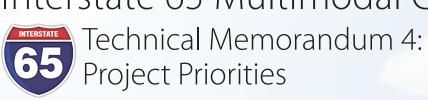
Interstate 65 Multimodal Corridor Study



January 2018



Prepared for the Tennessee
Department of Transportation by:

GRESHAM
SMITHAND



TABLE OF CONTENTS

1.	Introduction1
2.	Priority Setting and Phasing Tool.
	2.1 Approach and Methodology
	2.2 Prioritization Criteria and Measures
3.	Project Rankings
	3.1 Project Rankings by Mode and Strategy Highway Capacity Safety Intelligent Transportation Systems Freight Transit Walking and Bicycling
	3.2 Key Findings

Interstate 65 Multimodal Corridor Study

FIGURES

Figure 3-1.	Recommended Multimodal Solutions: North Sub-Area	9
Figure 3-2.	Recommended Multimodal Solutions: Central Sub-Area	10
Figure 3-3.	Recommended Multimodal Solutions: South Sub-Area	11
ABLE	S	
Table 1-1.	I-65 Corridor Goals and Objectives	1
Table 2-1.	I-65 Prioritization Criteria and Measures by Mode and Strategy	3
Table 3-1.	Highway Capacity Improvements: Highly Ranked Projects	5
Table 3-2.	ITS: Highly Ranked Projects	6
Table 3-3.	Transit Improvements: Highly Ranked Projects	7
Table 3-4.	Walking and Bicycling Improvements: Highly Ranked Projects	8
Table 3-5.	Highway Capacity Improvements: Project Rankings	13
Table 3-6.	Safety Improvements: Project Rankings	17
Table 3-7.	ITS Improvements: Project Rankings	19
Table 3-8.	Freight Improvements: Project Rankings	
Table 3-9.	Transit Improvements: Project Rankings	25
Table 3-10.	Walking and Bicycling Improvements: Project Rankings	27

I-65 MULTIMODAL CORRIDOR STUDY

Technical Memorandum 4: PROJECT PRIORITIES

1. Introduction

Today's decisions on how to improve the transportation system in the I-65 corridor will play an important role in how growth and development unfold in the study area. Accordingly, the purpose of this technical memorandum, representing the project recommendations of the I-65 Multimodal Corridor Study, is twofold:

- First, to provide a project priority and phasing tool that builds on the goals and objectives for the corridor: and
- Second, to rank the study's proposed multimodal improvements that address the identified transportation deficiencies and needs in the corridor.

The goals and objectives for the I-65 corridor (Table 1-1) were developed early in the study and reinforce the three strategic emphasis areas in the Tennessee Department of Transportation's (TDOT) 25-Year Long-Range Transportation Policy Plan: efficiency, effectiveness, and economic competitiveness. The priority and phasing tool, in turn, extends the goals and objectives and associated performance measures, and defines a set of criteria that serve as the basis for project ranking. It is important to underscore that the project ranking criteria represent only one source of data and information. Other policy, planning, and programming factors, beyond the scope of this study, will determine all final project development and funding decisions.

Table 1-1. I-65 Corridor Goals and Objectives

Goals	Objectives						
Provide efficient and reliable travel within and through the I-65 corridor.	Improve travel times among destinations in the region, with an emphasis on reducing peak period travel times.	Provide transportation options for people and freight.	Optimize freight movement in and through the region.				
Improve safety conditions in the corridor, both on I-65 and parallel and connecting routes, for all transportation users.	Reduce crash rates along the corridor, especially crash "hot spots" for motorists and non-motorists.	Implement or upgrade technologies that promote safety and effective incident management.					
Coordinate transportation investments with land use decision-making.	Improve street networks and access management in interchange areas.	Encourage transit-oriented development along proposed high-capacity transit routes.					
Invest in transportation improvements equitably throughout the corridor.	Expand transportation options for traditionally underserved populations within the corridor.						
Protect the natural environment, and historic and cultural resources within the corridor.	Identify transportation improvements that are not likely to result in major impacts to environmental, social, and cultural resources.	Pursue investments and strategies that minimize greenhouse gas emissions.					

Maintain and enhance partnerships with both regional and local partners.

2. Priority Setting AND PHASING TOOL

2.1 Approach and Methodology

Prior TDOT interstate corridor studies have used a common set of guidelines to prioritize recommended improvements and identify priorities by time horizon. Previous prioritization guidelines include:

- Projects located in the same place should be coordinated such that corresponding construction phases are completed at the same time;
- Projects with lower costs should be completed first given that funding for more budget intensive projects may not be readily available;
- Consistency with the status of the project in the MPO planning process, if applicable, should be considered; and
- Projects should be ranked based on benefit/cost

For the I-65 Multimodal Corridor Study, the proposed prioritization and phasing approach builds on the common set of guidelines from the earlier corridor studies, but shifts the focus from developing a single, static list of priorities to generating data and information that can serve as a flexible decisionmaking support tool. Assuming system preservation will remain the highest priority, the priority setting and phasing tool centers on proposed new transportation improvements in the I-65 corridor. The tool evaluates proposed improvements in each modal and strategy area across five categories, and orders the results by weighted scores. Importantly, the weights for each criterion can be adjusted based on policy, planning, and programming direction, and the results of the analysis can be considered separately or compared as different scenarios. Table 2-1 summarizes the five prioritization criteria and related measures for the modal and strategy areas included in the study.

2.2 Prioritization Criteria and Measures

Mobility/Safety

Base Year (2010) and 2040 Existing Plus Committed (E+C) Volume-to-Capacity (V/C) ratios, derived from the Tennessee Statewide Travel Demand Model, Version 2 (TSM), serve as the mobility/safety prioritization measures for the proposed highway capacity, intelligent transportation systems (ITS), and freight improvements in the study. For freight improvements, the mobility/safety criterion also includes Base Year truck percentages from the TSM. While there is also a standalone list of safety improvements focused primarily on interchange areas and separately measured by crash rates, many of the mobility improvements will also generate safety benefits and the mobility criterion includes "safety" in the title to reflect those benefits. As reported in "Technical Memorandum 2: Assessment of Existing and Future Deficiencies," 84 percent of all crashes in the study area between 2013 and 2015 were in Davidson and Williamson Counties in areas with higher levels of congestion.

Additionally, for transit, the prioritization tool utilizes fixed-route hours of service as the Level of Service (LOS) to evaluate mobility/safety. Although there are a number of capacity and service quality variables available to describe transit LOS, fixed-route hours of service were identified as a specific deficiency in Technical Memorandum 2 and were a prime concern in public meetings. Finally, assuming that proposed improvements will provide the greatest benefits where demand is likely highest, the mobility/safety prioritization criterion for bicycle and pedestrian projects is measured using Base Year and 2040 population within a one-mile buffer of the recommended project.

Multimodal Investment Opportunity

The multimodal investment opportunity criterion captures the number of other proposed study improvements that occurr along the same general route or alignment as a given recommended project. This criterion builds on the prior studies' guideline to coordinate projects in close proximity, and flags opportunities to integrate recommendations across modes and strategies. For prioritization purposes, the measure helps to identify locations where multimodal

Table 2-1. I-65 Prioritization Criteria and Measures by Mode and Strategy

Mode/ Strategy	Mobility/ Safety	Multimodal	Accessibility/ Economic Development	Implementation	Cost Efficiency
Highway	Base V/C	Number of Modal Projects	Base Total Employment	Cost	Benefit/Cost Ratio (Method 1)
Capacity	2040 E+C V/C		2040 Total Employment		Benefit/Cost Ratio (Method 2)
Safety	Crash Rate	Number of Modal Projects	Base Total Employment	Cost	Benefit/Cost Ratio (Method 1)
			2040 Total Employment		Benefit/Cost Ratio (Method 2)
ITS	Base V/C	Number of Modal Projects	Base Total Employment	Cost	Benefit/Cost Ratio
	2040 E+C V/C		2040 Total Employment		
Freight	Base V/C	Number of Modal Projects	Base Total Employment	Cost	Benefit/Cost Ratio (Method 1)
	2040 E+C V/C		2040 Total Employment		Benefit/Cost Ratio (Method 2)
	Truck Percentage				
Transit	LOS	Number of Modal Projects	Base Total Employment	Cost	n/a
			2040 Total Employment		
Bicycle and	Base Total Population	Number of Modal Projects	Base Total Employment	Cost	Benefit/Cost Ratio
Pedestrian	2040 Total Population		2040 Total Employment		

solutions could be a critical strategy for improving the transportation system.

Accessibility and Economic Development

The ability to reach a destination (accessibility) and the ability to reach markets (economic development) rely heavily on the safety, convenience, and comfort of the transportation system for all users. While there are many types of destinations and markets to reach, improvements in each of the modal and strategy areas can affect employment-related accessibility and economic development. As a proxy for overall accessibility and economic development, the criterion then relies on the Base Year and 2040 employment within a one-mile buffer of the proposed improvement.

Implementation

Implementing projects clearly relies on a wide variety of factors, including community support, environmental constraints, constructability, costs, and funding availability. For prioritization purposes in the I-65 study, and recognizing the overlap with the cost efficiency criterion below, the implementation criterion uses planning level project costs to measure the proposed improvements. This criterion also dovetails with earlier interstate corridor study

guidelines. Of course, lower costs by themselves are not necessarily a good indicator of when a project should be implemented, but in conjunction with the other criteria, can highlight improvements that are more feasible in the short-term. Again, as is the case with all of the criteria, cost can be weighted as needed and lower cost projects do not have to receive equal consideration with other measures.

