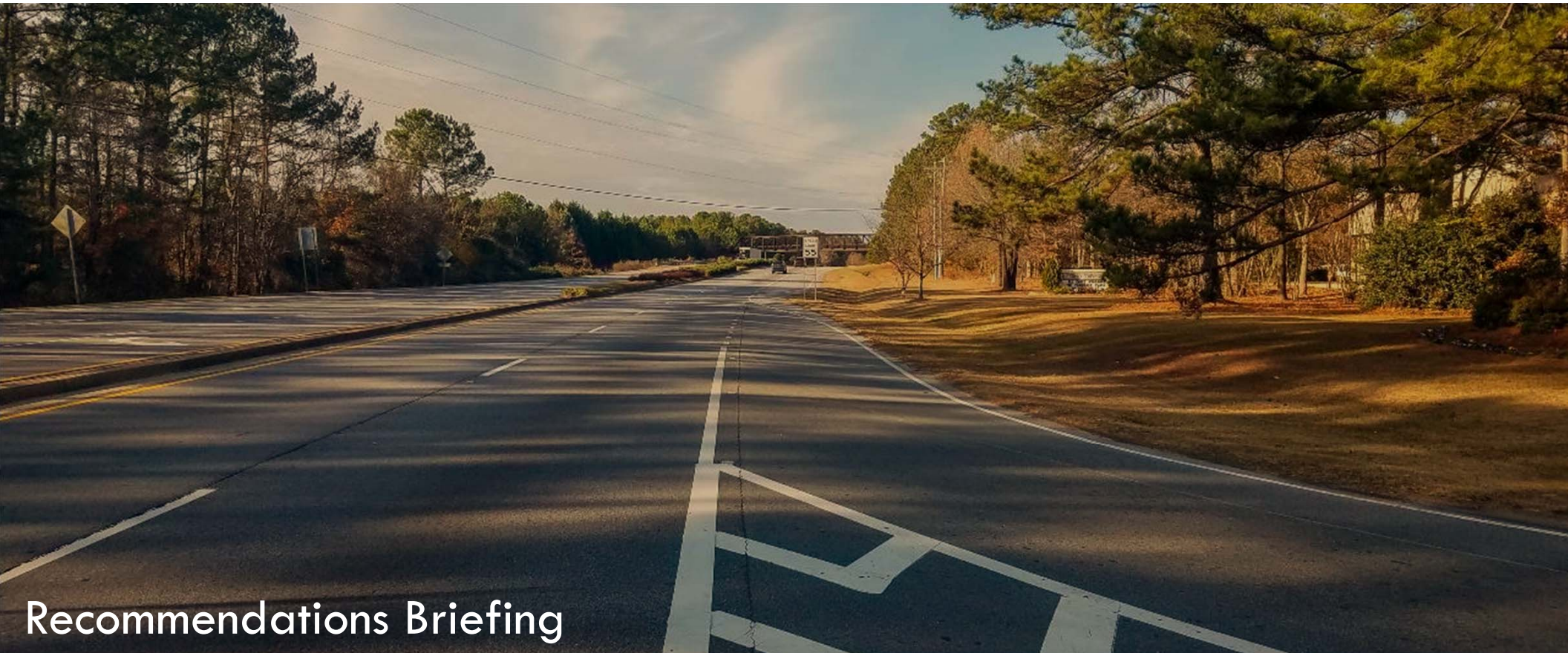


Recommendations Briefing

SR 74
COMPREHENSIVE CORRIDOR STUDY

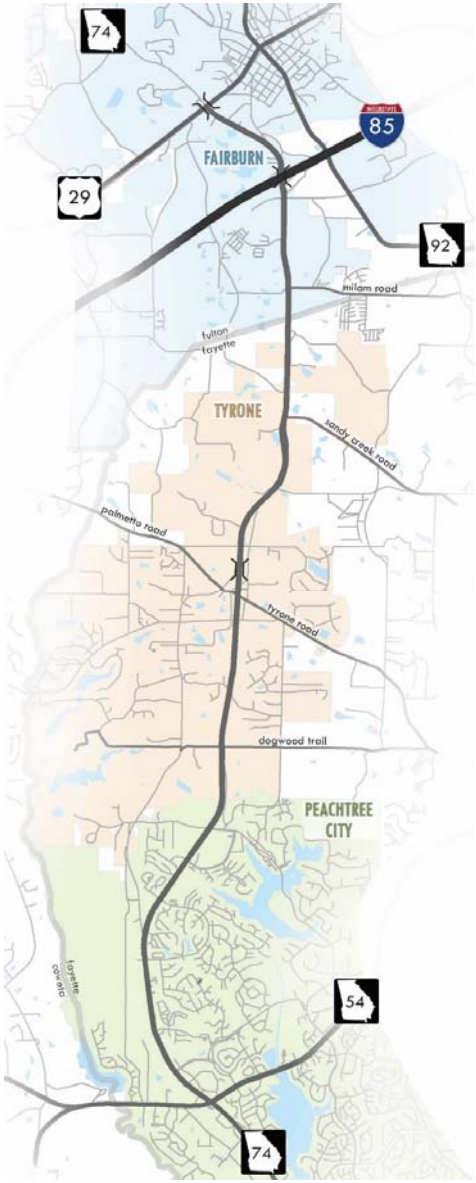
FAYETTE

POND

Study Purpose

- Establish a unified vision for the corridor
- Understand long term transportation needs
