



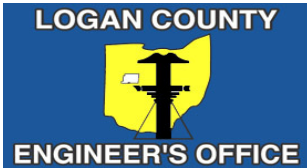
The Orange Brigade



Winter 2018

Logan County Engineer's Office

Volume 52



Coleman's Comments

The one-half percent sales tax for roads and bridges generated \$3,776,849.66 in 2017. These funds are collected and divided among county (\$2,137,940.51), townships (\$655,563.67), municipalities (\$655,563.66), and land use and economic development (\$327,781.82).

By combining sales tax with motor vehicle fuel tax, vehicle registration fees, federal grant and state grant funds, we were able to complete several construction projects in 2017. County road resurfacing and rejuvenating sealer totaled \$2,597,067.49. Township resurfacing was \$514,583.91 and township chip-sealing totaled \$200,423.26. Federal and local funds were used to fund \$149,779.39 for the pavement marking paint contract, \$39,000 for a curve safety study, and \$64,088.45 for sign replacements. County road chip sealing cost \$769,194.52 this year. These projects would not have been possible without the sales tax for roads and bridges. Thank you for supporting this program.

After previous years of a road salt shortage, we have again seen prices drop for the 2017-2018 winter season. Last winter we paid \$51.46 per ton for road salt and entered winter with a full stockpile. The road salt bid for this winter fill is \$47.12 per ton and savings will kick in when we start refilling our stockpile in January. This will lead to an overall cost reduction for snow and ice removal. Snow and ice control costs can range between \$300,000 and \$660,000 depending on the number of snow and ice events and material costs. Through January 10, we have responded to 17 winter storm events and have used 2,197 tons of mixed grit/road salt at a total cost of \$213,223.18. This includes 1,012 man-hours of regular time and 639 man-hours of overtime.

In addition to salt, we continue to utilize liquid Beet Heet, a sugar beet extract, to increase the efficiency of our road salt treatment. The use of Beet Heet allows us to melt snow and ice faster and at lower temperatures. This winter, we have used 4,003 gallons of Beet Heet. As always, we encourage drivers to use caution and allow extra travel time when driving during winter weather conditions. Even though roads have been treated and plowed, you may encounter isolated slick road conditions.

In March of 2014, the Ohio Department of Natural Resources (ODNR) and Federal Emergency Management Agency (FEMA) notified Logan County officials that they had updated the base flood elevation (BFE) and Flood Insurance Rate Map (FIRM) for Logan County without any input or consultation with any Logan County agencies. In July 2014, ODNR and FEMA held public meetings to present the revised flood maps to the public. After the July meeting, we requested that ODNR/FEMA consider several adjustments. Logan County filed our appeal of the flood maps on March 6, 2015. On August 31, 2016, FEMA approved our request to adjust the BFE of Indian Lake from 997.6 feet to 997.5 feet (NAVD88). In September, 2016 the Logan County Commissioners requested that the new BFE of 997.5 feet be incorporated into the new FIRM, requested that FEMA provide Logan County with a Flood Insurance Advocate to assist us with our appeal of the preliminary flood rate maps, and requested good-faith consultation with FEMA. In December, 2017, the county commissioners had new surface model data collected by the engineering firm Woolpert that will provide two inch elevation accuracy for the Indian Lake area.

Sincerely,
Scott C. Coleman, P.E., P.S.
Logan County Engineer

Township Road 181—Heidi Road Allotment Drainage Project

*By: Cale Jacobs, P.E.
Assistant Engineer*

Drainage issues have plagued the residents of Township Road 181 - Heidi Road allotment area for some time now. This spring the Engineer's Office in conjunction with the Lake Township trustees and concerned citizens began to investigate the issues. It was discovered that a culvert draining water across TR 181 was no longer functioning as designed and this was forcing the water to find an alternate path and causing major drainage issues along this alternate path. The trustees decided it was their duty to restore the culvert to its working capacity within the right of way. This concerned residents immediately downstream of the culvert as they had experienced their own drainage issues throughout the years.

The Engineer's Office developed a plan that would extend a storm sewer system south from Township Road 181 culvert 0.23 through the residential properties and tie into the existing collection system on the north side of Heidi Road. 600 linear feet of 6 inch storm pipe along with 4 concrete catch basins were installed through the yards of three different residential properties. A combination of this work, the replacement of the 10 inch culvert across TR 181, and ditch regrading on the north side of TR 181 will allow for future storm water to be detained on the north and south sides of TR 181 and safely enter the allotments existing storm drain system. Work agreements were obtained from the property owners and the development of township maintenance easements are in process.

