



I-75 Corridor Feasibility Study

Project Priorities – A Corridor Plan

Task #4 - Technical Memorandum

December 2, 2010

EXECUTIVE SUMMARY

Tennessee's 25-Year Long Range Transportation Plan (LRTP), PLAN Go, the result of an extensive public planning process throughout the State, consists of three principal elements: the 25-Year Vision Plan, a 10-Year Strategic Investments Program (SIP), and a 3-Year Project Evaluation System (PES).

The Interstate 75 Corridor through Tennessee was identified through the LRTP planning effort in the SIP as a corridor that is significant to Tennessee's economic development, particularly with regard to freight movement. The purpose of the I-75 Corridor Feasibility Study is to obtain a more detailed understanding of the deficiencies of the corridor and develop corridor level multimodal solutions to address these deficiencies.

The study area for the I-75 Corridor Feasibility Study extends from the Georgia State Line in Chattanooga to the Kentucky State Line in Jellico, a distance of approximately 162 miles. The corridor includes I-75, parallel Class I railroads, and parallel major arterial routes. The corridor traverses eight counties, three Rural Planning Organization (RPO) areas, and three Metropolitan Planning Organization (MPO) areas.

Capacity and congestion, safety, operations, and freight movement deficiencies were identified along the corridor. Packages of solutions were then developed to address the deficiencies. Packages of solutions included:

- Roadway Capacity –widening I-75 to achieve a minimum level of service;
- Corridor Capacity – improving existing parallel corridors or constructing new parallel corridors adjacent to I-75 to provide an alternative to traveling on I-75;
- Operational Improvement –expansion of the Intelligent Transportation System (ITS), construction of truck climbing lanes, and geometric and safety improvements; and
- Freight Diversion –strategies for diversion of truck freight to rail or waterway.

Each of the packages of solutions was evaluated independently, and a cost benefit analysis was performed for each specific project within each package of solutions. The projects were then prioritized based on year of implementation. The recommended approach to address the deficiencies is a multi-modal combination of operational improvements, widening the existing interstate system, providing improvements to parallel facilities, and projects that facilitate alternative modes. This approach for improving conditions along I-75 is summarized as follows.

Widening Existing I-75

Based on the benefit cost analysis, approximately 57 miles of I-75 should be widened before the 2030 horizon year. The total cost for widening those segments of I-75 is estimated to be \$1.2 billion in year of expenditure dollars.

Improvements to Parallel Facilities

Improvements to existing parallel facilities or constructing new parallel facilities will serve to divert trips from I-75, as well as to improve access through the region. Four cost effective parallel route capacity improvements were identified near Chattanooga and Knoxville. The total cost for those parallel route improvements is estimated to be \$1.4 billion in year of expenditure dollars.

Intelligent Transportation System (ITS) Expansion

Expansion of the existing ITS system will provide benefit for congested segments of I-75 in urban areas, and the potential for improved safety and diversion from I-75 during non-recurring events on rural segments of I-75. Over 58 miles of ITS projects were identified that will expand ITS facilities in urban areas and extend ITS coverage to some rural areas. The total estimated cost for ITS projects is \$24 million in year of expenditure dollars.

Truck Climbing Lanes

Construction of truck climbing lanes on long steep grades provides for improved safety and reduced congestion. Locations for construction of truck climbing lanes were determined based on an assessment of the grades along existing four lane segments of I-75 and from stakeholder and public comment. Truck climbing lanes are recommended at five locations along I-75 in Bradley and Campbell Counties. The total estimated cost of the truck climbing lanes is \$69 million in year of expenditure dollars.

Crossovers

Construction of median crossovers will allow vehicles to continue travel on I-75 if lanes become blocked along the route. The locations for construction of median crossovers were based on potential rock fall locations that could block one or more lanes for a direction of travel. Ten locations are recommended for crossovers and they are intended to work in pairs. They are used along divided interstate routes to temporarily allow diversion of traffic from one side of the interstate to the other during construction or following an incident such as a crash or rock fall. The total estimated cost of the crossovers is \$22 million in year of expenditure dollars.

Geometric and Safety Improvements

Geometric and safety improvements were identified based on a review of crash data along I-75, and stakeholder and public involvement. Three interchange modification or reconstruction projects are recommended. The total estimated cost of the geometric and safety improvements is \$133 million in year of expenditure dollars.

Freight Diversion

Freight diversion from truck to rail along the corridor provides a benefit to I-75 congestion and safety. Based on the analysis, the Norfolk Southern Railroad's Crescent Corridor Program, when fully implemented, will result in a cost benefit ratio much greater than 1.0. It is recommended that TDOT continue to actively coordinate with Norfolk Southern railroad and other impacted states regarding the Crescent Corridor Program. A similar recommendation was made in the I-40/81 Corridor Feasibility Study, another corridor that will benefit from freight diversion related to the Crescent Corridor. After the adoption of the I-40/81 recommendations, Tennessee applied jointly with other states for a federal grant to fund Crescent Corridor improvements and was successful in securing more than \$50 million for a new intermodal facility in the Memphis area. It is recommended that TDOT increase coordination with the other Class I railroads, short line railroads, waterway port and airport facilities, the operators of truck transfer and intermodal facilities, and local shippers to ensure the competitiveness of alternative freight transportation modes.

It is also recommended that TDOT consider programs to broadcast the benefits of rail and waterway modes to the community of shippers and producers through various media and

outreach efforts. Encouraging use of these alternative modes will help reduce the growth of truck traffic on I-75 and may attract new commerce, trade and economic development.

The Chattanooga Transportation Planning Organization (TPO) is conducting a regional freight study. The Department will continue coordination with this and other related studies, and revise this corridor plan as appropriate to reflect other plans.

Summary of Recommended Corridor Plan

A summary of the recommended Corridor Plan estimated costs in year of expenditure dollars by horizon year and improvement category is provided in **Table E-1**.

**Table E-1: Summary of Recommended Corridor Plan
(Year of Expenditure Dollars)**

Improvement Category	Five Years (2010-2014)	Five Years (2015-2019)	Ten Years (2020-2029)	Total (2010-2029)
Roadway Capacity Improvements - Widening Existing I-75	\$179,968,000	\$847,479,000	\$183,294,000	\$1,210,740,000
Corridor Capacity Improvements - Improving Existing or Constructing new Parallel Routes	\$0	\$35,181,000	\$1,400,032,000	\$1,435,213,000
Operational Improvements - Truck Climbing Lanes and Crossovers	\$29,482,000	\$35,038,000	\$26,996,000	\$91,516,000
Operational Improvements - Intelligent Transportation Systems	\$15,109,000	\$9,106,000	\$0	\$24,215,000
Operational Improvements - Geometric Improvements	\$63,920,000	\$73,681,000	\$36,240,000	\$173,841,000
Total	\$288,479,000	\$1,000,485,000	\$1,646,562,000	\$2,935,526,000

Note: Cost estimates are year of expenditure dollars using an average annual 3.6 percent cost escalation.

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ACRONYMS

FY	Fiscal Year
ITS	Intelligent Transportation System
LRTP	Long Range Transportation Plan
MPO	Metropolitan Planning Organization
PES	Project Evaluation System
RPO	Rural Planning Organization
SIP	State Implementation Plan (for air quality)
SIP	Strategic Investment Program
SR	State Route
TDOT	Tennessee Department of Transportation
TIP	Transportation Improvement Program
TMC	Traffic Management Center
TPO	Transportation Planning Organization

1.0 INTRODUCTION

1.1 Project Background

PLAN Go, Tennessee's first 25-Year Long Range Transportation Plan (LRTP), was completed in 2005. The Plan was the result of an extensive public planning process throughout the State and consists of three principal elements:

- 25-Year Vision Plan, which broadly defined how Tennessee will respond to the trends and challenges facing the transportation system,
- 10-Year Strategic Investments Program (SIP), which identified critical investments that warrant accelerated funding or special attention over the next 10 years, and a
- 3-Year Project Evaluation System (PES), which will guide the selection of the 3-year program of projects, giving state and local leaders a broader view of projects under development.

Of these elements, the Strategic Investments Program (SIP) identifies proposed spending priorities and policy initiatives that will address many of Tennessee's transportation needs and help implement the LRTP over the next ten years. The SIP established three interrelated core investment initiatives: congestion relief, expansion of transportation choices, and focus on key corridors.

The Interstate 75 Corridor from Chattanooga to the Kentucky State Line was identified through the LRTP planning effort in the SIP as a corridor that is significant to Tennessee's economic development, particularly with regard to freight movement. The purpose of the I-75 Corridor Feasibility Study is to obtain a more detailed understanding of the deficiencies of the corridor and develop corridor level multi-modal solutions to address these deficiencies.

The study area for the I-75 Corridor Feasibility Study extends from the Georgia State Line in Chattanooga to the Kentucky State Line in Jellico, a distance of approximately 162 miles. The corridor includes I-75, parallel Class I railroads, and parallel major arterial routes. The corridor traverses eight counties, three Rural Planning Organization (RPO) areas, and three Metropolitan Planning Organization (MPO) areas.

For projects identified in the prioritization process to move forward to completion, coordination with various agencies is required. Projects in a Metropolitan Planning Organization (MPO) or Transportation Planning Organization (TPO) area need to be adopted in the Long Range Transportation Plan (LRTP). Projects that terminate in an adjoining state, such as the Chattanooga Bypass, need to be coordinated with Georgia.

1.2 Purpose of the Report

The purpose of the report is to document the methodology and results of the prioritization of multi-modal projects that have been identified to address capacity, operations and safety, freight movement and diversion, and economic access along the I-75 corridor.

1.3 Organization and Content

The multi-modal solutions and strategies prioritized in this task are presented as follows:

- *Chapter 2 – Prioritization Process*, describes the methodology used in prioritizing individual solutions and provides the prioritized list by horizon year.

- *Chapter 3 – Corridor Plan*, describes how the prioritized projects are to be implemented.
- *Chapter 4 – Recommended Approach*, reviews the elements of the planned approach for addressing deficiencies along the I-75 Corridor.

2.0 PRIORITIZATION PROCESS

In Task 3, multi-modal solutions to address congestion and safety were developed. An independent cost benefit analysis was conducted for each of the following packages of solutions and for each individual project in each package:

- Roadway Capacity Solutions – Includes widening I-75 to achieve a minimum level of service;
- Corridor Capacity Solutions – Includes improving existing parallel corridors or constructing new parallel corridors adjacent to I-75 to provide an alternative to traveling on I-75;
- Operational Improvement Solutions – Includes expansion of the Intelligent Transportation System (ITS), construction of truck climbing lanes, and geometric and safety improvements; and
- Freight Diversion Solutions – Includes strategies for diversion of some truck freight to rail or waterway.

To establish a basis of comparison, initially, all projects were assumed to be completed by 2015 and construction costs were based on 2008 dollars. Projects within each package of solutions that were not cost effective, based on the cost benefit analysis, were removed from consideration and the remaining projects were evaluated using elements of TDOT's Project Evaluation System from the State's Long-Range Transportation Plan.

