



# NJDOT Replacement Analysis

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BUREAU OF EQUIPMENT ENGINEERING & OPERATIONS



# Background

- ▶ 3922 Licensed Equipment
- ▶ 5114 Unlicensed Equipment
- ▶ 2771 Snow Plows
- ▶ 6376 Two Way Radios
- ▶ 6316 Shop Equipment
- ▶ Fleet Tracking in AssetWorks M4
- ▶ 10 Million Dollar Annual Budget



# Age of Fleet

- ▶ Licensed Equipment 32% In Cycle 68% Past Replacement Cycle.
- ▶ Unlicensed Equipment 30% In Cycle 70% Past Replacement Cycle.
- ▶ Snow Plows 75% In Cycle 25% Past Replacement Cycle.
- ▶ Two Way Radios 100% in Cycle 0% Past Replacement Cycle.
- ▶ Shop Equipment Replace as Needed.



# Replacement Considerations

- ▶ Age of Vehicle.
- ▶ Mileage or Hours.
- ▶ Condition.
- ▶ Usage.
- ▶ LTD Repair Cost.
- ▶ Lead Time.
- ▶ Future Trends, Needs and Plans.
- ▶ Priorities.
- ▶ Budgetary Constraints.



# Replacement Analysis Steps

## 1. Run a 5 year Replacement Analysis Report

EQUIPMENT REPLACEMENT SCHEDULE FY2013

6/17/2013

RC	DESCRIPTION	A.D.I	AI	D	YEAR	MAKE	REPL YR	BUY 13	BUY 13 COST	BUY 14	BUY 14 COST	BUY 15	BUY 145 COST	BUY 16	BUY 16 COST	BUY 17	BUY 17 COST	UNIT COST	
<b>TAUT</b>																			
<b>AUTO, 4 DR. COMP.</b>																			
5	AUTO, 4 DR. COMP.	2	1	1	1999	FORD	2004	1	16,000.00	0	0.00	0	0.00	0	0.00	0	0.00	16,000.00	
5	AUTO, 4 DR. COMP.	40	27	13	2001	CHEVY	2006	27	432,000.00	0	0.00	0	0.00	0	0.00	0	0.00	16,000.00	
TOTAL NUMBER OF UNITS		42						28	448,000.00	0	0.00	0	0.00	0	0.00	0	0.00		
<b>AUTO, 4 DR. INTERMEDIATE</b>																			
5	AUTO, 4 DR. INTERMEDIATE	2	1	1	1997	FORD	2002	1	21,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
5	AUTO, 4 DR. INTERMEDIATE	1	1	0	2001	CHEVY	2006	1	21,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
5	AUTO, 4 DR. INTERMEDIATE	46	24	22	2004	DODGE	2009	24	504,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
5	AUTO, 4 DR. INTERMEDIATE	25	20	5	2005	DODGE	2010	20	420,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
5	AUTO, 4 DR. INTERMEDIATE	1	1	0	2006	FORD	2011	1	21,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
5	AUTO, 4 DR. INTERMEDIATE	17	17	0	2007	CHRYSLER	2012	17	357,000.00	0	0.00	0	0.00	0	0.00	0	0.00	21,000.00	
TOTAL NUMBER OF UNITS		92						64	1,344,000.00	0	0.00	0	0.00	0	0.00	0	0.00		
<b>AUTO, 4 DR. WGN.</b>																			
5	AUTO, 4 DR. WGN.	4	4	0	2003	FORD	2008	4	68,000.00	0	0.00	0	0.00	0	0.00	0	0.00	17,000.00	
5	AUTO, 4 DR. WGN.	1	1	0	2005	FORD	2010	1	17,000.00	0	0.00	0	0.00	0	0.00	0	0.00	17,000.00	
TOTAL NUMBER OF UNITS		5						5	85,000.00	0	0.00	0	0.00	0	0.00	0	0.00		
<b>AUTO, 4DR. FULL SIZE</b>																			
5	AUTO, 4DR. FULL SIZE	2	2	0	2001	FORD	2006	2	50,000.00	0	0.00	0	0.00	0	0.00	0	0.00	25,000.00	
TOTAL NUMBER OF UNITS		2						2	50,000.00	0	0.00	0	0.00	0	0.00	0	0.00		
<b>HYBRID 4 DOOR SEDAN GAS/ELECTRIC POWERED</b>																			
5	HYBRID 4 DOOR SEDAN GAS/ELEC	3	3	0	2003	TOYOTA	2008	3	75,000.00	0	0.00	0	0.00	0	0.00	0	0.00	25,000.00	
5	HYBRID 4 DOOR SEDAN GAS/ELEC	4	4	0	2004	TOYOTA	2009	4	100,000.00	0	0.00	0	0.00	0	0.00	0	0.00	25,000.00	
5	HYBRID 4 DOOR SEDAN GAS/ELEC	2	2	0	2006	TOYOTA	2011	2	50,000.00	0	0.00	0	0.00	0	0.00	0	0.00	25,000.00	
5	HYBRID 4 DOOR SEDAN GAS/ELEC	4	4	0	2007	TOYOTA	2012	4	100,000.00	0	0.00	0	0.00	0	0.00	0	0.00	25,000.00	
5	HYBRID 4 DOOR SEDAN GAS/ELEC	30	30	0	2009	CHEVROLET	2014	0	0.00	30	757,500.00	0	0.00	0	0.00	0	0.00	25,000.00	
5	HYBRID 4 DOOR SEDAN GAS/ELEC	50	50	0	2012	FORD	2017	0	0.00	0	0.00	0	0.00	0	0.00	50	3,000,000.00	25,000.00	
TOTAL NUMBER OF UNITS		93						13	325,000.00	30	757,500.00	0	0.00	0	0.00	50	3,000,000.00		
<b>SUV COMPACT 4WD</b>																			
7	SUV COMPACT 4WD	23	23	0	2012	FORD	2019	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	22,000.00	
TOTAL NUMBER OF UNITS		23						0	0.00	0	0.00	0	0.00	0	0.00	0	0.00		
<b>VAN, MINI</b>																			
5	VAN, MINI	6	2	4	2000	DODGE	2005	2	36,000.00	0	0.00	0	0.00	0	0.00	0	0.00	18,000.00	
5	VAN, MINI	12	5	7	2003	DODGE	2008	5	90,000.00	0	0.00	0	0.00	0	0.00	0	0.00	18,000.00	
5	VAN, MINI	34	19	15	2005	DODGE	2010	19	342,000.00	0	0.00	0	0.00	0	0.00	0	0.00	18,000.00	
5	VAN, MINI	4	3	1	2006	DODGE	2011	3	54,000.00	0	0.00	0	0.00	0	0.00	0	0.00	18,000.00	
5	VAN, MINI	7	7	0	2007	DODGE	2012	7	126,000.00	0	0.00	0	0.00	0	0.00	0	0.00	18,000.00	
5	VAN, MINI	12	12	0	2009	DODGE	2014	0	0.00	12	218,160.00	0	0.00	0	0.00	0	0.00	18,000.00	



