

Alabama 2040 Statewide Transportation Plan

Public & Stakeholder Region Meetings
April 2017

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)?

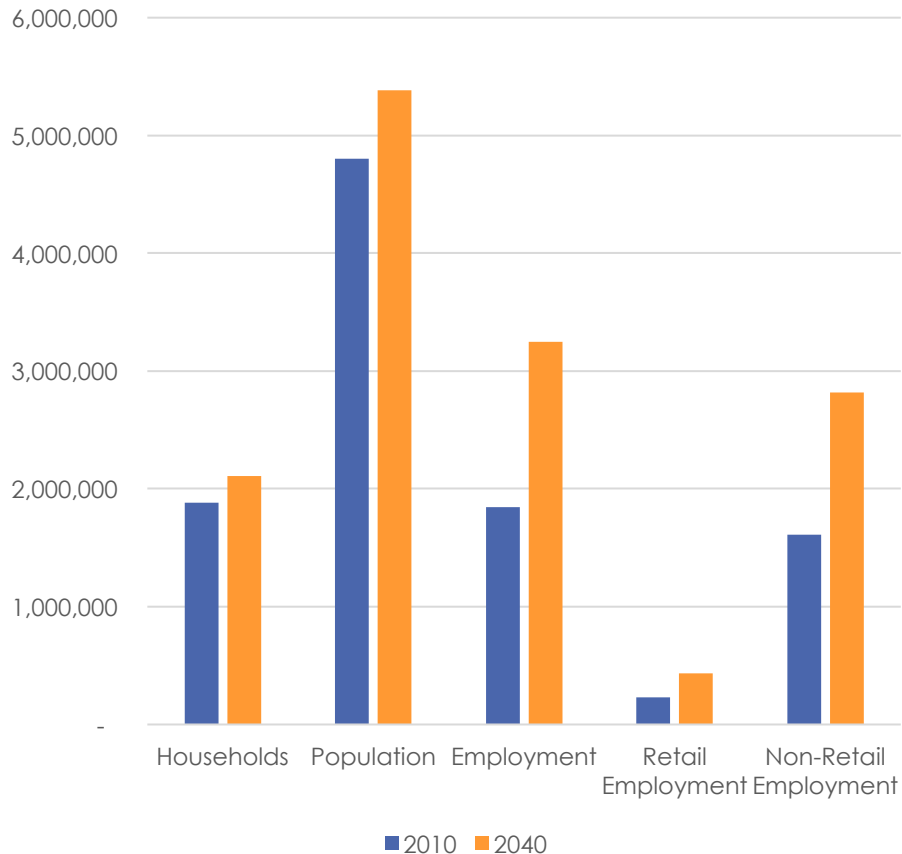
- Federally mandated, long range (2040) assessment of the state's transportation system network
- Considers the extent of modal coverage and connectivity across state and between modes
- Geographically builds on the 14 urban area MPOs (metropolitan planning organizations) and 12 rural area RPOs (rural 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>, 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)



