



MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Prince George's County Planning Department



LANGLEY PARK NEIGHBORHOOD BICYCLE BOULEVARDS



Presenters

Judith Howerton (M-NCPPC)

Aditya Inamdar (Kittelson)

Christopher Nelson (RHI)

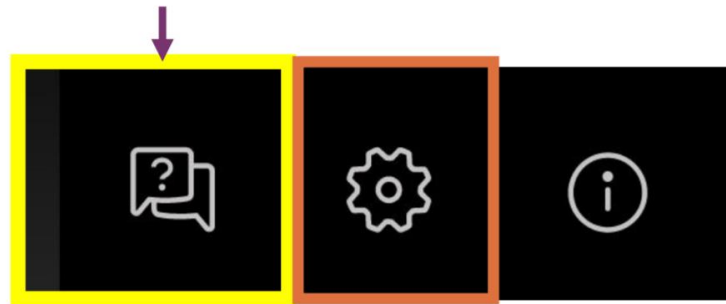
March 2021

#RiggsRoad #PurpleLineAccess

HOW TO PARTICIPATE – TEAMS LIVE

- This meeting will be recorded and shared on the website
- You will be MUTED with your video OFF for the duration of the event
- If you have a comment or question, please type it in the Q&A chat box
- If you would like subtitles/closed captioning, please click the Gear icon and choose that option and then a language

OPEN MEETING CHAT



↑
OPEN CAPTIONS/SUBTITLES



AGENDA

- Introductions
- Project Team
- Project Background
- Existing Conditions Analysis

- Design Alternatives
- Public Feedback Tools
- Next Steps



PROJECT TEAM

- Judith Howerton, M-NCPPC
- Bryan Barnett-Woods, M-NCPPC
- Nima Upadhyay, DPW&T
- Stephanie Walder, DPW&T
- Karen Armendariz, MWCOG
- Aditya Inamdar, Kittelson & Associates
- Mateo Van Thienen, Kittelson & Associates
- Christopher Nelson, Rhodeside & Harwell
- Jignesh Patel, AB Consultants
- Sanjay Patel, AB Consultants



PROJECT BACKGROUND



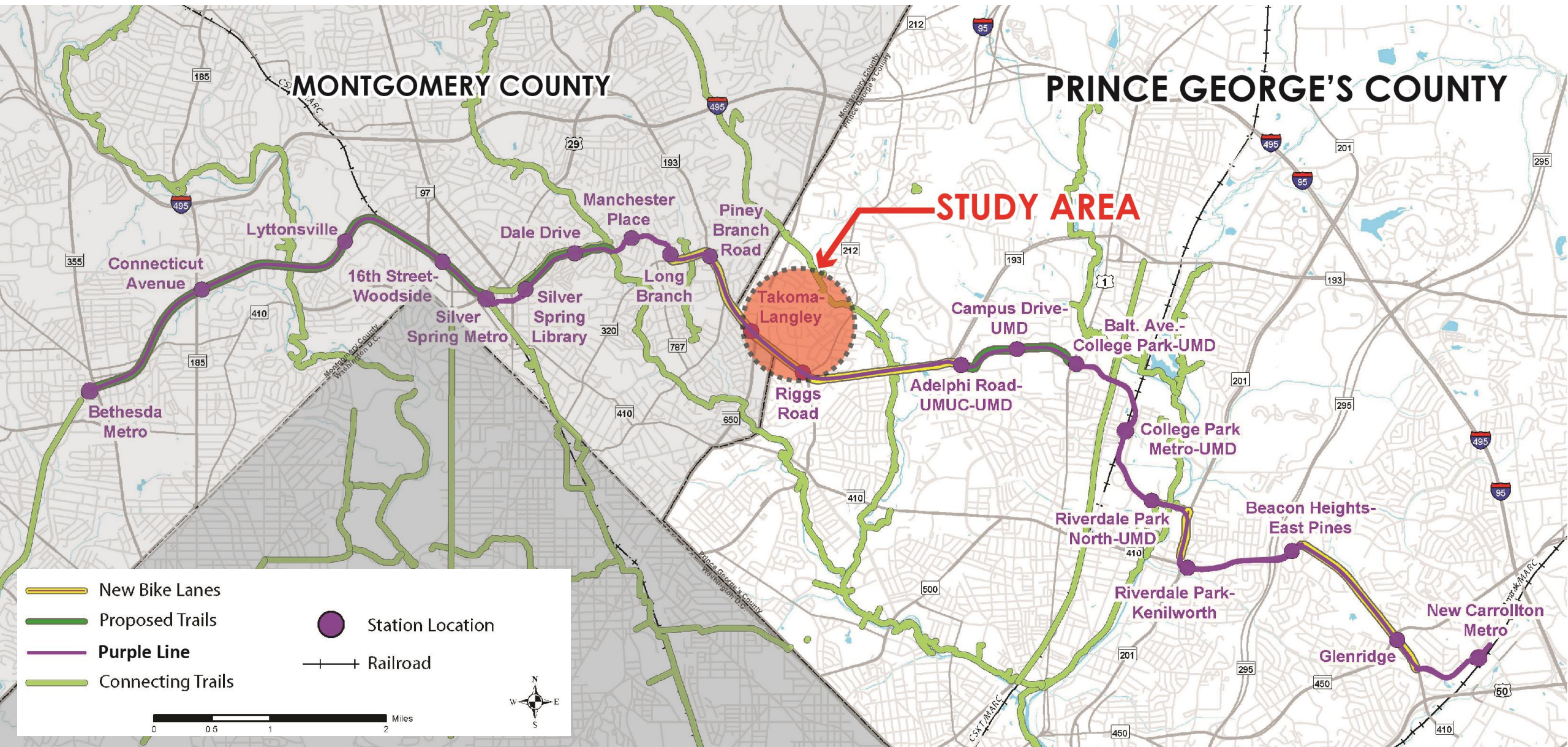


ABOUT THE PROJECT

- Improve bicycle connectivity to the proposed Riggs Road Purple Line station
- Identify alternatives and develop preliminary design plans for the study segments
- Project supported by the MWCOG — Transportation Land Use Connections (TLC) Program
- The consultant team is coordinating with
 - M-NCPPC (Planning agency)
 - DPW&T (Implementation agency)

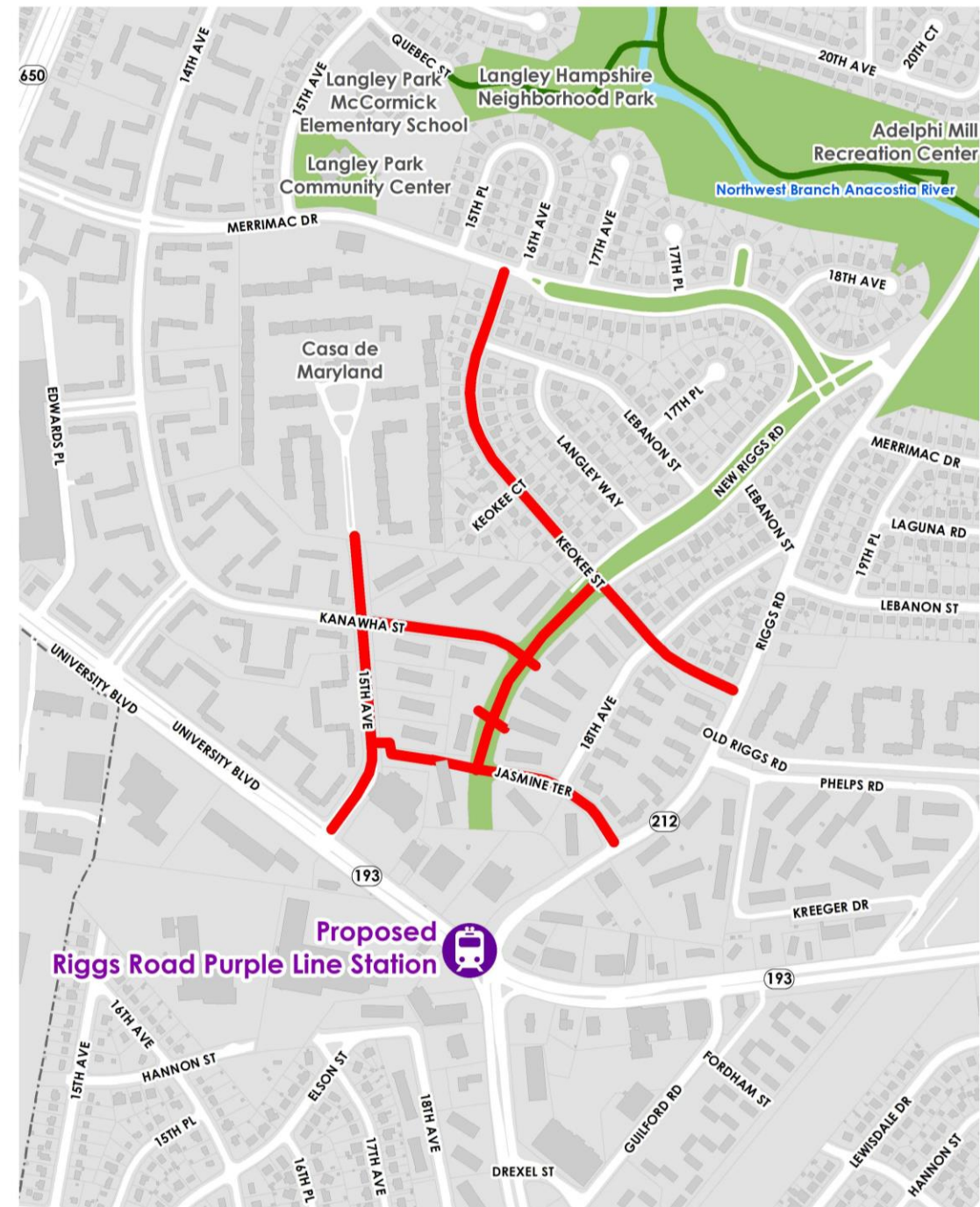


PROJECT LOCATION



STUDY SEGMENTS

- **15th Avenue**
MD 193 (University Boulevard) to Villas at Langley Apartments entrance
- **Kanawha Street**
15th Avenue to New Riggs Road right-of-way (ROW)
- **Keokee Street**
Merrimac Drive to MD 212 (Riggs Road)
- **Jasmine Terrace**
15th Avenue to Riggs Road
- **New Riggs Road right of way (ROW)**
Jasmine Terrace to Keokee Street
- **Jasmine Terrace Extension (parking lot)**
15th Avenue to New Riggs Road ROW



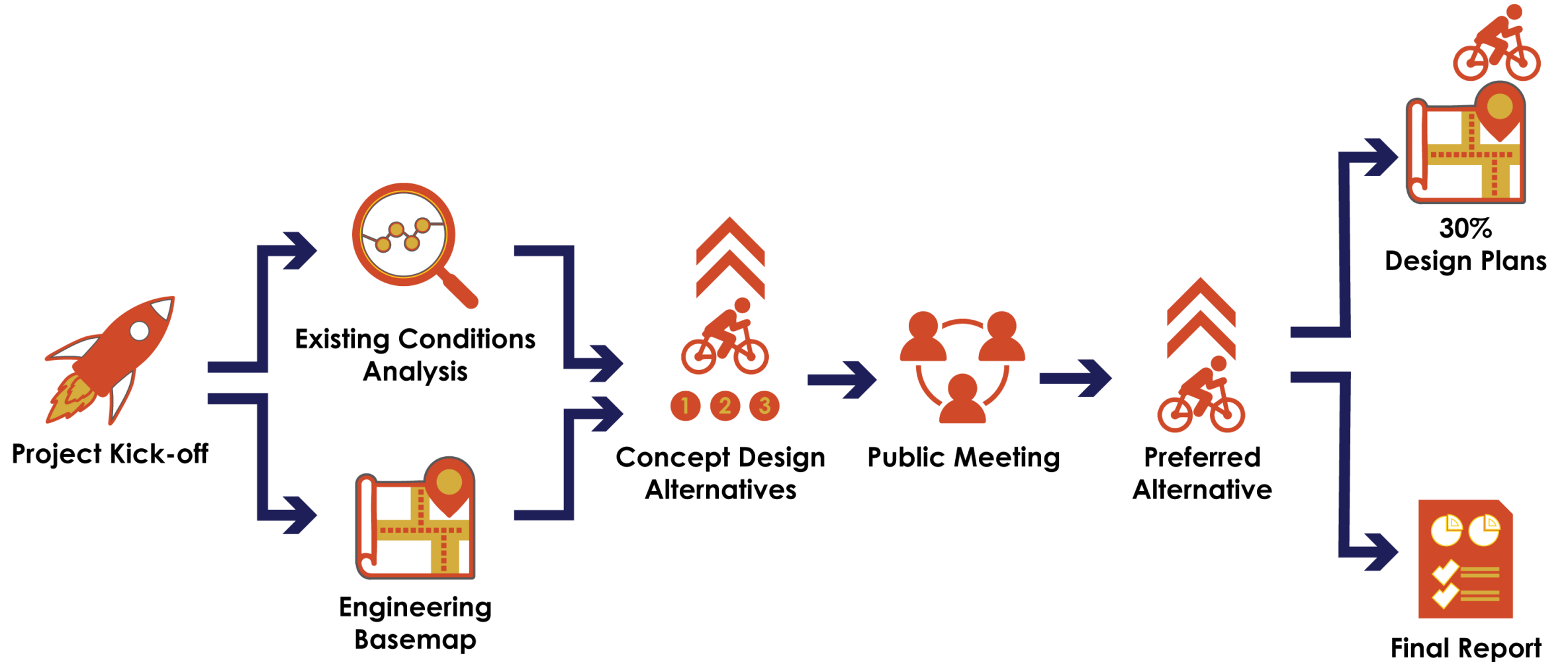


Slido Poll Question

- How do you identify yourself?
 - Resident along one of the study segments
 - Resident near the study area
 - Employee/Business Owner near the study area
 - Frequent visitor to the study area
 - Other



PROJECT PLANNING PROCESS





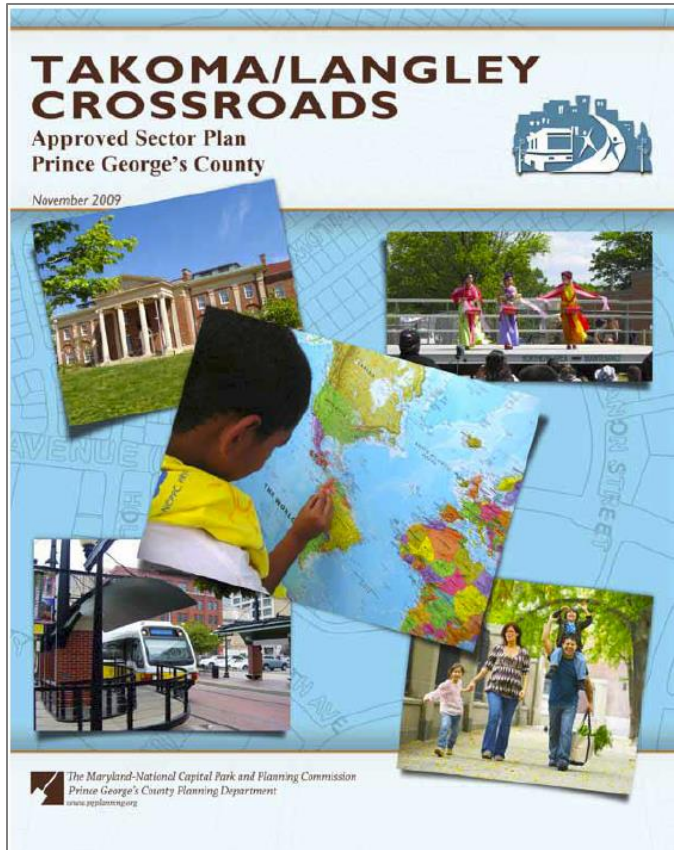
TIMELINE

Task	Nov. 2020	Dec. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021	May 2021
Project Initiation							
Existing Conditions Analysis							
Concept Design Alternatives							
Public Meeting							
Design Plan Sets & Cost Estimates							
Final Report & Plans							

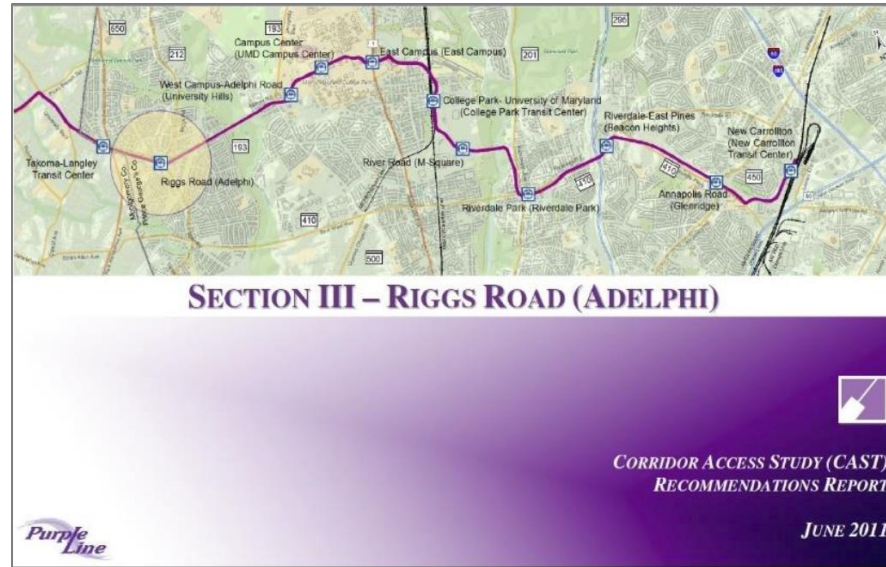
We Are Here



PREVIOUS & ONGOING PROJECTS



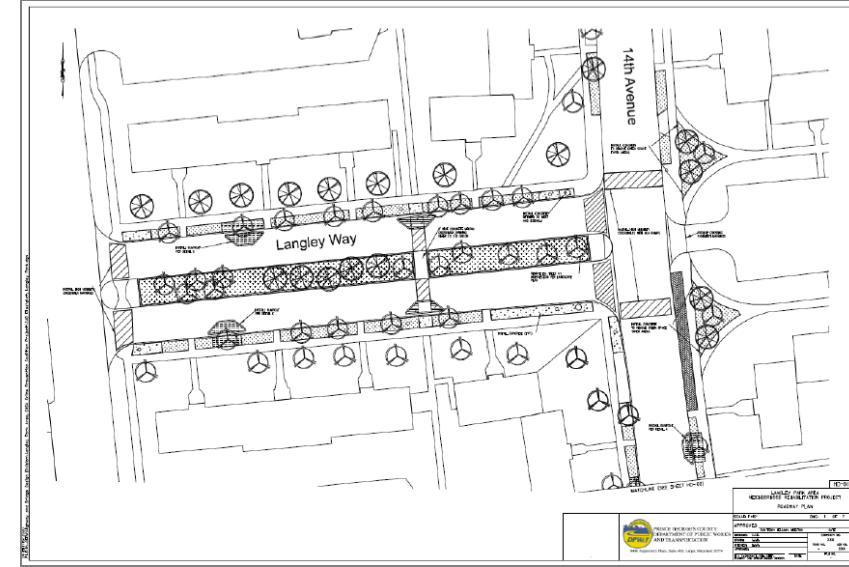
Takoma/Langley Crossroads Sector Plan (2009)



