

Champaign County Engineer

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Champaign County Engineer 2019 Annual Report



It is with great pleasure to present the work of the Champaign County Engineer's office. Whether we are keeping the roads safe during the winter season, resurfacing or repairing deteriorated roads, replacing bridges or culverts, or working on the right of way, **the employees are very dedicated and hard-working.** We dedicated most of our hours in 2019 to the maintenance of 239 miles of roadway and the upkeep of the right of way in the form of resurfacing, mowing, snow and ice control, ditch cleaning, trash pickup, tree cutting, and road repair. 2019 was a very wet year for the first half and then was mostly dry for the second half. The weather created a lot of scheduling issues for us and concentrated our construction and maintenance work in the second half of the year. The 2018-2019 winter was more severe than our average, requiring us to use over 2100 tons of salt. However, because of the severity of the previous winter, the salt prices decreased slightly from \$84.05 a ton in 2018 to a bid price of \$82.24 a ton for Champaign County.

Funding for our office to accomplish our work comes from three primary sources. The first funding source comes from a portion of the state gas. The gas tax is a fixed amount that does not change with the fluctuating price of fuel. **Special thanks to governor Dewine** for seeing the need to help generate a much-needed increase to our funding. The additional money generated for Champaign County is estimated to bring in \$1.5 million annually. The total number of gallons sold in Ohio and divided equally among the 88 counties. In 2020 an estimated total of \$3,900,000.00 will be collected for Champaign County. The **second funding source** comes from a portion of the license plate fee. The Engineer's office received just over \$1,300,000 last year. The **third primary source** of revenue is also based on the number of licenses issued in Champaign County, referred to as the Permissive License Fee. Municipalities, townships, and the County split the additional \$15 fee. The County's permissive share was about \$585,000 last year. Champaign County uses no **property tax or sales tax** in maintaining roads or replacing bridges. Additional sources of funding the County occasionally come in the form of state and federal grants. The Engineer's office received federal funding to rehabilitate the bridge on Old Troy Pike Road Over Mad River. We will continue to pursue outside funding to help improve the county bridges and roads. Some of our accomplishments completed this year can be found in the following report.

Following the Ohio Revised Code, an annual report must be presented to the County Commissioners summarizing the work performed and the condition of the County infrastructure. Please submit any questions or comments concerning this report to our office. **We are happy to serve you.**

Sincerely,



Stephen McCall P.E., P.S.
Champaign County Engineer

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2019 Road Work

Current road centerline mileage for the County totals 239.26 miles. This mileage is certified and provided to the Ohio Department of Transportation.

<p style="text-align: center;">2019 Road Projects</p> <p>The county engineer's office bid out two road improvement projects in 2019.</p> <p>Kiser Lake, Possum Hollow, and Runkle roads were widened in preparation for our 2020 LPA paving project. County forces installed new mailbox approaches and plowed the widening trenches. A&B Asphalt provided and installed asphalt base for the widening at the cost of \$254,605.21.</p> <p>Cable Road from Flood Street to Urbana Woodstock Pike (1.9 miles) was widened and overlaid with 1.5" of asphalt followed by an additional 1.5" of asphalt from S.R. 296 to Urbana Woodstock Pike (3.2 Miles). The total project cost \$528,805.69 and was completed by A & B Asphalt.</p>	<p style="text-align: center;">2019 Resurfacing Program</p> <p>Various roads on the eastern side of the county were chip and sealed.</p> <p>Over 106 miles of County, Township, and Municipal roads were chip and sealed with HF-RS2P emulsion. We are currently on a six-year resurfacing rotation with our program and inspect the roads every two years to see if they need immediate attention.</p> <p>County Roads – 29.12 miles Township and Municipal Roads – 58.65 miles Bike Path – 8.86 Miles</p> <p>383537 Gallons of HF-RS2P at \$1.85/gal 10,915 Tons of #8 Stone at \$15.80/ton \$882,000.14 Total Material Cost</p>
<p style="text-align: center;">Pavement Marking</p> <p>179 miles of road was marked with centerline and edge line. 12 railroad crossings, 2 crosswalks, and 5 school zones were also painted for a total project cost of \$178,493, of which 71,492 was paid for through a grant.</p>	<p style="text-align: center;">Guardrail Reconstruction</p> <p>Guardrail was raised and upgraded at various locations throughout Champaign County. Culverts and bridges on Kite, Russell Middle Urbana, Thackery, and North Kennard were also upgraded. Many posts were replaced, and the guardrail reset at current standards.</p>
<p style="text-align: center;">Crack Sealing</p> <p>The County crack sealed Dallas, St. Paris Jackson, and Christiansburg Jackson roads. The county also crack sealed Allison Road and various subdivisions for Goshen.</p> <p>Asphalt Systems was hired to Crack seal Millerstown Road.</p>	<p style="text-align: center;">Guardrail Reconstruction</p> <p>Guardrail was raised and upgraded at various locations throughout Champaign County. Culverts and bridges on Kite, Russell Middle Urbana, Thackery, and North Kennard were also upgraded. Many posts were replaced, and the guardrail reset at current standards.</p>