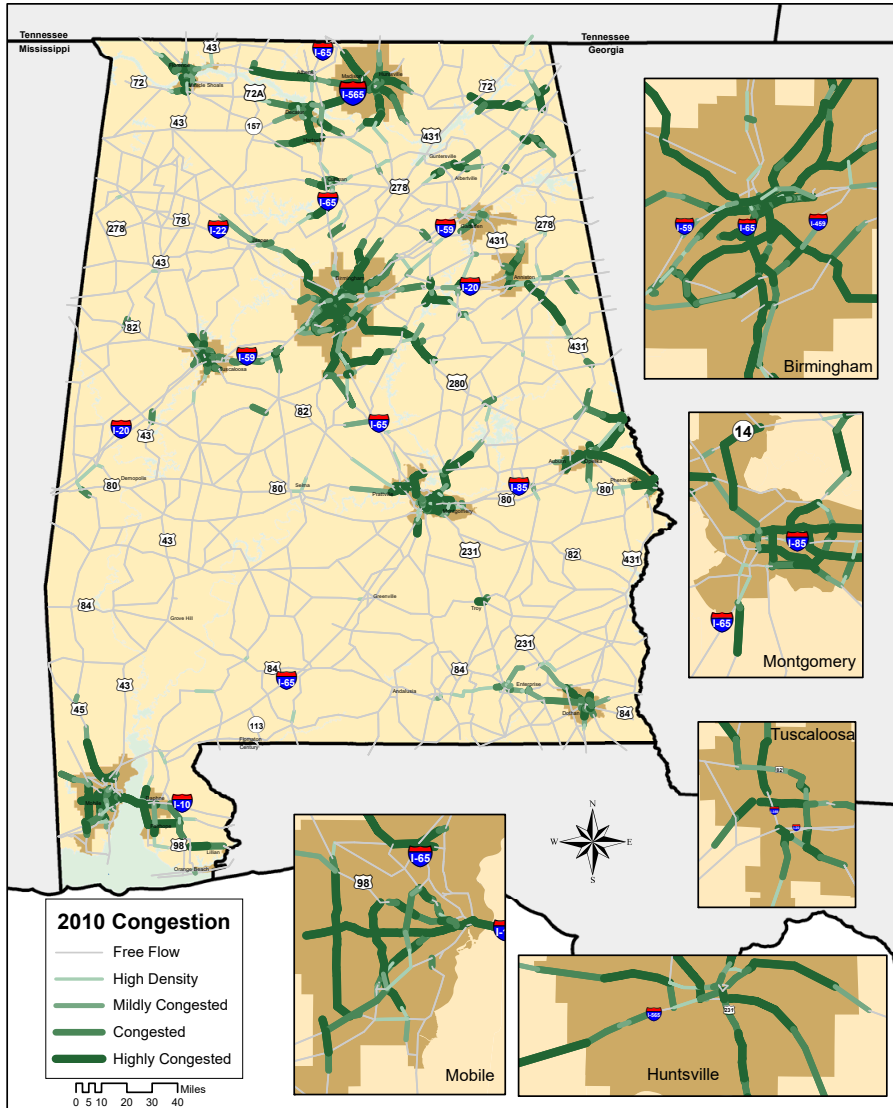
	2010	2040
Households	1,883,791	2,110,572
Population	4,803,667	5,381,960
Employment	1,844,995	3,250,061
Employ/HH Ratio	0.979	1.540
Retail Employment	232,807	430,470
Non-Retail Employment	1,612,188	2,819,591

Source:

- 2010 totals from US Census
- 2040 projections provided by University of Alabama Center for Business and Economic Research (CBER)