In conjunction with the benefit cost ratio, evaluation measures such as congestion relief, access and mobility, safety and security, public and community support, and constructability were used to rank the projects. Public support or opposition to projects was estimated based on public comment forms, comments received in public meetings, stakeholder meetings, and existing approved transportation plans.

Due to the distinct nature of each of the four packages of solutions, there are large differences in the benefits associated with the projects. It is important to note that the methodology used for the benefit/cost analysis in this study is designed for corridor-level screening. Projects recommended in this plan for further development will undergo an additional level of analysis during the environmental document stage. That subsequent project-level analysis may reveal that the project is not feasible. This is more likely to happen for certain types of recommended projects, such as those that involve constructing a route on new alignment. In corridor-level planning, it is not always possible to fully identify environmental impacts and the cost of remediation. There are also some limitations in evaluating safety benefits on proposed routes, since the anticipated crash rate is based on a model rather than actual crash data.

Recent experience with the proposed SR-475 (Knoxville Parkway) project illustrates some of the limitations in a corridor-level project prioritization process. The benefit cost analysis for I-75 associated with the SR 475 Knoxville Parkway identified the project as cost effective. However, the Environmental Impact Statement prepared for SR-475 concluded that the best alternative was the "no-build" option, once other factors were considered.

It is also important to note that the benefit cost calculations in this study are based solely on the benefit to I-75 itself. As such, projects that diverted a large volume of traffic from I-75, such as the Knoxville and Chattanooga bypass projects, are estimated to have a significant benefit to the corridor. While an attempt was made to judge the benefit of the projects in terms of safety, mobility, community support, and other factors, additional evaluation of impact would need to be completed on a project level basis before moving forward.

Based on the priority ranking, projects were grouped in horizon years for construction. **Table 2-1** through **2-3** lists the projects identified and the length to be constructed by 2015, 2020, and 2030, respectively. **Figure 2-1** shows the prioritized projects.

Table 2-1: Prioritized Projects to be Constructed by 2015

Project Type	Segment/ Route	County	Project Description	Length (mi.)
Operations Improvements - Geometric	I-75	Bradley	I-75 Northbound Exit Ramp at Georgetown Road (SR 60) - Lengthen northbound exit ramp deceleration lane and install a traffic signal for the northbound I-75 ramp terminals at SR 60	0.1
Operations Improvements - ITS	I-75	Loudon and Knox	Expand TDOT SmartWay urban coverage to include I-75/I-40 from the I-40/I-75 Interchange to Lovell Road	8.8
Operations Improvements - ITS	I-75	Knox	Install ITS instrumentation and communications on I-75 at SR 170 (Raccoon Valley Rd)	2.0
Operations Improvements - ITS	I-75	Loudon	Install ITS instrumentation and communications on I-75 at US 321 (Lenoir City)	2.0
Operations Improvements - ITS	I-75	Anderson	Install ITS instrumentation and communications on I-75 at SR 61 (Andersonville Hwy)	2.0
Operations Improvements - ITS	I-75	Campbell	Install ITS instrumentation and communications on I-75 at SR 63 (Howard Baker Rd)	2.0
Operations Improvements - ITS	I-75	Knox	Expand arterial ITS communication and instrumentation on I-140 and US 129 for high-capacity route diversion	6.5
Operations Improvements - ITS	I-75	Hamilton and Bradley	Expand ITS instrumentation on I-75 from Oolteway-Georgetown Pike to SR 60 which includes segment over White Oak Mountain	10.8
Operations Improvements - ITS	I-75	Anderson	Install ITS instrumentation and communications on I-75 at US 25W (SR 116)	2.0
Operations Improvements - ITS	I-75	Knox	Expand TDOT SmartWay urban coverage to include I-75 from north of Merchant Rd to the northern Knoxville urban boundary at Emory Rd	3.5
Operations Improvements - ITS	I-75	Monroe	Install ITS instrumentation and communications on I-75 at SR 68 (Sweetwater)	2.0
Operations Improvements - Truck Lanes	I-75	Campbell	Construct a Truck Climbing Lane from mile post 142.7 to mile post 143.8	1.1
Operations Improvements - Crossover	I-75	Knox	Install crossover at mile post 114.4	0.1
Operations Improvements - Crossover	I-75	Anderson	Install crossover at mile post 117	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 135.2	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 136.2	0.1

Table 2-1: Prioritized Projects to be Constructed by 2015 (cont.)

Project Type	Segment/ Route	County	Project Description	Length (mi.)
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 143.6	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 147	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 149.5	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 150.2	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 154.6	0.1
Operations Improvements - Crossover	I-75	Campbell	Install crossover at mile post 155.8	0.1
Operations Improvements - Geometric	I-75	Hamilton	I-75 at I-24 Interchange - Reconstruct Interchange	3.1
Operations Improvements - Geometric	I-75	Hamilton	Improve the northbound I-75 off ramp at East Brainerd Road and remove the weaving section between the ramp and Concord Road along Brainerd Road.	0.5
Operations Improvements - Geometric	I-40/I-75	Knox	Extend the deceleration and acceleration lanes for the Truck Weigh Stations on I-40/I-75 just east of Watt Road.	0.5
Operations Improvements - Geometric	I-75	Knox	Widen the northbound I-75 off ramp at Callahan Drive	0.5
Operations Improvements - ITS	I-75	Rural Segments along Entire Corridor	ITS deployment for route diversion along lower capacity routes to include signal coordination, special diversion timing plans, and center to center communications for US 11 and US 25	N/A

Table 2-2: Prioritized Projects to be Constructed by 2020

Project Type	Segment/ Route	County	Project Description	Length (mi.)
I-75 Roadway Capacity	N	Loudon	Widen I-75 from 4 to 6 lanes from Pond Creek Road (SR 323) to the I-40/I-75 Junction	15.3
I-75 Roadway Capacity	L	Monroe	Widen I-75 from 4 lanes to 6 lanes from SR 68 to Oakland Road (SR 322)	1.6
Operations Improvements - ITS	I-75	Campbell	Implement/Improve the fog and severe weather detection system on I-75 over Jellico Mountain with communications to the TDOT TMC	15.0
I-75 Roadway Capacity	H	Hamilton/ Bradley	Widen I-75 from 4 lanes to 6 lanes from north of US 64 to US 74	8.6
I-75 Roadway Capacity	P	Loudon/ Knox	Widen I-75 from 6 to 8 lanes plus 2 auxiliary lanes from the I-40/I-75 east to Pellissippi Pkwy (SR 162)	9.2
Operations Improvements - Geometric	I-75/I-640/ I-75	Knox	Interchange improvements at I-75/I-640/I-275 to include additional through lanes on I-75 north and southbound ramps	1.4
Operations Improvements - Truck Lanes	I-75	Campbell	Construct a Truck Climbing Lane from mile post 129.0 to 130.1	1.1
Operations Improvements - Truck Lanes	I-75	Campbell	Construct a Truck Climbing Lane from mile post 155.0 to mile post 157.5	2.5
I-75 Roadway Capacity	W	Knox	Widen I-75 from 4 lanes to 6 lanes from Emory Road (SR 131) to Raccoon Valley Road (SR 170)	4.7
I-75 Roadway Capacity	X	Knox/ Anderson	Widen I-75 from 4 to 6 lanes from Raccoon Valley Road (SR 170) to Andersonville Hwy (SR 61)	5.6
I-75 Roadway Capacity	Y	Anderson	Widen I-75 from Andersonville Highway to Cherry Bottom Road (SR 116)	6.5
Operations Improvements - Geometric Improvements	I-75	Jellico	I-75/US 25W interchange in Jellico - Reconstruct Interchange	1.0

Table 2-3: Prioritized Projects to be Constructed by 2030

Project Type	Segment/ Route	County	Project Description	Length (mi.)
I-75 Roadway Capacity	A	Hamilton	Widen I-75 from 6 lanes to 8 lane from the Georgia State Line to Ringgold Road	0.6
I-75 Roadway Capacity	Z	Anderson	Widen I-75 from 4 to 6 lanes from Cherry Bottom Road (SR 116) to Campbell County	0.6
Operations Improvements - Truck Lanes	I-75	Campbell	Construct a Truck Climbing Lane from mile post 131.3 to mile post 132.3	1.0
Operations Improvements - Truck Lanes	I-75	Bradley	Construct a Truck Climbing Lane from mile post 16.7 to mile post 17.7	1.0
Parallel Route Improvements	Chattanooga Parkway*	Hamilton/ Bradley	Construct new 4 lane fully access-controlled facility from I-75 in Georgia to I-75 at the Hamilton/Bradley County Line.	
Parallel Route Improvements	SR 162 and SR 62	Knox	Add auxiliary lanes between interchanges and access control as necessary from Dutchtown Road to Edgemoor Road (SR 170)	6.0
Parallel Route Improvements	SR 131 to Ball Camp Pk to Schaad Rd to Callahan Dr	Knox	Widen SR 131 from SR 162 to Middlebrook Pike and construct a new 800 foot connector route to Ball Camp Pike. Widen Ball Camp Pike from 2 to 4 lanes from Middlebrook Pike to Ball Road. Widen Ball Road from Ball Camp Pike to SR 62. Widen SR 62 from Ball Road to Schaad Road. Widen Schaad Road from SR 62 to Pleasant Ridge Road. Widen existing Callahan Drive from 4 lane divided/5 lanes to 6 lanes and 7 lanes from Pleasant Ridge Road to I-75.	
I-75 Roadway Capacity	AA	Campbell	Widen I-75 from 4 to 6 lanes from Anderson County to SR 63 (US 25W)	4.6
Parallel Route Improvements	SR 170	Anderson / Knox	Widen SR 170 from 2 lanes to 4 lanes from SR 62 to I-75.	

* See discussion on Pages 1 and 3 for limitations of analysis and prioritization methodology, issues that may impact the project moving forward, and requirements for coordination.

Several projects shown in **Table 2-1** through **2-3** are also included in regional transportation planning documents. These reports include the Chattanooga TIP and LRTP, the Cleveland TIP and LRTP, the Knoxville TIP and LRTP, and the State’s LRTP. **Table 2-4** shows the project from these plans that correspond to prioritized projects identified in the I-75 Study. Other projects included are not part of regional transportation planning reports.

