



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

July 21, 2025

MEMORANDUM

TO: Steve Cannon, PE
Division 13 Project Development Engineer

FROM: Kelly L. Becker, PE ^{Initial}
Safety Planning Engineer **KLB**

SUBJECT: Preliminary pedestrian crossing recommendations for U-2801A - US 25A
(Sweeten Creek Road) from north of US 25 (Hendersonville Road) to Rock Hill
Road in Asheville, Buncombe County

The Traffic Safety Planning Group of the Traffic Safety Unit has reviewed the available safety data with the Regional Traffic Office for the project limits of U-2801A and attached you will find the results of our pedestrian crossing focused analysis. We have provided preliminary recommendations for traffic control and marking elements that are needed for pedestrian crossing locations. These recommendations will be revisited once the proposed geometrics are finalized by the design team and final traffic signal recommendations are provided by the Regional Traffic Office. These pedestrian crossing recommendations were informed by:

- a review of existing and proposed roadway characteristics,
- a review of safety data in the vicinity of the corridor with a specific focus on pedestrian related crashes,
- a review of the existing and proposed pedestrian infrastructure along the corridor, including transit stops,
- a review of existing and proposed land use in the area

Please contact Kelly Becker at 919-814-5014 or klbecker@ncdot.gov if additional safety data or pedestrian crossing related reviews are needed as this project moves forward.

Attachments

cc: Nathaniel Moneyham, PE
Brendan Merithew, PE
Claudia Williams, PE
Michael Kneis, PE
Brian Murphy, PE
Scott Collier, PE
Randy Tritt, PE
Nick Zinser, PE
Kelvin Jordan
Michael Reese, PE
Zachary Clark, PE
Craig Young, PE

Guiding Principles for Pedestrian Crossing Decisions

Decisions on the necessity and placement of pedestrian crossing facilities will be guided by the following principles:

1. Every signalized intersection in the project limits should have pedestrian signal heads, crosswalks, and ramps on all approaches. Any deviations from this need to be justified on a basis other than cost.
2. Some level of protection (e.g., marking, signing, and/or signals) is preferred for mainline crossings. However, crossings can be unsignalized, if the volume level is low enough to allow sufficient gaps for pedestrians to cross.
3. In areas where pedestrian activity is anticipated, spacing between pedestrian crossing locations should ideally be 800 feet or less.
4. Street lighting is preferred for all unsignalized crosswalks.
5. If visibility is constrained at a crossing location, additional enhancements, such as a rectangular rapid flashing beacon (RRFB), may be warranted.
6. Recommendations for pedestrian crossing locations and facilities are generally based on a 5-year outlook, as opposed to longer time periods that are used for other types of roadway planning. This is due to the dynamic nature of development, transit stops, and other factors that affect the demand and location of pedestrian crossing needs.

Overall Picture of US 25 Alternate (Sweeten Creek Road) for Pedestrian Crossing Safety

This is an urban arterial that represents a relatively high crossing risk for pedestrians. It falls in the category of a minor arterial with a proposed design speed of 40 mph and wider crossing distances. Additionally, the land use along this corridor would be expected to contribute to pedestrian activity and motivations for crossing Sweeten Creek Road.

Pedestrian Crossing Needs

Pedestrian mainline crossings of Sweeten Creek Road should consider enhanced safety provided by marked and protected crossings. Unsignalized crossings may not be preferred for this corridor in the project area. The project is intended to build sidewalk along the east side and a multi-use path on the west side of the corridor. As such, all signalized intersections in the project limits should have pedestrian signal heads, high visibility crosswalks, and curb ramps on all approaches included. All unsignalized intersections should have high visibility crosswalks across the y-lines and curb ramps for the crossings.

Please review the proposed typical section for buffer widths. On the west side, it appears that the buffer width between the path and the roadway could be increased, and the buffer between the path and the slope could be decreased. On the east side, please show a minimum 2 ft buffer width between the roadway and sidewalk.

Please also review the radii at the intersections within the project limits to minimize speeds of turning vehicles and pedestrian crossing distances. This may be of particular concern at right-turn movements at skewed intersections (e.g., Sycamore Drive, Birch Lane).

The following diagrams walk through the corridor from South to North with specific recommendations called out at various points along the project corridor.