Roadway Capacity Needs – Existing

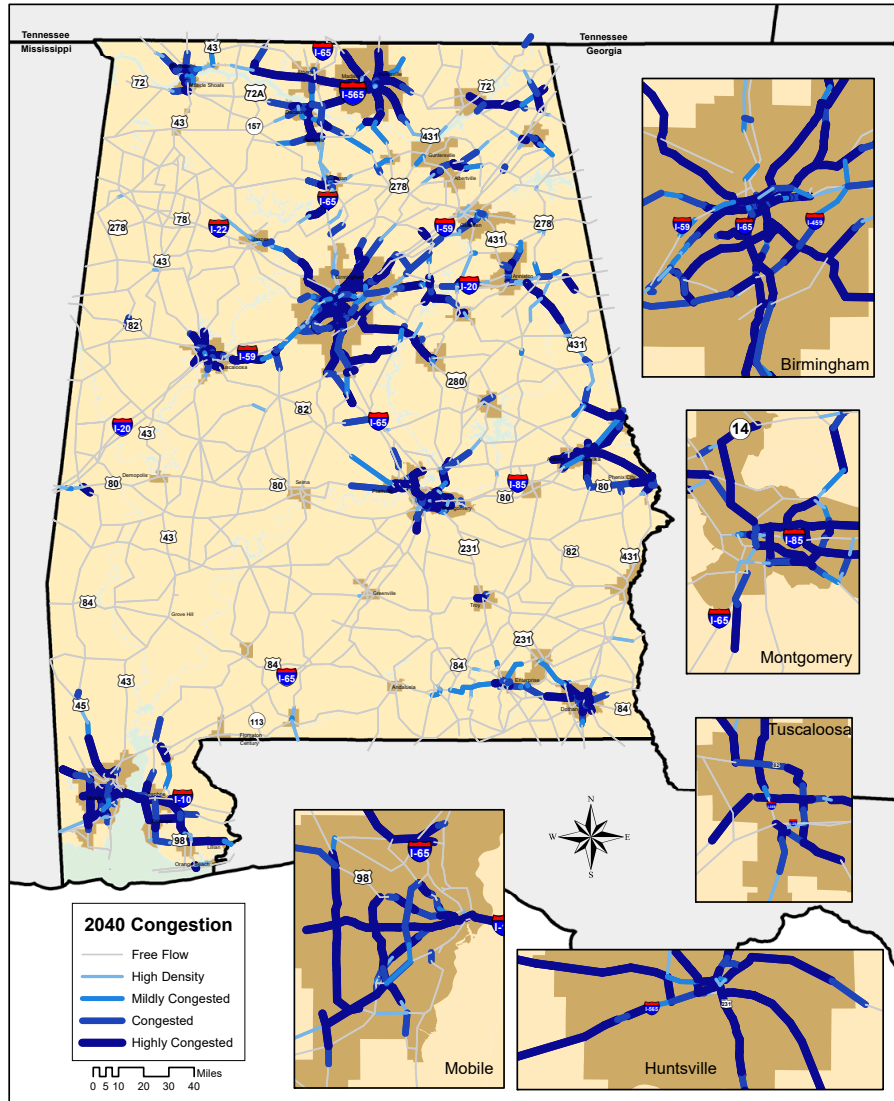
Existing Congestion - 2010



- 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

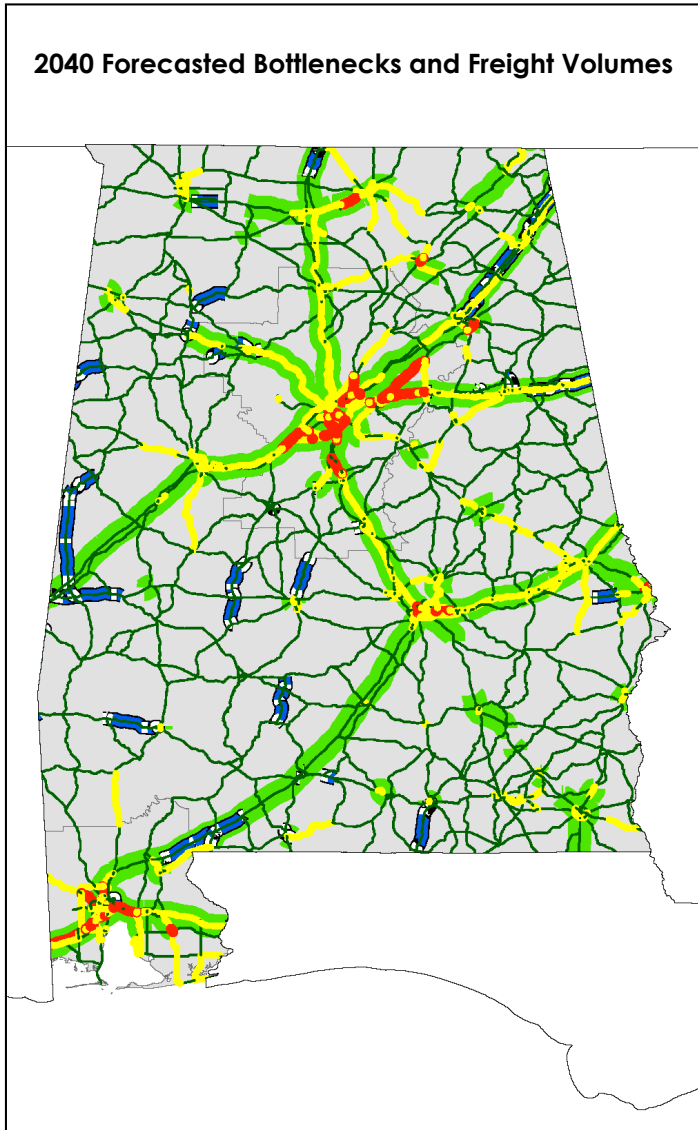
Roadway Capacity Needs – Projected

Projected Congestion - 2040



- 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

Pavement Conditions

Condition	Interstate		Non-Interstate NHS		Non-NHS		ALDOT-Maintained Network	
	Miles	%	Miles	%	Miles	%	Miles	%
New	176.87	17.7%	329.00	10.4%	784.48	11.7%	1,290.35	11.9%
Good	420.27	42.0%	1,862.42	58.8%	2,962.85	44.2%	5,245.54	48.2%
Fair	152.69	15.2%	512.65	16.2%	1,133.29	16.9%	1,798.63	16.6%
Marginal	91.37	9.1%	456.75	14.4%	1,804.14	26.9%	2,352.26	21.6%
CBT	157.69	15.7%	8.09	0.2%	10.62	0.2%	176.40	1.6%
Incomplete	2.59	0.3%	0.67	0.0%	7.82	0.1%	11.08	0.1%
TOTAL	1,001.5	100.0%	3,169.6	100.0%	6,703.2	100.0%	10,874.2	100.0%

- 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

