Interim Report #1
Alabama 2040 Statewide Transportation Plan

Prepared for
Alabama Department of Transportation
Bureau of Transportation Planning and Modal Programs

Prepared by
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SECTION 1: PURPOSE AND INTRODUCTION

The Alabama Department of Transportation (ALDOT) Bureau of Transportation Planning and Modal Programs is undertaking a one-year effort to update the long-range Alabama Statewide Transportation Plan (SWTP) to reflect conditions through a horizon year of 2040. This interim document provides an overview of the statewide planning process and explains the travel demand modeling and existing conditions that forms the baseline for subsequent projections.

1.1 Report Contents and Organization

Interim Report #1 is the first of two interim deliverables documenting the one-year update process and findings that will lead to the Alabama 2040 Statewide Transportation Plan (SWTP). This document begins with background information that explains the SWTP purpose, the planning process, applicable federal requirements and guidelines, and relevant data sources and planning/policy documents. A brief overview of several of the earliest task activities is provided, including a peer review of neighboring states’ plans, the status of federal rulemaking on performance measures and monitoring, and the outreach and coordination approach for plan development. The travel demand modeling methodology and development process, which is central to the SWTP update, is explained. Finally, an overview of the multimodal transportation system network and initial existing conditions information is presented.

Future deliverables include:

- Interim Report #2 – Projected year 2040 conditions, current and future needs on the statewide system, and technical information related to the statewide travel demand modeling activities.
- Scenarios and Performance Measures Technical Report – Development, testing and results of several “what if” improvement scenarios versus their effectiveness in meeting statewide performance measures (being developed as a separate ALDOT effort).
- Travel Demand Modeling Documentation – Summary of the extensive update and refinement activities, including all relevant data files.
- Draft and Final Statewide Transportation Plan – Statewide policy and work program recommendations based on the results of the activities from the documents listed above. In addition, outreach and coordination activities and input will be summarized in the report.

1.2 Statewide Planning Process

The statewide transportation planning process is a high level assessment of how well the state’s transportation system network is supporting the needs of its citizens and businesses. All modes of travel are addressed, although significant emphasis is placed on roadways for two primary reasons. First, roadways are the predominant means of movement for people and freight throughout the state regardless of distances traveled. Second, roads and bridges are the infrastructure assets under the direct responsibility of ALDOT.

Comprehensive statewide transportation system priorities are laid out in two primary documents. The short-term State Transportation Improvement Program (STIP) provides a prioritized list of projects within a four-year horizon and is updated annually. In contrast, the Statewide Transportation Plan (SWTP) is a long-range planning assessment of the state’s transportation program. It has a minimum horizon of 20 years and is typically updated every five years.
The geographic building block leading to the statewide level is the Metropolitan Planning Organization (MPO) structure, which is designated for urban areas with populations of 50,000 or greater. MPOs are federally-mandated to undertake the metropolitan planning process, which more or less mirrors the statewide process. The MPOs prepare short-term project prioritization (Transportation Improvement Program, or TIP) and long-term program assessment (Long Range Transportation Plan, or LRTP) documents for their respective areas. There are currently 14 MPOs (including 2 that cross state boundaries) in Alabama. In addition, 12 Rural Planning Organizations (RPOs) support planning activities outside the MPO areas across the state. Figure 1-1 shows the MPOs and RPOs in Alabama.

Similarly, planning activities related to non-roadway modes (e.g., transit, bicycle/pedestrian, rail, aviation and waterways) are conducted by other ALDOT bureaus. Detailed short and long-term assessments identify and prioritize needs and improvement projects within each specific mode. These findings then become inputs into the comprehensive statewide planning process.

1.3 Statewide Transportation Plan

Guided by federal regulations, the SWTP addresses transportation needs for a minimum of 20 years into the future. The previous plan was completed in 2008 and had a horizon year of 2035. The current update effort will extend projections to year 2040.

As a multimodal plan, the SWTP evaluates all transportation modes—roadways and bridges, transit, bicycle/pedestrian, rail, aviation and waterways. Freight transportation is a critical element for most modes. ALDOT is not directly responsible for all transportation modes, but works cooperatively with applicable public and private sector entities.

The SWTP is by design a macro level assessment of the entire network. It considers the extent of modal coverage and connectivity across the entire state and between modes. It is not intended to provide a detailed assessment of transportation conditions within a specific region or mode. Unlike the STIP or MPO LRTP, it does not include a detailed listing of projects, instead focusing on programs, policies and strategies.

1.4 The FAST Act

The Fixing America’s Surface Transportation (FAST) Act is the latest federal transportation bill that allocates and dictates policy priorities for federal transportation funding. Adopted in December 2015, the FAST Act authorizes $305 billion over fiscal years 2016-2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

From a planning perspective, the FAST Act carries forward most of the emphasis areas of its predecessor, Moving Ahead for Progress in the 21st Century Act (MAP-21). It maintains the focus on safety, keeps intact the established structure of the various highway-related programs, and continues efforts to streamline project delivery. Importantly, the FAST Act maintains the emphasis on performance-based planning introduced in MAP-21. Although the bill does include the provision of a dedicated source of federal dollars for freight projects, that funding is taken from the state’s existing allotment. No additional money is made available exclusively for freight projects. Specific requirements for Statewide Transportation Plans dictated by the FAST Act are summarized in the next subsection.
Figure 1-1: Alabama MPOs and RPOs

Source: ALDOT Metropolitan Planning Section - 9/8/2015
Based on 2010 U.S. Census Data
1.5 Federal Statewide Plan Requirements

As a recipient of federal transportation funds, ALDOT is required to prepare a Statewide Transportation Plan that “provides for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the State and an integral part of an intermodal transportation system for the United States.” The core requirements of the Statewide Plan are provided in 23 U.S. Code § 135, which requires Statewide Plans to:

- Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and nonmotorized users
- Increase the security of the transportation system for motorized and nonmotorized users
- Increase the accessibility and mobility of people and freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
- Enhance travel and tourism

One of the main requirements resulting from the FAST Act is the requirement for a performance-based planning process consistent with the national goals of the Federal Highway Administration (FHWA). Described in more detail in Section 2, the following elements are required:

- Performance targets consistent with the national goals for surface transportation and public transportation, developed through coordination with MPOs and public transportation providers throughout the state
- Integration of other relevant statewide performance-based plans in developing performance measures and targets
- Consideration of established performance measures and targets when developing policies, programs, and investment priorities reflected in the Statewide Transportation Plan and Statewide Transportation Improvement Program
- A process for reporting and subsequent evaluation of the condition and characteristics of the transportation system with respect to meeting the established performance targets

As noted further in Section 2, a parallel effort is underway by ALDOT to develop performance monitoring procedures to meet the FAST Act requirements. The policy recommendations and funding priorities of the SWTP will reflect the targets established through this process.
Other requirements of the Statewide Plan are:

- A financial plan that:
  - Demonstrates how the adopted Statewide Transportation Plan can be implemented
  - Indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan
  - Recommends any additional financing strategies for needed projects and programs
- A comprehensive process to receive input into the planning process. More detail on the outreach process for this plan is provided in Section 3 of this report.

1.6 Relevant Policy and Planning Documents

A number of planning efforts have been undertaken by ALDOT, MPOs, and other agencies throughout the state that will support development of the SWTP. The following documents will be reviewed and incorporated into the overall planning process:

- Alabama Statewide Freight Plan – Completed in March 2016, the plan establishes the freight planning and performance monitoring activities to be undertaken statewide by ALDOT. The plan presents existing and projected freight conditions and identified needs through year 2040.
- Alabama Statewide Rail Plan and Rail Directory – The plan includes a system-wide assessment of existing and future trends and needs with respect to goods movement and passenger transportation by rail. The directory provides details on each rail line operated in Alabama.
- Alabama Statewide Bicycle Plan – Promoting the opportunity for active transportation throughout the state, the plan identifies best practices for the implementation of bicycle and pedestrian facilities as well as where opportunities for facilities exist. The plan also contains an inventory of significant facilities in Alabama.
- Strategic Highway Safety Plan – This plan identifies strategies, projects, and programs to reduce highway fatalities and serious injuries on public roads throughout the state.
- Intercity Bus Service Study – The report inventories intercity bus services in Alabama and presents strategies for increasing access to services.
- Statewide Airport System Plan – The plan provides an overall statewide strategy to improve airport facilities based on projected trends.
- MPO Long Range Transportation Plans – Each MPO is required to develop a 20-year horizon LRTP that details goals, projects and policies, priorities, and funding to improve mobility in their region. All of the current MPO LRTPs have a 2040 horizon year, consistent with that for the SWTP.
- Other MPO Plans – Any auxiliary plans developed by the MPOs, such as regional freight plans, bicycle and pedestrian plans, and other special efforts, will be reviewed. In most cases, the major aspects of supplemental plans have been incorporated into their LRTP.
- Transit Development Plans (TDPs) – Local transit providers throughout the state develop TDPs to evaluate system performance and needs. These plans also provide information on funding sources and future goals.
- Locally Developed, Coordinated Public Transit-Human Services Transportation Plans – Much like TDPs, these plans inventory current/projected needs and recommend service improvements in their respective areas (urban and rural).
1.7 Peer Review Results

A peer review of neighboring states’ current Statewide Transportation Plans was undertaken. The peer review included the states of Florida, Georgia, Tennessee, Mississippi, and Arkansas. Each state’s Statewide Transportation Plan document(s) were downloaded and reviewed. Key items of interest included the date of completion, to what degree performance measures were included, how freight transportation was addressed, whether a detailed list of improvement projects was incorporated, and the overall general format of the final deliverables.

There are a number of general similarities in the peer state plans. All were recently completed (2015-2016), yet prior to the FAST Act. For the most part, specific performance measures were not included. When there was reference to performance measures, the measures reflected the anticipated requirements to be released by FHWA based on federal guidance to date. None of the plans include a specific, prioritized list of improvement projects. All of the plans provide a comparison between historic and anticipated future funding levels against identified needs, with resulting budget shortfalls identified. Sometimes this was done by demonstrating how far the funding would go towards meeting the identified needs and/or state-established performance thresholds. Finally, all were organized in a user-friendly summary format that focused on highlighting key findings for a general audience and used extensive colorful graphics to display key points as much as possible. More technical and/or detailed information was provided in separate documents/appendices.

