

**Monroe County Engineer
Amy M. Zwick, P.S., P.E.
Annual Report for 2023**

January 26, 2024

Per the Ohio Revised Code, Section 5543.02, I am providing an annual report for the review and record of the Monroe County Commissioners. This report will provide a summary of the activities during the calendar year on County-owned roads, bridges and other infrastructure.

The County Engineers office is responsible for the maintenance and upkeep of **372 miles** of County Roads, including all drainage, culverts, signs, mowing, guardrail, snow/ice treatment and embankment stability. The Engineer's office is also responsible for all bridges on County Roads, and bridges on Township Roads. The current number is **179 bridges** on the County Engineers inventory.

The County Engineers budget is financed through a gasoline tax and a vehicle registration tax, as well as minor income from permit fees and sales/services. For several years, this financing has been extremely lacking, limiting the Engineers office's ability to maintain roads and bridges at a safe and good condition. Whenever possible, Federal grant money and Ohio Public Works funds have been applied for, to replace those lacking funds. In more recent years, Oil & Gas industry has moved into Monroe County and the Operators have contributed significantly to the upgrade/improvements of the County's infrastructure. In 2020 and continuing through 2023, Oil & Gas activity took a major downturn in Monroe County, which is reflected in the decrease in permits, RUMAs, and road upgrades/improvements.

In a continued effort to generate additional income and close the gap in the Engineers needed funds, the option of enacting additional permissive vehicle registrations has been discussed multiple times. The Commissioners held the two required public hearings in April 2019. Based on public input, the motion was made against enacting any additional permissive taxes at this time. This topic was revisited in discussions between Commissioners and Engineers offices since 2019, but has not been pursued any further.

Thanks to the efforts of many individuals across Ohio, in mid-2019 the State approved an increase in the rate and modification of the distribution of revenue from motor fuel excise taxes (fuel tax). This increase took effect July 1, 2019. Projected data for 2020 indicated that each County Engineer would receive an additional \$1 to \$1.5 million. Unfortunately, with the COVID-19 pandemic occurrence, the impact of the fuel tax increase was offset by the sudden decrease in fuel consumption. The long-term effect of COVID-19 on remote-working is anticipated to reduce the fuel consumption permanently, with an estimate of 25% reduction in fuel excise tax income for County Engineers.

In 2023, The Commissioners were asked for financial assistance regarding multiple roads and bridges that were affected by weather events in May/June 2022 and January 2023. A one-time contribution of \$153,750 was transferred from the General Fund, into the Engineers funds. This amount was used at the local match requirement for the repairs approved through Ohio EMA and Ohio Public Works Commission. With this \$153,750, the Engineers Office was able to match \$461,250 in State emergency/disaster grants to complete repairs on several County Roads and Bridges, without further depletion of the Engineers annual maintenance budget.

While the County Engineers office continues to stretch each dollar as far as we can, by applying for as many grants as we can afford to match, performing work in-house when cost-effective, and working with Oil & Gas operators to cost-share on projects, the funds required to maintain "status-quo" are still not able to be met solely on the Engineers budget alone. Future plans of additional funding sources will need to be seriously considered, in order to prevent our county infrastructures deterioration.

Please continue to the following pages for more detailed information on the projects and activities of the Engineers Office in 2023.

COUNTY PERMIT SUMMARY

Special haul permits

Special Haul Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	236	282	340	202	526
Total permit fees received	\$24,650.00	\$32,425.00	\$33,775.00	\$26,225.00	\$61,500.00
Total fees paid to consultants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total bridges analyzed (at least once)	7	1	9	4	6
Total bridges analyzed that were not passable	2	0	2	0	1

Right of Way Work permits

Right-of-Way work Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	95	106	109	155	156
Total permit fees received by County	\$3,490.00	\$3,580.00	\$3,830.00	\$4,090.00	\$4,549.00
Total permit fees paid to Townships	\$100.00	\$550.00	\$500.00	\$500.00	\$900.00

COUNTY EQUIPMENT PURCHASES/SALES

Since the onset of the COVID-19 pandemic, trucks and equipment purchases have been delayed and/or there are significant backlogs in production. The new trend that seems to be forming is to order a truck or new equipment, then wait up to 12 months for delivery. In some cases, the number of orders being taken per year is limited, and the option to order is not even possible. Below is a summary of equipment purchases made in recent years, with notes where equipment funds were encumbered in one year, but the equipment was not received until the following year or after:

Equipment	2023	2022	2021	2020	2019	2018
2019 F250 Regular Cab Truck x 3						\$89,111.49
John Deere 710 Backhoe Loader						\$143,313.52
Wacker BS60-4A Compactor						\$2,682.00
Meyer Snow Plow & Install x 3						\$16,356.00
Tiger Model Ditch Cleaner Attachment						\$9,250.00
2020 f450 Regular Cab Truck x 1					\$40,136.00	
2021 International HV507 Dump w/ Plows x 2				\$296,728.46		
2018 Case 621G Wheel Loader				\$139,750.00		
2016 Gradall D152				\$149,900.00		
2019 Bomag Roller				\$99,900.00		
2018 Bomag Roller			\$47,500.00			
2018 Felling Tilt Trailer (Used)			\$4,605.13			
2022 F250 Regular Cab Truck			\$35,712.00			
John Deere 6110M Tractor x 2		Received	\$159,534.72			
Alamo 22' Samurai Boom Mower x 2		Received	\$107,254.40			
2022 F250 Regular Cab Truck	Received	\$37,175.00				
2022 F250 Regular Cab Truck	Received	\$45,420.00				
2023 F450 Regular Cab, Dump Bed & Plow	\$103,688.00	Ordered				
2023 International HV507 Dump Truck x 2	\$377,797.32	Ordered				
Total	\$481,485.32	\$82,595.00	\$354,606.25	\$686,278.46	\$40,136.00	\$260,713.01
*Anticipated receipt in 2023 - not received. Funds carried over to 2024						

As vehicles and equipment age through use, or normal course of technology improvements, they reach a point where they become obsolete, unfit or unneeded for public use. At this point the Engineers Office requests approval from the Commissioners to dispose of these pieces of equipment, either through sale or proper method of disposal. The following pieces were sold or auctioned in 2023:

Ford 6610 Tractor with ditching attachment - \$6921.00 2006 Chevy 2500HD Truck - \$1400.00
 2009 F450 Super Duty with Dump Bed - \$1400.00

PERSONNEL ACTIVITY

Retirements

NONE

Promotions

NONE

New Hires/Transfers

Donny Young, Mechanic in Bargaining Unit, hired August 14, 2023

Kasen Kinzy, Laborer in Bargaining Unit, hired August 21, 2023

Jodie Kuhn, Confidential Secretary/Payroll Clerk, hired September 3, 2023

Cody Pittman, Laborer in Bargaining Unit, hired September 5, 2023

Aaron Perkins, Laborer in Bargaining Unit, rehired October 23, 2023

Resignations/Terminations

Ted Bier, Mechanic in Bargaining Unit, resigned May 22, 2023

Tom Harris, Laborer in Bargaining Unit, resigned June 1, 2023

Anna Jones, Engineer Assistant, terminated August 31, 2023

Aaron Perkins, Laborer in Bargaining Unit, resigned September 14, 2023

Cory Ridgeway, Laborer in Bargaining Unit, resigned December 1, 2023

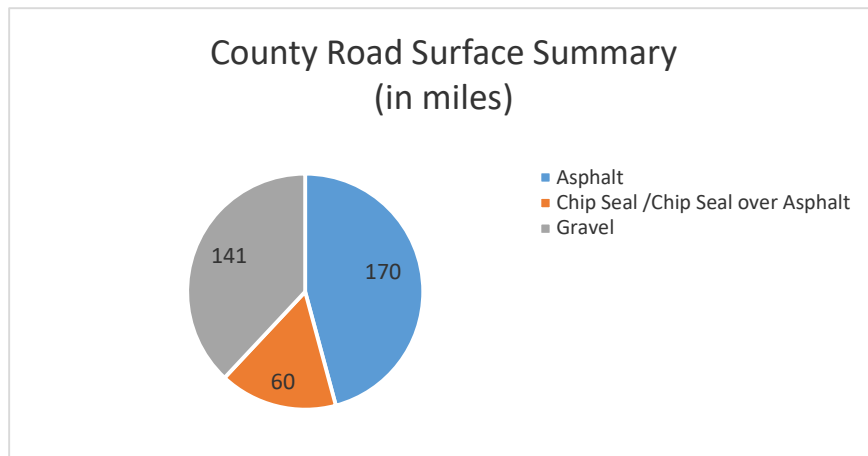
Seasonal Hires

The Engineers Office typically hires seasonal (summer) employees to assist with the increased work load that generally occurs during the summer months. For the 2023 summer season, eleven seasonal employees were hired to work various timeframes between May and September. These seasonal workers greatly increase our ability to form multiple work crews and complete several more projects than in the off-season. The total cost for all seasonal employees for 2023 was \$28,123.45.

ROAD & BRIDGE INVENTORY

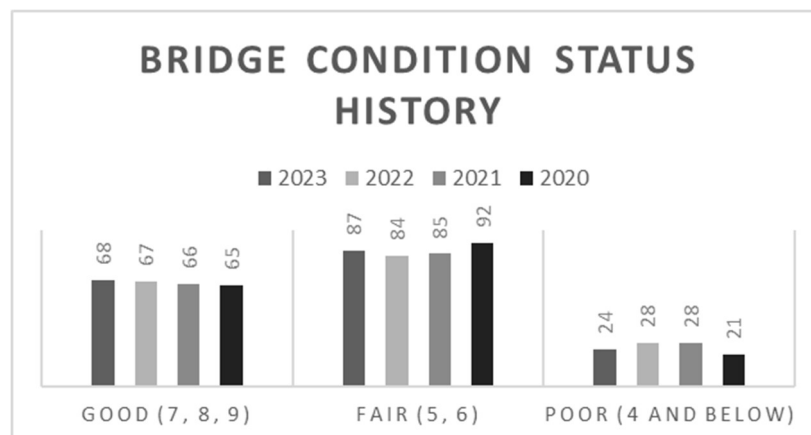
Monroe County roads are composed of a combination of three types of road surfaces: Asphalt, Chip Seal and Gravel. In recent years, Oil & Gas operators have upgraded several miles of County roads that were previously gravel or chip seal, to asphalt. However, the County Engineers budget does not provide enough to maintain the increased asphalt surfaces, nor to upgrade chip seal or gravel surfaces to asphalt. The trend is to chip seal over asphalt roads for preservation purposes and return once-hard surface roads to gravel, if the traffic volume is low enough to warrant.

Road Surface Type	Miles (2017)	% in 2017	Miles (2023)	% in 2023
Asphalt	160.113	43.17%	170	45.82%
Chip Seal /Chip Seal over Asphalt	54.544	14.71%	60	16.17%
Gravel	156.191	42.12%	141	38.01%



All bridges on the County inventory are inspected at least annually and rated on a scale from 1-9, with “9” being new or like new condition. Below is a summary of the rating conditions from 2023 for all bridges on the County inventory.

	2023	2022	2021	2020
Bridge Inventory Condition Status	# of Bridges	# of Bridges	# of Bridges	# of Bridges
Good (7, 8, 9)	68	67	66	65
Fair (5, 6)	87	84	85	92
Poor (4 and below)	24	28	28	21
Total	179	179	179	178



When a bridge is unable to support the required Ohio Legal Loadings, it is load-posted with signage to indicate to the traveling public what weights are allowed to cross the structure safely. Below is a summary of the posted bridges over the past years.

Load Posted Bridges	2023	2022	2021	2020	2019	2018	2017
Number of Posted Bridge	34	35	34	31	32	31	25
% of Total	18.99%	19.55%	18.99%	17.42%	17.98%	17.42%	14.04%

FUNDED PROJECTS SUMMARY – COMPLETED & ACTIVE

Each year the County Engineers office applies for several types of funding, which have specific targets or qualifications that determine what roads, bridges, etc. the funding can be used on. Nearly every funding source also requires local participation through funding match or in-house contributions of labor, equipment and/or materials. Below is a summary of the projects either completed or on-going in 2023, with funding sources associated. Rows that are shaded are complete and the rows with white background are on-going. More details on each project will be included in the following sections of this report.

Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
County-wide State disaster March 2020	EMA 75%, Local 25%	\$5,151,398.91	2020
County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
MOE-TR199-2.38 & 2.57	OPWC \$400,000grant/\$350,000 Loan	\$621,069.80	2023
MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
MOE-T0183-0.13	100%	\$465,000.00	2023
MOE-T2001-0.13	100%	\$450,000.00	2023
CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
CR9A-0.52 Road Slip	OPWC \$180,100, County \$65,000	\$245,509.05	2023

CR22-1.30/CR43-1.52/CR40-6.10	OPWC \$241,000, County \$39,000 in materials	\$148,795.67	2023
CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
MOE-TR0307-0.75	80%	\$836,652.10	2024
MOE-TR1206-0.01	80%	\$550,932.00	2024
MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
MOE-C28-0.56	80% LBR, 15%Credit Bridge, 5% Local	\$742,593.88	FY2023
MOE-C29-6.95	80%	\$533,224.09	FY2023
Various CR Guardrail	100%	\$264,362.20	FY2023
CR12 (Graysville to SR800) FDR & paving	CSTP \$2,000,000 cap, OPWC \$400,000 grant, remainder local	\$3,276,996.00	FY2023
Curve Signage - 1 location	100%	\$1,668.00	FY2023
Sign Upgrade project - Various signs	80%	\$8,045.10	FY2023
CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
New Pavement Marking	100%	\$150,000.00	FY2024
Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

Infrastructure Improvements, Repairs & Maintenance

The County Engineers Office manages several types of projects each year in order to maintain, and hopefully, improve our County's Roads and Bridge system. Routine project types are:

- (1) Slip Repairs
- (2) Culvert Repairs & Maintenance
- (3) Road Repairs & Maintenance
- (4) Bridge Repairs & Maintenance

These infrastructure improvements, repairs and maintenance are achieved through a number of methods:

- (1) In-house/Force Account – County employees, equipment and material are used
- (2) Contracted out – County awards project(s) to contractor(s). Typically, this is done when the County forces are unable to perform the work needed.
- (3) Outside entity contract – An entity other than the County contracts work to be done on County-owned infrastructure through a Road Use agreement or permit. Typically, this will be done by an Oil & Gas Operator.
- (4) Funded - Funding authority awards project(s) to contractor(s). This can include funds that the County applied for, or funds that were made available due to a weather event, such as flooding.

In the following several sections, summaries and information will be provided on the many different types of projects completed this year.

SLIP REPAIRS

Slip Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
PILING WALL MAINTENANCE	CR 15 - 8.39	\$973.83
PILING WALL MAINTENANCE	CR26	\$1,044.52
PILING WALL MAINTENANCE	CR 53 - 3.25	\$1,096.75
ROCK EMBANKMENT	CR 9A - 0.14	\$5,828.01
ROCK EMBANKMENT	CR 9A - 2.40	\$18,391.38
SLIP MAINTENANCE	CR 33 - 0.99	\$1,000.20
SLIP REPAIR	CR 2 - 0.65	\$12,093.02
SLIP REPAIR	CR 2 - 1.40	\$40,563.71
SLIP REPAIR	CR 4 - 6.42	\$48,317.07
SLIP REPAIR	CR 84 - 1.90	\$53,494.09
SLIP/PILING MAINTENANCE	CR 12 - 14.20	\$5,269.66

Total Slip Repair Project force account costs for 2023 = \$188,072.24

Slip Repairs EMA Funded

2020 EMA Event

A total of 75 slips/damage areas qualified and were reported under the EMA event that occurred in spring of 2020. These projects are only partially funded by EMA state disaster funds (75% of contract work, approximately 60% of Force Account work). The County Engineers budget must cover the remaining costs.

Several of the EMA-approved projects were completed in 2021 & 2022, with the remainder being completed in 2023. Below is a summary of all approved 2020 EMA projects, with all of them being complete.

Road No.	Log Point	Type of Repair	FINAL Actual Cost	Contract/Force Account
2	0.24	Pipe Piling	\$66,824.73	COMBINED
2	0.60	Pipe Piling	\$37,693.51	COMBINED
2	0.70	Pipe Piling	\$84,492.58	COMBINED
2	1.20	Pipe Piling	\$60,586.68	COMBINED
2	3.41	H-Piling	\$126,201.24	Contract
2	6.25	Pipe Piling	\$41,302.68	Force Account
4	0.60	H-Piling	\$119,164.45	Contract
4	0.70	H-Piling	\$132,531.97	Contract
4	3.40	Pipe Piling	\$114,177.05	Contract
4		Debris & Mud Removal - County Forces	\$1,106.76	Force Account
5	1.80	Gabions	\$66,075.90	Contract
11	1.75	Pipe Piling	\$28,791.87	Force Account
11	2.10	Pipe Piling & add guardrail backing	\$42,226.21	Force Account
12	0.40	H-Piling	\$120,181.91	Contract
12	0.90	H-Piling	\$162,866.61	Contract
12	18.20	Rock Embankment	\$22,421.00	Force Account
13	3.80	Pipe Piling	\$41,209.38	Force Account
15	8.32	Pipe Piling with Rock Channel Protection	\$16,754.13	Force Account
15	8.35	Pipe Piling with Rock Channel Protection	\$29,275.24	Force Account
16	6.57	H-Piling	\$158,789.54	Contract

