

# Champaign County Engineer

428 Beech Street  
Urbana, Ohio 43078

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

937-653-4848  
937-653-3172fax

Remit to Address  
P.O. Box 669

## Champaign County Engineer 2018 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. Most of our hours in 2018 were **dedicated 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. **2018 was a record year for precipitation with nearly 54" of rain this last year.** This created a lot of scheduling issues for our construction and maintenance work. The 2017-2018 winter ranked second in the amount of salt we used in last 10 years. Although we did not have any major snow storms, we started plowing roads in November and didn't stop treating roads until late March. Because of the length, the salt prices increased from \$54.90 a ton in 2017 to an average bid price of \$84.05 a ton for Champaign County.

**Funding for our office** to accomplish our work comes from three main sources. The first funding source comes from a portion of the 28 cents per gallon state gas tax equaling to 3.2 cents per gallon. The gas tax is a fixed amount that does not change with the fluctuating price of fuel and our funding has been stagnant for the past 12 years. This funding source is based on the total number of gallons sold in Ohio and divided equally among the 88 counties generating \$2,389,284.77 for Champaign County in 2018. The **second funding source** comes from a license plate fee that is divided between several government entities. The Engineer's office last year received just over \$1,300,000. The **third main source** of revenue is also based on the number of licenses issued in Champaign County referred to as the Permissive License Fee. This additional \$15.00 fee is split between municipalities, townships and the county depending on where you live. The County share was about \$585,000 last year. **No property tax or sales tax** is used in maintaining roads or replacing bridges in Champaign County. Additional sources of funding the county occasionally receives comes in the form of state and federal grants. The Engineer's office received a federal grant to replace and upgrade guardrail on Elm Tree Road. We will continue to pursue outside funding to help upgrade the county road system. Some of our accomplishments completed this year can be found in the following report.

In accordance with the Ohio Revised Code, an annual report must be made to the County Commissioners summarizing the work performed and the condition of the County infrastructure. Any questions concerning this report or comments pertaining to our work can be submitted to our office. **We are happy to serve you.**

Sincerely,



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

Mike Knotts  
Superintendent  
937-653-3187x980

[www.co.champaign.oh.us](http://www.co.champaign.oh.us)  
Email : [engineer@co.champaign.oh.us](mailto:engineer@co.champaign.oh.us)

## 2018 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;"><b>2018 Paving Project</b></p> <p>The county engineer's office bid out two paving contracts in 2018.</p> <p>Upper Valley Pike from SR 296 to Lippincott road was 2.5 miles of full depth reclamation with 3" of fiber reinforced asphalt installed for \$766,741.23 by The Shelly Company</p> <p>Cable road from SR 296 to Flood Street, 1.33 miles, was widen and overlaid with 1.5 " of asphalt. The total project cost of \$202,258.83 completed by A &amp; B Asphalt.</p>	<p style="text-align: center;"><b>2018 Resurfacing Program</b></p> <p>Various roads in the western 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 style="text-align: center;">County Roads – 42.86 miles Township and Municipal Roads – 63.76 miles</p> <p style="text-align: center;">464,353 Gallons of HF-RS2P at \$1.68/gal 13,183 Tons of #8 Stone at \$14.85/ton <b>\$975,883.31 Total Material Cost</b></p>
<p style="text-align: center;"><b>Mowing</b></p> <p>Three single passes and three full width passes of mowing was performed this year totaling 2,906 lane miles of mowing. Total cost for mowing was <b>\$94,219.51</b></p>	<p style="text-align: center;"><b>Road Profile and Crown Correction</b></p> <p>Several intersections were milled, graded and profiled. These included Urbana Woodstock at Yocum road, Brush Lake intersections and at a culvert near Chatfield road. Cable road intersections at Bowers, Black and Mutual Union were also improved.</p>
<p style="text-align: center;"><b>Pavement Marking</b></p> <p>113 miles of road were marked with centerline and edge line. 12 railroad crossings, 2 crosswalks and 5 school zones were also painted for a total project cost of <b>\$101,750</b></p>	<p style="text-align: center;"><b>Guardrail Reconstruction</b></p> <p>Guardrail was raised and upgraded at 11 locations throughout Champaign County. Many post were replaced and the guardrail reset at current standards.</p>
<p style="text-align: center;"><b>Crack Sealing</b></p> <p>The County crack sealed Millerstown Eris and Dallas roads. Asphalt Systems was hired to Crack seal Springfield Urbana Pike and Apple Road.</p>	

### Snow and Ice Control

<p>2,919 tons of salt were used to treat county and township roads through the 2017-2018 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%. This was our second highest total in the last 15 years.</p>	<p>The 2018 winter salt price was \$49.87 per ton. This was down from 2017's price of \$54.90 per ton because of the long winter in 2017-2018. 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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## 2018 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).

