

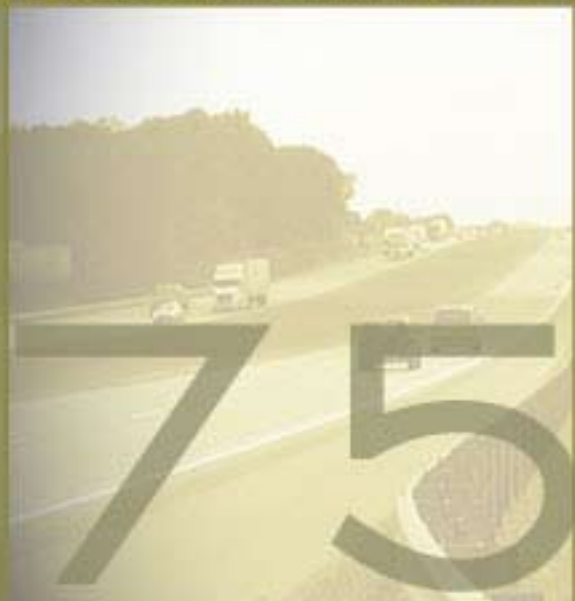


I-75 Corridor Feasibility Study **Public Information Meeting Multi-Modal Solutions**

Presenters Comments

This video you are about to watch is the I-75 corridor feasibility study PowerPoint that was presented to the public at public information meetings held in mid-September 2009 by the Tennessee Department of Transportation.

These meetings were held in Chattanooga, Cleveland, and Knoxville.





Presenters Comments

These information meetings presented to the public an extensive overview of the multimodal solutions developed for the corridor. The meeting also allowed for public comment on the study.

MEETING AGENDA

- Purpose of the Meeting
- Project Overview and Status
- Overview of Multi-Modal Solutions
- Comments and Questions



Presenters Comments

The purpose of this study is to identify deficiencies and develop solutions to address capacity and congestion, operations and maintenance, safety and security, freight movements and diversion, economic access, and commuter travel demand.

STUDY PURPOSE

- Identify and address deficiencies
- Evaluate potential for diversion of freight from truck to rail or other mode
- Develop multi-modal solutions



Presenters Comments

The results of the study will be a list of prioritized projects that can be implemented by the state of Tennessee. These solutions will be grouped in packages to address congestion, freight diversion, operational improvements, and compared to the no-build alternative.

Each package of solutions will be evaluated independently from the other. The projects will be ranked using a cost-benefit ratio, the Tennessee Project Evaluation System, and input from the public and key stakeholders.

The list will consist of short-term, mid-term, and long-range projects that can be implemented by 2011, 2016, and 2030, respectively.

STUDY OUTCOME

- List of short, mid and long-range prioritized projects to address deficiencies
- Packages of Solutions
 - No Build
 - Roadway Capacity
 - Corridor Capacity
 - Freight Diversion
 - Operational Solutions

STUDY CORRIDOR

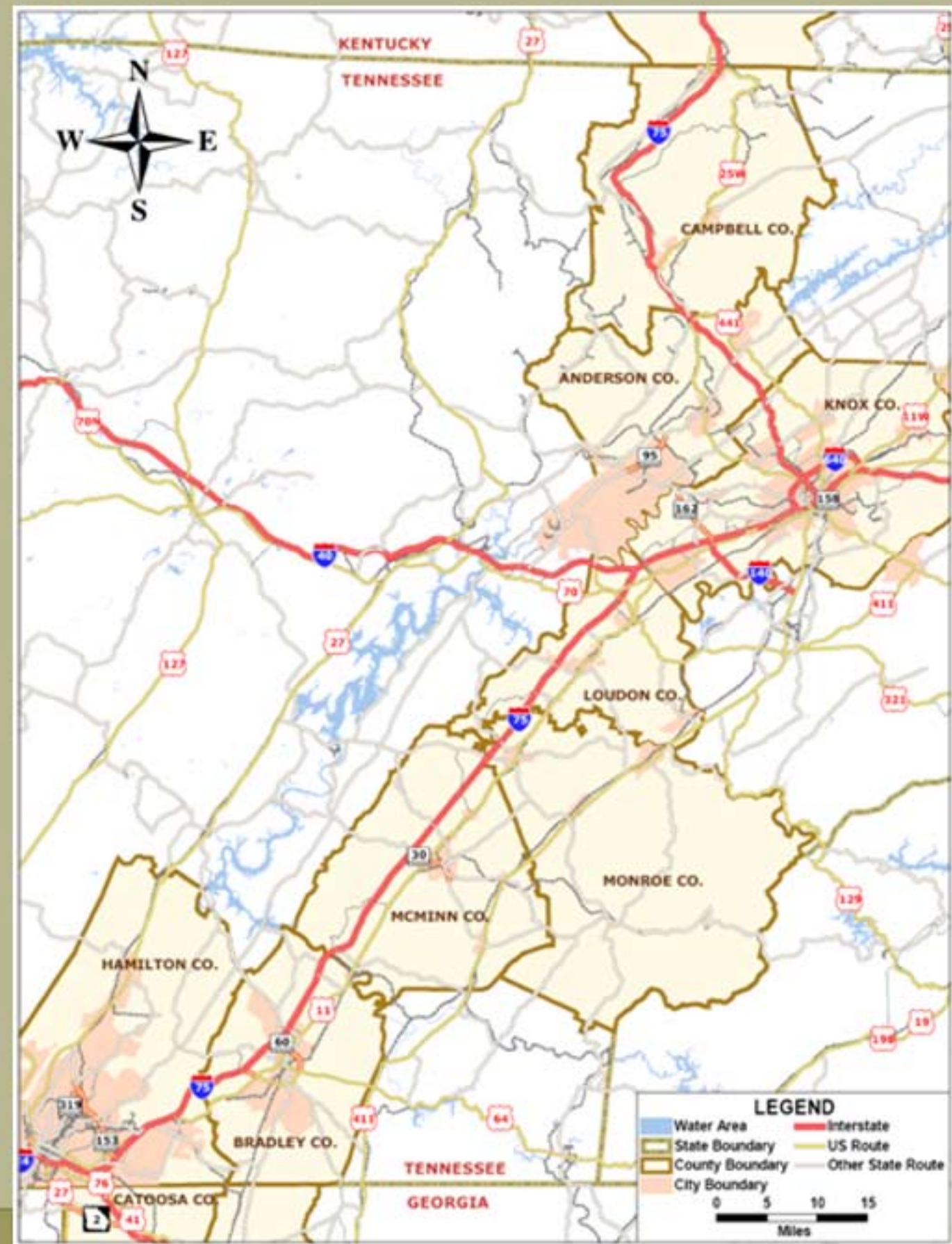
From Chattanooga at Georgia State Line to Kentucky State Line (162 Miles)

Presenters Comments

I-75 is an important transportation link for the region and for the state of Tennessee. It serves as a commuter route in urban and rural areas and provides access if parallel routes are congested.

This interstate is 162 miles long and passes through three of the state's rural planning organizations and three of the state's metropolitan planning organizations. These planning organizations help establish priorities for roadway projects in the long-range transportation plan of the state.

I-75 also has a significant impact on the economy of each region by allowing for freight movement and economic access for industry.





CAPACITY AND CONGESTION

- Roadway Capacity Solutions
- Corridor Capacity Solutions

Presenters Comments

The first two packages of solutions directly address capacity and congestion along the corridor. The roadway capacity package of solutions includes projects to improve the capacity along the route by adding lanes to I-75 itself.

The corridor capacity package of solutions provides for improving routes that are parallel to I-75 to allow traffic to divert to those routes and thereby reduce congestion on I-75.

The following series of slides provides an overview of the roadway capacity improvements along I-75 corridor.

The project description, length, and estimated costs are shown with each roadway capacity improvement. Each table is followed by a map showing the project limits.



ROADWAY CAPACITY

Presenters Comments

This table lists the roadway capacity improvements for the Chattanooga and Cleveland metropolitan planning areas starting from the Georgia state line — ID letter A in Hamilton County — through the Cleveland area — ID letter I — in Bradley and McMinn Counties.

All of the costs provided in the table are in terms of thousands of dollars.

ID	County	Project Description	Length (mi.)	Total Cost
A	Hamilton	Widen from 6 lanes to 8 lane from the Georgia State Line to Ringgold Road	0.6	\$13,400
B	Hamilton	Widen from 8 lanes to 10 lanes from Ringgold Road to the I-24/I-75 Junction	0.6	\$5,270
C	Hamilton	Improve the I-75/I-24 Interchange to provide three lanes for the I-75 movements through the interchange	0.7	\$30,160
D, E	Hamilton	Widen from 8 lanes to 10 lanes from the I-24/I-75 junction to East Brainerd Road (SR 320)	1.8	\$46,275
F	Hamilton	Widen southbound I-75 to 4 lanes from East Brainerd Road to SR 153	1.0	\$41,175
G	Hamilton	Widen I-75 from 6 lanes to 8 lanes from Volunteer Ordnance Road to just south of US 64	2.1	\$19,990
H	Hamilton/ Bradley	Widen I-75 from 4 lanes to 6 lanes from north of US 64 to US 74	8.6	\$82,525
I	Bradley/ McMinn	Widen I-75 from 4 lanes to 6 lanes from US 74 to SR 163	16.0	\$181,225

ROADWAY CAPACITY

Presenters Comments

The roadway capacity improvements are shown in red. Starting with the letter A on this map, the improvements include widening this stretch of I-75 from six lanes to eight lanes.

For letter B, widening it from eight lanes to 10 lanes.

For letter C, improving the I-75/I-24 interchange to provide three lanes for the I-75 movements through the interchange.

For letters D and E, widen I-75 from eight lanes to 10 lanes.

For letter F, widen southbound I-75 to four lanes.

For letter G, widen I-75 from six lanes to eight lanes.

