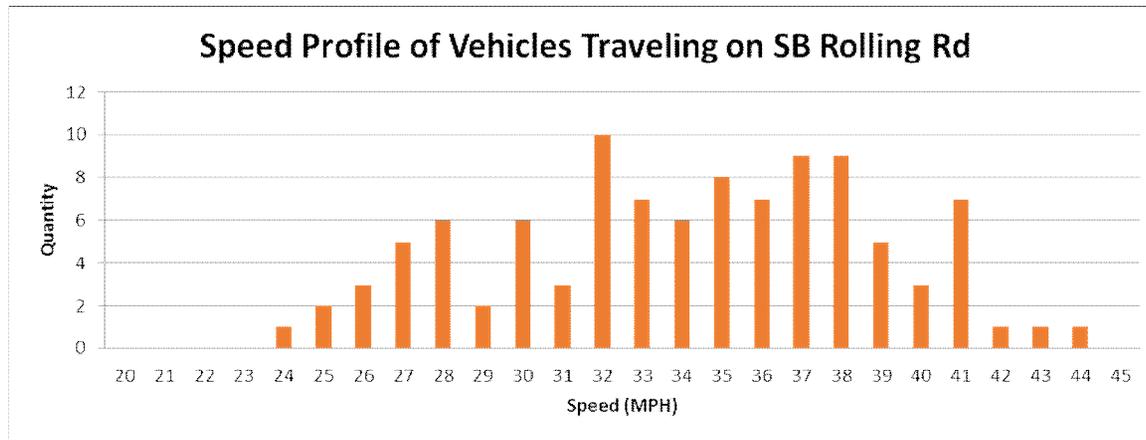
Time of Day	Travel Time (Min) in 2042			
	Direction	No-Build	Phase I Improvements	Phases I & II Improvements
AM Peak	NB	15	15	17
	SB	36	33	28
PM Peak	NB	41	41	38
	SB	50	47	30

# Vehicle Speeds on Rolling Road Approaching Viola Street

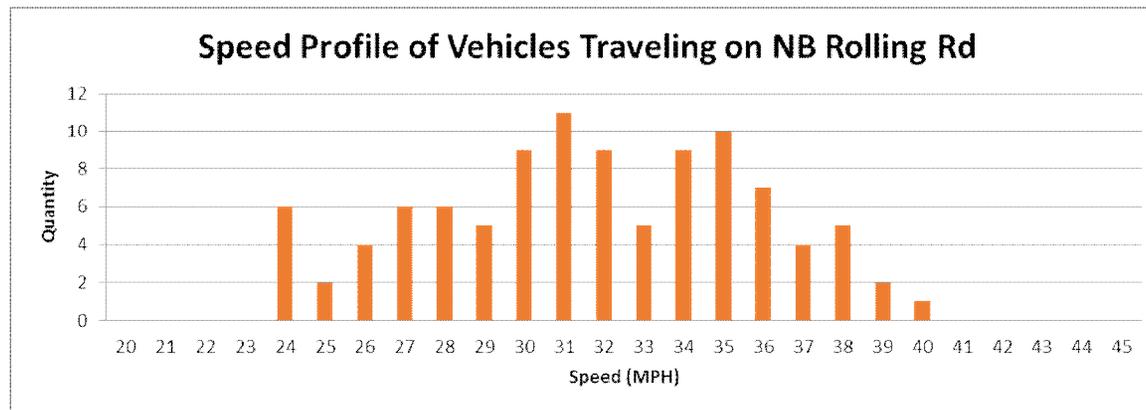
- Average speed on southbound Rolling Road is 34 mph
- Average speed on northbound Rolling Road is 31 mph
- On average, vehicles travel 1-5 mph higher than the posted speed limit of 30 mph
- On southbound Rolling Road, there is a “Watch for Turning Vehicles” warning sign with an advisory speed limit sign of 20 mph in advance of the Viola Street intersection



