

FY10 ROAD MANAGEMENT PROGRAM EXECUTIVE SUMMARY

Purpose

To utilize a rating system to develop a prioritized listing of necessary road improvements and to estimate costs over a three-year planning period.

History

Beginning in 1995, the Town of Sturbridge began an annual road program to manage road and infrastructure improvements. The initial system used was developed by CMRPC and was heavily reliant on data collection and software analysis. In 1997, the Town began using an internal system based on a comparative analysis of roads throughout town using road surface type, adequacy of drainage, road condition, cracking, deterioration of roadsides and the priority of the road. This analysis was developed by conducting site visits on all roads in town. Starting in 2006, a more defined analysis was initiated which is discussed below.

Rating Process

The process continues to include conducting site visits on all town roads, making notations on conditions and developing spreadsheet analysis which identify the roads overall which are the highest priority for repairs, repaving, drainage and other improvements.

The criteria to be reviewed on each road for the road program include:

1. Year Road was paved – If a road was paved within the past five years, it's possible for the road to be rated a 9 and above. If a road has been paved over five years ago and less than ten years ago, it's possible for the road to be rated up to a 9. If a road has been paved over 10 years ago and less than 15 years ago, its possible for a road to be rated up to an 8. The actual road rating will depend on the other factors below affecting road condition.
2. Crack-Sealed – Has the road been crack-sealed to fill any cracks to prevent potholes. If so, has it been effective, does it provide a smooth surface for drivers? If so, add +1 to road surface rating. If not, subtract -1 to road surface rating.

3. “Rideability” of surface – Does the road surface provide a smooth ride for vehicles? If so, add +2 for road surface rating. If not, subtract -1 to road surface rating.
4. Utility work – Has the road had utility work, has it been repaired or repaved? If not, subtract -1 from the road surface rating.
5. Quality of drainage – Is there standing water during rain storms or does the road flood? If not, add +1 to road surface rating, if so, subtract -1 from road surface rating.
6. Cracking – Is the road in excellent condition with no cracking? If so, add +2; with minimal cracking +1; with additional cracking that does not effect rideability +.5. If there is severe cracking, rough riding surface and potholes, subtract -2; if there are some potholes and ride is somewhat rough subtract -1.
7. Deterioration of roadsides – If the sides of the road are in good condition add +1. If the roadsides are deteriorating and there are sections missing, subtract -1.
8. Road Priority – If the road is a Priority I and considered in excellent condition, add +1, if it is in poor condition, subtract -1. If the road is a Priority II and in excellent condition add +.75, if it is in poor condition, subtract -.75. If the road is a Priority III road in excellent condition, add +.5, and if it is in poor condition, subtract -.5.
9. Safety – If there are no safety concerns (adequate guardrail, lines of sight, etc.) add +1, if not subtract -1.
10. Snow Plowing – If the road is not rutted from traffic, add +1 if it is subtract -1.

As a general guideline, persons conducting the rating can give partial credit in increments of .25; .50 and .75.

Additionally, in developing the three-year road program, the following scale is used to determined the need for any particular road surface (by type of road)

- 0.0 – 3.0 Road condition is unacceptable, immediate work should commence to correct all problems.

- 3.1 – 4.0 Road condition is unacceptable for Priority I and II roads; work should commence within one year to correct all problems. Road conditions may be acceptable for Priority III roads.
- 4.1 – 5.0 Road condition is acceptable, but has certain problems that need to be addressed for Priority I and II roads (i.e. drainage or a section may need to be repaved) and very good for Priority III roads.
- 5.1 – 7.0 Road condition is average for Priority I and II roads and excellent for Priority III roads.
- 7.1 – 8.5 Road condition is very good for Priority I and II roads and excellent for Priority III roads.
- 8.6 – 10.0 Road condition is excellent for Priority I, II and III roads, resulting from recent improvements.

