

# MULTIMODAL TRANSPORTATION PLAN **2040**









July 2020 Update













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# 1. INTRODUCTION

The South Carolina Department of Transportation (SCDOT), in partnership with the South Carolina Department of Commerce (SCDOC), South Carolina Ports Authority (SCPA), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and other key stakeholders have updated the South Carolina Multimodal Transportation Plan (MTP), "Drive Our Future". Per the SC Code of State Regulations Chapter 63-10(B)(1) the MTP, South Carolina's long-range transportation plan, is updated approximately every five years to reflect the latest information on travel and growth trends, goals and objectives, safety and security, infrastructure conditions, future deficiencies, and estimated funding, as well as the latest federal requirements.

The 2040 Multimodal Transportation Plan update includes fully integrated modal plans for the Interstate, Strategic Corridors, Public Transit and Human Health Service Coordination, Freight, and Rail.

The 2012 "Moving Ahead for Progress in the 21st Century" (MAP-21), and the 2015 Fixing America's Surface Transportation Act (FAST Act), approved by Congress, requires state transportation plans to focus on a performance-based, outcome-driven planning process. The 2040 Multimodal Transportation Plan update addresses the enhanced federal performance based planning and programing requirements by providing a vision for improving future condition, performance, and accessibility of transportation infrastructure and services that enhance the mobility and economic competitiveness of South Carolina. Performance targets were developed by SCDOT in 2018 and approved by the FHWA. SCDOT worked in coordination with eleven (11) Metropolitan Planning Organizations (MPO) and ten (10) Council of Governments (COG) to adopt performance targets with the goal to ensure consistent statewide performance measures would be met through implementation of their Long Range Transportation Plans as required under SCR Chapter 63-10(B)(2). The previously approved MTP, with a 2040 horizon, was approved by the South Carolina Department of Transportation Commission in December 2014. This update to the MTP was presented to the Commission for approval in July 2020.

Population in South Carolina has continued to increase. South Carolina ranks 2nd in the region in annual population growth rate from 2010-2018, ranking only behind Florida. Between the decennial Census of 2010 and the forecasted population of 2018, the estimated population in South Carolina increased an estimated ten (10) percent or 458,763 residents. By the 2020 Census, this total is expected to grow to 600,000 new residents reaching population 5.2 million and by 2040, the population is expected to surpass 6.3 million.

Over 30 million visitors come to South Carolina each year to enjoy its rich history, charming cities, beautiful beaches, and mountains. South Carolina is home to industry giants, such as BMW in the Upstate Region as well as Boeing, Mercedes Benz, and Volvo in the Charleston Region. South Carolina is also considered the "Tire Capital of the World" with Bridgestone, Continental, and Michelin manufacturing plants around the state.

The South Carolina Ports Authority (SCPA) relies on an effective highway and rail system to move goods throughout South Carolina as well as throughout the southeastern United States. SCPA operates the state's vital seaport assets in Charleston and Georgetown. This is a \$53 billion-a-year economic engine generating 1 of every 11 jobs within the state. In October 2013, the first inland port opened in South Carolina allowing the Port of Charleston to reach 212 miles inland to Greer and in 2018, the second inland port opened in Dillon, South Carolina. The addition of these two South Carolina inland ports provides shipper's access to more than 95 million consumers within a day's drive.

However, as South Carolina continues to attract new residents, tourists, and businesses, this growth has an influence on SCDOT's ability to maintain and operate the nation's fourth largest state-owned



transportation network (41,315 centerline miles and 8,412 bridges) in the county. SCDOT has in turn focused its efforts to getting the system to a state of good repair through the development and implementation of an aggressive 10-Year Plan to drive investments towards projects that aid in recovering the system from the past three decades of underfunding. The 10-Year Plan combines all state and federal funding into a comprehensive investment strategy based on SCDOT's strategic priorities for the period 2016 through 2026. The 10-Year Plan was developed by SCDOT in order to align all of the agency's infrastructure repair and improvement efforts and effectively deploy a significant infusion of approximately \$600 million annually in new state funding dedicated to SCDOT through the passage of Act 40 of 2017 by the General Assembly. Although the 10-Year Plan is expected to make significant progress in repairing the existing network and trending towards a state of good repair, there remains an issue with addressing congestion and other modal needs associated with growth trends in population, employment, vehicle miles of travel and transit usage. This growth in demand has largely outpaced revenue streams dedicated to capacity and multimodal projects, resulting in a significant obstacle to establishing a 21st century multimodal transportation system that moves people and goods efficiently consistently throughout the state.

While SCDOT is responsible for maintaining the majority of the multimodal transportation system, SCDOT recognizes that other agencies and the private sector must collaboratively work together to preserve, modernize, integrate and expanded to provide improved mobility options and access to all South Carolinians, visitors, businesses, and industries.

# 2. PLAN DEVELOPMENT

A statewide long-range transportation plan is important not only for what it says and the direction it provides for future transportation investment, but also for the process used for its development. In short, a good plan development process brings the state's transportation partners and stakeholders together to establish a unified vision and direction for future investment; it incorporates consideration of modal needs and other analyses to ensure plan findings are technically sound, transparent, and justified; and it respects and is reflective of applicable federal and state requirements.

# 2.1 How was the MTP Update Developed

The 2040 MTP was updated from a variety of discussions, meetings, and technical analyses, including the following:

- Stakeholder participation input and participation from the public, transportation partners, and modal experts.
- Plan vision vision, goals, objectives, and performance measures developed with stakeholder and agency input.
- Modal needs analysis demographic growth factors and existing conditions' impact on multimodal transportation services and infrastructure.
- **Financial analysis** comparison of multimodal needs against projected federal, state, and local revenue.

During the development of the 2040 MTP Update, the following modal plans were reviewed and are available on the 2040 MTP Update website:

Interstate Plan



- Strategic Corridor Network Plan
- Statewide Public Transit Plans and Human Health Service Coordination Plan
- Freight Plan
- Rail Plan

# 2.2 Partnership

While SCDOT is responsible for maintaining the majority of the multimodal transportation system, SCDOT recognizes that other agencies must be involved to develop an integrated transportation system. Thus, the 2040 Multimodal Transportation Plan (MTP) was developed in partnership with the South Carolina Department of Commerce (SCDOC), South Carolina Ports Authority (SCPA), Federal Highway Administration (FHWA), as well as the 11 Metropolitan Planning Organizations (MPOs) and 10 Councils of Government (COGs).

South Carolina Department of Commerce promotes economic opportunity for individuals and businesses in the state through the recruitment of new businesses and assisting existing businesses with growth. The nexus between economic development and transportation is critical to decision making and transportation investment and SCDOC executive staff provided strategic guidance during the development of the 2040 MTP.

South Carolina Ports Authority works to increase economic investment in South Carolina while operating the state's seaport assets in Charleston and Georgetown, as well as the inland ports located in Greer in the Upstate and Dillon in the Pee Dee Region. South Carolina ports are dependent on the state's multimodal transportation networks to move goods in and out of the ports and SCPA executive staff provided strategic guidance during the development of the 2040 MTP.

The partnership has developed a new plan that addresses critical issues faced by SCDOT, SCDOC, SCPA, MPOs, and COGs. The vision, goals, and objectives set the foundation for the first performance-based long range transportation plan in South Carolina. Identifying the multimodal transportation needs and projecting revenue forecasts to 2040 provides crucial information that will assist SCDOT in formulating funding priorities across a vast multimodal transportation system.

# 2.3 The Update to the 2040 MTP

There are a number of updates provided within this document to address numerous changes that have occurred since the 2040 MTP was approved in 2014. The horizon year will remain unchanged at 2040 as the plan will continue to provide the requisite 20-year horizon. The 2040 MTP incorporates SCDOT's Strategic Plan, Transportation Asset Management Plan (TAMP), 10-Year Plan and the State Transportation Improvement Program (STIP) into the decision making process in an effort to drive data driven decisions with a predictable outcome. Since the creation of the 2014 MTP, the SCDOT Executive leadership team developed and implemented SCDOT's Strategic Plan to establish the vision and goals, TAMP to tie the investment levels to an expected outcome or predicted return on investment and the 10-Year Plan to outline the planned investment levels by program category. These guidance documents were not available during the development of the previous 2040 MTP. The 2040 MTP Update used SCDOT databases, design standards, cost estimates, and FHWA and FTA supported analytical tools to develop the roadway and bridge needs. The 2040 MTP Update also includes bridge preservation, modernization, and replacement costs. This rigorous process provide a needs picture based on SCDOT data, design standards, and costs, using data and tools that allow comparable updates to be made in future years. To identify the full multimodal transportation needs in South Carolina, the 2040 MTP



Update also identifies needs based on input and reports from SCPA, and the MPO and COG regional transportation planning partners.

## 2.4 Plan Consultation and Outreach

Throughout the development of the 2040 MTP Update, there was continual coordination and consultation with a dedicated executive committee and project stakeholders.

## 2.4.1 Steering Committee

The 2040 MTP Update was advanced in partnership with staff from SCDOT and FHWA. The Steering Committee met numerous times over the course of the planning process to provide strategic guidance and provided feedback and agreement on:

- The vision, goals, and objectives that set the foundation for the performance-based long range transportation plan in South Carolina.
- The identification of the multimodal transportation needs.
- The development of a new baseline revenue and the 2040 revenue forecast.

# 2.4.2 Stakeholder and Public Participation

Stakeholder participation was an important part of updating the 2040 MTP. The following methods were used to solicit stakeholder feedback and input on vision, goals, objectives, performance measures, modal needs, and revenue projections:

#### 2.4.2.1 MPO and COG information forums

During the development of the 2040 MTP Update, regional informational forums were hosted by SCDOT at the ten COG regional office locations and were attended by Metropolitan Planning Organization (MPO), Council of Government (COG), County Transportation Committee (CTC) members, county, municipal, FHWA, utility, local and state elected officials, SCDOT Commission members and staff. The purpose of the forums was to discuss current business practices and processes, and how they can be improved to enhance project delivery within the planning process; to receive any suggestions or guidance in the development of the 2040 MTP Update and other transportation related issues; and, provide updates on the latest legislative activities that may have impacts within their communities.

#### 2.4.2.2 Web surveys

As an integral information gathering tool for the 2040 MTP Update, SCDOT utilized an online survey platform for approximately 45 days to receive feedback from the general public and stakeholders. The purpose of the survey was to gain insightful input on opinions of transportation services that will aid in the development of investment priorities. The survey contained three questions that asked participants to rank priorities, choose between competing investments, and assign priority values towards investment types. The survey covered the following topics:

- Priority of transportation ranking What priorities are most important to the respondent?
- Investment Tradeoffs Where should transportation investments be made between competing priorities?
- Investment Allocation How and where should transportation investments be made?



- Demographics A questionnaire to determine zip code, age group, household income, and primary mode of transportation.
- Opportunities for direct feedback Fill in the blank comments will permit fill in the blank responses.

During the 45-day survey period, approximately 13,000 citizens, including 30 Spanish-speaking citizens, visited the survey and over 10,000 completed the surveys. An additional 2,081 written comments were received supplementing the three survey questions. This method of collecting public input proved to be an effective tool when considering the challenges experienced with the public participation process during the 2014 MTP Update.

Below is a summary of the data received from the survey.

#### **Survey Question 1: Investment Priority Ranking**

The first question asked the respondents to rank transportation priorities 1-8 (1 being highest and 8 being lowest) over the next 20 years. The following choices were to be ranked:

- Sidewalks and Bike Paths Improve the connectivity and availability of sidewalks and bike paths.
- Repaving Activities and investments aimed at protecting transportation Infrastructure
  by extending the service life and having smooth roads. Functions include preservation
  treatments and resurfacing.
- Safe Roads Improve the safety of the roadways. Functions include rumble strips, wider and brighter pavement markings, wider/paved shoulders, improved clear zones, guardrail/cable barrier, improved signals and signage, etc.
- Transit Improve bus transit services.
- Freight Movement Improve the connectivity and mobility of the freight system.
- Repairing Bridges Activities and investments aimed at protecting transportation infrastructure by extending the service life or replacement of bridges. Functions include bridge maintenance or bridge replacement.
- Reduce Congestion Address traffic congestion by adding capacity, improving connectivity, access management, traffic signal time management, etc.
- Daily Maintenance Activities that keep the roads and areas along the roads, within right of way, operating safely and effectively. Functions include mowing, snow removal, guardrail repair, drainage, maintenance, and fixing potholes.
- Public Comment An optional public comment choice was also provided. Results of the public comment are provided later in this chapter.

Figure 2-1 displays the respondents recommended prioritization of project types. The figure illustrates the average ranking of the eight priority types provided in the survey question. The graph illustrates that safe roads, reduction of congestion, repaving projects, and repairing bridges were the highest priority, ranked in order. This prioritization of projects is consistent with four of the statewide investment strategies outlined in the 10-Year Plan. Investment



priorities in the plan prioritize investments towards Interstate upgrades (Capacity and Congestion), Pavements (Repaving), Safety, Bridges, Freight and MPO/COG Programs.

Figure 2-1: Summary of Question 1, Infrastructure Preferences

MTP Survey Question 1 Average Priority Ranking



Average Ranking (1-8) of Investment Priorities

#### Survey Question 2: Investment Trade-offs

SCDOT identified several items critical in creating and maintaining a successful and long-term transportation system while recognizing it comes with trade-offs. Question 2 attempts to address the common Investment Trade-offs in a four-part question that asked respondents to choose a response of: strongly agree; agree; or provide a neutral response between two competing investments.

- Infrastructure Widen and/or Add Capacity vs. Upgrade/Improve the quality of existing infrastructure.
- Improve Mobility Increase capacity by adding lanes and/or other infrastructure vs.
   Manage demand with technology and other travel mode alternatives.
- Safe and Secure Travel Invest more in safer roads i.e. paved shoulder, clear zone, guardrail, etc. vs. Invest more in intersection safety improvements.
- Passenger Transit Increase transit and other passenger services on popular routes vs.
   Increase transit and other passenger services to new areas.
- **Public Comment** An optional public comment choice was also provided. Results of the public comment section are provided later in this chapter.

Figures 2-2 to 2-5 on the next few pages provide a visual summary of each of the four responses.



Figure 2-2: Summary of Question 2, Infrastructure Preferences

# Infrastructure

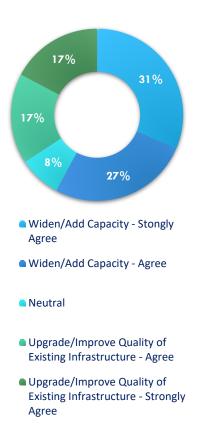
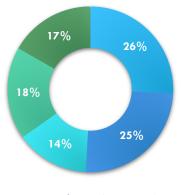


Figure 2-3: Summary of Question 2, Safe and Secure Travel Preferences

# Safe and Secure Travel



- Invest more in safer roads i.e paved shoulder, clear zone, guardrail, etc - Strongly
- Invest more in safer roads i.e paved shoulder, clear zone, guardrail, etc - Agree
- Neutral
- Invest more in intersection safety improvements - Agree
- Invest more in intersection safety improvements - Strongly Agree

In Figure 2-2, respondents were asked their preference between infrastructure priorities. Respondents were asked if they preferred to widen/add capacity to the roadways or upgrade/improve the quality of existing roadways. Respondents preferred (58% to 34%) adding additional capacity/new lanes to existing infrastructure over improving/upgrading existing infrastructure.

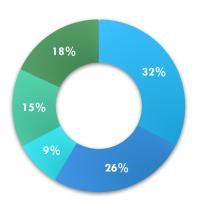
In Figure 2-3, respondents were asked their preferences on safety investments. Should the state invest more money in safer roads (i.e. paved shoulder, clear zone, guardrail, etc.) vs. invest more in intersection safety improvements? Respondents preferred investments in safety measures such as paved shoulders, clear zones, guardrails, etc., over investments in intersection safety projects by a 51% to 35% margin. Approximately 14% of the respondents were neutral.



Figure 2-4: Summary of Question 2, Improve Mobility

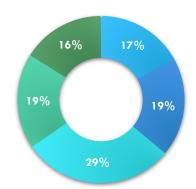
Figure 2-5: Summary of Question 2,
Passenger Transit





- Increase capacity by adding lanes and/or other infrastructure - Strongly Agree
- Increase capacity by adding lanes and/or other infrastructure - Agree
- Neutral
- Manage demand with technology and other travel mode alternatives - Agree
- Manage demand with technology and other travel mode alternatives - Strongly Agree

# Passenger Transit



- Increase transit and other passenger services on popular routes - Strongly Agree
- Increase transit and other passenger services on popular routes - Agree
- Neutral
- Increase transit and other passenger services to new areas - Agree
- Increase transit and other passenger services to new areas - Strongly Agree

In Figure 2-4, the respondents were asked to improve mobility by either increasing capacity/adding lanes or managing demand with technology or other transportation alternatives. Overwhelmingly, the respondents preferred adding capacity/lanes 58% to 33%.

In Figure 2-5, the respondents were asked if they preferred increased transit and other passenger services on existing routes or increase transit and other passenger services to new areas. The results were almost symmetrical. Approximately 36% favored improving existing routes while 35% favored expansion for new routes. Twenty-nine percent of the respondents were neutral.

## **Survey Question 3: Investment Allocations**

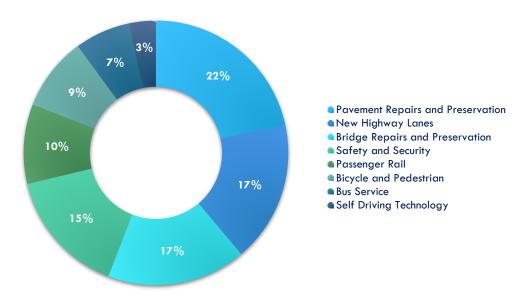
Question 3 asked, "If you could decide how transportation dollars in South Carolina are spent, how would you distribute them in these categories? You have coins equal to \$100." In this question, respondents were asked to assign \$100 worth of coins into one of eight transportation investment categories: Figure 2-6 shows the percentage of investments assigned to each priority. The majority of the respondents (71%) supported investing most of the allotted resources into Pavements, Capacity, Bridges, and Safety, in that order. Respondents indicated



that approximately 17% of the resources should go to support rail and bus service; 9% should be devoted to bike and pedestrian infrastructure; and 3% should go towards self-driving technology. These responses reaffirm that SCDOT's strategic priorities and 10-Year Plan are in alignment with the highest priorities identified by the public through this survey.

Figure 2-6: MTP Update Survey Question 3, Priority Investments

# **Priority Investments**



# Survey Follow-up: Demographic information

At the end of the survey, respondents were asked general personal information that included race, zip code, age range, income, predominant transportation choice, and household size. Below is a general summary of the information received from the respondents.

Surveys were submitted from 390 Zip Codes representing 296 communities within all 46 Counties. Figure 2-7 illustrates the distribution of submitted surveys statewide. The pattern of the map illustrates a broad distribution of respondents within the state with the higher participation rate in the larger urban areas.

- 93.3% of respondents drove a single-occupant vehicle, 0.5% used public transportation, and
   1.8% used bicycle/pedestrian as their primary mode of transportation.
- 67.3% of respondents were from households with three or more residents.
- 40.8% of the respondents reported household earnings of over \$100,000, while only 18.9% of the respondents reported annual earnings less than \$25,000.
- 89.5 % of the respondents reported as being White, 4.3% as other, 3.8% African-American,
   1.3% Hispanic, 0.7% Asian, and 0.3% Native American.



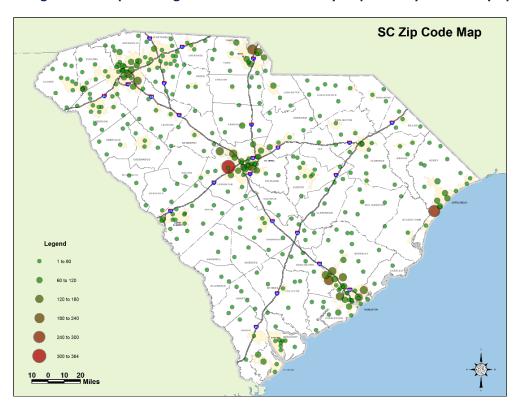


Figure 2-7: Map showing the distribution of survey responses by community zip codes

Figure 2-8: Word Cloud of all the comments received

Source: Data from MTP Update Drive our Future Survey and graphics created in WordArt.com





Figure 2-8 is a word cloud summarizing the more than 2000 comments received within the survey period. This word cloud image is indicative of word frequency, with the highest values given to the most words commonly used.

**Social Media/Website** – SCDOT created public service announcements broadcast through the SCDOT website, press releases in local newspapers, Twitter, Facebook and partnering public, private and non-profit organizations websites, and emails. During the public advertisement period, the following results from Facebook were noted:

- 159,329 people were reached.
- 390,291 times the ads were seen on a screen.
- 2.45 times per person reached.
- 6,547 total clicks. (These are the total number of clicks on the ad that led to the destination on or off Facebook).

**Internal SCDOT technical review meetings** - SCDOT technical experts in pavement, bridges, public transportation, freight, rail, bicycle and pedestrian, safety, and finance provided strategic guidance and review on 2040 MTP Update modal conditions and needs, revenue projections, and performance measures.

# 2.4.2.2.1 Web Survey Summary

The web survey summary along with the individual comments can be found in Appendix A and B.

# 3. DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

Demand for transportation services are primarily driven by socio-economic factors such as population and employment. Trends in these factors are briefly summarized below as they provide the foundation for the projected growth in transportation demand.

# 3.1 Population and Employment Trends

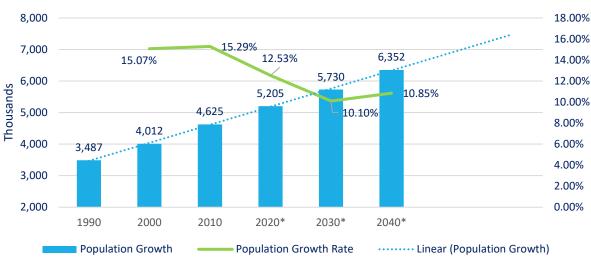
# **3.1.1** General State Population Trends

South Carolina's 2010 population placed it 24th in rank among the fifty states, compared to 26th in 2000. By 2020, the population is expected to reach 5.2 million, a projected 12.5% increase (Ranked 11th nationally) and making it the 23rd largest state by population. In 2030, the population is expected to reach approximately 5.7 million and by MTP Update horizon in 2040, the population is expected to exceed approximately 6.3 million residents. Figure 3-1 illustrates that the number of new residents added to the state have remained steady at between 55,000 to 60,000 annually. This pattern is expected to continue through 2040. South Carolina ranks 2nd in the region in annual growth rate from 2010-2018, ranking only behind Florida.



Figure 3-1: Population Growth by Decade

# South Carolina Population Growth by Decade



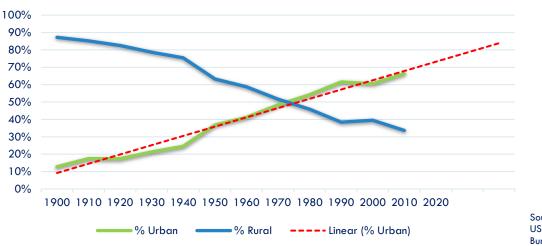
Source: United States Census Bureau, the South Carolina Department of Revenue and Fiscal Affairs Office, and University of Virginia Weldon Cooper Center for Public Service.

### 3.1.2 Urban vs. Rural Trends

Population growth rates within South Carolina reflect a national trend of migration from historically rural areas to more urbanized areas closer to major employment centers. In 2010, 66.3%, or approximately two-thirds of the population in South Carolina, was considered Urban, while 33.7% of the population was considered Rural. During this period, rural populations decreased for the first time since 1990. This trend is expected to continue through the 2020 census where urban populations are expected to exceed 70% of the state population. Even with this consistent urban growth trend, South Carolina is relatively rural compared to National trends, which calculated that 80.7% of the total population was considered Urban and 19.3% deemed Rural.

Figure 3-2: Percent Urban and Rural Populations

# **Percent Rural and Urban Populations**



Source: US Census Bureau



### 3.1.3 Employment Trends

Between 2010 and 2017 the number employed (over 16 years of age in the labor force) in South Carolina grew by 138,203 or approximately 0.8% per year. Between 2010 and 2040, the number of employed in South Carolina is expected to increase by 25%, from 2.24 million to approximately 2.80 million, based on the 2010 existing employment estimates and projected trend employment forecasts.

Table 3-1: 2010 and 2040 Socio-economic Data and Projections

Mode	2010 (Base Year)	2040 (Forecast Year)	Growth Projection	Annual Growth Projection
Population	4,625,308	6,352,000	37%	1.02%
Households	1,801,141	2,504, 923	39%	1.18%
Employment	2,243,697	2,800,016	25%	0.8%

Source Data: US Census Bureau. Population projections were based on population estimates

## 3.2 Vehicle Miles Traveled

The last few years have seen a steady climb in the usage of the South Carolina highway system as measured by annual vehicle-miles of travel (AVMT). Figure 3-3 shows vehicle-miles of travel in South Carolina from 2010 to 2018. Over the past several years since economic conditions improved, AVMT has increased 13.7% to 56.8 billion. While both the urban and the rural areas have experienced growth in travel, the majority of the AVMT growth has occurred in the urban areas since 2014.

Figure 3-3: Average Annual Daily Trips 2010-2018

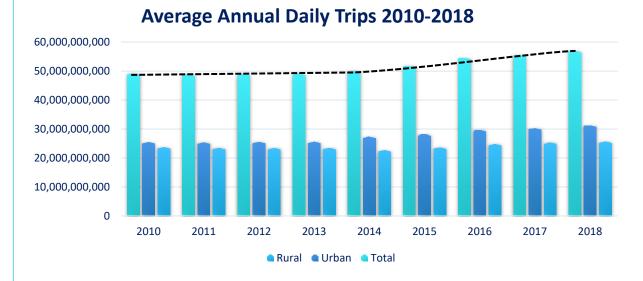
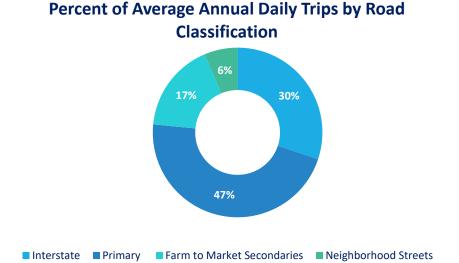




Figure 3-4 describes the distribution of travel across the state-owned network. Thirty percent (30%) of all travel in South Carolina occurs daily on the interstate system, 47% on the primaries, 17% on the farm-to-market secondaries and 6% on neighborhood streets.

Figure 3-4: Percent of Average Annual Daily Trips by Road Classification



This traffic distribution information was an important factor in SCDOT's determination of investment and strategic priorities. With 77% of all travel occurring daily in South Carolina on the interstate and primary routes, effective maintenance and operation of this portion of the state's network is critical to meeting the needs of the travelling public, businesses and fostering continued economic prosperity within the Palmetto state.

It is also interesting to note that 30% of the VMT occurs on the interstate system, even though interstates account for only two percent of public roads in the state. Again, this statistic reinforces the need to invest in the maintenance and operation of the interstate system in South Carolina.



# 4. VISION, GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

# 4.1 Vision, Goals, Objectives, and Performance Measures

Establishing a meaningful strategic direction to drive multimodal investment decisions was a key part of developing the 2040 MTP Update. Plan goals and objectives define investment priorities and describe how SCDOT will work with its planning partners to achieve a shared transportation vision. Performance measures establish a way to determine how alternative investment strategies contribute to achieving the MTP Update goals and objectives to guide plan implementation. The 2040 MTP Update was developed in consideration of the 2018-2020 Strategic Plan, Mission, Goals, Strategies and Objectives.

#### **4.1.1** Vision

A vision communicates the future in clear and definitive language. The purpose of a vision is to align an organization's internal and external expectations, plans, and actions. Typically visions describe the "what" and "why" for an organization. The vision for the 2040 Multimodal Transportation Plan update is:

Safe, reliable surface transportation and infrastructure that effectively supports a healthy economy for South Carolina.

#### 4.1.2 Goals

Both South Carolina and the nation are facing significant challenges in maintaining the existing multimodal transportation system with limited funding resources. The 2040 MTP Update goals recognized these challenges, as well as the direction from the FAST ACT/MAP-21 goal areas in developing the following goals:

- Mobility and System Reliability Provide surface transportation infrastructure and services
  that will advance the efficient and reliable movement of people and goods throughout the
  state.
- Safety and Security Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.
- Infrastructure Condition Maintain surface transportation infrastructure assets in a state of good repair.
- **Economic and Community Vitality** Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets.
- Environment Partner to sustain South Carolina's natural and cultural resources by minimizing and mitigating the impacts of state transportation improvements.
- Equity Manage a transportation system that recognizes the diversity of the state and strives to accommodate the mobility needs of all of South Carolina's citizens.



#### 4.1.3 Objectives, Performance Measures and Guiding Principles

Objectives and performance measures are the foundation for tying the conceptual elements of a long-range plan, the vision, and goals, to program and project implementation. Objectives for the 2040 MTP Update define the outcomes that SCDOT intends to achieve related to each goal. Performance measures "operationalize" that objective and define how that outcome will be measured, monitored, and reported. Guiding principles are implemented through process or policy changes or through enhanced relationships with local government, other state agencies, modal owners, and operators.

Performance measures and Guiding Principles must be aligned and consistent for successful implementation of the 2040 MTP Update. In addition, these foundational pieces of the 2040 MTP Update need to be supported at all levels of SCDOT as well as by partners and stakeholders externally. Therefore, the development process included SCDOT executive and senior technical staff, key partners, and stakeholders. The following tables provide specific guiding principles, and as appropriate, objectives and performance measures for the updated MTP six goals.

# 4.2 Relationship To Other Plans

SCDOT develops and implements multiple transportation planning documents, including the Strategic Plan, Statewide Multimodal Transportation Plan (MTP), and Statewide Transportation Improvement Program (STIP). The MTP is the long range planning document that bridges the Strategic Plan to the 10-Year Plan and the STIP. Figure 4-1 shows the relationships between the agency's other plans and the MTP.

Figure 4-1: MTP Relationship to SCDOT Planning Documents

Strategic Plan •The Strategic Plan establishes SCDOT's transportation vision, mission, values, and goals.



•The Multimodal Transportation Plan is SCDOT's long-range transportation plan, updated every five years to reflect the latest information. The current plan has a year 2040 horizon and was approved in 2014.

TAMP

•The TAMP is a 10-year plan focusing on programs and activities to improve business practices, asset conditions, and system performance. The TAMP is reviewed at two- and four-year intervals to evaluate how the agency is meeting performance targets and sets the agency's asset investment strategies.

STIP

•The Statewide Transportation Improvement Program is the State's six-year transportation improvement program for all projects or program areas receiving state or federal funding that are expected to be undertaken during the upcoming six-year period.

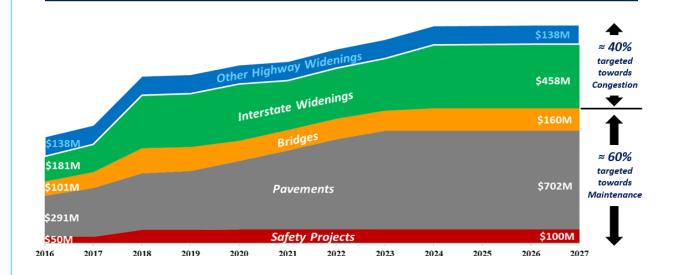
List of investment plans and strategies



SCDOT has focused its current efforts to getting the system to a state of good repair through the development and implementation of an aggressive 10-Year Plan. The 10-Year Plan combines all state and federal funding into a comprehensive investment strategy based on SCDOT's strategic priorities for the period 2016 through 2026. The 10-Year Plan was developed by SCDOT in order to align all of the agency's infrastructure repair and improvement efforts and effectively deploy a significant infusion of approximately \$600 million annually in new state funding dedicated to SCDOT through the passage of Act 40 of 2017 by the General Assembly. Although the 10-Year Plan is expected to make significant progress in repairing the existing network and trending towards a state of good repair, there remains an issue with addressing congestion and other modal needs associated with growth trends in population, employment, vehicle miles of travel and transit usage.

Figure 4-2: 10-Year Plan

The 10-Year Plan Investment Areas: All Funds Combined



# 4.3 Mobility and System Reliability

**Goal:** Provide surface transportation infrastructure and services that will advance the efficient and reliable movement of people and goods throughout the state.

**Background:** Improved mobility and reliable travel times on South Carolina's transportation system are vital to the state's economic competitiveness and quality of life. The FAST ACT and MAP-21 make highway system performance a national goal and requires states to report on performance. SCDOT uses a combination of capital improvements and operations strategies to accommodate travel demand. Data on congestion is rapidly becoming more sophisticated, but estimating needs based on this data and linking investment strategies to congestion outcomes remains a goal of the agency.



Mobility and System Reliability	ОР	I	sc	F	Т	R	Performance Measures		
Guiding Principle									
Encourage availability of both rail and truck modes to major freight hubs (for example ports, airports and intermodal facilities)	х	х	Х	х		х			
Objectives									
Reduce the number of system miles at unacceptable congestion levels	х	х	х	х			% of person-miles traveled on the Interstate that are reliable % of person-miles traveled on the non-Interstate NHS that are reliable		
Utilize the existing transportation system to facilitate enhanced modal options for a growing and diverse population and economy					х		% of transit needs met*		
Improve travel time reliability (on priority corridors or congested corridors)	Х	х	х	х	х		Truck Travel Time Reliability (TTTR) Index		
Reduce the time it takes to clear incident traffic		Х	Х				Average time to clear traffic incidents in urban areas		
Implement the Rural Interstate Freight Mobility Improvement Program goal to widen 140 miles of interstate highways		х	Х	х			% of person-miles traveled on the Interstate that are reliable  Truck Travel Time Reliability (TTTR) Index		
Replace deficient major system to system interchanges.		Х	Х	х			% of person-miles traveled on the Interstate that are reliable  Truck Travel Time Reliability (TTTR) Index		
Utilize the existing transportation system to facilitate enhanced modal options for a growing and diverse population and economy				х	х		% increase in transit ridership*		

<sup>\*</sup>Legend: OP - Overall Plan; I - Interstate; SC - Strategic Corridors; F - Freight; T - Transit; R - Rail

# 4.4 Safety

**Goal:** Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.

**Background:** Safe travel conditions are vital to South Carolina's health, quality of life, and economic prosperity. In 2017 the SCDOT Commission approved the Rural Road Safety Program, which is part of the SCDOT 10-Year Plan, to rebuild the State Highway System. This program targets the five percent of the network where thirty percent of the fatal and serious injury crashes are occurring or 1,900 Miles of SCDOT's 41,000+ mile network. These 1,900 miles will be broken down into 10-mile segments and are expected to be improved over the 10-Year program. This three phased program includes engineering solutions that are tailored to the individual corridor to target specific safety issues. SCDOT collaborates with other safety stakeholders on the state's transportation system. SCDOT maintains extensive data on safety and generally utilizes a combination of systematic safety approaches as well as targeted, tailored approaches in order to attempt to drive better safety outcomes.



Safety	ОР	1	SC	F	Т	R	Performance Measures	
Guiding Principles								
Improve safety data collection, access, and analysis	Х	Х	Х	Х	Х	Х		
Improve substandard roadway (one or more of the minimum current design standards are not met)	Х	Х	х					
Better integrated safety and emergency management considerations into project selection and decision-making.	Х							
Better integrated safety improvements for bicycle, pedestrian, and other non-vehicular modes in preservation programs by identifying opportunities to accommodate vulnerable users when improvements are included in an adopted local or state plan.	x		х		х			
Reduce preventable transit crashes					Х			
Work with partners to encourage safe driving behavior.	Х				Х			
Objectives								
Reduce highway fatalities and serious injuries.	Х	Х	Х		Х		Number or rate of fatalities and serious injuries	
Reduce bicycle and pedestrian and other vulnerable roadway users' fatalities and serious injuries.	x		x				Total Number of Non-motorized Fatalities and Non-motorized Serious Injuries	
Reduce roadway departure related fatality and serious injury crashes.	Х	Х	х					
Reduce fatal and serious injury crashes within work zones.	Х	Х	Х				Number of work zone fatal and serious injury crashes	
Reduce highway - rail grade crossing crashes involving fatality or serious injury.						Х	% of crossings with active safety warning devices installed	
Reduce fatal and serious injury crashes at intersections	х	х	Х				# of crashes at intersections involving fatality or serious injury	
Reduce fatal and serious injury crashes involving commercial motor vehicle	х	Х	х	Х		. ,	% of commercial motor vehicle crashes involving fatality or serious injury	

<sup>\*</sup>Legend: OP - Overall Plan; I - Interstate; SC - Strategic Corridors; F - Freight; T - Transit; R - Rail

### 4.5 Infrastructure Condition

**Goal:** Maintain surface transportation infrastructure assets in a state of good repair.

**Background:** Rebuilding and preserving South Carolina's transportation infrastructure is a primary focus of SCDOT's mission. This goal promotes public sector fiscal health by minimizing life-cycle infrastructure costs, reducing risks, enhancing decision making, improving system performance and fostering transparency. Maintaining assets in a state of good repair is one of the national FAST Act and MAP-21 goals and requires states' transportation and transit agencies to report on highway and transit asset conditions. This is being achieved through the implementation of the Transportation Asset Management Plan (TAMP).

The TAMP is the Agency's 10 year performance and risk based plan that also aligns directly with the agency's 10-Year Plan. The goal of the plan is to enable SCDOT to use a performance based approach to pavement management through a blend of preservation, rehabilitation, and reconstruction projects to reduce the percent of South Carolina's pavements considered to be in poor condition and to achieve a state of good repair and reduce the number of load-restricted bridges and structurally deficient bridges



that are in poor condition. These goals align with FAST Act and MAP-21 goals which will assist the agency in meeting system performance targets.

Infrastructure Condition	OP	I	SC	F	Т	R	Performance Measures
Guiding Principles							
Recognize the importance of infrastructure condition in attracting new jobs to South Carolina by considering economic development when determining improvement priorities.	х	х	х	х			
Encourage availability of both rail and truck modes to major freight hubs (for example ports, airports, and intermodal facilities).	Х	х	Х	Х		х	
Coordinate with the Palmetto Railways to consider road improvements needed to support the efficient movement of freight between the Inland Ports and the Port of Charleston.			х	Х		х	
Promote the use of Whole Life Management principles in the pavement, bridge, and maintenance management processes	х	Х	Х				
Objectives							
Maintain or improve the current state of good repair for the NHS.	Х	Х	Х				Percentage of Interstate and Non- Interstate NHS system rated at good condition <sup>3</sup>
Maintain or improve the current state of good repair for NHS Bridges.		Х					Percentage of NHS Bridges rated as good
Reduce the percentage of Non-NHS Primary, Farm to Market Secondaries and Neighborhood Street road miles in Poor Condition while maintaining or increasing the % of miles rated as good.	Х	Х	Х				
Improve the condition of the Non-NHS state highway system bridges	Х	Х	Х	Х			
Improve the state transit infrastructure that supports a state of good repair.					Х		% of active duty transit vehicles past designated useful life

Legend: OP – Overall Plan; I – Interstate; SC – Strategic Corridors; F – Freight; T – Transit; R – Rail

# 4.6 Economic and Community Vitality

**Goal:** Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets.

**Background:** Transportation infrastructure is vital to the economic prosperity of South Carolina. Good road, rail, transit, and air connections across the state help businesses get goods and services to markets and workers get to jobs. Communities often cite desire for economic growth as a reason for seeking additional transportation improvements, and public officials frequently justify transportation spending on its economic merits. State-of-the-art planning practices, however, generally offer limited potential

<sup>&</sup>lt;sup>3</sup> MAP-21 and the South Carolina Strategic Plan both include a pavement condition goal. For consistency with this plan and FAST Act and MAP-21requirements, the pavement condition for this plan is divided into two tiers --- one for the NHS and one for all other roads. In keeping with FAST Act and MAP-21 the objective for the NHS system reflects maintaining or improving current condition while the objective for the remainder of the system is consistent with the Strategic Plan approach of "managing deterioration".



for connecting investment scenarios with travel choices outcomes. To date, SCDOT has generally tied economic vitality to the movement of freight and elimination of freight pinch-points in the state.

# 4.7 Environmental

**Goal:** Partner to sustain South Carolina's natural and cultural resources by avoiding, minimizing, and mitigating the impacts of state transportation improvements.

**Background:** This goal is consistent with SCDOT's current environmental policies and procedures. FAST Act/MAP-21 includes an Environmental Sustainability goal that requires states "to enhance the performance of the transportation system while protecting and enhancing the environment." Other than air quality, quantitative measures and impacts to the environment are difficult to calculate at the plan level. For the most part the environmental goal will be measured as projects are selected, designed, constructed, and maintained over time.

Economic and Community Vitality	ОР	I	sc	F	Т	R	Performance Measures
Guiding Principles							
Improve access and interconnectivity of the state highway system to major freight hubs (road, rail, marine, and air).	х		х	х			
Determine economic impacts of potential projects and include quantitative results in the Act 114 project prioritization process.	Х	Х	Х	Х		Х	
Work with economic development partners to identify transportation investments that will improve South Carolina's economic competitiveness.	Х	х	х	х	Х	х	
Work with partners to create a project development and permitting process that will streamline implementation of SCDOT investments associated with state-identified economic development opportunities.	х						
Collaborate with state and local agencies to coordinate planning.	Х						
Encourage local governments and/or MPOs to develop and adopt bicycle and pedestrian plans.	х						
Collaborate with public and private sectors to identify and implement transportation projects and services that facilitate bicycle and pedestrian movement consistent with adopted bike/pedestrian plans.	х						
Encourage coordination of transit service within and among local jurisdictions.					Х		
Collaborate with public and private sectors to identify and implement transportation projects and services that facilitate freight movement.	Х	х	х	х		х	
Encourage rail improvements that will improve connectivity and reliability of freight movement to global markets.				Х		Х	
Encourage availability of both rail and truck modes to major freight hubs (for example ports, airports, and intermodal facilities).	Х	Х	х	х		Х	
Objective							
Utilize the existing transportation system to facilitate enhanced freight movement to support a growing economy.	х	х		х			Truck travel time index on the freight corridor network, Annual hours of truck delay, Freight Reliability



Environmental	OP	I	SC	F	Т	R	
Guiding Principles							
Plan, design, construct, and maintain projects to avoid, minimize, and mitigate impact on the state's natural and cultural resources.		х	х	х	х	х	
Improve travel time delay on the Interstate and Strategic Corridor Network to reduce Greenhouse Gas emissions	Х	Х	х	х	X		
Work with state and public transit agencies to purchase clean or alternative fueled transit vehicles to reduce Greenhouse Gas emissions	Х	Х	Х		Х		
Collaborate with public and private sectors to identify and implement transportation projects and services that facilitate bicycle and pedestrian movement consistent with adopted bike/pedestrian plans.	x						
Partner to be more proactive and collaborative in avoiding vs. mitigating environmental impacts. Utilize Mitigation Forecast Model	х	х	х	х			
Encourage modal partners to be proactive in considering and addressing environmental impacts of their transportation infrastructure investments.					Х	Х	
Work with environmental resource agency partners to explore the development of programmatic mitigation in South Carolina.	х	х	х	Х			
Collaborate with permitting agencies to identify and implement improvements to environmental permitting as a part of the Department's overall efforts to streamline project delivery.	X						

<sup>\*</sup>Legend: OP – Overall Plan; I – Interstate; SC – Strategic Corridors; F – Freight; T – Transit; R – Rail



# 4.8 Equity

**Goal:** Manage a transportation system that recognizes the diversity of the state and strives to accommodate the mobility needs of all of South Carolina's citizens.

**Background:** Transportation is essential to support individual and community quality of life. As a public agency SCDOT has a public stewardship responsibility that requires it to evaluate needs and priorities in a way that recognizes the diversity of the state's geographic regions and traveling public. Due to the state and nationwide trend of vulnerable road user fatalities and serious injuries, SCDOT has recently recognized the need to focus on the safety concerns of the bicycle and pedestrian community of the state. This strategic objective to consider multimodal road users should be incorporated into the planning processes in order to achieve long-term, sustainable results.

Objectives	OP	-1	SC	F	T	R	
Guiding Principles							
Ensure planning and project selection processes adequately consider rural accessibility and the unique mobility needs of specific groups.	Х	Х	Х	X	Х		
Collaborate with local and state agencies to encourage the provision of an appropriate level of public transit in all 46 South Carolina counties.					Х		
Ensure broad-based public participation is incorporated into all planning and project development processes.	Х	Х	Х	Х	Х	Х	

<sup>\*</sup>Legend: OP - Overall Plan; I - Interstate; SC - Strategic Corridors; F - Freight; T - Transit; R - Rail

# 5. PERFORMANCE MANAGEMENT

# 5.1 Background

On December 4, 2015, the Fixing America's Surface Transportation Act (FAST Act) was signed into law. The FAST Act funds surface transportation programs—including, but not limited to, Federal-aid highways—for fiscal years (FY) 2016 through 2020. It was the first authorization enacted in a decade that provides long-term funding certainty for surface transportation. As the FAST Act is now nearing expiration, it is important that there is a timely reauthorization of the surface transportation act in order to again enable the states to plan long-term and implement multi-year, federally funded projects.

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, included provisions to make the Federal surface transportation more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act builds on the changes made by MAP-21.

MAP-21 created the first performance-based framework for state DOTs and MPOs. The Map-21 national goal areas include safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduction in project delivery times. The objective of the performance-based program is for states to invest resources in programs, projects, and activities to make progress towards achieving the national goals. The SCDOT Executive leadership team and the Commission embraced the concept of tying investment levels to a predicted return on those investments through the formulation and establishment of goals, targets and



performance measures for SCDOT's most significant programs, regardless of funding source. This new approach to establishing performance measures and asset management principles to drive the allocation of federal and state funds within South Carolina was a transformational policy change within SCDOT that has brought clarity, accountability and transparency to the agency's operations.

The FAST Act shortens the timeframe for States and MPOs to make progress toward meeting performance targets under the National Highway Performance Program (NHPP) and clarifies the significant progress timeline for the Highway Safety Improvement Program (HSIP) performance targets.

Figure 5-1 illustrates the performance-reporting period for PM-2 and PM-3 performance measures through 2026. Safety Performance reporting period is completed on an annual basis. The figure shows the breakdown of the first 2- and 4-year, performance periods for PM-2 and PM-3 performance measures. SCDOT's 10-Year Plan performance period is through the end of 2026.

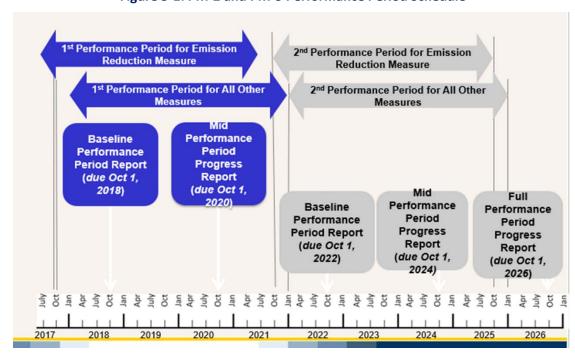


Figure 5-1: PM-2 and PM-3 Performance Period Schedule

The 2040 MTP Update is developed around the seven national goal areas and 17 performance measures. The performance indicators provide SCDOT the opportunity to measure progress toward the 2040 MTP Update goals, as well as a way to review and revise the effectiveness of the plan objectives, policies, and actions. FAST Act/MAP-21 requires the USDOT Secretary, in consultation with states and MPOs, to establish performance measures for the areas listed below in Table 5-1. SCDOT has also established its own state-level performance measures for certain items as reflected in Table 5-1.

Table 5-1: List of Federal Transportation National Goal Areas and corresponding Federal and State (SCDOT) established Performance Measures [23USC §150(b)]

National Goal Area	Performance Measure
Safety - To achieve a significant reduction	Number of Fatalities
in traffic fatalities and serious injuries on	Fatality Rate (per 100 Million VMT)
all public roads.	Number of Serious Injuries



National Goal Area	Performance Measure
	Serious Injury Rate (per 100 Million VMT)
	Number of Non-Motorized Fatalities and Serious Injuries
Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair	<ul> <li>Interstate Pavements in Good Condition</li> <li>Interstate Pavements in Poor Condition</li> <li>Non-Interstate NHS in Good Condition</li> <li>Non-Interstate NHS in Poor Condition</li> <li>Primary Pavements in Good Condition (State Measure)</li> <li>Primary Pavements in Poor Condition (State Measure)</li> <li>Farm-to-market Secondary Pavements in Good Condition (State Measure)</li> <li>Farm-to-market Secondary Pavements in Poor Condition (State Measure)</li> <li>Neighborhood Streets in Good Condition (State Measure)</li> <li>Neighborhood Streets in Poor Condition (State Measure)</li> <li>NHS Bridges in Good Condition</li> <li>NHS Bridges in Poor Condition</li> <li># of NHS Structurally Deficient Bridges (State Measure)</li> <li># of Load Restricted Bridges (State Measure)</li> </ul>
Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System  System Reliability - To improve the efficiency of the surface transportation system	<ul> <li>Annual Hours of Peak-Hour Excessive Delay (PHED) Per Capita</li> <li>Non-Single Occupancy Vehicle (Non-SOV) Travel</li> <li>Emission Reductions for NOx through CMAQ Projects (RFATS MPO Only)</li> <li>Interstate Highway Reliable Person-Miles Traveled</li> <li>Non-Interstate National Highway System (NHS) Reliable Person-Miles Traveled</li> </ul>
Freight Movement and Economic Vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.	Interstate Highway Truck Travel Time Reliability (TTTR) Index
Environmental Sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.	No Required Performance Measures
Reduced Project Delivery Delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices	No Required Performance Measures

# **5.2 Performance Targets**

### **5.2.1** Safety/PM-1

Effective April 14, 2016, the FHWA established the highway safety performance measures (23 CFR Part 490, Subpart B) to carry out the Highway Safety Improvement Program (HSIP).

Safety performance targets are provided annually by the States to FHWA for each safety performance measure. Current statewide safety targets address calendar year 2021 and are based on an anticipated five-year rolling average (2014-2018). South Carolina statewide safety performance targets for 2021 are included in Table 5-2, along with statewide adopted safety performance targets for the most recent reporting periods. While the table below reflects some predicted increased fatalities and serious injuries, it should not be construed to imply that it is acceptable for the rates to increase.



These increases are attributable to the influence of utilizing a rolling 5 year average figure for the mathematical calculation of the target. Each MPO and COG within the State of South Carolina is required to adopt the annual safety targets within their Long Range Transportation Plans (LRTPs within 180 days of the State setting their targets (August 31st -February 27th). The MPO or COG may adopt their own targets, but must coordinate their findings with SCDOT.

