

# NCAMPO ANNUAL CONFERENCE

## Chattanooga-Hamilton County / North Georgia 2040 Regional Transportation Plan

### *Performance-Based Planning Framework: Balancing Community and Regional Needs*

Tracy Selin, Cambridge Systematics



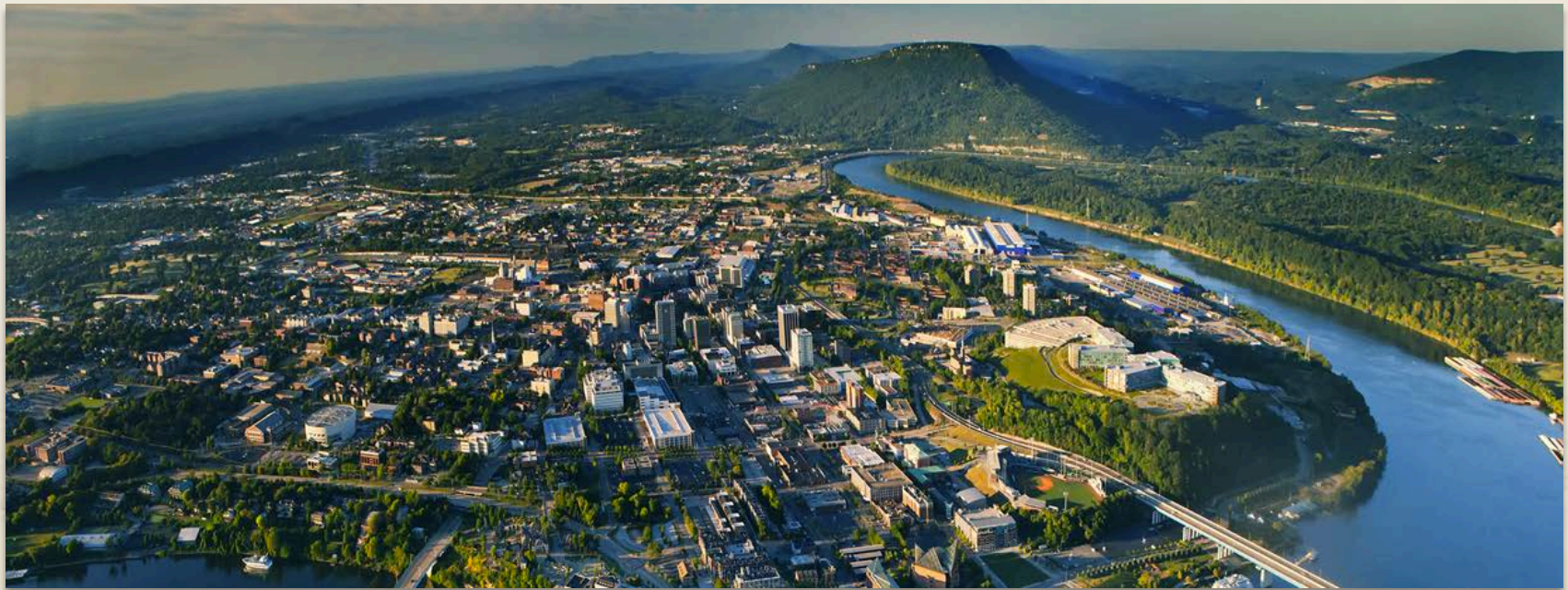
May 12, 2016

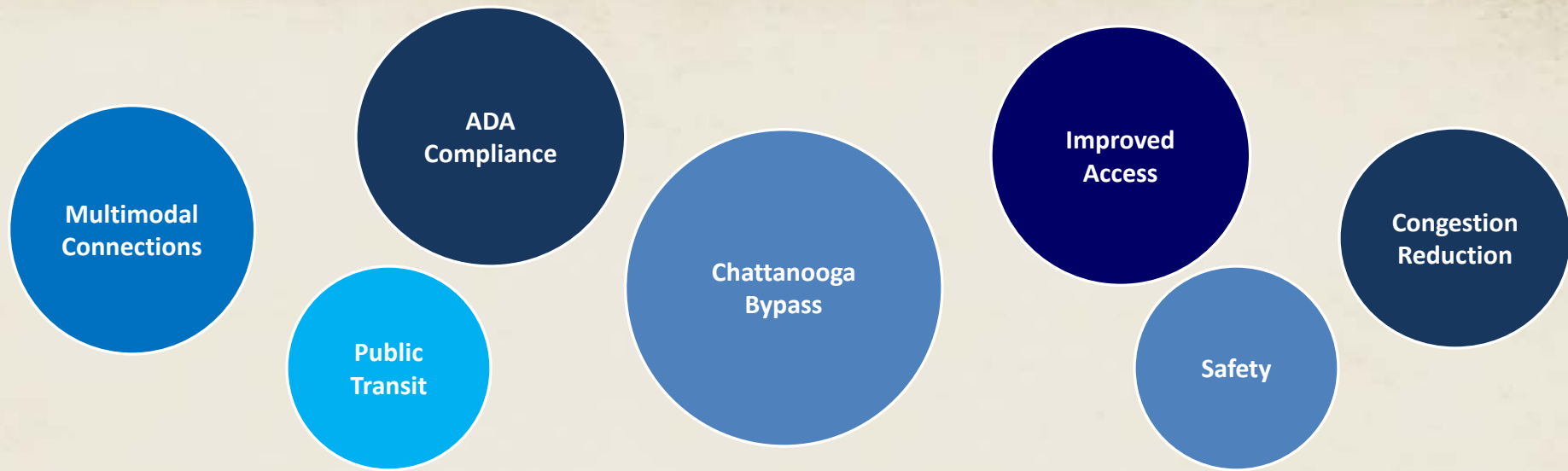


*Chattanooga-Hamilton County/N. GA Transportation Planning Organization*

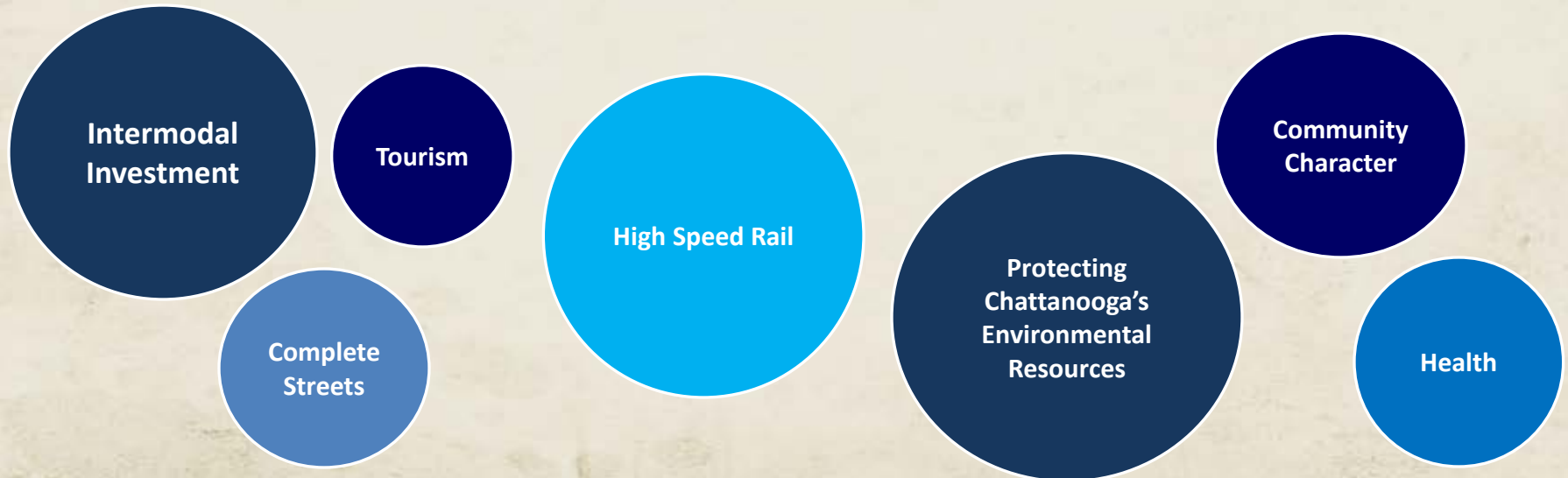
# Chattanooga Region

- 443,000 people with 26% growth over plan horizon
- 216,000 jobs with 39% growth over plan horizon
- 19 jurisdictions (4 counties and 15 municipalities)
- 2,110 lane-miles



