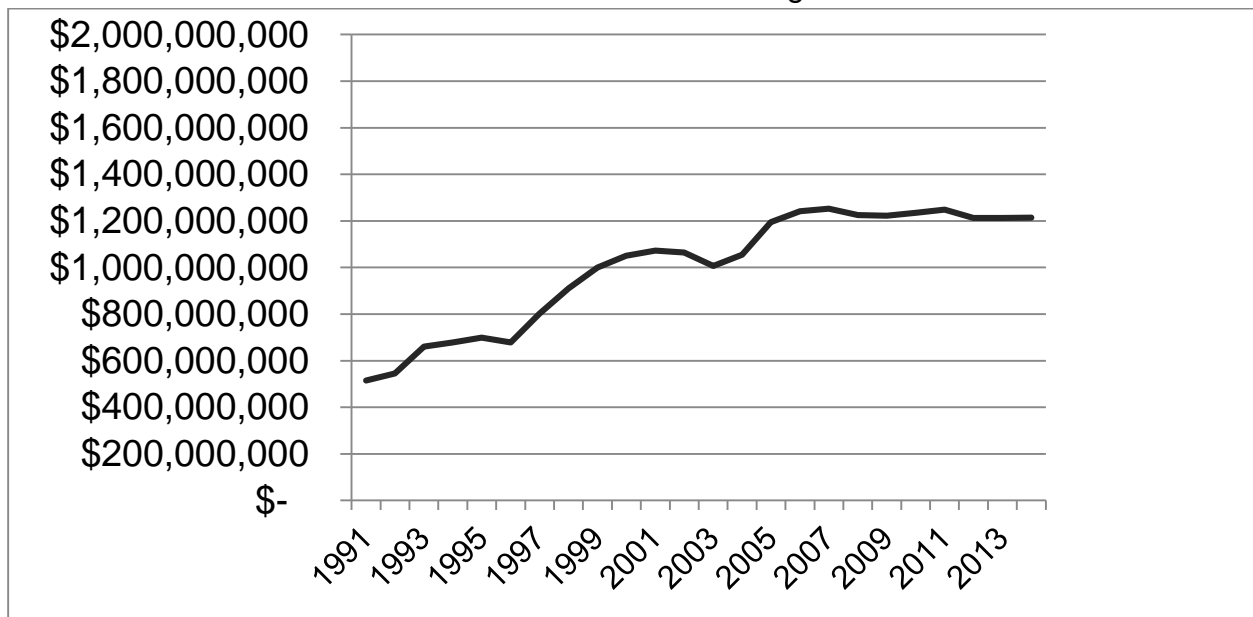


Alabama Highway Needs Study

Prepared September 2014

Over the last ten years, fuel tax revenues have been stagnant. Inflation, however, has continued to increase the cost of construction. Funds received by ALDOT, but diverted by legislative act for other than highway purposes, have also increased. It has been estimated that the current purchasing power of ALDOT's revenue is approximately what it was in 1991, prior to the last state and federal gas tax increase.

Combined Federal and State Funding 1991 - 2014



The combination of flat revenue and higher costs results in less roadway construction work being performed. System preservation (maintaining what we have) has been given a higher priority over building new roads or expanding existing roads. This means less capacity being added to the system, in spite of frequent demands for new roads and added capacity.

Capacity Needs

The two primary reasons given for the need for added capacity are to relieve congestion and to accommodate economic development. This report will present a perspective of identified capacity needs and the funding that would be required to address those needs. Capacity needs in the state of Alabama are not limited to those presented here, but this report attempts to capture some of the more pressing needs.

High Volume Two lane Roads

Congestion is generally proportional to the amount of traffic that is on a road, therefore, from a systematic approach, two lane roads with the highest average annual daily traffic (AADT) should be given priority when determining which two lane roads should be widened to four lanes. The top 25 highest AADT roads have been identified and the estimated cost to improve these routes is \$526 million.

