



JAMES (JIM) A. WIECHART, P.E., P.S.

~Mercer County Engineer~ REPORT FOR 2019

The work of any County Engineer is perpetually linked to the roller coaster we call “Mother Nature”. The weather is our constant companion as our crews go about the business of completing our mission throughout the year.

In 2019, the weather wasn’t just an accompaniment to our story; THE WEATHER WAS THE STORY!

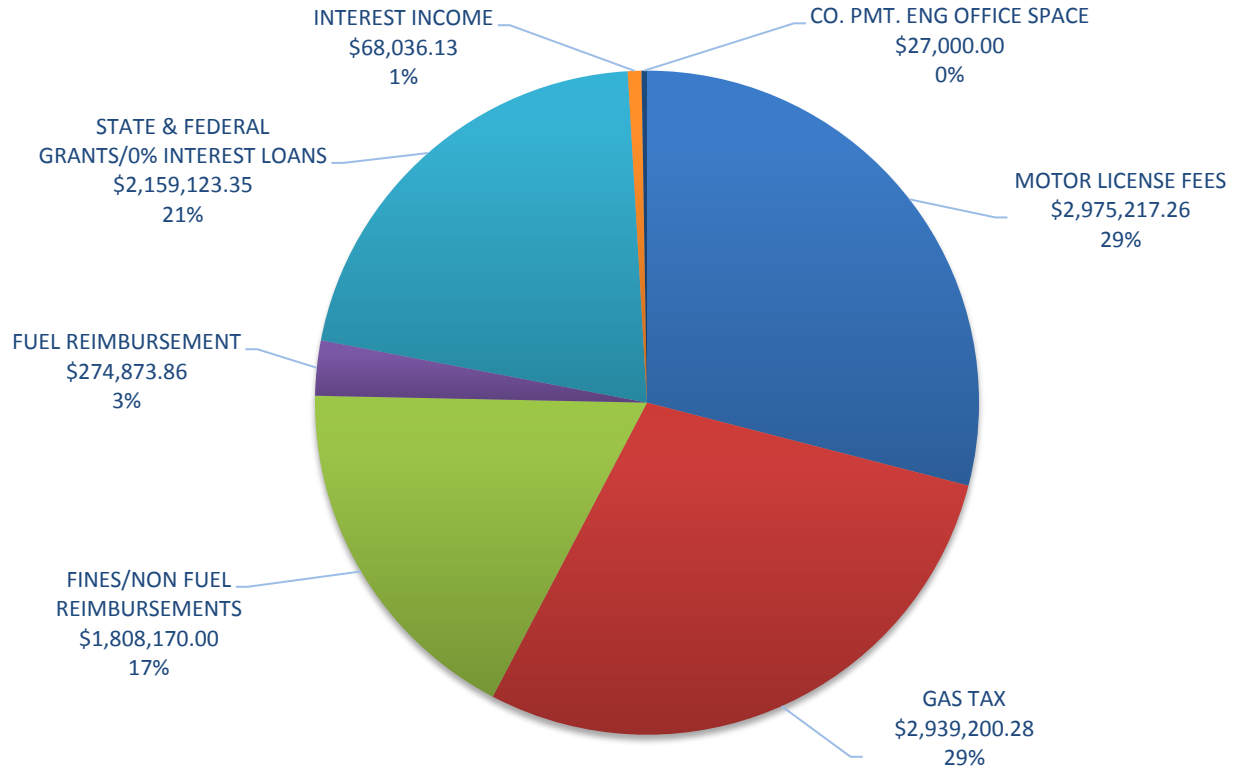
Two flood events (one in April and another in July) created widespread damage and disturbance for our roads and traveling public. These rainfall events created bridge scour issues at many locations (see the section on “bridge scour repair”). It was an unusually wet spring, hampering work efforts. Lastly, a category EF3 tornado rampaged through the center of our county on Memorial Day, heading northeasterly as it went through the northwest edge of Celina causing great destruction. The path of the tornado put it less than one mile from our Mud Pike facility. Despite the great problems created by the weather, our crews dealt with the challenges we faced and through their efforts made the achievements accomplished in this report a reality to be lauded.

Two other footnotes to 2019...

