

FIVE POINTS STREETScape AND SAFETY STUDY – EXISTING CONDITIONS SUMMARY

The Five Points community is comprised of well-established historic neighborhoods with a mix of land uses including retail, offices, and institutional activities. While historically, the Five Points community developed as suburban neighborhoods around the streetcar line connecting to downtown, the current transportation network in this area focuses on vehicle access and throughput, which has left many transportation needs unmet. The neighborhood is centered around the Glenwood Ave/Whitaker Mill Rd/Fairview Rd/Glenn Ave intersection, also known as the Five Points intersection.

The Five Points intersection is a complex intersection with challenges for vehicles and pedestrians. It is also an iconic location within Raleigh and a focal point for several National Register-listed historic districts. An assessment of existing transportation conditions and land use context has been completed and an overview of the findings are provided here.

SAFETY

The project team completed a review of safety conditions in the corridor. This evaluation included two distinct efforts. The first effort focused on completing field visits, reviewing aerial photography, and meeting with stakeholders to understand high-level safety concerns. Our review identified the following concerns:

- Limited sight distance for both vehicles and pedestrians.
- The curvature of northbound Glenwood Avenue coupled with a preponderance of speeding vehicles have contributed to several run-off road/fixed object crashes.
- The skewed geometry of the opposing movements on Glenwood Avenue limits sight distance for left-turning vehicles, which currently are controlled by a flashing yellow arrow signal.
- Red-light running and speeding are two primary safety concerns at the Five Points intersection perceived by the local community.
- The skewed geometry of Fairview Avenue and Whitaker Mill Road coupled with permissive left turn phasing create confusion about which vehicles have the right of way.
- High traffic volume and speeding on Glenwood Avenue and periodic congestion have contributed to rear end crashes between vehicles approaching the intersection.
- Vehicles parked on Glenwood Avenue north and south of the intersection have experienced sideswipes.

In addition to our high-level understanding of safety, we have also completed a detailed review of the most recent five years of reported crash data at the intersection. The following key crash patterns and trends emerged:

- There were 143 reported crashes within the study period within 300' of the study intersection, constituting a crash rate of approximately 2.46 crashes per million entering vehicles, which is very high.
- This is the highest crash location along Glenwood Avenue between I-440 and Peace Street.
- 22% of the 143 total crashes resulted in a reported injury, including one fatal crash and two other crashes with severe (A) injuries.
- Crashes on northbound Glenwood Avenue include 18 run-off road or fixed object crashes, indicating a trend of drivers losing control of the vehicle near the intersection.
- A disproportionate share of the crashes occurred at night, including the fatality.

TRAFFIC OPERATIONS

Intersection level of service (LOS) was calculated for signalized intersections along Glenwood Avenue between Wade Avenue and Oberlin Road. LOS is a measure of average travel delay, where LOS A indicates free flow conditions and LOS F indicates that drivers often have to wait through multiple signal cycles to travel through the intersection. Cities typically target LOS D or E to provide efficient throughput. All study intersections, averaging all vehicular movements, currently operate acceptably at LOS C or better, indicating that there is little delay in the network. However, there are some turn movements that operate at LOS F, including the following:

- Glenwood Ave/Oberlin Rd – Northbound left, northbound through, and southbound left/through during the PM peak hour.
- Glenwood Ave/Anderson Rd – Southbound left during the AM peak hour.

Operations at the Glenwood Ave/Whitaker Mill Rd/Fairview Rd/Glenn Ave intersection were reviewed in more detail, given this intersection is the primary focus of this study. The westbound Whitaker Mill movements operate at LOS E during the AM peak hour, and the westbound Whitaker Mill left turn movement operates at LOS E during the PM peak hour. In reality, these movements may operate with more delay, along with the eastbound Fairview Rd approach, which the traffic analysis model may not fully account for. The misalignment of these two intersection approaches is likely met with more hesitant maneuvers being made by drivers, along with a greater likelihood of crashes. While future safety improvements to convert the signal to split phase may appear to have capacity impacts, it is important to note that the existing concurrent phasing is not likely leading to efficient operations.

COMMUNITY CONTEXT

The Five Points neighborhoods are historically significant and well-established. Each has a rich history, distinctive character, and strong sense of identity that is important to preserve. Originally developed as streetcar suburbs along the Glenwood Avenue line, surrounding neighborhoods were designed to be walkable and balance access to transit and car ownership. This historic walkability is an important part of the character of the area. Relevant community characteristics and features include the following:

- The Five Points intersection is a focal point for the community, both for the surrounding neighborhoods and for Raleigh as a whole.
- The businesses and institutions at the Five Points intersection and along the corridor are important to the community, and multimodal access to them is critical.
- The landscaped median of Glenwood Avenue is an iconic marker of the location of the historic streetcar line and is a contributing historic feature between White Oak Road and The Circle.
- The neighborhoods adjacent to the Five Points intersection have very high median incomes and more children than the Raleigh average, indicating that many wealthier families with children live in the area.
- West of Glenwood Avenue and south of Fairview Road, there is a larger percentage of older adults and slightly lower income levels, indicating a larger retired population in this area.

ACCESS AND STREETScape

There are a variety of businesses, cafes, and restaurants lining the streets of the Five Points neighborhood, creating a vibrant streetscape. Many of the patrons frequenting these establishments arrive by walking from their homes in the adjacent neighborhood. Others also drive to the area and park in the on-street parking spaces. Access is often difficult for patrons walking, bicycling, or taking transit. Also, vehicle parking may not be available immediately adjacent to a desired destination. A variety of streetscape and access concerns across all travel modes have been identified including the following:

- The skew of the intersecting streets, utilities, and visual clutter make it difficult for pedestrians to locate the correct crossing signals.
- Long crossing distances, high traffic speeds, and vehicles focused on avoiding other vehicles make pedestrian crossings of Glenwood challenging.
- Pedestrians crossing parallel to Glenwood Avenue are subjected to unanticipated left-turning and often fast-moving vehicles from Glenwood.
- The lack of planting and vehicle buffers combined with high vehicle speeds contributes to a high-stress walking experience on Glenwood Avenue that many area residents choose to avoid.
- There is plentiful on-street parking available within ¼ mile of the Five Points intersection, although parking may not always be visible or close to the intended destination.
- There is no dedicated bicycling infrastructure at the Five Points intersection and surrounding area.
- Transit stops in the area are often difficult for elderly or mobility impaired people to safely utilize.