

PINEY FOREST ROAD CORRIDOR STUDY

WELCOME!

This event is a public meeting for the Piney Forest Road Corridor Study.

Are you comfortable driving, walking, and biking along Piney Forest Road?

What are your transportation priorities?



PROJECT CORRIDOR DESCRIPTION

Piney Forest Road, between Franklin Turnpike and Holt Garrison Parkway, is an important entrance to the City of Danville, providing access to many businesses. A number of sections and intersections along Piney Forest Road have crash rates that are greater than would be expected.

PROJECT PURPOSE

- Create an entrance to the City of Danville that provides a sense of place and pride within the community
- Address crash history
- Identify improvements to improve traffic flow

THIS MEETING

Today you will have the opportunity to:

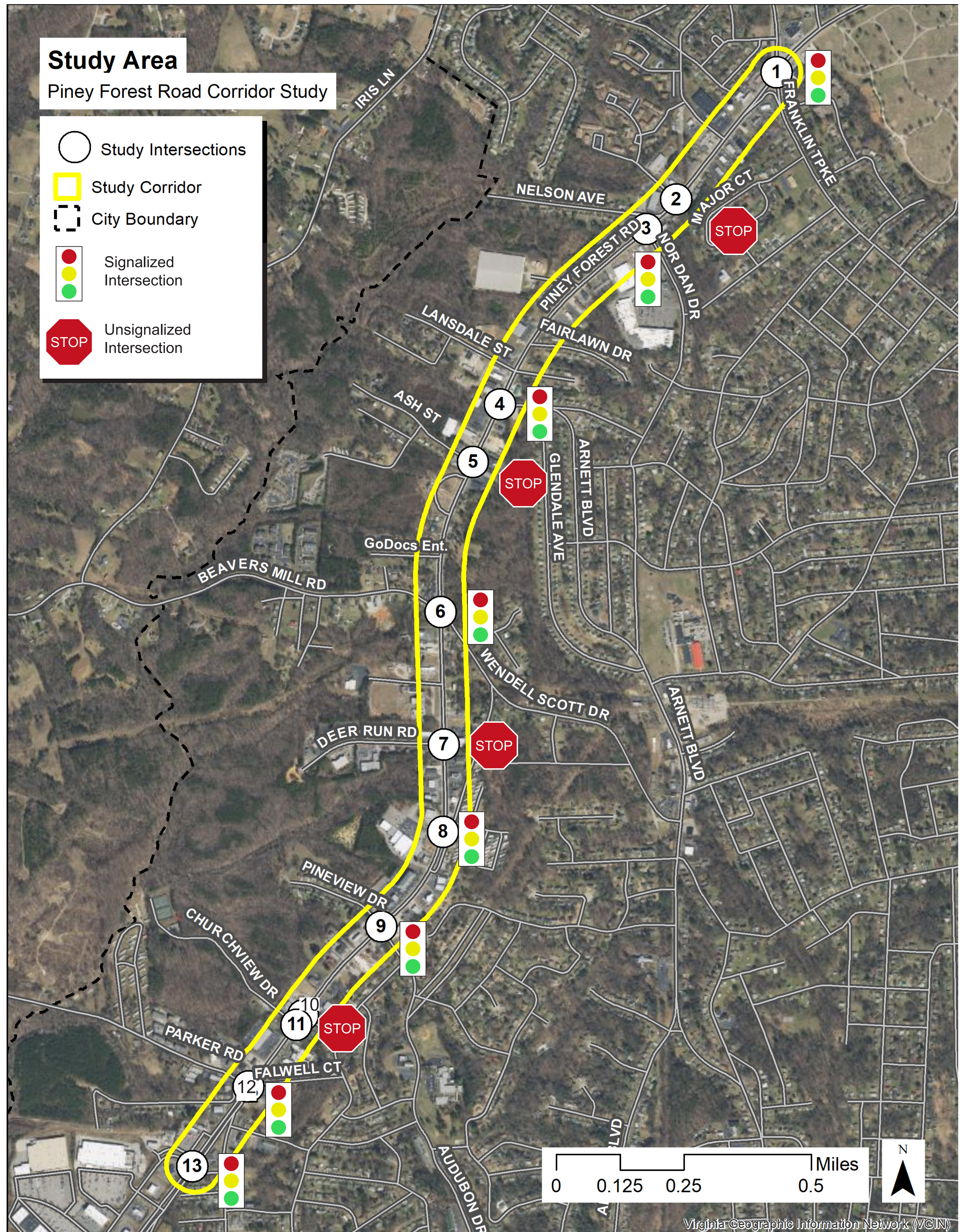
- Learn about the study
- Review preliminary ideas and concepts
- Share improvement ideas



The Piney Forest Road study corridor extends from Franklin Turnpike to Holt Garrison Parkway. It is highlighted in yellow on the map to the right.

STUDY INTERSECTIONS

- Franklin Turnpike
- Woodside Drive
- Nelson Avenue/Nor Dan Drive
- Arnett Boulevard
- Ash Street
- Beavers Mill Road/Wendell Scott Drive
- Deer Run Road
- Old Piney Forest Road/Piney Forest Shopping Center
- Pineview Drive/Audubon Drive
- Churchview Drive
- Redwood Drive
- Parker Road/Falwell Court
- Holt Garrison Parkway/Boxwood Court