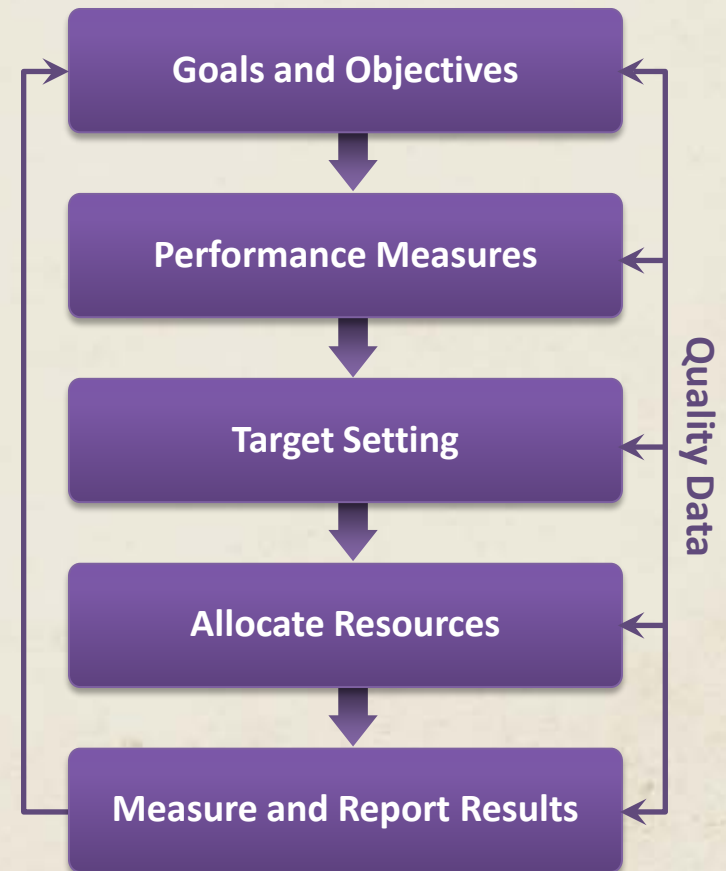


*During stakeholder outreach for 2040 RTP, we heard about many needs and frustrations. Defining tailored solutions that address the many, often-competing needs was the challenge.*





- Supports transparent decision-making in competitive funding environment
- Provides context, helps organize steps of plan development
- Key metrics to track positive outcomes
- Ensures investment decisions align with long-term goals
- Helps agency manage expectations
- Preparation for new requirements under MAP-21



*Traditional steps of performance based plan process*

# “Community to Region” Performance Framework

## Within Community

## Community to Region

## Region to Region

### INVESTMENT NEEDS THAT SUPPORT:

- Local, multimodal connections and access to community resources
- Advance livability and quality of life principles

### INVESTMENT NEEDS THAT SUPPORT:

- Strategic, multimodal connections between communities and regional activity/economic centers to support economic development

### INVESTMENT NEEDS THAT SUPPORT:

- Mobility and intermodal improvements to ensure region is well connected within the state and the nation
- Support economic competitiveness and advance overall economic development potential

