

**Jordan Township  
Current Pavement Condition Status  
June 2015**

This report is provided for information on the current status of the local county paved roads in the township. For some, it is a useful tool when looking at potential road projects. It is by no means meant as a final determination of road projects. The Antrim County Road Commission has a cost share policy which allows it to share in a portion of the cost of most local road improvements that a township may decide to accomplish.

The included priorities are based on Asset Management principals. Asset Management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured, in this case, road pavements. The goal is to maintain a pavement in a good condition, making periodic investments in the pavement that keep it in a good condition, rather than letting it deteriorate to a level that requires a major investment to bring it back to a good condition. The periodic investments typically total less than the major investment required to rebuild a pavement.

This report uses the PASER pavement condition rating system. PASER stands for Pavement Surface Evaluation and Rating. PASER ratings range from 1, failed condition, to 10, brand new pavement. A pavement will only be a 10 the first year of its life, the second year automatically becoming a 9. Any condition of 8 or greater is considered to be a good condition, 7 through 5 is fair, with 4 and below poor.

Table 1 shows the typical pavement treatments for each PASER rating and the estimated costs per mile of roadway for each option.

Table 1

PASER Road Rating	Typical Treatment	Estimated cost per mile
10	No maintenance - new road first year only	\$ 0
9	No maintenance - like new	\$ 0
8	Minimal routine maintenance	\$ 0
7	Crack filling - minor maintenance	\$ 4,500
6	Chip seal with crack filling	\$ 33,100
5 - 6	Ultra-thin HMA overlay (road cannot be distorted)	\$ 44,000
5	Chip seal with hot mix wedging or 1 ½" hot mix asphalt (HMA) overlay	\$ 85,000
4	wedge and 1 ½" HMA overlay or 2" HMA overlay	\$ 120,000
3	Crush and shape, 2" HMA paving	\$ 135,000
1-2	Reconstruction - very poor condition	\$160,000 +

The treatments listed in Table 1 are for general estimating purposes. A specific treatment can only be determined with a close inspection of the actual road. Using the PASER ratings and the listed treatment will give fairly accurate budgeting numbers. Different treatments than those listed in Table 1 for a given PASER rating may be appropriate in certain cases.

A hot mix asphalt (HMA) pavement will typically last from 15 to 20 years. At that point, it is usually beyond a preservation treatment and requires a major investment. Good pavement management would involve less expensive treatments earlier in the life of the pavement in order to extend the useful life. A variety of treatments and repairs are listed in this report. An emphasis is placed on early preventive maintenance treatments as suggested by the principals of asset management.

Table 2 shows the most current PASER ratings for all local county roads in the township along with the termini and length for each segment rated. Also included is the age of the pavement. The Last PM column shows the year that a preventive maintenance treatment was applied. This is typically something less than two inches of HMA and other treatments such as a chip seal. All roads were rated in 2015.

Table 2

PASER Rating	Road Name	From	To	Length (miles)	Age of HMA	Last PM
9	Hejhal Rd	M 32	South 0.84 mile	0.838	1	
9	Hejhal Rd	0.84 mi s of M32	Chiak	0.468	3	
8	Hejhal Rd	Chiak	0.84 mi south of M32	0.534	3	
8	Hejhal Rd	Mt Bliss	North 1.132 mile	1.132	4	
8	Big Marsh Rd	M 32	Stanek Rd	0.500	7	
8	Marvon Rd	M 32	end of pavement	1.006	9	
8	Webster Bridge Rd	Garner	N end of pavement	0.192	12	2012
8	Webster Bridge Rd	M 66	North 1000 feet	0.194	16	2012
8	Webster Bridge Rd	3000 ft N of M 66	Mt Bliss	0.396	16	2012
8	Garner Rd	township line	Webster Bridge	0.157	19	2012
7	Pesek Rd	M 32	St Johns	1.052	?	2008
7	Saint Johns Rd	Pesek	M 32	0.996	?	2008
7	Rockery School Rd	Morris	end of pavement	0.577	13	
7	Stanek Rd	Big Marsh	corner	0.986	15	
7	Big Marsh Rd	Stanek Rd	Drake Rd	0.880	17	
7	Saint Johns Rd	M 32	S end of pavement	0.670	18	
6	Sweet Rd	Old State	end of pavement	0.950	11	
6	Williams Rd	Old State	end of pavement	1.020	13	
6	Graves Crossing Rd	M 66	end of pavement	0.270	15	
6	E Old State Rd	Adams	East 2020 ft	0.383	19	
6	E Old State Rd	4760 ft E of Adams	end of pavement	0.790	20	
6	E Old State Rd	2020 ft E of Adams	4760 ft E of Adams	0.511	21	
5	Morris Rd	Old State	end of pavement	1.390	?	2005
3	Stanek Rd	M 32	corner	0.410	31	
Total				16.302		

These are the latest pavement condition ratings and will change over time as the pavement ages and deteriorates. A suggested fix may not be the appropriate fix the following year depending on the rate of deterioration. Repair costs are current estimates and will increase with inflation every year.

