

# METROPOLITAN TRANSPORTATION PLAN

## EXECUTIVE SUMMARY

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JOHNSON CITY  
METROPOLITAN TRANSPORTATION  
PLANNING ORGANIZATION

2045

Johnson City *MTPO*  
Metropolitan Transportation Planning Organization

# JOHNSON CITY

The Johnson City region is situated near the borders of northeastern Tennessee and northwestern North Carolina in an area commonly referred to as the Tri-Cities region. The region's transportation system is comprised of a diverse network of streets and highways, public transportation, walkways and bikeways, airports, and railroads. Each of these multimodal elements contribute to the efficient and safe movement of people and goods locally, regionally, and nationally.

Since the 1980s, local, state, and federal agencies have provided a continuing, cooperative, and comprehensive approach to transportation planning for the region, led primarily by the Johnson City Metropolitan Transportation Planning Organization (MTPO). A key effort in this planning process is the development of a Metropolitan Transportation Plan (MTP). The 2045 MTP recommends a combination of both long-range and short-range strategies to accommodate the growth expected over a 30-year horizon in the region.

In developing the 2045 MTP, the Johnson City MTPO developed a series of goals to guide future transportation decisions in the region.



**Improve Safety and Security** throughout the Transportation System



**Reduce Traffic Congestion** along Major Routes



**Promote Economic Growth and Livability** by Enhancing the Transportation System



**Enhance Regional Access** to and from the MTPO Area



# In moving the region closer to its established goals, the MTPO will work to...

## REDUCE TRAFFIC CONGESTION

- Reduce travel delays between major areas of attractions in the MTPO study area
- Seek cost-effective management solutions and new technologies as a means of addressing congestion, reducing transportation delay, improving travel time reliability, and improving system operations
- Increase transit and other transportation demand management opportunities
- Enhance the flow of raw materials and manufactured products

## ENHANCE REGIONAL ACCESS

- Maintain and improve access to regional areas outside of the MTPO study area
- Support transportation investments and policies that work to create jobs and improve access to people, tourism, places, and goods while embracing access management and corridor management strategies that preserve the long-term functionality of a roadway's capacity and safety
- Strategically target transportation investments to areas supportive and conducive to growth and redevelopment initiatives

## PROMOTE ECONOMIC GROWTH AND LIVABILITY

- Maintain what we have – take a “state of good repair” approach to our community's transportation assets
- Remove obstacles to economic growth through improved transportation facilities and the integration and connectivity of the transportation system, across and between modes, for people and freight, thus allowing for the continued expansion of the business community
- Promote alternative forms of transportation (such as walking, biking, and transit) where possible
- Seek improvement options and strategies which minimize adverse impacts of surface transportation to historical, social, cultural, and natural environments, including stormwater impacts, and reduce transportation impacts on air-quality

