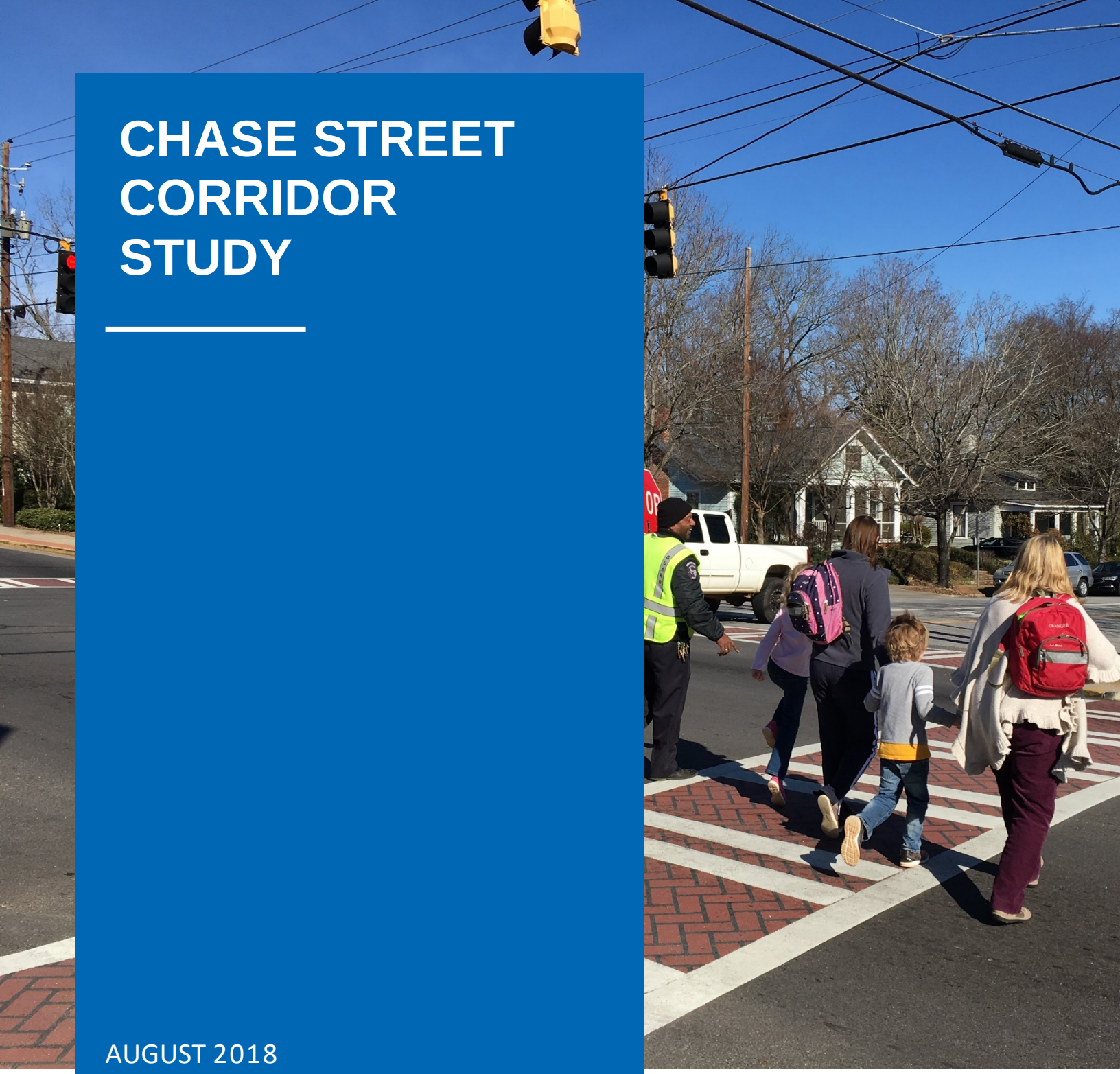

CHASE STREET CORRIDOR STUDY

AUGUST 2018

Toole Design Group

Athens-Clarke County Georgia

Approved with Commission Defined Option - September 4, 2018

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Introduction

The Chase Street Corridor Study is a guiding document for the Athens-Clarke County Unified Government to develop vehicular and multimodal updates for Chase Street and the surrounding street network. Key tasks of the corridor study included understanding existing conditions, engaging the public, performing technical analysis, developing alternative solutions, and recommending a final concept design. The goal of this study is to recommend multimodal changes that provide low-stress, safe, and comfortable facilities for all users. The project team gathered information and listened to the public through a discovery workshop and then refined alternative solutions based on feedback during a validation workshop. The history of the Chase Street corridor was an important consideration when conducting public outreach and developing recommendations.

The following are key dates that led to this study:

- February 1, 2005 - Mayor & Commission (M&C) adopted the "Guidelines for Three-lane Conversions"
- May 5, 2015 - M&C approved a list of roadways for resurfacing in FY16, which included N. Chase Street
- July 22, 2015 - Transportation & Public Works (T&PW) staff held a public forum to solicit input on lane configuration modifications to N. Chase Street
- September 1, 2015 - M&C approved delaying the N. Chase Street segment from the FY16 paving program to the FY17 program
- March 8, 2016 – T&PW presented possible lane reconfigurations to M&C at a scheduled Work Session
- April 11, 2016 - T&PW staff hosted a public forum to solicit comments on the proposed reconfigurations and pedestrian marking improvements
- May 3, 2016 – M&C approved the FY17 paving program and Commission Defined Option, which included N. Chase Street
- June 7, 2016 – M&C adopted a resolution defining the May 3, 2016 Commission Defined Option
- June 8, 2017 - Asphalt resurfacing activities were complete; staff subsequently observed safety and operational concerns
- July 26, 2017 - T&PW staff hosted a public forum to discuss the N. Chase Street reconfigurations
- August 1. 2017 - M&C approved temporary reconfiguration of N. Chase Street to prior conditions pending completion of a corridor study
- August 7, 2017 - N. Chase Street was reconfigured to prior conditions
- August 8, 2017 - T&PW issued a Notice to Proceed to Toole Design Group (project team) to begin a Chase Street Corridor Study

This history has been an important guide for the project team during the corridor study process. The following information summarizes the public outreach, concept and connectivity recommendations, and implementation and cost of improvements.

Public Outreach

Based on the history of changes to the Chase Street corridor, a thorough public outreach strategy was developed for the corridor study. While consensus among all stakeholders, organizations, and interested parties can be difficult to reach, the goals of public outreach were to provide a transparent planning process, inform the public about opportunities for various improvement along Chase Street, and identify tradeoffs accompanying various types of improvements. The following sections summarize public outreach for the Chase Street Corridor Study, which included efforts to understand existing conditions, challenges, and opportunities, along with alternative solutions presentations that were voted on by the community.

Stakeholder Meetings

Understanding individual stakeholder concerns for the Chase Street Corridor Study was essential to informing recommendations. As part of the public outreach strategy, several stakeholder meetings were conducted to ask about existing conditions, challenges, and opportunities for the corridor. Stakeholders included business owners, community organizations, and interested residents. Major themes from the stakeholder meetings included:

- Congestion at the SR 10 Loop
- Bicycle, pedestrian, and vehicular safety concerns for the neighborhood south of the railroad bridge
- Bicycle and pedestrian connections needed from Prince Avenue to Newton Bridge Road
- New development along and near the corridor will need multimodal access

Discovery Workshop

The first public meeting was held on October 5, 2017, accomplishing two goals: 1) listening to the community regarding the current conditions along the corridor; and 2) identifying how improvements may impact/benefit residents, businesses, and visitors. Participants provided comments on the Chase Street corridor in its existing conditions, expressed desired outcomes, and participated in interactive activities, including a visual preference survey and barrier/desired changes identification. Each of the comments provided by participants were reviewed to discover the issues along the corridor. The comments were also used along with stakeholder meeting comments to develop alternative solutions for the corridor.

