

TRiP2045

Huntsville Metropolitan Area
Long Range Transportation Plan



Huntsville Area
**Metropolitan Planning
Organization**



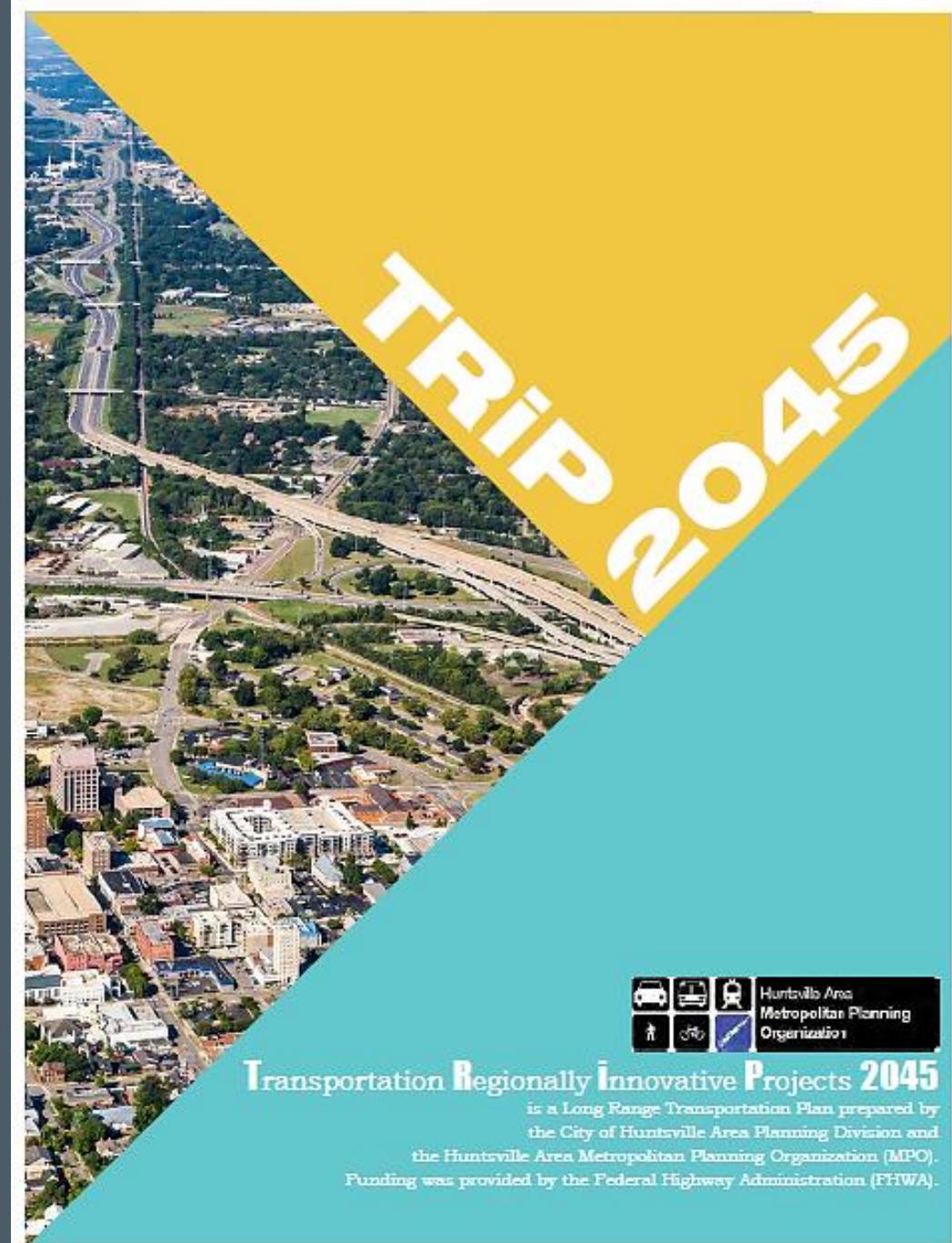
Resolution No. 14-20

ADOPTION OF THE FINAL *TRiP2045* – LONG RANGE TRANSPORTATION PLAN (LRTP)

TRiP 2045 Plan includes:

1. *Transportation Vision & Goals*
2. *Socioeconomic Context & Demographics*
3. *Environmental Context & Land Use*
4. *Roadway and Traffic Forecasts*
5. *Multi-Modal Infrastructure*
6. *Congestion Management, Safety, & Security **
7. *Freight: Air, Rail, Water, & Truck Routes*
8. *Financial Plans*
9. *Public Engagement*
10. *Appendices – Project Lists, Maps, Cost Estimates, etc.*

* *TRiP 2045 Plan will be amended later in 2020 to include the ongoing Congestion Management Study*



Transportation Regionally Innovative Projects 2045

is a Long Range Transportation Plan prepared by the City of Huntsville Area Planning Division and the Huntsville Area Metropolitan Planning Organization (MPO). Funding was provided by the Federal Highway Administration (FHWA).

TRiP2045

HUNTSVILLE METROPOLITAN AREA
LONG-RANGE
TRANSPORTATION PLAN



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Metropolitan Planning
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CROY

TRIP 2045 Plan

Transportation Planning Process:



TRIP 2045

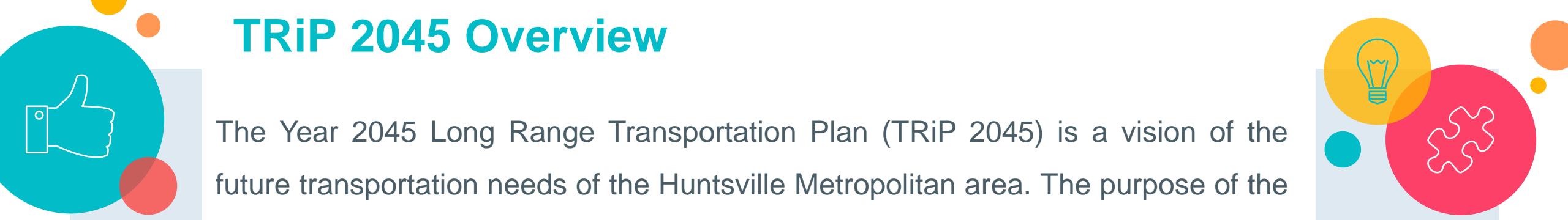
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TRiP 2045 Plan Overview

Plan Evaluation Components:

- Socioeconomic Context and Demographics (*system demand data*)
- Environmental Context and Land Use (*economic growth forecasts*)
- Roadway Infrastructure and Traffic Forecasts (*network modeling*)
- Multi-Modal Infrastructure (*transit services, bike, pedestrian*)
- Congestion Management, Safety Management, and Security Element
- Freight Plan
- Financial Plan



TRiP 2045 Overview

The Year 2045 Long Range Transportation Plan (TRiP 2045) is a vision of the future transportation needs of the Huntsville Metropolitan area. The purpose of the plan is to identify current transportation needs, forecast future transportation needs, and establish strategies and projects that address those needs.

It should serve as a decision guide for major transportation improvement needs in the Huntsville urbanized area over a 25 year planning horizon, with an emphasis upon the next 3-5 years.

The plan addresses area wide transportation needs identified through forecasting future travel demand (traffic modeling), developing and testing alternatives, and selecting those options which meet the mobility needs of the area.

Additionally, the plan evaluates and identifies future traffic volumes, roadway and intersection capacities, new transportation corridors, alternative transportation modes, pedestrian/bicycle trails, signalization needs, and funding alternatives.



TRiP 2045 Overview

The Year 2045 Transportation Plan has been developed by the MPO transportation planning staff with input and involvement of city, county, state, local government officials, and the general public. Future Traffic Demands and Financial Project Constraints have been a priority during the selection of the proposed projects.

Careful consideration has been given to projects that reduce transportation network congestion and/or minimize trip distances, in an effort to improve future travels times, cargo and freight reliability, air quality at current attainment standards, and the overall quality of life within the study area.

Quality long range transportation plans are critical if communities are to balance the growth and development of the urban area with maintaining public infrastructure.



TRiP 2045 Plan

Plan Update Highlights:

- **25-Year Comprehensive Transportation Infrastructure Plan**
 - Prioritized Future Transportation Projects (*based on model forecasting*)
 - *Financially Constrained Transportation Projects* (*funded within 2045 plan*)
 - *Visionary Transportation Projects* (*projects outside 2045 funding*)
 - *Congestion Management Elements* (*short term relief measures*)
- **Multi-modal Opportunities/Trends**
 - *Transit Services*
 - *Bike/Pedestrian Infrastructure*
- **Freight / Cargo Infrastructure Strategy**
- **Financial Plan** (*Local, State, Federal Projections*)

TRiP 2045 Plan

Vision and Goals



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TRiP 2045 Plan:

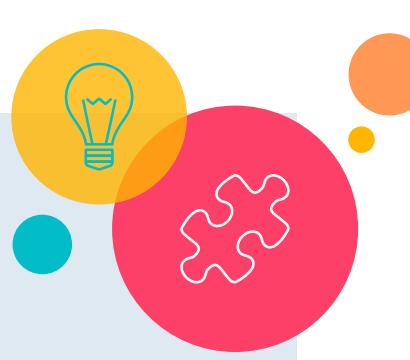
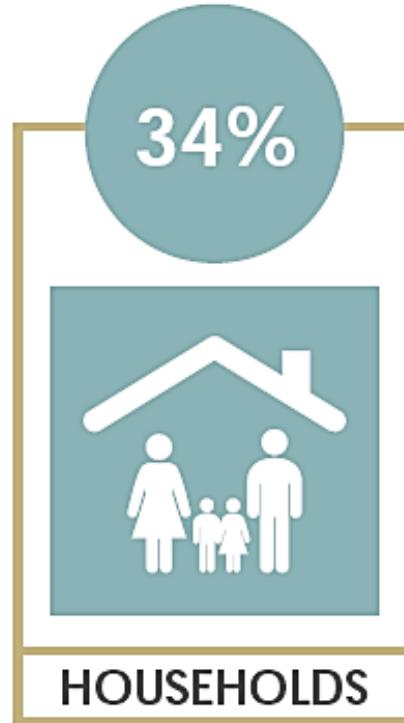
Transportation Network Socio-Economic Analysis

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TRIP 2045 Plan:

Socio-Economic Projections



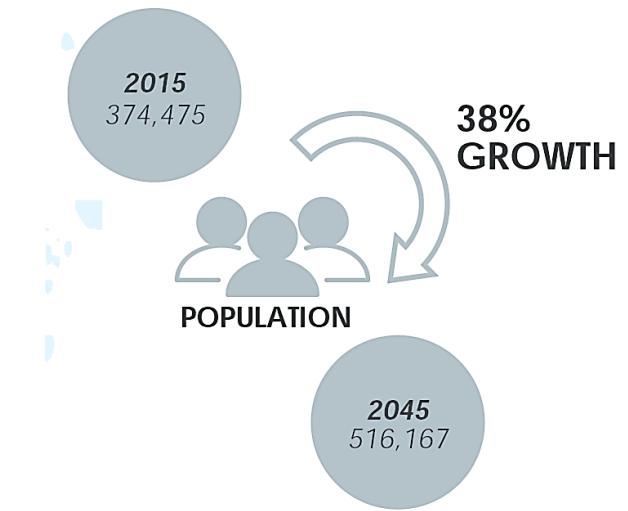
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TRiP 2045 Plan:

Socio-Economic Projections

SOCIO-ECONOMIC PROJECTIONS 2015 - 2045		
	2015	2045
Population	374,475	516,167
Households	154,004	206,734
Retail Employment	46,597	57,851
Non - Retail Employment	178,072	207,621
School Enrollment	85,538	94,144
Income	\$55,565	\$70,066

