Agenda

- Statewide Plan Overview
- Understanding Alabama’s Growth
- Roadway Conditions and Needs
- ALDOT Work Program Highlights
- Alternative Modes
  - Public Transit
  - Bicycle and Pedestrian
- Projected Conditions in 2040
- Funding Sources and Levels
- Issues and Trends
What Is the Statewide Transportation Plan (SWTP)?

- Federally mandated, long range (2040) assessment of the state’s transportation system network
- Considers the extent of modal coverage and connectivity across state and between modes
- Geographically builds on the 14 urban area MPOs (metropolitan planning organizations) and 12 rural area RPOs (rural planning organizations)
- Focuses on programs, policies and strategies
- Not a detailed listing of projects; those are included in the short-term State Transportation Improvement Program (STIP) ([http://cpmsapps.dot.state.al.us/OfficeEngineer/Plan/Statewide](http://cpmsapps.dot.state.al.us/OfficeEngineer/Plan/Statewide), or Google “ALDOT STIP”)
Key Plan Components

- Multimodal—roads and bridges, transit, bicycle/pedestrian, rail, aviation and waterways

- Reflects other short and long-range plans
  - Urban area MPO plans
  - Mode specific plans by other ALDOT bureaus

- Public and stakeholder outreach
  - Two rounds of regional information meetings
  - SWTP webpage and email address
  - Included coordination with Tribes and other governmental and modal stakeholders

- Related efforts
  - Transportation Asset Management Plan (TAMP)
  - Strategic Highway Safety Plan (SHSP)
  - Statewide Freight Plan
  - Statewide Rail Plan
  - Statewide Bicycle and Pedestrian Plan
  - Airport System Plan
Understanding Alabama’s Growth

Population and Employment Growth (2010 vs. 2040)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>1,883,791</td>
<td>2,110,572</td>
</tr>
<tr>
<td>Population</td>
<td>4,803,667</td>
<td>5,381,960</td>
</tr>
<tr>
<td>Employment</td>
<td>1,844,995</td>
<td>3,250,061</td>
</tr>
<tr>
<td>Employ/HH Ratio</td>
<td>0.979</td>
<td>1.540</td>
</tr>
<tr>
<td>Retail Employment</td>
<td>232,807</td>
<td>430,470</td>
</tr>
<tr>
<td>Non-Retail Employment</td>
<td>1,612,188</td>
<td>2,819,591</td>
</tr>
</tbody>
</table>

Source:
- 2010 totals from US Census
- 2040 projections provided by University of Alabama Center for Business and Economic Research (CBER)
Roadway Capacity Needs – Existing

Most congestion is in urban areas and during peak periods

Major roadways congested in 2014
- I-20/59 in Birmingham
- I-65 in Birmingham
- I-85 in Montgomery
- I-10 in Mobile
- US 98 in Mobile
- US 72 in Huntsville
- US 280 in Birmingham

Note: For more accurate results in the metropolitan areas, the regional models and/or LRTPs from those respective MPOs should be consulted.
Roadway Capacity Needs – Projected

- Most congestion still seen in urban areas
- Major roadways projected for congestion in 2040
  - I-10 in Mobile
  - I-65 in Birmingham
  - US 72 in Huntsville
  - US 280 Phenix City-Auburn
  - US 280 in Birmingham
  - SR 53 in Huntsville
Projected Freight Bottlenecks

- Most interstate facilities are projected to have freight volumes of more than 15,000 trucks per day.
- Overall roadway congestion results in bottlenecks for freight.
- The Birmingham area will continue to have the highest levels of congestion.
- Conditions along all of the current 2012 bottlenecks are projected to worsen statewide.
- Smaller areas of bottlenecks and higher freight volumes are projected to occur on non-interstate facilities such as US 280, US Alternate 72, and US 231.

Source: Alabama Statewide Freight Plan
### 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></td>
<td>Miles</td>
<td>%</td>
<td>Miles</td>
<td>%</td>
</tr>
<tr>
<td>New</td>
<td>176.87</td>
<td>17.7%</td>
<td>329.00</td>
<td>10.4%</td>
</tr>
<tr>
<td>Good</td>
<td>420.27</td>
<td>42.0%</td>
<td>1,862.42</td>
<td>58.8%</td>
</tr>
<tr>
<td>Fair</td>
<td>152.69</td>
<td>15.2%</td>
<td>512.65</td>
<td>16.2%</td>
</tr>
<tr>
<td>Marginal</td>
<td>91.37</td>
<td>9.1%</td>
<td>456.75</td>
<td>14.4%</td>
</tr>
<tr>
<td>CBT</td>
<td>157.69</td>
<td>15.7%</td>
<td>8.09</td>
<td>0.2%</td>
</tr>
<tr>
<td>Incomplete</td>
<td>2.59</td>
<td>0.3%</td>
<td>0.67</td>
<td>0.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,001.5</td>
<td>100.0%</td>
<td>3,169.6</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

