

# Fontaine Avenue Streetscape Improvements

Steering Committee Meeting #4

September 17, 2019

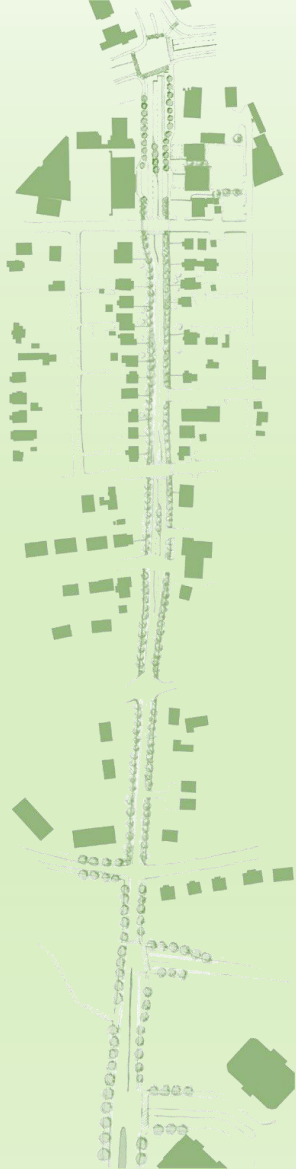


*In Conjunction  
With*

**TOOLE**  
DESIGN

# Agenda

- Project Overview
- Public Workshop #2 Recap
- Bicycle Facilities
- Recommended Typical Sections
- Pedestrian Crossings
- Intersection Designs
- Next Steps
- Adjourn



# Project Overview

# Project Area

- Project Area as defined by the project SMARTSCALE application





# Initial Project Schedule



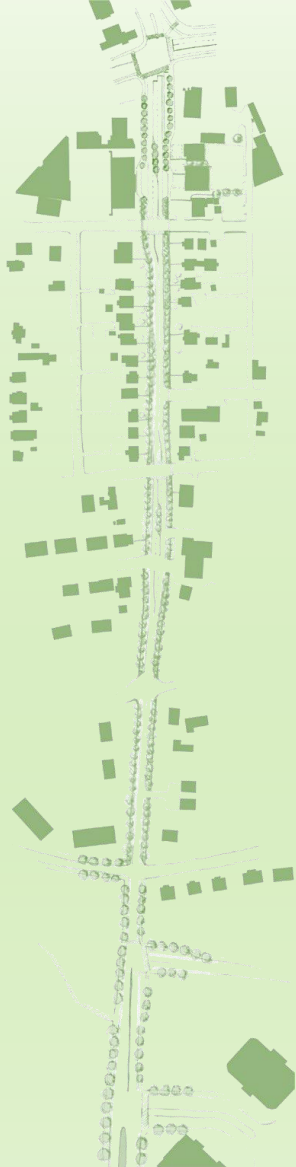
# Meeting Updates (Since Previous SC Meeting)

- 3/25/19 - Steering Committee Meeting #3
- 4/18/19 - Public Open House #2
- 6/21/19 – Technical Committee Meeting #2
- 7/11/19 – PLACE Task Force Meeting #2
- 7/23/19 – Planning Commission Work Session
- **9/17/19 – Steering Committee #4**





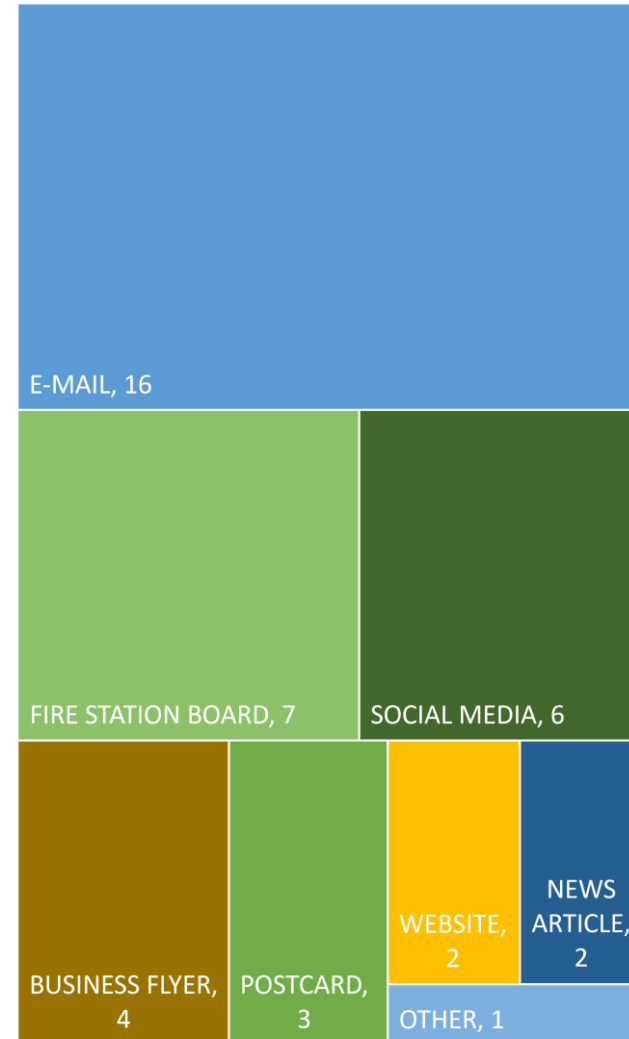
# Public Workshop #2 Recap



# Public Open House Outreach – April 18<sup>th</sup>

- To Encourage Participation, Completed the Following Outreach:
  - Flyers to Businesses along Fontaine Avenue
  - Flyers to UVA Housing
  - UVA Bus Advertisements
  - Message Board in front of Fire Station (PCMS)
  - Direct Mailings / E-mail
  - Social Media

## HOW PEOPLE HEARD ABOUT THE MEETING



INTERESTED IN THE FONTAINE AVENUE STREETSCAPE IMPROVEMENTS?

**Be part of the solution!**

Join us at our Open House to learn about these concepts, provide feedback, and help shape the vision for the corridor's future!