Table 2-4: Projects Listed in Planning Reports

Project Type	Segment/ Route	County	Project Description
I-75 Roadway Capacity	H	Hamilton/ Bradley	Widen I-75 from 4 lanes to 6 lanes from north of US 64 to US 74
I-75 Roadway Capacity	O, P	Loudon/ Knox	Widen from 6 to 8 lanes from I-40/I-75 to Pellissippi Parkway (SR 162)
Operations Improvement - Interchange	I-40/I-75	Knox	Improve the ramps at the I-40/I-75 truck weigh station just east of Watt Road
Operations Improvement - Interchange	U	Knox	I-75/I-640/I-75 Interchange Improvements to include additional through lanes on I-75 north and southbound ramps
Parallel Route Improvements	SR 162 and SR 62	Knox	Add auxiliary lanes between interchanges and access control as necessary from Dutchtown Road to Edgemoor Road (SR 170)
Parallel Route Improvements	SR 131 (Lovell Road)	Knox	Widen from 2 lanes to 4 lanes from Schaeffer Road to Middlebrook Pike
Parallel Route Improvements	Schaad Road Extension	Knox	Construct new 4 lane road from Middlebrook Pike to Western Avenue (SR 62)
Parallel Route Improvements	Schaad Road	Knox	Widen from 2 lanes to 4 lanes from Western Avenue (SR 62) to Pleasant Ridge Road
I-75 Roadway Capacity	W	Knox	Widen I-75 from 4 lanes to 6 lanes from Emory Road (SR 131) to Raccoon Valley Road (SR 170)
Parallel Route Improvements	SR 170	Knox/ Anderson	Widen from 2 lanes to 4 lanes from SR 62 to Clinton Highway (SR 9)

A proposed Tennessee River bridge crossing in Hamilton County, northeast of Chattanooga was studied by TDOT as a potential pilot toll project as a result of the Tennessee Tollway Act. The facility would connect SR 111, SR 58, US 27, and I-75. Some of the alternatives included a proposal for a new interchange with I-75. However, no formal plans exist at this time and the project was not considered as part of this study.

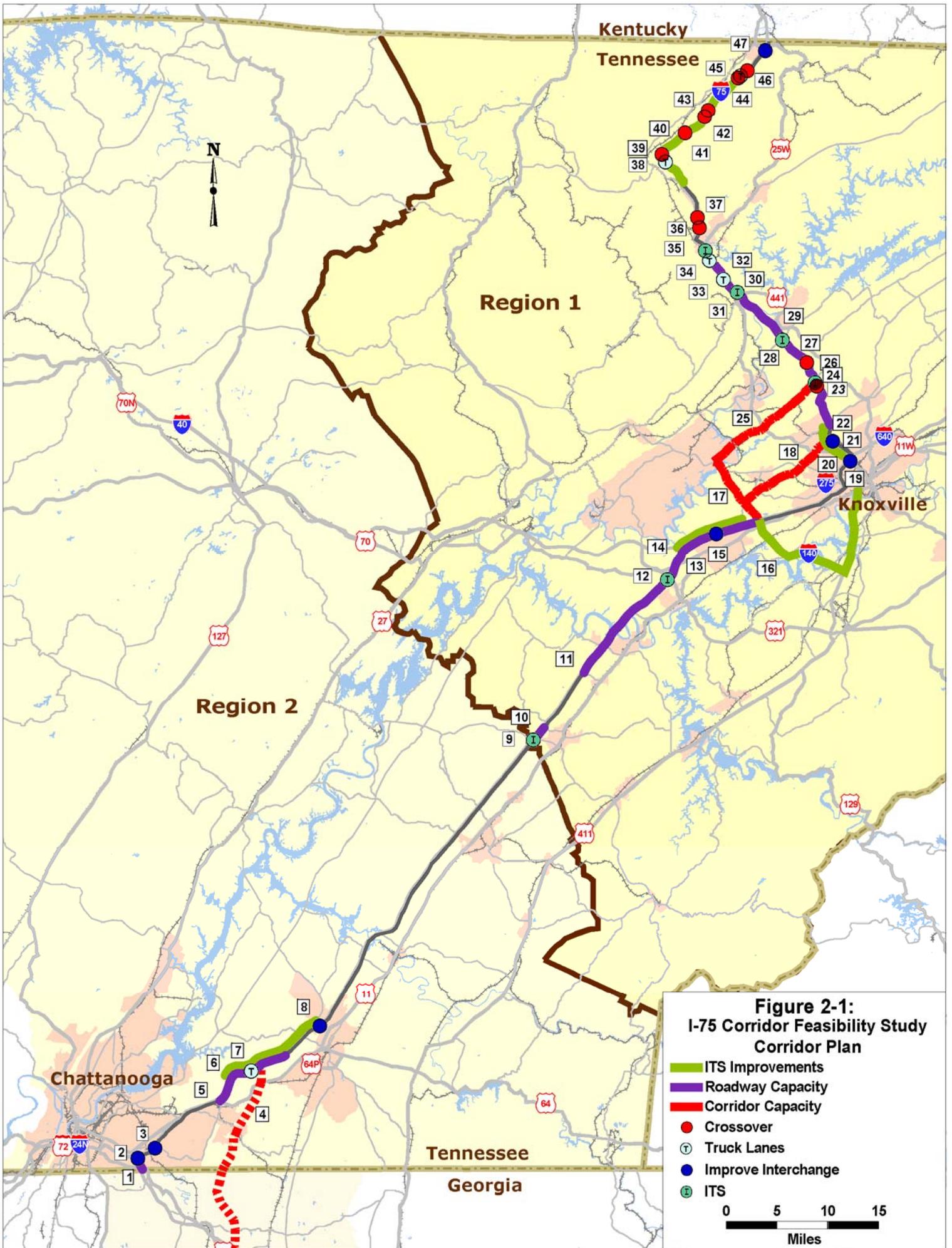
A regional freight study is being conducted by the Chattanooga Transportation Planning Organization (TPO) that will evaluate improvements to I-75 and other truck freight facilities in the region. The results of the regional freight study should be considered relative to the findings of the I-75 Corridor Study once the freight study is completed.

The I-75 Corridor Plan projects are shown in **Table 2-5** and in **Figure 2-1**. This figure shows the projects from south to north along the corridor.

The projects are also shown by year of funding in **Figures 2-2** through **2-4**. These figures show when each of the projects will be implemented according the following timeframes: 2010-2015, 2016-2020, and 2021-2030.

Table 2-5: Project Cost (Base 2008 Dollars in Thousands)

Project ID	Region	Description / Type of Work	Solution Category	Total (2010-2029)
1	2	Widen I-75 from 6 lanes to 8 lane from the Georgia State Line to Ringgold Road	Roadway Capacity	\$13,400
2	2	I-75 at I-24 Interchange - Reconstruct Interchange	Geometric Improvements	\$81,710
3	2	I-75 at East Brainerd Road - Improve the northbound I-75 off ramp	Geometric Improvements	\$495
4	2	Construct new 4 lane fully access-controlled facility from I-75 in Georgia to I-75 at the Hamilton/Bradley County Line.	Parallel Route Capacity	\$413,205
5	2	Widen I-75 from 4 lanes to 6 lanes from north of US 64 to US 74	Roadway Capacity	\$82,525
6	2	Expand ITS instrumentation on I-75 from Oolteway-Georgetown Pike to SR 60 which includes segment over White Oak Mountain	ITS	\$2,016
7	2	Construct a Truck Climbing Lane from mile post 16.7 to mile post 17.7	Truck Climbing Lanes	\$13,715
8	2	I-75 Northbound Exit Ramp at Georgetown Road (SR 60) - Lengthen northbound exit ramp deceleration land and install a traffic signal for the northbound I-75 ramp terminals at SR 60	Geometric Improvements	\$2,923
9	1	Install ITS instrumentation and communications on I-75 at SR 68 (Sweetwater)	ITS	\$250
10	1	Widen I-75 from 4 lanes to 6 lanes from SR 68 to Oakland Road (SR 322)	Roadway Capacity	\$5,985
11	1	Widen I-75 from 4 to 6 lanes from Pond Creek Road (SR 323) to the I-40/I-75 Junction	Roadway Capacity	\$173,775
12	1	Install ITS instrumentation and communications on I-75 at US 321 (Lenior City)	ITS	\$250
13	1	Widen I-75 from 6 to 8 lanes plus 2 auxiliary lanes from the I-40/I-75 east to Pellissippi Pkwy (SR 162)	Roadway Capacity	\$241,580
14	1	Expand TDOT SmartWay urban coverage to include I-75/I-40 from the I-40/I-75 Interchange to Lovell Road	ITS	\$2,665
15	1	I-40/I-75 at the Truck Weigh Stations just east of Watt Road - extend the acceleration and deceleration lanes	Geometric Improvements	\$1,000
16	1	Expand arterial ITS communication and instrumentation on I-140 and US 129 for high-capacity route diversion	ITS	\$3,632
17	1	Add auxiliary lanes between interchanges and access control as necessary on SR 162 and SR 62 from Dutchtown Road to Edgemoor Road (SR 170)	Parallel Route Capacity	\$39,132
18	1	Widen SR 131 from SR 162 to Middlebrook Pike and construct a new 800 foot connector route to Ball Camp Pike. Widen Ball Camp Pike from 2 to 4 lanes from Middlebrook Pike to Ball Rd. Widen Ball Rd from Ball Camp Pike to SR 62. Widen SR 62 from Ball Rd to Schaad Rd. Widen Schaad Rd from SR 62 to Pleasant Ridge Rd. Widen existing Callahan Dr from 4 lane divided/5 lanes to 6 lanes and 7 lanes from Pleasant Ridge Rd to I-75.	Parallel Route Capacity	\$87,550
19	1	I-75/I-640/I-275 Interchange - Improve Interchange to include additional through lanes on north and southbound I-75	Geometric Improvements	\$25,419
20	1	Expand TDOT SmartWay urban coverage to include I-75 from north of Merchant Rd to the northern Knoxville urban boundary at Emory Rd	ITS	\$1,332
21	1	I-75 at Callahan Drive - Improve the northbound I-75 off ramp at Callahan Drive	Geometric Improvements	\$1,783
22	1	Widen I-75 from 4 lanes to 6 lanes from Emory Road (SR 131) to Raccoon Valley Road (SR 170)	Roadway Capacity	\$82,885
23	1	Install crossover at mile post 114.4	Crossover	\$2,910
24	1	Install ITS instrumentation and communications on I-75 at SR 170 (Raccoon Valley Rd)	ITS	\$250
25	1	Widen SR 170 from 2 lanes to 4 lanes from SR 62 to I-75.	Parallel Route Capacity	\$117,325
26	1	Widen I-75 from 4 to 6 lanes from Raccoon Valley Road (SR 170) to Andersonville Hwy (SR 61)	Roadway Capacity	\$68,160
27	1	Install crossover at mile post 117	Crossover	\$2,910
28	1	Install ITS instrumentation and communications on I-75 at SR 61 (Andersonville Hwy)	ITS	\$250
29	1	Widen I-75 from Andersonville Highway to Cherry Bottom Road (SR 116)	Roadway Capacity	\$111,900
30	1	Widen I-75 from 4 to 6 lanes from Cherry Bottom Road (SR 116) to Campbell County	Roadway Capacity	\$11,115
31	1	Install ITS instrumentation and communications on I-75 at US 25W (SR 116)	ITS	\$250
32	1	Widen I-75 from 4 to 6 lanes from Anderson County to SR 63 (US 25W)	Roadway Capacity	\$74,300
33	1	Construct a Truck Climbing Lane from mile post 129.0 to 130.1	Truck Climbing Lanes	\$14,115
34	1	Construct a Truck Climbing Lane from mile post 131.3 to mile post 132.3	Truck Climbing Lanes	\$4,110
35	1	Install ITS instrumentation and communications on I-75 at SR 63 (Howard Baker Rd)	ITS	\$250
36	1	Install crossover at mile post 135.2	Crossover	\$2,025
37	1	Install crossover at mile post 136.2	Crossover	\$2,025
38	1	Construct a Truck Climbing Lane from mile post 142.7 to mile post 143.8	Truck Climbing Lanes	\$4,605
39	1	Install crossover at mile post 143.6	Crossover	\$2,025
40	1	Implement/Improve the fog and severe weather detection system on I-75 over Jellico Mountain with communications to the TDOT TMC	ITS	\$8,886
41	1	Install crossover at mile post 147	Crossover	\$2,025
42	1	Install crossover at mile post 149.5	Crossover	\$2,025
43	1	Install crossover at mile post 150.2	Crossover	\$2,025
44	1	Install crossover at mile post 154.6	Crossover	\$2,025
45	1	Construct a Truck Climbing Lane from mile post 155.0 to mile post 157.5	Truck Climbing Lanes	\$12,400
46	1	Install crossover at mile post 155.8	Crossover	\$2,025
47	1	I-75/US 25W interchange in Jellico - Reconstruct Interchange	Geometric Improvements	\$19,650
48	1 and 2	ITS deployment for route diversion along lower capacity routes to include signal coordination, special diversion timing plans, and center to center communications for US 11 and US 25	ITS	\$550