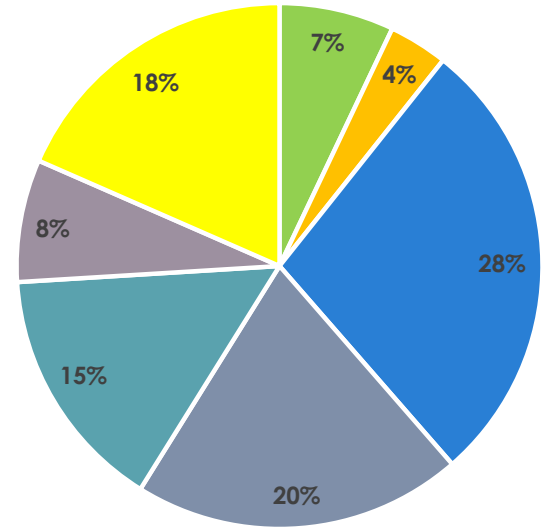
Condition	Non-NHS Bridges		NHS Bridges		Total	
	Number	Percent	Number	Percent	Number	Percent
Good	1,081	40.8%	1,043	33.6%	2,124	36.9%
Fair	1,528	57.6%	2,007	64.7%	3,535	61.5%
Poor	42	1.6%	51	1.7%	93	1.6%
TOTAL	2,651	100.0%	3,101	100.0%	5,752	100.0%
Total Deck Area (sq. ft.)	22,709,073		60,050,035		82,759,108	
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

Improvement Type	Projects
Total Additional Lanes	103
Total New Roadway	22
Total Capacity Improvements	125
Bridge Projects	407
Total Resurfacing Projects	296
Total Safety Improvements	221
Total Operations Improvements	110
Total Other Improvements (Non-Transit)	269
Total Non-Capacity	1303
TOTAL IMPROVEMENTS - 2017-2040	1428

- Total Additional Lanes
- Total New Roadway
- Bridge Projects
- Total Resurfacing Projects
- Total Safety Improvements
- Total Operations Improvements
- Total Other Improvements