17	0.60	Rock Embankment	\$27,241.99	Contract
17	1.00	H-Piling	\$245,207.30	Contract
22	1.50	H-Piling	\$200,448.35	Contract
22	1.70	H-Piling	\$122,039.25	Contract
22	2.01	H-Piling	\$244,412.83	Contract
24	0.1	Rock Embankment	\$28,121.95	Contract
25	2.068	H-Piling	\$95,498.90	Contract
25	3.80	H-Piling	\$85,860.00	Contract
26	3.90	H-Piling	\$162,131.60	Contract
26	4.26	H-Piling	\$230,985.50	Contract
27	3.10	H-Piling	\$89,160.58	Contract
29	0.5	H-Piling	\$90,015.00	Contract
29	9.24	Rock Embankment	\$64,458.58	Contract
33	1.28	Pipe Piling	\$27,568.35	Force Account
38	2.6	H-Piling	\$136,375.07	Contract
39	2.60	H-Piling	\$93,175.82	Contract
40	4.40	H-Piling	\$152,091.52	Contract
40	4.70	H-Piling	\$141,416.45	Contract
42	2.49	Pipe Piling	\$40,514.22	Force Account
42	3.90	Rock Embankment	\$45,212.75	Contract
42		Debris & Mud Removal - County Forces	\$4,305.39	Force Account
43	0.80	Pipe Piling	\$53,238.45	COMBINED
43	1.40	Pipe Piling	\$65,800.62	COMBINED
43	4.90	Pipe Piling	\$49,954.59	COMBINED
44	0.90	Rock Embankment	\$18,196.82	Contract
45	1.90	Pipe Piling	\$39,567.97	Force Account
47	2.15	Rock Embankment	\$3,669.97	Force Account
47	2.40	Pipe Piling	\$28,019.70	Force Account
47	3.60	Pipe Piling	\$23,682.87	Force Account
47	3.70	Pipe Piling	\$14,896.84	Force Account
53	1.553	Rock Embankment	\$14,472.25	Contract
53	3.30	Pipe Piling	\$31,335.50	Force Account
57	0.40	Rock Embankment	\$28,118.20	Contract
60		Debris & Mud Removal -	\$1,709.70	Force Account

		County Forces		
64	1.95	H-Piling	\$226,843.95	Contract
65	0.08	Pipe Piling	\$43,730.16	Force Account
68	1.7	Pipe Piling	\$37,208.84	Force Account
68	4.2	Pipe Piling	\$25,610.73	Force Account
73	8.505	Pipe Piling	\$39,098.93	Force Account
73	8.8	Pipe Piling	\$38,230.98	Force Account
77	5.3	Pipe Piling	\$21,771.65	Force Account
79	4.10	H-Piling	\$149,951.70	Contract
79	5.50	H-Piling	\$232,153.48	Contract
81	1.59	H-Piling	\$113,937.80	Contract
81	1.96	H-Piling	\$103,736.75	Contract
84	2.10	Pipe Piling	\$32,360.54	Force Account
88	3.90	Rock Embankment	\$7,329.81	Force Account
89		Debris & Mud Removal - County Forces	\$3,142.42	Force Account
11S	0.50	Pipe Piling	\$14,009.71	Force Account
11S	0.60	Pipe Piling	\$30,650.42	Force Account
11S	3.20	H-Piling	\$389,021.36	Contract

2022 EMA Events (May & June)

Two separate disaster declarations affected Monroe County in 2022, in May & June. The majority of the May and June 2022 damages were addressed immediately after the storm event and in 2023, with only one location left to be repaired in 2024. Below are the summary tables of the damage locations for each event.

Road	Damage	Work Complete?	Force Account/Contract
CR29	Slip/mudslide #1	Yes	Force Account
CR29	Slip/mudslide #2	Yes	Force Account
CR29	culverts plugged	Yes	Force Account
CR27	Slip/mudslide #1	Yes	Force Account
CR36	ditch & culvert plugging	Yes	Force Account
CR27	embankment & ditch erosion/rockslide	Yes	Force Account
CR77	ditch & culvert plugging, road wash-out	Yes	Force Account
CR45	culverts plugged & road wash-out	Yes	Force Account
CR17	debris and road wash-out	Yes	Force Account
CR41	ditch and roadway washout, plugged culverts	Yes	Force Account
CR100	ditch erosion and plugged culverts	Yes	Force Account
TR183	TR183-0.50 Bridge closure – major debris impact and flooding	YES	Contract
CR53	Slip on upslope side - 150' long	No	Force Account
CR42	Erosion on downslope/creek side	YES	Contract

Type of Damage	Road ID	Work completion status	Contract
Tree/Debris Removal	CR105	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105B	Complete	Force Account
Bridge Damage/Plugged with Debris	CR105C	Debris removed & blocks re-set on 6-21-22	Force Account
Tree/Debris Removal	CR105C	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Tree/Debris Removal	CR13	Complete	Force Account
Ditch erosion/plugged culverts	CR138	Complete	Force Account
Tree/Debris Removal	CR14	Complete	Force Account
Culvert(s) plugged	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Culvert(s) plugged	CR16	Completed on 6-21-22	Force Account
Tree/Debris Removal	CR16	Complete	Force Account
Tree/Debris Removal	CR16B	Complete	Force Account
Tree/Debris Removal	CR19	Complete	Force Account
Tree/Debris Removal	CR29	Complete	Force Account
Tree/Debris Removal	CR40	Complete	Force Account
Road washout	CR57	Complete 6-21-22	Force Account
Tree/Debris Removal	CR57	Complete	Force Account
Tree/Debris Removal	CR58	Complete	Force Account
Culvert(s) plugged	CR59	Complete	Force Account
Tree/Debris Removal	CR59	Complete	Force Account
Tree/Debris Removal	CR60	Complete	Force Account
Tree/Debris Removal	CR68	Complete	Force Account
Tree/Debris Removal	CR70	Complete	Force Account
Tree/Debris Removal	CR73	Complete	Force Account
Tree/Debris Removal	CR88	Complete	Force Account
Tree/Debris Removal	CR90	Complete	Force Account
Ditch erosion/culverts plugged	CR99	Complete	Force Account
Emergency Road Clearing		COMPLETE 6/16-6/18	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR14	Complete 6-21-22	Force Account
Ditch erosion	CR54	Complete	Force Account
Roadway washout	CR78	Complete	Force Account
Culvert Washout	CR16B	Culvert re-installed on 6-21-22	Force Account
Road Embankment Erosion	CR15	Complete	Contract
Road washout	CR15	Complete	Contract
Road Embankment Erosion	CR42	Complete	Contract

2023 EMA Events (January)

Another bout of bad weather hit Monroe County in January 2023, causing a significant amount of damage, and resulting in a disaster declaration. While several of the damage areas were repaired in 2023, 14 locations still need repairs and are slated for completion in 2024. The table below lists damage locations for this event.

