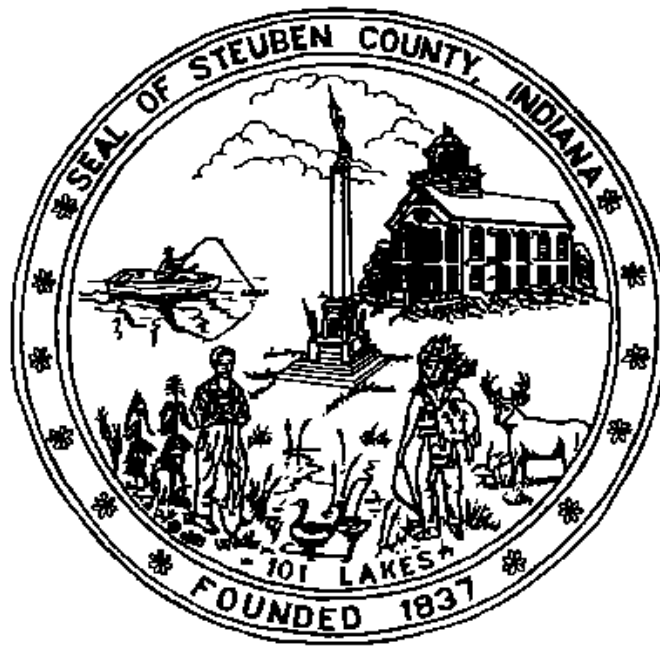


STEUBEN COUNTY

HIGHWAY DEPARTMENT



Year-in-Review

2016

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Date: _____

Introduction

The Steuben County Highway Department is located in Angola, Indiana on County Road North 200 West. There are 29 employees including 1 Engineer, 1 Superintendent, 1 Clerk, 2 Mechanics, 1 Sign Technician, 12 Equipment Operators, 7 Truck Drivers, 1 Laborer, 2 Part-Time Help/Operator, and 1 Part-Time Clerk. Responsibilities of the highway department can be separated into two categories; engineering and maintenance.

Engineering Duties

- Long-term transportation planning
- Design of bridge and road projects
- Construction, inspection, and management of both in-house and federally-funded projects
- Traffic management and count analysis
- Data and project management
- Development review

Maintenance Duties

- Road paving and chip sealing
- Road patching
- Gravel road grading
- Ditching and berming
- Bridge maintenance
- Snow plowing
- Roadside mowing
- Drainage control

These duties are performed to maintain and improve county infrastructure (644 miles of roadway) which includes:

Total Paved Roadway Miles	390
Total Chip Seal Roadway Miles	31
Total Gravel Roadway Miles	223
Total Large Bridge Structures (over 20 feet)	49
Total Small Bridge Structures (under 20 feet)	13
Total Large Culverts (over 4 feet & under 20 feet)	14

Funding

The Steuben County Highway Department receives funds from several local, state, and federal sources for both maintenance and project activities as well as day-to-day operations. The funds used include:

Motor Vehicle Highway (MVH)

These funds are administered and distributed by the State (IC 8-14-1). This is the largest source of state aid for road construction and maintenance activities. Revenue comes from a variety of sources with two-thirds coming from motor fuel taxes. Funds are distributed to all local government agencies within the State of Indiana based on a specific distribution formula. MVH funds are used for maintenance activities and associated expenses.

Local Road and Street (LRS)

Similar to MVH funds, local road and street funds are administered and distributed by the State using a specific formula (IC 8-14-2). These monies are collected from gas tax revenue and are used for maintenance activities and supplies.

Cumulative Bridge Funds

These funds are collected locally as part of the Steuben County property tax and are used for bridge maintenance and construction activities (IC 8-16-3).

County Economic Development Income Tax (CEDIT)

These funds are collected locally as part of the Steuben County income tax and are used for expenses related to highway equipment and maintenance (IC 6-3.5-7).

Major Moves Construction

These funds were generated based on the lease of the Indiana Toll Road in 2005. Funds were distributed by the State and are used for county projects related to infrastructure and economic development (IC 8-14-14).