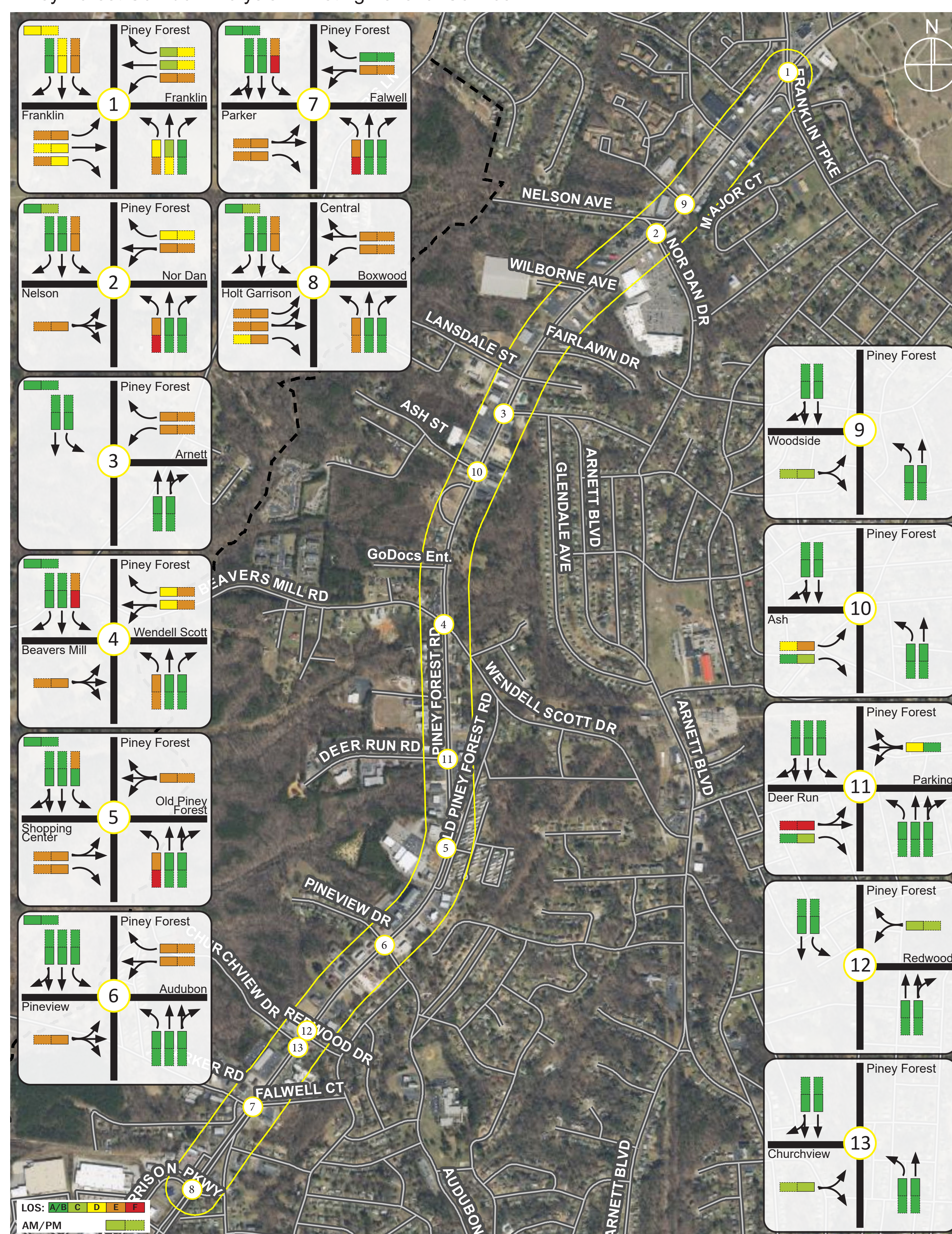


A traffic assessment was completed under existing (2021) and future (2045) conditions to better understand traffic demand, roadway lane deficiencies, and geometric/turn lane limitations. The multimodal network was also assessed for the purposes of this study.

Data collection consisted of:

- Weekday morning peak period and afternoon peak period traffic counts
- Comparison of 2021 traffic volumes to pre-pandemic traffic volumes
- Field observations
- Discussions with stakeholders (Danville Metropolitan Planning Organization and City of Danville)

Piney Forest Corridor Analysis - Existing Level of Service



Level of Service (LOS) is a concept that describes how well a transportation facility operates from the traveler's perspective. Defined from A to F, LOS A represents the best operating conditions from the traveler's perspective, and LOS F the worst.

IN SUMMARY:

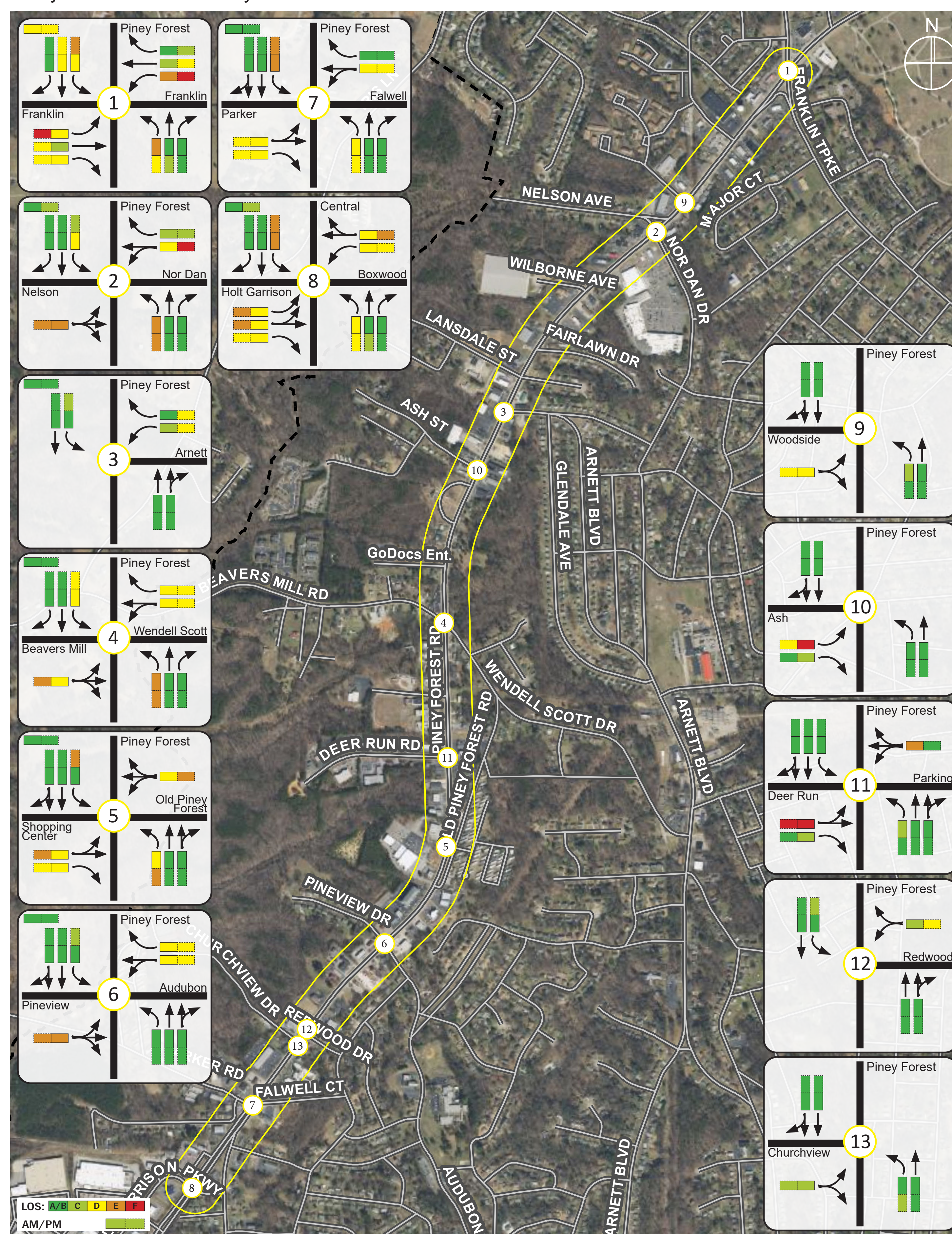
- Overall, intersections operate reasonably well (LOS D or better)
- Some side street movements experience LOS E and F
- Franklin Turnpike intersection is the most problematic (northbound queue > 650 feet)



Linear annual growth rates were applied over the 24-year period to project 2045 future traffic volumes. The following rates were applied:

- 0.75%: Piney Forest Road
- 1.5%: West Franklin Turnpike
- 0.5%: All other study area roadways

Piney Forest Corridor Analysis - 2045 Level of Service



Level of Service (LOS) is a concept that describes how well a transportation facility operates from the traveler's perspective. Defined from A to F, LOS A represents the best operating conditions from the traveler's perspective, and LOS F the worst.

