# Alabama Department of Transportation

FLEET MANAGEMENT

## REPLACEMENT PROGRAM

The theory behind our replacement program is to charge the user for each piece of equipment that they are assigned at the lowest cost per mile. Therefore, they must look at whether this piece of equipment is useful to them based on associated cost on keeping that piece of equipment.

## EQUIPMENT MANAGEMENT SCHEME

- Equipment Management Categories
   Basic Code = Equipment Type
- Equipment Life Expectancy by years or miles/hours based on history, experience and life cycle cost
- All Equipment Numbered:
   Autos, Trucks, Heavy Equipment

## EQUIPMENT MANAGEMENT SCHEME

- Operating Cost are accumulated on an individual unit basis and are identified by accounting areas (Cost Categories)
- Usage is reported on an individual unit basic

EXHIBIT 4.6a 1 of 9

#### Alabama Deptartment of Transportaiton 2012 Active Basic Code Report

	1			I 1		1
CODE	UNIT OF OP	FRATION	DESCRIPTION	GROSS REPLT COST	SALVAGE VALUE	REPLACEMENT LIFE
COOL	ONLY OF OR	LINATION	DESCRIPTION .	COSI	VALUE	REPEACEMENT DIE
0010	Tenths	of Hours	AIRPLANE JET	0	0	20
0020	Tenths	of Hours	AIRPLANE, RECRIPRO 2 ENGINE	557865	300000	20
0040	55000	Miles	AUTOMOBILE - FLEX FUEL	12250	7000	5
0050		Miles	LEASED AUTOMOBILE - FLEX FUEL	0	0	0
0060	55000	Miles	AUTOMOBILE - FULL-SIZE	15260	7500	5
0130	100000	Miles	ALL TERRAIN TOOL CARRIER-UNIMOG	138195	70000	12
0150	125000	Miles	AUGER TRK W/BUCKET DSL 4T DERRICK	140000	15000	12
0160	125000	Miles	AUGER TRK W/BUCKET 5T DERRICK	170100	25000	12
0170	200000	Miles	BRIDGE RATING TRK DSL 10T	163800	25000	15
0200	100000	Miles	BUCKET TRUCK DIESEL 1T	87500	18000	10
0250	125000	Miles	BUCKET TRUCK DIESEL 2-3T	119000	20000	10
0260	125000	Miles	BUCKET TRUCK/SIGN DIESEL 2T	87500	14000	12
0400	125000	Miles	BUS DSL 29-39 PASSENGER	49000	3500	14
0600	100000	Miles	UTILITY TRUCK LARGE GAS	21700	7500	6
0650	100000	Miles	UTILITY TRUCK LARGE GAS 4X4	24500	10000	6
0700	0	Miles	UTILITY TRUCK LARGE FLEX FUEL LEASED	0	0	3
0710	0	Miles	UTILITY TRUCK MID-SIZE LEASED	0	0	3
0840	125000	Miles	CHASSIS DIESEL 5 TON	49455	18000	14
0950	125000	Miles	CRANE DSL 3 TON	70000	7000	15
1000	125000	Miles	CRANE DSL KNUCKLEBOOM 2-3T	91700	12500	12
1010	125000	Miles	CRANE DSL KNUCKLEBOOM 4TON	100100	18000	12
1030	200000	Miles	CRANE DSL KNUCKLEBOOM 5 TON	140000	20000	15
1040	200000	Miles	CRANE DSL STRAIGHTBOOM	140000	20000	15
1050	125000	Miles	DIS DSL/GAS 600-1000 GAL ASPHALT TANK	82600	10000	15
1100	125000	Miles	DIS DSL/GAS 1250-1500 GAL ASPHALT TANK	84000	15000	15
1210		Hours	DRILL UNIT 1-1/2TON 4X4 DSL	119000	20000	12
1260		Hours	DRILL UNIT DIESEL 2 - 2-1/2 T 4X4	140000	20000	12

## FUNDING BACKGROUND PRE 1981

- Replacement Program approved by Legislature
- Operating Funds recovered from users via Rental Rate
- Depreciation Fee was charged Monies were returned to the General Road and Bridge Fund

## RENTAL RATE OPERATING COST

- Goal Recover operating expenses, not intended for fund accumulation
- Rate set annually
- Rate for each basic code (type category)
- Rate for each Division, General Office and Central Pool

## RENTAL RATE OPERATING COST

- Rates set to achieve = a zero balance in each division
- Cost recorded on shop invoices and other payment or charge documents
- User fee computed from monthly use reports
- Rate applies only to actual use
- Annual state-wide average operating cost per mile/hour is used to help in determining when to replace equipment.

