



IMPLEMENTATION PLAN

August 2025

Introduction

Throughout FAST 2.0 study, the regional partners have gathered together to define a vision and set of goals to activate the region's freeways and arterials to facilitate increased transit use throughout our region. This memo defines an actionable plan to begin implementing the transit priority infrastructure identified in the study. The plan comes at a pivotal point in the Triangle region's growth. Population growth in the region is robust and has brought all too familiar traffic jams on the region's roadways. The region is on the cusp of premium transit services with the construction of the first of four Bus Rapid Transit (BRT) corridors in Wake County and one BRT corridor in Orange County. Moving towards a truly regional transit network will take commitment and working together to advance the projects recommended under FAST 2.0 - this implementation plan lays out the roadmap for how to get there. The roadmap consists of two elements:

- Element 1: Implement Six Priority Corridors
- Element 2: Recommended changes to NCDOT Transit Planning and Design

Element 1

The first element of the implementation roadmap is implementing the six priority corridors that have conceptual designs. The subsections below layout steps for advancing those corridors by:

- Presenting planning level cost estimates;
- Outlining steps to continue advancing the planning and design of the corridors; and
- Providing funding considerations.

Cost Estimates

Planning level cost estimates were developed for the priority corridors are shown in 2025 dollars and broken out by county and MPO boundaries, in order to aid in adding the corridors to local transportation plans. The cost estimates used the latest Federal Transit Administration (FTA) Standard Cost Categories (SCC) workbook along with bid tabs from NCDOT and other BRT project estimates. The cost estimates included: construction cost, right-of-way (ROW), vehicles (arterial priority corridors only), professional services, and contingency. Designs considerations for the cost estimates may change and will need to be updated as further local planning and design efforts occur.

Table 1 shows the costs for the four arterial priority corridors. The cost for the arterial priority corridors are broken out by segments that are between county boundaries.

Table 1: Arterial Priority Corridor Cost Estimates

Location	County	MPO	Cost	Miles	Cost/Mile
Total Arterial Priority Corridor Costs					
Duke University / Holloway Street	Durham	TWTPO	\$81,800,000	4.8	\$17,000,000
NC 54 Total		TWTPO	\$254,700,000	14.8	\$17,300,000
NC 54 (Orange County)	Orange	TWTPO	\$65,400,000	3.3	\$20,100,000
NC 54 (Durham County)	Durham	TWTPO	\$189,300,000	11.5	\$16,500,000
Harrison Avenue / Kildaire Farm Road	Wake	CAMPO	\$155,000,000	8.3	\$18,700,000
Trinity Road / Blue Ridge Road	Wake	CAMPO	\$49,600,000	2.9	\$17,100,000

Arterial Priority Corridor Total	\$541,100,000	30.8	\$17,600,000
Arterial Priority Corridor Costs within TWTP0			
Orange County	\$65,400,000	3.3	\$20,100,000
Durham County	\$271,100,000	16.3	\$16,600,000
TWTP0	\$336,500,000	19.6	\$17,200,000
Arterial Priority Corridor Costs within CAMPO			
Wake County	\$204,600,000	11.2	\$18,300,000
CAMPO	\$204,600,000	11.2	\$18,300,000

Table 2 shows the cost for the two freeway priority corridors. The cost for the freeway priority corridors are broken out by segments that are between major roadways, county boundaries or Direct Access Ramps (DARs).