The township spent on average over the last five years \$55,577 per year. The township levies a 1 mill road millage that generates approximately \$27,000. Based on these amounts, a suggested road improvement / pavement maintenance strategy is presented for the next five years.

Five Year Suggested Pavement Work Priorities

**2015 Suggested Priorities**

Cost per Mile	Number of Miles	Total Cost	Township Share	Selected Roads (miles)	Suggested Repair
\$ 4,500	5.160	\$ 23,220	\$ 20,898	roads rated 7	crack fill
		\$ 0	\$ 0		

Total township share = \$ 20,898

**2016 Suggested Priorities**

Cost per Mile	Number of Miles	Total Cost	Township Share	Selected Roads (miles)	Suggested Repair
\$ 34,000	1.684	\$ 57,256	\$ 51,530	E Old State	crack fill and chip seal

Total township share = \$ 51,530

**2017 Suggested Priorities**

Cost per Mile	Number of Miles	Total Cost	Township Share	Selected Roads (miles)	Suggested Repair
\$ 34,700	0.270	\$ 9,369	\$ 8,432	Graves Crossing	crack fill and chip seal
\$ 34,700	0.950	\$ 32,965	\$ 29,669	Sweet	crack fill and chip seal

Total township share = \$ 38,101

**2018 Suggested Priorities**

Cost per Mile	Number of Miles	Total Cost	Township Share	Selected Roads (miles)	Suggested Repair
\$ 35,400	1.020	\$ 36,108	\$ 32,497	Williams	crack fill and chip seal

Total township share = \$ 32,497

**2019 Suggested Priorities**

Cost per Mile	Number of Miles	Total Cost	Township Share	Selected Roads (miles)	Suggested Repair
\$ 92,000	1.390	\$ 127,880	\$ 115,092	Morris	1.5 inch HMA overlay

Total township share = \$ 115,092

5 year cost summary

Year	Township Cost Share	Annual Average
2011	\$ 20,898	
2012	\$ 51,530	\$ 36,214
2013	\$ 38,101	\$ 36,843
2014	\$ 32,497	\$ 35,757
2015	\$ 115,092	\$ 51,624

Total \$ 258,118

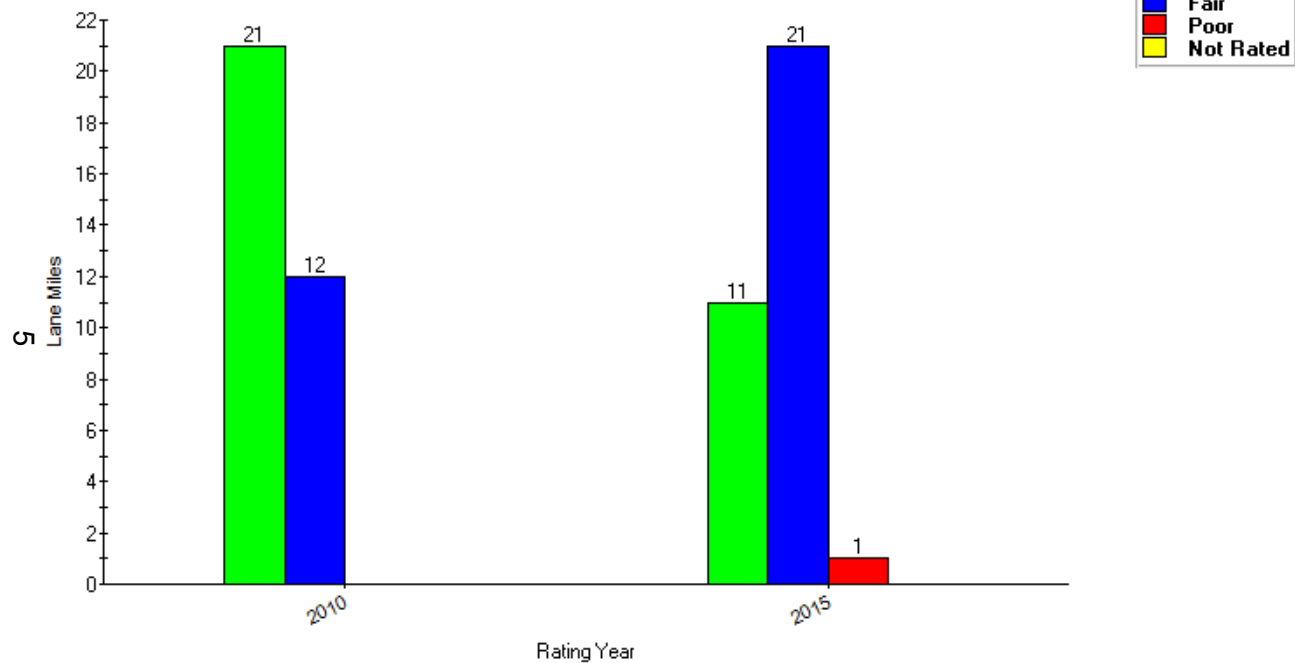
The repair costs listed above have been adjusted for inflation for more accurate planning.