Cost Efficiency

The fifth and final project criterion in the prioritization tool evaluates potential benefits against the planning level costs to understand relative cost efficiency. For the highway capacity, safety, and freight improvements, two summary benefit/cost (B/C) ratios are calculated. The "B/C-1" ratio estimates the value of project travel time savings based on average speeds for the network surrounding the project. The "B/C-2" ratio estimates the value of aggregate travel time savings based on the change in total Vehicle Hours Traveled (VHT) for the network surrounding the project. While B/C-1 emphasizes project specific benefits, B/C-2 quantifies network benefits. Taken together, the two measures, which are snapshots in time, support a relatively easy and balanced way to evaluate cost efficiency. The methodologies for both measures follow:

B/C-1 Method:

- 1. Calculate the overall average speeds for the network surrounding the Trend and Build area by dividing VMT by VHT;
- 2. Calculate the project travel time based on the average speeds from step 1 and the project length;
- 3. Calculate the travel time saving by subtracting values from step 2;
- 4. Calculate operational benefits by multiplying the travel time saving by 250 working days a year and value of time, and
- 5. Calculate the B/C ratio.

B/C-2 Method:

- 1. Calculate the travel time saving by subtracting Build VHT from Trend VHT for the network surrounding the project;
- 2. Calculate operational benefits by multiplying the travel time saving by 250 working days a year and value of time; and
- 3. Calculate B/C ratio.

B/C ratios for the ITS improvements were derived using the Federal Highway Administration's (FHWA) Tool for Operations Benefit Cost Analysis (TOPS-BC), Version 1.2. B/C ratios for the bicycle recommendations were calculated based on the Benefit-Cost Analysis of Bicycle Facilities Tool from the University of North Carolina Highway Safety Research Center. A benefit-cost ratio was not calculated for the transit improvements because this study did not include the modeling of transit routes. Finally, since different benefit-cost methods were used for different modes and strategies, the B/C ratios should not be compared across modes and strategies.

3. Project Rankings

As noted earlier, the project rankings included here represent just one way of prioritizing the proposed improvements and the measures represent only one source of data and information. The priority setting tool itself includes a high degree of flexibility by allowing a criterion's weight to be set to any value relative to the other criteria. Over time, as data is refined or additional data sources become available. prioritization criteria and measures can also be updated and expanded. Ultimately, whether and when improvements are implemented will depend again on a much broader decision-making process that reflects policy, planning, and programming factors beyond the scope of this study.

3.1 Project Rankings by Mode and Strategy

The following sections highlight the recommended improvements that rank highly when the prioritization criteria are all assumed to have the same weight. Maps of all proposed improvements can be found in Figures 3-1, 3-2, and 3-3. The full list of project rankings, under the same assumption of equal weighting, are included by mode or strategy in Tables 3-5 through 3-10.

Highway Capacity

Table 3-1 summarizes the ten proposed highway capacity projects that rank the highest when the prioritization criteria are weighted equally. Importantly, many of the higher ranked projects focus on improving travel to, from, and through downtown Nashville on I-65. Reconstructing the downtown interstate loop and extending High Occupancy Vehicle (HOV) lanes to the loop, in particular, emphasize the need to improve operations and modal choices between downtown Nashville and surrounding communities. The complete highway capacity project ranking (Table 3-5) identifies a number of parallel and intersecting arterials, especially in Williamson County, that are high priorities, including Nolensville Road (US-41A/SR-11), Mack Hatcher Parkway (SR 397), Columbia Pike (US-31/SR 6), and Franklin Road (US-31/SR 6).

Table 3-1. Highway Capacity Improvements: Highly Ranked Projects

ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	County	Source	Source Horizon
H-19	Downtown Nashville Loop	N/A	N/A	Roadway/Junctions Reconstruction	12.2	Davidson	MPO RTP*	2040
H-20	I-65	I-40 (Exit 210)	I-40 (Exit 208)	Weaving Patterns	2.0	Davidson	Task 3	2030
H-21	I-65	Armory Drive	Nashville Core	Extend HOV lanes	3.4	Davidson	Task 3	2030
H-22	I-24	I-40	I-840	Widening, I-40 to Haywood Lane – 8 to 10 lanes; Haywood Lane to I-840 – 6 to 8 lanes	23.2	Davidson and Rutherford	Task 3*	2030
H-16	I-65	Briley Parkway	Nashville Core	Extend HOV lanes	4.2	Davidson	Task 3	2030
H-24	Nolensville Pike (US-41A/SR-11)	South of Old Hickory Blvd (SR-245)	South of Burkitt Road	Reconstruction and widening, 2 to 5 lanes	4.5	Davidson and Williamson	MPO RTP	2020
H-10	I-65	Long Hollow Pike (SR-174)	Blue Star Road (US-31)	Widening, 4 to 6 lanes	1.8	Sumner	MPO RTP*	2030
H-25	I-65	Old Hickory Blvd (SR-254)	Concord Road (SR-253)	New Interchange	0.0	Williamson	MPO RTP	2030
H-32	Mack Hatcher Pkwy (SR-397)	SR-96 east of Franklin	Columbia Pike (US-31/SR-6) south of Franklin	Widening, 2 to 4 lanes	3.2	Williamson	Task 3*	2030
H-7	I-65 (SB only)	Blue Star Road (US-31)	Bethel Road (SR-257)	Widening, 4 to 6 lanes	5.2	Robertson	MPO RTP*	2030

^{*} Project included on IMPROVE Act project list

Safety

With the exception of three proposed improvements (S-22, S-3, and S-16), all of the standalone safety projects (Table 3-6) are relatively low cost (\$1 million or less) and recommended for further analysis and implementation in the short-term or in conjunction with other planned near-term improvements, for example, the widening of I-65 to the state line with Kentucky.

Intelligent Transportation Systems

For data reasons, only nine of the nineteen ITS projects were ranked using the prioritization tool (Table 3-2). Similar to the highway capacity improvements, ITS projects, including dynamic on-ramp assignment and active arterial management, in, near, or closely linked to downtown Nashville rank the highest, and highlight the importance of a coordinated and multimodal strategy for improving I-65 through Davidson and Williamson Counties in particular. The unranked ITS

projects are primarily statewide and ramp metering improvements, and even though they were not evaluated with the prioritization tool, many have potentially strong B/C ratios and should be studied further.

Freight

Table 3-10 ranks the full list of standalone freight projects. Consistent with other findings, improving the system-to-system interchanges of I-65 and I-40 in downtown Nashville are a high priority – again, stressing the importance of loop operations to all modes. Other projects of note include improving east-west connectivity, specifically Old Hickory Boulevard (SR 254) and Harding Place (SR 255), between I-65 and freight generators located near I-24 and Nashville International Airport (BNA).

Table 3-2. ITS Improvements: Highly Ranked Projects

ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	County	Source	Source Horizon
0-17	Active Arterial Management (AAM) Hillsboro Rd (US–431)	Broadway (US-70A)	Mack Hatcher	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	16.0	Davidson and Williamson	Task 3	2030
0-9	Dynamic on-ramp assignment - Southbound	Charlotte Ave	I-40/I-65 Split	Add arterial DMS along 14th Ave, add interstate shields or use gantries for junction pre-positioning on on-ramps and interstate facilities	1.0	Davidson	Task 3	2030
0-10	Dynamic on-ramp assignment – Northbound	Broadway (US-70A)	l-40/l-65 Split	Add arterial DMS along 14th Ave, add interstate shields and deploy lane control gantries for junction pre–positioning on on–ramps and interstate facilities	1.0	Davidson	Task 3	2030
0-15	Active Arterial Management (AAM) Nolesville Pike (US–41)	Korean Veterans Blvd	Old Hickory Blvd	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	9.0	Davidson	Task 3	2030
0-14	Active Arterial Management (AAM) Franklin Rd	Demonbreun	Mack Hatcher	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	18.0	Davidson and Williamson	Task 3	2040
0-12	Active Arterial Management US-31 E/Gallatin Pike	Rivergate Pkwy	Spring Street	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	10.0	Davidson	Task 3	2030
0-16	Active Arterial Management (AAM) Old Hickory Blvd	Hillsboro Rd (US-431)	US-41	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	15.0	Davidson	Task 3	2030
0-18	Active Arterial Management (AAM) Nolensville Pike (US–41)	I-840	US-231/ Colloredo Blvd/Lane Pkwy	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	28.0	Williamson, Rutherford, and Bedford	Task 3	2040
0-13	Active Arterial Management (AAM) Dickerson Pike	US-31 W/ Louisville Hwy	US-431/ Trinity Ln	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	10.0	Davidson and Sumner	Task 3	2030

Transit

Transit improvements in the I-65 corridor between downtown Nashville and Williamson and Maury Counties and along Nolensville Road rank the highest, reinforcing growth trends in the central sub-area and public input during the study (Table 3-3). The series of Northeast Transit (NET) Corridor recommendations in Davidson and Sumner Counties also rank highly. With so much overlap between the highly ranked highway capacity and transit improvements, strategically

Walking and Bicycling

The fast-growing areas of south and east Williamson County and north Maury County present a number of opportunities to implement important walking and bicycle facilities (Table 3-4). In higher speed, higher vehicle volume environments, multi-use paths provide a safe and comfortable option for all ages and abilities to walk and bike. Highly ranked projects include multi-use paths in the Buckner Road area and along Columbia Pike (US 31/SR 6) and Murfreesboro Road (SR coordinating projects across modes will be paramount. 96). Closer to downtown Nashville, the Trinity Lane and Broadway interchange areas with I-65 both experience recurring pedestrian safety issues and rank highly in the prioritization tool.