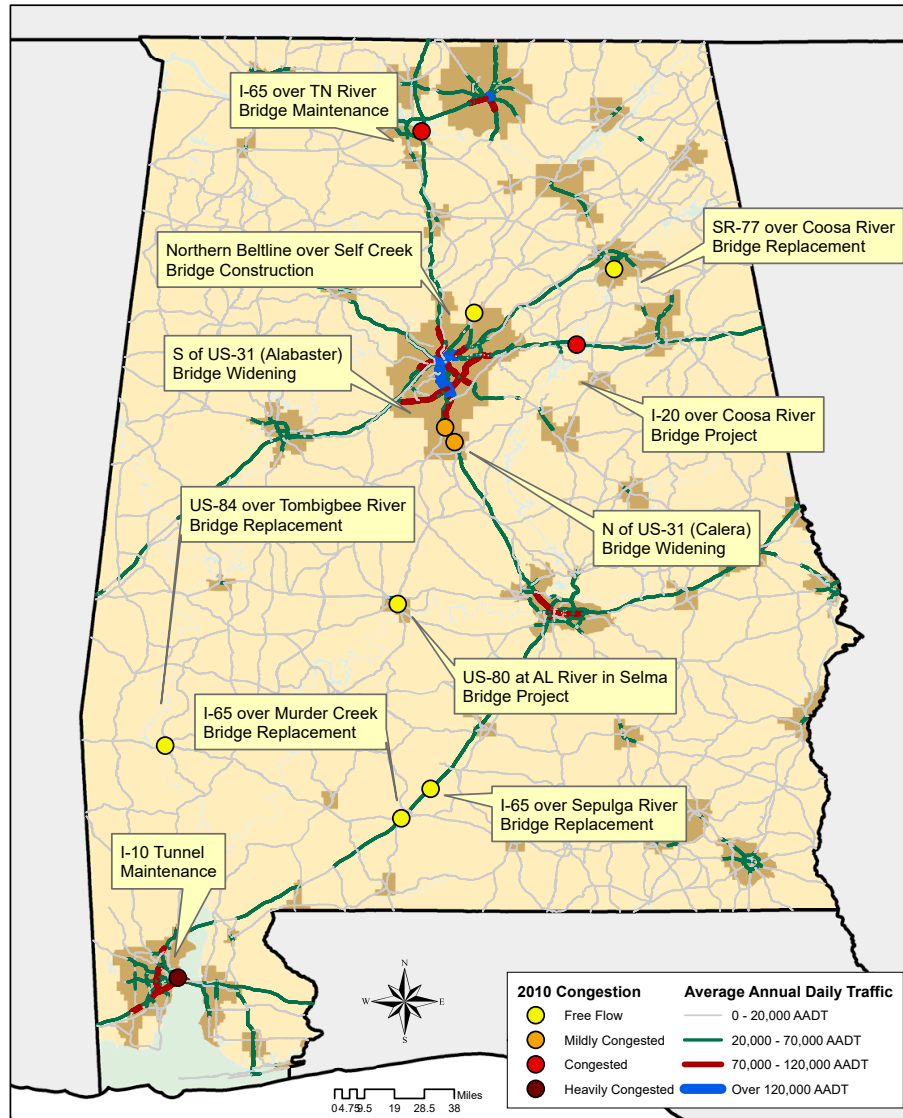
- Approximately 90% of projects are non-capacity
- Bridge and resurfacing projects are the most numerous