Project Description and Cost
(Base 2008 Dollars in Thousands)

Project ID	Region	Description / Type of Work	Solution Category	Total (2010-2015)
2	2	I-75 at I-24 Interchange - Reconstruct Interchange	Geometric Improvements	\$81,710
3	2	I-75 at East Brainerd Road - Improve the northbound I-75 off ramp	Geometric Improvements	\$495
6	2	Expand ITS instrumentation on I-75 from Oolteway-Georgetown Pike to SR 60 which includes segment over White Oak Mountain	ITS	\$2,016
8	2	I-75 Northbound Exit Ramp at Georgetown Road (SR 60) - Lengthen northbound exit ramp deceleration lane and install a traffic signal for the northbound I-75 ramp terminals at SR 60	Geometric Improvements	\$2,923
9	1	Install ITS instrumentation and communications on I-75 at SR 68 (Sweetwater)	ITS	\$250
10	1	Widen I-75 from 4 lanes to 6 lanes from SR 68 to Oakland Road (SR 322)	Roadway Capacity	\$5,985
12	1	Install ITS instrumentation and communications on I-75 at US 321 (Lenoir City)	ITS	\$250
14	1	Expand TDOT SmartWay urban coverage to include I-75/I-40 from the I-40/I-75 Interchange to Lovell Road	ITS	\$2,665
15	1	I-40/I-75 at the Truck Weigh Stations just east of Watt Road - extend the acceleration and deceleration lanes	Geometric Improvements	\$1,000
16	1	Expand arterial ITS communication and instrumentation on I-140 and US 129 for high-capacity route diversion	ITS	\$3,632
20	1	Expand TDOT SmartWay urban coverage to include I-75 from north of Merchant Rd to the northern Knoxville urban boundary at Emory Rd	ITS	\$1,332
21	1	I-75 at Callahan Drive - Improve the northbound I-75 off ramp at Callahan Drive	Geometric Improvements	\$1,783
23	1	Install crossover at mile post 114.4	Crossover	\$2,910
24	1	Install ITS instrumentation and communications on I-75 at SR 170 (Raccoon Valley Rd)	ITS	\$250
27	1	Install crossover at mile post 117	Crossover	\$2,910
28	1	Install ITS instrumentation and communications on I-75 at SR 61 (Andersonville Hwy)	ITS	\$250
31	1	Install ITS instrumentation and communications on I-75 at US 25W (SR 116)	ITS	\$250
35	1	Install ITS instrumentation and communications on I-75 at SR 63 (Howard Baker Rd)	ITS	\$250
36	1	Install crossover at mile post 135.2	Crossover	\$2,025
37	1	Install crossover at mile post 136.2	Crossover	\$2,025
38	1	Construct a Truck Climbing Lane from mile post 142.7 to mile post 143.8	Truck Climbing Lanes	\$4,605
39	1	Install crossover at mile post 143.6	Crossover	\$2,025
40	1	Implement/Improve the fog and severe weather detection system on I-75 over Jellico Mountain with communications to the TDOT TMC	ITS	\$8,886
41	1	Install crossover at mile post 147	Crossover	\$42,025
42	1	Install crossover at mile post 149.5	Crossover	\$2,025
43	1	Install crossover at mile post 150.2	Crossover	\$2,025
44	1	Install crossover at mile post 154.6	Crossover	\$2,025
46	1	Install crossover at mile post 155.8	Crossover	\$2,025

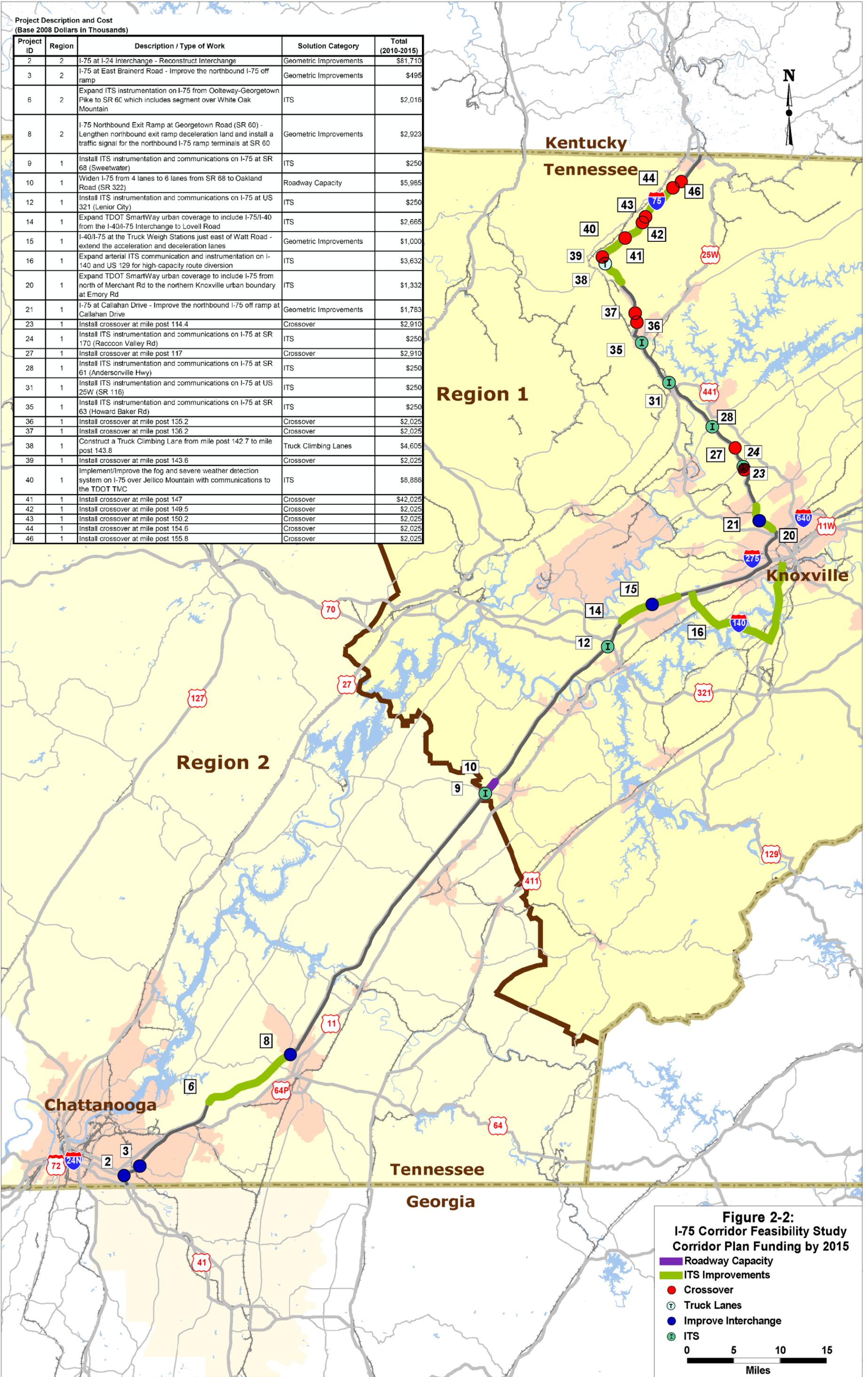


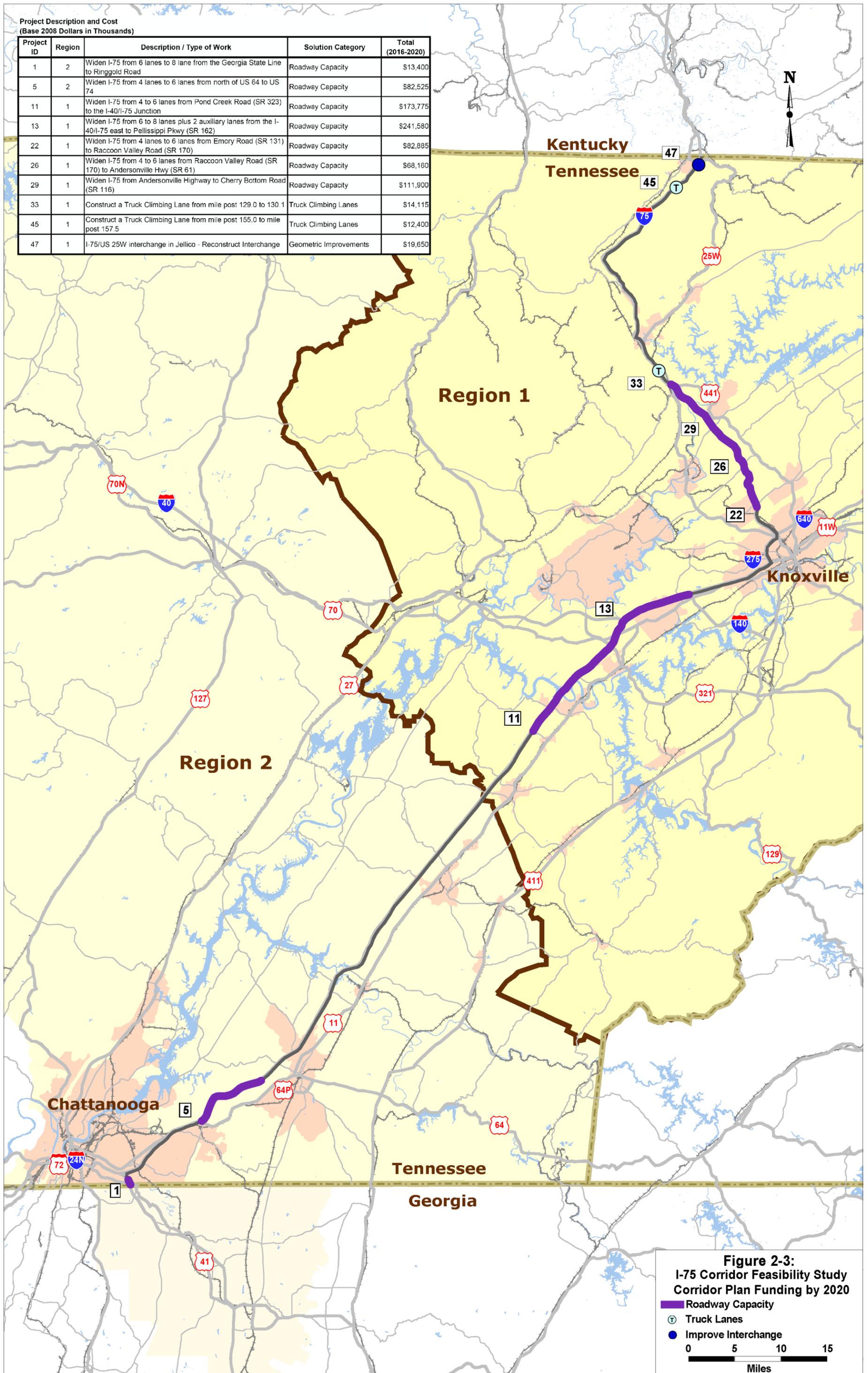
Figure 2-2:
I-75 Corridor Feasibility Study
Corridor Plan Funding by 2015