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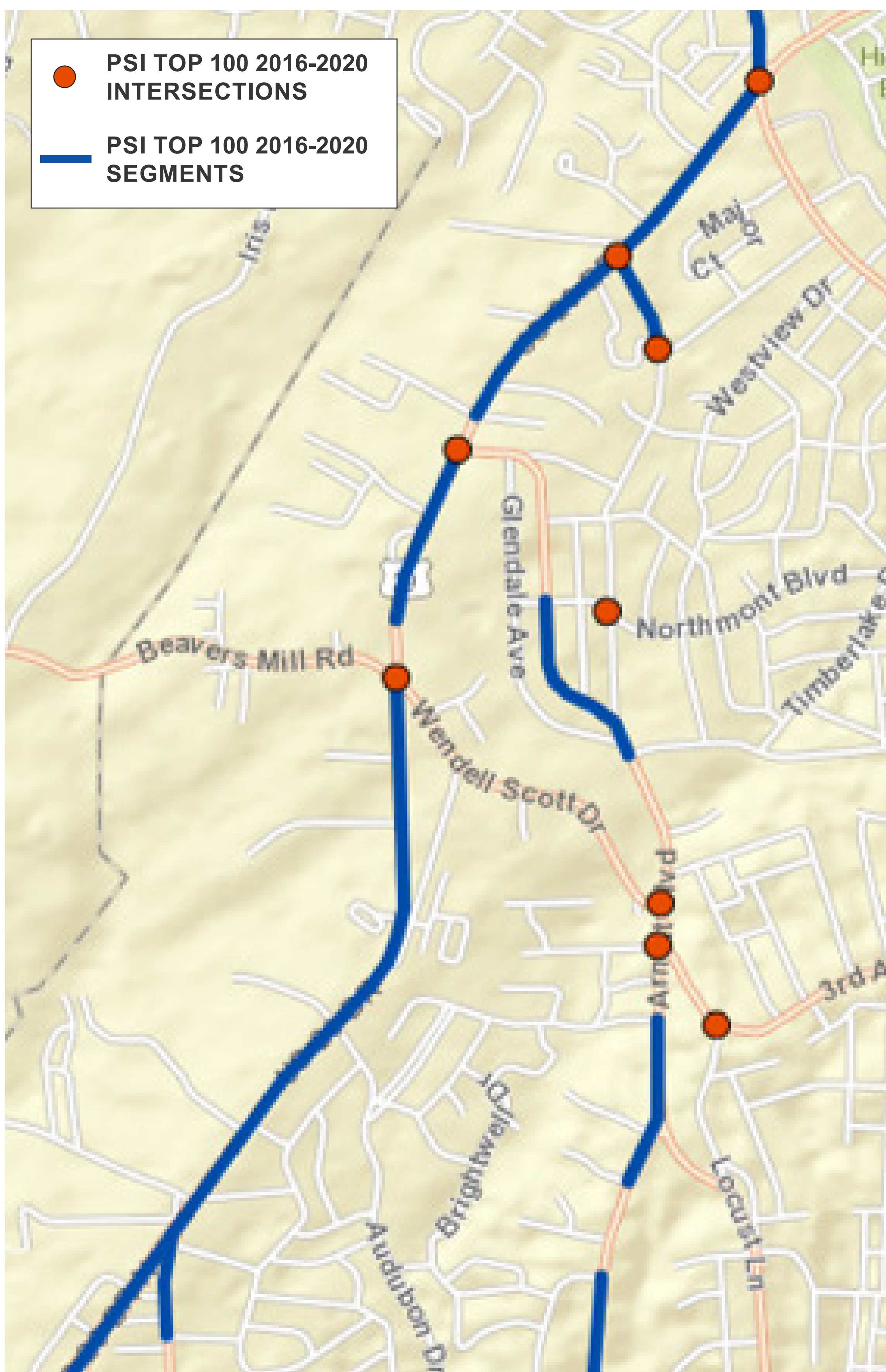
- Overall, intersections operate reasonably well (LOS D or better)
- Side street movements experience LOS E and F
- Franklin Turnpike intersection: northbound queue > 1,500 feet, through Woodside Drive
- Nelson Avenue/Nor Dan Drive intersection: northbound queue 700 feet



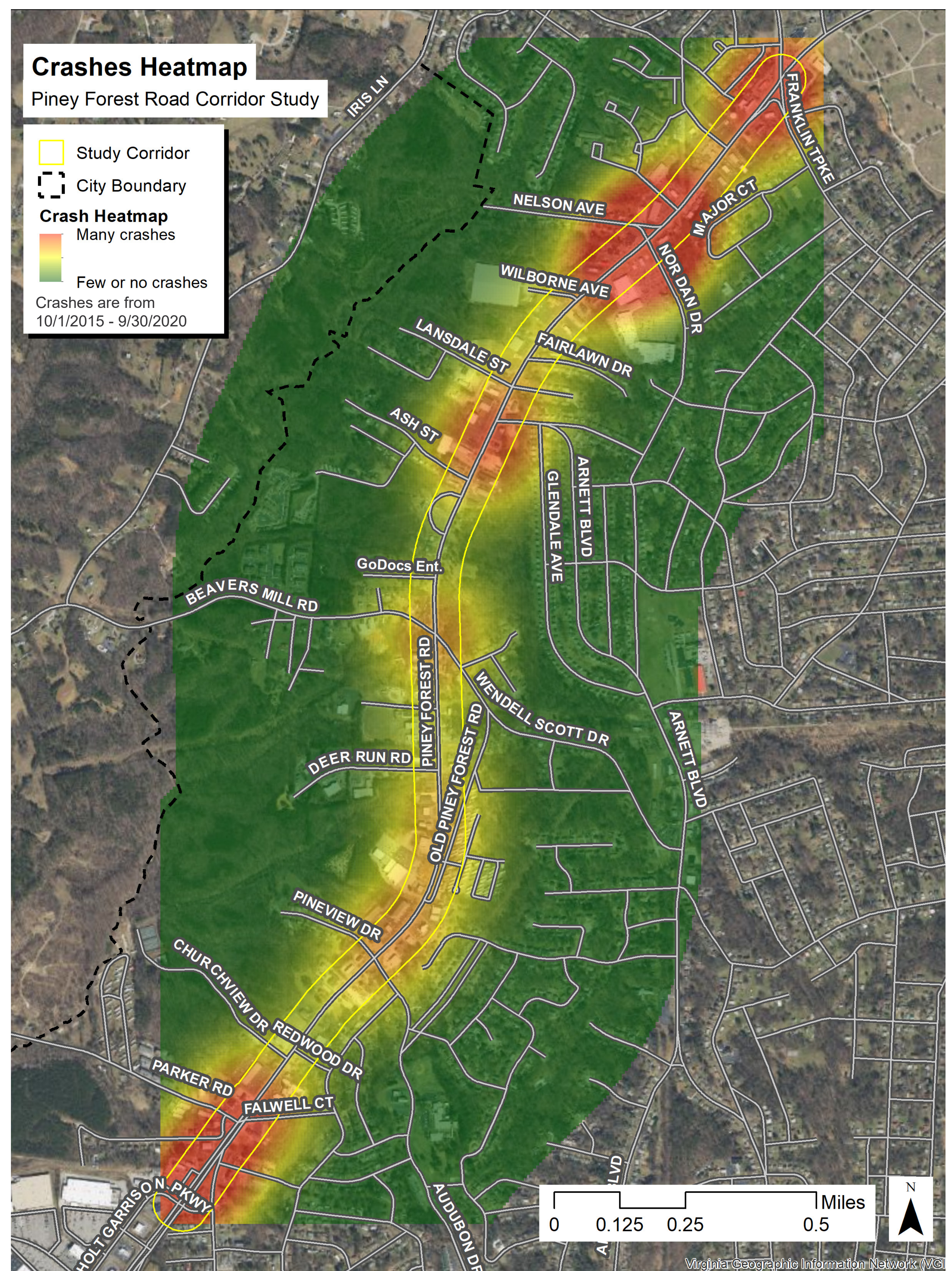
POTENTIAL FOR SAFETY IMPROVEMENTS (PSI)

VDOT identifies intersections and roadway segments where crash rates are greater than would be expected. Nearly all segments of Piney Forest Road have higher than expected crash rates. In addition, the following intersections were identified as having Potential for Safety Improvements:

- Franklin Turnpike
- Nelson Avenue/Nor Dan Drive
- Arnett Boulevard
- Beavers Mill Road/Wendell Scott Drive