- Address congestion and future growth needs
- Provide capacity to maintain corridor mobility

NORTH



SR 74
COMPREHENSIVE CORRIDOR STUDY

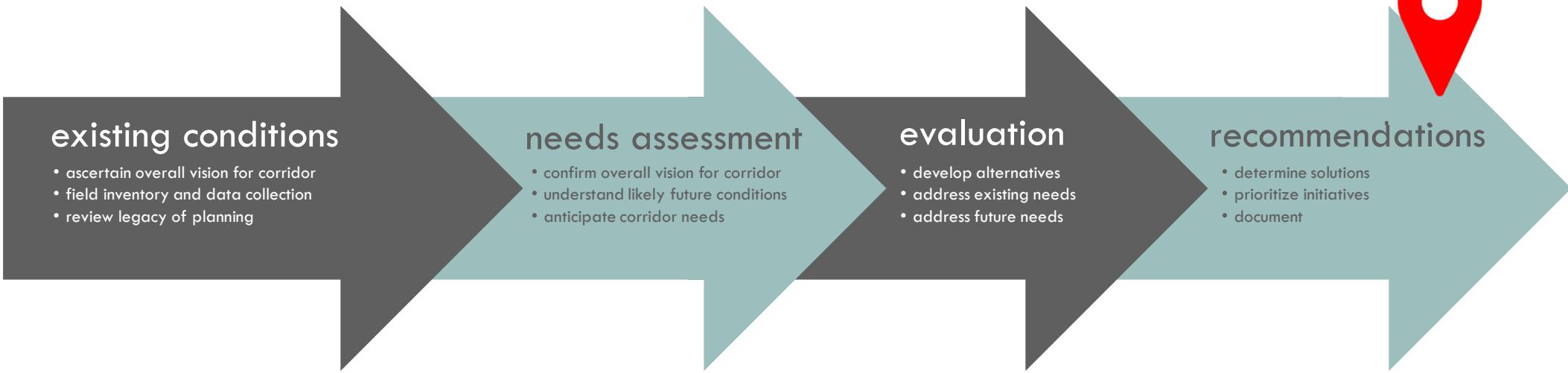
FAYETTE

POND

Process & Schedule

Summer 2017	Fall 2017	Winter 2018	Spring 2018	Summer 2018

WE ARE HERE!