- Roadway Capacity
- ITS Improvements
- Crossover
- Truck Lanes
- Improve Interchange
- I ITS

0 5 10 15
Miles

Project Description and Cost
(Base 2008 Dollars in Thousands)

Project ID	Region	Description / Type of Work	Solution Category	Total (2016-2020)
1	2	Widen I-75 from 6 lanes to 8 lane from the Georgia State Line to Ringgold Road	Roadway Capacity	\$13,400
5	2	Widen I-75 from 4 lanes to 6 lanes from north of US 64 to US 74	Roadway Capacity	\$82,525
11	1	Widen I-75 from 4 to 6 lanes from Pond Creek Road (SR 323) to the I-40/I-75 Junction	Roadway Capacity	\$173,775
13	1	Widen I-75 from 6 to 8 lanes plus 2 auxiliary lanes from the I-40/I-75 east to Pellissippi Pkwy (SR 162)	Roadway Capacity	\$241,580
22	1	Widen I-75 from 4 lanes to 6 lanes from Emory Road (SR 131) to Raccoon Valley Road (SR 170)	Roadway Capacity	\$82,885
26	1	Widen I-75 from 4 to 6 lanes from Raccoon Valley Road (SR 170) to Andersonville Hwy (SR 61)	Roadway Capacity	\$68,160
29	1	Widen I-75 from Andersonville Highway to Cherry Bottom Road (SR 116)	Roadway Capacity	\$111,900
33	1	Construct a Truck Climbing Lane from mile post 129.0 to 130.1	Truck Climbing Lanes	\$14,115
45	1	Construct a Truck Climbing Lane from mile post 155.0 to mile post 157.5	Truck Climbing Lanes	\$12,400
47	1	I-75/US 25W interchange in Jellico - Reconstruct Interchange	Geometric Improvements	\$19,650



Project Description and Cost
(Base 2008 Dollars in Thousands)

Project ID	Region	Description / Type of Work	Solution Category	Total (2021-2030)
4	2	Construct new 4 lane fully access-controlled facility from I-75 in Georgia to I-75 at the Hamilton/Bradley County Line.	Parallel Route Capacity	\$413,205
7	2	Construct a Truck Climbing Lane from mile post 16.7 to mile post 17.7	Truck Climbing Lanes	\$13,715
17	1	Add auxiliary lanes between interchanges and access control as necessary on SR 162 and SR 62 from Dutchtown Road to Edgemoor Road (SR 170)	Parallel Route Capacity	\$39,132
18	1	Widen SR 131 from SR 162 to Middlebrook Pike and construct a new 800 foot connector route to Ball Camp Pike. Widen Ball Camp Pike from 2 to 4 lanes from Middlebrook Pike to Ball Rd. Widen Ball Rd from Ball Camp Pike to SR 62. Widen SR 62 from Ball Rd to Schaad Rd. Widen Schaad Rd from SR 62 to Pleasant Ridge Rd. Widen existing Callahan Dr from 4 lane divided/5 lanes to 6 lanes and 7 lanes from Pleasant Ridge Rd to I-75.	Parallel Route Capacity	\$87,550
19	1	I-75/I-640/I-275 Interchange - Improve Interchange to include additional through lanes on north and southbound I-75	Geometric Improvements	\$25,419
25	1	Widen SR 170 from 2 lanes to 4 lanes from SR 62 to I-75.	Parallel Route Capacity	\$117,325
28	1	Install ITS instrumentation and communications on I-75 at SR 61 (Andersonville Hwy)	ITS	\$250
32	1	Widen I-75 from 4 to 6 lanes from Anderson County to SR 63 (US 25W)	Roadway Capacity	\$74,300
34	1	Construct a Truck Climbing Lane from mile post 131.3 to mile post 132.3	Truck Climbing Lanes	\$4,110

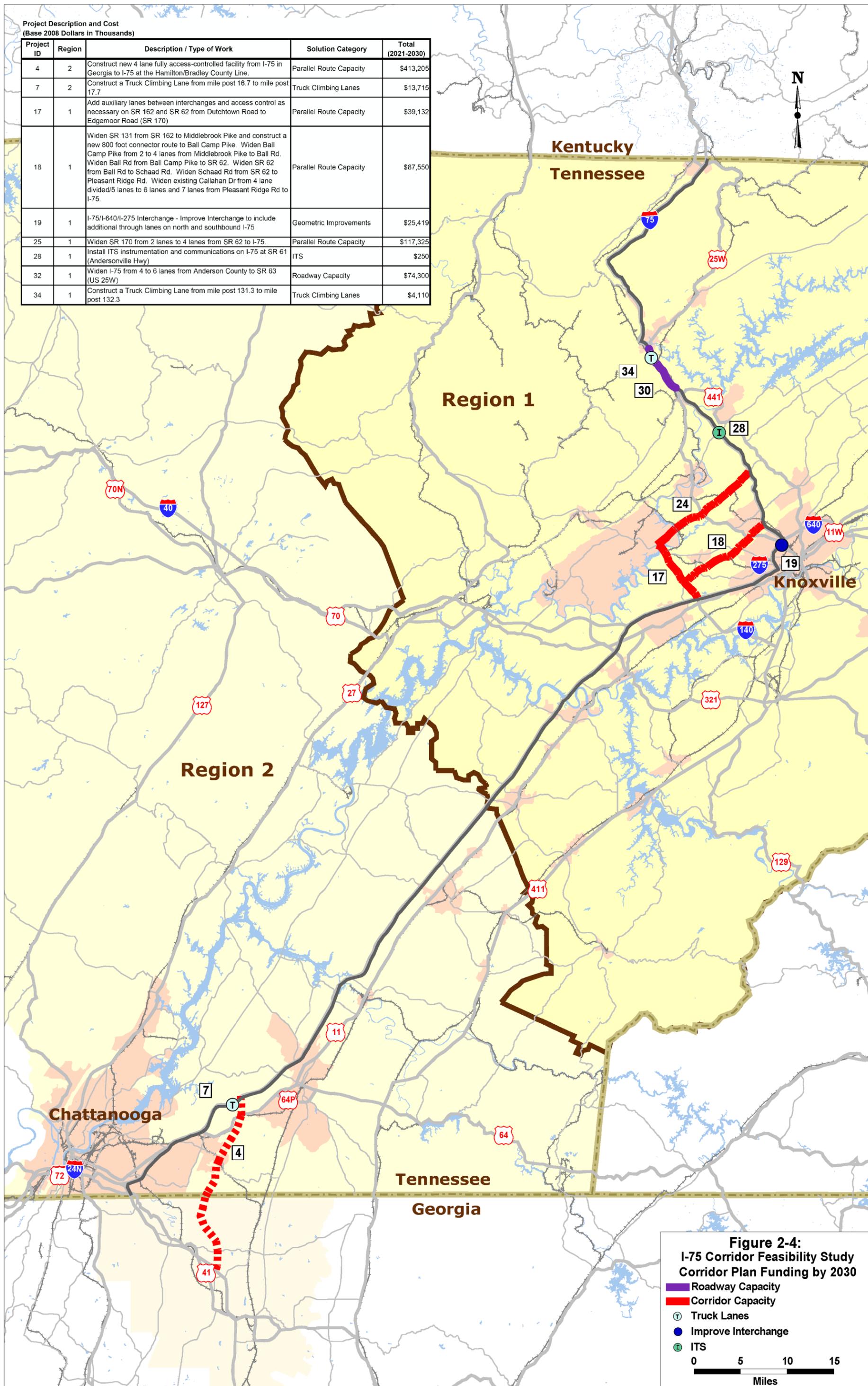


Figure 2-4:
I-75 Corridor Feasibility Study
Corridor Plan Funding by 2030

- █ Roadway Capacity
- █ Corridor Capacity
- Ⓧ Truck Lanes
- Improve Interchange
- Ⓧ ITS

0 5 10 15
Miles

3.0 CORRIDOR PLAN

Based on the prioritized projects and their planned year of construction, implementation plan tables for the recommended I-75 corridor improvement projects were developed. The implementation plan tables were developed by identifying specific years for the preliminary engineering, right-of-way acquisition and construction activities of each project with the following objectives:

- Complete the construction of each project by the horizon year and in the order shown for that project as identified in the project prioritization, and
- Attempt to distribute total cost expenditures for each TDOT region equally over each year within three planning time frames (2010-2014, 2015-2019 and 2020-2029). This was not always possible, as certain large projects sometimes dominated the expenditure levels for the region.

The number of years required for preliminary engineering, right-of-way acquisition and construction activities for each project was determined according to the following:

- Construction: It was assumed that up to \$40 million of road construction and \$20 million of ITS construction could be completed each year for each project, as measured in current year dollars. Very large projects could exceed these limits by using multiple construction contracts.
- Right-of-Way Acquisition: Generally one year was estimated for small right of way acquisition value, two years was estimated for projects with right of way greater than approximately \$2 million in current year dollars and three years was estimated for projects with right of way acquisition cost greater than \$10 million.
- Preliminary Engineering: Generally one year was assumed for preliminary engineering of ITS and small projects, two years for projects where a Categorical Exclusion is anticipated, and three years for projects where Environmental Assessment or Environmental Impact Study would likely be required.

The implementation plan tables show project implementation costs in year-of-expenditure dollars, which were developed by adjusting 2008 costs by an annual anticipated 3.6% rate of construction cost inflation. This inflation rate was used in the TDOT I-40/I-81 Corridor Study based on data from *Engineering News-Record* and is used here for comparability with the I-40/I-81 study results. **Table 3-1** and **3-2** show the FY 2010-2019 Corridor Implementation Plan for TDOT Region 1 and Region 2, respectively. **Table 3-3** and **3-4** show the FY 2020-2029 Corridor Implementation Plan for TDOT Regions 1 and 2, respectively. The projects shown in these tables are listed in order from south to north. **Figure 3-1** and **3-2** show the recommended improvements for Regions 1 and 2, respectively.