Highest Two Lane Road ADT				
Project No.	County(s)	Route	ADT	Cost
1	Jefferson	US-11	13220	\$ 13,046,681
2	Jefferson	US-411	16550	\$ 12,084,703
3	Jefferson	SR-150	16360	\$ 7,197,257
4	Shelby	SR-119	17810	\$ 79,778,253
5	Shelby	SR-261	14890	\$ 59,476,689
6	Jackson	SR-35	14070	\$ 8,216,343
7	Etowah	US-411	12780	\$ 22,950,000
8	Etowah	SR-77	16970	\$ 13,804,726
9	Cullman	SR-157	15480	\$ 24,500,000
10	Cullman	SR-69	16940	\$ 39,750,000
11	Tuscaloosa	US-11	19380	\$ 7,334,351
12	Escambia	US-29	15720	\$ 11,927,631
13	Barbour	US-431	22760	\$ 1,158,412
14	Mobile	US-98	18630	\$ 36,250,000
15	Mobile	SR-158	13300	\$ 6,627,760
16	Mobile	US-45	16900	\$ 14,805,063
17	Mobile	US-90	16720	\$ 21,600,000
18	Mobile	SR-188	12780	\$ 33,689,294
19	Colbert	SR-133	18490	\$ 43,736,747
20	Elmore	SR-14	18210	\$ 3,629,871
21	Calhoun	US-78	15840	\$ 19,647,523
22	Baldwin	SR-180	15430	\$ 19,432,524
23	Tuscaloosa	SR-215	14970	\$ 7,569,047
24	Madison	SR-53	15740	\$ 14,605,411
25	Chilton	US-31	15040	\$ 3,597,533
Total				\$ 526,415,819

Non Four-lane Connected Counties

There are 13 counties that do not have a four lane connection to the interstate. There are several other counties that, while a four-lane route may physically pass through the county, the four-lane does not serve the populated areas of the county. It is often expressed that these county believe they are missing economic development potential because they do not have access to a four –lane route. Providing a four lane connection for these counties has been estimated to cost \$3.4 billion.

Non 4 Lane Connected Counties					
Project No.	County(s)	Route	ADT		Cost
			low	high	
1	Franklin, Winston, Walker	SR-13	1640	7990	\$ 380,000,000
2	Lamar, Marion	US-278 SR-118	2200	4600	\$ 115,000,000
3	Fayette, Marion	US-43 SR-171	2280	4910	\$ 60,000,000
4	Etowah, Cherokee	US-411 SR-25	6440	6580	\$ 95,000,000
5	Clay, Cleburne	SR-9	1680	7750	\$ 250,000,000
6	Randolph, Cleburne	US-431 SR-1	3660	7010	\$ 150,000,000
7	Pickens	US-82 SR-6	6970	11370	\$ 110,000,000
8	Hale	SR-69	3610	8600	\$ 165,000,000
9	Dallas, Perry	SR-5	970	3410	\$ 90,000,000
10	Clarke, Marengo	US-43 SR-13	2350	9400	\$ 365,000,000
11	Bullock, Macon	US-29 SR-15	1940	6690	\$ 195,000,000
12	Clarke, Wilcox	SR-5	3950	6860	\$ 80,000,000
13	Wilcox	SR-10	3450	4420	\$ 145,000,000
14	Crenshaw, Montgomery	US-331 SR-9	3880	12590	\$ 290,000,000
15	Choctaw, Clarke, Monroe, Conecuh, Covington	US-84 SR-12	1320	9100	\$ 770,000,000
16	Geneva	SR-52	3420	14500	\$ 155,000,000
Total					\$ 3,415,000,000

Suburban Routes

There are several suburban projects that have been identified that have a combination of high traffic volumes, congestion, economic growth areas and importance for route continuity and connectivity. Several of these project involve added lanes to the interstate that are currently at or approaching gridlock conditions. The cost to improve these routes is estimated to be \$1.4 billion.