The Logan County Highway Garage contracted with the Lake Township trustees to provide construction services for this project. This is an example of our shared services initiative implemented over the past few years. The highway garage provides services at cost for limited activities needed by the townships. Mowing, tree trimming, roadside spraying, sign replacements, and culvert replacements are just a few of the other various shared services provided by the county.

Safety Update

*By Todd Bumgardner
Administrative Coordinator*

In December 2017 The Logan County Highway Department purchased a wireless intercom system utilizing Bluetooth technology which provides a clear link between our bucket truck operator and our ground workers. This system not only enhances communication and efficiency of our crews it also greatly increases site safety.

During tree trimming operations communication between the bucket truck operator and the ground crew is essential. Traffic control, dropping tree limbs, chipper operations, and ground crew movement require minute by minute communication. Hopefully gone are the days of yelling above the noise of engines, chainsaw, voices and traffic between an elevated position 50 feet plus in the air to the site ground operations. The idea of utilizing this technology came directly from a training course our workers attended this fall.

Thanks to all the workers at the Engineer's Office and Highway Department for their continuing efforts with our safety program.

EMPLOYEE GENEROSITY



Our employees gave generously to the Logan County United Way this year raising \$977.00. Many local charities will benefit from these contributions over the coming year.

Highway Update

*By Joel Miracle
Highway Superintendent*

In the fall of 2017 our crews were busy with typical highway operations. New culverts were installed on CR 24, CR 112, CR 47, CR 32 and CR 18 and then ditching was performed in these areas to improve the drainage.

Dirt was hauled to CR 37 to raise the shoulder after Shelly Company widened it to help ensure the safety of our traveling public. An adequate shoulder serves as a lateral support to the pavement and protects the road surface from intrusion of water, one of the great destroyers of our highways.

Routine highway maintenance included tile repairs, crack sealing, dura-patching, drainage improvements and guardrail repairs and replacement. Asphalt paving and repairs were performed on CR 13, CR 9, CR 18, CR 20, CR 32, CR 153 and CR 187 and paving was completed on bridge BR 86-2.87 on Township Road 86 after repairs were made to the bridge.

In addition to our normal county maintenance our crews performance drainage services for Lake Township; guardrail repairs for Union Township; dura-patching for Rushcreek Township; ditching services for Perry Township; and asphalt repairs for Jefferson Township.

Employee Milestones

*By Donna Dahlke
Personnel Specialist*



Seven employees reached employment milestones this year. Congratulations to Todd Coleman and Mark Hilty—25 years; Mark Dearwester and Greg Swonguer— 15 years; and Brad Carnes, Bryan LeVan and Todd Wisse —5 years. **Thank you** for your dedicated service!

New Employee and Promotion

*By Donna Dahlke
Personnel Specialist*

We are pleased to welcome Adam Bergman to our Highway Crew this summer. Adam's diverse experience in heavy equipment operation has been a great asset to the Logan County Engineer's Office. WELCOME Adam !

T.J. Yoder was promoted to Senior Fleet Technician in July 2017 and his leadership skills have been an asset in the garage operation.

Todd Wisse was promoted to Highway Technician II in August of 2017. His demeanor and experience have proven him to be a great asset to the Highway Department.

Map Room

*By Suzie Cochran
Map Room Supervisor*

In 2017, the Map Room Staff checked legal descriptions on 2,723 real estate documents. There were 2,064 deeds, 465 Affidavits, 74 Certificates of Transfer, 59 easements and 61 land contracts. Additionally, 1 annexation plat was approved and recorded. New property splits totaled 123 for the year with 53 additional documents being recorded with new survey descriptions.

Surveyors submitted 314 new surveys that were reviewed, approved, indexed, scanned and filed by the Map Room personnel. In addition, 72 house numbers were entered into the 911 system.

The records of the Map Room can be found on the Logan County Engineer's Office website at: www.lceo.us.

Ditch Maintenance & Traffic Department

*By Steve Tracey
Ditch/Traffic Superintendent*

The Ditch Department has repaired three tile outlets on the Liggitt Ditch, three tile repairs on the Elder Kline Ditch and tile repairs on the Fun Place and Cummins Ditches. Erosion control using dump rock was placed on the Rowand, Slough and Elder Kline ditches. The outlets of the Badger tile and the Slough Ditch, which runs into the Miami River, were dipped to improve water flow. Currently, the crew is center dipping a branch of the Stoney Creek Ditch to remove silt and provide better flow of water.

This past fall we reshaped and repaired the Slough ditch behind Emil Davis ball park. Accessibility was at a minimum due to banks eroding and sliding in.

A large shared services job was completed for McArthur Township that included boom mower trimming to improve sight distance and tree limb cutting.



