



2019 ANNUAL REPORT

Coshocton County Engineer
Frederick T. Wachtel, P.E., P.S.

CONDITION OF ROADS, BRIDGES, AND CULVERTS

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From Fred's Desk...

We are filing this report to highlight the Coshocton County Engineer's Office 2019 activities and to lay out our tentative plans for the 2020.

First, I want to thank Governor DeWine for recognizing the transportation funding problem we have had in Ohio for several years and for his leadership working with the state legislature to enact a fuel tax increase to help offset some of our funding shortfalls. This increase in revenue for our office will allow us to expand our road resurfacing program and enable us to replace several dump trucks that have exceeded their useful life.

Second, thank you to the employees of the County Engineer's Office for the work you do to address the many needs of our constituents, many times with limited resources and in less than ideal weather conditions.

I hope you will find this report interesting and informative. As always, if you have questions with regard to the various activities of the County Engineer's Office, please feel free to contact us at 740-622-2135 or via email at fredwachtel@coshoctoncounty.net. For current information with regard to the County Engineer's Office, please visit our website at www.coshoctoncounty.net.

Thank you for the opportunity to serve as Coshocton County Engineer for the last 27 years and I look forward to serving for many more.

CONTACT US:

23194 CR 621, Coshocton, Ohio 43812
Phone: 740-622-2135 * Fax: 740-623-6512
www.coshoctoncounty.net/agency/engineer

PERSONNEL MATTERS

We had personnel changes in the Engineer's Office in 2019. We had one retirement in 2019. Long-time mechanic Bob Bordenkircher retired in September with 25 years of service. We also had four career moves. In the spring T. J. Hootman, our GIS Specialist, decided to return to the private sector working in CAD design in Columbus, Ohio. In early summer, Highway Maintenance Worker Josh Thomas resigned to return to full-time farming. In the fall, our long-time Deputy County Engineer, Andy Jones, accepted a position with the Wayne County Engineer's Office. Andy helped out in so many ways within our organization and I am grateful for the many good things we were able to accomplish while he was here with us. Then, at years' end, Colt Kaser, HMW decided to accept a position working in the private sector as an oil well tender. We wish these five gentlemen well in their new endeavors. Their talents will be missed.

As a result of the retirement and career moves mentioned above, we hired several new employees to help fill various positions. Joining the County Engineer's Office in 2019 were: Jessica Goodsell, GIS Analyst, bringing a strong GIS background to our GIS/Tax Map Office operation with a varied educational and experience background; Highway Maintenance Workers Destry Guilliams and Jason Hamlett; Mechanic Matt Limberg; and, Administrative Assistant Darlene Art. Todd Coss, P.E., P.S. joined us from ODOT in October and has been able to hit the ground running because of his previous experience.

Ten employees completed 2019 with perfect attendance: Rob Helmick sixteen years in a row; Brent Everhart twelve years; Mark Westhoefer five years; Nate Moore four years; Scott Frazee three years; Duane McElhaney two years; Kelly Sims two years; Robin Watson two years; Rick Brenly one year; and, Cody Westhoefer one year.

FLEET MANAGEMENT

We continue to evaluate our fleet of equipment to try to position our operation with the right combination of vehicles and construction equipment so that we can effectively provide service to our constituents.

We made the following significant purchases in 2019: 2018 Eager Beaver 25-ton trailer \$34,200; 2020 PG Utility Trailer \$3,975; rust free 2002 International 9200i semi-tractor \$23,650; 2019 GMC Sierra 2500 4X4 \$32,281; 2 -2020 Western Star Cab and Chassis, 6 year lease to own, \$37,781 annual payment; and JD 135 Excavator, 10 year lease to own, \$25,068 annual payment.

Head Mechanic Cody Westhoefer coordinated the rehabilitation of our Case 721 Loader including replacing the cab.



WINTER 2018-2019 SNOW PATROL

Our crews were out for 23 events and drove 35,614 miles spreading 1,356 tons of salt, 1,734 tons of cinder/salt mix. Our crews worked 1,901 regular hours and 1,073 overtime hours treating the roads.