Snow and Ice Control

<p>2,117.47 tons of salt were used to treat county and township roads through the 2018-2019 winter season. Our average over the last fifteen years has been just over 1,925 tons per year. Nearly 74% was used for county roads. Townships and smaller incorporated villages purchased the remaining 26%. The total was our second-highest total in the last 15 years.</p>	<p>The 2019 winter salt price was \$78.94 per ton. The price was up from 2018's price of \$54.90 per ton because of the long winter in 2018-2019. We also use Beet Heet to help the salt melt snow and ice at lower temperatures and not refreeze. Using this product has helped reduce the amount of material required to melt the same amount of snow and ice at temperatures below 25° F.</p>
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2019 Bridge and Culvert Work

Our annual inspection of 213 bridges has been completed and shows that overall, our bridges are in good shape. We share maintenance responsibilities with Clark County for three bridges on County Line Road and two bridges with Logan County. Currently, six county bridges are posted narrow (18' to 20'). No bridges have load restrictions, and one bridge is posted as one lane (18' or less).

2019 Bridge Replacement and Repair	
Location	Cost
Speaks Rd 244-0015 Replacement	\$85,361.22
Runkle Rd 17-0593 Patch and waterproof	\$7,359.94
Runkle Rd 17-0615 Patch and waterproof	\$6,651.34
Runkle Rd 17-0824 Patch and waterproof	\$25,120.36
Heck Hill Rd 26-0336 Patch and waterproof	\$16,724.50
Total	\$141,217.36

2019 Bridge Inspection		
General Appraisal	Condition	Number
9A	As Built	77
8A	Very Good	81
7A	Good	39
6A	Satisfactory	10
5A	Fair	3
4A	Poor	1
3A	Serious	0
2A	Critical	0
Total		211

Staff and Highway Workers

Currently, the Engineer's office has eight office staff, a superintendent and three supervisors, a fleet maintenance manager and a mechanic and 18 highway workers. The 30 employees and the County Engineer are dedicated to maintaining Champaign county's infrastructure.

2019 Culverts Replaced

Per Ohio law, any structure with a span of less than 10' is considered a culvert.

The Engineer's office replaced 13 culverts ranging in size from 12" to 21" in diameter. We replaced a large culvert with a 9.5 foot span on Urbana Woodstock Pike using reinforced concrete beams placed on GRS abutments. The beams were designed and poured in-house.

Mapping and Planning

The Office of Mapping and Planning continues to do a great job serving the public. The office answers several questions daily from the public in addition to their regular duties. The number of conveyances and new surveys was similar to last year, but the number of sheriff sales has decreased by nearly 25%. The total conveyances reviewed was 1710.

<p style="text-align: center;">2019 Permits</p> <ul style="list-style-type: none"> ➤ 40 Total Requests for Driveway Permits ➤ 21 Driveway pipes were installed ➤ 51 House numbers were issued ➤ 16 Total Utility Permits Were Issued <ul style="list-style-type: none"> 9 Issued on county roads 7 Issued on township roads 	<p style="text-align: center;">2019 Deed, Description and Survey Reviews</p> <ul style="list-style-type: none"> ➤ 200 Surveys were approved <ul style="list-style-type: none"> 70 New splits were approved 26 New attachments were approved 20 New easements were approved 84 Retracement surveys ➤ 1791 Conveyances were reviewed <ul style="list-style-type: none"> 38 Sheriff Deeds
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Existing Fleet

The total miles driven by the 34 licensed vehicles were 320,629 miles last year. The 26 pieces of off-road construction equipment totaled 6,773 hours of usage. We have 11 tandem trucks. The average age of our tandem trucks is 7 years old, with an average of 84,299 miles. Through 2019 we spent almost \$159,899 on fuel. The total maintenance cost for the entire fleet and construction equipment was \$109,089 for this year.

2019 New/Used Equipment Purchases

<p style="text-align: center;">Portable Traffic Signal \$47,195 (Grant \$35,396 Engineer \$11,798)</p> 	<p style="text-align: center;">Case Wheeled Loader \$114,500</p> 
<p style="text-align: center;">2019 Chevrolet Silverado \$37,352</p> 	<p style="text-align: center;">2020 Western Star Truck \$195,632</p> 

Financials

2019 Receipts			2019 Expenditures		
Gasoline Tax	\$2,939,200.28	54.6%	Road Projects & Maint.	\$ 1,910,179.70	38.24%
Auto License	\$1,319,004.95	24.5%	Payroll	\$ 1,586,036.70	31.75%
Permissive Taxes	\$ 551,510.24	10.3%	Equipment & Fleet	\$ 612,958.66	12.27%
Miscellaneous	\$ 504,712.72	9.4%	Employee Benefits	\$ 577,590.25	11.56%
Interest	\$ 65,881.27	1.2%	Bridge & Culvert Projects	\$ 156,487.47	3.13%
			Office & Operations	\$ 152,337.70	3.05%
Total Receipts	\$ 5,380,309.46		Total Expenditures	\$ 4,995,590.40	