### Average Operating Costs Per Mile/Hour

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	0.00	0.25	0.27	0.32	0.45	0.51	0.57	0.59	0.67	0.67
		2005	1.71	0.51	0.46	0.50	0.51	0.52	0.63	0.66	2	
		2006	0.47	0.40	0.43	0.47	0.48	0.50	0.52	Robert Sea		
03		2007	0.37	0.41	0.43	0.43	0.48	0.56				
		2008	0.62	0.46	0.45	0.49	0.51		All Children den			
		2009	0.50	0.41	0.49	0.51				110		
		Averages	0.61	0.41	0.42	0.45	0.49	0.52	0.57	0.63	0.67	0.67

### **Average Total Usage**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	0	8,941	22,686	32,247	41,518	52,012	61,352	74,131	83,870	90,216
		2005	1,179	12,830	25,340	37,959	49,278	61,041	73,656	79,358		
		2006	5,725	21,695	36,663	49,833	59,401	71,751	77,263			-11 11 11 000/12/00
		2007	13,944	29,493	45,792	65,002	74,866	83,735	5	5		
		2008	8,523	27,843	46,637	64,039	72,482	2		M.		
	2	2009	4,776	25,228	43,722	53,732						
***************************************		Averages	5,691	21,005	36,806	50,468	59,509	67,135	70,757	76,744	83,870	90,216

#### **Average Total Operating Costs**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	6	2,191	6,137	10,349	18,700	26,698	34,922	43,500	56,393	60,177
		2005	2,015	6,543	11,658	18,929	25,264	31,849	46,064	52,091	•	
		2006	2,683	8,571	15,913	23,420	28,232	35,906	40,078	3		
		2007	5,228	12,150	19,783	27,958	35,785	46,695	5			
		2008	5,272	12,938	21,158	31,460	36,877	1				
	i	2009	2,399	10,460	21,331	27,466						
		Averages	2,934	8,809	15,997	23,264	28,972	35,287	40,355	47,795	56,393	60,177

### **Annual Operating Cost**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	12	4,371	7,891	8,425	16,702	15,997	16,446	17,157	25,785	7,569
	1	2005	6,045	13,586	15,342	21,815	19,006	19,753	42,646	18,079		
	1 	2006	10,731	23,554	29,365	30,031	19,248	30,694	16,688			CAN COLOR
	10 17 10 10 10 10 10 10 10 10 10 10 10 10 10	2007	5,226	6,922	7,634	8,175	7,827	10,910	l.			
		2008	126,563	199,315	213,731	267,852	140,834					****
		2009	59,985	201,503	271,791	153,382		1				
		Tota	208,562	449,251	545,754	489,680	203,617	77,354	75,780	35,236	25,785	7,569

### **Annual Repair Cost**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	12	2,112	2,492	3,189	12,025	8,575	11,895	10,062	18,429	2,569
		2005	5,327	3,828	4,914	5,486	9,213	8,117	27,113	10,661		3000
		2006	4,711	7,639	9,276	15,841	8,941	13,978	7,567			
i.		2007	1,840	1,026	3,363	2,157	4,544	6,417				
	5 0.000 (\$400 f)	2008	31,697	65,706	76,644	109,288	54,800	L.	16			и и
		2009	29,980	49,736	103,589	51,635					8	
		Tota	73,567	130,047	200,278	187,596	89,523	37,087	46,575	20,723	18,429	2,569