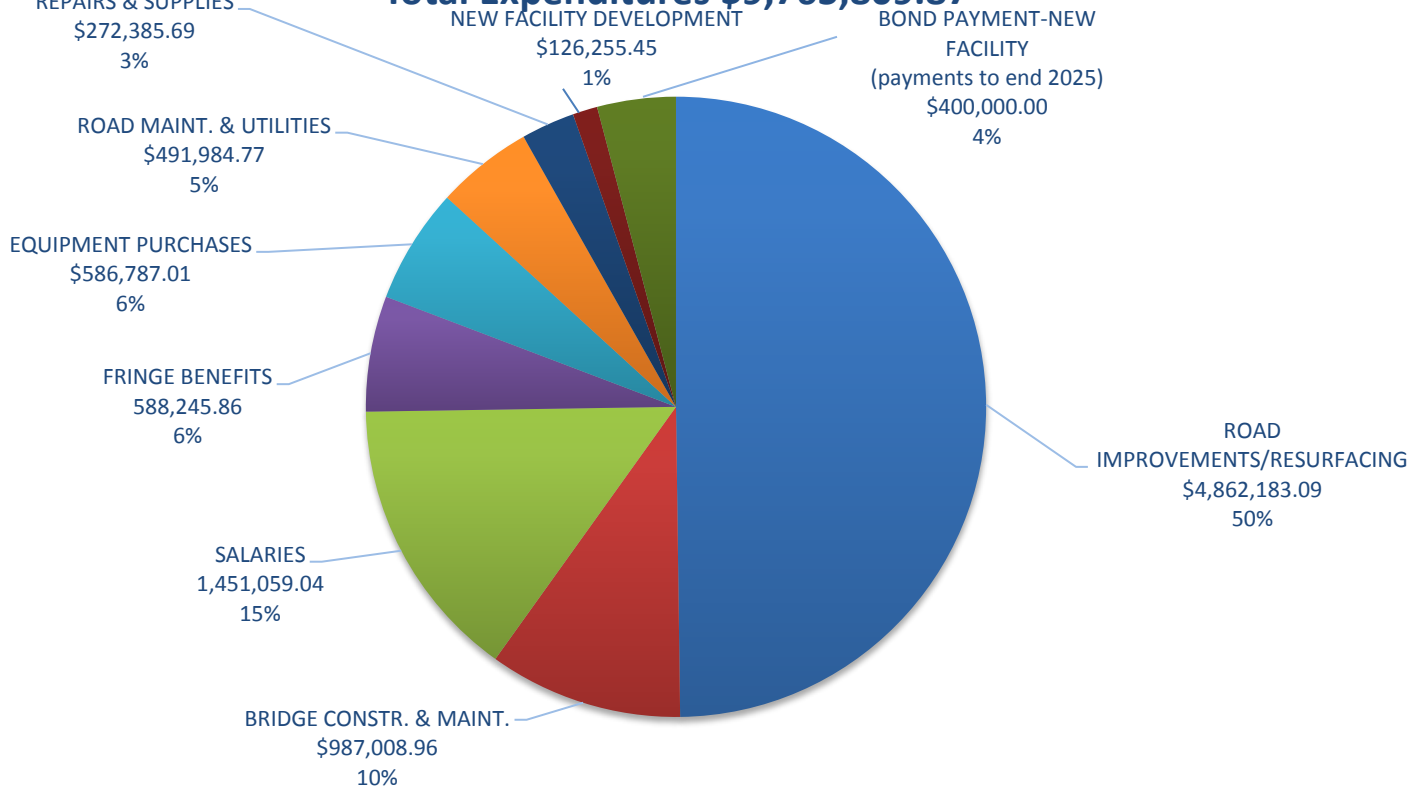
First, the face of the Mercer County Engineer continues to change through retirements and new folks joining our ranks. Four new employees joined us in 2019. From a numbers perspective, this equates to 16% of our workforce changing in one year. We welcome to our team: Nicholas Post, Austin Meier, Casey Rolfes and David Hague.

Finally, the policymakers at the state level adjusted the road fuel user fee. The first adjustment in the law since 2003. The additional revenue created makes up for a lot of the “lost ground” that was experienced via inflation in the last decade and a half. The original version of this law had an inflationary component built into it. Unfortunately, that was pulled out part way through the process. Despite this occurrence, the additional revenue created puts us in a much better position to be able to achieve our mission and the bill passed provides needed relief. This is not a long-term fix to transportation sustainability, but it puts us in a much better place at this time. Coupled with the local passage of a modest permissive license fee adjustment, our public can expect and will see more improvements being made to our local roads. We do not take these additional funds for granted and as always, we remain value shoppers for the goods, services and activities we provide you. It is a privilege to serve Mercer County and we share our 2019 efforts through this report.

Total Receipts \$10,251,620.88



Total Expenditures \$9,765,809.87



Note: Carryover monies, grants and 0% interest loans make up the difference between revenue and expenditures.