**Public Open House Workshop**  
**Thursday, April 18, 2019**

**5:30 p.m. – 7 p.m.**

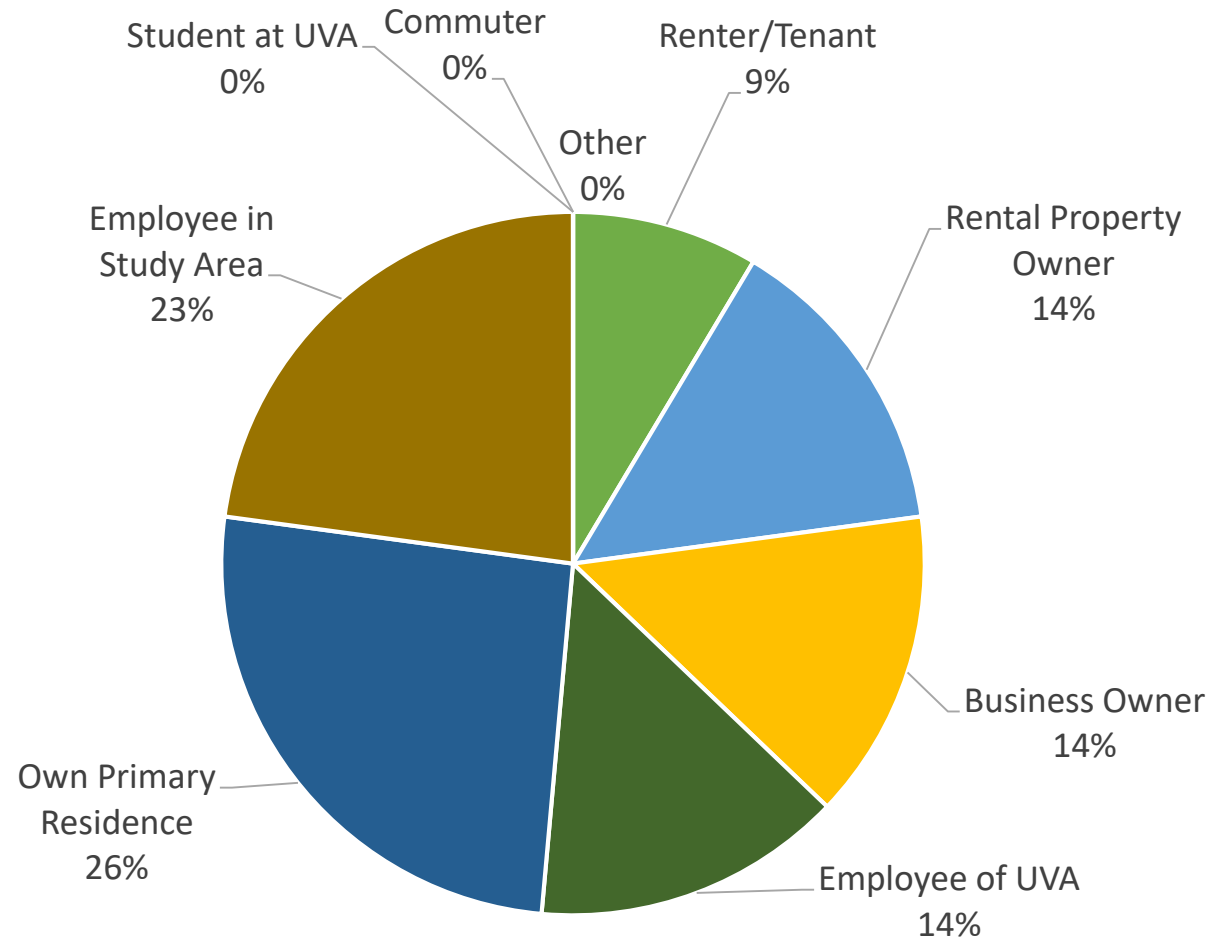
Charlottesville Fire Department  
 2420 Fontaine Avenue  
 Charlottesville, VA 22903





# April 18<sup>th</sup> Public Open House: Comment Form Responses

## INTEREST IN THE PROJECT: Public Open House #2

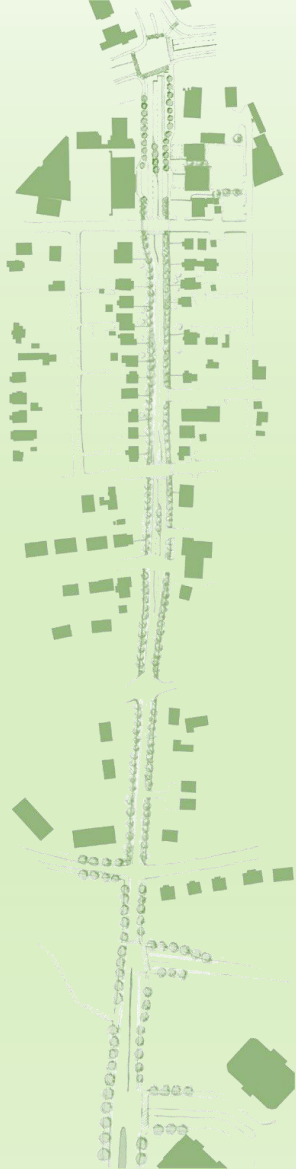


| Interest in Project    | Percentage |
|------------------------|------------|
| Renter/Tenant          | 9          |
| Rental Property Owner  | 14         |
| Business Owner         | 14         |
| Employee of UVA        | 14         |
| Own Primary Residence  | 26         |
| Employee in Study Area | 23         |
| Student at UVA         | 0          |
| Commuter               | 0          |
| Other                  | 0          |

# April 18<sup>th</sup> Public Open House: Comment Form Responses

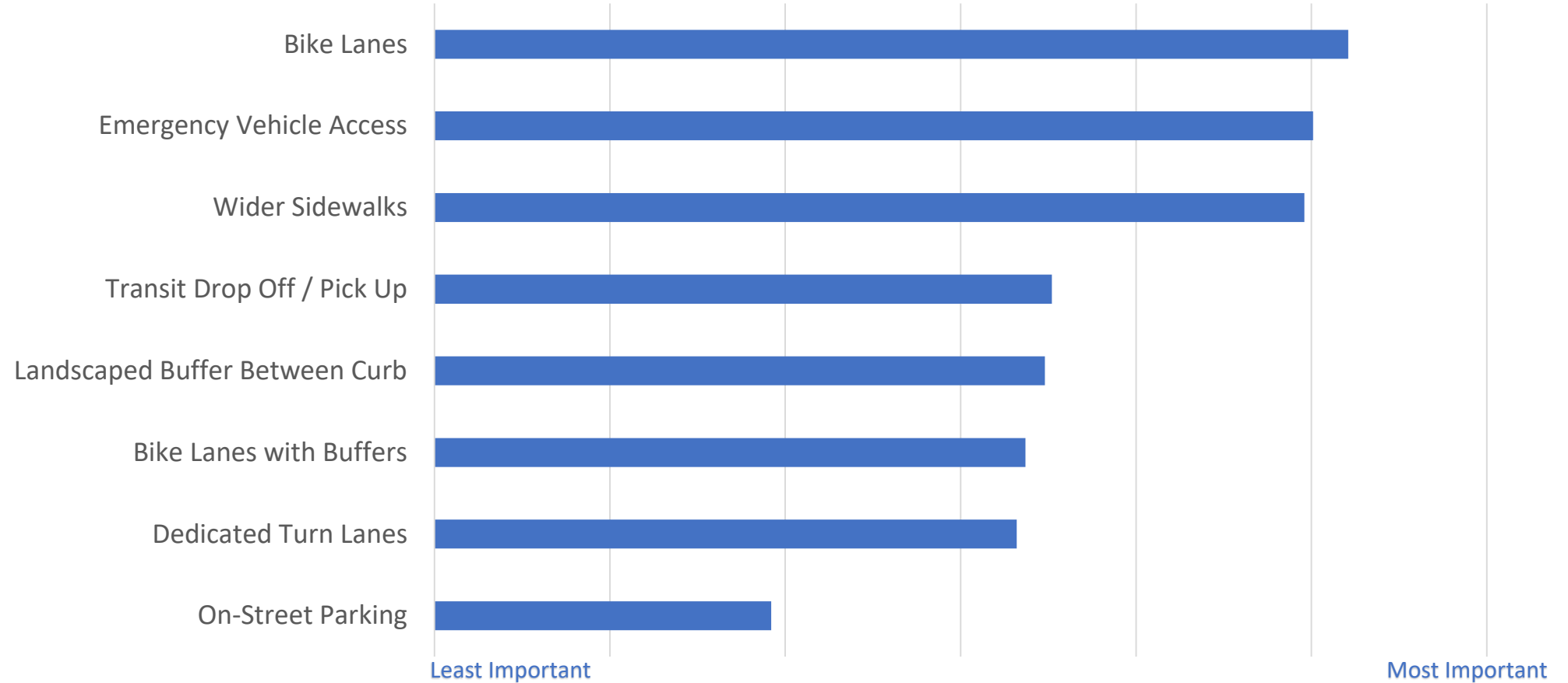
## HOW THE CORRIDOR IS UTILIZED

|         | BICYCLE ALONG FONTAINE | CROSS FONTAINE (PEDESTRIAN OR BICYCLIST) | ON-STREET PARKING | PUBLIC TRANSIT |
|---------|------------------------|------------------------------------------|-------------------|----------------|
| WEEKLY  | 4                      | 14                                       | 1                 | 4              |
| MONTHLY | 6                      | 6                                        | 6                 | 5              |
| YEARLY  | 5                      | 4                                        | 1                 | 7              |
| NONE    | 13                     | 7                                        | 23                | 16             |