Table 2: Freeway Priority Corridors Costs

Location	From	To	County	MPO	Cost	Miles	Cost/Mile
Total Freeway Priority Corridor Costs							
I-885 / NC 147					\$129,400,000	7.2	\$18,000,000
NC 147	Duke DAR	I-885 Interchange (Western Edge)	Durham	TWTP0	\$104,100,000	2.6	\$40,100,000
NC 147	I-885 Interchange (Western Edge)	I-885 Interchange (Eastern Edge)	Durham	TWTP0	\$2,700,000	0.6	\$4,600,000
I-885	NC 147 Interchange	NC 54 DAR (Eastern)	Durham	TWTP0	\$22,600,000	4.0	\$5,600,000
I-40					\$207,700,000	27.3	\$7,600,000
I-40	Old NC 86	Orange/Durham County Line	Orange	TWTP0	\$-	9.0	\$-
I-40	Orange/Durham County Line	NC 54 DAR (Western)	Durham	TWTP0	\$11,100,000	2.6	\$4,300,000
I-40	NC 54 DAR (Western)	GoTriangle Mobility Hub DAR	Durham	TWTP0	\$78,800,000	7.0	\$11,300,000
I-40	GoTriangle Mobility Hub DAR	Durham/Wake County Line	Durham	TWTP0	\$17,900,000	1.8	\$9,900,000
I-40	Durham/Wake County Line	RDU APE DAR	Wake	CAMPO	\$17,400,000	2.5	\$6,900,000
I-40	RDU APE DAR	Harrison DAR	Wake	CAMPO	\$51,600,000	1.0	\$53,700,000
I-40	Harrison DAR	Trinity DAR	Wake	CAMPO	\$23,200,000	2.0	\$11,800,000
I-40	Trinity DAR	Cary Towne DAR	Wake	CAMPO	\$7,700,000	1.5	\$5,000,000
Freeway Segment Total					\$ 337,100,000	34.5	\$9,800,000
Freeway Priority Corridor Costs within TWTP0							
Orange County					\$ -	9.0	\$ -
Durham County					\$ 237,200,000	18.6	\$75,800,000
TWTP0					\$237,200,000	27.5	\$8,600,000
Freeway Priority Corridor Costs within CAMPO							
Wake County					\$99,900,000	7.0	\$14,300,000
CAMPO					\$ 99,900,000	7.0	\$14,300,000

Table 3 shows the cost for the DARs along the freeway priority corridors, with the cost broken out by each freeway priority corridor. Figure 1 shows the location of the direct access ramps.