The graph on page 5 shows pavement condition trends from 2010 to 2015. The numbers represent lane miles. Most local county roads within the township are rated fair and good with only 0.41 miles rated poor. This graph also shows the change in each category and indicates a significant shift from good to fair with very little deteriorating to poor.

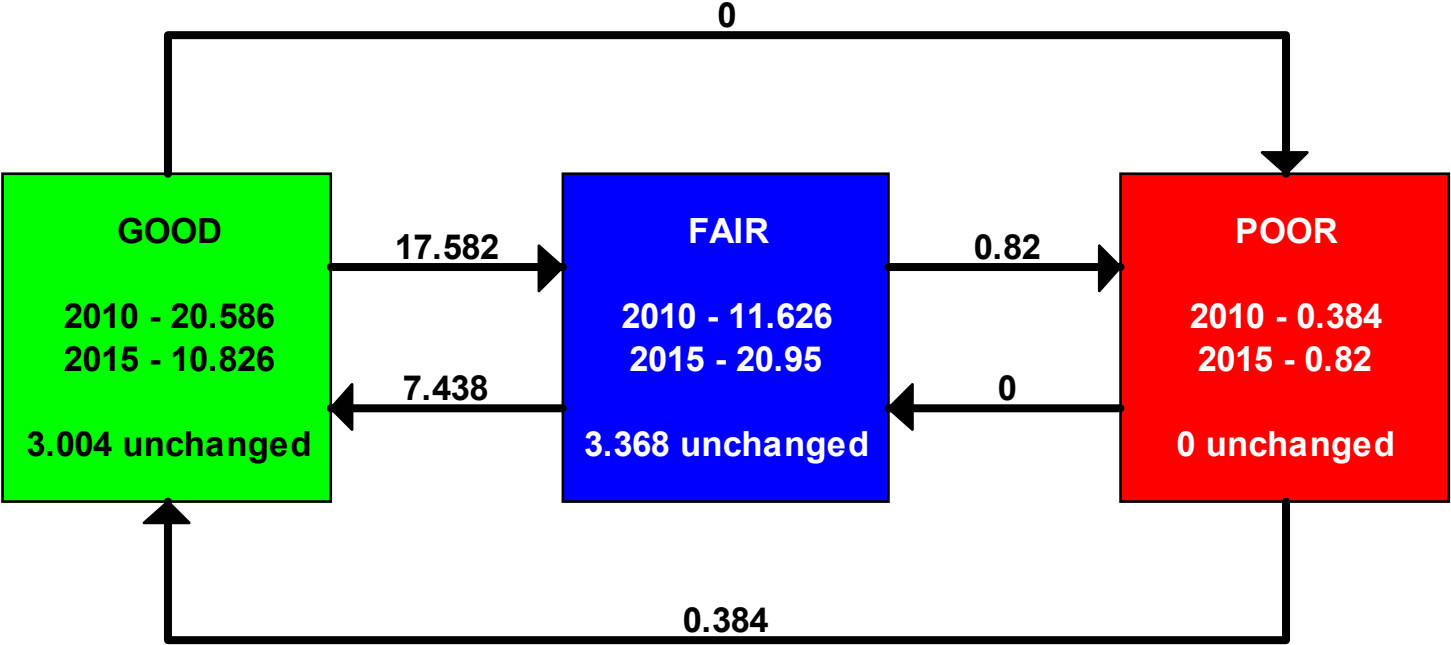
The graph on page 6 shows the change between good, fair and poor from 2010 to 2015. This again is in lane miles. This graph shows that almost 4 miles (8 lane miles) of road were improved between 2010 and 2015 yet 9 miles (18 lane miles) deteriorated. This is not a good trend and only shows that more work needs to be done to keep from further deterioration.

Page 7 is a map of all roads in the township, including county primary and state trunkline roads. The condition of all paved roads is indicated by the red, yellow and green which is poor, fair and good respectively. The roads indicated in grey are gravel, black are seasonal (not snowplowed) roads and the white are private roads.

Surface Condition Trend



# Surface Condition Flow by Lane Miles



# Jordan Township – 2015 Paved Road Ratings

## Legend

-  Gravel
-  Seasonal (not snowplowed)
-  Poor – 1 thru 4
-  Fair – 5 thru 7
-  Good – 8 thru 10