The Sign Department, with the help of Federal Grant funding, hired ADN to conduct a Ball Bank Study on all curves throughout the county. The data from this study helps us to sign and regulate speeds at which curves can be safely traveled.

The yearly nighttime inspections of signs has been completed in addition to painting of railroad crossing, school zones and stop bars. The Sign Department has been working with multiple townships to help keep their signs up to date as well. Currently, the department maintains over 7,000 signs for the county.

New Access Management Regulations

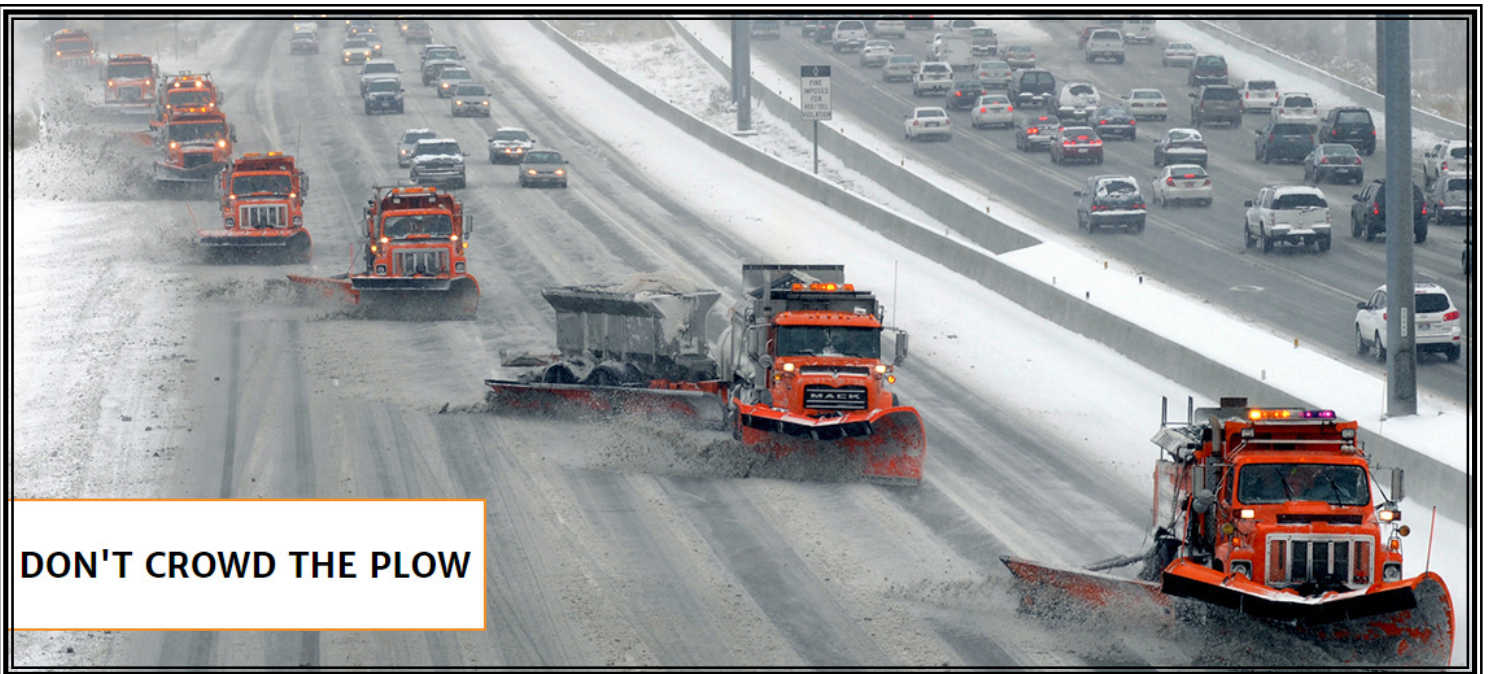
*By Todd Bumgardner
Administrative Coordinator*

Access Management Regulations for Logan County were adopted in July of 2017. In general terms, access management is the structured regulation of traffic to and from roadways to minimize disruption to the intended function and to minimize conflicts to traffic movement.

The process to develop these new regulations is outlined in the Ohio Revised Code. Members of professional organizations from around the county gathered in a series of meetings. During these meetings the group reviewed the County Engineer's proposed guidelines which were developed from various other county and state regulations. As part of the process public meetings were advertised and held prior to our Board of Logan County Commissioners adoption. Our hope is that these regulations accomplish the follow goals:

- Improve public safety by reducing accidents.
- Preserve the useful life of the highway system by maintaining highway capacity.
- Facilitate the movement of people and goods by reducing travel delay and congestion.
- Support orderly economic development by providing appropriate access to property consistent with the operation and safety of the highway.
- Minimize transportation costs by making highways more efficient.
- Encourage closer cooperation between state and local governments in land use and transportation decisions.