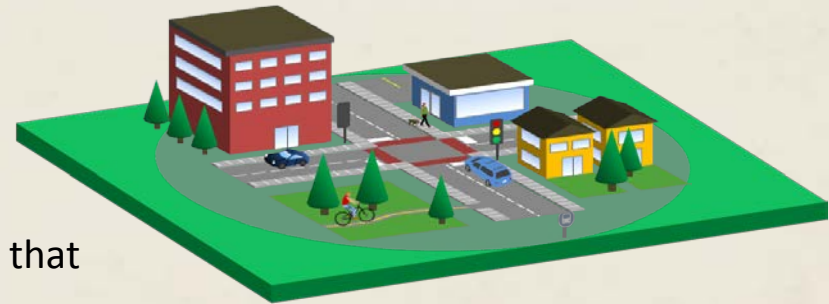
## Goal

**BUILD AND MAINTAIN SAFE  
AND HEALTHY COMMUNITIES**

## Objectives

- Support walkable and bicycle-friendly communities that promote safe connections to community resources
- Provide incentives for complete streets project design
- Encourage investments anchored in integrated transportation and land use planning that support desired community character
- Improve safety through improved system operations, preventative maintenance, and ADA compliance
- Prioritize investments in areas where local land use and development regulations support healthy, safe communities
- Prioritize investment that improves multimodal access to existing or planned transit hubs or that fills gaps in existing multimodal system
- Encourage connected street network