Purple Line Corridor Access Study (CAST) (2011)



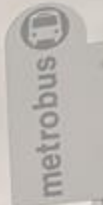
Spaces Sidewalk & Streetscape Improvements Project (SPACES) for University Boulevard in Langley Park (2020 – Ongoing)



CASA Langley Park Area Neighborhood Rehabilitation Street Design Project (2020- Ongoing)



ALL WAY



F8

NEAT BUS 302-637-7000 WMATA.COM STOP 300216

EXISTING CONDITIONS ANALYSIS

EXISTING CONDITIONS ANALYSIS



Land Use



Transit Network



Existing & Proposed Bicycle Facilities



Speed & Traffic Calming Devices



Existing & Proposed Pedestrian Facilities



Parking



Crash History



Existing Typical Cross-Sections



LAND USE



Existing Land Use

Riggs Road - Langley Park Area Bicycle Boulevards

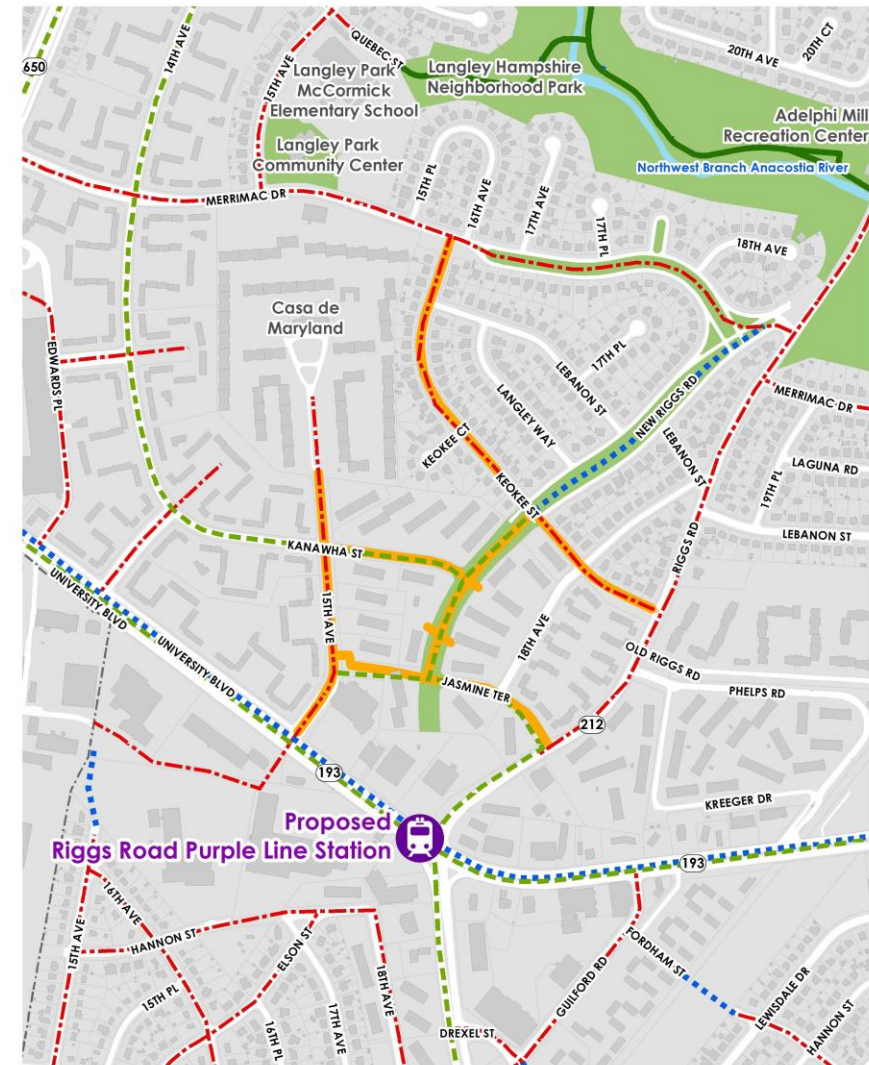


Legend

County Boundary	Commercial	Mixed Use	Existing Trails
Water Bodies	Residential - Single Family	Transp. & Utilities	Study Segments
Parks/Open Space	Residential - Mid-High Density	Vacant	
Institutional			

Source: Planning Department of Prince George's County, Maryland (2018)

BICYCLE FACILITIES



Existing and Proposed Bike Facilities
Riggs Road - Langley Park Area Bicycle Boulevards

0 200 400 800 Feet

Legend

- County Boundary
- Water Bodies
- Buildings
- Parks/Open Space

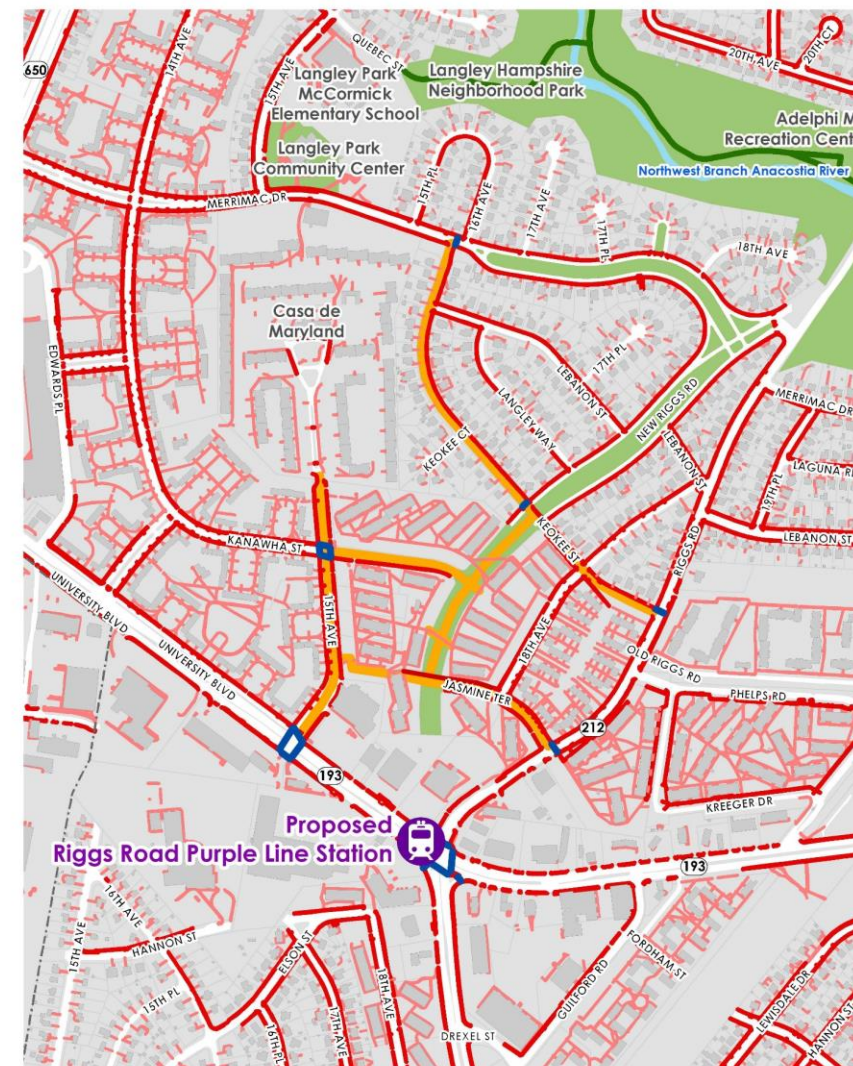
- Existing Trails
- Study Segments

Proposed Facilities

- Bike Lane
- Trail/Side Path
- Shared Roadway

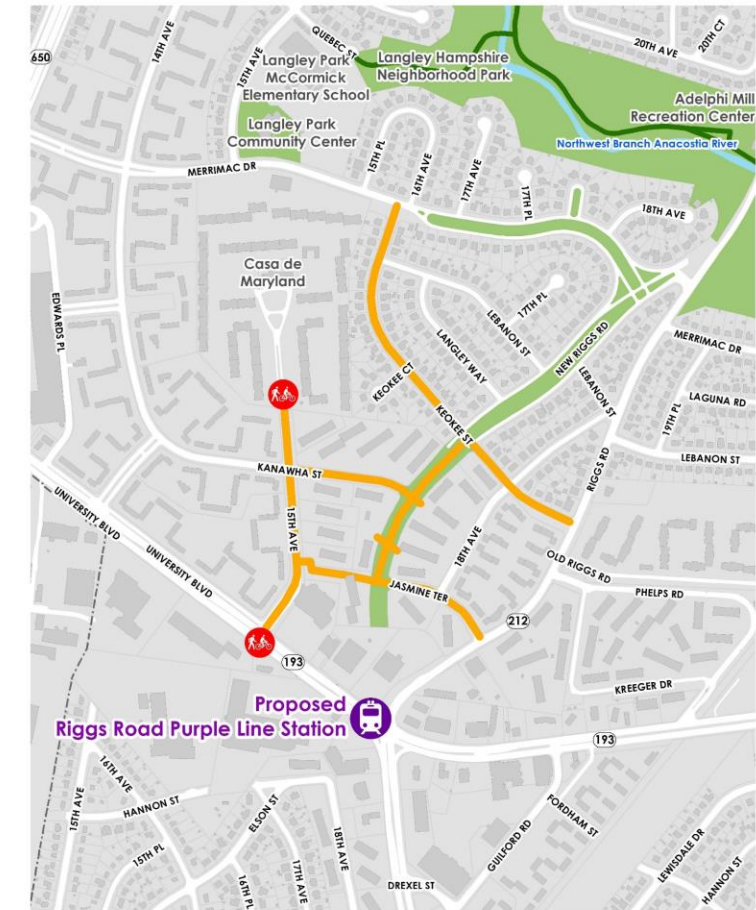
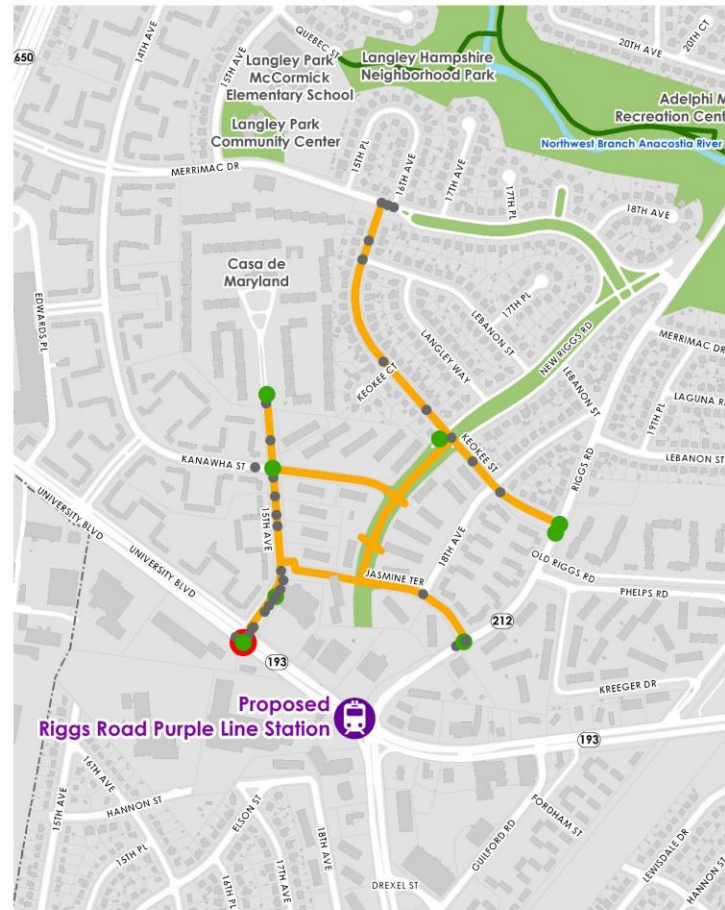
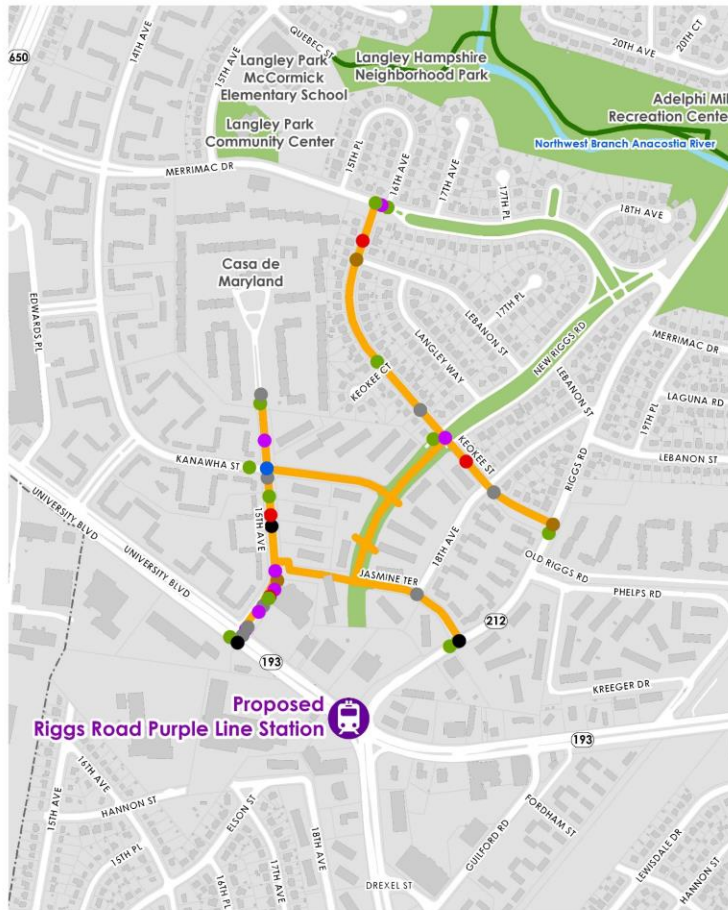
Source: Planning Department of Prince George's County, Maryland (2018)

PEDESTRIAN FACILITIES





CRASH HISTORY





CRASH HISTORY

LOCATION	CRASHES
15th Avenue	74
Keokee Street	27
Jasmine Terrace	5

CRASH SEVERITY	CRASH TYPE	TOTAL
Property Damage Only	Head-On	10
	Left Turn	6
	Rear-End	7
	Side Swipe	21
	Angle	7
	Single Vehicle	3
	Other	14
Total PDO		83
Possible Injury	Head-On	1
	Left Turn	2
	Rear-End	4
	Angle	2
	Other	3
Total Possible Injury		12
Injured	Rear-End	2
	Angle	3
	Left Turn	1
	Single Vehicle	1
	Other	1
Total Injured		8
Severe Injury	Rear-End	1
	Single Vehicle	2
Total Severe Injury		3
Fatality	N/A	0
TOTAL		106

TRANSIT NETWORK



Existing and Future Transit Network
Riggs Road - Langley Park Area Bicycle Boulevards

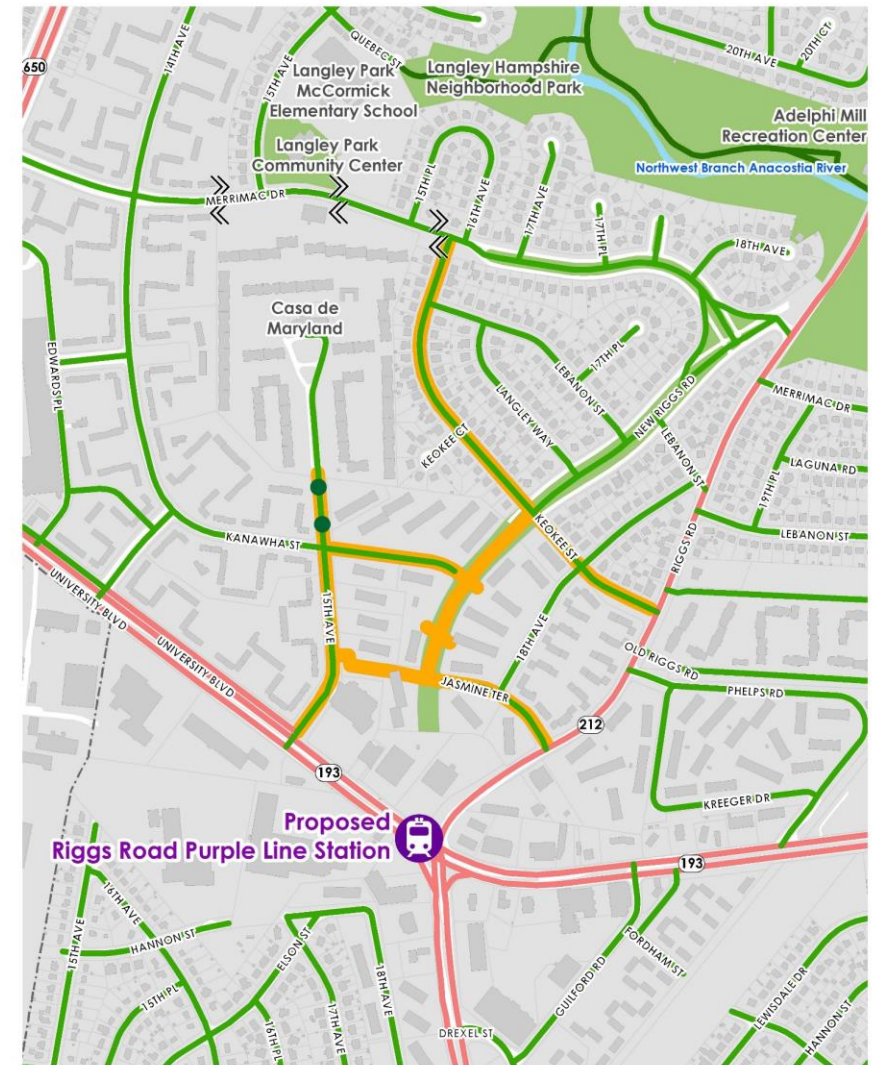


Source: Planning Department of Prince George's County, Maryland (2020)
Washington Metropolitan Area Transit Authority (2020)
State of Maryland GIS Data Catalog (2020)

Image by Dan Maginn via Purple Line Transit Partners.