### <u>Units</u>

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
2350	12	2003	2	. 2	. 2	2	<u>)</u>	2	2	2 2	2 2	2 2
8 <sup>18</sup>		2005	3	3	3	3	3	3	3	3 :	3	
		2006	4		4			4	4	4		-
		2007	1		. 1		0 I	1	1			
		2008	26	26	26	26	2	6			1000	
		2009	25	2.5	25	25	2	1000 00	177 F575			
		Totals	61	61	61	. 6:	3	6 1	0	9 .	5 2	2 2

### Average Operating Costs Per Mile/Hour

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		2007	0.37	0.41	0.43	0.43	0.48	0.56	)			
		2008	0.62	0.46	0.45	0.49	0.51					
		2009	0.50	0.41	0.49	0.51						
		Averages	0.61	0.41	0.42	0.45	0.49	0.52	0.57	0.63	0.67	0.67

### **Average Total Usage**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
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#### **Average Total Operating Costs**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
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100		2005	2,015	6,543	11,658	18,929	25,264	31,849	46,064	52,091	•	
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		2007	5,228	12,150	19,783	27,958	35,785	46,695	5			
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	i	2009	2,399	10,460	21,331	27,466						
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### **Annual Operating Cost**

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	10 17 10 10 10 10 10 10 10 10 10 10 10 10 10	2007	5,226	6,922	7,634	8,175	7,827	10,910	l.			
		2008	126,563	199,315	213,731	267,852	140,834					****
		2009	59,985	201,503	271,791	153,382		1				
		Tota	208,562	449,251	545,754	489,680	203,617	77,354	75,780	35,236	25,785	7,569

### **Annual Repair Cost**

Basic Code	Replt Yr	Model Yr	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
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		2005	5,327	3,828	4,914	5,486	9,213	8,117	27,113	10,661		
		2006	4,711	7,639	9,276	15,841	8,941	13,978	7,567		KETP VOOT	
		2007	1,840	1,026	3,363	2,157	4,544	6,417				
1 400 00 10 4 00	1 111 111 1	2008	31,697	65,706	76,644	109,288	54,800		16			25 92
		2009	29,980	49,736	103,589	51,635					8	
	A CONTRACTOR OF THE PARTY OF TH	Tota	73,567	130,047	200,278	187,596	89,523	37,087	46,575	20,723	18,429	2,569

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2350	12	2003	:	2	2 2	. 2	2	2	2	2 2	2	2
		2005		3	3 3	3	3	3	3	3 3		
		2006     4     4     4     4     4       2007     1     1     1     1     1	4	4	ł		A					
			1									
		2008	2	6 2	6 26	26	26	i				
		2009	2	5 2	5 25	25	200	17574 68670	P372 - 1111 - 11111 11111			
		Totals	6	1 6	1 61	. 61	36	10	9	9 5	2	2

## 1981 EQUIPMENT MANAGEMENT SURPLUS RESERVE ACCOUNT LAW

- Allows accumulation of depreciation dollars of acquisition cost into a Replacement Fund
- Allows accumulation of replacement dollars on expected increase into a Replacement Fund
- Allows accumulation of salvage dollars into a Replacement Fund

# 1981 EQUIPMENT MANAGEMENT SURPLUS RESERVE ACCOUNT LAW

- Funds accumulated by division transfers prohibited
- Funds accumulated can be used to replace or upgrade equipment or perform extraordinary repairs

## SOURCES OF REPLACEMENT FUND ACCUMULATION

- Depreciation Rate
- Replacement Rate
- Allocation of sale proceeds and accident collections

## DEPRECIATION RATE

- Goal = Recover Purchase Price
- Unit of usage depreciation method used
- Rate for each basic code (Type category-same for all divisions)
- Rate set annually based on changes in life expectancy years or miles, average monthly use, or average unit cost

## DEPRECIATION RATE

- Rate applies statewide
- Payment computed from monthly use reports
- Minimum monthly use is applied to this rate if minimum use is not achieved
- Accumulated monies segregated by division

## REPLACEMENT RATE

- Goal = Accumulation Sufficient Dollars to provide for replacement of equipment at today's prices less salvage
- Rate for each basic code (Same for all divisions)
- Rate set annually using latest cost plus projected increases and life expectancy years/miles and average monthly use

## REPLACEMENT RATE

- Rate applies statewide
- Payment computed from monthly use reports
- Minimum monthly use is applied to this rate if minimum use is not achieved
- Accumulated monies segregated by division