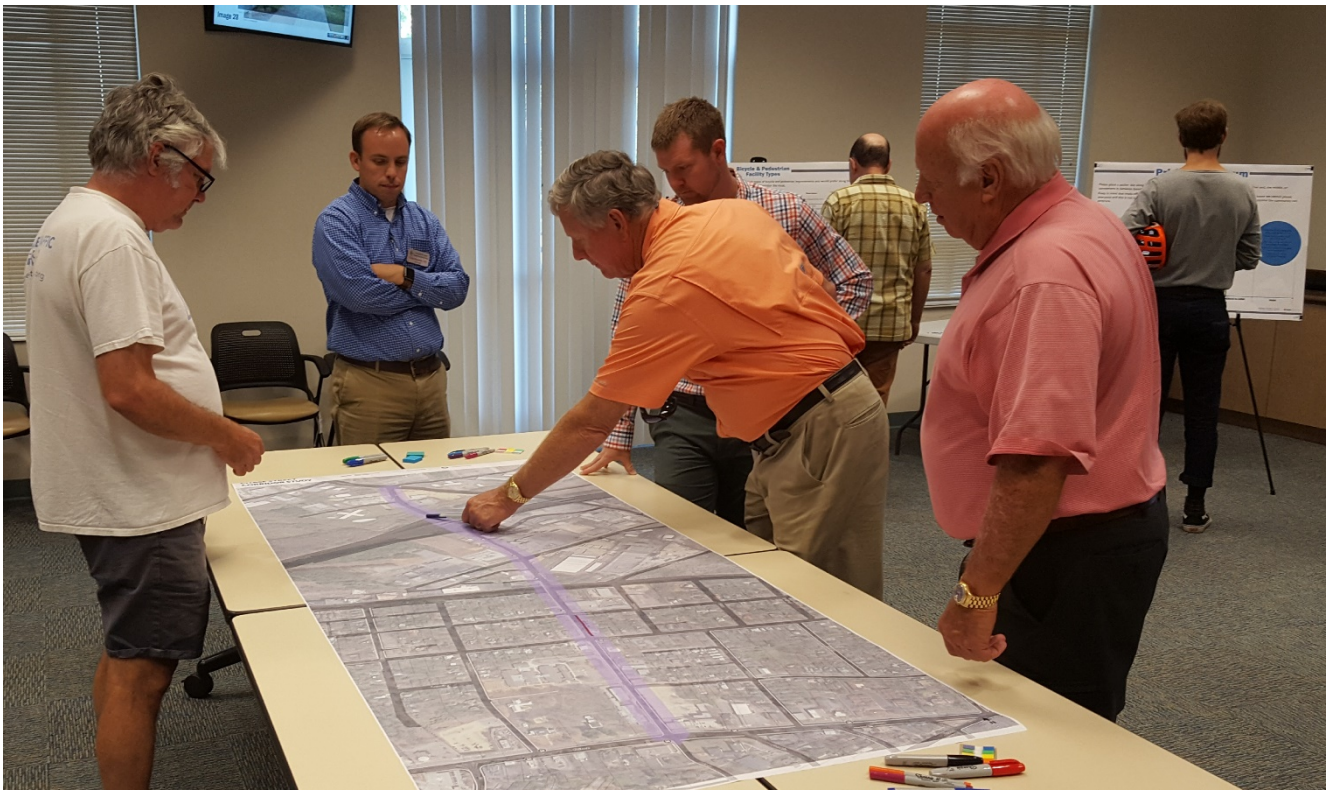
Validation Workshop

On January 17, 2018, four (4) alternative solutions for the Chase Street corridor were presented to the public as part of a validation workshop. The validation workshop sought to ensure that recommended improvements for Chase Street corresponded with the community's vision. Each solution focused on improving safety along the corridor and creating parallel routes for multimodal connections from Prince Avenue to Newton Bridge Road. The safety measures presented attempted to minimize impact to residents, businesses, and the general public while improving efficiency of the Chase Street corridor. Intersection improvements at the SR 10 Loop interchange, at Chase Street and Oneta Street, and at Chase Street and Rowe Road were presented as

recommended changes to enhance short- and long-term functionality. Additionally, four (4) alignments were presented (***Figure 1***) as options for bicycle and pedestrian connections from Prince Avenue to Newton Bridge Road.

Potential cross sections for specific multimodal segments along each proposed alignment were illustrated during the meeting. The four alternative routes presented were:

- Chase Street from Prince Avenue to Newton Bridge Road/Barber Street (**Figure 2**).
- Chase Street from Prince Avenue to Oneta Street, then east along Oneta Street to Barber Street. Route continues north along Barber Street to the Newton Bridge Road/Chase Street intersection (**Figure 3**).
- Chase Street from Prince Avenue to Boulevard, east along Boulevard to Barber Street. Route continues north along Barber Street to the Newton Bridge Road/Chase Street intersection (**Figure 4**).
- Barber Street from Prince Avenue to the Newton Bridge Road/Chase Street intersection (**Figure 5**).