Road Condition

The Town maintains 79.02 miles of public roads of varying widths. The Town’s goal is to have an overall rating of all public roads of 7.50; the overall rating for 2008 is 7.55 down from the peak in 2001 of 8.10. The goal of attaining 7.50 set in 1995 was first met in 2001. The ten-year history of overall condition of town roads has been as follows:

1999	7.00
2000	7.00
2001	7.60
2002	8.10
2003	7.88
2004	8.00
2005	7.85
2006	7.73
2007	7.61
2008	7.55

The Town also set a goal of attaining (and maintaining) the following rating for each priority level:

Priority I	5.00
Priority II	4.00
Priority III	3.00

Using these stated goals, the Town meets (and exceeds) the goal for overall road rating at 7.55 and on minimal acceptable level for each priority. The lowest Priority I road is Whittemore Road rated a 6; the lowest Priority II road is River Road rated a 6.25; and Priority III road is Champeaux Road rated a 3.5. The following table demonstrates the strides the Town has made since the initial road program in 1995:

ROAD TYPE	1995	2007	2008	1995-2008 +/- Change	2007-2008 +/- Change
TOTAL MILES	70.14	78.23	79.02	8.88	0.79
CONDITION RATING	4.90	7.61	7.55	2.65	(0.06)
MILES OF:					
BITUMINOUS PAVING	26.91	70.55	73.21	46.30	2.66
STONE SEALED	-	2.16	2.16	2.16	-
STONE SEALED & BITUMINOUS	-	1.42	1.42	1.42	-
BITUMINOUS & OIL SEALED	8.97	-	-	(8.97)	-
BITUMINOUS & COLD MIX	4.47	-	-	(4.47)	-
COLD MIX	1.28	-	-	(1.28)	-
OIL SEALED	20.59	0.23	0.23	(20.36)	-
OIL SEALED & GRAVEL	3.68	0.98	0.98	(2.70)	-
OIL SEALED & AMREC	0.78	-	-	(0.78)	-
BITUMINOUS/STONE SEALED/GRAVEL	-	1.87	-	-	(1.87)
GRAVEL	1.59	1.02	1.02	(0.57)	-
GRAVEL & AMREC	1.87	-	-	(1.87)	-
	70.14	78.23	79.02	8.88	0.79

From 1995 through 2008, the Town has added 8.88 miles of roads to its infrastructure and the average rating has gone from 4.90 to 7.55 through a carefully planned program of improvements and maintenance. More significantly is the upgrade from a variety of road surfaces to bituminous pavement (asphalt). In 1995 only 26.91 miles (or 38.4%) of town roads were paved; in 2008 the town attained 73.21 (or 92.6%) of Town roads having a paved surface.

2008 Road Projects

During the current year, the following projects were undertaken throughout town:

McGilpin Road – Paved 7600 linear feet of 9770 total linear feet
Hamilton Road – Entire Road paved (4250 linear feet)
Woodside Circle – Entire Road paved (2590 linear feet)
Westwood Drive – Paved 1660 linear feet of 4500 total linear feet
Cedar Street – Paved 4490 feet of 16,605 total linear feet

2009 – 2011 Projects

As discussed in the past, the amount of work that the DPW has the ability to accomplish is directly tied to the human and financial resources available to the department. The department was reorganized in FY06 and additional staffing was planned in FY2007, but was eliminated in the FY07, FY08, FY09 and will likely not be in the FY10 budgets in order to balance the budget. The Personnel Committee voted to make this a priority in the FY08 & FY09 budget in order to maintain the Town's infrastructure and will need to be a major consideration during the budget process.

McGilpin Road – Phase III Paving
Arnold Road – Phase II Paving
Arnold Road – Phase III Paving
Cedar Street – Phase III Paving
Hall Road – Paving
Whittemore Road

Since FY04, the road program has included a listing of potential projects to be undertaken in the ensuing three-year period to allow flexibility and to respond to external constraints and other issues which affect various projects.

Conclusion

It is imperative that the Town continue to track and monitor the condition and quality of the Town's infrastructure. As much as town buildings and equipment, the roads in town are a major investment that is necessary to maintain for the public safety and convenience. According to the Town's annual review for GASB 34 depreciation analysis, roads in town have an overall depreciated value of \$3,663,996. Moreover, it is imperative that the Town not fall behind in the overall maintenance of the Town's infrastructure, or as we found in the mid-1990's it takes years of investment to upgrade the town roads to acceptable standards.

