

Starke County Highway Department

Monthly Report

January 2016

FEBRUARY

WINTER OPERATIONS

We had a very mild January in 2016 compared to the last two years. This has resulted in considerable cost savings. It also helped that fuel and salt prices are down from last year.

			DIESEL FUEL			SALT			SAND			OVERTIME	Total January Winter Costs
YEAR	WINTER EVENTS	SNOW	Gallons Used	Price Per Gallon	Total Diesel Cost	Tons Used	Cost Per Ton	Total Salt Cost	Tons Used	Cost Per Ton	Total Sand Cost	Total Cost	
2014	30	20.2"	14952	\$3.15	\$47,098.80	800	\$48.00	\$38,400.00	5500	\$4.75	\$26,125.00	\$18,470.59	\$130,094.00
2015	12	9.49"	12915	\$2.08	\$26,863.32	576	\$73.32	\$42,232.32	2352	\$2.50	\$5,880.00	\$11,204.80	\$86,180.44
2016	9	4" (?)	9539	\$1.27	\$12,114.53	457	\$65.92	\$30,125.44	1984	\$2.50	\$4,960.00	\$3,165.00	\$50,364.97

Another thing this chart highlights is that the use of salt sand is not directly related to the amount of snowfall or the number of winter events. It is more related to the timing of the event, the type of event, and the temperature of the pavement. Over the last few years we have attempted to elevate our level of service during the winter by a more thoughtful, scientific use of salt. This includes using pavement sensors, prioritizing plow and salt/sanding routes that emphasize bus routes and main roads to businesses, and more training for all of our employees and supervisors on how, when, and where to apply material. Although it is difficult to objectively to measure the success of these efforts, we have seen evidence lately that our efforts are paying off. There were at least two days in January where many schools in the Counties around us had delayed starts but the Starke County schools did not, the most recent being January 29th.

On Tuesday, January 21st we applied salt brine to our County roadways for the first time in the history of our Department. We often try new and/or improved techniques that may help us save money and increase the level of service we provide (crack sealing, fog sealing, dust control, etc.). This first year we are going to brine on a limited basis while we work out the mechanics of the operation. On the 21st we experimented with 3 centerline miles and then monitored the performance. We brined Range Road from 400N to 600N and 250N from US35 to 300E. The pavement temperature when applied was 24F, exactly in the middle of the acceptable range for brine. When it snowed early Wednesday morning we were able to gauge how effective the brine was throughout the removal process. We were very encouraged by the results. Range Road and 250N both were easier to plow and clear to bare pavement than untreated roads of similar type. It worked exceptionally well on the hot mix asphalt section (Range Road from 400N to 500N). The chip seal sections (Range from 500N to 600N and 250N from US35 to 300E) also cleared better than most untreated chip seals. The next time the conditions are right we are going to expand the operation to include more heavily travelled roads such as Range Road from SR10 to SR8 and Toto Road from 800W to 700E. We also hope to brine the hot mix sections around Bass Lake and 1100E near Koontz lake. Our resources will not allow us to brine all our County roads but we should be able to improve the level of service and decrease the potential for accidents on many of our main roads.



As per the County Frost Law Ordinance we have placed the frost law signs at all intersections where a County Road meets a State road and at all intersections that borders other Counties. The ordinance states that the Frost Law goes in effect on February 1st. and ends 90 days later, which because of the leap year, ends on May 1st instead of the usual April 30th. We received four requests for permits today.

RECOMMEND ADJUSTING SCHEDULE

SAFETY

In March of 2013 we instituted a safety program largely based on the Federal Highway Administration's toolkit for Improving Safety on Rural Local Roads. It consists of three major parts.

- 1) Evaluating the Network (Inventories, inspections, ratings, and crash data)
- 2) Selecting the improvements (better signage, brush clearing, more effective snow and ice removal procedures, etc.)
- 3) Implementing and monitoring

As with our use of salt/sand it is not always easy to objective measure the success of this program. LTAP just finished compiling crash data for 2104. We now have comparable data for our County and all the surrounding rural Counties. These statistics can be found on the Indiana LTAP website

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
TOTAL CRASHES	217	232	234	276	245	189	167	196	154	128

County	2014 Crashes	CRASHES PER 1000 RESIDENTS	CRASHES PER 100 MILES OR ROADWAY
CARROLL	152	7.54	20.07
CASS	202	5.18	23.31
FULTON	115	5.52	14.78
JASPER	245	7.32	26.42
MARSHALL	390	8.29	42.76
PULASKI	168	12.54	19.16
STARKE	128	5.48	18.77
WHITE	175	7.1	19.32

TRAINING

- 1) Work One OJT reimbursement
- 2) Truck Show
- 3) Weekly safety trainings
- 4) Road School

BIDDING PROCEDURES

- 1) Met with Auditor and County attorney to coordinate purchasing policies
- 2) Will include in upcoming Department policy manual

DIESEL BILL

MAJOR COLLECTORS

700E from SR10 to US30 *500N*

Range Road from US30 to SR14

700S from US421 to SR39

FUNDING