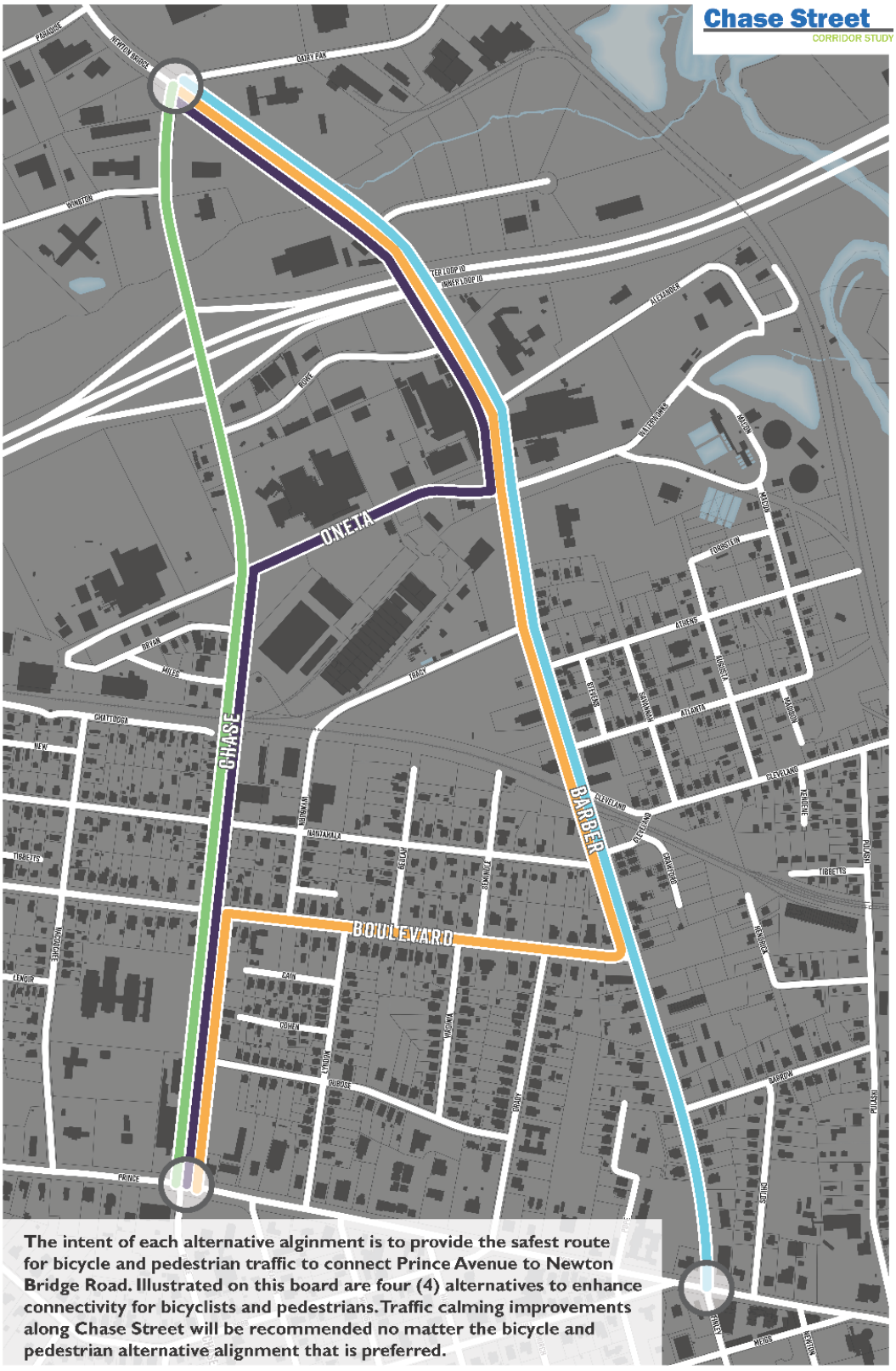


Figure 1: Alternative Alignments for the Chase Street Corridor Study

Figure 2: Alternative along Chase Street

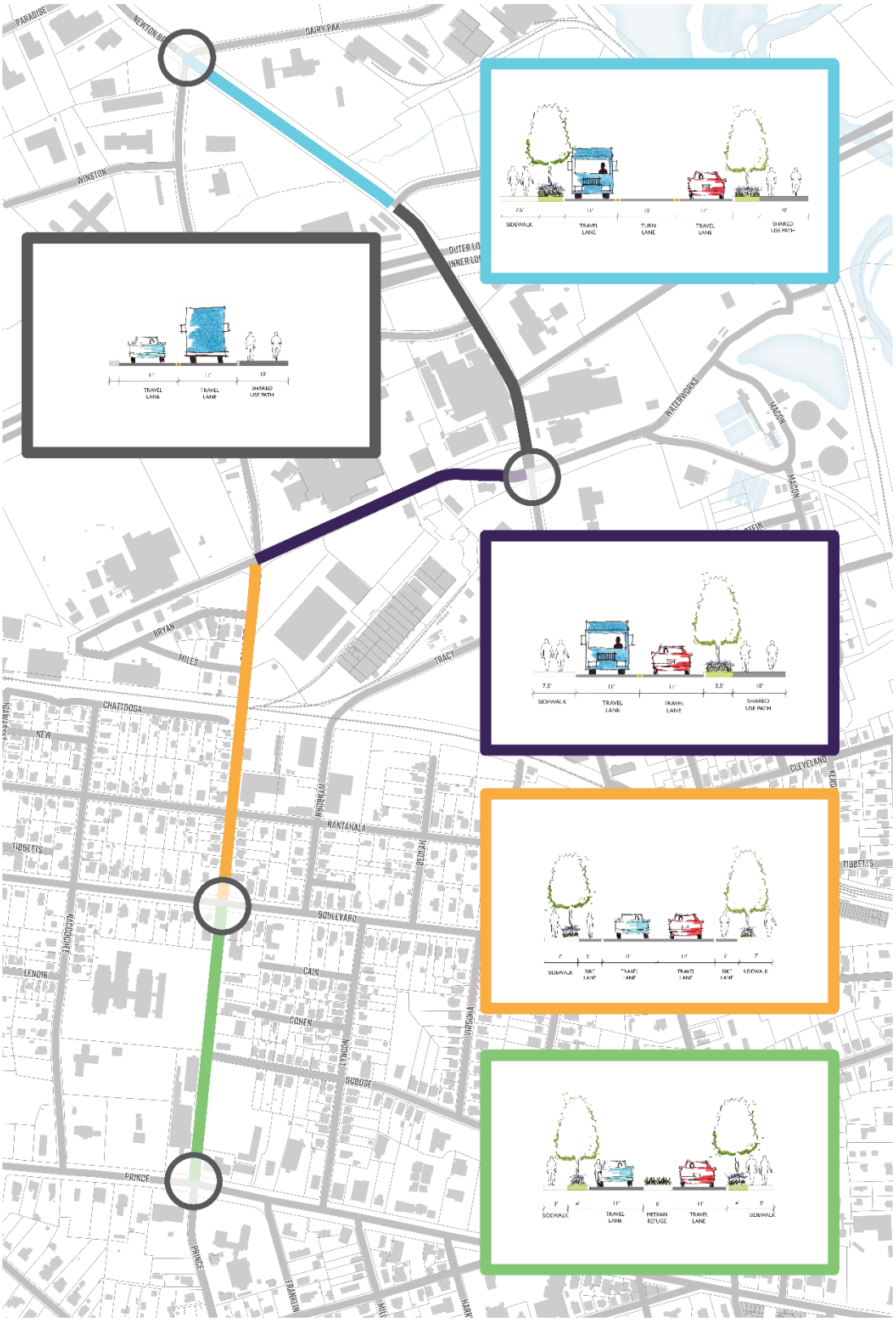


Figure 3: Alternative along Chase Street, Oneta Street, and Barber Street

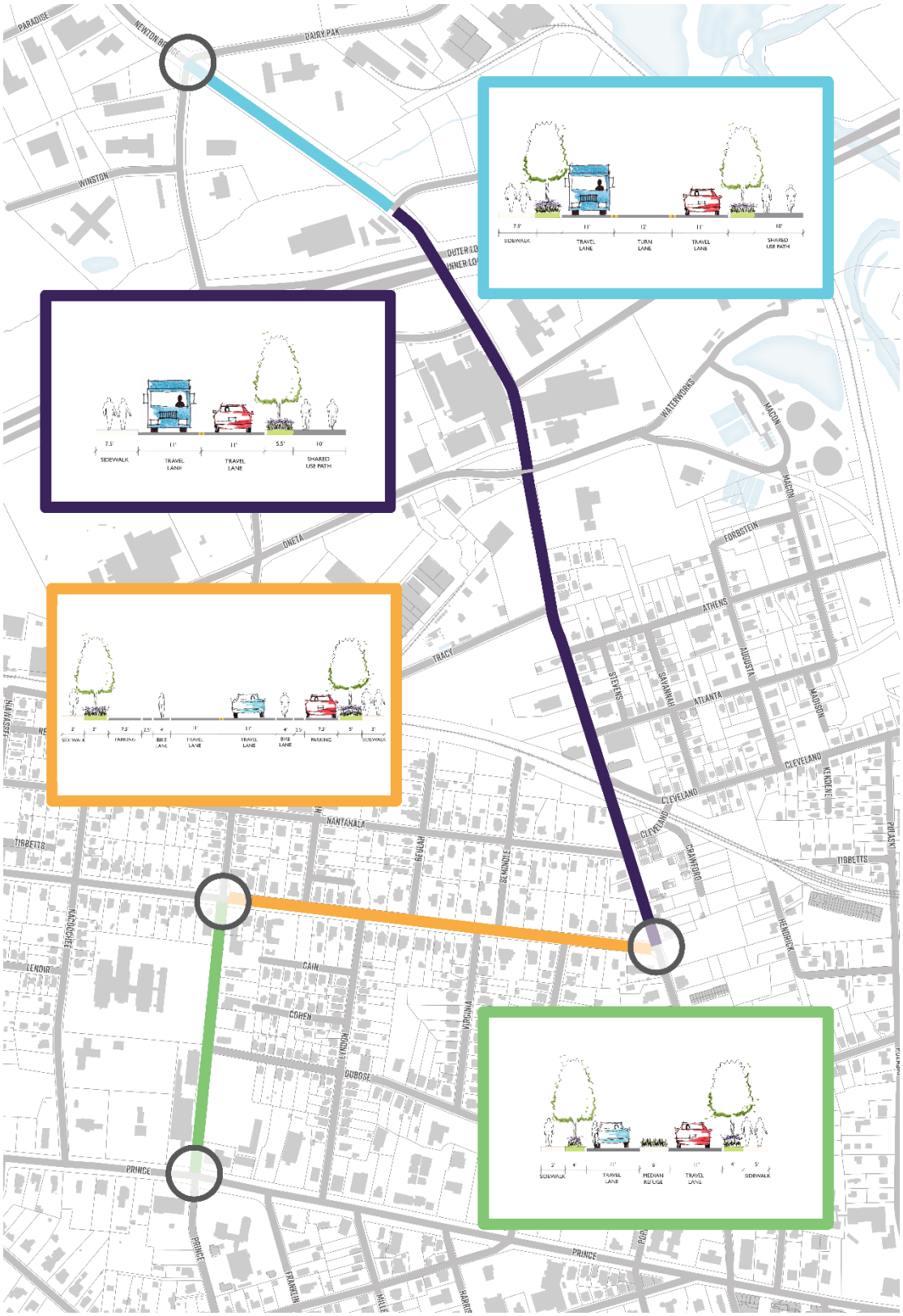


Figure 4: Alternative along Chase Street, Boulevard, and Barber Street

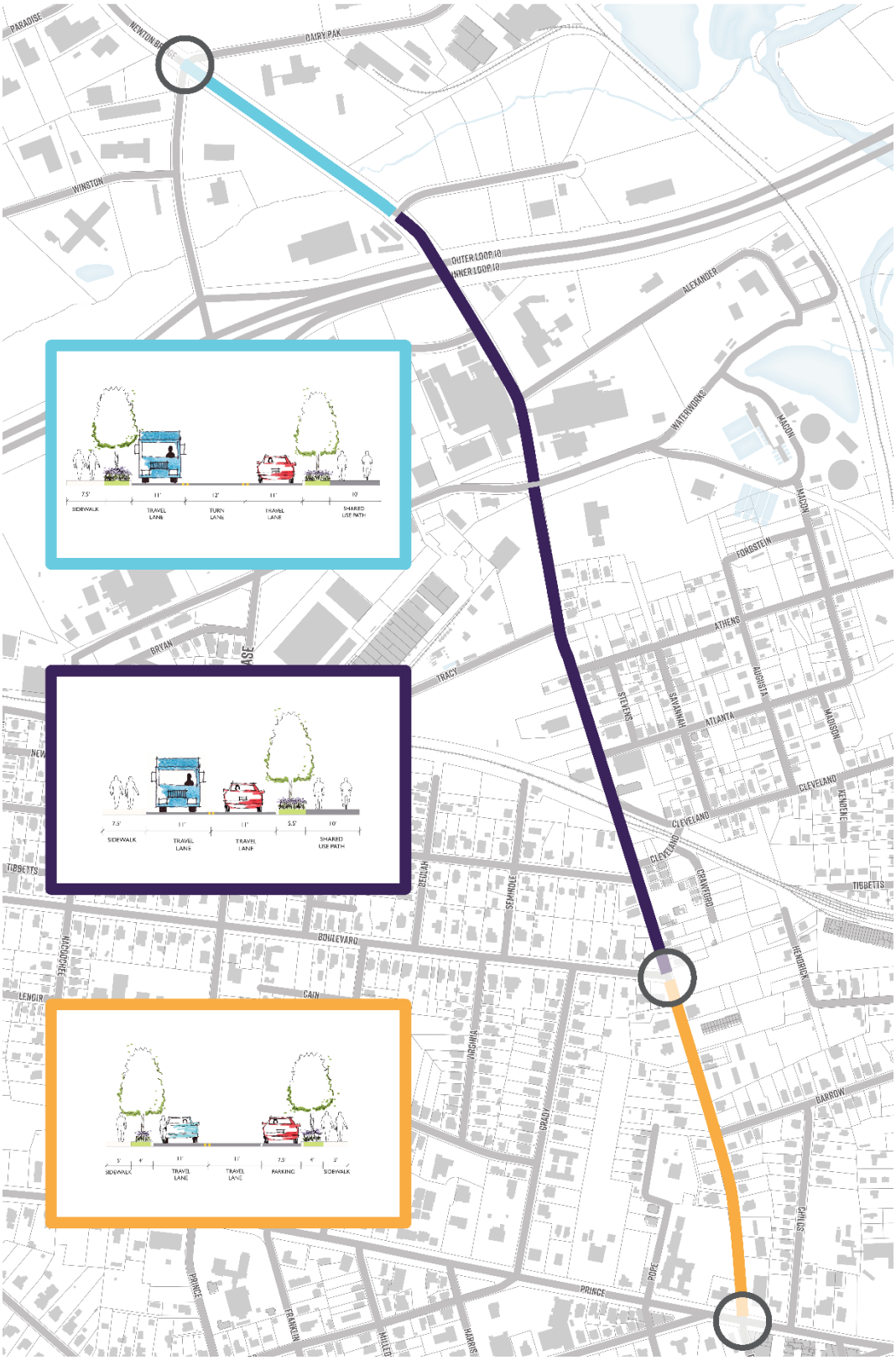


Figure 5: Alternative along Barber Street

Attendees were given the opportunity to vote on traffic calming measures (**Figure 6**) they would like to see, if any, along the corridor. Additionally, workshop participants voted on their preferred alternative for multimodal alignment. A total of 35 participants voted on the alternatives with 49% voting in favor of the alignment along Barber Street (***Figure 5***). Additionally, 29% voted for an alignment along Chase Street north towards Boulevard, connecting to Barber Street (***Figure 4***). Additional feedback during the public meetings included desire to connect new development along Oneta Street with bicycle and pedestrian facilities.