Considering the 79.02 miles of town roads and an estimated useful life of pavement of 12 years, the Town needs to be on a schedule of repaving approximately 6.6 miles of town roads per year. With an average current cost of \$105,092¹ per mile for pavement, the Town needs to set a FY10 goal to budget a minimum of \$693,600 per year (up from \$645,736 in FY09 and \$552,500 in FY08) be available for paving (state and local funding) to maintain the Town roads.

The FY09 Chapter 90 state aid for the Town of Sturbridge is \$323,394 (the same as FY08) which would require that the Town fund \$370,200 at the local level (up from \$322,414 in FY09) to meet this standard. Chapter 90 is funded through a state formula based on all communities in which the communities are weighted based on (1) Road Miles (58.33%); (2) Population (20.83%); and (3) Employment (20.83%). The budget as presented for FY10 includes \$200,000 for road construction leaving the Town \$170,200 short of adequately funding road maintenance projects. This shortage of funding is evident in the overall road ratings which have been decreasing the past several years. While the Town is still above the goal for overall road condition of 7.50, the Town needs to be vigilant to begin adequately funding infrastructure or in the near future roads will reach an unacceptable condition and funding to make the necessary improvements will not be impossible or will require long-term debt issuance and unnecessary interest costs to provide routine maintenance. The impact of reduced Chapter 90 funds and substantial increases in the cost of paving have resulted in the need to increase this budget line item. If the Town cannot increase funding for road maintenance, the alternative would be to begin returning some roads from bituminous pavement to stone sealed roads.

¹ 1,774 tons per mile @ \$59.24 per ton (up from \$54 last year) = \$105,092 per mile (up from \$99,344 in FY09 and \$86,926 in FY08)