Table 3-3. Transit Improvements: Highly Ranked Projects

ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	County	Source	Source Horizon
T-24	South Corridor Regional Express Bus Service	Several routes bet Franklin, Spring Hi		Provide new and expanded service to Williamson and Maury County, including additional express trips, reverse commute trips, additional service hours, and new Park-and-Ride opportunities	45.9	Davidson/ Sumner	nMotion	2030
T-11	Nolensville Pike (US-41A) LRT	Downtown Nashville	Lenox Village Drive	Construction of light rail transit along US-31A (Nolensville Pike)	5.5	Davidson and Williamson	Central/ South	Central/ South
T-13- 18	I-65 South Freeway BRT Stations (6)	Downtown Nashville	Franklin	Construction of freeway BRT transit stop and park-and-ride lot	0.0	Davidson	nMotion	2030
T-10	Dickerson Pike (US-31W) BRT	Hunters Lane	Inters Lane Downtown Nashville Pike). Project includes dedicated bus lanes and improved pedestrian facilities.		4.7	Davidson and Williamson	MPO RTP / nMotion	2030
T-25	Rapid Transit/ Managed Lanes between Nashville and Franklin	Downtown Murfreesboro Nashville Road (SR-96)		Construction of managed lanes for freeway Bus Rapid Transit along 1-65 from Nashville to Murfreesboro Road (SR-96)	18.8	Davidson/ Williamson	nMotion	2030
T-1	NET Corridor Regional Express Bus Service	Several routes bet and Gal		Provide new and expanded service to Sumner County, including additional express trips, additional service hours, and new park-and-ride opportunities	30.0	Davidson and Sumner	MPO RTP	2020
T-9	US-31E (Gallatin Pike) LRT	Downtown Nashville	Conference Drive	Construction of light-rail transit along US-31E (Gallatin Pike)	4.9	Sumner	nMotion	2030
T-3-5	I-65 North Freeway BRT Stations (3)	Goodlettesville	Gallatin	Construction of freeway BRT transit stop and park-and-ride lot	0.0	Davidson	MPO RTP	2030
T-6	NET Corridor Interchange 2	Vietnam Veterans at Conferer		Interchange modification for Traffic NB onto Conference Drive	0.0	Davidson and Sumner	nMotion	2030
T-7	NET Corridor Interchange 1	Vietnam Veterans at I-6		Interchange modification WB to NB and SB to EB Traffic	0.0	Sumner	nMotion	2030

Table 3-4. Walking and Bicycling Improvements: Highly Ranked Projects

ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	County	Source	Source Horizon
B-38	Buckner Road	Buckner Road/I-65 Interhchange	Lewisburg Pike (SR-106/ US-431)	Network - Construction of bike lane(s) or multi-use trail; can be constructed in concert with H-22	2.1	Williamson	Task 3	2040
B-34	Columbia Pike (US-31/ SR-6)	Goose Creek Bypass	Wilson Pike (SR-252)	Construction of Multi-Use Path	3.9	Williamson	Connect Franklin	2030
B-33	Murfreesboro Road (SR-96)	East of Arno Road	Veterans Pkwy	Network – Construction of on-road or off-road bicycle facilities	18.3	Williamson/ Rutherford	Task 3	2030
B-37	Buckner Road	Columbia Pike (SR-6/US-31)	Buckner Lane	Network – Construction of bike lane(s) or multi-use trail; can be constructed in concert with H-24	1.9	Williamson	Task 3	2040
B-35	Goose Creek Bypass (SR–248)	Columbia Pike (US-31/SR-6)	Long Lane	Construction of bike lanes and sidewalks	4.1	Williamson	Connect Franklin	2040
B-7	James Robertson Parkway (US-31)	Rosa Parks Boulevard (SR-12)	Church Street	Construction of Separated Bike Lanes	0.5	Davidson	Nashville WalknBike	2030
B-36	US-31	SR-248 (Goose Creek Bypass)	North of Buckner Lane	Network - Construction of bike lane(s) or multi-use path	3.8	Williamson	Task 3	2020
B-11	Broadway (US–431)	George L. Davis Blvd.	14th Avenue South	Reconstruction of sidewalks along US-431 (Broadway). Project includes landscaping, lighting, crosswalks, in-roadway warning lights at on-ramps, and pedestrian amenities.	0.1	Davidson	Task 3	2020
B-4	Trinity Lane (US-431)	Whites Creek Pike (US-431)	Dickerson Pike (US-41)	Safety - Reconstruction of sidewalks along US-431 (Trinity Lane). Project includes landscaping, lighting, crosswalks, in-roadway warning lights at on-ramps, and pedestrian amenities.	1.3	Davidson	Task 3	2020
B-30	Mack Hatcher Pkwy (SR-397)	SR-96 east of Franklin	Columbia Pike (US-31/ SR-6) south of Franklin	Network - Construction of Multi-Use Path; Can be constructed with in concert with H-30	3.2	Williamson	Connect Franklin	2030

3.2 Key Findings

The priority setting and phasing tool provides a performance-based framework for ranking projects by mode and strategy that builds on the goals and objectives identified in the I-65 corridor study. Incorporating weighted criteria, the tool can be used to evaluate different policy scenarios across a wide range of variables including mobility, safety, accessibility, and cost. The rankings generated by the tool can then serve as a resource for much broader discussions surrounding project development and funding.

The rankings reported in this technical memorandum reflect a scenario where all criteria and measures are

weighted equally. With that assumption in mind, the rankings spotlight two closely related opportunities: first, improving the downtown Nashville interstate loop and the highways connecting to it, both interstates and arterials, should be a high priority for future travel in the I-65 corridor; and second, all modes and strategies have an important role in improving the I-65 corridor, especially for travel to, from, and through the Nashville core. Significantly, the IMPROVE Act, the state transportation funding bill signed into law in 2017, has set the stage for many of the recommended improvements to move forward, with specific project studies already underway.

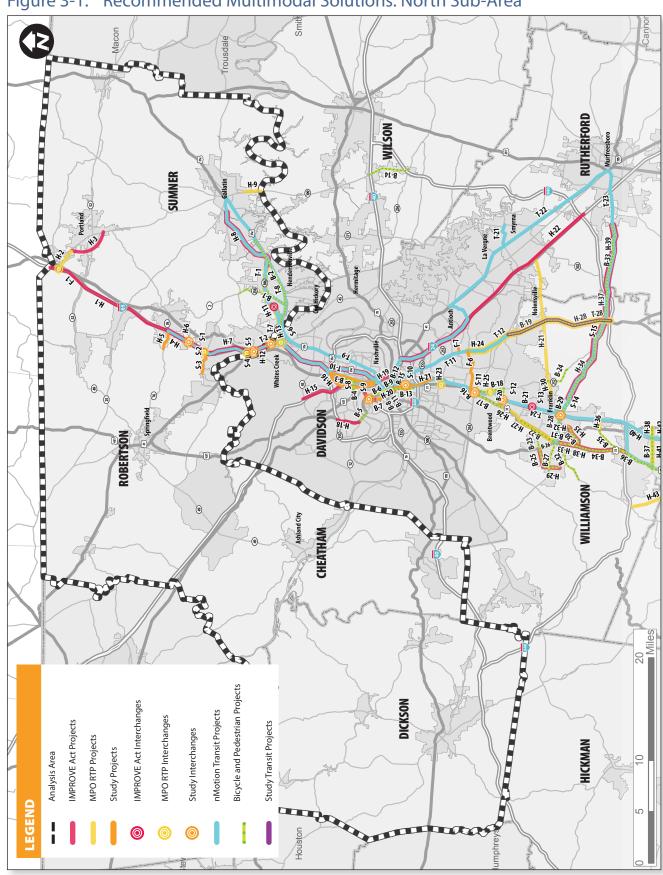


Figure 3-1. Recommended Multimodal Solutions: North Sub-Area

Bicycle and Pedestrian Projects IMPROVE Act Interchanges nMotion Transit Projects MPO RTP Interchanges IMPROVE Act Projects Study Transit Projects Study Interchanges MPO RTP Projects Study Projects Analysis Area NUTHERFORD b1-8 H-28 T-28 H-24 8.25 (8-25) (8-2 6Z-H (2) CHEATHAM DICKSON