Florida Transportation Plan (FTP)¹

Florida Department of Transportation (FDOT) has two companion documents, the Florida Transportation Plan (FTP) and the Strategic Intermodal System (SIS) Policy Plan. Focused on vision, goals and strategies, the FTP is the traditional statewide long-range transportation plan and includes three elements. The Vision Element discusses trends, uncertainties and themes over a 50-year horizon. The Policy Element presents goals and objectives with a horizon of 25 years. The seven long-range goals have objectives and indicators tied to each and are divided between two emphasis areas: system performance and support for statewide priorities. The Implementation Element, which has yet to be finalized and published, will identify emphasis areas with key actions over the next 5 to 25 years. Expected within the Implementation Element, no specific performance measures are included in the documents available to date, but will build off the indicators identified in the Policy Element. Freight integration plays an important role in the FTP and is incorporated into the goals and objectives, particularly economic competitiveness. A separate Florida Freight Mobility and Trade Plan, including a Policy Plan and an Investment Element, was completed in 2013-2014.

In comparison, the SIS is focused on policies and implementation along the state’s high-priority network. Aimed at maintaining and fostering Florida’s economic competitiveness, the SIS network includes the state’s largest and most significant/strategic facilities, including airports, spaceports, seaports, intermodal freight terminals, interregional passenger terminals, urban fixed guideway transit corridors, rail corridors, waterways and highways. It focuses on interregional, interstate and international travel, and categorizes three types of facilities: hubs, corridors and connectors. It identifies five implementation emphasis areas for the next five years, and includes five elements. The First Five Year Plan, updated

¹ The Florida Transportation Plan and Strategic Intermodal System documents are available for download at http://floridatransportationplan.com
annually, identifies projects funded in the Work Program in the next year and programmed for funding in years 2-5. The Second Five Year Plan identifies projects planned for funding in years 6-10. It is updated annually following update of the First Five. The Cost Feasible Plan identifies projects considered financially feasible during the next 15-20 years and is updated every 2-3 years based on new revenue forecasts. The Multimodal Unfunded Needs Plan includes projects for which funding is not expected to be available within the next 20 years. It is updated every 3-5 years based on new revenue forecasts. The final element is an Atlas map book that identifies all designed facilities by FDOT district.

Georgia 2040 Statewide Transportation Plan (SWTP)/2015 Statewide Strategic Transportation Plan (SSTP)²

Completed in January 2016, Georgia Department of Transportation (GDOT) designed the 2040 SWTP/2015 SSTP as its first plan to combine the federally required long-range transportation plan with the State required strategic investment plan. The SWTP is updated every 4-5 years and the SSTP every 2 years. The plan summarizes needs across five highway programs (pavement, bridges, roadway capacity, roadway operations, and safety) as well as public transportation, bicycle/pedestrian, freight rail, aviation and ports. The plan includes performance measures and targets, with the performance measures derived from expectations of future FHWA requirements. The plan includes a performance-based tradeoff analysis to show the performance implications of potential investment scenarios.

The SSTP is the official, comprehensive, fiscally constrained transportation plan that includes projects, programs and other activities to support implementation of transportation goals and policies. It includes three investment categories: statewide freight and logistics, people mobility (excluding Atlanta), and people mobility in Metro Atlanta. Its four integrated investment strategies are system preservation, core transit operations, improved roadway operations, and strategic roadway capacity expansion coupled with improved land use planning.

2040 Mississippi Unified Long-Range Transportation Infrastructure Plan (MULTIPLAN 2040)³

Mississippi Department of Transportation (MDOT) prepared the MULTIPLAN 2040 Final Report as a summary document with technical documents provided in an “annex.” The plan provides an overview of the system, trends and funding, with snapshots of current condition, usage and investment needs. Funding needs are compared to available revenue, and the performance tradeoffs of alternative funding strategies are presented. Transportation investment is guided by three program themes: preservation, modernization, and expansion. Modal snapshots were provided for each capital program to include an overview of key system statistics on conditions and demand. The economic impacts of program investment, as well as opportunities and challenges, are also identified. From an initial six alternative investment strategies, two preferred strategies were selected: Expected Funding/Invest to Maintain and Increased Funding/Adequate Funding to Meet Minimum Highway Performance Targets (Unconstrained).

² The Georgia 2040 Statewide Transportation Plan and 2015 Statewide Strategic Investment Plan are available for download at http://www.dot.ga.gov/IS/SSTP
³ The 2040 Mississippi Unified Long-Range Transportation Infrastructure Plan (MULTIPLAN 2040) is available for download at http://mdot.ms.gov/portal/planning.aspx?open=Programs
Tennessee 25-Year Long-Range Transportation Policy Plan

The Tennessee Department of Transportation (TDOT) long-range transportation plan consists of a 25-Year Policy Plan and a 10-Year Strategic Investment Plan. Notable for its “pay as you go” approach to funding transportation, the Tennessee plan examined investments separate from policy. The 25-Year Policy Plan is built on eight Policy Papers to guide direction, with a Plan Summary document that outlines the trends, recommendations, fiscal outlook and direction for investing. The 10-Year Strategic Investment Plan details the where, when, and how to invest and is fully constrained. Three primary objectives/emphasis areas were identified in the Policy Plan: promote efficiency, increase effectiveness, and emphasize economic competitiveness. The Strategic Investment Plan categorizes the budget into four general areas: operation and management; maintenance; highway and bridge construction; and transit, air, water and rail. The same three emphasis areas—efficiency, effectiveness, and economic competitiveness—are included. TDOT’s project selection process was utilized to prioritize projects for inclusion in its 3-Year Work Program. Long-range planning is aligned with short-term project planning. Annual and 10-year investment targets are based on financially constrained revenue assumptions.

Arkansas Long Range Intermodal Transportation Plan (LRITP)

The Arkansas State Highway and Transportation Department (AHTD) is currently preparing the 2040 update to the LRITP, with the presentation of overall needs and alternative improvement funding scenarios in process. Completion is expected in fall 2016. The LRITP is a policy document and does not contain specific improvement projects. However, they are taking a performance-based approach to plan development. ADHT is developing a Freight Plan in parallel with the LRITP, and completes a major needs analysis of its High Priority Highway Network every 10 years. The identified goals follow the emphasis areas of the FAST Act: safety and security; infrastructure condition; congestion reduction, mobility and system reliability; economic competitiveness; environmental sustainability; and multimodal transportation system. Surveys of ADHT district engineers, division heads, staff as well as MPO staff and the stakeholder group confirmed that infrastructure condition and safety are the two most important goal areas. ADHT developed alternative funding scenarios with the following focus areas: maintenance, economic competitiveness (with a focus on freight), multimodal mobility, and auto mobility.

In conclusion, the peer review effort confirmed that ALDOT’s approach to the SWTP as a strategy and policy focused long-range document is in accordance with other states. Similarly, presentation within the final plan document of how well the State is making progress towards improving the transportation system, meeting identified goals, and supporting Alabama’s economic viability is in keeping with other statewide plans. Finally, not including a consensus listing of projects in the long-term SWTP document is in line with other states.

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4 The TDOT 25-Year Long-Range Transportation Policy Plan is available for download at https://www.tn.gov/tdot/section/25-year-transportation-plan
5 Current materials available on the Arkansas Long Range Intermodal Transportation Plan are available for download at http://www.wemovearkansas.com/index.html
SECTION 2: POLICY FRAMEWORK AND DEVELOPMENT OF PERFORMANCE MEASURES

This section describes the policy framework of the SWTP and development of performance measures as required by the FAST Act. The following items are documented within:

- Most recent federal guidance regarding performance measures
- Availability of data sources for performance monitoring
- Overview of performance monitoring process

2.1 National Goals and Emphasis Areas

The FAST Act requirements regarding performance measures essentially remain unchanged from the MAP-21 legislation passed in 2012. The root of performance measures begins with the overall FHWA national performance goals, which are as follows:

- Safety – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair
- Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System (NHS)
- System Reliability – To improve the efficiency of the surface transportation system
- 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
- Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment
- 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

FHWA’s proposed performance measures for the NHS are presented in Table 2-1. They address all of the goals listed above, with the exception of reducing project delays. Due to a number of institutional factors related to project delivery that vary by state, it is problematic for FHWA to establish a measure at a federal level for this goal.

The requirements for setting targets, monitoring, and reporting procedures are predicated primarily on FHWA guidance and related data sources. As previously noted, ALDOT is in the process of developing measures to evaluate its statewide network.
### Table 2-1: Draft Statewide Plan Goals and Proposed Federal Performance Measures

<table>
<thead>
<tr>
<th>Emphasis Areas</th>
<th>FAST Act (MAP-21) National Goals</th>
<th>Proposed Statewide Goal</th>
<th>Proposed FHWA Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestion Reduction</td>
<td>To achieve a significant reduction in congestion on the National Highway System</td>
<td>Goal 1: Improve reliability and reduce congestion on the statewide roadway network</td>
<td>Percent of the Interstate System providing for Reliable Travel Times</td>
</tr>
<tr>
<td>System Reliability</td>
<td>To improve the efficiency of the surface transportation system</td>
<td></td>
<td>Percent of the non- Interstate NHS providing for Reliable Travel Times</td>
</tr>
<tr>
<td>Infrastructure Condition</td>
<td>To maintain the highway infrastructure asset system in a state of good repair</td>
<td>Goal 2: Ensure a state of good repair along roadways and bridges throughout the state</td>
<td>Percent of the Interstate System where Peak Hour Travel Times meet expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent of the non- Interstate NHS where Peak Hour Travel Times meet expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percentage of pavements of the Interstate System in Good condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percentage of pavements of the non- Interstate NHS in Good condition</td>
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<td></td>
<td>Percentage of pavements of the Interstate System in Poor condition</td>
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<td></td>
<td>Percentage of pavements of the non- Interstate NHS in Poor condition</td>
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<tr>
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<td></td>
<td>Percentage of NHS Bridges Classified as in Good condition</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Percentage of NHS Bridges Classified as in Poor condition</td>
</tr>
<tr>
<td>Freight Movement and Economic Vitality</td>
<td>To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development</td>
<td>Goal 3: Improve economic benefits by supporting public and private sector investment in the statewide roadway network</td>
<td>Not specifically addressed in FHWA guidelines</td>
</tr>
<tr>
<td>Safety</td>
<td>To achieve a significant reduction in traffic fatalities and serious injuries on all public roads</td>
<td>Goal 4: Prioritize improvements that preserve mobility on the statewide network</td>
<td>Percent of the Interstate System Mileage providing for Reliable Truck Travel Times</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent of the Interstate System Mileage Uncongested (Average Truck Speed)</td>
</tr>
<tr>
<td>Reduce Project Delivery Delays</td>
<td>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</td>
<td>Goal 6: Make more effective and efficient use of limited funding through the enhanced application of data-driven decision making processes, particularly for project selection</td>
<td>Not specifically addressed in FHWA guidelines</td>
</tr>
<tr>
<td>Innovation/ Technology</td>
<td>Not specifically addressed</td>
<td>Goal 7: Promote the use of ITS technologies to monitor and enhance the overall performance of the transportation network</td>
<td>Not specifically addressed in FHWA guidelines</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>To enhance the performance of the transportation system while protecting and enhancing the natural environment</td>
<td>Goal 8: Promote and enhance both the human and natural environment while enhancing the performance of the transportation network</td>
<td>Total Emission Reductions</td>
</tr>
</tbody>
</table>
2.2 Description of Data Sources

Data sources required to monitor the performance of the NHS and State roadway network include:

- National Performance Management Research Data Set (NPMRDS) – Provided monthly to State DOTs and MPOs on request, the dataset includes travel times derived from all traffic using the highway system in 5-minute bins. It includes a breakdown of travel times of freight vehicles and all traffic (freight and passenger vehicles) and uses data reported via vehicle probes on contiguous segments of roadway covering the entire mainline NHS. Given its accessibility, it is expected that ALDOT will utilize this data source to set targets related to travel times.