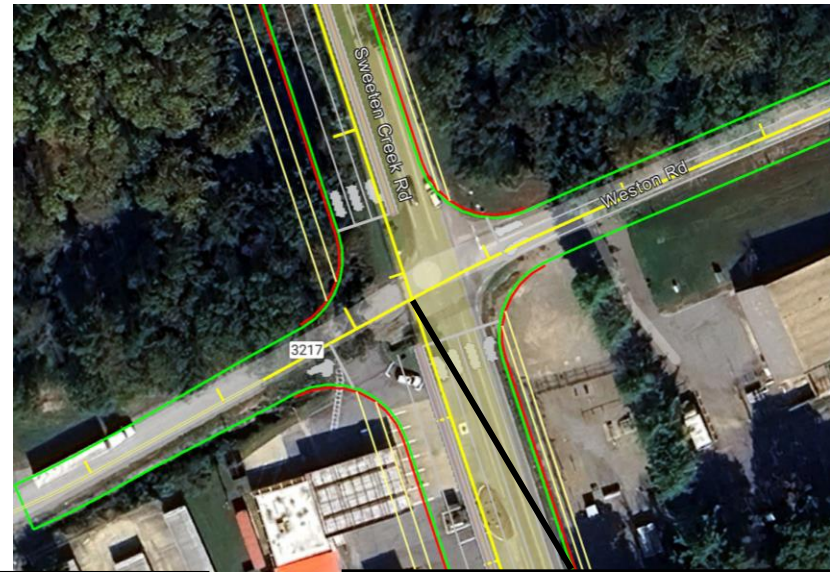
Sweeten Creek Road at Pensacola Avenue



- Given that expanding the bridge just south of the project limits to carry a sidewalk is not an option, the project team should consider ending the sidewalk at Pensacola until future ped/bike facilities connect to US 25. It would be a good idea to acquire the necessary right-of-way now.

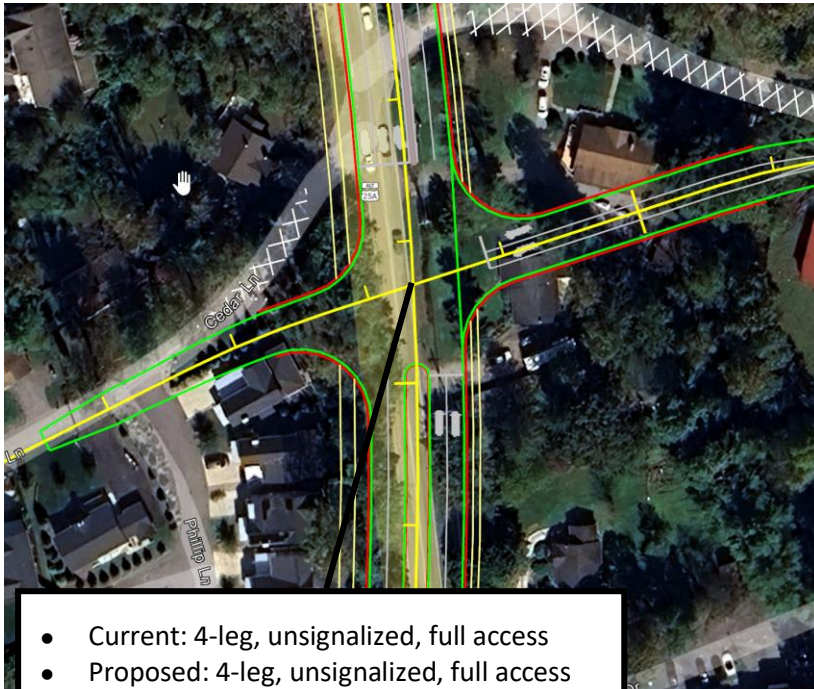
- Current: 3-leg, signalized, full access
- Proposed: 3-leg, signalized, full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Weston Road