SR 74
COMPREHENSIVE CORRIDOR STUDY

Recommendations

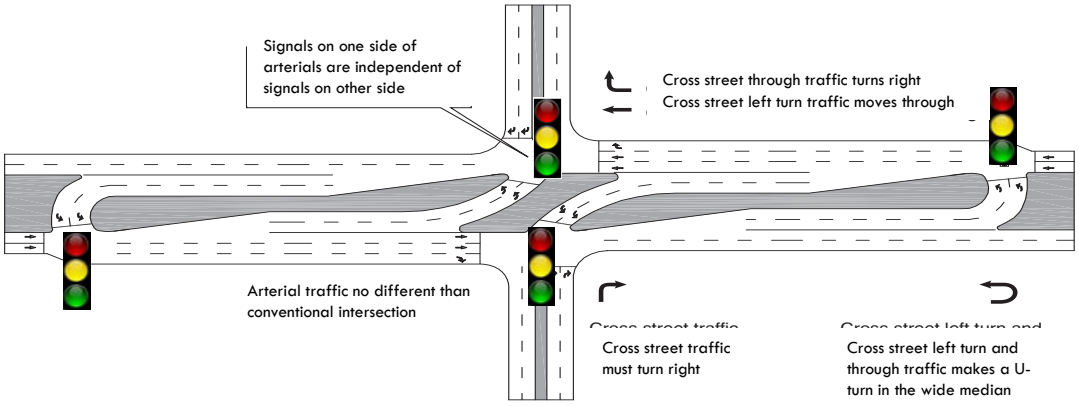
- Vehicle Improvements
  - Centerpiece: Superstreet Concept
  - Elements include RCUTs, J-Turns, and MUTs
- Bicycle & Pedestrian Improvements
  - Centerpiece: Multi-Use Trail on east side of SR 74
  - Elements include grade separated crossings, trail alignment options, and enhanced pedestrian crossings at improved intersections
- Transit & TDM Improvements
  - Centerpiece: Park and Ride Lot
  - Elements include route extensions and policies to promote carpool and vanpool options
- Framework for Consistency
  - Centerpiece: Framework for suggested common elements when considering greenfield and redevelopment opportunities
  - Elements include standardized concepts for criteria such as signage, access management, parking, and others.

Vehicle Improvements

Superstreets (RCUTs, J-Turns, MUTs)

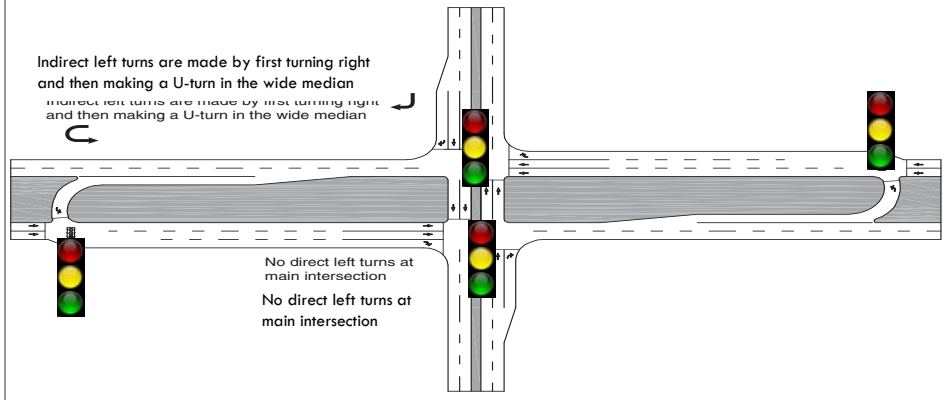
RCUT (Signalized) and J-Turn (Un-Signalized)

- Side street throughs and left turns utilize U-turn
- Mainline traffic no different than conventional intersection