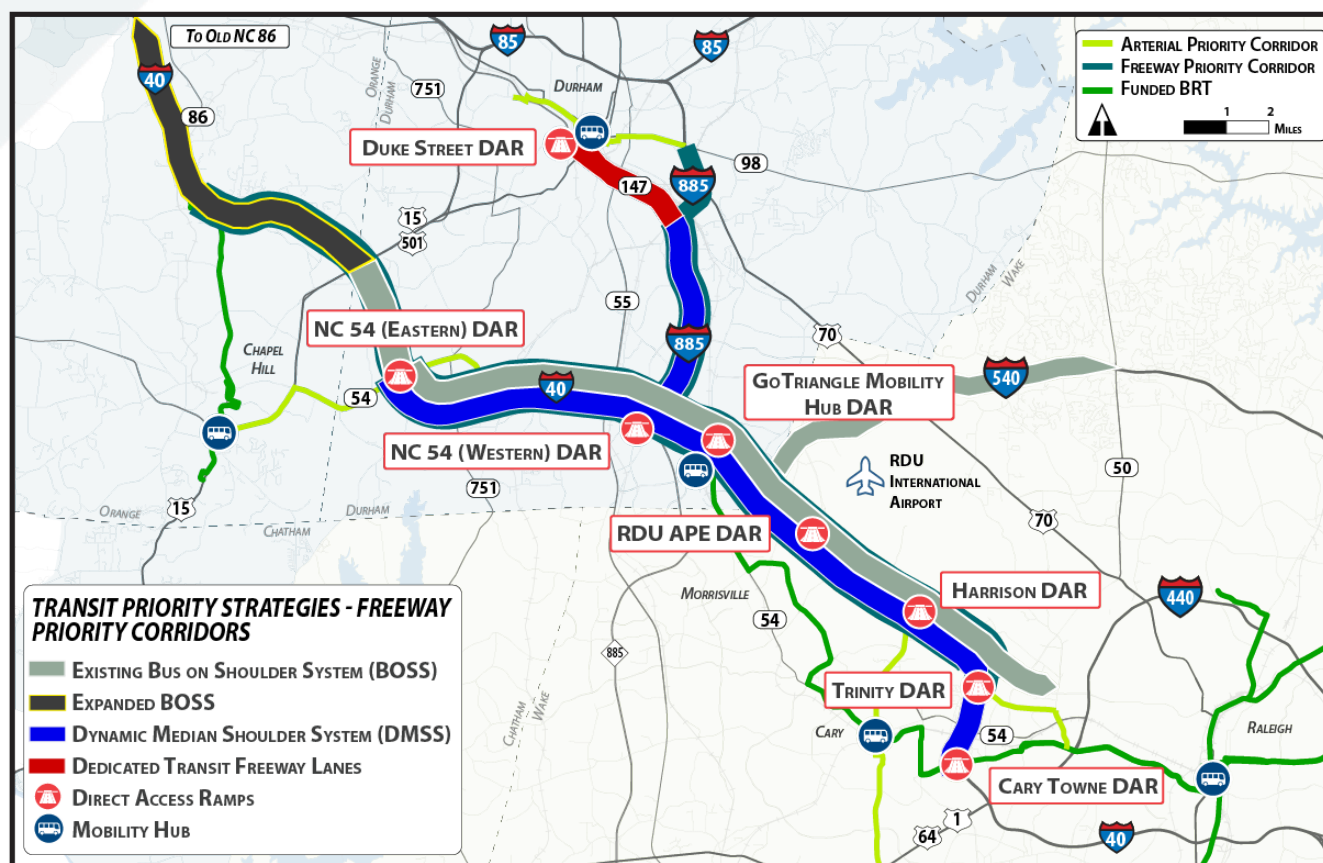


Figure 1: Direct Access Ramp Locations

Table 3: Direct Access Ramp Costs

Location	Roadway	County	MPO	Cost
Total Direct Access Ramp Costs				
I-885 / NC 147				\$67,100,000
Duke Street	NC 147	Durham	TWTPO	\$26,200,000
NC 54 (Eastern)	I-885	Durham	TWTPO	\$40,900,000
I-40				\$217,000,000
NC 54 (Western)	I-40	Durham	TWTPO	\$41,100,000
GoTriangle Mobility Hub	I-40	Durham	TWTPO	\$55,300,000
Harrison	I-40	Wake	CAMPO	\$57,900,000
Trinity	I-40	Wake	CAMPO	\$34,400,000
Cary Towne	I-40	Wake	CAMPO	\$28,300,000
Total Direct Access Ramp Cost				\$284,100,000
Direct Access Ramp Costs within TWTPO				
Orange County				\$ -
Durham County				\$163,500,000
TWTPO				\$163,500,000

<i>Direct Access Ramp Costs within CAMPO</i>	
Wake County	\$120,600,000
CAMPO	\$120,600,000

Table 4 shows the cost for the Airport Platform Exchange (APE) along I-40 at Raleigh-Durham International Airport (RDU).

Table 4: RDU APE Cost

Location	Roadway	County	MPO	Cost
<i>Total RDU APE Cost</i>				
RDU APE	I-40	Wake	CAMPO	\$ 114,100,000
Total RDU APE Cost				\$ 114,100,000
<i>RDU APE Cost within TWTP0</i>				
Orange County				\$ -
Durham County				\$-
TWTP0				\$-
<i>RDU Cost within CAMPO</i>				
Wake County				\$114,100,000
CAMPO				\$114,100,000

Table 5 shows the total costs associated with the FAST 2.0 concept design work. The costs are broken out by the type of project.

Table 5: Total FAST 2.0 Costs

Study Element	Cost	Miles	Cost/Mile
<i>Total FAST 2.0 Costs</i>			
Arterial Priority Corridors	\$541,100,000	30.8	\$17,600,000
Freeway Priority Corridors Total	\$621,200,000	34.5	\$18,000,000
Freeway Segments	\$337,100,000	34.5	\$9,800,000
Direct Access Ramps	\$284,100,000		
RDU APE	\$114,100,000		
FAST 2.0 Total	\$ 1,276,400,000	65.3	\$19,600,000
<i>FAST 2.0 Costs within TWTP0</i>			
Orange County	\$65,400,000	12.2	\$5,400,000
Durham County	\$671,800,000	34.9	\$19,300,000
TWTP0	\$737,200,000	47.1	\$15,700,000
<i>FAST 2.0 Costs within CAMPO</i>			
Wake County	\$539,200,000	18.2	\$29,600,000
CAMPO	\$539,200,000	18.2	\$29,600,000

