



# ALLEN COUNTY ENGINEER

## 2015-2016 Annual Report of the Engineer

This report is prepared by the Allen County Engineer as directed by Section 5543.02 of the Ohio Revised Code

### From the Engineer's desk.....



While I've worked here at the county since 1997, this side of the desk gives an entirely different perspective. As the County Engineer, my job is to administer all aspects of design, construction and repair of our local roads and bridges in Allen County. While new to the position, my goal is no different than my predecessors. I want to maintain the best and safest roadway system possible for the citizens of Allen County and the traveling public. Unfortunately, this has become very challenging. For as you may know, we have a lot of problems before us; cracking pavement, potholes, road failures and bridges that need repaired or replaced. While these challenges are difficult, they have become even tougher, because our revenue is eroding away. While the majority of our revenue comes from license plate fees and from the taxes on gasoline & diesel fuel sold in Ohio, over the past 10 years both of these have been declining. Fewer vehicles are being registered, resulting in a \$200,000 decrease in license plate revenue and newer vehicles are more fuel efficient, meaning fewer gas taxes are being collected. All the while, inflation and construction costs have increased dramatically, like paving costs, which have increased 158% in the last 7 years. Therefore, our long range plan has been forced to change. With this downward spiral of declining revenue and increasing costs, we can no longer afford to maintain our infrastructure. We've been forced into PRESERVATION mode. We must become as efficient as possible and spend our money; not on maintaining, but on preserving what we have. Hopefully in the near future, we will see an increase in revenue from either gas tax or license plate fees from where we can start repairing our roads and bridges again. However, the future looks grim. If funding doesn't increase soon, our infrastructure will deteriorate to the point where repairs will no longer be an option. In the meantime, we will continue to do our best to maintain the safest roadway system possible. I hope you enjoy reading this Annual Report, which summarizes the work our department has provided for the citizens of Allen County in 2015.

#### Shawnee Roundabout

2015 brought the completion of the Shawnee Road Roundabout Project, which was a major project for our office. In fact, at \$6.5 million, it was the single largest project we've ever taken on. However, like any major project, it took a lot of time, effort and money. The contractor was Eagle Bridge Company and they started the project on June 3rd, 2014, continued working through the winter and finished up on September 14th, 2015.

Since this was the 1st roundabout in our ODOT District, initially there were mixed reactions, but once completed we've received almost all positive comments. We believe it has been an great addition to Allen County and we are very pleased with the construction, aesthetics, the public's perception and of course with its performance. So, a big thank you goes out to the Eagle Bridge Company, the inspectors and all those who helped make this project a reality.



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## ROADWAY DEPARTMENT



The Roadway Department is responsible for the safety & maintenance of over 351 miles of county roads in Allen County. We also assist the Townships and Villages with the maintenance of their roadways at 550 miles and 248 miles, respectively. In 2015, over \$1.4 million dollars were spent for county, township & village road work. Our county road crew and our paving contractor were very busy paving 15 miles of county, township and village roads and sealing 42 miles of roads; sealing is another name for tar & chip application to the surface of the roadway. Seal acts as a water sealant to keep pavement from absorbing water.

The Roadway Department has always taken pride in the quality of the roads in Allen County. While the cost of asphalt and stone continues to rise, the revenue for the Allen County Engineer and more specifically, the Roadway Department, has remained constant. This means that we cannot annually maintain the same miles of roads as we once could. Ideally, we would like to see a newly paved road last 20 years before it needs re-paved. At that rate,

we should be paving nearly 20 miles of roads per year to properly maintain our roadway system. Unfortunately, we do not have the funds to do that, but we do have a couple of other options.

First, we often apply for different types of state and federal funding to help finance our projects. In 2015, the Allen County Engineer applied for State Issue 1 Funds through the Ohio Public Works Commission (OPWC) to help fund 12.27 miles of paving on our county roads. The OPWC provided 80%, or \$662,112 of the \$827,640 project. The remaining 20%, or \$165,528 was funded by the Allen County Engineer. This year we will be receiving a \$250,000 grant from Jobs Ohio to help reconstruct a section of roadway that services a growing business in Allen County, and next year, we will be receiving Federal Funds to repair a 2.5 mile portion of Elida Road just east of Delphos.