**Table 5-2: Statewide Safety Performance Measures and Targets** 

Performance Measure	South Carolina Statewide Baseline (Five Year Rolling Average 2014-2018)	2021 South Carolina Statewide Target (Five Year Rolling Average 2017-2021)
Number of Fatalities	970	1005
Fatality Rate (per 100 Million VMT)	1.804	1.760
Number of Serious Injuries	2988	2950
Serious Injury Rate (per 100 Million VMT)	5.590	5.350
Number of Non-Motorized Fatalities and Serious		
Injuries	390	440

SCDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide performance targets. As stated earlier, SCDOT's new approach to establishing performance measures and asset management principles is a transformational policy change within SCDOT that has brought clarity, accountability and transparency to the agency's operations. This should be extended to each MPO and COG as they directly reflect these performance measures, and targets within their own planning processes including inclusion within the Transportation Improvement Programs (TIP) narrative and Long Range Transportation Plans (LRTP).

### 5.2.2 Pavement and Bridge Condition/PM-2

Effective May 20, 2017, FHWA established performance measures to assess pavement condition (23 CFR Part 490, Subpart C) and bridge condition (23 CFR Part 490, Subpart D) for the National Highway Performance Program. This second FHWA performance measure rule (PM-2) established six performance measures (Infrastructure Condition). MAP-21 requires SCDOT to develop a TAMP for all NHS pavements and bridges within the state. The TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of SCDOT's statewide pavement and bridge condition targets. These measures are included within the TAMP certified on August 31, 2019.

The SCDOT Executive leadership team and the Commission embraced the concept of tying investment levels to a predicted return on those investments through the formulation and establishment of goals, targets and performance measures for SCDOT's most significant programs, regardless of funding source. This new approach to establishing performance measures and asset management principles to drive the allocation of federal and state funds within South Carolina was a transformational policy change within SCDOT that has brought clarity, accountability and transparency to the agency's operations. Accordingly, SCDOT also set state-specific targets for pavement and bridge conditions in synchrony with the 10-Year Plan and utilizing a 2016 Baseline.

#### **5.2.2.1** Pavement Conditions Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA established five metrics to assess



pavement condition: International Roughness Index (IRI); cracking percent; rutting; faulting; and Present Serviceability Rating (PSR). For each metric, a threshold is used to establish good or poor condition.

SCDOT also established pavement condition measures representing the lane-miles on the Primaries, Farm-to-Market Secondaries (previously known as federal aid eligible secondaries) and Neighborhood Streets (previously known as non-federal aid eligible secondaries).

The pavement condition measures are expressed as a percentage of all applicable roads in good or poor condition. Pavement in good condition suggests that no major investment is needed, except for preservation treatments in order to keep the good pavements good. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

## **5.2.2.2** Bridge Condition Measures

The bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good or poor condition. Every bridge on the NHS is evaluated using these component ratings.

Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

SCDOT also established bridge condition measures representing the number of structurally deficient bridges on the NHS and the number of load-restricted bridges in South Carolina.

#### 5.2.2.3 Pavement and Bridge Targets

As indicated in Figure 5-1, pavement and bridge condition performance is assessed and reported over a four-year performance period. The first performance period began on January 1, 2018, and runs through December 31, 2021. SCDOT reported baseline PM-2 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM-2 rule requires states and MPOs to establish two-year and/or four-year performance targets for each PM-2 measure. Current two-year targets represent expected pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent expected condition at the end of calendar year 2021. Table 5-3 displays both the federally required PM-2 Performance Measures and Targets as well as the state specific measures and targets established by SCDOT for South Carolina.

PM-2 targets are set on October 1, for two-year/four-year targets. The State's 11 MPOs and 10 COGs have 180 days to adopt state targets or coordinate with the state to adopt their own targets. (Ex. October 1, 2020 to March 31, 2021).

#### 5.2.2.3.1 Pavement Target Setting Process

Pavement performance targets were established as required by 23 CFR Part 490. The target setting process included internal staff meetings from Planning, Road Data Services, and Maintenance.

SCDOT analysts used collected data for the International Roughness Index, Cracking Percent, Rutting, and Faulting based on whether the pavement was asphalt, continuously reinforced concrete



pavement (CRCP), or jointed concrete pavement (JPCP). Using historical data, staff developed deterioration models for the different pavements by segment. Over the 4-year period, staff also examined whether there were any planned improvements made to the pavements that would be inspected and reported to HPMS within four years based on SCDOT's investment strategies.

The aggregated data was presented to a workgroup of internal experts. Based on the methodology, the workgroup chose a median deterioration model that resulted in a projected good and poor value, taking into account improvements made on the Interstate and non-interstate NHS, as described in Table 5-3 below. The table illustrates that it is anticipated that both the baseline and 4-year targets for Interstate Pavements will remain below the maximum 5% poor rating.

Table 5-3: Pavement and Bridge Condition PM-2 Performance Measures and Targets

Performance Measures	South Carolina Performance Baseline	South Carolina 2-Year Target (2018-2019)	South Carolina 4-year Targets (2018-2021)	State Specific 10-Year Targets (2026)
Percent of pavements of the Interstate System in Good condition	65%	N/A	71%	92%
Percent of pavements of the Interstate System in Poor condition	3%	N/A	3%	3%
Percent of pavements of the non-Interstate NHS in Good condition	7%	15%	21%	72%
Percent of pavements of the non-Interstate NHS in Poor condition	42%	34%	29%	16%
Percent of pavements of the Primary System in Good condition (State Measure)	19% (2016 Baseline)	32%	38%	53%
Percent of pavements of the Primary System in Poor condition (State Measure)	56% (2016 Baseline)	48%	43%	30%
Percent of pavements of the Farm-to-Market Secondaries in Good condition (State Measure)	19% (2016 Baseline)	25%	30%	40%
Percent of pavements of the Farm-to-Market Secondaries in Poor condition (State Measure)	50% (2016 Baseline)	46%	43%	35%
Percent of pavements of the Neighborhood Streets in Good condition (State Measure)	13% (2016 Baseline)	25%	30%	25%
Percent of pavements of the Neighborhood Streets in Poor condition (State Measure)	56% (2016 Baseline)	53%	51%	45%
Percent of NHS bridges classified as in Good condition	41.6%	42.2%	42.7%	-



Percent of NHS bridges classified as in Poor condition	4.5%	4.0%	6.0%	-
Number of Structurally Deficient bridges on the NHS (State Measure)	51 (2016 Baseline)	17 SD NHS bridges have been advanced to construction for replacement or rehabilitated	25 SD NHS bridges have been advanced to construction for replacement or rehabilitation	51 bridges advanced to construction for replacement or rehabilitated
Number of Load Restricted Bridges (State Measure)	348 (2016 Baseline)	104 LR bridges have been advanced to construction for replacement or rehabilitated	174 LR bridges have been advanced to construction for replacement or rehabilitated	348 bridges advanced to construction for replacement or rehabilitation

## 5.2.2.3.2 Bridge Target Setting Process

The National Bridge Inspection Standards (NBIS) apply to all publicly owned highway bridges longer than twenty feet located on public roads. NBIS are federal regulations (23CFR 650) establishing requirements for bridge inspection procedures, frequency of inspections, qualifications of personnel, inspection reports, and maintenance of bridge inventory. Information from these inspections is stored in the National Bridge Inventory (NBI) database, created in 1972. The NBI database contains condition information on five aggregate structural units (deck, superstructure, substructure, channel, and culvert) by assigning a condition rating to each of these components of a bridge on a scale from 9 (perfect) to 1 (severe deterioration/failure). SCDOT Staff analyzed historic NBI submittal data from 1992 through 2017 and developed a Markov chain analysis to forecast the bridges that would move from Good to Fair or Fair to Poor during the 2 and 4-year target window. Staff then collected data from our construction and maintenance offices to determine the number of bridges, and corresponding deck area that were to be improved in the same window of time. Table 5-3 clearly illustrates that both the 2017 baseline, 2 and 4-year targets are projected to fall below the maximum 10% of deck area that can be rated in poor condition for bridges on the NHS.

# **5.2.3** System Reliability, Freight Movement, and Congestion Mitigation & Air Quality Improvement Program/PM-3

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System (23 CFR Part 490, Subpart E), freight movement on the interstate system (23 CFR Part 490, Subpart F), and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program (23 CFR Part 490, Subparts G and H).

Table 5-2 illustrated the adopted PM-1 Safety Measures and Targets that are evaluated on an annual basis. The PM-2 Pavements and Bridges and PM-3 System Performance measures provide the 2018 baseline measurement and the 2-year and 4-year performance targets. By October 1, 2020, the SCDOT will report the progress of the PM-2 (Except Interstate Highways) and PM-3 performance measures and evaluate if they will keep the existing 4-year targets or adjust them as needed.

### **5.2.3.1** System Performance Measures

The two System Performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of



people traveling in buses, cars, and trucks over these roadway segments. To determine total person miles traveled, the vehicle miles traveled (VMT) on each segment is multiplied by average vehicle occupancy.

#### 5.2.3.2 Freight Movement Performance Measure

The Freight Movement performance measure assesses reliability for trucks traveling on the Interstate. A Truck Travel Time Reliability (TTTR) ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day.

#### **5.2.3.3** CMAQ Performance Measures

The peak hour excessive delay (PHED) measure assesses the hours of delay resulting from traffic congestion on the NHS during morning and afternoon weekday peak travel times. Peak travel hours are defined as 6 AM to 10 AM on weekday mornings, and either 3 PM to 7 PM or 4 PM to 8 PM on weekday afternoons.

The Non-SOV measure assesses the percent of vehicle travel that occurs with more than one occupant in the vehicle. This measure is based on person travel within the region, and non-SOV travel includes travel via carpool, van, public transportation, commuter rail, walking, or bicycling as well as telecommuting.

The CMAQ Emission Reduction measure assesses performance of the CMAQ Program through measurement of total emission reductions of on-road mobile source emissions. Total emissions reduction is calculated by summing 2-year and 4-year totals of emission reductions of applicable pollutants, in kilograms per day, resulting from all CMAQ funded projects.

Applicability of CMAQ Measures in South Carolina: CMAQ is currently applied only to the Rock Hill / Fort Mill Area Transportation Study (RFATS) MPO, located in the greater Charlotte Area.

#### 5.2.3.4 PM-3 Performance Targets

Performance for the PM-3 measures is assessed and reported over a 4-year performance period. For all PM-3 measures except the CMAQ Emission Reduction measure, the first performance period began on January 1, 2018, and will end on December 31, 2021. For the CMAQ Emission Reduction measure, the first performance period began on October 1, 2017, and will end on September 30, 2021.

SCDOT reported baseline PM-3 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second 4-year performance period will cover January 1, 2022, to December 31, 2025 (October 1, 2021, to September 30, 2025 for the CMAQ Emission Reduction Measure), with additional performance periods following every four years. Table 9-4 describes the adopted PM-3 Performance Measures and Targets.

Table 5-4: System Reliability, Freight Movement, and Congestion Mitigation & Air Quality Improvement Program PM-3 Performance Measures and Targets

Performance Measures	South Carolina Performance Baseline	South Carolina 2-Year Target (2018-2019)	South Carolina 4-year Targets (2018-2021)
Freight Movement			
Freight Reliability: Truck Travel Time Reliability (TTTR) Index	1.34	1.36	1.45
Highway Performance			



Interstate: % of person-miles traveled on the Interstate that are reliable	94.8%	91%	90%	
3				
Non-Interstate: Percent of				
person-miles traveled on the	89.8%	N/A	81%	
non-Interstate NHS that are	33.370	14/74	0170	
reliable				
CMAQ – Congestion (RFATS MPO Only)				
Annual hours of Peak-Hour				
Excessive Delay per capita	19.3 hours	N/A	34.0 hours	
(PHED)				
Percent of Non-Single Occupant	24 50/	24.00/	24.00/	
Vehicle travel (Non-SOV)	21.5%	21.0%	21.0%	
CMAQ – Air Quality (RFATS MPO Only)				
Emissions Measure: Total				
Emissions Reduction – NOx	N/A	448.487	448.780	
Benefit (kg/day)				
Emissions Measure: Total				
Emissions Reduction – VOC	N/A	479.512	480.521	
Benefit (kg/day)				

#### 5.2.3.4.1 System Reliability and Freight Target Setting Process

### System Reliability

To establish the baseline, two and four years for the System performance of the NHS used the historic Vehicle Miles Traveled (VMT) data from the latest South Carolina Statewide Travel Model. This was essential when trying to determine reliability targets. During the analysis it was found that VMT levels were largely dependent on the strength of the economy and less on population and fuel costs. Additionally, construction projects for the entire statewide NHS system such as capacity building, rehabilitation and repaving were factored in the final target

## Freight Movement

The targets developed for TTTR were reviewed to examine maximum TTTR values and determine if tendencies were occurring. After reviewing time period values, the data from recent past years were plotted to find any trends and preliminarily project out the 2-year and 4-year targets. Next, all interstate construction projects were reviewed to determine if they had any potential effects on the TTTR for the baseline and projected 2-year and 4-year targets. After evaluating the three steps, the 2- and 4-year targets were developed.

#### 5.2.3.4.2 Congestion Mitigation Air Quality (CMAQ)

In South Carolina, the PHED, Non-SOV Travel, and On-road Mobile Emissions performance measures apply to the Charlotte, NC-SC UZA. The following agencies have planning area boundaries that overlap with the UZA: Rock Hill – Fort Mill Area Transportation Study (RFATS), Cabarrus-Rowan MPO, Charlotte Regional Transportation Planning Organization, Gaston-Cleveland-Lincoln MPO, NCDOT, and SCDOT. These agencies agreed upon unified PHED and Non-SOV Travel targets in Spring 2018 and CMAQ in 2017.

# 5.3 System Performance

In October 2020, the SCDOT will submit mid-term performance review for PM-2 and applicable PM-3 performance measures. At that time the agency will review the progress or regression against the



applicable 2-year targets and reevaluate its 4-year targets to determine if adjustments are needed. At that time the Agency will file a system performance report with the FHWA.

# 6. ENVIRONMENTAL MITIGATION

Preservation of the environment and efforts to meet the mobility needs of a growing population, sometimes leads to unavoidable impacts. The identification of a full range of potential mitigation strategies should occur early in the transportation planning and project development process, so viable solutions to mobility and connectivity needs can be identified and implemented in a timely manner. To that end, SCDOT has utilized mitigation banks as an effective approach to preserve, enhance, and restore environmental resources. A mitigation bank is a site where wetlands are restored, enhanced, or preserved, expressly for the purpose of providing compensatory mitigation in advance of unavoidable impacts to wetlands or streams. Banking also creates an economic incentive for restoring, creating, enhancing, and/or preserving wetlands.

SCDOT has previously established six mitigation banks in South Carolina for transportation projects. However, these banks and other private mitigation banks are not located within the critical watersheds or ecoregions within the state. Forecasted mitigation needs are highest in the Lowcountry and Pee Dee Regions, whereas the only available current stream mitigation banks are located in the Sandhill and Piedmont regions. In addition, approved banks with a limited number of credits are not anticipated to meet future needs.

Even with the use of the Geospatial Mitigation Forecast Model, SCDOT recognizes that mitigation banks may not cover all areas within the state and may leave some projects with limited options for environmental mitigation. The present SCDOT environmental mitigation approach encourages and promotes input from sister state agencies including but not limited to SCDHEC, SCDNR, and SCDHEC-OCRM to provide guidance and examples of watershed needs or sensitive areas of environmental importance to the State of South Carolina. SCDOT also seeks input from NGOs and local community members during the public involvement stages of project development in order to identify additional environmental concerns or mitigation opportunities. Recently SCDOT began to advertise and solicit requests for mitigation bank credits in critical watersheds in order to streamline the Clean Water Act permitting process. After this activity by SCDOT, mitigation bank prospectuses submitted to USACE have more than doubled from previous years.

In response to these challenges, SCDOT is exploring proactive solutions in partnership with the University of South Carolina by updating the Geospatial Mitigation Forecast Model. The intended purpose of the Geospatial Mitigation Forecast Model is to identify stream and wetland impacts from current and planned transportation projects in relationship to corresponding watersheds and ecoregions. This will allow SCDOT to develop partnerships with industry experts, such as the mitigation banking community, as well as state and federal agencies associated with the establishment and approval of mitigation early on in project development and reduce mitigation related project delays.

# 7. SAFETY AND SECURITY

Safety on the State Highway System is the top goal for SCDOT. South Carolina continues to have one of the highest highway fatality rates in the nation. This is especially true on the rural highways of the state (rural interstates, rural primaries and rural secondaries). In 2018, the National Highway Traffic



Safety Administration (NHTSA) indicated South Carolina had the highest number of traffic deaths per 100 million vehicle miles traveled in the nation, a position the state has held since 2014. South Carolina has not dropped out of the top eight states with the highest fatality rates in almost 25 years. South Carolina's 2018 fatality rate of 1.83 is more than 60% higher than the national rate of 1.13 that same year. In the last five years, the national average fatality rate increased 5% from 1.08 in 2014 to 1.13 in 2018. During that same time period in South Carolina, the fatality rate increased 11% from 1.65 to 1.83.

The number of fatalities occurring on the State's roads began declining in 2007 from 1,077 in that year to a low of 767 fatalities in 2013. However, the number began to increase with 823 fatalities occurring in 2014, continuing to increase year over year to a high of 1,037 deaths in 2018.

South Carolina also had the 5th highest pedestrian fatality rate and the 5th highest bicycle fatality rate in the nation in 2018, by population. The NHTSA recently released a report which raised the issue of the nation experiencing the highest number of pedestrian deaths in nearly 30 years.

The cost of vehicle crashes, injuries, and fatalities to society is staggering and greatly exceeds the funding dedicated to SCDOT for highway maintenance, operations, and improvements. In 2018, the South Carolina Department of Public Safety (SCDPS) estimated that the annual economic loss due to vehicle crashes, injuries, and fatalities was over \$5 billion. These statistics indicate the need to bring greater emphasis to safety in all aspects of highway planning, design, and operations.

The South Carolina Multimodal Transportation Plan incorporates the findings of the Strategic Highway Safety Plan (SHSP), which provides a coordinated framework toward eliminating deaths and severe injuries on South Carolina's public roads. This coordination requires combining and sharing resources and focusing efforts on areas with the greatest potential for improvement. This is the strategy behind the Rural Road Safety Program. The SHSP establishes statewide goals and identifies critical emphasis areas, which were developed in consultation with federal, state, local, and private sector safety stakeholders. The strategies developed involve the "4 E's" of safety: engineering, enforcement, education, and emergency response.

South Carolina has adopted Target Zero as the state's goal in addressing traffic-related deaths. To this end, the state is gearing its highway safety efforts toward eliminating traffic fatalities rather than merely reducing them. This is a radical departure from the traditional goal-setting approaches from earlier strategies, which had limited success in the reduction of traffic fatalities. Though not achievable immediately, the goal of zero fatalities is a noble goal, one our state strives for and a goal with which everyone can live.

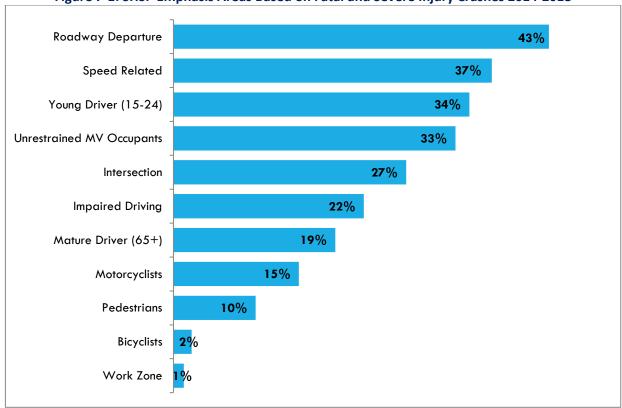
A data-driven approach was used to identify emphasis areas for the updated SHSP. As seen in Table 7-1 and Figure 7-1, data analyses revealed priority traffic safety areas accounting for approximately 90% of the total fatal and severe injury collisions from 2014 to 2018. While crash causation factors are often interrelated, the critical areas to target are evident. For example, roadway departure crashes, which represent the second highest crash type, may include inappropriate speed, unrestrained occupants, and a distracted driver. However, there are specific countermeasures that can be implemented with the goal of reducing the number of vehicles leaving the roadway.



Table 7-1: SHSP Preliminary Data Analysis, 2014-2018

South Carolina 2014- 2018	Fatalities		Severe Injuries		Fatal and Severe Injury Collisions	
	# of People	# of People % of Total		% of Total	# of People	% of Total
Roadway Departure	2,123	43.7%	5,985	40.4%	7,195	43.4%
Speed Related	1,950	40.2%	5,353	36.2%	6,098	36.8%
Young Driver (15-24)	1,600	33.0%	5,655	38.2%	5,678	34.2%
Unrestrained MV Occupants	1,582	48.8%	2,674	18.1%	3,709	32.6%
Intersection	1,020	21.0%	4,270	28.8%	4,460	26.9%
Impaired Driving	1,617	33.3%	2,91 <i>7</i>	19.7%	3,655	22.0%
Mature Driver (65+)	1,022	21.1%	2,850	19.2%	3,095	18.7%
Motorcyclists	597	12.3%	1,961	13.2%	2,401	14.5%
Pedestrians	707	14.6%	915	6.2%	1,574	9.5%
Bicyclists	93	1.9%	256	1.7%	346	2.1%
Work Zone	77	1.6%	149	1.0%	194	1.2%
Total	4,853	100.0%	14,807	100.0%	16,593	100.00%

Figure 7-1: SHSP Emphasis Areas Based on Fatal and Severe Injury Crashes 2014-2018





The major focus areas for the state are expected to remain similar to those identified in both the 2007 and the 2012 versions of the SHSP. While not finalized, the following emphasis areas are expected to be included in the updated 2020-2024 SHSP:

- Roadway Departure
- Speeding
- Occupant Protection
- Intersection
- Impaired Driving
- Vulnerable Roadway Users, including bicyclists and pedestrians
- Young Drivers
- Mature Drivers
- Commercial Motor Vehicles/Heavy Trucks
- Work zone

Each emphasis area in the SHSP includes an overview of the issue, performance period projections, national solutions, challenges, and successes. Strategies have been identified that will assist in meeting the 2020-2024 SHSP's goal of reducing fatalities and serious injuries. A biannual implementation plan will be developed to implement the strategies identified in the SHSP.

Strategic highway safety plans are designed to be multi-year planning documents aligned with performance goals established in other statewide plans for the total number of fatalities, severe injuries, fatality rate, and severe injury rate. The state's annual Highway Safety Plan is submitted to the NHTSA and contains targets identical to those set forth in the state's annual Highway Safety Improvement Program submitted to the Federal Highway Administration.

Figure 7-2 depicts the five-year rolling average for the number of traffic fatalities since 2004. The 2016-2020 period indicates the performance target of 1,011 traffic deaths, which was adopted by the state in 2019. The figure also includes a projection of 8 years until 2026 to align with SCDOT's TAMP. The trend line analysis and projection for the number of severe injuries is shown in Figure 7-3.



Figure 7-2: Traffic Fatalities 5-Year Rolling Average

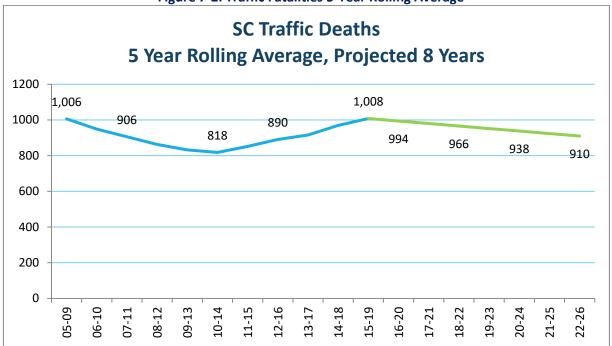


Figure 7-3: Serious Injuries

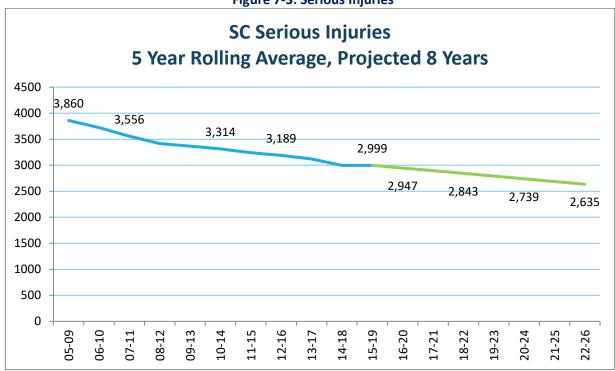


Figure 7-4 depicts the trend analysis for the fatality rate (number of fatalities per million vehicle miles traveled).



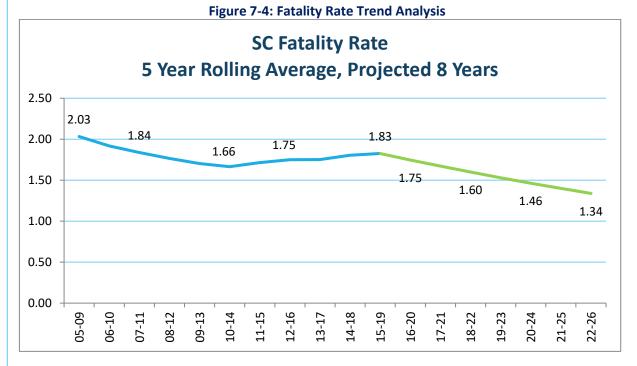
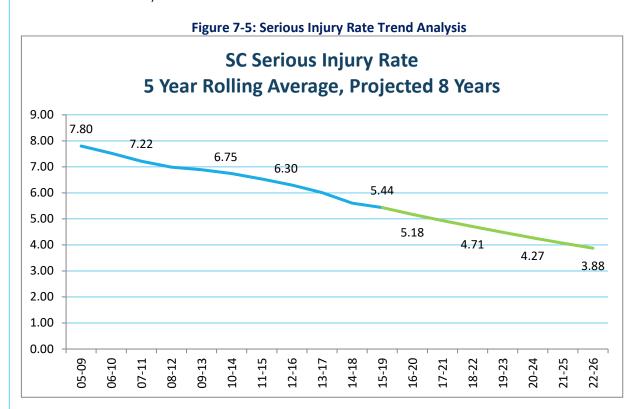


Figure 7-5 depicts the trend analysis for the severe injury rate (number of severe injuries per million vehicle miles traveled).





In 2017 the SCDOT Commission approved the formulation and deployment of a Rural Road Safety Program. This program was specifically designed by SCDOT engineers after an in-depth review of South Carolina's rural crash data. As noted previously, South Carolina has regrettably led the Nation by having the highest rural fatality. In order to reverse this trend, SCDOT has sought to narrowly define the "worst of the worst" rural roads in the state and then tailor specific solutions to those routes based on the crash data. The result of the analysis identified five percent (or approximately 1,900 miles) of SCDOT's network where nearly thirty percent of the fatal and serious injury crashes are occurring. It is important to note that the data analysis determined that the deadliest rural roads were the rural interstates and rural primaries in South Carolina.

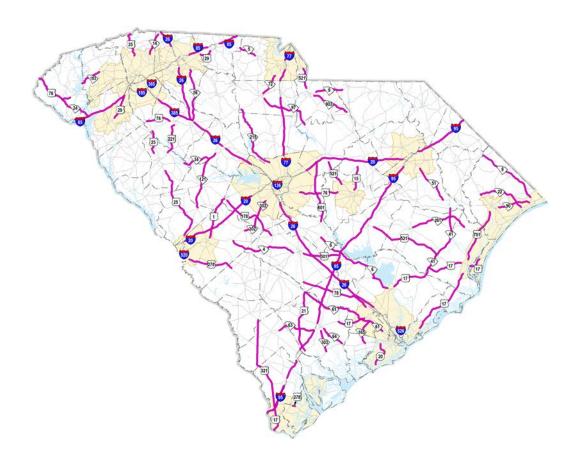


Figure 7-6: Corridors Targeted by SCDOT's Rural Road Safety Program

These 1,900 miles will be broken down into 10-mile segments and are expected to be improved over the 10-Year program due to a firm commitment of \$50 million per year specifically for this critically important program for South Carolina.



## 8. MODAL INVENTORY

The following provides a snapshot of the South Carolina multimodal transportation system:

## 8.1 Roadways

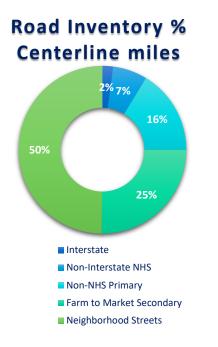
The SCDOT has approximately 41,315 (2018 data) centerline miles and 90,675 lane miles of roadways, which is the fourth largest state-owned system in the nation.

<b>3</b> , ,				
System	Centerline Miles	Lane Miles		
Interstate	851	3,846		
Primary	9,465	24,117		
Farm to Market Secondary	10,401	21,404		
Neighborhood Streets	20,598	41,309		
TOTAL	41.315	90 676		

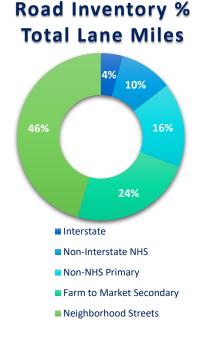
Table 8-1: State-owned Highway System in South Carolina

Included in this mileage is 20,598 centerline miles of neighborhood streets, which means over half of the state-maintained system in South Carolina are low-volume, single purpose roads that are not eligible for any type of federal funds. The state-maintained lane miles are categorized into three groups: Interstate; Primary (Non-Interstate NHS and Non-NHS Primary); and Secondary (Farm to Market and Neighborhood Streets). The Primary category consists of all roads designated as U.S. highways or SC-routes. Secondary roads, which are the remaining state-maintained roads not classified as Interstates or Primary roads, amount to almost 62,713 lane miles or over 70% of the lane miles maintained by the state. Primary roads account for 24,117 lane miles, while Interstate highways account for only 3,846 lane miles or 2% of the state system. Figure 8-1 and 8-2 illustrate the total centerline and lane mileage breakdown by percentage.

Figures 8-1: Centerline Miles by Percentage



Figures 8-2: Total Lane Miles by Percentage





The primary network is comprised of the Non-Interstate NHS and non-NHS Primary categories shown in Figures 8-1 and 8-2.

# 8.2 Bridges

South Carolina has 9,401 bridges, which total a cumulative deck area of over 71.3 million square feet, within the geographic boundary of the state. The State-maintained bridge deck area totals 72.06 million square feet, or 94.8% of the total square footage in South Carolina. For the purposes of this analysis, all bridges are included. Additionally, SCDOT maintains some bridges that are not classified as state owned. Table 8-2 illustrates the bridge ownership of all bridges within South Carolina. Figures 8-3 and 8-4 illustrate the bridge classification by percentage for total number of bridges and bridge deck area.

**Table 8-2: South Carolina Bridge Ownership** 

Bridge Ownership	Number of Bridges	Bridge Deck Square Footage
State Owned	8,432	72,160,642
County Owned	845	1,658,417
City Owned	20	85,519.27
State Park	2	3,164.59
Other State Agency	15	1,018,040
Railroad	16	50,805.66
Federally Owned	71	218,496.6
Total	9,401	75,195,085

Source: FHWA Bridges and Structures inventory 2018.



Figure 8-3: Total percent of South Carolina Bridges by Deck Area and by Bridge Type

% of SC Bridges by Deck
Area

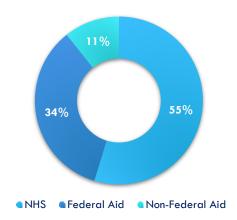
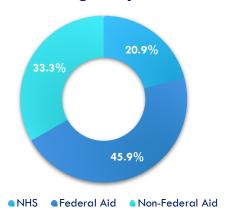


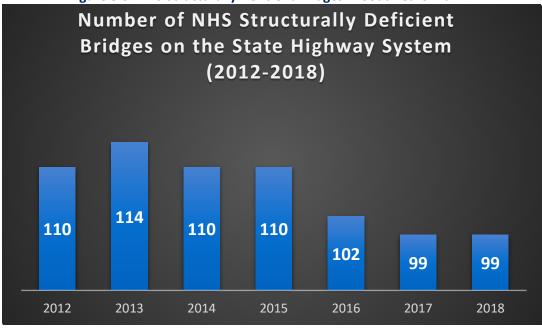
Figure 8-4: Total percent of South Carolina Bridges by Count and Bridge Type

% of SC Maintained Bridges by Count



As noted earlier, SCDOT has established state specific goals related to number of NHS Structurally Deficient and Load Restricted bridges replaced or rehabilitated during the 10-Year Plan reporting period. Figures 8-5 and 8-6 reflect the current and historical data relating to the NHS Structurally Deficient and Load Restricted bridge counts in South Carolina.

Figure 8-5: NHS Structurally Deficient Bridges in South Carolina





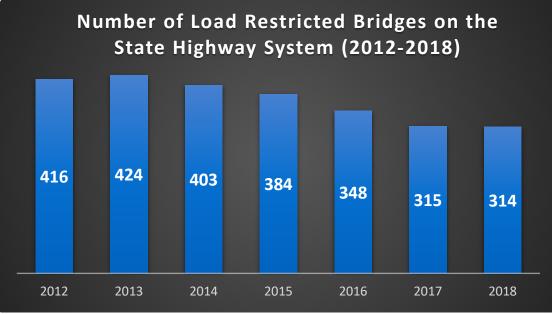


Figure 8-6: Load Restricted Bridges in South Carolina

#### 8.3 Aviation

South Carolina has 53 airports included in the National Plan of Integrated Airport Systems (NPIAS [2018]). Of the 53 airports, 6 are primary commercial service airports, 45 are general aviation facilities, and 2 are reliever airports, defined by the FAA as high-capacity general aviation airports in major metropolitan areas that provide pilots with attractive alternatives to using congested hub airports.

## 8.4 Freight Rail

The freight rail system in South Carolina totals 2,400 miles with operations involving 11 different rail carriers. The Class I carriers include CSX Transportation and Norfolk Southern Railway, which account for 2,069 miles or 86% of the state rail system. The Class III carriers or terminal companies make up the remaining 331 miles or 14% of the system. The carriers range in size from fairly small intrastate railroads to the large rail systems serving the entire eastern U.S.

# 8.5 Passenger Rail

South Carolina has four Amtrak passenger rail trains per day operating three routes with 11 stations connecting the southeast U.S. to points north. The tracks used by Amtrak are owned by the freight railroads (one by Norfolk Southern and two by CSX).

### 8.6 Water Ports

The South Carolina Ports Authority (SCPA) is the governing transportation body for seaport operations in South Carolina. Established by the state's General Assembly in 1942, SCPA owns and operates public seaport and intermodal facilities in Charleston and Georgetown. As an economic development engine for the state for the year ending June 30, 2018, Port operations facilitated nearly 190,000 statewide jobs and generated a \$53 billion economic impact.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> South Carolina Ports 2018 Annual Report: http://scspa.com/wp-content/uploads/scspa-10313-annualreport-2018-01.pdf



SCPA is soon to be home to the deepest harbor on the U.S. East Coast at 52 feet, and the Port is an industry leader in delivering speed-to-market, seamless processes, and flexibility to ensure reliable operations, big ship handling, efficient market reach and environmental responsibility. The Port of Charleston primarily handles containerized cargo with container activities focused at North Charleston and Wando Welch Terminals, while a third is planned for the Naval Base Terminal.

#### 8.7 Inland Ports

The South Carolina Ports Authority (SCPA) is also the governing transportation body for inland ports located in Greer and Dillon. The South Carolina Inland Port Greer opened in October 2013 extending the Port of Charleston's reach 212 miles inland to Greer, and providing shippers with access to more than 95 million consumers within a one-day drive. Opened in April 2018, Inland Port Dillon utilizes an existing CSX intermodal train service to handle container movement to and from the Port of Charleston. Located within the Carolinas I-95 Mega Site, Inland Port Dillon is a critical transportation artery in the Southeast.

#### 8.8 Mass Transit

Public transit is currently available to residents in 40 of the 46 counties in South Carolina through 27 publicly supported transit agencies operating throughout the state. Of these, six are exclusively urbanized, 14 are exclusively rural or non-urbanized, and seven offer both urbanized and rural services. Each transit agency provides a range of service options to residents, such as fixed-route, route deviation, or demand response service.

## 8.9 Intercity Bus

South Carolina continues to be served by two traditional Class A intercity bus carriers, Greyhound Lines and Southeastern Stages. Megabus, a low-cost carrier serving primarily larger markets, also operates a route through the State that stops only in Columbia. Greyhound and Southeastern Stages operate multiple routes with stops through South Carolina, with Charleston, Columbia, Greenville, and Myrtle Beach the most productive intercity bus stops in the state.

More than 85% of the State's population reside less than 25 miles from an intercity bus station/stop. All major intercity bus trip generators including colleges and universities, medical facilities, commercial airports, and military bases are generally well positioned relative to their proximity to intercity bus stops.

# 8.10 Bicycle and Pedestrian

Every day, many people choose biking or walking as their primary mode of transportation. SCDOT recognizes the benefits of walking and bicycling accommodations to improve safety, mobility, and livability. A livable community is one that provides safe and convenient transportation choices to all citizens, whether it's by walking, bicycling, transit, or driving. Unfortunately, bicycle and pedestrian crashes and fatality rates have been rising recently nationwide and in South Carolina.

Based on 2018 data from the National Highway Traffic Safety Administration (NHTSA), pedestrian and bicyclist fatalities comprise of roughly 18% of all traffic fatalities in South Carolina. In 2018, there were 165 pedestrian and 23 bicyclist fatalities documented. This equates to a pedestrian fatality rate of 3.25, which is more than 1¾ times higher than the national rate of 1.92. Comparatively, South Carolina's bicyclist fatality rate of 4.52 is more than 1½ times higher than the national average of 2.62.

Safety is SCDOT's number one priority, in both motorized and non-motorized transportation. SCDOT is committed to doing everything possible to improve those statistics. In 2018, SCDOT established



a Pedestrian and Bicycle Safety Program and allocated \$5 million annually to this important program as part of the TAMP. Additionally, in 2019, SCDOT announced the development of a Pedestrian and Bicycle Safety Action Plan (PBSAP). The PBSAP will research and note the current state of pedestrian and bicycle safety in the state, increase our understanding of crash patterns, promote objectives and data-informed decision making, promote investment in proven safety countermeasures, and target locations with high needs and opportunities for successful outcomes.

The plan will be developed and collaborated with local and regional planning authorities to ensure walking and bicycling accommodations are documented as part of adopted plans by Metropolitan Planning Organizations (MPOs) and Councils of Government (COGs). These adopted plans will ensure coordination occurs in a strategic and fiscally responsible manner.

Many MPO and COG agencies have developed or are developing bicycle and pedestrian plans into their Long Range Transportation Plans and their Transportation Improvement Programs.



# 9. MODAL PLAN SUMMARIES

During the development of the 2040 MTP Update, an Interstate Plan, Strategic Corridor Network Plan, Public Transit and Freight Plan, and Rail Plan were developed using the overarching goals, objectives, guiding principles, and performance measures from the 2040 MTP Update. The following provides a summary of each plan.

#### 9.1 Interstate Plan

The purpose of the South Carolina Statewide Interstate Plan is to support South Carolina's statewide vision and goals by documenting existing and projected conditions on the state's interstate network in a way that is easily understood and helpful to all stakeholders and members of the public and to guide decision makers in investment decisions.

South Carolina's network of 11 Interstate freeways includes 851 centerline miles and 3,859 lanemiles of roadway. In 2017, vehicle-miles of travel (VMT) on this network amounted to 16.07 billion VMT, which accounted for 30% of total VMT in the state, even though Interstate highways account for only 2% of the lane-miles.

The Interstate Plan uses a revised methodology to determine existing Interstate mainline capacity needs. The methodology uses vehicle probe speed data to determine freeway density for the entire South Carolina Interstate system. The vehicle probe speed data is collected every few seconds from millions of anonymous GPS-enabled vehicles and mobile devices, as well as traditional road sensors, which provides real-time and historical traffic speed information.

The freeway density analysis resulted in a summary of the existing points of recurring congestion and bottlenecks for each of the 11 interstate freeways in South Carolina. Overall, it was estimated that 31% (264 centerline miles) of the existing Interstate system operates at a level of service (LOS) C or worse for at least one peak hour of an average weekday. Figure 9-1 shows the level of service during the average weekday peak hour on the Interstate system in 2012.

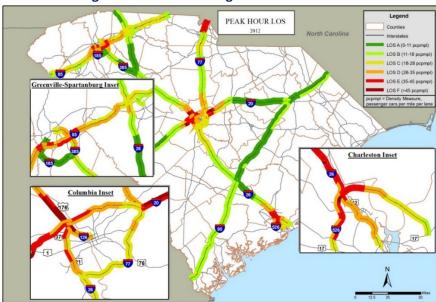


Figure 9-1: 2012 Existing Conditions Peak Hour LOS



As the population growth continues to occur in the urban areas of the state it is expected to lead to increased traffic volumes on the interstate in the metropolitan areas. This will in turn, result in decreased levels of service, especially in particularly high growth areas. At the southern border of South Carolina and the Georgia state line, a decrease in level of service is occurring as the Lowcountry region grows in both residential and industrial activities in concert with the continued growth in freight activity at the Ports of Savannah and Charleston. Without improvements to capacity along I-95, it is forecasted that I-95 will experience a decrease in the level of service.

Currently, the most congested interstate corridor segments include:

- I-526 from I-26 (Exit 17) to US-52/Rivers Ave (Exit 18) in Charleston.
- I-526 from N Rhett Ave (Exit 19) to Virginia Ave (Exit 20) in Charleston.
- I-26 from St. Andrews Rd (Exit 106) to I-20 (Exit 107) in Columbia.
- I-526 from US52/Rivers Ave (Exit 18) to N Rhett Ave (Exit 19) in Charleston.
- I-85 from I-385 (Exit 51) to Pelham Rd (Exit 54) in Greenville.

As part of the 10-Year Plan, SCDOT recognized the critical nature of addressing these important segments of the state's interstate system. Not only do these segments impact hundreds of thousands of motorists per day, but they also impact the movement of freight throughout the state. Accordingly and as shown in Figure 9-2 below, SCDOT has initiated planning and preliminary engineering activities on the I-526 corridor in Charleston as well as the I-26/I-20/I-126 interchange in Columbia and has nearly completed construction activities to address the noted congestion issues on I-85 in Greenville with the I-85/I-385 interchange upgrade project.

Under Construction

Nearing Construction

Preliminary Engineering

Planning Phase

Figure 9-2: Projects Initiated to Address Most Congested Interstate Segments



There are twelve interstate system to system interchanges in South Carolina. These include: I-85 at I-385, I-20 at I-26/ I-126, I-26 at I-526, I-26 at I-95, and I-20 at I-95, I-26 at I-85, I-20 at I-77, I-26 at I-77, I-26 at I-385, I-85 at I-585, I-20 at I-520, and I-85 at I-185. The location of these interchanges can be found in Figure 9-3. These interchanges can represent bottlenecks or choke points on the interstate system, as turbulence due to lane-changing, merging, and weaving maneuvers reduce capacity.



Figure 9-3: Existing Interstate System to System Interchanges

As noted earlier, SCDOT recognized the critical importance of a select group of these interchanges as part of the Strategic Plan, particularly with regards to freight pinch points across the state. Those select interchanges are: I-385 at I-85 in Greenville, I-20 / I-26 / I-126 in Columbia and I-26 at I-526 interchange in Charleston. The I-385 at I-85 interchange improvement project has been advanced to construction and is now essentially complete with all lanes open in their final configuration. The I-20 / I-26 / I-126 interchange in Columbia and the I-26 at I-526 interchange in Charleston are in the design and development phases. An additional system to system interchange, I-26 at I-95, has been identified for improvement as part the of the Rural Interstate Freight Mobility Improvement Program.

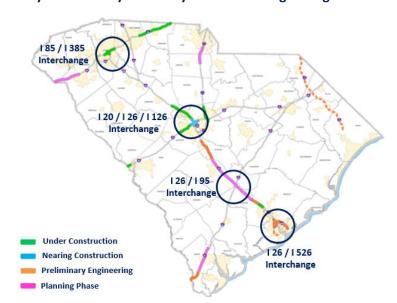


Figure 9-4: Key Interstate System to System Interchanges Targeted for Improvements



SCDOT also recognized that the rural interstates were in need of upgrades. The Rural Interstate Freight Mobility Improvement Program was developed and designed to increase mobility along the interstate freight network by focusing on high-density segments of the system located in rural areas. During the development of the program, 18 rural freight corridors were identified. Rural segments were determined based on MPO Boundaries and segment termini were determined based on logical termini done in accordance with National Environmental Protection Act requirements. Each segment was ranked using a number of criteria and the top 5, totaling 125 miles or 15% of the entire system were identified as shown on Figure 9-5 and is in addition to the interstate widening that is currently underway along the mostly rural section of I-85 leading up to the NC state line.

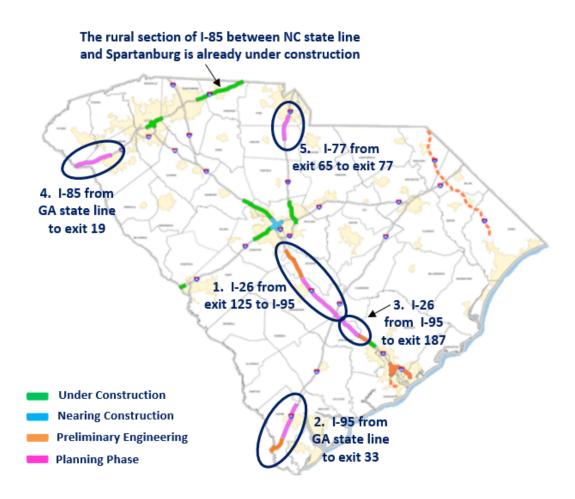


Figure 9-5: Rural Interstate Freight Mobility Improvement Program Top 5 Corridors

Recognizing the importance of the Interstate system in South Carolina, SCDOT's 10-Year Plan calls for approximately \$458 million per year to be dedicated to interstate upgrades to address current congestion and growth needs of the state. The funding dedicated to capacity projects is in addition to the planned \$150 million per year dedicated to improving the pavement conditions on this 851 centerline mile network encompassing 3,859 lane-miles of interstate pavements.



## 9.2 Statewide Freight Plan

The movement of goods is critical to the economic health of a state, particularly in one such as South Carolina that has access to major ocean ports, seven regional airports, inland ports, rail lines, and highways. On December 4, 2015, the President signed into law the Fixing America's Surface Transportation Act, or "FAST Act." On October 14, 2016, the U.S. Department of Transportation published Guidance on State Freight Plans and State Freight Advisory Committees. This update of the South Carolina Statewide Freight Plan (SFP) is accomplished in coordination with the South Carolina Department of Transportation 2040 Multimodal Transportation Plan (MTP) Update and satisfies the requirements as outlined in the FAST Act regarding freight.

#### 9.2.1 Freight Plan Outreach

Stakeholder engagement was conducted specifically for the purpose of updating the SFP. The engagement was conducted utilizing an online survey engagement platform. The survey included visual and interactive elements to educate our Stakeholder groups and gather informed input. Targeting the trucking, supply chain and logistics industries as well as State and local public agencies, survey topics included questions about infrastructure and truck parking needs. The survey also included an interactive map, inviting participants to review and comment on the proposed updates to the Statewide Freight Network and share input on safety, congestion, bridge, oversize/overweight, and truck parking issues. The survey was announced directly to the Stakeholder audience and ran for 28 days during September 2019 to October 2019.

MAP-21 provides guidance for the development of a SFP, including the establishment of a State Freight Advisory Committee (SFAC) to assist in the development of the plan and to provide an ongoing advisory role in statewide freight planning. The FAST Act echoes a recommendation that each state establish a consultation mechanism with a SFAC. While USDOT has no statutory requirement that a SFAC approve a State Freight Plan, SCDOT partners with the "South Carolina Logistics Council" which supports SCDOT Freight planning efforts as the SFAC participates in the concluding phases of the development of the SFP and supports on-going freight related planning activities. The inaugural meeting of this committee was held in May 2014. The Logistics Council meets on a quarterly basis.

#### 9.2.2 Freight Transportation Inventory

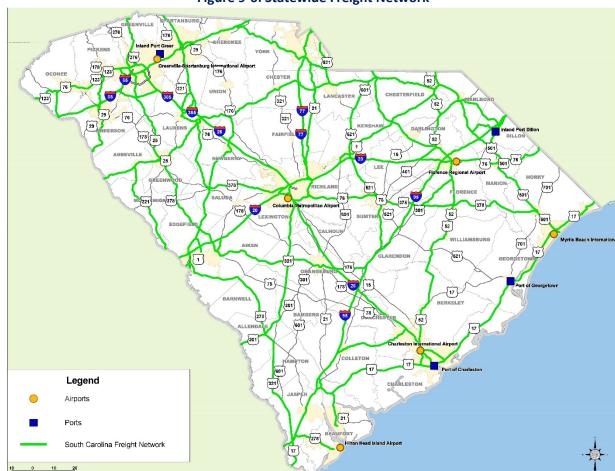
The SFP includes an inventory of transportation assets that contribute to the movement of goods in South Carolina, and that includes all modes of transportation, regardless of asset ownership. The inventory also includes a profile of goods movement for South Carolina, summarizing the tonnages and commodities for both historical years and forecast years of data, aligning data analyses for the MTP Update and the SFP.

- Over 465 million tons of freight, valued at nearly \$739 billion, moved across South Carolina's freight network in 2016.
- Trucking accounts for the largest modal share: 375.1 million tons (81%) valued at \$611.8 billion (83%).
- Rail comprises the second largest modal share at 63.2 million tons (14%) and \$93.6 billion (13%).
- Major truck and rail tonnage movements are followed by pipeline water, and air respectively.
- Tonnage across the South Carolina freight network is forecast to grow 65% from 2016 to 2040.



- While rail yields the fastest tonnage growth rate (69%), truck growth is nearly as rapid (60%) and is much greater in terms of volume (224.6 million ton increase).
- Truck tonnage is forecast to grow from 375 million tons in 2016 to 599.6 million in 2040.

In addition, a 2,520 mile Statewide Freight Network is identified in the SFP (Figure 9-6). This system reflects the roadways, railroads, and other transportation infrastructure needed for the efficient movement of goods into, out of, and through South Carolina. The identification of a Statewide Freight Network in South Carolina assists in identifying critical freight corridors for consideration in the National Freight Network. The process of identifying the network will support SCDOT in prioritizing investments in transportation infrastructure across the State and inform SCDOT of what roadway corridors, in addition to those included in the National Freight Network, need improvements to support efficient and safe goods movement.



**Figure 9-6: Statewide Freight Network** 

### **9.2.3** Freight Strategies

Building on the overarching goals and objectives of the MTP Update, the SFP addresses the performance measures identified for the 2040 MTP Update, as well as expands upon the overall goals and incorporates the needs of the freight community of South Carolina, reflecting input from freight stakeholders and information derived from other elements of the 2040 MTP Update. The SFP identifies the freight system and infrastructure available for goods movement, presents estimated



demands on the freight system, and recommends potential project and policy level strategies to accomplish these goals. Figure 9-7 shows freight tonnage moved by truck on South Carolina roads in 2016.