# Speed Profiles on Rolling Road Approaching Viola Street



85<sup>th</sup> Percentile Speed = **38.5 MPH**  
Average Speed = **34.1 MPH**



85<sup>th</sup> Percentile Speed = **35.7 MPH**  
Average Speed = **31.7 MPH**

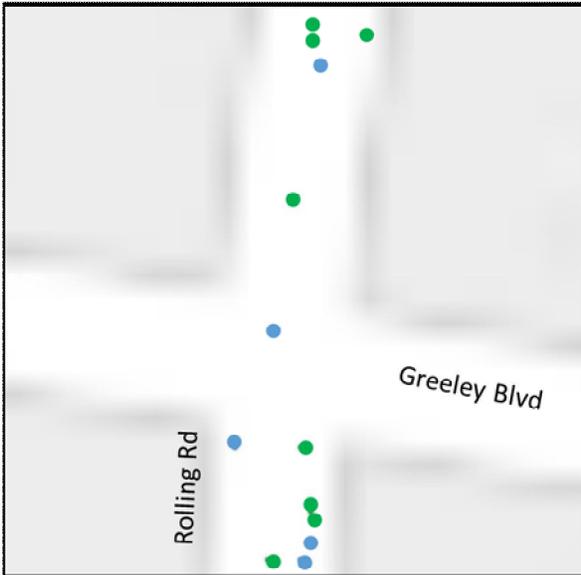
# Traffic Signal Warrant Analysis

Warrant Number and Title	Base Condition	Minimum Threshold for Major Street (Both Directions Combined)	Study Intersections			
			Rolling Rd at Greeley Blvd	Rolling Rd at Springfield Village Dr	Rolling Rd at Viola St	
1	Eight-Hour Vehicular Volume	Traffic Volume thresholds are met for any 8 hours of an average weekday	630 vph on major street; 53 vehicles on minor street	 (6 out of 8 hours)	 (4 out of 8 hours)	 (0 out of 8 hours)
2	Four-Hour Vehicular Volume	Traffic Volume thresholds are met for any 4 hours of an average weekday	900 vph on major street; 60 vph on minor street	 (4 out of 4 hours)	 (2 out of 4 hours)	 (0 out of 4 hours)
3	Peak Hour Volume	Traffic Volume threshold is met for one peak hour of an average weekday	1200 vph on major street; and 75 vph on minor street	 Peak hour meets the threshold	 Peak hour does not meet the threshold	 Peak hour does not meet the threshold
4	Pedestrian Volume	Intended where traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street	800 vph and 75 ped/hr for any four hours	 3 Pedestrians Maximum	 10 Pedestrians Maximum	 10 Pedestrians Maximum
5	School Crossing	Intended where there are minimum 20 school children crossing the major street during the highest crossing hour	N/A	Warrant Not Applicable		
6	Coordinated Signal System	Progressive movement in a coordinated system necessitates installing a traffic signal	N/A	Warrant Not Applicable		
7	Crash Experience	Five or more "Angle Crashes" in one year that can be corrected by installation of traffic signal	5 or more "Angle" crashes in one year	 3 Angle Crashes in 5 Years	 2 Angle Crashes in 5 Years	 0 Angle Crashes in 5 Years
8	Roadway Network	Intended for the common intersection of two or more major routes	N/A	Warrant Not Applicable		

- Other considerations such as sight distance and safety
- Final Decisions about signal locations and/or other alternatives will be made by VDOT during final design process

# Crash Information (January 2011 – February 2016)

Intersection of Rolling Rd at Greeley Blvd



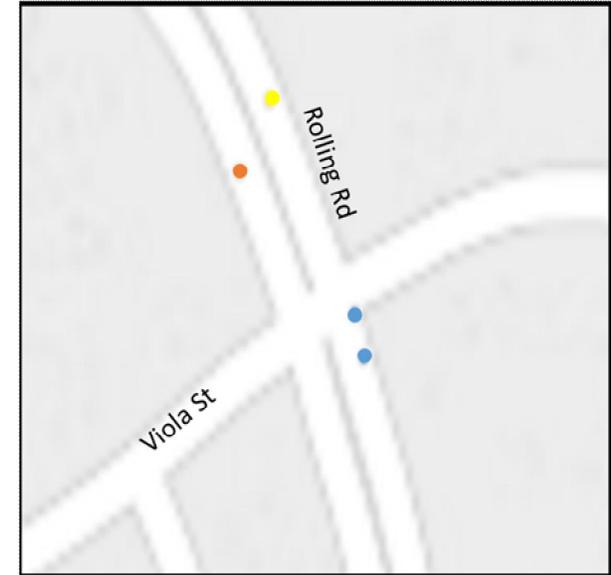
Crash Type	Quantity	Crash Type	Quantity
● Property Damage	2	Angle	3
● Non-Visible Injury	2	Rear End	11
● Visible Injury	0	Head On	9
● Ambulatory Injury	0		
● Fatal Injury	0		