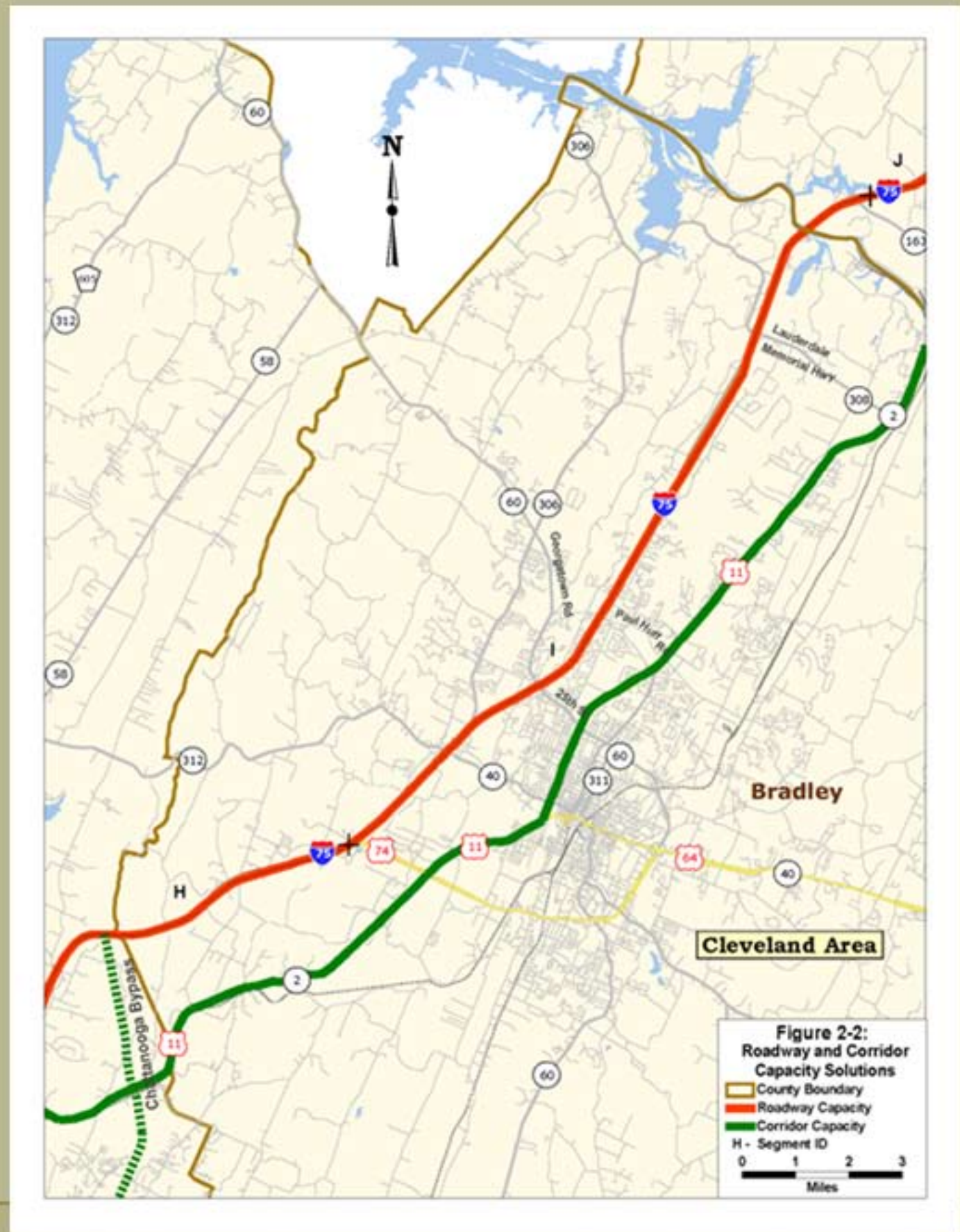
For letter H, widen I-75 from four lanes to six lanes



ROADWAY CAPACITY

Presenters Comments

And for segment I, widen I-75 from four lanes to six lanes.





ROADWAY CAPACITY

Presenters Comments

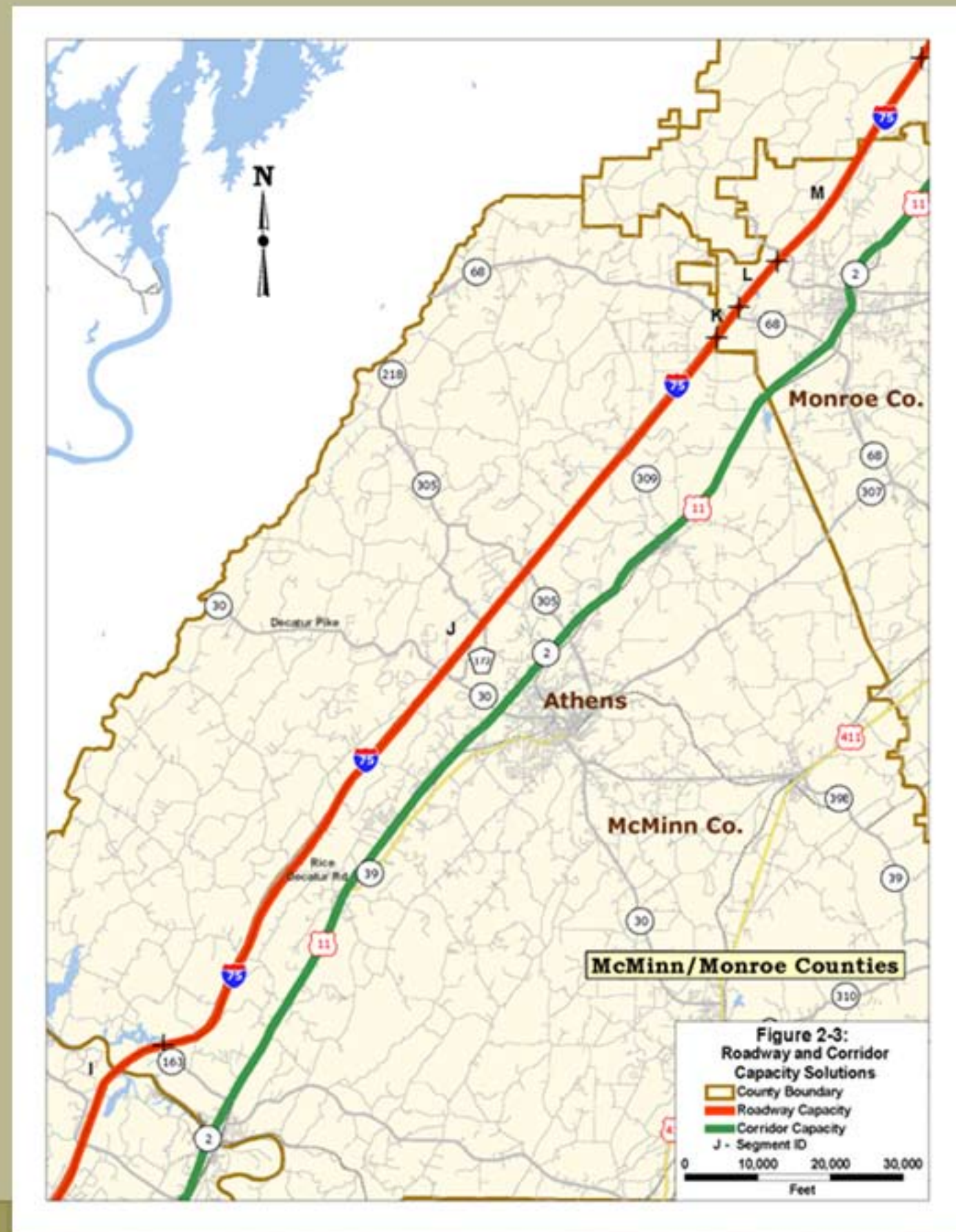
As in the previous slide, this table shows the roadway capacity improvements starting in McMinn County from State Route 163 — ID letter J — to the I-40/I-75 junction in Loudon County.

ID	County	Project Description	Length (mi.)	Total Cost
J	McMinn	Widen I-75 from 4 lanes to 6 lanes from SR 163 to SR 68	23.6	\$244,945
K, L, M	Monroe	Widen I-75 from 4 to 6 lanes from SR 68 to Pond Creek Road (SR 323)	9.1	\$74,545
N	Loudon	Widen I-75 from 4 to 6 lanes from Pond Creek Road (SR 323) to the I-40/I-75 Junction	6.5	\$55,975
O	Loudon	Improve Interchange to provide 3 through lanes for I-75	0.1	\$13,943