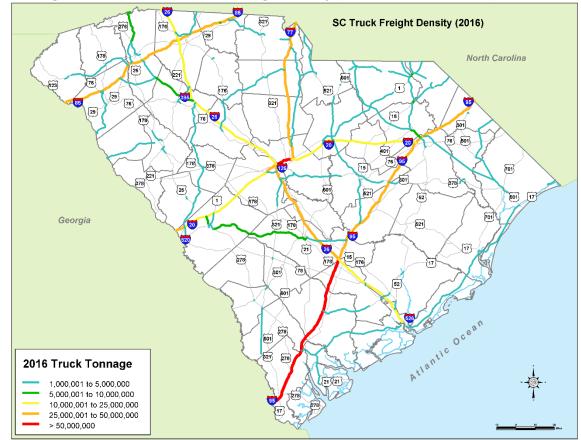


Figure 9-7: South Carolina Truck Freight Density (Transearch 2016 Baseline)

Density and Level of Service analyses were completed for the interstate system in South Carolina as part of the South Carolina MTP Update. This analysis identified bottlenecks and congested corridors along the interstates, as shown in Figure 9-8.



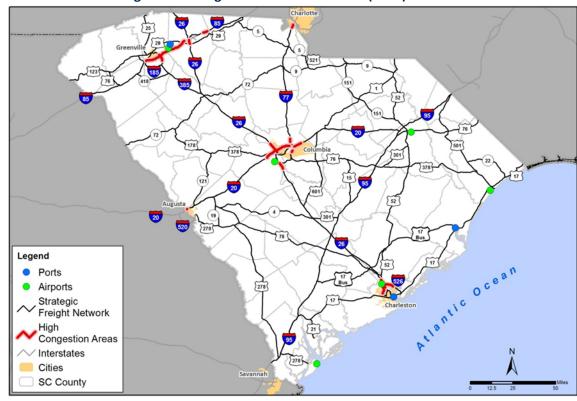


Figure 9-8: Freight Bottleneck Locations (2019)

The following describes the freight congestion points and bottlenecks identified along the interstates in South Carolina.

- <u>I-20</u>: The I-77 and Clemson Road interchanges are the respective bottleneck points along I-20 during the AM peak hour and PM peak hour. In addition, during the PM peak hour, the bottleneck points along I-20 include the three interchanges with Broad River Road, I-26, and U.S. 378.
  - <u>@ I-77 Interchange:</u> No mitigation activity is presently underway or proposed for this interchange.
  - <u>@ Clemson Road Interchange</u>: Widening activities are taking place along Clemson Road near the Clemson Road interchange. These activities are expected to help improve how the interchange functions which in turn should help alleviate traffic issues through the interchange.
  - @ Broad River Road Interchange: It is expected that the bottleneck issue will be addressed through the Carolina Crossroads Project. The Carolina Crossroads Project seeks to improve mobility and enhance traffic operations by reducing existing traffic congestion within the I-20/26/126 corridor while accommodating future traffic needs.
  - <u>@ I-26 Interchange</u>: It is expected that the bottleneck issue will be addressed through the Carolina Crossroads Project.
  - <u>@ US 378 Interchange</u>: Intersection improvements are proposed at US 378 and Corley Mill Road. It is expected that the improvements to the intersection will alleviate the current



backups currently seen between Corley Mill Road and I-20 and will allow the interchange to better function which in turn should help alleviate traffic issues through the interchange.

- I-26: In the Columbia area, the I-20 interchange is the primary bottleneck point during the AM peak hour and the I-20 and St. Andrews Road interchanges are the primary bottleneck points during the PM peak hour. In the Charleston area, the U.S. 52 Connector/Ashley Phosphate Road interchange and the merge to I-526 are the primary bottleneck points during the AM peak hour and the I-526 and Ashley Phosphate Road interchanges are the primary bottleneck points during the PM peak hour.
  - @ I-20 Interchange: It is expected that the bottleneck issue will be addressed through the Carolina Crossroads Project.
  - @ St Andrews Road Interchange: It is expected that the bottleneck issue will be addressed through the Carolina Crossroads Project.
  - @ US 52 Connector/Ashley Phosphate Interchange: No mitigation activity is presently underway or proposed for this interchange.
  - <u>@ I-526 Interchange</u>: The I-526 West Project is expected to address bottlenecks along the I-526 corridor. The project is currently in the development phase and identified as a high priority for implementation.
- <u>I-77</u>: The primary bottleneck point along I-77 southbound is approaching the Forest Drive interchange in the Columbia area every Thursday in the AM peak hour, primarily due to weekly graduation ceremonies of Fort Jackson.
  - <u>@ Forest Drive:</u> No mitigation activity is presently underway or proposed for this interchange.
- <u>I-85:</u> The Woodruff Road/I-385 interchange is the primary bottleneck for both directions of I-85 during both the AM and PM peak hours.
  - <u>@ Woodruff Road/I-385 Interchange:</u> I-85 is currently being widened from six lanes to eight lanes from near Exit 40 to near Exit 69. It is anticipated that the end of construction activities combined with the improvements to I-85 will help alleviate traffic issues through the interchange.
- <u>I-126</u>: The I-26 / I-20 / I-126 interchange is the primary bottleneck along I-126 westbound during the PM peak hour. It is expected that the bottleneck issue will be addressed through the Carolina Crossroads Project.
- I-385: The primary bottleneck along I-385 is the interchange with I-85. A new interchange has been created within the general footprint of the current interchange with new lanes, ramps, and



bridges, with the widening of I-385 through the project limits. The project also included construction of ten new bridge structures which included two flyovers, rehabilitation of two existing bridge structures, and modifications to the substructure of one existing bridge to facilitate this new interchange system. Construction has essentially been completed on this critically important freight project.

- I-526: During the PM peak hour, the primary bottleneck along I-526 eastbound is the I-26 interchange and the primary bottleneck points along I-526 westbound are the I-26 interchange, the merge from Leeds Avenue, and the Paul Cantrell Boulevard interchange.
  - <u>@ I-26 Interchange:</u> The I-526 West Project is expected to address bottlenecks along the I-526 corridor.
  - <u>@ Leeds Avenue Merge</u>: The I-526 West Project is expected to address bottlenecks along the I-526 corridor.
  - <u>@ Paul Cantrell Boulevard Interchange</u>: The I-526 West Project is expected to address bottlenecks along the I-526 corridor.

Freight planning policy strategies are outlined in the SFP that support a multimodal approach to transportation policy and funding scenarios. The SFP also includes strategies to address alternative funding scenarios, placing emphasis on projects included on the Statewide Freight Network.

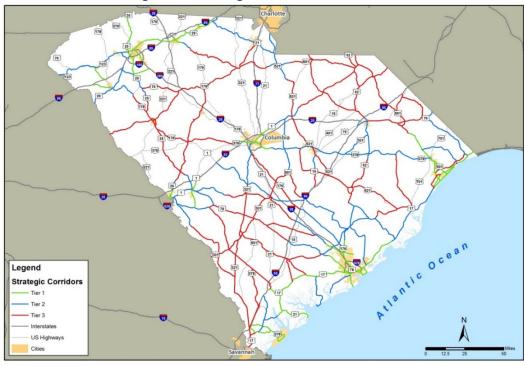
# 9.3 Strategic Corridor Network

The Statewide Strategic Corridor Network is a connected, continuous system of non-interstate roadways that serves the traveling public and movement of freight for intercity and interregional travel.

The process used to update the Strategic Corridor Network consists of three principal components: technical analyses, system refinements, and public and stakeholder input. The purpose of the technical evaluation is to provide an objective, quantitative, and repeatable process for developing the strategic corridor network. A three-tiered system approach was reviewed and approved by the MPOs and COGs and used to update the network. The 3,598-mile network is illustrated in Figure 9-9.

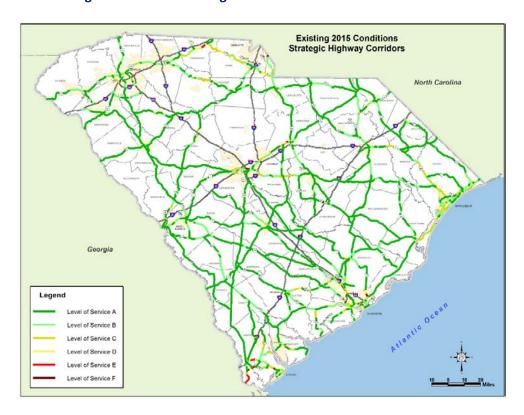
The Strategic Corridor Network Plan is based on a revised methodology for determining existing corridor capacity needs calculating traffic congestion, which utilizes vehicle probe speed data. A "Vehicle Hours Lost Index" was developed for each strategic corridor by taking the weighted average of the "Vehicles Hours Lost" for each segment in the corridor. Future corridor capacity needs were identified through a level-of-service analysis that was produced by the statewide travel demand model.





**Figure 9-9: Strategic Corridor Network Tiers** 

Using these analyses, it was estimated that 11% (396 centerline miles) of the 2010 network was operating at a LOS C or worse. Based on the updated 2015 travel model network, this number increases slightly to 12% or 433 centerline miles as shown in Figure 9-10.



**Figure 9-10: 2010 Strategic Corridor Network Conditions** 



Under 2040 conditions, it was projected that 27% (971 centerline miles) of the strategic corridor network will be operating at a LOS C or worse. Based on the updated travel model's 2045 network, this projection rises to about 37% or 1333 centerline miles as reflected in Figure 9-11.

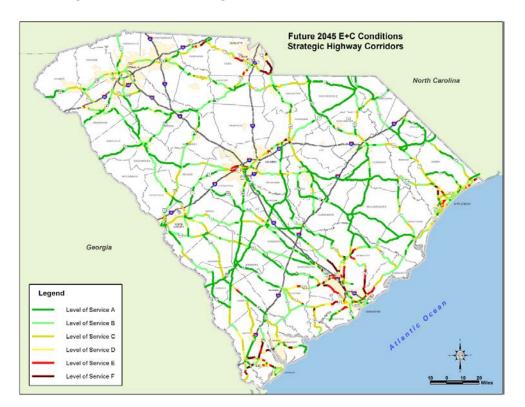


Figure 9-11: Future Strategic Corridor Network Conditions (2045)

### 9.4 Statewide Rail Plan

The South Carolina State Rail Plan 2019 Update was prepared to be consistent with the 2040 MTP Update, the Statewide Freight Plan and other modal plans, including adoption of common goals and objectives and a planning horizon year of 2040.

SCDOT is South Carolina's "State Rail Transportation Authority" as defined by the Federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA). SCDOT ensures that the State Rail Plan documents the State's strategies on freight and passenger rail transportation – including commuter rail – within the State's boundaries, establishes priorities and implementation approaches to enhance rail service in the public interest, and serves as the basis for Federal and state rail investment.

The South Carolina rail system is operated by 11 freight rail carriers. The carriers range in size from small intrastate railroads to members of large rail systems serving the entire eastern U.S. Of the line haul railroads, two are Class I carriers and the remainder are local carriers or switching and terminal companies. Palmetto Railways, a branch of the South Carolina Department of Commerce, operates three railroad subdivisions.

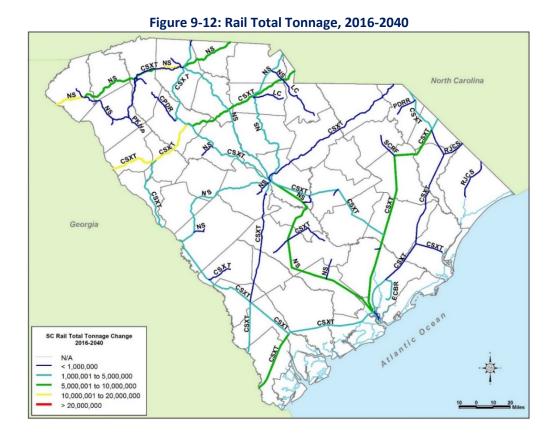
Rail freight serves a dual role in the state's economy by providing efficient transportation of raw materials and goods for industries and businesses located here, as well as a distribution channel for products exported to other states and countries. The freight rail network in South Carolina serves an equally important role in the region and national economy with 46% of rail tonnage and 58% of rail



freight value passing through the state. A review of rail freight movement in South Carolina finds that 63.2 million tons of goods were moved by rail in 2016, representing an estimated value of \$93.6 billion in goods. By 2040, freight is projected to grow by 68% to 106.5 million tons (Figure 9-12) representing an estimated value of \$190.2 billion (over 100% increase). This includes an estimated increase in coal shipments across the state's rail system of less than 1% by 2040. Excluding coal, rail movements are expected to increase by 68.5% by 2040 with intermodal shipments representing the largest growth sector for rail.

The State Rail Plan identifies opportunities and issues that impact rail movements in South Carolina, including the widening of the Panama Canal, the Greer Inland Port, the Dillon Inland Port , the Charleston Naval Complex container terminal, and the planned Intermodal Container Transfer Facility (ICTF) with dual rail access, as well as rail corridor improvement initiatives such as CSX's I-95 Corridor, it's "A line" from Florida to the Northeast, and the Norfolk Southern Crescent Corridor, the railroad's main track from the Northeast to New Orleans, all of which offer opportunities for rail operating improvements.

The State Rail Plan notes that it will not be possible to take advantage of the future opportunities without funding for needed rail investments. As demonstrated throughout the Rail Plan, many public and private benefits can result through enhanced coordination between public interests and the freight railroads. The State Rail Plan also includes a description of passenger rail services within the state of South Carolina.





#### **Statewide Transit Plan**

The South Carolina Statewide Public Transportation Plan Update was prepared in coordination with the development of the 2040 MTP Update. The purpose of this update was to identify existing public transportation services, needs, and strategies to 2040.

Public transit is currently available to residents in 40 of the 46 counties in South Carolina through 27 publicly supported transit agencies operating throughout the state (Figure 9-13). Of these, six are exclusively urbanized, 14 are exclusively rural or non-urbanized, and seven offer both urbanized and rural services. Each transit agency provides a range of service options to residents, such as fixed-route, route deviation, or demand response service. In 2017, South Carolina public transportation agencies provided more than 12.4 million trips.

All but six of the 46 counties in South Carolina have some level of general public transit services available to their residents. The following counties are identified as not having public transit service supported by any of the funding programs administered by SCDOT:

- Abbeville County, Upper Savannah Region
- Greenwood County, Upper Savannah Region
- Laurens County, Upper Savannah Region
- Saluda County, Upper Savannah Region
- Cherokee County, Appalachian Region
- Union County, Catawba Region

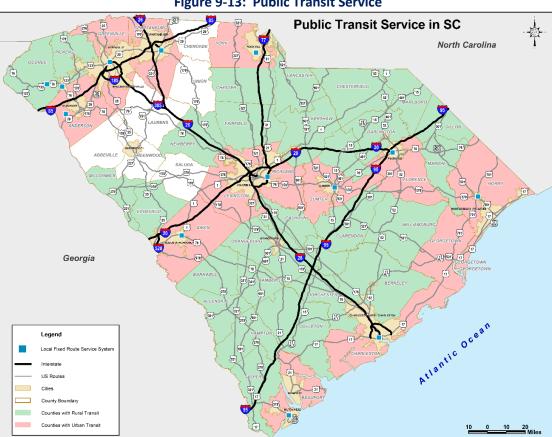


Figure 9-13: Public Transit Service



Key findings of the Statewide Transit Plan Update identified 12.4 million one-way trips provided for fiscal year 2017, an increase of 5.2% from the 11.8 million one-way trips provided in fiscal year 2011, the base year for the previous Statewide Transit Plan. Utilizing the same methodology and analysis as identified in the previous Statewide Transit Plan, 43% of transit needs were met in 2017 due to continued enhancements in service and operating efficiencies statewide. This represents a slight decrease from the estimated 44% met in 2011, which can be attributed in part to significant population and employment growth combined with comparatively modest transit revenue growth over the same period. While progress continues to be made, over 50% of identified statewide transit needs remain unmet.

More than 85% of the State's population reside less than 25 miles from an intercity bus station/stop. All major intercity bus trip generators including colleges and universities, medical facilities, commercial airports, and military bases are generally well positioned relative to their proximity to intercity bus stops.

## 10. MULTIMODAL NEEDS

### 10.1 Introduction

For the 2040 MTP Update, 22-year needs on the State's multimodal transportation system were assessed. The roadway, bridge, transit, bicycle, and pedestrian needs quantify costs over the 22-year plan timeframe required to address expected deficiencies and to achieve across-the-board acceptable multimodal system performance. The freight rail, port and waterway, and aviation needs were provided by SCDOT's partner agencies. These planning horizons are much shorter than the year 2040. The freight rail estimates cover only current needs, the port and waterway needs are projected to the year 2022, and the aviation needs are projected to the year 2023.

Funding these needs will involve the partnership of federal, state, regional, local governmental agencies, and non-government agencies, as well as the private sector. SCDOT receives federal and state funds to maintain and address roadways, bridges, public transportation, and bicycle and pedestrian needs.

The freight rail needs are addressed by the Palmetto Railways, private Class 1 railroads (CSX and Norfolk Southern), and private short line railroads. Port and waterway needs are addressed by the South Carolina Ports Authority and the U.S. Army Corps of Engineers. Aviation needs are addressed by federal and state funds provided to the Department of Aeronautics.

# 10.2 Roadway Needs

Beginning in 2018, asset management provisions enacted in the Moving Ahead for Progress in the 21st Century Act (MAP-21) require SCDOT to develop and implement a Transportation Asset Management Plan (TAMP). This plan is a risk-based asset management plan to achieve and sustain a state of good repair over the life cycle of the assets and to improve or preserve the condition of the National Highway System (NHS).

SCDOT embraces this approach and adopted its TAMP in 2019. This plan was developed in unison with SCDOT's 10-Year Plan, which focuses on maintenance preservation and safety of the existing transportation infrastructure; directing investments based on a hierarchy of highway systems and priority networks; integrating risk-based prioritization; implementation of performance based planning



and decision making processes; improving safety; advancing lifecycle cost in investment programming; and enhancing mobility.

SCDOT's approach to managing its pavement system involves the development of investment strategies that optimize system performance with the existing and future budget allocations. SCDOT investigates different investment scenarios and recommends target-achieving strategies or options that minimize the agency's risks at the lowest practical cost. The results of this scenario analysis enables SCDOT to better estimate system financial needs and manage resources effectively by ultimately tying investments to SCDOT strategic priorities.

The pavement systems evaluated in the 10-Year Plan and aligned targets are listed below:

#### Interstate Pavement System

Goal - To improve and maintain the pavement condition from 65% Good in 2016 to 92%
 Good in 2027 for the Interstate Highway System.

### Primaries/Major Roads - (Primary Highway Pavement System)

Goal - To improve and maintain the pavement condition from 19% Good in 2016 to 53%
 Good in 2027 for the Primary Highway System.

### Farm to Market Secondaries – (Previously known as the Federal Aid Secondary System)

Goal - To improve and maintain the pavement condition from 19% Good in 2016 to 40%
 Good in 2027 for the Farm to Market Secondary Highway System.

#### Neighborhood Streets – (Previously known as the Non-Federal Aid Secondary System)

Goal - To improve and maintain the pavement condition from 13% Good in 2016 to 25%
 Good in 2027 for the Neighborhood Streets.

	2016 (Actual) % Good	10 year Target % Good	Average Annual Funding Allocation (in millions)	
Pavements				
Interstate	65%	92%	\$135.0	
Primaries / Major Roads	19%	53%	\$272.5	
Farm to Market Secondaries	19%	40%	\$112.5	
Neighborhood Streets	13%	25%	\$121.0	

Table 10-1: SCDOT's 10-Year Plan Pavement Targets

The 10-year fiscally constrained targets outlined in this plan are based on best available current data. States are required to collect and report pavement data to FHWA based on the federal pavement performance measures, which uses rideability, cracking percentage, rutting, and faulting condition data. While SCDOT has historically collected these types of data, the collection method was not aligned with new federal standards. In the process of changing its pavement condition data collection, SCDOT staff approximated pavement condition data using the federal measures for 2016.



Annual funding allocations for each pavement system are designed to achieve specific targets outlined in SCDOT's 10-Year Plan as determined by the pavement condition/funding model. Funding for preservation is currently set at ten percent, with the remaining funding allocated for rehabilitation, and reconstruction work types based on the percentage of assets eligible for that type of work determined by asset condition. Pavement programs are managed on a network basis. The interstate pavement program is prioritized on a statewide basis. For the other pavement networks, funding is allocated on a county-by-county basis, determined by the county's relative share of the statewide pavement assets eligible for preservation, rehabilitation, or reconstruction from the agency's annual budget.

With the passage of Act 40 in May of 2017, SCDOT projects it will receive an additional \$600 million in state revenue when it is fully phased in. This additional revenue will enable SCDOT to greatly improve the condition of its assets by 2027. However, even with this additional funding, due to the size of SCDOT's highway and bridge systems, SCDOT does not project for its system to reach a state of good repair during the TAMP's ten-year timeframe. It will likely take 20 years to recover the system that has decayed over the past 30 years. For the purposes of the TAMP, SCDOT defines its pavements and bridges to be in a state of good repair as the projected condition that can be achieved in 20 years utilizing the level of funding projected to be available through 2037. Table 10-1 lists the projected percentages of good and poor pavements and bridges using the data and prediction models currently available. SCDOT may update the state of good repair as data and deterioration models are updated, or if additional funding becomes available.

Managing the fourth-largest highway system in the United States involves a careful analysis of competing priorities. With the \$600 million SCDOT is budgeting toward its pavement systems on average over the next 10 years, it is forecasting significant improvement in the percent good of its pavements. These are targets established by SCDOT based on observed financial and historic system performance trends, projected revenue, and industry capacity to deliver. Fiscally-constrained targets are assumed to be realistic in nature and emulate the existing and projected fiscal environment of the agency.

SCDOT will monitor its pavement asset condition data annually to track its investment strategies against its 10 year targets. Recent data trends already show an improvement of pavement to good repair across all road systems in the state. With these recent trends SCDOT will continue to monitor the pavement throughout the state but at this time, SCDOT does not forecast a funding gap for pavements in the 2040 Horizon Year. If the data trend results in a significant deviation from the 10 year asset condition targets, the agency will consider alternative strategies to close the performance gap, or consider amending its 10 year targets if analysis shows the gap cannot be closed.

## 10.3 Bridge Needs

SCDOT maintains 8,412 bridges and culverts<sup>2</sup> on the roadway system that are 20-feet or more in length. SCDOT's approach to managing its system involves the development of investment strategies that optimize system performance with the existing and future budget allocations. SCDOT investigates different investment scenarios and recommends target-achieving strategies or options that minimize the agency's risks at the lowest practical cost. The results of this scenario analysis enables SCDOT to better estimate system financial needs and manage resources effectively.

As with the roadways, SCDOT also utilizes the TAMP to evaluate, plan and invest into South Carolina's bridge system. Bridge investment strategies include a combination of routine maintenance, preservation, rehabilitation, and replacement activities. The most common routine maintenance activities include concrete spall repairs, repairs to bridge rail, cleaning of bearing assemblies, pile repairs,

<sup>&</sup>lt;sup>2</sup> As of 2018



debris removal, and cleaning drainage weep holes. Preservation strategies include painting, deck patching, and sealing expansion joints. This approach enables SCDOT to address structurally deficient bridges while ensuring that bridges in good condition are effectively preserved to delay the higher cost of rehabilitation or replacement. Rehabilitation activities include deck replacements, bearing replacements, and other major repairs.

SCDOT implements these investment strategies with the objective of achieving the following:

- Identify and Inventory structurally deficient bridges.
- Extend the life of the State's bridge system.
- Reduce the number of structurally deficient bridges.
- Target closed and load-restricted bridges.

Targeting structurally deficient (SD) bridges and closed or load restricted (LR) bridges is a strategic priority of SCDOT. These bridges are programmed into three categories: structurally deficient bridges on the National Highway System (NHS), structurally deficient bridges located on the non-NHS, and load restricted bridges located on the entire statewide system. Currently, SCDOT has 548 structurally deficient bridges and 311 load restricted bridges within the state. Based on historical trends, it is anticipated that both structurally deficient and load restricted bridges will increase by 38 bridges per year for a total of 76 bridges per year. Therefore, approximately 2380 bridges will either become structurally deficient or load restricted by 2040. This data is illustrated in Table 10-2.

	Total System Bridges	Current # of Bridges (SD or LR)	Deterioration Trend 2013-2018 (Additional Bridges per year added to SD or LR roll)	Forecasted Additional Bridges added to SD or LR roll over the next 20 years	Projected 2040 Total SD and LR Bridges (Current + Additional)
SD NHS	1691	85	6	120	205
SD Non-NHS	6721	463	32	640	1103
Load					
Restricted	8412	311	38	760	1071

Table 10-2: Structurally Deficient & Load Restricted Bridges

SCDOT currently allocates \$145 million per year towards the bridge program and intends to add another \$15 million to the budget in future state funds beginning in 2024. The funding gap for the 2040 Horizon Year is expected to be approximately \$1.67 billion, or \$76 million per year. These additional funds would help improve the current trends rates of structurally deficient and load restricted bridges in the state. These improvements per category are as follows:

### Structurally Deficient Bridges – NHS System

Currently, 5.03% of the bridges located on the states NHS are deemed structurally deficient. The Department's goal is to reduce the percentage of structurally deficient bridges on this system by 25% by repairing or replacing 142 bridges on the NHS system within the next 20 years. Current and future



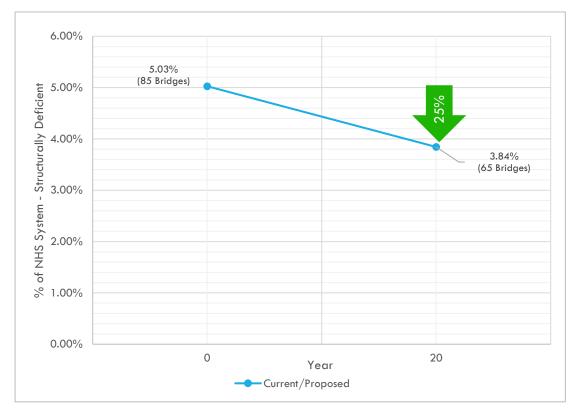
structurally deficient bridges numbers and associated system percentage on the NHS can be seen in Table 10-3.

Table 10-3: NHS System - Structurally Deficient

<b>Total Number</b>	Current # of SD or	Current % of SD or	Predicted # of SD or	Predicted % of SD or
of Structures	Load Restricted	Load Restricted	Load Restricted	Load Restricted
on the NHS	Bridges on NHS	Bridges on NHS	Bridges on NHS	Bridges on NHS
System	System	System	System	System
1691	85	5.03%	63	3.75%

The current and projected NHS System trend is shown on Figure 10-1.

Figure 10-1: NHS System - Structurally Deficient Trend



## • Structurally Deficient Bridges – Non-NHS System

Currently, 6.89% of the bridges located on the states non-NHS are deemed structurally deficient. It is predicted that this rate will increase to 15.22% over the next 20 years. The Department's goal is to reduce this rate 20% by repairing or replacing 172 bridges on the non-NHS system within the next 20 years. Current and future structurally deficient bridges numbers and associated system percentage trend rates on the non-NHS is shown in Table 10-3.



Table 10-3: Non-NHS System - Structurally Deficient

	Current # of SD or	Current % of SD or	Predicted # of SD or	Predicted % of SD or
<b>Total Number of</b>	Load Restricted	Load Restricted	Load Restricted	Load Restricted
Structures on the	Bridges on the	Bridges on the	Bridges on the	Bridges on the
Non-NHS System	Non-NHS System	Non-NHS System	Non-NHS System	Non-NHS System
6271	463	6.89%	931	13.85%

The current and projected non-NHS System trends are shown on Figure 10-2.

Structural Deficient Non-NHS (20% Trend Improvement) 18.00% Structurally Deficient 15.22% 121% Deterioration 16.00% (1023 Bridges) 14.00% 12.00% 13.85% 101% Deterioration 10.00% (931 Bridges) % of Non-NHS System 6.89% 8.00% 463 Bridges 6.00% 4.00% 2.00% 0.00% 0 20

Current

Figure 10-2: Structurally Deficient non-NHS Bridge Trends

### • Load Restricted Bridges – Statewide System

Currently, 3.70% of the bridges located on the statewide system are deemed load restricted. It is anticipated that this rate will increase to 4.17% over the next 20 years resulting in an additional 351 load restricted bridges to the system. The Department's goal is to reduce this trend rate by 25%. This reduction will reduce the number of load restricted bridges on the system to 3.27% by repairing or replacing 796 load restricted bridges on the statewide system within the next 20 years. Current and future statewide load restricted bridge numbers and trend rates can be seen in Table 10-4.

Year

Proposed



Table 10-4: Load Restricted Bridges - Statewide System

	Current # of SD or	Current % of SD or	Predicted # of SD or	Predicted % of SD or
<b>Total Number of</b>	Load Restricted	Load Restricted	Load Restricted	Load Restricted
Structures on the	Bridges on the	Bridges on the	Bridges on the	Bridges on the
Statewide System	Statewide System	Statewide System	Statewide System	Statewide System
8412	311	3.70%	275	3.27%

The current and projected load restricted trends are shown on Figure 10-3.

Figure 10-3: Statewide Load Restricted Bridge Trends Load Restricted Bridges - Statewide (25% Trend Improvement) 5.00% State-Owned System - Load Restricted 7.00% 2.00% 2.00% 2.00% 4.17% 13% Deterioration (351 Bridges) 3.70% (311 Bridges) 3.27% 12% Improvement (275 Bridges) ৳ 0.00% 0 20 Year Current Proposed

# 10.4 MPO/COG PROGRAM Needs

South Carolina is the sixth (6<sup>th</sup>) fastest growing state in the nation with an increase in population of approximately 10% over the last 10 years. Due to this growth, SCDOT faces a tremendous challenge to meet increasing transportation needs of the state. Congestion continues to be a major problem, especially on the primary routes within the metropolitan areas. SCDOT recognizes that it must work collaboratively with their MPO and COG partners to ensure the multimodal transportation system is preserved, modernized, integrated, and expanded to provide improved mobility options and access to



all South Carolinians, visitors, businesses, and industries. SCDOT relies solely on our MPO and COG partners for prioritizing these needs within their region.

Currently, SCDOT allocates \$138 million to the urban and rural areas of the state, for system upgrade projects. This funding is based off 2010 Census population and is divided amongst twenty-one separate MPO and COG entities. One concern is that MPOs and COGs do not receive enough funding to address the congestion needs of the transportation system. MPO funding ranges from \$2.5 million to \$19.2 million annually, while COG funding ranges from \$2.2 million to \$7.6 million annually. It costs approximately \$8 million per mile to widen a roadway from two lanes to five lanes. While most of the smaller MPOs and COGs receive less than this on an annual basis, it makes it extremely difficult for these areas to address capacity needs in their region. Therefore, congestion reduction needs remain unmet throughout the state.

The funding gap for the 2040 Horizon Year is expected to be approximately \$2.2 billion, or \$100 million per year. This increase in funds allows the MPOs and COGs greater flexibility within their programs and provides additional funding to manage an uphill battle towards congestion reduction throughout the state.

## 10.5 Safety Needs

Safety of the state's highway system continues to be SCDOT's top priority. The Strategic Highway Safety Plan (SHSP), Pedestrian and Bicycle Safety Action Plan (PBSAP), and the Rural Road Safety Program provide a coordinated framework toward eliminating deaths and severe injuries on South Carolina's public roads. With over 1,000 fatalities a year on South Carolina roadways and in order to address the safety needs of the state, a major investment of over \$2.5 billion through 2040 is planned on our state's highway system. This funding would help address reductions of crashes, injuries, and fatalities throughout the state and is crucial to properly address and expedite the major safety focus areas in South Carolina.

### 10.6 Routine Maintenance Needs

The South Carolina Department of Transportation operates the fourth largest state maintained highway system in the nation, consisting of approximately 41,315 miles of roadway. The task of managing the service-life and rate of deterioration for such a large system is a difficult task on its own. Couple that with a backlog of deferred maintenance, a fast-growing state in terms of population and the recent successive natural disasters, and it is easy to understand the monumental task at hand for the maintenance and preservation of this immense highway system.

SCDOT's task over the next 20 years and beyond is to repair and rebuild its transportation network to ensure that our citizens and businesses can travel on a safe and reliable system. This is a core function of SCDOT and accordingly, SCDOT has been entrusted with the responsibility to effectively and efficiently utilize taxpayer funds to turn the status of the state-owned transportation network around. By following these principles, SCDOT takes a proactive approach to preserve our highway system by performing numerous maintenance activities including: highway preservation, shoulder and ditch repair, drainage improvements, vegetative management, guardrail repairs, litter control, signs, and utility permits. This infrastructure needs an increased and recurring level of funding for repair and development of a consistent preventive maintenance program. An investment of \$750 million through 2040 is needed to properly maintain the highway system in South Carolina.



## 10.7 Mass Transit Needs

#### **Public Transit Needs**

The initial 2040 public transit operating and capital needs were based on a review of annually submitted transit operating, performance and asset management statistics, existing services and future needs identified by public input, feedback from local COGs, MPOs and individual transit agencies, and needs identified in existing plans, where available.

The long-range transit operating and capital costs to maintain existing services were developed as follows:

- Operating Costs: To calculate the long-term needs for maintaining existing services, a baseline
  constant dollar for operating expenses was applied to each of the transit agencies for the life of
  this plan, which extends to 2040. The costs were then aggregated by region and for the
  statewide total.
- Capital Costs: To calculate the capital costs for maintaining existing services, two separate categories were used:
  - Cost for replacing the existing vehicle fleet, and
  - Non-fleet capital costs.

The second scenario for estimating future public transportation needs is enhanced services, which simply implies a higher level of service or more service alternatives for residents than exists today. The enhanced service needs include more frequent service, evening, weekend, and employment-based services, as well as rural transit connections to major activity locations.

When preparing the current update to the 2040 Statewide Multimodal Plan, the same methodology and analysis were carried forward and utilized to ensure consistency in reported needs. Based on this analysis, and using a base year of 2017, cumulative public transit needs to maintain existing transit services total \$1.9 billion, and for enhanced transit services total \$1 billion. Total annualized needs amount to \$124.5 million.

## 10.8 Premium Transit and Passenger Rail Needs

Premium transit includes transportation alternatives such as bus rapid transit (BRT), light rail, commuter rail, and high-speed rail. The need for premium transit has been explored in multiple areas in South Carolina over the years, with one currently under development.

The Lowcountry Rapid Transit project, led by the Berkeley-Charleston-Dorchester Council of Governments, is a proposed 26-mile bus rapid transit system currently under development between Charleston, North Charleston, and Summerville and anticipated to provide two million passenger trips per year. Initial planning-level construction costs as identified in 2015 are estimated to be \$360 million, with annual planning-level operating costs estimated to be \$5.9 million. These costs are not included in the 2040 figures identified in Table 11-1.

In November 2016, Charleston County voters passed a half-cent sales tax to fund roadway, transit and green space projects. Approximately \$60 million of the transit funding identified in the referendum for project development and \$180 million for construction is intended as matching funds for federal grants under the Federal Transit Administration's Capital Investment Grant program to assist with the



remaining construction costs of the project. The project is expected to commence revenue service in 2025.

As of 2019, the RFATS MPO is undertaking a premium transit analysis along the heavily-travelled I-77 corridor to Charlotte to update a planning-level analysis originally completed in 2007. The 2007 analysis resulted in a locally preferred alternative for a phased BRT system along the US 21 corridor, with a conceptual planning-level costs estimate of \$516 million. The current analysis will update the preferred alternative as well as the cost estimates.

As part of the Atlanta to Charlotte Passenger Rail Corridor Investment Plan (PRCIP), the Federal Railroad Administration (FRA) and the Georgia Department of Transportation (GDOT), in partnership with SCDOT and the North Carolina Department of Transportation, led a Tier 1 Environmental Impact Statement (EIS) for the extension of the Southeast High Speed Rail (SEHSR) corridor from Charlotte, North Carolina to Atlanta, Georgia. The vision of the SEHSR Corridor is to develop an integrated passenger rail transportation solution for the Southeast, including proposed high-speed rail from Washington, DC through Richmond, VA, Raleigh and Charlotte, NC, and from Charlotte to Atlanta, Georgia. The ongoing study identified three options for the proposed Atlanta to Charlotte corridor through Upstate South Carolina, and is expected to identify a preferred alignment and an updated planning-level cost estimate when completed in 2020.

## 10.9 Bicycle and Pedestrian Needs

Several bicycle and pedestrian needs have been identified on state-maintained roadways. These include planning, design, right of way, and construction costs and are based on current bicycle accommodation deficiencies, proposed improvements in adopted MPO/COG and local government plans, and the review of other MPO/COG planning documents. Pedestrian needs, such as sidewalks, are included in the overall modernization needs for the primary and secondary highway system. SCDOT will be working closely with the MPO and COG agencies to develop a standardized method of data collection and project prioritization in order to assist them in successfully implementing their plans and determining the statewide-anticipated needs and costs estimates.

Funding for bicycle and pedestrian needs come from various sources. These funding sources include MPO/COG programs, Transportation Alternative Program (TAP), Pedestrian & Bicycle Safety Program and County Transportation Committees (CTC).

MPOs and COGs receive \$138 million annually for system upgrades in our rural and urban areas. This funding is divided amongst 21 different entities. These funds can be and often are used for bicycle and pedestrian accommodations for projects identified within their programs.

TAP funds are used for projects that expand travel choices and improve the transportation experience by improving the cultural, historic, and environmental aspects of our transportation infrastructure. These funds are typically used for bicycle and pedestrian facilities throughout the state. Approximately \$7.4 million is distributed annually toward eligible projects within this program.

The Pedestrian and Bicycle Safety Program focuses on high rate bicycle and pedestrian crashes throughout the state. These assessments are implemented in accordance with the 4 E's of Transportation Safety: Engineering, Enforcement, Education, and Emergency Response. SCDOT allocates \$5 million annually towards these assessments.

The "C" Program is a long-established partnership between the SCDOT and the forty-six counties of South Carolina to fund the improvements of state roads, county roads, city streets, and other local transportation projects. "C" Funds come from 2.66 cents per gallon of the state gasoline tax distributed



to each of the forty-six counties based on population, land area, and rural road mileage. Beginning July 1, 2018 the CTC's portion will increase .3325 cents per gallon through 2021, when the total will equal 3.99 cents per gallon. Once fully implanted, the CTC's will receive approximately \$135 million annually towards the "C" Program. This increase must be used exclusively for repairs, maintenance and improvements to the state highway system.

SCDOT recognizes the need for bicycle and pedestrian accommodations throughout the state. With the development of the Pedestrian and Bicycle Safety Action Plan (PBSAP), the Department will coordinate with stakeholders including: MPOs, COGs, CTCs and others, to ensure bicycle and pedestrian accommodations are considered in the development of projects. Additional funding needs for these accommodations are included in the overall assessment of needs identified in the MPO/COG Program needs.

## 10.10 Freight Rail Needs

The future needs for short line rail projects totals \$47.62 million and includes rail rehabilitation projects (\$41.62 million); Rail capacity/service expansion projects (\$3.5 million); and rail safety improvement projects (\$2.5 million). Based on the previous Statewide Rail Plan (2014), Class I railroads are estimated to have approximately \$100 million in needs for grade crossing improvements, capacity increases, and bottleneck relief.

The Rail Grade Safety Program was established to address rail grade and crossing safety nationwide. SCDOT was charged with inspecting every public crossing for appropriate traffic control. MAP-21 continued the annual set-aside for elimination of hazards at railway-highway crossings from the state's Highway Safety Improvement Program (HSIP) apportionment. Funds are eligible for projects at all public crossings. Fifty percent of the funds must be used for the installation of protective devices at railway-highway crossings. The 2015 Fixing America's Surface Transportation Act (FAST Act) continues the annual formula set-aside for Railway-Highway Crossings (Section 130) Program under 23 USC 130(e). The funds are set-aside from the HSIP apportionment. Per 23 USC 130(d), each State is required to conduct and maintain a survey of all highways to identify railroad crossings that may require separation, relocation, or protective devices, and establish and implement a schedule of projects.

In South Carolina, from 2013 to 2017, railway-highway crossing collisions accounted for an average of 2.2 fatalities per year and 7.8 severe injuries per year. The number of fatalities at rail grade crossings demonstrated a slight uptick in the most recent five-year average. There are 3,967 highway-rail crossings in South Carolina, with 2,657 located on public roadways, 1,296 crossings on private roads, and 14 pedestrian crossings. Improvements currently consist principally of converting at-grade crossings protected with flashing lights to gated crossings. In the process, each of the 2,700 public crossings in the state is ranked for priority. The rankings are re-evaluated on an annual basis. As of 2020, SCDOT currently has 7 grade crossing improvement projects underway.

## 10.11 Port and Waterway Needs

The South Carolina Posts Authority (SCPA) owns, manages, operates, and finances the public port terminals in South Carolina. These include the Ports of Charleston and Georgetown and Inland Ports located in Greer and Dillon, South Carolina. SCPA, the State of South Carolina, and other government agencies and partners are currently investing in nearly \$2.6 billion in port-related infrastructure that will enhance operational performance and transportation infrastructure related to the movement of cargo



at the Port and throughout the State. Projects include recent investments along with planned investments through Fiscal Year 2022<sup>3</sup>:

- SCPA funded investments include \$1.678 million for the Hugh Leatherman Terminal (HLT) Phase 1 construction, Wando Welch Terminal improvements, Inland Ports Greer and Dillon and other terminal investments.
- Capital Investments not funded by SCPA include \$971 million for the Charleston Harbor deepening, HLT Port Access Road, Wando Wharf strengthening, Inland Port Greer expansion, Inland Port Dillon investment and a new intermodal rail facility through Palmetto Railways.

### **10.12 Aviation Needs**

Aviation needs were represented within the South Carolina Aeronautics Commission (SCAC) 2018 System Plan Technical Report<sup>4</sup> and are based on individual airports' 5-year Capital Improvement Plans (CIPs). Airports in South Carolina have their own individual CIPs that identify development projects, equipment purchases, and other actions that require funding. CIP projects within the SCAC 2018 System Plan for system airports require a significant investment, totaling nearly \$417 million over the next five years; on average, \$83.4 million per year will be required to fund all existing CIPs. By CIP project category, runway projects make up the largest share of costs, followed by taxiway projects, and apron projects.

Through another statewide planning effort, SCAC has identified pavement maintenance and rehabilitation projects that are needed in the next few years to address the needs of the state's existing airport infrastructure. Funding needs for the next five years are not all-inclusive, as there will undoubtedly be additional funding requirements that are not yet known. Estimated costs indicate that to fully fund all known projects, maintenance needs, and equipment purchases, approximately \$768.6 million will be needed over the next five years. This amount includes the aforementioned individual airport CIP projects.

<sup>&</sup>lt;sup>3</sup> <u>http://scspa.com/cargo/planned-improvements/capital-plan/</u>

<sup>4</sup> http://www.scaeronautics.com/download/2018SystemPlanTechnicalReport\_Final-Entire%20ChaptersV2.pdf



# 11. TRANSPORTATION REVENUES AND FUNDING GAP

#### 11.1 2017-2040 Revenue Forecast

Evaluating whether SCDOT will have adequate financial resources to accomplish its goals and meet future modal needs is a critical part of the planning process. A conservative transportation revenue forecast to 2040 was developed, based on historic trends, from SCDOT's federal, state, and local net revenue sources and factored-in the recent increases in state revenues due to the passage of Act 40 in South Carolina. On average, \$1.89 billion will be available per year to maintain and address multimodal transportation system needs and improvements totaling \$41.58 billion from 2019-2040.

# 11.2 Funding Gap

While the recent increase in funding for infrastructure at the state level has enabled SCDOT to set a course to get to a state of good repair over time, South Carolina will still be faced with tremendous needs relating to congestion and capacity strains on the road network. The 2040 MTP multimodal transportation needs totals \$2.34 billion to address and maintain highways, bridges, bicycle and pedestrians and mass transit. With funding level of \$1.94 billion to address these multimodal needs over the same time period, SCDOT is projecting a \$403 million annualized gap as shown in Figures 11-1 and 11-2.

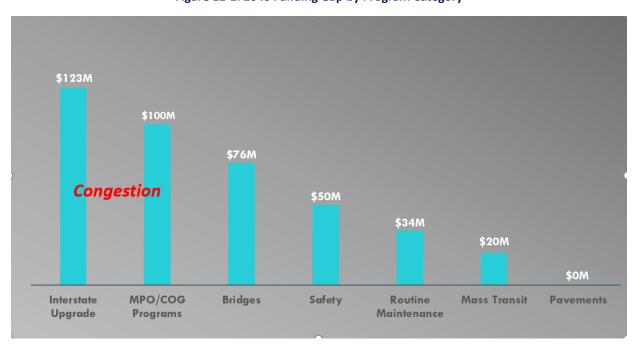


Figure 11-1: 2040 Funding Gap by Program Category



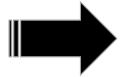
Table 11-2: Summary of 2040 Planned Highway, Bridge and Transit Funding, Needs and Gap

Mode/Category	2019-2040 MTP Annualized Funding	2019-2040 MTP Annualized Need	2019-2040 Yearly Average Gap	2019- 2040 Total Gap			
Interstate System							
Interstate System Upgrade	\$441 Million	\$564 Million	\$123 Million	\$2.76 Billion			
Pavements							
Interstates	\$135 Million	\$135 Million	\$0 Million	\$0 Million			
Primaries	\$269 Million	\$269 Million	\$0 Million	\$0 Million			
Farm to Market Secondaries	\$140 Million	\$140 Million	\$0 Million	\$0 Million			
Neighborhood Streets	\$121 Million	\$121 Million	\$0 Million	\$0 Million			
Subtotal	\$665 Million	\$665 Million	\$0 Million	\$0 Million			
Bridges							
Bridges	\$313 Million	\$389 Million	\$76 Million	\$1.67 Billion			
MPO/COG Program							
MPO/COG Program	\$138 Million	\$238 Million	\$100 Million	\$2.2 Billion			
Safety							
Safety	\$100 Million	\$150 Million	\$50 Million	\$1.1 Billion			
Routine Maintenance							
Routine Maintenance	\$174 Million	\$208 Million	\$34 Million	\$748 Million			
Mass Transit							
Mass Transit	\$104.7 Million	\$124.5 Million	\$19.8 Million	\$435.6 Million			
Totals	\$1.94 Billion	\$2.34 Billion	\$403 Million	\$8.91 Billion			

The previous MTP (2014) forecasted an annual funding gap of \$1.47 billion. It was prepared in accordance with industry standards at the time which included premium transit/rail items and was unconstrained. The updated 2020 MTP forecasted annual funding gap does not include premium items, factors-in the recent funding increases and tempers the previous outlook based on industry, vendor and overall delivery capacity constraints.

\$1.47Billion

Annual Gap forecasted in 2014 MTP



\$403Million

Annual Gap forecasted in 2020 MTP



# 12. FINDINGS AND STRATEGIES

Some of the key findings of the 2040 MTP, which draw upon analyses conducted for the five modal plans (Interstate, Strategic Corridor Network, Public Transit and Human Health Service Coordination, Freight, and Rail) as well as the MTP itself, may be summarized as follows:

#### Funding

- Funding to address the and maintain the multimodal needs of highways, bridges, bicycle/pedestrian, and transit are projected to total \$8.91 billion through 2040.
- With funding level of \$1.94 billion to address these multimodal needs over the next 22 years, the Department is projecting a \$2.34 billion need over the same amount of time. This equates to a \$403 million yearly annualized funding gap.

#### Safety

 Safety on the State Highway System is the top goal for SCDOT. An increase of \$50 million, would significantly increase the current safety initiatives and advance safety projects throughout our state.

#### Roadways

 Recent data trends already show an improvement of pavement to good repair across all road systems in the state. SCDOT does not forecast a funding gap for pavements in the 2040 Horizon Year.

#### Bridges

- Based on historical trends, it is anticipated that both structurally deficient and load restricted bridges will increase by 38 bridges per year. Therefore, approximately 1520 bridges will either become structurally deficient or load restricted by 2040. It is anticipated that an additional \$76 million per year is needed to address the future bridge deterioration.

#### Freight

- Freight tonnage moved by truck is expected to increase by 60% from 375 million tons in 2016 to 599.6 million tons in 2040.
- Freight tonnage moved by rail is expected to increase by 69% from 63.2 million tons in 2016 to 106.6 million tons in 2040.

#### Capacity/Congestion

- In 2011, 31% of the interstate system operated at LOS C or worse for at least one peak hour a percentage that is expected to rise to 62% by 2040.
- The most congested corridor segments in the state include:
  - I-526 from I-26 (Exit 17) to US-52/Rivers Avenue (Exit 18) in Charleston
  - I-526 from N Rhett Avenue (Exit 19) to Virginia Avenue (Exit 20) in Charleston
  - I-26 from Saint Andrews Road (Exit 106) to I-20 (Exit 107) in Columbia
  - I-526 from US-52/Rivers Avenue (Exit 18) to N Rhett Avenue (Exit 19) in Charleston
  - I-85 from I-385 (Exit 51) to Pelham Road (Exit 54) in Greenville
  - I-26 from US-17 (Exit 199) to I-526



- Today, 11% of the existing Statewide Strategic Corridor Network operates at LOS C or worse.
- By 2040, 27% of the existing Statewide Strategic Corridor Network will operate at LOS C or worse.

#### Transit

- In 2017, 43% of transit demand was met.
- In 2017, transit services in South Carolina provided 12.4 million one-way trips.

#### Public Outreach

- Over 10,000 MTP surveys were completed during public outreach. An additional 2081 written comments were also received.
- Top two priorities as commented in the survey were, pavement repair/preservation and road widenings/congestion relief.

These and other findings from analytical tasks, together with valuable input received during the stakeholder and public outreach efforts and continuous contributions and guidance from Department staff, provided the background and context for MTP Update strategies. Based on the 2040 MTP Update planning process, the strategies are categorized by the following areas:

- Safety
- Economic Competitiveness
- Performance Management
- Asset Management
- Freight Improvements
- Multimodal Enhancement
- Partnerships

#### 12.1 Safety

**Background** – Safety on the State Highway System is the top goal for SCDOT. South Carolina continues to have one of the highest mileage death rates in the nation. In 2017, the National Highway Traffic Safety Administration (NHTSA) indicated South Carolina had the highest fatality rate in the nation. South Carolina has held the nation's highest fatality rate since 2014. During that time period, the State's fatality rate has decreased from 1.89 fatalities per 100 million vehicle miles traveled in 2014 to 1.78 in 2017.

The number of fatalities occurring on the State's roads began declining in 2007 from 1,077 in that year to a low of 767 fatalities in 2013. However, the number has begun to increase with 823 fatalities occurring in 2014 and each year thereafter, reaching a high of 1,020 in 2016 before decreasing slightly to 989 in 2017. Preliminary figures for 2018 indicate another increase, to 1,037 traffic deaths. South Carolina also had the 3<sup>rd</sup> highest pedestrian fatality rate and the 8<sup>th</sup> highest bicycle fatality rate in the nation in 2016.