ROAD MANAGEMENT PROGRAM 2008
SORTED BY CONDITION

NAME	PRIORITY	LENGTH	SURFACE	RECENT WORK	2007		REMARKS	07 ADJ		CRACK		UTILITY		DET OF		ROAD		2008		08 ADJ	
					CONDITION	AVG		YEAR	SEALED	RIDE	WORK	DRAIN	CRACKS	SIDES	PRIOR	SAFETY	PLOW	TOTAL	AVG		
CHAMPEAUX	III	0.63	OS/GR		3.50		BRIDGE REBUILT IN 01	2.21	N/A	0	0.75	0	1	0	0	0	0.75	1	3.50	2.21	
BEAUDRY ROAD	III	0.42	GR		3.75			1.58	N/A	0	0.75	0	1	0	0	0	1	1	3.75	1.58	
KELLY ROAD	III	0.35	GR/OS	94 OS/PAVE	3.75		PAVE 04	1.31	2004	0	0.75	0	1	0	0	0	1	1	3.75	1.31	
GIFFORD	III	0.56	GR	98 DRAINAGE	4.75			2.66	N/A	0	0.75	0	1	0	0.5	0.5	1	1	4.75	2.66	
SHUMWAY RD	III	0.04	GR		5.25			0.21	N/A	0	0.75	0	1	0.75	0.75	0	1	1	5.25	0.21	
FOREST LANE	III	0.12	SS	98 SS	5.75			0.69	N/A	0	0.75	0	1	1	1	0	1	1	5.75	0.69	
WHITTEMORE	I	0.60	BIT	99 PAVE	7.00		PHASE II	4.20	1999	1	0.5	0	0.75	0.5	0.5	0.75	1	1	6.00	3.60	
FALLS	III	0.23	OS	94 OS	6.25			1.44	1994	1	0.75	0	1	0.75	0.75	0	1	1	6.25	1.44	
RIVER ROAD	II	1.35	BIT	96 & 97 PAVE	6.50			8.78	1997	0.75	0.5	0	1	0.75	0.5	1	1	0.75	6.25	8.44	
HALL ROAD	I	1.11	BIT	99 PAVE	7.25		PHASE II	8.05	1999	1	1.25	-0.25	1	1	1	-0.25	1	0.75	6.50	7.22	
LEADMINE S	II	1.38	BIT	98 & 99 PAVE	7.75			10.70	1999	0.75	0.5	0	1	0.5	0.75	1	1	1	6.50	8.97	
PLYMPTON AVE	III	0.21	BIT	01 PAVE & 93 OS	6.75		PHASE III - PAVED IN 01	1.42	2001	1	0.75	0	1	0.75	1	0	1	1	6.50	1.37	
ARNOLD DRIVE	III	0.05	BIT	94 PAVE	6.75			0.34	1994	1	0.75	0	1	1	1	0	1	1	6.75	0.34	
ARNOLD ROAD	I	2.70	BIT	94 PAVE	7.25		COOPER ROAD N IN 04	19.58	2004	1	0.75	0	1	0.75	0.75	1	1	0.5	6.75	18.23	
CHAMBERLAIN AVE	II	0.05	BIT	99 PAVE	8.25		PHASE II	0.41	1999	1	0.5	0	1	1	0.5	0.75	1	1	6.75	0.34	
FARQUHAR	II	0.90	BIT	97 & 02 PAVE	7.25		PHASE III - PAVED IN 02	6.53	2002	1	0.5	0	1	1.25	1	0	1	1	6.75	6.08	
FINLAY	II	1.11	BIT	97 PAVE	7.00			7.77	1997	0.75	0.75	0	1	0.5	0.75	1	1	1	6.75	7.49	
FISKE HILL	I	2.87	BIT	00/01/02 PAVE	7.25		PHASE II & III - PAVED IN 02	20.81	2002	1	0.5	-0.25	1	0.75	0.75	1	1	1	6.75	19.37	
GARDNER	III	0.23	BIT	95 PAVE	6.75			1.55	1995	1	0.75	0	1	1	1	0	1	1	6.75	1.55	
GLENDALE	II	1.15	BIT	98 PAVE	7.25			8.34	1998	1	0.5	0	1	0.5	0.75	1	1	1	6.75	7.76	
HINMAN ST	III	0.11	BIT	94 PAVE	6.75			0.74	1994	1	0.75	0	1	1	1	0	1	1	6.75	0.74	
LAFLEMMME LANE	I	0.08	BIT		6.75			0.54	N/A	0	0.75	0	1	1	1	1	1	1	6.75	0.54	
MAPLE	II	0.41	BIT	99 PAVE	7.75		PHASE II	3.18	1999	0.75	0.5	-0.5	1	1	1	1	1	1	6.75	2.77	
NORTH DRIVE	III	0.55	BIT	97 PAVE	6.75			3.71	1997	1	0.75	0	1	1	1	0	1	1	6.75	3.71	
OLD FARM	III	0.69	BIT	00 PAVE	6.75		PHASE II	4.66	2000	1	0.75	0	1	1	1	0	1	1	6.75	4.66	
PODUNK	II	2.44	BIT	PAVE 96, 97, 98	7.00			17.08	1998	0.75	1	0	1	1.25	1	0	1	0.75	6.75	16.47	
RIVERVIEW	III	0.20	BIT	94 PAVE	6.75			1.35	1994	1	0.75	0	1	1	1	0	1	1	6.75	1.35	
SHEPARD PL	III	0.18	BIT	96 & 05 PAVE	6.75			1.22	2005	1	0.75	0	1	1	1	0	1	1	6.75	1.22	
ALLEN ROAD	I	1.28	BIT	97 PAVE	7.75			9.92	1997	1	0.5	0	1	0.5	1	1	1	1	7.00	8.96	
CEDAR ST	I	2.51	BIT	93, 00 & 05 PAVE	6.50		PHASE II + 95 CRACK SEAL	16.32	2005	1	0.75	-0.5	1	1	0.75	1	1	1	7.00	17.57	