Road	Damage	Contract/Force Account	Work Complete?
CR10	Slip/mudslide	Force Account	Yes
CR105	Culvert plugged/washout	Force Account	Yes
CR11	Ditch & culverts plugging	Force Account	Yes
CR138	Culverts plugged/washout	Force Account	Yes
CR15	Slip/Mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR44	Plugged culvert, shoulder erosion	Force Account	Yes
CR13	Road washout/culvert plugged/flooding	Force Account	Yes
CR29	Slip/mudslides	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Road washout/flooding	Force Account	Yes
CR57	Road washout/flooding	Force Account	Yes
CR65	Road washout/flooding	Force Account	Yes
CR72	Slip/mudslide	Force Account	Yes
CR78	Road washout/flooding/plugged culverts	Force Account	YES
CR88	Slip/mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR88	Slip/mudslide (39-35-13, 81-07-51)	Force Account	Yes
CR88	Slip/Mudslide (39-35-13, 81-07-52)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR9A-1.72	Road washout/culvert plugging	Force Account & Contract	YES
CR96	Slip/Mudslide (39.635529, 80.875451)	Oil & Gas operator completed	Yes
TR183	TR183-0.50 Bridge flooding/approach washout	Township complete - not seeking reimbursement	Yes

CR15-1.81	Slip (39-35-41, 81-14-58)	Contract	No
CR15-8.00	Slip	Force Account	No
CR22	Slip - 60 feet long	Contract	YES
CR26-4.60	Large culvert & adjacent culvert overtopped and road washout, culverts plugged	Force Account	YES
CR29-8.00	Culvert plugging/washout	Contract	No
CR40-0.96	Road washout/flooding	Contract	No
CR40-6.10	Slip - 70 feet long	Contract	YES
CR42	Slip/Stream Erosion - 100 feet	Contract	YES
CR42-0.83	Road flooding/surface damage	Contract	No
CR43-1.52	Slip - 60 feet long	Contract	YES
CR43-5.00	Slip & broken culvert	Force Account	No
CR45-4.40	Slip/Erosion	Contract	No
CR47-1.295	Culvert plugging/washout	Force Account	No
CR47-1.65	Road washout/flooding	Force Account	No
CR47-3.97	Slip/Erosion/plugged culvert	Force Account	YES
CR72-1.954	Culvert plugged/washout	Force Account	No
CR81-0.94	Slip	Contract	NO
CR89-0.40	Road washout/flooding	Contract	No
CR89-0.498	Culvert plugging/washout	Combination	No
TR1206	TR1206 Bridge washout/failure	Jackson Township completed	YES
TR358	TR358 Bridge - flooding/washout of backfill	Force Account	No

Slip Repairs Contracted

CR15-0.95 – Monroe Drilling Operations was contracted to perform a Rock Embankment slip repair on County Road 15, for a total cost of \$20,841.90. Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$11,690.00. This work was funded through the Engineers Budget 100%

Slip Repairs OPWC Funded

CR29-1.86 Extension - The County Engineers office prepared the design plans for a Drilled Shaft H-Piling retaining wall extension. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$56,770.40 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR4-2.50 – Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$187,587.83 spent in 2023 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Asphalt surface repairs are planned for 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR10-8.07– Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR12-5.50 - Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR22-1.30, CR40-6.10 & CR43-1.52 – Monroe County Engineers Office provided the materials for three pipe piling walls at a cost of \$27,561.45. The installation of the pipe piling walls was contracted to Bob Lanes Welding for a total cost of \$65,002.65, while the asphalt road repairs were contracted to K & F Excavating for a cost of \$23,831.55. Stahl Sheaffer performed inspection services for a total cost of \$32,400.00, bringing the total project cost to \$148,795.65. Ohio Public Works Emergency Funds were used to pay for all of the contract work, and the materials provided by the County served as our local match.

Slip Repairs FEMA Funded

2019 FEMA Event

A total of 206 slips qualified and were reported under the FEMA event that occurred in February, 2019. Of the total, 130 locations have been validated by FEMA to-date. NRCS claimed authority over and approved repairs for 24 locations, which are all complete. The following projects are in progress and are anticipated to be completed in 2024:

CR47-3.95 – Construction to be completed spring/summer 2024.

CR26-6.43 – Construction to be completed spring/summer 2024.

All FEMA qualified projects are funded 75% by FEMA and 25% by the State of Ohio, EMA. No local match is required. The remaining 52 locations have been appealed and denied, leaving a large amount of damage for the County to fund repairs. These locations are not anticipated to be repaired immediately, as there are no available funds in the Engineers budget to perform the work.





CR38-0.43 DENIED FEMA FUNDING FOR SLIP
REPAIR.

INCOME SURVEYS ARE BEING DONE IN EARLY
2024 TO SEE IF THE AREA IS ELIGIBLE FOR
CRITICAL INFRASTRUCTURE FUNDS.

CULVERT REPAIRS AND MAINTENANCE

Culvert Replacement In-House/Force-Account

Project Type	Route/Location	Force Account Cost
BOX CULVERT	CR 9A - 1.72	\$9,618.80
CULVERT REPLACEMENTS	CR 105B - 0.08 & 0.18	\$6,511.00
CULVERT REPLACEMENT	CR 16B - 1.01	\$5,882.89
CULVERT REPLACEMENT	CR26-4.57	\$36,946.99
CULVERT REPLACEMENT	CR29-8.22	\$12,926.11
CULVERT REPLACEMENT	CR 29 - 8.44	\$4,481.81
CULVERT REPLACEMENT	CR 33 - 1.27	\$2,562.33
CULVERT REPLACEMENT	CR43-8.58, 8.22, 7.96 & 7.90	\$22,709.21
CULVERT REPLACEMENT	CR 105A - 1.53	\$3,113.74
CULVERT REPLACEMENT	CR 11 - 2.95	\$9,500.43
CULVERT REPLACEMENTS	CR 4 - 078,1.14,1.30,1.78,2.72,3.15, 3.99 & 4.09	\$38,357.18
CULVERT REPLACEMENTS	CR9A MULTIPLE LOCATIONS	\$77,405.86
CULVERT REPLACEMENTS	CR 15 - 8.07 & 8.15	\$10,766.52
CULVERT REPLACEMENTS	CR26-4.60 & 4.61	\$10,851.83
CULVERT REPLACEMENTS	CR 54 - 0.456,0.544,1.126,1.193	\$10,220.19
CULVERT REPLACEMENTS	CR 61 - 1.705,1.59,1.63 & 1.67	\$12,498.83

Total Culvert Project force account costs for 2023 = \$274,353.72

Culvert Replacements – Contracted/Funded (Excludes FEMA & EMA projects)

County Road 9A Box Culvert Installation – McConnell Contracting Inc. & Mustang Crane were contracted to perform the installation and setting of a concrete box culvert on County Road 9A, for a total cost of \$42,750.00 and \$3,770.00, respectively. This work was funded through the Engineers Budget 100%.