The cost of vehicle crashes, injuries, and fatalities to society is staggering and greatly exceeds the funding dedicated to SCDOT for highway maintenance, operations, and improvements. In 2017, the South Carolina Department of Public Safety (SCDPS) estimated that the annual economic loss due to



vehicle crashes, injuries, and fatalities was \$4.5 billion. These statistics indicate the need to bring greater emphasis to safety in all aspects of highway planning.

**Related Goals** – Safety is directly tied to one of the six 2040 MTP Update goals:

• **Safety Goal:** Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.

This MTP Update goal addresses SCDOT's core functions of designing, constructing, maintaining, and operating the state's transportation systems and improvements thereto. Safety is one of the national MAP-21 goals requiring states to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

**Safety Performance Measures** – Specific performance measures designed to monitor and track the impact of safety strategies include:

- Number or rate of fatalities and serious injuries.
- Number of bicycle/pedestrian fatalities and injuries.
- Number of roadway departure crashes involving fatality or injury.
- Percentage of crossings with active safety warning devices installed.

Strategies to Address Safety – SCDOT and SCDPS jointly updated the Strategic Highway Safety Plan (SHSP) based on the *Strategic Highway Safety Plan MAP-21 Interim Guidance* issued by the FHWA Office of Safety in April 2013. The state just recently began the process to perform the next update to the SHSP. While the exact number is not yet known, it is anticipated that approximately 10-12 focus areas will be identified through a data driven process in coordination with SCDPS. The emphasis areas will be addressed through engineering, enforcement, education, emergency medical services, policy, public health, and communications.

A sample of safety activities from the 2018 SHSP Implementation Plan are listed below:

- All Areas:
  - Provide updated safety language to SCDMV for the SC Driver's Training Manual.
  - Maintain and enhance SHSP website.
- Roadway Departure Emphasis Area:
  - Implement Phase I of the Rural Road Safety Program.
  - Conduct briefings at SCLEN meetings, providing data identifying areas to focus enforcement efforts.

# 12.2 Economic Competitiveness

**Background** – Transportation infrastructure is vital to the economic prosperity of South Carolina. Good road, rail, transit, and air connections across the state help businesses get goods and services to markets and workers get to jobs.

Related Goals – Economic competitiveness is one of the six 2040 MTP Update goals:



• **Economic and Community Vitality Goal:** Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets.

**Economic Competitiveness and Community Vitality Performance Measures** – Specific performance measures designed to monitor and track the impact of economic competitiveness and community vitality strategies include:

- Annual hours of truck delay.
- Truck travel time.
- Truck reliability on the freight corridor network.

**Strategies to Address Economic Competitiveness** – Potential economic competiveness strategies are drawn from the Freight, Interstate, Strategic Corridor Network, and State Rail modal plans, and include the following:

- Address last and first mile connections to intermodal facilities from the Interstate or Strategic Corridor Network.
- Conduct Interstate traffic operations and feasibility studies as needed for critical freight Interstate corridors identified as lowest performing.
- Increase internal collaboration and coordinate transportation infrastructure investments to better align freight transportation system goals and the performance as a whole by:
  - Further developing and supporting the SCDOT rail division as they work closely with private sector railroads and Palmetto Railways to increase the resiliency, effectiveness, and efficiency of the freight transportation system; and
  - Increase presence and engagement of the Deputy Secretary for Intermodal Planning with his/her counterparts with the Port of Charleston.
- Work with partners to improve the project development and permitting process that streamlines implementation of SCDOT investments associated with state-identified economic development opportunities.

**Strategies to Address Community Vitality** – Potential community vitality strategies are drawn from the MTP Update, Rail Plan, and Statewide Public Transportation and Coordination Plan, and include the following:

- Continue to coordinate with appropriate federal and state agencies, and rail providers to advance passenger rail service from Charlotte to Atlanta through the Upstate of South Carolina.
- Continue to participate as a partner with the Southeast Rail Coalition.
- Coordinate with railroad companies to ensure that right-of-way is preserved for future public use.
- Work with the counties, MPOs, COGs, and transit providers to preserve abandoned rail right-ofway that has been identified as having future transportation applications.
- Partner with FTA, MPOs, COGs, counties, and transit providers to identify opportunities to implement approved premium transit services in urban areas.



- Advance multimodal options for residents and visitors in all areas of the state, including public transportation.
- Close the gap between transit funding needs and available funding levels, with strategies such as:
  - Increase efforts to leverage federal dollars.
  - Allow greater flexibility for local jurisdictions to generate funds.
- Implement strategies in the updated Statewide Transit Plan, including:
  - Establish reliable, coordinated information resources.
  - Develop coordinated mobility management strategies for each region.
  - Promote the need for and benefits of public transit to residents and public officials to gain support for funding services.
  - Identify opportunities for pooling costs for fuel, insurance, and other common expenses.
  - Identify opportunities for sharing staff, facilities, and administrative services.

# 12.3 Performance Management

#### Background -

The 2040 MTP Update goal areas were developed around the national goal areas and several performance measures were identified for five of the seven goal areas. The performance indicators provide SCDOT the opportunity to measure progress toward the 2040 MTP Update goals, as well as a way to review and revise the effectiveness of the plan objectives, policies, and actions.

Upon the state setting approved performance targets, MPOs and COGs are required to:

- Adopt state targets OR set their own performance targets within 180 days of State-set targets.
- Coordinate with their relevant State and public transportation providers when setting their own performance targets.
- Communicate their targets to the State for inclusion in the Multimodal Transportation Plan.
- Develop a system performance report as part of their Long Range Transportation Plan.

**Related Goals** – Performance measures for the following four 2040 MTP Update goals include:

- Mobility and System Reliability
- Safety and Security
- Infrastructure Condition
- Economic and Community Vitality



#### **Strategies to Address Performance Management:**

- Coordinate with MPOs and COGs in selecting performance measure targets to ensure consistency statewide.
- Coordinate with public transportation providers throughout the state in selecting performance measure targets.
- Integrate other performance plans into the performance-based process, including the following:
  - MPO Long Range Transportation Plan (LRTPs)
  - SCDOT and MPO Transportation Improvement Programs (STIP and TIPs)
  - Transportation Asset Management Plan (TAMP)
  - Transit Asset Management Plan (TAM)
  - Strategic Highway Safety Plan
  - Highway Safety Improvement Program
  - CMAQ Performance Plan
  - Freight Plan

# 12.4 Transportation Asset Management

**Background** — On August 20, 2019, the FHWA gave its certification approval to SCDOT's Final Transportation Asset Management Plan (TAMP). This 10-year investment plan, updated every four years, uses transportation asset and performance management as a best management practice. SCDOT has fully embraced these concepts for all of its programs. The Secretary of Transportation and the governing board of the agency, the SCDOT Commission, have reaffirmed the importance of the TAMP for accountability and transparency regarding the use of tax payer funds especially in light of the 2017 legislation that dramatically increased state funding for infrastructure in South Carolina. Tying a planned investment level to a predicted outcome is a major shift in the way SCDOT manages its programs and is essential to earning the public's trust through the effective deployment of resources to achieving results. SCDOT's TAMP is all-inclusive by incorporating state and federal funding together for a more robust plan for the State.

SCDOT is responsible for 41,315 (2018) centerline miles of roadway in the state, 53% of the state's total 77,364 miles of public roadway. South Carolina maintains the 4<sup>th</sup> largest roadway system in the nation. SCDOT also maintains 8,412 bridges that are over 20-feet in length,<sup>5</sup> as well as shorter bridges and culverts. SCDOT plays an important role in coordinating and channeling federal transit funding to the state's regional transit agencies responsible for the operation and maintenance of transit vehicles and facilities.

The American Association of State Highway and Transportation Officials (AASHTO) describes "transportation asset management as a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their lifecycle. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision making based upon quality information and well-defined objectives."

<sup>&</sup>lt;sup>5</sup> As of December 31, 2018.



Transportation asset management is a business model, a decision support system, and a management approach that can be used across SCDOT to address six core questions:

- What is the current state of infrastructure assets?
- What are the desired levels of service and performance levels?
- Which infrastructure assets are critical to sustained performance?
- What are the best investment allocation strategies for operations, maintenance, replacements, and improvement?
- What are the challenges and risks to implementation?
- What is the best long-term investment strategy?

The goal of a transportation asset management program is to minimize the life-cycle costs for managing and maintaining transportation assets, including roads, bridges, rails, and roadside features. It is important for a transportation asset management program to support a strategic resource allocation process that uses a performance-based approach to maintain and preserve physical assets.

Related Goals – Asset Management is directly tied to one of the six 2040 MTP Update goals:

 Infrastructure Condition Goal: Maintain surface transportation infrastructure assets in a state of good repair.

Preserving South Carolina's transportation infrastructure is a primary element of SCDOT's mission. This goal promotes public sector fiscal health by minimizing life cycle infrastructure costs, while helping to keep users' direct transportation costs low. Maintaining highway assets in a state of good repair is one of the national MAP-21 goals and requires states and transit agencies to report on asset conditions. SCDOT maintains extensive data and analytical capabilities associated with monitoring and predicting infrastructure condition.

In addition to infrastructure condition, asset management also supports the state's goals for mobility and reliability, economic and community vitality.

Asset Management Performance Measures — Federal law requires states to set two and four-year targets for their pavement assets on the interstate and non-interstate NHS and bridge assets on the NHS by May 2018 and every four years thereafter using the federal measures (23 CFR 490). SCDOT developed a detailed methodology, which included analyzing the deterioration of its pavement and bridge assets, determining the percentage of its pavement and bridge assets that were likely to move from fair to poor condition, and determining the percentage of its assets that are likely to move to good condition based on finished construction projects.

To maintain the highway infrastructure asset system in a state of good repair, the national goals are defined in MAP-21/FAST Act and require that within the TAMP, SCDOT address six pavement and bridge performance measures and develop two and four-year targets. The required performance measures used in the development of the targets are as follows:

- Percent of Interstate pavements in Good condition.
- Percent of Interstate pavements in Poor condition.



- Percent of non-Interstate NHS pavements in Good condition.
- Percent of non-Interstate NHS pavements in Poor condition.
- Percent of NHS bridges by deck area in Good condition.
- Percent of NHS bridges by deck area in Poor condition.

#### **Strategies to Address Asset Management**

- Manage and maintain the risk based asset management plan by appointing an Asset Management Plan technical review committee.
- Conduct annual TAMP risk assessment of key assets.
- Identify communication strategies to disseminate transportation asset management information to key stakeholders.
- Manage risks in a way that optimizes the success of the organization rather than the success of a single business unit or project.
- Create a comprehensive inventory of transportation infrastructure assets.
- Develop a data governance plan for assets.
- Develop and maintain a strong commitment beginning with senior management to develop and maintain a risk management program and culture.
- Promote implementation by open communication and coordinating project development with industry partners.
- Identify the best investment strategies to operate, maintain, replace, and improve critical transportation infrastructure assets.
- Develop analytical tradeoff/decision support tools within the transportation asset management decision making processes.

#### **Integrate Risk Management into SCDOT Organization**

 Support the integration of enterprise risk management into strategic planning, department controls and department performance measures.

#### 12.5 Freight Improvements

**Background** – MAP-21 includes a variety of provisions to promote freight movement and performance with the overall goal of improving economic competitiveness in the global economy. MAP-21 requires state DOT's to develop freight networks and to identify critical rural freight corridors, and recommends states develop freight plans to improve the movement of freight throughout the state. The FAST Act supports and continues this overall performance management approach, within which states invest resources in projects that collectively will make progress toward national goals. During the development of the 2040 MTP Update, the Executive Committee stressed the importance of identifying freight bottlenecks and potential enhancements to improve freight efficiency on the interstate mainline and interchanges, strategic corridor network, and rail lines.



#### Related Goals - Freight improvements are tied to the following 2040 MTP Update goals:

Mobility and System Reliability - Provide surface transportation infrastructure and services that will advance the efficient and reliable movement of people and goods throughout the state.

- **Safety and Security** Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.
- Infrastructure Condition Maintain surface transportation infrastructure assets in a state of good repair.
- **Economic and Community Vitality** Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic *competitiveness in global markets*.

#### Freight Improvement Performance Measures:

- Truck travel time index on the freight corridor network.

#### Strategies to Address Freight Improvements:

- Prioritize projects designed to improve freight mobility and eliminate freight bottlenecks.
- Continue to monitor intermodal connectors for maintenance and operations issues.
- Continue to identify and close any first/last mile gaps near major intermodal centers and manufacturing hubs.
- Prioritize improvements along major truck corridors.
- Develop a common information technology solution/protocol to share real-time information with freight system users.
- Ensure freight implications and benefits are included in the SCDOT project prioritization process.
- Identify opportunities for enhanced truck parking availability and information management.
- Identify and prioritize substandard roadways on the Statewide Freight Network in the SCDOT maintenance/construction program.
- Continue work with state agency partners like Palmetto Railways and SCPA to identify
  opportunities to support freight movement by identifying potential efficiencies created by
  utilizing multiple modes or a complete mode shift.
- Identify portions of state highway mileage that has a strong correlation between truck volumes and substandard ratings.
- Prioritize work to reinforce bridges on the National Highway System and Statewide Freight Networks that are structurally deficient.
- Enhance efforts to inform the public on the importance of freight to South Carolina.
- Continuously monitor the Statewide Freight Network performance measures to identify and rectify system challenges before they become problems.



- Prioritize freight projects across the modes.
- Develop a tool to analyze the impact of proposed freight projects.

#### 12.6 Multimodal Enhancements

**Background** – In order to achieve the MTP Update's vision of *safe, reliable surface transportation and infrastructure that effectively supports a healthy economy for South Carolina* it is critical that all modes of transportation work seamlessly together in an integrated and coordinated manner.

Related Goals – Multimodal enhancements address a number of the 2040 MTP Update goals, including:

- **Mobility and System Reliability**: Provide surface transportation infrastructure and services that will advance the efficient and reliable movement of people and goods throughout the state.
- **Economic Competitiveness and Community Vitality**: Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets.
- **Equity**: Manage a transportation system that recognizes the diversity of the state and strives to accommodate the mobility needs of all of South Carolina's citizens.

**Multimodal Enhancement Performance Measures** – While quantifiable outcome based performance measures related directly to multimodal enhancements are difficult to construct, surrogate measures may be used, such as:

- Number of non-motorized fatalities and injuries.
- % of active duty transit vehicles past designated useful life.

Strategies to Address Multimodal Enhancements – A key transportation strategy for SCDOT is to develop multimodal options for residents and visitors in all areas of the state, including public transportation. Many regions in the state have adopted policies that focus on addressing both existing transportation deficiencies, as well as growth in demand through expansion of transportation alternatives. In addition, SCDOT plans to adopt a Bike-Ped Safety Plan policy in support of alternative modes of transportation. Strategies are drawn from the MTP Update and Statewide Public Transportation and Coordination Plan, and include the following:

- Integrate approved local bicycle routes into system preservation activities.
- Coordinate with MPO and COG staff to update the bicycle and pedestrian existing and planned system GIS files and incorporate into the Integrated Transportation Management System (ITMS).
- Include approved MPO and COG bike and pedestrian improvements in new projects when feasible and in compliance with current Departmental policies.
- Integrate safety improvements for all users of roadways in preservation programs by identifying opportunities to better accommodate vulnerable users, such as pedestrians or bicycles.
- Coordinate with regional transit agencies to implement recommended performance measures.
- Increase coordination among public transportation providers.
- Accommodate the growth in numbers of elderly persons and the general population.



- Maximize technology to increase efficiencies for all public transit agencies.
- Establish reliable, coordinated information services.
- Utilize software applications to assist with trip scheduling and system planning.
- Coordinate with transit agencies to develop GIS files of transit routes and services areas with transit-supportive demographic data.
- Build relationships between human service agency services and Metropolitan Planning Organizations that have expanded their boundaries and now must work together.
- Improve efforts to leverage federal dollars to address multimodal needs.
- Allow greater flexibility for local jurisdictions to generate funds to address multimodal needs.
- Consider expanding transit service across the state, including rural areas with limited service and commuter services to employment centers.
- Deploy more fuel-efficient transit vehicles.

# 12.7 Partnerships

**Background** – While SCDOT is responsible for maintaining the majority of the multimodal transportation system, the Department recognizes that other agencies must be involved to develop an integrated transportation system. Thus, the 2040 MTP Update was developed in coordination with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) as well as the 11 MPOs, and 10 COGs within South Carolina.

Related Goals – All six MTP Update goals require partnerships to be achieved.

- Mobility and System Reliability Provide surface transportation infrastructure and services that will advance the efficient and reliable movement of people and goods throughout the state.
  - To advance mobility and system reliability, key partnerships include MPOs, COGs, Class I railroads, regional and short line railroads, South Carolina Public Railways, SCPA, freight shippers, regional transit agencies, and human service providers
- **Safety and Security** Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.
  - To improve safety and security of the transportation system, key partnerships include MPOs,
     COGs, regional transit agencies, Department of Public Safety, Department of Motor
     Vehicles, and state and local law enforcement and emergency services.
- Infrastructure Condition Maintain surface transportation infrastructure assets in a state of good repair.
  - To maintain transportation infrastructure assets, key partnerships include MPOs, COGs, regional transit agencies, and County Transportation Committees.
- **Economic and Community Vitality** Provide an efficient and effective interconnected transportation system that is coordinated with state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets.
  - To support South Carolina's economic competiveness in global markets, key partnerships include MPOs, COGs, Class I railroads, regional and short line railroads, South Carolina Public



Railways, SCPA, Department of Commerce, regional transit agencies, Aeronautics Commission, and state and local Chambers of Commerce.

- **Environment** Continue to partner to sustain South Carolina's natural and cultural resources by minimizing and mitigating the impacts of state transportation improvements.
  - To sustain natural and cultural resources, key partnerships include MPOs, COGs, CTCs, and environmental resource agencies.
- **Equity** Manage a transportation system that recognizes the diversity of the state and strives to accommodate the mobility needs of all of South Carolina's citizens.
  - To accommodate mobility needs, key partnerships include MPOs, COGs, private intercity bus operators, regional transit agencies, human service providers, and cycling stakeholders.

#### **Strategies to Address Partnerships**

- Coordinate with state and local law enforcement and emergency service providers to implement the Strategic Highway Safety Plan (SHSP). Achieving the 15 goals identified in the SHSP that directly impact highway safety through engineering, enforcement, education, emergency medical services, policy, public health, and communications requires coordinated communication and collaboration among numerous state and local agencies.
- Maintain or improve the current state of good repair on the NHS. Continue work with state
  agency transportation partners to identify opportunities to support efficient freight movement
  by identifying potential efficiencies created by utilizing multiple modes.
- Provide an efficient and effective interconnected transportation system that is coordinated with the state and local planning efforts to support thriving communities and South Carolina's economic competitiveness in global markets. Work with economic development partners to identify transportation investments that will improve South Carolina's economic competitiveness. Coordinate with the public and private sector to identify and implement transportation improvements and services that facilitate the efficient movement of people and goods. Collaborate with communities to improve "last mile" planning efforts in urban communities to minimize the impact of goods movement and improve efficiencies.
- Improve access and interconnectivity of the state highway system to major intermodal facilities. Transition private sector partners to play an active role in the SCDOT planning process in the future, including the development of a Freight Advisory Council. Undertake an effort with SCDOT's public and private partners to educate the public on the importance of freight to South Carolina, including elected officials, and the general public. Work with rail, marine, and air partners to share expertise and create cross-functional relationships to help identify non-highway projects and key connectors on the strategic freight network.
- Partner to sustain South Carolina's natural and cultural resources by minimizing and mitigating the impacts of state transportation improvements. Work with environmental resource agency partners to explore the development of programmatic mitigation in South Carolina.
- Coordinate with the South Carolina National Heritage Corridor. Coordinate with the South Carolina National Heritage Corridor. Promote the National Scenic Byways Plan to bring economic and quality of life benefits to communities across the state.



- Improve premium transit options. Collaborate with Federal Transit Administration, MPOs, COGs, counties, and providers to identify funding sources for future design and implementation activities that would be required to implement feasible premium transit services in urban areas.
- Improve safety at railroad grade crossings. Collaborate with the railroads to prioritize grade crossing improvements and explore opportunities to make small public improvements to leverage the railroad's responsibility to maintain and improve crossings.
- Identify a Strategic Statewide Freight Network that supports all modes and users. Formally
  incorporate outreach to various freight partners to capture rural accessibility and the unique
  mobility needs of specific groups.



# Appendix A

# **Survey Comment Summary**

Comment Theme		Summary Of Comments
		Poor/rough Pavement Condition.
Infrastructure Condition		Potholes are not being fixed.
and Maintenance:		Scheduling/timing of repaving projects, taking too long.
and mantenance.		Inequity of projects between urban and rural areas.
		Quality of paving work.
		Drainage/Flooding.
		Quality and timing of Maintenance.
		Striping and signage deficiencies.
		Poor bridge condition.
	•	Mowing, trash, and debris clearance.
Transit and Mobility		More multimodal transportation options other than the traditional single
		occupant vehicle.
		Development of new light rail service, high speed rail,
	_	passenger/commuter rail and intercity rail service.
		Need for new, innovative, improved, or expanded bus service that is
		operated efficiently and cost effectively.  Opposition to publically funded transit systems or at the very least,
	-	opposed to bus service.
		The need for more public transportation options to unserved rural and
		urban populations.
		Improve/introduce transit service that focuses on serving employment
		centers.
		Increase the efficiency and frequency of service, and provide expanded
		routes as needed.
		Link transit to bike and pedestrian options.
	•	Consider using HOV Lanes and Toll Lanes.
Capacity		Add more lanes to the existing 2 lane Interstate segments to serve existing
		and future demand.
	•	Concerns that adding new lanes is not a long term solution to addressing
	_	congestion management issues.
	•	Focus on "Striking a balance" between maintaining existing and adding
		new infrastructure.
		Add new lanes to major roadways in congested areas.  Add new thoroughfare route's including the I-73 route to Myrtle Beach.
		The need for wider roadways to include paved shoulders and inclusion of
		bike and pedestrian facilities.
		Build more roads to keep up with growth and development.
		Add truck only lanes.
		Improve connectivity.
Safety		Prioritization towards high-risk roadway and intersection improvements.
		Improved quality and locations of striping, signage, street lighting and
		reflective devices.
		Provide more and safer crosswalks for pedestrians.
		Improved and safer roadway and intersection design.
		Widen and pave shoulders.
		Use of more roundabouts.
		Need for more safety barriers such as guardrails and cable barriers.
		Support and opposition to the use of rumble strips.
	•	Support and opposition to removing trees and other vegetation within the
		road right of ways.



Comment Theme	Summary Of Comments
	Improve hurricane evacuation routes.
	Improved bicycle and pedestrian safety in school zones.
Design	More Roundabouts.
	Support use of the diverging diamond interchanges.
	Design new roads with bike lanes and or wider shoulders.
	Location , timing, and operation of signals.
	Install longer merge lanes.
	Limit new curb cuts.
	Limit left turn movements.
	<ul> <li>Opposition to the use of medians to block certain traffic movements.</li> <li>Use more R-Cut or other innovative designed intersections.</li> </ul>
Bike/Pedestrian	Bikes should not be allowed on the roadways.
bike/reaestran	<ul> <li>It's not the states responsibility to provide bike facilities.</li> </ul>
	<ul> <li>Provide more sidewalks and pedestrian accessibility.</li> </ul>
	Build bicycle/pedestrian facilities when constructing new roadways.
	No rumble strips.
	More and safer bike routes.
	Bike and pedestrian facilities help reduce congestion, increase capacity,
	and improve public health.
	Bicyclists need to follow the traffic laws.
	Provide more striped bike lanes, wider paved shoulders, grade
Congestion	separated/protected bike lanes and multiuse trails.  Reduce congestion by adding new lanes and roads.
Congestion	Reduce congestion by limiting residential growth.
	Reduce Congestion by improving the timing of signalization.
	Reduce the time it takes to complete roadway projects .
	Reduce congestion by increasing multimodal transportation options.
	More roads and lanes alone will not solve congestion.
Enforcement and	<ul> <li>Speed limit, aggressive driving, and texting while driving laws needs to be</li> </ul>
Education	enforced.
	More liter control.
	Provide red light cameras on traffic lights.  Increase driver's education requirements
	<ul><li>Increase driver's education requirements.</li><li>More law enforcement presence on the highways.</li></ul>
	Enforce traffic laws on bicyclists.
Freight	Focus the movement of freight by rail over trucks.
	<ul><li>Improve railroad crossings.</li></ul>
	<ul> <li>Separate Trucks from Cars on the Highways.</li> </ul>
	■ Too many trucks on the roads.
	Restrict truck traffic during peak hours.
	Create more designated truck routes.
Funding/Taxes	Change the state's funding structure for collecting revenues by requiring
	motorists to pay on a per mile basis opposed to a per gallon gasoline tax
	basis.  Provide permanent transit funding.
	<ul> <li>Use exactions on developers from new developments (Dedicate ROW)</li> </ul>
	and/or Build/Widen Roadways).
	Give more money to growing counties.
	Distribute monies more equally throughout the state.
New Technology	<ul> <li>Use of Intelligent Traffic Signalization (ITS).</li> </ul>
	Electronic vehicles and convenient charging stations.
	Electric Buses.
	<ul><li>Autonomous vehicles.</li></ul>



# **Appendix B**

# **Survey Comments**

#### **Survey Question 1 Comments**

I'm assuming road widening is part of adding capacity. This is a must in certain areas.

We need more emphasis on making the state bicycle-friendly. In Columbia, need safer bridge crossings, esp. Klapman Blvd bridge, river crossings from riverfront park, cross-town pathways.

safe roads should always be combined with sidewalks and bike paths

1. You seem to be suggesting you will only focus on safety for motorists. 2. Bridge repair should include adding/maintaining quality space for people on bikes and foot.

As this is written it gives the impression walking/biking, transit etc. will not reduce congestion. I beg to differ as there are more ways to reduce congestion than just building more roads and adding lanes.

Need much more focus on bike/pedestrian infrastructure and safety.

More safe sidewalks and bike paths. I don't want to have to use the car for short trips, but I have to because many roads and intersections are dangerous to cross on foot.

There are many places I would prefer to ride my bicycle to if we had bike paths! If you look at the success generated by the Swamp Rabbit Trail you see a small example of what can be achieved. We need a lot more.

Require wider shoulders on all roads and protected, bike paths wherever possible

Three comments: (1) For the "Sidewalks & Bike Paths" item, bridges are a crucial bottleneck in the system. Please provide multi-use paths on all new/expanded highway bridges that have local roads nearby that could connect in. For example, for I-526 in Charleston, the Westmoreland, Don Holt, and James B. Edwards bridges could all provide invaluable connectivity for walking and biking if multi-use paths were added to the bridges, similar to the Ravenel bridge. (2) The "Safe Roads" items listed seem geared toward highways. For smaller local roads, please consider: reduced lane widths (11' max, 10' would be safer and still provide similar capacity); curb bulb-outs, tighter turning radii, refuge islands, and no-turn-on-red signs at intersections used by pedestrians; and "Bikes May Use Full Lane" signage everywhere instead of "Share the Road" (this is FHWA's best practice now; see https://mutcd.fhwa.dot.gov/knowledge/faqs/faq\_part9.htm#signsq5). (3) In general, I think SCDOT should focus more on maintaining existing assets than building new/bigger ones. Our total network needs to be sustainable to maintain.

I think walking/bike paths or golf cart /moped road are needed in the beach areas of the low country

I believe bike and pedestrian trails should be responsibility of local governments not state dot.

Consider saver bike paths, several people have died, bikes, walking but some drivers, in chas. are in a hurry a lot of accidents'

Remove the current third party road design engineer. They have fouled the Ravenel, Wando and Dorchester road projects to mention a few Bikeways are a waste of money as they are used less than . 5% of the tome

The roads around here are extremely dangerous and unwelcoming to pedestrians and bicycles. I've travelled all over the US and the low country must be the worst in this category

SC is behind the times for walking and cycling paths. It could be promoted as a health issue

Please make SC safer for pedestrians and cyclists! I grew up here, and could ride my bike all over town but cannot safely do so now. And please time your lights!

We needs more cycling lanes in All the Pee Dee area.

Rumble Strips and such should only be used when they do not negatively impact bicyclists. When a bike lane or separated path is provided.

I think Washington State requires separate bike lanes on all new roads or repaired roads. We should do the same.

Crossing walk sign's timer needs to be extended before it turns orange. You are not even half way across the road and it turns orange.



For every new road or repacking a bike lane should be added! Would love to bike safely from goose Creek to downtown where I work. A path from goose Creek to Summerville as well. Use of old railroad tracks or parallel path to tracks even use of wide center medians for this purpose.

With every road there should be a bike and pedestrian right of way alongside that road. We need to make all roads comparable with all forms of transportations.

Bike paths feel good, but are a waste of money and space from a utilization standpoint. Could add at least one more lane. Better to build a park.

The past sins of omission regarding bicycle and pedestrian infrastructure need to be corrected, along with appropriate measures in new infrastructure

The past sins of omission regarding bicycle and pedestrian infrastructure need to be corrected, along with appropriate measures in new infrastructure. Do not use resurfacing and pavement preservation inappropriately on roads that are too degraded for such treatments, alligatoring for example.

The past sins of omission regarding bicycle and pedestrian infrastructure need to be corrected, along with appropriate measures in new infrastructure. Do not use resurfacing and pavement preservation inappropriately on roads that are too degraded for such treatments, alligatoring for example. Transit needs to include intercity and metropolitan train service

Adding Sidewalks and Bicycle infrastructure to projects reduces congestion at almost 0 additional cost in the scheme of things.

Roads are becoming too congested with bikes and people. Drivers need a place to DRIVE

Bike lanes are also a safety improvement with traffic slowing effects. Some roads should be closed to decrease maintenance needs created by political construction of roads.

Bike lanes are also a safety improvement with traffic slowing effects. Some roads should be closed to decrease maintenance needs created by political construction of roads. Bridge replacement or improvement should include pedestrian walk ways especially in municipal projects.

Bike lanes are also a safety improvement with traffic slowing effects. Some roads should be closed to decrease maintenance needs created by political construction of roads. Bridge replacement or improvement should include pedestrian walk ways especially in municipal projects. Rail transportation of freight, light rail public transportation, and bus transportation should be used to decrease wear and tear and associated maintenance for our roadways. Mass transit opportunities also increase public resource access and utilization to connect citizens with jobs, education, and health care.

I would love some sidewalks and bike paths in more rural areas - those roads are often narrow and dangerous as is, and when pedestrians and cyclists want to get around it can become more dangerous for everyone. I would never walk or bike on the roads around my house because of the safety issue, but I wish I could. Also, we could use a transit option to get from Lexington to Columbia to reduce traffic in that busy corridor!

Sidewalks should be separate from bike paths.

I don't want to lose vehicle lanes for bike lanes.

Make cyclists use the freaking sidewalk!!!!

Bike lane multi use lanes

Separate bike lines

Please let bicycles use the sidewalks! No one else does. Riding in traffic is suicide

Better system of wheelchair accessible buses

Sidewalks & Bike Paths, Transit all help reduce congestion. So they are all equally important.

Invest in transit, bike and pedestrian infrastructure, fix the road and focus on moving people, not cars.

SC needs to connect sidewalks and build interconnected trails so people can walk to stores. Safe bike lanes that actually are useful to get around and don't end abruptly ending in the middle of nowhere. Light rails connecting cities.

If there is a bike path bikers must use them

Sidewalks should be separate from bike lanes. Two different issues.

Bike paths,

South Carolina is one of the worst states for using bicycles as a form of transportation. The mild climate and terrain makes it a great candidate, but poor planning and prioritization of pedestrian/bike resources makes it unsafe.



Please consider sidewalks to shopping areas. I'm Aiken SC, traffic could be reduced if sidewalks were completed from neighborhoods to major shopping centers.

Please consider sidewalks to shopping areas. I'm Aiken SC, traffic could be reduced if sidewalks were completed from neighborhoods to major shopping centers. Sidewalks should include a lane for bicycles.

Bike lanes preferred to bike paths.

Bikes and pedestrians are not the same thing. Need more BIKE LANES.

This area isn't very pedestrian or bicycle friendly, with very few shoulders or paths. Too many accidents involving both. Also, when car accidents occur, no effort is made to redirect traffic, causing major back-ups.

Bicycles seem to be taking over secondary roads. This is dangerous for the cyclists as well as the motorists.

Bike paths need to be larger and separated with additional lines. Cars drift to the shoulder sometimes and will hit the biker.

Many neighborhoods don't have a sidewalk system at all or one that connects to areas of commerce.

Improved and additional sidewalks and bikeways will reduce road congestion and maintenance costs by taking cars off roads. Sidewalks and bikeways will also improve our environment by reducing emissions. Neighborhoods should be connected without requiring getting in a car.

No bicycle lanes, NO BICYCLES. ALL vehicles keep RIGHT except to pass. Use BOTH lanes to point of MERGE, the ALTERNATE merge. Also called ZIPPER merge.

Need new laws on "recreational biking on public roads.

ADA compliance should be a priority

more bike lanes!

Especially bicycle lanes

More like lanes.

Important but bikes and walkers don't mix. Athletic cyclists travel at 20 mph. Cyclists need their own lane.

I live between Blythewood & Elgin, and see many pedestrians and bicycle riders trying to share roads with narrow & trashy shoulders. One day, I saw a woman trying to push her walker through high grass on a shoulder. This practice of building roads with little or no accommodations for pedestrians is just wrong and needs to be changed.

#### Rike lanes

I don't think bicycles should be on any main hwys. I can't believe there are not more deaths due to being on a bike in a 55 mph zone. I've have rounded a curve & there would be bikes & a semi coming in the other lane terrorizes me when this happens. I drove semi & if I would have been in it may not could have stopped Choices would have been hit other semi head on (kill driver), run off hwy(kill self) & wreck or run over bikes (kill bikers). I don't like any of those do you? If you can't do the min 45 then you should NOT be on the hwy because you are a ROAD HAZARD !!!! If a car has the min of 45 mph for safety then were does it make sense to put a bicycle in a 45 min zone.

Sidewalks and bike paths should not be implement led at all until all the roads are in good condition. Same goes for the rumble strips,

Sidewalks and bike paths should not be implement led at all until all the roads are in good condition. Same goes for the rumble strips and transit.

Bike Paths! Bike Lanes!

Bike paths need a barrier between vehicles and they need to be regularly sweep to prevent flats

Definitely need to look in Bike paths

There are not nearly enough bike paths and sidewalks. Both need to be wider than what is common here. Sidewalks should be wide enough for 2 people to comfortably walk side by side. Bicyclists should not be expected to ride in an unprotected lane barely wide enough for a single bicycle. Bike paths must be protected by barriers (for example poles) so cars cannot drift into them

A single white line between a bike and a diesel doesn't work. Also, unless distracted driving is dealt with, why would you put a bike or a pedestrian on the same road separated by only a white line ... ???

Biking on congested urban streets is a risky undertaking. More consideration for cyclists would be beneficial.



Bike lanes are needed to prevent collisions, injuries, and fatalities. The growing popularity of e-bikes means more bikes on the road. Every bike on the road = one less car on the road.

Greenville and surrounding areas have become a very bike friendly town. DOT should make bike lanes available throughout the area!

With the Swamp Rabbit Trail, our area has become a very active and attractive area. Walking and biking have become very popular and useful!

We need more greenways. Use Madison Wisconsin as a model.

Since most roads are built without shoulders, barriers to bike and pedestrian traffic are more pronounced in SC than other states.

Wide protected bike Lanes in cities, wide shoulders in county.

My old mum wants to bike to work, and I'm not keen on her dying in the process.

Please allow a wide one way dedicated bike path in Murrells Inlet along Business 17.

Bikes traveling on roads is dangerous. If they don't have a bike lane they shouldn't be there . Someone is going to get hurt

bike paths are usually underutilized and expensive to build. A lot of the road right of ways do not have room for bike lanes and a lot of cyclists won't stay in them anyway.

PLEASE consider at least adding a wider shoulder and/or bike lanes to roads. I moved to Horry County from MD. I love it hear, but have essentially given up cycling for fear of my life. Motorists here seem to hate anyone on a bicycle. Cycling is healthy, saves fuel, helps lessen congestion, and is environmentally cleaner. Thank you!!

To me this is very important. I would love to cycle more but the roads are just not safe. They need to be buffered bike lanes

I think a lot could be done to reduce congestion just by requiring kids to ride school buses, car pool or walk/bike to school. I think it is ludicrously unsafe for bicycles and golf carts to be allowed on roads with cars and trucks...clearly they cannot keep up with traffic well enough to avoid or prevent accidents. Very dangerous. And being required to ride on the same side as cars as opposed to facing oncoming traffic is very unsafe. Bikes and gold carts have much more in common with pedestrians than they do with cars and trucks and they should be treated accordingly. Until they are given some protection we will have a lot of unnecessary injuries and deaths. So I don't support any bike lanes etc. since they all end with bikes riding in heavy, fast moving traffic.

Rails to trails!! Utilize old railroad paths for safe walking/running/biking areas

we need bike trails!!!!!and pedestrian-safe roads. multilane roads make people drive faster and result in more accidents and deaths

Bike paths need to be wide enough to accommodate Golf Carts where there is a real presence of them. Why should bikers and walkers who are mostly young people. Older people depend of golf carts to get outside in the fresh air. It's not fair that the new road ways would not include them also. What's another 16 in. Also what is with all the bike lanes out on interstates. I have only seen bikers there if it's a race. But if u make it safe for them you need to make it safe for our golf carts. Too

Bicycles should not be allowed on any road that automobiles use as they cause congestion and road rage. If they are to be allowed on the roadways they should be licensed, insured, be able to maintain a minimum speed, fly a large orange warning flag on an 8 foot pole, wear reflective clothing and most importantly obey all traffic laws.

Bicycles should not be allowed on public roadways. Number one safety hazard!

Any new construction should be required to justify not including sidewalks and bike paths, including bridges.

Old neighborhoods need sidewalks just like the new high income neighborhoods

bike paths need their on lane. many highways are too busy for bike riders to use safely

Bicycles need to have their own lanes and not use current lanes used by motorized traffic. Many highways are to dangerous for bike riders to use!

As someone who tries to reduce their carbon foot print by occasionally cycling 20-50 miles to work I need to have more peace of mind knowing I'll have a lane that is less likely cause me get hit by a vehicle.



Bike paths and sidewalks need to be sufficiently wide to provide safety from vehicles just inches away. Consider the "European" model where there are small medians between vehicular traffic and bike/pedestrian use. A 3' bike lane just inches from speeding vehicles is extremely risky and dangerous.

Unprotected bike lane shared with cars (pictured) - it is suicide ride. You ignoring the stats (how many bicyclists recently died and why?)

Bicycles shouldn't be allowed on the roads. They are just asking for death.

stop making city streets smaller and more congested by adding bike lanes!

I don't think bicycles should be allowed near busy highways. A bike path should only be on two lane roads, but they should not be allowed on the roadway at all. Too many deaths in our area already.

this is a blanket statement but some actual usable bike paths in the country would be nice

I would like to see sidewalks on roads with schools. For example Five Forks Rd in Simpsonville only has a sidewalk in front of one side of the school. There are hundreds of kids, I would suspect, that could walk to school if sidewalks were put the entire length of Five Forks Rd. This would drastically reduce morning and afternoon congestion!

Bike paths are good but last on list of importance.

I live in Florence where the 'side of the road' equals about 1/4" beyond the white line. I was on a bicycle training ride last year for a race, hugging that white line. I was hit by a car doing 65mph and spend three months in the hospital learning to walk again. If you want to 'share the road' then put more bike lanes in. thanks.

Rifle Range road in Mount Pleasant needs dedicated bike Lanes. There are too many bicycle riders that use this road and it causes traffic to slow and swerve to go around them.

Vision Zero advocates taking away traffic lanes to give to bikes/pedestrians. This results in more congestion and wrecks/injuries. See National Motorist Assoc www.motorists.org

State sponsored cyclist's rights and responsibilities campaign

Bike Lanes are so dangerous. Especially the one at Faris and Augusta in Greenville County. You have to cross over the bike lane to make a right turn. Bicycles are not taxed to help cover Road maintenance and therefore should not be on the main roads at all.

Having a lame for bicycles is totally dangerous. Especially at Faris and Augusta in Greenville county. You have to cross over the bike lane in order to make a right hand turn. Bicyclist do not pay a road tax in order to use them unlike owners of vehicles pay out the wazoo in Road tax.

Making SC more bike friendly attracts a healthier transplant and keeps natives healthier

Bike lanes need brighter safety marking

Not mentioned in this list, but I-73 is top on my list.

More roads

Less housing developments

Add the infrastructure ancillary roadways including extending Gardner Lacey, RT 31 Interchange at Augusta Plantation and the SELL line

I-95 needs more lanes. It's always backed up. The I-26 /I-95 intersection needs to be improved. It's dangerous when getting off I-95 and getting on I-26 west. There isn't enough distance to merge left off the 1-95 ramp to I-26. Cars are traveling so fast and traffic is so heavy that you're forced to stop or get into the emergency lane on the shoulder. And, cars are merging right to get on I-95 south at the same time. Plus, there are potholes at this location and there are 18 wheelers on the Ralph shoulder. It's such a mess. Please do something

Roadway expansion is crucial. Lighting on roads needs to be implemented

Connecting Ashley river road to Charleston/ North Charleston via another way than 526/ or Cosgrave or just making Ashley river road wider.

Be proactive. Start building bridges now before they break.



Please give serious thought to expanding for the future and not just the here and now like the disaster of I-26 & Bees Ferry Road. Both were obsolete by the time the projects were done. Glenn McConnell should have been expanded years ago to at least 3 lanes the whole way.

Build a second bypass that mirrors 526 from far side west Ashley / johns island to Cainhoy/huge through Moncks corner

build 5-10+miles to next exits expressway above current i26 pathway

Add new road infrastructure, such as roads above roads, dual highways, expanding roadways to allow for more traffic

Finish the berlin g parkway

Adding and expanding bridges

The state is not making the roads with enough lanes.

3 lanes needed on 26 from 29483 until it meets 3 lanes in Cola. Very dangerous to travel the 2 lane stretch. Thanks!

South Carolina is the only section of 95 that is only 2 lanes

Add more lanes when road construction is being planned. Think out into the future by 20-25 years as to what the population could be. Instead of expanding to 3 lanes make them 4 as an example.

More lanes and better off ramps

More lanes and better off ramps Truck lanes would help with traffic I've almost been hit by dump trucks and freight trucks changing lanes without looking or signaling

More lanes. Better on/off ramps and trucks lanes which is a huge part of the traffic issues

Hwy 101 widening. North south roadways need improvements

Complete I526 to James and Johns Island and I526 widening from I26 to US17 S

Desperately need a bridge in Georgetown county from the beach to 701 near Plantersville.

Interstate hwys in SC should be a minimum of three lanes for a direction.

Need 3 lanes on 95 in SC like other states.

Having 3 lanes of traffic

Look into making 3 lanes of traffic, specifically on 26 between 77 and 95

Build Route 73 to the beach.

More roads that go thru and connect. More roads!! Fix 26/526 interchange. Should be top priority.

Continue 77 from Columbia down to Statesboro to relieve 95/26

195 through SC needs to be 3 lanes each direction. This is long overdue.

There needs to be another way across lake Wylie other than 49

Bridge across Lake Wylie from Ft Mill to Rockhill to relieve traffic through Lake Wylie.

Build bridge from Ft Mill to Rockhill to reduce traffic through Lake Wylie

roads need more lanes, we have built more subdivisions and businesses and the roads are the same and now no one can get anywhere. 26 needs another lane for the entire length of the road. Charleston to Asheville.

3 lanes on I-95, (Georgia to N. Carolina). 3 lanes on I-26 (I-95 to N. Carolina)

It would work well if we had an extra lane specifically designated for trucks like in our neighboring states.

Most important is winding 501 between MB and Conway

Mostly on a federal level in which one can pass through our state N to S and E to W with at least 3 lanes each way.

Please add additional lanes more quickly. It takes entirely too long to widen the highways that so critically need it.

Widen I 95

195 from rt 26 south needs at least 3 lanes each way

Make I26 eight lanes wide

I live in northern IL. 521 needs widening asap!



I-95 needs to be widened to six lanes. SC is a bottleneck!

Highway 90 in Horry County need to be 4 lanes with a center lane.

Highway 90 in Horry County need to be 4 lanes with a center lane. A bus that runs the length of 17 and up 501, take Uber the rest of the way.

Make 95 in some areas 3 lanes

Make 95 in some areas 3 lanes. Post signs left lane for passing

Why does Columbia have 15 lanes of interstate in and out and Charleston only 3

We need I-73

Better entry and exit from Horry County. No all roads lead to Conway.

Minimum of 3 lanes on I-26 and I-95 throughout state

More like lanes. Safer roads for cyclists. Less potholes

SC needs a new interstate to Myrtle Beach. Too much congestion on 501 and 38.

Highway to connect Myrtle Beach to 95 or 74.

You're so far behind now with urban sprawl it's laughable. There are 2 lane roads that should have been expanded to 4 or 5 lane years ago. Hwy 76 between I-26 and Chapin comes to mind...

We need an interstate running from Clemson to Beaufort.

The bridge going into lake Wylie (49) needs to be widened for the growing community and the roads on both sides as well. And the light at the CVS on 49 in lake Wylie needs timed better. It causes congestion to the bridge everyday!

We used to have roads and interstates people would marvel at and envied - no more. My most needed road project is the bridge at the GA-SC border being widened along with I85 being widened to Exit 19. The bridge is getting dangerous because of the condition of the asphalt. It is way too narrow. I was recently told that it's a priority but only for 2023 and what If funds are left over from other projects. Tell me, when we're there ever funds left over from a road project? I drive this road twice a week from SC to Atlanta. This needs attention from the DOT, governor and the state and federal government.

You need to make 95 three lanes both ways! It's a disgrace to drive into SC and squeeze into two lanes.

There are still major transportation links needed in SC! Build I-73 and complete the Mark Clark Expressway. Columbia needs a Southeastern Beltway from I-20 to I-26 in lower Lexington County. Greenville, SC needs a limited access connector from US 25 at Travelers Rest to I-85 or I-385. Rock Hill area needs a high speed direct parkway or limited access road from I-77 eastward to US 521. Lower Cherokee County needs an east/west direct access primary highway from I-85 at/near Cowpens across to York, and on to Rock Hill to connect with I-77. Beaufort needs a better connection to I95 for civilian and military purposes - IE: a direct link from US21 at Gardens Corner to US21 where it meets US 17 near I-95 is needed to eliminate the long southward curve. US378 and related bridges need to be improved to 4 lanes from SC51 to Conway. A new evacuation route needs to be built from the Murrels Inlet area westward across the Pee Dee Rivers to tie into SC Hwy 261 with an improved route from there to Lake City. Don't totally give up on building new connector roads.

I-95 entering SC Georgia must be widened like Florida and Georgia did years ago.

Lower dollar but high return. Perform intersection improvements. Add double left turn lanes, add right turn lanes, fix the numerous off-ramps that only have 1 lane exits.

Make I 95 three lanes

The existing roads in SC are in terrible shape. Fix those, then add roads or widen existing roads.

6 lane 195

adding lanes between Summerville and I526 will make a huge difference

Need another bridge to Hilton Head Island

Need another bridge to Hilton Head Island. Because of 278 going from 3 lanes down to 2 and the HH Island bridge being only 2 lanes East and West is causing backups this needs to be immediately address.

The 302 bridge in Aiken. Forcing trucks onto smaller side roads



Add more lanes on our interstates especially in the low country. The I - 75 and I - 26 corridors are in desperate needs of widening for the amount of traffic on them. Travelers from out and in state wish they had other options but we don't.

Traffic from Seneca through Clemson on 123 is horrendous. We need a by-pass or additional lanes

All interstates must be a minimum of 6 lanes, I-95, I-26. Finish I-73.

Widen interstate highways to unite with bordering states.

I 95 should be 3 or 4 Lanes on each side. And needs paving

We desperately need I-73 here in Horry County. Also the SELL lifeline. No easy emergency ways out of the area.

Widen all interstate roads to 3 lanes

Expand I 95 to three lanes

I 26 needs to be 3 lanes all the way from Greenville to Charleston. Too many trucks and LOTS of congestion!!

We all want I73!!

Make trucks stay to the right. Enforce long established driving rules like keep right except to pass and no passing on the right. Establish a HOV lane.

Add an additional Moped/scooter lane. Must be operated by a licensed driver with insurance.

I drive I26 frequently. It is disgusting, condition is horrible and should easily be 3 lanes each direction

Wider roads and extra lanes where possible will help reduce congestion

we need new Roads Like I 73 Hwy 31 & Highway 22 in Horry County . I see no strategic plan for new roads . you can only widen existing corridor so much .

Columbia needs a bypass interstate around the city connecting all major interstates: I-26 in Swansea and Chapin, I-77 in Blythewood and I-20 Past exit 51 and Elgin.

Most important to me is adding to both ends of Hwy 31 ASAP.

Tournament Blvd is awful, it needs to be widened to another lane at McDowell's Shortcut and put in a roundabout like at the shopping center at 544 & 17 in the Target shopping center. That one works but it has 2 lanes. Also all our lights are timed wrong and cause congestion. Please get a specialist in to do this. Do not let them put in housing on the golf course at Garden City Connector without widening that road to 2 lanes, it will be awful otherwise. Make the developer put in the two lanes.

Incorporate transportation and transit in growth areas before it gets out of hand.

New freeway into Greenville from Seneca/Clemson area that completely bypasses Easley

An interstate highway from Myrtle Beach to 195

There are several roads that desperately need to be widened. Henderson Gap is just one of many. Its dangerous to drive down as it has several hills and sharp turns.

Interstates congested because of trucks passing trucks slowly. Need 3 lanes from Columbia to Charleston on 26

26 to Charleston from Columbia needs to be three lanes all the way to Orangeburg From Harbison to Newberry on 26 it needs to be three lanes the entire way. Post slower traffic move right signs we know it's the law but people don't follow the law

Widening all roads and 521 in Indian Land and Lancaster SC

More lanes added on busy highways in urban areas!!!!!!! LONG OVERDUE!!!!!

I26 and I95 both need to be 3 and 4 lanes from NC to the coast and Georgia to NC line. Build a bridge over Goose Creek and route these trucks out of the city. Bridge could dump out around Clements Ferry. Make the bridge toll to pay for it. Diamond Interchanges at Ashley Phosphate & I26 would fix a ton of traffic delays in that area as well as many others. Diamond interchanges keep traffic moving in masses.

Our interstates are 20 years behind with their capacity to handle their current volume. We need three lanes on I-85, I-26 and especially I-95. I travel on all three monthly and they are a disaster!

More lanes on 195 from Ga to NC, complete 526 Johns Island, improve existing 526!! Make 126 6 lanes where it's 4.

Need four lanes on I-26 from Charleston to COLUMBIA



Need to make all major interstates 3 lanes in each direction

Make I-26 and I-95 6 lanes. This should have been done 30 years ago!