## IMPROVE SAFETY AND SECURITY

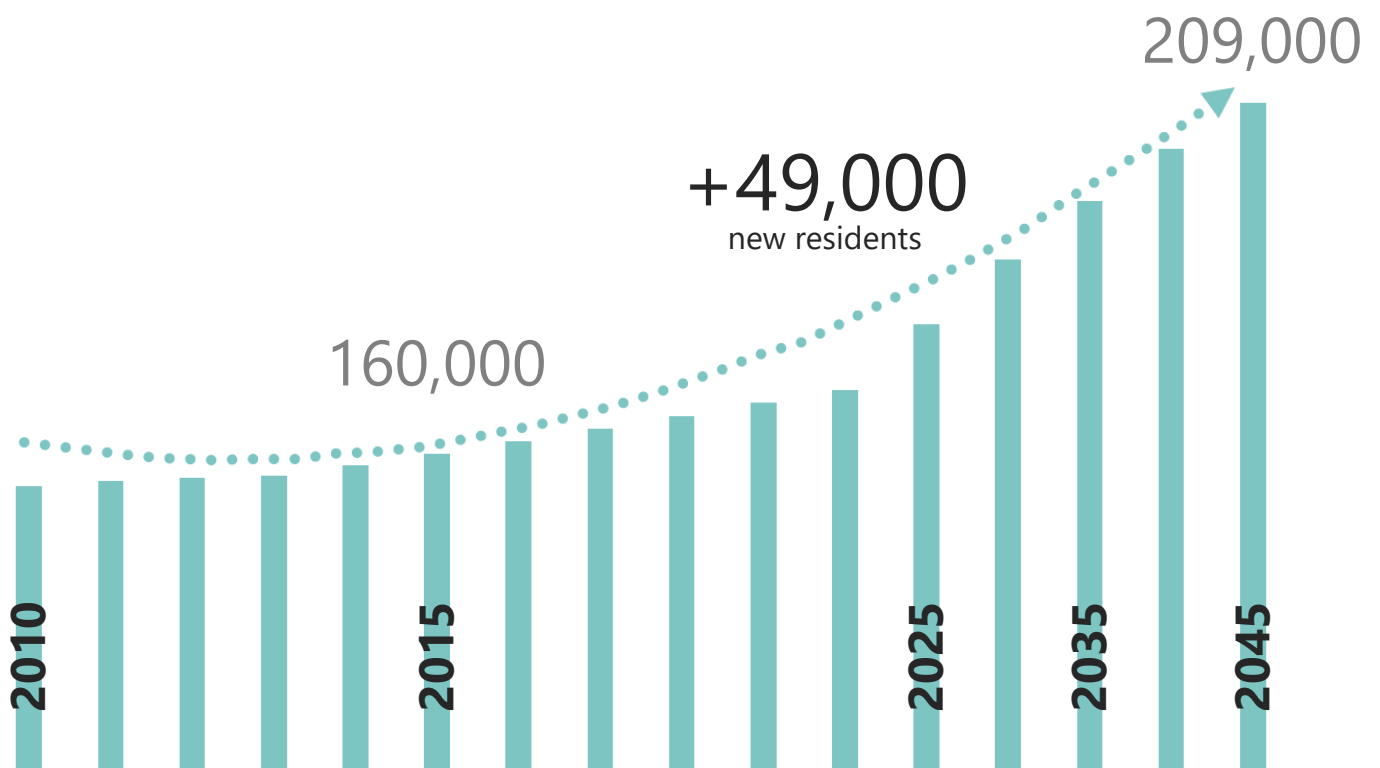
- Encourage partnerships with other transportation and non-transportation agencies to enhance transportation safety and security
- Reduce secondary traffic accidents
- Establish initiatives (projects and programs) to improve the safety and security of vulnerable roadway users (e.g. pedestrians, cyclists, transit riders, and the young and old)