Source: *Traffic Analysis Zones Modeling (TAZ)*





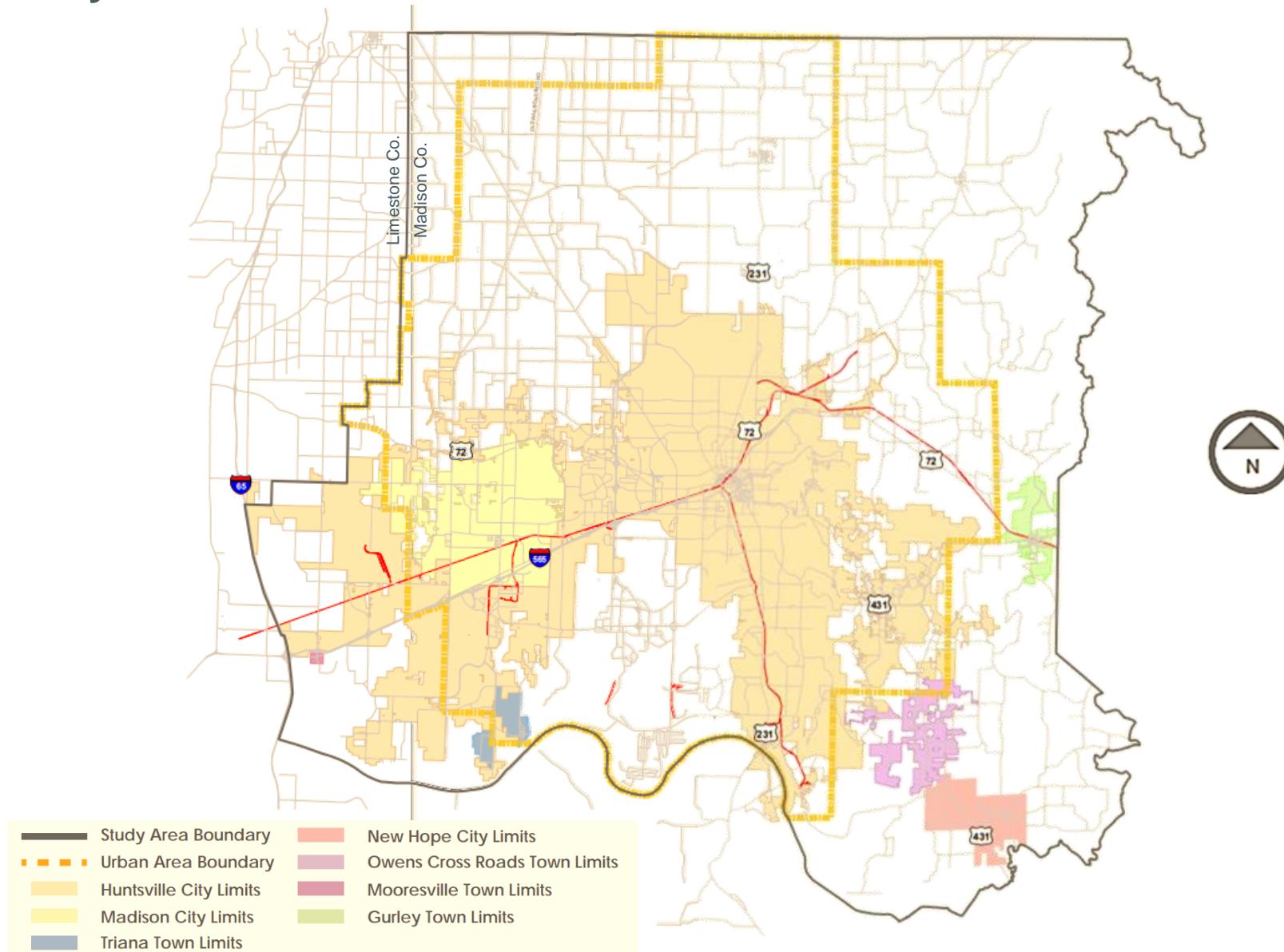
TRiP 2045 Plan:

Transportation Network Travel Demand Modeling

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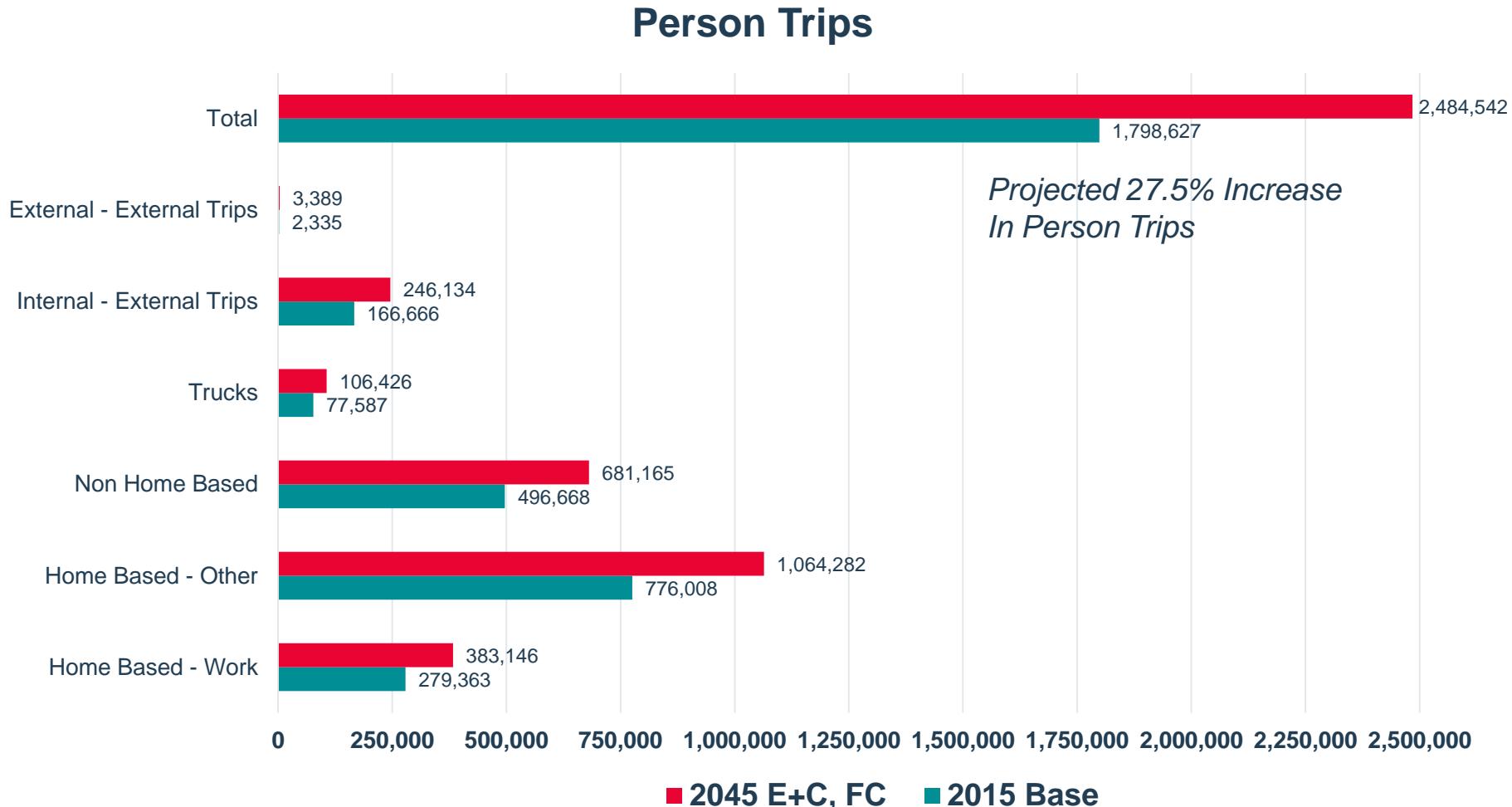
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Study Area



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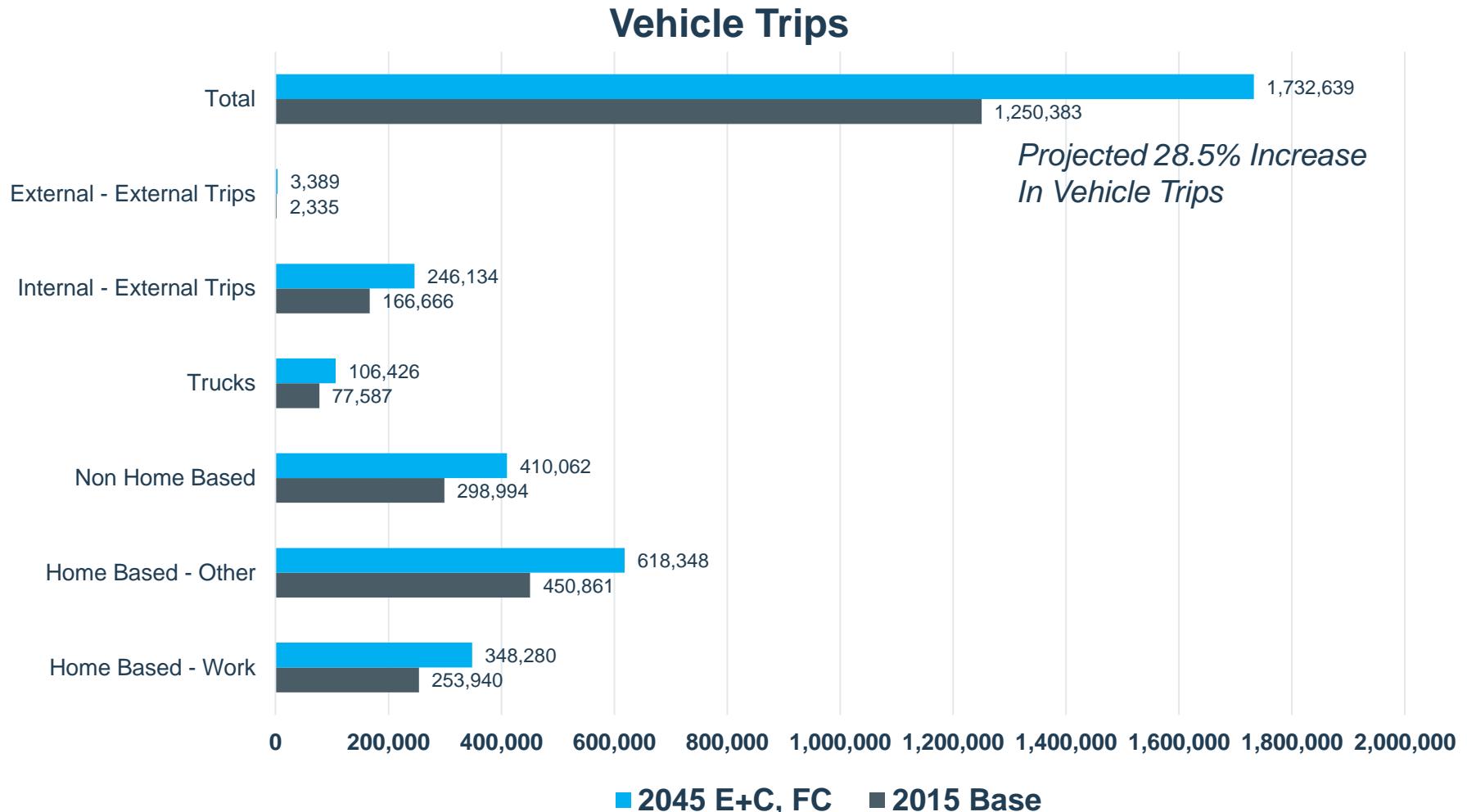
Travel Demand Modeling



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TRIP 2045 Plan:

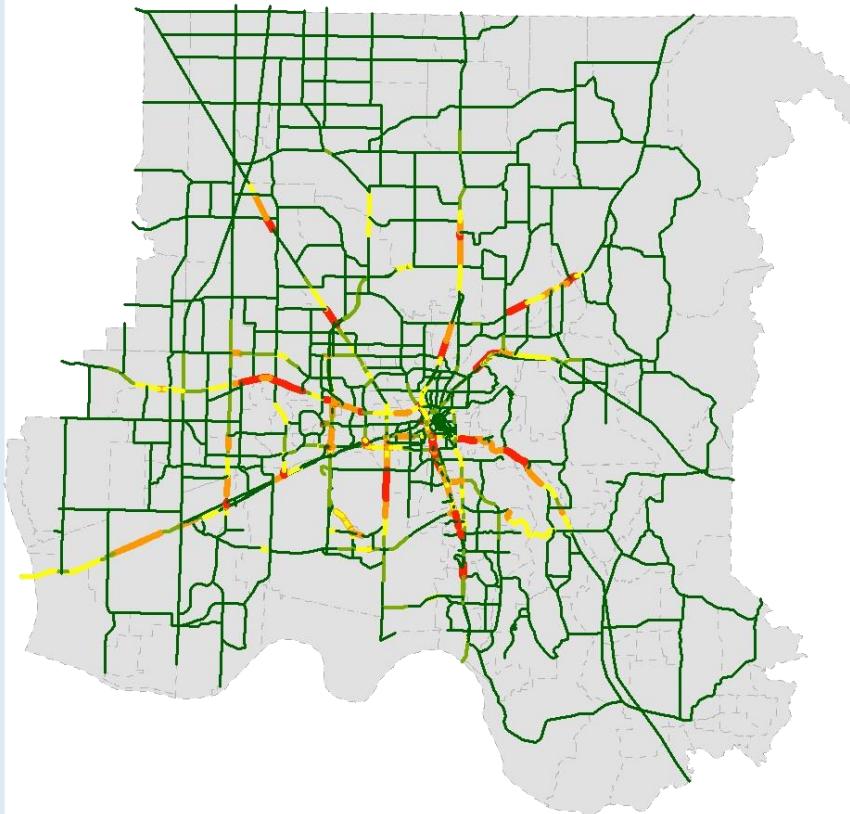
Travel Demand Modeling



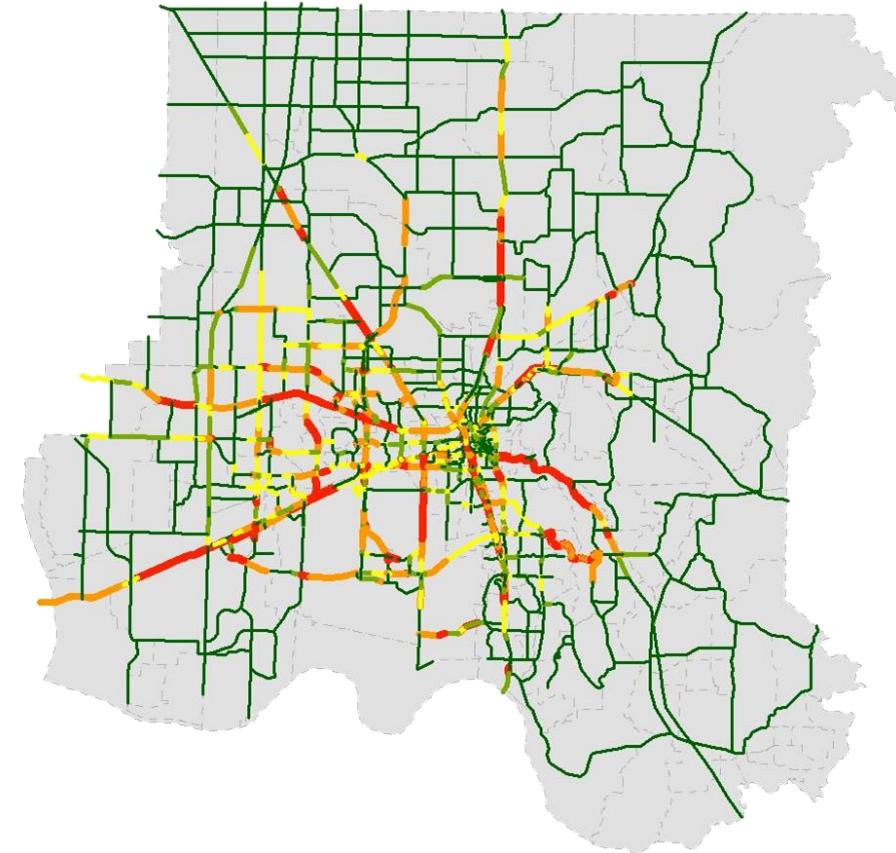
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TRIP 2045 Plan:

Transportation System Performance – Modeling



2015 Base



2045 Existing + Committed

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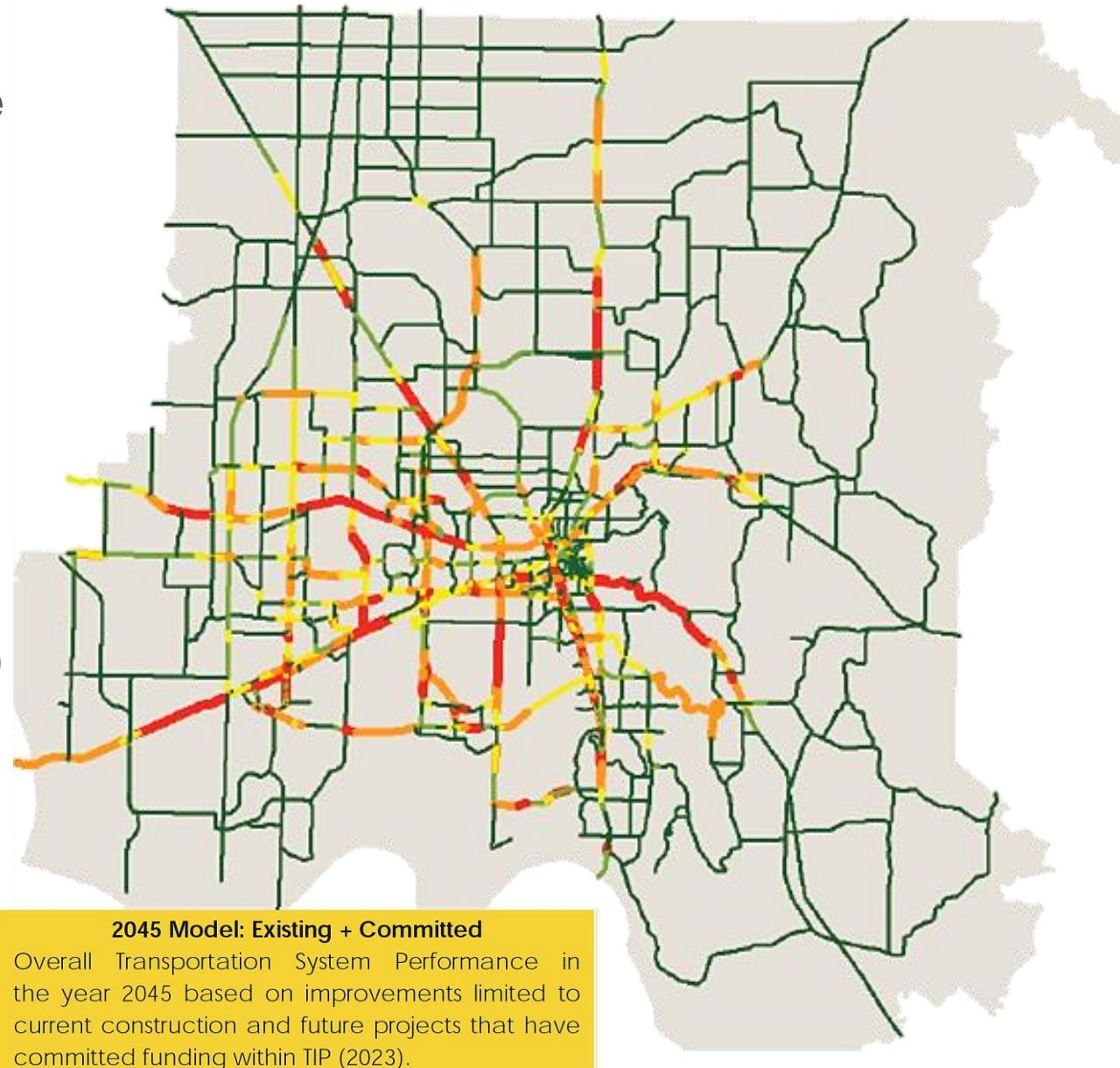
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TRIP 2045 Modeling:

Transportation System Performance **2045 Model E+C** (existing + committed projects)

Future Focus Corridors:

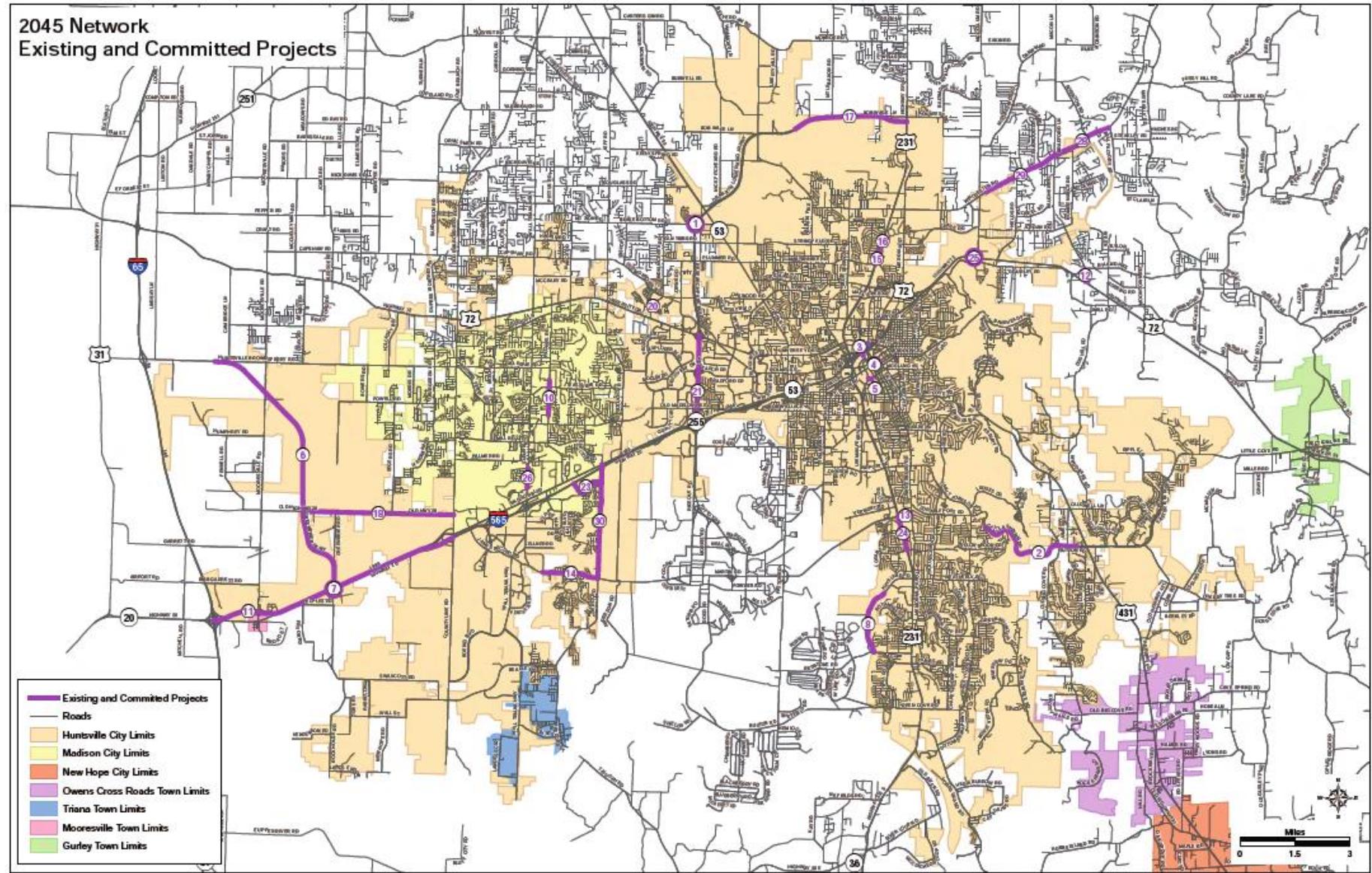
- Interstate 565
- I-565/US 231 Interchange
- Hwy 72 (west)
- Hwy 72/I-565 (east)
- AL Hwy 53
- U.S. 231 (N. of Winchester)
- I-565/US 231 Interchange
- Governors Drive
- Patton Road
- Slaughter Road
- Capshaw Road
- Winchester Road



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TRIP 2045 Results:

2045 Transportation Network – E+C Projects

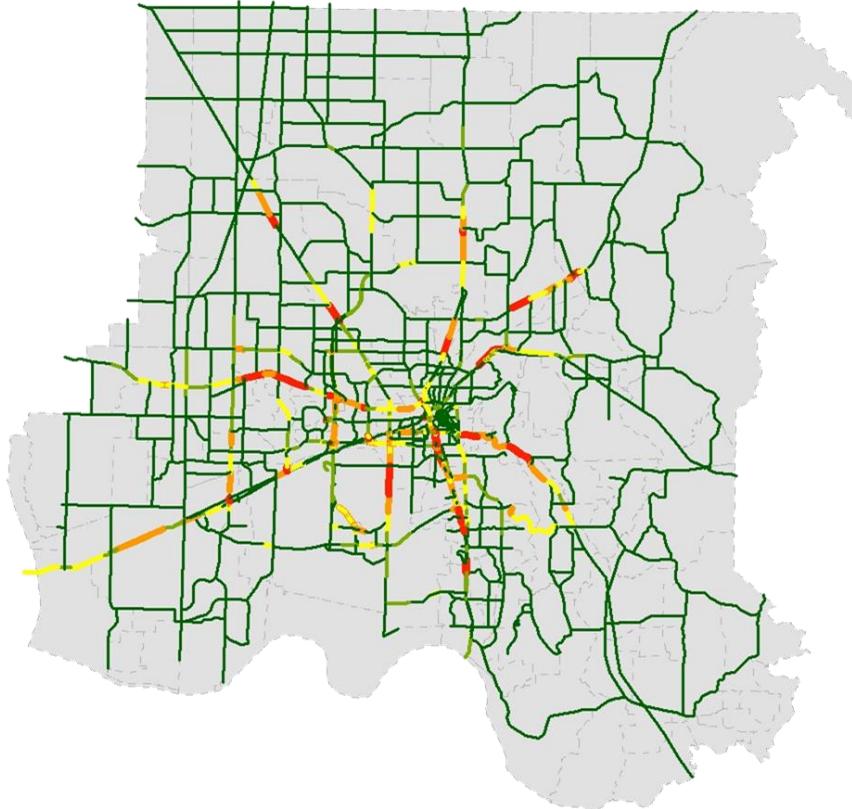


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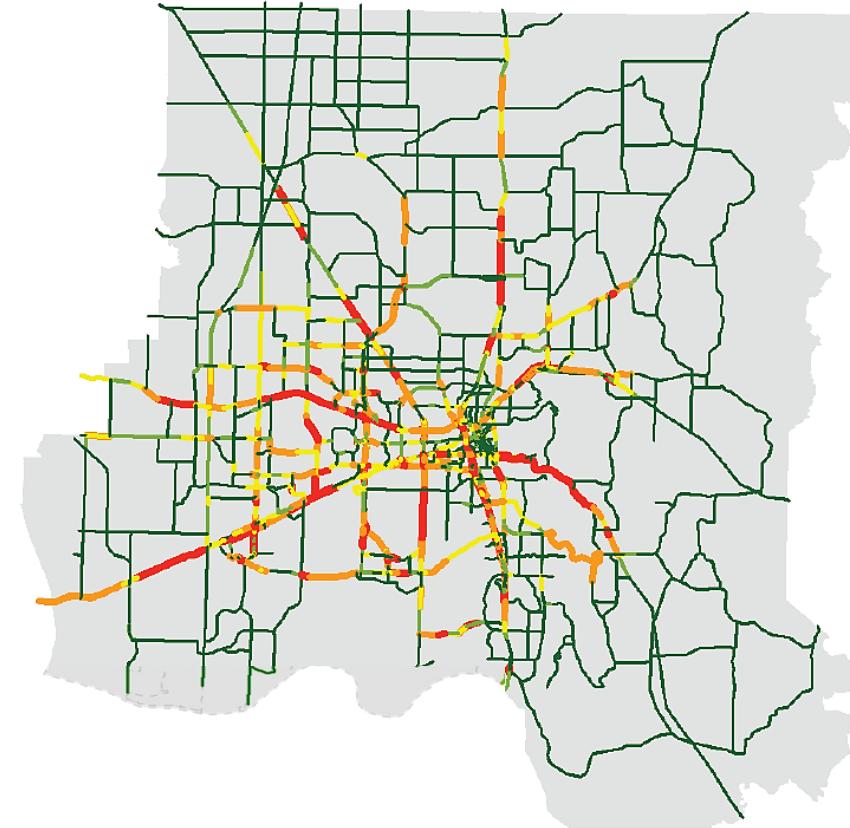
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TRIP 2045 Results:

Transportation System Performance - Modeling



2015 Base



2045 Financially Constrained

TRIP 2045

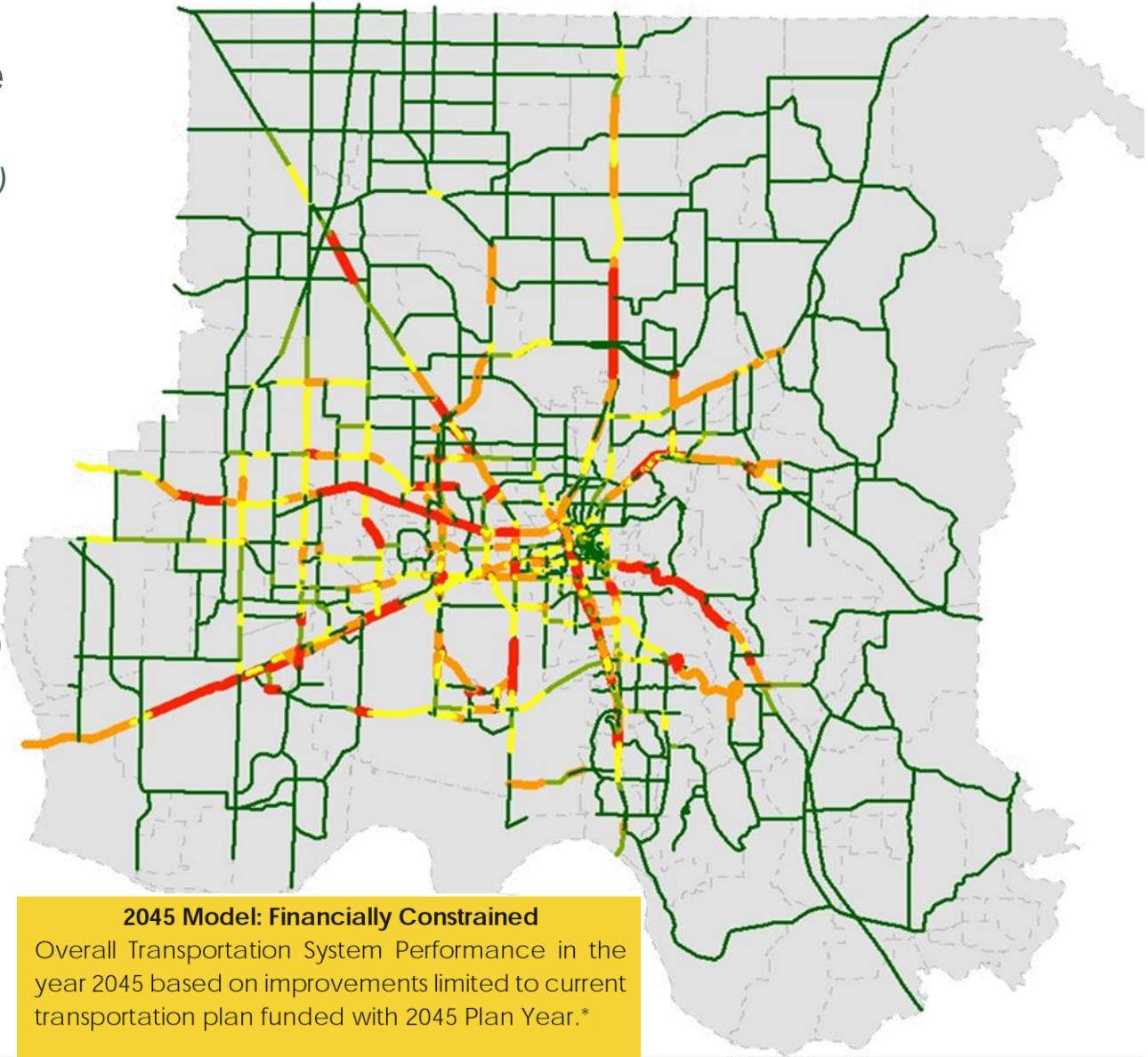
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TRIP 2045 Modeling:

Transportation System Performance **2045 Model FC** (financially constrained projects)

Future Focus Corridors:

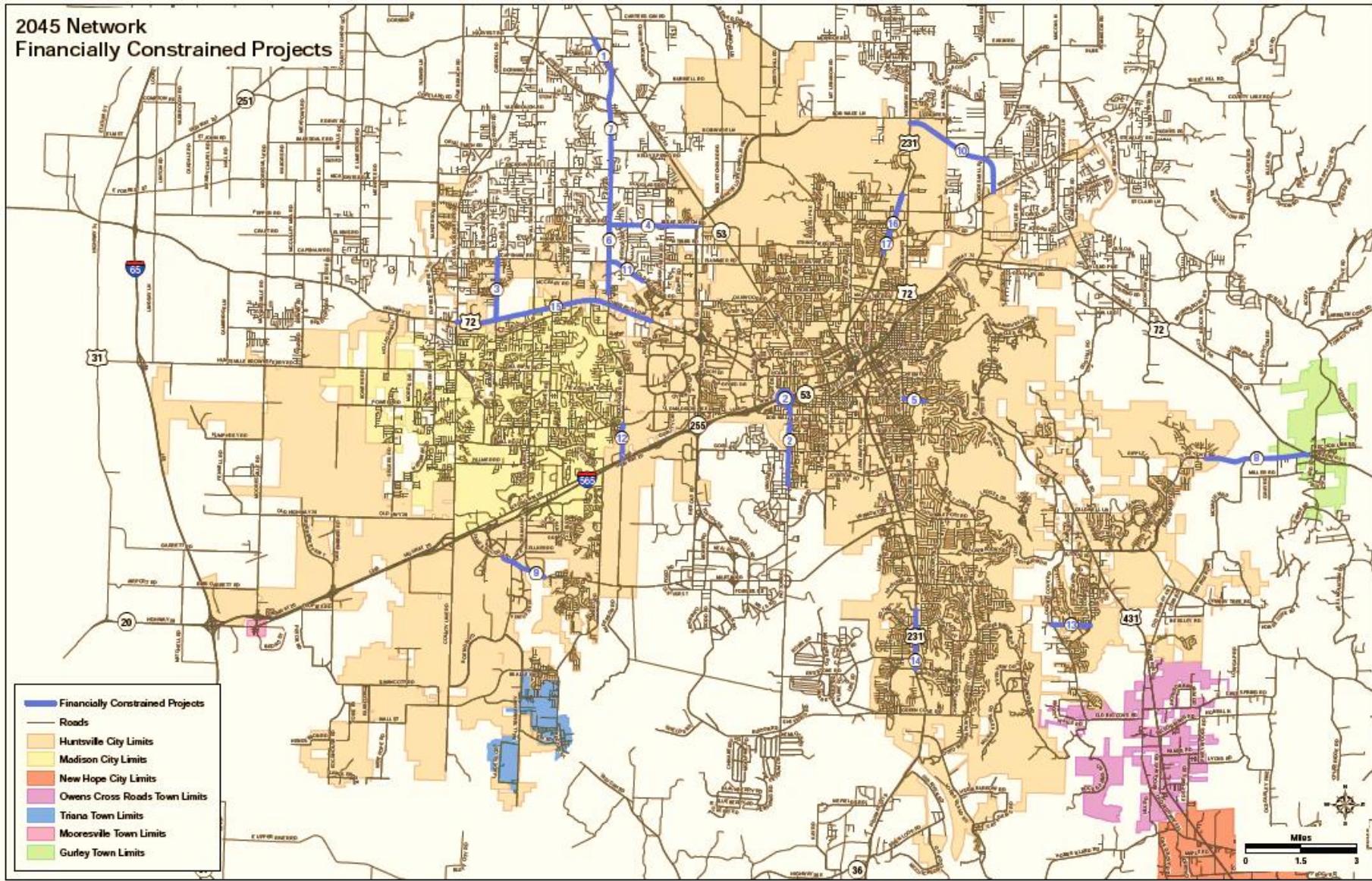
- Interstate 565
- I-565/US 231 Interchange
- Hwy 72 (west)
- Hwy 72 / I-565 (east)
- AL Hwy 53
- U.S. 231 (N. of Winchester)
- I-565/US 231 Interchange
- S.R. 255
- Governors Drive
- Patton Road
- Slaughter Road
- Capshaw Road
- Winchester Road



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TRIP 2045 Results:

2045 Transportation Network – FC Projects

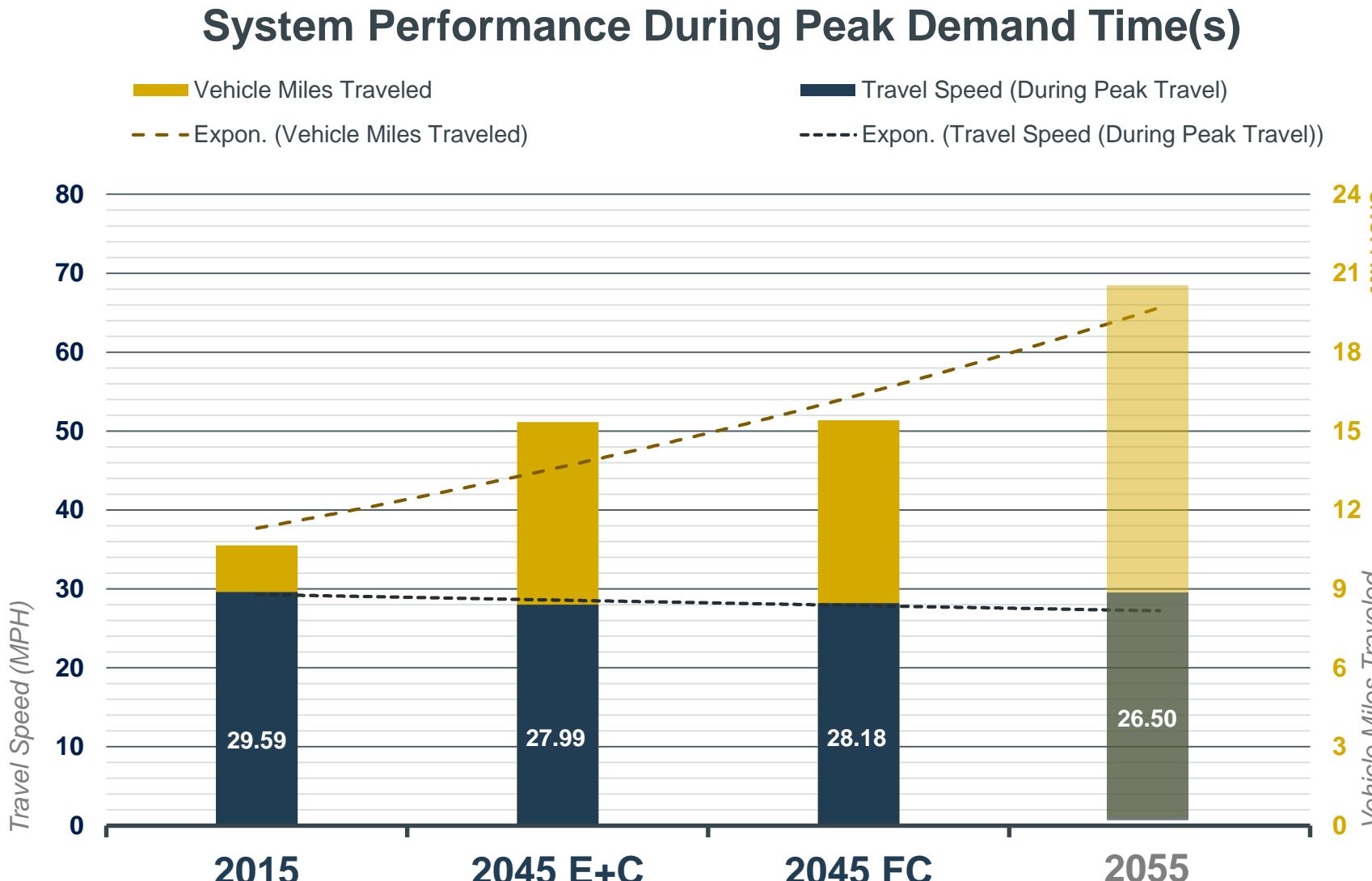


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TRIP 2045 Plan:

Future Transportation System Performance



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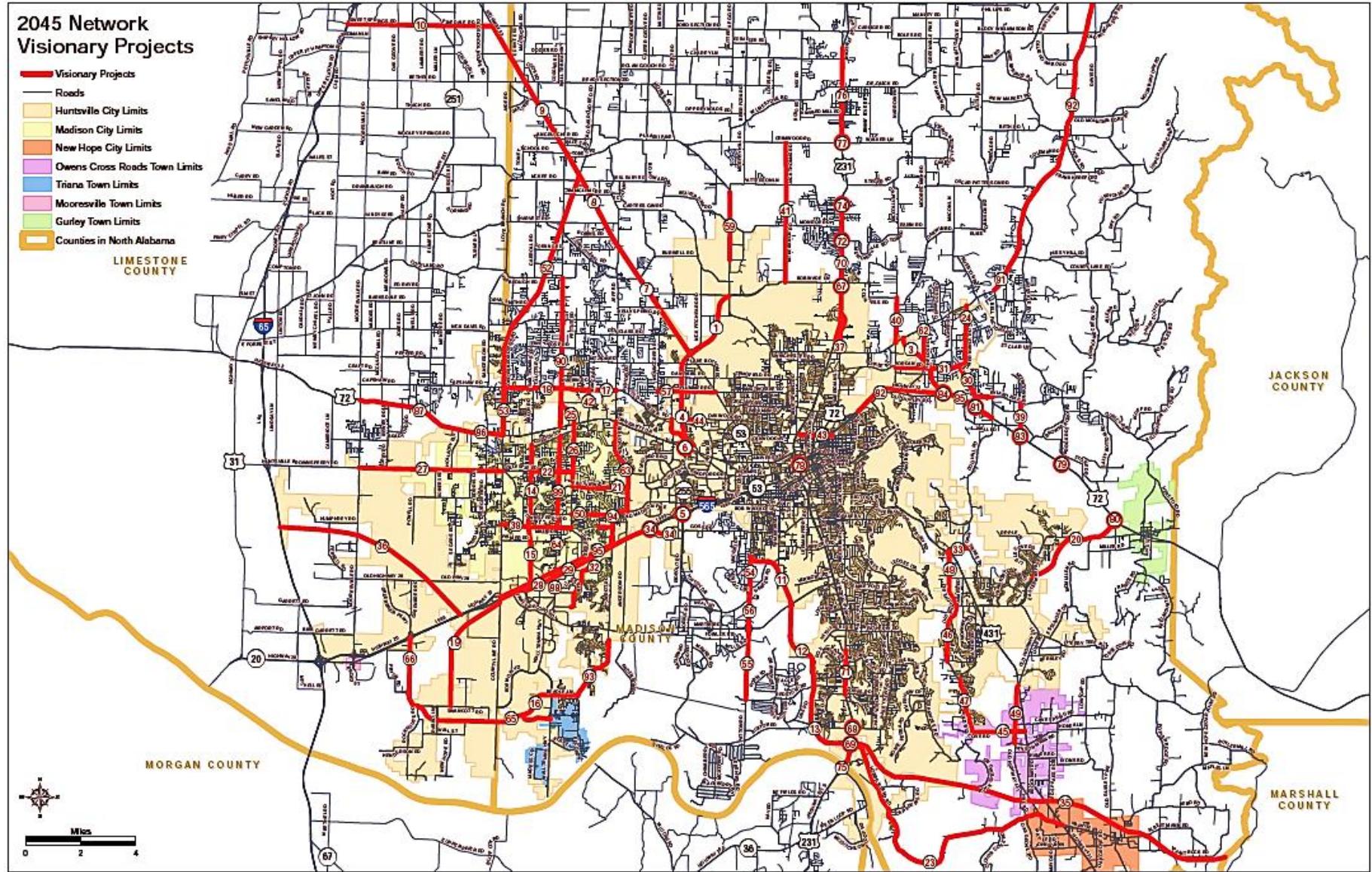
Plan Update Results:

2045 Transportation Network

Visionary Projects

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TRIP 2045 Results: 2045 Transportation Network – Visionary Projects



TRIP 2045

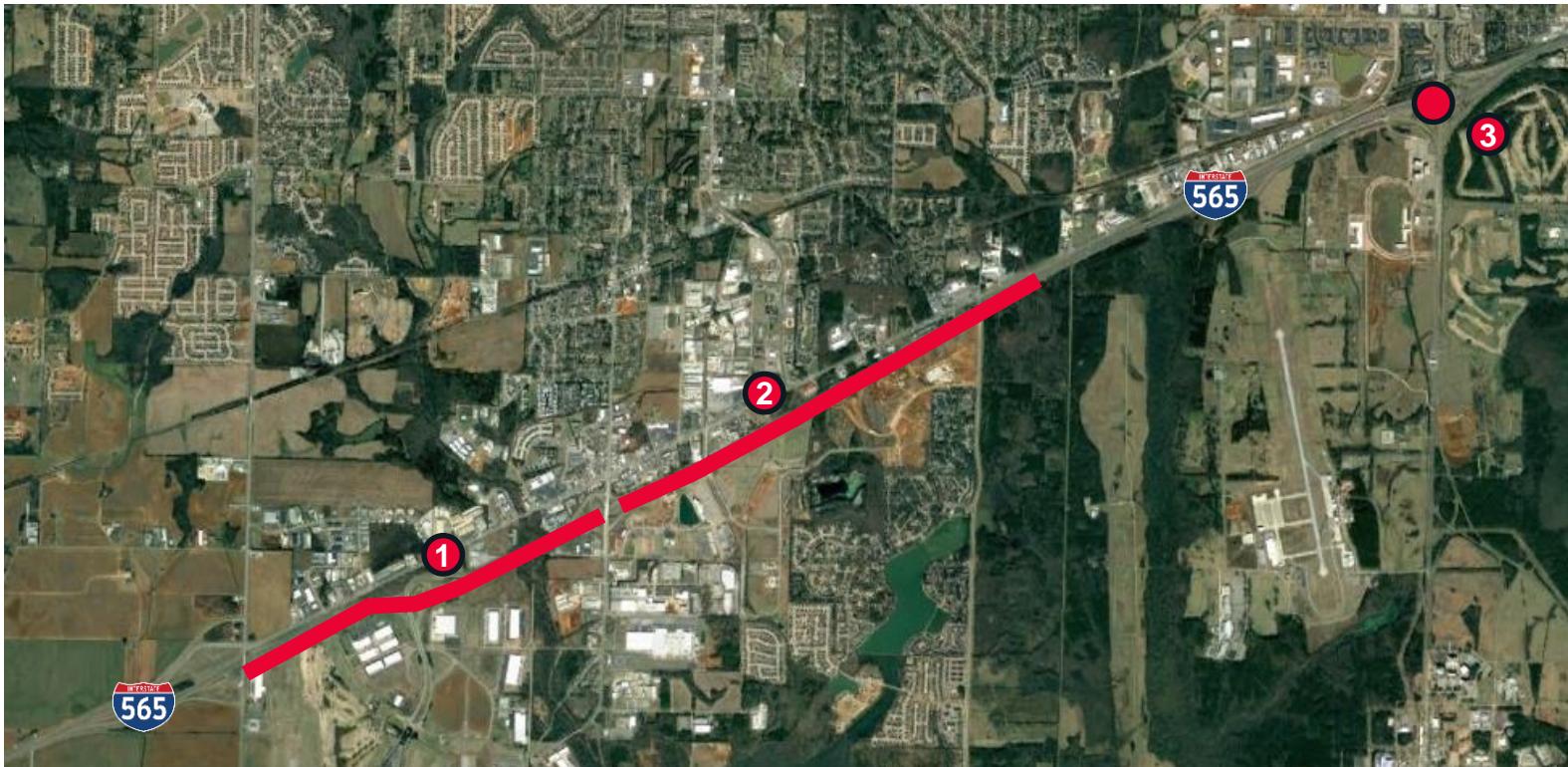
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TRIP 2045 Plan Results:

Top Visionary Project Rankings- *Freeway System*

based on 2045FC Volume/Capacity Ratios

Rank	Project	From	To	Description
1	I-565	County Line Road	Wall-Triana Hwy.	Widen to 6-lanes
2	I-565	Wall-Triana Hwy.	Madison Blvd. Crossover	Widen to 8-lanes
3	I-565	Madison Blvd.	AL Hwy. 255	Interchange Mods.

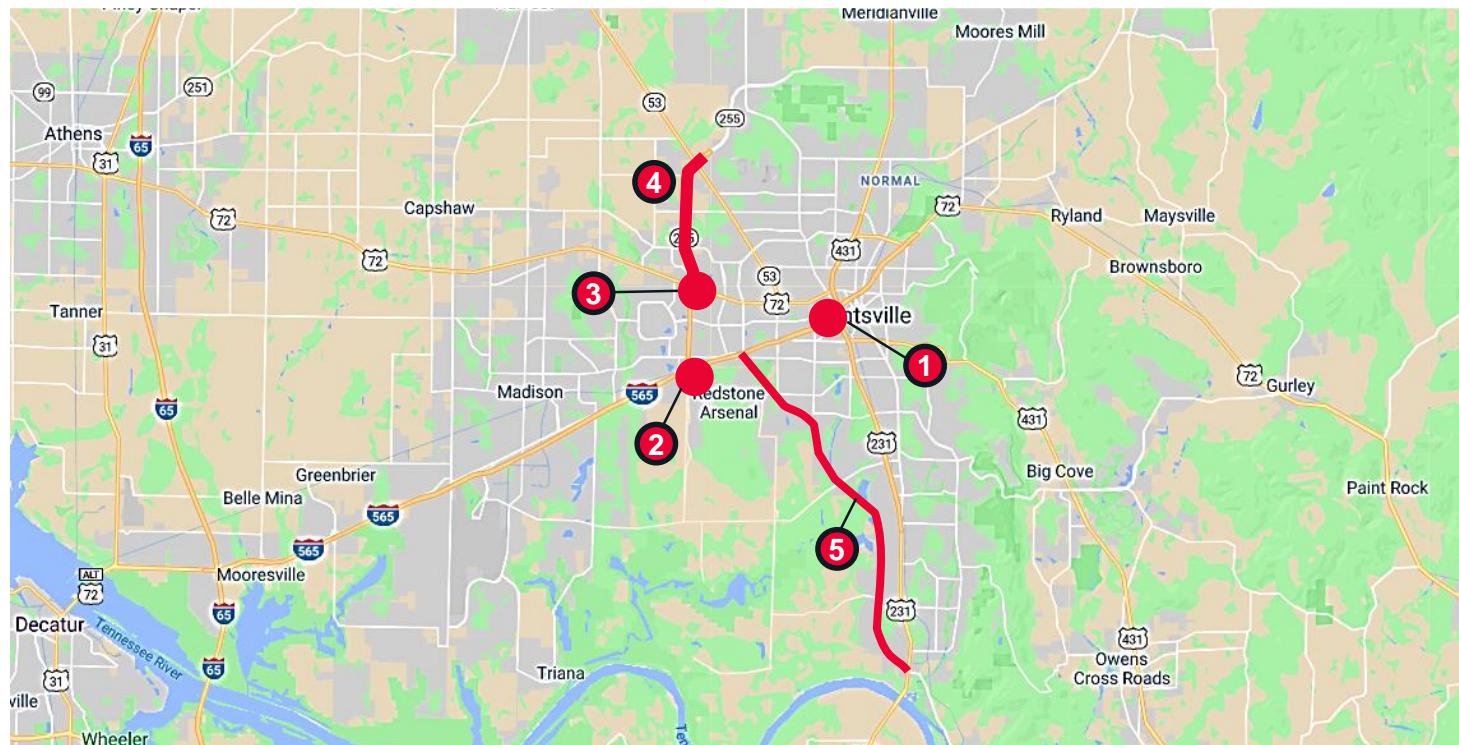


TRIP 2045 Plan Results:

Top Visionary Project Rankings- *Expressways*

based on 2045FC Volume/Capacity Ratios

Rank	Project	From	To	Description
1	Memorial Parkway	@ I-565 interchange		Interchange modification
2	Research Park Blvd.	@ I-565 interchange		Interchange modification
3	Research Park Blvd.	@ US 72 interchange		Interchange modification
4	Research Park Blvd.	US 72	AL 53	Widening to 6-lanes
5	East Arsenal Connector	I-565	US 231	New Expressway



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TRIP 2045 Plan Results:

Top Visionary Project Rankings- *Major Arterials*

based on 2045 Fiscally Constrained (Volume/Capacity Ratios)

Rank	Project	From	To	Description
1	US 72 East (Corridor V)	Maysville Rd.	Shields Rd.	New interchanges, service roads
2	AL 53	AL 255	Harvest Rd.	Widening to 6-lanes
3	US 231/431	Hollow Rd.	Patterson Ln.	Widening to 6-lanes
4	Memorial Parkway	Meadowbrook Dr.	Hobbs Rd.	New interchanges, service roads
5	US 231/431	@SR 255		New interchange
6	US 72 – West	Countyline Rd.	Holladay Blvd.	Widening to 6-Lanes
7	Memorial Parkway		@ Governors Dr.	Interchange Modification
8	US231/431		@ Meridianville Bottom Rd.	New Interchange
9	SR 255		@ Pulaski Pike Rd	New Interchange
10	US 72 – East		@ Jordan Road	New Interchange
11	US 72 – West	Holladay Blvd	Mooresville Rd	Widening to 6-lanes
12	US 231/431		@ Patterson Lane	New Interchange
13	AL 53	Harvest Road	Old RR Bed	Widening to 4-lanes
14	Memorial Parkway	Hobbs Island Rd	TN River Bridge	Widening to 6-lanes
15	US 231/431	Walker Ln	Bobo Section Rd	Widening to 6-lanes

TRIP 2045 Plan Results:

Top Visionary Project Rankings- *Minor Arterials*

based on 2045 Fiscally Constrained (Volume/Capacity Ratios)

Rank	Project	From	To	Description
1	Patton Road	GATE 10	Patriot Road	Widening to 7-lanes
2	Sullivan Street	Kyser Road	Front Street	Widening to 5-lanes
3	Patton Road	Patriot Road	Martin Road	Widening to 5-lanes
4	Slaughter Road	Old Madison Pike	US 72	Widening to 5-lanes
5	Wall-Triana Hwy	Interpro Drive	S. of Dunlop Blvd	Widening to 7-lanes
6	Pulaski Pike	Prosperity Drive	Patterson Lane	Widening to 5-lanes
7	Madison Blvd.	Governors West	Countyline Rd.	Widening to 6-lanes
8	Wall-Triana Blvd.	Mill Road	Gooch Lane	Widening to 3-lanes
9	Old RR Bed Rd.	US 72	Capshaw Rd.	Widening to 5-lanes
10	Patton Rd.	Martin Rd.	Redstone Rd.	Widening to 5-lanes
11	Old RR Bed Rd.	Capshaw Road	AL Hwy 53	Widening to 5-lanes
12	Wall Triana Hwy	US 72	Yarbrough Rd.	Widening to 5-lanes
13	HSV Browns Ferry	Countyline Road	Mooresville Rd.	Widening to 5-lanes
14	Swancott Road	I-565	Countyline Rd.	Widening to 5-lanes
15	Winchester Road	Bell Factory Rd.	Riverwalk Trail.	Widening to 4-lanes

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TRIP 2045 Plan Results:

Top Visionary Project Rankings- Major/Minor Collectors

based on 2045 Fiscally Constrained (Volume/Capacity Ratios)

Rank	Project	From	To	Description
1	Capshaw Road	Nance Road	Old RR Bed Rd.	Widening to 5-lanes
2	Old Madison Pike	Slaughter Road	Hughes Rd.	Widening to 5-lanes
3	Oakwood Road	Adventist Blvd.	AL 255	Widening to 5-lanes
4	Old Monrovia Rd.	Claude Circle	Oakwood Rd.	Widening to 3-lanes
5	Old Big Cove Rd.	Sutton Road	Terry Drake Rd.	Widening to 3-lanes
6	Ryland Pike	Jordan Road	Dug Hill Rd.	Widening to 3-lanes
7	Capshaw Road	Jeff Rd.	Nance Rd.	Widening to 5-lanes
8	Hughes Road	Millsford Lane	Brogan Drive	Widening to 5-lanes
9	Eastview Drive	Slaughter Road	Hughes Rd.	Widening to 5-lanes
10	Moores Mill Road	Winchester Road	Countess Rd.	Widening to 5-lanes
11	Jordan Road	Homer Nance Rd.	US 72 East	Widening to 5-lanes
12	Plummer Road	Jordan Lane	Indian Crk Rd.	Widening to 5-lanes
13	Balch Road	Mill Road	Gooch Lane	Widening to 5-lanes
14	Gillespie Road	Balch Road	Hughes Road	Widening to 3-lanes
15	Mill Road	Hughes Road	Countyline Road	Widening to 5-lanes

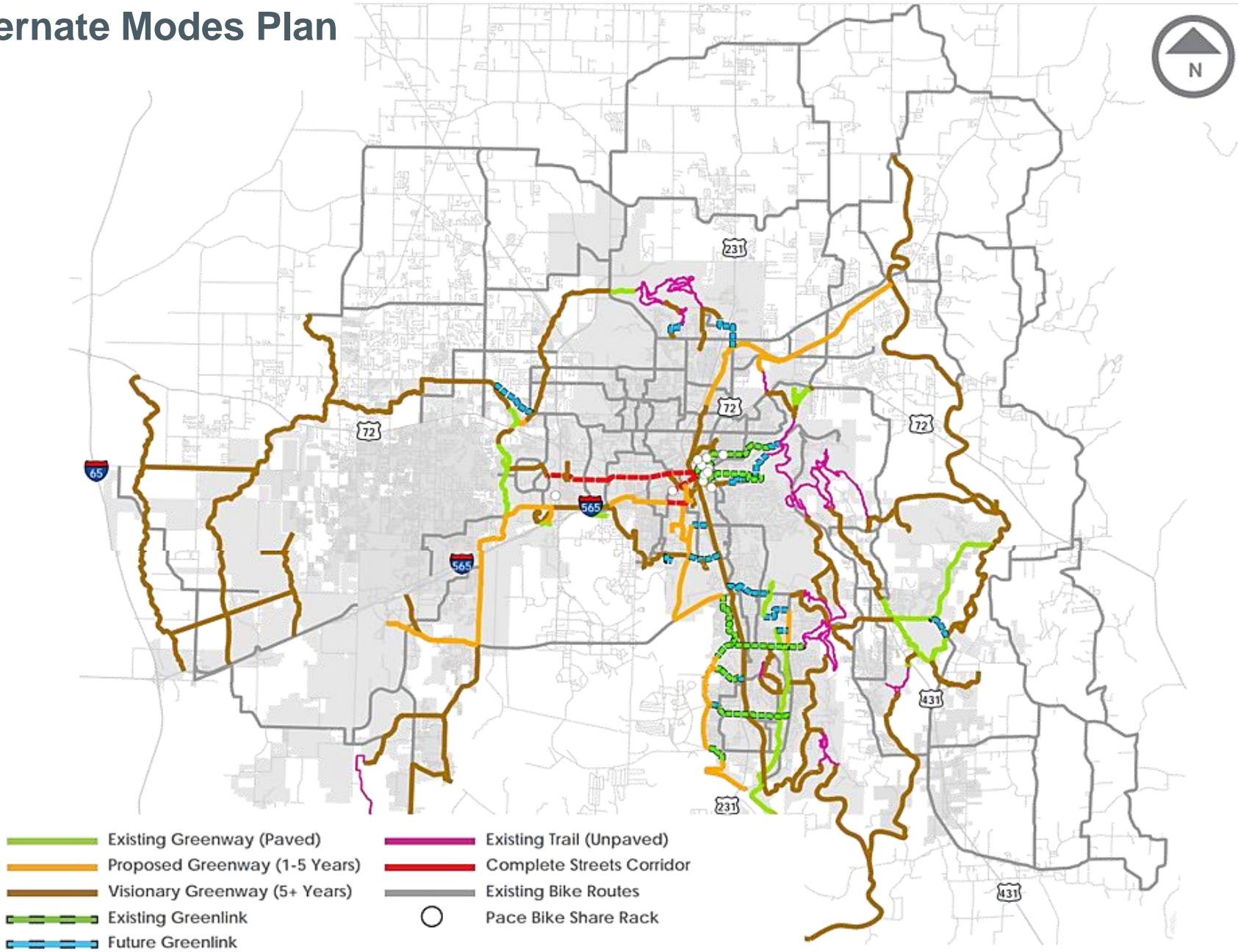


Multimodal Network

Transit | Bike | Pedestrian Infrastructure

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TRIP 2045 Plan: Alternate Modes Plan



TRIP 2045 Plan:

Bike and Pedestrian Goals:

- Number of bicycles observed as counts
- Number of bike routes installed around Study Area
- Number of page views on bicycle website www.bikehuntsville.com
- Number of fans on Facebook
- Percentage of roads with bike lanes or shoulders
- Increase number of Greenway Miles
- Increase number of Sidewalk Miles
- Double number of bicycle trips
- Achieve 80% good level of confidence for ridership by 2030

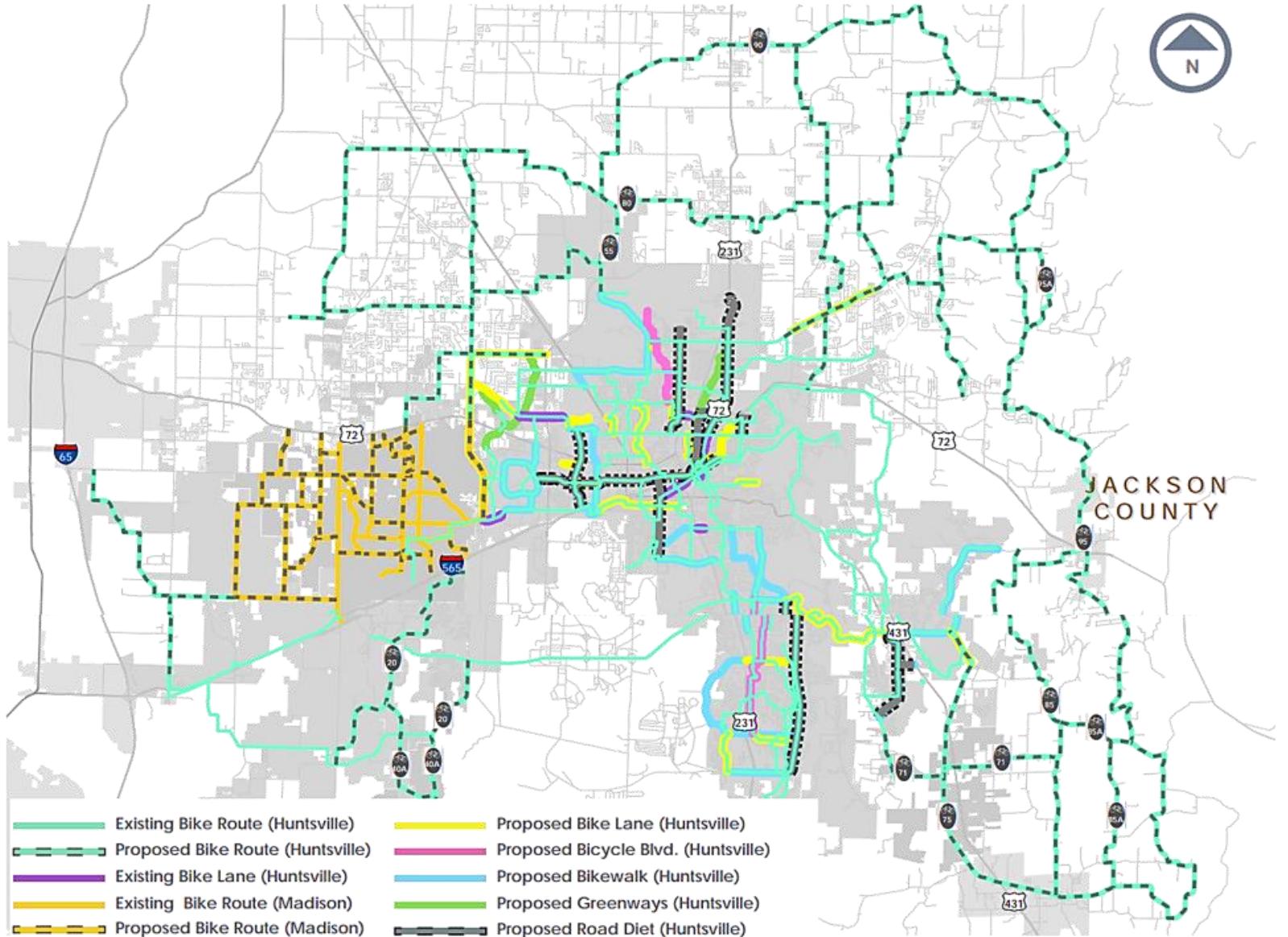
**TRIP 2045 Plan identifies
118 Multimodal Projects**