Roads all need to add lanes.2- lanes is not sufficient for this population!

Get in Horry County and widen 501 and 701

Get in Horry County and widen 501 and 701, when paving or repaving use a company that does quality work instead of using the lowest bidder, pave roads where there is sufficient water drainage off the roads to prevent avoidable accidents due to ponding.

Making all the interstates 6 lanes is the only priority. Look at Google maps (Red) any day and you see what happens when population doubles and nothing is done about congestion.

Widening of Interstate 95.

Highway 9 traffic lights need to stay on green longer side streets traffic back up. Widen because of all the new neighborhoods!

3 lanes entirety of 26

For the love of God, PLEASE join Georgia and Florida in making I-95 six lanes!!

We need more access in and out of Charleston, as well cross streets, to ease traffic on such streets as Ashley Phosphate

Build east-west highway from upstate that connects to highway 95. This would relieve much congestion in Columbia area

85 should be 3-4 lanes through our whole state to reduce congestion. Arrest more speeders!!

Build a new freeway from I85 To Hwy 123 Bypassing Easley.

All freeways in the greater Charleston area should be, at minimum, 4 lanes travelling in each direction. Not including merge lanes for entry and exit.

All freeways in the greater Charleston area should be, at minimum, 4 lanes travelling in each direction. Not including merge lanes for entry and exit. There is a great need for enforcement of proper lane usage by tractors hauling freight containers. Too many container trucks are riding in the passing lane for the entirety of I-526.

All freeways in the greater Charleston area should be, at minimum, 4 lanes travelling in each direction. Not including merge lanes for entry and exit. There is a great need for enforcement of proper lane usage by tractors hauling freight containers. Too many container trucks are riding in the passing lane for the entirety of I-526. Not just repairing existing bridges, but building more bridges. There are currently only 2-3 bridges across each major river in the Charleston metro. More bridges would allow drivers to use surface streets more than freeways, which would help alleviate congested traffic.

#### Additional lane on Maybank Hwy going off Johns Island . It should not take 30 mins to go 1 mile!!!!!!!

items don't wait. 1 complete I526 2widen or expand I26 Chas 3East bound off ramp at Ashley Phosphate fix horrible design 4 Patriot Blvd bike lanes 5Water run off I 26 more drain holes 6 light and signage overhead can't see with Trucks need side signs especially lights then people could see and not run.. Downtown Chas street name signs on overhead not just side st sign. Street and lights in two directions or actually see what driver sees not just a sign put. Can't see signs and lights when behind trucks on Ashley Phosphate due to also the uphill direction. Just ride with me my observation. Also that off ramp signage for truck lane too close to Ashley Phosphate for no right lane for trucks plus the road turns signs can't be seen because of backup cars...

Widen 501

congestion on I85 could be reduced with more lanes and smarter merge lanes along with passenger rail between hubs like Charlotte, Spartanburg and Greenville

Interstate route to MB. Too hard to get her

We the people of the Grand Strand need a bypass to get around the 17 bypass. Tired of all the new roads being built in Greenville, Columbia, Charleston.



I've traveled I-26 and I-95 quite a bit this summer and can tell you we're very close to gridlock at times on both roads. Need at least a 3rd lane everywhere and may want to consider confining 18-wheelers to the right lane. Our State will suffer economically if we fail to widen these roads. AND SOON!!!

complete widening on I-26 so that it is 3 lanes all the way from Columbia to Charleston. Widen I 95 to 3 lanes to the SC/GA line . Re-Pave Hwy 292 in Spartanburg County ( especially from Inman S.C. to Lyman, SC . Look at traffic patterns & consider creating a parallel road to Hwy 9 in Boiling Springs, SC . Traffic volume has increased due to growth. Thank you

Reducing congestion should involve expanding transit.

What about reducing congestion by having public transit? More lanes = more traffic

Reducing Congestion does not have to necessarily cost in hardware. Let's invest in smart engineers that can figure out optimal ways to route traffic and create intersections and signals that make sense.

Daily traffic congestion in the Myrtle Beach, Murrells Inlet, Pawley's Island areas is a NIGHTMARE.

I believe if congestion is reduced, then the roads could be safer. I drive 500 + miles a week and I've seen a thing of two. One thing that happens is the traffic, roads and signals induce urgency in drivers. For example, if they see a yellow light they drive through the intersection with about 3 or 4 more cars following, clearly on a red signal. Because the thought is if I don't make this light, I'll have to sit for another few minutes to catch the next light. And just because you have a green light doesn't mean you're going to get through the intersection. Sometimes waiting for 2 or more light changes is normal. This is where the drivers are influenced by the traffic patterns and signals. They know if they don't catch this light they'll be waiting.

Congestion is absolutely the worst thing and South Carolina more roads are needed

The congestion and constant backup on 526 and 26 is insane and needs to be addressed.

Reduce congestion, improve planning, and infrastructure prior to influx of 1000s of new residents coming to state every month. Properly manage road construction projects so they do not take years to complete.

Reducing congestion, safe roads, and repaving can all be positively impacted by increasing transit and pedestrian infrastructure. transit and walk/bike infrastructure decreases congestion, decreases stress on roads because of fewer vehicles, making it longer between repaving.

Reducing congestion, safe roads, and repaving can all be positively impacted by increasing transit and pedestrian infrastructure. transit and walk/bike infrastructure decreases congestion, decreases stress on roads because of fewer vehicles, making it longer between repaving. Reducing congestion by "adding capacity" is shown not to be very effective it only invites more traffic.

Suburban sprawl is hitting some areas FAST, and the current roads are too congested with the thousands of new drivers going to work and coming home. Example: Five Forks and surrounding areas

Do things to keep traffic moving as much as possible

Widening roads is like adding another hole in the belt to treat obesity.

Reducing congestion is number 1. The rest are so far off my radar they're not even relevant when compared with reducing congestion.

NE Columbia continues to overbuild (new neighborhoods popping up constantly). The roads aren't able to sustain the growing amount of traffic without massive back-ups.

We really need more roads to comber congestion when accidents on 26 or 76 or heaven forbid if both at the same times.

Congestion elimination is a non-attainable goal, as fast as you increase capacity it is full; therefore alternatives like walking, biking and transit should be priorities. Please note, I think there's tremendous potential in "smart signals". I have seen serious congestion significantly improved with sensors and proper signal algorithms. In my opinion much of the congestion I see in urban/suburban areas is self-induced with non-logical flow created by poor signal use / technology.

Invest money into timers for lights. So much congestion happens from lights changing for a right on red for example

This could decrease the amount of vehicle traffic

SC needs a new interstate to Myrtle Beach. Too much congestion on 501 and 38. On the wrap up I drive for two or more, not one alone, there are not enough questions to properly answer this question.



I used to live in Summerville and North Charleston but moved to Georgia just outside Atlanta for work in 1998. We have family in SC and visit about three times per year. The traffic Charleston and Dorchester counties is worse than Atlanta. I understand it is more land-locked there but it discourages us from visiting and has contributed to our decision to never live there again.

Hwy 123 near central. Is ridiculous I drive interstate 85 daily an if it can stay moving there's no reason it is taking me 45 min to go 2 miles

Rock Hill needs more and better main roads. The few are too crowded.

Adding capacity has a demonstrated negative effect on congestion.

We need to leverage intermodal if there are no plans to expand interstate highways as NC and GA have done. Congestion combined with road repairs makes the impedes the flow of goods and tourism.

Congestion could be reduced by working on transit, on time schedules, 3rd lane on 501 as transit only/HOV lane. ?

Johns Island traffic light timing sucks!!! 4 minute light at River and 700 is mind numbing especially when it changes 3 to 3 times to get through it. And what up with all the stupid little right turn lanes in places which need left turn lanes . I.e. Brownswood at Murraywood 29455

Lexington traffic on the 378 (Sunset) is ridiculous with the roadways being overwhelmed. I transit from Lexington to Shaw AFB 5 days a week. I can get to Shaw within an hour when I travel at 4 am but the same ride takes me 2 hrs. in the evening with bumper to bumper traffic in Lexington...from the I26 to hwy 6

Lexington traffic on the 378 (Sunset) is ridiculous with the roadways being overwhelmed. I transit from Lexington to Shaw AFB 5 days a week. I can get to Shaw within an hour when I travel at 4 am but the same ride takes me 2 hrs. in the evening with bumper to bumper traffic in Lexington...from the I26 to hwy 6. Repaving: finish 378 in Sumter...horrible road conditions...why a .20 tax on fuel but no project underway...thieves!!!Safety - would you please light your highways? I've had to file two claims with my insurance due to debris or animals in the road...was to dark to see them (I77 & 378) Safety - remove all if the crap, broken down cars off the side of the highway...in one particular instance, a car sat on the Shop Rd ramp to I77 for over six weeks. On 378 in Sumter County...during the hours of darkness, you can hardly see the vehicles until you're in top of them.

Highways are ridiculously congested!!

Since Kingsley in Fort Mill was built, the traffic has been awful. We need to improve congestion and safety. Circles may work to help with left hand turns.

There should only be one on this list and that is to reduce congestion

Keep traffic moving on bypass Rte. 17 in 29588 zip area

Hwy 123 from 93 to Seneca and back is a nightmare in the mornings and afternoons. It seems that the traffic light at college Ave is the problem.

Hwy 123 in Clemson is a parking lot in the morning and afternoon. More student housing right on 123 is not the answer it only compounds the problem.

Congestion could be limited if making all intersections do not block. I have missed green lights because of too many people blocking the intersection.

In-town congestion needs to be addressed most in my opinion! (I am in Berkeley/Charleston county and at rush hours traffic can be brutal.) — IMO better public transit could help with this. There is no bus service from Goose Creek to N Charleston or Summerville and that would be extremely helpful for many.

There has to be a balance between the top 4 and number 5.1 don>t think congestion can be ignored.

many of these options will help reduce congestion if utilized properly.

Focusing on reduction of congestion will also enhance safety, freight movement, and encourage bridge repair. Obviously daily maintenance and repaving will also be enhanced ... and certainly required.

The only priority for me is reduced congestion on interstates. Looking at traffic on Google Maps any day and seeing the RED is revealing. The RED means the road is unusable.

Hwy 8 From Easley to Hwy 81 is too crowded. Traffic backs up 1/2 mile or more.



One improvement from Summerville to downtown will NOT fix the congestion and lack of a safe and maintained infrastructure.

if by "reduce congestion" you mean give people options outside of their cars to reduce car traffic, then yes. If you mean widen highways and build more new roads, then no.

Roads are overcrowded and drivers are not focused on other vehicles making it unsafe to bike ride on the highway.

Complete 526 loop is number one as it will reduce congestion

Our roads are in such a bad need of repair. Congestion between Spartanburg and Columbia is terrible and also Conway and Aner going to the coast. Because of that backup I no longer go to the coast.

Whoever designed the I-26/526 interchange is an absolute embarrassment to the engineering community.

Plan ahead, not react after the need is obvious. Require intersections to have turn lanes. Require builders to pay for improvements needed due to their construction.

Traffic light at 57 and 111 in little river

Trucks need their own separate highway. Their own truck route!

Right turn lane needed from going north on tpc Blvd to 707 in Murrells Inlet

You have deliberately impeded traffic going to James Island by closing one lane to an optional right turn going from the Wappoo Creek Bridge to Maybank Highway, and did this five years ago when it had been safe and working for fifty years.

In Myrtle Beach, it is very confusing on Bypass 17 when the 3rd outer lane appears and disappears. It makes no sense, as a new resident to the area. Also the number of crossroad intersections over 17 bypass need to be reduce and changed to actual exit ramps to handle the increasing traffic in the area. Additionally, a secure 4 lane highway out of the coastal area is needed for hurricane evacuation

Reduce the appearing/disappearing 3rd outer lane on 17 Bypass in Myrtle Beach. This option is very confusing.

Reduce the appearing/disappearing 3rd outer lane on 17 Bypass in Myrtle Beach. This option is very confusing. Also eliminate the number of crossroad entrance on 17 Bypass. Instead change them over to clover leaf exit/entrances. also a safe, dry 4 lane highway is needed from the coast for hurricane evacuation. The population along the coast is growing faster than the infrastructure.

There is such a lack of planning in this state. I recently went to Florida where they have made four lane roads even it's out in a country area. These areas have sidewalks and concrete drains. I was shocked at the disrepair of our roads compared to other states.

Far too many multi-lane intersections with no signal lights. Many would be great candidates for round abouts.

Turn Sumter st in Columbia parallel parking into 45 degree parking in the 1400 block

HOV express reversible lane on interstates

Adapt and elevate roads for sea level rise and tidal flooding

Please spend more resources 1) to assure high quality materials and installation to reduce maintenance and repairs and 2) to improve storm water containment to reduce road flooding and damage. An ounce of prevention is worth a pound of cure.

Please spend more resources 1) to assure high quality materials and installation to reduce maintenance and repairs and 2) to improve storm water containment to reduce road flooding and damage. An ounce of prevention is worth a pound of cure. Is there a way to improve and streamline the financing 'system'? With so many organizations, each trying to get the other to pay, little gets done, and very slowly. Too many dogs in the fight. 'Can't we all just get along?'

The rumble strips put on shoulders - unsafe for bicyclists! Make shoulders wider - 4 feet?

Reduce the congestion caused by left turns that are not signal controlled and install sensors lights.

Drainage

NO TOLL ROADS PLEASE.



Street lights on all freeways and busy main roads. Maintenance kept up on the street as well as traffic lights. More sidewalks and crosswalks. All must be well lit. Red light cameras for main roads. Too many people run the red lights and there is no consequence. Have the stop lights switch to red when emergency vehicles are coming so everyone can move over and let them through.

When you get on 1-26 East at 205, that accel lane should continue all the way to the 209 exit.

Nothing will be resolved until there are 2 ways to get on HHI bridge. Rental cars need to have add on required transportation scans for cross Island. The shuttle is not local enough - it only services tourists.

Speed Limits based on 85th percentile rule

We need to design roads that will handle the influx of vehicular traffic in 20 years from now.

the busses are great but if i could ride a train/rail from Columbia's suburbs to Columbia & then to Charleston, Greenville, Charlotte, Atlanta & the like it would relieve me & many others from driving on the roads & would open up businesses & tourism to Columbia

Someone in Beaufort put medians with plants into a two lane road that had a center turn lane throughout. Most of the left hand turn lanes never get a green arrow, just a flashing yellow one. Two lanes is difficult to make a U-turn in now that we have to double back to most businesses.

Put in turn lanes instead of ground crossovers. Such as on 17 business.

Toll roads where needed and an electronic toll pass compatible with other states.

More environmentally friendly projects. Animal passage, grass overflow parking, plant prairies along areas you don't want to maintain, fix low water dams and outdated culvert crossings.

INTERSTATE to INTERSTATE ramps/interchanges need a better design, which could allow two or more lanes to take the exit without having to merge with flow trying to exit where others are trying to merge into the flow.

School zone traffic flow appears to b an afterthought. Surely the State could make and provide some flow templates for the various locations.

creating opportunities to pass slower moving vehicles.

What about improved rail crossings so we don't get stuck in downtown Columbia because of slow, frequent and stopped freight trains?

I have travel all over the US and have seen many road designs. Look at Texas and see how they handle large volumes by reducing left turns, as well as NJ. Taxes better suited to our needs.

Lane courtesy laws, temporary sections of 2 lane interstates increased to three with "trucks use right lane" to allow for passing and speed limit reform to allow for brisk prudent use of passing lanes without consequence for doing ones part to relieve congestion.

Make more cloverleaf's that keep traffic moving

Fix Flooding areas

Please design roads with useable shoulders.

Please design roads with useable shoulders, keep drainage ditches clear, and clear roads of debris, keep overgrown roadsides mowed, and pick up trash on a scheduled basis. Remove plantings that obstruct driver views at turns and intersections.

Make all lights NO turn on red. Put left turn lanes in and bigger intersections and sync the lights when downtown or major roads

Traffic lights should be placed in areas where there is a backup of traffic due to high usage. Not placed at affluent neighborhood where these residents don't even pay attention to stop signs.

Circle on Longpoint Road dangerous due to unusual and poor design

Would like an option for adding additional lights to roadways.

Reduce speed in areas that were once rural and are now urban. Increase crossings for pedestrians.

Research Telegraph in Detroit area Michigan. There's 50,000 people traveling it daily in some parts and it's seamless.. mainly because of the U-turns required to make a left instead of lights. We need to re-design highway 17, not just add lanes. Feel free to contact me for info.



Traffic light timing and synchronization- it's an easy win building bigger roads

Interstate 385 & Haywood Road. Should have/could have reduced congestion if it had been a clover leaf design. I realize it may not have been in the budget but how much more will it cost to re-do instead of doing it originally. Same exact thing with 85 & Pelham Road exit. You should have estimated the congestion going into Michelin while they were building the new headquarters to put up with all the traffic exiting before Michelin was finished. Same thing with budget here. Spend a little more to alleviate all the problems we give now. You're now doing this with 385 & the gateway. Didn't anyone realize when BMW moved here that the people would also come here? Not only BMW but all their suppliers. Need to think ahead. Budget needs to include long range planning. Woodruff Road is still a joke. No planning ahead.

Left hand turns across traffic are dangerous and should be minimized.

Left hand turns across traffic are dangerous and should be minimized. Evacuation routes are not sufficient for the volume of traffic now that construction is booming again and population is growing at a fast pace. Overpasses are great at busy intersections, but installing new lights north and south of the overpass negates their purpose.

Please re-configure the intersection in front of Miller's Produce on Pineville-Rock Hill Rd (Andrew L Tucker Rd, State Rd S-46-48, Flint Hill Rd, and Pineville-Rock Hill Rd intersect here)

Left hand turning only lane on two lane high ways like 521. There is ample room in the median to create these lanes to help eliminate cars stopping in the main flow of traffic.

All left turns should have a left turn lane or close access and have vehicles drive to closest access that provides a separate turn lane.

Keep traffic delays because of train crossings at a minimum.

Rethinking reducing travel lanes and put in bike lanes. Taking away travel lanes for vehicles adds to congestion and is a stupid idea. Also, huge housing developments going in and road doesn't accommodate existing traffic. Traffic patterns need to be considered prior to building. Roundabouts - seriously? They only add to congestion.

more passing lanes to pass safely around big trucks especially along the south to north corridors

Close the truck lane down to regular 4 wheeled vehicles and only open to large trucks with more than 2 axels or vehicles towing loads. Way too many people use truck lanes as "super passing lanes"

The double bridges are bad. If you go over it at 55 mph its almost throwing your car off the bridge

All freeways in the greater Charleston area should be, at minimum, 4 lanes travelling in each direction. Not including merge lanes for entry and exit. Also, creating a sufficient timed traffic light system instead of the sensor-based traffic lights that are in place, would allow traffic to flow more smoothly during heavy commute times. There is a great need for enforcement of proper lane usage by tractors hauling freight containers. Too many container trucks are riding in the passing lane for the entirety of I-526. Not just repairing existing bridges, but building more bridges. There are currently only 2-3 bridges across each major river in the Charleston metro. More bridges would allow drivers to use surface streets more than freeways, which would help alleviate congested traffic. In regards to repaving; try hiring an actual civil engineer to design and execute the repaving of roadways. There are several major roadways and highways with sharp curves that are not banked correctly for the posted travel speed. Also, adding what's called a "crown" in the center of a roadway allows water to shed efficiently and reduces hydroplaning risks.

The Wando Welch put traffic is out of control. The Don Holt bridge is a monument to poor design and woefully inadequate

The Wando Welch put traffic is out of control. The Don Holt bridge is a monument to poor design and woefully inadequate. Passenger rail from Charleston to Columbia and Greenville?

Redesign outdated intersections. Add left turn signals, utilizing them and those that are already in place, to improve safety and reduce congestion.

Speed limits in congested areas need to be enforced. Downtown Charleston especially. Either enforced or raised then enforced.

Restrict truckers from selected highways making them cars only. NY. NJ, CT all implement this successfully.

Truckers drive hazardously! They have no rear license plate to even try to report them. The police do not have any traffic control presence. The roads are not well lit, roads are striped with non-reflective paint, medians are not well marked. There are no vehicle safety inspections. Pickups do not have their loads tied down. Trailers do not have directional signals or running lights



Speeding, tailgating, aggressive driving all need to be curbed.

Roadway safety should include increases enforcement- red light runners, speed and road age

Litter control

There should be more penalties for people who drive in the bike lane. There should also be more sidewalks near schools.

With efforts to improve education/awareness for DRIVERS re: pedestrian and bicycle safety - reduce distracted driving

Need to make it the work zone speed to 15 mph

More speed enforcement

I do not approve of bicycles on major roads or highways at all. If they are going to use them they need to have their own lane strictly enforced and they should have to abide by the laws of the road like the rest of us. It would be safer for all concerned.

Get broken down or wreck vehicles off road sooner of major highways

Street lights on all freeways and busy main roads. Maintenance kept up on the street as well as traffic lights. More sidewalks and crosswalks. All must be well lit. Red light cameras for main roads. Too many people run the red lights and there is no consequence. Have the stop lights switch to red when emergency vehicles are coming so everyone can move over and let them through. Potholes need to be properly fixed to be flush with the existing road. Sometimes when filled, they are worse than the pothole itself. Keep people accountable of their work.

All of them. Also dedicated force of traffic cops to enforce rules.

Would like to see more speeding tickets given for speeding drivers on I-26.

Although not exactly the purview of SCDOT, traffic rules must be better enforced. For example, in my 1.5 mile commute, I routinely see at least three red lights run each day.

Law Enforcement should be included in the survey. In my opinion, enforcement of current traffic laws should be #1.

Need law enforcement as category.

Really confidence from local law enforcement to actively engage in offending motorists.

Too many drivers running red lights. Install cameras and fine them

I would like to see signs on all the interstates that say "Keep right except to pass" and "Slower Traffic Keep Right". I travel to/from Charleston to Greenville frequently and I think the traffic that sits in the left lane refusing to move creates very dangerous situations on the highways. In fact, I think it is the biggest contributor to accidents on the interstates.

More traffic stops to reduce deaths because of poor driving habits, speeding and road rage.

Put speed limits to where people drive. Like 520 speed limit is 60mph. Most people drive 70 mph. It should be 70.

Every day of every week I watch people run red lights, ignore 'no turn on red signs' and drive at reckless speeds. You have the "absolute worst" record on deaths on the roads (US national statistics). Harsher penalties, speed cameras, cameras at junctions etc. would all help.

Increase driver's education requirements. I've been yelled at when legally using crosswalks by drivers who do not understand the pedestrian signals. This is dangerous.

Increase driver's education requirements. I've been yelled at when legally using crosswalks by drivers who do not understand the pedestrian signals. In the span of a week, I saw three cars stop and then intentionally run red lights - two straight through the intersection and one left turn.

do something about people who speed and tailgate

Red light cameras in trouble spots. I've never seen so many red light runners anywhere as we've traveled cross country repeatedly over the past 50 years. Speeding and red light runners are a real danger here.

motorcycle filtering at red lights/ stopped traffic should be legalized.

I drive on Highway 85 daily and the majority of the congestion I notice involves slow drivers in the left lane. I have never seen a police officer enforce the law that states the left lane is for passing.

Do bicyclists ever get ticketed for running STOP signs? I've never seen a bicyclist stop at a STOP sign.

Left fast lane is for passing not driving slow in.



Enforce all driving laws

At the very least, on I526 semi-truck traffic need to be using right most lanes as it does on I26.

Much more ENFORCEMENT of the speed limits is desperately needed.

More Highway Patrol on I26 during morning and evening commutes.

Really need to teach bicycle safety, rules of the road, to kids in school.

 $Catch speeders \ and \ cell \ phone-texting \ No \ blinking \ yellow \ lights \ other \ than \ late \ at \ night. \ No \ round \ abouts \ in \ Neighborhoods$ 

Biggest issue is mobile phone use. Enforce the law, heavy fines, take cars away. Just get them off the phones while driving

Need to reduce property taxes and increase gas taxes. We need the out of state travelers to share the cost. Also need to find a way to charge bike riders for maintaining bike lanes and trails. Get law enforcement to slow people down and ticket for red lights, illegal turns, cell phone use. I see people texting every day on the road. It's extremely frustrating to know they will never be held accountable.

Enforce basic traffic laws on all roads. Too many people not using blinkers when changing lanes, not abiding by headlight rules especially when raining, etc... Just about every manhole in the state is sunken in and is just as bad as hitting a pot hole.

I think speed limits should also be revisiting. SC allows 70 miles per hour on the interstate highway system and other freeways. However, this means people generally drive much faster. I believe the top posted speed should never go above 65 mph.

Enforce the smaller law,: like no turn signal, going of the white line, and putting up cameras at intersections control Traffic. TV adds on how to drive, safely, how to stop, pass. and show the dangers of what happens when we do not do them... not just DUI and Speeding. We can make our roads safer if we all know how to be safe, and if there are penalties for not. I would like to help in any way I can.

Do something about running a red light.

Move freight by rail

Move freight by rail

Effective management of freight movement and mass transit that works for most will reduce traffic congestion thus saving millions of dollars in the need to build new roads.

Truck traffic near any port cities is out of control. Higher highway heavy taxes and more enforcement is needed

Improve rail. Discourage trucks and home delivery

I only have this higher because of the timing and stopping of the trains that block side roads off of Rutherford road.

Timing and stopped trains off Rutherford for long periods is a problem.

We should be encouraging use of rail to reduce hauling by truck for long distances

We should be encouraging use of rail to reduce hauling by truck for long distances

As I have visibility on the freight movement, I don't think it's a reasonable question to be asking. How can I speak to importance when I have no knowledge of it?

Need a rail system!!! Separate lanes for trucks and commercial vehicles.

This is for the tractor trailer trucks that are going to and from the SC Ports, destroys every mile of the state's roads. Also, they cause of many deaths on the low country roads. These trucks also cause most all of the traffic problems. My suggestion would be, example: I-26 going into Charleston, give the tractor trailer and container truck ONE LANE ONLY for these trucks to travel on. KEEP ALL OF THE TRACTOR TRAILER ON ONE LANE STARTING APPROX. 10 MILES OUT FROM OUR LARGE CITIES. On I-26 there is already a lane that could be made into a LARGE TRUCK LANE.

The traffic going to and from the ports needs to be addressed. So many trucks on the interstate and exit at long point rd is ridiculous

Reduce heavy truck traffic on local roads. Fix pot holes quickly after rain and/or salting is finished.

Take freight completely off the roads or limit the time frame they can travel in the lowcountry. In other words, can't travel during 6-8am or 4-6pm.



Freight movement is a top priority and it should NOT interfere with local citizens and communities. Alternative routes should be given to the truck drivers and routes should not at loss of quality of life to locals!

Spread the wealth around quit wasting money on redoing projects that already exist in the upstate. Widen 95!!!! All the way and finish widening 26. 85 and 385 already have enough brand new concrete!!!!

Freight rail grade crossings and delays are a problem.

I think it needs to be cost efficient to get from one major city in SC to another and within cities.

I think it needs to be cost efficient to get from one major city in SC to another and within cities transit system

I think it needs to be cost efficient to get from one major city in SC to another and within cities. Could trains be a part of the system? Especially for moving freight.

Having an Inland Port was a great idea but it ought to be CLOSED until the highway system is FULLY expanded to accommodate the added 18 wheeler traffic.

SC should require all trailers to have license plates. Too many homemade, unsafe and uninspected trailers bouncing and beating up the roads and they pay nothing, If someone is pulling one that is swerving or bouncing there is no way to identify it. It's past time SC move into the 21st century.

Can we add a dedicated trucker lane for hilly areas of the state where loaded trucks slow the pace on the highway? The aggressive driving attempts I see to get around the trucks is dangerous and the cause of far too many costly accidents, in terms of lives as well as financial loss.

reduce the weight of 18 wheelers and keep them of state roads dodging scales on the interstate.

Decrease speed limit on North Highway 14. Too many BIG trucks and road is curvy

Freight needs to be separated from car transport. Trucks do not stay in slow lanes, they pull out in front of people, and tailgate. We need a system to de-incentivize freight movement during rush hour traffic. Perhaps restrictive rules about in which lane they can travel during these times, i.e. a freight lane, much like an HOV lane.

We need to get freight off the roads during peak commuting hours or at least restrict lanes (like hov but fro truck). We need to get students and teachers to school more efficiently as traffic increases drastically during the school year. Can teachers get vouchers for living by schools? Can there be a disincentive for parents and students driving? Awards/rewards for walking/biking? This is first place public transportation should work. Large companies should also be brought to the table to reduce traffic. Stagger start times? It is about reducing traffic, not increasing capacity.

Keep 18-wheelers out of neighborhoods requiring them to travel truck routes instead of shortest distance.

All of this is tied to my top priority which is to allow for increased mobility across the lowcountry WITHOUT personal cars. E.g. - Freight movement BY RAIL would be more important to me than increasing lanes to provide for more freight movement on the highways.

use the rail road

Keep freight with railroads as much as possible. Reduce congestion by building biking and walking areas for people. possible use the RR for some type of transit like it once was.

We need higher taxes on ports and freight containers! Truckers are poor drivers and are doing the most damage to roads.

If we could use the rail system to move big freight it wouldn't be an issue for our roads.

Unprotected bike lane shared with cars (pictured) - it is suicide ride. You ignoring the stats (how many bicyclists recently died and why?) Freight - the roads are dedicated to it today. But economy doesn't belong to the freight. Two trucks side to side on two lane road make traffic moving slow or don't go. Don Holt bridge, rush hour. Road merges, trucks all over. Maybe it is time to do better road designs and avoid bottlenecks? Trucks - right lane only in between am and pm rush hour. The buses - tell audience the truth. What is full bus means? Standing, sweating, sexually harassed? Why do you have a half transparency? Why the economic growth must change the quality? Why our tax dollars will be used against our needs? Where are the technical solutions? Why do we move backward (busses) but not forward (self-driving cars)? Why the survey has no focus on it at all? I hope you read it all. Thank you.

Along with increases in freight activity comes the problem of where all these trucks will park as they face HOS compliance requirements. We need municipal parking to allow adequate rest breaks and safe operation.



Create designated truck routes rated at 80,000 lbs., and all other State rds. would be at 30-40000. Anyone wanting to run heavy loads would need permits. Install New asphalt with deeper base, thicker top coat. More expensive to install, but will hold up better to increasing traffic loads. Install appropriate street lighting at all controlled intersections. Many depend upon business lighting and it is NOT adequate. More public service announcements on save pedestrian and bicycle use of roads, higher fines for unsafe vehicle operators.

Restrict large trucks from being in left most lane on all interstates.

Be very careful to equalize all funding. Make sure it's balanced and fair without politics being involved.

Make all Semi drivers stay in the right lane or the two right lanes where applicable through the whole state

With all the money coming in, the progress should be way ahead.

Time to take emphasis and funding away from cars . Hate to say that but the future cannot see continued widening of highways to allow people to keep moving to suburbs!

Increasing the quality, funding, and quantity of public transportation, as well as increasing the number of crosswalks and ensuring pedestrian safety through the enforcement of relevant laws both decreases congestion and increases road safety.

Consider impact fees on new construction to help defray infrastructural and safety personnel costs.

Limit new development force impact fee Limit curb cuts

Why does South Carolina always have to be last in public transportation and safe roads. It's maddening considering how much we pay in taxes. Where's all the money??

The central issue is project scoping and budgeting. If the state continues to deny the need to borrow to keep up with growth, it will implode logistically. The scope of projects has been minimal since civil war reconstruction. Minimize government does not work with unnaturally rapid population growth. Take a hint from Tennessee and create enjoyable roads. Yes, ample merge space and interstates that forcibly sort traffic. Yes, a traffic system that prioritizes right of way to the main flow of traffic using timers that do not force speeding to keep up. Yes, left AND right turn lanes at intersections. Yes, medians on all main thoroughfares. Yes, a bigger road budget and higher taxes. Yes, a lot more imminent domain to stop wasting so much damn time and gas out of everyone else's pocket and create better alternate route parity. It's time to grow, not dawdle and cowtow to each road sign easement and flowerbed. Your population will double in ten years and the people will be voting. Poor planning will not cause voter retention. But you could multiply growth if you change your approach, and that wins elections. The newcomers are from the north. They are laughing.

Make developers responsible for expanding roads directly related to the new development. Thereby not impeding flow of traffic.

Make developers responsible for expanding roads directly related to the new development. Thereby not impeding flow of traffic.

Builders should have to pay for access roads into their developments. Taxpayers should not foot the bill for new/wider roads due to new housing developments.

I was under the impression that the penny tax would be used for improved bike paths.

Bikes don't use gas so they don't pay taxes! Put the money someplace else like bridges.

More cars use the roads than everything else combined, so they need to be top priority

Give grants to universities to engineer longer lasting road surfaces. Even if more expensive, it would save constant replacement and inconvenience.

We need better and permanent funding for transit across the state

Potholes and replacing are urgent on many of our "commute" roads. I've given up driving southbound (of SC-165) SC-61 in Dorchester County because the road surface is so bad.

Better paving. Replaced 385 in Laurens County is horrible road surface.

195 is HORRIBLE! It is by far the roughest interstate thru SC. We pulled a 5th to and from FL, worst state we have ever driven thru. It's a wonder we still have wheels, tires, and a camper. I've never been jarred so hard so much in my 33 years of driving

St. Peter Church Rd. Lexington when will it be repaved

please repave the Swamp Rabbit Trail...it is dangerous to walkers, runners and cyclists



Paying or putting gravel down for dirt roads.

invest in red light cameras. I DO NOT understand why you pay police to stand in the middle of the road on Sundays. When there are literally traffic lights, ped. crossings etc. within three feet. What a colossal waste of \$\$\$\$\$\$\$\$

More attention to daily maintenance (grass mowing) especially. Some of the on off ramps in my area (Myrtle Beach) are really overgrown with high weeds and obstruct vision for merging. NC seems much better in tune than we are.

The Wando Bridge is a disaster. Pasting it together while trucks continue to increase is not wise. A new bridge needs to be disowned and funded that removes the trucks from the general flow. The trucks are killing us.

Invest in street sweepers, clean junk (furniture, car parts, retread) from roadways and breakdown lanes. Do it promptly. SC highways are dirtier than other 3rd world countries!

keep all roads in good condition

keep all roads in good condition

Fix our roads!!

I-26 needs to be finished and have all lanes clearly painted

I-26 needs to be finished and have all lanes clearly painted there needs to be continuous lanes near 526 and I-26

The pot fill systems is either outdated or just ineffective. Pots holes return very quickly and get worse

bridges not built for the amount of traffic today and the continual weight of trucks - bridges must be rebuilt or shored up immediately

The roads in Charleston are absolutely terrible. Riddled with potholes. Terrible quality roads. It destroys tires and cause unsafe driving condition when wet.

Please repaving roads such as Sherwood Dr.

Very important, but there has to be a way to improve and maintain existing at the same time. I ranked all maintenance related activities higher than reduce congestion because I am assuming that when congestion is fixed that road improvements to. Existing infrastructure are improved also.

I travel all over the country and drive on the roads of many states. We lag horribly behind in safe and smoothly paved roads.

repair the roads correctly...don't do the sloppy work being performed now.

Potholes and terrible road conditions need to be fixed especially in the lowcountry tri-county area (Charleston, Summerville, Dorchester, etc.). Also, there have been too many fatal auto-pedestrian accidents in 2019, we need sidewalks and bike paths for safe ways for people to commute via foot/bike.

There's really no comparison between the first two and the rest. Repave the roads and fix the bridges, please.

Hard to put priority on the first 5. Maintenance priority needs to be elevated significantly in SC as it affects commerce. Multiple "significant" industries have made remarks on the state of the infrastructure in SC. These tasks should be top priority of DOT, with the remaining items (transit, sidewalks/bike paths, etc.) being the focus of this study

The roads are in such bad shape from weather events - flooding and freezing - fix the infrastructure first. Then focus on making it easier for people to get around without needing a car.

Everything about the roads needs improved. Brighter road markings to indicate traffic flow, re-timing lights and reducing congestion.

Work with neighborhoods who have small SCDOT roads to help repave, provide traffic calming, etc.

roads look like a 3rd world country. plus the fact when they are worked on the contractors make it more dangerous with poor signage.

It seems like we do too much patchwork instead of investing in high quality replacement products on the front end. We need to build wide, multilane roads that include bike paths and shoulders at the beginning of development/redevelopment so we patchwork isn't required as often. I notice we use a lot of asphalt instead of concrete and rebar. Why is that?

Pay to maintain what is currently built. Expand if can after that.



Resurface roads so there is safety. Also so my teeth don't get jarred out of my head on most roads. Spend our tax dollars wisely and in ALL areas if the state, not just in the places the powerful live and travel.

Please repair and widen I-95 and I-26 in the lower part of the state. Our interstates are horrible in comparison to our neighboring states. We have a MAJOR bottleneck problem when entering the state.

If roads were monitored and paved in a timely manner, you would lessen or possibly eliminate the need for daily maintenance

Roads in the TriCounty Area near Charleston SC are as bad as any I've have seen in the South. MONEY is not being used in the Low Country for repairs, maintenance or improvement. It is my opinion that more money is being used up state. SAD!

Continue to replace and repairing also inspecting bridges and overpasses much as possible to continue to keep drivers safe

The overall condition of roads in SC is TERRIBLE. Potholes, crumbling edges, and ruts are the overwhelming norm, not the exception. Surely money is allocated for road repair. Where does it go? It apparently does not go toward fixing roads. I have lived on a main, secondary state road for 19 years. The road was in bad shape when I moved here and in 19 years, it has never been repaved! Someone comes out once in a while to throw some blacktop crumbles into the holes, but within a few weeks that has disintegrated and the same holes are back. Pave the roads!

Repaving should be part of maintenance and making the roads wider, adding sidewalks, etc.

In rural areas especially- mow BOTH sides of ditches so the weeds don't turn into trees. Most home owners don't have tractors & equipment to do this!

There seems to be a lot of roads in SC that are in need of paving, yet ones that don't need it seem to be a getting paved . What's up with that why waste time and money paving those roads that don't need it . Fix the awful roads !!!!

some options are repetitive. Daily maint. and repaving roads is really the same

Repaying of roads in Greenville city and county has been too slow you have our tax money where are our new roads

Stop putting in plugs and actually fix the roads. Rural roads are horrible.

Possum hollow is in dire need of repaving and 521 need to be widen

SCDOT must tear down and replace overpass structures that prevent proper widening of all of SC's highways.

Please repave to a point that pavement lasts

I don't think daily maintenance is an option and should not be included on the list.

SC should be ashamed of how they have NOT cared for the roads, moved from another state and have been shocked and disgusted! This is the worst state for roads both paving and daily maintenance!

We need a 24/7 hazard maintenance request app portal That weekend send pictures with GPS coordinates or separate coordinates to Identify the problem areas. There needs to be a way to receive feedback and follow up on when the problem will be remedied

Why hasn't Hwy 29 from Greer to the Spartanburg line been repaved? It seems that Greer is always left by the wayside with only patches which don't last. Also Hwy 290 from Greer to Travelers Rest should be totally repaved. Just patched again. Some areas are like driving over a washboard. This is a very busy road and with all the development will only get worse. Please take these concerns seriously. Thank you.

We definitely need our roads paved

Our secondary roads are horrible

Pave Clarendon Rd in north Beaufort County

If you accomplish repaying, repairing bridges and reducing congestion would equal safer roads.

Repaving/fixing roads and bridges should be priority 1....SC has some of the worst roads in the nation......I have a little bit of knowledge on this, I am a OTR truck driver ...

I recently drove from Myrtle Beach to Pinehurst NC and was really impressed with all the freshly paved roads in NC

It would be really nice of people Didn't make fun of me being from SC and laughing about how bad our roads are! I-95 is atrocious near GA, as are many other main roads.



Our roads are in horrible shape. Where is the tax money going that is allocated for repairs? Greenville County is building houses/communities faster than the roads are being maintained resulting in too much traffic for our roads to handle! I'm sure this is not just Greenville. Does anyone drive around and check out the quality of our roads??? I am tired of re-aligning my car because there was another unexpected pot hole on the road!

The road I live on is so bad you half to drive in the center and all but stop to pass another car. Bike lanes in SC are so unsafe most drivers use the bike lane as extra space to drive i do not ever feel safe riding in a bike lane along any street/road!

Coated to other parts of the US, this isn't a huge issue in SC, better trained drivers and will maintained roads will alleviate congestion

It would be nice for some of the rural roads to be repaired to where they do not tear back up in two weeks

We need our roads brought up to standard as soon as possible

Filling in holes NEVER WORK! Just paved a small patch

Keep up what we have.

There are way too many potholes and a great need for repaving of roads

Bridges first. The highways "should" be on a regular maintenance schedule. The bridges are crumbling and having band aids put on them by using asphalt patches. Latex works wonders!

Bridges first. The highways "should" be on a regular maintenance schedule. The bridges are crumbling and having band aids put on them by using asphalt patches. Latex works wonders! The berms need maintained to resolve puddling and hydroplaning. I've noticed centerline crowns almost nonexistent, inefficient paving over existing crumbled asphalt. Seems the entire system could use a review and overhaul.

Our roads are the worst! I have traveled across the country & none are as bad as SC! Even our roads that are repacked are done bad! How!?!

When repaving they should bond me surfaces to old. Right now they repave the same areas above every 6 months. Scam.

Contractors hired for DOT projects, especially resurfacing of roads, need to do a better job and use better materials so taxpayers get roads that last longer before the maintenance is needed again.

Replace lightbulbs in existing road lighting and add more

Fix the Roads and Enforce the requirements that asphalt should conform too. I know one of the major contractors and I also know the pavement doesn't meet standards to save cost

It seems all the money is spent on roads at the beaches or roads leading to the beaches. No local maintenance or paving ever takes place.

Please change to a different paving material that's recycled, green, and one that doesn't pothole. Use recycled materials for pavement such as repurposed tires. Change to solar lighting.

this daily maintenance - some of it is useless. it is like saying i have a butter knife to protect me from intruders in my home.

Please ride Love Springs Rd in Gaffney S.C. so you can see firsthand the state of disrepair.

SC should do an intense maintenance & repair of all existing roads & bridges before new projects that are not critical.

Add and keep clean bike lanes on roads

Need to fix the roads. Almost had a wreck on 418 because of the road. My tire blow out.

Response time for pothole/shoulder repair is good BUT repairs are inadequate and only last a few days.

The same pothole repair method on roads with a 25mph speed limit when used on highways not only results in damaged cars, it's causing wrecks when drivers attempt to avoid potholes. We all know from experience the pothole could be 2" or it could be 8".

Before anything, repair our existing roads.

Why is it that road work in Colleton county SC is always last. Lots of I 95 have been repatched and Colleton county will beat you to peace's!

Stop paving with asphalt and do it right with concrete. Do it once and be done with it.

Rural roads in SC are worse than any other state I've visited. Poorly laid out, small or no shoulders, poorly maintained, and unnecessarily dangerous.



Repair and fix roads to a safety standard fix. Potholes only need to be fixed if there aren't to many in a short distance. Streets need to be repacked instead otherwise they will become a danger for drivers and cars involved. Restrictions on bad roads for construction vehicles and eighteen wheelers

I have lived off Gap Creek Rd off Highway 25 in Marietta for 4 years and the road has never been maintained. No repaving, no painting of lines or reflectors. I have to write every year to get high grass mowed. Not acceptable. We all pay taxes and get no services from Greenville County.

Improve current roads

only 3 above line: repaving, repair bridges, bike paths

Build and repair roads before construction of new developments. I.e. Deerfield Plantation.

You're infrastructure has not kept up with the amount of people moving into the area. Example; Johns Island. People will die if there is an emergency. They won't be able to get off the island.

Clean up the trash and debris. It is shameful how the roads and shoulders are kept.

eliminate cracks, fissures, potholes, bumps by reducing the number of vehicles using I-26 between exit 199 and Charleston end-of-highway.

Finish 526

Roadwork needs to include repairing all secondary roads

Jessamine Road is in Terrible shape - Please REPAVE It. Please.

SIGNAGE! So many roads and streets aren't identified with signage. If they are, the sign isn't placed in sight be until you've passed it. Busy intersections should have street sign overhead the traffic lights.

Signage (rather lack of) is a major problem in SC, especially in tourist areas. Many streets don't even have street signs and if they do they aren't visible. In busy intersection the street signs hold be above the traffic with the traffic lights.

the roads need to be repaved and paved correctly. Not just spraying tar and putting rock does not fix it. Wire road all the way to 2nd Texas is awful with pot holes. They wash out every time it rains.

Backing up the asphalt truck, shoveling off some asphalt, smacking it down with the back of the shovel, and driving off is NOT toad repair.

Backing up the asphalt truck, shoveling off some asphalt, smacking it down with the back of the shovel, and driving off is NOT toad repair. Repaving and improving less traveled roads is important, however the project does NOT need to be drug out over the course of multiple years. If the contractor is behind schedule no matter the reason, they should never be allowed to receive an "early completion" bonus on renegotiating the completion date. Its not early...its past due no matter how you look at it.

Highway 25 is full of potholes and "patched asphalt".

Highway 25 is full of potholes.

Finish Interstate 526

Paving company that did Hwy 170 should be used more often. Minimal disruption, fast, looks good.

You HAVE to finish 526. James/west Ashley traffic has reached a breaking point. We need relief!!!

Rural roads in the eastern part of the county have been atrocious for years. Buford, Camp Creek, Unity, Taxahaw, Rich Hill are riddled with many, many potholes. Very dangerous when you meet oncoming traffic.

there needs to be a huge improvement in street signs.... highway signs .. speed limit signs. The signage around here is AWFUL. Also, proper left turn lanes instead of the goofy ones we have now, where you sit forever at a green light because the left turn light is still on. Some fools are putting up these signals.

Native plants for the roadsides instead of Bahia grass.

Our roads need to be replaced instead of patching and there are way to many bridges that have been closed for years and still hasn't been touched. Just wondering what exactly my tax dollars are going to?

Before beginning new construction, the existing roads need to be repaired. The existing roads, particularly Hwy 200 north of Lancaster are literally falling apart and are not safe to drive on.



Necessary for upkeep and maintenance on existing roadways

The road I drive every day is falling apart and only gets crappy patch jobs, while roads that are in better shape are getting repaved properly.

Regular road cleaning and debris removal

Roads in and around Mauldin need repaved please.

Known heavy traffic roads (even neighborhood roads that get a lot of traffic) need at least weekly maintenance. During the school year, there is a road that is heavily traveled and the random patches done to the potholes that always open back up within 2 weeks of being repaired isn't enough.

If maintenance is performed such as drainage improvements this will reduce pothole repairs and resurfacing.

I travel Old Camden Monroe Hwy. Daily. It is full of pot holes. Would be great to have it repaved.

Congestion could be reduced by working on transit, on time schedules, 3rd lane on 501 as transit only/HOV lane. ? Sidewalks already constructed are left full of weeds, unkempt. That comment leads to the daily maintenance issue. Horry County is lucky if it gets biannual highway sweeping, center lane sweeping on 3 and 5 lane roads. Yet ask about daily. At least monthly maintenance would be great! Taking care of repaving, congestion, repairs should do a lot for safety measures. And it would help with moving freight.

Please clean ditches along the 900 block n Vidalia Rd.in Seabrook, S.C. Thank You

Repairs schedules are taking too long to complete.

Please take lessons from GA on how to replace or fix potholes that are smooth and long lasting. Travel some secondary GA roads and feel the difference!!

the roads should had never gotten as bad as they are now such as Hwy 276, Marietta SC to Travelers Rest, going to or from Greenville, never ending pot holes and rough patches, not even safe for abs brakes, it needs fixing before anything new is started. there also continuously tearing up my steering and suspension ball joints used to last year's now it's just last 6 months

Fix the roads! Patching is not repairing or fixing

We have some of the worst roads in the nation. It is embarrassing

Road repair training is desperately needed and said repairs need to be inspected that they are done correctly!!! Inverted potholes should not be an approved repair and cold patch pounded with a shovel should be a temporary fix and not considered a permanent repair

Quaker Road in Dorchester County needs to be repaved badly.

Traffic light timing and synchronization improvements for a cheap quick win

The secondary roads and some of the main roads in Sumter County are in terrible shape

Larger, clearer and well-lit signage.

Traffic light timing hasn't been updated in years

Real fixes for the statewide potholes. Not temporary patches. When paving, do it right so we don't have the pothole problem!

Timed lights would help

Please repave Possum Hollow Rd. ASAP. It has so many pot holes.

We need to fix our roads before we spend any more money on bike paths & sidewalks.

Light them up. Many times you get in a left lane and do not know it ends unless you live there

The roads in Greenville county, particularly around Greer, have substantially increased use without increased road maintenance. This is dangerous.

Improve street signs! Tourists make last minute turns because signage is so poor

Paving existing roads in-bad repair should be job one. This is why we passed the gas tax bill and that's what we need ASAP. All the money had better be going on repaving our roads or I will be starting a class action lawsuit ASAP.

Signs entering the city of N Chas. Flashing overhead signs as on I-526 Don Holt...channel/station to get updated problems before Summerville/Goose Creek/West Ashley and Downtown



The Upstate is in desperate need of repaving and heavy congestion relief. We need arteries to get out of and around town... Mauldin Lauren's Road is a morning and afternoon mess, Simpsonville and Fountain Inn are just as congested as Mauldin. How do I know? It takes me over 50 minutes to travel 17 miles in the morning and a little over an hour in the afternoon to get home!

Need paved road on Z.C.Clarkson Rd in Hopkins SC

**Potholes** 

**Potholes** 

Dismayed by the premature failure of newly built roads and bridges. For example, the Catawba Bridge on 77 had chunks of concrete and steel rebar falling into the Catawba river. Tell the public how this is being remedied and then i will have enough confidence to answer survey questions. Newly built SC roads are destroyed by a high water table? Road DRAINAGE? Then tell us how you're building up roadbeds properly with enough sand & GRAVEL to keep water at bay.

No new roads!!! You won't even maintain existing roads!!!!

This is an absolute must!!! You can't see the lines on most of our busiest roads at night. It is even worse when it is raining. This has got to be causing accidents.

More road repairs

More road repairs

I view repaving, daily maintenance, and repairing bridges all as "maintaining existing infrastructure". It's basic asset management. Nothing new should be added until we have maintained what we have. In fact, I'd encourage studies to seek ways to "reduce liabilities" by eliminating lesser utilized and unhelpful infrastructure that we are currently maintaining. After that, safety should be top priority. Next up would be the combination of transit and other alternative forms of congestion management. Yet again, I feel that transit and congestion management are the same thing- why else would we have passenger rail other than to move people without putting the cars on the roads?

Start taking steps to significantly anticipate and prepare for the impacts of climate change on our transportation systems. Asphalt mix design needs attention here as the default temperature for design set decades ago is no longer valid. Sea level rise is also a major concern.

Start taking steps to significantly anticipate and prepare for the impacts of climate change on our transportation systems. Asphalt mix design needs attention here as the default temperature for design set decades ago is no longer valid. Sea level rise is also a major concern. It is worth investing in the electric vehicle support systems as well.