EQUIPMENT PURCHASES

The following is a list of the purchases over \$5000 during 2019.

NH TS6.120 Tractor (5M)	\$49,000.00
Diamond 21' Side Fold Boom Mower(for 5M)	\$46,000.00
2020 International HV507 (#5) (traded in 2005 Sterling #40 \$14,000)	\$126,341.00
2013 Used International 4300 Single Axle Dump Truck (#6)(traded in #48 for \$3,900)	\$39,000.00
2020 Moritz 7x16+6 Tilt Trailer (6T)	\$8,350.00
2009 Used Intl Model 7400 Dump Truck (#9)	\$55,005.00
2020 HV 607 SBA Cab & Chassis (#8)	\$78,022.80
John Deere 410L Backhoe Loader (6C)(trade in 16C for \$29,500)	\$74,500.00
Kubota Skid Steer Loader (7C) (traded in 2009 John Deere 325 Skid Steer-18C for \$25,000)	\$30,000.00
2010 Used Intl Model 7400 Dump Truck (#10)	\$59,750.00
Gledhill 12' Power Reversible Snow Plow & Swenson Stainless Spreader (for #5)	\$12,620.00
	\$578,588.80

6 ROADS RECEIVED FULL ASPHALTIC CONCRETE RESURFACING

<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
TAMA	19'	1.956	\$158,732.30
TAMA	24'	2.217	\$213,892.63
ST. PETER(OPWC GRANT FUNDS)	19'	4.908	\$416,454.88
ST. JOHNS(OPWC GRANT FUNDS)	18'9"	0.740	\$60,183.58
ST. JOHNS(OPWC GRANT FUNDS)	22'9"	0.850	\$75,466.55
WABASH(OPWC LOAN FUNDS)	24'-26'	0.947	\$293,558.17
TOTAL FULL ASPHALTIC CONCRETE RESURFACING		11.618	\$1,218,288.11

PAVEMENT MARKINGS

65.035 miles of center line and 51.72 miles of edge line striping was completed by Oglesby Construction, Inc. at a cost of \$51,120.76.

ROAD & BRIDGE MAINTENANCE

Roadside maintenance of existing roadway components is a very important part of our operations. During 2019 there were 462 signs replaced out of 5253 signs in our total inventory on both county and township roads.

Six county mowers ran consistently May through October mowing 385 miles of county roads making 4 rounds in some sections. Once mowers were caught up with roadway side ditches and conditions allowed, during the regular mowing season, a small portion of county ditch maintenance open ditches were mowed.

County crews installed 70 catch basins. 14 different locations had trees cut and brush removed. In fighting snow and ice, 1,805 tons of salt were used at a cost of \$112,801.05 and 1,805 tons of grit were used at a cost of \$15,920.57. 1,507.50 hours of overtime were worked in snow removal. In all, the costs of snow and ice control and removal to our operations in 2019 were \$394,655.21.

Roadside herbicide spraying of 385 miles of county roads was done by DeAngelo Brothers, LLC at a cost of \$23,315.00.

**22 ROADS RECEIVED CHIP AND SEAL RESURFACING VIA OUR CREWS
(APPROXIMATELY 50% OF THESE ROADS WERE FOG SEALED AFTER THE CHIP SEAL APPLICATION)**

<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
ROCKFORD WEST	23.5'	6.653	\$111,539.73
MERCER	23.75'	5.648	\$85,389.62
GUADALUPE	23.5'	3.775	\$76,494.09
PHILOTHEA	19'	1.007	\$13,017.19
CHICKASAW	18.5'	1.766	\$24,886.51
CLUNE STUCKE	18.25'	2.810	\$37,266.53
DEPWEG	18'	1.835	\$21,936.90
TOWNSHIP LINE	18.5'	2.054	\$24,525.14
CR 716A	19.25'	1.968	\$25,260.05
MERCER DARKE CO LINE	19.5'	1.749	\$22,066.16
GOETTEMOELLER	18.75'	2.015	\$29,255.30
FT RECOVERY MINSTER	10'	2.105	\$12,889.10
DEPWEG	7'	0.730	\$4,604.40
GUADALUPE	10'	3.775	\$6,792.07
TOWNSHIP LINE	18.75'	2.282	\$34,471.48
STRABLE	18.25'	2.006	\$22,559.57
WABASH	19'	1.497	\$17,345.37
CELINA MENDON	24.25'	3.539	\$60,178.43
RICE	18'	0.567	\$8,030.06
OREGON	18.75'	4.009	\$52,109.71
WABASH	18.5'	1.259	15,793.61
ERASTUS DURBIN	18.5'	2.525	31,837.29
TOTAL FULL CHIP AND SEAL RESURFACING		55.574	\$738,248.31