ROADWAY CAPACITY

Presenters Comments

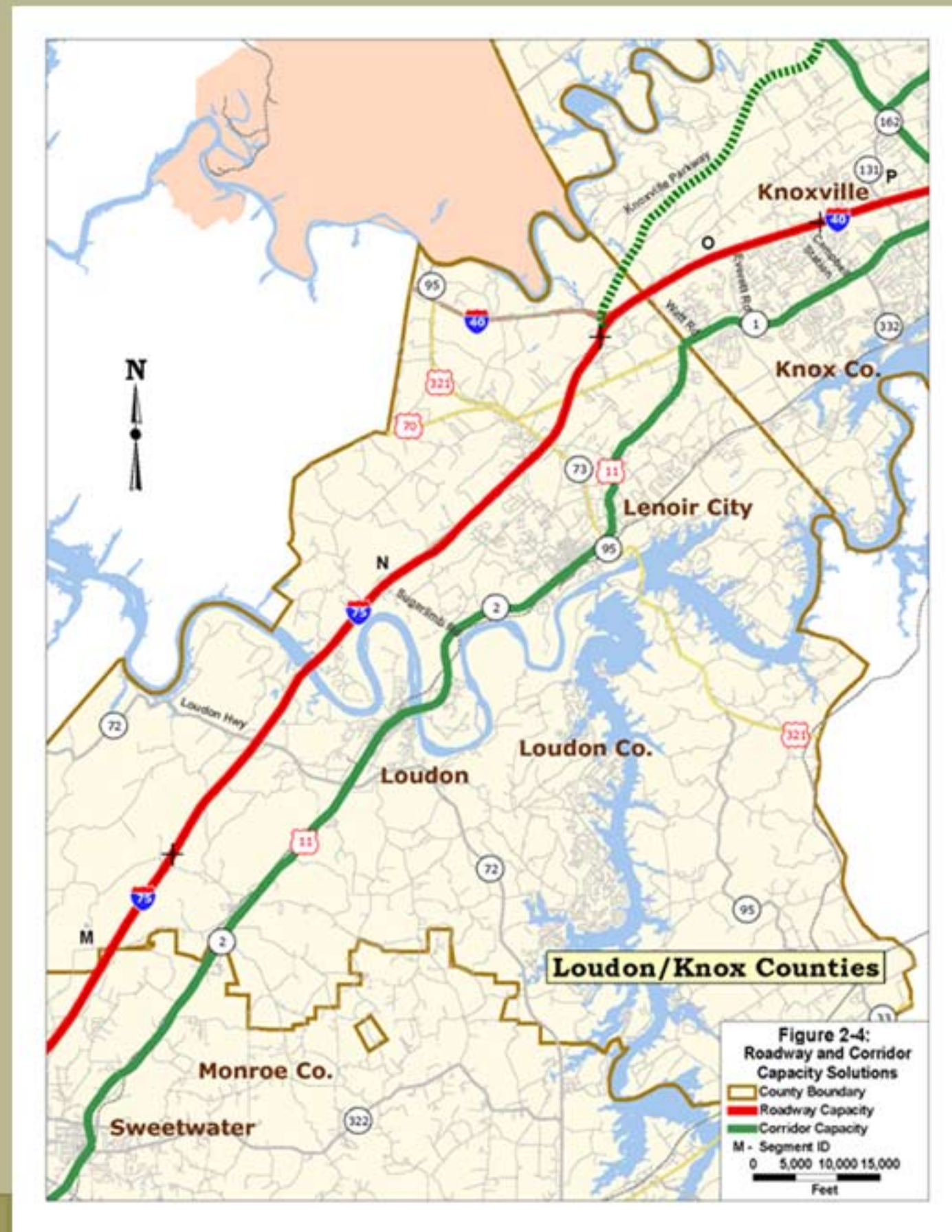
The segments of I-75 identified as section J through M are to be widened from four lanes to six lanes.



ROADWAY CAPACITY

Presenters Comments

The segment of I-75 identified as N is to be widened from four to six lanes and the I-40/I-75 interchange is to be improved to provide for three through lanes on I-75.





ROADWAY CAPACITY

Presenters Comments

This table lists the roadway capacity improvements, labeled O – W, through Knox County.

ID	County	Project Description	Length (mi.)	Total Cost
O, P	Loudon/ Knox	Widen I-75 from 6 to 10 lanes from the I-40/I-75 east to Pellissippi Pkwy (SR 162)	9.2	\$255,530
Q, R, S	Knox	Widen I-75 from 8 to 10 lanes from Pellissippi Pkwy (SR 162) to the I-40/I-75/I-640 Junction	8.3	\$254,085
T	Knox	Improve the I-75/I-40 Interchange to provide three through lanes on I-75	0.3	\$17,065
U	Knox	Improve the I-75/I-640/I-275 Interchange to provide 2 through lanes for I-75	0.7	\$56,335
V	Knox	Widen I-75 from 6 lanes to 8 lanes from the I-75/I-640/I-275 Junction to Emory Road (SR 131)	4.6	\$127,530
W	Knox	Widen I-75 from 4 lanes to 6 lanes from Emory Road (SR 131) to Raccoon Valley Road (SR 170)	4.7	\$82,885



ROADWAY CAPACITY

Presenters Comments

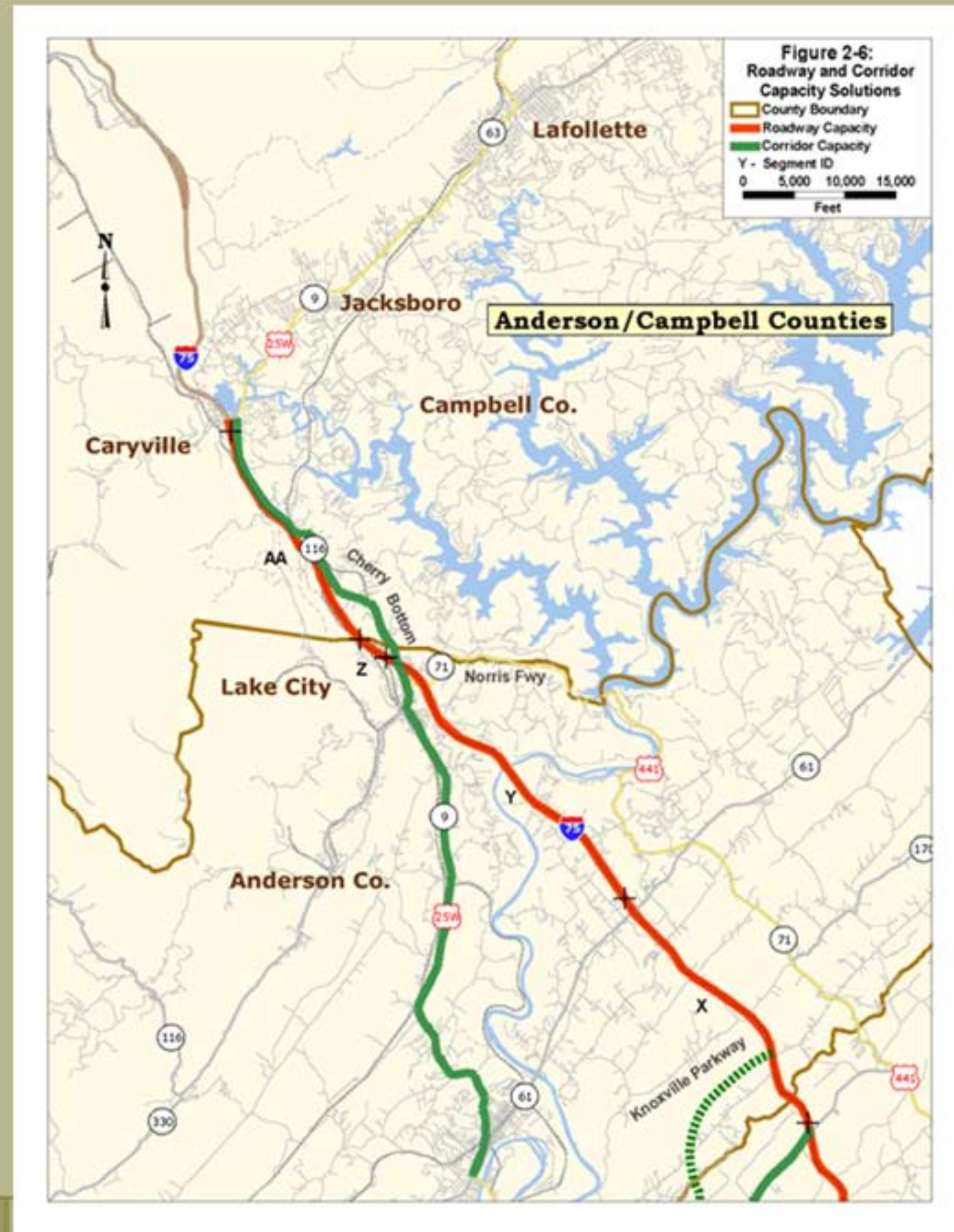
This table shows the remaining roadway capacity improvements along the corridor through Anderson and Knox Counties.

ID	County	Project Description	Length (mi.)	Total Cost
X	Knox/ Anderson	Widen I-75 from 4 to 6 lanes from Raccoon Valley Road (SR 170) to Andersonville Hwy (SR 61)	5.6	\$68,170
Y	Anderson	Widen I-75 from 4 to 6 lanes from Andersonville Highway to Cherry Bottom Road (SR 116)	6.5	\$111,895
Z	Anderson	Widen I-75 from 4 to 6 lanes from Cherry Bottom Road (SR 116 to Campbell County	0.6	\$11,115
AA	Campbell	Widen I-75 from 4 to 6 lanes from Anderson County to SR 63 (US 25W)	4.6	\$107,730

ROADWAY CAPACITY

Presenters Comments

Segments X through AA are to be widened from four to six lanes.





CORRIDOR CAPACITY

Presenters Comments

Now we are going to talk about the second package of multimodal solutions identified for I-75 known as corridor capacity improvements.

These improvements will reduce congestion along corridors that are parallel to I-75 that experience increased traffic that is diverting from I-75. These solutions include improving existing routes or constructing routes on new alignment.

As with the roadway capacity improvements, a description of the projects from south to north is provided in tabular format, followed by maps showing the project locations.