Source: VDOT



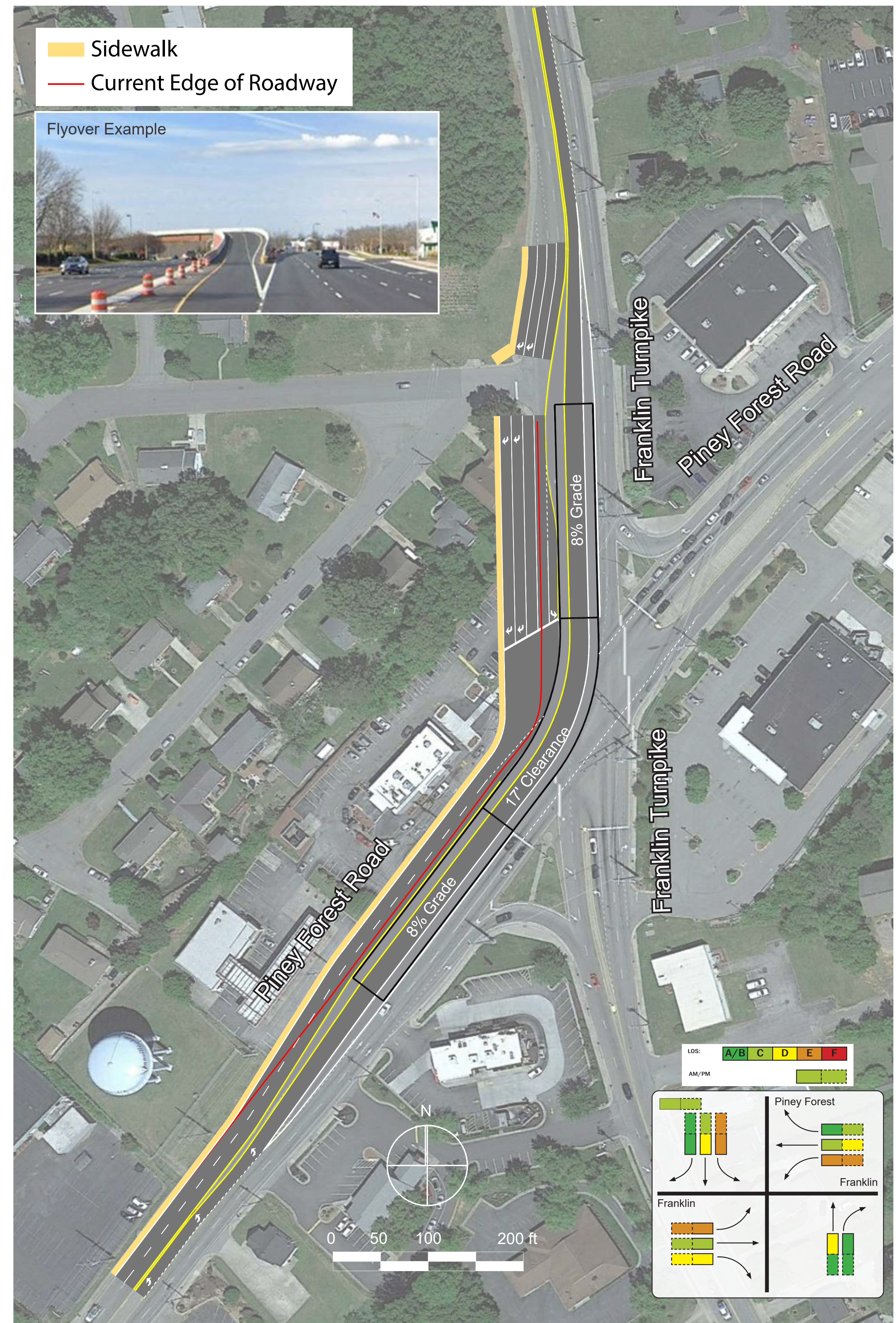
TRIPLE LEFT TURN LANES

Three left turn lanes are provided from northeastbound Piney Forest Road to northbound Franklin Turnpike.



FLYOVER RAMP

A grade separated left turn lane is provided from northeastbound Piney Forest Road to northbound Franklin Turnpike.



Considerations		No Build	Triple Left Turn Lanes	Flyover Ramp	Displaced Left Turns
PM Peak Northbound Through Queue (feet)		1,510	735	536	478
Overall Intersection LOS		D/D	D/D	C/C	C/C
PM Peak LOS F	Movements	EB Left, WB Left	SB Left	none	none
	Delays	94.6, 86.5	96.8		
Right-of-Way Impacts	Residential	none	1 major, 1 minor	1 major, 1 moderate	1 minor
	McDonalds		moderate	moderate	major
	Gas Station		moderate	moderate	major
	Walgreens		none	none	minor
	Autozone		none	none	moderate
	Cemetery		none	none	minor



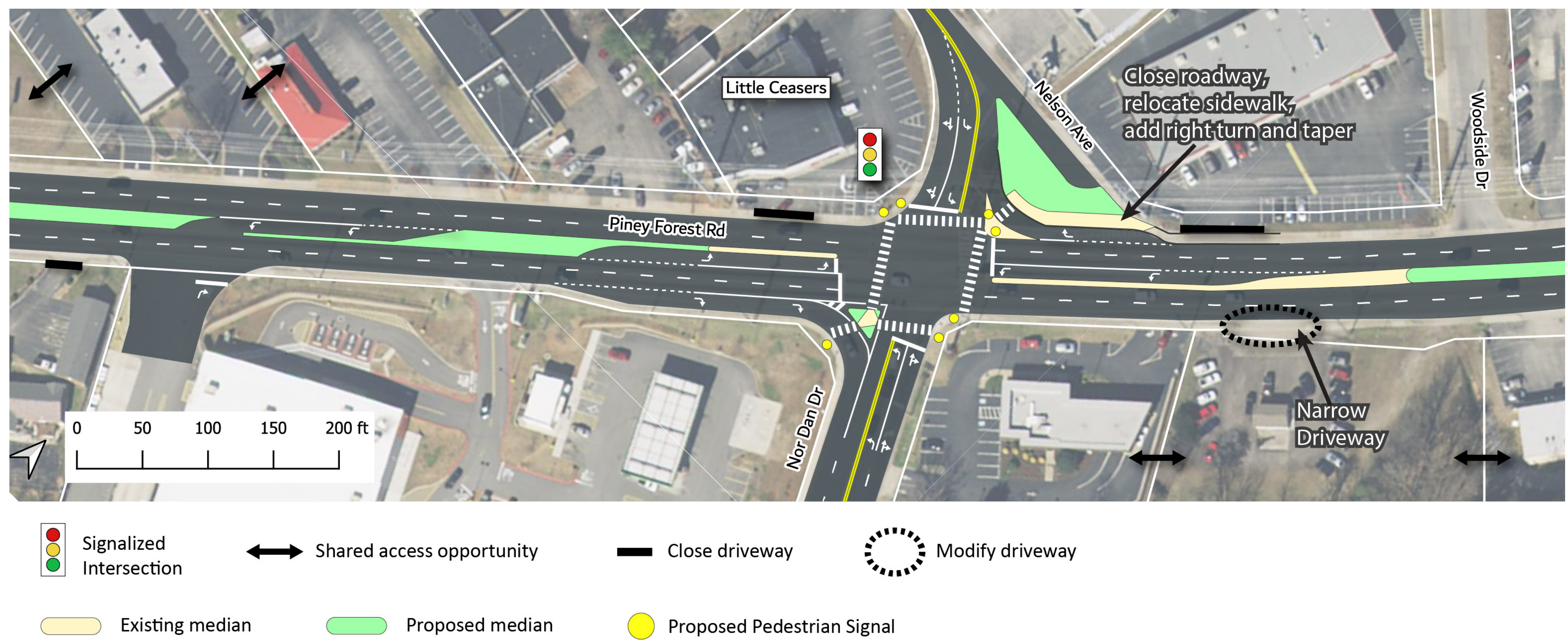
BEAVERS MILL ROAD/WENDELL SCOTT DRIVE

- An eastbound left turn lane is added on Beavers Mill Road
- The lane configuration on Wendell Scott Drive is modified to a left turn lane and shared through/right turn lane
- Traffic signal phasing is modified to be more efficient
- Crosswalks, curb ramps, and pedestrian signals are added



