Clarksville-Nashville Transportation Corridor:

Project Summary

Project Purpose and Need: Over the next 16 years no projects are currently programmed which will significantly improve intercity commute times in the Clarksville-Nashville corridor. Over the next 20 years intercity commute time is expected to deteriorate further to 1 hour and 35 minutes. Clarksville-Nashville commuters need a travel option which bypasses the deteriorating traffic conditions on I-24 and Clarksville Highway. That transportation option should be developed within the next 5-7 years.

Project Design Goal: Provide a high-capacity commuter service which significantly betters the current travel times using Interstate 24 and which has the flexibility for low-cost expansions of capacity as travel demand increases**.**

Alternatives:

No Build: There have been no significant capacity upgrades to I-24 since its initial opening in 1978. Commuters are coping with deteriorating travel conditions by forming carpools and vanpools; and the corridor has, by far, the largest number of vanpools of all of the Nashville Economic Market radial transportation corridors. Approximately 600 persons per day now commute between Clarksville and Nashville in vanpools. There is no estimate of current carpools. Continued use of the no-build alternative will build traffic congestion and will progressively restrict Montgomery County's participation in the Nashville Economic Market. Montgomery County is the 3rd most important satellite county in the regional economic market.

Federal planning rules will require further active consideration of the no-build alternative.

Highway Capacity Increases: Between now and the year 2030 the Clarksville MPO and the Nashville MPO have programmed $75,000,000 for a total of 20.3 miles of I-24 widening. Because of the intense competition for highway construction funding, both MPO(s) have programmed these I-24 projects beyond the year 2025. There are no programmed projects for thirty (30) miles of I-24 between Clarksville and Nashville and this mid-corridor section will reach peak-hour Level-of-Service "F" congestion (stop-and-go) by 2030. Since 600 miles of Tennessee's interstate highway system will need to be widened from 4 lanes to 6 lanes by 2030, the competition for highway funding will only intensify. All alternatives using I-24 are subject to worsening traffic congestion for the next 20 years.

High-Capacity Transit: Developing high-capacity transit to meet the project design goal of lower commute times allows a project to be developed from a source of Federal funds which, locally, is not in competition for scarce highway construction dollars. Federal project planning rules will require a study of all of the major types of high-capacity transit which might be appropriate; bus rapid transit, light rail, and commuter rail. However, since the Clarksville-Nashville Corridor has the unique character of concentrated population centers with very low interim population density; a commuter rail alternative appears to be especially advantageous. A rigorous study of the high-capacity transit alternatives is the next required step in the Federal project development process and that Alternatives Analysis is expected to cost $800,000 to $1,200,000.

Results of an Initial Feasibility Study of Commuter Rail:

Project Alignment: A preliminary engineering study of an Interstate 24 alignment and an alternative CSX Railroad alignment through Springfield indicates that these alignments are not competitive with a commuter rail service which would use the old Tennessee Central Railroad alignment which follows the Cumberland River and passes through Ashland City. Most of the old railroad bed is still in place and the Nashville and Western short line freight railroad now operates on the line from the Farmer's Market area of Nashville to the Ashland City Industrial Park just south of Ashland City.

Project Design Concept: Passenger stations are located in Mid-Town Nashville, Downtown Ashland City, and the Old Hospital/Madison Street area of Clarksville. Two train consists each make the full Clarksville/Nashville trip; 2 times in the AM and 2 times in the PM. Speeds would be up to 79 miles per hour over long sections, with an overall 50 minute Clarksville to Nashville trip time.

Initial Capital Costs: Track rehab 16 miles, new track 27 miles, and 54 bridges ($86.3M); 3 stations ($5.0M); support/maintenance bldg.($2.5M); site work($3.5M); train controls/ 30 public at-grade road crossings ($6.5M); ROW @ 131 acres ($6.0M); locomotives and cars($4.3M); professional services ($17.5M); and contingency($13.2M)….**Total $144.8 Million**

Note: This is essentially the same cost as the build-out cost of the BRT alternative selected by the Nashville MPO for the Murfreesboro (Southeast) Corridor.

Annual Operating Costs: $5.7 Million (compare to $13 million annual operating cost for the selected build-out BRT in the Southeast Corridor**)**

Ridership: Ridership potential has been tested using the Sketch Planning Model published by the Transportation Research Board in 2006. Because of the wide station spacing and the high speeds between stations, the Sketch Planning Model most likely over-predicts ridership but the comparison Sketch Planning Model prediction for the existing Lebanon commuter train strongly indicates more potential for ridership in the Clarksville/Nashville Corridor. The Federal Transit Administration will require sophisticated ridership modeling in the next step, the Alternatives Analysis.

Next Steps:

- **Need visibility for the project concept at the upcoming summit by Cumberland Region Tomorrow**
- **Need to notify the Federal Transit Administration of the intent to develop an Alternatives Analysis**
- **Need endorsement of the Nashville MPO to pursue an Alternatives Analysis**
- **Need funding ($800,000 to $1,200,000) for the Alternatives Analysis (with the cost of the study to be refined in talks with FTA regarding the methods for ridership prediction)**
- **Protect the Right-of-Way**
- **Secure Truman-Hobbs funding for a new Cumberland River Bridge and work with the Nashville MPO to coordinate plans/location for a new railroad bridge with the 2 new North Nashville highway bridges shown in the 2030 Transportation Plan for Nashville**