Figure 3-2. Recommended Multimodal Solutions: Central Sub-Area

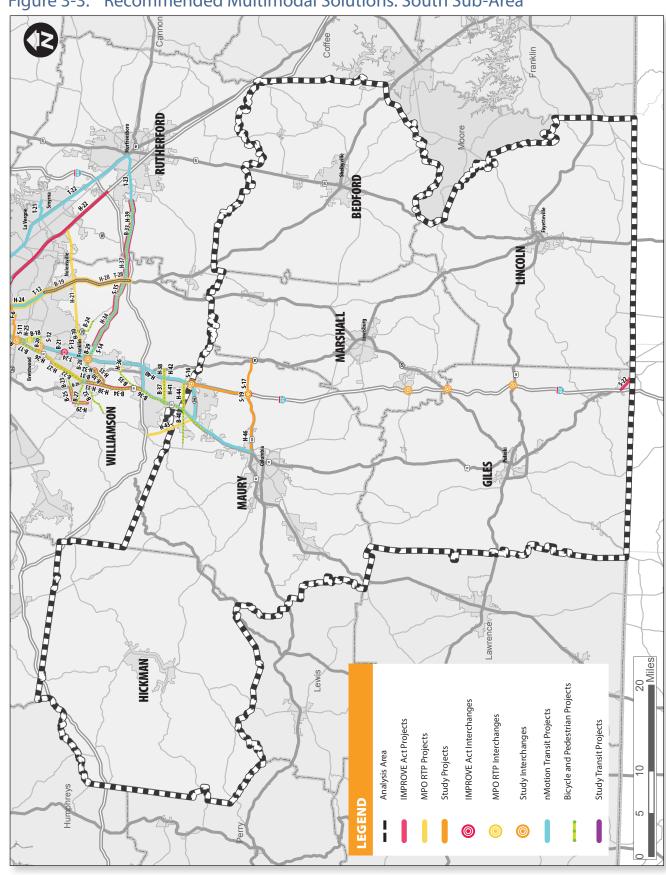


Figure 3-3. Recommended Multimodal Solutions: South Sub-Area

Table 3-5. Highway Capacity Improvements: Project Rankings

										(4) Implemen- tation		5) ficiency						
						Base	2040 E+C	" (0)	Base Total	2040 Total	Cost	B/C	B/C					
						V/C	V/C	# of Projects	Employment	Employment	(millions\$)	(Method 1)	(Method 2)	· —	7			
						Base V/C Weight	2040 E+C V/C Weight	Multimodal Weight	Base TE Weight	2040 TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	9		_		_
					Length	vveigne	v/c vvcignt	vveigitt	vveigne	vveigne	COSE V VCIGITE	vvcigiti	vvcigiti	RANKING	RANKING	County	Source	Source Horizon
ID	Project Name	Termini (From)	Termini (To)	Description	(miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RA	RA	Õ	Sou	S 위
H-19	Downtown Nashville Loop	N/A	N/A	Roadway/Junctions Reconstruction	12.2	1.04	1.32	5	136,041	229,874	\$189.42	19.40	0.17	4.9402	4.7755	Davidson	MPO RTP*	2040
H-20	I-65	I-40 (Exit 210)	I-40 (Exit 208)	Weaving Patterns	2.0	0.83	1.13	3	107,513	177,211	\$8.60	0.90	1.44	4.5972	4.7647	Davidson	Task 3	2030
H-21	l-65	Armory Drive	Nashville Core	Extend HOV lanes	3.4	0.93	1.21	3	76,609	116,299	\$39.59	0.30	0.12	4.0895	4.1014	Davidson	Task 3	2030
H-22	I-24	I-40	I-840	Widening, I-40 to Haywood Lane - 8 to 10 lanes; Haywood Lane to I-840 - 6 to 8 lanes	23.2	0.97	1.25	0	63,064	107,575	\$192.75	104.60	0.65		2.7994	Davidson and Rutherford	Task 3*	2030
H-16	I-65	Briley Parkway	Nashville Core	Extend HOV lanes	4.2	1.01	1.39	2	13,257	40,398	\$50.79	1.60	0.08	3.2815	3.2756	Davidson	Task 3	2030
H-24	Nolensville Pike (US-41A/SR-11)	South of Old Hickory Blvd (SR-245)	South of Burkitt Road	Reconstruction and widening, 2 to 5 lanes	4.5	1.02	1.46	1	4,261	7,771	\$29.77	11.20	(0.11)			Davidson and Williamson	MPO RTP	2020
H-10	I-65	Long Hollow Pike (SR-174)	Blue Star Road (US-31)	Widening, 4 to 6 lanes	1.8	0.72	0.87	5	5,461	7,560	\$15.36	1.00	0.02	3.1244	3.1169	Sumner	MPO RTP*	2030
H-25	I-65	Old Hickory Blvd (SR-254)	Concord Road (SR-253)	New Interchange	0.0	0.86	1.19	2	9,417	15,584	\$8.20	0.20	0.73		3.1591	Williamson	MPO RTP	2030
H-32	Mack Hatcher Pkwy (SR–397)	SR-96 east of Franklin	Columbia Pike (US-31/SR-6) south of Franklin	Widening, 2 to 4 lanes	3.2	0.71	1.28	1	7,830	16,076	\$26.07	21.00	1.48	2.9191	2.8985	Williamson	Task 3*	2030
H-7	I-65 (SB only)	Blue Star Road (US-31)	Bethel Road (SR-257)	Widening, 4 to 6 lanes	5.2	0.58	0.71	6	1,767	2,955	\$39.03	4.90	(0.08)		2.8580	Robertson	MPO RTP*	2030
H-33	Columbia Pike (US-31/SR-6)	Fowlkes Street	Mack Hatcher Pkwy (SR-397)	Widening, 2 to 4 lanes	1.9	0.55	0.89	1	12,542	19,986	\$11.25	14.60	3.10	2.5655	2.8042	Williamson	Task 3*	2030
H-27	Franklin Road (US31/SR 6)	SR-441 (Moore's Lane)	Harpeth River Bridge	Widening, 2 to 5 lanes	3.7	0.38	0.72	2	20,509	33,149	\$24.48	16.50	(0.15)		2.3413	Williamson	Task 3	2040
H-12	I-65 at Springfield Highway (US-41/SR-11)	N/A	N/A	New Interchange	0.0	0.64	0.79	2	351	517	\$8.20	0.40	(0.17)	2.4559	2.4312	Davidson		Illustrative
H-4	I-65	Bethel Road (SR-257)	SR-25	Widening, 4 to 6 lanes	8.7	0.52	0.65	4	3,031	7,265	\$60.22	6.10	(0.06)		2.3459	Robertson	MPO RTP*	2030
H-26	Franklin Road (US31/SR 6)	Concord Road (SR-253)	Moores Lane (SR-441)	Widening, 2 to 5 lanes	2.3	0.51	0.92	1	11,454	21,696	\$15.21	(2.80)	(1.53)	2.3601	2.1996	Williamson	MPO RTP	2020
H-40	I-65	I-840	SR–396 (Saturn Parkway)	Widening, 4 to 6 lanes	5.8	0.53	0.79	3	412	4,501	\$48.15	2.80	(0.12)	2.3503	2.3090	Williamson	MPO RTP	2020
H-11	Vietnam Veterans Pkwy (SR-386) at Forest Retreat Road	N/A	N/A	New Interchange	0.0	0.61	0.85	1	2,888	4,633	\$8.20	0.00	0.05	2.3343	2.3399	Sumner	Task 3*	2030
H-17	Dickerson Pike (US-41)	SR-155 (Briley Pkwy)	Spring St	Widening, 4 to 6 lanes	4.7	0.32	0.65	1	21,659	54,987	\$20.73	9.60	0.40			Davidson	Task 3	2040
H-18	Clarksville Hwy (US-41A/SR-112)	SR-12 (Ashland City Hwy)	SR-155 (Briley Pkwy)	Widening, 2 to 5 lanes	2.4	0.67	1.02	0	3,771	6,264	\$18.88	0.20	0.22		2.3271	Davidson	Task 3*	2030
H-13	NET Corridor Section 1 – Vietnam Veterans Pkwy (SR–386)	I-65	US-31E/Saundersville Road	Transit Capital Expansion – Widening, 4 to 6 lanes for freeway Bus Rapid Transit service from Nashville to Gallatin	8.9	0.68	0.87	1	21,702	34,412	\$85.26	1.90	0.01	2.3014	2.2842	Sumner	MPO RTP/ nMotion*	2030
H-28	Nolensville Road (US-41A/SR-11)	Burkitt Road	I-840	Widening with realignment from south of Clovercroft Road to north of Sunset Road in Nolensville	10.6	0.30	0.97	3	741	7,786	\$49.75	4.20	(0.15)	2.2742	2.2155	Williamson	MPO RTP	Illustrative
H-34	Murfreesboro Road (SR-96)	East of Arno Road	Wilson Pike (SR-252)	Widening, 2 to 5 lanes	5.8	0.39	1.24	1	1,034	5,953	\$44.37	7.30	(0.03)	2.2641	2.1906	Williamson	MPO RTP*	2020
H-6	I-65	New interchange at New	Hall Road in White House	New Interchange	0.0	0.52	0.65	2	556	1,489	\$8.20	0.20	(0.23)	2.2485	2.2186	Robertson	Task 3	2030
H-41	Buckner Road Widening	Columbia Pike (SR-6/US-31)	Buckner Lane	Widening	1.9	0.53	0.85	1	909	4,141	\$14.38	0.10	(0.16)	2.2095	2.1887	Williamson	MPO RTP	Illustrative
H-14	NET Corridor Transit – Ellington Pkwy (US-31E/SR-6) and I-65	Ellington Pkwy (SR-6) southern terminus	SR-386	Construction of managed Lanes along Ellington Pkwy (SR-6) and I-65 for freeway Bus Rapid Transit service from Nashville to Gallatin	10.0	0.49	0.63	2	34,245	63,436	\$123.98	9.20	0.06	2.2084	2.1282	Davidson	MPO RTP/ nMotion*	2030

Table 3-5. (cont.)