*Note: Our crews also chip sealed 48.35 miles of township roads

DITCH MAINTENANCE INFRASTRUCTURE

County ditch maintenance activities are as continual as road and bridge infrastructure maintenance. We appreciate your input and feedback on drainage related topics. If a particular area of interest is in mind, do not hesitate to reach out to our office and our staff will help determine whether the county has financial responsibility for the maintenance or improvement(s) so specified. There were 26 ditches sprayed in order to keep noxious weeds and brush control to a minimum. Three of the open ditches were fully mowed and 5 were dipped out with an excavator to remove years of silt settlement as well as improve water flow. A few of the larger open ditches had rip-rap material placed in long stretches to protect the banks from erosion.

Three new tile projects in Hopewell and Dublin townships were implemented via the SWCD S.B. 160 process and were accepted for permanent maintenance with our office. 4.2 miles of tile and 0.3 mile of open ditch were installed with these 3 projects adding an additional \$581,650 in drainage improvements to our program.

There was a total expenditure of \$422,857.30 and over 547 man hours involved for ditch maintenance infrastructure related tasks. One of the largest maintenance ditches is the Beaver Creek, which serves as an outlet for Grand Lake St. Marys. We continued with an ongoing erosion control project (placing rip rap) on it. This year approximately 5,489 tons of rip rap (at a value of \$146,830) was installed along the banks of this maintenance ditch. The accumulated cost of spraying various ditches was \$47,107.

BRIDGE REPAIR/RECONSTRUCTION PROJECTS

Eleven bridges had scour repairs earmarked for work via State EMA and OPWC emergency repairs. Most of that number were completed in very late 2019. None were billed in 2019, so this significant work will be detailed in 2020's report. The Tama Road bridge project C196-1.58B was a federal-state exchange project that was largely completed at a cost of \$779,213.23 by VTF Excavation in 2019. Some additional work and billing will be completed on this project in 2020.

2019 BRIDGE & LARGE CULVERT REPLACEMENT PROGRAM

<u>TWP</u>	<u>BRIDGE</u>	<u>ROAD NAME</u>	<u>TYPE</u>	<u>COST</u>
GIB	C10-2.72B	WATKINS	80 LF 7' DIAM. REINFORCED CONCRETE PIPE	\$11,910
GIB	C61-1.28C	TOWNSHIP LINE	72 LF 43"H X 68"W ELLIPTICAL REINFORCED CONCRETE PIPE	\$43,082
GIB	C61-1.37C	TOWNSHIP LINE	64 LF 48"H X 76"W ELLIPTICAL REINFORCED CONCRETE PIPE	\$37,561
REC	C61-3.98C	TOWNSHIP LINE	80 LF 66" DIAMETER REINFORCED CONCRETE PIPE	\$92,071
HOP	C180-11.12B	OREGON	58' SPAN 32'W B33 X 48 PRESTRESS BOX BEAMS	\$87,778

NOTE: Some of the bridge and culvert materials for these projects were purchased in 2018. Also, some of the projects may have been started in 2018. Cost shown is 2019 and may not be total project cost.

FEDERAL-AID HSIP PROJECT

The Sharpsburg Road improvement was a Highway Safety Improvement Program (HSIP) project that improved both the vertical and horizontal geometric deficiencies on Sharpsburg Road in the area of St. Peter Road. The mainline improvements on Sharpsburg Road have been completed by Kahlig Dozing at a cost of \$686,326.20. 80% of the cost was borne through FHWA and 20% came from local road and bridge funds. The remainder of the work completed will be billed in 2020.

LITTER PICK-UP

The County Engineer's Office, in partnership with the Mercer County Solid Waste Office and various Boards of Township Trustees, sponsored various civic and community groups in 11 Mercer County townships to pick up litter along county roads in 2019. The Engineer's office paid each group \$25.00 per mile of county roads for their efforts in this community service project. Litter was picked up along 333 miles of county roads. The County Engineer's Office along with the Solid Waste Office furnished litterbags, safety vests, and signs. The Mercer County Solid Waste Office paid the litter disposal fees.

PERSONNEL

A total of 27 employees make up our annual personnel. In the year 2019 there were 11 seasonal employees that worked for the Engineer. In 2000 we had 31 full-time employees. In 1984 there were 39 full-time employees.