SPEED & TRAFFIC CALMING



Posted Speeds and Traffic Calming Measures

Riggs Road - Langley Park Area Bicycle Boulevards

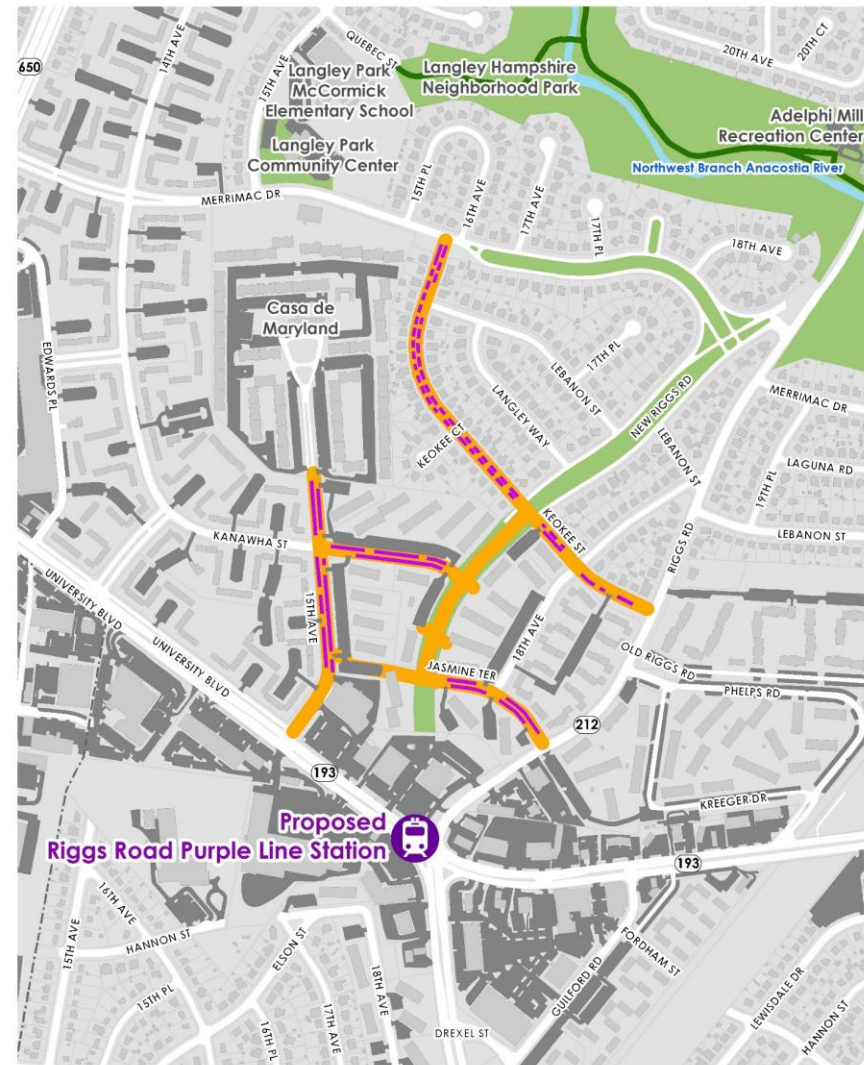


Legend

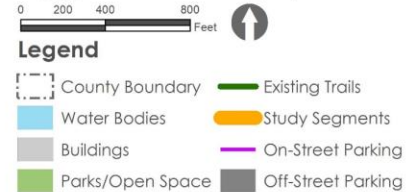
County Boundary	Existing Trails	Speed Limit	Traffic Calming Measures
Water Bodies	Study Segments	25 mph	Existing Bulbouts
Buildings		30 - 35 mph	Existing Speed Humps
Parks/Open Space			

Source: Planning Department of Prince George's County, Maryland (2018)

PARKING



Parking Riggs Road - Langley Park Area Bicycle Boulevards

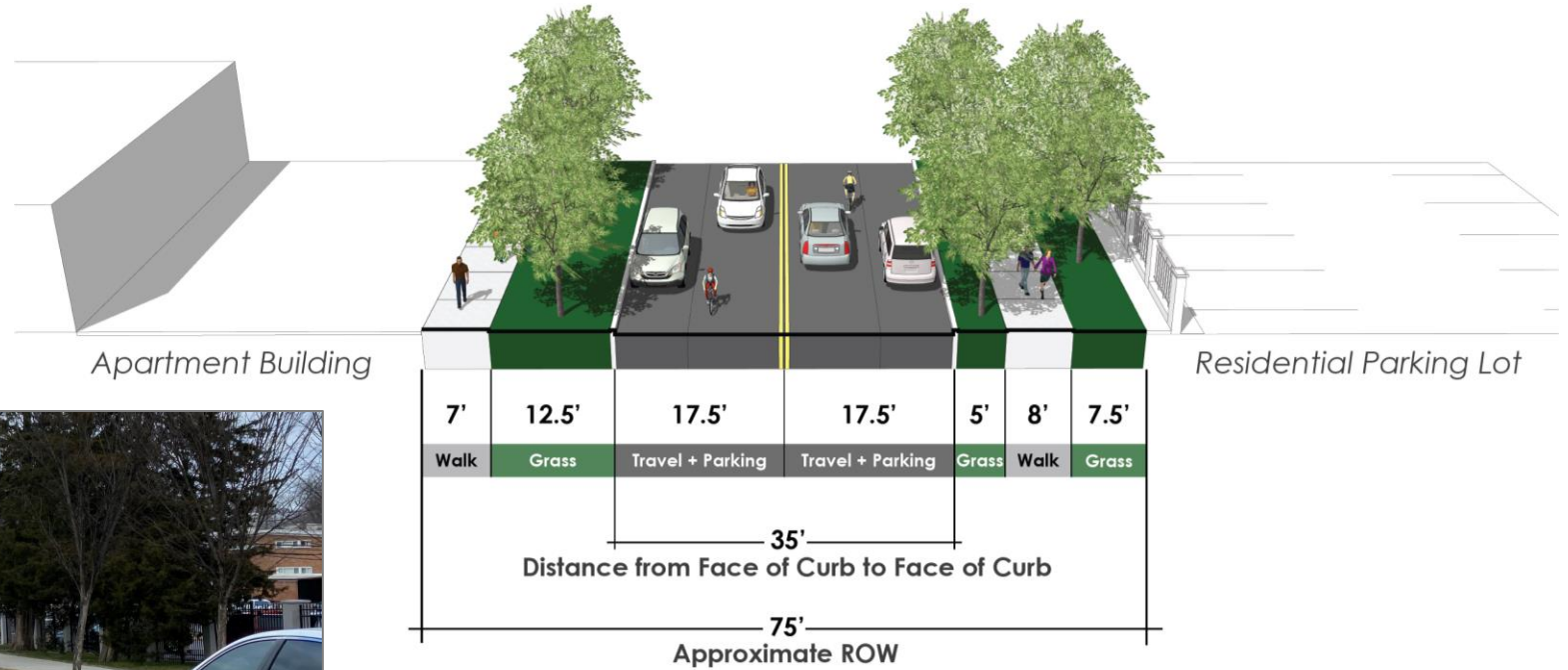


Source: Planning Department of Prince George's County, Maryland (2018)



15TH AVENUE

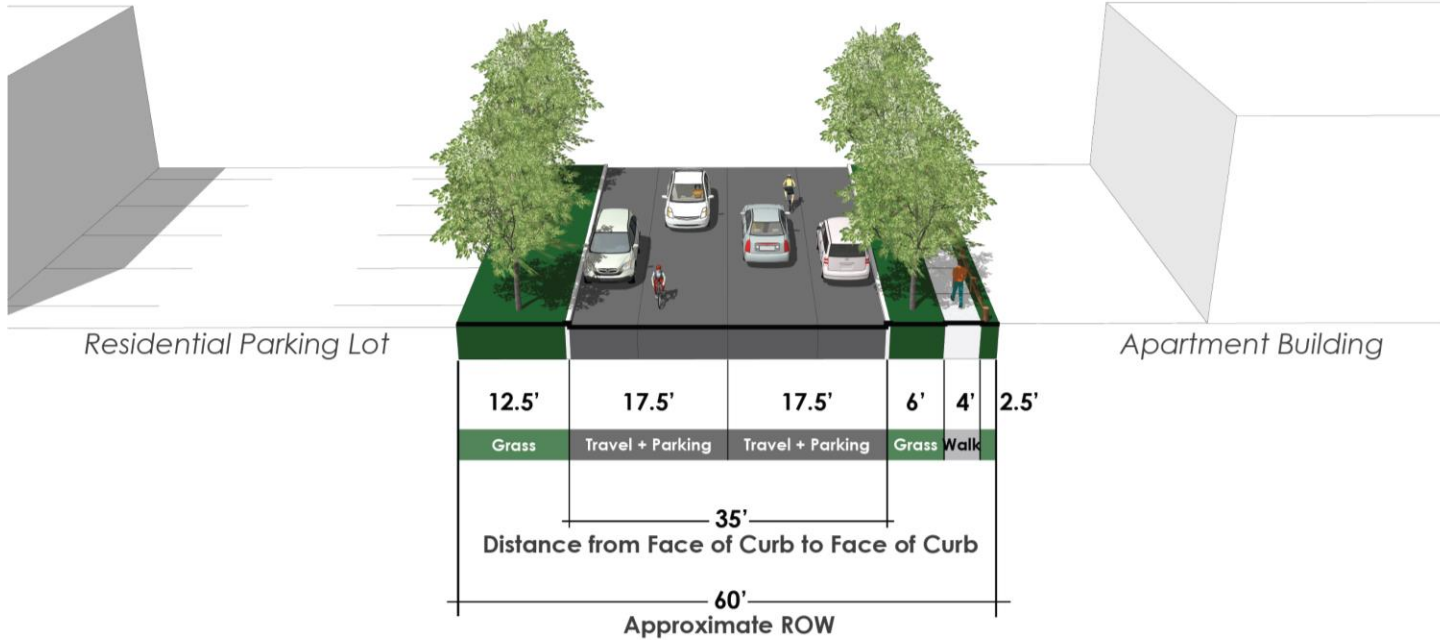
Existing (Looking North)





KANAWHA STREET

Existing (Looking East)



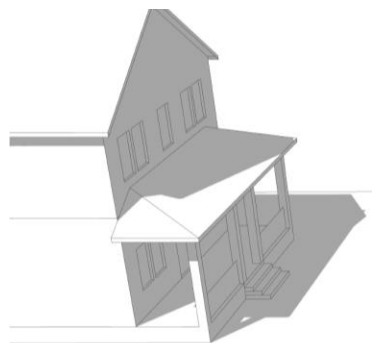


Diagram illustrating a 25' wide Travel + Parking lane. The lane is flanked by 12' Grass shoulders on the left and 9' Grass shoulders on the right. A 4' Walkway is shown on the far right. The total width of the Travel + Parking lane and the 9' Grass shoulder is 25'. The total width of the Travel + Parking lane and the 12' Grass shoulder is 37'. The total width of the Travel + Parking lane, the 12' Grass shoulder, and the 9' Grass shoulder is 46'. The total width of the Travel + Parking lane, the 12' Grass shoulder, the 9' Grass shoulder, and the 4' Walkway is 50'. The diagram shows a car parked in the 12' Grass shoulder, a car parked in the 9' Grass shoulder, and a person walking on the 4' Walkway.

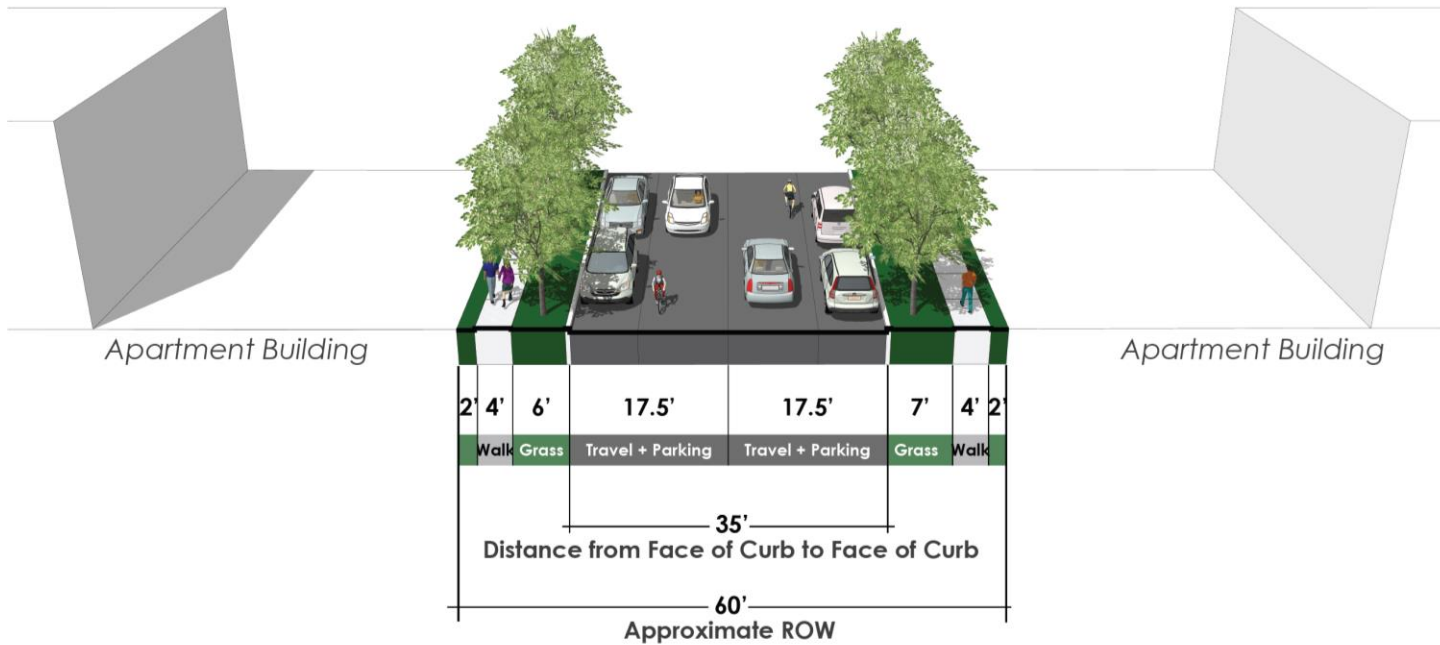
Single-Family House





JASMINE TERRACE

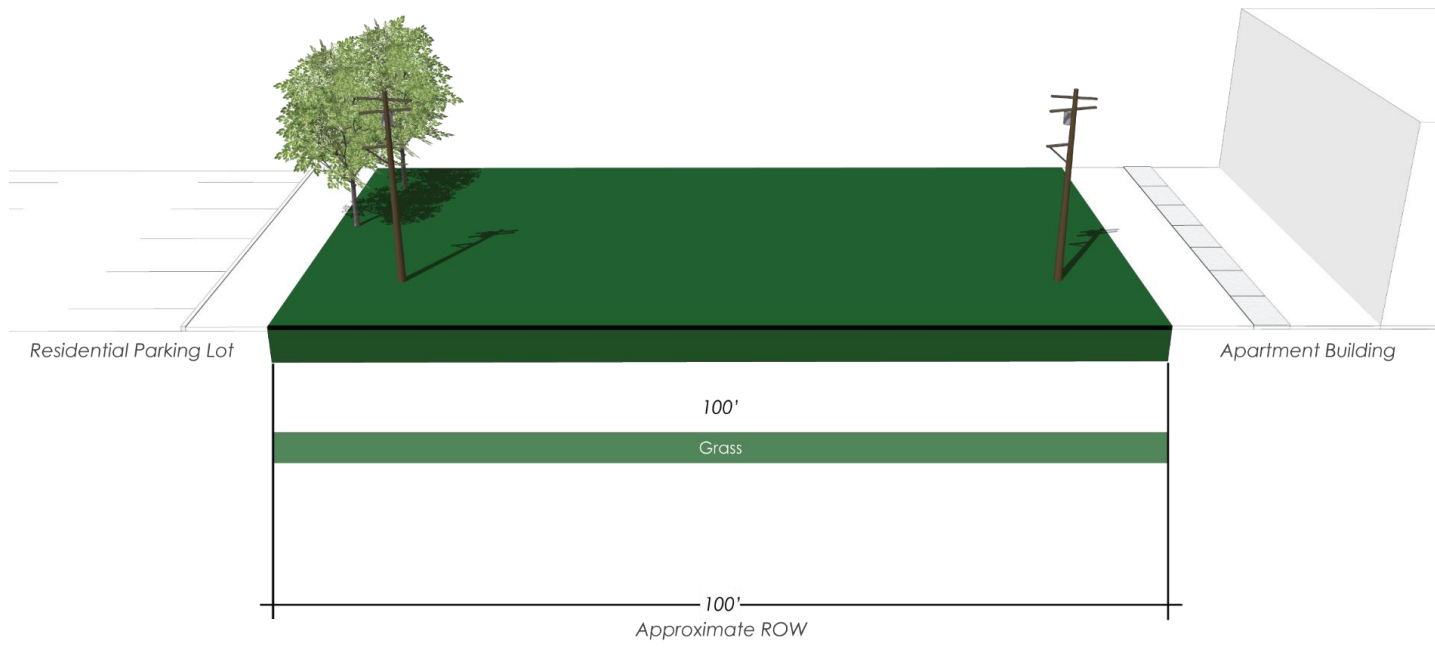
Existing (Looking East)





NEW RIGGS ROAD ROW

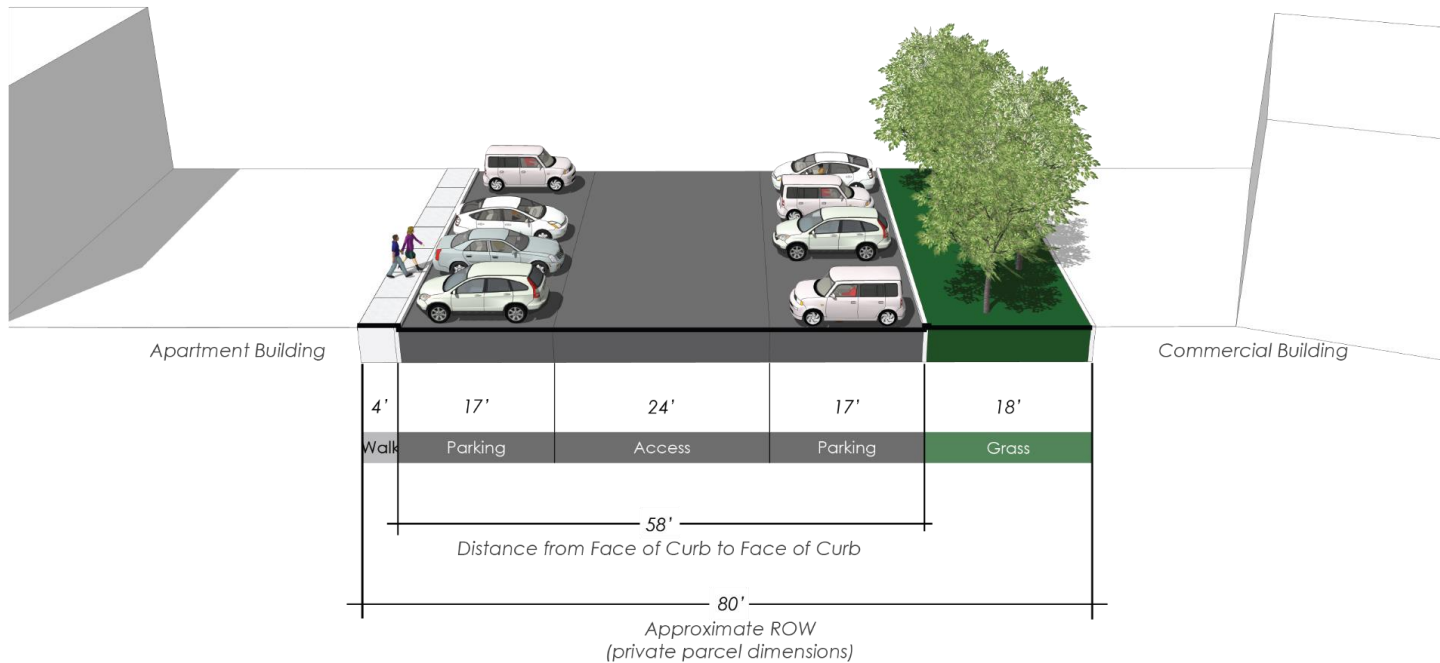
Existing (Looking North)