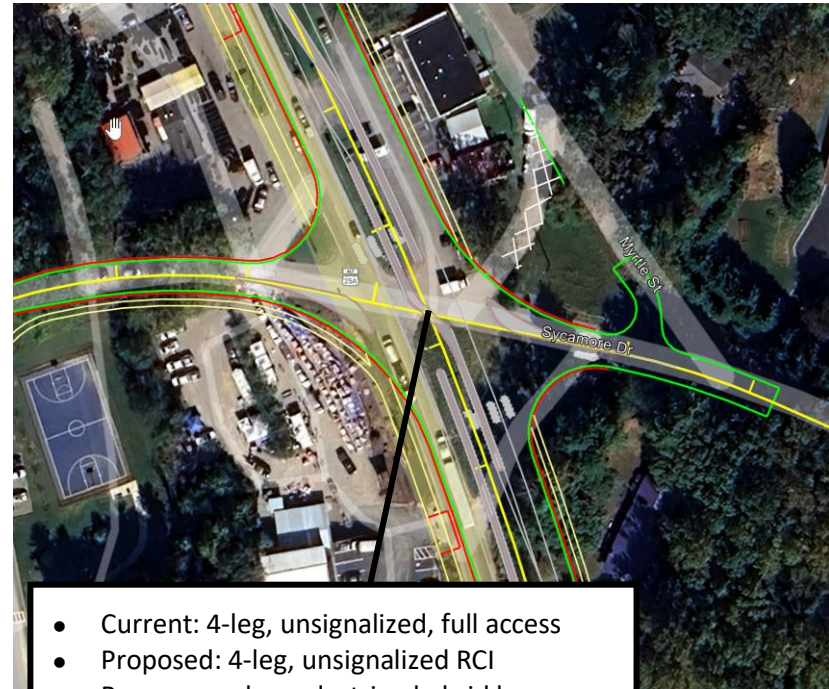
- Current: 4-leg, unsignalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Cedar Lane



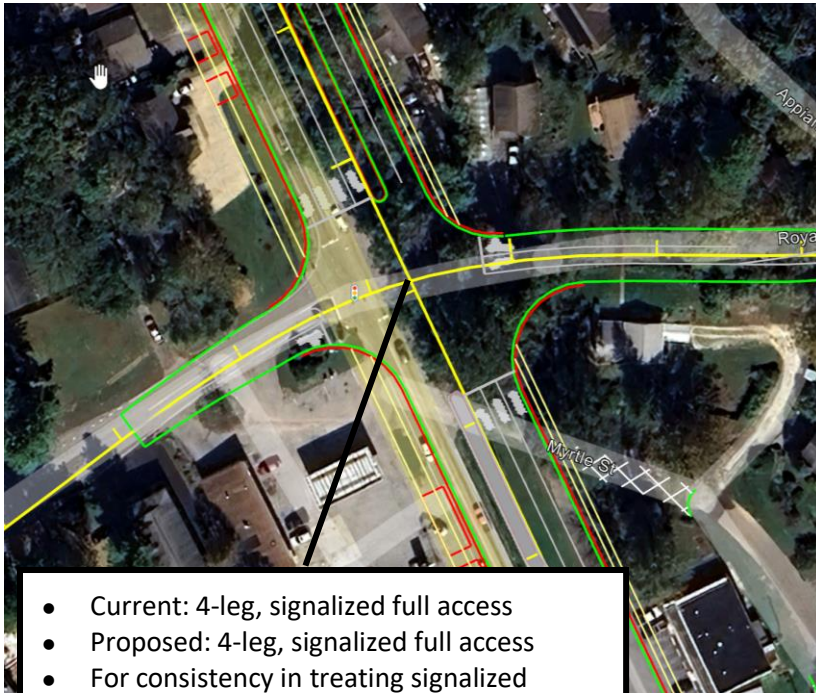
- Current: 4-leg, unsignalized, full access
- Proposed: 4-leg, unsignalized, full access
- Recommend a pedestrian hybrid beacon crossing Sweeten Creek Rd.

Sweeten Creek Road at Sycamore Drive



- Current: 4-leg, unsignalized, full access
- Proposed: 4-leg, unsignalized RCI
- Recommend a pedestrian hybrid beacon crossing Sweeten Creek Rd, wider median to accommodate a Z-type crossing.