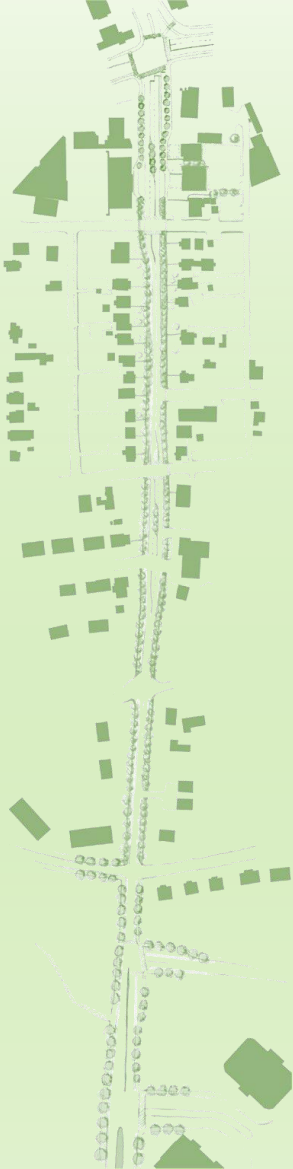
# April 18<sup>th</sup> Public Open House: Comment Form Responses

## Compiled Importance



# Considerations for Steering Committee

- Key Discussion Topics:
  - What is the appropriate type of Bicycle Facility?
  - What pedestrian crossing treatments are appropriate for the corridor?
  - What options are possible to serve all users at key intersections?

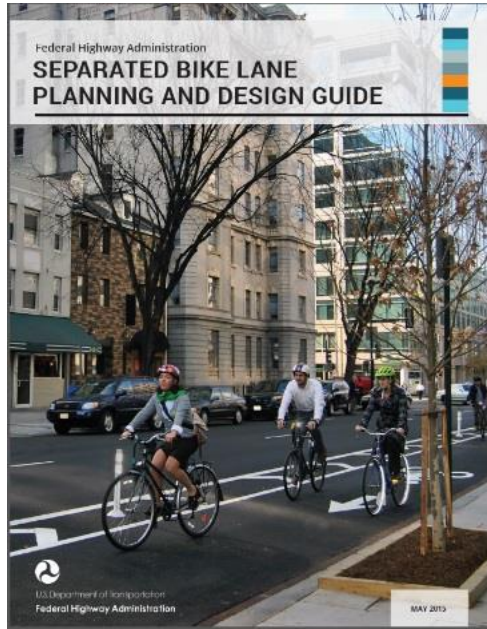




# Bicycle Facilities



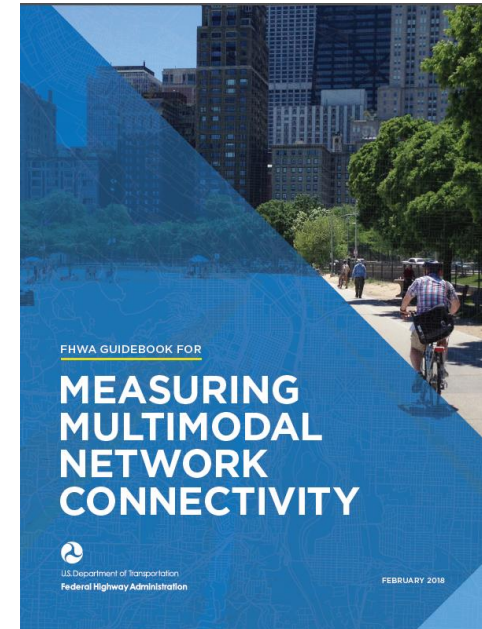
# Bicycle Facilities



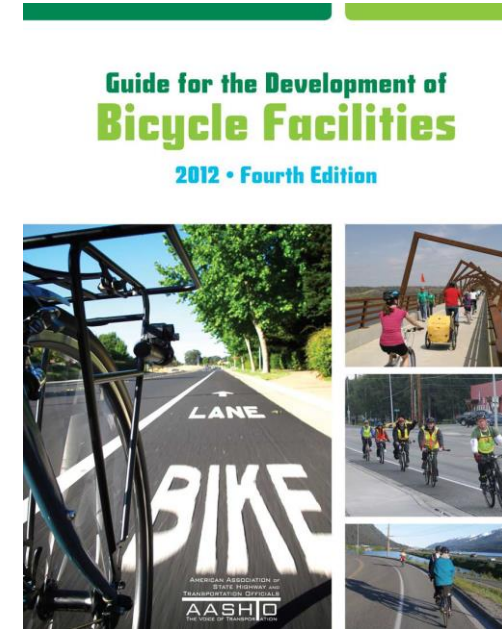
FHWA Separated Bike Lane Planning and Design Guide  
May 2015



FHWA Achieving Multimodal Networks  
August 2016

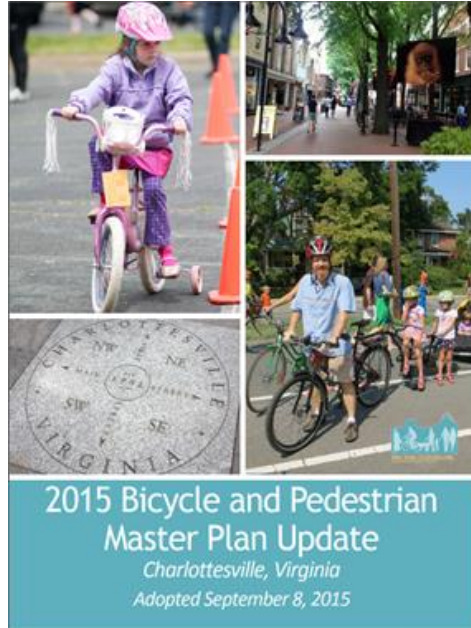


FHWA Measuring Multimodal Network Connectivity  
February 2018

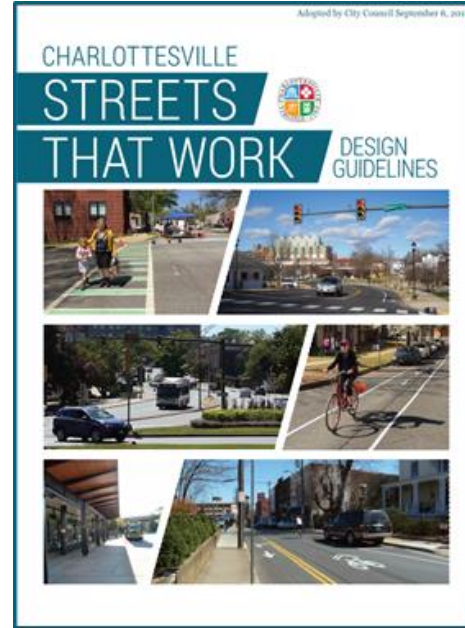


AASHTO  
2012 and nearing update

# Bicycle Facilities



City of Charlottesville  
Bicycle and Pedestrian  
Master Plan Update  
**September 2015**



City of Charlottesville  
Streets That Work  
Design Guidelines  
**September 2016**

- Reviewed national best practices and City of Charlottesville guidance for bicycle facilities on corridors similar to Fontaine Avenue
- Identified options for more detailed consideration by the project team