Alternative Funding Sources

The Local Option Highway User Tax (LOHUT) was discussed in early 2016. It was decided to table this matter until a later date. The General Assembly provided additional funding through a LOIT Special Distribution which provided the County \$2,195,435.00. These funds were then appropriated into two separate funds (\$1,646,576.25 into 1229 LOIT Special Distribution and \$548,858.75 into 1196 Rainy Day). It is anticipated to revisit the discussion of LOHUT in early 2017 based on anticipated future funding sources and matching grant programs.

Projects

There are many projects that are on-going and planned for the upcoming year. A brief outline of each project is provided with a more detailed plan of maintenance and construction activities for the next five years outlined in the *Steuben County Asset Management Plan* which has been approved by the Indiana Department of Transportation (INDOT) through the Local Technical Assistance Program (LTAP) and is available for review.

Federally-Funded Projects

Steuben County Trail – Phase I (Des No. 0401070)

<i>Location:</i>	CR 200 N to CR 300 N along SR 127		
<i>Designed & Inspected By:</i>	Butler, Fairman & Seufert		
<i>Contractor:</i>	E&B Paving		
<i>Construction:</i>	Summer 2014 - Winter 2015		
<i>Estimated Cost:</i>	\$2.7 million	<i>Funded By:</i>	Federal Funds 80%
			Local Funds 20%

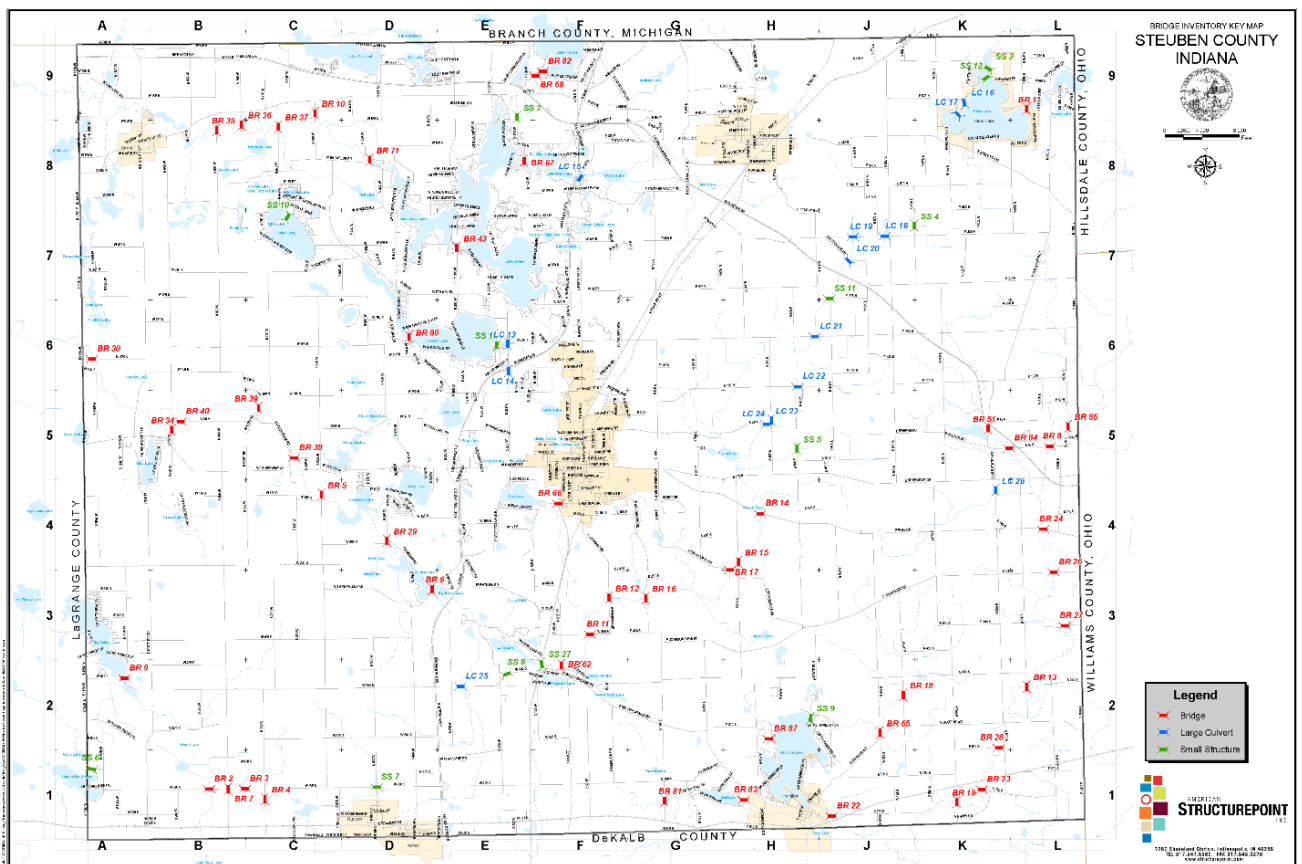
This is an asphalt paved shared-use path approximately twelve feet in width with two foot stone shoulders. The total length of Phase I is approximately 1.2 miles with features such as a small trailhead at the northern termini, three modular block retaining walls, and one cut wall. Other safety features include the a HAWK signal for pedestrian crossing along SR 127, signalized crossings at the Menards entrance and CR 200 N, and a wooden barrier rail. Currently, the County is waiting on the Notice of Termination (NOT) for the Rule 5 permit. Once obtained, the project can be formally accepted.