Sweeten Creek Road at Royal Pines Drive



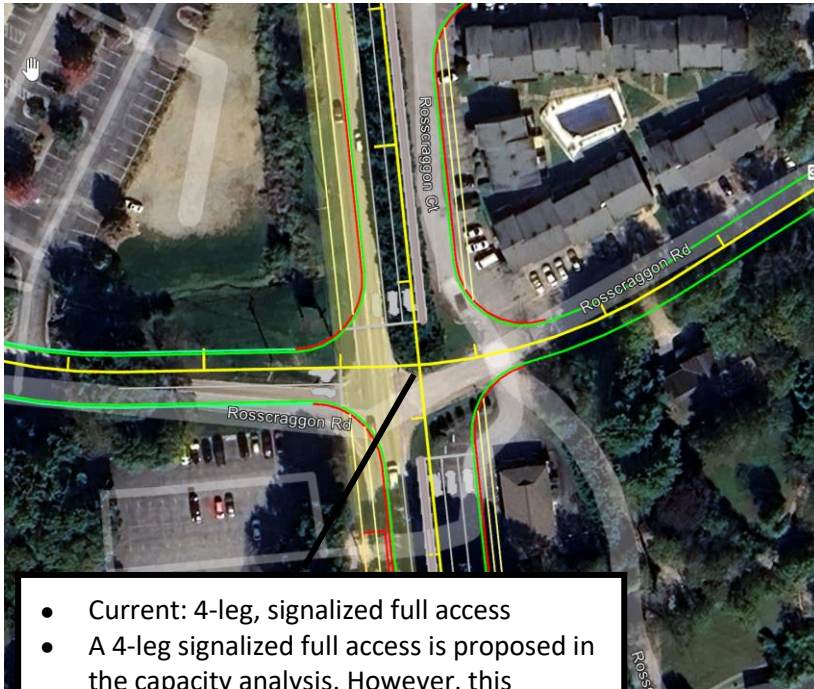
- Current: 4-leg, signalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Birch Lane



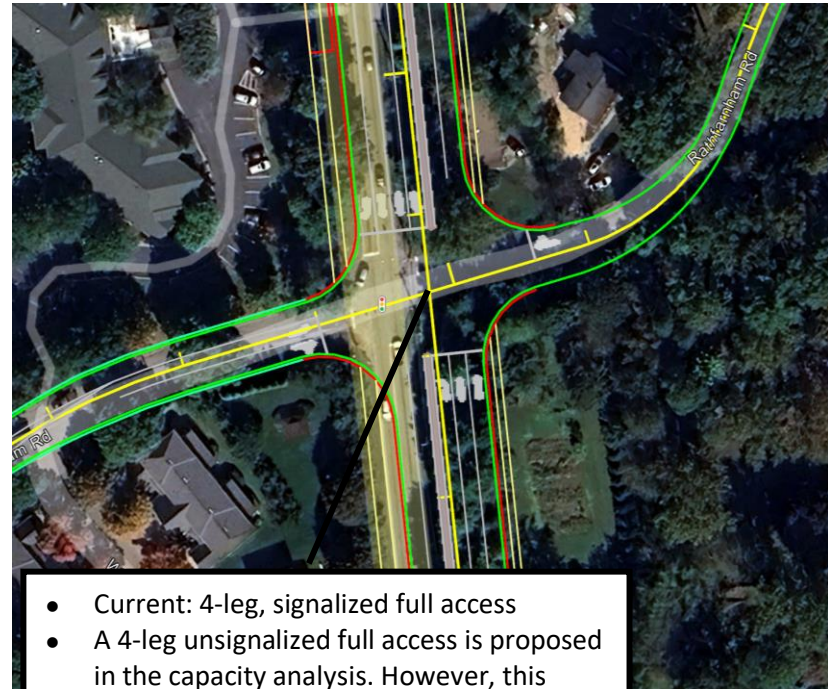
- Current: 4-leg, unsignalized, full access
- Proposed: 4-leg, unsignalized RCI
- Recommend a pedestrian hybrid beacon crossing Sweeten Creek Rd with a Z-type crossing.