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

<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>
<tr>
<td>Total Deck Area (sq. ft.)</td>
<td>22,709,073</td>
<td>60,050,035</td>
<td>82,759,108</td>
</tr>
</tbody>
</table>

Source: ALDOT Maintenance Bureau

- 98% of bridges are in Good or Fair condition
- 54% of bridges are on the NHS
- Lower percentage of NHS bridges rated Good than non-NHS bridges is partially attributable to their greater traffic volumes and associated wear
## Overview of ALDOT Work Program

<table>
<thead>
<tr>
<th>Improvement Type</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Additional Lanes</td>
<td>103</td>
</tr>
<tr>
<td>Total New Roadway</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total Capacity Improvements</strong></td>
<td><strong>125</strong></td>
</tr>
<tr>
<td>Bridge Projects</td>
<td>407</td>
</tr>
<tr>
<td>Total Resurfacing Projects</td>
<td>296</td>
</tr>
<tr>
<td>Total Safety Improvements</td>
<td>221</td>
</tr>
<tr>
<td>Total Operations Improvements</td>
<td>110</td>
</tr>
<tr>
<td>Total Other Improvements (Non-Transit)</td>
<td>269</td>
</tr>
<tr>
<td><strong>Total Non-Capacity</strong></td>
<td><strong>1303</strong></td>
</tr>
</tbody>
</table>

**TOTAL IMPROVEMENTS - 2017-2040** 1428

- Approximately 90% of projects are non-capacity
- Bridge and resurfacing projects are the most numerous

Source: ALDOT CPMS
Roadway Capacity Projects

- Key expansion projects, 2017-2040
  - I-10 Mobile River Bridge
  - I-20/59 in Jefferson and Tuscaloosa counties
  - I-65 in Shelby County
  - I-85 in Montgomery and Lee counties
  - I-22 extension in Jefferson County
  - US 72 in Madison County
  - US 84 in Conecuh County
  - SR 158 extension in Mobile County
  - SR 210 (Ross Clark Circle) around Dothan
  - SR 1 (Memorial Parkway) in Madison County

- 85% of funding is for projects on the NHS
Many bridge projects are associated with other project types, particularly widenings

Most improvements are within next 5-10 years

Approximately 70% are on NHS

Key bridge projects
- I-65 over Murder Creek and relief bridges in Conecuh County (replacement)
- I-20 at the St. Clair-Talladega county line (bridges and approaches)
- I-65 in Shelby County (widenings)
- I-10 East Tunnel Interchange Bridge in Mobile County (rehabilitation)
Resurfacing Improvements

Key Resurfacing Projects

- Like bridge improvements, resurfacing often occurs during other projects, such as shoulder paving and slope adjustments.

- Major resurfacing projects:
  - I-65 from US 31 to Raleigh Ave overpass in Jefferson County (pavement rehabilitation, 4 mi)
  - I-85 from west of Eastern Blvd to east of Taylor Rd in Montgomery County (pavement rehabilitation, 4 mi)
  - I-459 in Jefferson County (pavement rehabilitation, 6 mi)
  - I-59 in St. Clair County (resurfacing, 19 mi)
  - I-65 in Chilton County (resurfacing, 15 mi)
Roadway Safety Projects

- Approximately 2/3 of improvements are associated with shoulder widenings
- Over $36 million in lighting improvements
- Includes railroad crossing program improvements
- Strategic Highway Safety Plan is being updated
  - Driver Behavior - Education and enforcement
  - Infrastructure Countermeasures – Focus on high crash areas; project related
  - Legislation Initiative – Coordinating with elected officials
  - Traffic Information – ITS and media campaigns
  - Activate Stakeholders – Gather input from FHWA and public safety officials
Intelligent Transportation Systems (ITS)

- **Key ITS improvements**
  - Transportation Management Centers (TMC) – Birmingham, Montgomery, Mobile, and Shoals (under development)
  - Field Devices – Including closed circuit televisions (CCTV), dynamic message signs (DMS) and traffic signals
  - Software – Supporting TMC operations with data collected from field devices
  - Incident Management and Traveler Information Systems – Used by motorists and first responders, these applications relay current traffic conditions

- **Over $24.5 million of ITS in ALDOT Work Program** (primarily in Birmingham area)
Freight Rail, Ports and Aviation