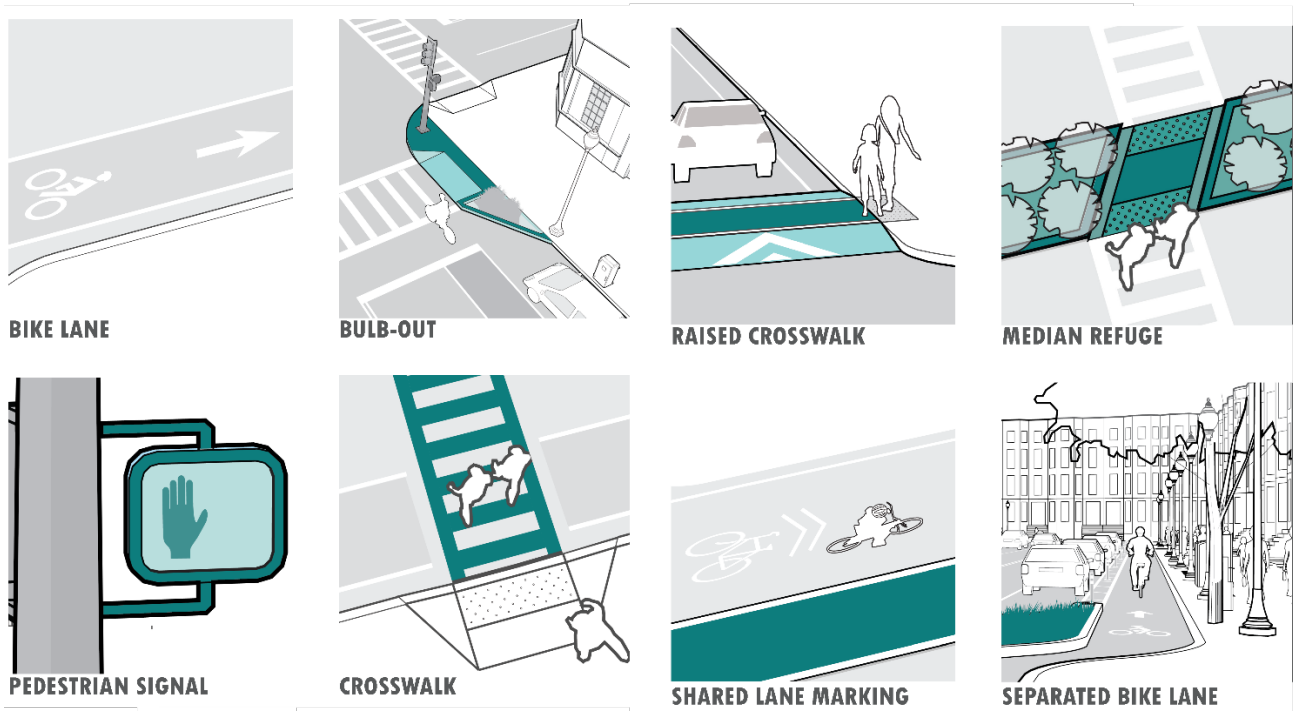


Figure 6: Traffic Calming Options

Based on this feedback and additional analysis, the project team prepared a concept that illustrated geometry changes on Chase Street to improve safety and functionality. The concept focused on the Barber Street alignment, with additional bicycle connections along Boulevard and Oneta Street. Pedestrian facilities were part of both the Chase Street and Barber Street improvements.

Recommendations

The Chase Street corridor, from Prince Avenue to Newton Bridge Road, is the direct connection from downtown Athens to the SR 10 Loop. Being the direct route to the urban core, an ambulatory route to Piedmont Athens Regional Medical Center, and an access point for Chase Street Elementary School, traffic congestion and delays are common along Chase Street. However, when congestion is not an issue, vehicular speeds exceed the posted speed limit and impair the safety of all users along the corridor.

This corridor study conducted a comprehensive analysis for the Chase Street corridor; it provides recommendations considering all users and alternative routing to increase safety and reduce conflicts. Proposed changes target not only Chase Street but also Barber Street, Oneta Street, and Boulevard. These recommendations were developed to alleviate congestion, increase efficiency of the SR 10 Loop interchange, and increase safety of multimodal users.

Critical design considerations include the following:

- Improve safety of both multimodal and vehicular users through updates and increased accommodation
- Increase functionality and efficiency of Chase Street/SR 10 Loop interchange
- Reduce vehicular speeds, including turning speeds
- Accommodate multimodal travel between Prince Avenue and Newton Bridge Road
- Increase pedestrian visibility at problematic intersections
- Minimize impacts to existing right-of-way

Figure 7 illustrates the complete concept along Chase Street and the multimodal recommendations along Barber Street, Oneta Street, and Boulevard. The following sections describe each component of the recommendations proposed in the study. Each recommendation was crafted based on public comments, traffic analysis, and facility designs to improve safety for all users.

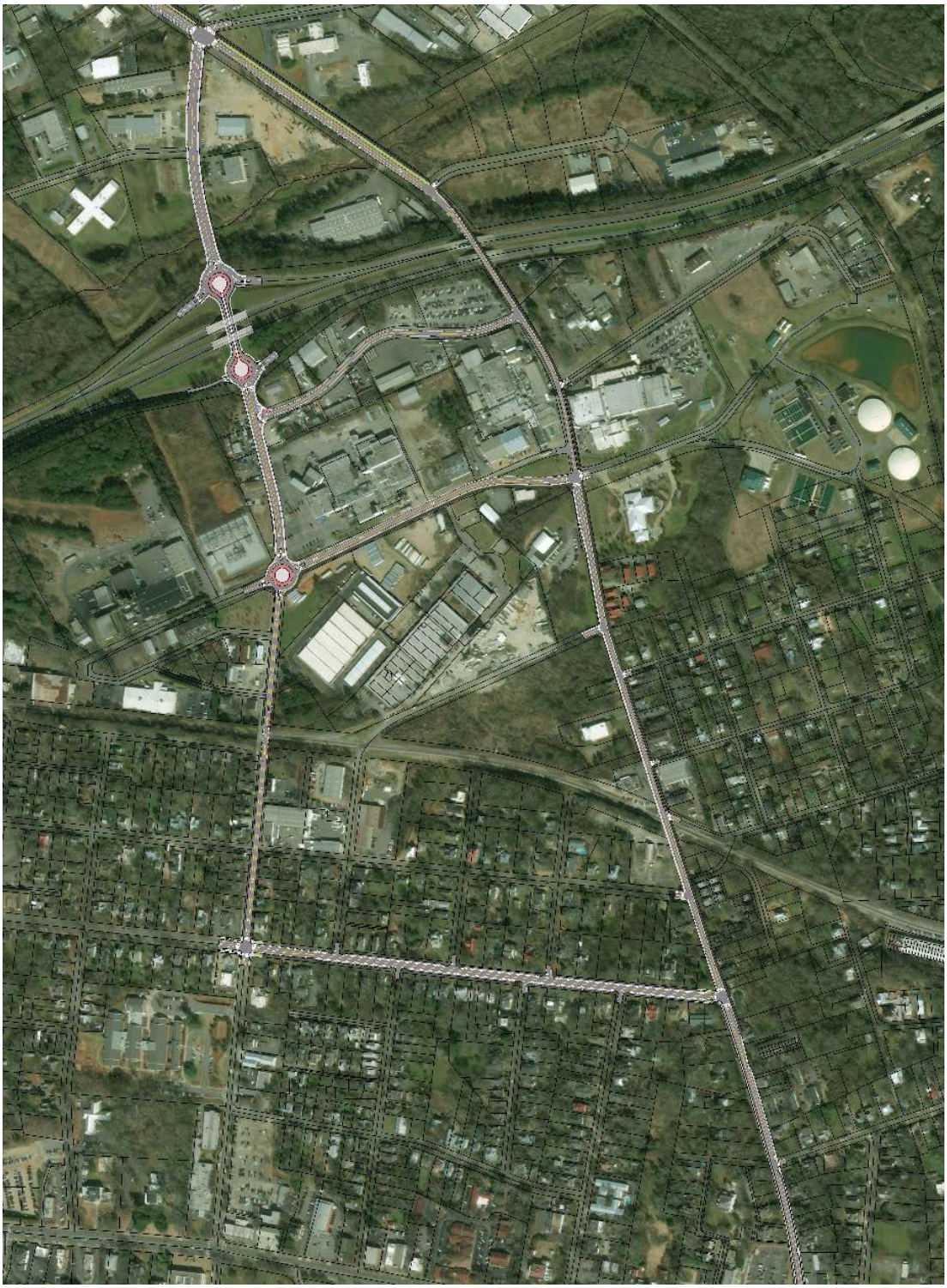


Figure 7: Complete Chase Street Corridor Concept

Chase Street Recommendations

Improvements along Chase Street are targeted at the SR 10 Loop interchange along with the intersections at Rowe Road and Oneta Street. Along Chase Street from Prince Avenue to Boulevard is a two-lane urban section with sidewalk adjacent to both sides of the street. This section includes Chase Street Elementary School. Equipped with mid-block pedestrian crossings, vehicular speeds within this section are calmed due to the existing narrow width of travel lanes and raised median refuges.