Interstate maintenance has improved, but state roads in the upstate are still in poor shape and need to be addressed immediately

You supposed to be able to see the "fog line" or the white line on side of road at night and or raining and CAN'T. that needs to be addressed

When you still have to avoid the pot hole repair job we have quality problem. Fix the road right the first time and it may last longer.

The roads SCDOT reclaims and pave seem to last better than the ones done by contractors.

Please get I-20 between mm61& 51 finished and repaved. It's painful for me and my car when driving, especially between 61 & 51 mile markers.

The pot holes I have to swerve to avoid destroying my car need fixing

Traffic stop lights to prevent accidents in blind spot locations, high traffic areas etc. add speed bumps near walkways across the road because it's hard to see pedestrians

Keep gutters clean where they are present.

State Highway 269 in Fairfield County is an embarrassment.

We need more speed limit signs. One was knocked down 35 yrs. ago near my home and never replaced. It was on W. Buena Vista Ave in N. Augusta ... speed is awful on this St. I called DOT but no luck.

Bridges all over SC are in unsafe condition especially in our rural areas. They have become so expensive but something needs to be done to make our bridges safe to use!!



I find it a little tough to rank these. The picture shown when I click on daily maintenance is a pothole repair. I would think that's part of safe roads. Why would safe road and repairing bridges be 2 different categories? Why would repaving be it's own category?

It seems the roads around here are constantly getting potholes and having them filled. And few have shoulders for when you have to dodge a pothole. Why not construct them better in the first place so they can last longer?

Having safe and clear roads without potholes and other car damaging hazards will make everyday life easier.

Repaving #1, Transit#2 Bike paths #3

My wife drives in the left hand lane on some interstates just to avoid the potholes. She then slows down other traffic and increases congestion. Maintenance is very important and has improved in recent years.

Every road I travel on needs resurfacing.

Locust hill road needs to be widened and repaved

Add more lights especially to the interstate system

700 railroad Ave. Need repair. Sidewalk too high and road are too low. I broke my ankle last week because if that. Please fix it

The backroads are really bad like Moore and Hunt Road in Anderson County

Highway 296 Reidville road is a HAZARD from Greenville all the way to interstate 26. FIX THE DERN THING!!

Water stands on joints of all bridges. Need repairs

These roads in Cherokee county are very bad and they are Dillon street, Hwy 221 at NC state line to Chesnee and hwy 11 at Chesnee city limits to Cowpens Battleground.

Paving the roads. Roads are bad

Lovesprings road in Gaffney SC need more than just patching little here little there. lots of autos, motor cycles, big trucks, bicycles use the road. We are drive in middle of road to stay out of the potholes.

Geer Hwy (US 276) From Travelers Rest to the State line needs a repave ASAP.

Way too many potholes. Route 17 in Little River, etc.

Complete Route 31to NC border

I would love to see more of the "back roads" paved rather than just the main roads. There's a lot of dangerous potholes on the back roads all across SC. I'd also like to see more streamlined maintenance instead of shutting down all but one lane on busy roads like I-85. The current setup for the maintenance being done on I-85 is incredibly dangerous and causes entirely too much congestion.

All roads needs to be redone to many holes

Repair the bridges and make them safer

Roads in smaller counties like Edgefield and Saluda are in desperate need of repair. Too many large cracks bumps and pot holes. Cost taxpayers hundreds to thousands in car damage repair. This should be the top priority. It why most of us said yes to this tax.

Highways and high traffic roads in small counties like Edgefield and Saluda are in desperate need of repair. The large cracks, bumps and countless potholes do hundreds and thousands of dollars in damage to our cars. This is why most of us said yes to the tax. This should be the top priority

Highways and high traffic roads in small counties like Edgefield and Saluda are in desperate need of repair. The large cracks, bumps and countless potholes do hundreds and thousands of dollars in damage to our cars. This is why most of us said yes to the tax. This should be the top priority.

I would like see Bryant Rd In Spartanburg County repave from Hwy 221 to Old Furnace Rd and Archer Rd From Floyd Rd to Boundary Dr in Spartanburg County and Repave Chesnee Hwy From I -85 and Hwy 221 to Spartanburg City Limits

The roads are in awful shape and need immediate repair. There are too many potholes and crumbling roads in my county

Paving dirt roads. Blackstone Camp Rd Beech Island SC

All roads need to be repaved that have pot holes, tree roots growing under pavement pushing it up causing huge bumps across the road. This causes vehicles being knocked out of line. Over all we just need better roads.



The pot holes on the side roads in Greenville and Marietta area are bad

Not only the highway roads need repaving but our secondary high travel roads seem to be the worse roads around. Fews Chapel Rd in Greer is a cut through from Jordan Rd and Highway 14. This road is in shambles and all that gets repaired occasionally are pot holes. This is NOT the cure.

Burnt gin Rd in Gaffney SC hasn't been paved in over 40 years. Road is a danger.

Burnt Gin Rd in Gaffney is dangerous. Not paved in 40 years.

This is a low priority. SC needs to improve basic infrastructure! Greenville Co is growing and our roads are not safe, full of potholes, and too congested.

Hwy 275/25 from Greenville to Ceasers Head has to be one of the worst . most pot hole roads in SC

Staunton bridge Rd in Greenville SC near Whitehorse rd. needs to be repair because there is a big hole right between the road and the sidewalk.

Repave correctly the first time

Having been a commercial driver for 40 years I can say that Hwy 276 from sr11 to Pickens county is the worst road ever. Pot holes, buckled pavement, cracks on both sides and an upcroppping at the bridge in Cleveland that practically gets you airborne. Total embarrassment for a scenic highway.

Is there anyway SC DOT can insist the City of Charleston install the smart light at River Rd and Maybank Highway on John's Island

Edwards Mills road in Greenville/ Taylors area needs to be worked on. So many holes on this road. Cause of this road I had to replace 2 tires on my car

The condition of all roads is EXTREMELY poor & whoever designed 526 from Clements Ferry to I26 should be sued.

SC Hwy 221 South of Woodruff in Spartanburg County. In bad need of resurfacing.

Ashmore Bridge Rd needs repaving .Hwy 25 leading into Greenville also needs repaving as well as 85

Duck Pond Rd. Walhalla SC bridge is out

Duck Pond Rd. Walhalla SC bridge is out

If you would just focus on reducing our congestion by closely monitoring and preventing over development, repave pretty much all of our roads and then maintain them daily and focus on repairing our bridges, then you can turn our existing infrastructure into a safe.

Complete 526 loop

Please consider black jack road it's pot holes have cost me two splitters on my charger

Some roads you travel went it is raining you can't see the lines on the road.

Example: 385 paving project. I have seen where they have certain spots along 385 then RIP asphalt up then pave and repeat again in the same spot. I feel tax payer money going down the drain on this project.

Filling pot holes don6do any good if it is not done right

Repairs need to be done correctly or cars are damaged for years

QUALITY of work. Among other work, pothole repairs should last longer than a week. Bridge/Road junctions shouldn't bounce drinks out of cup holders. QUALITY!

Clean up the disgusting trash along our SC highways and keep them mowed .

We have roads in Oconee county that are literally crumbling away and have huge potholes. Sitton Mill Rd Seneca

Fixing potholes

Fixing potholes

If you guys don't repay ALL roads in SC.. NO new roads or bridges until ALL roads are paved

Stop wasting our tax \$ and repave roads! NO new projects until ALL SC roads are repaved!



The daily maintenance needs done I the cross way in Edgefield on crest rd. the cross way needs painting.

repair 185 St. lights in Greenville county

Proper paving is critical. Previous repaving work has NOT been to standard from less than adequate tack and prep before paving. Road surfaces everywhere unravel or delaminate within a year of paving.

Please repave Dougherty Road; it's in bad shape. Also, the intersection of Legion Road and Highway 421 has been repaved several times but always develops huge potholes. It needs to be permanently fixed.

Alternatives to relieve congestion like autonomous vehicles

Please help reduce congestion by maximizing our existing infrastructure and TIME OUR TRAFFIC SIGNALS. Please. I understand the coordination between federal, state, and local entities, but please time them. IT's SAFER and GREENER.

Synchronize traffic lights.

The nature of transportation is changing from gasoline/diesel fuel to electric vehicles. EV infrastructure will be a pressing need

Intuitive traffic signals that can sense the amount of cars at all hours of the day is important.

EV charging at Rest stops.

Replace current I-85 lighting in median with LED solar lighting... or remove them.

Synchronize lights but don't build new roads for capacity. Put new road money into keeping roads and bridges up. Existing roads should constrain development.

Electric vehicle charging stations

Create electric vehicle charging stations

Go to all electric

I am very concerned about the radiation that will be emitted by planned autonomous vehicles and use of 5G wireless on the roads. I am electro sensitive and will not be able to tolerate being in the community around this technology. Makes me very sick (especially heart rhythm abnormality verified by my cardiologist). It is not an option for me and I don't see anyone in authority considering scientists health warnings about the increase in radiofrequency radiation and use of 5G.

Synchronize traffic lights.

Need to prepare for self-driving vehicles now

Add more EV high speed charging stations, I drive a Tesla.

Not just the main road

What exactly does this mean?

I didn't see the "above this line" requirement. I hope the ranking is reported correctly instead of omitted.

Saves drivers time and energy costs!!

Needs to move every two hour.

Translate-Very confusing. Very poorly written

i do not see how to rank these items!

Please STOP bringing new companies into Dorchester and Charleston areas. Build future companies and expansion near 195. Upgrade rail system from 195 to Charleston ports and eliminate or significantly reduce large transit trucks from in and out of ports, 126, 1526 and 141 to reduce traffic, roads/bridges maintenance costs and general law enforcement, infrastructure and general management costs and public frustrations. Please do the math for 3, 5 and 10 years ROI and reelections risks before saying no. Do it right for the people who are already live in Charleston and Dorchester counties.

I have no confidence SCDOT manages highway construction effectively or efficiently.

Remove the current third party road design engineer. They have fouled the Ravenel, Wando and Dorchester road projects to mention a few

**Potholes** 

it would be very nice to see 707 and 31 W completed before I die.



To many new houses roads can't accommodate all the new cars

They are All important Hard to prioritize

To much seemingly uncontrolled development in Horry County. Developers should be held responsible for some costs.

This question should really be contextualized. For instance, urbanized areas will have differing opinions that rural.

Don't take forever to complete a project. You r already behind with solving problems. Stop building permits till road plan done first & impact on existing roads

The survey stopped

Would like to see some agreement among state and local governments on these priorities!

Protection of cultural resources.

Demand quality work from contractors! And hold them responsible for repairs when it is not done!

These are important now!

Quality of life is most important and more development/roads/people/noise/congestion does not achieve that.

Stop allowing so much growth

I tried for days to call and talk to someone in the right of way maintenance dept.. THEY DON'T ANSWER THEIR PHONE--EVER!

We need a cohesive plan that recognizes Greenville/Spartanburg will be a "big city" within the next generation 25 -

None

The infrastructure planning is ridiculous. With the growth it's already at least 10 years behind. There is little to no confidence that SCDOT could even figure out how to catch up. Nor have they shown any ambition or capability to do so. See filling pot holes (the easiest thing to do yet it I've seen multiple have to be fixed a week after being "fixed") as the prime example.

Please they don't go places like in Ravenel

Love them but don't like the idea of reducing the number of lanes for traffic.

All of these topics are closely related this making them difficult to prioritize. Indeed, in most cases doing one or more will have a direct impact on something else on the list.

Agree

Pothole patching

These are NOT mutually exclusive items!

These are all absolutely critical to a functioning transportation infrastructure system.

These are tough questions to answer...we want our officials to study and/or hire experts who know what efforts would benefit our roads and travelers most.

STOP WASTING TAX MONEY ON social programs, BUILD ROADS, STOP THE BS.

QUIT ALLOWING SO MUCH HOUSING DEVELOPMENTS TO BE BUILT AND CONCENTRATE ON ROADS POLICE, FIRE AND SCHOOL NEEDS BEFORE ANY MORE LAND IS RAPED FOR DEVELOPMENT. ALSO ENTICE CLEAN AIR INDUSTRY TO COME TO HORRY COUNTY. STOP RELYING ALL ON TOUREST INDUSTRY.

Best would be to put a moratorium on most new building, except to replace existing structures. We're running out of room for more roads and depleting green space.

They are all pretty much basic needs that are needed regardless of priority. Some of the issues are more prioritizing what is done where based on urgent need within a category rather than any one category having priority over the other.

These are all basic needs that must be addressed. It is important that how each is addressed is based on real need and practical locations.

They have been working on 85 between Spartanburg and Greenville since the 70's. Find companies that can finish the work quicker, after all they were able to rebuild LA. in six months.



Unable to do the rankings. Program doesn't work.

A lot of these issues overlap so input WILL lead to logical fallacies and false conclusions. Of course people want to do all of these things, but some of these things overlap. For instance, improving transit and improving bike and pedestrian pathways will reduce congestion, so wanting one of those things will cause the others. This is a poor question that anyone in this field should understand as a fundamental truth...

A lot of these issues overlap so input WILL lead to logical fallacies and false conclusions. Of course people want to do all of these things, but some of these things overlap. For instance, improving transit and improving bike and pedestrian pathways will reduce congestion, so wanting one of those things will cause the others. This is a poor question that anyone in this field should understand as a fundamental truth. And then daily maintenance with repaving and bridge repairs? I'm starting to lose hope in this questionnaire, and this is the first question.

Whichever contractors you use now, please stop. How hard can it really be?

When are you going to quit planning. 10 years ago all this forecast was put out, for the long range.. I guess planning if the priority that is a daily chore at the Department.. plan after plan after plan, and never a plan to show; WHAT IS BEING DONE, AND WHEN IT WILL BE FINISHED.. DANG..

What's the point of ranking? These are ALL SCDOT responsibilities and you must do them all well.

You need to monitor the work these pavers & road crews do, some of their work is pretty shoddy.

In Sioux Falls, SD, residents must keep the sidewalks along their property free from snow. Could we ask residents in our communities to keep sidewalks along their property free from yard debris so that walkers and wheelchairs might pass?

My ranking order would likely change if I lived in a different SC area.

Infrastructure must come first.

All these items are important.

This seems to me more of a local issue rather than a statewide issue.

None at the moment

Please use same terminology as budget allocation

Definitely one of the most important things!

The survey is misleading as local concerns vs state concerns would be ranked different and not sure which is being sought in this survey. I answered for locally.

The tournament and McDowell shortcut corner is getting worse by the day. Many times blocking 17 bypass. With many more developments building within a mile or two from here this should get done ASAP. Please inform us what is going on!

All the above are all important. The roads are way behind other states!

No opinion

Audit the Infrastructure Board

Impossible questions as most are of equal importance

After current roads are fixed

The roads in SC are some of the worst I've ever experienced. Completely unacceptable for a state that collects property/state taxes

SCDOT needs to make a better effort with keeping the public informed of upcoming paving projects!!!

Have a great chance to plan ahead better as southern part of Greenville county get developed. Set up an organized plan for development around all cities as they grow.

Unless it's in an urban environment there is no use for this

They are all important.

Fort Mill has had the fastest growth anywhere and yet has the worst infrastructure in the state. It cannot hold the continued growth sustainably without immediate change to the infrastructure.

The rural areas of SC need attention,, also I-95 & I-20.



I consider repairing unsafe roads under maintenance or repaving...I put 'safe roads' last if simply things like rumble strips and lighting

I understand that corruption is the life blood and soul of South Carolina culture, however it needs to be put aside long enough to at least get us I to the 20th century.

Very important

Indian Land area is getting worse by the day

After closely observing scdot for the past 5 months they waste an incredible amount of time and tax payer money - exceptionally inefficient,

All items seem important, wouldn't want to lose out on any of them being a priority

all of these items are extremely necessary to satisfy infrastructure needs

Prioritize Myrtle Beach, Horry County population explosion traffic issues. Must be pro active

worst road system of any state I have ever lived in ....

Not really interested in this. We don't utilize it at all

Kelly Mill/Hardscrabble Rimer Pond/Wilson blvd Langford Rd/Main st Blythewood

Help fix our roads by LIMITING POPULATION DENSITY in all areas. We have the #s enough to upkeep and maintain existing roads. Do NOT use millions of dollars to complete 526 to John's Island. Limit the growth and stop giving tax breaks to profitable companies for their presence in our community. Put the priority on preserving our existing quality of life. Say no to allowing more development which enables hundreds or even thousands of more people.

I have ordered this yet is shows I have two items to do?

By taking care of the top four you automatically take care of number 5.

I have rated the way I think should tack place

Pothole patching

**Pothole Patching** 

Cut all of right of way

Stephen road Edgefield County

Driving on the interstate is like the wild wild west and can be scary. Please please please, not only make them safer, but working with the public to improve safer driving habits.

Need to check 29841 for increased traffic on Georgia Avenue

You should ask if this info is from person living in rural, small town, or city.

Will you really pay attention to these surveys?

**Reduces accidents** 

Stop approving massive housing development without considering the residual impact on existing roads that were NEVER designed for massive traffic. Developers simply MUST take accountability for expanding roadways and keeping traffic flowing...NOT clogging it up as is currently happening within Greenville County (LACK of planning) Commission.

To where?

1

A look at Google Maps traffic reveals SC roads are often unusable.

Stop doing major construction during peak tourism dates

No options

Recruiting and retaining transportation professionals in-house

Waste of money and dangerous

Cut down growth too many people now



Like HWY 92

Valley Falls Rd by USCS

Parris Bridge Road

**Pothole Patching** 

Highway 215 in Union county

**Pothole Patching** 

Timely completion of projects.

Timely completion of projects. Projects started or near completion. Then work stops. MUST COMPLETE.

195

Taylors has grown and rods are inadequate

**Pothole Patching** 

increase the speed limit on I-85 to 70-75 mph

Please look into recycled plastics for roadways. Also: some of the recent paving looks very shoddy.

Safe roads are my #1 concern but I do not agree with the SCDOT functions for a safe road. Rumble strips are not conducive to bicycle riding. Wider and brighter pavement markings are fine, but so is investment in NACTO street crossing facilities, guardrail/cable barriers are not for urban locations; complete streets, narrower streets, slower speeds, medians, tighter radii are all missing.

You seem to be suggesting you will only focus on safety for motorists.

The deaths of pedestrians in our state is unacceptable. We must spend more funds on designing safety for people not just for cars

Safe roads that don't flood should be a top priority.

Bring back state car inspections. Mk the standard of what can be driven on the roadways a priority and this will help w/ safety, accidents and breakdowns. Save money! The merge lanes onto major highways need to be extended. Divers have serious issues merging in this state. Thank you.

We are too high in fatalities. Drivers don't care for each other. Too many distracted and careless driving. Lack of education. Lack of respect. The technology is not there yet to make autonomous driving a reality.

Safe infrastructure is a necessity, especially when there are evacuations.

Safe roads includes each and every items of this list.

On HWY 501 the Grady Rd by Dollar General in Mullins, there needs to be a red light there, when asking about it they always say there is not enough traffic that passes that area but they are wrong we live here and have to get on and off the road, we have been asking for this in this community for a long time. No one listens to the us here in this community.

Night driving in this state compared to other states roads feels unsafe with how dark it is in a lot of spots. Additionally, mid interstate yield/crossover lanes (526/26) is insane. Wider shoulders and brighter visibility in the rural areas would be ok, but extra lanes are severely needed in the Charleston area over shoulders.

Better lighting on some roads

Desperately need a major highway for tourist traffic and hurricane evacuations in and out of myrtle beach! It should be a direct path from Myrtle Beach to highway 95 somewhere near Florence. It is a serious safety issue!

Concrete islands raised 6" above the roadbed are extremely dangerous to motorcycles and pedestrians. These islands are poorly marked and not visible at night and they increase the cost of road building when painted lines and markings will achieve the same results

Get rid of and stop installing concrete islands that are raised above the road surface 6". This is a hazard to motorcycles and pedestrians. Use painted lines and road markings in place of these dangerous and costly islands

Stop cutting down trees! The trees are not the problem. Inattentive (=texting) drivers are the problem.



Add cable barriers, more lanes, more roadways

Add cable barriers, more lanes, more roadways. Too many pot holes and worn out roadways. Not enough traffic control devices or officers hired to complete traffic duties

Yes b/c too many pedestrians are getting hit by vehicles

You included "Rumble Strips" in "Safe Roads." Rumble strips make roads very unsafe for cyclists. They force cyclists to ride further into the road and leave no safe space to move over to the right when necessary. They leave no room to ride safely to the right of the rumble strip. They cause falls for inexperienced cyclists trying to get across them. They are downright dangerous.

Traffic light synchronization Proper markings/reflectors/directional arrows in each lane

#1 improve dangerous intersections. Example: Tournament Blvd & McDowell Shortcut intersection

Including wildflower verges and tree canopy. With such wide reaching roads, this would go a long way towards helping our state and our world. Tree canopies would help with heatwaves and also shelter pedestrians and cyclists from the hot sun and help to encourage exercise.

Including wildflower verges and tree canopy. With such wide reaching roads, this would go a long way towards helping our state and our world. Tree canopies would help with heatwaves and also shelter pedestrians and cyclists from the hot sun and help to encourage exercise. Also I would love train quiet zones and upgrade our crossings to have quiet zones in Cayce, Columbia, West Columbia.

The roads I drive on are unsafe. I wish someone from scdot could ride around with me for a day and see the terrible dangers I encounter. You need to fix things that have been left undone for many years.

Pavement markings need to be brighter

Redo signs, adding if necessary or moving sign placement especially for major highways, ex. 52/rivers connector getting to 26 sign needs to be before light to get people in correct lane

The state death statistics for pedestrians and bike riders is unacceptable We need safe intersections for all users. We needed separation of vehicles from people on bikes

Better markings

How many more cyclists and runners need to be hit before we add safe biking/running ways?

Install Roundabout at Tournament Blvd and Mc Dowell Shortcut to prevent accidents Tournament is very busy In Murrells Inlet 29576

Safe Roads - please do NOT do more rumble strips.

Number 1

Potholes

This is also a safety improvement with traffic slowing effects.

It is not that safe roads are not important, but rather that they would likely be accomplished via the other priorities.

Safe roads and repairing bridges are the top priorities

Add lots of street lights. 26 should be lit up at night. Add street lights to all busy intersections. Add more crosswalks that are lit. Make sure maintenance is kept up on the lights. Add red light cameras so people quit running red lights. Plus that is extra money that could be put towards maintaining the area. Give people tickets for speeding, not using blinkers, road rage etc..:Add signals that emergency vehicles can get through. Put up bill boards and start running commercials to move right for lights and sirens.

Safe roads for me does not mean increasing road width or more lanes--we need more transportation options, not more or bigger roads, at least within cities.

Safe roads/reducing congestion for me does not mean increasing road width or more lanes--we need more transportation options, not more or bigger roads, at least within cities.

Safer roads also means slowing traffic through traffic calming measures such as planting trees, not just removing trees for when people going high speeds crash. Safer roads should be safer for all users- pedestrians, cyclists, and drivers, not just drivers. I would have ranked safe roads higher if this had been included.



Signage to improve drivers' behavior, i.e. "Left Lane for Passing Only" signs on our highways could improve congestion.

Rumble strips seem to force those of us who ride our bikes further into traffic and make it harder for cars to pass us. They then get more frustrated and pass in unsafe situations.

It's impossible for me to separate \*safe roads\* with \*repairing bridges\* and \*daily maintenance\* good luck with having these overlapping items giving you real feedback

I would like modern roundabouts and other new intersection innovations to be considered when planning to improve movement of traffic. This is not only in the interest of reducing congestion, but also for safe roads.

To help determine safety concerns .. check with local FD's where they have routine MVA's

Before SCDOT even considers biking paths, they need to create shoulders on roads. I am a fairly new resident & I see this as a tremendous safety risk not having road shoulders. If someone forces you off the road, it will be a serious end result.

Safe roads include more breaks in traffic to allow people trying to enter left across long congested roads opportunity to do so and at connector 30; need a light to STOP the right turn traffic so pedestrian, bikes and oncoming LEFT turners have ability to get on connector 30 off Folly

1. Additional options for hurricane evacuation from the coast. Too much congestion! 2. New major roads should be constructed so they don't go underwater during floods!

We don't need rumble strips. It is hazardous to bicyclists. If you need them to drive, you don't need to be driving.

Accelerating current road projects; the I-20 construction around Columbia and the construction in Greenville have been going on for years. These construction areas are dangerous.

Headlights 24/24 would increase pedestrian and bike safety at zero cost

Rumble strips are a great safety improvement, but as an active cyclist, having a periodic gap in the strips, like you do with driveways would allow cyclists to safely get to the shoulder when traffic approaches from the rear.

THE RUMBLE STRIPS SHOULD OUT OF THE TRAVELED LANE, I RIDE ON THE RIGHT SIDE OF THE LANE OUT OF THE TRAVEL LANE. TO DAD THEY FORCE DRIVERS TO RIDE ON THE CENTER LINES TO MUCH

To reduce secondary wrecks on interstate, How about smart roads. Put more message boards and congestion ahead lights on interstate. You got all that fiber running along major roads, use it to save lives!!!!

I believe good quality roads that are WELL PAINTED ROADS will promote safer roads

A safe road is not only scaled to traffic and angled appropriately for curves, it has safe pavement.

The really elaborate memorials constructed on the highways are distracting. What if we use the blue signs as a template and have a "caution yellow" safe driving memorial sign at on-ramps. Families could purchase a plaque (like restaurants and gas stations on the blue) in honor of and with name/date of the loved one to place on the yellow sign.

There needs to be more lighting on all city, county, and interstate roads. Reflectors aren't the answer. Solar lights yes.

Rumble strips help protect distracted drivers and force cyclists on the road. Cyclists are being endangered because of drivers not following the rules of the road.

please stop clear cutting the trees on the interstate!!!

Adding verbiage that mentions 'To I-20' or similar on the I-26 split to Spartanburg \*BEFORE\* you decide which way to go would be beneficial

Interstate 26 needs guardrails in many locations. The trees in the median are too close to traffic lanes. I've seen tree limbs right up to the fast lane.

Rumble Strips reduce the available road space that can be used by cyclists and mopeds

I26 and 20 is a death trap.

How about more red lights. There was two wrecks in 8 hours at the same intersection (Gosset Rd Sha Ln and Dewberry Rd) and the congestion there from 3-5 is ridiculous especially with the road work on 85. Also how about a red light at Mayo Rd and Hwy 221 people don't follow the speed limits and it makes it harder to get on to 221



Allowing motorcycles to lane split or filtering between lanes at a stop light will reduce traffic, reduce motorcycle accidents, and also reduce damage to motorcycles (i.e. having to cut off the motorcycle to prevent overheating)

Improving safety and clear views for short entrance ramps, such as White Horse Rd (Hwy 25) into I-185 toward Columbia, and Laurens Rd onto I-85S; and also, exit ramp from I-85 onto Laurens Rd. The White Horse Rd entrance to I-185 has very low visibility due to trees, often speeding traffic at rush hour, and no merge lane due to a bridge at the end of the ramp. For a semi or car to get into the flow of traffic that won't slow down to allow safe merging, it's dangerous to try to merge from a complete stop. Many wrecks happen here, including being rear-ended by people who are looking behind them to try to gain visibility to merge yet not realizing that a car in front has come to a complete stop. Happens every day. Please address! Thank you for listening!

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If you take care of the first two, some of the rest will logically be included.

Rumple strips should be limited to highways that prohibit bicycle traffic. Rumple strips cause bicycle falls.

Pavement markings are faded at pine street crossing Saint John St. and also at Isom St. There are other places and if it is raining it is hard to see where the lanes are.

Maintaining and keeping safe what we have should be a non-negotiable priority

Reflective paint alone would make roads safer. Can't see current paint if it's raining in the middle of the day.

we need more evacuation routes from the coast

I think safe roads should include paving and repairing bridges, along with daily maintenance. All of these items make our roads safer to travel. People swerving to miss potholes, poor road conditions, etc.. make for dangerous roads.

Put a moratorium on new home building until our roads and highways are capable of supporting the population. We also need more stop lights at dangerous intersections.

Where there are no sidewalks, there aren't even safe shoulders to walk. All highways should have bike lanes. Drivers often don't pay attention and drive faster than allowed. Clearly visible bike lanes (maybe with paving in a different color) would help.

Priority wider paved shoulders. Some roads have no shoulders at all. Making right turns you can fall off the edge sometimes hitting the bottom of your car because of 6 inch drop or more.

Priority wider paved shoulders. Some roads have no shoulders at all. Making right turns you can fall off the edge sometimes hitting the bottom of your car because of 6 inch drop or more. Bike paths on some roads would also be a safety feature for riders as well as traffic that can become left of center avoiding walkers & riders.

Safer passage for areas with increased golf cart/moped traffic.

Make edges of roadway easier to see at night with reflective paint.



Thought should be given to how the rumble strips on roads impede the safety of runners, walkers and bikers . There is absolutely nowhere to go when a car approaches any of the three. If rumble strips are going to continue to be a part is our roads for driver safety then a wider area of pavement on the shoulder of the road needs to be added for the safety of the runner, walker and biker. I participate in all three activities on the road I live on and everyday it is problematic and I am having to jump into the ditch for my safety when I walk or run. Drivers lay in their horns when I bike on the main road . If I had an area to move over to when a car is behind me , it would not be a problem but currently the rumble strips present more problems than help.

Rumble strips are NOT safe. They make it dangerous for cyclist, and cause drivers to over compensate steering into oncoming traffic!

Pave road shoulders. People are dying on a regular basis from running off roads without shoulders. Inexcusable.

Cycle's have no place on our roads & highways...safety issue!!!

Safe roads was ranked down because the description only focused on improving automobile safety and not pedestrian, bike, and transit safety.

Hazard boards need better use than traffic death totals that don't get changed

Motorcycle safety, lane splitting, filtering.

Ripping out Trees is and was a terrible idea. If THAT's what you mean by safe roads.... never!

Safe roads is not independent of daily maintenance, and the two should work together.

Safe roads is not independent of daily maintenance, and the two should work together. Congestion- should consider rerouting of freight trucks, particularly through residential areas (which supports road health), as well as, partnership with the charlotte light rail system for a stop or two within the fort mill city limits.

I have a young family and I want them to return home just as they left. Healthy and whole. Safe roads is not independent of daily maintenance, and the two should work together. Congestion- should consider rerouting of freight trucks, particularly through residential areas (which supports road health), as well as, partnership with the charlotte light rail system for a stop or two within the fort mill city limits.

Safer shoulders, fewer dangerous pot holes and sidewalks...especially around the schools.

need speed signs on s 4 193 cedar grove rd. Townville SC 29689 traffic is dangerous

More focus on motorcycle safety as well

Wide safe Shoulders!!!

Wide safe Shoulders!!! Traffic lights timing should be part of routine maintenance

**Hurricane Evacuating** 

Over development is making evacuations unsafe and traffic impedes the safe and quick evacuation during emergencies

More lanes on evacuation routes away from the coast to allow safe and timely flight during emergencies instead of parking lot syndrome for hours on end. What if there was a tsunami? Thousands would simply perish with no hope of escape.

There needs to be permanent barriers, such as poles, between bike paths and next door lane of traffic. Also, the next door lane of traffic needs to be wider than the outer lane of traffic!

Safe roads, Safe Workers, safe for motorists

Ensure all hurricane/emergency evacuation routes are designed at the worst case scenario to remain open to traffic during emergency events. (i.e. grand strand was cut off from the world after flooding, so help redesign and fix critical areas on evacuation routes.)

We need to widen/expand our highways and add HOV lanes and wider shoulders in some areas of congestion. Also need to focus on getting the large semi-trucks off the highways. Safety is key for highway workers and commuters/travelers.

improve roads for safe travels

New Cut Road & I-26 intersection is dangerous... congested and very short merge lanes for tractor trailers and is loaded with distribution facilities with more coming

Rumble strips are NOT safety improvements as executed in SC! Only effective with wide enough shoulder to allow road users to stay on the road (cars) or shoulder (cyclists).



We need to ensure our roads are safe, and that they are maintained in a manner that doesn't wait until a catastrophe to do repairs.

More durable, effective safety products, i.e. reflective markers that get plowed up, paint that don't reflect, so many painted lines at some intersections leads to confusion. Better system to insure a quality product/service for what the tax payer is paying for.

Need safety on bridge before something happened

More S.H.E.P truck service on interstate highway

More S.H.E.P truck service on interstate highway If a road needs to be repaved stop patching it and repave it its saves taxpayers money

More S.H.E.P truck service on interstate highway If a road needs to be repaved stop patching it and repave it its saves taxpayers money Put in to law that all tractor trailer travel in the far left lane of the highway and if a vehicle is not to travel in the fast lane in less it is passing another vehicle

wherever rumble strips are installed on back roads, the shoulders need to be wide enough for bicycles

SC needs to improve basic infrastructure! Greenville Co is growing and our roads are not safe, full of potholes, and too congested.

We need more reflectors and lights on the roads, especially the backroads.

For safety

All freeways in the greater Charleston area should be, at minimum, 4 lanes travelling in each direction. Not including merge lanes for entry and exit. Also, creating a sufficient timed traffic lag system instead of the sensor-based traffic lights that are in place, would allow traffic to flow more smoothly during heavy commute times. There is a great need for enforcement of proper lane usage by tractors hauling freight containers. Too many container trucks are riding in the passing lane for the entirety of I-526. Not just repairing existing bridges, but building more bridges. There are currently only 2-3 bridges across each major river in the Charleston metro. More bridges would allow drivers to use surface streets more than freeways, which would help alleviate congested traffic.

On I 77 and I 26 there are numerous signs where the reflective lettering is no longer there. It is dangerous for night driving, or travelers that visit our state to find their appropriate exits, and safe planning for lane changes.

Please stop with the rumble strips. Cyclists cannot use the few wide shoulders we have if rumble strips are present.

We live off of hwy 357 Lyman/Greer, the under bridge for the frohawk river has a large dip in it and is getting worse each month. Something needs to be done immediately before it collapses. Then the repaving of 357, NOT cover massive potholes but pave it. Signage for no trucks weighing X amount lbs. Living in the area of several schools, around 4 or 5 p.m., I see children walking 357 in the ditch and if your familiar with this road, then you know it is a very curvy road. Teens have been hit in the past after dark. We need a walkway/bicycle lane for these children. Some may have had a sports practice, band, event that kept them past bus times, these children have no other choice but to walk 357 to get home.

Return Church Road in Seneca is an absolute disgrace and a safety hazard period!

127 BYPASS IN LAURENS COUNTY NEEDS GUARD RAILS ASAP!

I think more bridge rails should be put in place such as one should be replaced on Macedonia Street in Edgefield it's very dangerous without one.

What I wish most, for safety of all is that all money and work resources be thrown at ONE project at a time to finish it quickly, months, not years (think bridges). After Japan's earthquake they replaced an overhead highway in two weeks. Having highway lanes closed is dangerous. I try to not drive through construction zones due to fear of being rear ended. Please promote zipper technique, which I just learned from news item on local tv!

Give local jurisdictions more say in how their roads operate.

Please give more \$\$ to countries with exploding growth

All transit should be self-sufficient and be done w/o taxpayer funding.

Outlying cities like Travelers Rest, Marietta, Cleveland need help with roads and repaving, not just Greenville, Columbia and Charleston. Help every city equally.

Change funding structure to pay per mile travelled; Trucks should pay way more as the design and maintenance is determined by their usage; Electric cars MUST pay for their road use/maintenance and they do not with the gas tax.



Increase quality and quality of transit services and options. To include rail and Bus Rapid Transit.

As our urban roads become more crowded with cars, we must look to other transportation options that are sustainable and affordable.

What exactly does this mean, about freight? Why isn't mass transit listed as improving congestion? Clemson runs a great bus to ICar in Greenville. Why doesn't the state do more of this? Or add light rail? I'd live to take a train to Charlotte or Atlanta. I'm risking my life by driving.

What exactly does this mean, about freight? Can rumble strips be further out so bikes can be on the road safely? Can improved visibility be done without hacking down all the greenery? Why isn't mass transit listed as improving congestion? Clemson runs a great bus to ICar in Greenville. Why doesn't the state do more of this? Or add light rail? I'd live to take a train to Charlotte or Atlanta. I'm risking my life by driving.

Please expand all kinds of public transportation!

Add rail transit to the busiest corridors, such as Lexington-Columbia, Chapin-Irmo-Columbia

Consider higher capacity mass transit than buses, like light rail, in urban areas or Charleston, Columbia and Greenville.

Some states have shuttle buses that connect the state east to west and north to south. I depended on these when living there and STRONGLY believe that bus connection is vital for a better served populace

I live in Columbia and the trains dear god the trains. THE TRAINS.

Get cars off the roads. Improve other systems of transit like a metro line or buses. How about emissions checks for all our aging jalopies?

I'm not in favor of adding capacity to roads because I believe that this ultimately brings about more traffic (not less congestion).

Would be nice if freight movement is separated from normal traffic.

Better transit needs to include Rail. Badly. Light rail in Greenville/Spartanburg makes roads safer and reduces congestion

transit should include other public services other than buses. how about a train?

The focus has always been on cars. We must start shifting to better transit and improved bike and ped facilities.

I could care less about bike paths or "transit services".

Car pooling is never mentioned and there are no commuter lots to encourage it.

An Electric trolley or a mass transit In the Grand Strand area would help tourism and parking and traffic

High speed Rail

Connect to Charlotte's Light Rail

It's a shame there is no public transit route from North Charleston to Daniel Island. I would ride it every day to work from Park Circle! Also, this may be pie in the sky, but a bike lane along the Don Holt Bridge would be wonderful.

Public transportation in Charleston sucks. Its in desperate need of a major overhaul

Need light rail from Charlotte to Fort Mill.

You need to start moving ahead on designs for transit hubs and major redesign of at least freeway roads. We need clover leaf on and exits for freeways. Example congestion at Ashley Phosphate. There should be a transit hub in Summerville so that I am able to take an express to high connected areas such as Mt Pleasant, Downtown etc. start now and get 526 completed SC had some of the worst roads just look at 95 going into Georgia.

Should have a train/tram network from Moncks Corner to Downtown/my. P to fully.

Bus only option for transit? Give me a break! We need light rail with buses serving smaller routes from rail stations.

Sidewalks should be mandatory to any new road or subdivision. Bus/transit service would be important if possible, but removing a lane of traffic to support a bus if not and never will be a good option, it will just create more congestion

Given how far behind we are in terms of multimodal transportation, it and attractive forms of mass transit should be our top priorities.

Focusing on multimodal transportation infrastructure is the best way to reduce congestion and add capacity on our roadways

Invest long term in other forms of public transportation.



Let the incorporated cities and towns deal with mass transit, bicycle paths, and sidewalks themselves. We just don't need these things out in the county. I rode the full length of the Metro from Scott AFB, IL, to St. Louis, MO, many times. The areas around it, including out in the country, are blighted because of it. Once you get away from the areas where it runs, things are nice again. We don't need anything like that here, so just STOP it!

Get it through the dense heads that run Greenville County that frequent, safe transit options are for more that folks going to & fro from their jobs. Normal citizens want reliable transit too for shopping of tourist activities so we don't always need to rely on our car. Need more tax-payer funding in transit!

More emphasis on public transit options need to be included to reduce dependence on private automobiles.

In transit there needs to be more than 1 vendor on contract customers are asking vendors why only 1

I would like more focus on Transit for SC. and have the DOT look into funding Intercity rails similar to NCDOT's Amtrak service to Connect all the major cities in SC and Charlotte

We need more rail. I live in Beaufort. I should be able to ride a train between our major cities like Charleston, Columbia, & Greenville. Then add Savannah & Charlotte. there is too much emphasis on automobiles.

Transit would be nice but it won't stay safe. There are too many idiots out there.

Priority lane for bus on highway or HOV lanes. My favorite bus to get downtown is getting discontinued because of lower ridership and I think due to being chronically late due to traffic on I-26

Transit would be the top of the list if it included some kind of light rail system

With the growth in the Lake Wylie area, alternate ways to commute into Charlotte needs to be addressed

No public transportation! Busses bring unnecessary people in that have no business here. Busses cause traffic backups with constant stops. Try real time traffic camera for red lights to keep traffic moving

Greater transportation options for low-income people.

We need a passenger that runs from Charleston to Columbia right down the middle of I26 instead of widening our roads. With key points to pick and drop off for passengers to get to work or home.

Tri county lite rail would be amazing

Improving travel from SC to Charlotte for the millions that live in SC, but work in NC.

Improving travel for the many people who commute from SC to Charlotte

GET RID OF ALL PUBLIC BUS TRANSIT SERVICES ALL TOGETHER.

Addressing transit and alternative modes of transportation can have the outcome of reduced congestion without needing to add additional lanes.

Light rail system in the Charleston area to better reduce congestion

Need a rail system!!!

Transit for the unemployed is so important. There life stops if they can't from point A to point B.

The Charleston metro area really needs to choose one or multiple mass transit plans. There are multiple ways to both take advantage of existing infrastructure as well as development of new systems.

Dedicated funding for intercity rail and transit

I'm confused about what "transit" means. Like, public transportation? Or just moving?

We need public transportation. Transportation is the #1 reason for turnover in our DC operation.

We need to provide more alternative transportation infrastructure to reduce congestion. Please help us with safe cycling options.

We need public transportation and mass transportation such as light rail

These suggestions or options are based on traveling and transit in 2019; they are not looking forward to 2040. My biggest priority is to prepare SC for radical growth and be ready to absorb the growing number of commuters by establishing more opportunities for moving people efficiently: more appealing mass transit, establishing and endorsing HOV lanes, etc.



Adding more lanes does not necessarily equate with less congestion. We need to investigate other modes of transportation such as rotary wing between municipal airports and regional / international airports plus ferry service in the sea islands may be possible. Bus transportation (Palmetto Breeze) is broken.

The only effective way to reduce congestion is to get folks out of their cars providing MORE mass transit.

Designing for ALL modes of transportation should be priority number ONE

Electric buses and light rail. Mass public transportation.

Alternative transportation and making it more attractive and accessible is preferable to making more lanes and more highways.

Transit will never really work in SC, Would love it higher, but just won't happen

Transit is critical. Our urban areas can't manage more car traffic.

I would like to see more rail service to reduce congestion on the roads. Greenville to Columbia, Charlotte, Atlanta, Charleston

Connecting different transportation modes to OZ is important along with workforce development.

High speed commuter trains to connect cities and towns could solve several problems

Need more transit options with longer hours to allow low-income and disabled people to have better access to job. Also need more Intercity transit.

No 1 is high speed rail from Rock Hill to Charleston through Columbia. And Greenville to Myrtle Beach through Columbia. All should have the ability to carry your bicycle.

Need a train from the Upstate to Charleston. More lanes will not solve our transit woes. Money would be better allocated on building robust public transit infrastructure.

Stop focusing on roads and cars, and more on moving people safely by alternative means

Mass rail transit is a must commuter light rail and high speed (Charlotte Spartanburg Greenville to Atlanta) (Greenville Columbia Charleston) Charlotte Columbia Augusta)

Mass rail transit is a must commuter light rail and high speed rail (Charlotte Spartanburg Greenville to Anderson and onto Atlanta) (Greenville Columbia Charleston) (Charlotte Columbia Augusta)

Think green as much as possible by investing in biking, walking, and mass transit and moving away from car culture

If you provide efficient alternate modes of transportation such as transit and safe cycling, it will reduce the traffics volume, thus allowing for better traffic flow and less need for significant repairs.

Passenger and commuter rail

Light rail in Fort Mill and Rock Hill into Charlotte #1 priority.

Need better transportation in rural areas for folks to work

Mass transit - busing & rail in burbs of Charlotte & West of Charleston

Transit should not be limited to bus- all mass transit or any means that gets us out of a car alone.

High speed rail to Atlanta and Charlotte

Light rail addition?

Please make trails or side roads for all the golf carts and mopeds. Therein lies a lot of the reasons for road congestions!

Add a light rail that transports passengers

Take a look at Denver CO as a model of paved bike/walk paths and light rail. People would commute in ways other than car if available.

Bussing to connect ask areas of Summerville

Transit options need to include not only bus, but also expanded rail and/or light rail networks in cities.

Trains in Charleston, not buses

Hi Thank You! I believe a rail system connecting Northwood's mall to goose creek suburbs to Summerville should at least be talked about in a 10 - 20 year plan way. That's it! I'm thankful that u guys are doing this. I grew up in mtp and i left it and so did everyone I know



Mass transportation, not just buses but rails, trains, are a top priority.

Public transit needs to keep improving in our state. Grease allocation of funds for public transit is needed.

We have inadequate options for people who don't own cars. The sidewalks are insufficient in number. Existing ones are uneven and often blocked or littered with tree limbs and branches. I've fallen several times. At night the lighting is inadequate. The number of crosswalks is inadequate and many existing ones need traffic lights like the ones recently installed on Millwood. The bus system needs to have more routes and have them all run every 30 minutes until 11 pm. They say that there aren't enough riders, but ridership would increase if the mode itself was more accessible and reliable for expanded times. This would decrease traffic congestion.

Rapid public transit which is ecologically sound, and a program to convince people to use it.

The priority should be some type of high speed rail system, NOT individual automobiles.

The priority should be some type of high speed rail system, NOT individual automobiles. Buses are not maintained and do not travel to any area to which I plan to travel. This is a short sighted system. Freight movement should be on trains as well, limiting the number of dangerous trucks on the highways.

The priority should be some type of high speed rail system, NOT individual automobiles. Buses are not maintained and do not travel to any area to which I plan to travel. This is a short sighted system. Freight movement should be on trains as well, limiting the number of dangerous trucks on the highways. Repaving needs to be environmentally friendly solar roadway, not heat sucking asphalt.

It needs to be more wide spread into the west Columbia, Cayce ,Lexington areas. And into areas with neighborhoods, low income. A route suggestion for west Cola would be to extend the route that goes to Lexington medical center on out 378. Then left onto Leaphart road. It could follow Leaphart all the way to hwy 1 and then hwy 1 becomes meeting street back to downtown.

A lot of places along this route could simply be taken all the way to town or stops along the way including dining and shopping.

Transit and sidewalks are a way to reduce congestion. SCDOT needs to convey that to residents - transit HELPS those who choose to drive their own cars. Also, safe roads need to be safe for pedestrians and bikes, not made so that it's impossible for non-drivers to get around.

I live in the country. I drive. My friend lives in the city and i have to drive to pick her up from a bus stop if I don't just get her from her slum housing, err, residence with inadequate services.

We really need more continuity in the tri county area of the lowcountry. Charleston county has a decent bus system if you can get to the buses. That can be rough for the people in Berkeley county.

We need light and regional rail systems

Mass transit other than buses such as light rail

Number one priority: mass transit other than buses. Light rail is imperative in urban areas especially Charleston, Berkeley, and Dorchester counties

What about light rail and commuter trains?

Maybe let's add some rail transit in and round the outskirts of larger cities like Columbia, Charleston, Spartanburg, Greenville, etc. This helps with congestion.

Light rail! Places like Charleston, rock hill/charlotte, the Grand Strand would do more to reduce congestion than simply mire buses

Light rail line connecting Anderson, Oconee, Pickens, Greenville, Spartanburg and Cherokee counties.

Please don't waste money on express lanes, HOV lanes or light rail type systems

Living in the myrtle beach area, with a lot of low income areas, a more extensive public transit system would make it easier for people to get to work or appointments, reduce the number of unsafe vehicles on the road, and relieve some of the traffic congestion



Living in the Myrtle Beach area, with a lot of low income residents, a more extensive public transit system would make it easier for people to get to work or appointments, reduce the number of unsafe vehicles on the road, and relieve some of the traffic congestion. Also, especially on highway 501, through Myrtle Beach and Carolina Forest, pedestrian footbridges may increase pedestrian safety, as there are no controlled crosswalks, and the light patterns currently are not conducive to them.

overhaul transit resources by implementing a commuter-rail system between Charleston and st. George.. this reduces highway traffic and assures travelers they will leave and arrive at their destinations on time.

A system similar to Marta would be nice.

Where are the trains?

Where are the trains? Car free roads?

Trains and Car free roads

Mass transit for Ft Mill SC

"Transit" should include preserving rail corridors between cities for future commuter trains. A very important one from downtown Greenville to the ICAR campus has already been converted to a bike path.

Light rail to outer areas. I would love to drive my car or walk a few blocks to a centralized parking area and then take a rail into town, across town, to work off I-77.

Alternate transportation plan to include mass transit, bike and walking paths to reduce congestion.

We need better mass transit!!!! light rail/etc.

Traffic is much less of a problem during the summer when teachers, students and parents driving their kids to school do not flood the system. Instead of putting money into greater capacity, we need to improve use of public transportation and bike/foot paths to get kids and teachers to school. Can we reward teachers living close to schools? Can they ride the bus? Carpool? Have separate busses? Can we incentivize biking/walking to school (walking club, environmental club, awards at end of year?). Can we discourage parents dropping kids off. Many people are going to the same place at the same time this seems like a perfect chance to come up with great ideas for public transportation. Freight needs to be separated from car transport. Trucks do not stay in slow lanes, they pull out in front of people, and tailgate. We need a system to deincentivize freight movement during rush hour traffic. Perhaps restrictive rules about in which lane they can travel during these times, i.e. a freight lane, much like an HOV lane.

How about other things like mono rail type transit

Transit should include other options not just bus (meaning other mass transit options)

Why is "transit" limited to bus service? What about light rail options?

Get some commuter trains!! Progression!!

Improve passenger trains as well

I'd love to see some more ecofriendly public transportation options

Trains! Commuter trains. Georgetown to Charleston. Columbia to Georgetown. Georgetown to Myrtle beach. Columbia to Greenville and major cities in-between. Transit busses as well connecting cities to cities. Even just for commuting hours.

In addition to improved bus transit with more frequent services, especially in our metro areas, I'd like to see light rail between metro areas. Suggestions: Downtown Columbia to Lexington, Columbia to Greenville, Columbia to Charleston, Columbia to Charlotte

Monorail service for shoreline

Monorail service for shoreline Fewer trucks or more taxes from them for roads

Monorail service for shoreline Fewer trucks or more taxes from them for roads Fewer roads

It is obvious that we as a society need to get people out of their cars. This is a sociocultural issue: people need to see the value of taking up space in public as walkers and cyclists.

High speed rail from Greenville to Charlotte

Rail transit too, throughout the state.



encourage alternative forms of transportation and "reducing congestion" will follow. Don't let Baby Boomers scare you away from making actual improvements.

Honestly, all of these need to be massively improved upon in the next 20 years. Especially in the larger SC population areas like Rock Hill and Columbia. Also, what about mass transit? Could SC utilize rail or put in fast transit to get from one major city center to another?

There needs to be greater emphasis at the state level on transit, including passenger rail. The way to make roads safer and less congested is to provide alternatives to personal vehicles. It works elsewhere; it can work here. Also: Climate change is already happening and S Carolina is and will be affected by it. It will be getting worse unless we all work at reducing carbon emissions. Passenger rail can be a key factor in helping reduce carbon emissions.

Rail lines between Columbia and Charlotte, Spartanburg should be utilized for passenger trains.