**Table 3-1: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 1
(Year of Expenditure Dollars in Thousands)**

Project ID: 10											1.6 Miles	
I-75, SR 68 to Oakland Rd/SR 322. Widen from 4 lanes to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$325	\$337						\$662	\$545
Construction						\$6,968					\$6,968	\$5,440
Project Total				\$325	\$337	\$6,968					\$7,630	\$5,985
Project ID: 11											15.3 Miles	
I-75, Pond Creek Rd/SR 323 to I-40/I-75 interchange. Widen from 4 lanes to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$8,784	\$9,101								\$17,885	\$15,800
Construction				\$47,133	\$48,830	\$50,588	\$52,409				\$198,960	\$157,975
Project Total		\$8,784	\$9,101	\$47,133	\$48,830	\$50,588	\$52,409				\$216,845	\$173,775
Project ID: 13											9.2 Miles	
I-75, I-40/I-75 to Pellissippi Parkway/SR 162. Widen from 6 lanes to 8 lanes with two auxiliary lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$7,297	\$7,337	\$7,601							\$22,234	\$19,300
ROW				\$11,524	\$12,300	\$12,368					\$36,192	\$29,260
Construction						\$61,810	\$64,035	\$66,341	\$68,729		\$260,915	\$193,020
Project Total		\$7,297	\$7,337	\$19,125	\$12,300	\$74,178	\$64,035	\$66,341	\$68,729		\$319,342	\$241,580
Project ID: 22											4.7 Miles	
I-75, Emory Rd/SR 131 to Raccoon Valley Rd/SR 170. Widen from 4 lanes to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$4,332	\$4,488						\$8,820	\$7,260
ROW						\$1,937	\$2,007				\$3,944	\$3,025
Construction								\$49,905	\$51,702		\$101,607	\$72,600
Project Total				\$4,332	\$4,488	\$1,937	\$2,007	\$49,905	\$51,702		\$114,371	\$82,885
Project ID: 15											1.0 Mile	
I-40/I-75 Weigh Stations east of Watt Road. Lengthen acceleration and deceleration lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$59	\$61								\$120	\$106
Construction			\$550	\$570							\$1,120	\$955
Project Total		\$59	\$611	\$570							\$1,240	\$1,061

Table 3-1: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 1 (cont.)
(Year of Expenditure Dollars in Thousands)

Project ID: 31											1.1 Miles	
I-75, Milepost 129.01 to Milepost 130.14. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$755	\$782						\$1,537	\$1,265
ROW						\$269					\$269	\$210
Construction							\$16,774				\$16,774	\$12,640
Project Total				\$755	\$782	\$269	\$16,774				\$18,579	\$14,115
Project ID: 34											1 Mile	
I-75, Milepost 142.74 to Milepost 143.76. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$467									\$467	\$420
Construction			\$4,821								\$4,821	\$4,185
Project Total		\$467	\$4,821								\$5,288	\$4,605
Project ID: 36											2.5 Miles	
I-75, Milepost 155 to Milepost 157.51. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE					\$637	\$660					\$1,296	\$1,030
ROW							\$1,413				\$1,413	\$1,065
Construction								\$14,167			\$14,167	\$10,305
Project Total					\$637	\$660	\$1,413	\$14,167			\$16,877	\$12,400
Project ID: 17											6.0 Miles	
SR 162 and SR 62, Add auxiliary lanes and access control from Dutchtown Road to Edgemoor Road (SR 170)											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE								\$5,324	\$5,516	\$4,898	\$15,738	\$11,876
ROW										\$6,779	\$6,779	\$4,931
Construction										\$0	\$0	\$0
Project Total								\$5,324	\$5,516	\$11,677	\$22,517	\$16,807
Project ID: 9											2 Miles	
I-75, I-75 at SR 68 (Sweetwater). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250

Table 3-1: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 1 (cont.)
(Year of Expenditure Dollars in Thousands)

Project ID: 12											2 Miles	
I-75, I-75 at US 321 (Lenoir City). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250
Project ID: 16											6.5 Miles	
I-75, I-140 and US 129. Expand arterial ITS communication and instrumentation											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$779										\$779	\$726
Construction		\$3,231									\$3,231	\$2,906
Project Total	\$779	\$3,231									\$4,010	\$3,632
Project ID: 14											8.8 Miles	
I-75, I-75/I-40 from Lovell Rd to I-40/I-75 Interchange. Expand TDOT SmartWay urban coverage											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$572										\$572	\$533
Construction		\$2,371									\$2,371	\$2,132
Project Total	\$572	\$2,371									\$2,943	\$2,665
Project ID: 20											3.5 Miles	
I-75, I-75 from north of Merchant Rd to Emory Rd. Expand TDOT SmartWay urban coverage											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$285										\$285	\$266
Construction		\$1,185									\$1,185	\$1,066
Project Total	\$285	\$1,185									\$1,471	\$1,332
Project ID: 23											2 Miles	
I-75, I-75 at SR 170 (Raccoon Valley Rd). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250
Project ID: 21											1.0 Mile	
I-75 at Callahan Drive. Improve the northbound off ramp											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$105	\$109								\$214	\$189
ROW			\$109	\$113							\$222	\$189
Construction				\$903	\$936						\$1,839	\$1,514
Project Total		\$105	\$218	\$1,016	\$936						\$2,275	\$1,892

Table 3-1: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 1 (cont.)
(Year of Expenditure Dollars in Thousands)

Project ID: 26											2 Miles	
I-75, I-75 at SR 61 (Andersonville Hwy). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250
Project ID: 29											2 Miles	
I-75, I-75 at US 25W (SR 116). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250
Project ID: 33											2 Miles	
I-75, I-75 at SR 63 (Howard Baker Rd). Install ITS instrumentation and communications											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$68										\$68	\$63
Construction		\$208									\$208	\$187
Project Total	\$68	\$208									\$276	\$250
Project ID: 35											16.5 Miles	
I-75, I-75 over Jellico Mountain. Implement a fog and severe weather detection system											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE					\$2,197						\$2,197	\$1,777
Construction						\$9,106					\$9,106	\$7,109
Project Total					\$2,197	\$9,106					\$11,303	\$8,886
Project ID: 38											N/A Miles	
I-75, Rural Segments along I-75 Corridor. ITS deployment for route diversion											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$59										\$59	\$55
Construction		\$245									\$245	\$220
Project Total	\$59	\$245									\$304	\$275

Table 3-1: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 1 (cont.)
(Year of Expenditure Dollars in Thousands)

Project ID: 25												5.6 Miles
I-75, Raccoon Valley Rd/SR 170 to Andersonville Hwy/SR 61. Widen from 4 lanes to 6 lanes												<u>Total</u>
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE						\$3,916	\$4,057				\$7,974	\$6,115
ROW								\$1,210			\$1,210	\$880
Construction									\$52,270	\$36,101	\$88,371	\$61,165
Project Total						\$3,916	\$4,057	\$1,210	\$52,270	\$36,101	\$97,555	\$68,160
Project ID: 27												6.5 Miles
I-75, Andersonville Hwy/SR 61 to Cherry Bottom Rd/SR 116. Widen from 4 lanes to 6 lanes												<u>Total</u>
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE						\$6,517	\$6,751				\$13,268	\$10,175
Construction								\$48,948	\$50,710	\$45,030	\$144,688	\$101,725
Project Total						\$6,517	\$6,751	\$48,948	\$50,710	\$45,030	\$157,956	\$111,900
Project ID: 37												0.4 Miles
I-75, At US 25W Interchange. Reconstruct I-75/US 25W Interchange												<u>Total</u>
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE								\$1,206	\$1,250		\$2,456	\$1,755
ROW									\$499		\$499	\$350
Construction										\$25,889	\$25,889	\$17,545
Project Total								\$1,206	\$1,748	\$25,889	\$28,843	\$19,650
Grand Total	\$2,102	\$24,991	\$22,087	\$73,256	\$70,507	\$154,140	\$147,447	\$187,101	\$230,675	\$118,697	\$1,031,003	\$773,105

**Table 3-2: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 2
(Year of Expenditure Dollars in Thousands)**

Project ID: 2											3.1 Miles	
I-75, Ringgold Rd to East Brainerd Rd/SR 320. I-75/I-24 interchange improvements											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$3,757	\$3,892									\$7,649	\$7,514
ROW		\$1,045	\$2,166	\$2,244							\$5,455	\$5,045
Construction					\$43,280	\$44,838					\$88,118	\$75,141
Project Total	\$3,757	\$4,937	\$2,166	\$2,244	\$43,280	\$44,838					\$101,222	\$87,700
Project ID: 3											0.5 Miles	
I-75 at East Brainerd Road. Improve the northbound off ramp											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$28	\$29									\$57	\$56
ROW		\$59	\$61								\$120	\$114
Construction			\$502								\$502	\$468
Project Total	\$28	\$88	\$563								\$679	\$637
Project ID: 5											8.6 Miles	
I-75, US 64/Lee Hwy to US 74. Widen from 4 lanes to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE			\$4,138	\$4,287							\$8,425	\$7,711
ROW					\$2,154	\$2,232					\$4,386	\$3,740
Construction							\$47,677	\$49,393			\$97,070	\$77,122
Project Total			\$4,138	\$4,287	\$2,154	\$2,232	\$47,677	\$49,393			\$109,881	\$88,573
Project ID: 8											0.1 Miles	
I-75, Northbound I-75 Exit Ramp at SR 60 (Georgetown Rd). Ramp improvement & traffic signal											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$279										\$279	\$279
ROW		\$56									\$56	\$54
Construction			\$3,007								\$3,007	\$2,802
Project Total	\$279	\$56	\$3,007								\$3,342	\$3,135
Project ID: 6											10.8 Miles	
I-75, I-75 from Oolteway-Georgetown Pike to SR 60. Expand ITS instrumentation											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$433										\$433	\$433
Construction		\$1,794									\$1,794	\$1,732
Project Total	\$433	\$1,794									\$2,227	\$2,165

Table 3-2: FY 2010-2019 I-75 Corridor Implementation Plan for TDOT Region 2 (cont.)
(Year of Expenditure Dollars in Thousands)

Project ID: N/A											N/A Miles	
I-75, Rural Segments along I-75 Corridor. ITS deployment for route diversion											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$59										\$59	\$59
Construction		\$245									\$245	\$236
Project Total	\$59	\$245									\$304	\$295
Project ID: 1											0.6 Miles	
I-75, Georgia State Line to Ringgold Rd. Widen from 6 lanes to 8 lanes											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE								\$739	\$766		\$1,505	\$1,154
ROW										\$2,361	\$2,361	\$1,717
Project Total								\$739	\$766	\$2,361	\$3,866	\$2,872
Project ID: 7											1 Mile	
I-75, Milepost 16.69 to Milepost 17.68. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE									\$862	\$893	\$1,755	\$1,299
Project Total									\$862	\$893	\$1,755	\$1,299
Project ID: 4*											6.4 Miles	
Segment 4A - Chattanooga Bypass, I-75 in GA to the TN / GA State Line. New 4-lane limited access freeway											<u>Total</u>	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE										\$4,306	\$4,306	\$3,132
Subtotal										\$4,306	\$4,306	\$3,132
									Georgia Total		\$4,306	\$3,132
Segment 4B - Chattanooga Bypass, TN / GA State Line to the Hamilton/Bradley County Line.											12.5 Miles	
<u>Activity</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE										\$8,358	\$8,358	\$6,080
Subtotal										\$8,358	\$8,358	\$6,080
									Tennessee Total		\$8,358	\$6,080
Project Total										\$12,664	\$12,664	\$9,212
Grand Total	\$4,556	\$7,120	\$9,874	\$6,531	\$45,434	\$47,070	\$47,677	\$50,132	\$1,628	\$15,918	\$235,940	\$195,887

* See discussion on Pages 1 and 3 for limitations of analysis and prioritization methodology, issues that may impact the project moving forward, and requirements for coordination.