JASMINE TERRACE EXTENSION

Existing (Looking East)





Slido Poll Question

- Do you or anyone you know regularly ride a bike in the study area?
 - Yes
 - No



DESIGN ALTERNATIVES: ON-STREET SEGMENTS



ALTERNATIVES EVALUATION

- Conceptual design alternatives for each study segment
- A preferred alternative will be selected for each study segment
- Alternatives will be evaluated based on:



- Bicycle Comfort



- Estimated Cost



- Right-of-Way Impacts



- Parking Impacts



- Drainage & Utility Impacts



- Public & Stakeholder Input



15TH AVENUE

OPTION 1

Bicycle Boulevard (Looking North)



Evaluation Measures

Bicycle Level of Traffic Stress

Medium



Cost

Low



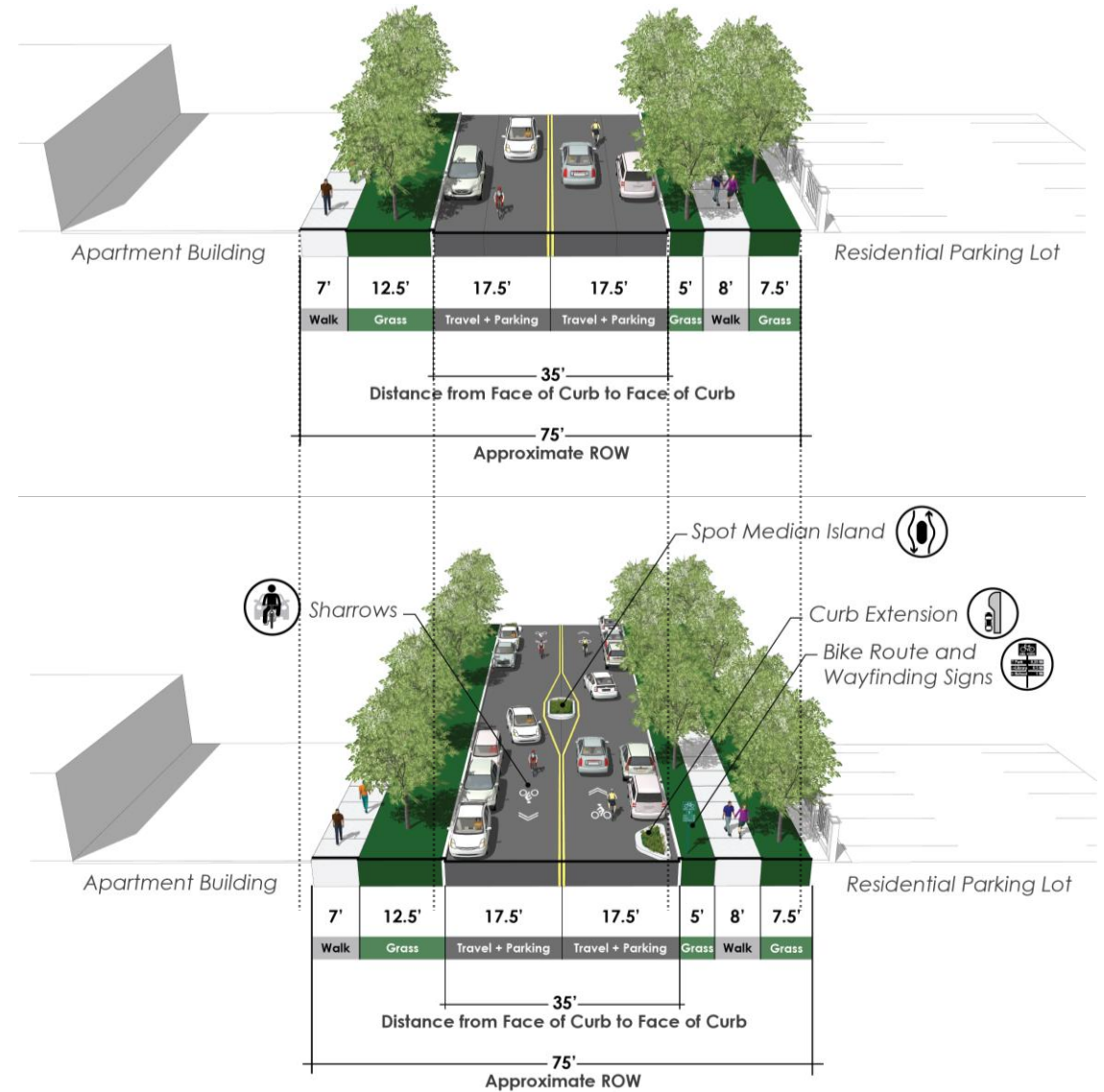
Parking Impacts

Low



ROW or Drainage & Utility Impact

Low





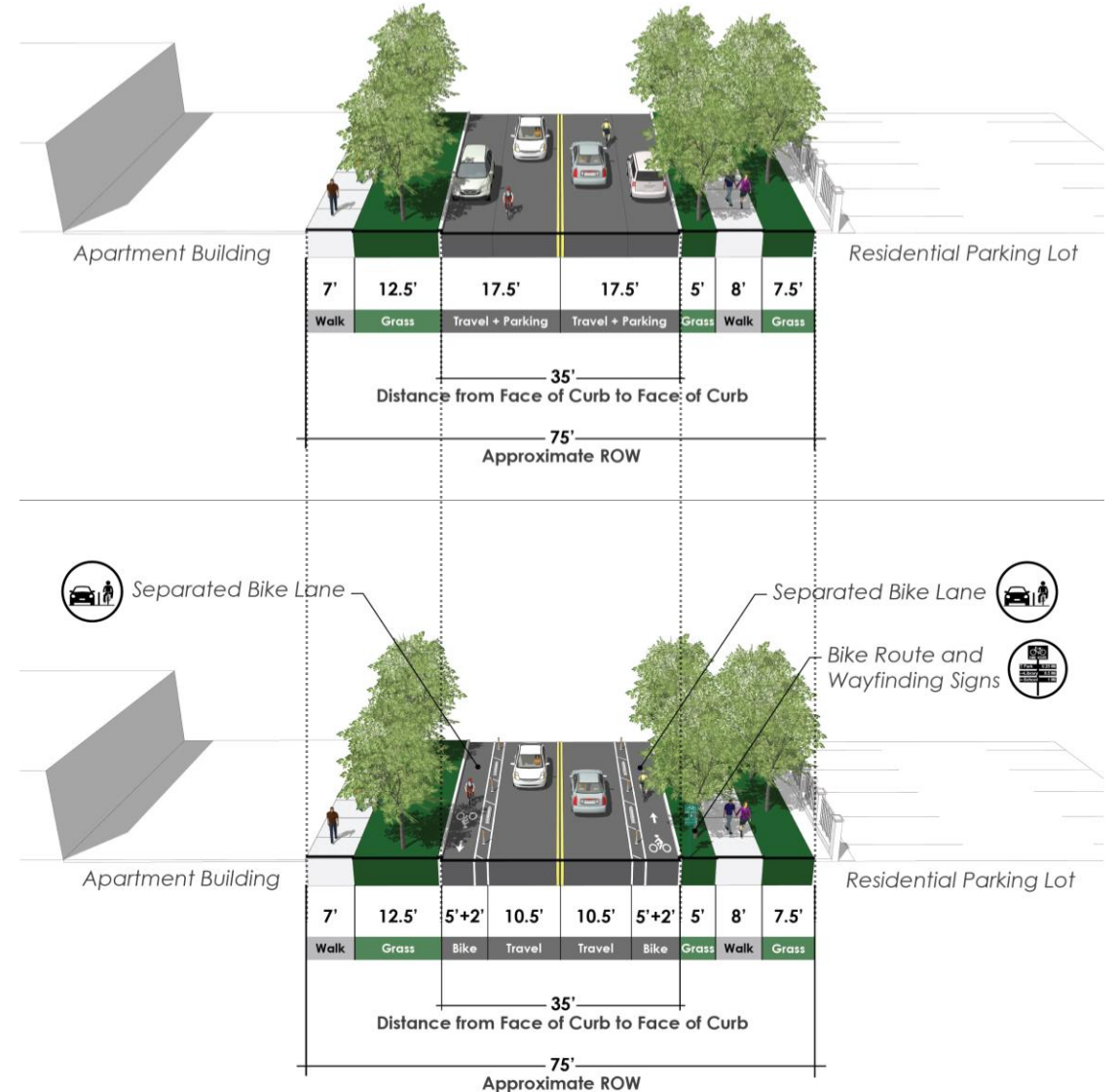
15TH AVENUE

OPTION 2

Separated Bicycle Lanes (Looking North)



Evaluation Measures		Assessment
Bicycle Level of Traffic Stress		Low
Cost		Low
Parking Impacts		High
ROW or Drainage & Utility Impact		Low





15TH AVENUE

OPTION 3

Bicycle Lanes + Parking (Looking North)



Evaluation Measures

Bicycle Level of Traffic Stress

Cost

Parking Impacts

ROW or Drainage & Utility Impact

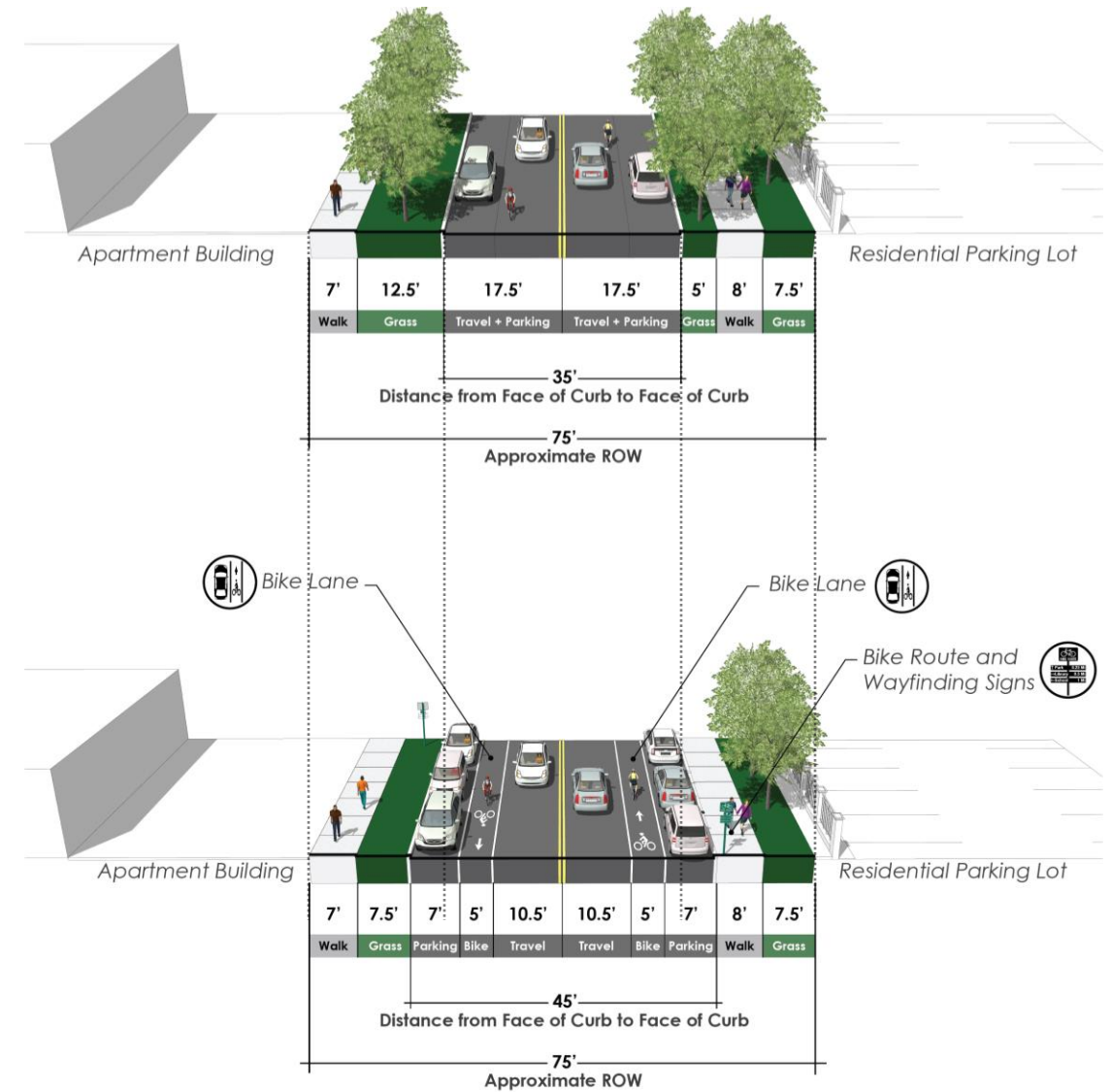
Assessment

Medium

High

Low

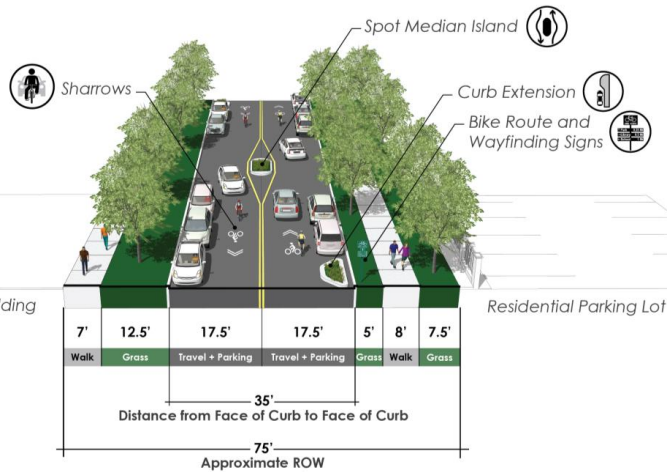
High



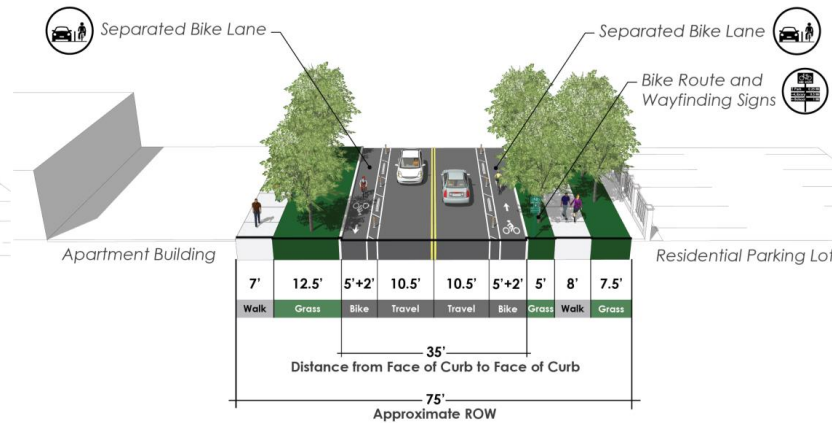


15TH AVENUE Qualitative Alternatives Assessments

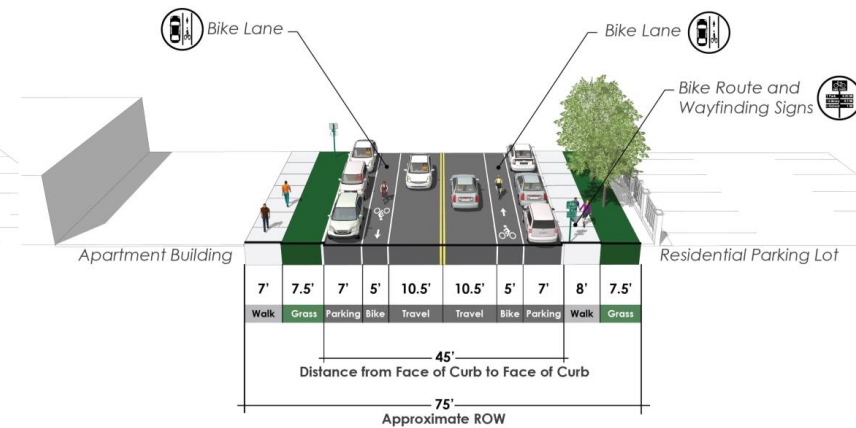
Option 1 Bicycle Boulevard



Option 2 Separated Bicycle Lanes



Option 3 Bicycle Lanes + Parking



Evaluation Measures

Bicycle Level of Traffic Stress

Option 1

Medium

Option 2

Low

Option 3

Medium

Cost

Low

Low

High

Parking Impacts

Low

High

Low

ROW or Drainage & Utility Impact

Low

Low

High



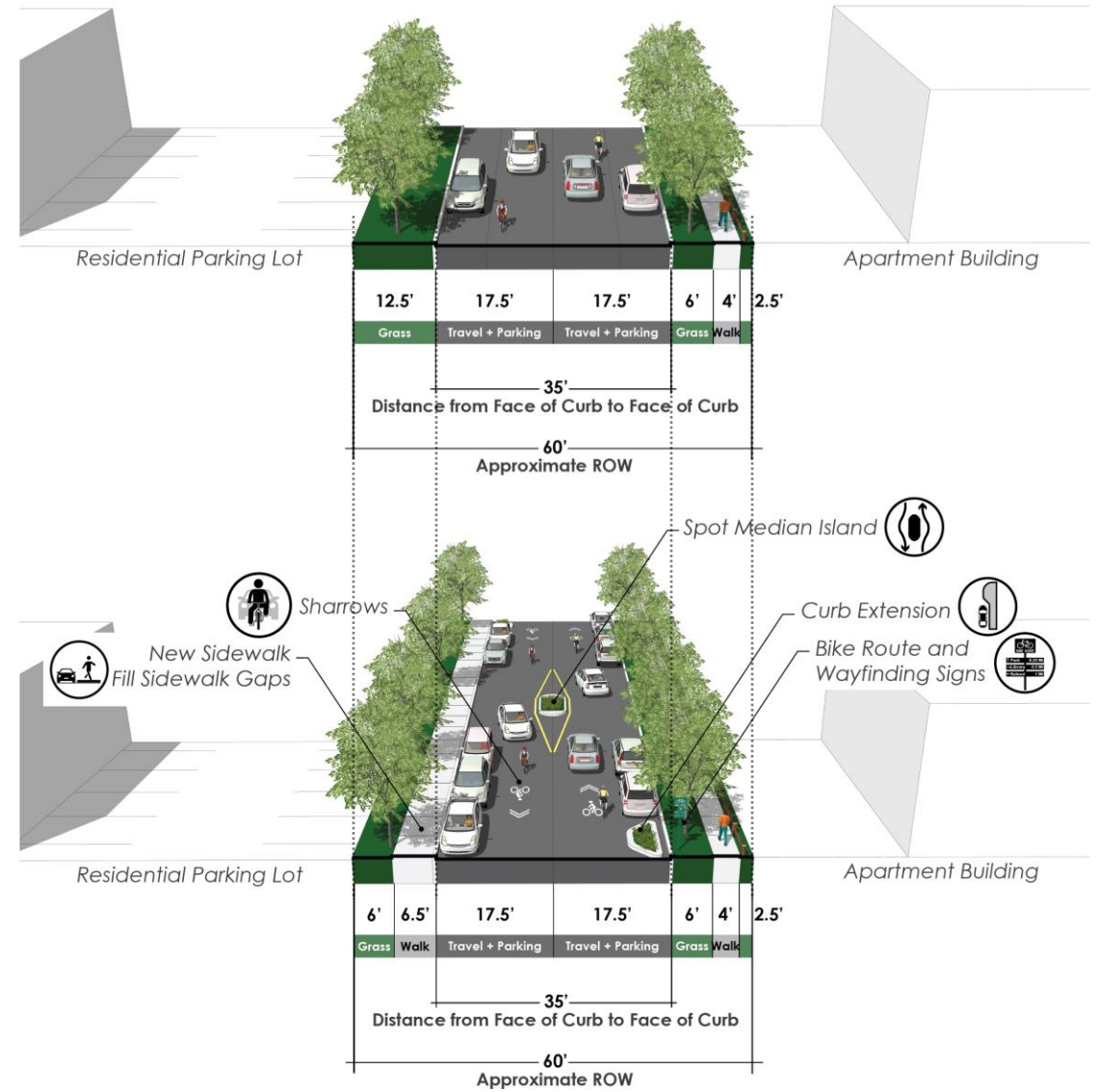
KANAWHA STREET

OPTION 1

Bicycle Boulevard (Looking East)