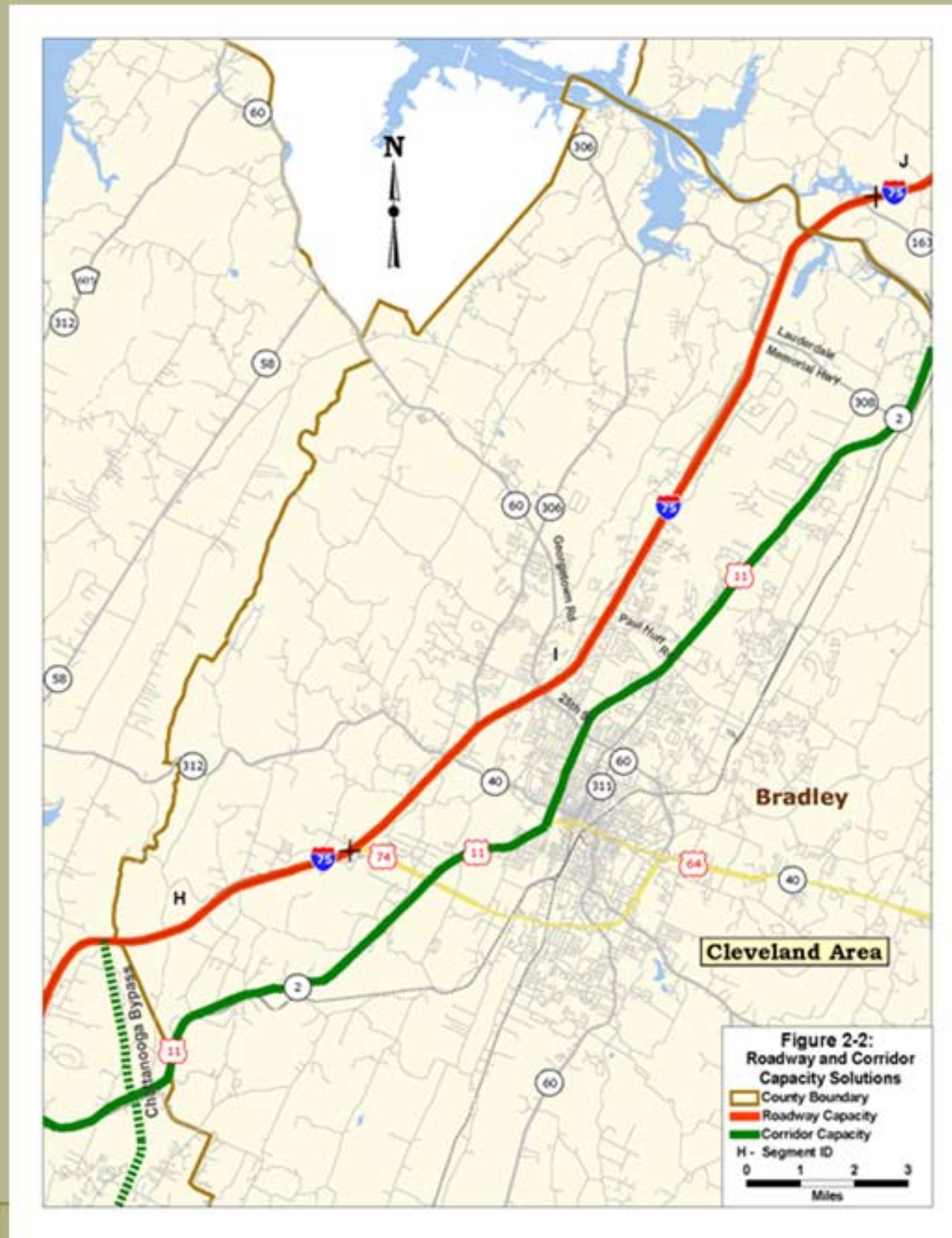
This table shows the corridor capacity improvements in the Chattanooga metropolitan planning organization area, the Cleveland metropolitan planning organization area, McMinn County, and Monroe County.

Region	Route	Project Limits and Description
Chattanooga	SR 321/ GA 240	Widen route from 2 lanes to four lanes from US 41/US 76 in Ringgold, Georgia to US 64 in Tennessee
	Chattanooga Bypass	Construct new 4 lane interstate type facility from I-75 in Georgia to I-75 at the Hamilton/Bradley County Line
Chattanooga / Cleveland	US 64/US 11	Widen/Improve route from I-75 (Exit 11) to US 74 south of Cleveland
Cleveland	US 11	Widen/Improve route from US 74 to SR 308 north of Cleveland
McMinn County	US 11	Widen/Improve route from SR 308 to the Hiwassee River
	US 11	Widen route from 2 lanes to 4 lanes from the Hiwassee River to SR 68
Monroe County	US 11	Widen route from 2 lanes to 4 lanes from SR 68 to SR 72

CORRIDOR CAPACITY

Presenters Comments

On this map, the corridor capacity improvement is to provide one additional lane in each direction along US 11 from US 74 to State Route 308—also known as Lauderdale Memorial Hwy.

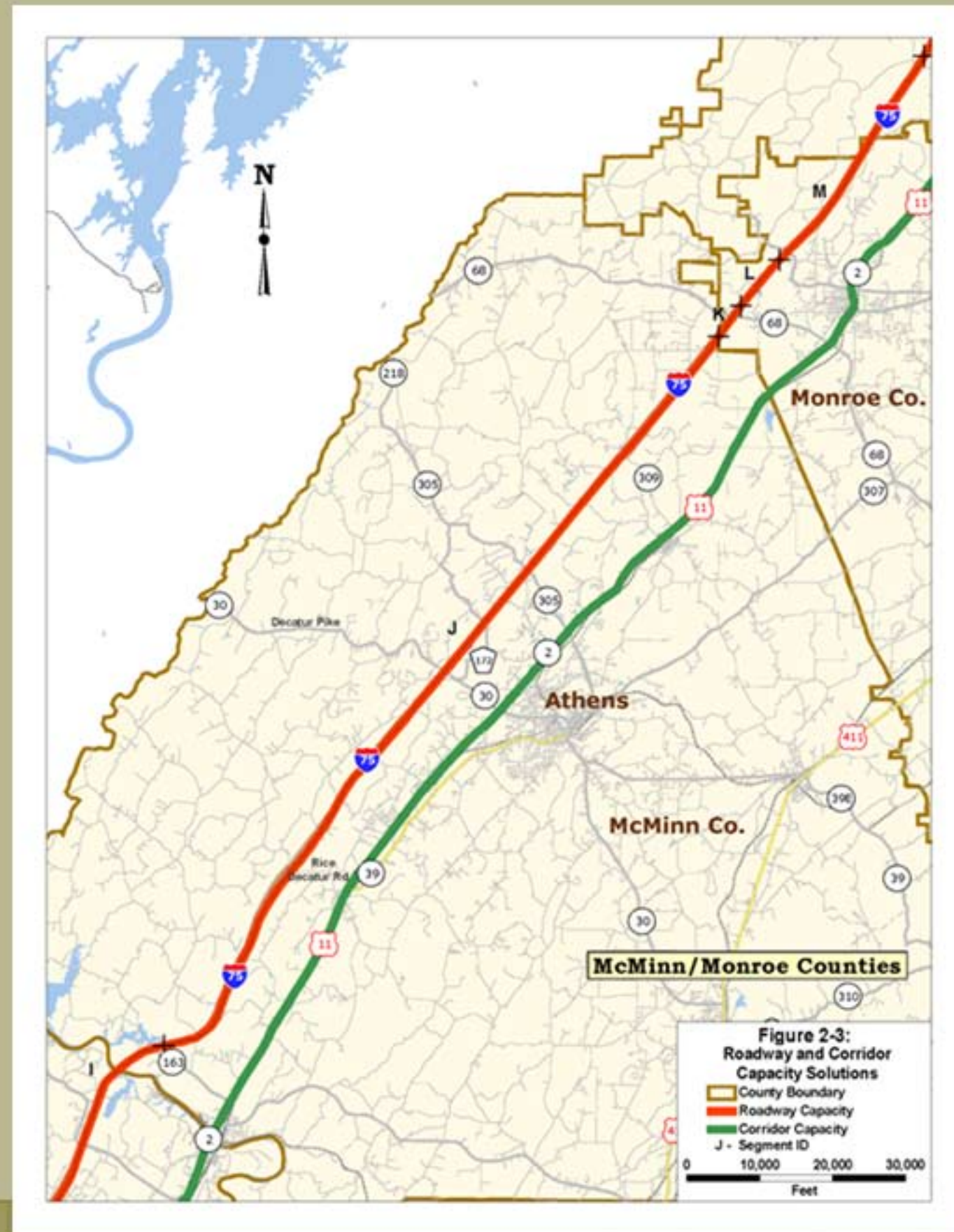


CORRIDOR CAPACITY

Presenters Comments

For this stretch in McMinn and Monroe Counties, the corridor capacity improvements include providing one additional lane in each direction along US 11 from State Route 308 (also know as Lauderdale Memorial Highway) to just north of the Hiwassee River, and widening US 11 from two to four lanes from the Hiwassee River to State Route 68.

The other improvement is to widen US 11 from two to four lanes from State Route 68 to State Route 72.