- Highway Performance Monitoring System (HPMS) – The HPMS provides data that reflects the extent, condition, performance, use, and operating characteristics of the nation's highways. It includes limited data on all public roads, more detailed data for a sample of the arterial and collector functional systems, and certain statewide summary information. This data is required to be collected by the State DOT and reported to FHWA via departmental software.

- Statewide Travel Demand Model – The statewide model can be a source for various roadway congestion and mobility measures, with detailed link analysis to identify congested corridors.

- ALDOT Pavement Management Program – ALDOT maintains a database of pavement condition for all State roadways that can be utilized to set targets for state of good repair.

- ALDOT Bridge Program – This program can be used to assess the number of weight-restricted bridges and/or those with a low sufficiency rating along key freight corridors.

2.3 Federal Guidance on Performance Measures and Monitoring Procedures

One of the first priorities after finalizing performance measures is to develop targets, against which the system will be evaluated and results reported to FHWA. The targets are determined at the discretion of ALDOT, but must be based on quantifiable data. Therefore, the information collected during the baseline conditions and needs assessment will be paramount to developing these targets.

To date, FHWA has published limited guidance on setting targets. A proposed eight-step process to setting targets and monitoring procedures, shown in Table 2-2, was presented during a webinar on July 13, 2016. Further FHWA guidance is anticipated on setting targets, developing the reports, and documenting the overall performance impact of STIP projects. Nevertheless, ALDOT is required to set their performance targets by May 2017 (one year from the effective date of the Final Rule).

<table>
<thead>
<tr>
<th>Table 2-2: Recommended FHWA Performance Monitoring Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process</strong></td>
</tr>
<tr>
<td>Setting the Target</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Tracking Progress Towards Target Achievement</td>
</tr>
<tr>
<td>Reporting and Communicating Results</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
It is important to note that the MPO process is dependent on progress of the statewide process. MPOs are required to finalize their performance measures within 180 days of the establishment of statewide targets. In addition, once performance targets are established, all STIP improvements should describe their anticipated effect in meeting the targets.

Figure 2-1 presents the scheduling of the performance monitoring process. As shown:

- ALDOT must develop both two-year and four-year targets to be included in a Baseline Performance Period Report, which will also include other baseline conditions.
- After two years, a Mid Performance Period Progress Report is prepared and submitted. This report also discusses any issues related to the achievement of performance targets and, if applicable, adjustments to the overall four-year targets.
- The final step in the reporting process is a Full Performance Period Progress Report. This report contains the same overall information as the Mid Performance Period Progress Report, but does not allow for the adjustment of targets.

Over the coming weeks, ALDOT will be working to develop its performance measures, set targets, and establish monitoring procedures. The performance measures developed will be consistent with the Statewide Transportation Plan goals and FHWA recommended measures.
SECTION 3: OUTREACH AND COORDINATION APPROACH

An initial step in developing the SWTP required establishing a detailed approach to outreach and coordination efforts throughout the plan development process. The three primary forms of engagement are client coordination, stakeholder outreach, and public involvement. Each of these is discussed in more detail in the following subsections.

3.1 Client Coordination and Study Coordinating Committee

Client coordination is ongoing throughout the duration of the study. Specific status update briefings occur on a monthly basis in person or by conference call, as appropriate to the content being discussed.

A Study Coordinating Committee (SCC) composed of ALDOT Central Office staff representatives from the bureaus/sections associated with statewide multimodal transportation planning has been established. These include, but are not limited to, staff for metropolitan and statewide planning, travel demand modeling, GIS, safety, transit, bicycle/pedestrian, bridge, rail, aviation, environment, maintenance, and pavement management. Progress updates and findings included in the interim report deliverables and draft/final plan document are presented to the committee for review, discussion and comment at regularly scheduled quarterly meetings or specially called meetings depending on study schedule. Representatives from the SCC also collect and/or verify data used for the identification of baseline conditions and projected statewide transportation needs.

The SCC structure is two-tiered, depending on the anticipated level of technical involvement in the plan development process. Those most directly involved in the plan development process—known as the Technical Group—include representatives of Metropolitan Planning and Data Collection and Data Management. The broader SCC is composed of the Technical Group as well as representatives of the various modal elements that have a more macro-level involvement in the general statewide planning process. This includes representatives for Safety, Traffic Operations, Transit, Bicycle/Pedestrian, Rail, Bridge Maintenance, Pavement Maintenance, Aeronautics, and Design, including Environmental Technical Section.

Meetings with the SCC are scheduled quarterly to review study progress, solicit input and receive feedback. As necessary, a meeting with only the Technical Group to delve more deeply into technical details related to the plan development process as a whole, the travel demand modeling process, and the data that feeds the model (particularly HPMS) is held after the broader SCC meeting. Additional conference call and/or in person briefings related to the travel demand model update process are held with the Technical Group as required.

The first SCC meeting was held on July 28. Topics discussed during this kickoff meeting included data collection and existing conditions. Future meetings will be held at key milestones, with presentation topics to include:

- Input from the first round of Region Meetings, Existing and Projected Conditions and Needs
- Interim #2, Funding, “What If” Scenarios
- Draft Plan
3.2 Stakeholder Involvement

Stakeholder involvement guides plan development activities. Key stakeholders include ALDOT Region Engineers, the MPOs and RPOs (Rural Planning Organizations), FHWA, and representatives of state agencies and select private sector modal, economic development and advocacy organizations. A full list of stakeholder organizations and representatives was developed for approval by the client contact.

Initial communication to stakeholders to request their participation in the first round of public and stakeholder regional meetings occurred via US mail and email. Thereafter, email is the primary form of communication. The initial notification informed potential stakeholders of the study’s initiation and provided details on the first round of regional meetings. Additional communication, such as meeting announcements and/or topic specific questionnaires/input requests, will be distributed over the course of the effort as appropriate.

3.3 Public Outreach

During the course of the plan development process, two rounds of public and stakeholder outreach meetings will be held in each of the five ALDOT Regions. The meetings will be scheduled to coincide with key milestones in plan development—identification of existing/future needs and draft plan recommendations. The consultant team will coordinate with Region staff in scheduling the meeting locations and times. Likewise, the assistance of ALDOT Region staff and others as appropriate (e.g., MPOs and RPOs) will be enlisted to support widespread advertisement of the meeting details within each region.

The first round of Region Meetings, held in late September, introduced the SWTP and provided some existing conditions information. In addition, input related to statewide needs and priorities was solicited. The meetings took place at the following locations and dates:

- Huntsville – Tuesday, September 20, 2016
- Tuscaloosa – Wednesday, September 21, 2016
- Hoover – Thursday, September 22, 2016
- Mobile – Tuesday, September 27, 2016
- Montgomery – Wednesday, September 28, 2016

The second round of meetings will be held to present the Draft Plan, tentatively scheduled for April 2017.

3.4 Communication

The primary method of direct communication with committee members and stakeholders throughout the plan development process is email. In addition, ALDOT’s website is being used to efficiently coordinate with all stakeholders and the general public. The study introduction, status updates, and meeting announcements are being posted to the SWTP webpage, along with meeting materials and interim reports available for review. Opportunities to solicit further input, such as topic specific questionnaires, may also be added to the webpage. The webpage address is:

http://www.dot.state.al.us/oeweb/statewideTransportationPlan.html

Contact information for study team members and directions on how to provide input is available. A SWTP specific email address, automatically distributing any emails that are received to appropriate
ALDOT staff, has been established to further facilitate communication with the general public. The email address is: altransplans@dot.state.al.us.

The team is coordinating with the MPOs and other planning partners to distribute SWTP development updates through their own websites and/or newsletters. They are also encouraged to add a link to the ALDOT SWTP webpage on their own websites.

An email list of interested participants is being developed over the course of the study. Individuals who provide their contact information at the regional outreach meetings, as well as those who request via email to altransplans@dot.state.al.us to be kept informed, will be added to the list. These individuals will receive email notification of the second round of meetings and when new materials are posted to the webpage.
SECTION 4: TRAVEL DEMAND MODELING

The statewide travel demand model is an important tool for determining existing and future congestion levels. To project overall travel demand, the model assigns trips to the statewide roadway network based on existing and projected socioeconomic data related to population and employment. The socioeconomic data from the MPO travel demand models are incorporated into the statewide model as appropriate for the urbanized areas statewide. The information derived from the statewide model is key to identifying the projected needs and developing the overall statewide investment strategy at the conclusion of the SWTP process.

The following pages present a summary of initial activities undertaken to update the statewide travel demand model. More detail on the travel demand modeling process will be contained in the model documentation deliverable produced at the completion of plan update activities.

4.1 Base Year Zone Structure and Highway Network

The first task associated with the travel demand modeling effort was to update the zone structure and roadway network to reflect the new base year. The previous model used 2005 as the base year for the roadway conditions and the 2000 Census Tracts as the basis for the zone structure. The updated version uses the 2010 Census Tracts as the base year zone structure and either 2010 or 2015 as the year for the data and roadway estimates, depending on the data availability and quality.