### Within Community



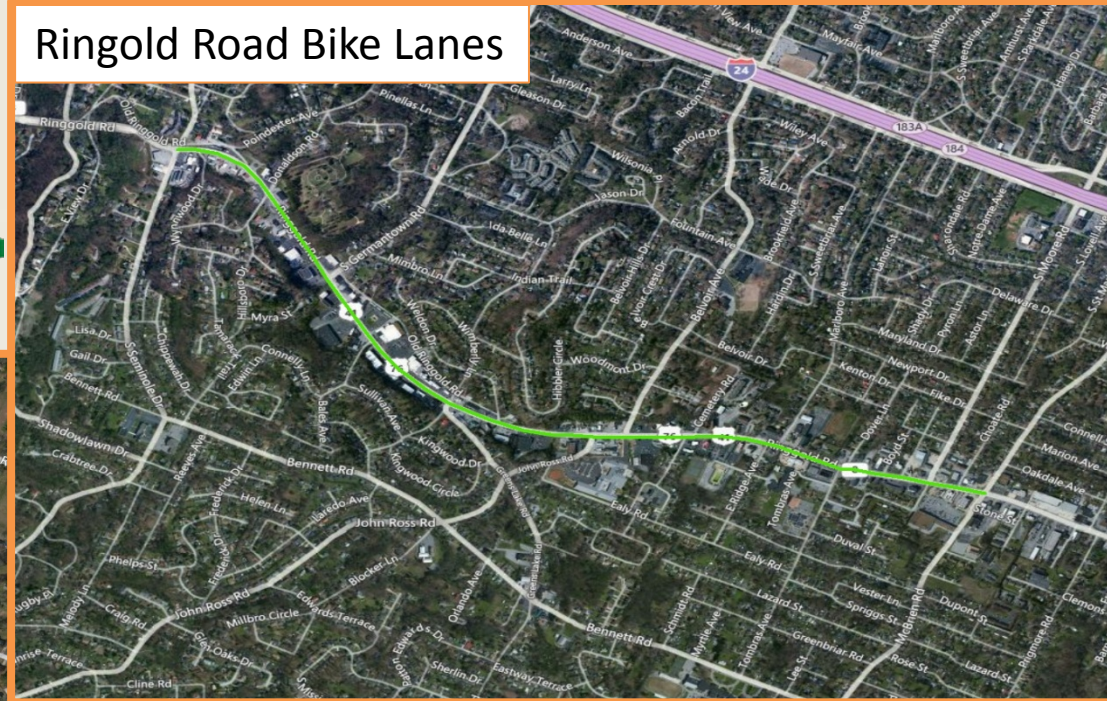


# Scale 1-Example Projects

## Within Community



## Ringold Road Bike Lanes



## Jenkins Road Widening



## Goal

**CONNECT COMMUNITIES IN THE REGION BY PROVIDING MULTIMODAL TRAVEL OPTIONS TO ACTIVITY AND ECONOMIC CENTERS**

## Objectives

- Preserve, maintain, and improve existing infrastructure before adding new capacity
- Provide incentives for complete streets project design
- Encourage corridor improvements anchored in integrated transportation and land use planning that support desired community character
- Improve mobility and support economic development by providing expanded set of travel options, with emphasis on public transit
- Improve travel time reliability through improved system operations
- Incentive corridor protection plans

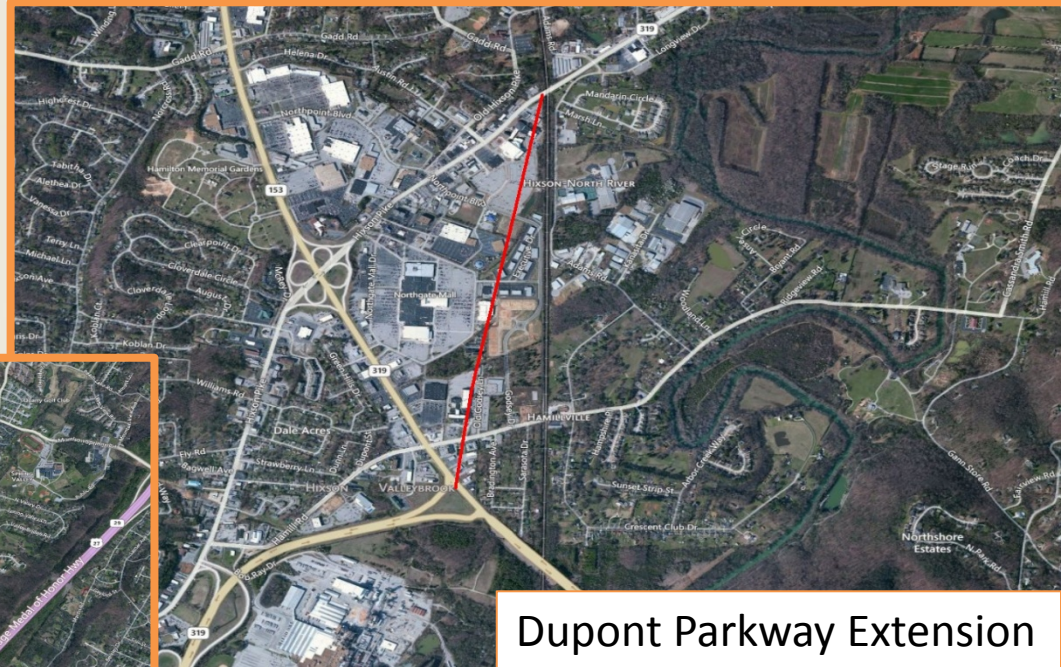
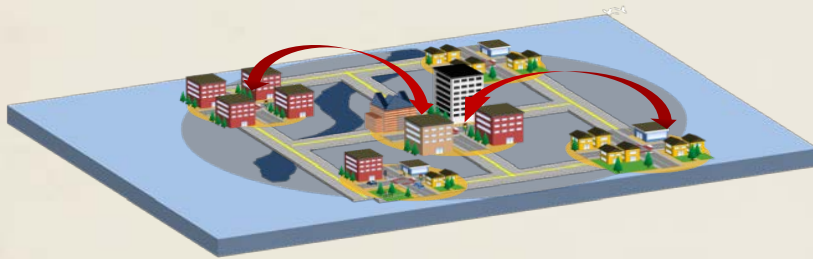
## Community to Region