CORRIDOR CAPACITY

Presenters Comments

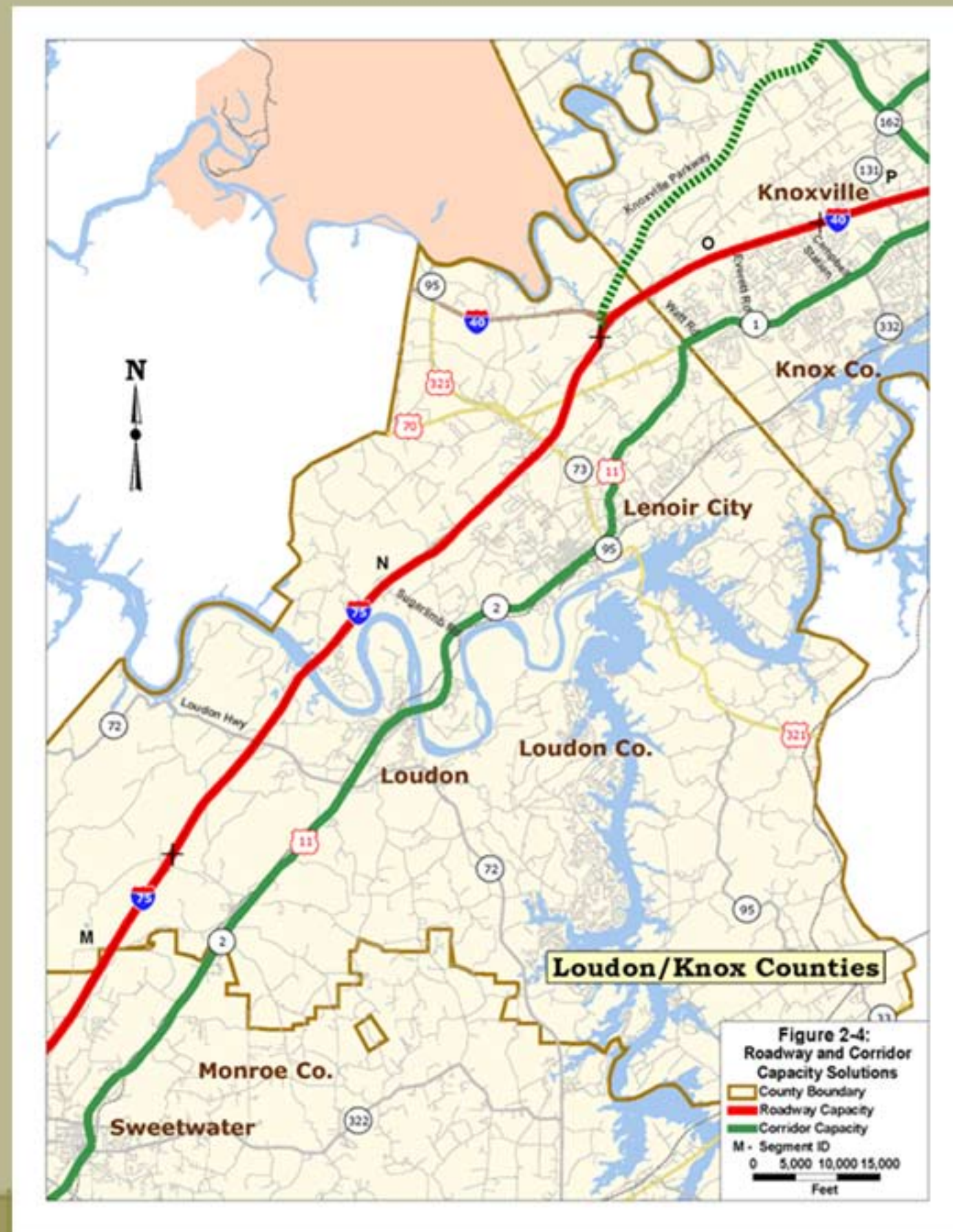
This table shows additional improvements to US 11 and other routes through Loudon and Knox Counties.

Region	Route	Project Limits and Description
Loudon County	US 11	Widen route from 2 to 4 lanes from SR 72 to N Street in Lenoir City. Widen from 2 to 4 lanes from Magnolia Street/Monument Street to US 70.
Knox County	US 70	Widen route from 5 to 7 lanes from US 11 to I-140.
Knoxville	SR 162 and SR 62	Widen from 4 lanes divided to 6 lanes and reconstruct intersections to provide full access control along SR 162 from Lovell Road to SR 62. Widen existing 4 lane divided on SR 62 to 6 lanes.
Knoxville	SR 131 to Ball Camp Pike to Schaad Road to Callahan Drive	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 162 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.

CORRIDOR CAPACITY

Presenters Comments

As seen on this map, the corridor capacity improvements include widening US 11 from two to four lanes from State Route 72 to US 70, and widening US 70 from five to seven lanes from US 11 to I-140.



CORRIDOR CAPACITY

Presenters Comments

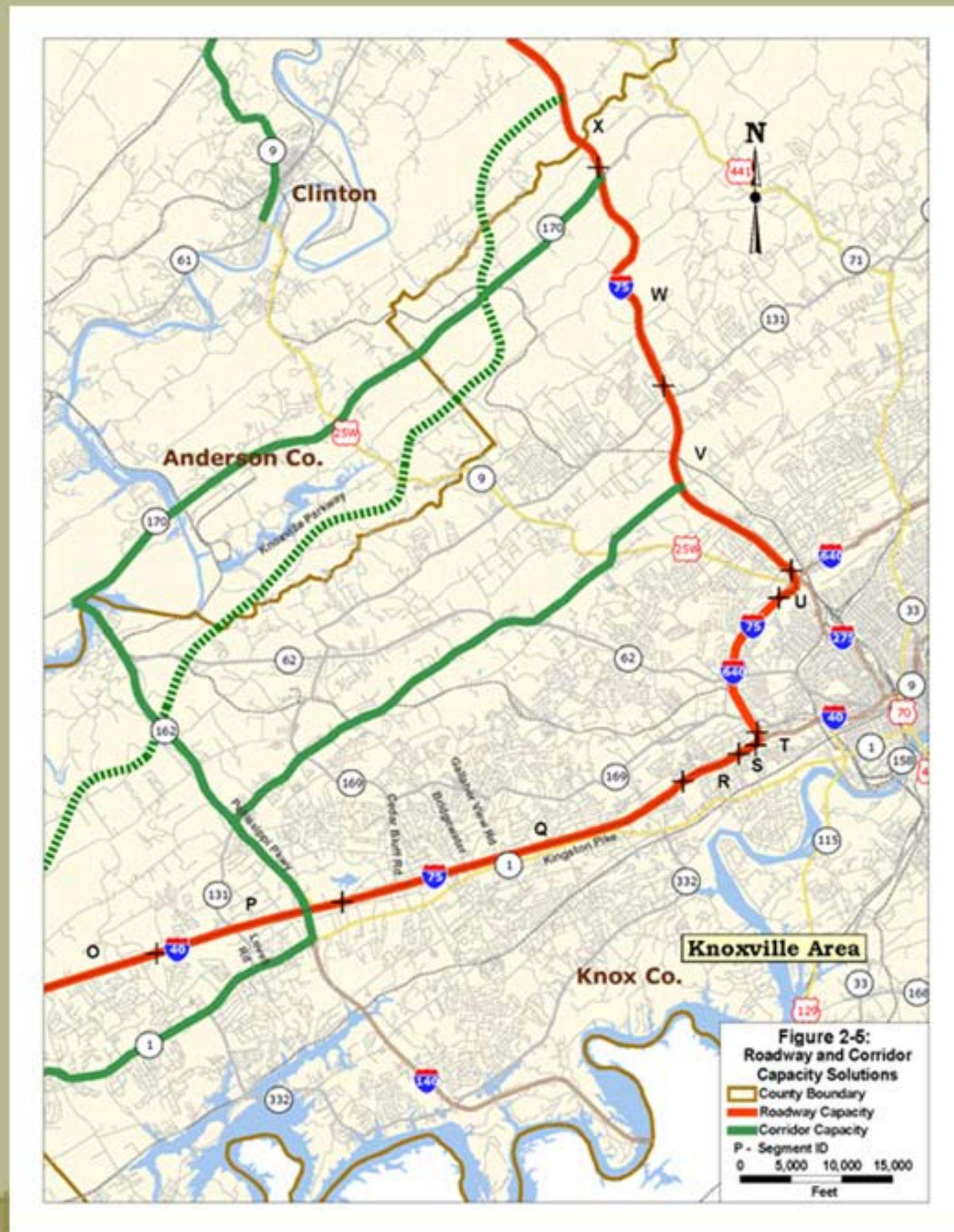
For the Knoxville area, the improvements include widening State Route 162 from four to six lanes and provide full access control from Lovell Road to State Route 62.

For State Route 62, widen it from four to six lanes from State Route 162 to State Route 170.

For the east/west corridors, widening them from two to four lanes. These include State Route 131, Ball Camp Pike, Schaad Road, and Callahan Drive from State Route 162 to I-75

For the proposed Knoxville Beltway, construct a four-lane interstate type facility from the I-40/I-75 junction west of Knoxville to I-75 just north of the Knox County line, and

Widen State Route 170 from State Route 62 to I-75.





CORRIDOR CAPACITY

Presenters Comments

Here are the additional corridor capacity improvements for Knox, Anderson, and Campbell Counties.

Region	Route	Project Limits and Description
Knox County	Knoxville Beltway	Construct new 4 lane access-controlled facility from the I-40/I-75 junction to I-75 in Anderson County.
Anderson County	SR 170	Widen route from 2 lanes to 4 lanes from SR 62 to I-75.
Anderson County	US 25W	Widen from 2 to 4 lanes from SR 61 to Landrum Road. Widen from 2 to 4 lanes from Old Cane Creek Road/Shaw Lane to Hill Street/Mason Avenue.
Campbell County	SR 116	Widen route from 2 to 4 lanes from I-75 to Howard Baker Road (US 25W/SR 63).



OPERATIONS AND MAINTENANCE

Presenters Comments

The third package of multimodal solutions is operations and maintenance.

This diverse group of improvements ranges from constructing truck climbing lanes to installing intelligent transportation systems—also known as ITS.

Also geometric improvements to I-75 and additional park and ride facilities were included in this package of solutions.

The feasibility of managed lanes also was evaluated as part of this group of solutions.

- Interchange and Ramp Improvements
- Truck Climbing Lanes
- ITS and HELP Programs
- Managed Lane Feasibility
- Park and Ride Facilities



OPERATIONAL IMPROVEMENTS

Presenters Comments

The majority of operational improvements are related to deficient cross-section elements, such as inadequate shoulder widths.

Other types of improvements include reconstructing the I-75 and I-24 interchange and lengthening the acceleration and deceleration lanes at the southbound Scenic Overlook at the Bradley and Hamilton County line.