The Census Tract numbers for Alabama changed between the 2000 and 2010 Census, with the addition of nearly 100 Census Tracts statewide bringing the Alabama total to 1,179 zones. This resulted in the need to update the zone structure and corresponding centroid connector placements across the state to allow for the use of all the new Census Tracts. The Census Tract locations were downloaded from the US Census website in ArcGIS format and the population and households were obtained with the data. The zone data is shown in Figure 4-1.

It should be noted that the MPO models present information at a finer level of detail than the statewide travel demand model. This is arrived at by splitting the larger Census Tract based zones into smaller, more numerous TAZ (traffic analysis zones). However, the MPO models are designed to assess regional characteristics of a particular urbanized area rather than at a statewide level.
Figure 4-1: Zone Structure Using Census Tracts
The state roadway system, shown in Figure 4-2, is the basis for the model’s roadway network.

Figure 4-2: State Roadway System
The model network, shown in Figure 4-3, also includes roadways needed for connectivity.

Figure 4-3: Model Roadway Network

The model network is attributed with distance, posted speed limit, number of lanes, travel time, average daily traffic, percent trucks, and roadway names. The distance was obtained from CUBE voyager software when the network was digitized. The posted speed limit and number of lanes were obtained using the State’s CARE crash database, in which crashes are attributed with these values by the officers inspecting the crashes for crash analysis. Traffic and percent trucks were taken from a database provided by ALDOT, and travel time was calculated using the program.
4.2 Socioeconomic Data Aggregation and Trip Generation

The socioeconomic data was collected using the US Census population and household numbers for 2010 and the Longitudinal Employer-Household Dynamics data set available from the US Census for the employment data. The data collected included the number of households, average income for the households, retail employment and non-retail employment.

The external count data were collected from the statewide traffic count database at the state line to allow for the external traffic numbers. The externals road type, taken from functional classification, was used to determine the percent pass through trips at the external location. The percentages used in the model were the same as those used in the previous statewide model to remain consistent.

The Alabama Trip Generation program was run for the data collected. The results included the number of productions and attractions expected for each zone and external station for the six different trip purposes: home-based-work, home-based-other, non-home-based, truck-taxi, external-internal, and external-external.

4.3 Freight Values

The freight values for the model roadways were collected from the state. The process used the counted truck percent for each roadway. The freight flows and truck percentages will be compared to ensure compatibility later in the update process. A spatial join was performed to attribute the roadways in the model with the appropriate truck percent from the statewide database. An example is shown in Figure 4-4.

![Figure 4-4: Roadway Network Attributes](image-url)
4.4 Travel Demand Model Development, Calibration and Validation

The travel demand model was developed in CUBE Voyager format. The process used the roadway network and results from the trip generation program as inputs to the model. The steps in the model process included trip distribution and traffic assignment; as a vehicle-only model, there are no other modes modeled in the process. The model in CUBE Voyager consists of a collection of modules that convert the model into assigned traffic volumes.

The calibration and validation of the travel demand model will be performed using the Validation and Reasonableness Checking Manual. Initial validation statistics have been developed. The model will be tested using the statistical parameters identified, and the values will be tested to ensure they meet the thresholds identified.
SECTION 5: MULTIMODAL NETWORK

Alabama offers a comprehensive transportation system to address the many diverse needs of residents, visitors and businesses. The section provides an overview of each major element in Alabama’s multimodal transportation network. It is composed of roadways and bridges, public transportation and intercity bus, bicycle and pedestrian facilities, rail lines, airports, waterways, and intermodal facilities, interconnected and working together to facilitate the movement of both passengers and freight.

5.1 Existing Roadway Characteristics

The backbone of Alabama’s transportation system, the roadway network provides for mobility and connectivity between modes. The Highway Performance Monitoring System (HPMS) identifies over 102,000 miles of roadways in the state, of which approximately 10,900 miles are State maintained. Federal and state highways respond to a majority of the transportation demands. To assess characteristics of statewide significance, this analysis focuses on the portion of the roadway network that is maintained by ALDOT.

5.1.1 Functional Classification

Functional classification is the process by which streets and highways are grouped into classes according to the character of traffic service they are intended to provide. The key considerations are mobility and access: greater mobility is achieved by limiting access, while increased access results in lower mobility. There are three primary functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (local or long distance) and degree of access. These classifications are described below.

- **Arterials** provide the highest level mobility at the greatest speed for the longest uninterrupted distance, with some degree of access control. There are four types of arterials:
  - Interstates — The highest classification of arterials, interstates are designed and constructed with mobility and long-distance travel in mind, linking major urban areas across the US. They are exclusively characterized by grade separated interchanges with limited access and higher speeds.
  - Principal Arterials, Other Freeways and Expressways — Similar to interstates and with regional differences in the use of the terms ‘freeway’ and ‘expressway,’ these roads have directional travel lanes that are usually separated by some type of physical barrier and their access/egress points are limited to on/off-ramp locations or a very limited number of at-grade intersections.
  - Principal Arterials, Other — Serving both metropolitan and rural areas, these roadways provide a high degree of mobility. Unlike their access-controlled counterparts, abutting land uses can be served directly by way of driveways to specific parcels and at-grade intersections with other roadways.
  - Minor Arterials — Prevalent in smaller geographic areas, these roadways serve trips of moderate length, offer connectivity to the higher arterial system, and are characterized by driveway access and at-grade intersections.

- **Collectors** carry traffic at low to moderate speeds for shorter distances than arterials, collecting traffic from local roads and residential areas to connect with arterials and activity centers.
Collectors are designated as Major or Minor depending on the density of uses served, travel speeds, and level of connectivity to the arterial network.

- **Local** consists of all roads not defined as arterials or collectors. Local roads primarily provide access to land with little or no through movement.

Figure 5-1 shows the functional classification of the ALDOT network. The functional classification breakdown for all roads in Alabama and the ALDOT-maintained network is provided in Table 5-1.

### Table 5-1: Functional Classification

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>All Roads (miles)</th>
<th>ALDOT-Maintained Network (miles)</th>
<th>Percent of All Miles on ALDOT Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>1,000.74</td>
<td>1,000.74</td>
<td>100.0%</td>
</tr>
<tr>
<td>Principal Arterial-Other Freeways and Expressways</td>
<td>30.15</td>
<td>30.15</td>
<td>100.0%</td>
</tr>
<tr>
<td>Principal Arterial-Other</td>
<td>3,319.37</td>
<td>3,177.98</td>
<td>95.7%</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>6,333.87</td>
<td>4,613.78</td>
<td>72.8%</td>
</tr>
<tr>
<td>Major Collector</td>
<td>15,855.20</td>
<td>2,048.15</td>
<td>12.9%</td>
</tr>
<tr>
<td>Minor Collector</td>
<td>6,820.44</td>
<td>31.64</td>
<td>0.0%</td>
</tr>
<tr>
<td>Local</td>
<td>68,657.20</td>
<td>1.01</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>102,016.97</strong></td>
<td><strong>10,903.45</strong></td>
<td><strong>10.7%</strong></td>
</tr>
</tbody>
</table>

*Source: ALDOT, 2014*

As the table indicates, roadways intended to provide for statewide mobility are overwhelmingly ALDOT-maintained. All interstates and expressways and 96 percent of the principal arterial network are maintained by ALDOT, with a total of 83 percent of the entire arterial network being ALDOT-maintained. In contrast, roadways intended for localized travel and access are predominantly maintained by local jurisdictions. Less than 10 percent of collectors and very few miles of minor collectors and local roads are maintained by ALDOT.

#### 5.1.2 Number of Lanes

A large portion of the ALDOT-maintained network is composed of two-lane roadways, indicative of the rural development patterns prevalent throughout much of the state. Most of the four-lane segments are interstates, arterials within larger urban areas, or arterials providing statewide connectivity between urban areas outside the interstate system. Examples of the latter include:

- US 431 from Anniston to Huntsville
- US 72 through the northern portion of the state
- US 280 from Columbus/Phenix City to Birmingham
- US 231 from Montgomery to Dothan (and onward to Panama City, FL)
- US 80 from Montgomery through the western portion of the state towards Meridian, MS

Figure 5-2 identifies the number of lanes for roadways on the ALDOT-maintained network.
Figure 5-1: Functional Classification
Figure 5-2: Number of Lanes on ALDOT-Maintained Network Roadways
5.1.3 National Highway System

The National Highway System (NHS) consists of roadways important to the nation’s economy, defense, and mobility. It was developed by FHWA in cooperation with the states, local officials, and MPOs. The NHS includes the following subsystems of roadways:

- **Interstates** – The Eisenhower Interstate System of highways retains its separate identity within the NHS.
- **Other Principal Arterials** – These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
- **Strategic Highway Network (STRAHNET)** – This is a network of highways which are important to the United States’ strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.
- **Major Strategic Highway Network Connectors** – These highways provide access between major military installations and the STRAHNET highways.
- **Intermodal Connectors** – These highways provide access between major intermodal facilities and the other four subsystems of the NHS.

The NHS totals approximately 230,000 miles nationwide, including 4,279 miles of NHS roadways in Alabama (see Figure 5-3). A breakdown of Alabama’s NHS roadways by functional classification is provided in Table 5-2. Approximately 40 percent of the ALDOT-maintained network is on the NHS, including nearly all of the principal arterial network. The lack of minor arterials and major collectors on the NHS is logical given that the NHS is designed to reflect a nationally-significant roadway network.