	2023	2022	2021	2020	
Culvert Inventory Condition Status	# of Culverts	# of Culverts	# of Culverts	# of Culverts	% for 2023
Good (A)	1080	935	749	1223	30.90%
Fair/Functional (B)	795	769	812	808	22.75%
Poor/Failed(C, D)	1620	1481	1582	1257	46.35%
Total	3495	3185	3143	3288	100.00%

ROADWAY REPAIRS AND MAINTENANCE

Road Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
ASPHALT BASE REPAIRS	CR 12	\$6,160.76
CHIP SEAL	CR 10	\$76,078.24
CHIP SEAL	CR 96	\$66,486.04
CHIP SEAL - DUST CONTROL	CR 1	\$3,787.20
CHIP SEAL - DUST CONTROL	CR 6	\$11,239.22
CHIP SEAL - DUST CONTROL	CR 26	\$5,810.25
CHIP SEAL - DUST CONTROL	CR 30	\$3,557.77
COLD MIX ROAD LEVELING	CR14	\$13,737.90
HOT MIX PATCHING	CR 96	\$8,363.79
ROAD BERMING	CR12	\$62,749.38
ROAD PROFILE IMPROVEMENT	CR9A	\$51,811.88
SINGLE CHIP SEAL	CR 1 - NORTH	\$39,021.92
SINGLE CHIP SEAL	CR 1 - SOUTH	\$24,493.44
SINGLE CHIP SEAL	CR 3	\$9,471.13
SINGLE CHIP SEAL	CR 81 - 1.07 THRU 2.33	\$27,251.93

Total Road Repairs Project force account costs for 2023 = \$410,020.85

Emergency Services

Snow & Ice Removal - County forces provide snow & ice removal for all 372 miles of County Roads during the winter months. In 2023, a total of \$88,010.21 was spent on this service.

Debris & Tree Removal – County forces respond AFTER HOURS to trees and debris that fall into the roadway, causing a hazard for the traveling public. In 2023, over 215.5 man-hours were spent for a total of **\$8702.30** in OVERTIME Labor costs for this service. Equipment and fuel costs are not included in the total. Debris & Tree removal during normal business hours is not included in the total.

All Emergency service costs are paid from by the County Engineers Budget.

Roadside Mowing

County-Wide Road side mowing - County forces provide roadside mowing for all 372 miles of County Roads throughout the year, with a goal to make at least 2 passes on each road annually and spend as much time as feasible to make additional passes to increase the width we can clear along the roads. In 2023, a total of **\$611,315.3** was spent on this service.

Labor = \$225,026.57 (7315.5 man-hours)

Equipment Usage = \$386,288.74

Miscellaneous Road Improvements In-House/Force-Account

Project Type	Route/Location	Force Account Cost
2023 MOWING	COUNTY WIDE	\$611,315.30
2023 SIGN INSTALLATIONS	COUNTY WIDE	\$11,274.02
2023 SPRING COLD MIX		\$36,081.31
SNOW AND ICE REMOVAL	COUNTY WIDE	\$88,010.21

Total Miscellaneous Road Improvement Project force account costs for 2023 = \$746,680.84

Miscellaneous Road Improvements Contracted

CR2-1.40 Slip Repair—Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$37,586.60. This work was funded through the Engineers Budget 100%.

County Road 27 Asphalt Mill & Fill Repairs – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 27, for a total cost of \$2500.00. This work was funded through the Engineers Budget.

County Road 79 Asphalt Overlay – Shelly and Sands Inc. was contracted to an perform Asphalt overlay on a section of County Road 79, for a total cost of \$42,376.44.00. This work was funded through the Engineers Budget.

Miscellaneous Road Improvements Funded

Ohio Public Works Commission (OPWC) /CSTP Project – The 2022 OPWC project funding was paired with CSTP (County Surface Transportation Program) funds, to cement stabilize and resurface County Road 12, Greenbrier Road/Trail Run Road, for approximately 10.5 miles between Graysville and State Route 800. This project was originally slated for construction in July 2022, but due to drastically high bid pricing, the project scope was revised and re-bid in December 2022. Construction was awarded to Shelly and Sands and was completed in 2023. Project total cost was \$3,276,996.00. CSTP funds provided \$2,000,000 in grant, with OPWC grant covering \$400,000 and the remainder being paid from the Engineer budget funds.

Ohio Public Works Commission (OPWC) – This 2023 OPWC project funding was utilized for cement stabilization and resurfacing of CR9A, Six Points Road, for a total length of 2.74 miles. The construction was awarded to Shelly and Sands, with the cement stabilization and base asphalt being completed in 2023. The surface asphalt is slated for completion in 2024. Total funds expended in 2023 for this work was \$880,943.42. OPWC grant allowance of \$400,000 will be used, with the remainder being paid for through OPWC loan and the Engineers budget funds.

A second 2023 OPWC project funding was utilized for repairing a slip by installation of an H-Piling retaining wall on CR9A, at the 0.52-mile marker. The construction was awarded to Litman Excavating, with inspection being contracted to Stahl Sheaffer. All work was completed in 2023 for a total project cost of \$245,590.49. OPWC grant allowance of \$180,100 was utilized, with the remainder being funded through OPWC loan and the Engineer budget funds.

Ohio Department of Development Roadwork Development Grant – The Monroe County Engineers Office applied and received \$1,500,000 in 629 Road Development Funds to make repairs and improvements to County Road 26, Beautiful Ridge Road, specifically at the 5.72-mile marker, where there is a failed piling wall. These funds were awarded to replace the piling wall and make repairs/improvements to County Road 26, in order to prevent impact to the commercial business that rely on this route for all deliveries and access. Design work for the repairs was completed in 2023, for a total cost of \$67,800.00. The project will be bid and constructed in 2024.