Suburban Projects					
Project No.	County(s)	Route	Miles	ADT	Cost
1	Houston	US-231	2.8	33500	\$ 32,110,751
2	Lauderdale	US-43	5.3	6290	\$ 29,294,928
3	Montgomery	MOL			\$ 91,168,413
3a	Montgomery	MOL			\$ 190,050,000
4	Madison	I-565	8.75	46390	\$ 68,382,034
5	Talladega	SR-21	8.82	6660	\$ 72,152,587
6	Blount	SR-160	4.8	8600	\$ 36,444,888
7	Autauga	US-82		14890	\$ 21,000,000
8	Baldwin	SR-181		13940	\$ 56,850,000
9	Coffee	SR-27		7600	\$ 6,300,000
10	Cullman	I-65		40300	\$ 43,650,000
11	Shelby	I-65		46k-78k	\$ 245,550,000
12	Dale	US-231		16590	\$ 8,450,000
13	Dekalb	SR-75		6090	\$ 21,100,000
14	Etowah	US-411		10970	\$ 95,500,000
15	Mobile	I-10		54170	\$ 146,350,000
16	Mobile	I-10		74250	\$ 36,700,000
17	Jefferson	I-59		61300	\$ 82,600,000
18	Jefferson	I-59		69180	\$ 88,350,000
Total					\$ 1,372,003,601
Total Without Interstate Projects					\$ 660,421,567

Future Interstate Congestion

Based on the Alabama Statewide Transportation Plan prepared in June 2008, by 2035, 238 miles of urban interstate and 392 miles of rural interstate will exceed an acceptable volume to capacity ratio indicating a need for additional lanes. This represents nearly two thirds of all of the state's interstate routes. The cost to add lanes to the interstate to mitigate future congestion is estimated at \$5.9 billion.

Budget Analysis

The following is the budgetary needs to address the state's system preservation needs and added capacity outlined above.

Funds to Others		Annual Allocation	
State Funds to Others	\$	87,900,000	
Federal Funds to Others	\$	<u>207,247,000</u>	
Subtotal	\$	295,147,000	
Operations			
ALDOT Overhead	\$	70,350,000	
Routine/Emergency Maintenance	\$	165,500,000	
Equipment/Land & Building	\$	<u>11,000,000</u>	
Subtotal	\$	246,850,000	
System Preservation			
Interstate Maintenance	\$	170,000,000	
Bridge Replacement	\$	100,000,000	
Resurfacing	\$	290,000,000	
Unplanned Needs	\$	<u>10,000,000</u>	
Subtotal	\$	570,000,000	
System Enhancement			20 Year Plan
Safety	\$	57,150,000	
Non 4 Lane Connected Counties	\$	170,750,000	\$ 3,415,000,000
Interstate Capacity	\$	295,000,000	\$ 5,900,000,000
High Volume 2 Lane	\$	26,325,000	\$ 526,500,000
I-10 Bridge	\$	52,000,000	\$ 1,040,000,000
*Freeway Bypasses	\$	240,000,000	\$ 4,800,000,000
Suburban Projects	\$	33,000,000	\$ 660,000,000
Capacity/Enhancements (other)	\$	<u>100,000,000</u>	\$ 2,000,000,000
Subtotal	\$	974,225,000	
Program Totals			
Funds to Others	\$	295,147,000	
Operations	\$	246,850,000	
System Preservation	\$	570,000,000	
System Enhancement/Capacity	\$	<u>974,225,000</u>	
Total	\$	2,086,222,000	
Proposed Funding Needs	\$	2,086,222,000	
Current Funds Available	\$	<u>1,216,837,000</u>	
Additional Needed	\$	869,385,000	

*Includes Birmingham North Beltline, Montgomery Outer Loop, Tuscaloosa East Bypass, Dothan I-10 Connector

Modified Capacity Program

An additional \$870 million in annual revenue, as previously illustrated, would require a gasoline and diesel tax increase of 32½ ¢ per gallon assuming all the revenue produced would be allocated to ALDOT. If the revenue were distributed according to a tradition split in funding between the state, counties and others, a 41¢ per gallon increase would be required. A modified capacity program that would require less in additional revenue is offered as an alternative. The modified capacity program would include all of the highest two lane AADT projects and a reduction in the number of non four lane connected counties, suburban projects and interstate capacity projects.