Advancing Priority Corridors Locally

Incorporate priority corridors into ongoing planning efforts:

Throughout the course of the FAST 2.0 Study, local stakeholders have continued advancing planning studies that aim to identify enhanced transit and BRT corridors within their jurisdictions. Some of these projects include:

- Chapel Hill transit High Capacity Transit Study
- Durham BRT Vision Plan
- GoTriangle Regional Blueprint
- 2035 Wake Transit Plan Update
- US 15-501 Corridor Study

As these projects get underway, it is recommended that the priority corridors from the FAST 2.0 study be incorporated into these studies. This will provide a jump start of the planning for BRT along the priority corridors within each of these plans and further planning these corridors at the local level. Incorporating the priority corridors into local planning efforts, continues to solidify these corridors as a priority for advancing BRT and helps to further their path to implementation for adoption into local transit plans and MTPs.

Incorporate into Local Transit Plans / MTPs / CTPs

Along with including the priority corridors in ongoing planning efforts, the next step to implementation is to include the priority corridors within local transit plans, CTPs, and MTPs, where funding can be applied to the projects. In the *Concept Design Memo*, information about each corridor was provided that would allow these corridors to be identified within these plans. This information includes the location, route, termini, mode, and basic operating information, such as estimated number of stations and number of vehicles. This information, along with the costing provided above, allows the stakeholders to identify these corridors as projects going forward.

Advance Planning and Design on Priority Corridors with Locally Funded Plans and Studies

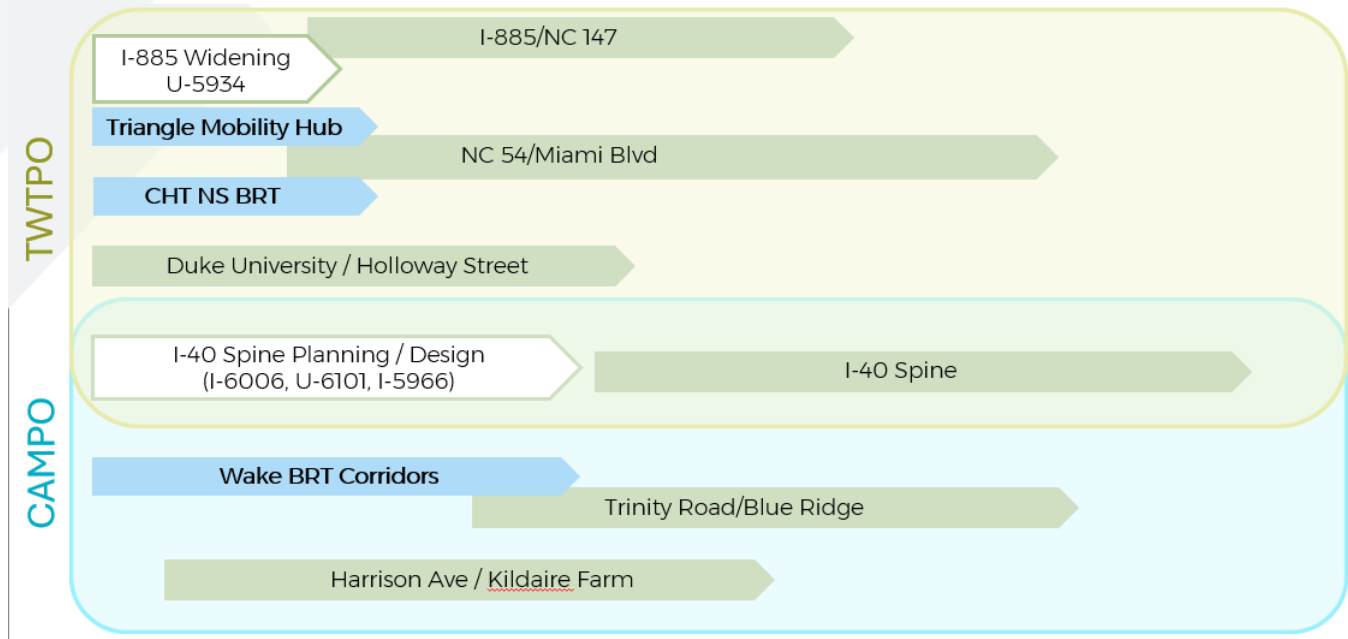
To continue momentum from the FAST 2.0 study and advancing the concept designs, it is recommended that stakeholders advance planning and design of the priority corridors with locally funded plans and Major Investment Studies (MIS). These studies will be able to further design work and stakeholder engagement, coordinating with ongoing roadway projects, while also performing more in-depth operations and service planning analyses. The operations and service planning analyses can help identify potential agency responsibilities and needs for the priority corridors. The Draft 2035 Wake Transit Plan Investment Strategy, presented in June 2025, includes several of the priority corridors as part of the 2035 BRT network and notes plans to advance further studies in the coming years:

A major investment study (MIS) is funded to plan and design the proposed I-40 and an additional potential Harrison BRT service. Part of the scope of the study will be to consider the feasibility of related investments, for example, \$50 million has been set aside to build an airport transfer facility near the I-40/BRT corridor. If deemed feasible, the cost estimate will be adjusted, and initial design elements would be a finding of the MIS.

Potential Sequencing of Priority Corridors

As the priority corridors continue to advance, there are elements of certain priority corridors that may need to happen before the priority corridors are constructed. For example, the NC 54 corridor terminates at the Triangle Mobility Hub, so that hub should be constructed before the improvements on NC 54 are constructed. It is recommended that the

Implementation Committee work to prioritize the priority corridors in more detail, but below highlights several ongoing projects that should be considered prior to implementing the priority corridors:



Continue to Build Momentum for Transit Infrastructure with Implementation on Funded BRT projects in Orange and Wake Counties

Visibility is an important part of building support for enhanced transit infrastructure. The region has several BRT corridors in construction or nearing design completion, so it is important to continue supporting the implementation of these corridors to lay the groundwork for BRT across the region. Once these corridors are operational, it can help provide local examples that can garner additional support from the public and stakeholders.

Identify BRT Project in Durham County

In July 2025, the City of Raleigh awarded the first construction contract to begin construction on the Wake BRT: New Bern Corridor and as of May 2025, Chapel Hill Transit is advancing their North-South BRT towards 90% design and anticipating construction starting in 2027. With these active BRT projects in Orange and Wake Counties, it is recommended that a BRT corridor in Durham County be identified and begin advancing into planning and design. This would provide active BRT projects in the core counties within the Triangle Region and begin building out a BRT network within each county, that can be connected by advancing the FAST 2.0 priority corridors.

Funding Considerations

Utilize Local Funding to Fund Alternative Analyses (AA) and Major Investment Studies (MIS)

As noted above, to continue advancing the concept design work, it is recommended that stakeholders advance planning and design of the priority corridors with locally funded plans. Using local funds to continue advancing the concept designs, can help prepare the project to be ready for future funding opportunities and keep the project moving, limiting schedule delays and cost increases. Continuing to advance projects locally, is particularly crucial as

federal grant opportunities change and evolve, allowing Stakeholders to be prepared for different funding opportunities to arise and ways to move forward, instead of waiting for funding opportunities to begin more planning and design.

Monitor Federal Grant Landscape for Funding Opportunities

With a changing federal transportation funding landscape, including the expiration of the Infrastructure Investment and Jobs Act in 2026 and anticipated changes to Capital Infrastructure Grant (CIG) program criteria, there are unknowns in what federal grant programs and funding levels will be available in the coming years. It is recommended that Stakeholders monitor the changes in federal funding and stay up to date on new and changing funding opportunities that could be used for FAST 2.0 project elements. While this uncertainty can make it difficult to anticipate federal funding opportunities for projects, Stakeholders can prepare for funding opportunities by advancing projects locally to increase the Project Readiness for when funding opportunities arise. Many federal grant programs ask for information about the status of a project including the level of planning and design, status of needed permits, and inclusion of the project in transportation plans. In addition, these grant programs often require project budget information to be provided with details given on the different project elements, level of design the cost estimates are based off of, and contingency levels. By advancing projects locally, Stakeholders can be prepared for funding opportunities that arise by having projects that are shown to be a local priority and have updated materials, highlighting the ability to continue moving the project forward with additional funding.