NEW BOSTON	I	2.60	BIT	97 PAVE	7.00			18.20	1997	1	0.75	0	1	0.75	1	1	1	0.5	7.00	18.20	
SIMPSON ST	III	0.16	BIT	91 OS & 02 PAVE	7.25		PHASE III - PAVED IN 02	1.16	2002	1	1	0	1	1	1	0	1	1	7.00	1.12	
STREETER	III	0.76	BIT	95 OS & 00 PAVE	8.00		END OIL SEALED 2007	6.08	2000	0.75	1.25	0	1	1	1	0	1	1	7.00	5.32	
BLUEBERRY	III	0.18	BIT	02 PAVE	7.75		PHASE III	1.40	2002	1	1	0	1	1.25	1	0	1	1	7.25	1.31	
BREAKNECK	II	2.08	BIT	97/98/02 PAVE	7.75		FINAL SECTION IN 02	16.12	2002	1	1.25	0	1	1	1	0	1	1	7.25	15.08	
CEDAR POND RD	III	0.19	BIT	94 OS & 00 PAVE	8.25		CEDAR LAKE	1.57	2000	1	0.75	0	1	1.5	0.5	0.5	1	1	7.25	1.38	
COUNTRY HILL	II	0.13	BIT	00 PAVE	7.75		PHASE II	1.01	2000	1	0.5	0	1	0.75	1	1	1	1	7.25	0.94	
FAIRVIEW	III	0.85	BIT	95/99/02 PAVE	6.75		PHASE III - PAVED IN 02	5.74	2002	1	0.75	0	1	1.5	1	0	1	1	7.25	6.16	
GEDEON	III	0.13	BIT	01 PAVE	7.25		PHASE III - PAVED IN 01	0.94	2001	1	0.75	0	1	1.5	1	0	1	1	7.25	0.94	
GLENRIDGE	III	0.93	BIT	98 PAVE	7.75			7.21	1998	1	1.25	0	1	1.5	0.5	0	1	1	7.25	6.74	
LADD ROAD & EXT	III	1.42	SS/BIT	01, 00 SS & 06 PAVE	7.50		COMPLETED SS IN 01	10.65	2006	0	1	0	1	1.5	1	0.75	1	1	7.25	10.30	
MASHAUG	I	1.89	BIT	92 & 00, 01 PAVE	8.00			15.12	2001	1	0.25	0	1	1.5	0.75	1	0.75	1	7.25	13.70	
PARADISE LANE	II	0.56	BIT	98 PAVE	7.75		PAVE 04	4.34	2004	1	0.75	0	1	0.5	1	1	1	1	7.25	4.06	
SHEPARD RD	II	1.66	BIT	96, 99 & 04 PAVE	8.25		PAVE 04	13.70	2004	1	0.25	0	1	1.5	0.75	0.75	1	1	7.25	12.04	
COOPER	II	0.60	BIT	95 PAVE	7.50		NEW STREAM CROSSING 02	4.50	1995	0.75	0.75	0	1	1	1	1	1	1	7.50	4.50	
CRICKET DR	II	0.71	BIT	00/01/02 PAVE	7.75		PHASE III - PAVED IN 02	5.50	2002	1	1.25	0	1	1.25	1	0	1	1	7.50	5.33	
GRASSHOPPER	II	0.11	BIT	99 PAVE	7.75		PHASE II	0.85	1999	1	0.75	0	1	0.75	1	1	1	1	7.50	0.83	
LAKE ROAD	III	0.24	BIT	05 PAVE 01 SS	9.00		STONE SEALED IN 01	2.16	2001	1	1.25	0	1	1	0.75	0.5	1	1	7.50	1.80	
MCGREGORY	II	0.51	BIT	98 OS 02 PAVE	7.75		PHASE III - PAVED IN 02	3.95	2002	1	1.25	0	1	1.25	1	0	1	1	7.50	3.83	
WILLARD	II	0.33	BIT	99 PAVE	7.75		PHASE II	2.56	1999	1	1.25	0	1	1.25	1	0	1	1	7.50	2.48	
BROOKFIELD	I	3.38	BIT	93 & 97 PAVE	8.00		TANTASQUA PROJECT	27.04	2002	1	0.75	-0.25	1	1.25	1	1	1	1	7.75	26.20	
CHARLTON	II	0.17	BIT	99 PAVE	8.25		PHASE II	1.40	1999	1	0.5	0	1	1.5	1	0.75	1	1	7.75	1.32	
CHURCH ST	II	0.60	BIT	02 PAVE	8.50		PAVED IN 02	5.10	2002	1	0.75	0	1	1.5	0.75	0.75	1	1	7.75	4.65	
CLARK & EXT.	III	0.80	BIT	02 PAVE	8.50		PAVED IN 02	6.80	2002	1	0.75	0	1	1.5	1	0.5	1	1	7.75	6.20	
COVE DR	III	0.16	BIT	00 PAVE	8.25		CEDAR LAKE	1.32	2000	1	0.75	0	1	1.5	1	0.5	1	1	7.75	1.24	
FAIRGROUNDS	III	0.25	BIT	00 & 97 PAVE	7.75		CEDAR LAKE	1.94	2000	1	1.25	0	1	1.5	1	0	1	1	7.75	1.94	
HAWTHORNE	III	0.13	BIT	99 PAVE	7.75		PHASE II	1.01	1999	1	1.25	0	1	1.5	1	0	1	1	7.75	1.01	
HAYNES ST	I	0.24	BIT	96 & 99 PAVE	7.75			1.86	1999	1	0.75	0	1	1	1	1	1	1	7.75	1.86	
HOLLAND	I	2.46	BIT	02 PAVE	8.00		BRIDGE/PAVING 01 - PAVED 02	19.68	2002	1	0.25	0	1	1.75	1	1	0.75	1	7.75	19.07	