							1) y/Safety	<u>, , , , , , , , , , , , , , , , , , , </u>		(4) Implemen- tation		5) ficiency						
						Base V/C	2040 E+C V/C	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Base V/C Weight	2040 E+C V/C Weight	Multimodal Weight	Base TE Weight	2040 TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	IING 1	ING 2	≥	Ð	e on
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RANKING	RANKING	County	Source	Source Horizon
H-45	l-65	Saturn Parkway (SR-396)	Bear Creek Pike (SR-99/ US-412)	Widening, 4 to 6 lanes	6.9	0.26	0.45	5	838	2,627	\$54.39	2.60	(0.27)	2.1518	2.0944	Maury	Task 3	2030
H-42	Buckner Road Extension	Buckner Road	Lewisburg Pike (SR-106/ US-431)	New Roadway with New Interchange at I-65	2.1	0.53	0.79	1	141	1,813	\$24.52	(0.10)	(0.29)	2.0981	2.0633	Williamson	MPO RTP	Illustrative
H-38	Columbia Pike (US-31/SR-6)	I-840	Mack Hatcher Pkwy (SR-397)	Widening, 2 to 4 lanes	5.0	0.34	0.54	2	2,236	5,756	\$27.92	17.00	0.86	2.0893	2.0315	Williamson	Task 3*	2030
H-30	East McEwen Drive	Near Cool Springs Blvd	Wilson Pike (SR-252)	Widening, 2 to 4 lanes	1.6	0.22	1.12	0	5,064	14,733	\$7.06	3.60	0.56	2.0778	2.1116	Williamson	MPO RTP	2030
H-35	Lewisburg Pike (SR-106/US-431)	Mack Hatcher Pkwy (SR-397)	Donelson Creek Pkwy	Widening, 2 to 4 lanes	0.8	0.27	1.05	0	2,104	4,299	\$3.53	7.30	8.19	2.0644	2.9947	Williamson	MPO RTP	2030
H-1	I-65	SR-25	Kentucky State Line	Widening, 4 to 6 lanes	8.8	0.46	0.54	3	463	738	\$54.74	2.20	0.01	2.0558	2.0356	Robertson	MPO RTP*	2030
H-23	Battery Lane/Harding Place at Franklin Rd/ Improvements	SR-6 (Franklin Rd.) at SR-255	(Harding Pl.) and Battery Lane	Capacity improvements for intersection approaches	0.7	0.43	0.64	1	4,221	5,380	\$3.09	(0.50)	(1.95)	2.0521	1.8191	Davidson	MPO RTP	2020
H-15	I-24	I-65	Old Hickory Blvd (SR-45)	Widening, 4 to 6 lanes	4.3	0.68	0.81	0	4,205	16,561	\$52.51	0.50	0.04	2.0440	2.0438	Davidson	Task 3*	2030
H-44	Duplex Road (SR-247)	SR-6/US-31	0.1 mile west of I-65	Widen Duplex Rd. from 2 to 3 lanes with add'l improvements	3.1	0.21	0.68	1	1,148	10,366	\$6.84	10.70	(1.57)	1.9547	1.6603	Maury and Williamson	MPO RTP	2020
H-37	Murfreesboro Road (SR-96)	East of Wilson Pike (SR-252)	I-840	Widening, 2 to 5 lanes	5.5	0.20	0.69	2	171	3,637	\$39.38	1.20	(0.25)	1.8225	1.7802	Williamson	MPO RTP*	2020
H-29	Mack Hatcher Pkwy (SR–397)	South of SR-96	US-431 (SR-106)	New construction, 4 lanes	3.3	0.30	0.67	1	2,007	3,210	\$37.75	4.00	(0.17)	1.7851	1.7266	Williamson	Task 3*	2030
H-36	Peytonsville Road/Goose Creek Bypass (SR-248)	SR-106 (Lewisburg Pike)	West of I-65	Widen existing 2 lane road to 4/5 lane	0.8	0.35	0.42	1	157	659	\$8.29	0.80	0.85	1.7595	1.8557	Williamson	MPO RTP	2020
H-46	Bear Creek Pike (SR-99/US-412)	Nashville Highway (US-31)	US-431	Widening, 2 to 4 lanes	11.1	0.26	0.55	2	2,322	4,174	\$59.72	7.10	(0.20)	1.7533	1.6611	Maury	Task 3	2030
H-2	I-65/SR-109 Prop/SR-41	N/A	N/A	Relocation of SR 109, new interchange at I-65, and widening of I-65 from south of new interchange to Kentucky state line	0.6	0.41	0.54	0	92	140	\$14.29	0.00	0.10	1.6912	1.7033	Sumner	MPO RTP	2020
H-9	SR-109	North of the Cumberland River Bridge	SR-109 Portland Bypass south of Gallatin	Widen from 2 lanes to 4/5 lanes	1.3	0.36	0.42	0	1,841	3,392	\$8.60	0.00	0.01	1.6175	1.6186	Sumner	MPO RTP	2020
H-5	SR-76	Charles Drive	New Hall Road	Widening, 2 to 4 lanes	2.1	0.23	0.50	0	1,636	3,782	\$12.13	0.70	(0.28)	1.5359	1.4946	Robertson	Task 3*	2030
H-8	NET Corridor Section 2 - Vietnam Veterans Pkwy (SR-386)	US-31E/Saundersville Road	SR-109 Bypass	Transit Capital Expansion – Widening, 4 to 6 lanes for freeway Bus Rapid Transit service from Nashville to Gallatin	6.9	0.35	0.60	0	5,798	12,571	\$62.87	(0.20)	0.03	1.5167	1.5225	Sumner	MPO RTP/ nMotion*	2030
H-39	Murfreesboro Road (SR-96)	I-840	Veterans Pkwy	Widening, 2 to 5 lanes	6.9	0.16	0.49	1	413	3,105	\$33.47	(0.20)	(0.22)	1.4971	1.4727	Williamson and Rutherford	Task 3*	2030
H-3	SR-109 Portland Bypass	SR-109 south of SR-76	SR-109 near Kirby Drive	Construct new 4 lane divided roadway	6.8	0.23	0.43	0	1,429	2,250	\$59.98	0.30	(0.01)	1.2277	1.2238	Sumner	MPO RTP*	2020
H-43	Saturn Pkwy (SR-396) Extension	US-31	Carters Creek Pike (SR-246) at I-840	New Roadway	6.0	0.14	0.28	0	1,644	6,565	\$70.92	5.70	(0.16)	1.0536	0.9791	Maury and Williamson	MPO RTP	Illustrative
H-31	Smyrna/Williamson County Connector	I-24 at Rocky Fork Road	McEwen Drive Extension	New Roadway	12.0	0.22	0.52	0	1,897	6,563	\$120.84	(11.20)	(0.09)	0.8762	0.9721	Williamson and Rutherford	MPO RTP	Illustrative

^{*} Project included on IMPROVE Act project list

Table 3-6. Safety Improvements: Project Rankings

						Mobility/ Safety	(2) Multimodal			Implemen- tation	(5 Cost Eff						
						Crash Rate	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Mobility/ Safety Weight	Multimodal Weight	Base TE Weight	2040TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	RANKING 1	RANKING 2	oft)	e)	ce
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RAN	RAN	County	Source	Source Horizon
S-9	I-65 at Rosa L Parks Blvd (Exit 85)	I-65 at Rosa L Parks Bl	lvd (Exit 85)	NB/OffTurn Lanes, SB/OffTurn Lanes, SB/On Turn Lanes	0.0	2.72	1	16,387	28,949	\$0.99	2.86	6.70	3.7171	3.7622	Davidson	Task 3	2020
S-13	I-65 at Moores Lane	I-65 at Moores	Lane	Interchange Modification	0.0	0.63	0	17,292	25,925	\$0.60	2.15	26.01	3.0560	3.7578	Williamson	MPO RTP*	2020
S-8	I-65 at Trinity Lane (Exit 87)	I-65 at Trinity Lane	(Exit 87)	NB/Off Ramp Auxiliary Lane Length	0.0	5.67	1	3,324	14,207	\$0.75	2.05	4.12	2.9566	2.9672	Davidson	Outreach	
S-10	I-65 at Wedgewood Ave (Exit 81)	I-65 at Wedgewood A	ve (Exit 81)	SB/On Auxiliary Lane, NB/SB Signal Timing	0.0	0.84	1	15,433	21,492	\$0.88	0.31	8.28	2.9370	3.1826	Davidson	Task 3	2020
S-14	I-65 at SR-96 Murfreesboro Rd (Exit 65)	I-65 at SR-96 Murfre (Exit 65)		NB/Off Turn Lanes, SB/Off Turn Lanes, NB/SB Signal Timing	0.0	0.87	0	5,015	9,921	\$0.77	17.01	31.40	2.6862	2.6862	Williamson	Task 3	2020
S-6	I-65 at Rivergate Pkwy, Long Hollow Pk, US-31W	N/A		Interchange Lighting	0.0	1.34	1	7,422	10,985	\$0.44	1.10	(1.24)	2.3022	2.1982	Davidson	MPO RTP	2020
S-15	SR-96	Intersection with	US-41A	Intersection Improvements	0.0	0.63	4	38	852	\$0.82	0.24	6.98	2.0511	2.2593	Williamson	Outreach	
S-4	I-65 at US-31W Louisville Hwy (Exit 98)	I-65 at US-31W Loui (Exit 98)	isville Hwy	NB/OffTurn Lanes, SB/On Auxiliary Lane, NB/SB Signal Timing	0.0	0.62	3	666	953	\$0.44	1.73	(1.14)	1.9755	1.8372	Sumner	Task 3	2020
S-5	I-65 at US-31W (Exit 98)	I-65 at US-31W (Exit 98)	NB to WB Flyover	0.0	0.62	3	602	853	\$0.55	1.82	(1.47)	1.9592	1.8054	Sumner	Outreach	
S-17	I-65 at US-412/SR-99 (Exit 46)	I-65 at US-412/SR-9	99 (Exit 46)	NB/SB Signalized Intersection	0.0	1.1	3	31	61	\$0.33	0.07	20.70	1.9090	2.5644	Maury	Task 3	2020
S-19	I-65 at SR-99 (US-412)	I-65 at SR-99 (U	S-412)	Interchange Modification	0.0	1.1	3	31	61	\$0.40	0.13	15.11	1.9043	2.3777	Williamson	MPO RTP*	2020
S-7	I-65 at SR-174 Long Hollow Pike (Exit 97)	I-65 at SR-174 Long I (Exit 97)	Hollow Pike	SB/Off Turn Lanes, NB/SB Signal Timing	0.0	0.55	1	4,772	6,575	\$0.77	1.78	1.61	1.8548	1.8012	Davidson	Task 3	2020
S-11	I-65 at SR-254 Old Hickory Blvd (Exit 74)	I-65 at SR-254 Old Hickor	ry Blvd (Exit 74)	Convert to to Diverging Diamond Interchange	0.0	2.62	0	6,390	11,024	\$4.41	2.06	2.44	1.7624	1.7187	Davidson	Task 3	2020
S-2	I-65 at Bethel Road (SR-257) Interchange Lighting Improvements	I-65 at SR-257 (E	xit 104)	Install interchange lightning	0.0	0.58	2	408	961	\$0.49	0.76	(2.24)	1.6410	1.5249	Sumner	MPO RTP	2020
S-1	I-65 at SR-257 (Exit 104)	I-65 at SR-257 (E	xit 104)	NB/Off Ramp Queuing	0.0	0.58	2	419	995	\$0.66	0.90	(0.87)	1.6284	1.5474	Robertson	Outreach	
S-12	I-65 at SR-253 Concord Rd (Exit 71)	I–65 at SR–253 Concord	d Rd (Exit 71)	NB/On Auxiliary Lane, SB/On Auxiliary Lane, NB/SB Signal Timing	0.0	0.66	0	3,853	7,537	\$1.10	1.55	2.88	1.5477	1.5486	Williamson	Task 3	2020
S-20	I-65 at SR-11/US-31A (Exit 22)	I-65 at SR-11/US-31	A (Exit 22)	NB/SB Signalized Intersection	0.0	2.46	0	52	54	\$0.60	0.01	(0.63)	1.3620	1.3416	Giles	Task 3	2020
S-21	I-65 at SR-15/US-64 (Exit 14)	I-65 at SR-15/US-64	4 (Exit 14)	NB/SB Signalized Intersection	0.0	1.21	0	17	13	\$0.37	0.00	(0.79)	1.1663	1.1410	Giles	Task 3	2020
S-18	I-65 at SR-129 Lynnville Highway (Exit 27)	I-65 at SR-129 Lynnville H	ighway (Exit 27)	NB/On Turn Lane, SB/On Turn Lane	0.0	1.04	0	48	56	\$0.42	0.00	1.26	1.1341	1.1741	Marshall	Task 3	2020
S-22	Main Street (SR-7)	Union Hill Road (Ardmore)	Morrow Road (Ardmore)	Safety Improvements	0.9	0.86	0	399	484	\$1.98	0.01	(0.06)	0.9347	0.9326	Giles	Task 3*	2030
S-3	Bethel Road (SR-257)	Lake Road	I-65	Widen shoulders and correct substandard horizontal geometries	2.3	0.58	0	806	1,528	\$2.87	1.65	(0.17)	0.9275	0.8248	Robertson	Outreach	
S-16	I-65 at SR-396 Saturn Parkway (Exit 53)	I-65 at SR-396 Satur (Exit 53)	,	NB to WB Flyover	0.0	1.56	2	260	1,385	\$7.72	0.78	(0.33)	0.8839	0.8274	Maury	Task 3	2020