## POPULATION TRENDS

The Johnson City region has continued to grow since the designation of the Johnson City MTPo. Future increases in the region's population and employment drive the demand for travel and need for transportation choices.

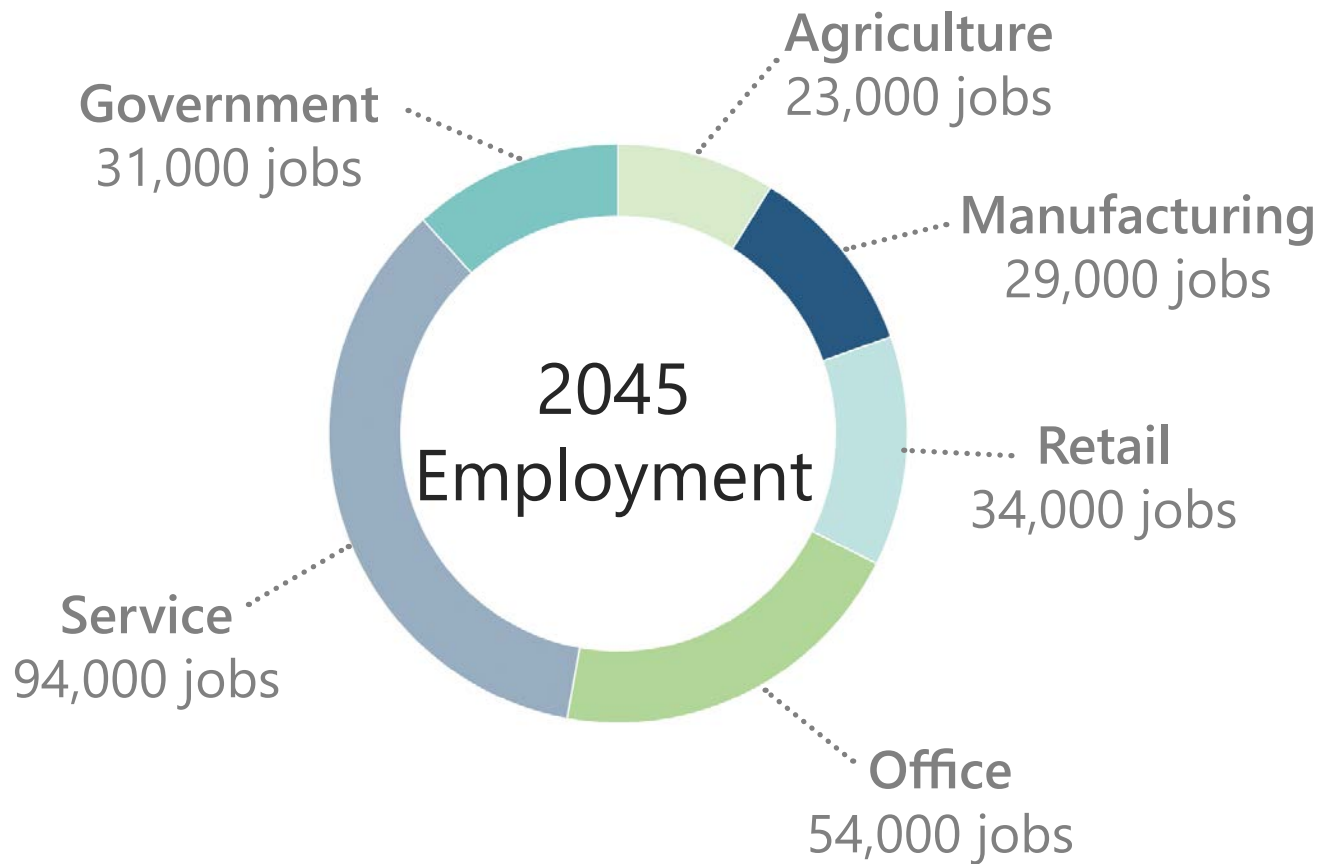
In 2045, the population is expected to exceed 200,000, with a 31% growth from 2015. This growth in population is expected to be accompanied by an increase in those over the age of 65 as well as an increase in overall household density.