Intersection of Rolling Rd at Springfield Village Dr



Crash Type	Quantity	Crash Type	Quantity
● Property Damage	4	Angle	2
● Non-Visible Injury	2	Rear End	4
● Visible Injury	1	Head On	1
● Ambulatory Injury	0		
● Fatal Injury	0		

Intersection of Rolling Rd at Viola St

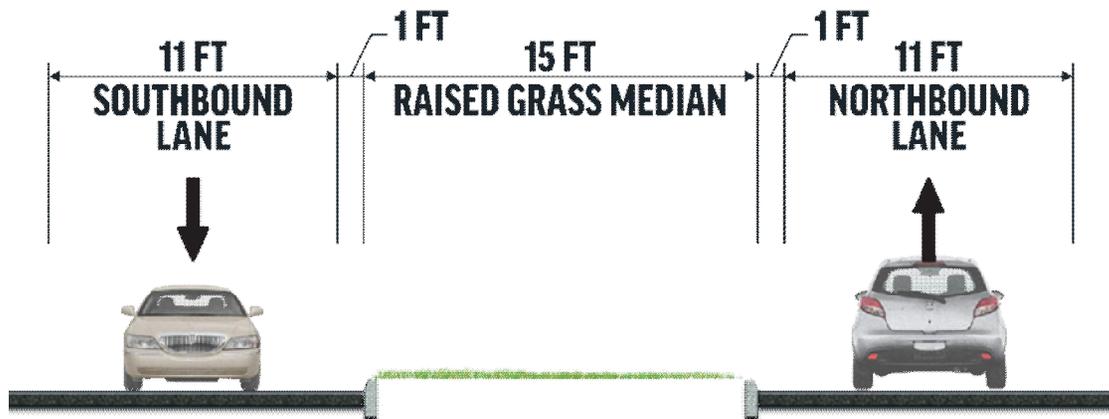


Crash Type	Quantity	Crash Type	Quantity
● Property Damage	2	Angle	0
● Non-Visible Injury	0	Rear End	1
● Visible Injury	1	Head On	0
● Ambulatory Injury	1	Fixed Obj.	3
● Fatal Injury	0		