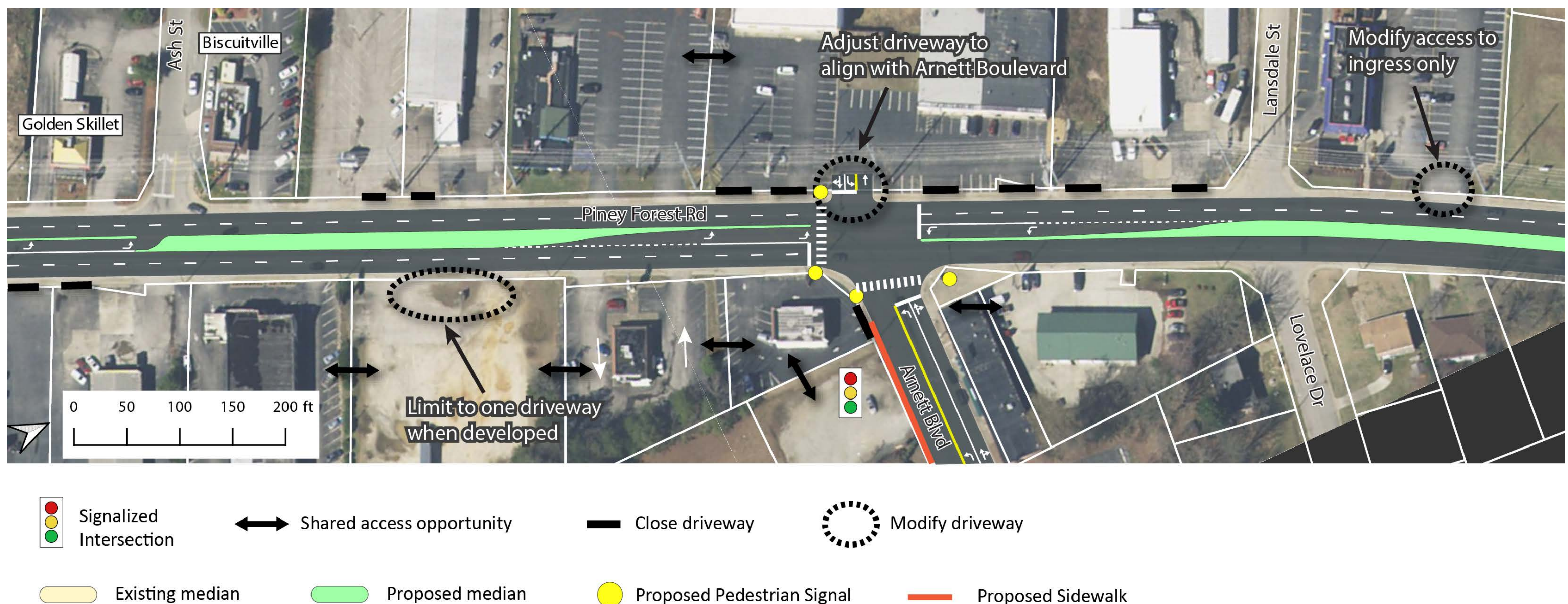
NELSON AVENUE/NOR DAN DRIVE

- The intersection is reconfigured such that southbound right turns are made at the main intersection
- An eastbound left turn lane is added on Nelson Avenue
- The lane configuration on Nor Dan Drive is modified to a left turn and shared through/right turn lane
- Crosswalks, curb ramps, and pedestrian signals are added
- A median is added on Piney Forest Road



ARNETT BOULEVARD

- Shopping center driveways are consolidated and a new driveway is added as the fourth leg of the intersection
- Crosswalks, curb ramps, and pedestrian signals are added
- A median is added on Piney Forest Road



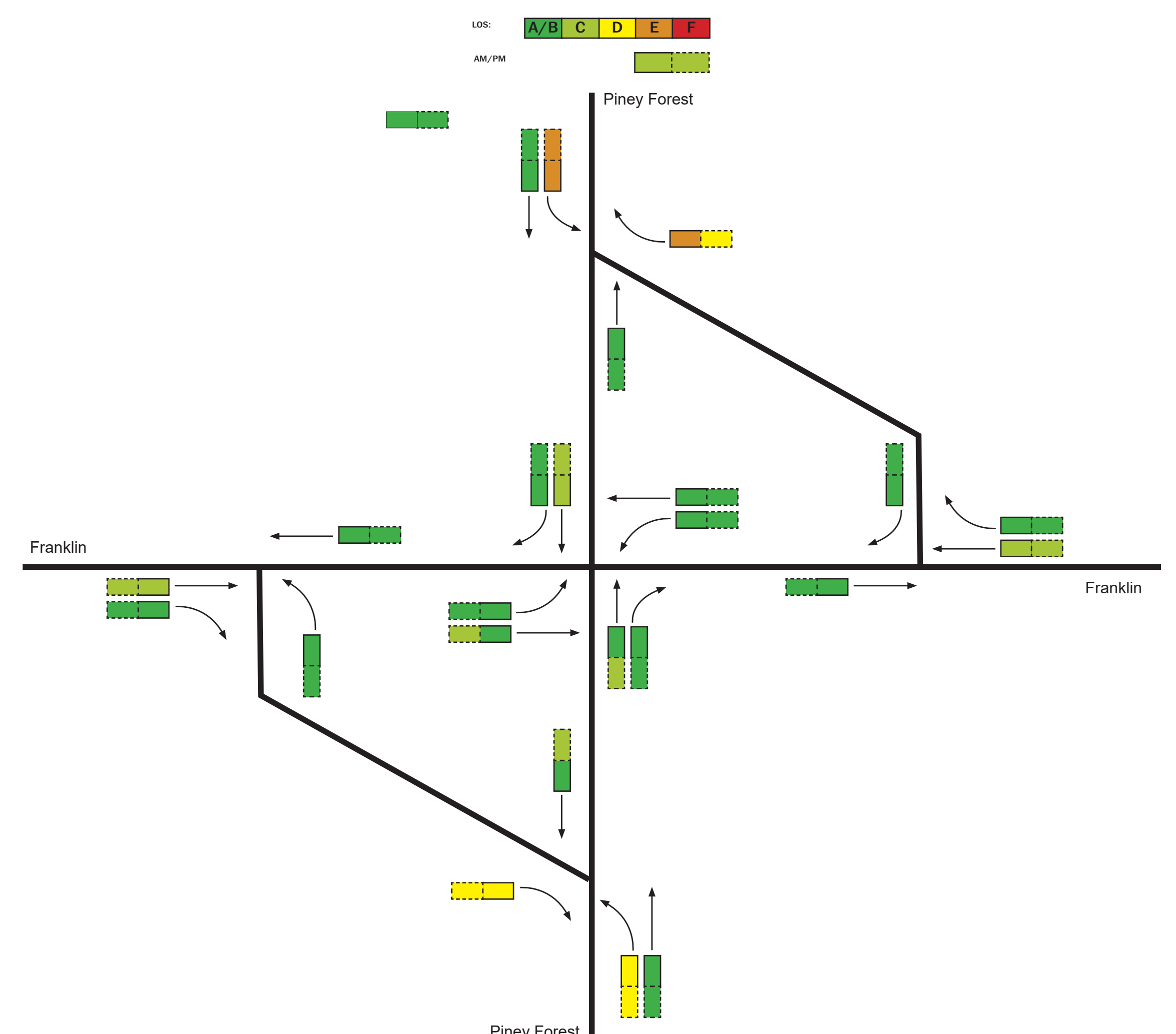
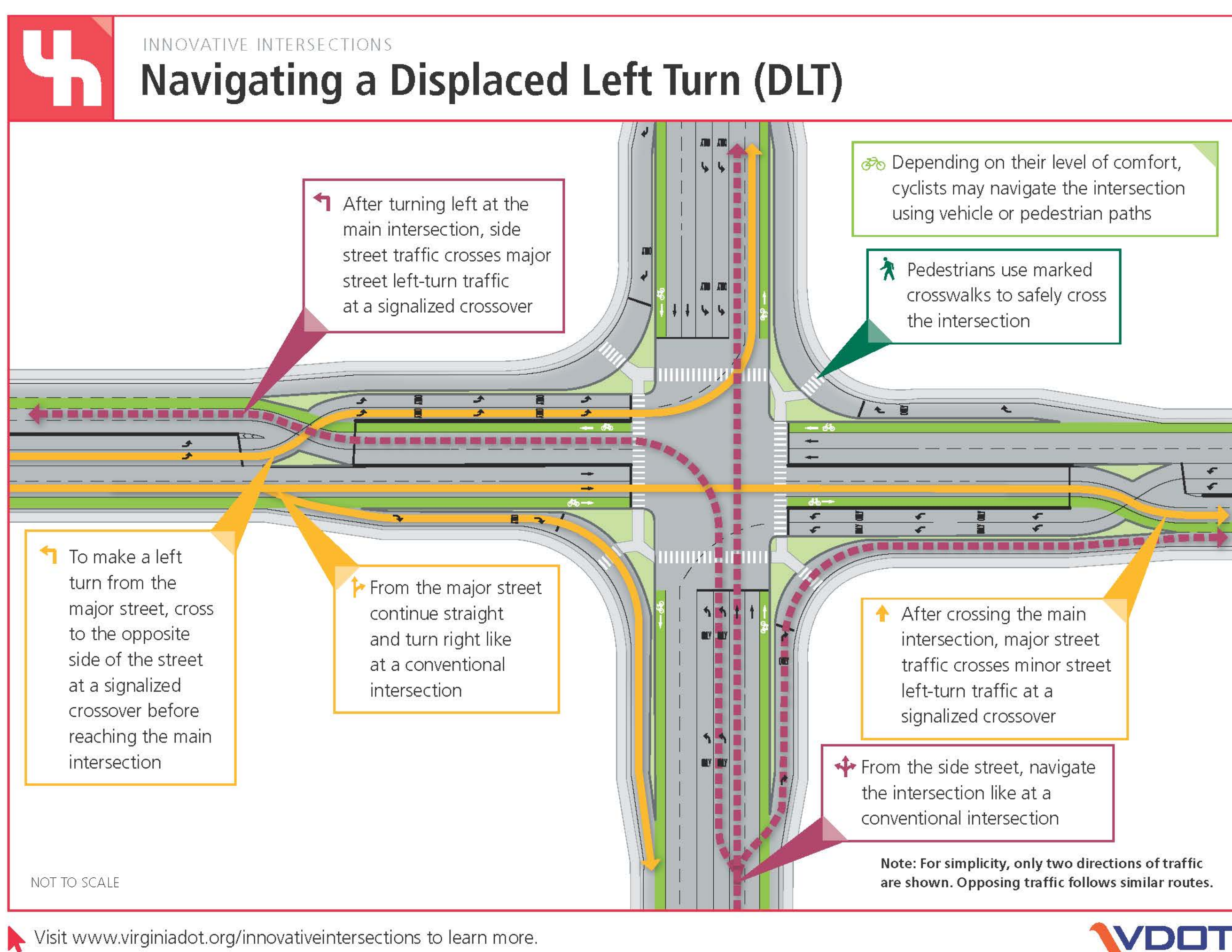
WHAT IS A DLT?