If you are planning to install an access drive to the county or township right of way our office can help you through this new process. Contact The Logan County Engineer's Office for additional information.



They're here to help - treat them with respect.

Historic BR 21-1.00 Update






By: Michael Kerns
Assistant Engineer

Depending on which country roads take you home, you may have noticed changes in the bridge posting signage if your route crosses over a bridge that is load restricted. Why the changes? Because the Federal Highway Administration (FHWA) has mandated that all of the bridges in our nation be load rated for Special Hauling Vehicles (SHVs), which are defined on FHWA's website as "closely spaced multi-axle single unit trucks introduced by the trucking industry in the last decade. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks. Some SHVs are equipped with lift/drop axles. The SHVs typically have 4 to 7 axles".

While truckers may find these bridge postings annoying and a time consuming chore to detour, keep in mind the primary reason the bridges are posted are to keep you and the rest of the travelling public safe. Secondly, these load ratings also help keep our bridges from deteriorating at a faster rate due to higher stresses and thus saves our county money that would have to be spent repairing or replacing a failed structure.

As seen below, these new bridge signs now have truck silhouettes representing which weights are appropriate for the following truck types, listed in the order they appear on the signs: 2-axle, 3-axle, 4-axle, 5-axle, semis and 6+ axles. The number of axles shown on each silhouetted truck on a posted sign is not to be interpreted as the only possibility for that particular vehicle and it is your responsibility as a driver to know the type and weight of the truck you are driving at all times and to compare that against the posted signs as you come upon one of the eleven posted bridges in Logan County.

(4) T 32-2.00

WEIGHT LIMIT	
	15 T
	17 T
	17 T
	18 T
	30 T
6+ AXLE	19 T

The number shown in the parentheses is the Map ID number for the bridge, which correlates with a number on our Bridge Posting map to help show you where the bridge can be found. T 32-2.00 means that this bridge is on Township Road 32 and 2.00 is its straight-line-mileage, which is used to measure where roadway structures on their respective roads

To see what all of the SHV bridge postings look like and to see what the most up-to-date bridge postings are in our county, visit our website at www.lceo.us and click on "Bridge Posting List".

[Bridge Posting List](#)



Bridge Crew Update

*By: Dan McMillen
Bridge Superintendent*

During the early fall the bridge crew began the total rehabilitation of Bridge 2.87 on CR 86 in Stokes Township. This bridge consisted of a 61 foot span with steel beams and an older undersized wood floor, which caused the structure to be posted with a weight limit. The rehabilitation of this bridge consisted of hydro blasting with glass beads that are injected into the water and mixed with a flash rust inhibitor and chloride neutralizer. Tests were then performed for any chlorides left and, in most cases, a final rinse at low pressure will remove all traces of chloride. The bridge was then painted with a Dura Plat 235 primer and epoxy marine coating paint. The deck was replaced with a 24 feet x 61 feet, 8 inch thick concrete deck and all rehabilitation tasks were performed in house by the bridge crew.

Repairs to two vehicle-bridge accidents were also completed. One was on CR 12 where extensive damage was done to the posts and guardrail. The second were repairs to the Bickham covered bridge that was damaged by a large oversized truck. The north end of the structure had extensive damage to it resulting in a two day closure for repairs.

Shared Services Projects

*By: Mark Hilty
Operations Superintendent*

The County Engineer's Office has had another busy year for shared services.

We began our shared services program several years ago and it has continued to grow each year. Our goal was to save smaller local agencies money while off setting our costs and provide a quality finished project.

Two of the larger projects this year were drainage issues that had gotten worse over the years. The Heidi road drainage project included 600 feet of tile, 4 catch basins, and a new culvert under TR 181 for Lake Township. State street and Pine street in Stokes Township included 120 feet of tile, 1 catch basin and a backflow preventor.

All of our departments had a hand in the following:

Guardrail install/repair- Union, McArthur, Liberty, Jefferson

Dura-Patch- Rushcreek, Perry, Jefferson

Asphalt work/repair- Jefferson, Pleasant, Union

Chipseal- City of Bellefontaine

Culverts- Perry, McArthur

Drainage- Lake, Stokes, Union, Pleasant, McArthur, Jefferson

Mowing- Lake

Boom mowing/trimming- Union, McArthur, City of Bellefontaine

Spraying- Lake, Bokescreek

Sign install/repair- Pleasant, Jefferson, Union, Zane, Rushcreek, Richland

If you have an idea for additional shared services, please contact us at 937-592-2791.