**Table 5-2: National Highway System by Functional Classification**

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>All Roads</th>
<th>ALDOT-Maintained Network</th>
<th>National Highway System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Miles</td>
<td>Miles</td>
<td>Percent</td>
</tr>
<tr>
<td>Interstate</td>
<td>1,000.74</td>
<td>1,000.74</td>
<td>100.0%</td>
</tr>
<tr>
<td>Principal Arterial-Other Fwy/Expy</td>
<td>30.15</td>
<td>30.15</td>
<td>100.0%</td>
</tr>
<tr>
<td>Principal Arterial-Other</td>
<td>3,319.37</td>
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<td>95.7%</td>
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<td><strong>10.7%</strong></td>
</tr>
</tbody>
</table>

*Source: ALDOT Highway Performance Monitoring System (HPMS) Data, 2014*
Figure 5-3: NHS Facilities in Alabama
5.1.4 Roadway Volumes

Roadway volumes not only reflect travel patterns, but also indicate where maintenance needs are likely to arise. Annual Average Daily Traffic (AADT) for the ALDOT network is reflected in Figure 5-4. The heaviest traffic volumes are seen along the interstate system. Furthermore, the Birmingham metropolitan area experiences by far the heaviest volumes of any urban area in the state. Interstate segments with volumes exceeding 60,000 AADT can be found along:

- I-20/59 in Birmingham
- I-459 in Birmingham
- I-85 from US 231 to I-65 in Montgomery
- I-65 from SR 14 to US 80 in Montgomery
- I-10 from Baldwin County through Mobile
- I-65 through Mobile
- I-165 from I-65 to I-10 in Mobile
- I-565 in downtown Huntsville

Considering non-interstate facilities, most arterials with higher volumes are found in the larger urban areas. However, some arterials that traverse rural areas to provide intercity connectivity have volumes ranging from 10,000 to 30,000 AADT. These include:

- US 280 from Columbus to Montgomery
- US 231 from Dothan to Montgomery
- Segments of US 431 from I-20 to Huntsville
- US 72 between the Huntsville and Muscle Shoals areas

5.2 Intelligent Transportation Systems

The deployment and integration of Intelligent Transportation Systems (ITS) has enhanced ALDOT’s ability to increase the productivity, mobility, safety, efficiency, and security of the state’s transportation network. ITS utilizes a variety of advanced technological applications to monitor roadway conditions, relay travel information to motorists, collect and archive travel information, and modify traffic signals.

ITS infrastructure includes:

- Transportation Management Centers (TMC)/Traffic Operation Centers (TOC) – The base of operations and monitoring for statewide, regional, or local transportation networks, TMCs provide a wide range of services, including relaying traveler information, monitoring traffic and weather conditions, and coordinating incident response. They are staffed 24 hours a day, 7 days a week.
- Field Devices – Including closed circuit televisions (CCTV), dynamic message signs (DMS) and traffic signals among others, these devices collect live traffic conditions and relay information to motorists.
- Software – Supporting TMC operations with data collected from field devices, computer applications coordinate traffic signals, collect and archive incident management information, and manage work orders to repair ITS and traffic signal infrastructure.
Figure 5-4: Annual Average Daily Traffic (AADT)

Road Network
Alabama
2014 AADT

- 0 - 10000
- 10001 - 30000
- 30001 - 60000
- 60001 - 200000
• Incident Management and Traveler Information Systems – Used by motorists and first responders alike, these applications relay current traffic conditions through streaming video, active dynamic message signs, incident information, and road closures.

Currently, most of the ITS systems in Alabama are in urban areas. This includes CCTV systems in Birmingham, Montgomery, and Mobile. One of the most helpful ITS applications in the state is ALDOT’s traveler information website, called Algo Traffic. The system provides current information on construction locations, areas of transportation congestion, and dynamic message sign contents along interstates throughout the state. The website\(^6\) is currently under development and will eventually contain more detail on its current resources.

5.3 Safety

The *State of Alabama Strategic Highway Safety Plan*\(^7\) (SHSP) is a collaborative effort from a number of state agencies with the goal of reducing serious accidents, injuries, and fatalities on Alabama’s roadways. The second edition was developed in 2011 and contains historical crash data, causes of crashes, and strategies to mitigate crashes along Alabama’s highways. Historical statewide crash data are provided in Table 5-3.

<table>
<thead>
<tr>
<th>Category</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>1,208</td>
<td>1,110</td>
<td>967</td>
<td>849</td>
<td>862</td>
</tr>
<tr>
<td>Injuries</td>
<td>43,000</td>
<td>39,700</td>
<td>35,600</td>
<td>32,596</td>
<td>38,328</td>
</tr>
<tr>
<td>Crashes</td>
<td>139,800</td>
<td>135,300</td>
<td>124,000</td>
<td>123,731</td>
<td>128,384</td>
</tr>
</tbody>
</table>

*Source: Alabama Strategic Highway Safety Plan, 2011*

As the table shows, Alabama experienced a reduction in crashes between 2006 and 2010. Other findings include:

- Fatalities decreased by 29 percent and injuries decreased by 11 percent between 2006 and 2010. The 2010 American Association of State Highway and Transportation Officials (AASHTO) Highway Safety Manual\(^8\) indicates that combining fatal and severe injuries usually provides a better basis for safety studies.
- Alabama’s fatal crash rate ranged from a high of 2.00 in 2006 to a low of 1.34 in 2010. Since 2006, Alabama’s year-to-year rate trend has continually ranged from 22 percent to 40 percent higher than the national rate. Higher fatal crash rates in Alabama can be partially attributed to the high percentage of fatalities on rural highways.
- The top three crash causes from 2001 to 2010 were “restraint not used,” “speeding,” and “alcohol/drug abuse.”

Alabama’s SHSP is currently being updated and will be available in late 2017.

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\(^8\) [http://www.highwaysafetymanual.org/Pages/About.aspx](http://www.highwaysafetymanual.org/Pages/About.aspx)
5.4 State of Good Repair (Maintenance)

A major consideration during the statewide planning process is maintaining the transportation network. The two aspects of maintenance assessed in the SWTP are pavement conditions and bridge conditions.

5.4.1 Pavement Conditions

Information from ALDOT’s Bureau of Materials and Tests was obtained to complete the pavement condition assessment. There are approximately 29,400 lane miles of ALDOT-maintained roadways. The following factors are considered in developing pavement condition ratings (PCR):

- Roughness, which is usually a sign of public perception
- Structure, or cracking of the surface
- Rutting, which presents safety issues
- Age of the overlay

Pavement ratings are reported at follows:

- New – Either the pavement has been awarded but not accepted, or accepted but not tested
- Good – PCR ≥ 70
- Fair – 55 < PCR < 70
- Marginal – PCR ≤ 55
- CBT (Concrete, Bridge, or Tunnel) – Refers to overlays that are concrete, thin overlays (1 inch) over concrete, major bridge sections (that are their own overlay), and tunnels
- Incomplete – Represents segments where more data is needed

Table 5-4 presents the pavement conditions as of December 31, 2015, by network as indicated.

### Table 5-4: Pavement Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Interstate</th>
<th>Non-Interstate NHS</th>
<th>Non-NHS</th>
<th>ALDOT-Maintained Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles</td>
<td>%</td>
<td>Miles</td>
<td>%</td>
<td>Miles</td>
</tr>
<tr>
<td>New</td>
<td>176.87</td>
<td>329.00</td>
<td>10.4%</td>
<td>784.48</td>
</tr>
<tr>
<td>Good</td>
<td>420.27</td>
<td>1,862.42</td>
<td>58.8%</td>
<td>2,962.85</td>
</tr>
<tr>
<td>Fair</td>
<td>152.69</td>
<td>512.65</td>
<td>16.2%</td>
<td>1,133.29</td>
</tr>
<tr>
<td>Marginal</td>
<td>91.37</td>
<td>456.75</td>
<td>14.4%</td>
<td>1,804.14</td>
</tr>
<tr>
<td>CBT</td>
<td>157.69</td>
<td>8.09</td>
<td>0.2%</td>
<td>10.62</td>
</tr>
<tr>
<td>Incomplete</td>
<td>2.59</td>
<td>0.67</td>
<td>0.0%</td>
<td>7.82</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,001.48</td>
<td>3,169.59</td>
<td>100.0%</td>
<td>6,703.20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition</th>
<th>Lane Miles</th>
<th>%</th>
<th>Lane Miles</th>
<th>%</th>
<th>Lane Miles</th>
<th>%</th>
<th>Lane Miles</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>777.14</td>
<td>17.0%</td>
<td>1,048.23</td>
<td>10.1%</td>
<td>1,682.41</td>
<td>11.7%</td>
<td>3,507.78</td>
<td>11.9%</td>
</tr>
<tr>
<td>Good</td>
<td>1,921.70</td>
<td>42.1%</td>
<td>6,067.51</td>
<td>58.5%</td>
<td>6,375.00</td>
<td>44.1%</td>
<td>14,364.21</td>
<td>48.9%</td>
</tr>
<tr>
<td>Fair</td>
<td>701.51</td>
<td>15.4%</td>
<td>1,706.65</td>
<td>16.4%</td>
<td>2,441.41</td>
<td>16.9%</td>
<td>4,849.57</td>
<td>16.5%</td>
</tr>
<tr>
<td>Marginal</td>
<td>405.14</td>
<td>8.9%</td>
<td>1,510.70</td>
<td>14.6%</td>
<td>3,889.53</td>
<td>26.9%</td>
<td>5,805.37</td>
<td>19.8%</td>
</tr>
<tr>
<td>CBT</td>
<td>744.35</td>
<td>16.3%</td>
<td>38.87</td>
<td>0.4%</td>
<td>30.38</td>
<td>0.2%</td>
<td>813.61</td>
<td>2.8%</td>
</tr>
<tr>
<td>Incomplete</td>
<td>14.98</td>
<td>0.3%</td>
<td>2.60</td>
<td>0.0%</td>
<td>25.69</td>
<td>0.2%</td>
<td>43.27</td>
<td>0.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,564.82</td>
<td>100.0%</td>
<td>10,374.55</td>
<td>100.0%</td>
<td>14,444.43</td>
<td>100.0%</td>
<td>29,383.80</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: ALDOT Bureau of Materials and Tests, December 2015
A review of the data above highlights the following about existing pavement conditions statewide:

- 60 percent of the ALDOT network is rated as good or above, increasing to 77 percent with fair or above ratings.
- 59 percent of the interstate system and 70 percent of the non-interstate NHS is rated as good or above.

### 5.4.2 Bridge Conditions

Beginning with the Federal-Aid Highway Act of 1968, FHWA established National Bridge Inspection Standards (NBIS) for the proper safety inspection and evaluation of all highway bridges. The NBIS regulations apply to all publicly owned highway bridges longer than twenty feet located on public roads. The states establish criteria for inspection level and frequency, with the routine frequency generally not to exceed every 24 months. Among the many items inspected as part of the National Bridge Inventory (NBI), the key elements in bridge condition ratings include bridge Deck (Item 58), Superstructure (Item 59), and Substructure (Item 60), as well as culverts (Item 62).