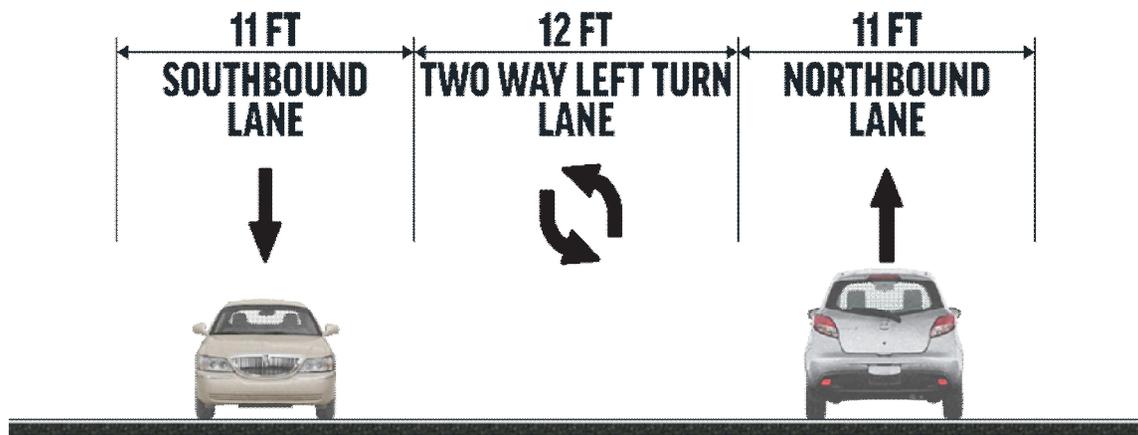
# Public Input Points

## Type of Median

- Raised Median



- Two-Way Left Turn Lane



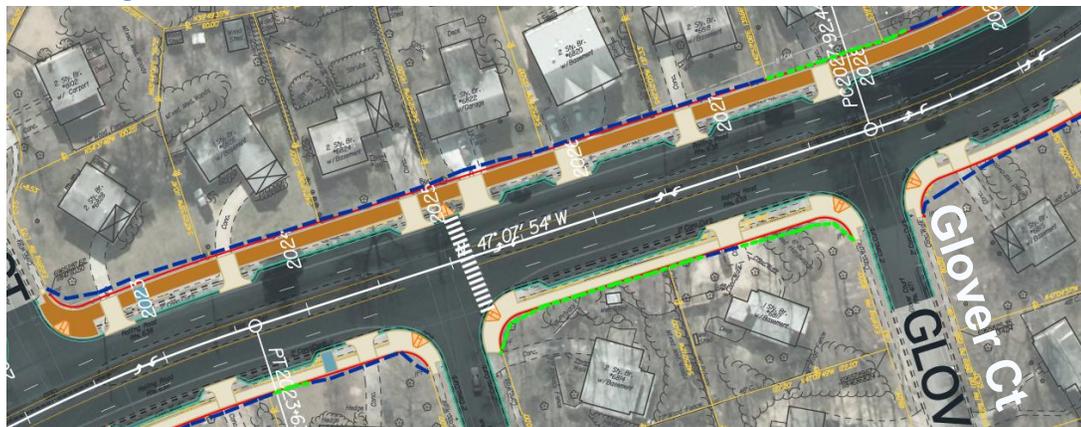
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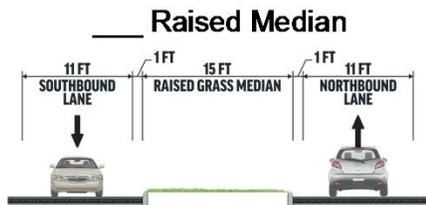
- Two-Way Left Turn Lane



# Public Input Points

- **Key Differences in Median Type**
  - Driveway Access
  - Number of Traffic Movement Conflict Points
  - U-Turns
  - Pedestrian Crossings
  - Aesthetics
  - Right-of-Way Width
- **Question on Comment Sheet for Public Input**

4. One of the major elements that we would like your input on is the center portion of the roadway between Viola Street and Barnack Drive. Which of these do you prefer?



# Public Input Points

## Pedestrian and Bicycle Facilities

- **Balance Right of Way with Use and Need**
  - Shared-Use Paths and Sidewalks
  - Separated Bike Lane
- **Questions on Comment Sheet for Public Input**

2. As a pedestrian or bicyclist, what type of facility do you prefer?

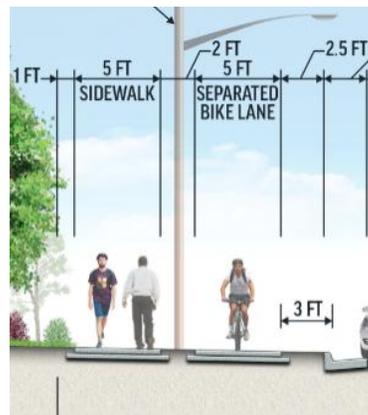
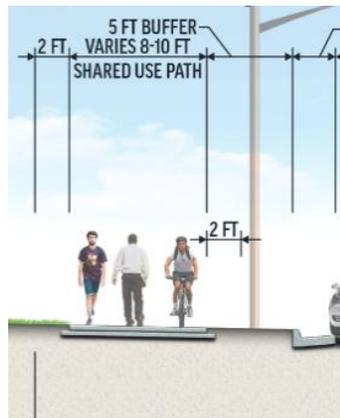
Pedestrian     Shared Use Path     Sidewalk     No Preference     Other \_\_\_\_\_

Bicycle         Shared Use Path     Separate Bicycle Lane     No Preference     Other \_\_\_\_\_