Get a train down 77 from Charlotte to Columbia! Quit making us DEPENDENT on cars! Buses are too slow with too many stops. Trains!!!

I would love to see transit and bike paths expanded to Greer! Thanks!

The most important thing for the next 20 years is to get people out of cars and moving via alternative modes.

I think that S.C. needs a mass transit system similar to the D.C. metro or Baltimore Light Rail. This would reduce congestion on the roads, thus reducing collisions and improving safety. Diverting a majority of freight traffic to the rail system would create local jobs, legislation restricting tractor trailer traffic on S.C. highways would go a long way to reduce wear and tear on our aging roadways and would improve citizen experience.

SC needs to consider light rail in Columbia and perhaps commuter rail between major cities.

Prefab Monorails systems down each interstate connecting each major city. Better transportation for an aging population. You can do this and become a leader in the country.

Need to monitor growth and design transportation modes to make travel better. Can't just keep adding population without taking into consideration how they are going to get around. And it's not just adding lanes and stop lights. Promote multimodal

If individual cities want transit. Let them pay for it to improve commerce and citizen satisfaction.

Non bus based mass transit (ie light rail) is needed in Charleston and across the state.

Larger cities like Charleston and Columbia need a metro train system along I26 corridor

Winnsboro doesn't have any taxi service nor shuttle service for those who don't have access to a vehicle. There are many residents here who would benefit greatly from such a service.

Citizens in areas 5 miles and further outside of city limits definitely need help to come to town on s daily basis for work and other needs.

Please remember the citizens whom are living 5 or more miles outside the city limit in any town. They are in need of transportation to get to work as well as other important things that need to be done on a daily basis.

Add commuter rail between Charlotte and Columbia

Add commuter rail between Charlotte and Columbia. Charleston need light rail.

Connect Charlotte and Columbia with commuter rail. Charleston needs light rail.

Public transit (buses) will soon become irrelevant as autonomous vehicles can pick people up at their homes and take then to any desired location.

**Public Transportation** 

Have transit routes on major roads like 17 business local stops, 17 bypass stops along major corridors, hwy 707 local stops, 544, 501

Have transit routes on major roads like 17 business local stops, 17 bypass stops along major corridors, hwy 707 local stops, 544, 501. Bike paths and golf cart paths will allow local residents to move around locally without adding to the automobile congestion.

need transport service from Florence Amtrak into at least Myrtle Beach

regional transportation like monorails connecting interstates to tourist areas and to downtowns eliminating cars

We need air port transportation



Transit should be #1. It will enable people to get around and hopefully reduce some of the congestion on the roads. Also, good for elderly mobility.

Hwy 26 is a complete death trap, we need other options of transportation for traveling into & from Charleston. Hwy 78 & Dorchester Road are over packed & traffic is horrible.

Transit is more than just a bus.

Transit is more than just a bus. Signals on all roads need to be adjusted and should be an easy way to reduce congestion. Signals are not in sequence and don't give a smooth flow of traffic. This should be a cost effective thing to do as well. Remote control can be set up rather than work on the side of the road.

We need a rail system like they have in the northern States to help with transportation especially from rural areas to cities and hospitals

There are so many train tracks here, can't you use them for commuters, shoppers!

Transit should include a light rail or rail car system.

I would add not just fixed route bus transit services but other services that could help low-income residents work and access medical, public benefits, voting and otherwise live whole lives.

Provide and market ride share, bike lanes, and "cool" mass transit options in and near urban centers.

Would be nice to see future considerations to create high speed train system to connect regional areas (i.e. Atlanta to myrtle beach)

We need high speed trains to connect rural SC with services and job opportunities

Consider innovative shared mobility solutions that can reduce # of individual vehicles & congestion. Automated transit networks can provide shared, personal, rapid, direct, shared, safe, convenient, comfortable, reliable, cost-effective mobility for a high % of all citizens. At total costs that are lower than current roads & maintenance.

## Commuter train option

Building a rapid transit system is the future. We currently cannot repair the roads we have nor build new roads. When you build a road now, all that happens is more construction follows wiping out the road improvement just done. Bees ferry is a prime example

I think if there is a bus every 15 minutes with a monthly pass more people would be willing to take it.

Where is the option for increased light rail service?

HOV lanes to and from the coast. A new permanent patching solution to put in the potholes. Have repairs done when traffic is at lowest congested times. (for employees safety) Competitive pay. We may need more training for Caring about our employees. EX: When accidents happen, we're more attentive to our employee need as well as our publics. EX: Informing employees that CDL come with responsibility both hands on the wheel and hands free phones while driving CDL vehicles.

Inner city streetcar rail system similar to that of New Orleans allowing pedestrians to travel greater distances throughout our cities (Columbia, Greenville, Lexington, etc.)

Would like to see alternative transportation continue to be discussed such as light rail.

I'd love To be able to take public transit to work, and bike safely near my house. Neither are an option.

Transit is not just buses.

We need grade separated mass transit (elevated monorail)

I think we need to create a light rail instead of adding to the bus system. This would solve my too 2 issues.

Light rail system would be ideal to truly reduce traffic and make traveling easier

More public transportation needed in all cities of SC.

# COMMUTER RAIL

While I would like to see improved bus transit, I think that's to far in the past. You must figure out a way to build a public transportation system that's reliable and that people will actually use. It would drastically reduce cars on the road and make a lot of the others concerns a moot point.

Mass Transit in large metros and between them.



We must have mass transit

I live in Spartanburg County, but I'm nowhere near the bus route. I wish the Transit System would extend ou5 to the entire county. I live out in the rural area of Duncan. I'm NOT the only one that feels this way about wishing% we had bus transportation because we don't have vehicles. I kno2 the couple of people that help me out charge me \$50.00 a trip and being on disability i just can't afford that and I love ( use too) getting out and just being able to socialize. Now I'm a recluse that gets out mayb3 2times a month, depending on if I can afford it.

High speed rail options between large cities

No! I'm from Dallas. Be very careful with this! The homeless get on busses, ride the whole day, in winter! It scares off families, workers, etc. in NY people don't have cars, so everyone rides the bus. Not so in other cities. Plus it's a huge expense/pollution.

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Look at the feasibility of affordable rail service between major metropolitan areas. Minimize the number of stops between the major areas. Set up a system similar to the airlines. Establish hubs.

Use funds held by the Summerville to downtown bus line to get the buses off the roads by building school and public bus pick-up areas, away from the flow of traffic. Require ALL new and expanding subdivisions to have at least one bus pick-up point.

Provide alternate transportation. IE a rail system

Consider light rail and high speed rail options.

Light rail

Light rail. Make mobile phones hands from or 911 only

Mass transportation is #1 need for long term

I believe mass transit over the whole state would solve a lot of problems. As well as a lot of traveled roads being repaved.

The are hardly any bike paths in Charleston county. Nearly impossible to commute by bike. Very dangerous.

High speed rail along major highway corridors.



# Survey Question 2 Part 1: Comments "Infrastructure"

I can't find anywhere to place this and wanted to mention 2 specific projects we need-widening I-95 from GA to NC, and widening Reidsville Rd/Bennett's Bridge Rd from Highway 290 to Woodruff Rd-this corridor is exploding and no one is looking at it!

Raise speed limits on commuter routes such as Knox Abbot Drive

Improve Elmwood Ave to interstate standard with overpasses and ramps

i don't understand how to answer

Limit road widening and instead facilitate transit.

Do not widen roads. Many are too wide already, such as Church or Pleasantburg. Wide roads mean faster traffic, which is extremely dangerous for pedestrians

Wider, faster roads do nothing to create a safe infrastructure for pedestrians and cyclists. All users must be considered.

You have a biased view of what infrastructure is here.

As we grow it will be critical to improve capacity in key corridors. however if we don't maintain and upgrade existing systems so they last longer under increased traffic volumes we will have a huge issue on our hands that will really hurt us long term.

While improving the existing infrastructure is important, adding capacity by widening will have a greater impact on traffic flows for congested and high traffic areas.

It is essential we widen 26 and 95 and have it paid for by Toll.

Widening roads just creates traffic. Just stop that nonsense

This isn't an either/or case. How about improving the QUANTITY of infrastructure. It doesn't need to be wider or better quality. But there need to be more options on getting from point A to point B. Granted the waterways are an impediment to accomplishing that, but for example, going west out of Charleston, there are really only three long viable routes: Rivers Ave, Dorchester Rd, and I-26... Rather than expand those, there needs to be more arterial road ways. Load balancing. Spread things out a bit more rather than trying to funnel it all into one roadway. This is why when roads get flooded, or evacuations happen, it all goes to hell.

I-20 (378-hwy 1) widening is necessary but taking way too many years to complete. May areas need widening but takes so long. More accidents occur due to long construction times.

I-526 and I-26 in the low country need to be widened. Both are inadequate for the daily commuters. The interchange between both need to be redesigned, it has never worked. Also, why isn't I-95 6 lanes from the north to south border, if Georgia can get it done, why can't sc and nc do the same, that road is always congested when I drive it.

Improve what we have BEFORE putting in place I-73

I don't think we necessarily need to widen roads just ensure they do not flood.

I don't think we necessarily need to widen roads just ensure they do not flood. Not sure I am answering this correctly. Improve infrastructure is more important than adding capacity.

For major areas (CCR, I-85/I-385), adding capacity is important. But I'd like to see more funds going into rehabbing what we've got and putting more emphasis on local transportation needs and opportunities so not as many people need single-driver vehicles for their commutes.

Congestion is unavoidable and not always a bad thing. It's just a reality that we don't have unlimited resources. Widening roads creates induced demand, which you can never out-build. I'd rather have a high-quality network of congested roads that we can maintain indefinitely, versus a network of overly wide roads that we can't afford to maintain. Consider congestion pricing or other means to reduce demand, as opposed to never-ending widening projects.

Upgrade/improve the quality of existing infrastructure, in case my arrow doesn't indicate this appropriately

Whatever needs to be done the road is poor I'm sorry.

It is absolutely crucial for the success of South Carolina in this modern era that the road to be widened or additional roads be added to accommodate the increase in traffic

Extremely important to scale the existing infrastructure and expand and add more roads to the overall infrastructure in the Charleston area.

I'm not sure I understand what the arrows mean in relation to the question....

You have deliberately impeded traffic going to James Island by closing one lane to an optional right turn going from the Wappoo Creek Bridge to Maybank Highway, and did this five years ago when it had been safe and working for fifty years.



#### **Potholes**

I don't suppose getting rid of some of the excess people is an option? Here's a thought - stop building more places for them to live. We're full already. So unfortunately, I don't see how simply improving quality of existing infrastructure does any good at all when you already have too many people for the roads that exist.

I think general widening is not always the best answer to adding capacity. This deserves more creative thinking

We have a busing system etc. 1-26 and ,5-26 going to chas. is critical, need another lane on both roadways, it's just jammed more than needed', some of off ramps' are tricky, I'm working back in chas. I see a lot drivers on phones, texting, that's a big issue

I-26 from Charleston to Spartanburg needs to be 3 lanes. It's terrifying to drive on with your family and we make the trip at least 12 x a year.

Wouldn't upgrading/improving the infrastructure also improve throughput?

There need to be serious improvements with our infrastructure. Charleston is growing daily and we do not have the proper infrastructure in place to accommodate the current growth let along future growth. I-95 is another horrible highway that needs serious improvements. As a resident that travel to other states on a regular it's ridiculous that I-95 is two lanes in SC but multiple lanes in other states. It's also a very dangerous highway in SC. The number of fatal accidents within the last 2 years have been horrible.

You have to take the entire life cycle of roads improvement initiative. Do you include current and future maintenance, congestion, added population on to the roads and bridges? How about added law Enforcement costs with increased traffic? What's the broader cost impact to the taxpayers? My beautiful and historic Charleston county will turn to NY or CA nightmare for residents?

This shouldn't be an either or question. The area is severely lacking in road upkeep as well as keeping up with the capacity needed for the drivers currently as well as drivers that will soon be moving in the area and using the freeways as well as roadways.

Adding lanes never solves congestion! It just adds more cars to the road. The only long-term solution is quality public transit.

SCDOT oversight of contractors (Rt. 31 extension/ 707 widening / Glenn's Bay Road) on highway projects is pathetic.

too complicated for me to figure out. You don't have to make it this complicated.

Widening encourages sprawl and poorly planned growth. Efficient, quality roads help communities grow in manageable ways that are more beneficial to the fabric of a specific community

All the roads needed Be repair. But Ladson Road! This road is a very traveled road and should be fixed and maintained! A very very busy road

### Potholes

We now have taxes that have been increased to pay for our roads but there is no upgrading and no widening the roads for the rapid growth of this state. I 95 is still a two lane interstate while North Carolina and Georgia have MOVED forward and widened there portion of I 95. I26 is in the same position Charleston has a lot of commerce coming in and out of the lowcountry. I26 also needs to be widen.

Widen route 26 to 3 lanes. Enforce speed limits and left lane cruising while texting

With the rush of people moving into areas like cane bay and nexton the roads are not suitable to hold the traffic. The roads like state road and areas of the new nexton parkways need to be widened

We MUST widen our interstates in S.C., especially 26, for safety and functionality purposes!

By design; our future road, bridge, and resurface projects must integrate new building procedures that far exceed today's industry standard.

Are these two really mutually exclusive? Again, I assume that areas that need additional capacity that you're also able to upgrade and make needed improvements to existing infrastructure (i.e. bridges, shoulders, and so forth) during that process.

I-26 needs to be 3 lanes from Charleston to Columbia. Too many wrecks and congestion on that commute.

It appears you are asking if we want new roads built or resurfacing. Is that what you are asking?

It appears you are asking if we want new roads built or resurfacing. Is that what you are asking? If so, my answer is build/ widen roads.

Wider roads should include medians and bike lanes to improve ascetics and safety.

Coming from central Indiana you should seriously look into roundabouts here as they are a great way to reduce congestion. Look at Carmel, Indiana and the transformation it made in the last 15 years.

Again, the question needs to be context sensitive. Charleston is running out of areas to wide/add capacity due to geographical constraints.



There is definitely a balance needed for these items. We are going to have to add capacity, but the existing infrastructure needs to be improved as well.

Builders should be required to "make a donation" for every new house they build to an infrastructure fund to aid in the widening of roads to handle the added capacity of cars their new developments bring

More capacity just encourages more people to drive. It doesn't reduce congestion long-term and is not a sustainable solution.

Not sure what you are asking

Honestly, this depends on which road we are talking about. I would prioritize having key roads/corridors with good capacity while others simply maintained.

Does not matter how great the infrastructure is if dangerous driving is not controlled: speeding, aggressiveness, text/phone use etc.

**Potholes** 

we need to build another bridge across the Columbia River all north of town connecting to 177 North

We need to stop expanding our cities with sprawl and do more smart growth. Go up, not out.

Adding more lanes does not always help congestion since the arteries are still clogged.

Or...fund the DOT with a specific revenue channel and do BOTH instead of our lawmakers passing temporary funding bills that they then can reallocate. That's crazy and poorly run government.

Update main roads such as 378 from Kingsburg to Conway where we are dealing with Horry country's tourist without any say so.

The "studies" favoring I-73 are all flawed, and have been fraudulently promoted.

Again EV infrastructure should be an option.

The roads should be better kept. I'm not concerned with widening.

None stop allowing the growth

Why do we have to have tradeoff? We are all paying these extra taxes.

Widen and then add bicycle lanes.

Widen to add a light rail system

This is question is unclear. Does it mean what am I willing to sacrifice in order to meet my priorities?

To be clear, we should NOT be trading infrastructure- the roads are in poor condition now!

It has to be both. You have to add and need to fix the poor quality roads you have already built (pooling rain water on highways)

Preparing for future growth in much the same way as Florida does is critical. 10% population growth in 9 years is incredible. Additionally SC has incredible tourism. A Beautiful state in both coastal and inland areas with much to offer tourists. I believe it is very important to encourage bike paths and walkways all over our state and especially in the coastal communities where visitors tend to flock.

**Potholes** 

195 needs to catch up with the rest of the country!

You cannot widen your way out of congestion. It's a fact. Need to provide alternate transportation options.

Add capacity.

I do not clearly understand how this questioning works. I am not sure what I am rating. It appears you can either choose widen/add capacity or improve existing infrastructure. I'm not sure how to show which one I prefer. There's just one row with up arrows down arrows or neutral, yet there are two statements.

USE MY VEHICLE AND REGISTRATION TAX MONEY ON THE ROADS, AS IT SHOULD BE. EXAMPLE... S.C. HAS AN EDUCATION LOTTERY AND NONE OF THAT MONEY GOES TO EDUCATION. ALL ELECTED S.C. FOLKS NEED TO BE TRANSPARENT WITH OUR TAXES AND HOW THEY SPEND IT... AS WELL AS HAVE VOTES ON ALL CITY, COUNTY, STATE PROJECTS. WE HAVE A HUGE PROBLEM IN HORRY COUNTY WITH ALL THE WASTING OF TAX MONEY ON PRETTY LITTLE ROAD SIGNS, LIGHT GLOBES, ETC., BUT WE CAN'T EVEN DRIVE DOWN THE ROADS. THE ELECTED FOLKS ARE SOMEONE I REQUEST A FACE TO FACE SITDOWN WITH.

I find the sc interstate system unsafe for the amount of cars on it daily and especially on holidays and special events when its overcrowded.

upgrade existing infrastructure

This is a big deal in terms of upgrading our urban infrastructure. Care much less about highway expansion.

126 needs more lanes headed east and west out of Cola!



prioritize adding capacity at intersections

Adding lanes has never reduced congestion.

Inefficient intersections and interchanges won't be helped by additional lanes. Options such as Divergent Diamond interchanges would speed transitions and offer less points of possible accidents.

What is a trade off???? you keep taking .5 sales taxes and taxes keep going up why not both

Why do we have to widen. Can we not go up? Look at San Diego. They have a significantly higher population but do not experience the congestion we do. Stack the levels of the interstate.

New roads and flyovers

I live in Kershaw county and our growth rate is booming. We need to make hwy 12 5 lanes from 77 to Lugoff. Also Hwy 1 needs to be 5 lanes from Pontiac to Lugoff. This needs to be done before any more work is done on I-20.

The idea is, we only reduce what is currently congested and we don't think long term. You guys are too short sided. For example, why are we stopping the lane expanding at exit 91 on 26? Chapin is booming now and before you know it, the growth will be in little mountain from there prosperity, so on and so forth. So why don't we go ahead and widen all the way to Newberry? While we're already in the process, why don't we keep going? This same crap happened on 1-20, we widened the lanes up to exit 80 and now that Elgin, Lugoff, and Camden are GROWING LIKE WILD FIRE, we only have two lanes to accommodate. BIG PICTURE AND LONG TERM. Please.

I do not understand the question.

Such as Central Ave

The quality should be consistent between counties. Repaving in Beaufort County far exceeds the quality of any repaving in Jasper County.

I think you have to continue to add capacity otherwise you will have a congestion issue in the future

There's no space by the HHI bridge so widening is a moot point. Keep bridge repairs at grade A standard - it's the only one we have. Take that bridge down and have a 4 Lane "Ravenel Bridge" accommodating vehicles and boats. Especially with the future port arriving.

Widening lanes, add more

These can easily be done at the same time, so I don't see why I have to pick one over the other. Upgrade existing lanes after the new lanes are added.

STOP THE CONSTRUCTION OF MORE HOMES UNTIL ALL INFRUCTURE IS BROUGHT IN LINE WITH EXISTING HOMES ROADS FIRE POLICE SCHOOLS FIRST.. Invite more clean air industry to COME TO HORRY COUNTY in the out lying areas to create more employment like AMAZON AND COMPUTER JOBS.. We rely to much on travel / tourist industry.

Construction zones should be limited to smaller areas that can be completed in months instead of years. A many mile construction zone that is a restriction for years is a waste compared to working a shorter construction zone that can be completed in a few months before moving to the next section.

Encouraging alternative modes of transportation and making them more accessible is always better. If we HAVE to widen roads, then the vegetation removed should be required to be replanted nearby. We can't keep losing trees.

Upgrading and improving creates an environment that allows for a more sustainable, multi-modal transportation system rather than only providing more and larger facilities for automobiles.

I am reticent to support large scale adding of capacity as there are already too many vehicles on the road. However, there are some specialized locations where energy-use and time could be greatly reduced with some intelligent expansion. However, in general I am against accommodating more vehicles on the road. We need to be more efficient travelers!

Adding/widening lanes is ineffective at actually mitigating traffic. Explore increasing capacity through alternative modes of transit.

widening roads won't fix everything, it'll bring problems to home owners & businesses. it may even worsen driving conditions & cause more traffic around on & off ramps

By add capacity I would be most in favor of road widening in congested areas, not new routes or Spurs.

Upgrading existing infrastructure may involve adding capacity but I am most in favor of road widening in congested areas, not new routes or Spurs.

We need to fix what we have before we add more

Quality and best use of space including hov and shared ride services are better than wide roads

Would like to see more capacity on smaller secondary roads to the interstate. I.e.: woodruff rd. Greenville, SC

Improvement of traffic flow at intersections should be considered before adding additional lanes of traffic.



The growth in the upstate of SC has to be considered ....

In many areas, this is the primary need, while in others the other is. One problem is if there is a great need for capacity upgrading may wear out because of too much use, and widening/adding capacity isn't an issue in as many places.

You can never keep up with widening and because it takes so long and is so expensive, improvements are often out of date by the time they are finished

making the existing roads look better is like putting lipstick on a pig, capacity is what's needed

Repair the roads we have

Why do we have to choose between worse and bad

Too much growth not enough infrastructure to support it all.

Plenty of roads that we already can't/won't maintain.

Widening roads may add capacity, but it is widely documented that it does not improve travel nor reduce congestion. See "Relationships Between and Both Congestion and Number of Lanes on Urban Freeways" (Kononov, Bailey, Allery).

This depends on the area. For example, an area like Charleston Tri-County Area probably needs capacity improvements like a carpool lane. Anderson, SC area needs improvement on quality.

Adding capacity on main roads will only serve to congest destination areas. Ever been to woodruff road between Thanks giving and Christmas? It's horrible not because roads aren't wide enough but because there is too much in a small area.

Why add to a broken system? Either fix what you have or quit and let someone else do it.

What on earth is the DIFFERENCE between "widening/adding capacity" and upgrading? C'mon

Should be match with housing boom. Consideration by fed, state, and local on housing boom and traffic control

As noted earlier as you add capacity it fills itself quickly. Improving what we have with smart technology to move vehicles more efficiently is a better use of funds. Adding new roads and capacity to a system not optimized just makes the bad areas worse, and reduces the benefit of the investment. Once you have "eked" out the full potential of existing infrastructure, add more.

No more new lanes! It eventually leads to even more congestion. We need transportation alternatives. We don't want SC to look like Atlanta

Widening doesn't work. People just move further out and need even more road, then you widen again...and repeat

Traditional widening just makes people move farther out and then need more road...then repeat. Add bikes lanes and other transit instead.

I prefer to preserve as much nature as possible, but some problem areas may need additional lanes or roads.

Widening a road \*never\* creates a long-term improvement in traffic congestion.

Living in Greenville Co., I believe that both adding capacity to our growing area as well as improving the quality of older roads is important.

SC highways are some of worst I've ever driven - they destroy your vehicle and are unsafe. Add to that a lack of vehicle inspection, negligent attitude towards drunk driving, disregard for enforcement of unsafe driving practices: pulling out in front of traffic; driving too slowly; riding in left lanes instead of right lanes etc.

When this is completed, why are the lane reflectors not being placed back down afterwards. It's kind of difficult to see the road/lane your on when its raining hard

Use smart computer assisted solutions wherever possible to reduce the need for more/ wider roads.

Out interstates are the worst. All need 3 lanes or more in each direction, especially I-95

We should not build more houses until we have the roads to support all the cars in Northeast Columbia

I-95 is a dangerous embarrassment for our state. It needs to be repaired and widened ASAP.

Adding capacity needs to include entrance and exit ramps to the highways.

These are very confusing. I have no idea what you are asking.

Use transit options and more trains for freight to prevent making wider roads

Don't increase the capacity for cars. Do increase capacity for bicyclists and pedestrians. Do increase public transport capacity. Do increase the coverage and lane size of bicycle lanes.

wider shoulders and lanes, 90 degree intersections, smoother turn to stay on pavement

Need to widen both 26 and 95

Don't agree with giving the ROW to telecoms for their profit and to pollute the environment and us.

Lighting up the highway and interstate is EXTREMELY important fact to add in to all the new construction. Solar powered lights on the signs at the very least would help so much as a driver.



All roads need good care, especially rural roads. Where cities are growing, like Greenville, there needs to be additional roads added.

Add cycling lanes and safe pedestrian access

Widening I 26 and I 95 is a must!

Bring existing roads up to standards before building more and larger roads.

Added capacity doesn't reduce congestion.

It is not clear what the tradeoff is.

Wider roads

I-95 south of I-26 should be made 3 lanes each way as a priority. Then make it 3 lanes each way up to I-20.

I would rather expand with rail travel and buss travel than upgrade or car travel.

This is difficult because we need it all.

Upgrades to interstate exit/entrance ramps could greatly improve the capacity and flow of interstate traffic. Additional SMART traffic signals could improve traffic flow on main state roads at interstate interchanges.

Add rail and tram systems

Finish I-526 before Charleston becomes gridlocked and people leave!

Both are important.

Upgrade top priority

Additional lanes have NOT been shown to improve anything - I want to get cars off the road.

Upgrade/improve

Upgrade and improve existing infrastructure, no need to add more traffic

Both required

You can't just keep adding lanes. If you do, the traffic just spreads out and then you have bottlenecks when the lanes end or begin.

This is far and above the most pressing need in Charleston.

Upgrade/improve the quality of existing infrastructure

Malfunction junction! Need I say more?

Malfunction junction! Need I say more?

I know it's a little optimistic, but it seems to me that the cost effective way to pursue these two goals is to do them simultaneously.

It's shown that increasing capacity of highways only increases the amount of traffic. Build the roads, they will come. SC MUST invest in alternative ways to transport citizens and goods.

Increase evacuation routes particularly in the lowcountry

Need more roads with safe bike Lanes. May need wider roads in some areas to achieve.

Induced demand means adding more lanes will only fill more lanes. Yes, we do need some more roads, but more that we need to revitalize what's already there and allow traffic to flow in multiple directions.

Where I live in South Carolina, it isn't the capacity, but the condition of the smaller roads.

Previous commentary about speed limit reform and lane courtesy laws would greatly reduce the need for widening and rather allow upgrades to existing. In its absence though widening is the best option to allow for brisk prudent passing.

Depends on the location - I used to live on Johns Island and adding capacity through widening Maybank Hwy drastically improved the flow of traffic. In other scenarios improving quality without expanding may prevent further destruction of the landscape.

Build an interstate from Clemson to Beaufort

Depends on the area. Some roads may not need widening in rural areas but definitely need regular maintenance.

Improving capacity encourages people to drive more. We need to be encouraging people to travel less, and use more efficient transit when they must.

We have to maintain infrastructure. Early repairs are cheaper than delayed repairs when problems & costs increase dramatically.

Wider roads won't help without higher speed limits and actual obedience to the use of the passing lane

I don't think we should choose between these as they're both critical needs.



Reduce lane size and reduce speed limits

Need more public transportation to prevent the need for more roads and cars in the future.

Improve existing rather than add a bunch of lanes. That being said, Bypasses in Myrtle Beach seem to work well.

If you add lanes make them make sense. Separate traffic-let thru traffic flow and let "shoppers" or short term traffic stay together.

195 needs widening 8 lanes!

All Interstate Highways should have 3 lanes.

1-26 west of Columbia needs to be widen from 126 to exit 91 in Chapin. 20 mile commutes taken over one hour daily and there are accidents regularly. This is not safe and it affects locals and our tourism market making travel to our beaches a nightmare. Weekend travelers choose alternative beaches in other states for ease of access. Plus the Irmo/Peak exit/ Chapin area is growing fast and the exits dangerously back up onto the interstate daily. Another exit between Chapin and Peak is desperately needed. Thank you for your time.

Depends on the context of the road-interstates versus local highways.

Depends on the type of road as to how it should be answered

A bypass around Columbia would be great

Needs to be done with more efficient methods. I've moved here from WV and they can fix roads and blow up mountains to make roads faster than they are doing on I20 in Columbia.

If we can't afford or manage to upgrade or improve the quality of our existing infrastructure, how can we be expected to manage added capacity?

Why spend money on new and destroy more nature when you can upgrade and fix the existing?

I think we should improve what is existing and plan for alternative modes of transportation rather than just adding capacity which just pushes the problem further into the future.

Also consider mass transit options to reduce traffic by local users

Many of the roads are far too narrow. Many don't even have white lines at the edge of the road and drop straight off into the ditch

Depends on the road/street, some could use widening other could be narrower

Interstate 95 needs to be at least 3 lanes wide in each direction the entire length of the state! Also, I-26 and I-20 should be widened statewide as well. But I-95 should be the top priority.

Research new pavement that lasts longer.

Both need to be done depending on the area

Both are needed saving lives is very important narrowing of I85 at Greenville between two other cities causes accidents daily,

If the roads are falling apart, they are not safe to drive on. Potholes bust tires. People have to swerve to miss them or risk damaging their vehicles.

I-26 is a scary congested mess. More lanes please

Widening roadways is always going to lead to more traffic, as it has in study after study over the last 20+ years. Road widening is a net negative on transportation infrastructure.

More lanes, truck only lanes, better off on ramps. (poor ramp example are the ones from 16 west to I 75, that is so dangerous to have the exit from 75's acceleration lane to be the same as the de acceleration lane from 16 west onto I 75. Frightens me every blankety blank time we have this type)

Roads need shoulders!

We lag behind other southeastern states in expanding our US and Federal Highways to support the movement of goods. Our collective challenge is trying to balance improvements safely while simultaneously thinking to our future.

How many roads and lanes can we realistically build, especially in places like Columbia's Malfunction Junction or downtown Charleston or I-85 in Greenville? Is it time to shunt some traffic around Columbia with an outer loop?

80 needs more lanes, there also needs to be a second road that just goes from Spartanburg to Greenville without a million lights

Fix what we have before adding more i.e.: fix main road @hwy 17 before wasting billions on more 526. Interstates are ridiculous.

This is very important?

put a toll on 18 wheelers

Unable to identify pic on left with smart phone



This is unclear

Widening does not work and makes traffic worse in the long run

Slow down on the businesses coming until everything catches up.

Increase rail service for freight and commuters

Add bike paths on all roads to allow for cycling to work

Especially Hwy 501

I understand this to be that I'm willing to forgo width in order to have a higher quality?

Maximize what we have before building new greenfield projects

Both needs to happen as well as adding multi model plans. More trains, buses etc.

Both need targeting. For large scale, we need widening, for within urban areas, repaving, re-lining roads to allow double left turns, etc.

Do you want more visitors, therefore tax dollars?

You can only widen and add so much before it harms communities along the roadways.

Its time to start going up or down with modes of traffic. The longer you wait the more expensive it will get. Super highways with less exits for longer distance travel above existing interstates to reduce the amount of transport trucks on local interstates. The trucks need to get to where they are going, the locals get out of the way and home sooner.

Create super highways above existing interstates with longer distances and less entrances and exits

#### **Potholes**

Widen capacity. But not like Boston. If you currently need 1 more lane make 3. You'll take so long you need two by the time you finish. Where's the \$. Taxes on gross vehicle weight and cost based on price of the vehicle. And then there's always tolls

It seems like all roads lead to the same place. There aren't many cut thrus or connections so if traffic backs up, you are stuck.

Neighbors don't connect so if there is an accident, people can't work around it. All neighborhoods lead to the same place.

Develop passenger rail. Increasing roadway is a diminishing return

Should NOT have to choose!!

Do NOT impose a \$25 road improvement tax to each vehicle at registration.

195 is a HAZARD. I would ideally like to see limited access toll highway from border to border. Allow for greater speed. Leaves existing hwy for locals, lets NY to Miami visitors "fly" through like they do anyway, and they pay for road! Locals could use too.

This tradeoff scenario is unfair. Both of these items are needed. Tradeoff bus transit and sidewalks.

We cannot continue to widen roads without widening shoulders.

Improving existing infrastructure by adding additional turn lanes is what I intend. Also providing more space on shoulders and room for walkers.

Would prefer building moratoriums in areas already congested, then we wouldn't need more road infrastructure.

There's plenty of researched evidence to suggest widening roads doesn't actually decrease congestion. We need better planning and more public transit

Need capacity. Indian Land! Also 95 south needs at least 3 lanes each way

SCDOT should not widen anymore roads in S.C. Improve the quality of existing roads, then focus on sound transit options.

Widening and adding capacity doesn't solve the issue. Atlanta is a perfect cautionary example of this.

Bring light rail with park & ride parking garages to Rock Hill/Charlotte. Grow up, stop encouraging more single passenger by adding lanes.

Widening does not decrease. Only doing things to remove vehicles will actually eliminate. Widening roads causes more traffic. Buses, light rail, alternate routes can alleviate congestion

Three lanes on 26 from Columbia all the way to Orangeburg and three lanes on 26 from Harbison all the way to Newberry or at least all the way to Chapin I feel like y 'all helped cause the road rage post signs that say slower traffic keep right

Pave before widening

Are they not "one in the same"? Improving roads to increase capacity??

Not sure doing this right, explanation of what you are actually indicating by the arrows is unclear

Need both

We do not need to build more houses in Northeast Columbia until we have the roadways to support them



Carolina forest in Horry County is a mess. Need more roads, multi-lane roads, and connect existing dead-end roads to main arteries as a bypass

Three lanes from Charleston to Columbia needs to happen.

Need to repave a lot of these roads. Turkey creek in York is one of them

There should be an emphasis on limiting migration to SC

195 needs to be 3 lanes or more state line to state line

The arrows are confusing. I believe adding capacity is one of the most important things DOT should be doing.

Adding capacity creates a known phenomenon of "induced demand," where car usage will increase. We would be well served by adding rail and other transit options to diversify our options, reduce congestion, provide affordable public transportation, and decarbonize our state.

Improve the quality of what we have first for safety.

Waste of time. 26 was widened and it is now a parking lot. The widened bees ferry and it turned glen McConnell into a parking lot because everyone is using it as a cut to 525.

Do not add more to maintain until the existing infrastructure is improved.

Seems like the DOT is always 5 years behind when the upgrades should have been made. Point in case; I-95 is STILL 2 lanes and finally you are starting the Malfunction Junction problem.

A stronger emphasis needs to be placed on intersection improvements to increase the safety and flow of traffic through intersections. This would help alleviate congestion issues for a lot of the traveling public.

The more infrastructure is built, the more costly it becomes. Focus should be on maintaining the quality of existing facilities and encouraging optimization of that network.

It depends on the volume of traffic on the road. If the volume is high, widen/add capacity. If the volume is low, upgrade/improve the quality..

This response depends on the location because certain areas truly need to add capacity

Adding capacity creates issues downstream of the problem areas.

SCDOT needs to strike a balance based on severity of congestion/pavement condition vs. available funding. Address the most critical in both categories. While my mentality is skewed toward maintaining assets before upgrading, I understand that some fast growing areas of the state (Charleston, Greenville, Columbia, Fort Mill) are in critical need of added capacity.

widen shoulders while upgrading and improving existing infrastructure.

Of the two options the real answer is derived after knowing the monetary costs associated with each solution. Ideally capacity should be added to the major thoroughfares, all while improving the quality of the infrastructure.

It seems as you widen and add capacity you will also improve the quality of the existing infrastructure

1 leads to the other

This should be analyzed on a case by case basis. For example, I-85/I-26 need to be widened. Roads like Savannah Hwy and SC-7 in Charleston needs to be upgraded with turn lanes/curb and gutters/sidewalks.

I am only concerned about safety and radiation given off by cell towers along roadways and the coming 5G enabled autonomous vehicles.

Invest in expanding lanes on I—95

It just needs to be done in a timely manner, not take forever and a day like it does now.

You simply must maintain and improve existing infrastructure prior to adding anything.

Will not allow me to select—I prefer upgrade existing infrastructure

Need to make highways At least 3 lanes...such as all of 26 and 95.

Adding capacity simply induces demand, creating the same amount of congestion as before at a much higher expense. It is not an appropriate long-term solution.

Use widening to add CUMMUTER RAIL!

The near doubling of the population in the last 20 years with no increase in Interstate capacity is obvious to anyone who travels on the interstates. All interstates need to be increased to 3 lanes immediately. Since the governor and legislature won't do it, ask the Feds to make our interstates toll roads like New Hampshire, Pennsylvania and New Jersey. With long term money essentially free (~1%) right now, a bond issue would cost almost nothing to do it.



The near doubling of the population in the last 20 years with no increase in Interstate capacity is obvious to anyone who travels on the interstates. All interstates need to be increased to 3 lanes immediately. Since the governor and legislature won't do it, ask the Feds to allow our interstates to be toll roads like New Hampshire, Pennsylvania and New Jersey. With long term money essentially free (~1%) right now, a bond issue would cost almost nothing to do it.

With the increase in population in recent years and no increase in interstate lanes, the roads are not functioning for SC citizens.

No new roads until current ones are in good repair

Not guite sure what I am being asked to do with the arrows...not too user friendly....

Not quite sure what I am being asked to do with the arrows...not too user friendly.... and why a tradeoff??

I 76 in Inman the road at the bridges will beat you to death, and Hwy 292 going towards Lake Bowen

Our local roads and bridges are horrible due to truck traffic from local distribution plants. These roads were not meant for this type of traffic. These trucks use the local/rural 2 lane roads through small communities because it's shorter, rather than using the main 4 lane roads better suited for their use.

How is this necessarily a trade-off?

South Carolina road are horrible! The potholes and bridges causes unnecessary damage to our vehicles

Y'all need to look ahead of widening to roads now. Don't be behind like always

if capacity is added, developers will just build more housing and office complexes to fill it

Upgrade to shift to mass transit lanes and bike lanes

The rural roads need work. My vehicle has had multiple issues in the front end alignment and we've replaced the tires multiple times. My road to work is like driving a rocky path. When I reported it, I was eventually hung up on.

The roads in SC are too narrow and need shoulders! Especially with so many distracted drivers looking at their phones. It is unsafe.

The roads in SC are too narrow and need shoulders! Especially with so many distracted drivers looking at their phones. It is unsafe. SC should demand that developers help with road widening and infrastructure before being approved to build.

It seems as though while adding capacity, updates can be made simultaneously..

More roads need to connect. Most roads only one to exit.

SC must improve existing roads before anything else

This is confusing, how do I show which tradeoff I am for?

This is confusing, how do I show which tradeoff I am for?

I am for widening AND upgrading.

Existing infrastructure is simply awful! And you are redesigning the Greenville I-85/385 interchange for the 3rd time at outrageous cost! Existing roads haven't been paved for 25+ years! SC #357 in Spartanburg County for one

To much emphasis on interstate and not enough on the farm to market roads. These roads are in so much need of repair that some need to be plowed and completely rebuilt. No attention in many years

I-26 Charleston to Columbia must be 3 lanes. So too, lower I-95

Fix what we've got first. Everything is falling apart at the seams. Not this patch & protect deal you're doing now. Resurface & Repave the roads. Followed up shortly thereafter with the preservation of the new roads so we don't end up back here again...

Interstate 526 to John's Island should be completed.

Pothole patching

Widening and increasing the capacity will only encourage more underdevelopment and we will be right back to where we are now. We need to learn to maintain and improve our existing infrastructure and learn to say no to all of the developers.

This section is confusing. It could create bias in this survey.

Hwy 25 need to find a way to cut down on speeder. Traffic cam could be installed

State roads that are in neighborhoods - need to be redone & turned over to the county

our roads are torn all up and all dot does is patch them and 3 days later the patches are busted again. we have 18 wheelers all day everyday busting up this road. Duncan Rd. off hwy 39.

A lot of our current roads need widening as there's not even pavement to cover the white line. My only caveat would be that I 26 Corridor heading to Charleston. That absolutely needs to be widened the entire way

This is not a clear question.

Our roads are so congested that even with improvement that seriously inadequate



# Survey Question 2 Part 2: Comments "Safe and Secure Travel"

We need a mix of both depending on the area-what will serve it best. Case by case basis.

Anything to improve road conditions would be great. Came back on I-95 from Florida this year. Could not believe the condition of the road. I have friends that live in an area where the potholes are so bad that they take neon pink spray paint and circles the potholes so that you won't damage your car. Have thought about starting the neon pink pothole movement in the Myrtle Beach

Focus on grade crossing safety to include grade separations and quiet zones. The priorities for roads that cross rail should include everything from improved shoulders/sidewalks/signage to medians and a plan for extra gates at some crossings.

Realistically, I don't see a reason to have a mix of the 2 options. Improve the safety of the most dangerous intersections in the state (i. e. Rivers Ave and Ashley Phosphate Rd in Charleston) and improve the safety of the most commonly traveled roads.

Safe ---- and the word SECURE are exactly the same thing. You must really think people who bother to do this are stupid. FIX THE ROADS

Why a tradeoff. Do both! These are false equivalencies.

Our roads cause a lot of wear on my vehicle and are unsafe with all the patches and potholes making it so uneven. It's a disgrace to know our roads are this bad.

The ability to see markings on the pavement is critical to safe and secure travel. The current markings are HORRIBLE. So bad that on freshly redone or new roads, in the DAYTIME, in the rain, the markings on the pavement cannot be seen. This needs to be fixed. increase enforcement of traffic laws with more patrolmen. red light running, constant lane changes, speeding, etc.

the two options are not opposing alternatives. safer intersections and safer roads are one in the same

These topics seem to be the same - fix the existing errors and additional needs.

Even in intersection and roadway improvement there are hazards exposed or trees limbs blocking views and rain that washes out roads because the construction removed the sidewalk like on Hardscrabble construction in some areas. The construction must be done but not all the preventive safety hazards are in place as the construction is ongoing. This needs to be reviewed.

Back roads are in much need of repair. No attention in years

Intersection safety for pedestrians and bicyclists should be improved with bike lanes and pedestrian crossings.

We need traffic circles to improve congestion at intersections

Can't we have both?

find a way to stop people from running red lights

**Potholes** 

It's all the same fix it all now.

Slow the vehicles down and the need for guard rails and other safety measures is reduced.

The roads are unsafe because of their terrible conditions

Intersections are horrible. The red lights are not synced so the lanes back up. Need more turn arrows. Stop putting traffic circles in areas that do not need them, i.e. Glendale.

Unsafe drivers are a bigger problem than the roads. Increase police/patrol presence

Using pitcher handle configuration for busy roads could remove left turns that are not only dangerous but slow traffic considerably. Other states use new configurations for safety not employed in SC.

Left turns on many busy roads add substantially to congestion, e.g. 278 at Hilton Head. Why doesn't SCDOT learn from solutions that work? In the northeast they use a pitcher handle configuration so there are no left turns on the main road. Highway 15 through northern New Jersey and highway 1 in Massachusetts are examples. They have way more cars and function better than 278 in Hilton Head.

Intersections are where I personally witness accidents and near-accidents due to poor design, especially regarding vehicle speeding in urban areas, and heavy pedestrian use of sidewalks and crosswalks.

I feel this preference actually should follow the statistics of accidents with injuries.

Don't give idiots driver's licenses.

Now that I have teen drivers, safety is at the top of the list.



This should also be done on a case by case basis.

There is a huge shortage of street signs and hwy signs. They need to be MUCH LARGER so they can be seen from a longer distance

Need a lot of work in both categories.

## MAKE DEVELOPERS PAY FOR ROAD IMPACTS

As you pave shoulders and create clear zones, intersection safety will automatically improve.

I believe Rumble Strips are probably more cost effective than say guardrail. Motorists need to take some responsibility for staying within the roadway.

More partnering between SCDOT and DPS to publish the rate of death and serious injury per serious accident whether seat belt worn or not worn. Many more lives could probably be saved if people wore seatbelts. Targeted enforcement campaign.

Every single road should have at least 1foot paved shoulder with rumble strips for higher speed roads. It is crazy to me that we have primary routes that have no paved shoulder past the white line. If you really cared about saving life's, then paved shoulders should be mandatory

Not at the tradeoff of destroying people's neighborhood. Infrastructure should be built first looking at maximum capacity

The roads are safe. SC needs to enforce a hands-free cellphone law and a very strict no texting while driving. Get caught twice lose your license.

I wish DOT would not clear medians on the interstates of trees. They serve a great purpose of shielding oncoming headlights and preventing crossovers. Guard rails should be installed to prevent drivers from leaving the roadway and hitting trees, which would likely save money.

Both

Shoulders with bike lanes are a must

Add bike lanes with extra space on the shoulder for both uses!

More people will cycle if they have a safe shoulder

Make getting a driver's license harder. Driving is a privilege not a right. Far too many people are simply operating vehicles and not actually driving.

use traffic circles as much as possible

Focus on known high accident areas

No more round abouts replacing already established 4 way stops. if you have to build them do it on new construction please.

Get cops in Columbia area to actually bust people for running red lights it's getting ridiculous.

SCDOT should adopt Safe Streets model.

Please re-configure the intersection in front of Miller's Produce on Pineville-Rock Hill Rd (Andrew L Tucker Rd, State Rd S-46-48, Flint Hill Rd, and Pineville-Rock Hill Rd intersect here)

Neutral as I don't know what specifically is suggested for "intersection safety".

These are not optional!!!

Primarily concerned with paved shoulders on secondary roads

Many SC backroads are a danger causing many accidents. The roads need to be wider with a stable shoulder

these should not be traded but equally maintained.

Widen all interstates and create one from Hilton Head to Augusta to Clemson

Doesn't matter how safe the construction of a road is if the people on it don't know how to drive. Does anyone here know how to merge??

Invest in high risk areas, first; prioritizing dangerous intersections with statistical history of 1)multi car collisions with fatalities, 2)multi car collisions without fatalities, 3) single car collisions with buildings/property 4) rural single car collisions with environment (trees, cliffs, etc.)

Get rid of round a bouts and put in a traffic light. Get rid of 4 way stops and put in a traffic light.

Do more to straighten some older roads that can take a lot of traffic off over-traveled primary roads

SC needs to get serious about public transportation: buses and light rail.

If the rural/backroads are safe then they are a great alternative to interstates.



Maintenance of state and secondary roads is abysmal. We need to repair and improve conditions of our road network outside of US and Federal Highways.

Our state and secondary roads are in much need of work as we have failed to account for the growth we have experienced. Improvements here will save lives. Intersection safety improvements should be included as part of the capital investment.

Round abouts are proven to be more effective and safer than stop lights

No rumble strips!

Paving shoulders would save hundreds of lives every year. Someone tried to save money and people are dying from that poor decision. Lives are priceless

Again, both are needed

Intersection safety improvements will be useless unless they are traffic cameras to catch all the drivers egregiously running red lights.

Why is this a trade-off? Do what you can, as you can. Spend wisely.

Add more European style roundabouts. They keep traffic flowing with less accidents at intersections.

These options seem to be for very different scenarios (urban/suburban v. rural) so it is hard to decide between the two.

Uh how about both. This is not a trade off as they both are extremely important.

If you insist on impact fees and central planning why don't developers have to put in right hand turn lanes for their neighborhood entrances. That plus correctly timed lights are easy and inexpensive wins.

Both are incredibly important

Just tie the lights correctly for a low cost fix with large rewards.

Just time the lights correctly!! Vast improvements would be seen.

If you put up SIGNS far enough in advance that a right lane is for RIGHT TURN only .... and put up a sign instead of writing in on the pavement 40 feet from the intersection. Same thing with street signs.... make the writing LARGE ENOUGH to be seen from a long distance so that people can move over a lane if necessary, before they get to the intersection. The little signs cannot be seen until it's too late.

Red light runners and speeders need to be curtailed.

I think these are the same, there is no trade-off. Do both! One option, instead of a turn only right lane, make it a yield. Increase productivity, reduce congestion.

Circles are great! College park and I-26 and alt-78 need them. 17 and nothcutt blvd to decrease traffic on bridge, on whipple by new lucy Beckham school and job Edward's.

So many opportunities for roundabouts in the upstate to relieve congestion

Circles work. A couple of places circles would help: college Ave off 26 exit, alt-78 and college ave intersection, northcutt blvd and 17 intersection to stop traffic backing up off bridge, long point and whipple, whipple and Mathis ferry. England has large traffic circles that handle flow much better than stop lights. The small circles on Mathis ferry work great.

I don't understand how these questions work

Both are needed. Prioritize areas where more accidents have happened in the past.

Wide paved shoulders also make excellent unmarked bike lanes. The number of South Carolina drivers that try to run bicycles off the road is disturbing.

Buses should have designated well marked stops.

Several intersections off of i85 in Greenville would greatly benefit from diverging diamonds.

One of the biggest issues is just that you can't see the lines at all. If you can't maintain what is in place now, adding more things won't help.

Spend more money taking out idiots on the roads. No amount of road improvements will save lives if they are still allowed to use them.

Needed to state what is an intersection safety improvement, i.e. right turn lanes, left turn lanes or left turn traffic lights.

Neither will make a difference if you don't enforce a hands off phones rule.

Unsure which would have bigger impact on safety



It's obvious you have to deal with the sins of your fathers where they never had any forethought, but you REALLY should look into dedicated turning lanes in future growth.

Guardrails are over rated! Better shoulders and better line of sight much more important

Invest more in intersection safety improvements

Both

With so many intersection accidents happening and more & more seniors trying to live independently because they have no other choice, I recommend every traffic light use dedicated green arrow turn lights. These blinking yellow arrows are a recipe for accidents.

Both of these options are equally important

Intersection safety

Intersection

Please add decent shoulders for safer cycling!

Again, you are crazy. How can you base this decision on opinions. Where are the people dying? Don't you have data? Fix that. How can anyone say with certainty which is more important without the data.

Learn how to make 90 degree intersections wide enough to stay on the pavement

I am marking this 'neutral' because the issue to me is the poor signage on SC roads, especially in markings on lanes prior to arrival at intersections or ramps.

Arrows should be painted on the road at all cross overs. People tend to not to stay in their lane at cross-overs. Very dangerous

Why does there have to be a trade off? Both of these need to be done. Raise taxes, get it done.

Added lights (solar powered) to signs and over all streets. Would be he first step in helping with understanding new patterns of roadways.

These options are not tradeoffs. Both are SCDOT's responsibilities. Apples and oranges.

I never thought I would feel this way, but I believe cameras need to be installed at busy intersections. The amount of people that run through red lights is staggering and very dangerous.

Again need law enforcement to be a active part

Replacing many complex intersections with roundabouts would increase traffic flow and decrease the number of accidents in many locations.

Neither of these are likely to improve safety, since the "feeling" of safety tends to make roads more dangerous.

Ridiculous waste of money to clear- cut medians & then landscape! Use those wire barriers if people stray from the roadway.

Replace existing bulbs in streetlights and add more lighting

This is the only state I drive in where trees basically hug the side of a highway. Also, how are you supposed to pull over in a two foot emergency lane?