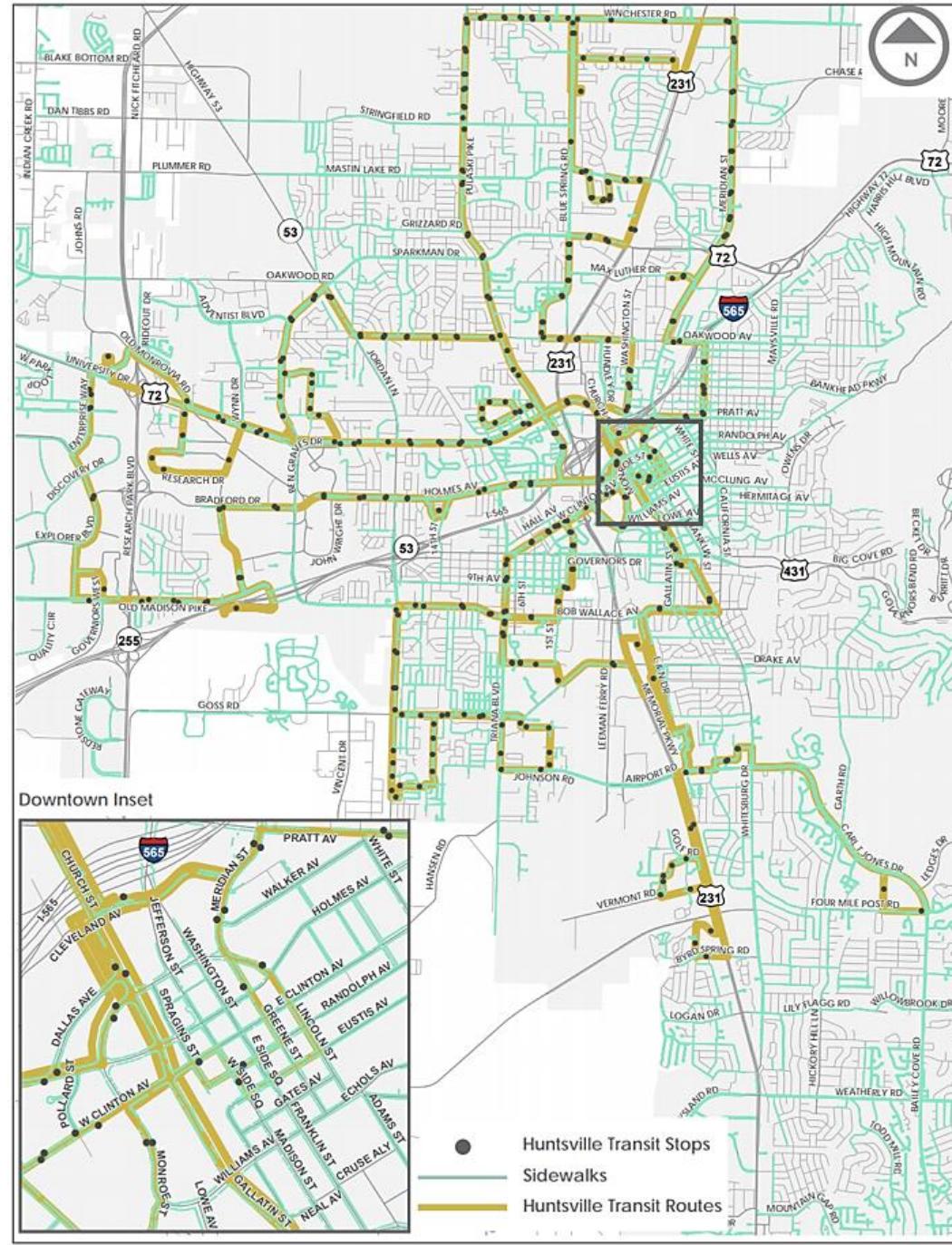
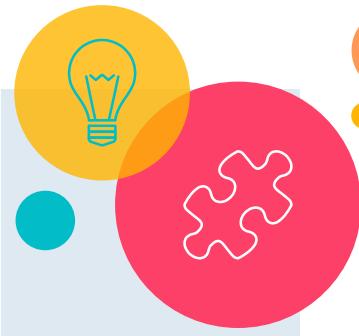
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TRIP 2045 Plan: Bike Plan



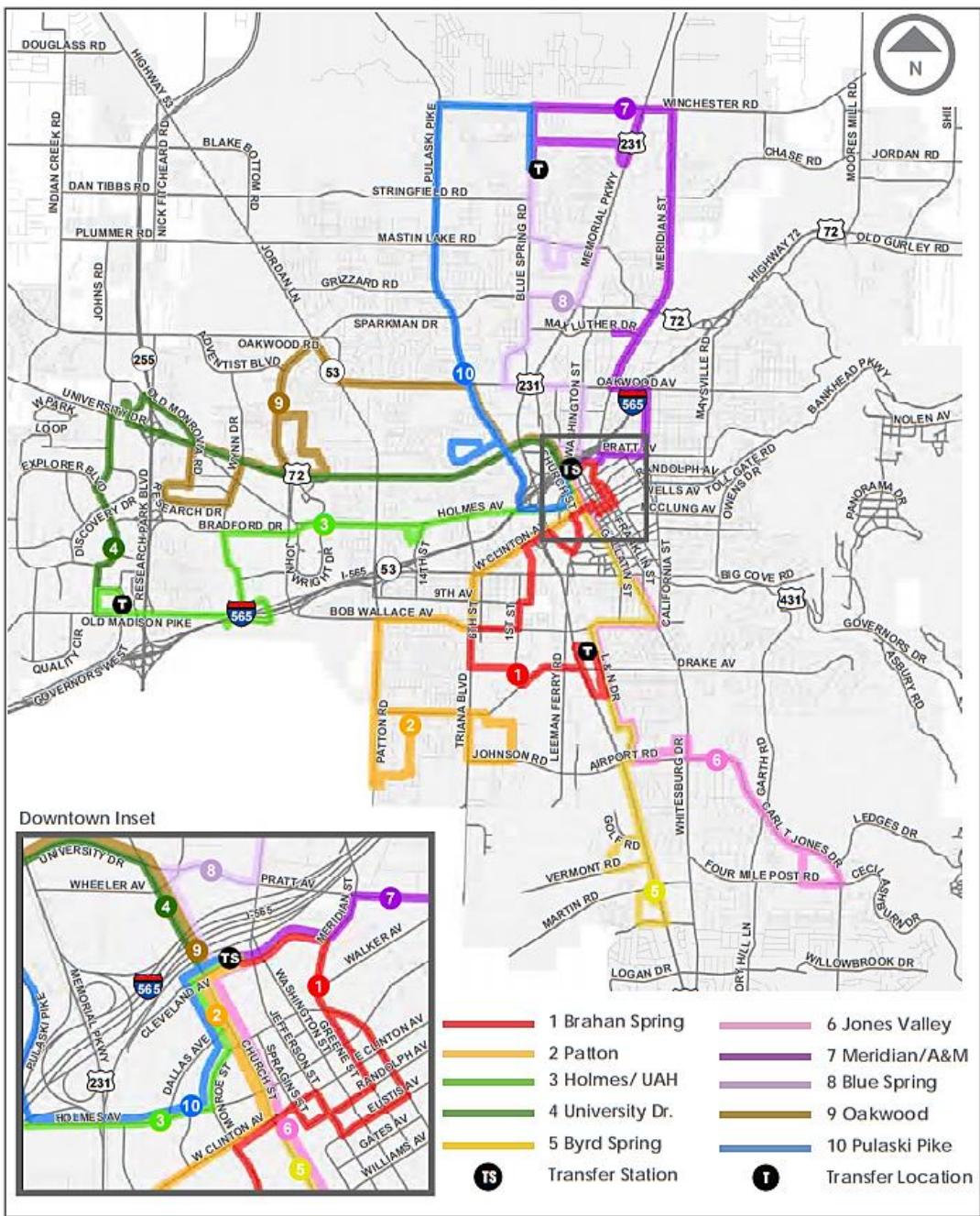
TRIP 2045 Plan: Pedestrian Access to Transit Service



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TRIP 2045 Plan: Public Transit

- Increase Ridership
- Promote Transit App
- Future Bus Rapid Transit (BRT) Opportunities
- Monitor and Improve Bike and Pedestrian Access Routes to Established Transit Stations



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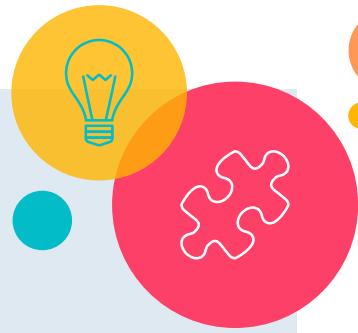


TRiP 2045 Financial Analysis

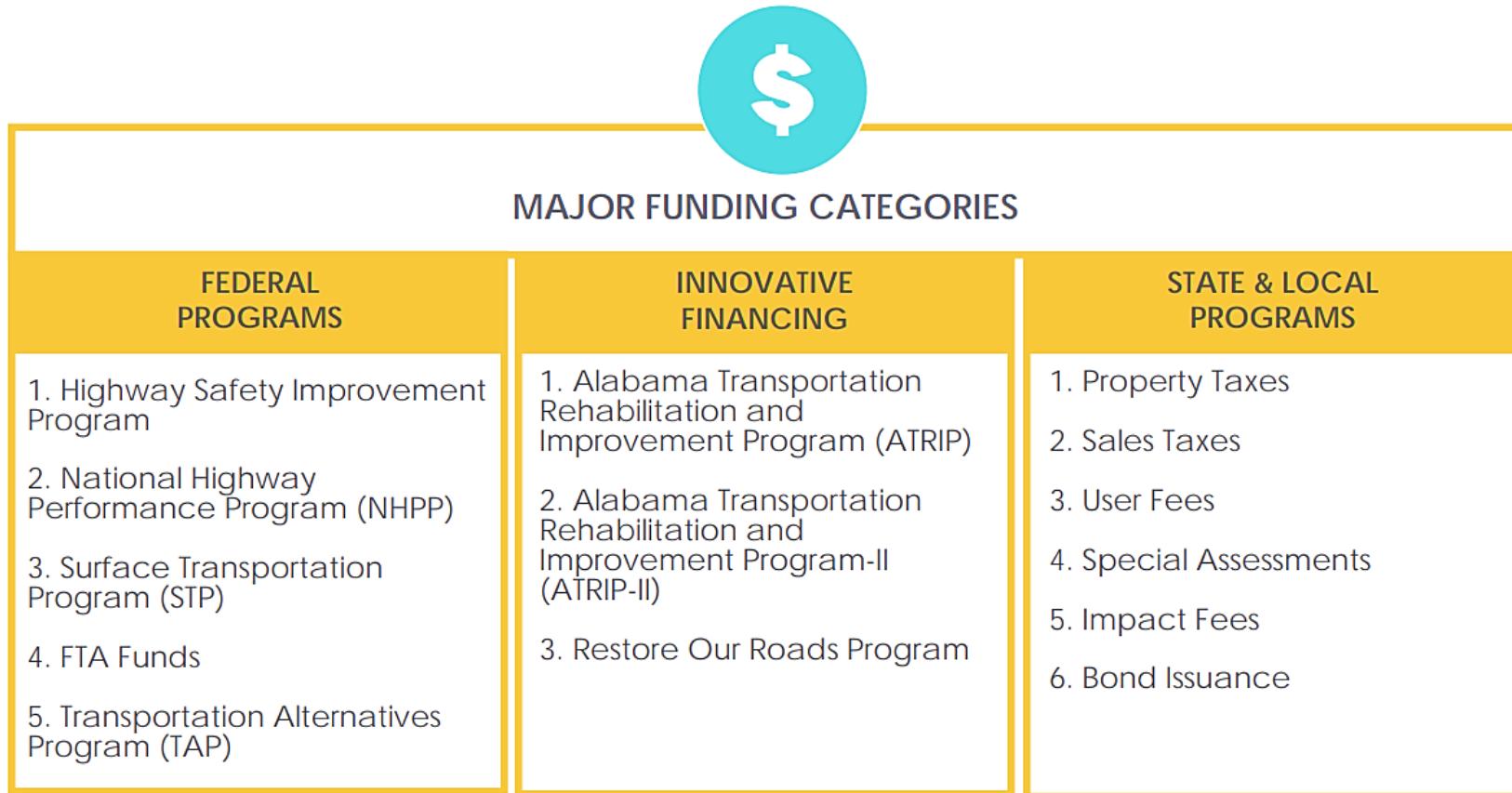
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TRIP 2045 Plan:

Financial Analysis



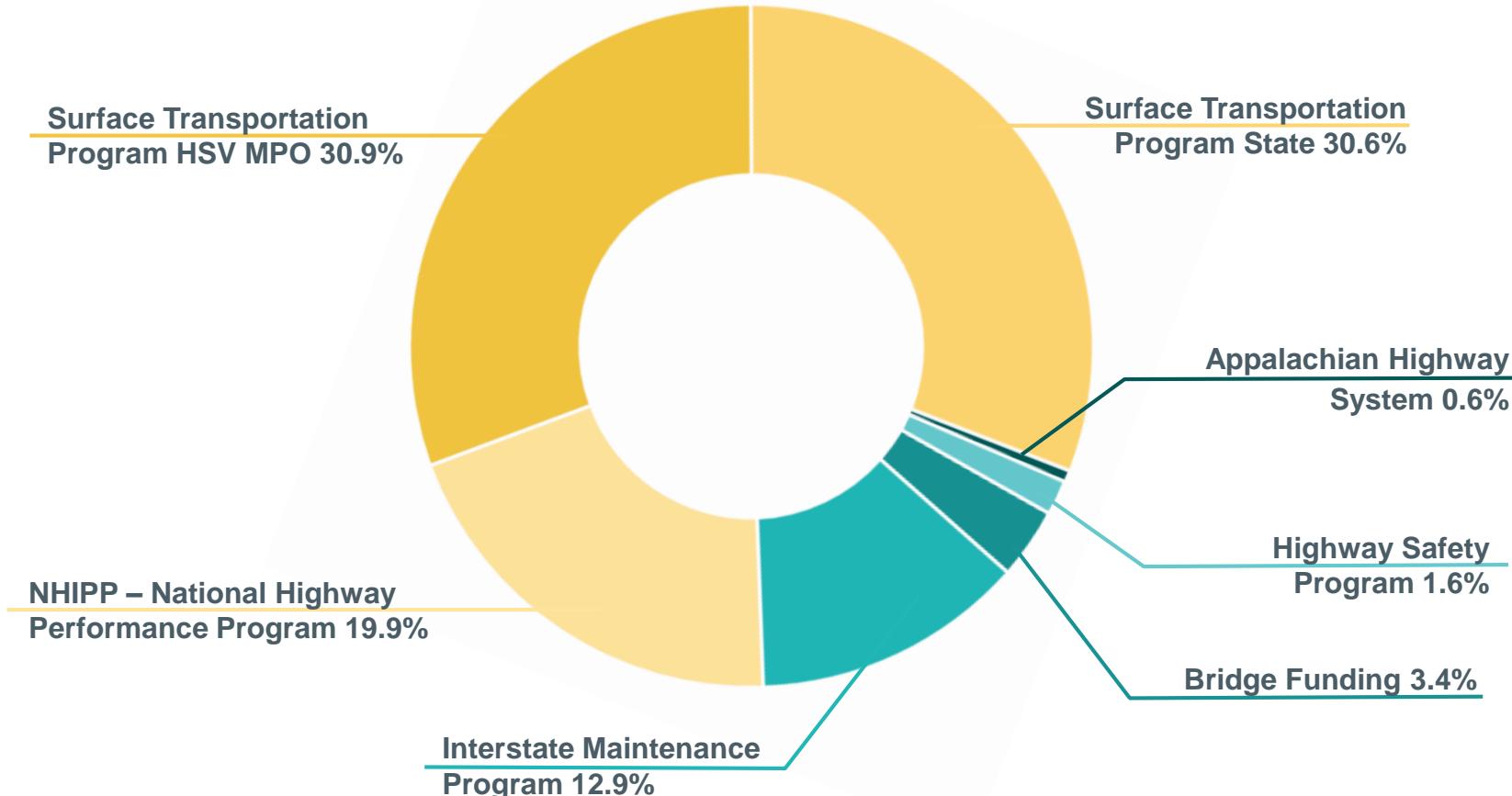
FUNDING SOURCES FOR TRANSPORTATION CAPITAL PROJECTS



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TRIP 2045 Plan: Financial Analysis

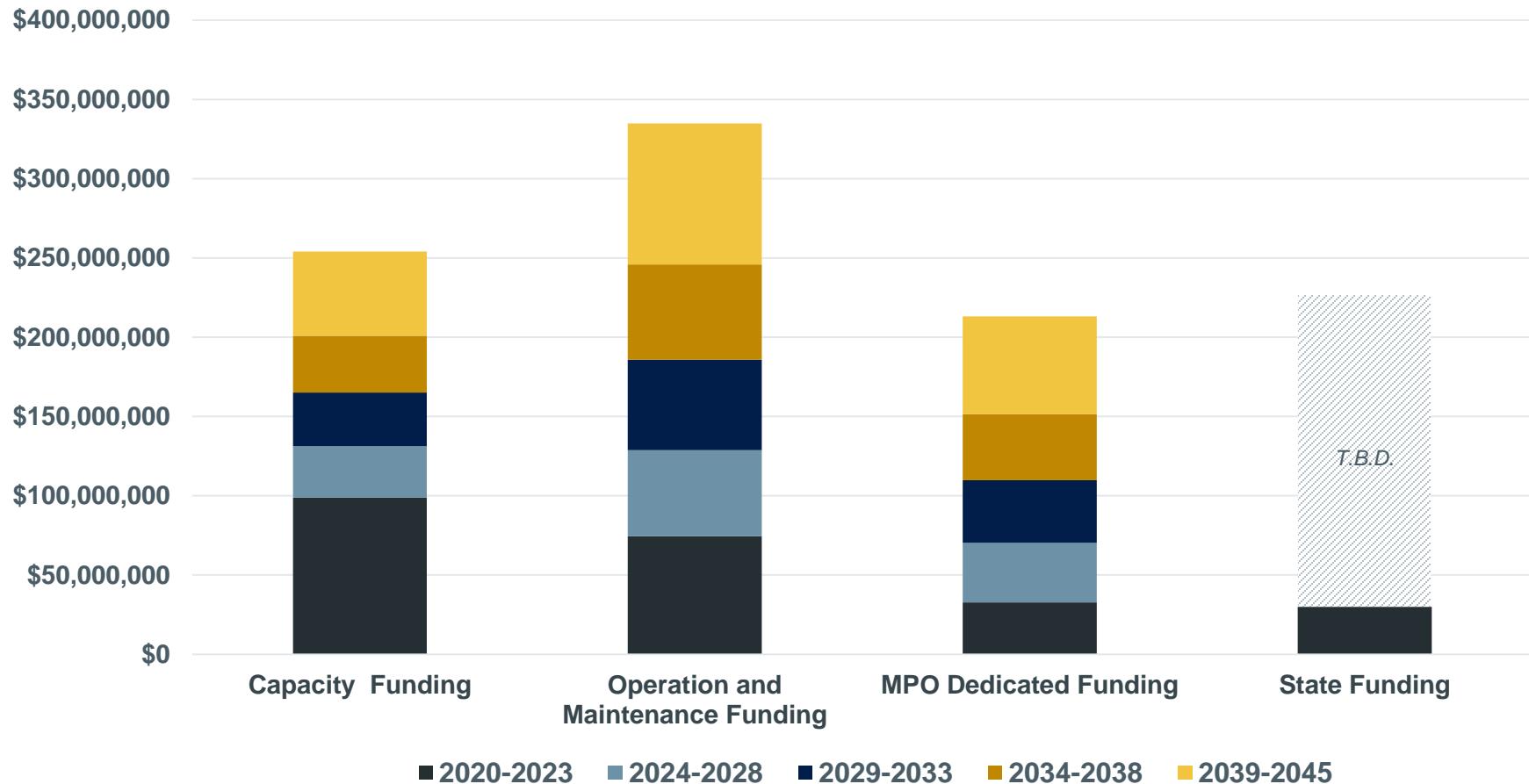
10 YEAR HISTORIC ALLOCATION OF FEDERAL HIGHWAY
CAPACITY, MAINTENANCE, AND OPERATION FUNDS WITHIN HUNTSVILLE
MPO AREA FOR PROJECTS



TRIP 2045 Plan:

Financial Analysis – Transportation Infrastructure

HUNTSVILLE URBANIZED AREA PROJECTED APPROPRIATION ESTIMATES



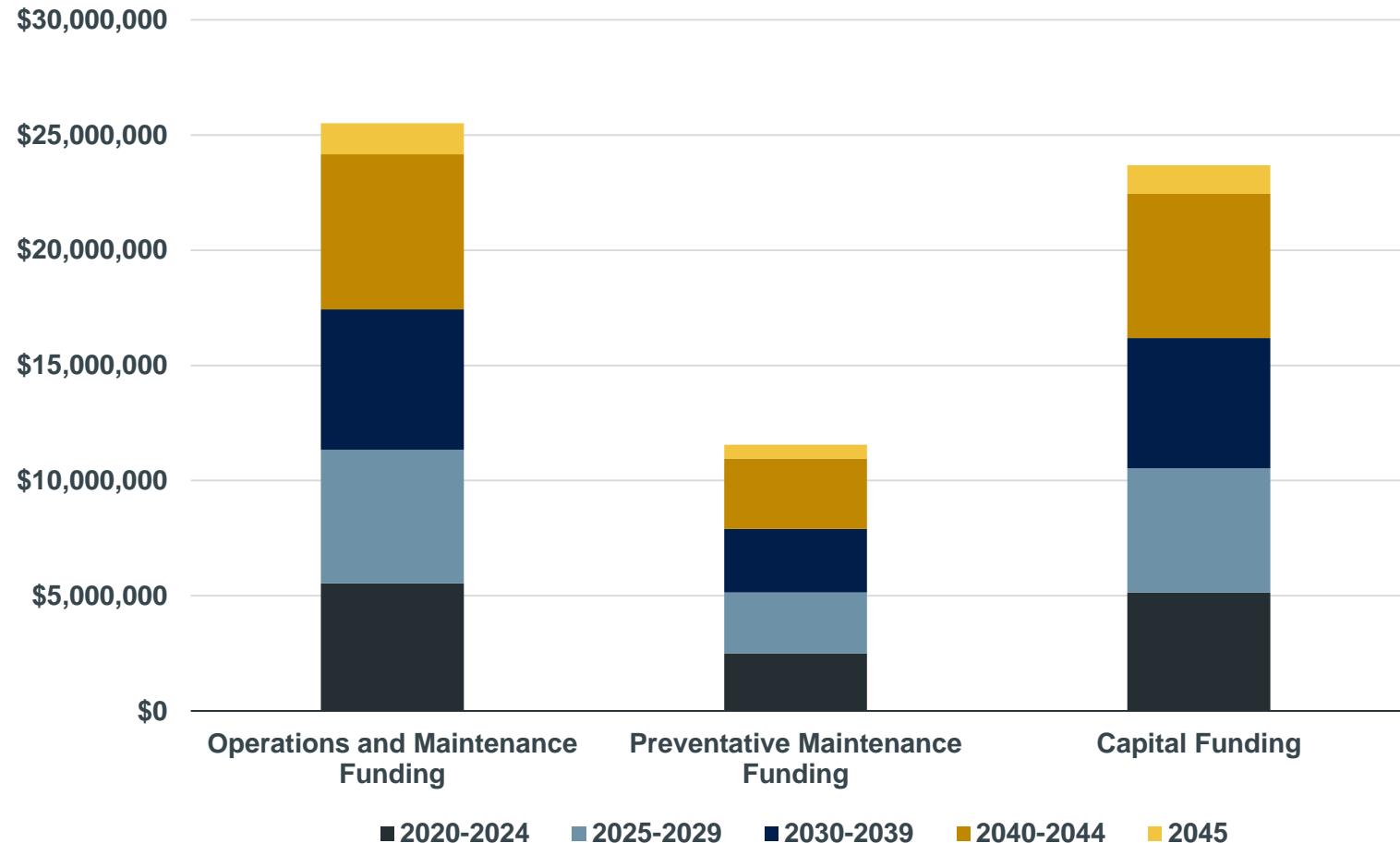
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TRIP 2045 Plan:

Financial Analysis - Transit

PROJECTED TRANSIT ALLOCATION FOR CAPITAL, OPERATION, AND MAINTENANCE FUNDING

(Federal Funds Only)



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Plan Update Results:

Questions

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