MUT

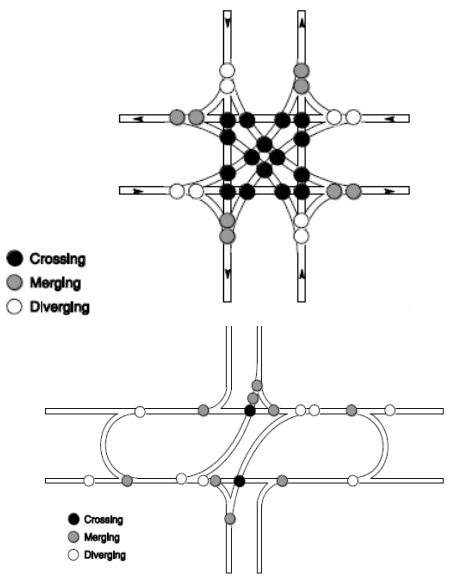
- All left turns utilize U-turn
- Through traffic no different than conventional intersection



Vehicle Improvements

Superstreet Benefits - Safety

Reduced intersection conflict points (from 32 to 14)

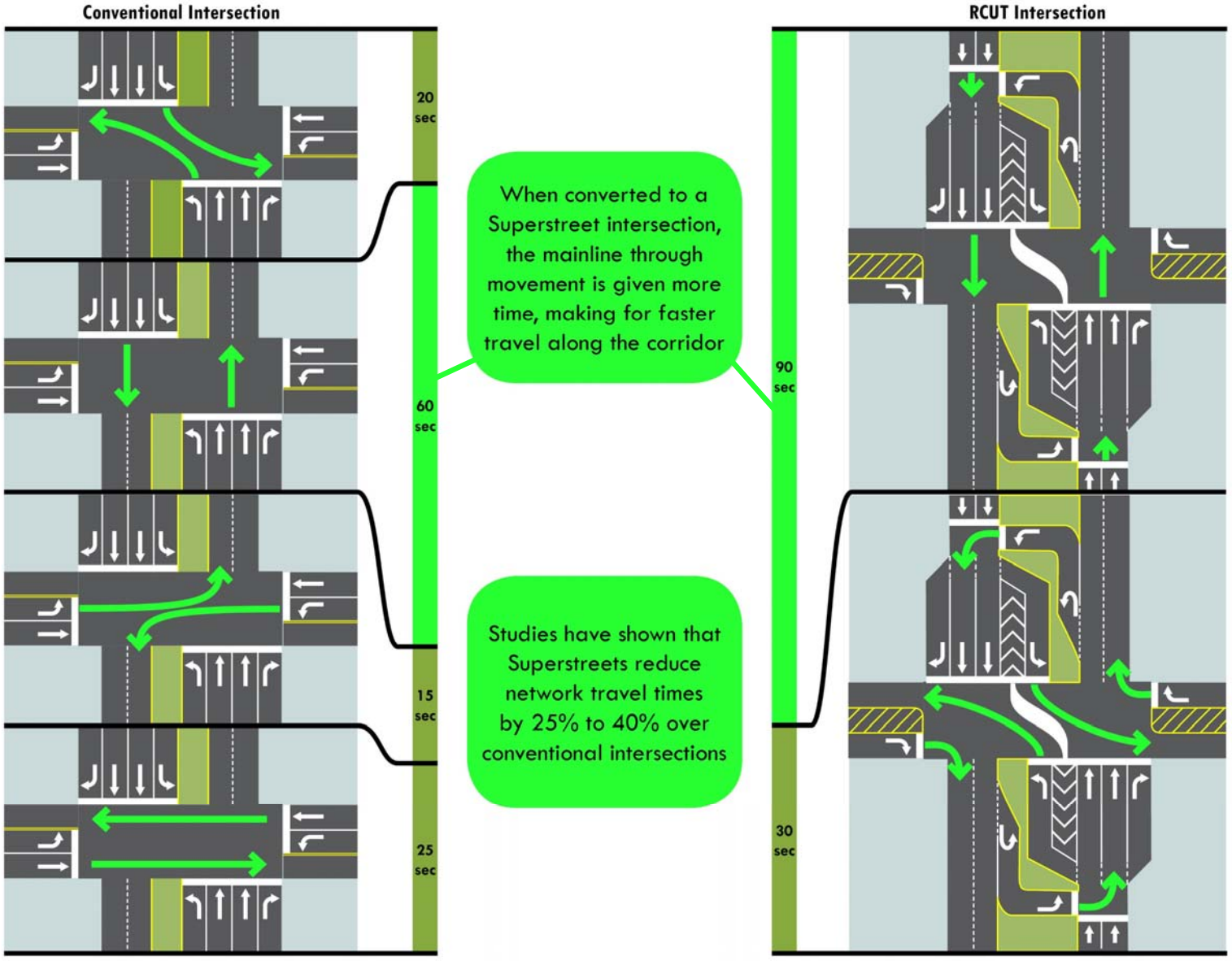


Summary of Empirical Safety Studies of RCUTs

State	North Carolina	Maryland	Missouri
Number of RCUT intersection sites	13	9	5
Change in total crashes	-27%	-44%	-35%
Change in injury crashes	-51%	-42%	-54%

Summary of Empirical Safety Study of J-Turn

Crash Type	Before	After	% Change
Rear End	13	8	-38%
Angle	47	0	-100%
Turning	32	10	-69%
Sideswipe	8	3	-63%
Injury	56	10	-82%
Fatality	2	1	-50%
Total	100	21	-79%


Conventional Intersection
20 sec
60 sec
15 sec
25 sec
When converted to a Superstreet intersection, the mainline through movement is given more time, making for faster travel along the corridor
Studies have shown that Superstreets reduce network travel times by 25% to 40% over conventional intersections
RCUT Intersection
90 sec
30 sec

Vehicle Improvements