From Boulevard heading north to Rowe Road, Chase Street is a three-lane urban street with a center two-way turn lane. Due to heavy commercial and residential access points along this section of roadway, and input from the community, the existing lane configuration will remain. However, the public expressed concern about speeding into and out of the neighborhood south of the railroad bridge. Traffic calming elements have been recommended on and approaching the bridge to reduce vehicular speeds while retaining the center turn lane.

SR 10 Loop Improvements

Today, the SR 10 Loop at Chase Street interchange is oriented as a conventional diamond interchange. Current conditions cause delay and excess queueing at the interchange, and, with future traffic projections and projected future growth for commercial and residential uses, the interchange will require additional vehicular capacity and signalization to meet conventional traffic operations metrics. The goals of the proposed improvements are to increase the efficiency and level of service (LOS) of the interchange while providing a safe connection for pedestrians along the entire Chase Street corridor. See **Table 1** and **Table 2** for LOS analyses at peak hours for various scenarios.

The recommendation for the interchange is to provide dual roundabouts at both locations of ramp convergence and divergence, as shown in **Figure 8**. Understanding the context of this interchange, the proposed roundabouts are equipped with mountable truck aprons to allow for U-turn movements for the standard tractor-trailer vehicle (WB-62). The existing center two-way turn lane is no longer required under the SR 10 Loop bridge with the proposed roundabouts. The remaining width allows for sidewalk connections underneath the bridge and for additional clearance from the existing bridge piers. For the eastbound entrance onto the SR 10 Loop, a dedicated right-turn lane is provided. A dedicated right-turn lane is also provided for the westbound to northbound movement onto Chase Street and for the entrance ramp onto westbound SR 10. This design increases pedestrian connectivity and safety through the interchange with the addition of high visibility pedestrian crossings, pedestrian refuge islands, decreased crossing lengths, and north to south sidewalk connectivity throughout the interchange.

Table 1: AM Peak Hour

Intersection	2017 Existing Conditions	2017 Build Conditions	2027 No-Build Conditions	2027 Build Conditions
Chase Street and SR 10 Outer Loop Ramps	C	A	C	A
Chase Street and SR 10 Inner Loop Ramps	F	B	F	C

Table 2: PM Peak Hour

Intersection	2017 Existing Conditions	2017 Build Conditions	2027 No-Build Conditions	2027 Build Conditions
Chase Street and SR 10 Outer Loop Ramps	B	A	B	A
Chase Street and SR 10 Inner Loop Ramps	F	A	F	B

Figure 8: Proposed Improvements at Loop 10 Interchange

Rowe Road Intersection

Rowe Road is a primary truck access route that makes the east-west connection between Chase Street and Barber Street. To provide the updates to the SR 10 Loop interchange, the intersection of Rowe Road and Chase Street required adjustments to increase safety and maintain functionality.

The proposed improvement at Rowe Road makes the intersection a right-in/right-out movement on and off Chase Street. The westbound to northbound movement onto Chase Street will merge into the designated right-turn lane onto eastbound SR 10. Tightening the curb radii reduces turning movement speeds, while the addition of truck aprons ensure that trucks can make the right-turn movement. The recommended Oneta Street roundabout has been designed to allow a U-turn movement for trucks that desire to make a northbound right turn onto Rowe Road. Sidewalk connections, a pedestrian refuge island, and high-visibility crosswalks are provided for increased pedestrian safety. The proposed improvements are shown in **Figure 9**.

Figure 9: Proposed Improvements at Rowe Road

Oneta Street Intersection

Chase Street at Oneta Street is presently a stop-controlled intersection for the eastbound and westbound movements. Northbound and southbound movements along Chase Street do not stop. Based on public comment, vehicular traffic consistently travels more than the posted speed limit through this intersection. Oneta Street offers a direct connection to Barber Street for trucks and other vehicles traveling to a variety of industrial, commercial, and residential uses.

A roundabout is recommended at this intersection to improve safety and mobility for all users, as shown in **Figure 10**. By forcing drivers to slow prior to entering the intersection, the roundabout will allow for all modes, including pedestrians, bicycles, passenger vehicles, and large trucks, to navigate the intersection safely. This 140-foot diameter (70-foot inscribed radius) roundabout will be equipped with a truck apron allowing for U-turn movements for trucks (WB-62) to maintain all current allowable movements. A shared-use path is proposed along the south side of Oneta Street, between Chase Street and Barber to improve connectivity to the proposed path along Barber Street. The path will transition to the north side of Oneta Street, west of Chase Street, to connect to future development. High visibility crossings and reduced crossing distances are provided for all legs of the intersection through the inclusion of pedestrian refuge within the median islands.