As noted in Section 2, FHWA is in the process of developing performance measures for a number of roadways characteristics, including bridge conditions. The latest FHWA guidance classifies bridges as Good, Fair, or Poor based on the following criteria for any of the three NBI items for a bridge (Deck, Superstructure, or Substructure) or a culvert:

- Good – When the lowest rating is 7, 8, or 9
- Fair – When the lowest rating is 5 or 6
- Poor: When the lowest rating is 4, 3, 2, 1, or 0

The ALDOT Maintenance Bureau reports a total of 5,752 ALDOT-maintained bridges throughout the state. Of these, slightly over half (3,101, or 54 percent) are on the NHS. Table 5-5 presents the bridge condition of non-NHS and NHS bridges throughout the state.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Non-NHS Bridges</th>
<th>NHS Bridges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Good</td>
<td>1,081</td>
<td>40.8%</td>
<td>1,043</td>
</tr>
<tr>
<td>Fair</td>
<td>1,528</td>
<td>57.6%</td>
<td>2,007</td>
</tr>
<tr>
<td>Poor</td>
<td>42</td>
<td>1.6%</td>
<td>51</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,651</td>
<td>100.0%</td>
<td>3,101</td>
</tr>
</tbody>
</table>

Source: ALDOT Maintenance Bureau

Highlights of bridge conditions throughout the state include:

- 98 percent of the bridges are in Good or Fair condition
- 54 percent of the state’s bridges are on the NHS. In comparison, NHS bridges comprise 73 percent of the deck area for the state’s bridges. This is logical given that NHS facilities carry more traffic and therefore include many four-lane or greater facilities.

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• The lower percentage of NHS bridges rated Good than non-NHS bridges (34 percent vs. 41 percent) may be partially attributed to their greater traffic volumes and associated wear.

Bridge age, shown in Table 5-6, is another consideration when ALDOT prioritizes bridge improvements. Over 50 percent of the state’s non-NHS bridges were built prior to 1970. In contrast, slightly more than half of NHS bridges have been built since 1970. This reflects a historical trend favoring NHS facilities in project prioritization, as well as the fact that many bridges along the NHS were replaced to accommodate capacity improvements.

### Table 5-6: Bridge Age

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-NHS Bridges</th>
<th>NHS Bridges</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Pre-1960</td>
<td>1,145</td>
<td>43.2%</td>
<td>729</td>
</tr>
<tr>
<td>1960-1969</td>
<td>393</td>
<td>14.8%</td>
<td>720</td>
</tr>
<tr>
<td>1970-1979</td>
<td>187</td>
<td>7.1%</td>
<td>554</td>
</tr>
<tr>
<td>1980-1989</td>
<td>417</td>
<td>15.7%</td>
<td>400</td>
</tr>
<tr>
<td>1990-1999</td>
<td>268</td>
<td>10.1%</td>
<td>315</td>
</tr>
<tr>
<td>2000-2009</td>
<td>193</td>
<td>7.3%</td>
<td>284</td>
</tr>
<tr>
<td>2010-2016</td>
<td>48</td>
<td>1.8%</td>
<td>99</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,651</td>
<td>100.0%</td>
<td>3,101</td>
</tr>
</tbody>
</table>

*Source: ALDOT Maintenance Bureau*

5.5 Public Transportation, Intercity Bus, and Passenger Rail

5.5.1 Transit

Some degree of public transportation, ranging from fixed route urban systems to rural demand response to human services transportation, is available in each of Alabama’s 67 counties. However, service in a number of counties is not truly “public” or widely available. Many human services providers must limit their riders to certain individuals, such as the elderly or disabled, due to program restrictions on service. Rider restrictions aside, the majority of providers experience challenges in serving everyone who desires service due to insufficient funding that limits the service area, days and/or times of operation. Another barrier many riders face is that locally-sponsored demand response services often cannot provide service into neighboring jurisdictions. This is a particular hardship in the rural areas where medical, employment and shopping destinations are regionalized and may not exist in every county.

The two primary transit funding mechanisms through the Federal Transit Administration (FTA) are the 5307 and 5311 formula funding programs. The 5307 program supports capital and operating costs in urbanized areas with populations of 50,000 or more, while the 5311 program is for rural areas. Providers receiving 5307 or 5311 funds are required to submit service operations statistics to the National Transit Database (NTD) every year.

The NTD categorizes providers in urbanized areas as Full Reporters or Small Systems Reporters. Alabama has 7 Full System Reporters and 6 Small System Reporters in 11 urbanized areas. In addition, the Phenix City, AL portion of the Columbus, GA-AL urbanized area is included under the Small System Reporters category. The system characteristics for each provider are presented in Table 5-7.
## Table 5-7: Urbanized Area Transit System Characteristics (2014)

<table>
<thead>
<tr>
<th>Urbanized Area</th>
<th>Service Area (Sq. Miles)</th>
<th>Service Area Population</th>
<th>Annual Unlinked Trips</th>
<th>Maximum Vehicles Operated(^1)</th>
<th>Type of Service(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Reporter</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birmingham</td>
<td>186</td>
<td>452,091</td>
<td>3,343,699</td>
<td>90</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Birmingham-Jefferson County (MAX)</td>
<td>392</td>
<td>663,615</td>
<td>96,130</td>
<td>36</td>
<td>Vanpool</td>
</tr>
<tr>
<td>Birmingham</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dothan</strong></td>
<td>600</td>
<td>90,000</td>
<td>156,234</td>
<td>44</td>
<td>DR</td>
</tr>
<tr>
<td>Wiregrass Transit Authority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Florence</strong></td>
<td>3,250</td>
<td>220,000</td>
<td>90,652</td>
<td>42</td>
<td>DR</td>
</tr>
<tr>
<td>Northwest Alabama Council of Local Governments (NACOLG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Huntsville</strong></td>
<td>66</td>
<td>127,000</td>
<td>646,628</td>
<td>32</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Huntsville Shuttle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mobile</strong></td>
<td>117</td>
<td>223,676</td>
<td>1,273,705</td>
<td>48</td>
<td>FR/DR</td>
</tr>
<tr>
<td>The Wave Transit System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Montgomery</strong></td>
<td>135</td>
<td>205,764</td>
<td>941,559</td>
<td>29</td>
<td>FR/DR</td>
</tr>
<tr>
<td>The M Transit/Montgomery Area Transit System (MATS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Small System Reporter</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anniston-Oxford(^3)</td>
<td>4,992</td>
<td>324,423</td>
<td>295,135</td>
<td>29</td>
<td>FR/DR</td>
</tr>
<tr>
<td>East Alabama Regional Planning &amp; Development Commission (ACTS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auburn(^3)</td>
<td>609</td>
<td>193,194</td>
<td>106,276</td>
<td>28</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Lee-Russell COG (LRPT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decatur(^3)</td>
<td>547</td>
<td>111,064</td>
<td>136,965</td>
<td>28</td>
<td>DR</td>
</tr>
<tr>
<td>Morgan County (MCATS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gadsden</td>
<td>37</td>
<td>52,729</td>
<td>121,292</td>
<td>19</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Gadsden Trolley/DART</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery</td>
<td>253</td>
<td>35,229</td>
<td>21,357</td>
<td>14</td>
<td>DR</td>
</tr>
<tr>
<td>Autauga County (ACRT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenix City(^4) (Columbus, GA-AL)</td>
<td>21</td>
<td>36,185</td>
<td>39,944</td>
<td>6</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Phenix City Express (PEX)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuscaloosa</td>
<td>171</td>
<td>136,487</td>
<td>319,211</td>
<td>12</td>
<td>FR/DR</td>
</tr>
<tr>
<td>Tuscaloosa Transit Authority (TTA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** 2014 National Transit Database

\(^1\) Directly operated and purchased transportation

\(^2\) FR (Fixed Route), DR (Demand Response), Vanpool

\(^3\) Dual (urban and rural) service provider

\(^4\) Phenix City, AL portion of Columbus, GA urbanized area only; 2013 National Transit Database
Alabama has 23 providers who report under the NTD Rural General Public Transit category. Table 5-8 presents system characteristics for each, all of which operate demand response services.

**Table 5-8: Rural General Public Transit System Characteristics (2014)**

<table>
<thead>
<tr>
<th>Provider</th>
<th>County Served</th>
<th>Annual Unlinked Trips</th>
<th>Maximum Vehicles Operated¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama Tombigbee Regional Planning Commission (ATRC)</td>
<td>Clarke</td>
<td>60,425</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Conecuh</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monroe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wilcox</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Referral &amp; Information Services for the Elderly (ARISE)</td>
<td>Tallapoosa</td>
<td>10,068</td>
<td>5</td>
</tr>
<tr>
<td>Baldwin County Commission (BRATS)²</td>
<td>Baldwin</td>
<td>325,004</td>
<td>49</td>
</tr>
<tr>
<td>Birmingham Regional Paratransit Consortium (ClasTran)</td>
<td>Jefferson</td>
<td>585</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Shelby</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Walker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blount County Commission</td>
<td>Blount</td>
<td>38,836</td>
<td>14</td>
</tr>
<tr>
<td>Chilton County Commission</td>
<td>Chilton</td>
<td>14,108</td>
<td>9</td>
</tr>
<tr>
<td>City of Eufaula (EBTA)</td>
<td>Barbour</td>
<td>10,847</td>
<td>5</td>
</tr>
<tr>
<td>City of Guntersville</td>
<td>Marshall</td>
<td>15,477</td>
<td>5</td>
</tr>
<tr>
<td>Covington Area Transit System (CATS)</td>
<td>Covington</td>
<td>9,677</td>
<td>4</td>
</tr>
<tr>
<td>Cullman County Commission (CARTS)</td>
<td>Cullman</td>
<td>60,425</td>
<td>37</td>
</tr>
<tr>
<td>Dekalb County Commission</td>
<td>Dekalb</td>
<td>23,435</td>
<td>10</td>
</tr>
<tr>
<td>Educational Center for Independence (ECI)</td>
<td>Washington</td>
<td>11,729</td>
<td>7</td>
</tr>
<tr>
<td>Escambia County Commission (ECATS)</td>
<td>Escambia</td>
<td>37,687</td>
<td>14</td>
</tr>
<tr>
<td>Etowah County Commission</td>
<td>Etowah</td>
<td>13,513</td>
<td>10</td>
</tr>
<tr>
<td>H.E.L.P., Inc.</td>
<td>Pickens</td>
<td>12,421</td>
<td>6</td>
</tr>
<tr>
<td>Jackson County Council on Aging</td>
<td>Jackson</td>
<td>24,107</td>
<td>9</td>
</tr>
<tr>
<td>Lawrence County Aging-Rural Transit System</td>
<td>Lawrence</td>
<td>15,302</td>
<td>11</td>
</tr>
<tr>
<td>Macon-Russell Community Action Agency</td>
<td>Macon</td>
<td>3,709</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Russell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madison County Commission (TRAM)</td>
<td>Madison</td>
<td>15,409</td>
<td>8</td>
</tr>
<tr>
<td>Pike Area Transit System (PATS)</td>
<td>Pike</td>
<td>25,649</td>
<td>10</td>
</tr>
<tr>
<td>St. Clair County Commission (SCATS)</td>
<td>St. Clair</td>
<td>31,678</td>
<td>10</td>
</tr>
<tr>
<td>Walker County Commission</td>
<td>Walker</td>
<td>4,894</td>
<td>3</td>
</tr>
<tr>
<td>West Alabama Rural Public Transportation (WAPT)</td>
<td>Bibb</td>
<td>584,567</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Choctaw</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dallas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hale</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marengo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perry</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: 2014 National Transit Database*

¹ Directly operated and purchased transportation

² Recently became a dual (urban and rural) service provider
Alabama’s one Tribal Reporter is the Poarch Band of Creek Indians (PCI) for the federally recognized Poarch Creek Reservation and Off-Reservation Trust Land areas in Alabama and Florida. According to the 2014 NTD, they reported 324 annual unlinked trips operated by 1 vehicle.