Superstreet Benefits – Travel Time

US-281 (San Antonio) before and after RCUT intersection installation

Metric	Before RCUT	After RCUT
Southbound travel time (morning rush hour)	23.3 minutes	13.9 minutes
Southbound average speed (morning rush hour)	16 mph	20 mph
Northbound travel time (evening rush hour)	19.2 minutes	12.7 minutes
Northbound average speed (evening rush hour)	19 mph	29 mph
Traffic count (vehicles per day)	60,100 – 74,000	63,600 – 81,500

Vehicle Improvements

Superstreet Benefits – Travel Time

Modeled Improvements on SR 74

Network Totals	2040 AM Peak No-Build	2040 AM Peak Build	Percent Change	2040 PM Peak No-Build	2040 PM Peak Build	Percent Change
Total Delay (hr)	4,113	814	-80%	10,164	2,863	-72%
Number of Stops (#)	65,712	46,840	-29%	173,709	99,748	-43%
Average Speed (mph)	8.0	19.0	+11.0	5.0	13.0	+8.0
Total Travel Time (hr)	5,586	2,309	-59%	12,261	4,992	-59%
Distance Traveled (mi)	44,201	44,847	+1%	62,917	63,830	+1%

Increases in travel distance due to Superstreet geometry offset by significant reductions in overall travel time