3. How often would you use the following facilities?

Pedestrian     Frequently     Occasionally     Rarely

Bicycle         Frequently     Occasionally     Rarely

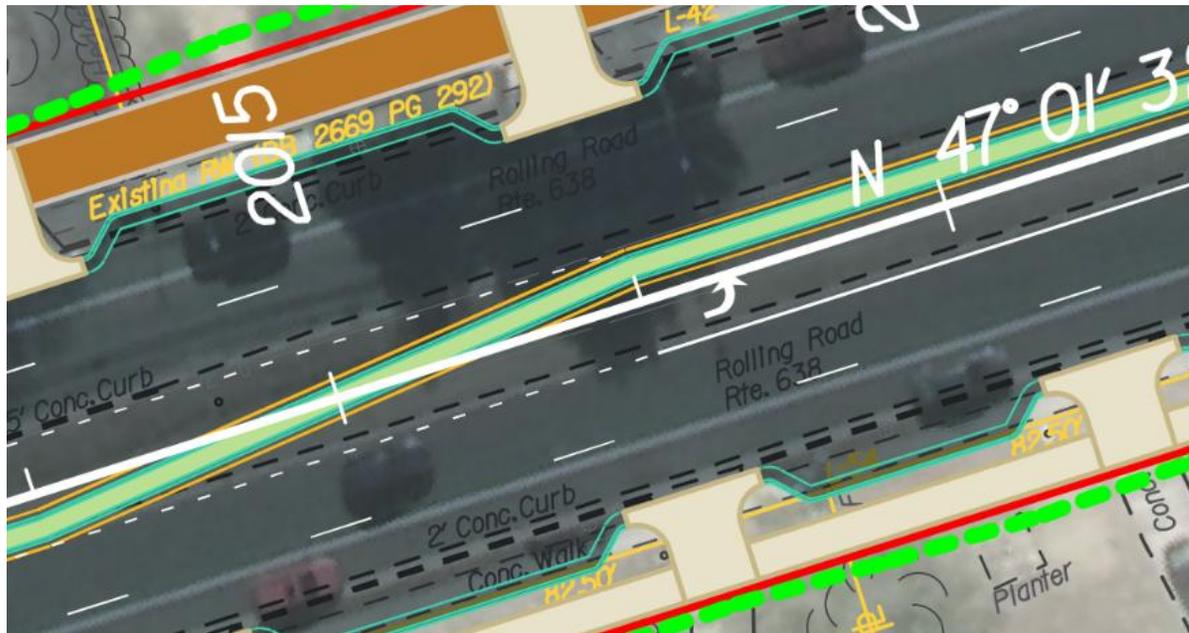


# Public Input Points

## On-Street Parking

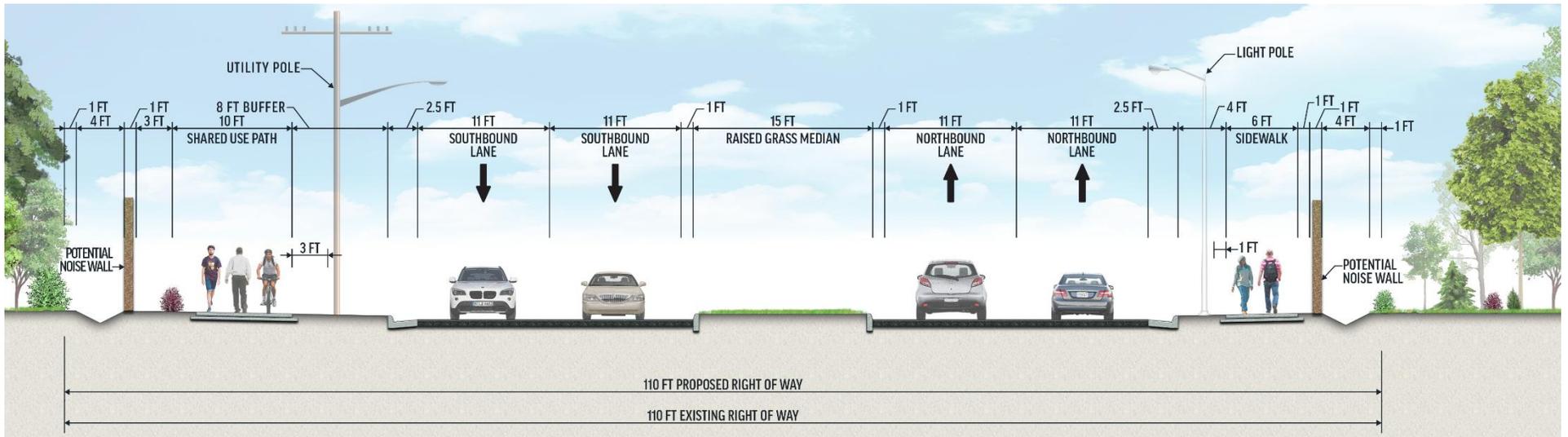
- 7 Foot Width Proposed (typically 8 foot)
- Question on Comment Sheet for Public Input

5. Do you have any suggestions to improve the proposed 7-foot wide parking lane, which will accommodate a mid-size vehicle?



# Future Design Considerations

- Utility Relocations
- Noise Walls
- Stormwater Management
- Maintenance of Traffic



# QUESTIONS & COMMENTS

<http://www.virginiadot.org/RollingRoad>

**Thank you for your participation**