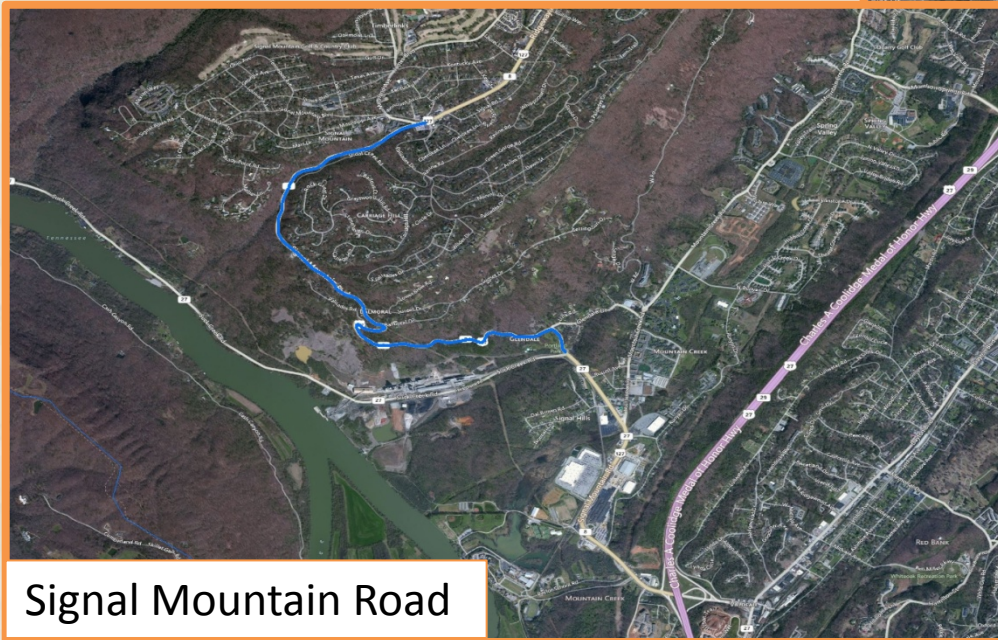


# Scale 2-Example Projects

## Community to Region



Dupont Parkway Extension



Signal Mountain Road

## Goal

**GROW ECONOMIC OPPORTUNITY  
THROUGH STRATEGIC INVESTMENT IN  
CRITICAL REGIONAL INFRASTRUCTURE**

## Objectives

- Preserve, maintain, and improve existing infrastructure before adding new capacity
- Support continued economic growth of the region by improving intermodal connections that reduce delay for both people and goods
- Reduce delay on critical regional thoroughfares with minimal impact to community, historic and environmental resources
- Improve the efficiency and reliability of freight, cargo, and goods movement by reducing delay on corridors critical to freight movement
- Improve travel time reliability through improved system operations