Sweeten Creek Road at Rosscraggon Road



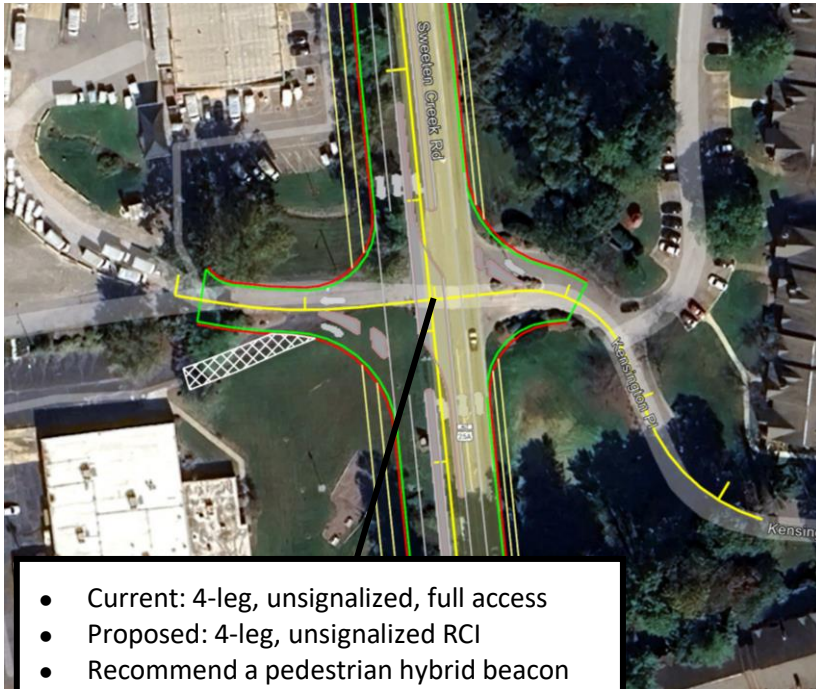
- Current: 4-leg, signalized full access
- A 4-leg signalized full access is proposed in the capacity analysis. However, this intersection currently restricts eastbound left turns. Any eastbound left turning traffic can utilize the Sweeten Creek Rd at Rathfarham Rd signalized intersection. Consideration should be given to an unsignalized RCI at this intersection in lieu of a traffic signal.

Sweeten Creek Road at Rathfarnham Road



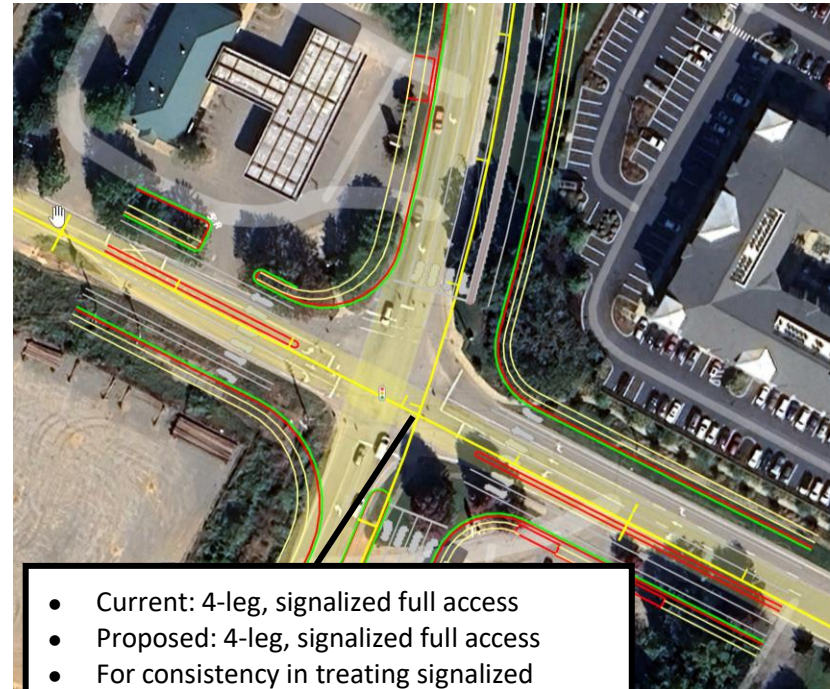
- Current: 4-leg, signalized full access
- A 4-leg unsignalized full access is proposed in the capacity analysis. However, this intersection is currently signalized and accommodates the eastbound left turns that are restricted at Rosscraggon Rd. The recommendation is to retain a traffic signal at this intersection.
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Kensington Place