- 28 railroads, including 4 Class I railroads
- CSX and Norfolk Southern operate the largest rail networks, reaching all corners of the state
- The Port of Mobile ranked 9th in the US in 2014 for tonnage and is Alabama's most significant freight facility
- Approximately 235 public and privately owned airports and heliports across the state
- 6 commercial airports in Muscle Shoals, Huntsville, Birmingham, Montgomery, Dothan and Mobile
- Alabama Statewide Airport System Plan identified 84 publicly owned airports statewide as the foundation for a robust airport system
Public Transit

- Most commonly expressed need is for expanded services in both urban and rural areas

- Over $324 million in transit funding in CPMS through 2020
  - 70% from federal sources
  - 55% for urban systems (Section 5307 plus match)
  - $40 million TIGER Grant for 10-mile Bus Rapid Transit in Birmingham

- Most funding allocated for:
  - Operation of urban and rural systems
  - Fleet replacement and maintenance
  - Facility and equipment maintenance

- Federal funds distributed per specific formula allocations

- Under current funding structure, ALDOT cannot spend State transportation funds on transit; therefore, the burden of funding transit falls heavily on local jurisdictions
Bicycle and Pedestrian

- Many bicycle and pedestrian projects associated with resurfacing and roadway widening projects

- Major projects
  - Pedestrian improvements under I-20/59
  - Shades Creek Greenway Multipurpose Trail
  - Village Creek Greenway Multipurpose Trail
  - Chief Ladiga Trail Extension in Anniston

- 15 different downtown streetscapes across the state – primarily from TAP funding through ALDOT applications

- Sidewalk improvements for ADA compliance

- Statewide Bicycle and Pedestrian Plan in progress
Projected Growth and Travel, 2010-2040

- **Projected Growth**
  - 12% increase in population
  - 76% increase in employment
  - 57% increase in employment per household

- **Vehicle Miles Traveled**
  - 16% increase without capacity improvements
  - 25% increase with improvements

- **Vehicle Hours Traveled**
  - 113% increase without capacity improvements
  - 78% increase with improvements

- **Truck Vehicle Miles Traveled**
  - 17% increase without capacity improvements
  - 25% increase with improvements

<table>
<thead>
<tr>
<th></th>
<th>2010 Base</th>
<th>2040 No Build</th>
<th>2040 E+C</th>
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<tbody>
<tr>
<td>Population</td>
<td>4,803,667</td>
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<td>Emp/HH Ratio</td>
<td>0.979</td>
<td>1.540</td>
<td>1.540</td>
</tr>
<tr>
<td>VMT</td>
<td>450,554,946</td>
<td>523,328,110</td>
<td>560,947,038</td>
</tr>
<tr>
<td>VMT per person</td>
<td>94</td>
<td>97</td>
<td>104</td>
</tr>
<tr>
<td>VHT</td>
<td>58,816,469</td>
<td>125,770,826</td>
<td>104,653,242</td>
</tr>
<tr>
<td>VHT per person</td>
<td>12</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Truck VMT</td>
<td>97,382,214</td>
<td>114,057,538</td>
<td>122,470,824</td>
</tr>
<tr>
<td>Truck VMT per person</td>
<td>20</td>
<td>21</td>
<td>23</td>
</tr>
</tbody>
</table>

With improvements, more miles are traveled, but with less delay.
### Projected Conditions with Improvements

<table>
<thead>
<tr>
<th></th>
<th>2010 (Existing)</th>
<th></th>
<th>2040 (No Build)</th>
<th></th>
<th>2040 (E+C)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Miles</td>
<td>%</td>
<td>Miles</td>
<td>%</td>
<td>Miles</td>
<td>%</td>
</tr>
<tr>
<td>LOS A-C</td>
<td>103,594</td>
<td>78.1%</td>
<td>99,482</td>
<td>75.0%</td>
<td>99,977</td>
<td>75.3%</td>
</tr>
<tr>
<td>LOS D</td>
<td>6,353</td>
<td>4.8%</td>
<td>6,000</td>
<td>4.5%</td>
<td>6,044</td>
<td>4.6%</td>
</tr>
<tr>
<td>LOS E</td>
<td>5,306</td>
<td>4.0%</td>
<td>4,995</td>
<td>3.8%</td>
<td>5,016</td>
<td>3.8%</td>
</tr>
<tr>
<td>LOS F</td>
<td>17,335</td>
<td>13.1%</td>
<td>22,111</td>
<td>16.7%</td>
<td>21,765</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

- Increase in overall congested segments in 2040
- Only slight reduction in LOS F segments with improvements
- Indicates additional capacity from widenings will be absorbed by projected growth in population and employment
Congestion on Key Roadways

- Congested roadways in 2040
  - I-85 and SR 126 (Chantilly Boulevard) in Montgomery
  - I-10, Schillinger Road, University Boulevard, and Airport Boulevard in Mobile
  - US 98 and US 90 in Baldwin County