### Region to Region



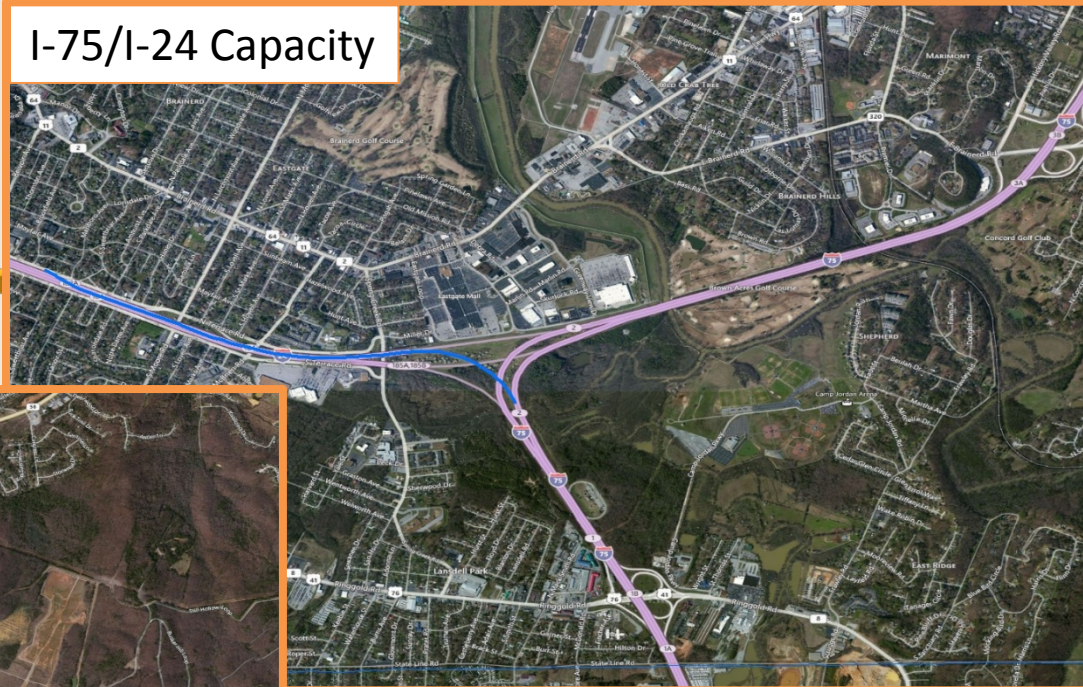


# Scale 3-Example Projects

Region to Region



I-75/I-24 Capacity



Enterprise Parkway Extension





The Chattanooga 2040 RTP varied goals and objectives by the need and purpose (“scale”) of investment breaking the traditional, linear approach.



# Performance Measures

PM Categories*	Project Level Measures
System Maintenance	1. Project addresses pavement, bridge deficiency
Congestion Reduction	2. Project reduces delay <ul style="list-style-type: none"><li>• Interstate</li><li>• Corridor to/within key center</li></ul>
Safety and Security	3. Project reduces fatal or serious crashes 4. Addresses security or emergency response need, provides network redundancy
Economic Growth/ Freight Movement	5. Project reduces delay <ul style="list-style-type: none"><li>• Intermodal connection</li><li>• Freight corridor/area</li></ul>
Environmental Sustainability	6. Project reduces VMT 7. Promotes safe, nonmotorized access; integrates complete streets 8. In keeping with community character
System Reliability	9. Adopted corridor protection plan 10. Project fills gap in existing system 11. Improves efficiency through ITS
Project Delivery	12. Supported by TDOT and local jurisdictions

- Vital few
- Based on existing data and tools
- Easily understandable
- Clearly measure progress towards goals

\*Align with MAP-21 National Goal Area

# Weighting Performance Measures

1. Compare each item to each item
2. Write preference in space provided
3. Add values to get scores
4. Convert scores to weights

	B. Congestion Reduction	C. Safety and Security	D. Economic Growth/Freight	E. Environmental Sustainability	F. System Reliability	G. Project Delivery
A. System Maintenance	A	A	A	A	A	A
B. Congestion Reduction		B	B	E	F	B
C. Safety and Security			C	C	C	G
D. Economic Growth/Freight				D	D	G
E. Environmental Sustainability					E	E
F. System Reliability						F

Totals:

A	B	C	D	E	F	G
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# Performance Measure Weights by Scale