Table 3-7. ITS Improvements: Project Rankings

					Mobility/Safety Multimodal Access/Econ Dev		(4) Implemen- tation	(! Cost Eff	5) ficiency									
						Base V/C	2040 E+C V/C	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Base V/C Weight	2040 E+C V/C Weight	Multimodal Weight	Base TE Weight	2040TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	(ING 1	ING 2	<u></u>	Ф	e on
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RANKING	RANKING	County	Source	Source Horizon
0-17	Active Arterial Management (AAM) Hillsboro Rd (US-431)	Broadway (US-70A)	Mack Hatcher	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	16.0	0.91	1.18	2	125,754	182,264	\$4.2	2.39		5.6840		Davidson and Williamson	Task 3	2030
0-9	Dynamic on-ramp assignment – Southbound	Charlotte Ave	I-40/I-65 Split	Add arterial DMS along 14th Ave, add interstate shields or use gantries for junction pre-positioning on on-ramps and interstate facilities	1.0	1.18	1.21	2	100,495	162,444	\$6.0	1.30		5.3529		Davidson	Task 3	2030
0-10	Dynamic on-ramp assignment – Northbound	Broadway (US-70A)	I-40/I-65 Split	Add arterial DMS along 14th Ave, add interstate shields and deploy lane control gantries for junction pre-positioning on on-ramps and interstate facilities	1.0	1.18	1.21	2	92,500	147,822	\$6.0	1.30		5.2359		Davidson	Task 3	2030
0-15	Active Arterial Management (AAM) Nolesville Pike (US-41)	Korean Veterans Blvd	Old Hickory Blvd	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	9.0	0.45	1.01	2	105,214	166,206	\$2.7	2.63		5.0742		Davidson	Task 3	2030
0-14	Active Arterial Management (AAM) Franklin Rd	Demonbreun	Mack Hatcher	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	18.0	0.86	1.08	0	147,324	233,044	\$3.8	1.39		4.7274		Davidson and Williamson	Task 3	2040
0-12	Active Arterial Management US-31 E/Gallatin Pike	Rivergate Pkwy	Spring Street	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	10.0	0.91	1.06	1	42,026	72,520	\$2.9	2.47		4.1296		Davidson	Task 3	2030
0-16	Active Arterial Management (AAM) Old Hickory Blvd	Hillsboro Rd (US-431)	US-41	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	15.0	1.03	1.11	0	33,648	62,459	\$3.7	4.62		4.0969		Davidson	Task 3	2030
0-18	Active Arterial Management (AAM) Nolensville Pike (US-41)	I-840	US-231/Colloredo Blvd/Lane Pkwy	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	28.0	0.94	0.93	2	8,668	17,373	\$2.9	1.46		3.8659		Williamson, Rutherford, and Bedford	Task 3	2040
0-13	Active Arterial Management (AAM) Dickerson Pike	US-31W/Louisville Hwy	US-431/Trinity Ln	Last mile connectivity between intersections, install detection for all intersections, MOUs, and Consultant Operations to optimize signal timing and detect incidents along corridor	10.0	0.37	0.94	1	17,093	40,578	\$2.2	2.08		3.2180		Davidson and Sumner	Task 3	2030
0-1	Rapid Incident Scene Clearance (RISC)	Kentucky	Alabama	Contractual incentive-based program and operational policy to support open roads initiative related to truck crashes; North and South options	122.0						\$1.3					All	Task 3	2040
0-2	Conversion to Virtual Weigh Stations	Kentucky	Alabama	Portland weigh station	122.0						\$0.9					All	Task 3	2040
0-3	Smart Truck Parking	Kentucky	Alabama	Location TBD; Potentials include the existing rest areas near Exit 22, Exit 46, and the Kentucky state line	122.0						\$1.0					All	Task 3	2030
0-4	I-65 Traffic Incident Management (TIM) Team	Kentucky	Alabama	North and South options	122.0						\$2.0					All	Task 3	2030
0-5	I-65 North ITS	Exit 108	Kentucky border	Install CCTV, DMS, and detection devices including fiber optic connections on I-65; Suggested DMS locations: SR-25/Main St (Exit 112) NB and SB, and SR-52 (Exit 117) SB.	13.0						\$4.0					Sumner	Task 3	2030
0-6	Connected Vehicle Technology Deployment	I-840	SR-76 (Exit 108)	Install DSRC radios	49.0						\$0.7					Davidson, Robertson, Sumner, and Williamson	Task 3	2020

Table 3-7. (cont.)

							(1) ty/Safety	(2) Multimodal		3) Econ Dev	(4) Implemen- tation	(Cost Ef	5) ficiency					
						Base V/C	2040 E+C V/C	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Base V/C Weight	2040 E+C V/C Weight	Multimodal Weight	Base TE Weight	2040 TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	NKING 1	NKING 2	ty	jų.	on On
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RANK	RANK	Coun	Source	Source
0-7	Adaptive Ramp Metering (ARM)	Exit 108 (SR-76)	Exit 90 (SR-155)	Install adaptive ramp metering devices and additional detection at 6 ramp locations in each direction	18.0						\$1.3					Davidson, Robertson, and Sumner Counties	Task 3	2030
0-8	Adaptive Ramp Metering (ARM)	Exit 88 (I-24)	Exit 80 (US-440)	Install adaptive ramp metering devices and additional detection at 6 ramp locations in each direction	8.0						\$1.3					Davidson	Task 3	2030
0-11	Adaptive Ramp Metering (ARM)	Exit 80 (US-440)	Exit 53 (SR-396)	Install adaptive ramp metering devices and additional detection at 9 ramp locations in each direction	27.0						\$1.3					Davidson and Williamson	Task 3	2030
0-19	I-65 South ITS	MM 57.6	Alabama border	Install CCTV, DMS, and detection devices including fiber optic connections on I–65; Suggested DMS locations: SR–396/Saturn Pkwy (Exit 53) NB and SB, SR–50/New Lewisburg Hwy (Exit 37) NB and SB, and SR–11/Alt US–31/Sam Davis Hwy (Exit 22) NB.	67.0						\$19.5					Maury and Giles	Task 3	2030

Table 3-8. Freight Improvements: Project Rankings

						(1) (2) (3) Implementation Cost Efficience Rase 2040 F+C Rase Total 2040 Total Cost R/C R/C													
						Base V/C	2040 E+C V/C	Truck %	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Base V/C Weight	2040 E+C V/C Weight	Multimodal Weight	Multimodal Weight	Base TE Weight	2040 TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	NKING 1	NKING 2	f\$	e,	on On
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RANK	RANK	County	Source	Source Horizon
F-3	I-65	Nortbound direction – Merging area of l– (South of Nashville Loop)	40 and I 65	Merge area geometry correction - Adding lane(s)	0.3	1.50	1.82	0.34	1	66,323	106,525	\$3.66	0.00	0.07	5.9371	5.9437	Davidson	Task 3	2040
F-2	I-65	Northbound direction - Diverging area of I (West of Nashville Loop)	-40 and I 65	Diverging area geometry correction – Adding lane(s)	0.2	1.25	1.68	0.36	1	24,830	46,389	\$4.10	0.02	0.36	4.4699	4.5041	Davidson	Task 3	2030
F-6	Old Hickory Blvd (SR-254)	I-65	Nolensville Road (US-41A/SR-11)	Widening	4.1	1.20	1.28	0.40	1	12,100	20,577	\$9.04	60.52	1.02	4.2740	3.3731	Davidson	Task 3	2020
F-1	I-65 Weigh Station near TN/KY State Line	N/A	N/A	Roadway Reconstruction and New Weigh Station	0.0	1.00	1.00	1	1	73	105	\$3.27	10.31	10.31	4.0258	4.8555	Sumner	MPO RTP	2020
F-4	Ramp Improvement	Northbound ramp from I-24 to Hermitage Ave		Diverging area geometry correction - Adding lane(s)	0.2	1.03	1.13	0.23	0	21,592	35,514	\$1.14	0.00	0.08	3.0750	3.0825	Davidson	Task 3	2040
F-7	Harding Place (SR-255)	Nolensville Road (US-41A/SR-11)	Jonquil Drive	Widening	0.5	1.01	1.54	0.41	0	7,571	10,137	\$1.06	0.25	(0.36)	3.0236	2.9847	Davidson	Task 3	2040
F-5	Harding Place (SR-255)	McGavock Pike	Donelson Pike	Widening	0.4	0.41	0.81	0.49	0	17,613	43,796	\$0.86	(0.35)	(1.70)	2.7841	2.6246	Davidson	Task 3	2040