# Replacement Analysis Steps

## 2. Compile the Results

UTIL./AER. BAS. 1.5 T. - Need to list 1 more trade

Order # 13DCN0129

UNIT NO	MAKE	MODEL	YEAR	DESCRIPTION	METER	DEPT NO	COST	NORTH	CENTRAL	SOUTH	HDQRTS	TOTAL
TD05912	CHEVY	3500HD	1993	UTIL./AER. BAS. 1.5 T.	127,173.00	TCMA2000	\$ 91,109.00	11	16	11	1	39
TD05937	CHEVY	3500HD	1993	UTIL./AER. BAS. 1.5 T.	188,377.00	TEQA421402	\$ 91,109.00					
TD08299	GMC	3500HD	1995	UTIL./AER. BAS. 1.5 T.	188,922.00	TEQA435010	\$ 91,109.00					
TD10189	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	125,988.00	TMEA2860	\$ 91,109.00					
TD04153	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	129,938.00	TMEA2860	\$ 91,109.00					
TD10203	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	154,261.00	TMEA2860	\$ 91,109.00					
TD04106	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	152,570.00	TMEA2870	\$ 91,109.00					
TD10202	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	182,473.00	TMEA2870	\$ 91,109.00					
TD04101	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	224,444.00	TMEA2870	\$ 91,109.00					
TD10496	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	149,202.00	TMEA2880	\$ 91,109.00					
TD10608	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	180,890.00	TMEA2880	\$ 91,109.00					
TD10200	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	124,368.00	TMEA2810	\$ 91,109.00					
TD04266	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	150,877.00	TMEA3840	\$ 91,109.00					
TD10204	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	164,446.00	TMEA3840	\$ 91,109.00					
TD10188	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	165,328.00	TMEA3840	\$ 91,109.00					
TD10199	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	172,270.00	TMEA3840	\$ 91,109.00					
TD10497	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	179,915.00	TMEA3840	\$ 91,109.00					
TD10197	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	180,520.00	TMEA3840	\$ 91,109.00					
TD10186	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	184,294.00	TMEA3840	\$ 91,109.00					
TD04251	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	216,114.00	TMEA3840	\$ 91,109.00					
TD10206	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	128,571.00	TMEA3890	\$ 91,109.00					
TD10196	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	128,335.00	TMEA3890	\$ 91,109.00					
TD10205	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	133,644.00	TMEA3890	\$ 91,109.00					
TD10600	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	152,278.00	TMEA3890	\$ 91,109.00					
TD04261	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	157,873.00	TMEA3890	\$ 91,109.00					
TD10190	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	171,349.00	TMEA3890	\$ 91,109.00					
TD10192	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	174,112.00	TMEA3890	\$ 91,109.00					
TD04248	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	230,833.00	TMEA3890	\$ 91,109.00					
TD10609	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	128,300.00	TMEA4810	\$ 91,109.00					
TD10602	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	133,187.00	TMEA4810	\$ 91,109.00					
TD10184	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	168,137.00	TMEA4810	\$ 91,109.00					
TD10604	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	135,158.00	TMEA4830	\$ 91,109.00					
TD10501	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	138,195.00	TMEA4830	\$ 91,109.00					
TD10495	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	139,058.00	TMEA4830	\$ 91,109.00					
TD10193	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	154,612.00	TMEA4830	\$ 91,109.00					
TD10187	FORD	F568	2003	UTIL./AER. BAS. 1.5 T.	155,003.00	TMEA4830	\$ 91,109.00					
TD04103	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	239,697.00	TMEA4830	\$ 91,109.00					
TD04142	FORD	F467	1999	UTIL./AER. BAS. 1.5 T.	241,287.00	TMEA4830	\$ 91,109.00					
TD10599	FORD	F568	2005	UTIL./AER. BAS. 1.5 T.	96,406.00	TEQA435010	\$ 91,109.00					
39								\$ 1,002,199.00	\$ 1,457,744.00	\$ 1,002,199.00	\$ 91,109.00	\$ 3,553,251.00



# Replacement Final Steps

1. Assemble Meeting With Equipment Committee.
2. Make Tough Decisions and Prioritize.
3. Flag Vehicles in The Fleet System.
4. Assign Projects the Engineering Staff.
5. Work With OMB.
6. Work With Purchase and Property.
7. Keep Everyone Informed of The Progress.



Thank You

Any Questions?