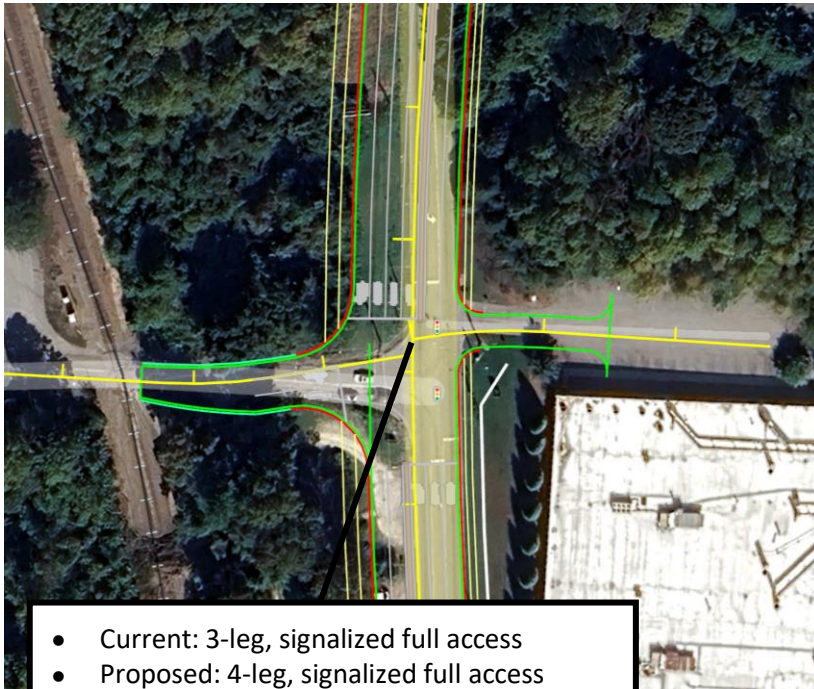
- Current: 4-leg, unsignalized, full access
- Proposed: 4-leg, unsignalized RCI
- Recommend a pedestrian hybrid beacon crossing Sweeten Creek Rd with a Z-type crossing.

Sweeten Creek Road at Mills Gap Road



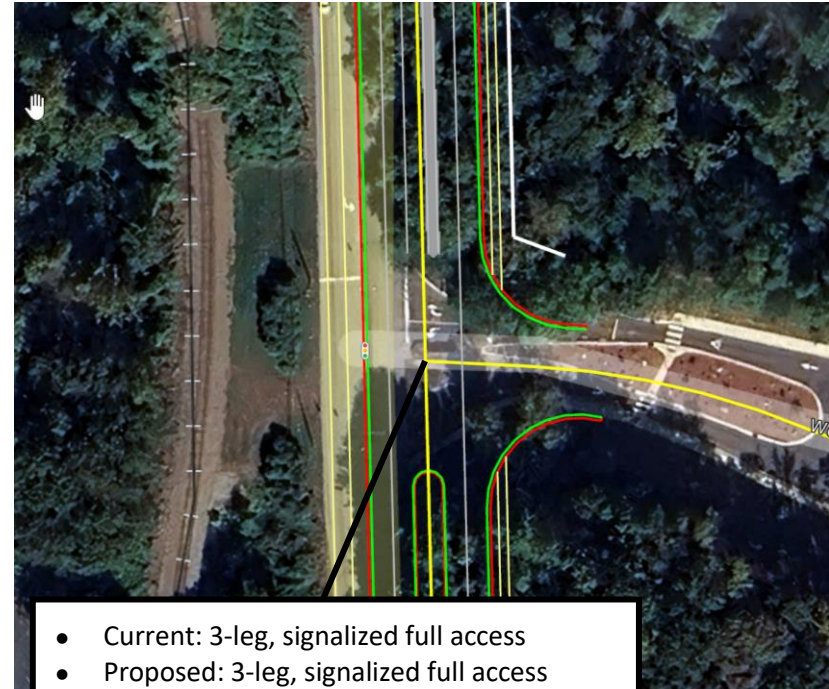
- Current: 4-leg, signalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Gerber Road