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NAME	PRIORITY	LENGTH	SURFACE	RECENT WORK	2007 CONDITION	REMARKS	07 ADJ		CRACK		UTILITY		DET OF ROAD		SAFETY		2008		08 ADJ	
							AVG	YEAR	SEALED	RIDE	WORK	DRAIN	CRACKS	SIDES	PRIOR	SAFETY	PLOW	TOTAL	AVG	
JAMIESON ROAD	II	0.21	BIT	99 PAVE	8.25	PHASE II	1.73	1999	1	0.5	0	1	1.5	1	0.75	1	1	7.75	1.63	
OLD HAMILTON	III	0.31	BIT	91 OS & 00 PAVE	7.75	CEDAR LAKE	2.40	2000	1	1.25	0	1	1.5	1	0	1	1	7.75	2.40	
OLD STURBRIDGE	II	0.20	BIT	01 & 92 PAVE	7.75	PHASE III - PAVED IN 01	1.55	2001	1	1.25	0	1	1.5	1	0	1	1	7.75	1.55	
PICKER	III	0.29	BIT	00 PAVE	9.00	PAVED BY FW WEBB	2.61	2006	0.75	1	0	1	1	1	1	1	1	7.75	2.25	
RACICOTT	III	0.33	BIT	97, 05 PAVE & 01 SS	8.50		2.78	2005	1	0.75	0	1	1.5	1	0.5	1	1	7.75	2.53	
RIDGE WAY	III	0.25	BIT	00 PAVE	7.75	CEDAR LAKE	1.94	2000	1	1.25	0	1	1.5	1	0	1	1	7.75	1.94	
ROUTE 15	I	5.86	BIT	96 PAVE	7.75		45.42	1996	1	0.75	0	1	1	1	1	1	1	7.75	45.42	
STALLION HILL	II	1.30	BIT	95 & 98 PAVE	8.75		11.38	2007	1	1	0	1	1	1	0.75	1	1	7.75	10.08	
WELLS PARK	II	0.70	BIT	98 & 04 PAVE	8.50		5.95	2004	1	0.75	0	1	1.25	1	0.75	1	1	7.75	5.43	
WELLS PARK EXT	II	0.18	BIT	98 SS & 00 PAVE	8.50		1.53	2000	1	0.75	0	0.5	1.75	1	0.75	1	1	7.75	1.40	
WESTWOOD DR	III	0.88	BIT	98, 00 & 08 PAVE	6.75	PAVED AS PART OF WOODSIDE	5.94	2008	1	1	0	1	1.5	1.25	0	1	1	7.75	6.82	
BURGESS SCHOOL	I	0.25	BIT	97 PAVE	8.00		2.00	1997	1	0.25	0	1	2	1	1	0.75	1	8.00	2.00	
MORSE	II	0.11	BIT	99 PAVE	8.00	PHASE II	0.88	1999	1	1.25	0	1	1.75	1	0	1	1	8.00	0.88	
SHATTUCK	III	0.66	BIT	95 PAVE/OS	8.00	PAVE SOUTH PART 04	5.28	2004	1	1.5	0	1	1.5	1	0	1	1	8.00	5.28	
STONYBROOK	III	0.13	BIT	02 PAVE	8.25	PHASE III - PAVED IN 02	1.07	2002	1	0.75	0	1	1.75	1	0.5	1	1	8.00	1.04	
APPLE HILL	III	0.10	BIT	99 PAVE	8.25	PHASE II	0.83	1999	1	0.75	0	1	2	1	0.5	1	1	8.25	0.83	
OLD VILLAGE	II	0.64	BIT	96 OS & 00 PAVE	8.25		5.28	2000	1	0.5	0	1	2	1	0.75	1	1	8.25	5.28	
PINE HAVEN	III	0.03	BIT	94 & 02 PAVE	8.25	PHASE III - PAVED 02	0.25	2002	1	0.75	0	1	2	1	0.5	1	1	8.25	0.25	
SUMMIT RIDGE	III	0.10	BIT	99 PAVE	8.25	PHASE II	0.83	1999	1	0.75	0	1	2	1	0.5	1	1	8.25	0.83	
SUNSET DR	III	0.11	BIT	00 PAVE	8.25	CEDAR LAKE	0.91	2000	1	0.75	0	1	2	1	0.5	1	1	8.25	0.91	