**Table 3-3: FY 2020-2029 I-75 Corridor Implementation Plan for TDOT Region 1
(Year of Expenditure Dollars in Thousands)**

Project ID: 17											6.0 Miles	
SR 162 and SR 62, Add auxiliary lanes and access control as necessary from Dutchtown Road to Edgemoor Road (SR 170)											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE											\$0	\$0
ROW	\$14,046	\$14,551									\$28,597	\$19,723
Construction			\$90,781	\$94,050							\$184,831	\$118,771
Project Total	\$14,046	\$14,551	\$90,781	\$94,050							\$213,428	\$138,494
Project ID: 27											0.6 miles	
I-75, Cherry Bottom Rd/SR 116 to Campbell County Line. Widen from 4 to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$858	\$889						\$1,748	\$1,084
Construction						\$18,435					\$18,435	\$10,846
Project Total				\$858	\$889	\$18,435					\$20,183	\$11,930
Project ID: 30											4.6 miles	
I-75, Anderson County Line to SR 63/US 25W. Widen from 4 lanes to 6 lanes											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE					\$5,913	\$6,125					\$12,038	\$7,207
ROW							\$784				\$784	\$445
Construction								\$65,763	\$68,130		\$133,893	\$72,093
Project Total					\$5,913	\$6,125	\$784	\$65,763	\$68,130		\$146,715	\$79,746
Project ID: 32											0.9 miles	
I-75, Milepost 131.34 to Milepost 132.25. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$637							\$637	\$402
Construction					\$6,577						\$6,577	\$4,009
Project Total				\$637	\$6,577						\$7,215	\$4,411
Project ID: 18											10.8 miles	
SR 131/Ball Camp Pk./ Schaad Rd. /Callahan Dr., SR 162 to I-75. Arterial Widening - Add 2 lanes											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE		\$3,196	\$3,311	\$2,940							\$9,446	\$6,188
ROW				\$8,213	\$17,018	\$17,631					\$42,862	\$25,931
Construction							\$54,457	\$56,418			\$110,875	\$61,849
Project Total		\$3,196	\$3,311	\$11,153	\$17,018	\$17,631	\$54,457	\$56,418			\$163,183	\$93,967

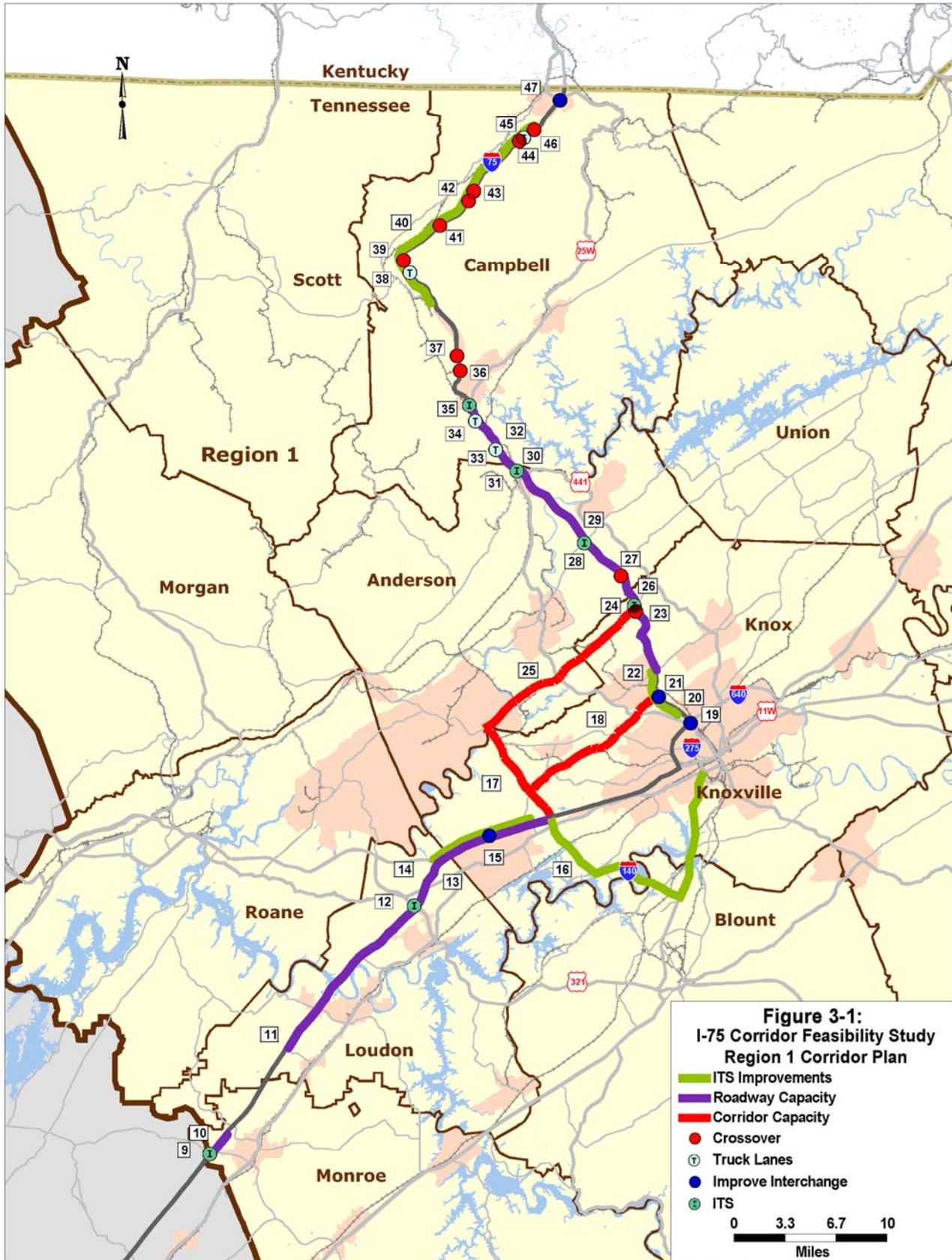
**Table 3-3: FY 2020-2029 I-75 Corridor Implementation Plan for TDOT Region 1 (cont.)
(Year of Expenditure Dollars in Thousands)**

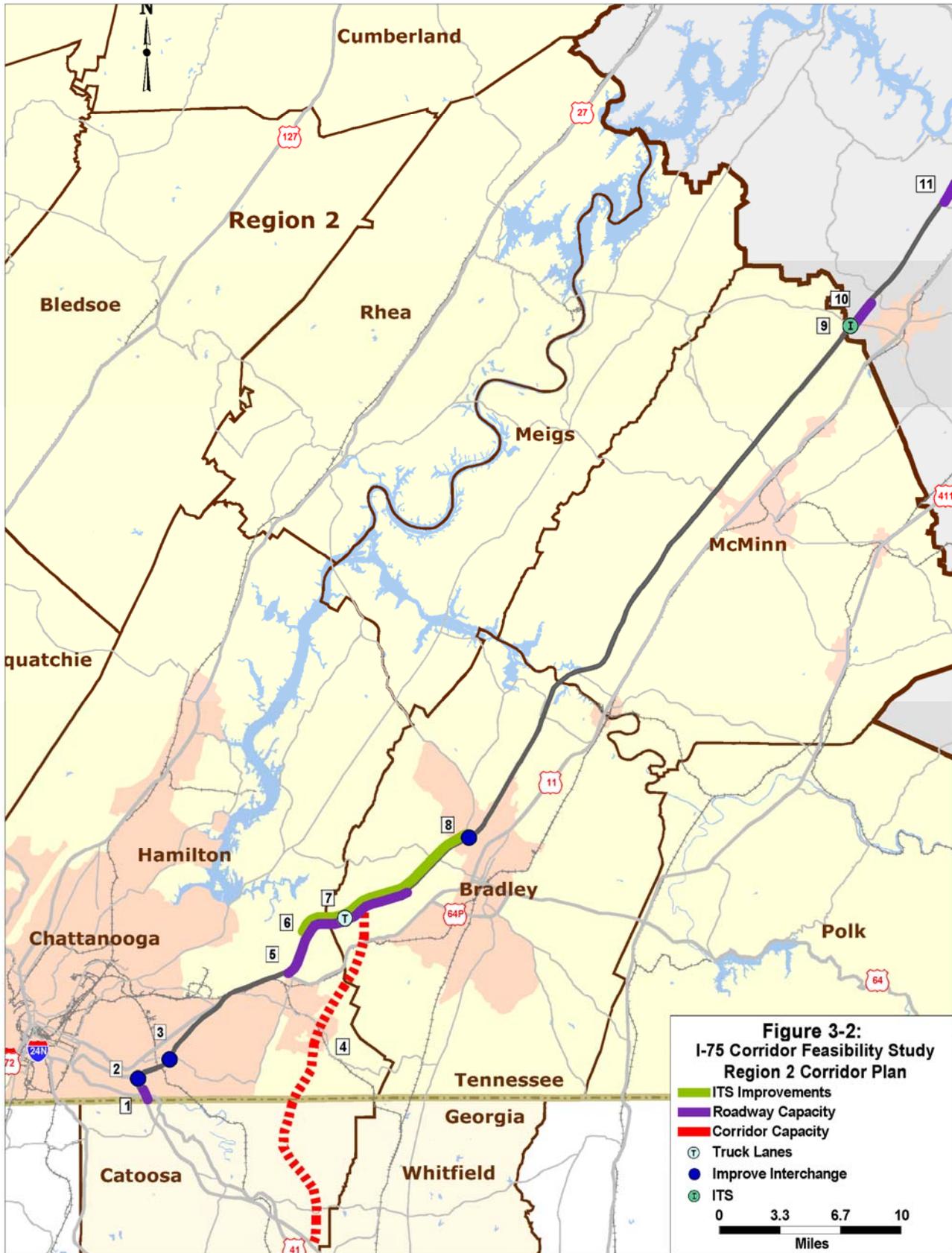
Project ID: 19											1.4 miles	
I-75/I-640/I-275. Reconstruct interchange to allow additional through lanes on north and southbound I-75											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$1,660	\$1,720									\$3,380	\$2,331
ROW		\$3,441	\$3,564								\$7,005	\$4,663
Construction			\$8,232	\$8,787	\$8,836						\$25,855	\$16,319
Project Total	\$1,660	\$5,161	\$11,796	\$8,787	\$8,836						\$36,240	\$23,313
Project ID: 24											12.9 miles	
SR 170, SR 62 to I-75. Arterial Widening - Add 2 lanes											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE				\$4,947	\$5,125	\$4,551					\$14,623	\$8,924
ROW						\$14,167	\$17,123	\$17,740			\$49,031	\$27,782
Construction									\$84,313	\$87,349	\$171,662	\$89,218
Project Total				\$4,947	\$5,125	\$18,718	\$17,123	\$17,740	\$84,313	\$87,349	\$235,315	\$125,924
Grand Total	\$15,506	\$22,908	\$105,888	\$120,433	\$44,358	\$60,910	\$72,365	\$139,921	\$152,444	\$87,349	\$822,280	\$477,786

