

Champaign County Engineer

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Champaign County Engineer 2020 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 2020 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. 2020 was a very tough year to deal with construction and maintenance because of the COVID virus.

Protecting the workforce and the public was paramount. We closed the office to the public for the first two weeks with a dropbox to continue reviewing deeds and surveys. We also had our workforce cleaning to avoid the virus infecting the entire crew. Maintaining the same crews and limiting the numbers in a vehicle help keep everyone healthy at work.

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 tax. The gas tax is a fixed amount that does not change with the fluctuating price of fuel. In 2020, Champaign County received \$3,614,207.26 from gasoline tax. The **second funding source** comes from a portion of the license plate fee. The Engineer's office received \$1,261,287.83 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 \$539,408.51 last year. Because of the COVID stay-at-home orders and travel reduction, our office had about \$470,000 (8%) less in anticipated revenues.

Additional sources of funding for the County occasionally comes in the form of state and federal grants. The Engineer's office received federal funding to pave 15 miles of roads in 2020, bringing \$2,000,000 to Champaign County. Champaign County used no **property tax or sales tax** in maintaining roads or replacing bridges in 2020. 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 county infrastructure condition. 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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2020 Road Work

<p style="text-align: center;">2020 Road Projects</p> <p>The county engineer’s office bid out the 2020 Federal-aid paving project.</p> <p>Kiser Lake, Possum Hollow, North Heck Hill, Urbana Moorefield, and Runkle roads were paved. The total project cost \$2,136,877.37 and was completed by A & B Asphalt. Champaign County’s portion was \$427,375.48.</p> <p>Champaign County also had two inches of cold in-place asphalt constructed on West Hickory Grove, Yocum, Perry, and Middleburg-Plain City Roads. Rush township reimbursed the county for work on Middleburg-Plain City Road. Bergman Construction won the bid to install this material at the cost of \$213,064.21</p> <p>Asphalt materials provided the asphalt liquid and made the material. The total cost of the material, including the stone, was \$430,748.75.</p>	<p style="text-align: center;">2020 Resurfacing Program</p> <p>Various roads on the western side of the county were chip and sealed.</p> <p>Almost 74 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 style="text-align: center;">County Roads – 9.96 miles Township and Municipal Roads – 63.94 miles</p> <p style="text-align: center;">322,004 Gallons of HF-RS2P at \$1.78/gal 8274 Tons of #8 Stone at \$16.50/ton \$ 709,680.73 Total Material Cost</p>
<p style="text-align: center;">Pavement Marking</p> <p>112 miles of road was marked with centerline and edge line with a cost of \$95,255. 12 railroad crossings, 2 crosswalks, and 5 school zones were also painted with a cost of \$3,350. The total cost of pavement marking for the year was \$98,605.</p>	<p style="text-align: center;">Crack Sealing</p> <p>The County crack sealed Ford, Zimmerman, and Upper Valley Pike from Herr to Lippencott road. American Pavements was hired to crack seal Storms Creek and Springfield Urbana Pike.</p>
<p style="text-align: center;">Mowing</p> <p>Two single passes and three full width passes of mowing was performed this year totaling 2,366 lane miles of mowing. Total cost for mowing was \$82,860.00</p>	<p style="text-align: center;">Road Mileage</p> <p>Current road centerline mileage for the County totals 239.26 miles. This mileage is certified and provided to the Ohio Department of Transportation.</p>

Snow and Ice Control

<p>1031 tons of salt were used to treat county and township roads through the 2019-2020 winter season. Our average over the last fifteen years has been just over 1,925 tons per year. Nearly 70% was used for county roads. Townships and smaller incorporated villages purchased the remaining 30%. The total was our third-lowest in the last 15 years, reducing the cost of salt for 2021.</p>	<p>The 2020 winter salt price was \$67.03 per ton. The price was lower than the 2019’s price of \$82.24 per ton because of the mild winter in 2019-2020. 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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2020 Bridge and Culvert Work

Our annual inspection of 214 bridges has been completed and shows that our bridges are in good shape overall. We share maintenance responsibilities with Clark County for three bridges on County Line Road and two bridges with Logan County. Currently, Champaign county has five county bridges that are posted narrow (18' to 20'). And one posted for load restrictions and is posted as one lane (18' or less).

2020 Bridge Replacement and Repair	
Location	Cost
Herr Road 118-0244 Rehabilitation	\$22,430.31
Dallas Road 184-0306 Rehabilitation	\$19,190.79
Old Troy Pike 193-0572 Replacement	\$86,430.59
Old Troy Pike 193-0582	\$87,738.53
Total	\$215,790.22

2020 Bridge Inspection		
General Appraisal	Condition	Number
9A	As-Built	79
8A	Very Good	82
7A	Good	40
6A	Satisfactory	9
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 four supervisors, a fleet maintenance manager and a mechanic, and 18 highway workers. The 33 employees and the County Engineer are dedicated to maintaining Champaign county's infrastructure.

2020 Culverts Replaced

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

The Engineer's office replaced 16 culverts ranging in size from 12" to 24" in diameter. The cost of these projects totaled \$51,300.29

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 45%. The total conveyances reviewed was 1772.

<p style="text-align: center;">2020 Permits</p> <ul style="list-style-type: none"> ➤ 40 Total Requests for Driveway Permits ➤ 21 Driveway pipes were installed ➤ 72 House numbers were issued ➤ 9 Total Utility Permits Were Issued <ul style="list-style-type: none"> 5 Issued on county roads 4 Issued on township roads 	<p style="text-align: center;">2020 Deed, Description, and Survey Reviews</p> <ul style="list-style-type: none"> ➤ 208 Surveys were approved <ul style="list-style-type: none"> 94 New splits were approved 7 New attachments were approved 4 New easements were approved 62 Retracement surveys ➤ 1772 Conveyances were reviewed <ul style="list-style-type: none"> 21 Sheriff Deeds
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Existing Fleet

The total miles driven by the 35 licensed vehicles were 295,876 miles last year. The 29 pieces of off-road construction equipment totaled 6,994 hours of usage. We have 11 tandem trucks. The average age of our tandem trucks is eight years old, with an average of 96,907 miles. Through 2020 we spent \$148,714 on fuel. The total maintenance cost for the entire fleet and construction equipment was \$114,097 for this year.

2020 New/Used Equipment Purchases

<p>2020 Ford F550 Service Truck \$ 72,215</p> 	<p>2020 Caterpillar Mini Excavator \$107,839</p> 
<p>2020 Trail King Lowboy Trailer \$67,110</p> 	<p>2020 Kundel Steel Trench Box \$10,970 (Grant \$8,776 Engineer \$2,194)</p> 

Financials

2020 Receipts		2020 Expenditures	
Gasoline Tax	\$3,614,207.26 59%	Road Projects & Maint.	\$ 2,084,126.68 39.20%
Auto License	\$1,261,287.83 21%	Payroll	\$ 1,656,441.71 31.16%
Miscellaneous	\$ 654,855.89 10%	Equipment & Fleet	\$ 799,176.68 15.03%
Permissive Taxes	\$ 539,408.51 9%	Employee Benefits	\$ 375,194.80 7.06%
Interest	\$ 43,531.00 1%	Bridge & Culvert Projects	\$ 216,486.45 2.24%
		Office & Operations	\$ 66,065.53 1.24%
Total Receipts	\$ 5,414,903.60	Total Expenditures	\$ 5,316,394.85