- Reduced congestion in 2040 with improvements
  - I-10 in Mobile (portions)
  - I-85 in Montgomery (portions)
  - US 31 in Shelby County
  - US 72 in Athens
  - US 31 in Montgomery/Autauga County (Montgomery to Prattville)
  - SR 53 in Huntsville
Transportation Funding Sources

- Federal funds for roadway, transit, airport, rail, port, and bicycle/pedestrian trail development
- State funding for roadway and bridge improvements, operations and maintenance (primarily from fuel taxes or other user fees)
- Local funding for non-State highway system improvements, operations and maintenance, transit, bicycle/pedestrian facilities, and other modal improvements
- Private sector investment in development and operation of rail, trucking, airport and port facilities
- Various user fees for development and operations of multimodal system elements
# Shifts in Federal Funding

**Roadway Funding by Section – MAP-21**

<table>
<thead>
<tr>
<th>Program</th>
<th>AVERAGE/YR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Highway Performance Program (NHPP)</td>
<td>$ 364,000,000</td>
</tr>
<tr>
<td>Surface Transportation Program (STP)</td>
<td>$ 275,000,000</td>
</tr>
<tr>
<td>Congestion Mitigation &amp; Air Quality (CMAQ)</td>
<td>$ 10,000,000</td>
</tr>
<tr>
<td>Highway Safety Improvement Program (HSIP)</td>
<td>$ 35,000,000</td>
</tr>
<tr>
<td>Transportation Alternatives Program (TAP)</td>
<td>$ 15,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$ 699,000,000</strong></td>
</tr>
</tbody>
</table>

**Roadway Funding by Section – FAST Act**

<table>
<thead>
<tr>
<th>Program</th>
<th>AVERAGE/YR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Highway Performance Program (NHPP)</td>
<td>$ 475,000,000</td>
</tr>
<tr>
<td>STP Block Grant - Program</td>
<td>$ 219,000,000</td>
</tr>
<tr>
<td>STP Block Grant - Set Aside</td>
<td>$ 16,000,000</td>
</tr>
<tr>
<td>STP Block Grant - Recreational Trails</td>
<td>$ 2,000,000</td>
</tr>
<tr>
<td>Congestion Mitigation &amp; Air Quality (CMAQ)</td>
<td>$ 12,000,000</td>
</tr>
<tr>
<td>Highway Safety Improvement Program (HSIP)</td>
<td>$ 47,000,000</td>
</tr>
<tr>
<td>Railroad-Highway Crossings</td>
<td>$ 5,000,000</td>
</tr>
<tr>
<td>Metropolitan Planning</td>
<td>$ 3,000,000</td>
</tr>
<tr>
<td>National Freight Program</td>
<td>$ 24,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$ 803,000,000</strong></td>
</tr>
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Source: ALDOT, FHWA
## Distribution of Programmed Funds

<table>
<thead>
<tr>
<th>Category</th>
<th>2017 Programmed Amount</th>
<th>2040 Projected Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>$335,000,000</td>
<td>$529,000,000</td>
</tr>
<tr>
<td>Bridge</td>
<td>$254,000,000</td>
<td>$401,000,000</td>
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<tr>
<td>Resurfacing</td>
<td>$456,000,000</td>
<td>$719,000,000</td>
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<tr>
<td>Safety</td>
<td>$155,000,000</td>
<td>$244,000,000</td>
</tr>
<tr>
<td>Operations</td>
<td>$111,000,000</td>
<td>$175,000,000</td>
</tr>
<tr>
<td>Bicycle and Pedestrian</td>
<td>$69,000,000</td>
<td>$108,000,000</td>
</tr>
<tr>
<td>Other</td>
<td>$56,000,000</td>
<td>$88,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,436,000,000</strong></td>
<td><strong>$2,264,000,000</strong></td>
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</tbody>
</table>

Note: Growth rate estimated at 2 percent annually; distribution from 2017 CPMS and held constant through 2040 for estimate.
Issues and Trends

- High level of projected employment growth
- Most growth (and travel demand increases) in urban areas
- Increasing need for maintenance and bridge repair
- Heightened focus on ITS and technology
- Changing transportation dynamics (Uber, Lyft)
- Increasing demand for active transportation
Next Steps

- Receive additional comments
  - Return your comment form tonight
  - Submit additional comments by email to altransplans@dot.state.al.us

- Incorporate public and stakeholder feedback

- Present draft Plan to ALDOT for review
  - Posted for review on SWTP webpage at http://www.dot.state.al.us/oeweb/stateTransportationPlan.html, or Google “ALDOT SWTP”

- Finalize Plan on comments from ALDOT