A majority of serious collisions take place at congested intersections. Improving overall flow and better sensing and signaling technology (plus intelligent elimination of some left hand turns) will improve traffic flow, reduce congestion and therefore improve safety. Serious consideration of red light and speed violation technology would also add greatly to intersection safety improvement. I recently became aware of a system in use in Maryland that seemed to have a "profound" effect on highway speeds in construction areas. Once of the first times in my US driving travels (30,000-35,000 miles a year) where I have seen adherence to the construction zone speed limits! Replication of this technology would enhance roadway safety.

Is one exclusive of the other?

Need turn lanes

Add sufficient shoulder for bikes, or bike lanes

Stop dumbing down roads and intersections. i.e. Reducing speed for a section of road after a bad/fatal accident when it was really just their own fault, slowing down the rest of us. Adding electronic no turn on red signs when people should be paying attention enough to know which cycle the lights are on and when they can go. Improving driver training in general.

Saver roads

These are equally needed and which specific location are addressed should be based on need such as accident reports



improved intersections and roundabouts will improve efficiencies in the roads, the less time people spend on the roads the lower the risk of accidents. Ounce of prevention is worth a pound of cure. Efficient intersections, and wider roads with more lanes will go hand in hand to improve traffic and safety

PLEASE PLEASE ADDRESS THE TERRABLE INTERSECTION AT PALMETTO POINT BLVD AND RT 17. IT IS A DEATH TRAP.

this is a technical question - what does the data show causes the most injury- that's the priority.

Need more traffic circles

In Tucson, AZ they have to add a bike lane each time they upgrade a road. Would it really be so terrible to put in some paved shoulders any where. I miss riding my bike, but I'm scared to death to ride my bike here.

Intersection improvements improve both safety and traffic flow so I lean in that direction while recognizing the importance of wide, paved shoulders, which we desperately need.

Both!!

You must widen the roads and get impact objects farther from moving cars but you also need to improve intersections, sight lines of intersections, timing of lights to avoid red light runners

Most fatalities happen at intersections. Focus on intersections and improved pedestrian infrastructure.

The lack of traffic enforcement at intersections has led to a populace that largely ignores traffic laws, endangering our citizens, residents and visitors. SCDOT should advocate for better intersection safety, including through better design, but also through law enforcement.

The lack of traffic enforcement at intersections has led to a populace that largely ignores traffic laws, endangering our citizens, residents and visitors. SCDOT should advocate for better intersection safety, including through better design, but also through law enforcement. Also, the design of certain intersections (e.g., Harden/Calhoun in Cola) are inefficient, dangerous and/or bizarre. No right-hand turn rules around USC are absurd except during the busiest parts of the day/year. Better traffic studies must be conducted to improve efficiency and safety.

PALMETTO POINT BLVD AND RT17 IS TERRABLE. NEEDS UPGRADE RIGHT NOW.

### **Potholes**

Hard to judge without knowing what is being paid now - contracts with outside companies that do not mesh with local citizen desires, but place efforts where 'Columbia' dictates does not always meet local needs or build safer roads. Meet with local citizens and elected officials for actual needs. Ruining canopy roads so the electric company can repair lines causes more unsafe highways than helping anyone.

More clear zones. No curbs or guard rails for entrapment

What is the % of accidents at intersections. Whether walkers, bikers or cars. Probably pretty high at some places.

Add crosswalks and street lighting. Red light cameras and more police presence so less pedestrians get hit and less run red lights.

Start enforcing safe driving laws. Way to much inattentive and unsafe driving practices in this state. Including by law enforcement officers.

Using turn signals should be heavily enforced and fined. The widespread lack of signaling is an extreme hazard. Also, there should be a hands-free law in regard to cellphone use.

I've noticed a trend where new paved interstates like I-385 no longer have reflectors in the middle. Which is terrible when it rains because you can't the lines so staying in your lane is difficult.

Too often "intersection improvements" are just multimillion dollar projects rather than common sense changes. We need better light timing and better enforcement.

SC is top 10 most dangerous state for pedestrians. Narrow traffic lanes, add pedestrian islands and curb bump outs. Work with cities to fix signal timing on DOT roads.

I believe drivers competence plays a role in all this. Are you considering working with DMV to improve the driver?

I am all for both of these safety measures. This state needs to institute cameras at intersections and start ticketing people for running red lights. I see multiple cars running red lights constantly, especially left turn lights at Major intersections. The Green arrow will be gone then 2, 3 or 4 cars will continue to turn.

BOTH ARE EQUALLY IMPORTANT. THIS IS WHERE OUR VEHICLE TAX, TAG, ETC., MONEY SHOULD HAVE BEEN BEING USED. NOT ON PRETTY TOURIST CRAP.



Start enforcing directional signal use on Lane Change AND Right and Left Turns. State with the worst roads and poorest drivers. Enforce the Traffic Laws. I see City (MB) official vehicles doing barely slowing and California stops at signs and usually traveling over the speed limit. Disrespect.

Safer for who? Methods to improve safety for cars (i.e. wider roads, bigger turning radii) are less safe for pedestrians.

Not the tradeoff I want but I think improved infrastructure will make roads safer as well

Roads need to be safer by enforcing speed limits and distracted driving laws. Adding rumble strips does not necessarily make a road safer, especially not for cyclists. Guardrails are over used in SC.

I'm sorry, I don't understand how this works on my phone.

Both of these are sorely needed in Lexington County, and should include pedestrian features!

I would support whichever would save more lives and make roads safer for pedestrians, bicyclists, and mass transit.

A shoulder should be wide/safe enough for someone to walk/pull their car over if there is an issue. This includes next to a guardrail.

Traffic circles are a safe, simple improvement for congested or dangerous intersections.

We need a light back at Bentley Dr. and Broad River please!! So unsafe and people speed down that hill and over the bridge AND don't safely manage left turns. Daily.

Anything to help reduce the number of people who run red lights. Especially at major intersections, people run lights a good 5-10 seconds after they have turned red on their end.

I would like the state to invest in road improvements that can lead to railroad quiet zones. This could involve everything from improved shoulders/sidewalks/signage to medians and a plan for extra gates at some crossings. Some states have a statewide plan for making this happen with funding other than Section 130 funds set aside for it.

This section make no sense

Not sure what you are asking

Both of these should be done at the same time. These aren't mutually exclusive.

Even though the rural roads are not as highly traveled these roads need the most attention. Accidents on these roads generally severe because folks are traveling a high speed with no protection if the run off the road.

Johns island roads need guardrails along river road. Too many car vs tree.

I would base prioritization of these two very similar objectives based on traffic incident records. If safety is an issue, the top priority should always be to invest in fixing it.

Roads are poorly marked and maintained, horrible trying to see during rain storms or at night. repaint lines, road signs visible BEFORE you're driving past them, overhead lane marker signs for turns,

Yes safety first

Too complicated for me to figure out. You don't have to make it this complicated!

Install high performance reflectors on roadways and use highly reflective paint to define lanes, shoulders and raised islands on roadways.

Reduce traffic and rapid population growth closer to Charleston. Public safety should improve significantly. Think of other cause and effects

These need to be done, I think people are frustrated about driving and traffic, so easy zones, etc.

You can't fix stupid and most accidents are because people aren't paying attention to driving.

There's only so many things that you can do to make the room safe you are unable to control what other drivers do. I believe some safety measures are necessary however I don't believe that it is completely necessary to make this a top priority the priority should lie within law enforcement and other agencies to ensure that the public is driving Safeway

As someone who gets around by bicycle most of the time, I'm wondering if "Invest more in safer roads" includes things that would actually benefit me. For example, reduced lane widths to allow wider shoulders; buffer zones and ideally physical barriers (like jersey barriers) between motor vehicles and bikes; signage to indicate that bikes have full rights to the road just like any other vehicle per state law ("Bike May Use Full Lane" signs), etc. If so, I prefer this option.

have studies been done? it depends on whether more people are killed in intersections or on the side of the road

Invest more in intersection safety improvements. Too many accidents.



We had over 260 impassable roads in Horry County last Fall. Every Fall our roads flood. This increases the risk to our public safety and public health. The more impassable roads we have the more likely we will have loss of life due to flood events. Safe roads that do not flood is my priority.

Honestly BOTH of these need to be a priority

Paved shoulders and PLEASE keep the grass cut!!

Where do most accidents occur. Put money where it makes the greatest impact on safety.

Provide dedicated or more space for bikes for better safety.

Paved shoulders, at least 5-6 feet wide, so they can also serve bike and pedestrian use.

Safer intersections. Also for pedestrians!

i dont understand how to answer

So glad to see traffic circles making appearances. They seem to increase both the amount of traffic an intersection can handle and increase safety there.



## Survey Question 2 Part 3: Comments "Mobility"

Buses should be available to passengers every 15-20 minutes. This would stimulate usage.

Research all of the other cities that have tried to solve their issues with increased capacity and added lanes.....their roads are still overcrowded and it has not solved anything.

### Just needs repacking

BOTH you're cheap with your fellows. Why have to choose? NO FIX BOTH the money we spend you tend to squander on cheap cheap and now you get the results garbage 3rd world roads.

If this means adding a fast passenger train/ subway system between larger cities across the state, then definitely yes!!!

reduced number of students driving or being driven to school by improving bus safety and comfort.

Again, busses and light rail are not necessarily the great thing it's said to be. Go to Dallas, Atlanta, and see who is riding light rail. Except for specific routes, it's people w/o cars and the homeless ride. Families, yuppies do not ride b/c they are scared! The homeless (about 250 of them) stand at the downtown stops begging for money and robbing people and urinating everywhere, so businesses left. The homeless can ride all day to the suburbs in a warm light rail or bus for \$2.00! So can gangs. Last year, in Charlotte after the Belk Bowl a homeless guy went to the last car on the light rail I was on, and was urinating on people. It was disgusting!!!!

## Adding capacity must be considered before anything else

Although expensive, technology and other travel mode alternatives could be an important option, especially in local transport situations.

# Need more buses

There is a increased need for mass transit to help people who don't have private transportation but also to reduce congestion and save energy.

Before people will use mass transit it has to be the better option. Make the trip by car take longer than with bike or transit. This is why people will fly rather than drive. Same applies to the other options.

How about a commuter train from Newberry, Prosperity, Little Mountain, Chapin and Irmo. Support it with real bus infrastructure.

### Add lanes

I think a route on public transportation from Simpsonville to Downtown Greenville with stops in between could Prove beneficial

## Get buses to more rural areas

Only when there is absolutely no other alternative

## Light rail

I-95 through SC is the only place it is not 3 lanes. All the SC interstates need to be widened to 3 lanes as quickly as possible.

SC does not have enough population density to support mass transit like a large city. The only use of travel alternatives is to transport people without a car to work. Studying the current users and their employers would make the most sense since no one answering this survey has likely ever been on mass transit in SC. Funds for this should be different from usual SCDOT funding because it is a more form of disability funding.

I-95 in SC is the only place it is not 3 lanes. Looking a Google Maps traffic says it all - many interstates are RED very frequently and even when they are not, drivers in the left lane going 55 and trucks passing trucks make SC interstates often unusable.

BUILD COMMUTER RAIL! Bus routes can be used to move the people to/from the station(s).

Increased capacity simply induces more demand, ending up with the same congestion issues with more cars, at a higher expense.



Increased transits to all areas of the city increases crime, pandering, and loitering. All we've seen it do is disperse the crime and loitering all throughout the midlands, rather than having a localized area to avoid. It discourages shoppers from spending money in select areas because of the increased crime rates that arrive via the transit from the low income areas.

Driverless cars could be here within 20 years. Using smart intersection signals will help congestion.

Rather than adding lanes improve roads so drivers can travel them safely!! SC roads are horrible

I don't understand how to work this survey. Infrastructure is #1, safe & secure traffic #2

**Potholes** 

This again depends on location but also which is more cost or labor effective

Busses and rail systems would be awesome if they are thoughtfully designed and "marketed" to consumers.

Buses and rail systems would be awesome if they are thoughtfully designed and "marketed" to consumers.

Adding more lanes does not reduce congestion. Look at Houston and Atlanta. We should not become those places. We are better.

I'd like to see SCDOT develop expertise that can be shared with municipalities where those municipalities may cost-share a piece of the program.

Mass and rapid transit is the only solution. Wasting money on roads is stupid

Fix the traffic at the Ashley Phosphate Rd exit at 26/78 come together. Need to reroute 78 traffic or put in a couple more lanes.

Charleston to Spartanburg (or Asheville) bullet train!

Utilizing a Commuter train will drastically decrease road traffic on a daily basis and would reduce the urgency to widen all main roads in the low country. However, I would take widening the existing roads.

Deforestation is already a massive issue that we're facing, but as long as we're working on making existing roads better rather than making all together new roads then it all good.

Use new shared, connected & electric technologies now (& autonomous technologies when improved/validated) to deliver Shared Mobility as a Service. Carolinas Alliance 4 Innovation is developing options that are working in the Upstate.

Within a small geographic area, buses serve the purpose. However, we need better options for transit for longer distance travel.

There are more people in Atlanta Metro than our entire state. You have to have a car because or bus system will not be feasible to go where everyone wants to go

WE need 3 lanes on I-26 all the way to the I-26 and I-385 split.

This is the first city I have lived in with almost no CNG or electric city, county, express, busses. Also why no car pool lane or toll express lane like in Atlanta and North Carolina or California? This would produce extra income

only if it includes a light rail or rail car system, if not, then my preference is to increase capacity

I support transit alternatives (like public transit), not expanding roads. This tradeoff is phrased in a very confusing way for me.

So many places could have right lanes only and the traffic to get to McDowell short cut is backed up sometime in the middle of bypass 17 can' remember the mane of the road but it goes over to 707

Blend of both, depending on location

Again, both need to be done. Metro should have had light rail ten years ago

Lanes encourage single passenger vehicles. Stop it. Encourage mass transit with more light rail with parking garages.

A train station would be helpful.

Higher speed light rail

Perhaps SCDOT could add lanes ONLY if the lane is an HOV or Bus Rapid Transit Lane.

I don't understand what either picture is trying to convey. Would I rather have plain buses or closed roads? If so the answers obvious and this just seems petty

Add interstate/divided highway from Greenville I85 to Jasper/Beaufort county

Why did you make the road look bad and the bus all clean? I think this survey is biased.

Passenger rail!!!!



If you are saying fix roads vs busses. Fix roads. If you are saying fix roads vs light rail and park and rides. We need light rail park and ride in populated areas and we need fixed roads. Then over in places where nobody lives. We don't need to worry about those so much. If they want to live 1 family per 2 miles instead of 5 families per mile. They should pay 10 times as much. Rural life is a luxury to be afforded.

Light rail to corridors beats a fourth county road to nowhere. The rock hill free bus loop is a good city fix.

As much as I would like a train to FM, I don't think enough people will use it to make it worth the money. People like driving their cars.

As much as I would like the train to run from Fort Mill to Charlotte, I don't think many people would use it.

Introduce Transit X into SC and keep SC government out of it.

keep roads we have in decent shape ,not the sad falling apart shape he have now that the rain can wash out and turn it into rubble

Plan and manage growth to slow things down until we can get infrastructure in place.

195 and 126 need another lane. Both need to be repaved. Some of the repairs to 195 are just as bad as prior to the repair. Ex south bound below Walterboro.

Not sure what is being asked here. If it's about public transportation, then unless it's in an urban environment it serves little use.

Unless its in an urban environment public transportation has little use

I think adding a light rail system that goes from downtown through N. Charleston and to Summerville would be the ideal solution. It helps reduce traffic congestion and makes the roads safer overall.

Light rail is necessary. From Charleston to Greenville right down the middle of 26. Going into and out of Charleston from Berkeley / Dorchester.

Traffic calming projects. Long term solutions that take in long term growth models.

Bus transport systems help lessen traffic jams. Make it accessible in rural areas.

making more logical use of existing lanes. Too many merges, especially those crossing multiple lanes in busy areas

This is kind of confusing. There are two options as trade off, but only one up and down arrow. So how do you know which one you're using the up-and-down arrows for? For instance, to improve mobility I have to choose the tradeoff of increasing capacity by adding lanes... or managing demand with technology or alternative modes. How do I know which of the two trade-offs I'm using the up-and-down arrows for?

SC needs to get serious about public transportation: buses and light rail.

Light rail

in other cities mass transportation is underutilized and would be expensive to maintain

Add buses, regional rail, commuter options. Don't add interstates.

Trains! Like metro north near NY, or LIRR

We have mortgaged significant time in improving our transportation infrastructure. We must account for growth now. We have lost 25 years of planning to account for the 25% + growth we have seen and continue to see around urban industrial hubs.

Better planning for transportation infrastructure must occur now. We have lost many opportunities to fix this over the past 30yrs.

Once again, I have to object to you presenting "adding lanes" as an option for "improvement"

ADDING LANES DOES NOT HELP CONGESTION

This is bad planning to even suggest that adding lanes will help improve mobility. We need to move away from fossil fuels, not add more lanes.

I think both will be necessary!

Both are needed

Bus and bike Lanes yes. More car Lanes, no.

More bicycle paths separate from the roads.

Improve public transit through the bus system or look into light rail. The investment into driverless vehicles I've heard about is a waste of money. It won't do anything to reduce congestion, probably will make it worse.

Need an interstate to Myrtle Beach. Too much congestion and roads are not safe.



There is no public transportation in Lexington to connect to Columbia's public transportation. The growing population in Lexington that commutes daily to Columbia has no choice but to drive personal vehicle.

More safe bike/walking paths!! One big path downtown isn't enough.

Rapid transit via monorail and commuter/shopper parking

Yes! More functional bike routes and bus routes would be wonderful!

I would prefer to add more options but I do not think that enough people would use them.

This is the main part where this country lags (a century) behind.

There should be more busses, trains, trams etc. To take cars off the road.

Unfortunately additional transit options are not viable for the cost in South Carolina. Population density does not support high cost transit options.

Do not spend tax driver and personal property owner and thus tax payer funds on subsidies public mass transit.

Are you kidding. You can't maintain what you have.

Rail transit in Greenville area

Let's go for a greener traffic system in cities. Bus lanes and lanes for people who use bicycles and/or walk or run.

This is no trade off. It is win win.

Advanced mobility solutions can provide more people with complete rides at lower costs. Shared, electric, & connected technologies can attract more riders to mobility solutions and be automated when that option is feasible.

Need to look at also adding additional rods that would help with congestion on other roads.

In Florence, traffic would move better if lanes were better designated. Is. Make many lanes right turn only, where there is currently a left turn and two straights. Some of our lanes are painted impractical, like Pine Needles and Ebenezer. That one is just wrong.

Don't add more lights! I would try to manage demand maybe by even altering the start and stop times (of minutes not hours) of businesses, schools, etc. of heavy traffic areas. Encourage businesses to offer work from home days.

Electric buses and increased quick commuter areas

Nobody will take MT in Columbia

Manage demand with technology and other travel mode alternatives

Again you're idiots if you aren't doing both

Not just buses, preferably water taxis and/or some kind of light rail system

If feasible manage transit demand with technology

Increase capacity

Increase capacity

Yes more rail and greater bus. I would be in favor of designated bus lanes and increased bus routes with decreased time waiting for the bus.

I don't care about increasing capacity on buses. Most of them are almost empty anyway but we do desperately need more lanes/roads.

This is ridiculous. South Carolina has the worst roads in America. We make Alabama look good. Charleston and Columbia are the two most important cities in the state and we have a decrepit two lane road connecting them. Widen 26 AND fix the potholes. Please don't waste my tax dollars cutting down trees in the median. Insane.

Manage demand with technology and other travel mode alternatives

I was interested in an electric car but the quality of the roads and availability of charging and service centers made it too risky.

NOT BUSSES. TRAINS/light rails please!!

There should not be any trade off. All of these items are important. SC is the bottom of everything. That is what happens in a RED state. Everyone votes against progress. Lowest paying jobs, worst education just keep making the rich richer.

While I feel that technology has been useful in alleviating some congestion on areas such as Woodruff Road (syncing traffic lights to stay on for longer periods of time, then allowing it to change for cross-traffic), I think that adding more lanes is crucial to that and other road systems in the area that are supporting a population way beyond what it was intended for.



The necessity for higher capacity could be reduced by adding more public transit options, but those options must be made available within a wide-enough network and at a high-enough frequency to actually make them more convenient than driving.

We need more public transit from the north suburbs into Charleston!!!

I would widen and/or add lanes in major problem areas, but think some issues could be solved in other ways. If public transportation is good, it can be helpful in reducing congestion.

Don't lump adding lanes in with other infrastructure! Unless you mean adding bikes lanes, then yes, by all means!!

There is a ton of opportunity to improve the existing with technology. This approach is much faster, cheaper, and will provide results sooner. I include in this assessment the modeling of roadways to identify methods to move traffic faster through smart signals AND the elimination of left / right turns. Elimination of 15-10% of left turns will increase roadway capacity tremendously on main arteries. Another option is "parking lot" connectivity - eliminate 25% of artery curb cuts by forcing adjacent properties to connect parking and limit artery access - keeps overall flow moving and improves the total system flow. Modeling of congested arteries will quickly show choke points / flow restrictions that can be easily fixed at a fraction of the cost of wider roads.

Government and technology don't mix. Try entering a highway in Los Angeles one car at a time.

We don't need more capacity we need less people or alternative transportation from other parking areas. In order to encourage more cyclists we need more public bike racks. Biking to a destination is pointless if your bike is stolen. While you shop.

Why is public input required when published quantifiable studies have proven the method by which the profession has a quantifiable answer?

Alternatives should still be evaluated and planned for long term however congestion is an immediate problem

By the second visual, my assumption is that capacity will be increased by adding more public transportation. Thus, I support this issue only for that reason.

Need alternate routes, wider roads with turn lanes.

Add a lane for busses

I don't know if this page isn't formatted for mobile devices or the design is just bad, but i have no idea how the arrows are supposed to relate to the question. Does an vote for one automatically mean a down vote for the other? Why not just make a slide bar or a number scale?

need to improve roads to reduce the need for slower speeds. reduce lights. improve crossovers.

Build more bicycle infrastructure and connected modes.

without added capacity, all other options will only delay the inevitable need for more capacity. There is a maximum theoretical throughput, with so many variable just in drivers ability, capacity is the simplest and will prove least expensive solution.

without added capacity, all other options will only delay the inevitable need for more capacity. There is a maximum theoretical throughput, with so many variable just in drivers ability, capacity is the simplest and will prove least expensive solution. I believe its been proven time over busses trains etc., do not reduce congestion, and only siphon money from road construction. see example of Charlotte's CATS. or Atlanta's MARTA, or anything in California, waste of money.

Again, some increased capacity by adding lanes or roads is necessary, but land is a limited resource and often the "improvements" are already not enough by the time they are finished

There is no way that budgets or available land will ever keep up with increasing capacity. The length of time it takes to do this is so long it is always out dated by the time it is completed.

More bus options as well as light commuter rail and high speed rail connecting Charlotte Columbia Augusta/ Greenville Columbia Charleston / Charlotte Spartanburg Greenville Anderson and on to Atlanta

Research suggests that adding Lanes doesn't work. See Atlanta, Houston, Los Angeles

Rapid transit and lite rail along with good train service to neighboring cities

The best short-term bang for our buck is adding more lanes to existing roads. Long-term, we should explore light rail particularly here in the Upstate between Greenville, Greer, GSP, Spartanburg with spurs to Simpsonville, Travelers Rest, and Boiling Springs with eventual extensions to Easley, Clemson, and Anderson.

i've used the soda cap a few times but there seems to be a stigma around busses. using other forms of mass transit to connect more communities could fix that



Add other infrastructure and transportation modes

High speed train to Atlanta and to Savannah

Need to add stops on Daniel island

The travel alternatives are too vague. Suggestions for Greenville have included multiple horrible ideas and I don't trust the vague use of the term "technology" to actually be beneficial.

Establish bus routes on main roads so seniors have an option to go locally to eat out, the movies, etc.

High speed transportation would be ideal - Bart/Metro like

High speed transportation would be ideal - Bart/Metro like... especially to Daniel Island from Downtown/James Island

Technology: use systems to improve traffic light signals for volume and improve traffic flow; Saturday's and workday rush hours. Look at Houston, Texas MOT best practices. Start HHI schools earlier.

Add carpool lanes. Encourage people to ride together.

Add transit to extra lane

Again widen hwy 12 and Hwy 1 All the way to Lugoff. Before we do anything else to I 20.

Whatever works for that part of the region

mass transit carries more people in less space. The real increase in capacity.

GET RID OF PUBLIC TRANSPORTATION. PEOPLE WILL NOT USE IT IN THIS AREA. THIS IS A WASTE OF MY TAX MONEY. EVERYTIME YOU SEE A BUS, THERE'S 3 PEOPLE ON IT. NOT WORTH THE WASTE OF OUR TAXES.

Again, I do not understand how this questioning of the survey works.

I would choose the other if I knew it was a train.

Widen 95 and catch up with the rest of the country

Something like a light rail system would be great!

Train. Not bus. Not driverless cars.

More people riding bicycles, means less car drivers on the road.

We need a major highway out of myrtle beach to highway 95!!

I would like safe options for alternative modes! Adding more lanes for distracted and hurried drivers to dart about won't help. But we have a community that isn't sufficiently provided for now.

Some of our roads are quite wide enough, it's just that too much unplanned development has been allowed that makes traffic a mess, increases congestion, causes suburban blight, etc. I give you Wade Hampton (especially through Greer), Woodruff, and Pelham as what NOT to do!

adding lanes does nothing to improve congestion and only costs us more in the long run!

Especially in downtown corridors, better bike lines and walkability connecting to bus routes for longer distances to "places we want to go" (parks, shopping centers, etc.) could help remove vehicles from streets.

Not sure what you are asking

More capacity just encourages more people to drive. It doesn't reduce congestion long-term and is not a sustainable solution.

This is a double edge sword, I do not mean to build more unnecessary roads, I would like to see roads built with mire logical thought processes.

A perfect example would be Hwy 176 merge onto Hwy 52, who thought this up?

We need more investment in bike/ped and mass transit infrastructure

Leaning a little more towards adding capacity. It takes a lot of education to get folks to give up the freedom of personnel vehicles. It would be a good thing but it takes a lot of convincing.

Something other than bus system.

Add public transportation to the entire Lowcountry/tricounty.

HOV lanes during peak travel hours, particularly to/from "city"/suburbs

No transit or light rail. Expand all interstate roads to 6-8 planes and all secondary roads to 4 lanes with turning lanes

Add more alternative routes



Need an updated ITS plan for the region to link NC and SC and squeeze all capacity out of existing roads. No room to widen and costs too much to add lanes. Use technology investment.

Too complicated for me to figure out. You don't have to make it this complicated!

Adding lanes never solves congestion! It just adds more cars to the road. The only long-term solution is quality public transit.

The public transit system works on a city that has the infrastructure built up already. This city's infrastructure doesn't support city transportation of any sort. Try driving up Hwy 61 one lane roads behind a bus at rush hour. It's not possible and it doesn't work as far as lessening the congestion on the roadways, which I think is the greater picture.

Please study the effects of adding busses or into some already congested trams towns. Please improve railroad systems from I95 to Charleston ports and back. Also building containers loading and offloading near I95. I'll be happy to pay taxes to build such a system to eliminate trucks and containers in and out of Charleston county and inner roads.

Bus transit is not ideal; it is slow, cumbersome, and you still have to travel to get to a bus stop. If I were to take public transit it would over triple my commute time which is unsustainable and unattractive. When we say improve mobility, we mean create more efficient, faster, cheaper, more environmentally friendly options that make it possible to use transit vs. driving

How in the world will you manage the overload on the roads with technology?

I don't want 8 lanes but certainly work on bottlenecks where traffic can flow smoothly.

Bus service will only add to the congestion. Although the cost may seem high, a rail system is a far superior choice.

Electric trolleys or an ideal solution for Beach transit

Please Manage demand with technology and other travel mode alternatives. Wider lanes are not safer lanes.

#### TIME THE TRAFFIC SIGNALS

We need to invest in sustainable transit systems. Reduce the number of cars and invest in other methods of transportation that reduce emissions.

Let the bigger cities figure out the best technologies for transportation, and in 20 years when they figured it out and it's cost effective, that's when try to adapt it in sc.

Public transit is key areas like the peninsula and closing the area to permit only traffic may be a good idea.

On time buses with convenient routes. Carpool systems

With the current and future climate concerns, we should shift our focus to creating a less car dependent society with alternative modes of transportation. This would also reduce the amount of traffic on roads that otherwise would need to be widened to accommodate high volume traffic.

Mass transit is important

No more ones for cars! More transit and sidewalks!

Expand and improve bike infrastructure in the city. More transit routes and extend times for busses, like running Sundays and evenings.

Road widening does not improve mobility. Transit moves the most people on existing roads.

My preference for improved mobility includes: being environmentally more sustainable, provides more people access to transportation and opens up their mobility, and connects the state's overall communities rather than just individual commuters.

Travel mode alternatives? Does that mean public transit? I want public transit

i don't understand go to answer

This question is not worded with bicycles in mind -- so it is not clear how to best answer for promoting bicycling as a priority! -- "other travel mode alternatives" or "adding lanes and/or other infrastructure".

If the "other infrastructure" means transit as the photo indicates, I favor that.



# Survey Question 2 Part 4: Comments "Passenger Transportation"

Figure out a way to do both of these things

Providing more people with the access to new areas will help the overall economy of the state. Again strengthening communities and allowing people to live in a place they can afford while working in a city that has a job opportunity that suits them. In an impoverished and/or gentrified community, a strong transportation system can be a gateway to a better life.

Our highly-populated urban areas need more frequent transit service.

Need to create easy transfer points for bus lines to improve travel times. Longer hrs. of operation. Run until 12 am 7 days a week

**Communist Transportation** 

I would be nice if SCDOT could invest in a State funding Intercity Rail like in North Carolina that connects Charleston, Columbia, Charlotte Greenville and Spartanburg

I don't understand how to answer

Mass transit serves too few people and needs to be increased.

Increase transit everywhere

Add more bike lanes and sidewalks. This will reduce traffic

I would like to see highways widened to four lanes: Hwy 178, Hwy 21, Hwy 4. Having additional hurricane evacuation roads and a backup to the interstate can help congestion tremendously. I 26 also needs to be 3 lanes throughout the state. Toll booths entering and leaving the state are a great way to pay for the additions.

Help low density areas create shared uber/lyft services.

I'm neutral. This isn't going to work in SC right now. Too much suburban area, with people who live too far from their jobs.

remove all buses and use money to fix the roads and bridges

I'm not a huge fan of urban sprawl, and more people having access to multi-modal transit opportunities will (hopefully) decrease the need for vehicles. additionally, it will provide more employment opportunities for underserved communities that need travel options and an expanded range of job/employment opportunities

Open new areas to transit, please

I'm against public transit if it's not implemented right. The capacity, the comfort, the schedule. It is still might not be for everyone- people with disabilities, or a need to carry the equipment (construction, maintenance, musicians). Mass transit can bring a crime to the neighborhoods. It might be a crime (see school buses) or harassment or similar issues. Infrastructure should include the technology that can make traffic manageable (reversed lines). Implement HOA lines. Well lit streets. Safe pedestrian crossing (bridges, underground?). Safely protected bicycle paths (protected but not lines on road) where kids will be safe to ride.

Tough trade off. I think improving current transit system and investing in future transit services are both very valuable. I think it depends on the projects.

Our current transit network does not make it feasible to use for regular transportation unless you are out of other options. I get to work faster by bike (20 minutes) than I would by bus (over 1 hour). First the network should be expanded, then headways and other performance metrics should be improved across the board.

A rail line between Summerville/Newton to CHS would improve traffic. So would transit to Boeing and Volvo and industrial parks.

What is the your definition of the word "transit"? Your question doesn't make any sense

Being a sprawling area I don't know that trams, trains, and buses to move people will ever catch on here. Like it does in the bigger cities, Chicago, New York.

Unfortunately, these needs have been so poorly addressed in this state that I feel it will years before we can catch up.

North Charleston to Daniel Island, please!

Make it frequent and attractive to increase users base. How about adding WIFI, power for laptops and cellphones! How about dedicated lanes to speed up travel to and from work. Free parking for costumers only!

Vital for low income residents and others who either don't own a vehicle or cannot operate a vehicle due to health issues or other restrictions.



Public transportation doesn't work outside metro areas. Invest in aligning funding with new technologies for autonomous driving.

Don't think too small. We need to plan for multiple transit options; bus rapid transit, express bus service, light rail, and commuter rail.

Waste of money and time

Rail only

Again, just buese is not going to fix anything here in Charleston

One stop on Daniel Island for both residents and those that work on the island

Light rail is a must option

No increase in Passenger Transportation. Focus on Road Upkeep.

I would definitely like to see passenger transportation routes expanded on. It baffles me that we don't have service that extend throughout Lexington County to all areas to get folks into downtown.

Bus service may help, however it at present creates more issues than it helps. Very few people use the present service, large busses with 0 or very few people are a waste of monies.

Force mass transit to have a pull off area instead of stopping in the road and causing traffic accidents and backups.

Elements of light rail transportation on main spurs in larger metro areas and attractive rail between cities should be enhanced to make these more attractive.

We need to increase services in both existing AND new routes!

This section make no sense

Not sure what you are asking

let's make what we have work better before we expand to other areas!

Supporting existing transit services to have more efficient routes, longer hours, and more frequent stops first is key to making a system that works well. Working towards expansion would be the next step.

вотн

More areas as well as more information on the public transit options with pickups in neighborhood. Can't use public transit if it isn't even close to me house. I didn't know we had the option locally until someone told me and I have lived here a few years.

I think if existing routes are improved to garner greater profits, then why can you expand new lines with that added profit margin?

We generally just need better public transportation, whether in new areas or existing. Determine where they are needed most and expand there.

I don't use enough mass transit to have an opinion either way. I hope you'll listen to the people who actually use mass transit. Thanks.

The Passenger Transportation section is a false dichotomy - you don't have to do either one at all. And, this Tradeoffs section should not be considered as a mandate to increase taxes. The states and localities need to learn to live within their means. If they want to spend money on this stuff, then they need to CUT that money from somewhere else in the budget. Increasing taxes for ANY of this is wholly unacceptable.

I would prefer whichever would replace more cars.

Please build a monorail connecting ATL-GSP—CLT airports! It will take commuter traffic off I-85, improve safety and generate revenue!

Train. Lite rail. Not bus.

Having lived in Europe for a time, unless I can go most anywhere in the metro area, is in less than twice the time of driving, busses will struggle.

rural communities need more access! South Carolina is comprised mostly of these smaller more rural communities. By increasing the connection to these communities I feel that it strengthens our productivity and success as a state.

Rail Road

Rail system



GET RID OF ALL THESE LOCAL TRANSIT SERVICES. USE MY TAX MONEY ON THE ROADS, NOT A SHUTTLE SERVICE. THIS SERVICE IS UNCALLED FOR!!!

It seems shortsighted not to be investing in newer technologies like high speed rail. Why limit to buses on existing roadways. Let's think out of the box and become a leader in the U.S.

Need assigned stops so buses can pull over to load not block the street. Make public transportation green.

Let's face it there is no Transit in SC. This is really just blowing smoke.

New innovation need to be explored. Wider roads isn't the answer always. Public transportation needs to be severely overhauled, what little there is, which is busses basically that only travel main roads.

Both would be great, but I don't think transportation in Columbia where I live is used anywhere near capacity because the routes aren't optimized. Spend some money on rerouting lines to go where people need them to go.

Use the train system rather than the bus. Look up Sunrail in Central Florida and see what they have done.

I don't understand how to respond correctly here ??

Nothing goes to Daniel Island - and there are no bike paths/alt transportation methods. Even if I take the boat taxi - there is no transportation getting to major companies on the island.

Not just for events! Look at Orlando, FL MOD. It stops at every mile. You could remove H.S. buses with this transportation method.

Greenville's bus system takes too long to get to locations around town, and the trolley is not reliable for getting to or from work. Transit and passenger services need to have a higher quantity of shorter routes.

Something other than other vehicles. Monorail or train system

Local bus transportation that do not have set stops or schedules but stop at homes to pick up a few folks to take them to work is obviously aimed at affordable transportation (like affordable housing) carries a stigma. I would take a local bus from NOB to SOB and back if there was a set stop and schedule. There isn't - and if there is the marketing sucks.

Need to add a stop on Daniel island

Add to accessibility for disabled who don't drive

Focus on providing quality services to high-demand areas - those with significant residential density

Both of these are very important. Our less fortunate citizen depend on public transportation, which is locally abysmal. However, cutting down on congestion and energy-waste is critical for a growing state. Building larger roads for more vehicles is not a lasting solution to this problem.

Frankly all of the above must be done. There is no tradeoff in this realm when the resources needed are properly allocated to favor the only method of actually reducing congestion and capacity is selected.

I guess wherever the need is greatest. But, pave roads first.

Both!

Light rail in York county connecting to Charlotte.

Most people drive. Focus on improving driving experience not bussing or light rail

In both cases there need to be partnerships with local government as well as public and private contributions where perceived need is most. From a fair housing standpoint, there needs to be services in new areas

If there are more options it will be more widely used

both really need improvement

Work in this area should be based on input from local communities and with public and private funding. From a Fair Housing standpoint, new areas need to be served.

Transit should be financially self-sufficient, EXCEPT for handicap services.

I'm not a fan of public transportation. Let's not get distracted by something that has been proven not to reduce congestion option.

Expand both when possible

Add more areas for transportation

Is this a real question?

Most of these services are operated by private companies. Unless the services are going to be free, they need to stay private.

Frankly, one cannot choose between these - BOTH are requirements that only government can fulfill



Light rail. Buses just don't do it.

Again, why increase your responsibility when you cannot handle what you have?

This choice requires "logic and realism". Very few US citizens will use mass transit for trips to the airport, beach, or popular vacation / shopping destinations. Making fast efficient passenger transit available between suburban and urban work areas can get many more cars off the road. Charlotte High Speed Rail is an "OK" example, but where Charlotte missed the mark was stretching the rail to the existing huge residential centers where daily commutes to the "city" live. If Charlotte would have considered Ballantyne, Fort Mill, Rock Hill, Pineville, and Indian Land in their planning the rail utilization would be much higher, and 1000's of daily commuters would be off the road. High speed rail and bus systems often overlook huge suburban pockets of commuters. I believe an express bus service from designated areas to the heart of any business district would be successful financially and remove cars from the system. These services need to be well thought out, dependable, have minimal stops, include amenities like Wi-Fi to get business commuters off the road.

I haven't used the busses here, but I would probably still have to drive to get to a bus stop. I have used public transportation in other places, both trains and busses.

**Trains in Charleston** 

The infrastructure has degraded greatly in the 20 years I have been here in Greenville

Government should not have any direct participation in mass transit. Build/maintain roads; regulate mass transit.

transit to reduce cars into heavy congested areas give a carrot so people will use it

If existing bus routes in our area ran more frequently, the service would be more viable for busy people.

Light rail from the Naval Weapons Station to the Airport, Downtown Charleston, Mount Pleasant, and Foley Beach would be welcome.

Including rural areas

High Speed rail or well-maintained subway system would be the best improvement. Buses should be a think of the past. They do not travel to areas where most people live, they are poorly maintained, and bad for the environment.

Why not consider trams on dedicated track.

No helmet law for motorcycle drivers is outrageous when the majority of motorcycle deaths are from blunt head injury. A helmet law will also lower SC vehicle insurance for all. Someone is asleep at the wheel in the Columbia State House.

We need a rail system not buses!

VISION...High-speed rail service from Charleston, SC to Charlotte, NC, with stop in Columbia. If cost could be minimal and frequency conducive, travelers would use this mode of transportation.

We definitely need more bus lines and frequent stops we live in a household that has 4 working adults and only 2 cars it's hard arranging Transportation when you all have to be at work at the same time

Would like to do both.

Both of these options are important, for some public transportation is the only option, for others public transportation is a way to save money

Lease or share current rail lines with private railroads to provide passenger service from outlying smaller towns in the bigger city centers.

Trains and teams

Unfortunately the public will not use it!!

Light rail is needed to connect the Upstate of SC.

NO Roundabouts!!!!

neither

I'd like to see buses from Upcountry to Atlanta, although NOT electric buses. I'd like to see the very underused (except by Clemson students) CAT buses changed from full-size to maxi-taxis and CHARGE riders a fair price for fares!

Include Westminster and Walhalla un thriller bus routes

Identify top factors for viable, sustainable transit: 1) dense nodes of people, 2) major activity attractors, & 3) connect the 'dots' with high capacity transit using ultra-light vehicles & infrastructure that can be elevated above ground level to avoid congestion & accidents.

We need mass transit to include rail systems that are modern and safe to ride.



Encourage in sector housing – reduce the sprawl out of city and cross sector traffic

Yessss! This is the way to go.

People do not use the public transportation you have now! The buses I see never have riders on them.

Rail with bus from stations would be great

Look into options for light rail services. Park and Ride locations for ride share.

Transit is not the answer. It is a losing money proposition even in densely populated areas - and SC is not densely populated. Spend the money on the roads.

As the state becomes more densely populated in many areas and the population ages mass transit becomes more important. But how do you get us out of our cars? Maybe figure out ways to expose us to it? A free or low cost tour to a popular place with maybe some hand holding?. I've thought of taking the bus from Taylors to downtown Greenville for example. But where do I catch the bus? When does it run? Is it reliable? I don't know so I default to driving myself.

Trains between cities. Such as Greenville to Columbia or Charlotte. Bus routes are so limited that they are unusable. From my house to work is a 15 minute drive but an hour and 15 bus ride necessitating a transfer and half mile walk. I'm disabled and cannot make the walk.

Lexington has a lack of public transportation.

Move regular commuters out of single person vehicles into alternatives.

No substantial % of the population uses this. Let's figure out how to safely bike first

Neither

Disagree with both.

Again- if the underserved population would benefit and USE more public transportation then that would be important but not at the expense of expanding an existing service if warranted

It should be done on both

Both are necessary for a functional transit system. I would be willing to pay higher taxes to get this done.

I think a study needs to be done to see how the transit system is currently functioning compared to how it should function in an ideal world to convert people to use it more frequently. This study should then help determine the tradeoff.

There is a lack of public transportation in the town of Lexington and surrounding areas.

Neither actually. Do you no longer want your precious and unconstitutional vehicle property tax. Take care of the property owning tax payers and commercial vehicle transportation needs first.

Please redefine "transit" to include options other than highway vehicles. It's the "Department of Transportation," not "Department of Asphalt & Concrete."

Only improvement would be to expand Regional Transportation to rural areas.

Please fix our roads and capacity issue. RTA will not reduce the number of motorists on our infrastructure network. Expansion of RTA in select rural areas will benefit growing industry in the Pee Dee and CSRA.

mass transportation only benefits high density urban areas and SC is largely rural. Transportation plans need to benefit the whole state not just Greenville, Columbia and Charleston.

SC needs to get serious about public transportation: add light rail and trains.

Yes! If a good system exists then people will use it.

Stay/get out of passenger transportation business altogether.

This only works if the schedules are consistent and frequent enough

Need more direct roots from where people leave to where they work

stop allowing public transit to block traffic lanes. Either make cut-outs for them or make them drop off/pick up on streets other than main roads

Use of Railroad from Waccamaw Pottery area to CCU - park cars and ride for the most congested area.

not interested in mass transit at all

Not only popular routes but think of how to assist getting more transit systems throughout the state. Work with individual areas

This is only feasible in urban areas



Which citizens does this benefit? And in what locations. I am not sure this should be a statewide priority, but perhaps a more regional one if demanded by citizens.

As with every choice given in this section, there is no magic bullet. It must be a combination of everything, very strategically allocated, then prioritized with a clear timetable for the next round and goals. Allow flexibility for unforeseen change. We have been too slow to respond for years then our own bureaucracy gets in the way. We also have very little creativity in how we plan. Rules and regulations exist for a reason but there are times to allow a little more flex and a cafeteria type of plan for best results at minimum cost.

Don't waste taxpayer money on systems no one will use

we have lots of water - what about water transit

These never pay--waste of money

neither helps anybody in my area

Include bike lanes, reversible lanes, more transit options.

Somehow inform and educate drivers on the importance of obeying traffic laws and enforce laws!

Privatize public transit and allow companies like Transit X to do their job.

Just fix the roads.

Bring Charlotte light rail through Fort Mill to Rock Hill.

We need a light rail stop in Fort Mill near 77

Buses and traditional transportation will be replaced by on-demand autonomous vehicles summoned by apps. People won't wait for sporadic buses to show up.

Not concerned with alternative transportation

Passenger rail please

**Potholes** 

transport service from Florence Amtrak to Myrtle Beach

Some people need it, but I do not.

Transit should be left to local entities, such as that in Greenville and Anderson.

The regional transit authorities should be entrusted to make these decisions. SCDOT should support RTAs with funding and other assistance.

The popular routes locally to me don't seem to even be popular due to inconvenient routes, unnecessary stops/route navigation, and lack of timely options consistently.

New areas and frequent and free. A we see public transportation as a poor man's way we need to do free and frequent trips on short high capacity routes. (like a fleet of buses on woodruff Rd to help shoppers; free and a bus arriving every 5-10 min)

Move population density out from centers, innovate business centers on the outskirts

A mass transit system needs to be implemented linking Lexington and Columbia, Chapin and Columbia, Blythewood and Columbia, Elgin and Columbia. You need to have park and ride stops. Promote HOV lanes. Everyone driving their own car has got to stop and the bus system has a stigma to it. Light rail solves both problems. Perfect place for a trial light rail is in Lexington using the train tracks that parallel highway #1. Making park and ride stops along the way.

I think public transportation only becomes feasible when it goes to all the places people need to go.

Transit needs 3 critical factors to be successful: 1) density of pop., 2) attractor centers (high numbers of jobs, shopping, learning, health care, worship, entertainment, etc.) 3) connectivity (routes & vehicles) that is convenient, reliable, safe, comfortable, fast, accessible, etc.). Such a high capacity transit system will attract high ridership to pay for CapEx & OpEx and can be built by private investors with public STIF or MCIP guarantees as back-up.

Transit needs 3 critical factors to be successful: 1) density of pop., 2) attractor centers (high numbers of jobs, shopping, learning, health care, worship, entertainment, etc.) 3) connectivity (routes & vehicles that connect population & activity dots) that is convenient, reliable, safe, comfortable, fast, accessible, etc.). An automated transit network system could work in the Laurens Road Corridor in Greenville. Such a high capacity transit system will attract high ridership to pay for CapEx & OpEx and can be built by private investors with public STIF or MCIP guarantees as back-up.

Popular and new areas can be the same



No one takes the bus except in highly populated cities like Chicago and new work. In an area like Charleston Columbia or Spartanburg the bus routes are primarily utilized by low income families as a means of transportation. Adding more will not reduce drivers on the road until it because too costly to drive.

Vital to have efficient Dependable low cost public transportation To get cars off the road

More programs to assist the disable

Not a fan of bus or rail transportation.

Money designated to SCDOT should not be used on transit or allocated towards transit authorities. That money should be used to improve the road system not help transit authorities buy vehicles.

Priority should be given to existing routes and enhancing those services. As additional growth occurs, transit options should be increased to serve/optimize the overall network.

Buses and rail systems would be awesome if they are thoughtfully designed and "marketed" to consumers.

In urban areas like Charleston the need for reliable public transit is a clear need. In other areas of the state, especially in rural areas, increasing/ improving public transit in these areas could help people get better access to preventative health care, and better paying jobs which could help reduce the burden on the state for people in poverty.

Do not increase service area's until the current areas are sufficiently serviced.

Many transit systems in other states are subsidized by grants and fees. Actual benefits of mass transit needs to be marketed and put into place.

Frequently run bus routes to places that people go

Not interested in this at the expense of repairing roads

Need to start thinking about adding rail services whether it be raised or subterranean. Also need rail service between Greenville Columbia and Charleston.

most buses are empty.... why waste money on more empty buses?

Again, some sort of rail system would be ideal.

If, or until transit can be self-sustaining, this should be the absolute lowest of priorities.

Please, no! It's only dispersing crime into new areas, which decreases small business revenue because the shoppers coming to spend money will then go somewhere else where there's not loitering and pandering arriving via the bus stop!

increasing transit/services on popular routes will have a more positive effect of traffic than providing transit/services to new areas

I'm unaware of any transit services in my area.

Commuter rail could achieve both of these "tradeoffs"

My first priority with public transport is timeliness and reliability. Once those are established, there will be additional support for increasing service areas to include more people.

The only function for public transport is getting people without cars to work. There simply are not enough people living in SC to make mass transit ever work. Studying the current users and employers would be the way to address this need. None of the people completing this survey would have ever used public transportation. In contrast, everyone in large cities uses it. Maybe working with driving services like Uber or even Charlotte-Columbia Shuttle would be helpful.

This should not just be buses. Rail and longer distance ride sharing options should be considered.

SC does not have enough population density to support mass transit like a large city. The only use of travel alternatives is to transport people without a car to work. Studying the current users and their employers would make the most sense since no one answering this survey has likely ever been on mass transit in SC. Funds for this should be allocated differently from usual SCDOT funding because it is a more form of disability funding. Perhaps this function should be determined with consultation with private companies like Uber or Charlotte-Columbia Shuttle who are serving these special markets.

Need to invest in statewide transit systems. Study Europeans.

Because I wasn't sure what you wanted with these arrows, I put neutral for all 4.

First you must determine who/how many are riding from where! Covered seating at all bus stops!

Quit the grass clippings on the roads! Repacked and repainted roads will make them safer.



The density of population is SC is not high enough for mass transit to make any sense financially. It's only value is transporting people who cannot afford a car to work.

That stuff doesn't matter.

Upgrades are good I like the rumble strips they are a great. Would like to see more guard rails. Clearing safe zones a should be done if needed example blind spots. Trees at intersection or crossroads. Not down the sides and center of the interstate.

Add frequency to popular routes and look for new areas of opportunity.

both are important

No public transportation to new areas! It brings those areas down, and you lose tax dollars when the workers/homeowners move. In Dallas the best suburbs REFUSED DART. (Dallas Area Rapid Transit).

We need trains like NC

Place cameras at intersection and at stoplight to stop speeding and on roads to stop speeding. Send tickets in the mail. Send to insurance companies after 3rd infraction

don't waste money on transit

Transit is not a priority

BOTH - You're the experts - you have collectively ruined our transport over the decades and now put this lame questionnaire out to dupe people while you form our roads into a 3rd world garbage pit.

Don't waste money on empty busses! Use that money on infrastructure that actually helps.

With aging population there is a great need for no drivers transportation to all areas possible

Publishing PR in social media, news media might increase interest in improving transportation use in the midlands. Light rail offers connectivity and does not disrupt the infrastructure as much as a subway system.

I-73 is a total waste of our money. Horry County has exceptionally poor planning for the county and roads. They never seem to include the quality of life issues for the people who have lived here for a long time. Also, we do not need to always get the cheapest vendors to build out roads. The mess with Hwy 31 is a good example of choosing a poor quality company and getting a poor result. We need to constantly check our bridges for safety issues. I have a lot of taxes over the years and see a very poor result here in South Carolina. When I see the good planning done in states like Florida ....It makes me know that we could have done much better and should be ashamed.