Secondly, we can use alternative methods of maintenance to help prolong the life of our roads. In 2014, we purchased a Dura Patcher machine to repair potholes. The machine has several components that work together to create the blend of gravel and emulsion that the workers spray into the potholes. The method uses sufficient force to compact the material as it is applied to fill the hole. The result is not as smooth as a newly resurfaced road, but it is better than having potholes and much faster and cheaper than rebuilding a road.

## 2015-2016 WINTER

In the summer of **2015**, we entered into a salt contract with ODOT for **1,000 tons** of road salt at **\$71.50 per ton** from Cargill Salt Company. In the fall of **2015**, we entered into a winter contract with ODOT, purchasing an additional **1,500 ton** from Detroit Salt at **\$57.00 per ton**. Thankfully, the winter was mild, spending only **\$239,000** for salt and labor to care for the roads.



## TRAFFIC DEPARTMENT

In **2015**, the Allen County Engineers Traffic Maintenance Department had a typical busy year. In total, the department purchased **5,995 gallons** of yellow traffic paint for centerline striping. This paint covered **232 miles** of county roads, **104 miles** of township roads, and **18 miles** of village roads. In addition to that, **605 gallons** of white traffic paint was purchased for edge line striping that covered **9 lane miles** of township roads and **27 lane miles** of county roads.



The Traffic Department also spent the summer painting railroad and school legends, school crosswalks, lane arrows and stop bars at intersections.

Along with striping, the Traffic Department maintains over **5,100 traffic signs**. Ongoing throughout the year, signs are checked for condition and visibility and missing signs are replaced. It is important that all signs meet the minimum reflectivity standards. As signs are replaced, they are upgraded with a **High-Intensity Prismatic** surface that reflects light at a further distance and thus attracts motorists attention earlier.

The county also maintains 15 traffic light controlled intersections, 3 signal flashers and 3 village traffic lights. All signals have been upgraded to LED lights that will last longer than incandescent bulbs and will save electricity. Annually, all traffic lights and traffic cabinets are also cleaned and inspected to maintain proper working order.

## TAX MAP OFFICE



Although the Tax Map Office is located on the 2nd floor of our county courthouse, the staff of four are full time employees of the County Engineer.

In 2015, they processed **460** parcel splits and combinations. Along with maintaining the tax maps, this office stays busy maintaining the County Road Map and County Plat Book. They also review property descriptions for all sheriff sales which numbered **399** for **2015**. A total of **265** surveys were reviewed to meet County Conveyance Standards in **2015**. The tax map staff also reviewed **3,986** property descriptions for transfers in **2015**.

## BRIDGE AND CULVERT DEPARTMENT

The Allen County Engineer is responsible for the inspection, maintenance and replacement of over 378 bridges in the county. To manage all of these bridges, the Allen County Engineer needs to maintain each bridge for as long as possible, which is typically 50 years or more. In recent years, funding issues have been making this job even more difficult. Due to our declining revenue and increasing costs, maintenance remains a critical component in the overall upkeep of the county structures. Therefore, we've been relying on other funding sources, such as Federal, State and Ohio Public Works Commission (OPWC) to help replace bridges. As has happened many times previously, bridge building seems to run in cycles. One year is very active, and the next may be a planning year. For 2015, few bridges were built, but a busy schedule is planned for the year 2016.

Allen County was able to complete the following bridge projects in 2015 using a combination of both internal and external funding:

**FEDERAL** The last phases of work towards fully opening up the new Shawnee Road Roundabout and bridge took place in the first half of 2015. Combined, this became the largest project in Allen County roadway history. (See further details on Page 1.)

### **STATE – OBPP (Collett Street, Lima)**

In 2015, ODOT awarded the fourth of seven bridge replacements in Allen County under the Ohio Bridge Partnership Program (OBPP). The deck of the Collett Street bridge in the City of Lima over the Ottawa River was rebuilt by the Eagle Bridge Company of Sidney, OH and dedicated on November 20 as the Walter C. Potts Memorial Bridge. Three additional bridges in the OBPP will be replaced in the next two years.

### **OPWC Emergency – (Grubb)**

The persistent rain in the summer of 2015 led to the washout of a large steel culvert on Grubb Road between Ft. Amanda Road and Spencerville Road in Amanda Township. OPWC Emergency funds paid for 55% of this replacement, and county forces replaced both the culvert and roadway.