BRIDGE IMPROVEMENTS AND REPAIRS

In-House/Force Account

Project Type	Route/Location	Force Account Cost
BRIDGE BOX CULVERT REPAIR	CR 15 - 7.93	\$4,687.50
BRIDGE ABUTMENT REPAIR	CR 100 - 0.68	\$10,484.90
BRIDGE MAINTENANCE	SWITZ TR84-0.01	\$8,674.42
BRIDGE RE-DECK & MAINTENANCE	SUNSBURY TWP. 141 - 0.84	\$18,074.18
BRIDGE REPAIR	CR 9A - 0.98	\$12,817.38
BRIDGE REPLACEMENT	BENTON TWP. 530	\$63,698.05

Total Bridge Project force account costs for 2023 = \$118,436.43



County crews
performing bridge
work

CR9A-0.98 (left) and
TR530-0.54 (right)



Contracted/Funded

CR28-0.56 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



CR28-0.56 Bridge
replaced in 2023



CR29-6.95 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



**CR29-6.95 Bridge
replaced in 2023**



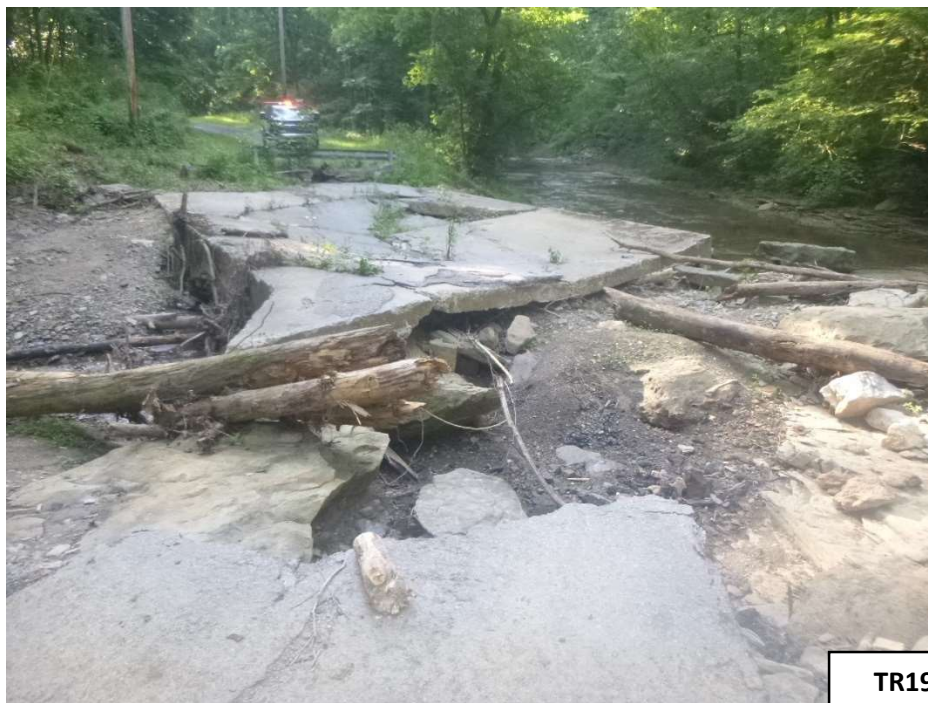
TR199-2.38 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



TR199-2.38 Bridge
replaced in 2023



TR199-2.57 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



**TR199-2.57 Bridge
replaced in 2023**



TR307-0.75 Bridge replacement project design was completed in 2022. The bridge construction started in 2023 and will finish early in 2024. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



TR183-0.13 Bridge replacement project design-build scope was completed in 2022. The original contract was cancelled and the bridge is now slated for construction to start in late 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge replacement project design-build scope was completed in 2022. The bridge is slated for construction to start and complete in 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge to be replaced in 2024

TR1206-0.01 Bridge replacement design for this project will be completed by summer of 2023. The bridge is slated for construction to be complete by fall of 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



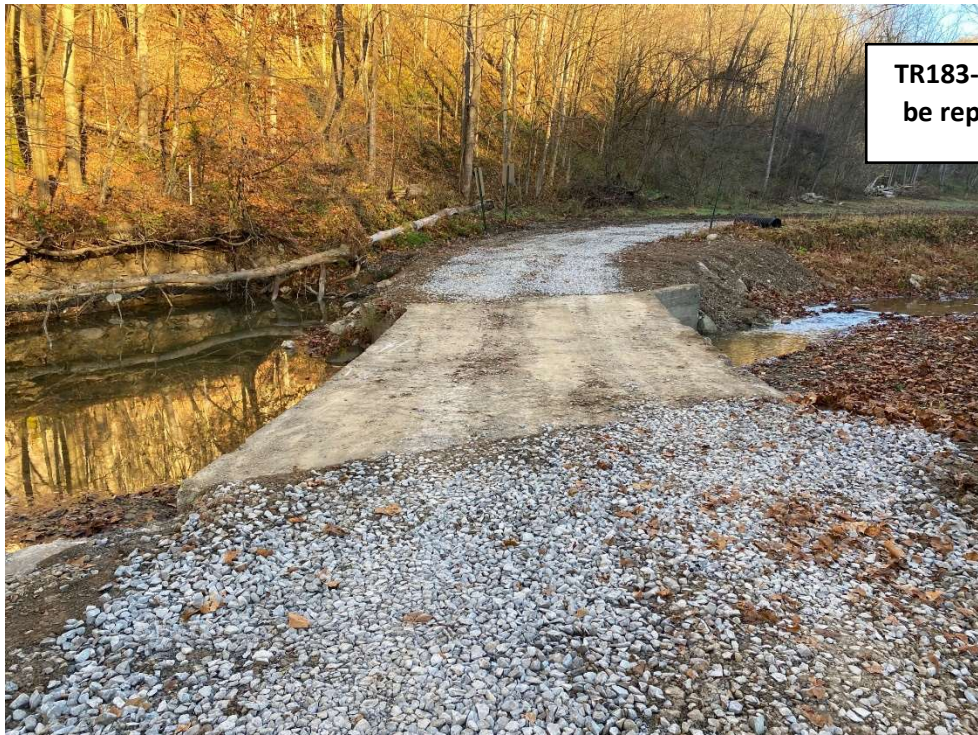
TR1206-0.01 Bridge to be replaced in 2024

TR1004-2.27 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete in 2026. The design costs and construction will be shared funding through Federal Land Access Program and County Engineer budget funds.