# EMPLOYMENT TRENDS

Much like in many communities in the Southeast, employment in the MTPO areas has seen dramatic changes over the last several decades relative to the number of jobs and types of jobs, which make up the local economy. Fifty years ago, the employment of the 4-county region and the MTPO area was largely dominated by manufacturing jobs. Since that time, the region has seen a leveling off of manufacturing employment complemented by growth in retail, service, and office employment, specifically medical employment in Johnson City. Between 2015 and 2045, employment is expected to increase by 59% in the MTPO area to over 115,000 employees.

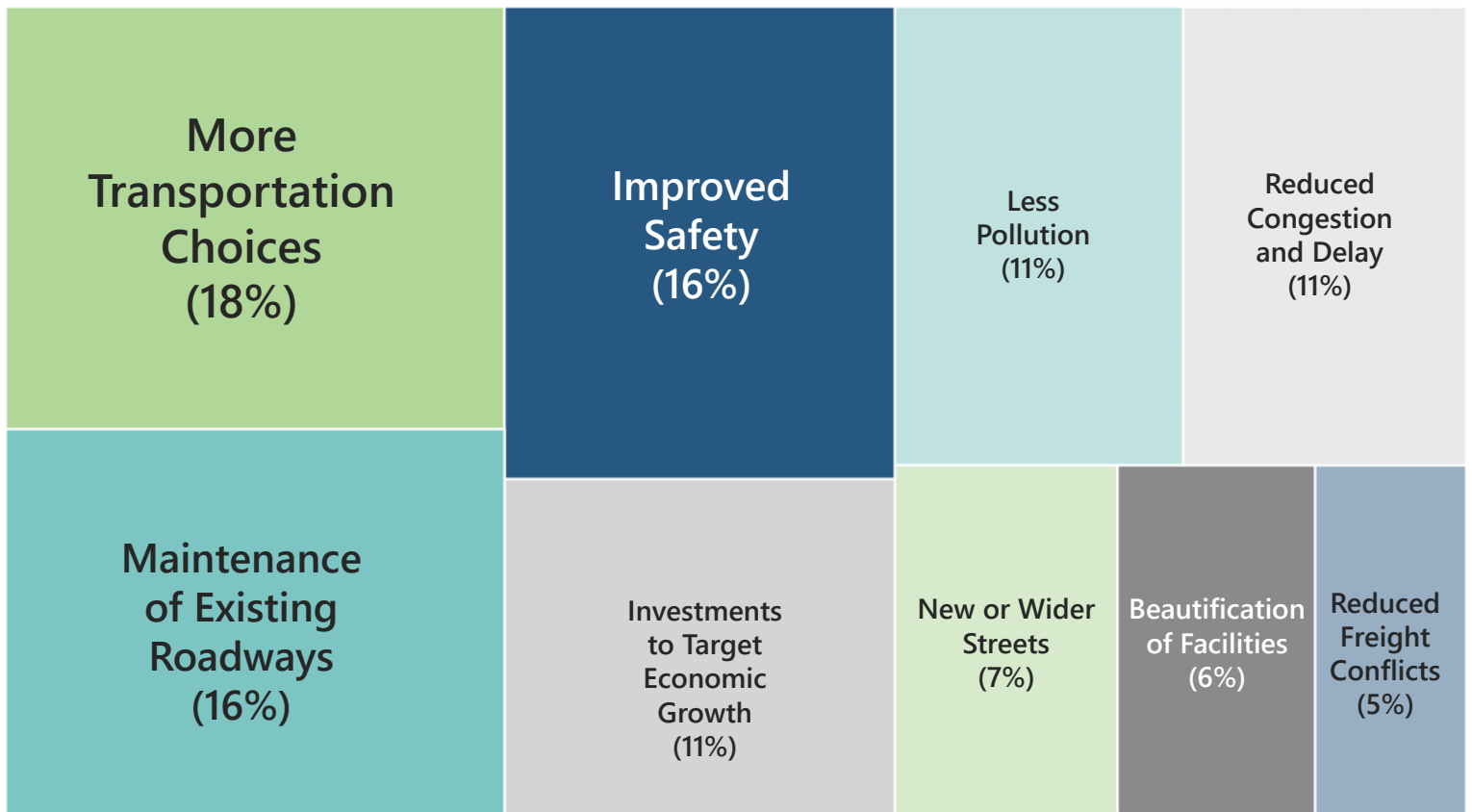


## ENGAGEMENT

Public and stakeholder input are critical components of the MTPO planning process and played a key role in the development of the plan. Primary means of engagement largely consisted of presentations to the MTPO Board, public and stakeholder meetings, the use of an online survey, an online mapping application, and internet and social media outreach.



When asked which priorities were the most important, residents said...



## OTHER KEY TAKEAWAYS

**50%** of survey respondents considered additional sidewalks and bike trails connecting to bus stops very important.

**41%** of survey respondents want future development to spread evenly throughout the region.

**46%** of survey respondents consider the timing of traffic signals an important roadway improvement.

**60%** of survey respondents desire an increased emphasis on safe multimodal routes to schools.

**82%** of survey respondents say traffic in the region has become much worse in the past 5 years.

## Survey Demographics

▶ **Gender**  
47% Female  
53% Male

▶ **Age**  
3% Age <24  
20% Age 25-34  
22% Age 35-44  
27% Age 45-54  
19% Age 55-64  
9% Age >65