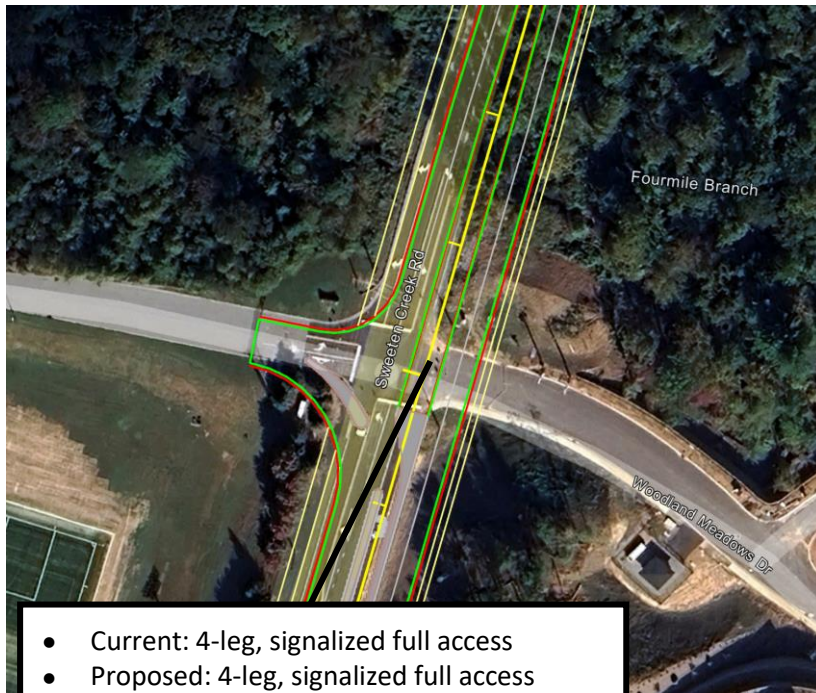
- Current: 3-leg, signalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Wesley Drive



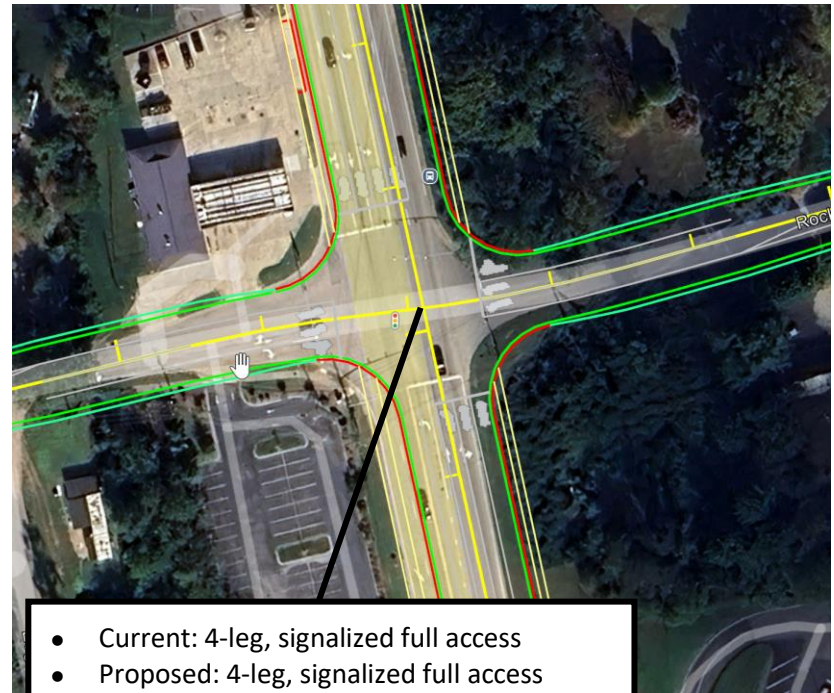
- Current: 3-leg, signalized full access
- Proposed: 3-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Woodland Meadows Drive



- Current: 4-leg, signalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.

Sweeten Creek Road at Rock Hill Road



- Current: 4-leg, signalized full access
- Proposed: 4-leg, signalized full access
- For consistency in treating signalized intersections, crosswalks, ramps, and pedestrian signals are needed on all intersection legs.