Left turn vehicles cross to the left side of opposing through traffic ahead of the main intersection. A series of three traffic signals working together control the main intersection and two intersections where left turn traffic crosses over opposing through traffic.

WHAT ARE THE BENEFITS OF A DLT?

- **Improved safety:** Reduces and spreads out the number of potential conflict points where vehicles may cross paths
- **Increased efficiency:** Simultaneous movement of protected left turns and opposing through-movements allows for only two traffic signal phases rather than the typical four phases, which reduces delay
- **Better synchronization:** Elimination of left-turn traffic signal phases and synchronization of the main intersection and crossover traffic signals allows through-traffic to spend less time stopped, which improves corridor travel times

HOW DOES A DLT WORK?



Source: VDOT



LANDSCAPED MEDIAN

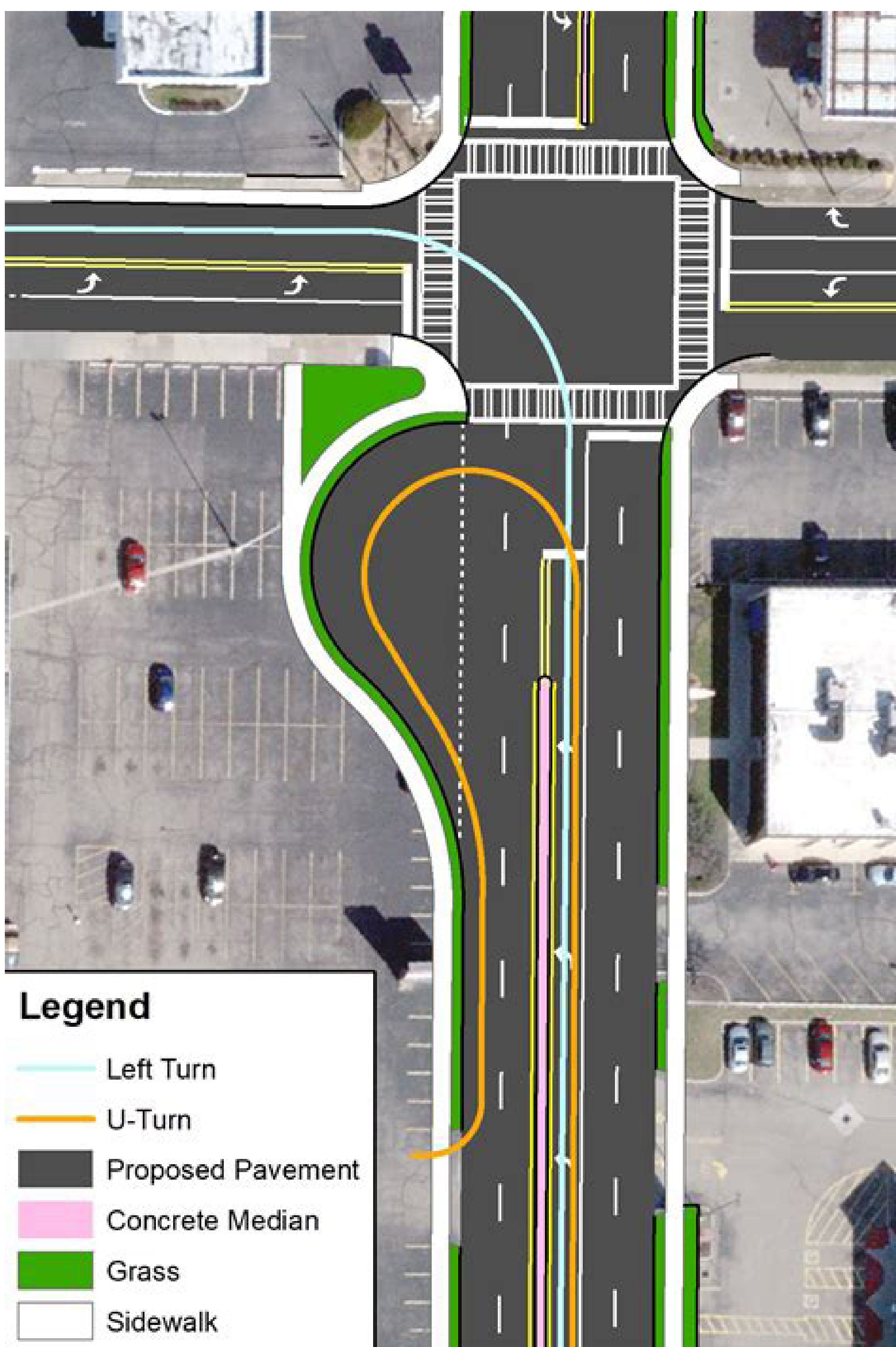
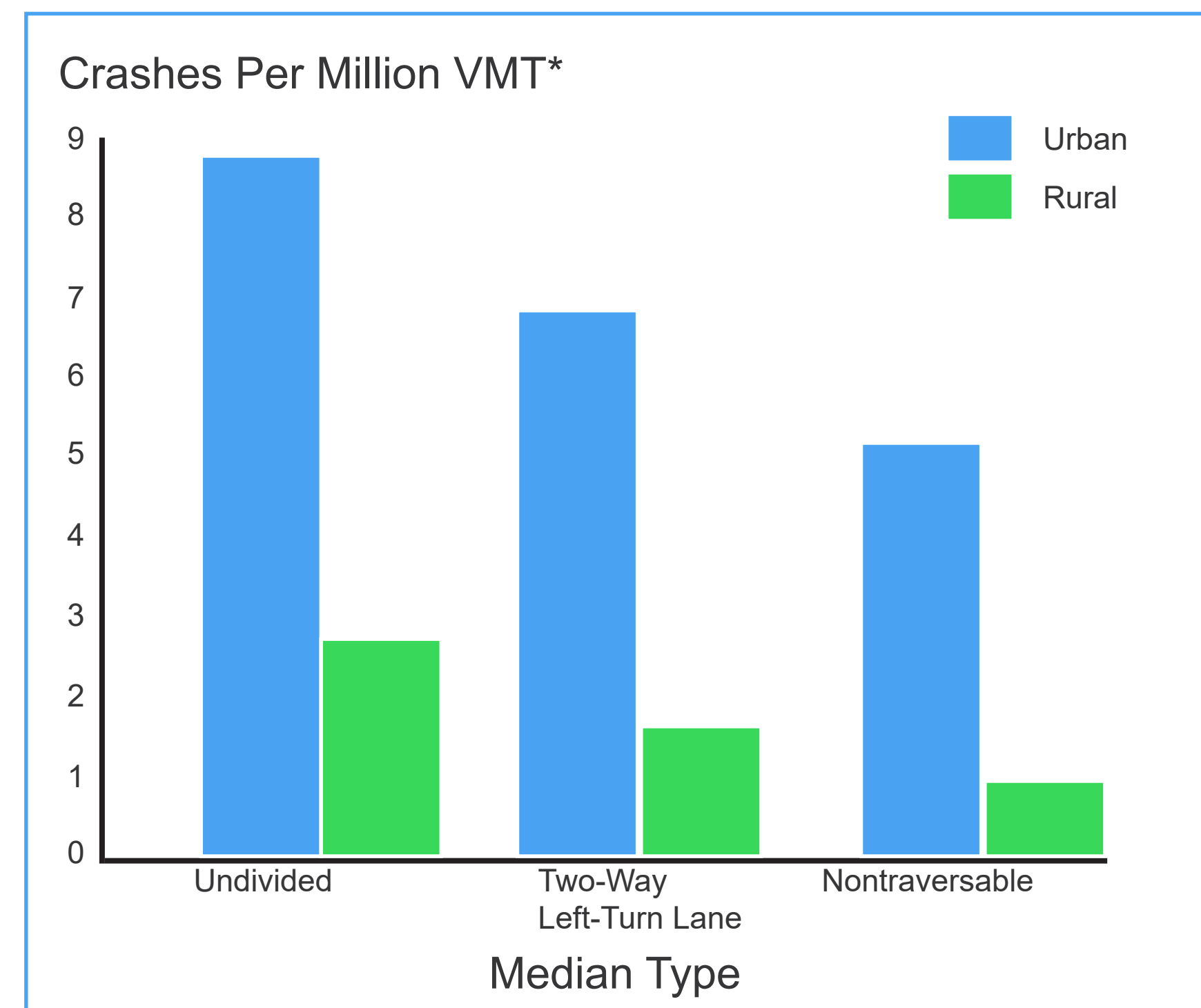
BENEFITS