Countywide National Bridge Inspection and Inventory Program (Des No. 1592938)

Location: All areas of Steuben County
Inspected By: Clark-Dietz
Contractor: Not Applicable
Phase I Inspections: October 2017 *Phase II Inspections:* October 2019
Estimated Cost: TBD *Funded By:* Federal Funds 80%
Local Funds 20%

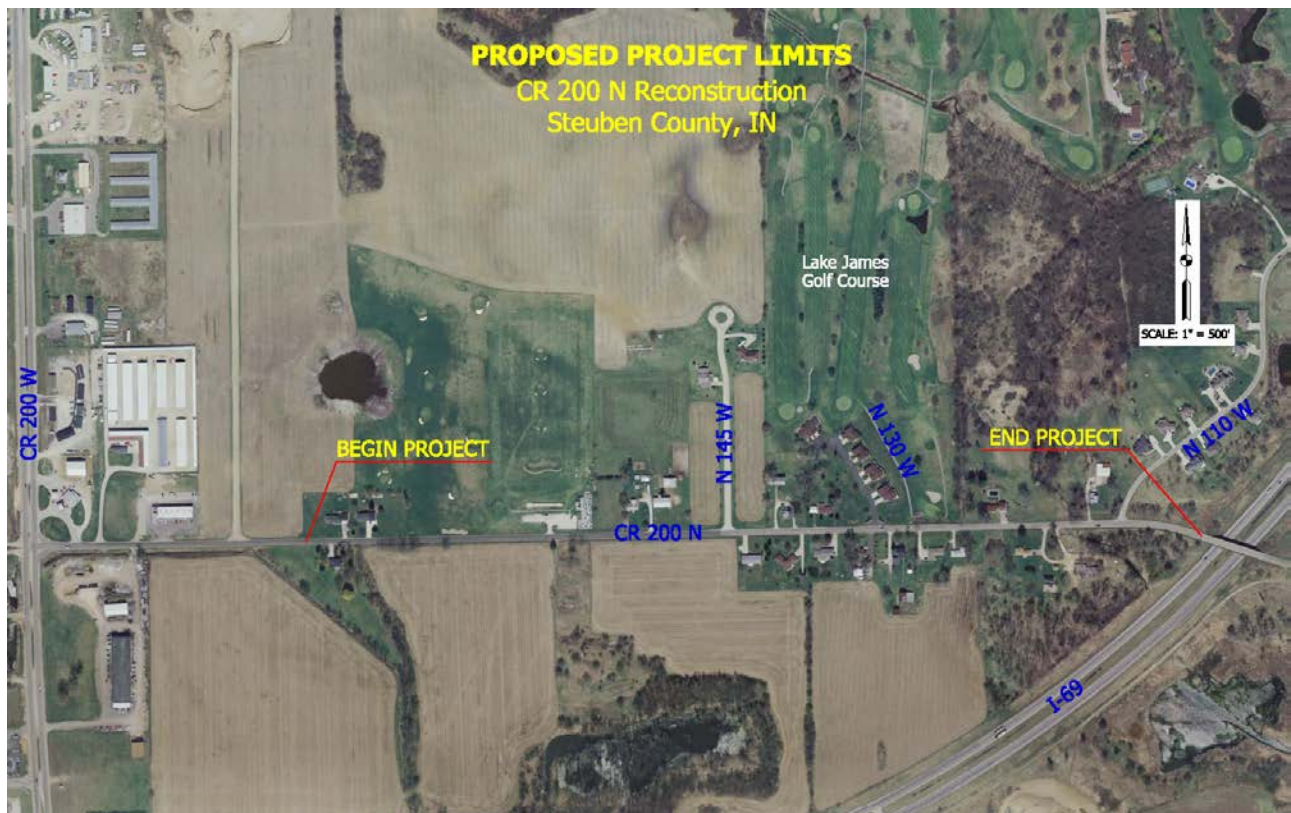
This is a four year contract to inspect every Steuben County bridge structure over twenty feet in length every two years during the contract length. The new compliance month for bridge inspections is October with the next inspection due in 2017. The County has selected Clark-Dietz to perform the next round of inspections. A complete bridge inspection report is available at the Highway Department.