Table 3-9. Transit Improvements: Project Rankings

						Mobility/ Safety	(2) Multimodal		3) Econ Dev	Implemen- tation	(! Cost Eff	5) ficiency					
						LOS (hrs/day)	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						LOS Weight	Multimodal Weight	Base TE Weight	2040TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	RANKING 1	RANKING 2	A _L	Ð	on
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RAN	RAN	County	Source	Source Horizon
T-24	South Corridor Regional Express Bus Service	Several routes between Nashvill Columb		Provide new and expanded service to Williamson and Maury County, including additional express trips, reverse commute trips, additional service hours, and new Park-and-Ride opportunities	45.9	0.21	5	110,014	187,412	\$26.71			4.2138		Davidson/ Sumner	nMotion	2030
T-11	Nolensville Pike (US-41A) LRT	Downtown Nashville	Lenox Village Drive	Construction of light rail transit along US-31A (Nolensville Pike)	5.5	0.77	2	90,279	139,556	\$430.50			3.3069		Davidson and Williamson	Central/ South	2030
T-13- 18	I-65 South Freeway BRT Stations (6)	Downtown Nashville	Franklin	Construction of freeway BRT transit stop and park-and-ride lot	0.0	0.21	0	91,642	144,168	\$3.97			2.8469		Davidson	nMotion	2030
T-10	Dickerson Pike (US-31W) BRT	Hunters Lane	Downtown Nashville	Construction of bus rapid transit amenities along US–31W (Dickerson Pike). Project include dedicated bus lanes and improved pedestrian facilities.	4.7	0.83	2	26,326	63,219	\$235.00			2.6582		Davidson and Williamson	MPO RTP / nMotion	2030
T-25	Rapid Transit/Managed Lanes between Nashville and Franklin	Downtown Nashville	Murfreesboro Road (SR-96)	Construction of managed lanes for freeway Bus Rapid Transit along I-65 from Nashville to Murfreesboro Road (SR-96)	18.8	0.21	0	91,642	144,168	\$335.50			2.3977		Davidson/ Williamson	nMotion	2030
T-1	NET Corridor Regional Express Bus Service	Several routes between N	ashville and Gallatin	Provide new and expanded service to Sumner County, including additional express trips, additional service hours, and new park-and-ride opportunities	30.0	0.21	3	19,852	39,278	\$1.25			2.2383		Davidson and Sumner	MPO RTP	2020
T-9	US-31E (Gallatin Pike) LRT	Downtown Nashville	Conference Drive	Construction of light-rail transit along US-31E (Gallatin Pike)	4.9	0.79	1	55,853	96,068	\$738.00			2.1703		Sumner	nMotion	2030
T-3-5	I-65 North Freeway BRT Stations (3)	Goodlettesville	Gallatin	Construction of freeway BRT transit stop and park-and-ride lot	0.0	0.21	2	11,296	22,370	\$1.99			1.8693		Davidson	MPO RTP	2030
T-6	NET Corridor Interchange 2	Vietnam Veterans Pkwy (SR-3	386) at Conference Drive	Interchange modification for Traffic NB onto Conference Drive	0.0	0.21	2	8,351	12,636	\$13.42			1.7751	[Davidson and Sumner	nMotion	2030
T-7	NET Corridor Interchange 1	Vietnam Veterans Pkwy	/ (SR-386) at I-65	Interchange modification WB to NB and SB to EB Traffic	0.0	0.21	2	5,897	9,292	\$26.84			1.7168		Sumner	nMotion	2030
T-22	Rapid Bus Service - Route 96R Murfreesboro	Downtown Nashville	Murfreesboro	Provide new rapid bus service to Murfreesboro	33.6	0.21	1	14,088	23,011	\$6.52			1.6920		Davidson	nMotion	2030
T-2	White House Express Service	SR-76	SR-386	Widening and strengthening of shoulders to 12-ft for bus on shoulder service. Further study of ramp metering for SR-174 (Long Hollow Pike), US-31W, and SR-257 (Bethel Road) to determine if necessary for safe routing	12.0	0.00	3	716	1,708	\$2.40			1.6124		Davidson	MPO RTP	2030
T-20	Rapid Bus Service – Route 81R Nolensville	Nolensville	Murfreesboro Road (SR-96)	Provide new rapid bus service to Triune	7.0	0.00	3	38	845	\$1.36			1.6030		/illiamson and Rutherford	nMotion	2030
T-21	Rapid Bus Service – Route 86R Smyrna/LaVergne	Downtown Nashville	Smyrna/LaVergne	Provide new rapid bus service to Smyrna and LaVergne	24.0	0.19	1	2,196	3,892	\$4.66			1.4594		Davidson	nMotion	2030
T-8	Rapid Bus Service - Route 80R Gallatin	Outer end of Gallatin Pike LRT	Gallatin	Provide new rapid bus service to Gallatin	17.5	0.21	0	8,339	18,155	\$3.40			1.4181		Sumner	nMotion	2030
T-12	Rapid Bus Service – Route 81R Nolensville	Outer end of Nolensville Pike LRT	Nolensville	Provide new rapid bus service to Nolensville	5.8	0.00	2	156	1,678	\$1.13			1.4088		Davidson	Central/ South	2030
T-23	Franklin to Mufreesboro Express Bus Service	Routes between Franklii	n and Mufressboro	Provide new service express service to from Franklin (Cool Springs) to Murfreesboro	31.2	0.00	0	21,411	34,091	\$6.05			1.3683		Davidson	nMotion	2030
T-19	Transit-Pedestrian Network Improvements	Various Loc	ations	Construction of transit-supportive pedestrian amenities, including sidewalks, landscaping, lighting, crosswalks, and ADA ramps											Maury and Williamson	nMotion	2030

Table 3-10. Walking and Bicycling Improvements: Project Rankings

							1) y/Safety	(2) Multimodal		3) Econ Dev	(4) Implemen- tation		5) ficiency					
						Base Total Population	2040 Total Population	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)					
						Base Pop Weight	2040 Pop Weight	Multimodal Weight	Base TE Weight	2040 TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	NG 1	ranking 2			<
					Length	VVCIgite	- Weight	- Vicigiti			- Cost Weight		- VVCIGITE	RANKING	N N	County	Source	Source Horizon
ID	Project Name	Termini (From)	Termini (To)	Description	(miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	<u></u>				
B-38	Buckner Road	Buckner Road/I-65 Interhchange	Lewisburg Pike (SR- 106/US-431)	Network – Construction of bike lane(s) or multi-use trail; can be constructed in concert with H-22	2.1	24,464	33,418	1	88,161	140,390	\$1.60	1.85		4.6953	W	illiamson	Task 3	2040
B-34	Columbia Pike (US-31/SR-6)	Goose Creek Bypass	Mack Hatcher Parkway (SR-397)	Construction of Multi-Use Path	3.9	15,895	23,826	1	96,939	158,412	\$2.93	0.91		4.0847	W	illiamson	Connect Franklin	2030
B-33	SR-96 (Murfreesboro Road)	East of Arno Road	Veterans Pkwy	Network - Construction of on-road or off-road bicycle facilities	18.3	15,063	22,254	3	79,274	130,917	\$4.58	1.43		4.0502		lliamson/ utherford	Task 3	2030
B-37	Buckner Road	Columbia Pike (SR-6/US-31)	Buckner Lane	Network – Construction of bike lane(s) or multi-use trail; can be constructed in concert with H-24	1.9	12,185	19,221	1	81,870	137,173	\$1.44	3.80		3.8094	W	illiamson	Task 3	2040
B-35	Goose Creek Bypass (SR-248)	Columbia Pike (US-31/SR-6)	Long Lane	Construction of Bike Lanes with Sidewalks	4.1	15,330	23,560	1	62,470	109,651	\$1.02	2.37		3.7273	W	illiamson	Connect Franklin	2040
B-7	James Robertson Parkway (US-31)	Rosa Parks Boulevard (SR-12)	Church Street	Construction of Separated Bike Lanes	0.5	11,062	16,834	0	78,329	124,476	\$0.69	8.38		3.4237	[)avidson	Nashville WalknBike	2030
B-36	US-31	SR-248 (Goose Creek Bypass)	North of Buckner Lane	Network - Construction of bike lane(s) or multi-use path	3.8	11,201	18,344	1	74,818	128,374	\$2.89	1.17		3.3512	W	illiamson	Task 3	2020
B-11	US-431 (Broadway)	George L. Davis Blvd.	14th Avenue South	Reconstruction of sidewalks along US-431 (Broadway). Project includes landscaping, lighting, crosswalks, in-roadway warning lights at on-ramps, and pedestrian amenities.	0.1	5,767	28,574	1	780	7,842	\$0.05	105.00		3.3427	[avidson	Task 3	2020
B-4	US-431 (Trinity Lane)	US-431 (Whites Creek Pike)	US-41 (Dickerson Pike)	Safety - Reconstruction of sidewalks along US-431 (Trinity Lane). Project includes landscaping, lighting, crosswalks, in-roadway warning lights at on-ramps, and pedestrian amenities.	1.3	10,520	16,681	0	69,453	113,166	\$0.57	13.16		3.3013]	avidson	Task 3	2020
B-30	Mack Hatcher Pkwy (SR-397)	SR-96 east of Franklin	Columbia Pike (US-31/SR-6) south of Franklin	Network – Construction of Multi-Use Path; Can be constructed with in concert with H-30	3.2	25,502	36,777	1	16,485	28,068	\$2.42	3.27		3.2495	W	illiamson	Connect Franklin	2030
B-22	Franklin Road (US-31/SR-6)	SR-441 (Moore's Lane)	Harpeth River Bridge	Construction of Multi-Use Path; Can be constructed in concert with H-37	3.7	18,570	38,410	1	15,936	28,856	\$2.81	2.45		2.9455	W	illiamson	Connect Franklin	2040
B-19	Nolensville Road (SR-11)	Burkitt Road	I-840	Network - Construction of on-road or off-road bicycle facilities	10.6	12,931	29,137	2	20,499	33,131	\$2.65	1.85		2.9148		illiamson	Task 3	2040
B-31	Columbia Pike (US-31/SR-6)	Fowlkes Street	Mack Hatcher Pkwy (SR-397)	Construction of On–Road Bike Lanes; Can be constructed in concert with H–31	1.9	15,417	20,750	1	8,843	15,840	\$0.47	11.21		2.6897	W	illiamson	Connect Franklin	2030
B-6	Rosa Parks Boulevard (SR-12)	Buchanan Street	James Robertson Parkway (US–31)	Construction of Separated Bike Lanes	1.2	11,001	16,381	0	50,466	86,396	\$1.80	4.03		2.6539		avidson	Nashville WalknBike	2030
B-29	SR-96 (Murfreesboro Road)	Southwinds Drive	Carothers Parkway	Safety - Construction of sidewalks or multi-use path along SR-96. Project includes landscaping, crosswalks, and pedestrian amenities.	1.0	11,223	22,946	1	11,308	17,571	\$0.63	7.10		2.5520	W	illiamson	Task 3	2020
B-21	SR-441 (Moore's Lane)	Mallory Lane	Carrothers Parkway	Network - Construction of on-road facility or multi-use trail	0.8	13,877	27,891	0	10,675	15,051	\$0.61	4.45		2.4054	W	illiamson	Task 3	2020
B-9	Rosa Parks Boulevard/8th Ave S (US-31)	Church Street	Korean Veterans Boulevard	Construction of Separated Bike Lanes	0.5	8,433	38,940	0	1,541	11,077	\$0.78	7.75		2.3592		avidson	Nashville WalknBike	2030
B-14	SR-109	1-40	I-840	Network - Construction of shared roadway facility	4.0	13,544	21,109	0	2,526	13,440	\$0.08	8.97		2.2561		Wilson	Task 3	2020
B-2	Johnny Cash Parkway/East Main Street (US-31E)	Big Station Camp Road	Center Point Road South	Construction of Buffered Bike Lanes	8.8	13,444	18,443	1	5,010	20,576	\$2.20	4.91		2.1927		Sumner	Hendersonville Bicycle Plan	2040
B-5	Clarksville Pike (SR–12)	Ashland City Highway (SR-12)	Rosa Parks Boulevard (US-41 Alt)	Construction of Bike Lanes	1.1	9,717	18,943	0	7,466	14,947	\$0.23	16.59		2.1582	[avidson	Nashville WalknBike	2030