DRAINAGE IMPROVEMENTS & CULVERT REPLACEMENTS

County crews completed 26 different installations on our County road system in 2019 at a total cost of \$186,196. These installations ranged in size from 12" up to 60" diameter plastic pipe and were in 10 different townships. Ten of the culverts were in Keene Township in preparation for paving work done later in the year.

County crews have continued cleaning culverts and road-side ditches to maintain the integrity of our drainage systems and protect the travelling public.

ACCESS MANAGEMENT

Access permits received in 2019 totaled 118 and consisted of: 22 minimum volume drives which include new field drives, oil well drives, etc.; 6 temporary minimum volume drives for loggers and utility construction activities; 82 very low volume drives being primarily residential drives; 1 low volume commercial drive; 7 medium volume commercial drives; and one access management variance request.

We continue to monitor all OUPS tickets on a daily basis to help determine if there is proposed construction activity that might adversely affect our roads.

We reviewed 162 proposed property splits for the Coshocton County Regional Planning Commission at no charge to the Planning Commission or the applicant. One was not approved as presented because of road-side brush that limited sight distance. The applicant was advised that their application would not be approved until they cleared the foliage. As of December 31, the brush was still there and the application is still on hold.

We issued 69 right-of-way permits for installations within the right-of-way of various county roads. Several years ago we initiated a pre-paid permit fee deposit program. This allows the utilities to make a payment that will cover multiple permits and we deduct the cost of each permit from the total on account. This saves the operations personnel from having to continually request checks from their corporate offices, thus streamlining the permitting process.

Access permits and right-of-way permits generated \$5892 for our office in 2019.

We continue to deal with loggers and the damage they cause to the infrastructure. In addition, poorly maintained driveways are an ongoing problem that we deal with regularly.

As a reminder, any work activities within the public road right-of-way requires a permit. Contact the County Engineer's Office for details.

COSHOCTON COUNTY REGIONAL PLANNING COMMISSION

We completed our 2nd full year as the Director / Administrator for the Regional Planning Commission. We answer questions from property owners, realtors, developers, and surveyors with regard to splitting property. We also coordinate all of the reviewing agencies reports and issue approvals or denials for the proposed splits or subdivisions. All fees are processed through our office and any necessary field reviews or inspections are performed by County Engineer's Office personnel. In 2019 we processed 162 applications that created 407 parcels, the majority being in the northeast portion of the county.

COSHOCTON COUNTY UTILITIES DEPARTMENT

We entered into an agreement with the Village of West Lafayette to be our contract operator for the Pearl / Fresno Sanitary Sewer System. Dave Kadri, Operator 3 for the Village, is our Operator of Record. The Village also provides services for our monthly billing.

A number of maintenance activities were undertaken in 2019 to ensure all the components are operating properly and the force main lines are not constricted. Valve replacements, an air release valve replacement, and pump re-builds, as well as an additional line cleanout were undertaken in 2019.

Discussions with regard to transferring the entire system from the County to the Village of West Lafayette yielded an agreement in principle to go ahead with this transaction. Details are being worked on and it is hoped to have the agreement completed in 2020.

We have also been involved with the plan to extend the City of Coshocton water to the Village of West Lafayette. The completed project will include the transfer of all the water distribution assets currently owned by the Village to the City. The waterline to connect the two systems will be constructed along CR 16. Construction is planned to start in 2020.

MAJOR ROAD IMPROVEMENTS

Our 2019 resurfacing program consisted of a combination of MVG funding and Ohio Public Works Commission (OPWC) grants.

We administered all aspects of the OPWC Round 33 resurfacing projects. County Engineer's personnel administered the contracts and provided the construction inspection. Entities that were participants in these projects included the Coshocton County Engineer; the City of Coshocton; the Townships of Bethlehem, Jackson, Jefferson, Franklin, Washington, and Tuscarawas. By collaborating and sharing services with various other governmental entities we are able to provide a better, more economical project for all involved.