CR 200 N near I-69 Overpass (Des No. 1600762)

<i>Location:</i>	CR 200 N from CR 200 W to I-69 Overpass		
<i>Designed By:</i>	TBD		
<i>Inspected By:</i>	TBD		
<i>Contractor:</i>	TBD		
<i>Construction</i>	Anticipated in Spring 2021		
<i>Estimated Cost:</i>	\$3.59 million	<i>Funded By:</i>	Federal Funds 80%
			Local Funds 20%

This project includes continuing the improvements made as part of the CR 200 N and CR 200 W intersection project. The current roadway will be widened to two 12-foot travel lanes with 7-foot shoulders (6-foot paved and 1-foot gravel) and graded side ditches. A curb and gutter section is proposed to accommodate drainage along the I-69 overpass bridge approach. The existing culvert under CR 200 N at the John Croxton drain will be replaced and extended based on meeting vertical curve requirements and widened roadway typical sections. Currently, the County is in the process of issuing a Request for Proposals (RFP) to select a consultant for preliminary engineering (PE) and right-of-way engineering (RW).

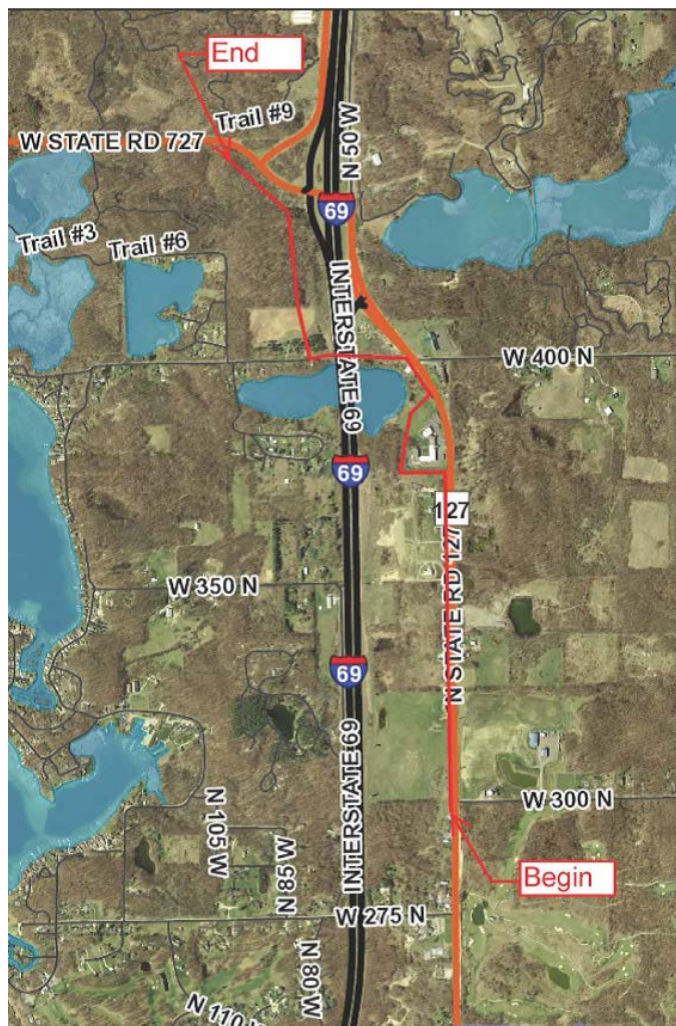


Locally-Funded Projects

Steuben County Trail – Phase II

Location: SR 127 from CR 300 N to Pokagon State Park
Designed By: Butler, Fairman, & Seufert
Inspected By: TBD
Contractor: TBD
Construction: Anticipated Spring 2018
Estimated Cost: \$2.22 million *Funded By:* Local Funds 100%
 Partnership w/ City of Angola

This project includes continuing the bike trail from the existing trailhead along SR 127 at CR 300 N north to Pokagon State Park. The total estimated length of this path is 2.0 miles and will consist of an asphalt paved section that is 8 to 12-feet wide with 2-foot gravel shoulders.



Maple Street Extension

<i>Location:</i>	Orland Industrial Park to SR 120			
<i>Designed By:</i>	GAI Consultants			
<i>Inspected By:</i>	SCHD			
<i>Contractor:</i>	SCHD & API Construction, Inc.			
<i>Construction</i>	Summer 2016			
<i>Estimated Cost:</i>	\$510,000	<i>Funded By:</i>	Local Funds	70%
			State Funds	30%