Non 4 Lane Connected Counties					
Project No.	County(s)	Route	ADT		Cost
			low	high	
1	Franklin, Winston, Walker	SR-13	1640	7990	Not funded
2	Lamar, Marion	US-278 SR-118	2200	4600	Not funded
3	Fayette, Marion	US-43 SR-171	2280	4910	\$ 60,000,000
4	Etowah, Cherokee	US-411 SR-25	6440	6580	\$ 95,000,000
5	Clay, Cleburne	SR-9	1680	7750	Not funded
6	Randolph, Cleburne	US-431 SR-1	3660	7010	Not funded
7	Pickens	US-82 SR-6	6970	11370	\$ 110,000,000
8	Hale	SR-69	3610	8600	Not funded
9	Dallas, Perry	SR-5	970	3410	Not funded
10	Clarke, Marengo	US-43 SR-13	2350	9400	Not funded
11	Bullock, Macon	US-29 SR-15	1940	6690	Not funded
12	Clarke, Wilcox	SR-5	3950	6860	\$ 80,000,000
13	Wilcox	SR-10	3450	4420	Not funded
14	Crenshaw, Montgomery	US-331 SR-9	3880	12590	\$ 290,000,000
15	Choctaw, Clarke, Monroe, Conecuh, Covington	US-84 SR-12	1320	9100	Not funded
16	Geneva	SR-52	3420	14500	\$ 155,000,000
Total					\$ 790,000,000

Suburban Projects					
Project No.	County(s)	Route	Miles	ADT	Cost
1	Houston	US-231	2.8	33500	\$ 32,110,751
2	Lauderdale	US-43	5.3	6290	Not funded
3	Montgomery	MOL			\$ 91,168,413
3a	Montgomery	MOL			Not funded
4	Madison	I-565	8.75	46390	*
5	Talladega	SR-21	8.82	6660	Not funded
6	Blount	SR-160	4.8	8600	\$ 36,444,888
7	Autauga	US-82		14890	\$ 21,000,000
8	Baldwin	SR-181		13940	\$ 56,850,000
9	Coffee	SR-27		7600	Not funded
10	Cullman	I-65		40300	*
11	Shelby	I-65		46k-78k	*
12	Dale	US-231		16590	Not funded
13	Dekalb	SR-75		6090	Not funded
14	Etowah	US-411		10970	Not funded
15	Mobile	I-10		54170	*
16	Mobile	I-10		74250	*
17	Jefferson	I-59		61300	*
18	Jefferson	I-59		69180	*
Total					\$ 237,574,052

Funding for the suburban interstate projects* could be provided under the interstate capacity program. The interstate capacity program would be reduced from the \$5.9 billion identified in the Alabama Statewide Transportation Plan to \$1.5 billion.

Budget Analysis of Modified Capacity Program

The following is the budgetary needs to address the state's system preservation needs and added capacity outlined in the modified capacity program.

Funds to Others	Annual Allocation	
State Funds to Others	\$ 87,900,000	
Federal Funds to Others	\$ 207,247,000	
Total	\$ 295,147,000	

Operations

ALDOT Overhead	\$ 70,350,000	
Routine/Emergency Maintenance	\$ 165,500,000	
Equipment/Land & Building	\$ 11,000,000	
Total	\$ 246,850,000	

System Preservation

Interstate Maintenance	\$ 170,000,000	
Bridge Replacement	\$ 100,000,000	
Resurfacing	\$ 290,000,000	
Unplanned Needs	\$ 10,000,000	
Total	\$ 570,000,000	