A total of 14 Alabama counties currently do not have unrestricted access to public transportation services available to all residents regardless of age or ability: Bibb, Bullock, Butler, Chambers, Crenshaw, Coffee, Dale, Elmore, Fayette, Geneva, Henry, Lamar, Limestone, and Randolph. Half of these counties are in the extreme southeast of the state. Another three counties offer service within the primary city but not into the outlying rural areas: Barbour, Mobile, and Tuscaloosa counties. Figure 5-5 identifies urban and rural transit services available in each county.

The University of Alabama’s Crimson Ride and Auburn University’s Tiger Transit are independently operated transit systems of the respective universities. Transit services on campus and to outlying areas are provided for students, faculty and staff only. These services are paid for by student fees and are not available to the general public. They do not receive any federal transit funding and are not integrated with the general public transportation services (urban and/or rural) provided in those areas.

5.5.2 Ridesharing (Carpool/Vanpool)

The CommuteSmart\(^\text{10}\) program provides a transportation alternative for commuters who want to reduce their transportation costs, the stress of traffic congestion, and air pollution. Created in 1999 by the Regional Planning Commission of Birmingham (RPCGB), the program has expanded beyond Birmingham to include Huntsville, Mobile, and Montgomery. Services include online ridematching, carpool and vanpool services, and the Emergency Ride Home program. The program is fully federally funded, with ridematching services provided at no cost to commuters or employers. Vanpool costs vary.

5.5.3 Intercity Bus\(^\text{11}\)

Greyhound provides regular (unsubsidized) intercity bus service connecting 14 Alabama communities to major US cities including Atlanta, Chicago, Dallas, Houston, Nashville, Orlando and St. Louis. Cities served on these routes are Anniston, Athens, Birmingham, Dothan, Evergreen, Gadsden, Huntsville, Mobile, Montgomery, Opelika, Phenix City (by way of Columbus, GA), Troy, Tuscaloosa and Tuskegee. Tuscaloosa offers riders three different stop locations: the Amtrak station, the Downtown Intermodal Center, and the Greyhound station.

Alabama began providing subsidized rural intercity bus service under FTA’s 5311(f) program in FY 2012. Three providers run daily routes connecting rural Alabama communities to the nonsubsidized (regular) Greyhound intercity bus routes: Capital Trailways, Greyhound, and West Alabama Public Transportation (WAPT). Before the program’s inception, 32 percent of Alabama’s rural population was within 25 miles of intercity bus service. This coverage increased to 78 percent with the new 5311(f) services. When considering a 10-mile distance to service, the coverage to rural populations increased from 10 percent to 31 percent. It must be noted that Capital Trailways is currently transitioning out of the program.

\(^{10}\) [http://commutesmart.org](http://commutesmart.org), accessed 9/2/2016

\(^{11}\) [Intercity Bus Service Study 2014](http://www.uta.edu/transport), University Transportation Center for Alabama
Figure 5-5: Urban and Rural Transit Services
Table 5-9 provides the operating statistics for the three 5311(f) providers.

**Table 5-9: Rural Intercity Bus Service Characteristics (2014)**

<table>
<thead>
<tr>
<th>Provider</th>
<th>Annual Unlinked Trips</th>
<th>Annual Vehicle Revenue Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Trailways</td>
<td>1,365</td>
<td>277,715</td>
</tr>
<tr>
<td>Greyhound</td>
<td>17,342</td>
<td>487,217</td>
</tr>
<tr>
<td>WAPT</td>
<td>9,200</td>
<td>104,890</td>
</tr>
</tbody>
</table>

*Source: 2014 National Transit Database*

The largest provider in terms of cities served and the percentage of Alabama’s rural population served is Greyhound. Greyhound’s subsidized 5311(f) service began in the third quarter of FY 2012 and includes two routes. One route connects Birmingham and Chattanooga via Pell City, Anniston, Alexandria, Gadsden and Fort Payne. The second route connects Birmingham and Mobile via Childersburg, Sylacauga, Alexander City, Opelika, Columbus/Phenix City, Eufaula, Abbeville, Dothan, Enterprise, Andalusia, Evergreen, Atmore, and Bay Minette. The routes added new intercity bus service to 14 communities. The cities of Anniston, Birmingham, Dothan, Evergreen, Gadsden, Montgomery and Opelika receive both subsidized and unsubsidized services.

Capital Trailways began 5311(f) service in southwest Alabama in the first quarter of FY 2013. The one north-south route connects Tuscaloosa and Mobile by way of Brent, Marion, Selma, Camden, Pine Hill, Thomasville, Grove Hill, Jackson, Mt. Vernon, and Creola. Passengers can also transfer to another provider in Selma for connections to Montgomery. The route added service to 10 rural communities.

WAPT began operating five different 5311(f) subsidized routes in west-central Alabama in the second quarter of FY 2013. On the far western edge of the state, one route connects the communities of Livingston, York and Butler to regular intercity bus services in Meridian, MS. Two routes connect to Tuscaloosa by way of Eutaw and Demopolis or Moundville and Greensboro. A fourth route connects Marion and Uniontown to Selma. The popularity of the fifth route between Selma and Montgomery led WAPT to increase the service to three daily round-trips, while low ridership on the other four routes led to their conversion to demand response service. Together the five routes added service to 10 communities.

The *Intercity Bus Service Study 2014* evaluated the coverage achieved by the three 5311(f) routes, the remaining gaps in coverage, and the implications of adding another 5311(f) route. A north-south route to connect Tuscaloosa and Nashville via Fayette, Hamilton, Russellville and Florence was recommended. The addition of this route would result in 86 percent of the rural Alabama population being within 25 miles of intercity bus service. Figure 5-6 shows the impact area of the three existing and one proposed intercity bus routes under the 25-mile buffer scenario.
Figure 5-6: Intercity Bus Routes

Excerpted from Intercity Bus Service Study 2014, University Transportation Center for Alabama

Figure 6-2: Performance Evaluation of Service Carriers

12 Excerpted from Intercity Bus Service Study 2014, University Transportation Center for Alabama
5.5.4 Passenger Rail

Passenger rail service in Alabama is provided by Amtrak. There is currently only one route, the Crescent, which stops in Anniston, Birmingham and Tuscaloosa as it travels between New York and New Orleans. There is one train per day in each direction; however, the timetable does not facilitate a return trip on the same day within Alabama. The westbound train departs Anniston at 10:00 am and arrives in Tuscaloosa at 1:07 pm, while the eastbound train departs Tuscaloosa at 12:44 pm and arrives in Anniston at 3:59 pm. A thruway bus connection is provided between Tuscaloosa and Mobile on Capital Trailways (following its intercity bus route discussed in the previous subsection). The southbound service departs Tuscaloosa at 4:40 pm and arrives in Mobile at 11:25 pm, while the northbound service departs Mobile at 1:15 am and arrives in Tuscaloosa at 7:45 am. As these times indicate, passengers must wait several hours in Tuscaloosa regardless of their travel direction or destination.

According to the National Association of Railroad Passengers, Amtrak in Alabama had a total of 60,167 passengers (arrivals and departures) in 2015, a 9 percent decrease from the seven-year high of 66,403 in 2012. Birmingham had the most passengers in 2015 with 44,212, followed by 10,870 in Tuscaloosa and 5,085 in Anniston. There are 1.3 million Alabamians (14 percent) within 25 miles of an Amtrak station.

From early 1993 until late August 2005, the Sunset Limited stopped in Mobile and Atmore as it traveled between Orlando and Los Angeles. Service on this line east of New Orleans has been suspended since 2005 due to the substantial damage to rail infrastructure along the Gulf Coast from Hurricane Katrina. From 1989 to 1995, the Gulf Breeze traveled between Birmingham and Mobile via Montgomery. This service was discontinued as part of broad cost-cutting measures. Re-establishing some form of passenger rail service in these corridors remains a desired outcome of several ongoing efforts.

5.6 Bicycle and Pedestrian Mobility

The growing significance placed on bicycle and pedestrian facilities since the 1990s has resulted in increased planning, funding and construction of facilities, particularly at the local and regional level. Bicycle and pedestrian facilities are discussed in each MPO’s LRTP, if not also in a stand-alone plan, and many local jurisdictions have prepared their own plans. The previous statewide Alabama Department of Transportation Bicycle and Pedestrian Plan, completed in 2010, identified eight state bicycle routes. The routes were designed to connect through larger cities and urban areas and follow existing trails and scenic routes as feasible. Most of the routes did not designate the exact roadway routing (particularly within urban areas), nor were the routes signed.

ALDOT is currently updating the statewide bicycle and pedestrian plan. An important emphasis will be on route connectivity. Many areas across the state have implemented bicycle and pedestrian facilities in recent years. However, most of these facilities are intended for shorter distance, recreational use and are often situated in or adjacent to parks and other natural areas, without future opportunities for route and/or network expansion. The ability for bicycle facilities in particular to serve the transportation needs of a community is a strategic focus for ALDOT, in keeping with the Department’s purpose and mission.