This project included extending Maple Street from the Orland Industrial Park west to SR 120. Construction included two 12-foot asphalt travel lanes with 1-foot earthen shoulder and side ditches. Additional asphalt shoulder material was provided on the west end of the project to facilitate semi-truck turning movements from Maple Street into the commercial property on the northeast corner of the intersection. A passing blister and associated widening activities were constructed along SR 120 to accommodate the new Maple Street road approach. Construction along SR 120 was performed by API Construction with construction along Maple Street performed by the Steuben County Highway Department. Once the project is formally accepted by INDOT, this road segment will be added to the county roadway inventory.



Pavement Preservation and Upgrades

The Steuben County Highway Department conducted several pavement preservation and upgrade activities resulting in a recovery rate of 95%. Activities performed include:

Hot Mix Asphalt	14.12 miles
Double Chip Seal	25.20 miles
Crack Seal	0.5 miles
Micro-Surface	10.50 miles
Extensive Patching	24.10 miles
Gravel Berm	10.00 miles

Funds used to complete 74.42 miles of road work and 10 miles of gravel berm work included MVH, LRS, Major Moves, CEDIT, and LOIT Special Distribution totaling \$2,395,962.12.

The 2017 budget has appropriated approximately \$480,000 for road work. There are four special projects in 2017 that will utilize Rainy Day funds and Community Crossings Matching Grant Funds (\$272,213.50); resulting in a proposed total investment of \$752,213.50 for road work in 2017. The Highway Department will update the PASER rating of each hard-surfaced road and will be prioritizing roadways and treatment methods to best utilize the funds available. Additionally, a five-year road maintenance and rehabilitation plan is being developed to demonstrate the need for additional road funding. It will be imperative to critically analyze the implementation of a local option highway user tax or other additional funding sources to supplement road funding in future years. Indiana state legislatures and federal officials have made infrastructure investment a center focus of funding discussions. It is highly encouraged to reach out to elected officials to voice the financial needs of Steuben County.