System Enhancement

Safety	\$ 57,150,000		20 Year Plan
*Non 4 Lane Connected Counties	\$ 40,000,000	\$ 800,000,000	
**Interstate Capacity	\$ 75,000,000	\$ 1,500,000,000	
High Volume 2 Lane	\$ 26,325,000	\$ 526,500,000	
I-10 Bridge	\$ 52,000,000	\$ 1,040,000,000	
**Freeway Bypasses	\$ 50,000,000	\$ 1,000,000,000	
Suburban	\$ 11,875,000	\$ 237,500,000	
Capacity/Enhancements (other)	\$ 60,000,000	\$ 1,200,000,000	
Total	\$ 372,350,000		

Program Totals

Funds to Others	\$ 295,147,000	
Operations	\$ 246,850,000	
System Preservation	\$ 570,000,000	
System Enhancement	\$ 372,350,000	
Total	\$ 1,484,347,000	

Proposed Funding Needs	\$ 1,484,347,000
Current Funds Available	\$ 1,216,837,000
Additional Needed	\$ 267,510,000

Potential Revenue Sources

Attached are several revenue scenarios for increased funding. They include:

- Repeal the gross receipts tax and end diversions to DPS and AOC.
- Increases in vehicle registration fees.
- Increases in per gallon gasoline and diesel fuel excise tax.
- Indexing for inflation.
- Indexing for fuel efficiency.

A summary of revenue generated and proposed distribution for each scenario is as follows:

Revenue Option	Additional Revenue in Millions					
	State	County	Municipality	Revenue	Conservation	Agriculture
Repeal GRT, Diversn	\$100.0	\$1.8	\$3.5			
Veh Reg Fee, Option1	\$96.4					
Veh Reg Fee, Option2	\$63.7					
Gas & Diesel Tax; 1¢	\$21.1	\$9.2	\$1.1	\$0.8	\$0.2	\$0.1
Gas & Diesel Tax; 5¢	\$105.3	\$45.9	\$5.7	\$3.8	\$1.0	\$0.7
Gas & Diesel Tax; 10¢	\$210.6	\$91.8	\$11.4	\$7.5	\$2.0	\$1.4
Index for Inflation	\$206.3	\$88.1	\$11.1	\$7.3	\$2.0	\$1.4
Fuel Efficiency, Opt 1	\$138.2	\$56.9	\$7.2	\$4.8	\$1.3	\$0.9
Fuel Efficiency, Opt 2	\$64.6	\$27.5	\$3.5	\$2.3	\$0.6	\$0.4

Repealing the gross receipts tax is unlikely, but it is presented as an option for comparative purposes in the event a “no new taxes” mentality is prevalent. This option would provide additional highway revenue without a tax. The two options for Fuel Efficiency would adjust the gas tax to compensate for vehicle fuel efficiency. Option one adjusts both the state and federal tax and option two adjusts only the state tax.

The cost to the consumer for each of these options is:

	Cost to the Average Driver	
	\$ per month	\$ per year
Repeal GRT, Diversions	0	0
Vehicle Registration Fee, Option1		\$20 to \$30
Vehicle Registration Fee, Option2		\$24 to \$36
Gas & Diesel Tax; 1¢	\$0.40	\$4.80
Gas & Diesel Tax; 5¢	\$2.00	\$24.00
Gas & Diesel Tax; 10¢	\$4.00	\$48.00
Index for Inflation	\$3.83	\$46.00
Fuel Efficiency, Option 1	\$2.50	\$30.00
Fuel Efficiency, Option 2	\$1.25	\$15.00

The indexing for inflation provides almost the equivalence of a 10¢ per gallon gas tax and would continue to provide additional revenue in the future (assuming we don't experience negative inflation). The indexing option could be phased in over several years so as not to cause a big impact all at once. The indexing for fuel efficiency provides some benefit now but may grow more significant in future years.

An index that would compensate for inflation and fuel efficiency restores purchasing power and the revenue once received for each vehicle mile of travel. It could be said that the indexing restores what was once collected. The index for inflation and fuel efficiency for the state fuel tax would generate \$270 million for the state and \$130 million for counties and cities.