Region	Location	Deficiency	Solution or Project
Chattanooga	I-75 from Ringgold Road to just north of the Tennessee Welcome Center	Inadequate inside shoulder width	Widen inside shoulder
	I-75 from Big Springs Creek just south of the I-75/I-24 Interchange	Bridge Condition - Structural	Monitor
	I-75 at I-24 Interchange	Insufficient super elevation transitions along ramps and insufficient weaving length north of interchange	Reconstruct interchange
	I-75 just north of I-24 Interchange to north of Lee Highway	Inadequate inside shoulder width	Widen inside shoulder
Hamilton County	North of Ooltewah Georgetown Road to north of the Hamilton/Bradley County Line	Inadequate inside shoulder width	Widen inside shoulder
Bradley County	Scenic Overlook at the Hamilton/Bradley County Line on southbound I-75	Inadequate deceleration and acceleration lanes	Lengthen acceleration and deceleration lanes
Loudon County	I-75 at the Tennessee River Bridge	Inadequate shoulder width	Widen inside shoulder and outside shoulder



OPERATIONAL IMPROVEMENTS

Presenters Comments

Again, the majority of operational improvements along the northern portion of the study area are related to inadequate shoulder widths.

Other operational improvements include widening westbound I-75 from the I-40 and I-75 junction to Watt Road, and reconstructing the I-75 and US 25 west interchange in Jellico.

Region	Location	Deficiency	Solution or Project
Loudon County	I-75 south of the Loudon/Knox County Line to the I-75/I-640/I-40 Interchange	Inadequate inside shoulder width	Widen inside shoulder
Knox County	Westbound I-40/I-75 from the I-40 Junction to Watt Road	Inadequate weaving distance	Widen from three lanes to four lanes
Knox County	I-75 from Gap Road to Emory Road	Inadequate inside shoulder width	Widen inside shoulder
Campbell County	I-75 at CSX underpass south of Vasper	Inadequate inside shoulder width	Widen inside shoulder
Campbell County	Butter and Eggs Road (5.64 miles north of Anderson County Line)	Bridge Condition - Structural	Bridge Rehabilitation
Campbell County	SR 63 (11.29 miles north of Anderson County Line)	Bridge Condition - Structural	Bridge Replacement
Campbell County	Rarity Mountain Road to just south US-25W	Inadequate inside shoulder width	Widen inside shoulder
Jellico	I-75/US-25W Interchange in Jellico	Inadequate ramp radii for speeds and insufficient weaving distance for ramps	Reconstruct interchange



TRUCK CLIMBING LANES

Presenters Comments

Included in the operations and maintenance package of solutions is the construction of truck climbing lanes.

The locations of these truck climbing lanes were based on the identification of four-lane segments of I-75 that have long steep slopes.

While the majority of new truck climbing lanes are in Campbell County, around Jellico Mountain, there also are truck climbing lanes in Bradley and Knox Counties.

The locations of these truck climbing lanes shown here are provided in the next three maps.

Also, there are segments of I-75 that experience rock fall or rock slides. When these occur, there is a delay associated with clearing the debris and reopening the roadway. A crossover can be constructed on I-75 to allow traffic to flow during this or other types of maintenance operations. Crossover locations also shown on the following maps with a green circle.

Beginning Log Mile	Project Length (ft)	County	Grade	Direction	Annual Average Daily Traffic	% Trucks
1.06	5,250	Hamilton/Bradley	3.8	Southbound	56,800	21
9.74	9,715	Knox	3.1	Southbound	46,120	18
1.38	5,966	Campbell	3.8	Northbound	42,120	26
3.71	4,805	Campbell	3.9	Southbound	42,120	26
5.78	14,784	Campbell	3.9	Northbound	35,540	30
15.11	5,386	Campbell	3.7	Northbound	29,510	35
26.08	4,066	Campbell	3.9	Southbound	29,510	35
26.85	1,584	Campbell	3.9	Southbound	29,510	35
27.37	13,253	Campbell	3.9	Southbound	29,510	35
30.31	1,690	Campbell	4.5	Southbound	29,510	35

TRUCK LANES AND CROSSOVERS

Presenters Comments

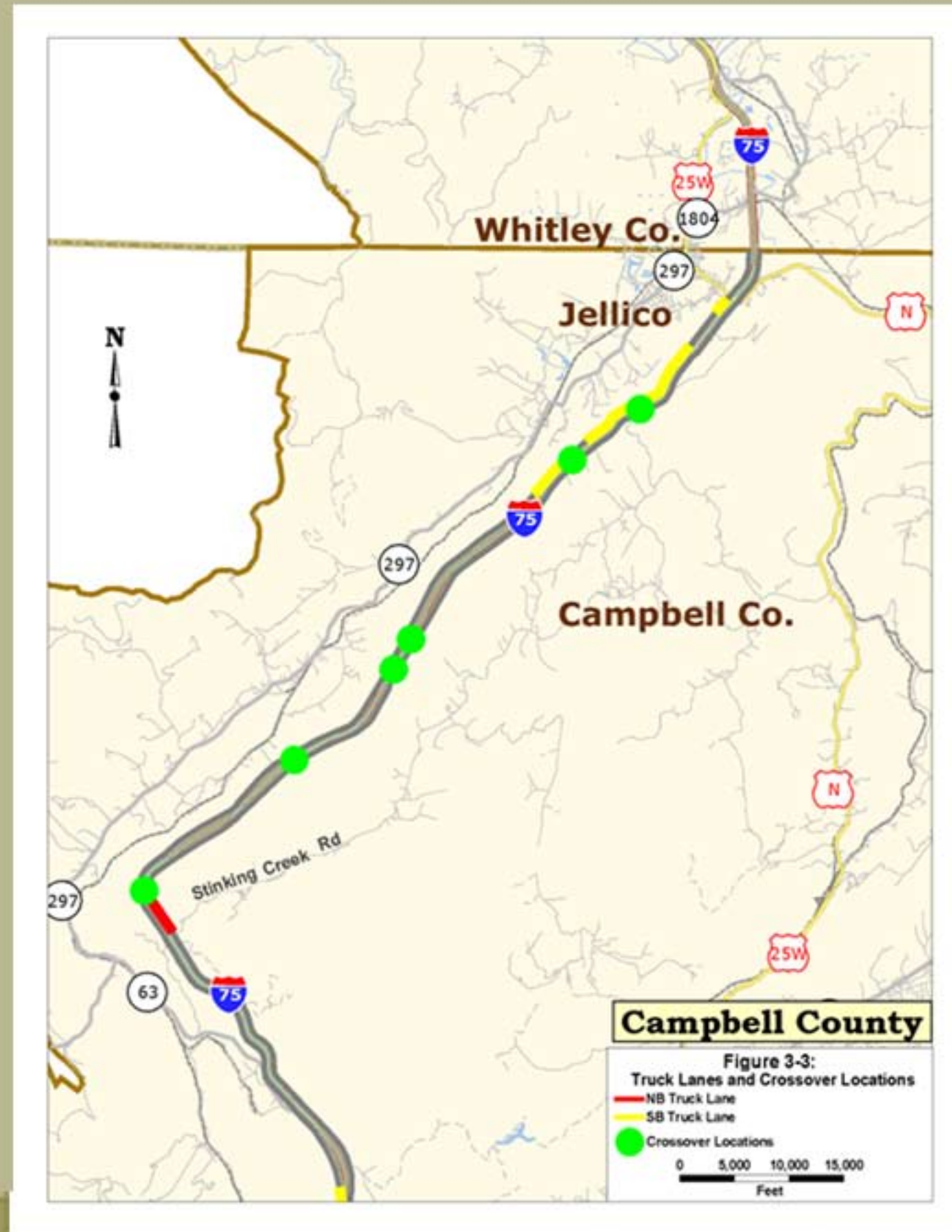
Here new truck climbing lanes and crossovers are shown in Knox, Anderson, and Campbell Counties.



TRUCK LANES AND CROSSOVERS

Presenters Comments

Truck climbing lanes and crossovers are shown in the vicinity of Jellico Mountain in Campbell County.





ITS IMPROVEMENTS

Presenters Comments

Another group of projects included in the operations and maintenance package of multimodal solutions is intelligent transportation systems— also known as ITS. ITS encompasses a broad range of wireless and wire line communications-based information and electronics technologies. When integrated into the transportation system’s infrastructure, these technologies relieve congestion and improve safety.

Along I-75 we looked at the existing ITS systems and the potential to implement ITS to improve capacity.

For example, in Hamilton and Bradley Counties, we suggest expanding ITS instrumentation from the Oolteway and Georgetown Pike to State Route 60.

In Knoxville where the ITS system called SmartWay is in place, we suggest expanding the urban coverage to improve the various corridors.

Fog and severe weather detection systems are another element of ITS and implementing them in Campbell County will help improve safety along that corridor.

For the rural segments along the entire corridor, deploying ITS will help with route diversion and keep traffic moving during an incident on I-75.

Region	Solution or Project
Hamilton and Bradley County	Expand ITS instrumentation on I-75 from Oolteway-Georgetown Pike to SR 60 which includes segment over White Oak Mountain
Knoxville	Expand arterial ITS communication and instrumentation on I-140 and US 129 for high-capacity route diversion
Knoxville	Expand TDOT SmartWay urban coverage to include I-75/I-40 from Lovell Rd to I-40/I-75 Interchange
	Expand TDOT SmartWay urban coverage to include I-75 from north of Merchant Rd to the northern Knoxville urban boundary at Emory Rd
Campbell County	Implement a fog and severe weather detection system on I-75 over Jellico Mountain
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



ITS IMPROVEMENTS

Presenters Comments

Other rural ITS improvements include instrumentation and communications at interchanges that experience a high crash rate, such as in Monroe, Loudon, Knox, Anderson, and Campbell Counties.

ITS at these locations will allow for monitoring conditions, alerting emergency response, and route diversion.

Region	Solution or Project
Monroe County	Install ITS instrumentation and communications on I-75 at SR 68 (Sweetwater)
Loudon County	Install ITS instrumentation and communications on I-75 at US 321 (Lenior City)
Knox County	Install ITS instrumentation and communications on I-75 at SR 170 (Raccoon Valley Rd)
Anderson County	Install ITS instrumentation and communications on I-75 at SR 61 (Andersonville Hwy)
Anderson County	Install ITS instrumentation and communications on I-75 at US 25W (SR 116)
Campbell County	Install ITS instrumentation and communications on I-75 at SR 63 (Howard Baker Rd)



MANAGED LANE FEASIBILITY

- High Occupancy Vehicle Lanes
- High Occupancy Toll Lanes

Presenters Comments

Managed lanes are another element of the operations and maintenance package of solutions evaluated for the urban areas along the I-75 corridor.