Table 3-10. (cont.)

	(2011)						1) y/Safety	(2) Multimodal		(3) Econ Dev	(4) Implemen- tation		5) ficiency				
						Base Total Population	2040 Total Population	# of Projects	Base Total Employment	2040 Total Employment	Cost (millions\$)	B/C (Method 1)	B/C (Method 2)				
						Base Pop Weight	2040 Pop Weight	Multimodal Weight	Base TE Weight	2040TE Weight	Cost Weight	B/C-1 Weight	B/C-2 Weight	(ING 1	(ING 2		e. On
ID	Project Name	Termini (From)	Termini (To)	Description	Length (miles)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	RANKING	RANKING	Source	Source Horizon
B-25	Mack Hatcher Pkwy (SR-397)	South of SR-96	US-431 (SR-106)	Construction of Multi-Use Path; Can be constructed with in concert with H-28	3.3	15,829	28,723	0	8,038	16,487	\$2.48	1.33		2.1412	Willi		t 2030
B-16	SR-254 (Old Hickory Blvd)	Franklin Pike Circle	Franklin Pike	Safety – Reconstruction of sidewalks along SR-254 (Old Hickory Blvd). Project includes landscaping, lighting, crosswalks, inroadway warning lights at on-ramps, and pedestrian amenities.	0.5	10,192	21,586	0	2,144	3,491	\$0.32	14.06		2.0783	Dav	dson Task 3	2020
B-1	New Shackle Island Road (SR-258)	Johnny Case Parkway (US-31E)	Long Hollow Pike (SR-174)	Construction of Paved Shoulders	5.2	12,482	18,205	0	8,966	24,107	\$1.30	5.00		2.0308	Sui	ner Henderson Bicycle Pl	
B-13	8th Avenue South (US-31)	Korean Veterans Boulevard	Bradford Avenue	Construction of Separated Bike Lanes	1.8	9,490	17,847	0	2,472	12,354	\$0.83	11.59		1.9048	Dav	lson Nashvill WalknBil	
B-26	Hillsboro Road (SR-106/ US-431)	Mack Hatcher Pkwy (SR-397)	Del Rio Pike	Construction of Bike Lanes with Sidewalks	1.0	6,332	9,441	0	23,032	36,972	\$0.85	5.18		1.8682	Willi	mson Connec Franklir	
B-15	US-41 (Lafayette Street)	US-31 Alt/SR-11	1st Avenue South	Safety - Reconstruction of sidewalks along US-41 (Lafayette Street). Project includes landscaping, lighting, crosswalks, inroadway warning lights at on-ramps, and pedestrian amenities.	0.3	3,703	14,820	0	2,164	5,260	\$0.19	32.89		1.8626	Dav	dson Task 3	2020
B-17	Main Street/Carters Creek Pike (SR-246)	Southall Road	Natchez Street	Construction of Multi-Use Path	3.1	10,475	20,419	0	12,543	19,991	\$2.34	1.25		1.8094	Willi	mson Connec Franklir	
B-28	SR-96	Harpeth River Bridge	Arno Road	Construction of Multi-Use Path; Portion could be constructed in concert with B-5	3.9	8,900	12,553	1	12,563	22,017	\$2.96	3.20		1.8063	Willi	mson Connec Franklir	
B-8	US-70 (Charlotte Pike)	14th Avenue North	George L. Davis Blvd.	Safety - Pedestrian improvements at interchange of US-70 and I-40/I-65. Project includes landscaping, lighting, crosswalks, inroadway warning lights at ramps, and pedestrian amenities.	0.1	5,138	17,832	0	992	3,731	\$0.05	3.75		1.7207	Dav	lson Task 3	2020
B-3	US-41 (Dickerson Pike)	US-431 (Trinity Lane)	Hart Lane	Safety – Construction of sidewalks along US-41. Project includes landscaping, crosswalks, and pedestrian amenities.	2.0	4,912	6,223	1	9,319	15,465	\$1.30	5.77		1.7160	Dav	Ison Task 3	2020
B-10	Broadway (US-70)	1st Avenue	14th Avenue North	Construction of Separated Bike Lanes	1.0	6,103	12,060	1	141	1,813	\$1.50	4.73		1.6882	Dav	lson Nashvill WalknBil	
B-18	Concord Road (SR-253)	Franklin Road (US-31/SR-6)	Wilson Pike (SR-252)	Construction of Multi-Use Path	1.7	7,753	18,419	0	5,539	7,895	\$1.31	2.28		1.6856	Willi	mson Brentwoo 2040 MT	
B-39	US-31	Buckner Road	Carters Creek Station Road	Construction of Bike Lanes	6.2	5,814	8,643	0	22,455	34,283	\$1.56	2.89		1.6633	Mā Willi	ry/ Spring Hill mson Plan	BP 2030
B-20	Franklin Road (US-31/SR 6)	Concord Road (SR-253)	Maryland Way	Construction of Multi-Use Path	2.6	8,504	15,994	0	7,679	10,699	\$1.99	1.45		1.5703	Willi	mson Brentwoo 2040 MT	
B-32	Wilson Pike (SR-252)	Concord Road (SR–253)	Church Street East	Construction of Multi-Use Path	2.6	8,882	11,813	0	10,622	15,873	\$1.99	2.64		1.5522	Willi	mson Brentwoo 2040 MT	
B-23	Mack Hatcher Pkwy (SR-397)	Hillsboro Road (SR-106/US-431)	Franklin Road (SR-6/US-31)	Construction of Multi-Use Path	1.5	2,548	14,100	0	311	1,178	\$1.16	3.72		1.3131	Willi	mson Connec Franklir	
B-40	SR-247 (Duplex Road/ Beechcroft Rd.)	I-65	SR-246 (Carters Creek Rd.)	Construction of Multi-Use Path	7.8	10,539	20,060	1	908	4,126	\$5.95	1.06		1.3073	Willi	mson Spring Hill Plan	BP 2020
B-24	Wilson Pike (SR-252)	McEwan Drive	Trinity Lane	Network - Construction of Multi-Use Path	2.9	3,246	12,471	0	147	2,085	\$2.19	1.07		1.1044	Willi	mson Connec Franklir	
B-27	SR-96	7th Ave North	Old Charlotte Pike	Construction of Multi-Use Path	4.4	4,951	8,038	0	4,738	9,168	\$3.36	1.98		0.9615	Willi	mson Connec Franklir	
B-12	Lafayette Street (US-31)	8th Avenue S (US-31)	Fairfield Avenue	Construction of Separated Bike Lanes	1.3	1,353	3,310	0	821	1,947	\$2.00	3.75		0.8584	Dav	lson Nashvill WalknBil	