- **Safety:** Raised medians reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas. Raised medians also provide extra protection for pedestrians.
- **Traffic Flow:** Fewer turning movements and conflict points allow traffic to flow smoothly.
- **Beautification:** The median provides a space for landscaping creating a welcoming sense of place.

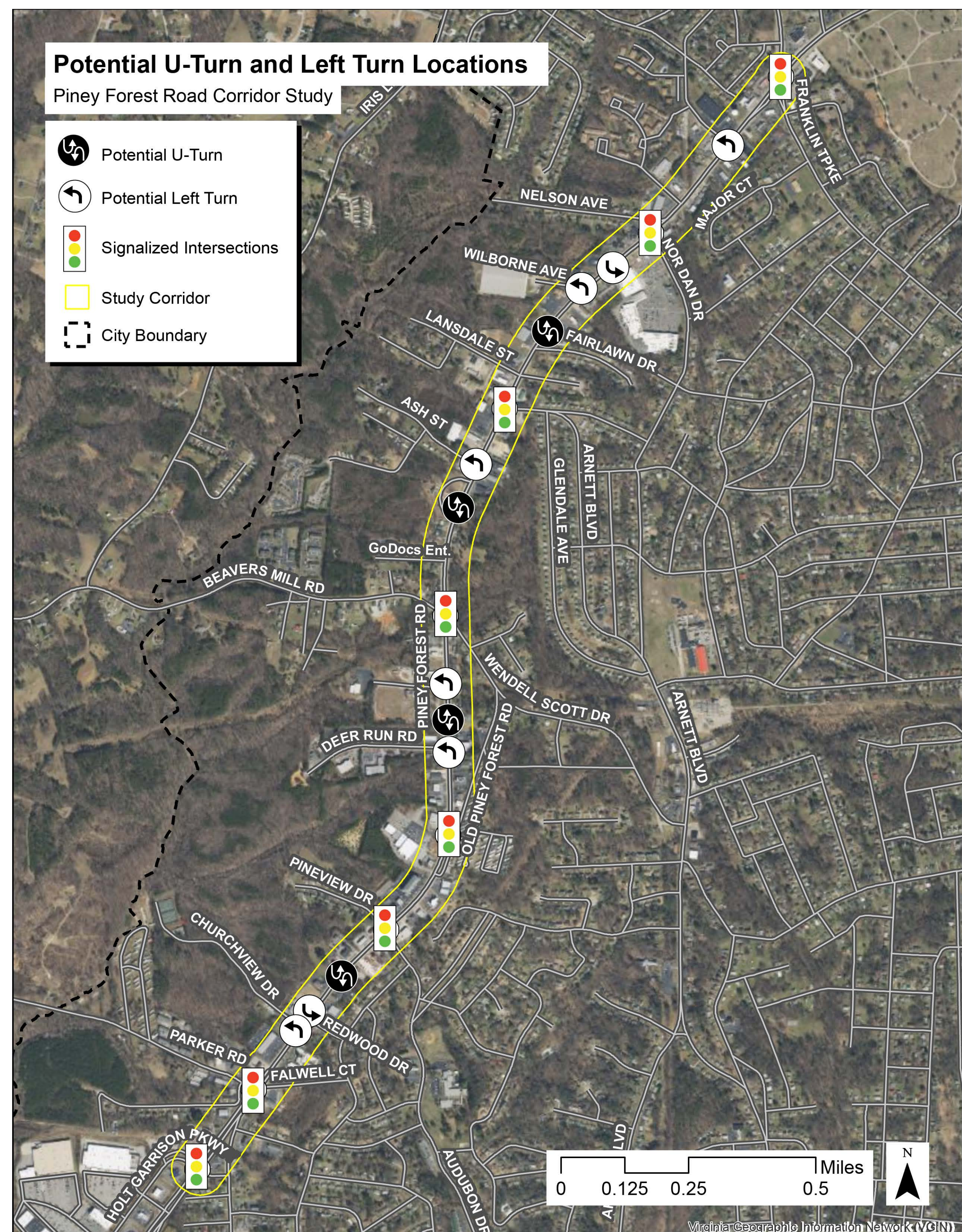


CHALLENGES

- **Modified Access:** New travel paths are required to reach some properties.
- **U-turns/Loons:** Widened location so that vehicles can make U-Turns from the left turn lane.