County roads resurfaced in 2019 were:

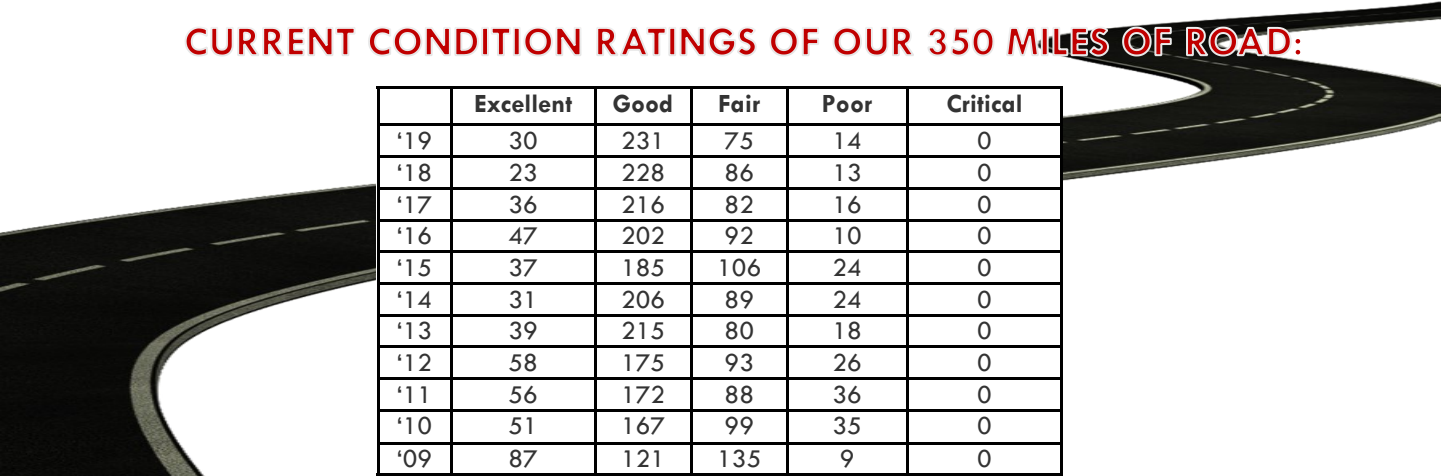
- CR 24, asphalt, SR 83 to CR 207, 3.35 miles, Tuscarawas & Keene Townships, \$397,524.81
- CR 193, asphalt, SR 83 to SR 621, 2.12 miles, Keene Township, \$235,435.78
- CR 7, single seal, SR 83 to TR 137, 3.9701, Tuscarawas, Franklin, Linton Township, \$73,352.00
- CR 12, single seal, TR 212 to SR 643, 6.5256 miles, Millcreek Township, \$104,820.99
- CR 19, single seal, SR 83 to TR 312, 0.5973 miles, Clark Township, \$8,988.90
- CR 49, single seal, SR 60 to CR 33, 0.7864 miles, Clark, \$11,620.40
- CR 51, single seal, SR 541 to SR 79, 1.3775 miles, Bedford \$24,222.00
- CR 70, single seal, CR 18 to CR 3, 1.0621 miles, Pike, Washington Township, \$13,829.70
- CR 80, single seal, West Carlisle to County Line, 4.7187 miles, Bedford Townships, \$71,434.10
- CR 103, single seal, SR 751 to County Line, 2.0115 miles, Adams Township, \$31,688.20
- CR 254, single seal, SR 751 to Rail Road tracks, 1.4075 miles, Oxford, \$23,868.80
- CR 271, single seal, CR 273 to CR 274, 1.244 miles, Franklin Township, \$23,944.60
- CR 281, single seal, SR 751 to SR 751, 0.3712 miles, Adams Township, \$5,540.00
- CR 343, single seal, SR 60 to CR 312, 3.5599 miles, Clark, \$109,279.43
- CR 368 north end, double seal, SR 206 south to end of pavement, 1,900 feet, Tiverton Township. Additionally, CR 368 south end, single seal, SR 715 to TR 364, 2.2931 miles, New Castle, Tiverton Townships. Total cost for CR 368, \$42,175.08.
- CR 436, single seal, SR 60 to TR 71, 2.0408 miles, Washington Township. \$27,774.90
- CR 476, single seal, SR 83 to SR 83, 0.5228 miles, Tuscarawas, \$ 5,868.60

Although we have no roads classified as critical, many are deteriorating from their original road surface and many sections are reverting to gravel. These are certainly not the conditions we want to provide to our constituents, but it is the harsh reality of insufficient funding.

