

GSATS 2040 METROPOLITAN TRANSPORTATION PLAN UPDATE

APPENDIX C

Technical Memorandum

PERFORMANCE MEASURES

Prepared for:



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1. GSATS 2040 GOALS AND OBJECTIVES

The GSATS 2040 MTP goals were developed in accordance with FAST Act planning requirements and in coordination with the South Carolina and North Carolina statewide transportation plans, and the GSATS Congestion Management System Plan (CMP).

The role of goals in the development of a Metropolitan Transportation Plan is to establish a framework of objectives, around which performance measures will be created. Additionally, policies and improvements to the regional transportation system will be identified to support these goals and objectives and will be evaluated using those performance measures.

The development of these goals was rooted in the GSATS 2035 Long Range Transportation Plan. The previously established goals were reviewed for current relevance to regional interests and applicability to the FAST Act. These goals were presented to the GSATS Steering Committee and approved in Fall 2016.

The eight goal areas for the GSATS 2040 MTP are:

1. Coordinated Land Use and Transportation,
2. Economic Competitiveness,
3. Mobility and System Accessibility,
4. Environmental Stewardship,
5. Modal Choices and Balanced System,
6. Safety and Security,
7. Infrastructure Preservation and Maintenance, and
8. Congestion and Reliability

Each goal area lists measurable objectives to help meet the goals and measure future performance of the multimodal transportation system. Listed in **Table 1** below is a series of supportive objectives identified for each goal area. This series of objectives was developed in partnership with and approved by the GSATS Steering Committee in Fall 2016.

Through the development of the MTP, planners use these goals and objectives to identify needs in the region - going beyond the traditional approach of reviewing congestion related levels of service. These goals and objectives are used in conjunction with available existing conditions data to go beyond addressing level of service concerns to identify opportunities to improve the condition of the overall transportation system.

Table 1: GSATS 2040 MTP Goals and Objectives

GSATS 2040 MTP Goals	GSATS 2040 MTP Objectives
Coordinated Land Use & Transportation Planning	<ul style="list-style-type: none"> ● Improve data collection and forecasting methods to ensure the identification of existing and future areas of concern ● Develop and utilize Land Use Design Guidance to improve streetscaping and incorporate Complete Streets ● Improve pedestrian and bicycle linkages to activity centers ● Protect and preserve historic, cultural, and civic assets
Economic Competitiveness	<ul style="list-style-type: none"> ● Utilize the existing transportation system to facilitate enhanced freight movement to support a growing economy ● Use transportation investment to support economic development, job creation, and commerce
Mobility and System Accessibility	<ul style="list-style-type: none"> ● Improve access and mobility within the region by adopting and implementing access management, complete streets, and intersection design guidelines ● Provide equitable transportation options for all travelers, including transit-dependent populations and users of all capabilities
Environmental Stewardship	<ul style="list-style-type: none"> ● Provide a transportation system that is sensitive to the natural and man-made environment ● Encourage modal partners to be proactive in considering and addressing environmental impacts of their transportation infrastructure investments ● Encourage the protection and conservation of natural resources
Modal Choices and Balanced System	<ul style="list-style-type: none"> ● Utilize the existing transportation system to facilitate enhanced modal options for a growing and diverse population and economy ● Improve transportation choice and mode selection ● Improve intermodal connectivity
Safety and Security	<ul style="list-style-type: none"> ● Provide for a safe and efficient transportation system ● Reduce highway fatalities and serious injuries ● Reduce bicycle and pedestrian and other vulnerable roadway users' fatalities and serious injuries ● Reduce fatal or serious injury crashes at at-grade rail crossings ● Reduce fatal and serious injury crashes at intersections
Infrastructure Preservation and Maintenance	<ul style="list-style-type: none"> ● Maintain or improve the current state of good repair for the National Highway System (NHS) ● Reduce the percentage of remaining state highway miles (non-interstate/strategic corridors) moving from a "fair" to a "very poor" rating while maintaining or increasing the % of miles rated as "good" ● Improve the condition of the state highway system bridges ● Improve the state transit infrastructure in a state of good repair
Congestion and Reliability	<ul style="list-style-type: none"> ● Reduce the number of system miles at unacceptable congestion levels ● Improve travel time reliability (on priority corridors or congested corridors) ● Provide improvements to relieve congestion based on rational and objective criteria to ensure the wise and effective use of limited resources