SR 74
COMPREHENSIVE CORRIDOR STUDY

Vehicle Improvements

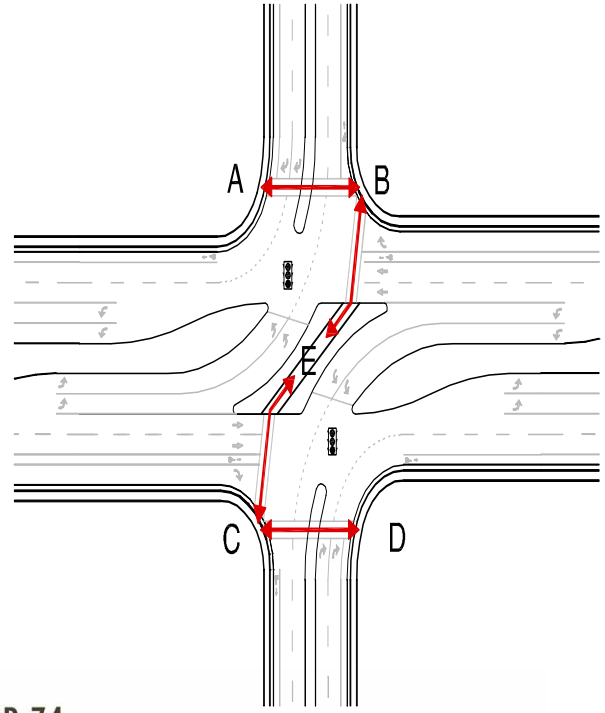
Superstreet Benefits

- Cost savings when compared to widening costs (excluding ROW)
  - Ballpark cost to widen SR 74 to 6 lanes: **$36 Million** (assuming $1.5 million a mile)
  - Ballpark cost to for Superstreet Concept on SR 74: **$18 Million** (assuming 20 superstreet intersections at $650,000 each and 24 individual crossovers at $200,000 each)
- Ability to accommodate large trucks through bulbouts
- No impact to Business Owners:

  "Business owners along a corridor may fear that access management improvements [such as Superstreets] will disrupt or otherwise negatively impact their businesses, but several studies over many years have dispelled this myth. Studies and surveys of property owners and businesses from North Carolina, Texas, Florida, Minnesota, Kansas, and Iowa, among others, reveal that access management projects do not result in adverse effects, and, in fact, can be beneficial. Importantly, a common factor in achieving this long-term success is early and frequent consultation between the road agency and corridor stakeholders, with special emphasis on the construction phase." - FHWA Office of Safety (https://safety.fhwa.dot.gov/intersection/other_topics/corridor/cam_exec/)
- Benefit to At-Grade Pedestrian and Bicycle Crossings

Bike & Ped Improvements

Superstreet "Z" Pedestrian Crossing



Pedestrian Considerations

- Crossing minor streets (A to B and C to D) are similar to conventional intersections but with reduced conflicts due to the restriction of left turns from the minor street.
- Crossing the major street (B to E and C to E) is accomplished through a crosswalk placed in between the direct left turn movements