TAFT ST	III	0.05	BIT	99 PAVE	8.25	PHASE II	0.41	1999	1	0.75	0	1	2	1	0.5	1	1	8.25	0.41	
WALLACE ROAD	II	1.06	BIT	01 PAVE	9.50	REMAINING PAVE 04	10.07	2006	1	1.5	0	1	1	1	0.75	1	1	8.25	8.75	
HIGH ST	III	0.17	BIT	94 OS/PAVE 04	9.00	PAVE 04	1.53	2004	1	1.5	0	1	1.5	1	0.5	1	1	8.50	1.45	
PUTNAM	II	0.51	BIT	93 & 04 PAVE	9.00	PAVE 04	4.59	2004	1	1.25	0	1	1.5	1	0.75	1	1	8.50	4.34	
RIDGEVIEW RD	III	0.15	BIT	02 PAVE	8.50	PAVED 02	1.28	2002	1	1	0	1	2	1	0.5	1	1	8.50	1.28	
THE TRAIL	III	0.15	BIT	98 PAVE/04 PAVE	9.00	BIG ALUM	1.35	2004	1	1.5	0	1	1.5	1	0.5	1	1	8.50	1.28	
WEDGEWOOD	III	0.09	BIT	02 PAVE	8.50	PHASE III - PAVED 02	0.77	2002	1	1	0	1	2	1	0.5	1	1	8.50	0.77	
WILLIAMS	III	0.09	BIT	02 PAVE	8.50	PHASE III - PAVED 02	0.77	2002	1	1	0	1	2	1	0.5	1	1	8.50	0.77	
BROOK HILL	III	0.25	BIT	05 PAVE	9.25	ACCEPTED 12-6-05	2.31	2005	1	1.5	0	1	1.75	1	0.5	1	1	8.75	2.19	
HILLSIDE DRIVE	III	0.42	BIT	02 PAVE	8.75	PAVED IN 02	3.68	2002	1	1.25	0	1	2	1	0.5	1	1	8.75	3.68	
LAUREN LANE	III	0.44	BIT	05 PAVE	9.25	ACCEPTED 4-30-07	N/A	2005	1	1.5	0	1	1.75	1	0.5	1	1	8.75	3.87	
LEADLINE N	II	2.70	SS	02 SS/07 PAVE	8.75	PAVED 3500' IN 2007	23.63	2007	1	1.25	0	1	1.5	1	1	1	1	8.75	23.63	
MILDRED CIRCLE	III	0.07	BIT	02 PAVE	9.25	ACCEPTED 4-29-02	N/A	2005	1	1.5	0	1	1.75	1	0.5	1	1	8.75	0.61	
NEWTON PLACE	III	0.11	BIT	98 SS & 02 PAVE	8.75	PHASE III - PAVED IN 02	0.96	2002	1	1.25	0	1	2	1	0.5	1	1	8.75	0.96	
STERNS DRIVE	III	0.20	BIT	97 SS/04 PAVE	9.00	PAVE 04	1.80	2004	1	1.5	0	1	1.75	1	0.5	1	1	8.75	1.75	
SYDNEY WAY	III	0.28	BIT	02 PAVE	9.25	ACCEPTED 4-29-02	N/A	2005	1	1.5	0	1	1.75	1	0.5	1	1	8.75	2.49	
WALKER POND RD	II	1.40	BIT	02 PAVE/04 PAVE	9.00	.70 = 10.0 (PAVE 04) & .70 = 9.25	12.60	2004	1	1	0	1	2	1	0.75	1	1	8.75	12.25	
WARREN ROAD	I	0.34	BIT	92 PAVE/04 PAVE	9.50	PAVE 04	3.23	2004	1	1.25	0	1	1.5	1	1	1	1	8.75	2.98	
BATES HILL	III	0.14	BIT		9.00	SPRING 04 PAVE	1.26	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	1.26	
CURBOY	III	0.24	BIT	04 PAVE	9.00	PAVE 04	2.16	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	2.16	
DOUTY	II	0.52	BIT	95 & 05 PAVE 96 OS	9.50		4.94	2005	1	1.5	0	1	1.75	1	0.75	1	1	9.00	4.68	