2. GSATS 2040 PERFORMANCE MEASURES

Proposed performance measures have been identified in **Table 2**. The guiding principle behind the development and implementation of performance measures for MPOs is to provide a means to assess how the transportation system and/or the agency is functioning and operating. Performance measures help inform decision-making and create better accountability for efficient and effective program implementation.

Performance measurements serve the following three functions for MPOs:

- **Plan Development** - Provide a means to quantify baseline system performance and impacts of plan options to support trade-off decisions and help communicate the anticipated impacts of different investment strategies.
- **Plan Implementation** - Support plan implementation by emphasizing agency goals/objectives and integrating them into budgeting, program structure, project selection, and project/program implementation policies.
- **Accountability** - Facilitate tracking and reporting on system performance relative to plan goals and objectives to support accountability for plan implementation and results.

The proposed performance measures for GSATS were determined by starting with SCDOT and NCDOT performance measures and then tailoring them for the GSATS area. Those considerations include the following:

- **Data Availability** - The data and analysis tools needed for the measure should be readily available or easy to obtain. The data should be reliable, accurate, and timely.
- **Strategic Alignment** - The measures should align well with the goals and objectives of the North Carolina's Statewide Long Range Plan and South Carolina's Statewide Multimodal Transportation Plan, and the National transportation policy.
- **Understandable and Explainable** - The measures should be easy to understand and useful when communicating to external partners.
- **Causality** - The measures should focus on the items under the transportation planning organizations and local governments span of control.
- **Decision-making Value** - The measures should provide predictive, diagnostic and reporting value to agency decision makers.

Table 2: GSATS 2040 MTP Goals, Objectives, and Proposed Performance Measures

GSATS 2040 MTP Goals	GSATS 2040 MTP Objectives	Proposed Performance Measures [potential source of data]
Coordinated Land Use & Transportation Planning	<ul style="list-style-type: none"> ● Improve data collection and forecasting methods to ensure the identification of existing and future areas of concern ● Develop and utilize Land Use Design Guidance to improve streetscaping and incorporate Complete Streets ● Improve pedestrian and bicycle linkages to activity centers ● Protect and preserve historic, cultural, and civic assets 	<ul style="list-style-type: none"> ● Number of lane miles of bicycle lanes and sidewalks [MPO Data] ● Align recommendations with Comprehensive Plans [Steering Committee partners]
Economic Competitiveness	<ul style="list-style-type: none"> ● Utilize the existing transportation system to facilitate enhanced freight movement to support a growing economy ● Use transportation investment to support economic development, job creation, and commerce 	<ul style="list-style-type: none"> ● Travel Time Reliability index [INRIX, SCDOT, NCDOT] ● Annual hours of truck delay on principal arterials [SCDOT, NCDOT]
Mobility and System Accessibility	<ul style="list-style-type: none"> ● Improve access and mobility within the region by adopting and implementing access management, complete streets, and intersection design guidelines ● Provide equitable transportation options for all travelers, including transit-dependent populations and users of all capabilities 	<ul style="list-style-type: none"> ● Number of completed projects incorporating access management, complete streets, and/or intersection design guidelines ● Percent of non-Single Occupant Vehicle travel [U.S. Census Bureau, ACS]
Environmental Stewardship	<ul style="list-style-type: none"> ● Provide a transportation system that is sensitive to the natural and man-made environment ● Encourage modal partners to be proactive in considering and addressing environmental impacts of their transportation infrastructure investments ● Encourage the protection and conservation of natural resources 	<ul style="list-style-type: none"> ● MPO Air Quality Design Values [MPO Data] ● Annual hours of delay on principal arterials [INRIX, SCDOT, NCDOT]