Bicyclists Considerations

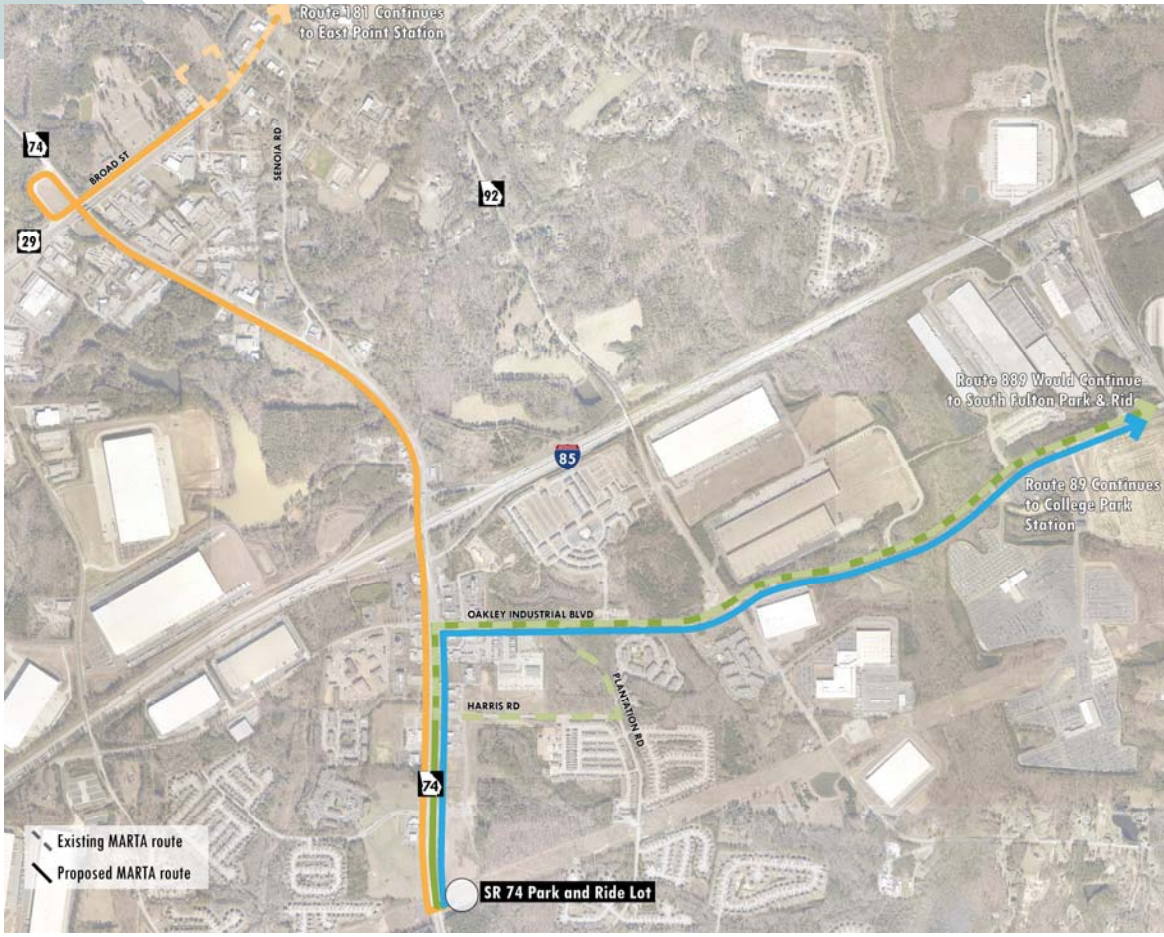
- Bicycles on major roadway travel in traditional manor but have more green time to pass through and fewer bicycle-vehicle conflict points
- To serve bicyclists on the minor street, there are three options:
  1. Follow pedestrian path
  2. Follow vehicle path
  3. Infrastructure for direct bicycle crossings in gaps in the median

Bike & Ped Improvements

- Multi-Use Trail on east side of SR 74
  - Challenges and Opportunities:
    - Easement opportunities parallel to corridor
    - However, where easement do not exist, ROW purchases may be necessary
  - Alignment options identified between Park and Ride lot and I-85
- Grade Separations at key nodal locations in Fairburn, Tyrone, and Peachtree City

Transit & TDM Improvements

- Promote the New Park and Ride Lot and Carpooling Options
- Promote and Incentivize the Use of Vanpool Services
- Implement Workplace Commute Options
- Connect MARTA to the New Park and Ride Lot