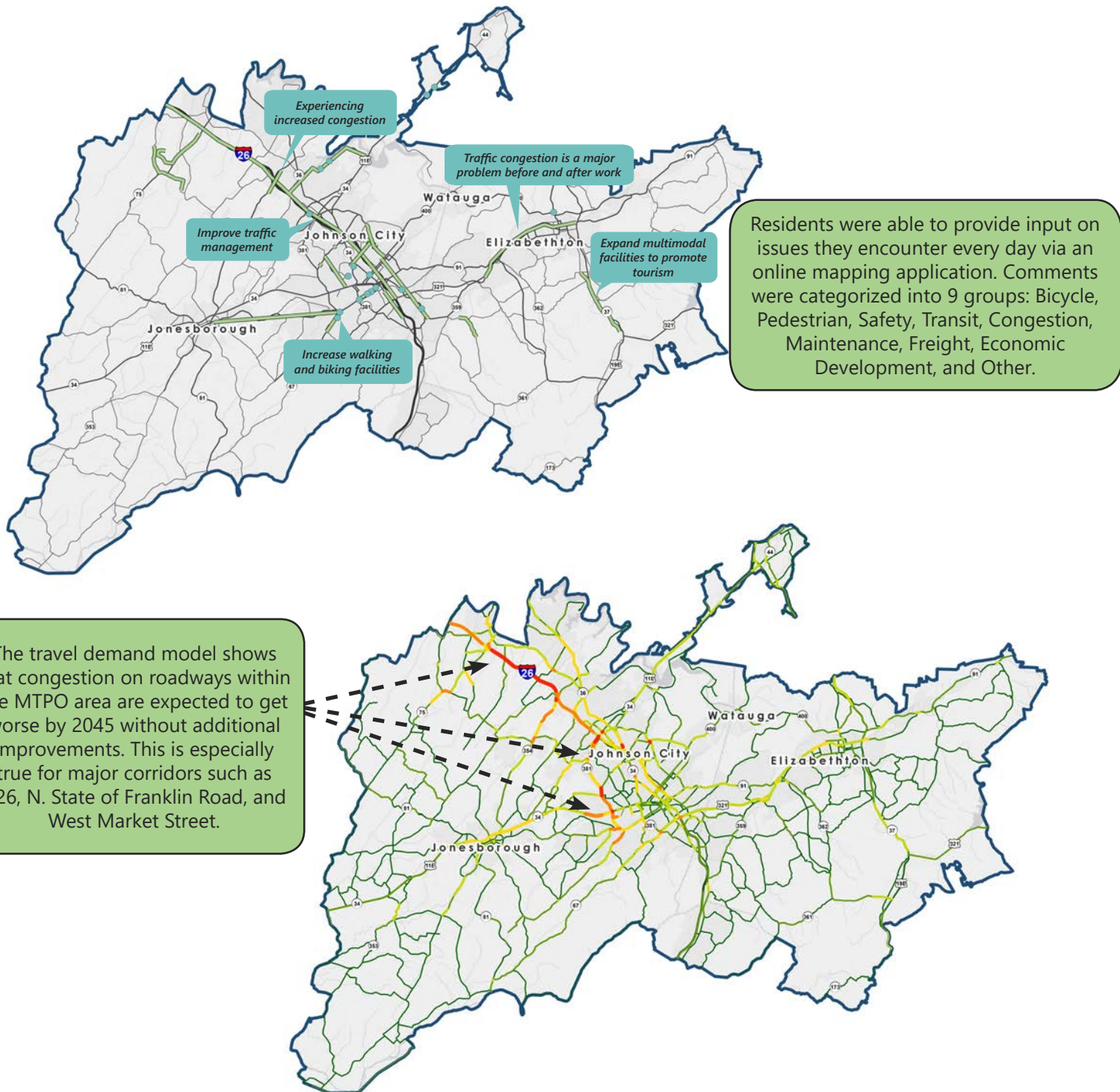
▶ **Home Location**  
52% Johnson City  
12% Washington County  
12% Carter County  
11% Elizabethton  
5% Jonesborough  
4% Sullivan County  
2% Unicoi County  
1% Watuaga  
1% Outside the Region

▶ **Residency in Region**  
2% < 1 year  
11% 1-5 years  
21% 6-15 years  
66% > 15 years



# IDENTIFICATION OF NEEDS

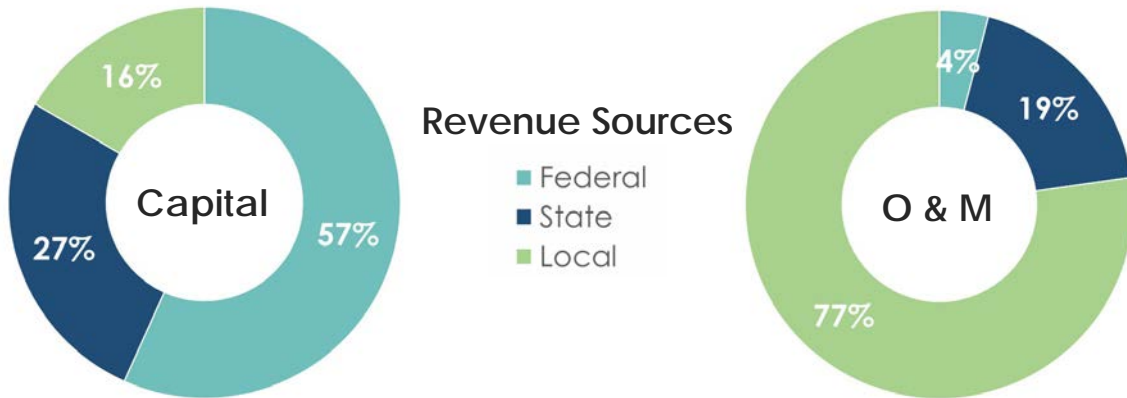
The 2045 MTP relies on both technical analysis and public input to identify deficiencies and needs of the transportation system. Use of a technical tool called a travel demand model helps quantify the impacts of future population and employment growth on the transportation system, helping the MTPO to better anticipate the need for improvements over the next 30 years.





# TRANSPORTATION FUNDING

The ability to maintain, improve, and enhance transportation facilities and services in the MTPO area depends on the availability of financial resources. Funding for transportation comes from a variety of sources including federal, state, local, and private sources. For the 2045 MTP, historic trends were used to forecast revenues that would be available for investing in the transportation infrastructure over the next 30 years.