Evaluation Measures	Assessment
Bicycle Level of Traffic Stress	Medium
Cost	Low
Parking Impacts	Low
ROW or Drainage & Utility Impact	Low







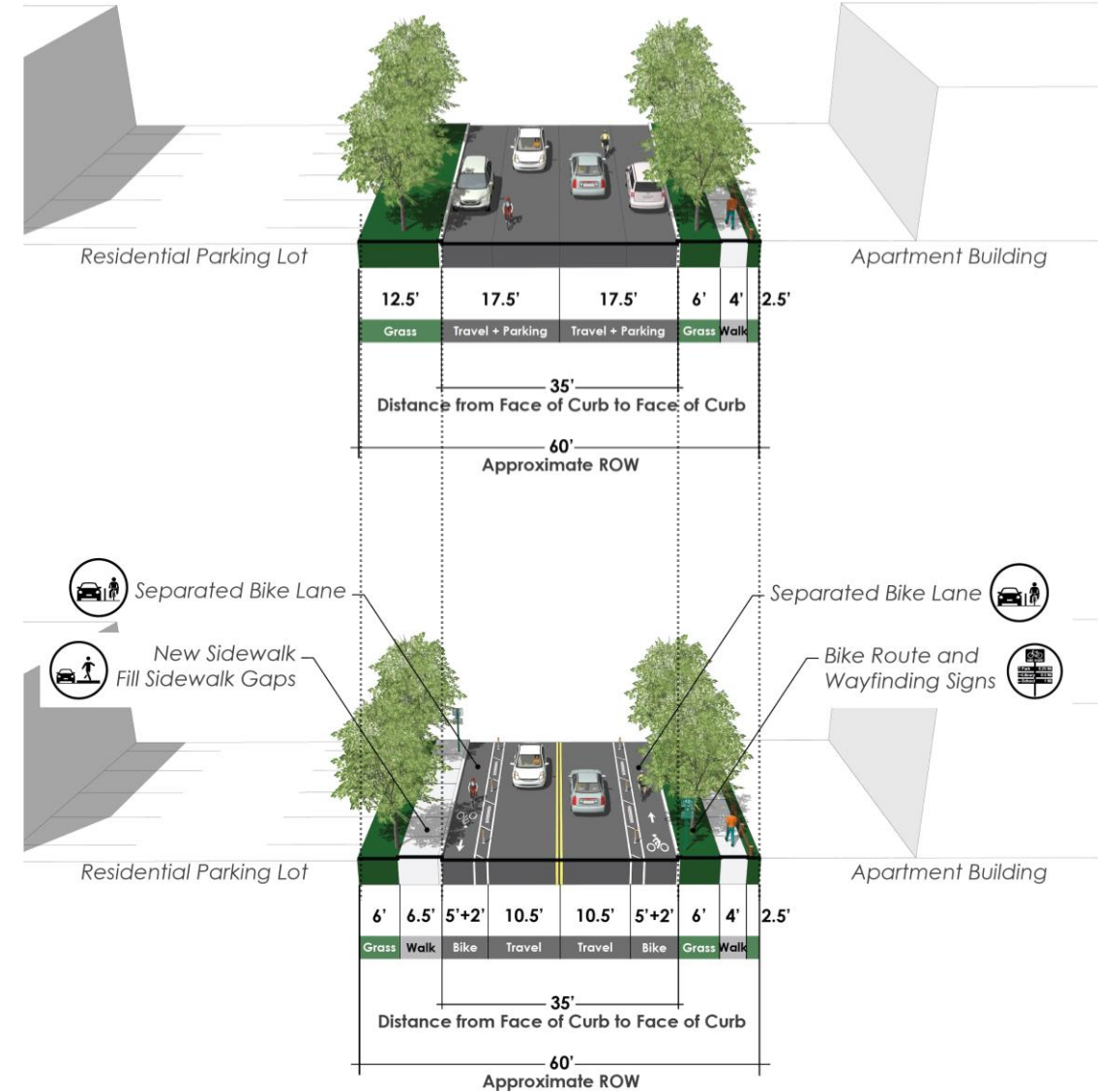


KANAWHA STREET

OPTION 2

Separated Bicycle Lanes (Looking East)

	Evaluation Measures	Assessment
	Bicycle Level of Traffic Stress	Low
	Cost	Low
	Parking Impacts	High
	ROW or Drainage & Utility Impact	Low





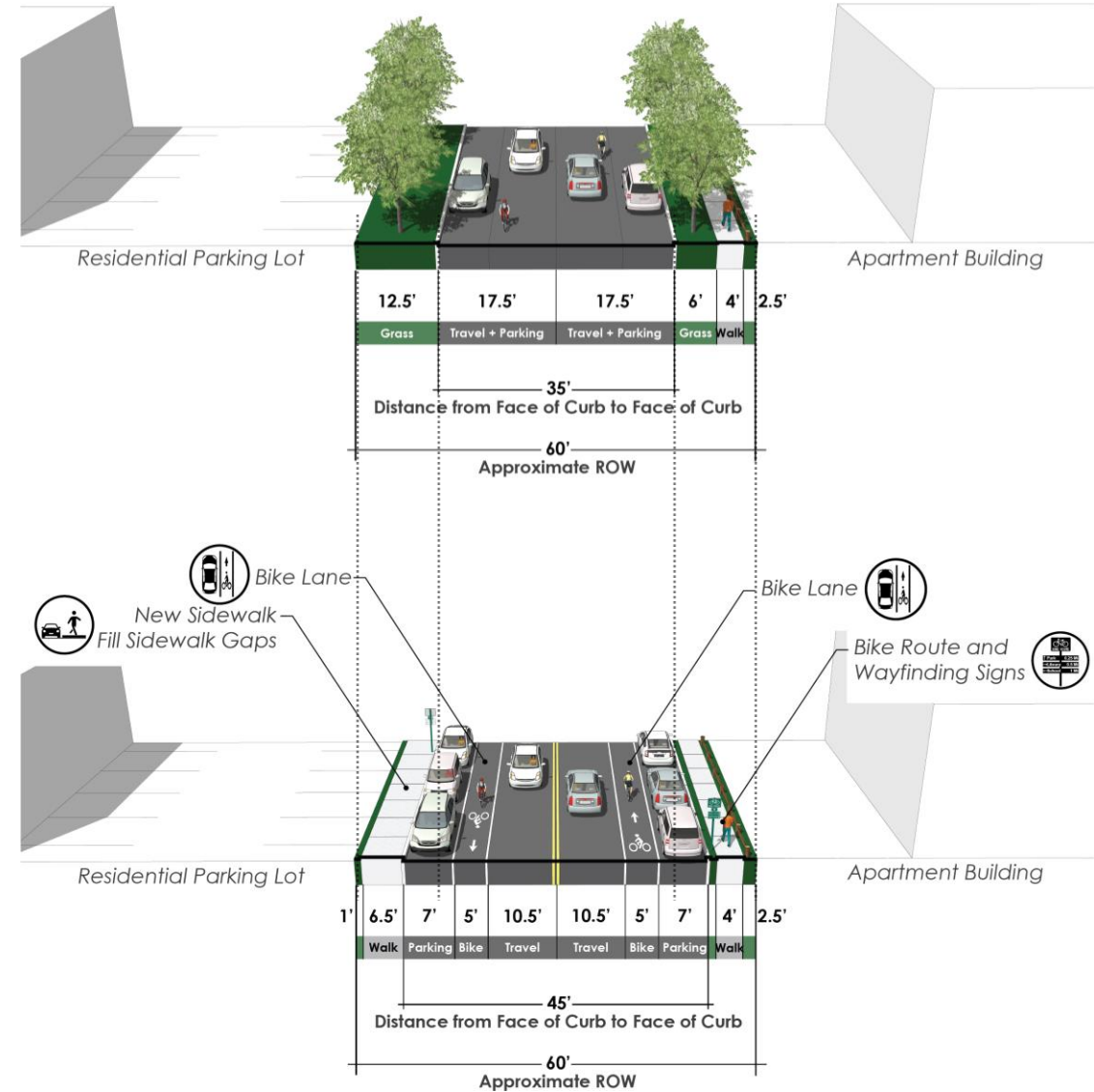
KANAWHA STREET

OPTION 3

Bicycle Lanes + Parking (Looking East)



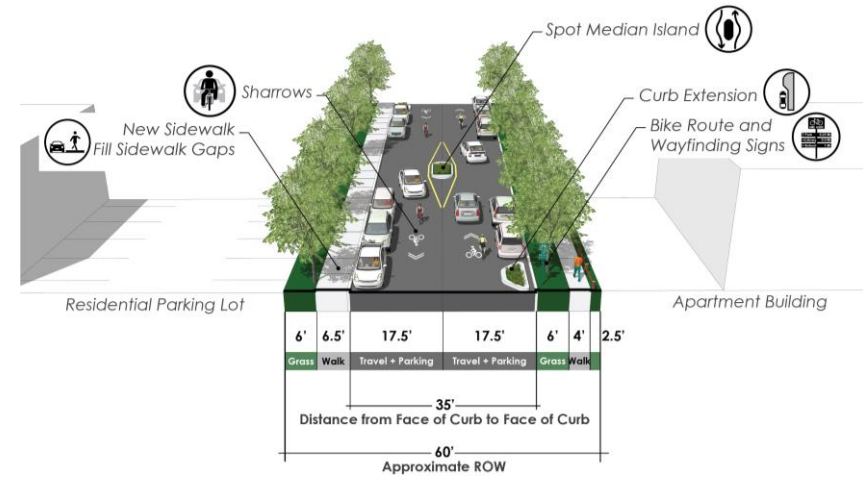
Evaluation Measures	Assessment
Bicycle Level of Traffic Stress	Medium
Cost	High
Parking Impacts	Low
ROW or Drainage & Utility Impact	High



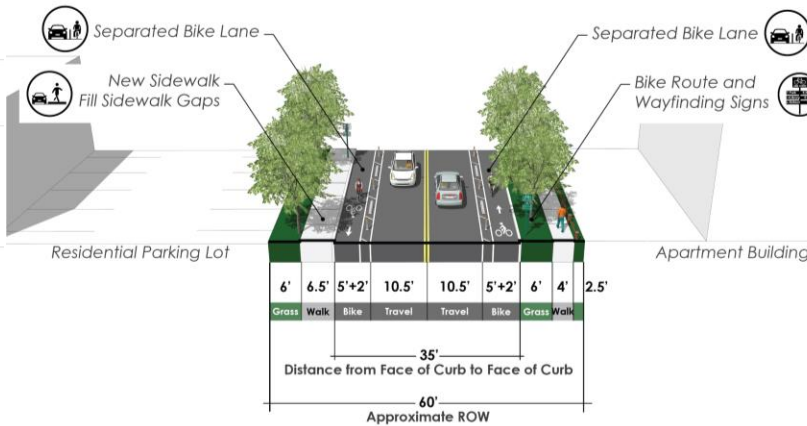


KANAWHA STREET Qualitative Alternatives Assessments

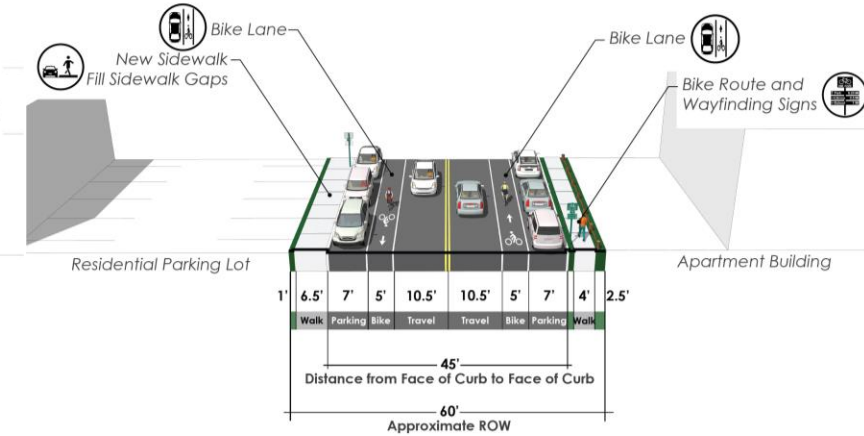
Option 1
Bicycle Boulevard



Option 2
Separated Bicycle Lanes



Option 3
Bicycle Lanes + Parking



Evaluation Measures

Bicycle Level of Traffic Stress

Option 1

Medium

Option 2

Low

Option 3

Medium

Cost

Low

Low

High

Parking Impacts

Low

High

Low

ROW or Drainage & Utility Impact

Low

Low

High



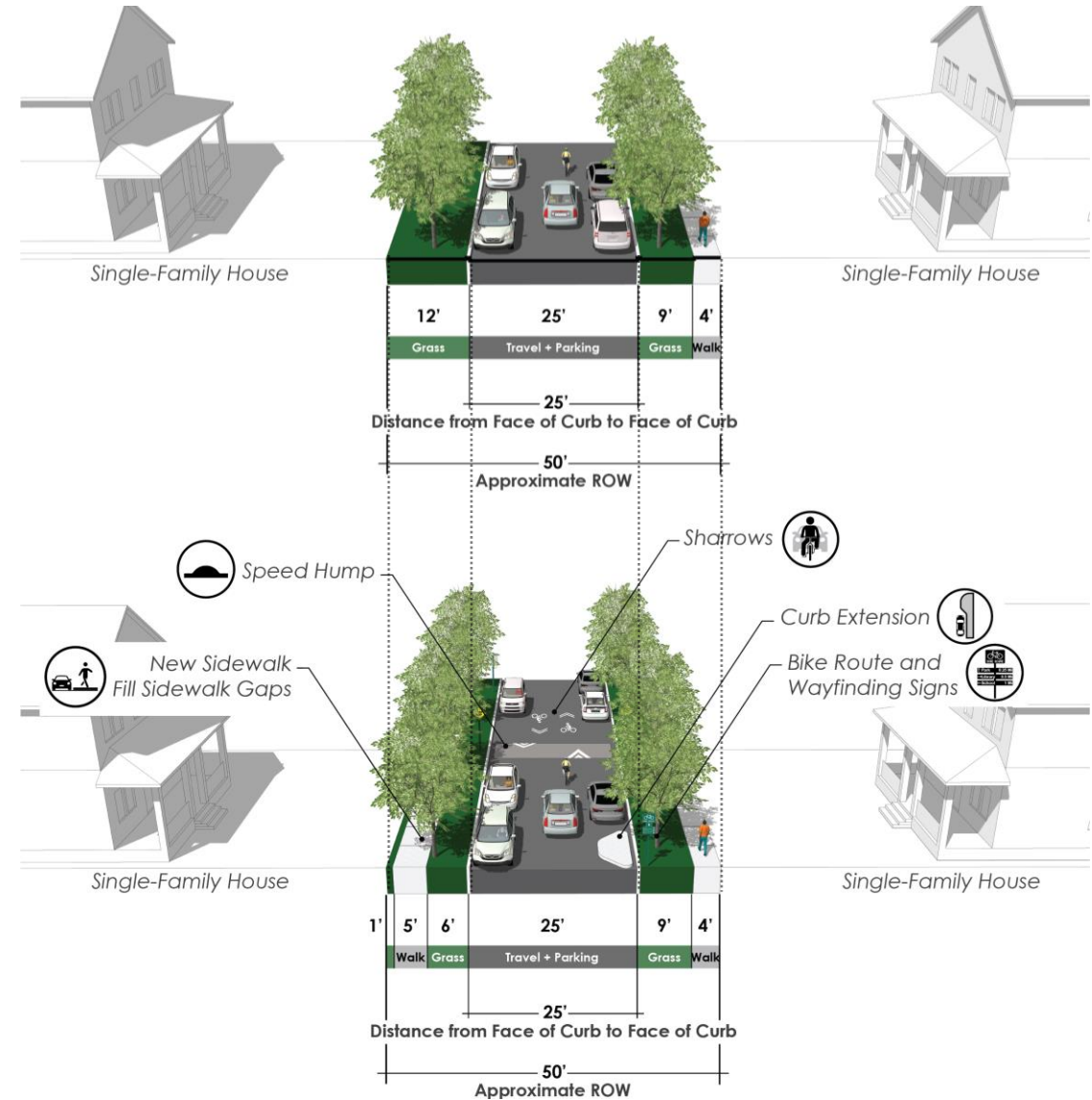
KEOKEE STREET

OPTION 1

Bicycle Boulevard (Looking East)



Evaluation Measures	Assessment
Bicycle Level of Traffic Stress	Medium
Cost	Low
Parking Impacts	Low
ROW or Drainage & Utility Impact	Low





KEOKEE STREET

OPTION 2

Bicycle Advisory Shoulders (Looking East)