## **BUYING CYCLE**

- Replacement Equipment Ordered Quarterly 1<sup>st</sup> September, 2<sup>nd</sup>-December, 3<sup>rd</sup>-March, 4<sup>th</sup>-June
- Divisions identify needs based on life expectancy and available dollars
- Division requests are reviewed against replacement criteria and approved or disapproved by Department Managers
- Generally equipment must be replaced with like equipment or upgraded

## **BUYING CYCLE**

- Equipment, Procurement & Services Bureau personnel develop specifications and requisition equipment at the Central Office
- Receiving documents distribute replacement cost to applicable division fund
- Equipment cannot exceed number of units that existed at Time Law was passed without Legislature granting money for purchase of additional units

## Disposal of Surplus Property

- In 1995 the Alabama Legislator passed a legislative act (Acts 1995, No. 95-397) known as House Bill 751 which allowed the Alabama Department of Transportation to sale their own surplus property.
- Prior to this act being passed all surplus property was being turned over to another state agency for disposal. This agency charged the department 25% of the net proceeds to dispose of the property.
- It was not feasible for the department to spend any additional time or money prepping equipment for sell nor to turn equipment in early due to the 25% being charged by the other agency.

## Code of Alabama

www.legislature.state.al.us/codeofalabama/1975

- Section 23-1-64 Disposal of Surplus personal property Department to be responsible for disposal; sale at fair market value and payment; preferences; notification by municipalities and counties.
- Section 23-1-65 Disposal of Surplus personal property Availability; list of surplus property. Rolling stock must be priced and on ALDOT's website available to other state agencies, city and county municipals for a minimum of 60 days before equipment can be sold at auction.
- Section 23-1-66 Disposal of Surplus personal property Sale procedures.

## Public Auction

- Handled by Professional Auction Company through a contract agreement with the Alabama Department of Transportation.
- Contract is established with RFP procedure.
- Contract agreement is good for two years. At which time procedures are updated and a new RFP is processed.

## BENEFITS OF AUCTION

- Increased Equipment Revolving Fund
- Tax dollars collected by auction company has brought additional funds to the States General Fund Budget
- Caused our employees to take a sense of pride and better care of equipment which has increased the resale value and caused a savings in the cost of maintenance of equipment.
- Enabled Cities, Counties and other state agencies an additional avenue to purchase equipment at a cost savings.
- Given ALDOT an avenue for the disposing of obsolete supplies and surplus equipment



### RECAP OF ALDOT SALES/SALVAGE PROGRAM SINCE REVOLVING FUND STARTED IN 1980

Acquired thru sales by other state agency
 1980 – 1995 (15 Yrs)

\$ 12,362,714.44

Acquired thru ALDOT Auctions
 1996 – 2011

\$ 66,449,514.31

 Acquired thru ALDOT sales to other eligible entities 1996 – 2011

\$ 41,700,872.23

TOTAL PROCEEDS ALL SALES

\$120,513,100.90

## BEFORE



## AFTER













ALDOT AUCTION INSPECTION FORM LOTS:	10
INSPECTED BY: RR DATE: 8-22	-1/
EQUIPMENT# SE-8711 ORIGINAL LOC: 6 CURRENT LOC	
YEAR: 04 MAKE CAT MODEL: D5N	
04X4 4r2WD MILES/HOURS: 9/8	
DESCRIPTION: TRACTOR CRAWLER MEdison	
SBRIALVIN: CATOOD SNAAGGOOGG!	
ENGINE MAKE: CAT LIR: 7,2 HORSIPOWER: 2	60
PINLINE 4 MINLINE 6 DV-6 DV-8 DGAS DFLEX FUI	el envieser
FOTHER: TURSO	
TIRB SIZE: FRONT: NA REAR: NA	
TOTAL LENGTH: 15' TOTAL WINTH: 10' TOTAL HEIGHT:	10'
TOTAL WEIGHT: GVWR:	
AIR CONDITION: PES HNO TRANSMISSION: D AUTOMATIC	g Standard
AIR BRAKES: DYES WO REGULAR CAB: WES	□NO
EXTENDED CAB: VIYES ON CREW CAB: 1788	∍⊼\ó ·
SEATS:   VINYL CLOTIF DUMP BED:   DYES	MO.
ELECTRIC LOCKS: GYES WOO BLECTRIC WINDOWS: EYES	OVE
CRUISE CONTROL: TYES TO TILT STEERING: TYES	MO
STROBELIGHTS: DYES WO DUEL REAR WHEELS: DYES	oxo
SALVAGE PRICE: 55,000 ORIGINAL PRICE: 101,3	546
TITLE: D'CLEAR DI SALVAGE	
NOTES: 5 GO,NO**	
स्पर्छ	
· · · · · · · · · · · · · · · · · · ·	