Pavement Markings

To address citizen concerns and provide additional value to our residents, the Highway Department utilized painting equipment to apply pavement markings using county personnel. This allowed the department to control the schedule of applying pavement markings once road projects were complete. There has been a learning curve during this process with improvements made to application methods. The County uses paint material due to cost and ease of application and will be investigating the opportunity to procure a painting device in the future. To properly apply paint pavement markings, the ambient air temperature must be at least 40 degrees and the pavement must be dry. Currently, the County provides pavement markings on more roadway facilities than is mandated by state regulations. This is to provide safe routes for motorists during poor weather conditions.

Traffic & Asset Management

Several traffic ordinances and traffic studies were conducted by the County Highway Engineer. These included requests for reduction in speed limits and addition of regulatory and/or warning signs. Based on these studies and ordinances, several signs were installed. A summary of all sign work completed by the highway department as of October 14, 2016 is shown below.

2016 New, Replaced, Repaired, or Inspected Sign Totals (By Type)	
Regulatory	60
Warning	34
Guide	55
Object Markers	1
School	7
Total	157

2016 New, Replaced, Repaired, or Inspected Sign Totals (By Reason)	
Condition	53
Obsolete	0
Safety	10
Routine Inspection	28
Vandalized	6
Missing	35
Accident	14
Ordinance	11
Total	157

Additionally, it was decided in 2016 by the Steuben County Board of Commissioners to provide and maintain street name signs and stop signs for private roads/lanes that intersect with a county maintained road or lane.

Sign Database

This database is updated by the Highway Sign Technician to keep an accurate inventory of all signs owned and maintained by the Steuben County Highway Department. A complete sign inventory with GPS coordinates is being investigated by the Highway Engineer with additional assistance required from the GIS Coordinator. With federal regulations on sign reflectivity and management, this proposed database will aid highway personnel to monitor age, type, installation date, location, and reflectivity of all active signs as well as monitor the frequency and

reason for sign replacement (i.e. safety, theft, condition, etc). Funds to complete this task will be requested once a plan of action is developed and costs are further refined.

Bridge Database

The Indiana Bridge Inspection Application System (BIAS) is used to store information on county bridges from past and current bridge inspection and inventory reports. Bridges are evaluated on several criteria that yield a sufficiency rating (100 = new bridge construction, 0 = closed bridge). A bridge with a rating less than 80 is eligible to apply for federal funding assistance. Based on the results of the bi-annual reports and program funding, priorities are established and maintenance plans are coordinated to address bridge issues. These priorities are outlined in the *10 Year Bridge Maintenance Plan* prepared by the Highway Engineer. Currently, the average sufficiency rating of all 49 bridges in Steuben County is 92.8; ranking Steuben County as the third best county in the State. The County spent approximately \$125,000 on bridge maintenance in 2016 and plans to spend approximately \$300,000 on bridge maintenance activities in 2017, should additional funds be appropriated.

Roadway Database

This database contains basic information for each roadway segment in the County including segment identification, right-of-way width, surface width, surface material type, length of segment, location of segment, and direction of roadway. The Highway Engineer began a survey of roadway conditions using the PASER rating system in 2014 and completed all asphalt and chip seal roads in the county. These ratings have been used to compile and prioritize roadway maintenance needs in the *Steuben County Asset Management Plan* to assist with future planning of roadway projects and maintenance activities. The ratings were updated in 2016 and compiled into the formally accepted format of an asset management plan which was approved by LTAP in July 2016 and INDOT in August 2016. Approval of such plan allows Steuben County to apply for additional funding via the Community Crossings Match Grant Fund as well as pursue adopting a local wheel tax and excise surtax at the revised maximum rates as approved by the Indiana General Assembly in 2016.

Also conducted in 2016, was an internal audit of the County's roadway database as compared to INDOT's roadway inventory. The Highway Engineer worked with INDOT personnel in the Roadway Inventory department to resolve data discrepancies. Since funds are allocated based on population and road mileage through the MVH and LRS funds, it is critical that information is up to date so the County receives its full allotment. Based on this investigation, INDOT has revised its records to include an additional 5.7 miles. This will be formally approved via the

Steuben County Board of Commissioners and INDOT Road Inventory Department at the end of 2016.