OTHER THINGS WE DO

- ♦ Fred served as the Second Vice President of the County Engineers Association of Ohio.
- ♦ Fred is Chairman of the Ohio Public Works Commission District 14 Integrating Committee.
- ♦ Coshocton County created a Transportation Improvement District in 2019 with Fred serving as the Chair.
- ♦ The Coshocton County Engineer's Office is a member of the Ohio Mid-East Government Association (OMEGA) Transportation Advisory Committee (TAC). This group is the Rural Transportation Planning Organization that serves our county.
- ♦ Fred serves as the CEO representative on the Ohio Geographically Referenced Information Program (OGRIP).
- ♦ Fred has filed his nominating petition to seek election to his eighth term as Coshocton County Engineer.

CURRENT CONDITION RATINGS OF OUR 350 MILES OF ROAD:



	Excellent	Good	Fair	Poor	Critical
'19	30	231	75	14	0
'18	23	228	86	13	0
'17	36	216	82	16	0
'16	47	202	92	10	0
'15	37	185	106	24	0
'14	31	206	89	24	0
'13	39	215	80	18	0
'12	58	175	93	26	0
'11	56	172	88	36	0
'10	51	167	99	35	0
'09	87	121	135	9	0

AMISH STEERING COMMITTEE

The following table shows the amount contributed and the amount of expenditures the County Engineer has spent on contract repairs on CR 10 and CR 12 in Crawford and Mill Creek Townships:

We continue to meet regularly with the Northeast Coshocton County Infrastructure Connection (NECCIC) to discuss the state of businesses and infrastructure in the northeastern part of our county. The committee consists of a combination of business owners, both Amish and "English," and local government officials. Needs, wants, and how to pay for improvements, are all on the table.

YEAR	CONTRIBUTION	CONTRACT EXPENDITURE
2011	\$8,541	\$32,000
2012	\$8,246	\$22,936
2013	\$9,145	\$21,214
2014	\$10,008	\$29,154
2015	\$9,586	\$791,195
2016	\$23,204	\$628,724
2017	\$23,204	\$242,188
2018	\$26,454	\$0
2019	\$28,185	\$104,821

COMMUNITY EMERGENCIES

FEMA Disaster Flood Event from February, 2018, EMA-4360-DR-031-0C4A7-00 - We were finally able to complete the paperwork and repairs caused by the February 2018 flooding event. Six road slips were repaired by GeoStabilization International using soil nails. In addition, we were able to recover costs for force account work opening roads and repairing road damage. All told, we received over \$1,000,000 from FEMA for these repairs.

Flood Disaster June 18, 2019 - The night of June 18, an area in the eastern part of Coshocton County received up to 7 inches of rain. The Village of West Lafayette and portions of Lafayette and Oxford Townships experienced unprecedented flooding as a result. Fortunately for the County Engineer's Office, we did not suffer any road, bridge, or culvert damage that could not be fixed in a short period of time. Many residents were not as fortunate. Many had water in their homes, and structural damage to their basements and many items were lost. The Coshocton Soil and Water Conservation District is leading a design effort to address one of the watersheds that experienced severe flooding as the result of a failed, private ditch / buried tile system in the vicinity of the Village.

BRIDGE CONSTRUCTION

In 2019, we were able to replace three bridges utilizing grants and local funds. These projects were: Bedford Twp. Rd. 77, Bridge 2 - a four-sided concrete box at a cost of \$90,064; Bethlehem Twp. CR 27, Bridge 2 - a four-sided concrete box at a cost of \$99,586; and Pike Twp. County Road 80, Bridge 2 - a four-sided concrete box at a cost of \$60,142. County personnel built all three projects.

In addition, County forces built two other four-sided concrete box culverts: Perry Twp. Road 379 - an 8-foot by 4-foot box at a cost of \$34,119; and, Bedford Twp. Road 53 - an 8-foot by 4-foot box at a cost of \$35,029.