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

Bridge Improvements

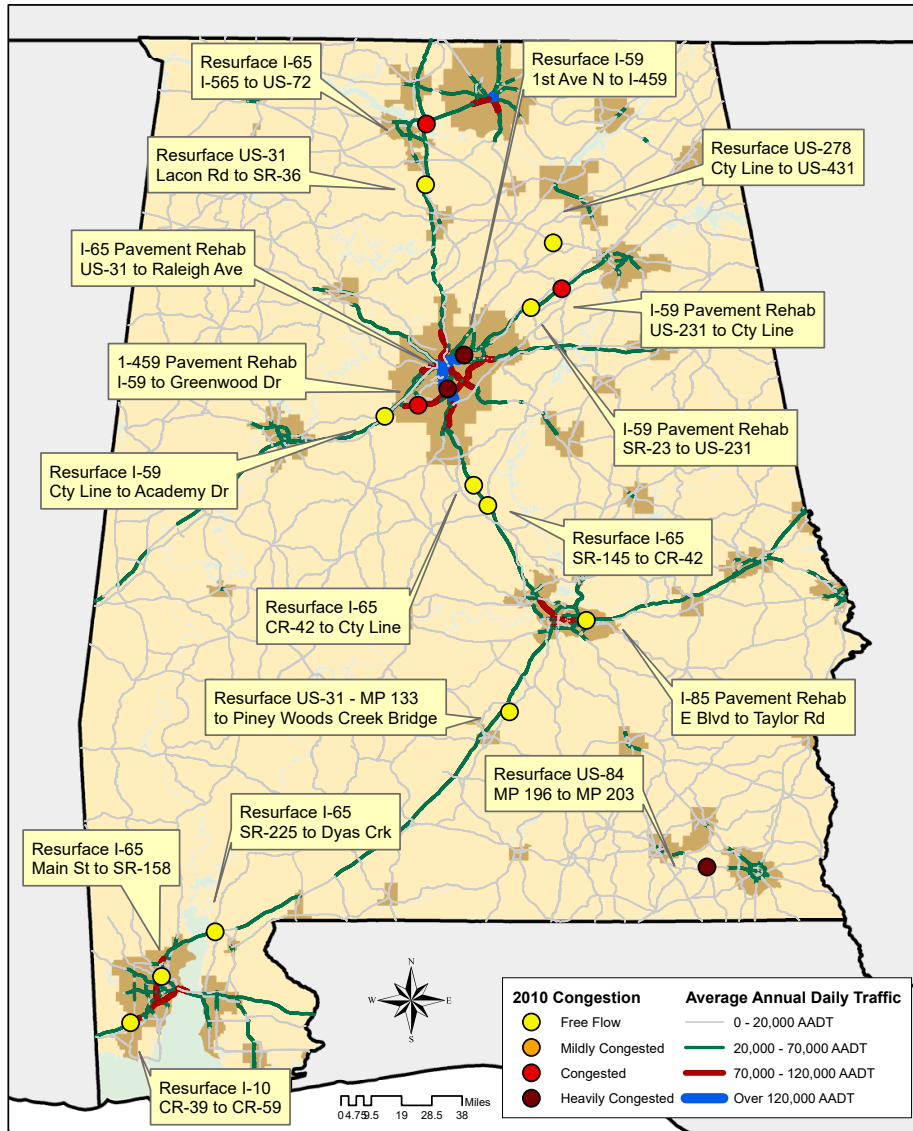
Key Bridge Projects



- 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

	2010 Base	2040 No Build	2040 E+C
Population	4,803,667	5,381,960	5,381,960
Households	1,883,791	2,110,572	2,110,572
Employment	1,844,995	3,250,061	3,250,061
Emp/HH Ratio	0.979	1.540	1.540
VMT	450,554,946	523,328,110	560,947,038
VMT per person	94	97	104
VHT	58,816,469	125,770,826	104,653,242
VHT per person	12	23	19
Truck VMT	97,382,214	114,057,538	122,470,824
Truck VMT per person	20	21	23