<b>2018 Bridge Replacement and Repair</b>	
Location	Cost
Neff Rd 88-0040 Replacement	\$184,545.90 (total) \$89,835 (by others)
Hunt Clymer Rd 183-0043 Patch and waterproof	\$8,779.93
Tallman St Tall-0014 Patch and waterproof	\$12,435.20
Hanna Rd 25-0152 Patch and waterproof	\$14,440.07
Cable Rd 2-0191 Patch Abutment	\$26,000.00
<b>Total</b>	<b>\$246,201.10</b>

<b>2018 Bridge Inspection</b>		
General Appraisal	Condition	Number
9A	As Built	81
8A	Very Good	77
7A	Good	35
6A	Satisfactory	15
5A	Fair	2
4A	Poor	0
3A	Serious	0
2A	Critical	0
<b>Total</b>		<b>210</b>

**Staff and Highway Workers**

Currently the Engineer's office has seven office staff, a superintendent and three supervisors, a fleet maintenance manager and a mechanic and 17 highway workers. The 30 employees and the County Engineer are dedicated in maintaining Champaign county's infrastructure.

**2018 Culverts Replaced**

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

The engineer's office replaced 5 culverts. One was 60" diameter with the remaining ranging between 12"-18" in diameter. Two large rehab projects include the extension of a 108" diameter culvert on Kiser Lake Rd and slip-lining a 70 foot long arch with 80 LF of 48" HDPE pipe.

### Mapping and Planning

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

<p style="text-align: center;"><b>2018 Permits</b></p> <ul style="list-style-type: none"> <li>➤ 33 Total Requests for Driveway Permits</li> <li>➤ 13 Driveway pipes were installed</li> <li>➤ 42 House numbers were issued</li> <li>➤ 17 Total Utility Permits Were Issued                             <ul style="list-style-type: none"> <li>8 Issued on county roads</li> <li>9 Issued on township roads</li> </ul> </li> </ul>	<p style="text-align: center;"><b>2018 Deed, Description and Survey Reviews</b></p> <ul style="list-style-type: none"> <li>➤ 241 Surveys were approved                             <ul style="list-style-type: none"> <li>80 New splits were approved</li> <li>36 New attachments were approved</li> <li>10 New easements were approved</li> <li>115 Retracement surveys</li> </ul> </li> <li>➤ 1710 Conveyances were reviewed                             <ul style="list-style-type: none"> <li>87 Sheriff Deeds</li> </ul> </li> </ul>
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## Existing Fleet

The total miles driven by the 32 licensed vehicles was 294,119 miles last year. The 25 pieces of off road construction equipment totaled 4,888 hours of usage. We have 11 tandem trucks. The average age of our tandems is 6 years old with an average of 81,424 miles. Through 2018 we spent almost \$159,074 on fuel. The total maintenance cost for the entire fleet and construction equipment was \$87,264 for this year.

### 2018 New/Used Equipment Purchases

<p>John Deere Backhoe \$101,437</p> 	<p>John Deere Tractor \$97,715</p> 
<p>Ditch Witch \$57,000</p> 	<p>2011 International Truck HTK \$30,950</p> 

## Financials

2018 Receipts			2018 Expenditures		
Gasoline Tax	\$2,416,403.95	51%	Road Projects & Maint.	\$ 1,876,635.87	36.9%
Auto License	\$1,300,862.82	28%	Payroll	\$ 1,512,547.69	29.8%
Permissive Taxes	\$ 548,782.41	12%	Equipment & Fleet	\$ 632,971.16	12.4%
Miscellaneous	\$ 378,493.98	8%	Employee Benefits	\$ 555,175.64	10.9%
Interest	\$ 50,933.59	1%	Bridge & Culvert Projects	\$ 339,857.77	6.7%
			Office & Operations	\$ 165,199.24	3.3%
<b>Total</b>	<b>\$4,665,476.75</b>		<b>Total Expenditures</b>	<b>\$ 5,082,387.37</b>	