# Bicycle Facilities



Unbuffered Bike Lanes

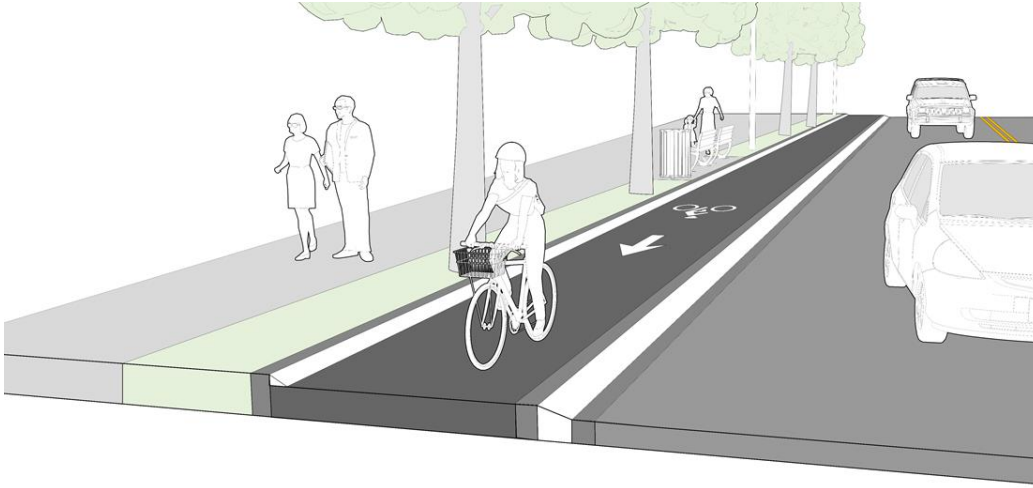


Shared Bike Lanes



Buffered Bike Lanes

# Bicycle Facilities

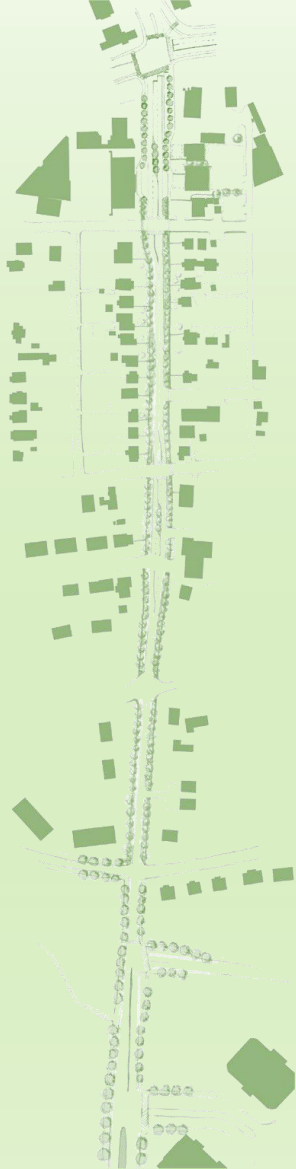


Intermediate Level Separated  
Bike Lanes








Separated Bike Lanes





# Bicycle Facilities

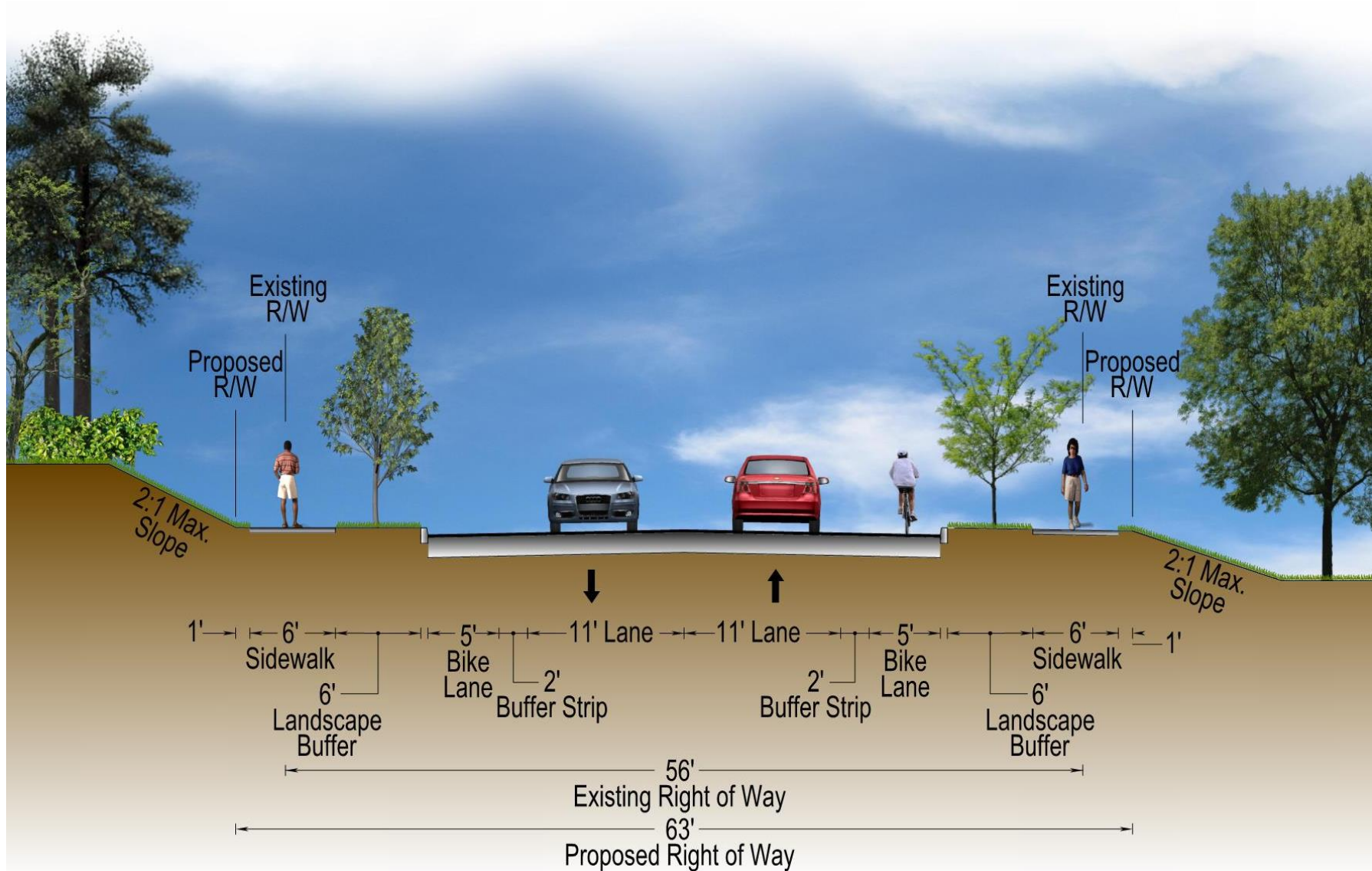
| Type of Facility             | Applicable to Corridor                                                                              | Key Points                                                                                                                                                                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shared                       | <br>(Limited Use) | <ul style="list-style-type: none"> <li>• More appropriate for highly constrained segments</li> <li>• Provides better maneuverability for emergency vehicles</li> <li>• Provides adequate drainage opportunities</li> <li>• Enables less impactful driveway tie ins</li> <li>• Increase risk of conflicts with vehicular traffic</li> </ul>               |
| Unbuffered                   | <br>(Limited Use) | <ul style="list-style-type: none"> <li>• More appropriate for constrained segments and transition areas</li> <li>• Provides better maneuverability for emergency vehicles</li> <li>• Provides adequate drainage opportunities</li> <li>• Enables less impactful driveway tie ins</li> <li>• Increase risk of conflicts with vehicular traffic</li> </ul> |
| Buffered                     |                  | <ul style="list-style-type: none"> <li>• Provides better maneuverability for emergency vehicles</li> <li>• Provides adequate drainage opportunities</li> <li>• Enables less impactful driveway tie ins</li> <li>• Sufficient flexibility for managing vehicular traffic conflicts</li> </ul>                                                             |
| Intermediate Level Separated |                 | <ul style="list-style-type: none"> <li>• Interaction with driveways is challenging</li> <li>• Limited application due to close spacing of driveways</li> </ul>                                                                                                                                                                                           |
| Separated                    |                 | <ul style="list-style-type: none"> <li>• Highest negative impacts to emergency vehicle maneuverability</li> <li>• Greatest challenge for delivery and trash vehicles</li> <li>• Challenges with driveway tie ins</li> </ul>                                                                                                                              |