FOX RUN	III	0.22	BIT	01 & 05 PAVE 91 OS	9.00	PHASE III - PAVED IN 01	1.98	2001	1	1.5	0	1	2	1	0.5	1	1	9.00	1.98	
HARRINGTON CT	III	0.08	BIT	04 PAVE	9.00	PAVED 04	0.72	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	0.72	
LAKEWOOD TRAIL	III	0.08	BIT	04 PAVE	9.00	PAVED 04	0.72	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	0.72	
LAUREL HILL	III	0.05	BIT	04 PAVE	9.00	PAVE 04 + DRAINAGE	0.45	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	0.45	
NEW BOSTON EXT	III	0.37	BIT	04 PAVE	9.00	SERVICE RD - DPW	3.33	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	3.33	
OLD MASHAPAUG	III	0.30	BIT	95 OS/04 PAVE	9.00		2.70	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	2.70	
ORCHARD	III	0.18	BIT	04 PAVE	9.00		1.62	2004	1	1.5	0	1	2	1	0.5	1	1	9.00	1.62	
WOODLAWN DR	III	0.56	BIT	02 PAVE	9.00		5.04	2002	1	1.5	0	1	2	1	0.5	1	1	9.00	5.04	
COMONWEALTH	III	0.25	BIT	94 RECONS	9.75		2.44	2006	1	1.75	0	1	1.5	1	1	1	1	9.25	2.31	
McGILPIN	III	1.87	BIT	5 PAVE 98 SS 08 PAVE	3.25	RECONSTRUCTED 2008	6.08	2008	1.25	1.5	0	1	1.75	0.75	1	1	1	9.25	17.30	
COLLETTE	III	0.49	BIT	95, 04 & 05 PAVE	9.75		4.78	2005	1	1.75	0	1	1.75	1	1	1	1	9.50	4.66	
LENO	III	0.21	BIT	97 PAVE	6.25		1.31	1997	1	1.75	0	1	1.75	1	1	1	1	9.50	2.00	
SCHOOL ST	III	0.05	BIT		9.50	PAVE 04	0.48	2007	1	2	0	1	2	1	0.5	1	1	9.50	0.48	
VINTON	II	0.52	BIT	05 PAVE 99 SS	9.50		4.94	2005	1	1.75	0	1	2	1	0.75	1	1	9.50	4.94	
BUSHNELL RD	III	0.52	BIT	01 SS, 06 PAVE	9.75	STONE SEALED IN 01	5.07	2006	1	1.75	0	1	2	1	1	1	1	9.75	5.07	
SNELL ST	II	0.16	BIT		9.75		1.56	2007	1	2	0	1	2	1	0.75	1	1	9.75	1.56	
SOUTH ROAD	III	0.94	BIT	04, 05, 01 & 98 SS	9.75		9.17	2006	1	1.75	0	1	2	1	1	1	1	9.75	9.17	
SUMMIT AVE	III	0.15	BIT	95 PAVE	9.75		1.46	2006	1	1.75	0	1	2	1	1	1	1	9.75	1.46	
HAMILTON	II	0.78	BIT	95 & 08 PAVE	5.25	PAVED 08	4.10	2008	1	2	0	1	2	1	1	1	1	10.00	7.80	
WOODSIDE CIRCLE	III	0.48	BIT	08 PAVE	6.75	PAVED 08	3.24	2008	1	2	0	1	2	1	1	1	1	10.00	4.80	
GR = GRAVEL																				
OS = OIL SEAL																				
BIT = BITUMINOUS PAVING																				
CM = COLD MIX																				
SS= STONE SEAL																				