Managed lanes are lanes that allow only certain types of vehicles during peak hours, such as vehicles with two or more people, transit vehicles, and emergency vehicles.

The most common type of managed lane is known as a high occupancy vehicle or HOV lane. In Tennessee, HOV lanes are currently in use in Memphis and Nashville and restrict use during peak periods of travel to two or more occupants in each private vehicle.

High occupancy toll lanes also were evaluated as part of this study. These are commonly referred to as HOT lanes and have the same sort of restriction as an HOV lane, except that under certain circumstances, private single occupant users may be able to pay a toll to use the lanes.

Based on our findings, there are no places along I-75 where HOV or HOT lanes would be a feasible option.



PARK AND RIDE FACILITIES

Presenters Comments

While park and ride facilities are not in of themselves a solution to congestion on I-75, they are tools to support other solutions such as express transit service and other travel demand management strategies.

Expansion of park and ride facilities in the urban areas was evaluated. Analysis was conducted to identify new park and ride locations along the study corridor.

Proposed park and ride facilities along I-75 are listed here and are shown on the following maps for the Chattanooga and Knoxville urban areas.

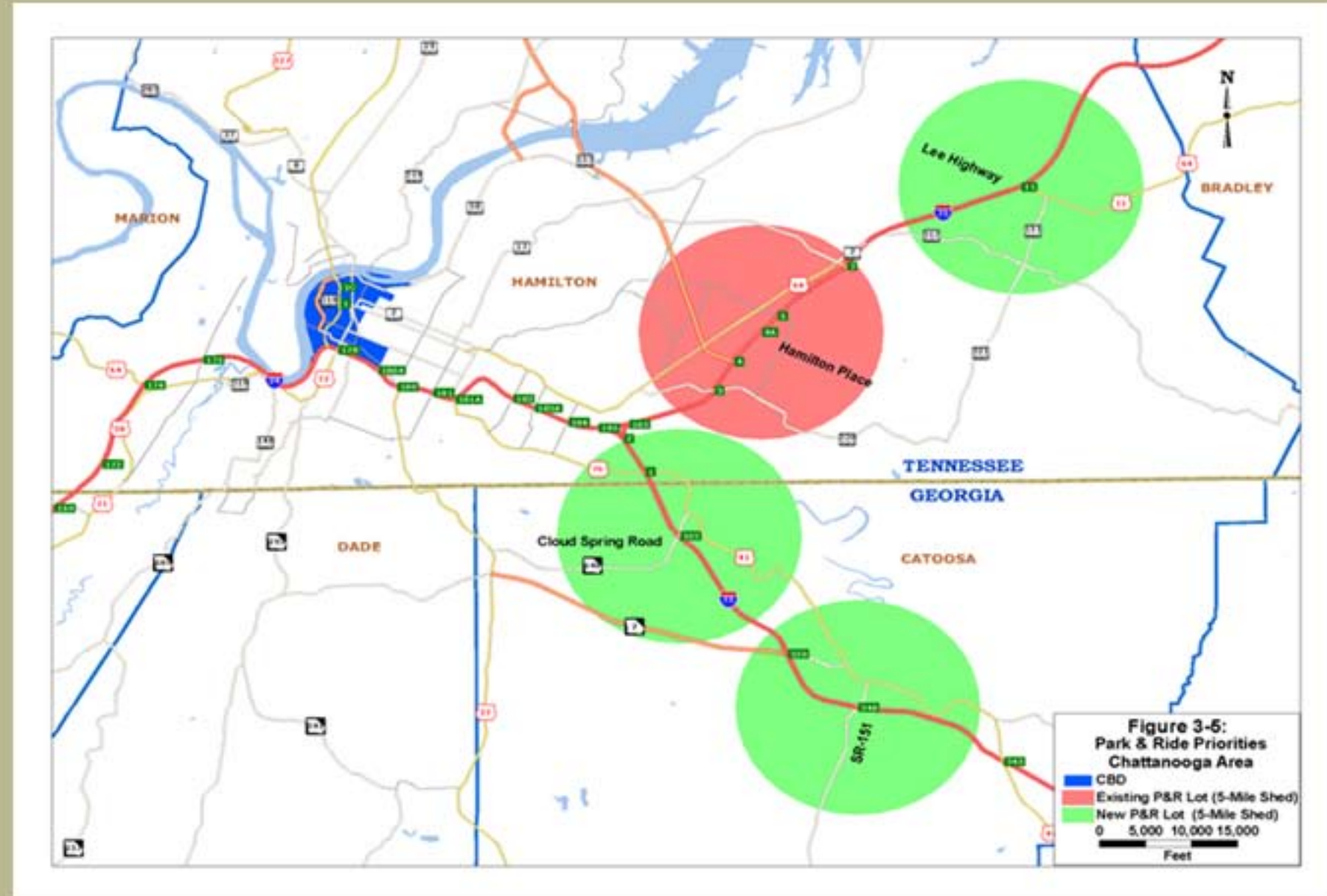
- Chattanooga Region
- Georgia State Route 151
- Cloud Springs Road
- Lee highway
- Knoxville
 - US 321
 - Emory Road (SR 131)

PARK AND RIDE FACILITIES

Presenters Comments

For the Chattanooga region, the existing park and ride facility, shown in red, is located at Hamilton Place.

New park and ride facilities, shown in green, are located at State Route 151 and Cloud Springs Road in Georgia, and at Lee Highway in Tennessee.

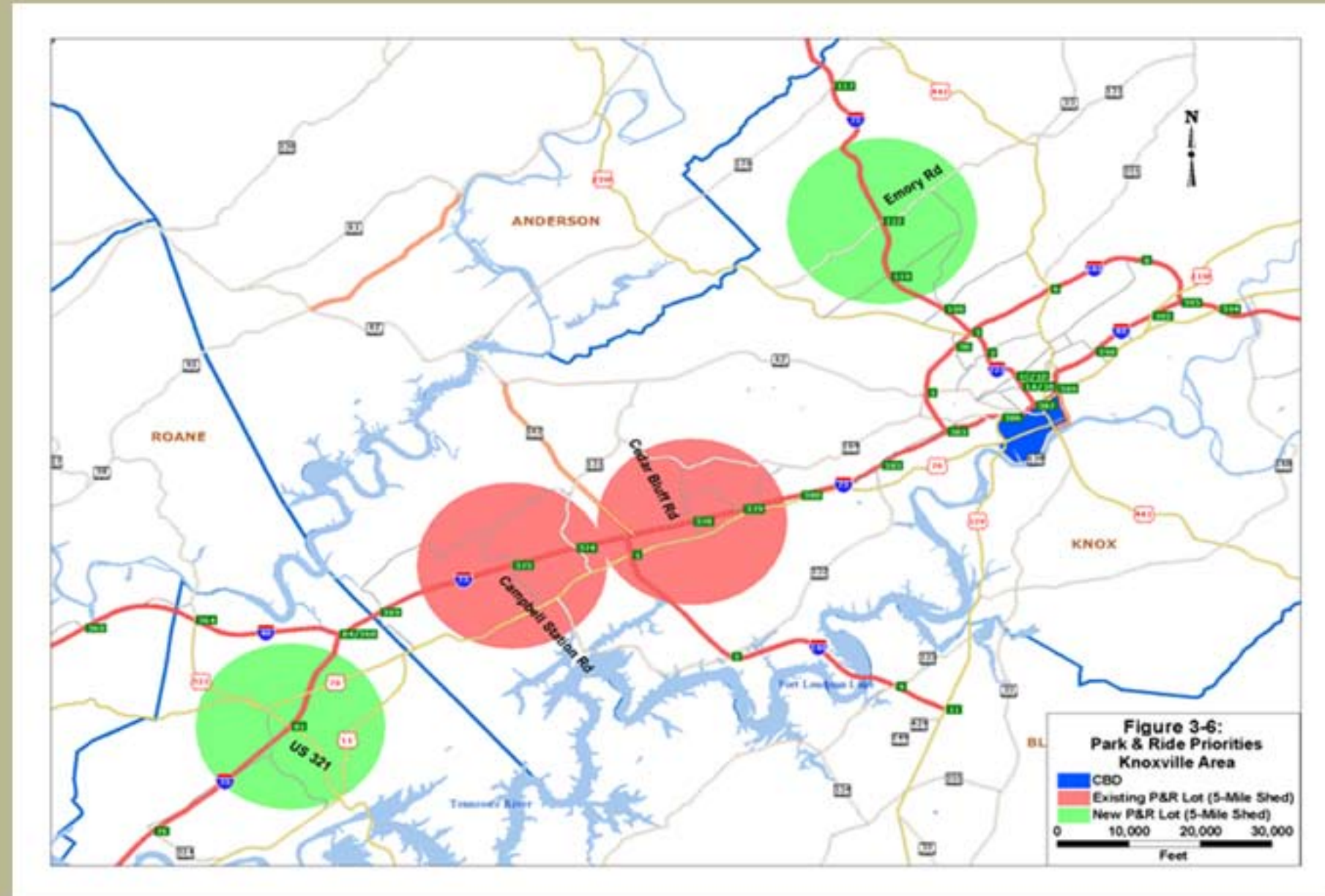


PARK AND RIDE FACILITIES

Presenters Comments

In the Knoxville region, the existing park and ride facilities are at Campbell Station Road and Cedar Bluff Road.

New facilities are shown at US 321 and at Emory Road.





FREIGHT FLOW AND DIVERSION

Presenters Comments

The final package of multimodal solutions that were evaluated relates to freight flow and diversion.

The idea of freight diversion is that through targeted incentives, alternative modes for moving freight can be enhanced and truck traffic reduced along the corridor.