INSPECTED BY: TE-	DATE: 8-16	-// oc: 099
	OFE MODEL R2	
V4X4 □ 2WD MILES/HOURS:		ay 4r ar
DESCRIPTION: 3/4 Picky		THE RESERVE THE
SERIALIVIN: 3d7K538	경영하다 하나 얼마나 하면 살아보다 사람들이 되었다면 하는 사람들이 살아 있다면 하는데 하다 하는데 살아 하는데 하다 살아 하는데 하다 살아 하는데 하다 하는데	
A. A	R 5.7 HORSEPOWER:	345
DINLINB4 DINLINE6 CV-6		
OTHER: HEMI ENG	X	
TIRE SIZE: FRONT: LT245/7	OR 19 REAR: SAM	٤
TOTAL LENGTH: 2/ TOTAL V		
TOTAL WEIGHT:	아이는 이번 사람들은 아이는 아이를 하게 되었다.	
AIR CONDITION: WYES UNO	TRANSMISSION; MAUTOMAT	TC D STANDARD
AIR BRAKES: DYES MO	REGULAR CAB: DYES	MINO
EXTENDED CAB: EYES MÓ	CREW CAB: 14ES	□.NO
SEATS: WINYL CCLOTH	DUMP BED: □YES	en To
electric locks: oybs 📈	ELECTRIC WINDOWS; nY	ES ne⊀O
CRUISE CONTROL: VYES LINO	TILT STEERING: WES	пло
STROBE LIGHTS: EYES MÓ	DUEL REAR WHEELS: aV	ES mNO
SALVAGE PRICE: 4,300	ORIGINAL PRICE: 23,	1+2
TULE: □ CLEAR . □ S	ALVAGE.	PS:0 20002
NOTES: CH-7217/ C	AMBER SHELL	25,250.
RECEIVER HITE	.4	
- American Inc.		
The second secon	· · · · · · · · · · · · · · · · · · ·	

## **Green Fleet Initiatives**

- NO IDLE POLICY
  - Reduces both fuel consumption and emission.
- DEPLOYMENT OF GPS UNITS
  - Increases accountability of vehicle use.
- FUEL QUALITY PROGRAM
  - Stabilizes the fuel in storage tanks.

The implementation of green fleet initiatives resulted in a reduction in usage of 1.5 million miles and 162,000 less gallons of fuel consumed in only one year.

## Fuel Quality Program

New emission standards of equipment and the adjustments on fuel requirements mandated by the EPA resulted in having problems with equipment performance.

### **Fuel Problems**

- Low Cetane
- Poor Lubricity
- Contaminants
- Water Contamination & Biological Growth
- Exhaust Emission



### Solution

A <u>Complete</u> 3-Step Fuel Maintenance Program Designed to Provide Diesel Fuel Users High Quality Fuel with Every Load....

### **Step #1:**

Sterilize fuel systems by killing bacteria and fungus.

### **Step #2:**

Treat diesel fuel to improve quality.

### **Step #3:**

Use diesel fuel analysis to monitor results.

### **RESULTS**

- Stabilized tank stored fuels
- Led to fewer repairs on equipment
- Helped restore fuel economy

Because of additives ALDOT has a 4% increase in fuel mileage economy in our passenger fleet.

• Due to the various aspects of ALDOT's Fleet Management Program including fleet maintenance, replacement program and Green Fleet initiatives the Alabama Department of Transportation has been being named among the Best 100 public sector fleets.