Developments

When a new subdivision is being developed in Steuben County, the developer must receive approval from various departments including the Highway Department and the Plan Commission. Should the developer desire to have the subdivision accepted into the County road network, County standards and specifications must be followed. The Steuben County Code of Ordinances provides typical sections and guidelines for construction. Upon completion, a formal request must be made by the developer to have the roadway accepted into the County road network. The Highway Engineer and Highway Superintendent will inspect the finished product and make a recommendation to the County Commissioners of acceptance or provide suggestions for improvements for future acceptance.

In 2016, no additional subdivisions were requested/accepted into the county roadway network. If roadways are accepted and added to the network, the Indiana Department of Transportation Road Inventory Supervisor is to be notified via request of mileage certification change for Steuben County. Since funding is based on number of lane miles of roadway, it is important that the County inventory is accurate.

County Highway Permits

Work that is planned within county right-of-way requires a permit for construction and is issued by the Steuben County Highway Department. Some work requires the contractor to submit a bond to the County as well as a fee for the permit. Once work is completed, the contractor shall notify the County for a final inspection of the work and refund of the permit fee, if applicable. The following permits were issued in 2016 as of November 14th:

Permit Type	# of Permits	Revenue
Road Cut	8	\$800.00
Road Bore	19	\$1,675.00
Public/Private Road Approach	0	\$0
Construction in County R/W	17	\$1,860.50
Oversized/Overweight Vehicles	4	\$300.00
Driveway	78	\$3,450.00
Total	126	\$7,485.50

Revenues from these permits are retained in the Motor Vehicle Highway fund to be used for day-to-day operations of the Highway Department.

A new permit manual for county roads was approved by the County Commissioners on August 17, 2015 via Ordinance #872 and was implemented in January 2016. The purpose of the manual is to outline the permitting process of the county highway department and provide clear guidance for each permit type. Permit forms, types of permits, and fees were adjusted in this manual. Feedback from contractors and community members have been received and are under advisement at this time. In particular, it has been suggested that the Overweight/Oversized permit have the option for an annual permit with associated fee rather than a permit/fee on a per move basis.

Winter Operations

Depending on the weather, winter operations can be a challenge. Typical activities during the winter months include snow plowing, snow removal, spreading of material (salt/sand mixture), cleaning out drainage structures, and patching potholes. This past winter was fairly mild in comparison to previous years. Fortunately, that allowed the Highway Department to address road segments as planned during the summer construction months rather than addressing significant winter road damage as was experienced in Spring 2015.

Winter Preparations

To prepare for the winter months ahead, the Highway Department has taken many proactive steps including advertising and awarding salt bids, ordering salt in mid-October (approximately 600 tons), hauling ice control sand and preparing salt/sand mixture for quick accessibility (300 tons of salt/sand mixed in barn).

After a pilot program in 2014, and continued use of calcium chloride with Boost in 2015, the Highway Department anticipates continuing to utilize this product with the salt and sand mixture to accelerate the rate of implementation of the mixture on ice and snow covered roads. Also, use of this product decreases the amount of salt and sand needed to clear county roadways. This product is an organic based, liquid pre-wetting agent that can be used as an anti-icer (pre-treatment) or deicer (post-treatment) product. The Highway Department has developed a spray unit for this application that will provide better distribution of the product. The Highway Engineer has encouraged use of this product on bridge decks to remove the need of applying salt on bridges which accelerate the rate of deterioration. In future years, the Highway Department anticipates utilizing this product with pure salt to reduce the amount of sand placed on roadway segments. This will assist with reducing sediment runoff and will delay the buildup of roadside berms.

Summary

The Steuben County Highway Department continues to strive to provide safe, accessible, and well-maintained public infrastructure for the community. With limited budgets, manpower, and equipment, it is essential that the Highway Department make the most of its resources and efficiently and effectively operate daily activities. Continual evaluation and improvements are made throughout the year to better serve the greater Steuben community.