Evaluation Measures

Bicycle Level of Traffic Stress

Cost

Parking Impacts

ROW or Drainage & Utility Impact

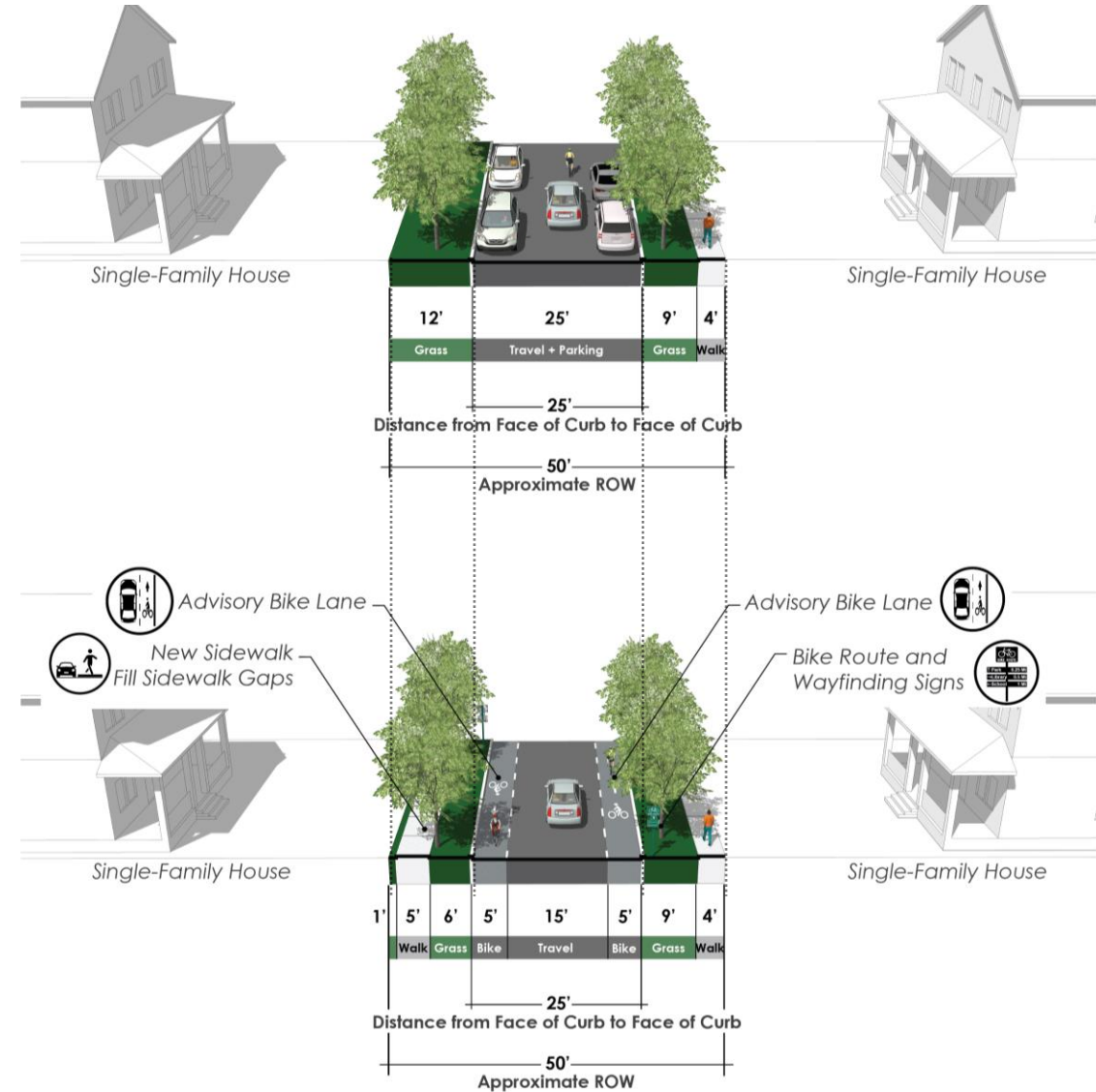
Assessment

Low

Low

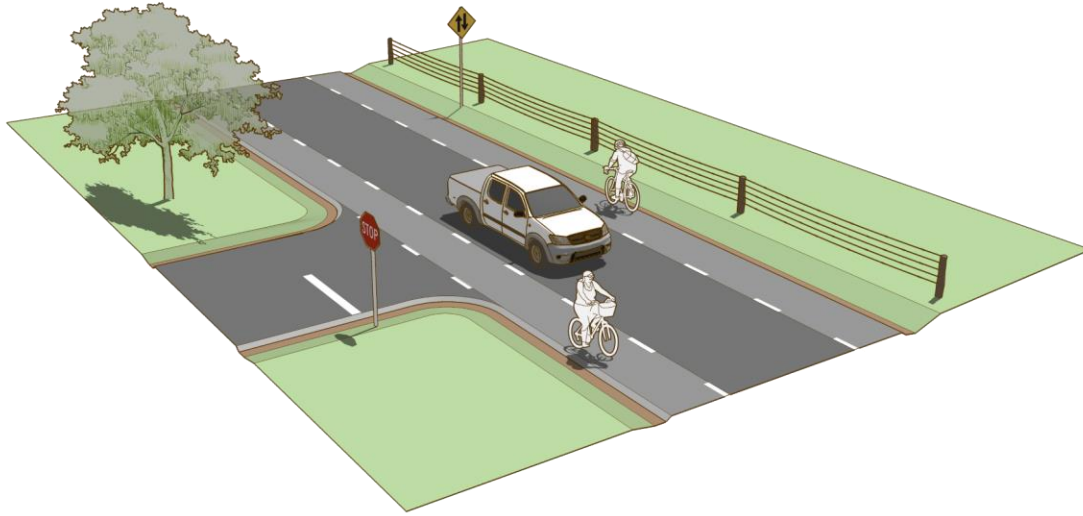
High

Low





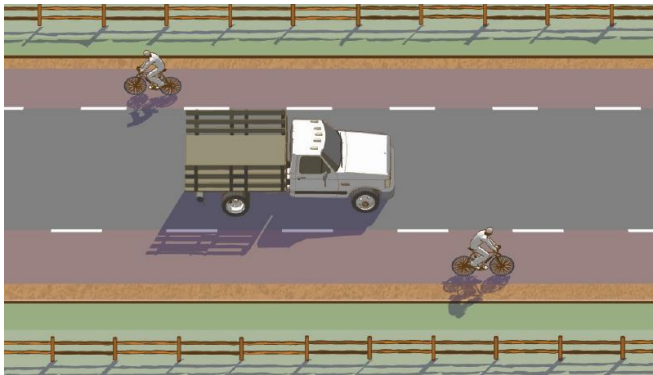
BICYCLE ADVISORY SHOULDERS



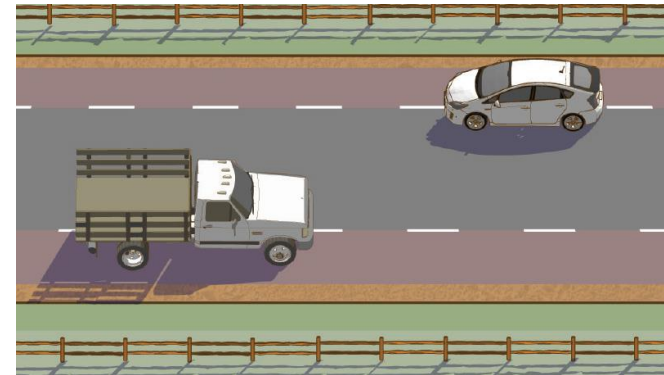
Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one.



Advisory bike lane in New Hampshire.
Source: streets.mn



Motorists travel in the center two-way travel lane.

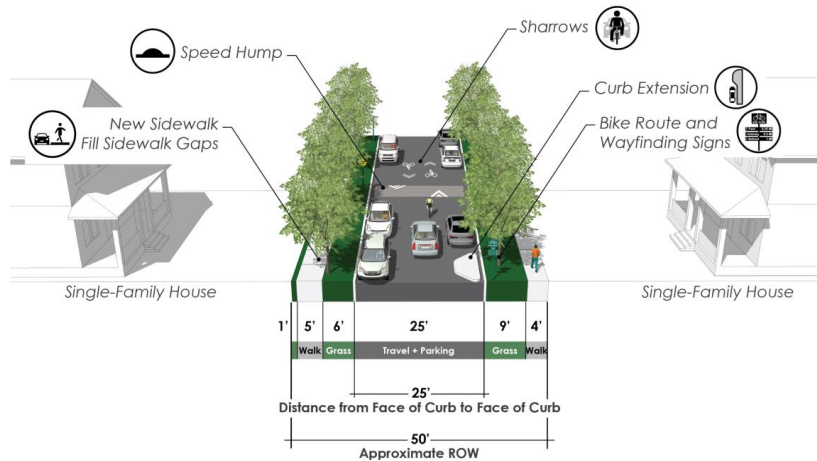


Motorists may need to encroach into the advisory shoulder space to pass oncoming vehicle

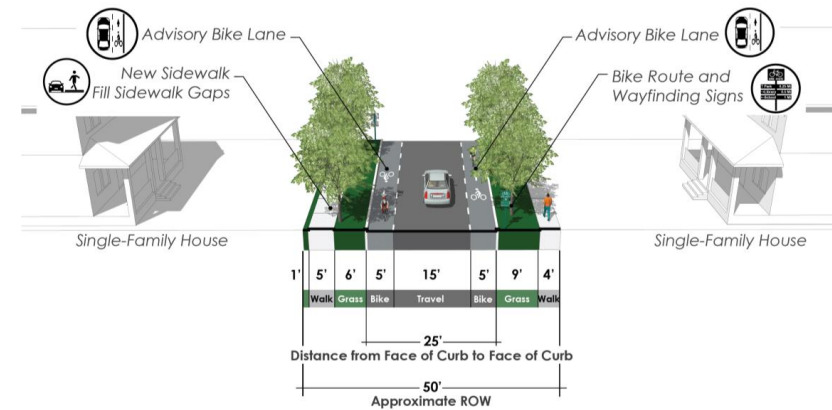






KEOKEE STREET Qualitative Alternatives Assessments

Option 1
Bicycle Boulevard



Option 2
Bicycle Advisory Shoulders



Evaluation Measures	Option 1	Option 2
 Bicycle Level of Traffic Stress	Medium	Low
 Cost	Low	Low
 Parking Impacts	Low	High
 ROW or Drainage & Utility Impact	Low	Low



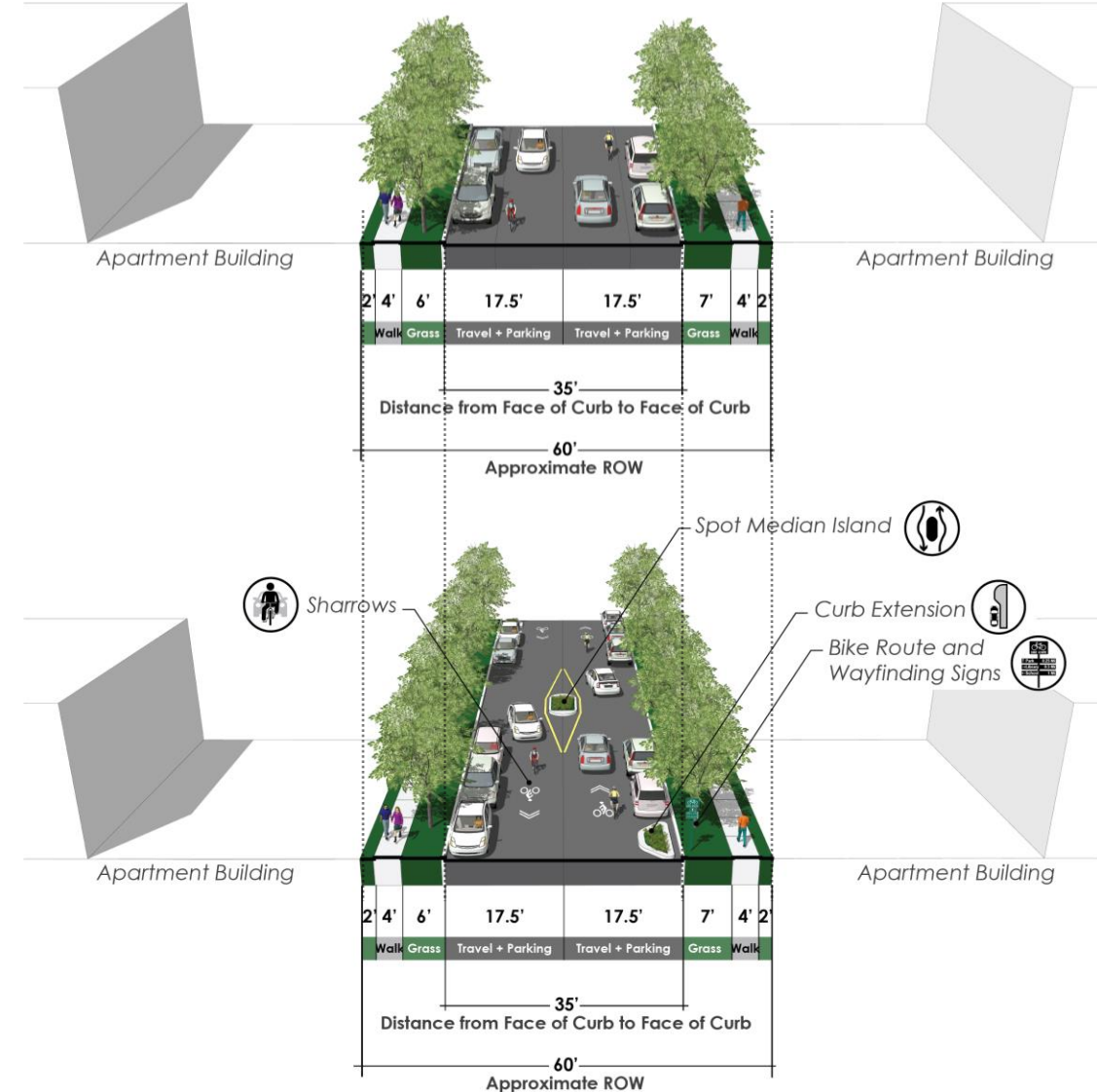
JASMINE TERRACE

OPTION 1

Bicycle Boulevard (Looking East)



Evaluation Measures	Assessment
Bicycle Level of Traffic Stress	Medium
Cost	Low
Parking Impacts	Low
ROW or Drainage & Utility Impact	Low





JASMINE TERRACE

OPTION 2

Separated Bicycle Lanes (Looking East)



Evaluation Measures

Bicycle Level of Traffic Stress

Cost

Parking Impacts

ROW or Drainage & Utility Impact

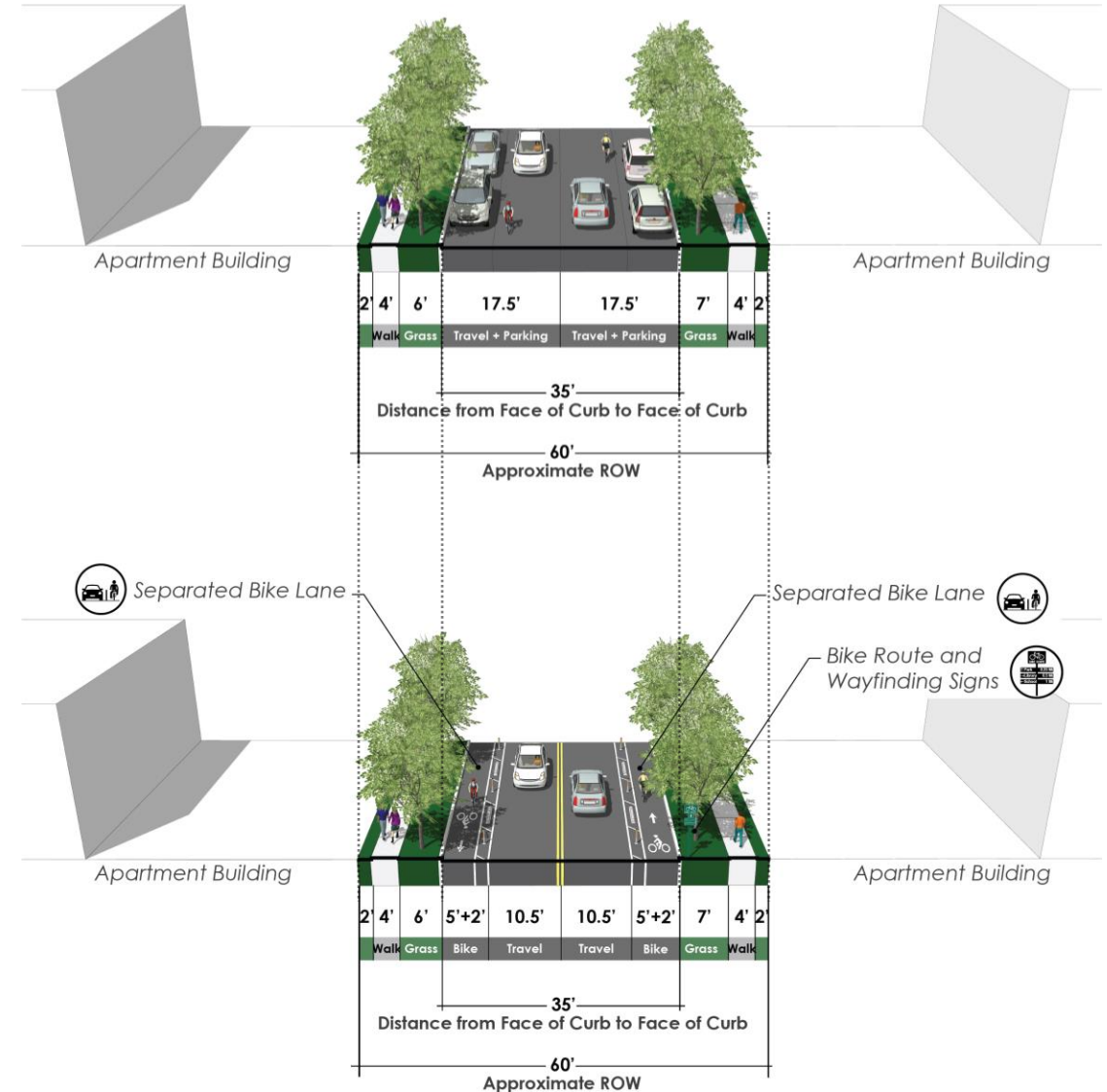
Assessment

Low

Low

High

Low





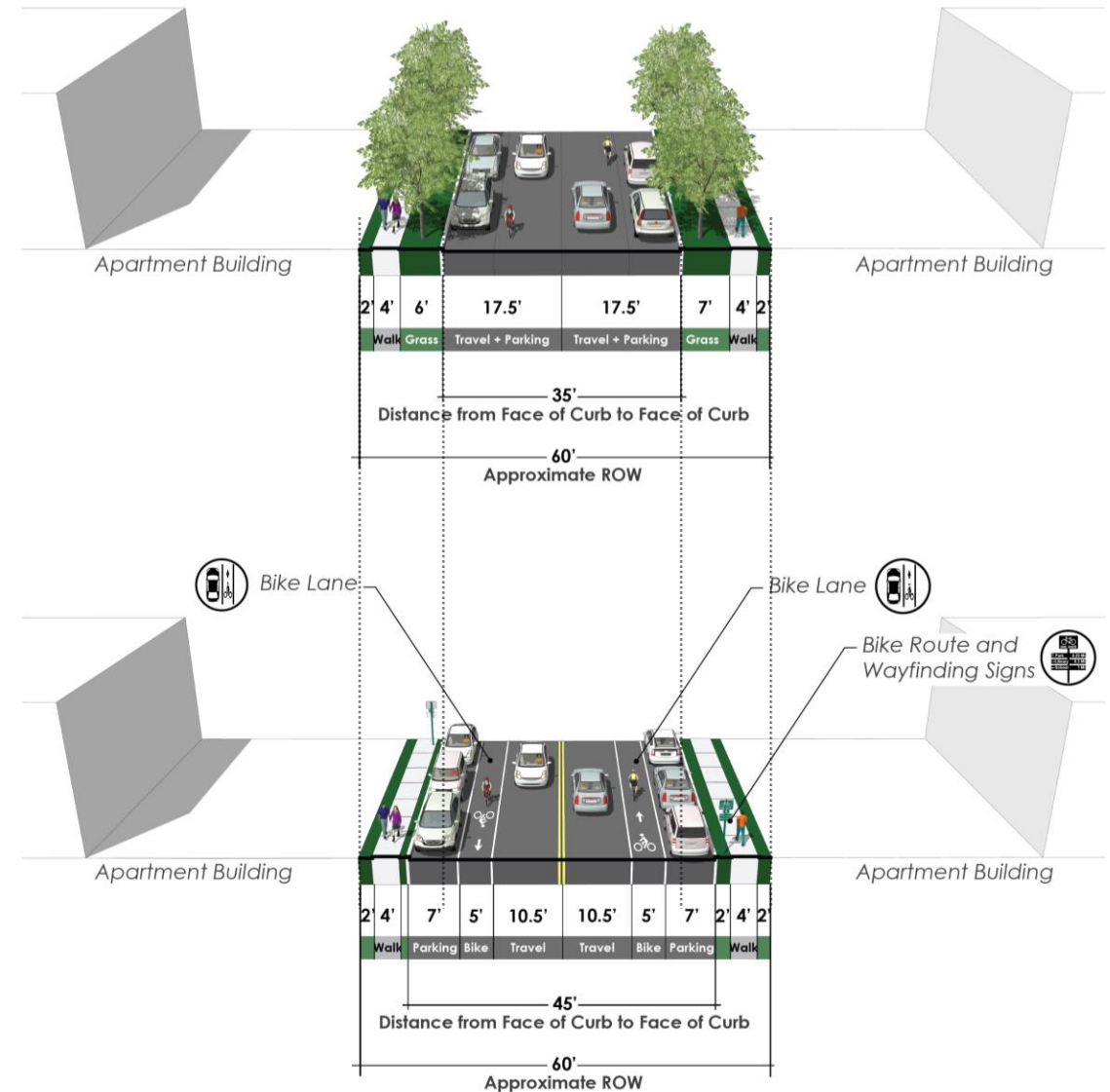
JASMINE TERRACE

OPTION 3

Bicycle Lanes + Parking (Looking East)