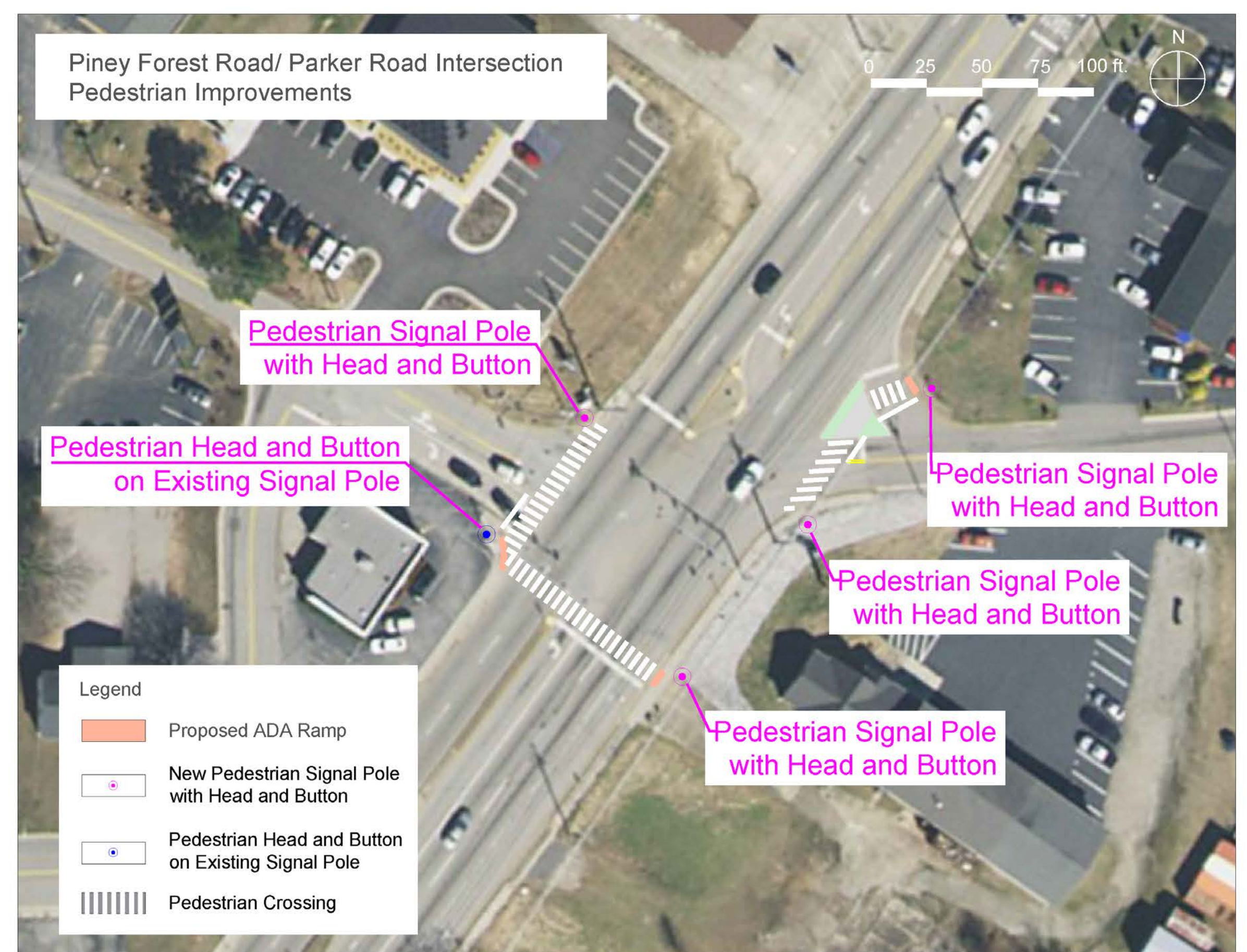
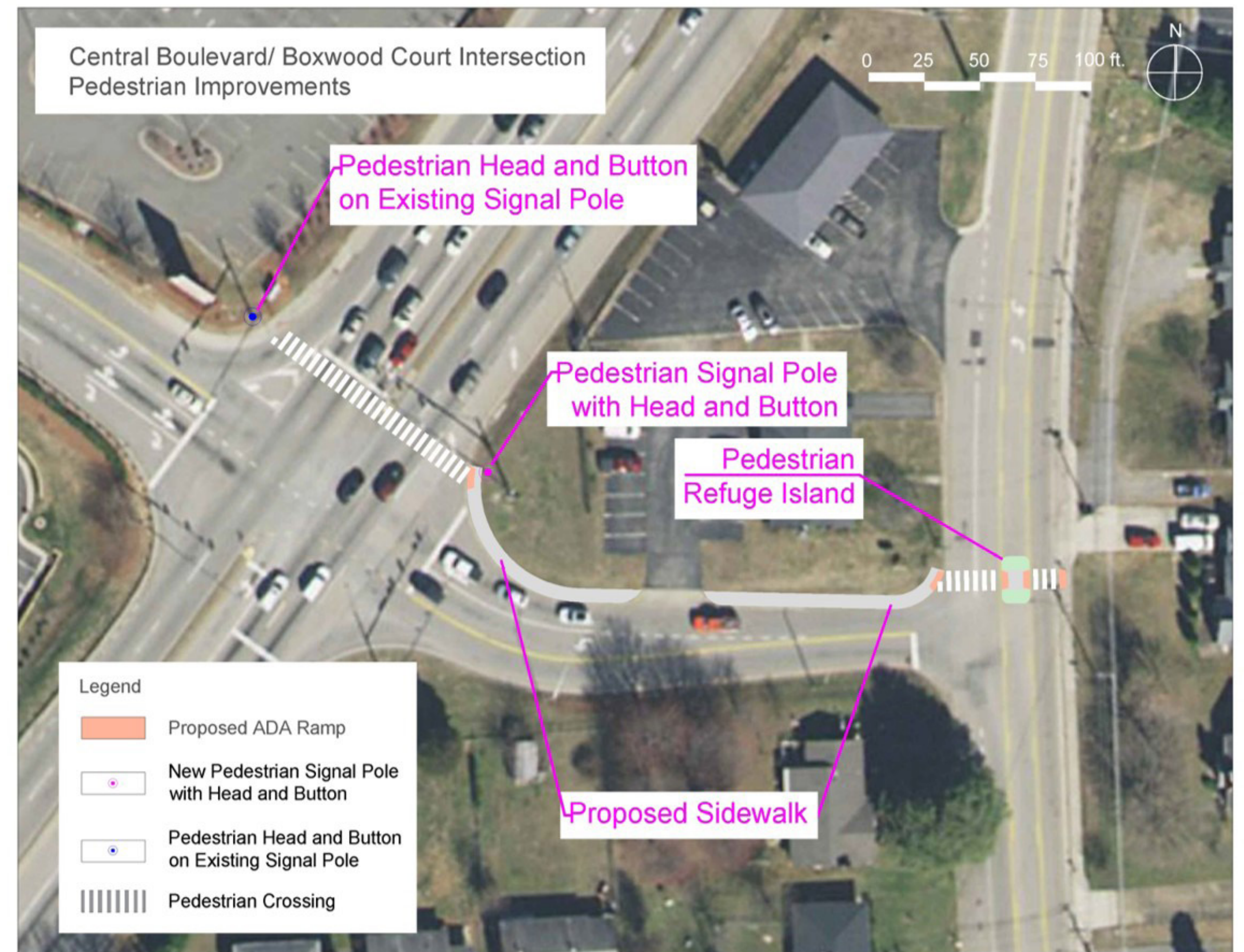


Source: City of Springfield, Ohio



PEDESTRIAN

- Corridorwide: Add curb ramps at unsignalized side street crossings, remove sidewalk obstructions
- Signalized intersections: add curb ramps, marked crosswalks, and pedestrian signals



TRANSIT

Improve high use bus stops by adding:

- Shelters
- Benches
- ADA access
- Other amenities: lighting, trash cans, etc.



BICYCLE

Mark an alternative route

- Connects to funded improvements
- Makes use of local street network
- Avoids above ground utility relocation expense
- 25 mph vs 40 mph

