I-24 Multimodal Corridor Study

Chattanooga Area Public Meeting
Chattanooga Public Library
October 17, 2013
Presentation Outline

- Corridor Overview
- Schedule
- Survey Results
- Types of Proposed Projects
- Questions
I-24 and Tennessee
I-24 Corridor
Population Growth in Chattanooga

Hamilton County

Source: Chattanooga TPO

2010: 300,000
2040: 360,000

+21%
Employment Growth in Chattanooga

Hamilton County

Source: Chattanooga TPO
Why Have a Plan for the Future?

- Develop solutions now to prevent future problems
- Need to start the planning process in order to get to construction
- Determine how to best spend future money (i.e., prioritize projects)
Schedule

- Completed Identification of Potential Projects in September
- Currently Evaluating Feasible Projects
- Will Develop Prioritized List by January ‘14
Survey

- Started January 24, 2013
- Ended June 20, 2013
- Total of 503 Responses
I-24 Survey Final Results

How were the surveys submitted?

- 96% on-line survey
- 1% electronic PDF
- 2% mail
- 0% fax
I-24 Survey Final Results

What is your main purpose for traveling along I-24?

- To/From Work: 59%
- Business: 12%
- Leisure: 21%
- Other: 8%
I-24 Survey Final Results

How often do you travel along I-24?

- Frequently: 72%
- Often: 20%
- Sometimes: 6%
- Rarely: 2%
- Never: 0%
I-24 Survey Final Results

What is the importance of congestion on I-24 to you?

- Least - 1: 4%
- 2: 2%
- 3: 4%
- 4: 18%
- Very - 5: 71%
I-24 Survey Final Results

What is the importance of safer travel on I-24 to you?
I-24 Survey Final Results

What is the importance of better/more efficient interchanges on I-24 to you?
I-24 Survey Final Results

What is the importance of other issues on I-24 to you?

- Very - 5: 54%
- 4: 10%
- 3: 11%
- 2: 7%
- Least - 1: 19%
I-24 Survey Final Results

What other transportation options would you consider along I-24?

- High-Speed Rail: 51%
- Bus Routes: 19%
- Park & Ride: 19%
- Other: 11%
List of All Proposed Projects & Strategies

- Total List Available at http://www.tdot.state.tn.us/i24/
- 572 proposals by citizens
- 169 specific projects & strategies proposed by citizens
- 31 types of projects & strategies
- List includes additional improvements by TDOT, MPOs, consultant and other agencies
Proposed Projects & Strategies

- Roadway Capacity (add lanes on I-24)
  - 129 proposals by citizens
  - 21 specific projects and/or strategies

- Examples
  - Add lanes on I-24 throughout Chattanooga / Hamilton County
  - “Double-deck” I-24 in the Moccasin Bend area in order to add lanes on I-24
Proposed Projects & Strategies

- Transit – Express Bus & Rail
  - 82 proposals by citizens
  - 6 specific projects and/or strategies

- Examples
  - Chattanooga mass transit options, including express bus / rail
  - Express bus / rail options between Murfreesboro and Nashville
Proposed Projects & Strategies

- **Operational - Ramps**
  - 52 proposals by citizens
  - 22 specific projects and/or strategies

- **Examples**
  - Extend ramp to US-27 (Exit 178) from WB I-24
  - Lengthen short ramps on I-24 at S. Germantown Road, Belvoir Avenue and S. Moore Road
Proposed Projects & Strategies

- Corridor Capacity (improve roads parallel to I-24)
  - 47 proposals by citizens
  - 16 specific projects and/or strategies

- Examples
  - Alternative routes north and south of I-24 in Chattanooga
  - Divert trucks from the ridge cut through a truck tunnel at Westside Drive
Proposed Projects & Strategies

- Operational - Enforcement
  - 38 proposals by citizens
  - 5 specific projects and/or strategies

- Examples
  - Improve enforcement of traffic violations coming down both sides of Monteagle mountain
  - Improve enforcement of traffic violations throughout corridor
Proposed Projects & Strategies

- **Policy – HOV Lanes**
  - 32 proposals by citizens
  - 6 specific projects and/or strategies

- **Examples**
  - Open HOV lane to single occupancy vehicles from Downtown Nashville to Murfreesboro
  - Designate HOV lanes in Chattanooga to mitigate congestion
Proposed Projects & Strategies

- Operational – Signing & Marking
  - 29 proposals by citizens
  - 15 specific projects and/or strategies