### **LOCAL – (Bridge and Drainage crews)**

A multitude of different projects occur each and every month at the hands of the Bridge and Drainage Crews. Over 200 improvements were made by the Bridge and Drainage Crews in 2015. These projects range from routine bridge maintenance by the Bridge Crew to everything from hydro-cleaning tile to the full replacement of drainage systems by the Drainage Crew. Both crews do an excellent job and work well with one another. Some examples of this past year's work include installing a new 36" crossover on Augsburg Road west of Bluffton for the Village of Bluffton. The new structure will allow a drainage system to the south to have a more appropriate sized outlet in the future. Other culvert repairs occurred on Poling Road in American Township and Sandusky Road in Jackson Township. Along both Mayberry Road in Monroe Township and Breese Road in Shawnee Township, extensive roadside drainage improvements were completed. The Good Road bridge in Marion Township just south of Old Delphos Road was also closed for a week while major repairs took place.



**AUGSBURGER ROAD**



**GRUBB ROAD**



**COLLETT STREET**



# DRAINAGE & DITCH MAINTENANCE DEPARTMENT

All engineering and administrative work conducted by the Drainage Engineering Department is supervised and approved by Brion E. Rhodes, Allen County Engineer. This department has a dual role within the county structure. It operates as the reviewing agency for commercial, industrial, and residential developments, as well as the drainage consultant for the County Commissioners. Within this realm, we are responsible for all Petitioned Drainage Improvements of which the Commissioners have final authority.

Drainage Engineer, Douglass S. Degen oversees the Ditch Maintenance Department and is responsible for reviewing all work, budget, and assessment procedures. Assisting him are Assistant Drainage Engineer Nathan Davis and Andrea Rode.



Josh Foster is the Ditch Maintenance Supervisor and is responsible for all maintenance activities completed within this department. All projects constructed through Petition and Soil & Water Conservation District are placed on permanent maintenance once completed. The Ditch Maintenance Crew also includes Joe Maley and Bryan Dray. All petitioned drainage improvements are surveyed by the county engineer Survey Crew lead by Justin Foust and assisted by John Zimmerly. This work is very intensive as it includes all aspects of surveying from initial data collection to final construction staking.

Our responsibility includes the management of drainage improvements previously made throughout the county which now total \$15.4 million dollars. We continuously strive to provide the most pro-active and cost effective maintenance methods possible. Funding for the engineering, administration, construction and maintenance of petitioned drainage improvements is derived from funds acquired from parcel owners within the watershed of each project. The methodology is outlined in the Ohio Revised Code, Sections 6131, 6133, and 6137.



As the Drainage Consultant for the Commissioners, we manage the entire process of Petitioned Drainage Improvements. All projects constructed through petition are placed on permanent maintenance once construction is completed. Currently we maintain **204 miles** of Open Ditch, **34 miles** of Agricultural and Residential Conduits, **14 miles** of Waterways, and **13 Detention Ponds**. These projects benefit **206,638** watershed acres and **38,324** parcel owners.

In 2016, we anticipate hearings and construction of Baughman #1198 (Storm Sewer & Waterway), Warrington/ Sugar Creek #1304 (Open Ditch/ Agricultural & Residential Waterways and Conduits), Lakeside Estates #1307 (Storm Sewer & Pond), Cody Nickles #1316 (Agricultural Storm Sewer), Indian Brook & Wildbrook Estates #1322 (Open Ditch & Residential Storm Sewer/ Culvert Evaluation), Renner Improvement Project # 1323 (Residential and Institutional) and Edgecomb #1324. These projects will add an additional **\$2 million dollars** in drainage improvements to our program.



We are also the compliance coordinators of the OEPA's Phase II Stormwater Regulations. An integral component of this program, of which our department manages for the County Commissioners, is the Stormwater Management & Sediment Control Regulations (SMSCR). With the assistance of Nathan Davis, Beth Seibert, Albert Suniga, Lisa Steffen, and Joe Gearing, a comprehensive re-writing of the SMSCR is underway and shall be approved by the County Commissioners before the end of this year. The City of Lima will utilize these regulations as a model for adoption as well for countywide consistency. These regulations are necessary to comply with the latest mandates by Ohio EPA. The Stormwater Regulations are a self-supporting entity funded entirely from

permit and review fees acquired from developers.

In conjunction with the above-described activities, we also have devoted a significant amount of time to potential petitions. Several of these projects are ready to be filed, yet some do not result in an actual project. An effort is also underway by a group of commissioners, engineers, and interested parties to update sections of the Ohio Drainage Laws. To accomplish this task a Drainage Task Force has been created in which we will continue to review, re-write, and proposed modified language to ORC 6131, 6133, 6135, 6137.