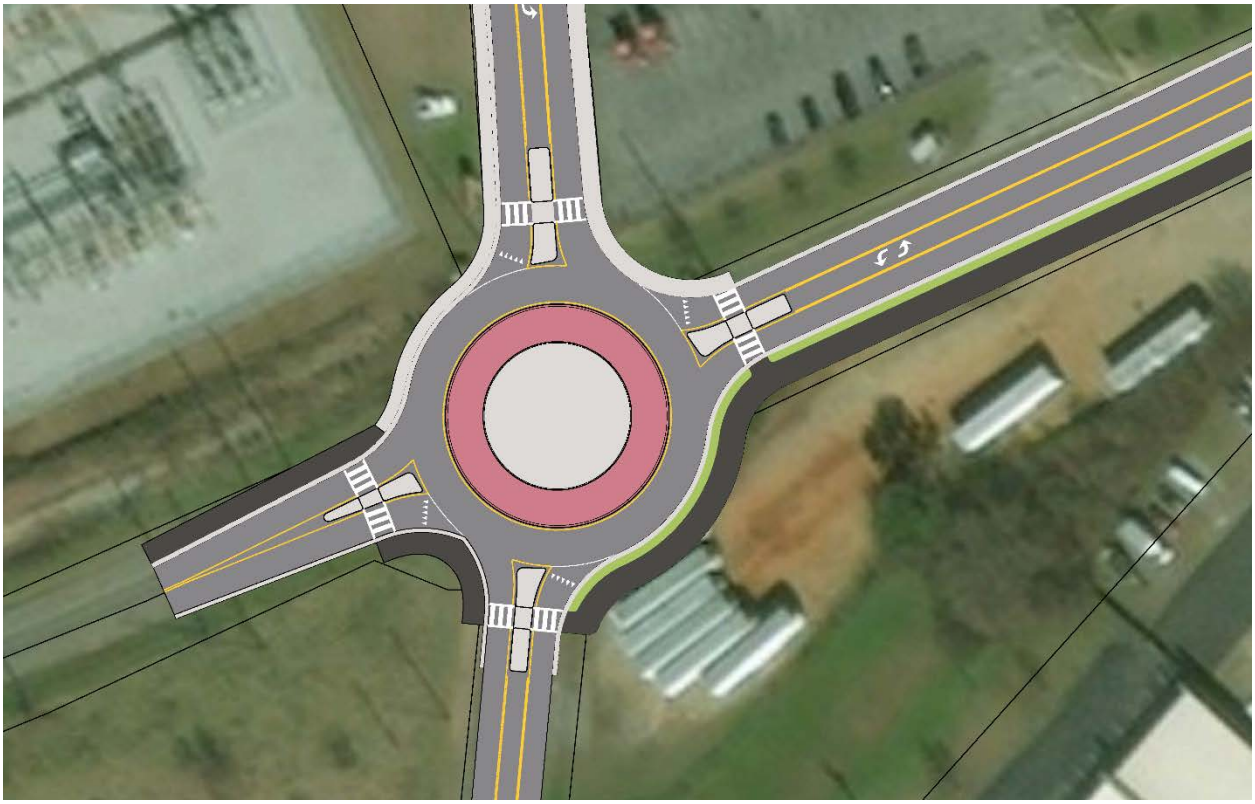


Figure 10: Proposed Roundabout at Oneta Street

Railroad Bridge

Recommended changes on the railroad bridge along Chase Street include removing the center two-way turn lane and narrowing travel lanes. Additionally, the recommendation shifts the existing travel path for vehicles approaching and crossing the bridge to reduce vehicle speeds at a key crossing that has limited visibility due to the existing hill. While the proposed changes can be completed with striping, a more permanent solution includes mountable truck aprons where the travel lanes narrow and enter the bridge. These recommendations, illustrated in **Figure 11**, ensure that emergency vehicles are accommodated and are not negatively impacted by the lane narrowing at the railroad bridge.

Figure 11: Recommended Improvements to Railroad Bridge along Chase Street

Boulevard Recommendations

Boulevard is a residential street connecting from Athens-Clarke County Park Planning Office to Barber Street and all residences in between. Boulevard, between Chase Street and Barber Street, is 50-foot wide with one travel lane in each direction and on-street parking. The existing sidewalk is set back from the curb and buffered by mature landscaping on both sides of the street.

All improvements for Boulevard will occur within existing curbed right-of-way; no street trees will be impacted. At the intersection with Chase Street, improvements increasing pedestrian safety while reducing speed of turning movements and general traffic are recommended. Due to the intersection's proximity to Chase Street Elementary School it is paramount to maintain access while increasing pedestrian visibility and safety. Through the implementation of curb extensions, also known as bulb-outs, pedestrian crossing distances can be reduced while giving priority to more vulnerable users. Reducing the curb radii at the intersection requires slower turning movements and slows vehicles through the intersection. Implementing curb extensions also provides a more formal space for on-street parking and prevents parking too close to intersections where sight distances for drivers could be obstructed. These improvements are shown in **Figure 12** and **Figure 13**.

Figure 12: Boulevard Improvements at Chase Street

Buffered bike lanes are proposed along Boulevard between Chase Street and Barber Street (Figure 13). Through striping, a bike lane with a painted buffer next to the on-street parking can be provided. Buffering reduces the conflict between a person on a bicycle and a driver opening a door. This type of bicycle facility can be implemented independently or concurrently with proposed curb extensions. Curb extensions are proposed at the following intersections:

- Wynburn Avenue
- Lyndon Avenue
- Beulah Avenue
- Virginia Avenue
- Seminole Avenue
- Grady Avenue

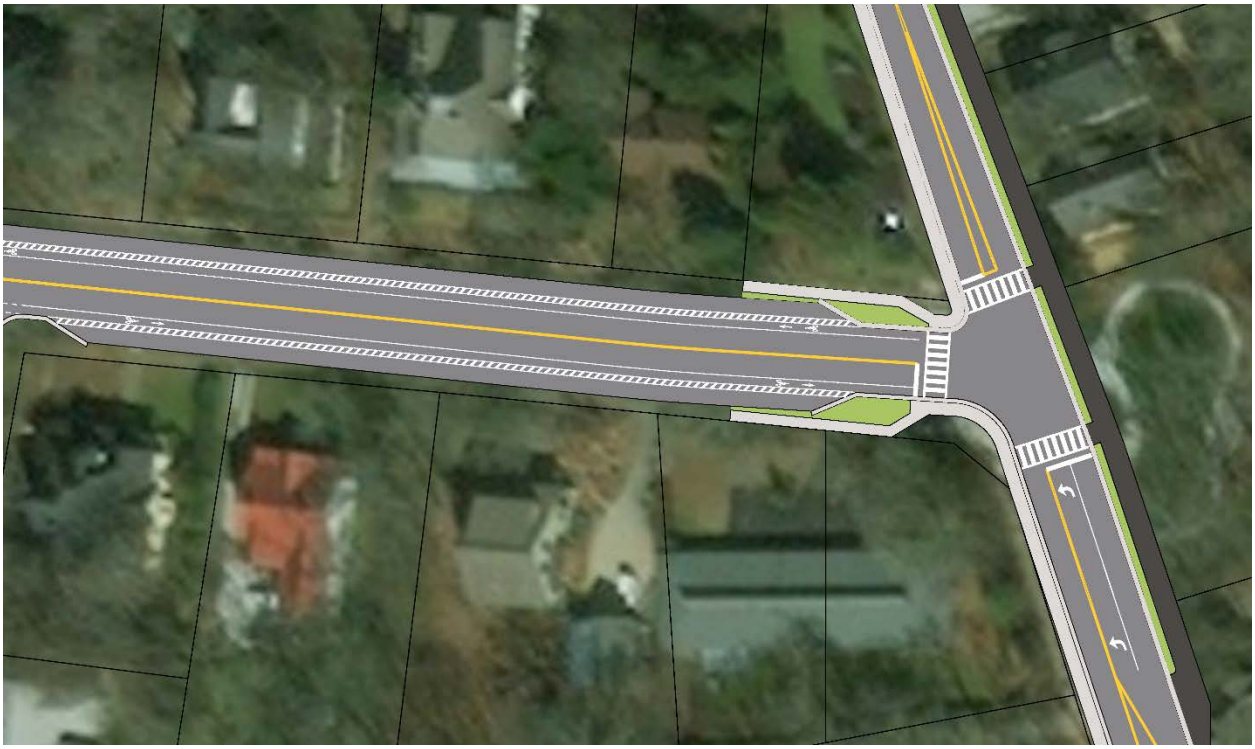


Figure 13: Recommended Improvements along Boulevard between Chase Street and Barber Street

Barber Street Recommendations

Barber Street is a parallel street to Chase Street, and it provides a similar connection from Prince Avenue to Newton Bridge Road. Barber Street transitions from a two-lane street with on-street parking to a narrower two-lane section at the intersection with Boulevard. At the overpass of the SR 10 Loop, the street transitions to a four-lane section that continues north along Newton Bridge Road.

In addition to public preference for bicycle facilities along Barber Street rather than Chase Street, there are other reasons to recommend facilities along Barber Street. Lower traffic volumes create a more comfortable environment for bicycling and walking between downtown and destinations along Newton Bridge Road. Additionally, Barber Street avoids intersection with the SR 10 Loop interchange, making design of new facilities more feasible.

Recommended improvements along Barber Street vary along the corridor; they are outlined in more detail in the sections to follow.

Prince Avenue to Boulevard

Due to the constrained right-of-way, recommendations for Barber Street between Prince Avenue and Boulevard are targeted to calm traffic. Sidewalk is recommended on both sides of the street in areas it is currently missing. Additionally, curb extensions at cross-streets along Barber Street will better define on-street parking and increase safety for all users. Extending the curbs at intersections will assist in reducing vehicular turning speeds and will tighten the travel lanes and create a slow street environment that can be shared space for bicycles and vehicles.