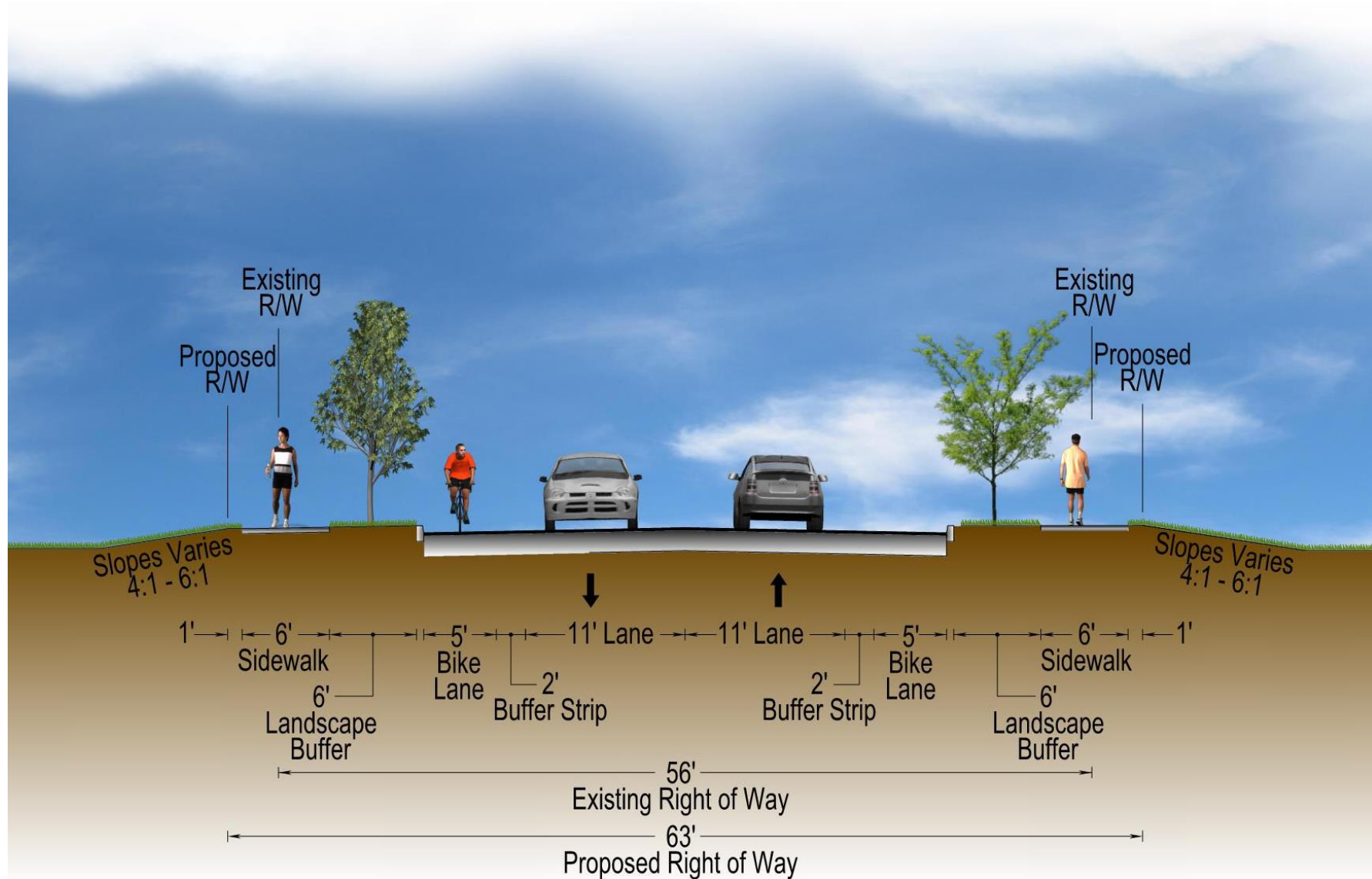


# Recommended Typical Sections

# Typical Sections: City Limits to Summit Street

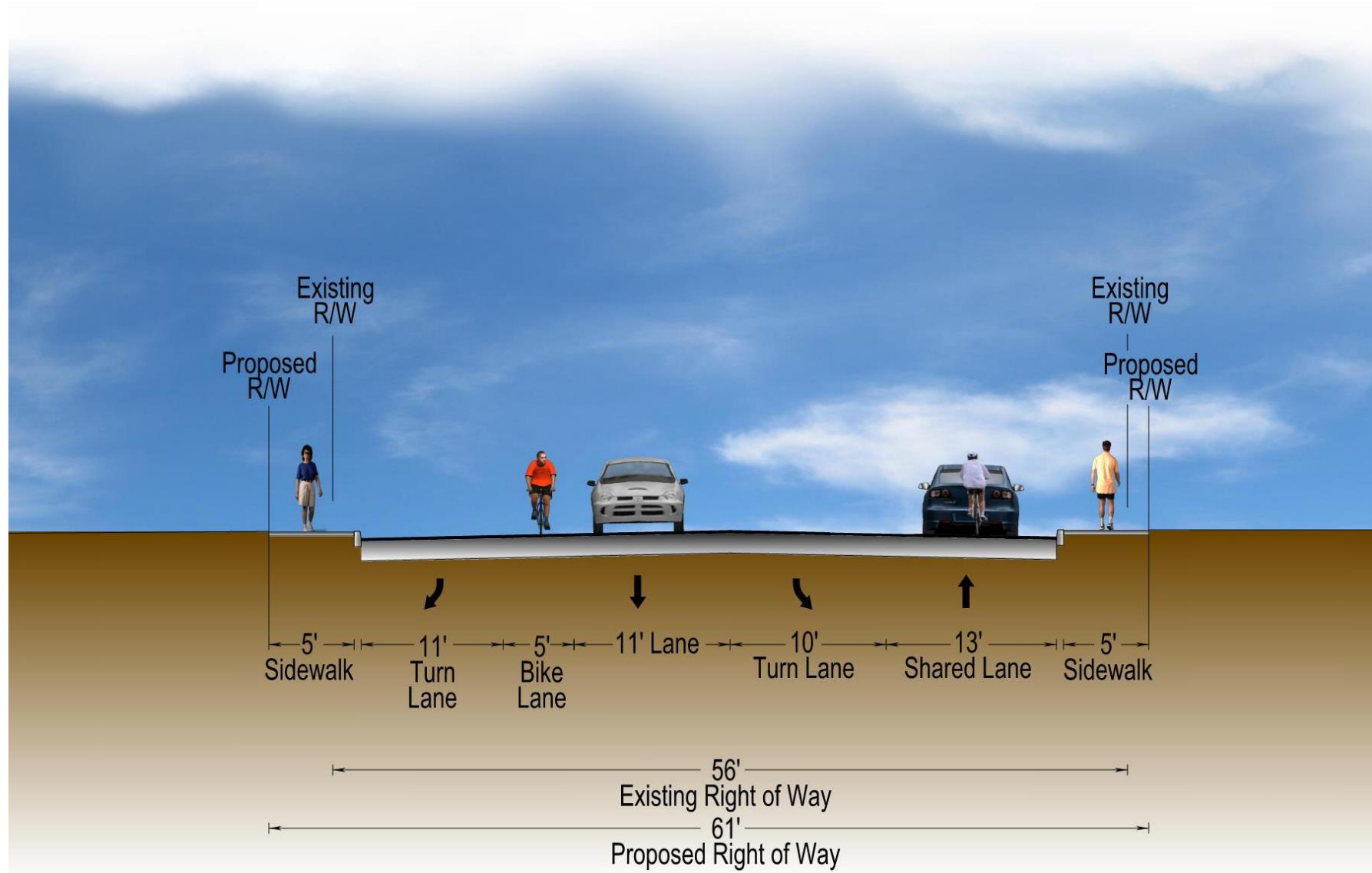


# Typical Sections: Summit Street to Lewis Street





# Typical Sections: Lewis Street to Jefferson Park Avenue





# Pedestrian Crossings



# Pedestrian Crossings



- Pedestrian Crossings in AM + PM Peak Period (4 Hours total)
- Existing Crosswalks at Appletree Road, Lewis Street, Jefferson Park Avenue

# Uncontrolled Street Crossings

| Roadway Configuration                                                                    | Posted Speed Limit and AADT |                   |                 |                           |                   |                 |                      |                 |                 |
|------------------------------------------------------------------------------------------|-----------------------------|-------------------|-----------------|---------------------------|-------------------|-----------------|----------------------|-----------------|-----------------|
|                                                                                          | Vehicle AADT <9,000         |                   |                 | Vehicle AADT 9,000–15,000 |                   |                 | Vehicle AADT >15,000 |                 |                 |
|                                                                                          | ≤30 mph                     | 35 mph            | ≥40 mph         | ≤30 mph                   | 35 mph            | ≥40 mph         | ≤30 mph              | 35 mph          | ≥40 mph         |
| 2 lanes<br>(1 lane in each direction)                                                    | ① 2<br>4 5 6                | ①<br>5 6<br>7 9   | ①<br>5 6<br>7 9 | ①<br>4 5 6                | ①<br>5 6<br>7 9   | ①<br>5 6<br>7 9 | ①<br>4 5 6<br>7 9    | ①<br>5 6<br>7 9 | ①<br>5 6<br>9   |