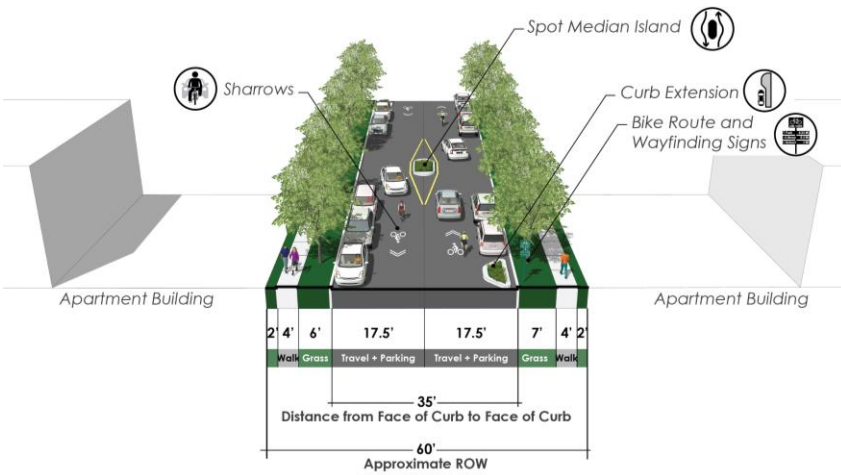


Evaluation Measures	Assessment
Bicycle Level of Traffic Stress	Medium
Cost	High
Parking Impacts	Low
ROW or Drainage & Utility Impact	High

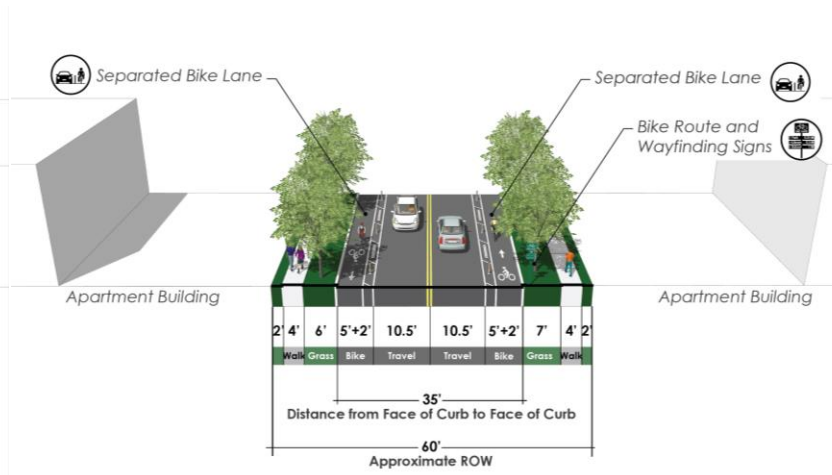


JASMINE TERRACE Qualitative Alternatives Assessments

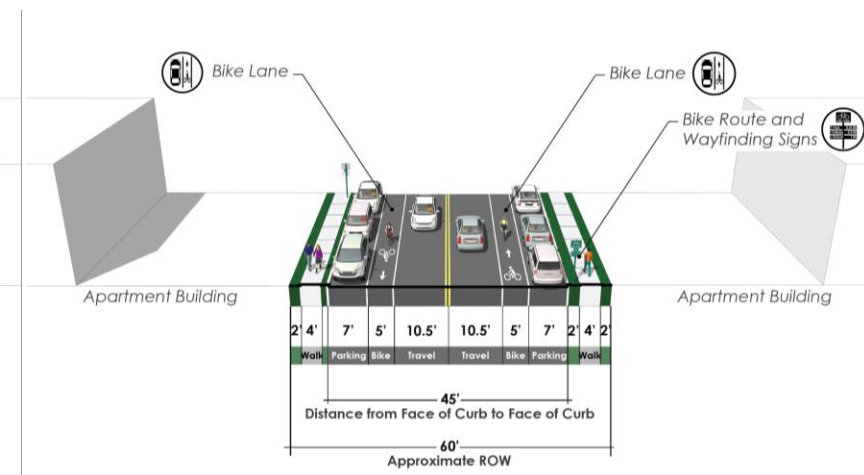
Option 1
Bicycle Boulevard






Option 2
Separated Bicycle Lanes



Option 3
Bicycle Lanes + Parking



	Option 1	Option 2	Option 3
 Bicycle Level of Traffic Stress	Medium	Low	Medium
 Cost	Low	Low	High
 Parking Impacts	Low	High	Low
 ROW or Drainage & Utility Impact	Low	Low	High



Slido Poll Question

- If widening the roads was not feasible and we have to choose between adding bike lanes or keeping on-street parking, what would you prefer?
 - Remove on-street parking to add bike lanes
 - Maintain existing parking and redesign the street to make it safer to share the road with bikes



TRAFFIC CALMING, CROSSING, & BICYCLE BOULEVARD IDEAS

 Bicycle Facility

 Sidewalk

 Shared Use Path/Trail

 Potential Future Pedestrian & Bicycle

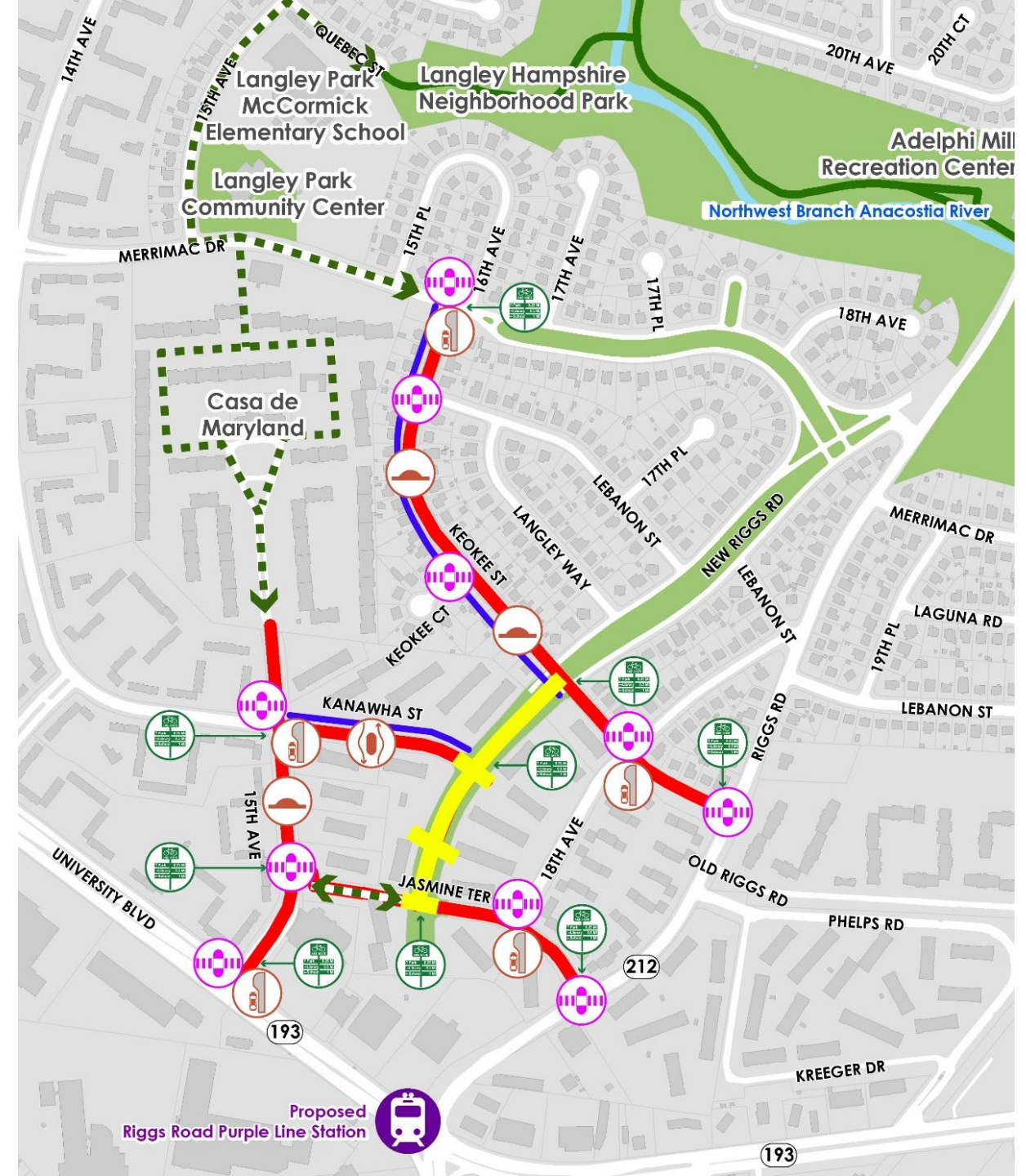
 Crossing

 Curb Extension/Bump-outs

 Speed Hump/Bump

 Spot Median Island

 Bike Route & Way-finding Signs





CROSSING TREATMENTS



Pedestrian Refuge Islands



Raised Crosswalk

Image Credit : City of Ann Arbor, MI



Raised Intersection

Image Credit : Alta



CURB EXTENSION/BUMP-OUTS



Curb Extension at Intersection

Image Credit : James Barrera



Mid-Block Curb Extension



Stormwater Swale in Curb Extension



SPEED HUMP/BUMP



Speed Hump

Image Credit : Lucy Gibson



Speed Bump



Speed Cushions

Image Credit : NACTO



MEDIAN ISLANDS



Concrete Spot Median Island



Landscape Spot Median Island

Image Credit : LKLA



Landscape Median

Image Credit : NACTO

BIKE ROUTE & WAYFINDING SIGNS



Bike Route & Way-finding Signs



Bike Route & Way-finding Signs

Image Credit : Bike Provincetown



Bike Route & Way-finding Signs



Slido Poll Question

- Would you ride a bike regularly if such improvements are made in the study area?
 - Yes
 - No



DESIGN ALTERNATIVES: NEW RIGGS ROAD ROW SHARED-USE PATH



NEW RIGGS ROAD - EXISTING



Existing Paths
Boundary of Project Area

- Existing Paths
- Boundary of Project Area

Existing Conditions

- Site is part of an existing public right-of-way
- Several paths paved connecting University Gardens apartment complexes
- Storm water erosion from adjoining parking lots and streets
- Mature trees on edges, sparse landscaping
- Limited ADA accessible connections to adjoining roadways and sidewalks



NEW RIGGS ROAD – ALTERNATIVE 1



KEY MAP



A simple, linear path connects north and south between Keokee Street and Jasmine Terrace.

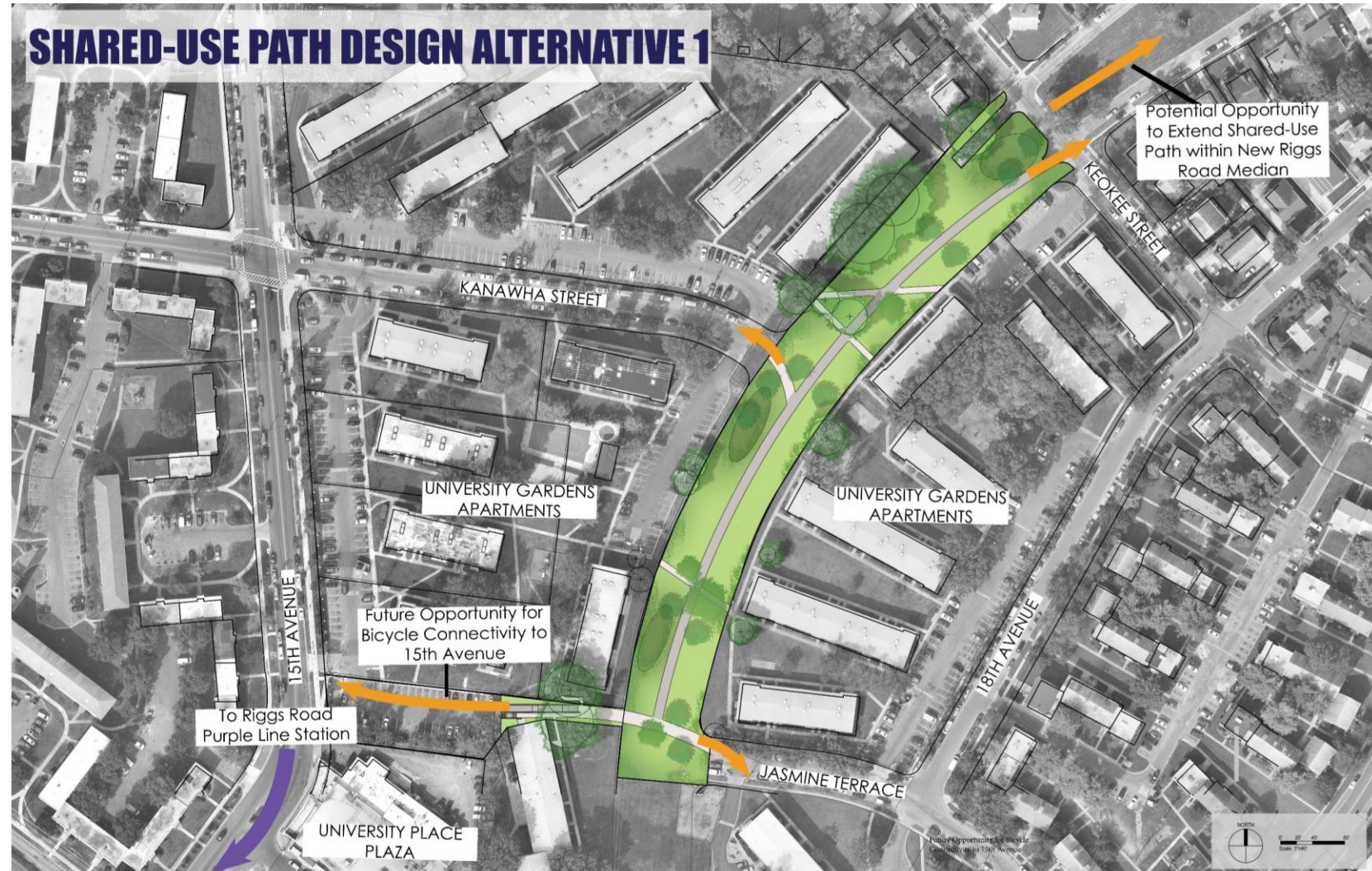
Pros & Cons

Pros

- Alignment conforms to existing site conditions
- Cost effective/easily implemented
- Direct connections to existing pedestrian networks

Cons

- Alignment limits spaces for additional amenities



NEW RIGGS ROAD – ALTERNATIVE 2



KEY MAP



A more curvilinear path that follows the site's natural topography.

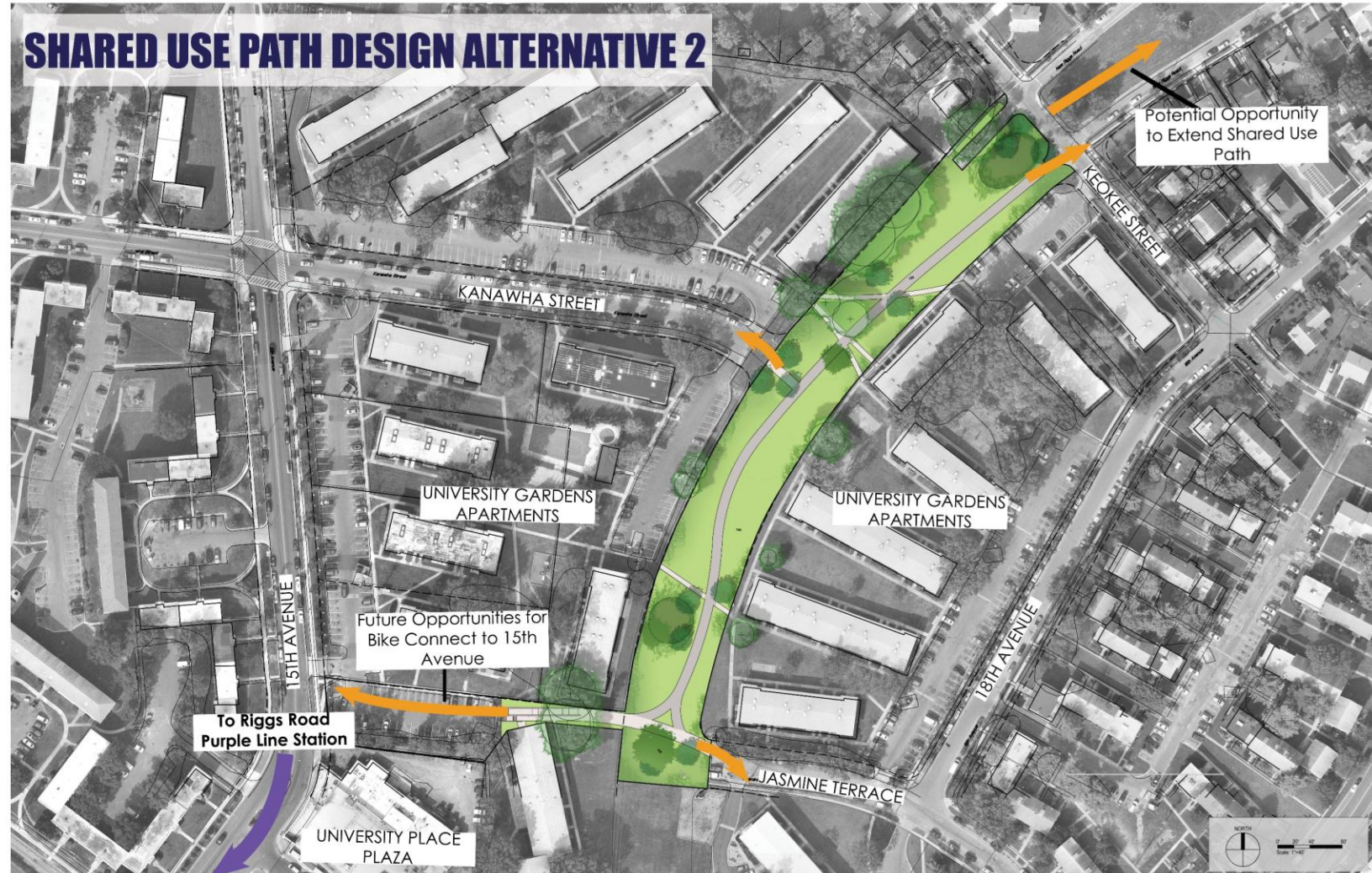
Pros & Cons

Pros

Alignment modestly enhances existing site conditions
Curves slow bike related traffic

Cons

Increases paved areas
Increases potential storm water runoff



NEW RIGGS ROAD – ALTERNATIVE 3



KEY MAP



A more dynamic and curvilinear path that follows the site's natural topography, slows bicyclist speeds, and offers more opportunities for additional recreational spaces.