With
improvements,
more miles
are traveled,
but with
less delay

Projected Conditions with Improvements

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

- 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

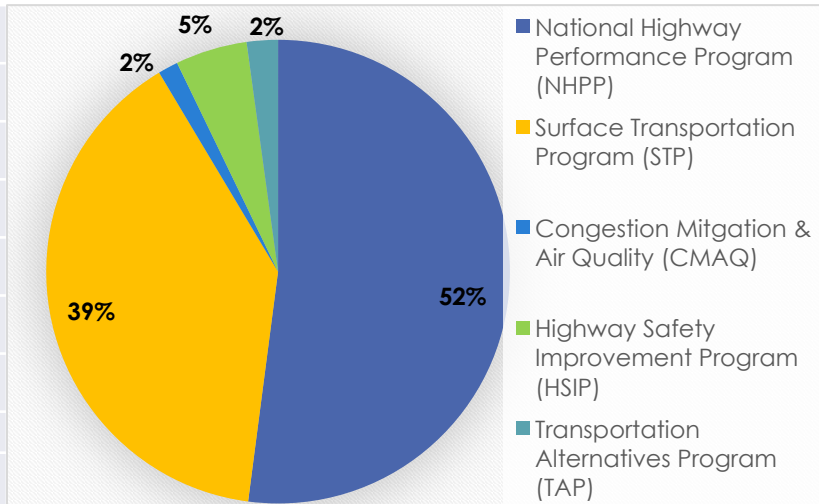
- Congested roadways in 2040
 - I-20/59, I-459, I-65, US 280, and US 78 in Birmingham
 - I-85 and SR 126 (Chantilly Boulevard) in Montgomery
 - I-10, Schillinger Road, University Boulevard, and Airport Boulevard in Mobile
 - US 98 and US 90 in Baldwin County
 - I-565, US 72, US 231 and US 431 in Huntsville
- 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

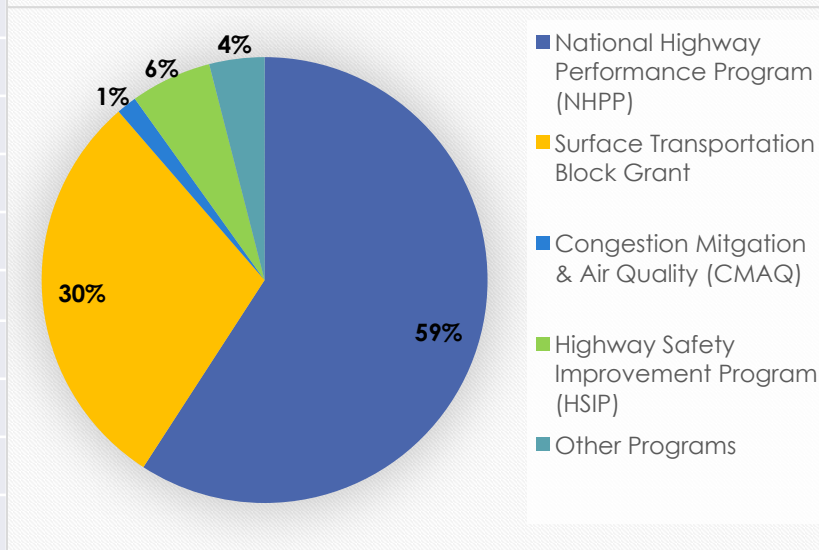
- Federal funds for roadway, transit, airport, rail, port, and bicycle/pedestrian trail development
- State funding for roadway and bridge improvements, operations and maintenance (primarily from fuel taxes or other user fees)
- Local funding for non-State highway system improvements, operations and 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