**Table 3-4: FY 2020-2029 I-75 Corridor Implementation Plan for TDOT Region 2
(Year of Expenditure Dollars in Thousands)**

Project ID: 1											0.6 Miles	
I-75, Georgia State Line to Ringgold Rd. Widen from 6 lanes to 8 lanes											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
Construction	\$16,395										\$16,395	\$11,511
Project Total	\$16,395										\$16,395	\$11,511
Project ID: 7											1 Mile	
I-75, Milepost 16.69 to Milepost 17.68. Climbing Lane											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
ROW	\$650										\$650	\$456
Construction		\$19,131									\$19,131	\$12,965
Project Total	\$650	\$19,131									\$19,781	
Project ID: 4*											6.4 Miles	
Segment 4A - Chattanooga Bypass, I-75 in GA to the TN / GA State Line. New 4-lane limited access freeway											<u>Total</u>	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Yr of Expenditure</u>	<u>2010 Dollars</u>
PE	\$4,461	\$4,621	\$4,788								\$13,870	\$9,396
ROW				\$7,192	\$7,451	\$6,616					\$21,259	\$12,975
Construction							\$55,156	\$57,142	\$59,199	\$61,330	\$232,827	\$125,285
Subtotal	\$4,461	\$4,621	\$4,788	\$7,192	\$7,451	\$6,616	\$55,156	\$57,142	\$59,199	\$61,330	\$267,956	\$147,655
Georgia Total											\$267,956	\$147,655
Segment 4B - Chattanooga Bypass, TN / GA State Line to the Hamilton/Bradley County Line.											12.5 Miles	
<u>Activity</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>Total</u>	
PE	\$8,659	\$8,971	\$9,294								\$26,924	\$18,239
ROW				\$13,961	\$14,463	\$12,844					\$41,268	\$25,186
Construction							\$107,068	\$110,922	\$114,915	\$119,052	\$451,957	\$243,199
Subtotal	\$8,659	\$8,971	\$9,294	\$13,961	\$14,463	\$12,844	\$107,068	\$110,922	\$114,915	\$119,052	\$520,149	\$286,625
Tennessee Total											\$520,149	\$286,625
Project Total	\$13,120	\$13,592	\$14,082	\$21,153	\$21,914	\$19,460	\$162,224	\$168,064	\$174,114	\$180,382	\$788,105	\$434,280
Grand Total	\$30,165	\$32,723	\$14,082	\$21,153	\$21,914	\$19,460	\$162,224	\$168,064	\$174,114	\$180,382	\$824,281	\$445,791

* See discussion on Pages 1 and 3 for limitations of analysis and prioritization methodology, issues that may impact the project moving forward, and requirements for coordination.





4.0 RECOMMENDED APPROACH

Compared to the cost of widening the all of I-75 in Tennessee from Georgia to Kentucky, a comprehensive multi-modal set of solutions is superior. The recommended multi-modal approach is a combination of operational improvements, widening the existing interstate system, providing for improvements to parallel facilities, and projects that facilitate alternative modes. It should be noted that some of the projects identified in this approach need to be added to the Long Range Transportation Plans (LRTP) of the regional planning organizations. However, the projects are beneficial to the operations and safety of the I-75 corridor based on the analysis. The multi-modal approach for improving conditions along I-75 is summarized as follows.

4.1 Widening Existing I-75

Several options are available for improving congestion and safety along I-75. The option of widening all of I-75 in Tennessee from Georgia to Kentucky is not feasible using benefit cost analysis as guidance for project selection. The cost for widening the entire route outweighs the congestion and safety benefits achieved by these improvements. This is especially true in rural areas where traffic volumes are lower and multi-modal solutions are able to improve safety and congestion at a much lower cost.

Based on the benefit cost analysis, approximately 57 miles of I-75 should be widened before the 2030 horizon year. The total estimated cost for widening the following segments of I-75 is \$866 million in 2008 dollars or \$1.2 billion in year of expenditure dollars:

- 0.3 miles of widening I-75 in South Chattanooga,
- 8.6 miles of widening in Hamilton and Bradley County,
- 1.6 miles of widening I-75 in Monroe County,
- 15.3 miles of widening I-75 in Loudon County,
- 9.2 miles of widening in Knox County west of Knoxville,
- 4.7 miles of widening in Knox County north of Knoxville,
- 12.7 miles of widening in Anderson County, and
- 4.6 miles of widening I-75 in Campbell County.

4.2 Improvements to Parallel Facilities

Improvements to existing parallel facilities or constructing new parallel facilities will serve to divert trips from I-75, as well as to improve access through the region. There are four cost effective parallel route capacity improvements identified. The total estimated cost for the following parallel route improvements is \$763 million in 2008 dollars or \$1.4 billion in year of expenditure dollars:

- Add auxiliary lanes between interchanges and access control as necessary on SR 162 and SR 62 from Dutchtown Road to Edgemoor Road (SR 170),
- Widen or improve a corridor composed of SR 131, Ball Camp Road, SR 62, and Schaad Road between SR 162 and I-75 north of Knoxville, and
- Widen SR 170 from two to four lanes from SR 62 to I-75 north of Knoxville.
- Construct a new four-lane access controlled facility from I-75 in Ringgold, Georgia to I-75 north of the Hamilton/Bradley County line,

4.3 Intelligent Transportation System (ITS) Expansion

Expansion of the existing ITS system will provide benefit for congested segments of I-75 in urban areas, and the potential for improved safety and diversion from I-75 during non-recurring events on rural segments of I-75. Over 58 miles of ITS projects were identified. The total estimated cost for ITS projects was lower than the other solutions at \$21 million in 2008 dollars or \$24 million in year of expenditure dollars. The following are the ITS projects identified along the I-75 Corridor:

- Expand ITS instrumentation on I-75 over White Oak Mountain from Ooltewah-Georgetown Road to SR 60,
- Install ITS instrumentation and communications at the following locations on I-75,
 - SR 68,
 - US 321 (Lenoir City),
 - SR 170 (Raccoon Valley Road),
 - SR 61 (Andersonville Highway),
 - US 25W (SR 116), and
 - SR 63 (Howard Baker Road),
- Expand TDOT SmartWay urban coverage to include I-75/I-40 from the junction west of Knoxville to Lovell Road, and I-75 from Merchant Road to Emory Road,
- Expand arterial ITS communication and instrumentation on I-140 and US 129 for high capacity route diversion, and
- Implement a fog and severe weather detection system on I-75 over Jellico Mountain.

4.4 Truck Climbing Lanes

Construction of truck climbing lanes on long steep grades provides for improved safety and reduced congestion. Locations for construction of truck climbing lanes were based on an assessment of the grades along existing four lane segments of I-75 and from stakeholder and public comment. Truck climbing lanes are recommended at five locations along I-75 in Bradley and Campbell Counties. The total estimated cost of the truck climbing lanes is \$49 million in 2008 dollars or \$69 million in year of expenditure dollars.

4.5 Crossovers

Construction of median crossovers will allow vehicles to continue travel on I-75 if lanes become blocked along the route. The locations for construction of median crossovers were based on potential rock fall locations that could block one or more lanes for a direction of travel. Ten locations are recommended for crossovers and they are intended to work in pairs. They are used along divided interstate routes to temporarily allow diversion of traffic from one side of the interstate to the other during construction or following an incident such as a crash or rock fall. The total estimated cost of the crossovers is \$9 million in 2008 dollars and \$22 million in year of expenditure dollars.

4.6 Geometric and Safety Improvements

Geometric and safety improvements were identified based on stakeholder input and public involvement, as well as a review of the crash data along I-75. The seven geometric and safety projects recommended include:

- Interchange reconstruction at I-24 and I-75 in Chattanooga,
- Interchange improvements at I-75 and East Brainerd Road,
- Interchange improvements at I-75 and SR 60 (Georgetown Road) in Cleveland,
- Interchange improvements at the I-40/I-75 truck weigh station in Knoxville,
- Interchange improvements at I-75/I-640/I-275 in Knoxville,

- Interchange improvements at I-75 and Callahan Road in Knoxville, and
- Interchange reconstruction at I-75 and US 25W in Jellico.

The total estimated cost of the geometric and safety improvements is \$174 million in 2008 dollars or \$137 million in year of expenditure dollars.

4.7 Freight Diversion

Freight diversion from truck to rail along the corridor provides a benefit to I-75 congestion and safety. Based on the analysis, the Norfolk Southern Railroad's Crescent Corridor Program, when fully implemented, will result in a cost benefit ratio much greater than 1.0. It is recommended that TDOT continue to actively coordinate with Norfolk Southern railroad and other impacted states regarding the Crescent Corridor Program. It is also recommended that TDOT increase coordination with the other Class I railroads, short line railroads, waterway port and airport facilities, the operators of truck transfer and intermodal facilities, and local shippers to ensure the competitiveness of alternative freight transportation modes.

It is recommended that TDOT consider programs to broadcast the benefits of rail and waterway modes to the community of shippers and producers through various media and outreach efforts. Encouraging use of these alternative modes will help reduce the growth of truck traffic on I-75 and may attract new commerce, trade and economic development.

4.8 Summary of Recommended Corridor Plan

A summary of the recommended Corridor Plan estimated costs in year of expenditure dollars by horizon year and improvement category is shown in **Table 4-1**.

**Table 4-1: Summary of Recommended Corridor Plan
(Year of Expenditure Dollars)**

Improvement Category	Five Years (2010-2014)	Five Years (2015-2019)	Ten Years (2020-2029)	Total (2010-2029)
Roadway Capacity Improvements - Widening Existing I-75	\$179,968,000	\$847,479,000	\$183,294,000	\$1,210,740,000
Corridor Capacity Improvements - Improving Existing or Constructing new Parallel Routes	\$0	\$35,181,000	\$1,400,032,000	\$1,435,213,000
Operational Improvements - Truck Climbing Lanes and crossovers	\$29,482,000	\$35,038,000	\$26,996,000	\$91,516,000
Operational Improvements - Intelligent Transportation Systems	\$15,109,000	\$9,106,000	\$0	\$24,215,000
Operational Improvements - Geometric Improvements	\$63,920,000	\$73,681,000	\$36,240,000	\$173,841,000
Total	\$288,479,000	\$1,000,485,000	\$1,646,562,000	\$2,935,526,000

Note: Cost estimates are year of expenditure dollars using an average annual 3.6 percent cost escalation.