| 3 lanes with raised median<br>(1 lane in each direction)                                 | ① 2 3<br>4 5                | ①<br>5<br>7 9     | ①<br>5<br>7 9   | ① 3<br>4 5                | ①<br>5<br>7 9     | ①<br>5<br>7 9   | ① 3<br>4 5           | ①<br>5<br>7 9   | ①<br>5<br>9     |
| 3 lanes w/o raised median<br>(1 lane in each direction with a<br>two-way left-turn lane) | ① 2 3<br>4 5 6<br>7 9       | ①<br>5 6<br>7 9   | ①<br>5 6<br>9   | ① 3<br>4 5 6<br>7 9       | ①<br>5 6<br>7 9   | ①<br>5 6<br>9   | ① 3<br>4 5 6<br>7 9  | ①<br>5 6<br>9   | ①<br>5 6<br>9   |
| 4+ lanes with raised median<br>(2 or more lanes in each direction)                       | ① 3<br>5<br>7 8 9           | ①<br>5<br>7 8 9   | ①<br>5<br>8 9   | ① 3<br>5<br>7 8 9         | ①<br>5<br>7 8 9   | ①<br>5<br>8 9   | ① 3<br>5<br>7 8 9    | ①<br>5<br>8 9   | ①<br>5<br>8 9   |
| 4+ lanes w/o raised median<br>(2 or more lanes in each direction)                        | ① 3<br>5 6<br>7 8 9         | ①<br>5 6<br>7 8 9 | ①<br>5 6<br>8 9 | ① 3<br>5 6<br>7 8 9       | ①<br>5 6<br>7 8 9 | ①<br>5 6<br>8 9 | ① 3<br>5 6<br>7 8 9  | ①<br>5 6<br>8 9 | ①<br>5 6<br>8 9 |

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.\*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)\*\*
- 8 Road Diet
- 9 Pedestrian Hybrid Beacon (PHB)\*\*

- Chart from the FHA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- This guidance is used nationally to assist in the identification of best practice options for uncontrolled street crossings



# Potential Pedestrian Crossing Treatments



RRFB



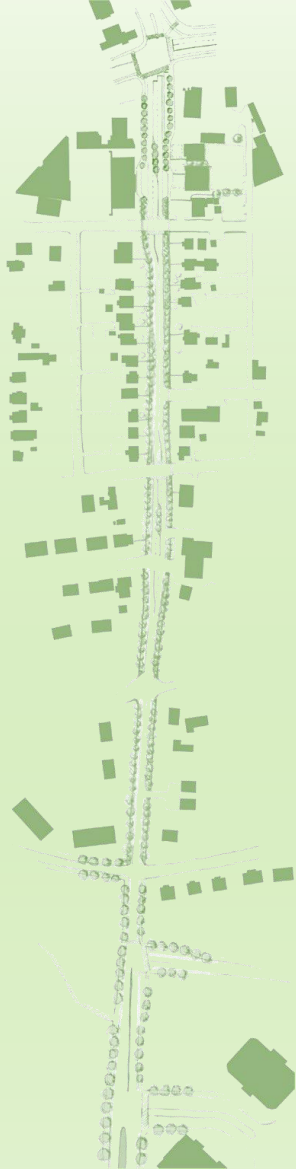
Hawk Signal



Refuge Island



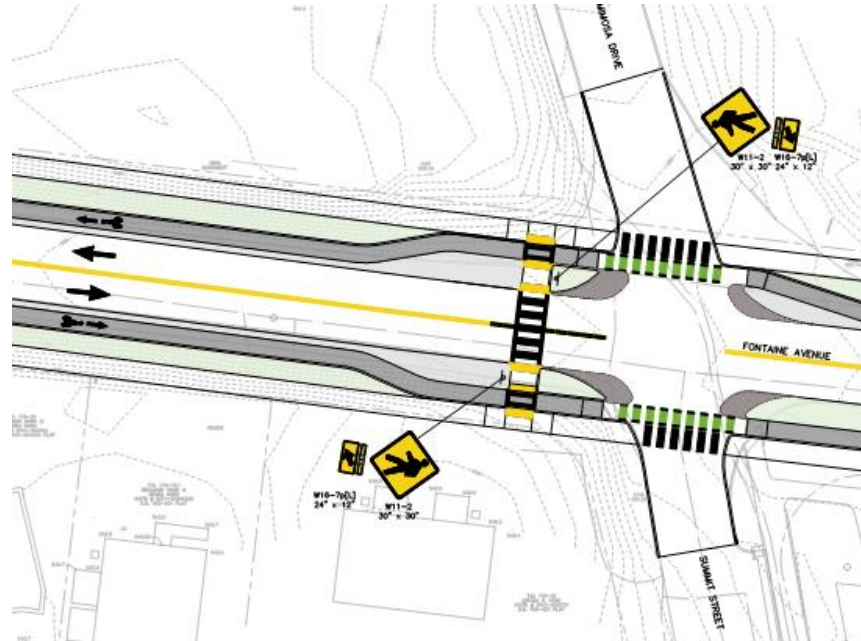
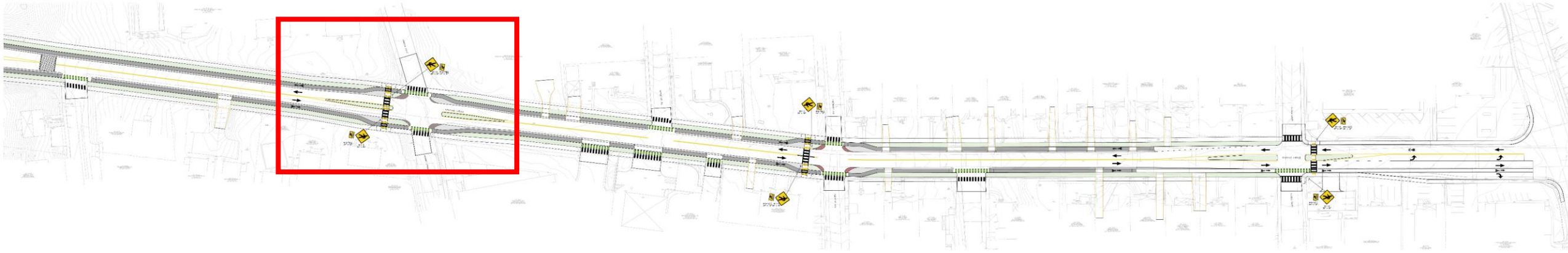
Curbside Refuge