Our employees and their years of service to Mercer County:

<u>NAME</u>	<u>CLASSIFICATION</u>	<u>YRS</u>
Allen, James	Equipment Operator 2	2
Borns, Kirk	Sign Manager	24
Freeman, Todd	Equipment Operator 2/Crew Leader	19
Gray, Richard	Bridge Worker 2	*20
Hague, David	Equipment Operator 2	.08
Harter, Derrick	Equipment Operator 2/Crew Leader	14
Heinrichs, Karen	Administrative Assistant	14
Highley, Richard	Equipment Operator 2	39
Kahlig, Renee	Office Assistant	5
Knapke, Anthony	Bridge Worker 2	7
Kuhn, Gary	Automotive Mechanic 3	36
Laffin, Brad	Operations Manager	*30
Leininger, Mark	Highway Maintenance Superintendent	23
Linn, Mark	Engineer Technician 2/Survey Technician	23
Meier, Austin	Equipment Operator 2	.33
Mescher, Samuel	Equipment Maintenance Supervisor	*20
Messner, Dusty	Highway Maintenance Supervisor	19
Moeller, Aaron	Survey Design Technician/Drainage Deputy	3
Porter, Darren	Highway Maintenance Supervisor/Safety Director	23
Post, Nick	Mechanic 2	.58
Rolfes, Casey	Equipment Operator 2	.08
Schoenleben, Bryan	Equipment Operator 2	5
Smalley, TJ	Bridge Supervisor	*20
Steinlage, Michael	Equipment Operator 2	*15
Watercutter, Anthony	Equipment Operator 2	4
Waterman, Kiel	Equipment Operator 2	7
Wiechart, James	Mercer County Engineer	*20

* Denotes employees that were awarded Certificates of Appreciation for their years of service with the Mercer County Engineer.



Retirement
Gary Kuhn - 36 years of service (12/31/2019)



Retirement
Richard Highley - nearly 40 years of service (01/03/2020)



Recognition
Custodial Services - Tong Se & Kim Eng Ly



Recognition
30 years of service
Brad Laffin



Recognition
20 years of service
Jim Wiechart, Sam Mescher, TJ
Smalley, Dick Gray



Recognition
15 years of service
Mike Steinlage

Mercer County Engineer
Employees
Current, Seasonal
& Retirees



INTERESTING FACTS

- There are 379 bridges on Mercer County township and county roads. Every year all 379 bridges are inspected by our office.
- There are 444 miles of township roads and 385 miles of county roads in Mercer County.
- There is an average of 15 miles of county roads and 15 bridges per employee.
- Since 1999 the Mercer County Engineer has received approximately \$6,595,957.43 in competitive state grant programs for local road improvements.
- Since 1999 the Mercer County Engineer has received \$33,107,985.10 in competitive federal grant programs for local road improvements.
- No real estate, sales or property taxes fund county road and local road bridge improvements in Mercer County. Road user fees in the form of motor vehicle gas taxes and license fees fund our efforts.
- Asphaltic Concrete prices as bid by the Mercer County Engineer increased 58% from 2007 to 2019, an average increase of 4.8% per year.
- By the end of 2019, we have 30.5% of our county road pavements wider than 22'.
- The number of Mercer County Engineer full and part-time employees has decreased over the last 20 years with less resources going towards salaries and fringe benefits as a percentage of the total budget.
- Average years of service of county engineer full-time employees is 14.5 years.

SUMMARY

Much was accomplished in 2019 and we welcome your comments, suggestions and questions to our office: Mercer County Engineer, 4884 Mud Pike, Celina OH 45822, Phone# 419-586-7759, e-mail: engineer@mercercountyohio.org. Listed below are some of the short and long-term goals for the office for the years to come as well as our mission statement.

1. Maintain an acceptable standard of condition of our roadway pavements & bridges.
2. Obtain outside funding sources to supplement our budget for capital improvements.
3. Be aggressive where possible in putting significant resources into capital improvement projects like roadway widening, bridge replacements, etc.
4. Assist townships in getting outside funding sources for their capital improvement projects and assist them in the administration of those funds.
5. 24' by "44"—long-term goal to have all county road pavements widened to a minimum width of 24' by the year 2044.
6. Improve the condition of our county ditch maintenance program ditches and tile.

The primary mission of the Mercer County Engineer is to serve the citizens of Mercer County with safe, superior rural local transportation and drainage systems. The Mercer County Engineer will complete this mission through the building, maintaining and managing of these rural infrastructure assets in an efficient & cost effective manner in coordination with other local, state and federal partners.

James A. Wiechart

James (Jim) A. Wiechart, P.E., P.S.
Mercer County Engineer