As an example, rail can be enhanced to allow faster transit times and as a result, containers normally moved by trucks, can be moved on rail.

As rail is a private entity operating on their own right-of-way, these types of projects are typically outside the realm of traditional Tennessee Department of Transportation projects.

There are, however, some opportunities to divert freight from truck to rail and/or barge. The opportunities evaluated as part of this study included improvements made to the Norfolk Southern Railroad's Crescent Corridor Program, marketing rail diversion, financial incentives, and minimizing highway/railroad grade crossing conflicts.

- Truck/Rail and Waterways Freight Diversion
 - Crescent Corridor Program
 - Marketing Rail Diversion
 - Financial Incentives
 - Minimize Highway/Rail Conflicts



FREIGHT FLOW AND DIVERSION

Presenters Comments

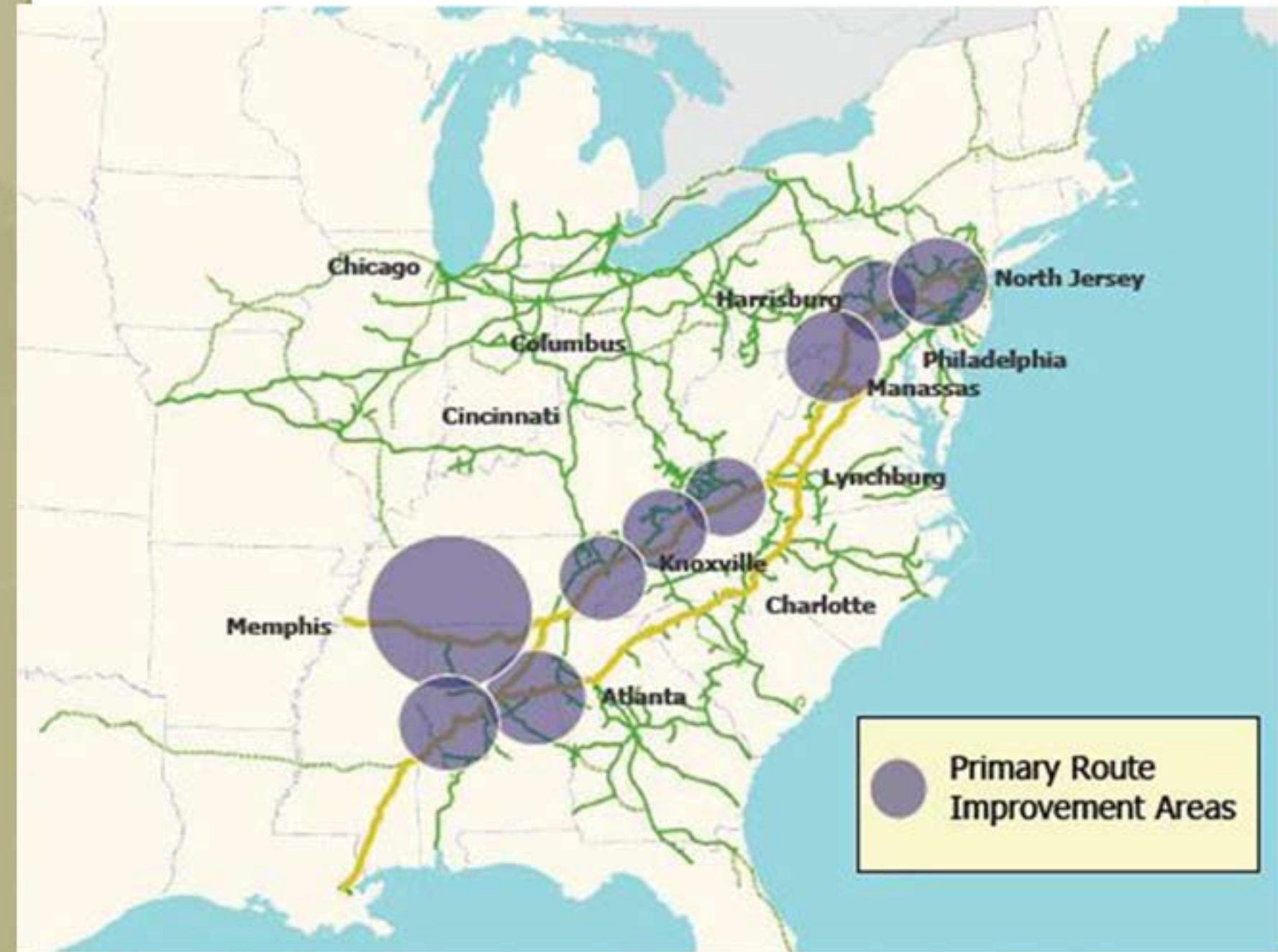
The Norfolk Southern Railroad's Crescent Corridor main lines are shown in yellow and represent track that extends from New Jersey to Memphis and to New Orleans.

The Crescent Corridor is a \$2.5 billion initiative to provide double tracking, sidings, purchase of rolling stock, and intermodal facilities.

Intermodal improvements along the corridor are shown as purple circles.

A new intermodal facility is proposed by the railroad just west of Knoxville and just east of Memphis in Tennessee.

Although the Crescent Corridor is a private sector initiative, there may be opportunities to partner with the railroad to identify issues and implement projects that can benefit both the railroad and the roadway network.





EVALUATION METHODOLOGY/RESULTS

Presenters Comments

In summary, there were five multimodal packages of solutions evaluated:

- The no-build alternative,
- Roadway capacity improvements,
- Corridor capacity improvements,
- Operations and maintenance improvements, and
- Freight diversion

Each of these solutions was evaluated independently using the same evaluation criteria for the project horizon year of 2030. The performance measures included:

- Vehicle hours traveled,
- Recurring travel delay,
- Travel time across the corridor,
- Travel delay across the corridor,
- Change number of crashes, and
- Change in number of fatalities.

Evaluation Criteria	Unit	Baseline		Packages			
		2011 Existing + Committed Network	2030 Existing + Committed Network	2030 Roadway Package	2030 Corridor Package	2030 Rail Package	2030 Operations Package
Vehicle Hours Traveled - AUTO	Hour	128,624	179,377	168,991	176,988	178,298	177,580
Recurring Travel Delay - AUTO	Hour	23,232	57,626	30,649	53,394	55,026	57,049
Vehicle Miles Traveled - AUTO	Mile	7,194,645	8,315,597	9,457,465	8,464,574	8,419,233	8,276,922
Vehicle Hours Traveled - TRUCK	Hour	56,437	97,604	84,355	91,647	90,146	96,938
Recurring Travel Delay - TRUCK	Hour	8,401	28,460	11,759	25,679	25,727	28,266
Vehicle Miles Traveled - TRUCK	Mile	3,289,532	4,735,726	4,973,015	4,535,887	4,407,230	4,718,573
Time to Travel Across Entire Corridor	Minute	166	210	166	204	206	208
Travel Delay to Across Entire Corridor	Minute	28	72	28	66	68	70



BENEFIT /COST ANALYSIS METHODOLOGY

Presenters Comments

To properly compare such disparate projects, a benefit to cost comparison was conducted for each of the projects identified as part of the multimodal solutions.

The first step in performing this comparison was to estimate the cost of each project.

The benefit of each project in terms of the performance measures was then calculated.

A value, in terms of dollars, is then assigned to each benefit associated with the project.

The benefit is then compared to the cost of the project. The larger the benefit/cost ratio, the better the project.

- Estimated Cost of Improvement
- Calculated Performance Measures
- Benefit will be based on Value of Change in Performance Measures in Terms of Dollars



BENEFIT/COST ANALYSIS

Presenters Comments

The monetary values associated with the benefits were taken from the Federal Highway Administrations Highway Economic Requirements System and the ITS Deployment Analysis System and are consistent with the Tennessee Department of Transportation's I-40 and I-81 corridor feasibility study.

Performance Metric	Monetary Value
Recurrent Congestion for Autos	\$19.82/hour of delay
Recurrent Congestion for Trucks	\$36.05/hour of delay
Non-recurrent Congestion for Autos	\$39.64/hour of delay
Non-recurrent Congestion for Trucks	\$72.10/hour of delay
Crashes	\$8,500/crash
Fatalities	\$4,300,000 per fatality
Auto Air Pollution Costs	\$0.011 per VMT
Truck Air Pollution Costs	\$0.039 per VMT



Presenters Comments

Due to the nature of the freight diversion package of solutions, the cost benefit calculation will be evaluated slightly differently than the other multimodal solutions.

The benefits to the I-75 corridor will be compared to the cost of the entire Norfolk Southern's Crescent Corridor program.

The benefit cost ratio for the grade separation improvements will be calculated according to the benefits and established methodology of the Federal Railroad Administration.

BENEFIT/COST OF FREIGHT FOCUSED PACKAGE OF SOLUTIONS

- B/C Ratio for System Improvements
- B/C Ratio for Rail Crossing Separations





Presenters Comments

The next steps toward completing this project include:

- *Completing the cost benefit analysis,*
- *Documenting and addressing public comments,*
- *Prioritizing the multimodal solutions, and developing the I-75 corridor planning document.*

NEXT STEPS

- Complete Benefit Cost Analysis
- Document and Address Your Comments
- Prioritize Multi-Modal Solutions, and Develop I-75 Corridor Plan



Presenters Comments

So if you have any questions related to this presentation, you can submit them in a number of ways.

QUESTIONS?



FOR INFORMATION OR
QUESTIONS ABOUT THE STUDY,
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or visit: www.tennesseei75.com

Presenters Comments

One, you can contact Terry Gladden, the project manager for this study, either by phone or email.

Or you can go to the project web site at www.tennesseei75.com. This site contains a public comment form that you can print, fill out, and submit to the Department. But this form has to be submitted to the department October 19, 2009.

The project web site also contains much more information related to the study, so please visit for further information about this project.

Thank you.