# Intersection Designs



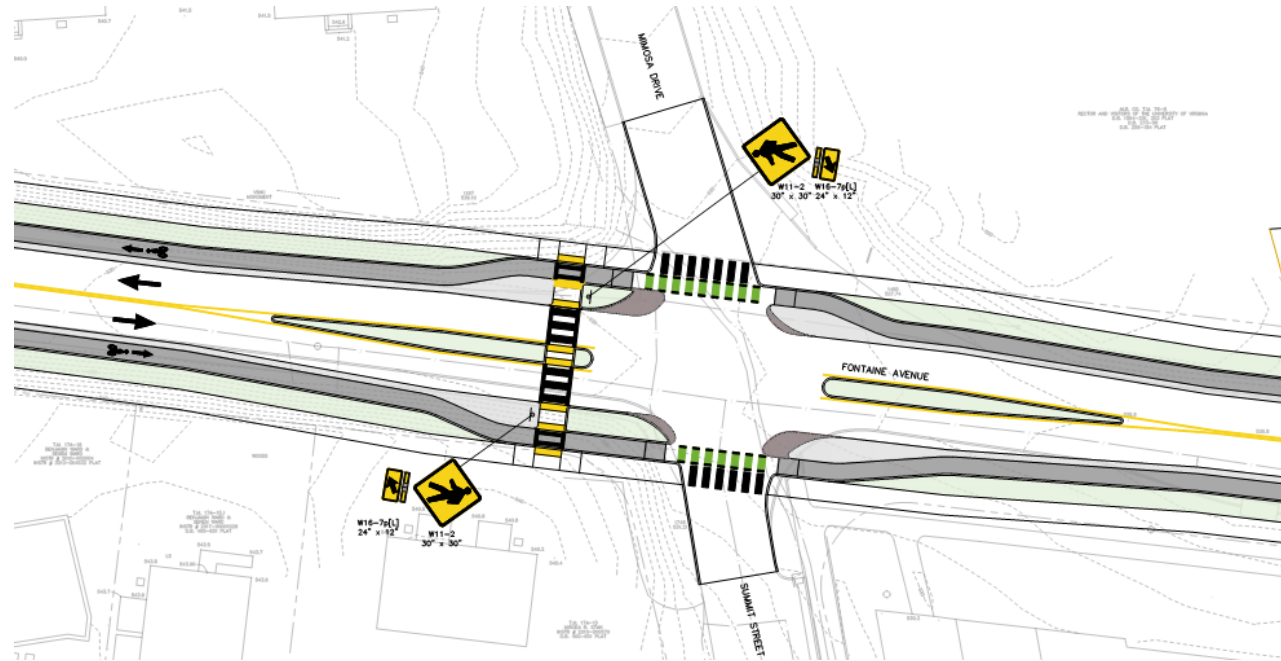
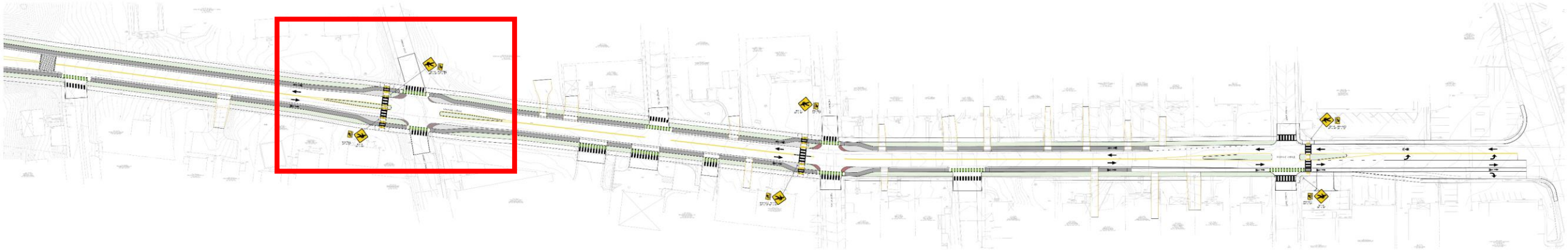
# Mimosa/Summit: Option A