- Examples
  - Add a warning light before the EB bridge at Exit 178, to slow speeds on the bridge
  - Install lane reflectors throughout the I-24 corridor
Proposed Projects & Strategies

- New Access - Interchanges & Rest Areas
  - 25 proposals by citizens
  - 10 specific projects and/or strategies

- Examples
  - Add interchanges in Chattanooga
  - Add new interchange in Manchester between Exit 105 and Exit 110
Proposed Projects & Strategies

- Operational – Truck Restrictions
  - 20 proposals by citizens
  - 7 specific projects and/or strategies

- Examples
  - Restrict large trucks to right two lanes
  - Restrict trucks to right lane along the ridge cut in Chattanooga during the rush hour
Truck Equivalencies

MODAL COMPARISON OF TRUCK EQUIVALENCIES

1 truck = 1 truck

1 container = 6 trucks

1 train等于54 trucks

1 ship = 54 trucks
Proposed Projects & Strategies

- Operational – Intelligent Transportation Systems (ITS)
  - 19 proposals by citizens
  - 7 specific projects and/or strategies

- Examples
  - Control merging traffic from ramps by using ramp metering
  - Add more Dynamic Message Signs (DMS) to warn of lane closures in Monteagle area
Proposed Projects & Strategies

- Operational – Interchange Modifications
  - 14 proposals by citizens
  - 10 specific projects and/or strategies

- Examples
  - Improve the I-75/I-24 split at Exit 185 in Chattanooga
  - Upgrade Exit 111 in Manchester to remove loop ramp
Proposed Projects & Strategies

- **Operational – Emergency Response**
  - 12 proposals by citizens
  - 5 specific projects and/or strategies

- **Examples**
  - Add emergency turn-around lanes from GA state line to ridge cut
  - Work with GDOT to improve emergency response on Georgia portion of I-24
Proposed Projects & Strategies

- Transit – Commuter Rail
  - 11 proposals by citizens
  - 4 specific projects and/or strategies

- Examples
  - Nashville - Chattanooga Commuter Rail
  - Clarksville - Murfreesboro Commuter Rail
Proposed Projects & Strategies

- **Operational – Speed Limits**
  - 7 proposals by citizens
  - 3 specific projects and/or strategies

- **Examples**
  - Reduce speed limit from Smyrna into Nashville
  - Reduce speed limit for trucks in Chattanooga
Proposed Projects & Strategies

- Operational – Narrow Lanes
  - 6 proposals by citizens
  - 2 specific projects and/or strategies

- Examples
  - Widen narrow lanes between Haywood Lane (Exit 57) and Hickory Hollow Pkwy (Exit 60)
  - Widen narrow lanes in major cities like Nashville & Chattanooga
Proposed Projects & Strategies

- Policy – Beautification
  - 6 proposals by citizens
  - 3 specific projects and/or strategies

- Examples
  - Consolidate billboards and add landscaping at interchanges
  - Exit 59 Bell Road interchange
Proposed Projects & Strategies

- Operational – Signals
  - 5 proposals by citizens
  - 2 specific projects and/or strategies

- Examples
  - Install traffic lights on westbound at Rossview Road (Exit 8)
  - Improve traffic signal patterns at Bell Road (Exit 59) to mitigate traffic issues coming onto I-24
Proposed Projects & Strategies

- **Operational – Truck Lanes**
  - 6 proposals by citizens
  - 5 specific projects and/or strategies

- **Examples**
  - Exit 169 - Exit 178
    - Dedicate EB truck climbing lane in Chattanooga
  - Add a commercial vehicle/truck lane through metro areas
Proposed Projects & Strategies

- Rock Fall/Slide Mitigation
  - 5 proposals by citizens
  - 1 specific project and/or strategy

- Examples
  - Mitigate rock slide issues on Monteagle mountain (Exit 135 - Exit 143)
Roadway Construction Costs

- Add one lane in both directions
  - Rural & Flat - $7 million per mile
  - Urban & Mountainous - $27 million per mile

- Bridge - Add one lane in both directions for a typical 300’ bridge
  - $1 million - $1.5 million
Other Roadway Construction Costs

- New Interchange - Rural
  - $8 million - $36 million
- New Interchange - Urban
  - $18 million - $86 million

- Traffic Signal
  - $90,000 - $120,000 per installation
Transit Capital Costs

- **Express Bus**
  - $100,000 - $300,000 per mile

- **Bus Rapid Transit - Exclusive**
  - $3 - $10 million per mile

- **Commuter Rail**
  - $5 - $15 million per mile

- **Light Rail Transit**
  - $40 - $70 million per mile
Questions