Evaluate Opportunities for Cost Sharing with NCDOT Projects

Throughout the FAST 2.0, NCDOT STIP projects that interact with the priority corridors have been identified. Stakeholders should continue coordinating with NCDOT during the planning and design of STIP projects to identify the ability to include transit infrastructure within those project designs. The ability to include transit infrastructure early on in the design can help save costs by allowing construction to happen at once and prevent the need to go back and construct transit infrastructure shortly after roadway construction.

Element 2

Another element of the implementation roadmap is to consider ways that NCDOT could help accelerate the implementation of transit infrastructure in the region. Some of the recommendations that could help to do that include:

- Evaluate and modify the current process for review and approval of transit infrastructure projects through IMD coordination with other planning/design departments and divisions
- Identify and evaluate potential changes to the NCDOT Roadway Design Manual, through IMD coordination with other planning/design departments and divisions

Review of Transit Infrastructure Projects

As more transit infrastructure is being built in the region and statewide, NCDOT may want to consider how different transit infrastructure is reviewed, both as a standalone request and as part of a larger roadway project. Some things to consider include:

- Developing internal guidance for transit elements along NCDOT roadways that may be part of IMD reviews (i.e. bus bulb outs vs bus pull outs; queue jumps). This guidance could also include national and state examples of similar infrastructure for reference.

Changes to NCDOT Roadway Design Manual

It is recommended that updates be made to the NCDOT Roadway Design Manual to incorporate more transit infrastructure within the Manual, allowing the improvements to be more easily included along NCDOT roadways and providing a point of reference for local municipalities. Some of the recommended updates include:

- Referencing FAST 2.0 study and the suite of transit infrastructure options that were explored during the study, similar to how the State Freeway and Street-based Transit (FAST) Network Implementation Playbook was referenced.
- Using experience from on-going BRT projects in the region, update elements of the RDM including:
 - Clear Zone and Offset widths at stations
 - Platform heights and adjacent curbs
 - Lane widths
 - Bus stop amenity crashworthiness
 - Transit signal priority and communications
 - Station crash walls
 - Transit-specific markings, signings, and signal heads
 - Runningway types – ex. fully dedicated, semi-dedicated, contraflow, bi-directional, etc.
 - Pedestrian and bicycle facilities to access stations
 - Pavement thickness and material
 - Horizontal roadway element transitions
 - Menu of transit design vehicles – ex. Standard, articulated, left vs. right door, etc.

Changes to NCDOT Complete Streets Implementation Guide

It is recommended that updates be made to the NCDOT Complete Streets Implementation Guide to incorporate more transit language within the Guide, allowing the improvements to be more easily included along NCDOT roadways and during the planning process. Some of the recommended updates include:

- Adding “transit” or “access to transit” to the list of needs, list of improvements and list of facilities.
 - Include a definition for “transit facilities” that is referenced in 7.1 Complete Street Cost Share.
- Reference policies within the NCDOT Roadway Design Manual include elements related to transit infrastructure, which may include the references to FAST.

Similar changes are recommended on some of the other Complete Street documents, including the NCDOT Complete Streets Review Assessment (CSRA) form and the Complete Streets Project Sheet. For those items, it is recommended that NCDOT consider the following changes:

- NCDOT Complete Streets Review Assessment (CSRA):
 - Under the Initial Screening and Data Input section, consider adding a separate intake box for whether there is existing or planned transit in the project area or whether existing transit stops are accessible by walking or biking.
 - Under the Facility Selection section, consider adding separate intake boxes for Preferred Transit Facility/Facilities, Transit Alternatives, and Transit Considerations or consider adding a box for Access to Transit Considerations to make sure they are being considered along with the Pedestrian and/or Bicyclist Considerations.
- Complete Streets Project Sheet:

- Under the existing public transit improvements listed, consider adding elements that improve access to transit by bicycle. Options could include bus boarding islands, shared cycle track stops, and connections to bicycle facilities such as bike lanes and multi-use paths/sidepaths.