Mimosa/Summit: Curbside Refuge and RRFB

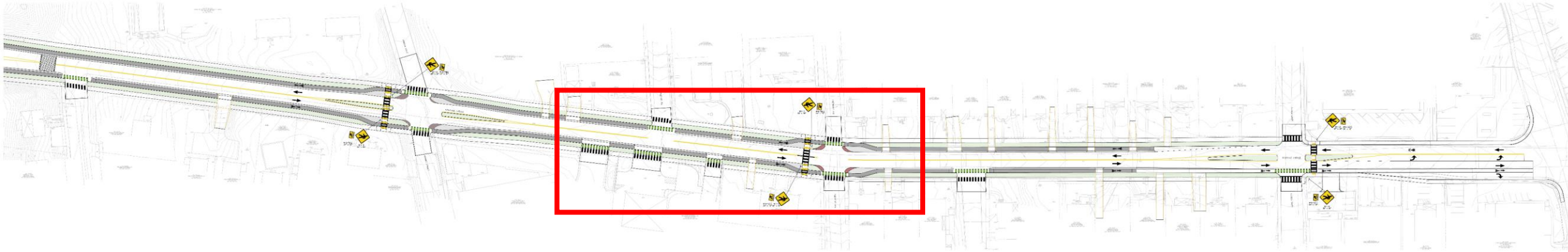


# Mimosa/Summit: Option B



Mimosa/Summit: Curbside and Median Refuge and RRFB

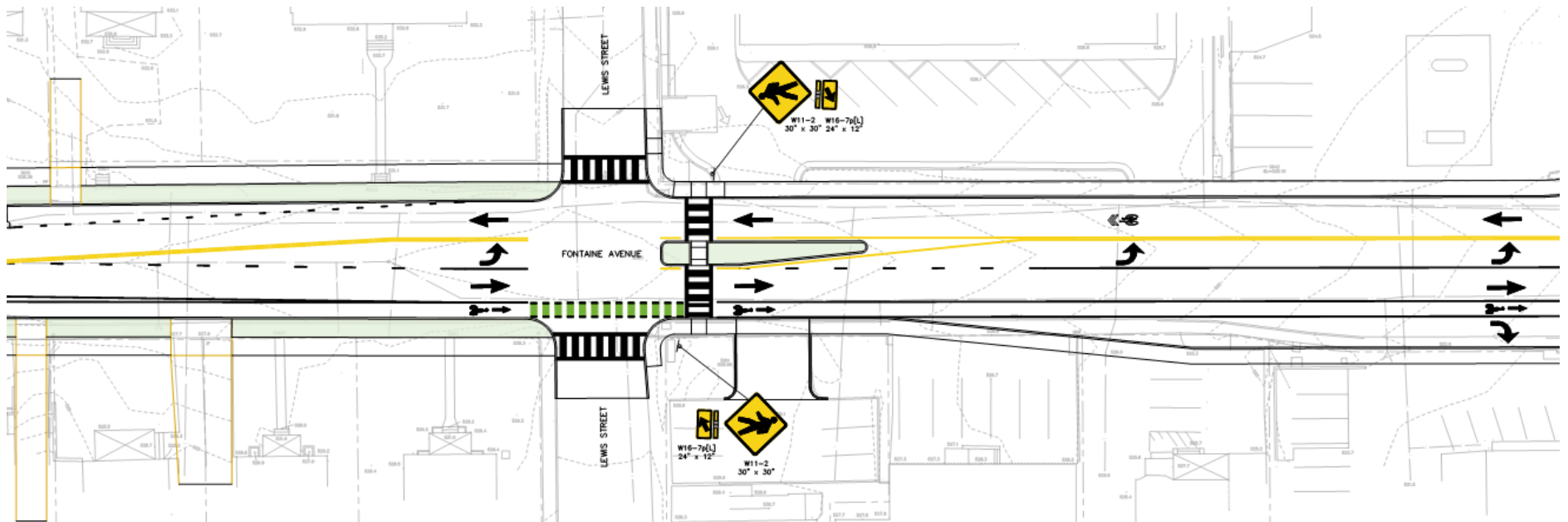
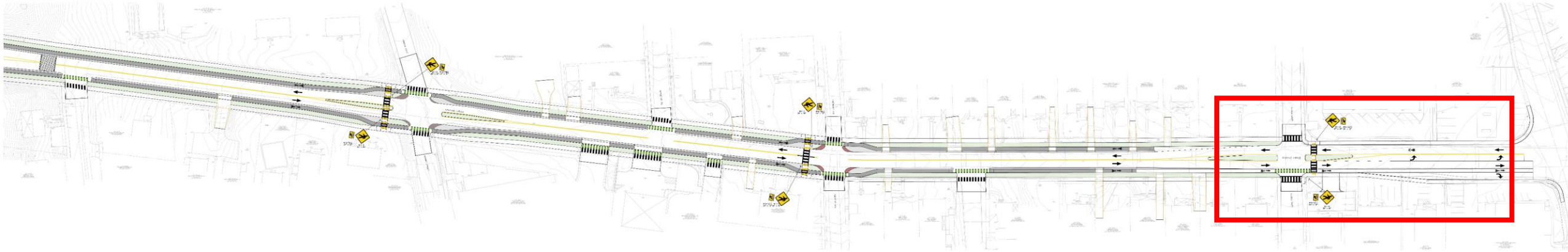
# Piedmont Avenue



Piedmont Avenue: Curbside Refuge and RRFB

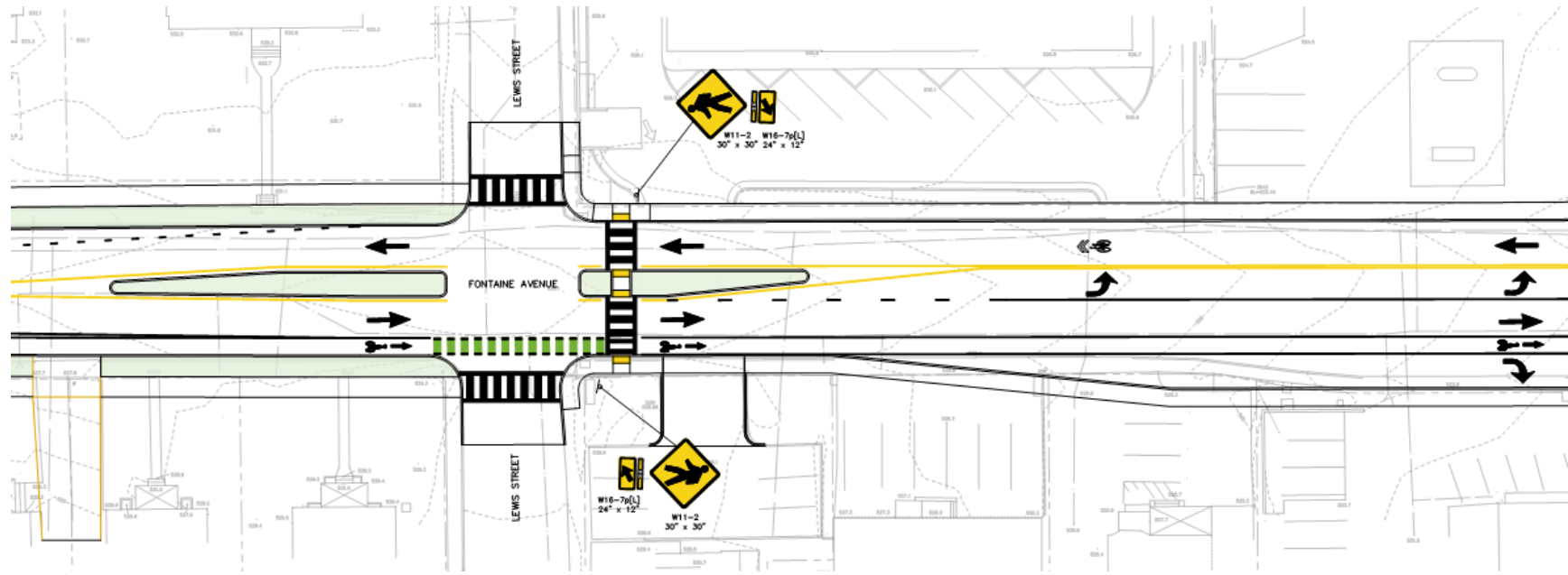
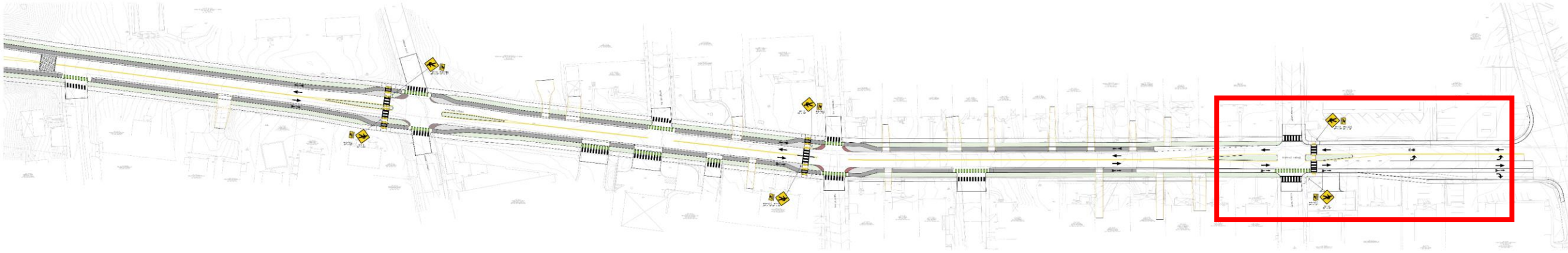


# Lewis Street: Option A



Lewis Street: Island Refuge and RRFB, with Turning Lane

# Lewis Street: Option B



Lewis Street: Island Refuge and RRFB, with Median

# Next Steps

- Further Develop Corridor Concepts
- Prepare and Submit 30% Concept Design Plans
- Planning Commission Review
- City Council Review

[www.fontainestreetscape.com](http://www.fontainestreetscape.com)





# Thank you!



*In Conjunction  
With*

**TOOLE**  
DESIGN