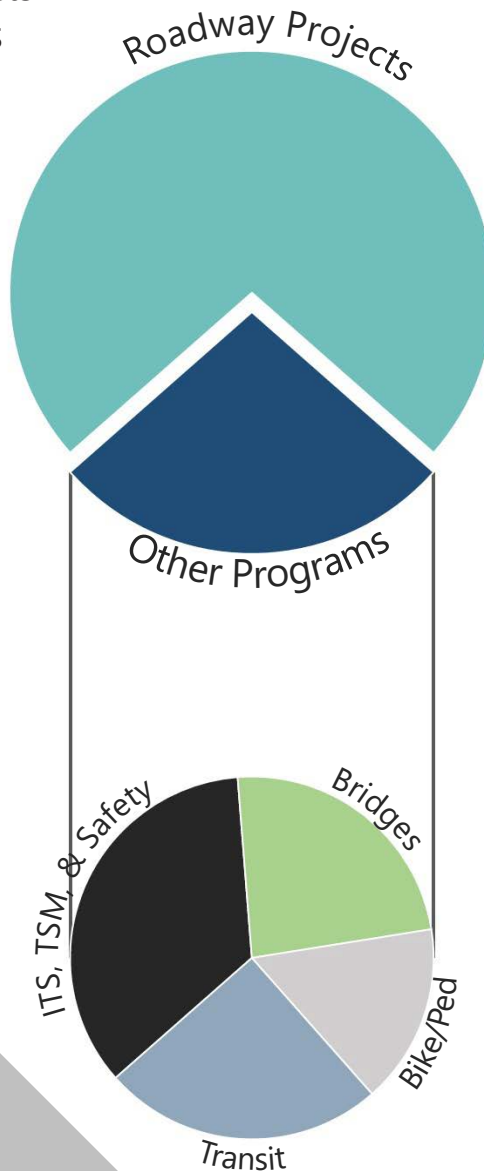
After accounting for inflation, the MTPO can expect approximately:



# REVENUE ALLOCATIONS

The need for and costs of improving the transportation infrastructure were balanced against the available revenues.

After determining which projects would help the MTPO reach its desired goals and objectives, projects were selected for inclusion in the 'Cost-Feasible' portion of the MTP. This means that the MTPO can reasonably expect money to be available to fund these projects by 2045.



**\$393 million** for Capital Roadway improvements

**\$83 million** for TSM, ITS, and Safety improvements

**\$37 million** for Bridge improvements

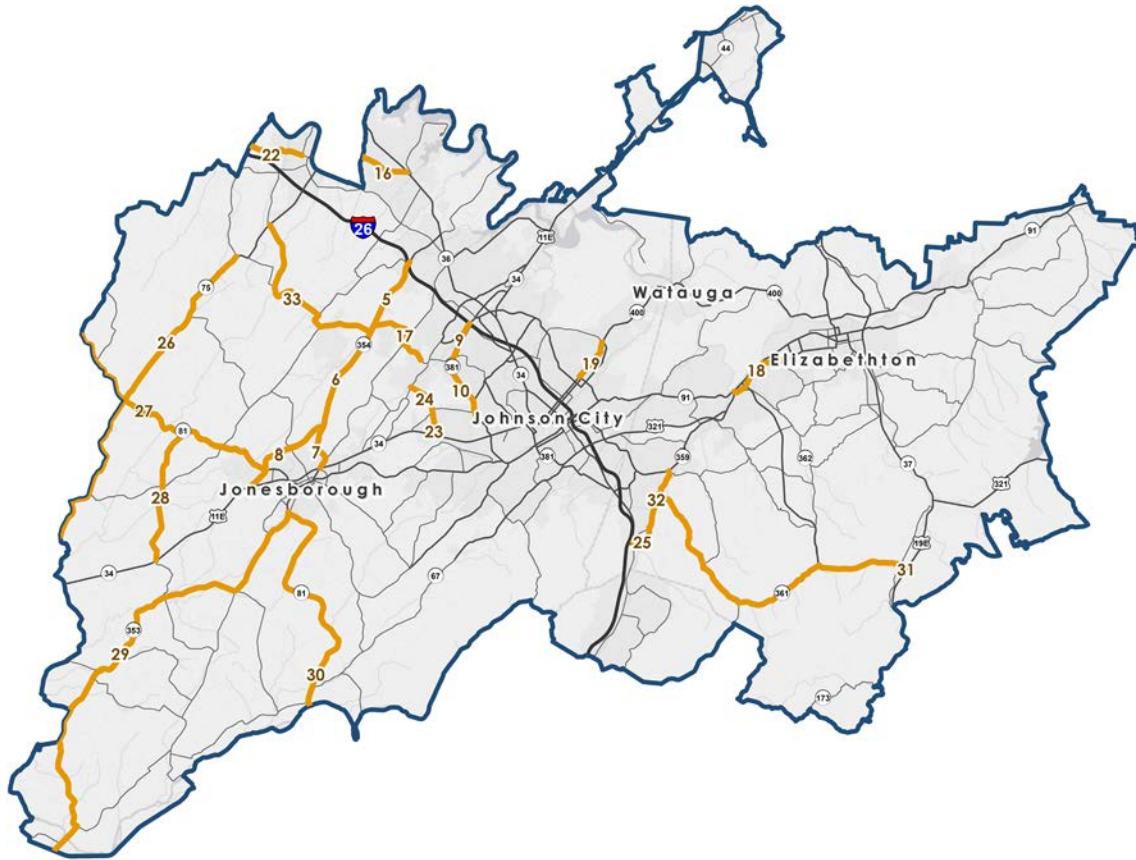
**\$27 million** for Bicycle and Pedestrian improvements