PM Categories	Project Level Measures	Within Community	Community to Region	Region to Region
System Maintenance	1. Project addresses pavement, bridge deficiency	15	15	15
Congestion Reduction	2. Project reduces delay <ul style="list-style-type: none"> <li>• Interstate</li> <li>• Corridor to/within key center</li> </ul>	10	15	20
Safety and Security	3. Project reduces fatal or serious crashes 4. Addresses security or emergency response need, provides network redundancy	15	15	15
Economic Growth/ Freight Movement	5. Project reduces delay <ul style="list-style-type: none"> <li>• Intermodal connection</li> <li>• Freight corridor/area</li> </ul>	5	10	20
Environmental Sustainability	6. Project reduces VMT 7. Promotes safe, nonmotorized access; integrates complete streets 8. In keeping with community character	30	20	10
System Reliability	9. Adopted corridor protection plan 10. Project fills gap in existing system 11. Improves efficiency through ITS	15	15	10
Project Delivery	12. Supported by TDOT and local jurisdictions	10	10	10

- Assign projects to scale
  - Project's need and purpose
  - Location and proximity to community or environmental assets
  - Functional classification
  - Note: TPO membership reviewed assigned scales prior to project scoring

- Score projects
  - Within each scale, projects evaluated relative to one another for each of the 12 performance measures
  - Weights applied for each measure, given scale of project
  - Points summed across all measures to produce individual project scores
  - 100 point score across 12 performance measures

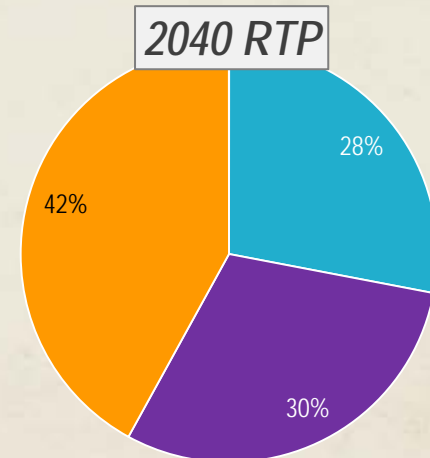
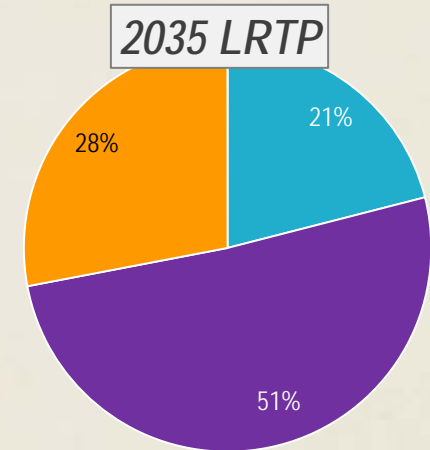


# Project Evaluation Outcomes

- Process yielded three ranked lists; one for each scale
- Projects were combined into one rank based on scores
- Projects were grouped into four tiers (“Rank 1, Rank 2, etc.) based on groupings of scores
- Process produced:
  - Blend of high ranking projects (by project type and across geographic scales) for the fiscally constrained 2040 RTP
  - Objective support for variety of investments given the mode-neutral performance evaluation
  - Focus on performance and priorities – Priorities established *before* funding source entered discussion
  - All projects Rank 1 and 2 were funded in the 2040 RTP

# Key 2040 RTP Outcomes

- Doubling of system preservation funding levels - fully funded long-term needs
- Doubling of funding for bicycle and pedestrian improvements.
- Strategic roadway and transit capacity expansion improvements
- Identification of two, new major transit capital projects
- Identification of targeted safety and system operations funding set-asides



# Take-Aways

- Appropriate weighting is critical - “Watering down” this approach will not work
- Must have a manageable number of projects - It takes time to understand details and context
- Need tools in place to evaluate off-model projects
- Need to keep the measures simple and mode-neutral to ensure objective analysis
- Combination of qualitative and quantitative measures is OK - does not preclude an objective ranking







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or

Visit the project website at [www.chcrpa.org/2040RTP.htm](http://www.chcrpa.org/2040RTP.htm)

Contact Tracy Selin at [tsel@camsys.com](mailto:tsel@camsys.com)

## MORE INFORMATION