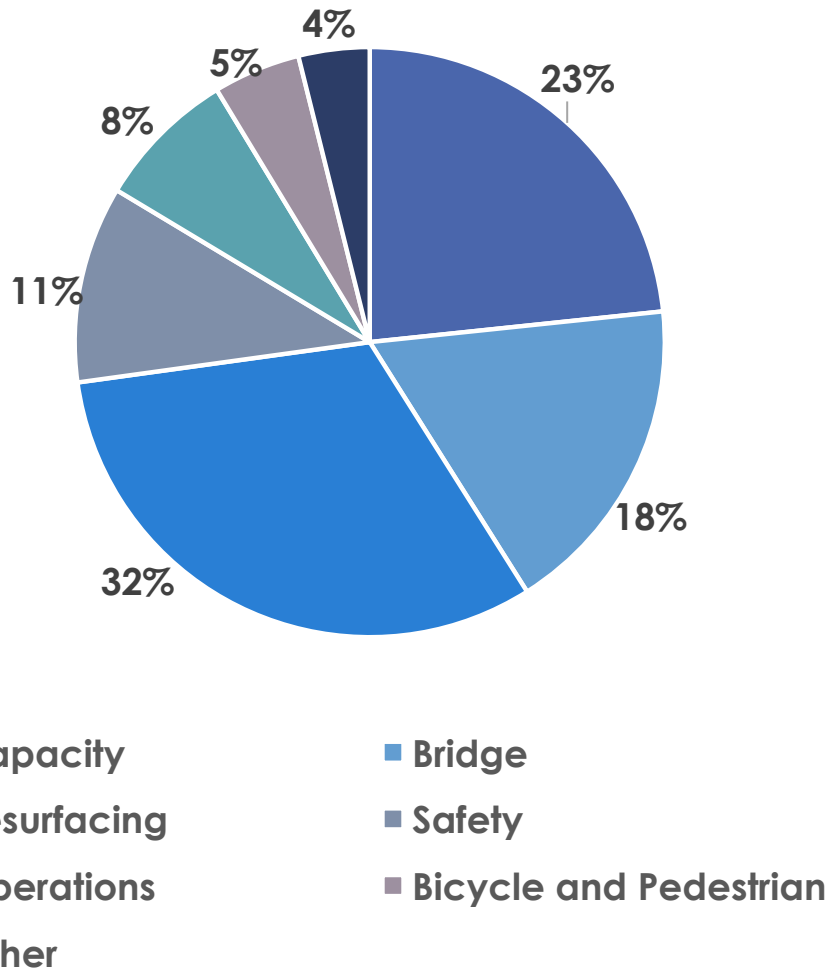
Roadway Funding by Section – MAP-21		AVERAGE/YR
National Highway Performance Program (NHPP)		\$ 364,000,000
Surface Transportation Program (STP)		\$ 275,000,000
Congestion Mitigation & Air Quality (CMAQ)		\$ 10,000,000
Highway Safety Improvement Program (HSIP)		\$ 35,000,000
Transportation Alternatives Program (TAP)		\$ 15,000,000
TOTAL		\$ 699,000,000



Roadway Funding by Section – FAST Act		AVERAGE/YR
National Highway Performance Program (NHPP)		\$ 475,000,000
STP Block Grant - Program		\$ 219,000,000
STP Block Grant - Set Aside		\$ 16,000,000
STP Block Grant - Recreational Trails		\$ 2,000,000
Congestion Mitigation & Air Quality (CMAQ)		\$ 12,000,000
Highway Safety Improvement Program (HSIP)		\$ 47,000,000
Railroad-Highway Crossings		\$ 5,000,000
Metropolitan Planning		\$ 3,000,000
National Freight Program		\$ 24,000,000
TOTAL		\$ 803,000,000



Distribution of Programmed Funds



	2017 Programmed Amount
Capacity	\$ 335,000,000
Bridge	\$ 254,000,000
Resurfacing	\$ 456,000,000
Safety	\$ 155,000,000
Operations	\$ 111,000,000
Bicycle and Pedestrian	\$ 69,000,000
Other	\$ 56,000,000
TOTAL	\$ 1,436,000,000

	2040 Projected Amount
Capacity	\$ 529,000,000
Bridge	\$ 401,000,000
Resurfacing	\$ 719,000,000
Safety	\$ 244,000,000
Operations	\$ 175,000,000
Bicycle and Pedestrian	\$ 108,000,000
Other	\$ 88,000,000
TOTAL	\$ 2,264,000,000

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/tpmpweb/mp/swtp.html>, or Google “ALDOT SWTP”
- Finalize Plan on comments from ALDOT