**\$42 million** for Transit Capital improvements

IN TOTAL, THE COST-FEASIBLE PORTION OF THE 2045 MTP INCLUDES:

- **21 ROAD PROJECTS** (WIDENINGS, NEW ROADWAYS, SAFETY, AND RECONSTRUCTION PROJECTS)
- **TRANSPORTATION SYSTEM MANAGEMENT (TSM), INTELLIGENT TRANSPORTATION SYSTEMS (ITS), AND SAFETY PROGRAM**
- **BRIDGE PROGRAM** FOR ADDITIONAL BRIDGE PROJECTS
- **TRANSPORTATION ALTERNATIVES PROGRAM** FOR WALKING & BIKING PROJECTS
- **TRANSIT PROGRAM** FOR TRANSIT CAPITAL NEEDS

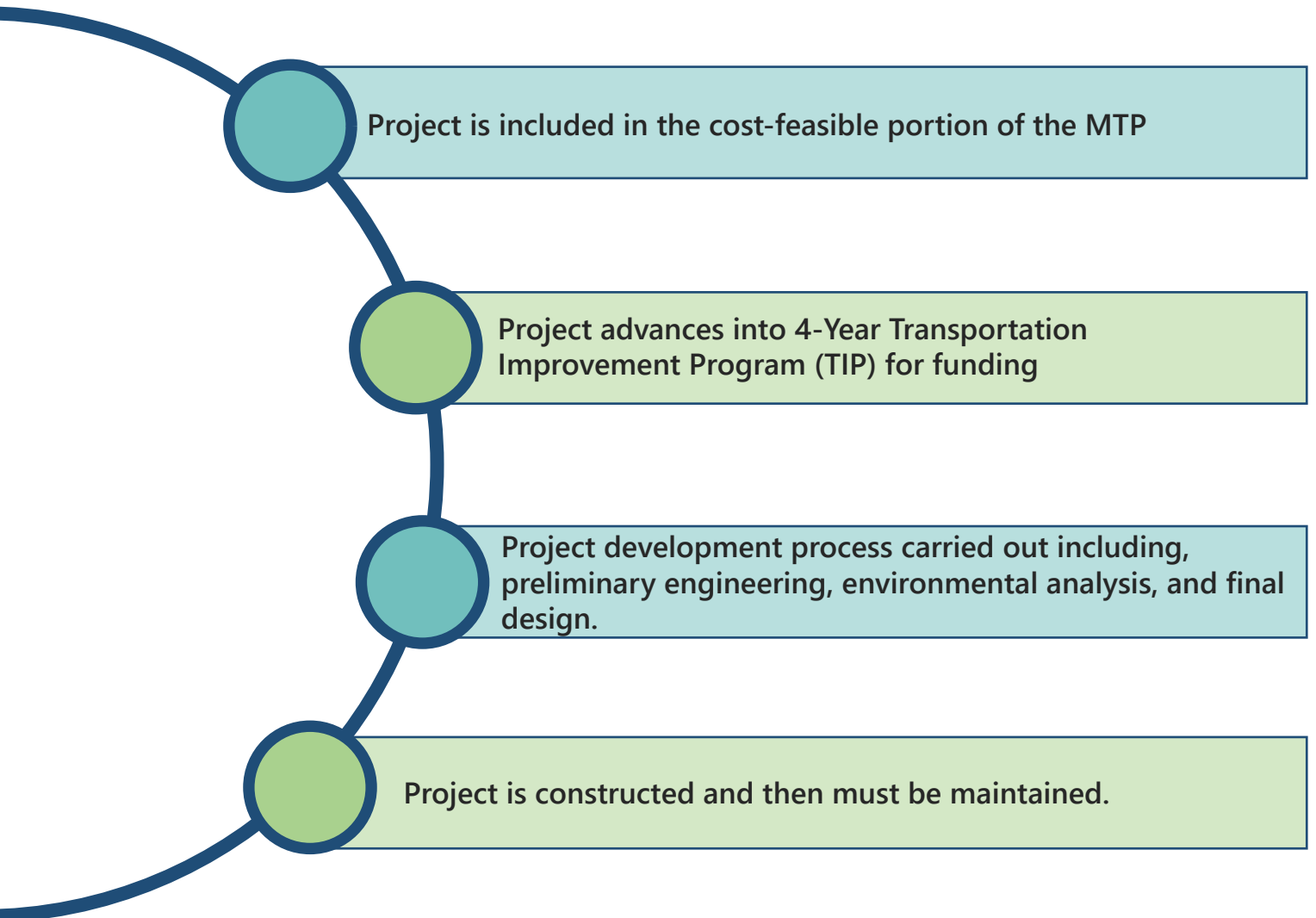
# COST-FEASIBLE PROJECTS



ID	Roadway	From	To	Description	Horizon
5	Boones Creek Rd (SR 354)	I-26	Highland Church Rd	Widen existing 2 lane roadway to 4 lanes	2045
6	Boones Creek Rd (SR 354)	Highland Church Rd	Jonesborough Bypass	Widen existing 2 lane roadway to 4 lanes	2045
7	Boones Creek Rd (SR 354)	Jonesborough Bypass	US 11E	Widen existing 2 lane roadway to 4 lanes	2045
8	Jonesborough Bypass	Boones Creek Rd (SR 354)	US 11E (Persimmon Ridge Road)	Construct new 3 lane roadway	2025
9	N. State of Franklin (SR 381)	I-26	Knob Creek Rd	Widen existing 4 lane roadway to 6 lanes	2045
16	Free Hill Rd	Free Hill Rd	Kingsport Hwy (SR 36)	Reconstruct 2 lane roadway addressing geometric issues	2045
17	Knob Creek Rd	Mizpath Hills Dr	Boones Creek Rd (SR 354)	Widen existing 2 lane roadway to 4 lanes	2025
18	W G St	W Elk Ave (SR 67)	Hudson Dr	Reconstruct existing 2 lane roadway to 3 lanes (adding a center turn lane)	2045