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13 Alabama Rail Plan, June 2014
14 Alabama Department of Transportation Bicycle and Pedestrian Plan, October 2010
The web address for information on the ongoing Bicycle and Pedestrian Plan effort is: [http://www.dot.state.al.us/oeweb/bicyclePedestrian.html](http://www.dot.state.al.us/oeweb/bicyclePedestrian.html).

### 5.7 Aviation

Alabama has approximately 235 airport facilities, including public and privately owned airports and heliports. Commercial airports exist in Muscle Shoals, Huntsville, Birmingham, Montgomery, Dothan and Mobile, with Huntsville and Birmingham being the state’s two international airports. In the past, regularly scheduled commercial passenger flights also operated from Tuscaloosa Regional Airport, but they have been discontinued for a number of years.

The *Alabama Statewide Airport System Plan* identifies a system of 84 publicly owned airports across the state, located in all 67 counties except Cleburne, Coosa, Houston, Lauderdale, Russell, and Sumter (Figure 5-7). The plan recommends an airport system that classifies each airport into one of five functional roles: international, national, general aviation-regional, general aviation-community, and local. The plan recognizes the economic development potential of a robust airport system for Alabama.

### 5.8 Freight Facilities

#### 5.8.1 Freight Rail

Alabama’s freight rail network includes 28 railroads operating along nearly 4,000 miles of track. The Surface Transportation Board (STB) classifies railroads into Class I, II, or III based on annually adjusted operating revenue threshold figures. Class I railroads are the largest, operating extensive networks across many states or nationwide. Class II or regional railroads typically operate in two or three states. Class III railroads, also called shortline railroads, travel short distances to service local demands or provide connections to the larger networks offered by the Class I and II railroads.

Four of the nation’s seven Class I railroads operate in Alabama: Burlington Northern Santa Fe (BNSF), Canadian National Illinois Central (CN/IC), CSX Transportation (CSXT), and Norfolk Southern (NS). These railroads account for over 70 percent of track mileage in Alabama. CSX and NS operate the largest networks, together reaching all corners of the state. The one Class II (regional) railroad, Alabama & Gulf Coast Railway (AGR), travels north-south in the southwestern portion of the state and accounts for approximately 8 percent of Alabama’s total track mileage. The 23 Class III railroads in Alabama account for approximately 20 percent of total track mileage. CSX connects with 16 shortlines and NS with 11. Figure 5-8 shows a map of rail lines operated in Alabama.

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17 Although owned and operated by the Dothan-Houston County Airport Authority, the Dothan Regional Airport is actually located in Dale County.
18 *2016 Alabama Statewide Freight Plan*, March 2016 and *Alabama Rail Plan*, June 2014
Excerpted from Alabama Statewide Airport System Plan, January 2005
Figure 5-8: Alabama Rail Network
5.8.2 Waterways

Alabama’s most significant freight facility is the Port of Mobile, which ranked 9th among US ports in 2014 based on tonnage with 64.3 million total tons. Owned and operated by the Alabama State Port Authority, the Port of Mobile is Alabama’s only deep-water port and provides access to two interstates, five Class I railroads, and approximately 15,000 miles of inland waterway connections. The 4,000-acre complex offers 41 berths and handles bulk and general cargo, with coal its biggest commodity. Alabama also has an extensive network of navigable inland waterways, which includes the Tennessee, Tennessee-Tombigbee, Warrior-Tombigbee, Alabama-Coosa, Chattahoochee-Apalachicola, and Gulf Intracoastal waterways. There are 18 river ports throughout the state, most very small. The Alabama State Port Authority operates 11 of these ports: Bridgeport, Claiborne, Columbia, Cordova, Demopolis, Axis, Eufaula, Montgomery, Phenix City, Selma, and Tuscaloosa-Northport.

Most inland waterway freight is transported along the Tombigbee and Tennessee rivers. Two of the ten locks along the Tennessee-Tombigbee waterway are located in Alabama: Tom Bevill in Carrollton and Howell Heflin in Gainesville. Ports along the Tennessee-Tombigbee in Alabama include Pickens County Port (Pickensville), Aliceville River Terminal and Bevill-Hook Port (Aliceville), Crossroads of America Port (Boligee), and Port of Epes (Epes). Tennessee River ports include Port of Florence, Mallard-Fox Creek River Port (Decatur), Guntersville, and Alabama State Docks Department (Bridgeport).

5.8.3 Intermodal Facilities

Major intermodal facilities in Alabama include:

- Port of Mobile (Alabama State Port Authority)—The Port of Mobile handles container, bulk and general cargo services for commodities including coal, liquid bulk, forest products, iron, and steel products. The Port’s top trading partners for the first half of 2016 were South Korea, Mexico, China, Brazil, and Russia. The Port’s immediate access to two interstates, five Class I railroads, inland waterways, and a rail ferry is ideal for extensive intermodal operations. A rail access bridge was recently constructed to connect five Class I railroads and the Authority’s Terminal Railway to the Intermodal Container Transfer Facility (ICTF). In addition, the Port’s 45-feet-deep channel and large turning basin will ensure it continues to remain viable for the larger megaships expected after the Panama Canal’s expansion.

- Port of Huntsville (International Intermodal Center)—Comprised of the Huntsville International Airport, the International Intermodal Center, and the Jetplex Industrial Park, the International Intermodal Center located in the Port of Huntsville Global Logistics Park provides a single hub location specializing in receiving, transferring, storing, and distributing international and domestic cargo via air, rail, and highway. The Huntsville-Madison County Airport Authority

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20 2016 Alabama Statewide Freight Plan, March 2016
23 2016 Alabama Statewide Freight Plan, March 2016
owns and operates industrial switching track off the Norfolk Southern spur into the International Intermodal Center, with the capability to extend rail southward to a potential riverport facility. The International Intermodal Center also features a US Customs & Border Protection Port of Entry with customs officials, US Department of Agriculture inspectors, and custom brokers.

- Norfolk Southern’s Birmingham Regional Intermodal Facility—Located in McCalla and adjacent to the Jefferson Metropolitan Logistics Park, the facility is a critical component of Norfolk Southern’s multi-state Crescent Corridor initiative to establish an efficient, high-capacity intermodal freight rail route between the Gulf Coast and the Northeast. This facility allows transloading of both containers and trailers, with a capacity for 400 trucks per day.
- BNSF’s Finley Boulevard Yard—An important part of the BNSF Railway’s intermodal network handling freight for the Southeast region, the Finley Boulevard and East Thomas Yards in Birmingham handle the shipment of automobiles and a mix of carload freight.
- CSXT’s Boyles Yard—This major rail yard for CSX Transportation located in Birmingham offers TRANSFLO terminal services (for transferring liquid and dry products between transportation modes) and provides logistics management of rail shipments nationwide.
- CSXT’s Central Alabama Intermodal Container Transfer Facility—This intermodal container transfer facility is located southwest of Birmingham in Bessemer, with service to international customers between the facility and the Atlantic Ocean ports of Charleston and Savannah.
- Port Birmingham is an intermodal facility operated by Warrior & Gulf Navigation Co., with trackage for Birmingham Terminal Railway at the Locust Fork of the Black Warrior River, that handles the transshipment of coal and iron ore. Additionally, Alabama Power operates an intermodal facility on the Locust Fork at its James H. Miller Steam Plant for coal receipt/delivery.
- A number of other independent rail and truck transload facilities are located in Birmingham. Most of these intermodal facilities are clustered around 1st Avenue North, Finley Boulevard, I-20/59, Avenue W, and along the path of the planned Finley Boulevard extension.

Known intermodal connectors are shown on Figure 5-9.

5.8.4 Statewide Freight Plan

The 2016 Alabama Statewide Freight Plan addressed existing and projected commodity flows, the primary freight network, and freight improvements of statewide significance. Notable findings include:

- Overall increases in rail and truck traffic are projected through 2040, with trucks remaining as the most utilized mode for freight movement.
- Much of the commodity flow volume to and from the Port of Mobile occurs by rail.
- Nearly all existing bottlenecks throughout the state are along the interstate system, and the Birmingham area has the most facilities with current and projected bottlenecks.

A Statewide Primary Freight Network (PFN) for Alabama was also identified (Figure 5-10). The Statewide PFN encompasses nearly four times as many roadway miles as the Alabama portion of the national Primary Highway Freight Network, including more roadways with notable freight volumes and that connect facilities of statewide significance.

26 2016 Alabama Statewide Freight Plan, March 2016
Figure 5-9: Intermodal Connectors

Excerpted from 2016 Alabama Statewide Freight Plan, March 2016
Figure 5-10: Statewide Primary Freight Network

The map shows the Statewide Primary Freight Network in Alabama. The text explains that the section of the Interstate-20 (I-20) alignment of I-65 (I-65) will be rerouted in the near future. ALDOT has requested that the section be included in the National Primary Freight Network due to its regional connectivity and imminent opening.

Excerpted from 2016 Alabama Statewide Freight Plan, March 2016

Source: ALDOT Metropolitan Planning Section - 1/21/2016

Based on 2010 Census Data

28 Excerpted from 2016 Alabama Statewide Freight Plan, March 2016
SECTION 6: NEXT STEPS

The purpose of Interim Report #1 is to provide a baseline profile for the update of the SWTP. The following represent significant future activities in the plan development process.

- Identification of Statewide Needs – As detailed in Section 4, the statewide travel demand model is in its final stages of development. Upon completion, both current and projected 2040 congestion levels along roadways throughout the state can be determined. All of the 2040 forecasted socioeconomic data have been collected from the state’s MPOs to assist in this effort. Also nearing completion is determination of the roadway network to be included within the statewide travel demand model. This subset “model network” will include all roadways maintained by ALDOT as well as some significant county or city maintained roadways, such as the Foley Beach Expressway and any portions of the NHS not maintained by ALDOT. In conjunction with the existing and projected congestion levels, the characteristics documented within this report will be evaluated collectively to identify overall needs for transportation investment through 2040.

- Development of Performance Monitoring Procedures – As part of parallel effort, ALDOT is currently working to develop performance measures for both mobility and state of good repair, along with targets and monitoring procedures. Much of the data used to develop these measures will come from the HPMS and federal sources (as detailed in Section 2), but projections generated from the statewide model will also be used to identify future maintenance and mobility needs. It should be noted that the SWTP does not serve to prioritize individual projects; however, investment strategies will be developed to meet the performance targets developed within the performance monitoring framework.