GSATS 2040 MTP Goals	GSATS 2040 MTP Objectives	Proposed Performance Measures [potential source of data]
Modal Choices and Balanced System	<ul style="list-style-type: none"> ● Utilize the existing transportation system to facilitate enhanced modal options for a growing and diverse population and economy ● Improve transportation choice and mode selection ● Improve intermodal connectivity 	<ul style="list-style-type: none"> ● Percent increase in transit ridership [Coast RTA] ● Number of on-demand transit trips [Coast RTA] ● Percent of population within ½ mile of transit route or facility connecting to regional activity center(s) [Coast RTA] ● Percent of population within ½ mile of bicycle facility connecting to regional activity center(s) [MPO Data]
Safety and Security	<ul style="list-style-type: none"> ● Provide for a safe and efficient transportation system ● Reduce highway fatalities and serious injuries ● Reduce bicycle and pedestrian and other vulnerable roadway users' fatalities and serious injuries ● Reduce fatal or serious injury crashes at at-grade rail crossings ● Reduce fatal and serious injury crashes at intersections 	<ul style="list-style-type: none"> ● Number and rate of fatalities (rate = # of fatalities per 100 million vehicle miles traveled) [SCDOT, NCDOT] ● Number and rate of serious injuries (rate = # of serious injuries per 100 million vehicle miles traveled) [SCDOT, NCDOT] ● Number of Non-motorized fatalities [SCDOT, NCDOT] ● Number of Non-motorized serious injuries [SCDOT, NCDOT]
Infrastructure Preservation and Maintenance	<ul style="list-style-type: none"> ● Maintain or improve the current state of good repair for the National Highway System (NHS) ● Reduce the percentage of remaining state highway miles (non-interstate/strategic corridors) moving from a "fair" to a "very poor" rating while maintaining or increasing the % of miles rated as "good" ● Improve the condition of the state highway system bridges ● Improve the state transit infrastructure in a state of good repair 	<ul style="list-style-type: none"> ● Percent of state-maintained road miles in "good" condition [SCDOT, NCDOT] ● Percent of state-maintained bridges in satisfactory condition [SCDOT, NCDOT, NBIS¹]

GSATS 2040 MTP Goals	GSATS 2040 MTP Objectives	Proposed Performance Measures [potential source of data]
Congestion and Reliability	<ul style="list-style-type: none"> ● Reduce the number of system miles at unacceptable congestion levels ● Improve travel time reliability (on priority corridors or congested corridors) ● Provide improvements to relieve congestion based on rational and objective criteria to ensure the wise and effective use of limited resources 	<ul style="list-style-type: none"> ● Travel time reliability index [INRIX travel time data or AADT-based level of service]

¹ National Bridge Inspection Standards (NBIS)

The proposed performance measures in **Table 2** will be further finalized in coordination with SCDOT and NCDOT as each state finalizes their performance measures. SCDOT and NCDOT are anticipated to set performance targets for the federally required performance measures as required by MAP-21 and the FAST Act during the remainder of 2017. According to the National Performance Rule Making (NPRM), State DOTs and MPOs are to establish quantifiable statewide performance targets to be achieved over a 4-year performance period, with the first performance period starting in 2018. MPOs may establish targets by either supporting the State DOT's statewide target, or defining a target unique to the metropolitan planning area each time the State DOT establishes a target. In accordance with MAP-21, the NPRM proposed providing MPOs with an additional 180-day period to set targets following the date on which the State DOT established their targets. The GSATS will continue to coordinate with SCDOT and NCDOT during the target setting process and adoption of the GSATS targets will occur as an addendum to the 2040 MTP.



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