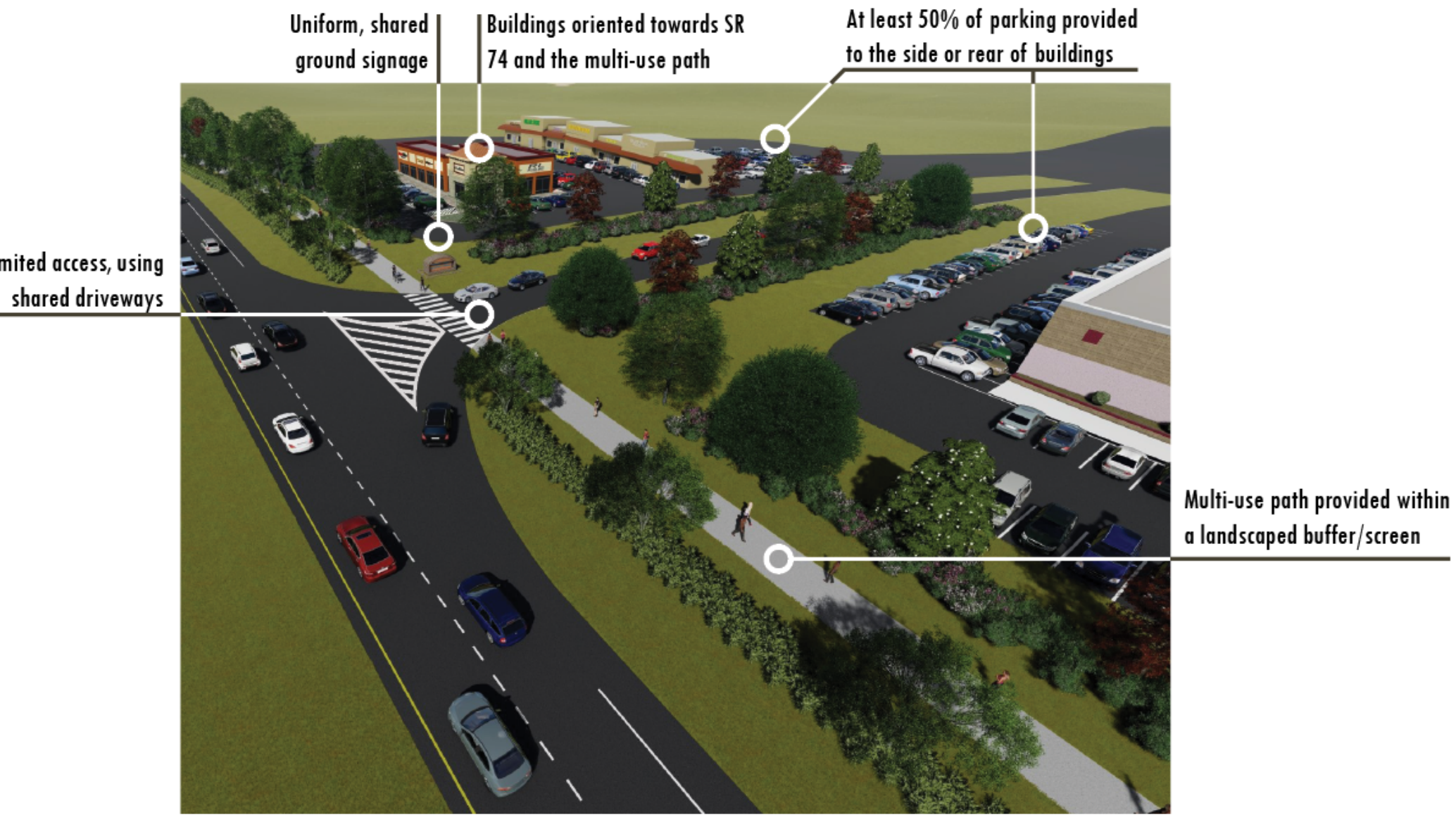


SR 74
COMPREHENSIVE CORRIDOR STUDY

Framework for Corridor Consistency

Considerations for elements that the SR 74 communities should consider with greenfield and redevelopment initiatives in order to achieve a consistent look and feel on the corridor. Mechanisms to implement include a multi-jurisdictional overlay or individual refinements to City development codes. Considerations include:

- Access Management
- Block Area and Length
- Front Setback & Greenspace
- Parking
- Sidewalk Standards
- Signage


Uniform, shared ground signage
Buildings oriented towards SR 74 and the multi-use path
At least 50% of parking provided to the side or rear of buildings
mited access, using shared driveways
Multi-use path provided within a landscaped buffer/screen

Next Steps

- Draft Corridor Plan provided to Project Team Members for internal review October 15
- Briefings to Peachtree City, Tyrone, Fairburn, and Fayette County
- 35 Day Public Comment Period (10/22-11/26)
- Final report anticipated by end of CY