19	Watauga Rd (SR 400)	Broadway St	E Fairview Ave	Reconstruct existing 2 lane roadway to 3 lanes (adding a center turn lane)	2045
22	Bob Jobe Rd Extension	Ford Creek Rd	Center St	Construct new 2 lane roadway	2045
23	Hopper Rd	W Market St (US 11E)	Indian Ridge Rd	Reconstruct 2 lane roadway addressing geometric issues to align with Hopper Rd Ext	2045
24	Hopper Rd Ext	Indian Ridge Rd	Claude Simmons Rd	Construct new 2 lane roadway	2045
25	Okolona Rd (SR 359)	I-26	Existing Okolona Rd (SR 359)	Realign existing roadway with interchange to create better access	2025
26	SR 75	Boonesboro Rd	MTPO Planning Boundary (i.e. to US 11E)	Safety/geometric improvements	2045
27	SR 81	Jonesborough Bypass	MTPO Planning Boundary (i.e. to I-81)	Safety/geometric improvements	2045
28	Leesburg Rd	US 11E	SR 81	Safety/geometric improvements	2045
29	SR 353	SR 81	SR 107	Safety/geometric improvements	2045
30	SR 81	SR 353	MTPO Planning Boundary (i.e. to I-26)	Safety/geometric improvements	2045
31	SR 361	SR 359	US 19E	Safety/geometric improvements	2025
32	Okolona Rd (SR 359)	Milligan Hwy (SR 359)	S Roan St	Safety/geometric improvements	2025
33	Highland Church	SR 75	Boones Creek Rd (SR 354)	Safety/geometric improvements	2025

## NEXT STEPS

Inclusion of these projects in the cost-feasible portion of the MTP ultimately means that they can move forward in the project development process as outlined below.



For more information about the 2045 MTP, visit <http://www.jcmpo.org>.

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