Based upon ODOT's sufficiency ratings, the breakdown at year's end is as follows:

	'19	'18	'17	'16	'15	'14	'13	'12	'11	'10	'09	'08	'07
Bridges	270	270	270	267	271	273	276	277	284	288	288	289	290
Excellent	102	102	106	125	124	123	108	105	103	98	95	91	85
Good	132	140	137	118	122	116	95	90	91	91	91	93	104
Fair	19	19	17	20	18	24	59	49	52	65	69	73	72
Poor	15	8	9	4	7	10	14	29	38	34	33	32	28
Critical	2	1	1	0	0	0	0	0	0	0	0	0	0
% Posted	10.0	9.3	10.0	11.2	14.0	13.5	16.3	17.0	20.1	22.2	21.1	22.4	26.6

The General Appraisal Summary of our bridges is as follows:

	GA9	GA8	GA7	GA6	GA5	GA4	GA3	GA2
'19	7	30	69	88	47	24	4	1
'18	11	30	66	89	49	20	5	0
'17	13	30	64	91	46	19	7	0
'16	9	31	69	82	48	23	5	0
'15	9	27	94	56	57	22	7	0
'14	7	25	95	62	56	20	8	0
'13	3	20	93	68	57	26	9	0
'12	2	17	96	68	54	27	13	0
'11	0	14	95	70	60	34	11	0
'10	0	11	100	65	64	37	11	0
'09	0	13	94	69	67	39	6	0
'08	0	17	87	70	75	34	6	0
'07	0	4	82	76	83	30	15	0

PENDING ROAD PROJECTS

Our 2020 resurfacing program will be funded through a combination of County Engineer's Office funds, a pending OPWC grant, and a Federal Highway Administration County Surface Transportation Program grant. No general fund monies are allocated to the County Engineer's Office. The additional funding from the increased fuel tax has allowed us to more than double the mileage of asphalt resurfacing for 2020. The planned projects, providing funding is available, include:

- ♦ CR 9, asphalt, SR 751 to the Tuscarawas County Line, 4.27 miles, Oxford Twp., \$1,157,026
- ♦ CR 10, asphalt, CR 171 to just south of TR 205, 1.47 miles, White Eyes Twp., \$172,757
- ♦ CR 18, asphalt, SR 60 to CR 3, 1.96 miles, Washington and Bedford Twps., \$201,594
- ♦ CR 19, asphalt, SR 60 to TR 312, 3.63 miles, Clark Twp., \$375,278
- ♦ CR 24, asphalt, CR 28 to CR 207, 2.85 miles, Bethlehem and Keene Twps., \$353,892
- ♦ CR 10, chip seal, just south of TR 205 to SR 651, 6.50 miles White Eyes and Crawford Twps., \$143,000
- ♦ CR 14, chip seal, Muskingum County Line to CR 436, 1.38 miles, Washington Twp., \$30,360
- ♦ CR 54, chip seal, SR 60 to SR 541, 3.91 miles, Washington and Bedford Twps., \$86,020
- ♦ Various County Roads, drag spot pave, in various townships.

PENDING BRIDGE PROJECTS

Bridge projects planned for construction in 2020, provided funds are available, include:

- County Road 12, Bridge 2, (ODOT-Let) Keene Township (box beam) – This project has been awarded to Bud's Inc. and will be administered by ODOT. The actual construction schedule is yet to be determined.
- County Road 75, Bridge 2, (MVG-Repair) Virginia Township (abutment)
- Township Road 383, Bridge 2, (MVG-Repair) Perry Township (abutment)
- Township Road 351, Bridge 1 (OPWC 18) in Tiverton Township (box culvert)
- Township Road 330, Bridge 1 (OPWC 18) in Monroe Township (box beam)
- Township Road 330, Bridge 2 (OPWC 18) in Monroe Township (box culvert)
- Township Road 437, Bridge 2, (OPWC 18) in Washington Township (abutment replacement)
- County Road 92, Bridge 1, (OPWC 19) in Newcastle Township (box culvert)
- Township Road 232, Bridge 1, (OPWC 19) in Crawford Township (box culvert)
- Township Road 236, Bridge 3, (OPWC 19) in Crawford Township (box culvert)
- Township Road 21, Bridge 6, (OPWC 20) in Millcreek Township (box culvert)
- Township Road 242, Bridge 3, (OPWC 20) in Adams Township (box culvert)
- County Road 6, Bridge 10, (OPWC 20) in Virginia Township (box beam)
- County Road 170, Bridge 5, (MVG-Repair) in Keene Township (foundation)
- County Road 236, Bridge 1, (MVG-Repair) in Crawford Township (crash damage)

Realistically, not all of this work will be completed in 2020. However, these are the projects that we have currently on our list.