Boulevard to SR 10 Loop Overpass

Approaching Boulevard from the south, the existing sidewalk is recommended to transition to a shared use path along the east side of Barber Street. With the restriping along Boulevard and shared-street updates along Barber Street, this intersection and transition is critical in the provision of a low-stress, safe connection along Barber Street and its connection to Chase Street. Through the implementation of curb extensions and reducing the curb radii at the intersection, vehicular turning movements are slowed and conflict areas are minimized.

The shared use path will continue north to the intersection of Oneta Street and Barber Street, and it will connect to the proposed shared use path along the south side of Oneta Street. At the intersection of Oneta Street and Barber Street, recommendations are similar to the Boulevard intersection. A reduction in curb radii, improved pedestrian crossings and ramps, and a reduction in overall intersection size is safer for all users. The sidewalk along the west side of the road will terminate in transition to the shared use path adjacent to Oneta Street. All users will be routed to the shared use paths for all westbound and northbound travel. **Figure 14** shows these improvements.

Figure 14: Recommended Improvements at the intersection of Oneta Street and Barber Street

SR 10 Loop Overpass to Newton Bridge Road

At the overpass of the SR 10 Loop, Barber Street transitions from a two-lane street to a four-lane cross section. This four-lane section continues north through the Chase Street intersection, where Barber Street changes names to Newton Bridge Road.

The recommendation along this section, shown in **Figure 15** is to reduce the number of travel lanes and to continue the shared use path through the Chase Street intersection on the east side of Barber Street. Reducing the existing travel lanes from four lanes to three allows the additional width to be used for the shared use path. It also provides additional separation between it and the vehicular travel lanes. Gore striping for a southbound travel lane is recommended as a cost-friendly solution to achieve the proposed shared use path. However, a long-term solution is to remove the asphalt completely and provide curb and gutter, landscape buffer, and a parallel shared use path. Access to all current and future developments is maintained through the provision of a center two-way left-turn lane.

Recommended lane reduction along Barber Street and the addition of a shared use path result in proposed changes to the intersection of Barber Street and Chase Street. Shared use path crossings with high visibility crosswalks will be provided for all four legs of the intersection. These strategic updates to the intersection provide the safest and most direct connection for all multimodal users while not impeding vehicular traffic.

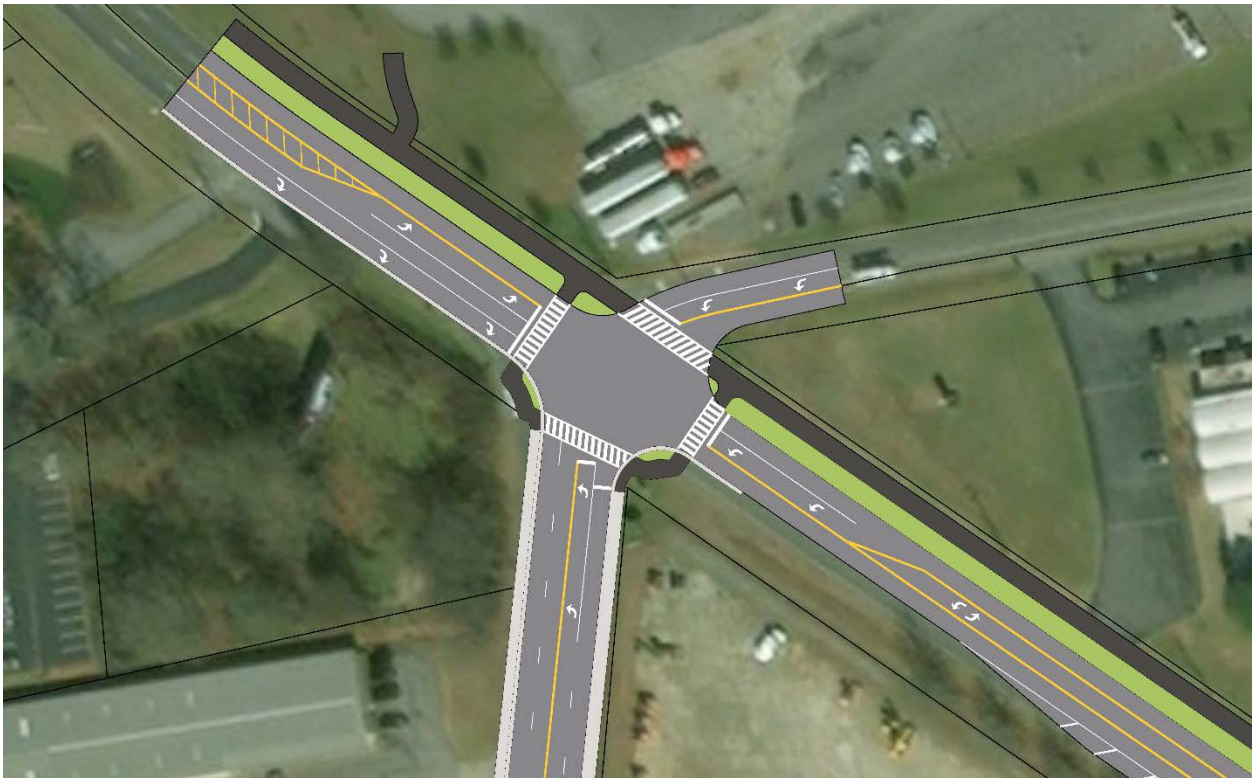


Figure 15: Recommended Improvements at SR 10 Loop Overpass to Newton Bridge Road

Implementation and Cost

The recommendations along Chase Street and the surrounding street network can improve the safety and connectivity from Prince Avenue north to Newton Bridge Road. While all improvements are important, the cost of implementing all proposed changes at once may be cost prohibitive. Additionally, some of the improvements, such as the roundabouts at the SR 10 Loop interchange, may require additional coordination with the Georgia Department of Transportation (GDOT) before design and construction. **Table 3** shows the cost associated with individual recommendations along with a recommended phased approach to completing the proposed improvements.

Table 3: Opinion of Probable Cost and Phasing

Item	Opinion of Probable Cost*	Phase
Chase Street Railroad Bridge Traffic Calming	$100,000	1
SR 10 Dual Roundabouts	$2,150,000	2
Chase at Rowe Intersection Improvement	$320,000	
Oneta Roundabout	$990,000	
Chase Street Sidewalks (Oneta to Newton Bridge)	$820,000	
Barber Street Shared Use Path and Sidewalk (Boulevard to Newton Bridge)	$3,130,000	3
Boulevard Buffered Bike Lanes (Barber to Chase)	$420,000	4
Oneta Shared Use Path (Barber to Chase)	$850,000	
TOTAL	$8,780,000	

**Costs were estimated as standalone projects; if projects are combined, cost savings may be realized*

Next Steps

The Chase Street Corridor Study provides a framework for the Athens-Clarke County Unified Government to implement multimodal facilities that connect Prince Avenue to Newton Bridge Road. The recommendations made in this study focus on safety for all users while maintaining or improving vehicular performance and access. Although Chase Street was the primary corridor for this study, to provide connectivity that was comfortable for a variety of users, regardless of mode of transportation, additional corridors were analyzed to provide a final concept plan that is comprehensive in nature.

Considering the cost of implementation for all recommendations, a phased approach has been recommended as shown previously in Table 3. This approach will allow some improvements to occur quickly while other changes can be coordinated with potential partnering agencies. This study was conducted concurrently with the Athens in Motion active transportation plan whose proposed projects align with the recommendations in this study. Implementation of each phase of the improvements will build upon the goals of multimodal safety and connectivity and provide an environment that accommodates existing and future users within the vicinity of Chase Street and connecting to downtown.