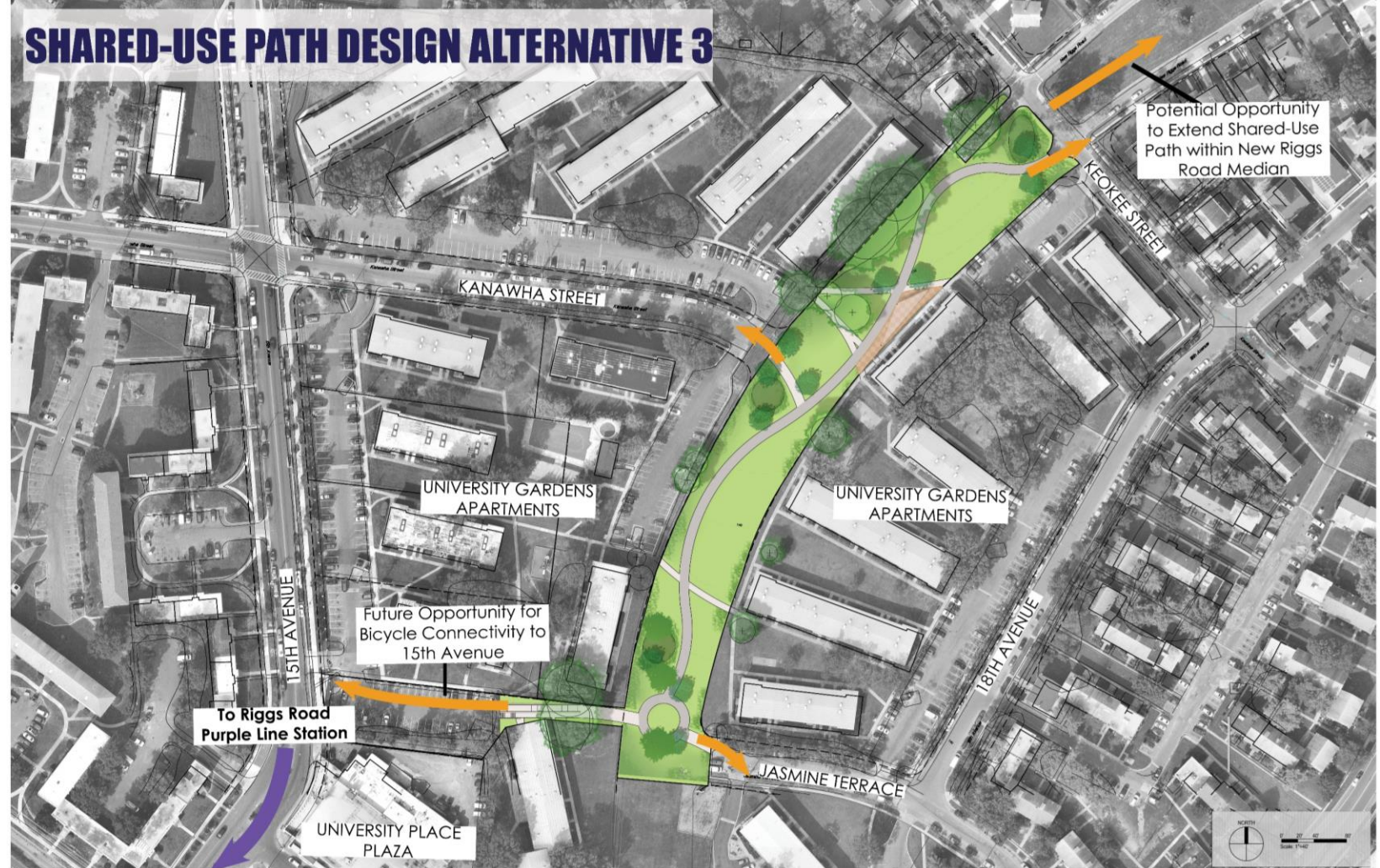
Pros & Cons

Pros

- Curvilinear alignment increases travel time to allow greater engagement with green space
- Greater opportunity for programming

Cons

- Alignment has modest impact to existing grading
- More pavement increases runoff



NEW RIGGS ROAD – AMENITIES

PHASE ONE SITE AMENITIES



Curb Cut ADA Ramp with Bollards
Image Credit: Thewashcycle.com



ADA Ramp with Adjacent Stairs
(Note: All Ramps and Stairs to Include Railing) Image Credit: 123RF.com



Waste Receptacle, Typical
Image Credit: Victor Stanley



Bench, Typical
Image Credit: Victor Stanley

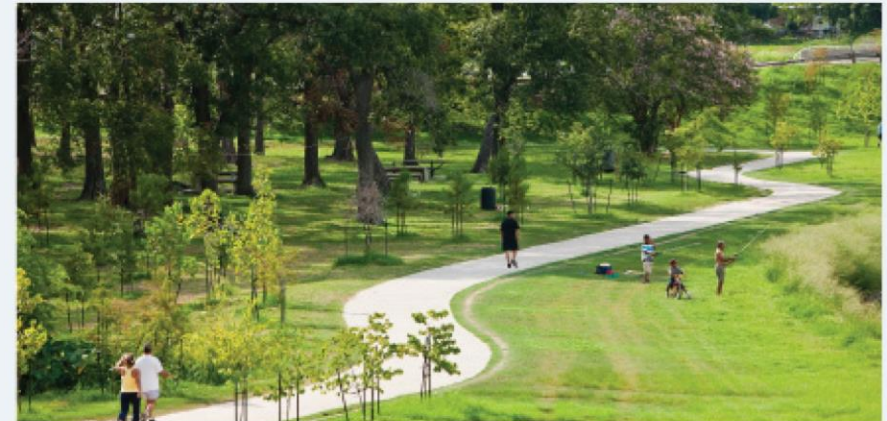


LED Shoe-Box Light Fixture
Image Credit: FYTLED

SHARED-USE PATH EXAMPLES



Shared-Use Path in Naturalized Setting
Image Credit: Glenstone Meadows



Shared-Use Path in Naturalized Setting
Image Credit: Houston Parks Board

NEW RIGGS ROAD – AMENITIES

PHASE TWO SITE AMENITIES AND PROGRAMING



ADA Accessible Grill Station
Image Credit: The Park Catalogue



Picnic Table, Typical
Image Credit: Landscape Forms

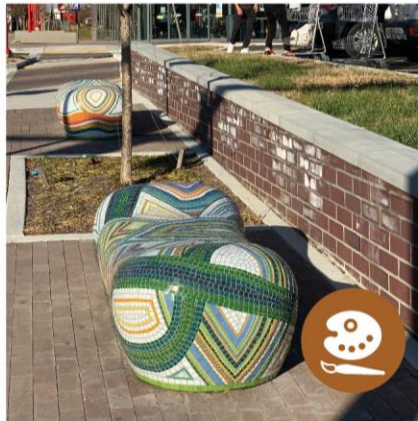


Naturalized Play Area
Image Credit: TimberForm



Naturalized Play Area
Image Credit: Webuildfun.com

*Naturalized play area means recreating experiences found in nature to engage children in exploration, discovery, and imaginative play.



Public Art
Image Credit: RHI Location - College Park, MD.



Low Seat Wall with Mural
Image Credit: RHI Location - College Park, MD.



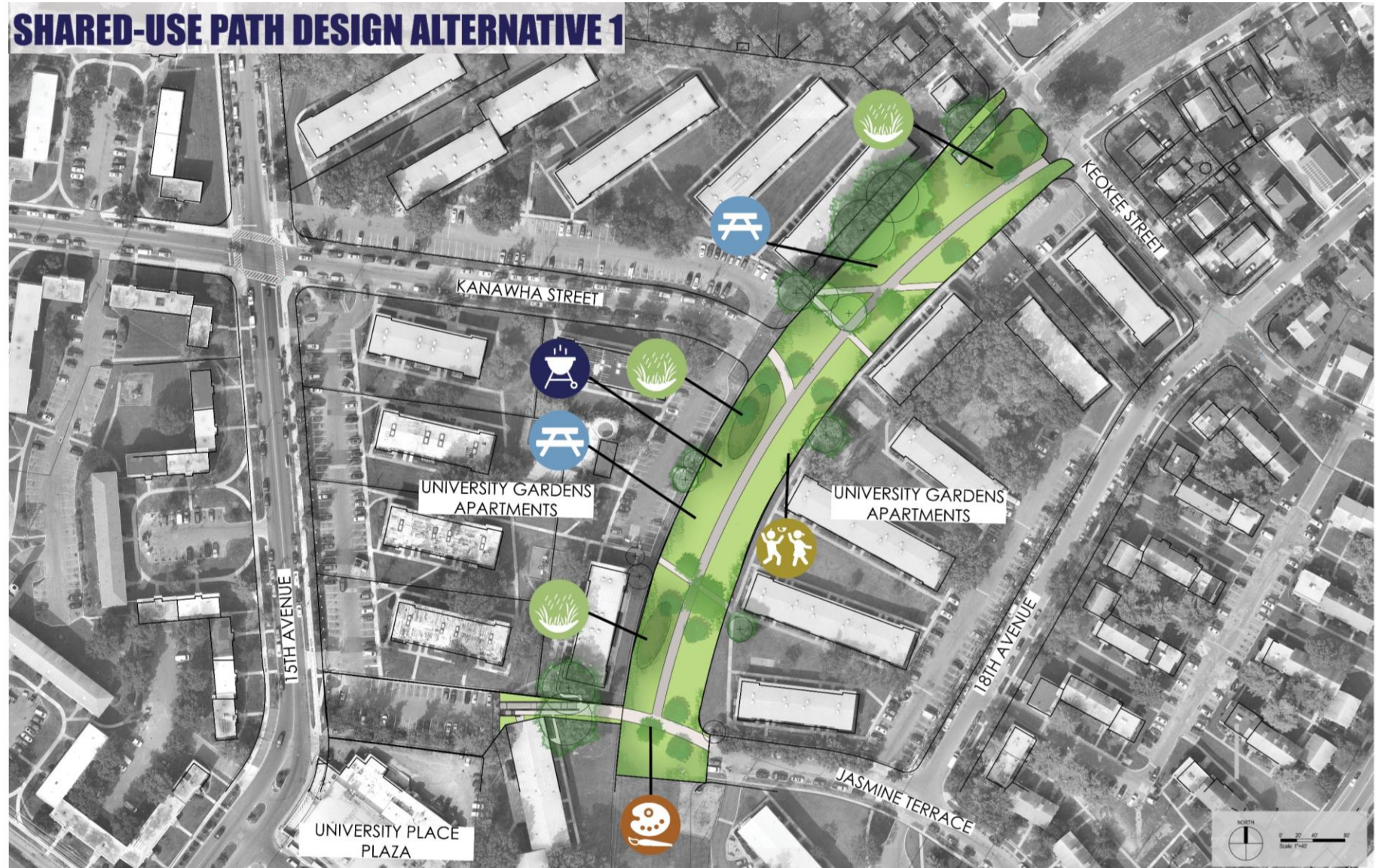
Bio-retention Planting
Image Credit: City of Takoma

NEW RIGGS ROAD – ALTERNATIVE 1



KEY MAP

-  Public Art
-  Grilling Station
-  Picnic Station
-  Play Area
-  Bio-retention Area

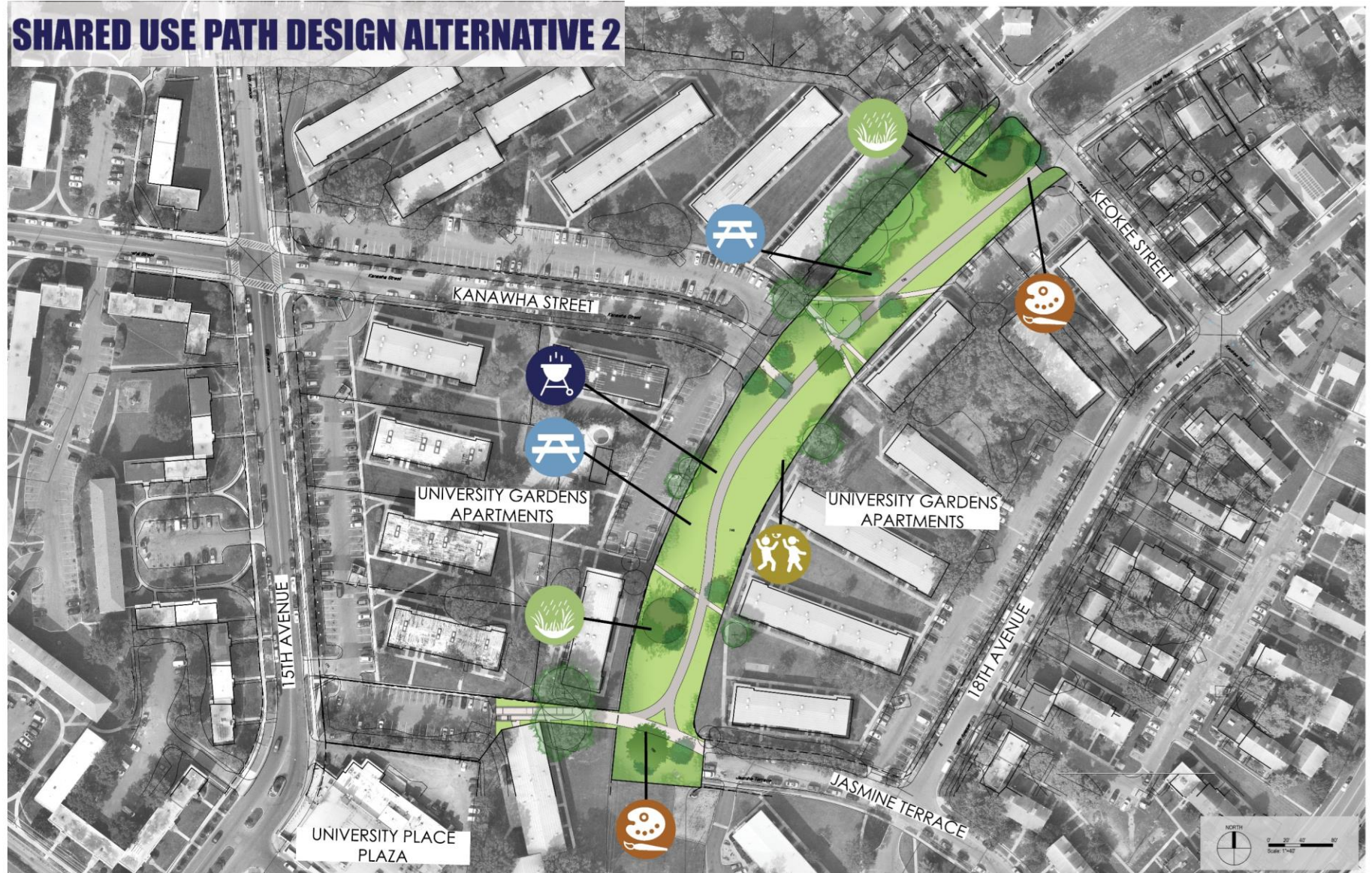


NEW RIGGS ROAD – ALTERNATIVE 2



KEY MAP

-  Public Art
-  Grilling Station
-  Picnic Station
-  Play Area
-  Bio-retention Area



NEW RIGGS ROAD – ALTERNATIVE 3







KEY MAP

-  Public Art
-  Grilling Station
-  Picnic Station
-  Play Area
-  Bio-retention Area







ALTERNATIVES ASSESSMENT







EVALUATION MEASURE	ASSESSMENT
 BICYCLE LEVEL OF TRAFFIC STRESS	LOW
 CONSTRUCTION AND MAINTENANCE COST	LOW
 ADA ACCESSIBLE	YES
 RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT	LOW



EVALUATION MEASURE	ASSESSMENT
 BICYCLE LEVEL OF TRAFFIC STRESS	LOW
 CONSTRUCTION AND MAINTENANCE COST	MEDIUM
 ADA ACCESSIBLE	YES
 RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT	MEDIUM



EVALUATION MEASURE	ASSESSMENT
 BICYCLE LEVEL OF TRAFFIC STRESS	LOW
 CONSTRUCTION AND MAINTENANCE COST	HIGH
 ADA ACCESSIBLE	YES
 RIGHT-OF-WAY OR DRAINAGE & UTILITY IMPACT	HIGH



Slido Poll Question

- How do you use the New Riggs Road Right-Of Way today?
 - Walking
 - Biking
 - Both walking and biking
 - Play area
 - Grilling/cookout
 - All of the above
 - Do not use space



PARTICIPATE

Public Input Survey

<https://www.surveymonkey.com/r/RiggsRdBikeBlvd> - English Version

<https://www.surveymonkey.com/r/RiggsRdBikeBlvd> Spanish - Spanish Version

Interactive Comment Mapping

[Interactive Map - English Version](#)

[Interactive Map - Spanish Version](#)

Project Website

<http://bit.ly/TLCRiggsRd>

Contact M-NCPPC Project Manager –
Judith Howerton

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NEXT STEPS

- Finalize preferred alternative for each study segment
- Develop preliminary engineering design plans
- Document the project through a final report



THANK YOU!



Please contact M-NCPPC Project Manager
with any questions or comments:

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