In addition, our crews will be performing various maintenance activities on our inventory of 270 bridges. This includes re-decking, channel work, signage, waterproofing, and any emergency work as needed. We will also be looking for more potential bridge to culvert conversions.

SAFETY ISSUES

The County Engineer's Office had no reportable accidents in 2019. Our last lost time accident was June 22, 2017. As of the end of 2019, we have gone 942 days without a lost time accident. Thank you to all of our employees for working safely and looking out for each other every day.

GIS / TAX MAP

Our GIS / Tax Map Office is staffed by two people, Jona Lee Mikesell, who handles our survey and deed reviews and Jessica Goodsell, who handles our mapping and GIS system. I provide professional support and guidance to help these two with the many challenges they face dealing with all aspects of land records in our county.

We keep an electronic log of every instrument submitted for approval. You can view it at www.coshoctoncounty.net, select Agencies, select GIS/Tax Map, select Deeds, and then click on Deed and Survey Review Log to ascertain the status of the instrument. In addition, we have scanned all the boundary surveys we have in our files and have them available on website as well. Because all of the records we have in the Map Office are accessible through our website, our office is figuratively open 24/7/365. In addition, we post many other datasets on our website for download free of charge.

In 2019, we reviewed 1581 (1,259 in 2018 and 1,313 in '17) documents of transfer, of which 89 (60 in '18 and 130 in '17) were Sheriff's deeds. We performed 89 description reviews for realtors and others to advise them whether or not the property would need to be surveyed prior to transfer. We also reviewed 227 (168 in '18 and 160 in '17) property surveys, of which 8 were private road subdivision plats.

2,084 parcels transferred in 2019 compared to 1,964 parcels in 2018. Of these transfers, 786 parcels transferred twice, 169 transferred three times, 26 transferred four times, 6 transferred five times, and 4 transferred six times.

179 parcels were split in 2019; 102 surveys combined two or more parcels; and, 96 new surveys of existing tracts were put on record.

We performed 338 Current Agricultural Use Valuation (CAUV) calculations for the County Auditor.

We assigned 93 new addresses in 2019.

We finally found a permanent website solution for our GIS to replace Ohio University hosting our website. Jessica Goodsell and I were discussing the ongoing shortcomings with OU hosting, and we decided to take a different approach. With the delay in response time to general inquiries and technical support we felt it was time to

manage, update, and maintain the website in-house. Thereby saving the county money while allowing us to be self-reliant with respect to all aspects of GIS data delivery and public services. It provides the County with a means of presenting that information in the manner we want it to be displayed and ultimately gives us more control by allowing us to make real-time updates, and customizations to meet the needs of our users. Over the course of two months Jessica wrote thousands of lines of code, utilizing resources already provided by ESRI with our ArcGIS Online subscription to produce the website we currently use for our GIS Data Viewer. By creating our own website and utilizing ArcGIS Online, our total annual cost is approximately \$45.

The rain event in June that caused major flooding problems in the Village of West Lafayette, and Lafayette and Oxford Townships, prompted us to perform a flood analysis of the area. After upgrading our GIS computer, and purchasing ESRI Spatial Analyst and 3D Analyst, utilizing LIDAR data from 2006 Jessica was able to identify the areas most likely to pool or flood as a result of the location of the Tuscarawas River and numerous streams and the relative slope and topography of the land. A slope analysis provided information as to which direction the water was most likely to flow from the higher elevations. Contours identified areas with depressions where large amounts of water would be trapped.

Of the limited addresses that reported flooding, the algorithm was able to accurately predict pooling in the vicinity of 95 out of the 147 addresses. The remaining 45% of addresses fell outside of the predicted pooling areas. This high percentage could be the result of human or technological error, failure to account for impervious surfaces, or the limitations of using 14-year-old data. We are also trying to identify potential stormwater runoff routes to minimize future problems.

We provided GIS mapping services for many other governmental entities in Coshocton County.

FLOODPLAIN ADMINISTRATION

Floodplain permits issued in 2019 included six blanket utility permits and six project specific permits. We have one pending floodplain permit violation that we are pursuing.

We continue to answer inquiries from property owners, and potential property owners, with regard to floodplain development conditions and limitations.