TR1004-2.27 Bridge to be replaced in 2026

TR183-0.50 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete by summer of 2025. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR183-0.50 Bridge to be replaced in 2025

OIL & GAS ACTIVITY

There are currently 13 different Oil & Gas Companies with at least one active RUMA in Monroe County. Over the past few years, several of the previous companies have merged or sold to form larger singular operators, and in the process, RUMAs have been combined into a “Master RUMA” which contains a list of all affected roadways for each Operator. Below is a summary of RUMA activity:

O & G RUMA Activity Summary	2023	2022	2021	2020	2019	2018	2017
New RUMAs	12	3	6	7	13	30	30
Renewed RUMAs	5	5	6	42	46	19	41
Terminated/Modified RUMAs	4	4	*several RUMAs terminated to create a Master RUMA for each Operator	11	19	35	19
Total Number of Operators with at least one RUMA	13	14	14	19	23	23	19

As part of their activities, these Oil & gas Companies often need to improve the County’s current infrastructure. The following table is a summary of the Infrastructure Improvements made by Oil & Gas Companies in 2023. Maintenance items such as dust control and temporary patching are not included in this list.

Company	Road #/Name	Improvement/Work Done	Total Cost of Improvements
Antero	CR69, Walter Ridge Road	Asphalt spot repairs	\$47,370.33
Antero	CR69, Walter Ridge Road	Crack sealing	\$4,130.72
Diversified	CR19, Brownsville-Countyline Road	Asphalt spot repairs	\$12,000.00
Diversified	CR12, Trail Run Road	Asphalt spot repairs	\$6,375.00
Diversified	CR67, Dent Ridge Road	Asphalt Paving	\$484,456.29
Equinor	CR4, Sykes Ridge Road	CR4-5.93/5.96 Slip Repairs	\$616,000.00
Equinor	CR4, Sykes Ridge Road	Asphalt spot repairs	\$882,000.00
Equinor	CR26, Beautifull Ridge Road	CR26-0.90 Crane Accident Repairs	\$174,000.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Damage settlement for RUMA road use	\$100,000.00
Equitrans Midstream	CR64, Cain Ridge Road	Culvert replacement	\$3,150.00
Equitrans Midstream	CR43, Long Ridge Road	Dithing and Berming	\$3,875.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Spreading aggregate	\$17,123.79
Equitrans Midstream	CR45, Moose Ridge Road	Asphalt spot repairs	\$38,398.97
SWN	CR10, Benwood Road	Ditching/Clean up	\$13,449.09
SWN	CR65, Flauhaus Ridge Road	Road Improvements for RUMA	\$18,832.54
SWN	CR43, Long Ridge Road	Asphalt Overlay	\$161,796.67
SWN	CR96, Baptist Ridge Road	Spot Base repairs & Pothole repairs	\$21,425.86
		TOTAL	\$2,604,384.26

COUNTY ENGINEER FUNDING, REVENUE & EXPENDITURES SUMMARY

Projects Summary

Road & Bridge Funding Summary	2023	2022	2021	2020	2019	2018
In-House/Force Account Funds	\$2,296,723.24	\$2,389,943.55	\$2,285,644.39	\$1,772,341.29	\$1,670,724.37	\$968,357.29
County Engineer (local match) funds, including loans	\$987,216.54	\$1,308,675.73	\$1,033,556.23	\$489,568.83	\$459,055.10	\$573,854.21
County General Funds	\$228,750.00	\$75,000.00	\$75,000.00	\$75,000.00	\$102,690.00	\$410,773.62
Oil & Gas Funds	\$2,604,384.26	\$1,566,324.69	\$2,321,668.18	\$4,795,921.00	\$10,401,034.55	\$9,610,872.72
CDBG Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$255,750.00	\$0.00
FHWA/ODOT Funds	\$3,894,271.25	\$708,938.31	\$2,319,559.46	\$51,795.38	\$1,778,428.08	\$1,089,558.59
OPWC Funds	\$1,680,187.80	\$367,961.31	\$1,211,814.10	\$603,596.70	\$652,275.00	\$400,000.00
Ohio Department of Development Funds	\$67,800.00					
FEMA/EMA Funds	\$1,731,927.50	\$6,466,539.68	\$10,141,475.94	\$5,290,496.00	\$4,734,455.77	\$567,976.81
NRCS Funds	\$0.00	\$0.00	\$1,023,643.58	\$0.00	\$0.00	\$0.00
Federal Land Access Program Funds	\$31,280.22	\$0.00	\$456,583.00	\$0.00	\$0.00	\$0.00
Transportation Improvement District Funds	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.00
USDA Funds	\$0.00	\$288,000.00	\$0.00	\$297,000.00	\$0.00	\$141,000.00
TOTALS	\$13,522,540.81	\$13,171,383.27	\$21,068,944.88	\$13,375,719.20	\$20,054,412.87	\$13,762,393.24

County Engineer Budget – 2023 Revenue Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
GASOLINE TAX	\$3,827,153.05	54.0%
INTEREST	\$23,893.15	0.3%
MOTOR VEHICLE LICENSES	\$1,077,816.78	15.2%
PERMISSIVE MVL	\$81,663.06	1.2%
COUNTY COURT FINES	\$10,069.15	0.1%
JUVENILE COURT FINES	\$0.00	0.0%
COMMON PLEAS COURT FINES	\$0.00	0.0%
SPECIAL HAUL PERMITS	\$22,170.00	0.3%
RIGHT OF WAY PERMITS	\$3,460.00	0.0%
SALE & SERVICE	\$41,816.99	0.6%
(National Forest Sales)	\$26,603.29	0.4%
REFUND &/OR REIMBURSEMENT	\$165,022.88	2.3%
TRANSFERS IN	\$143,517.71	2.0%
ADVANCES IN	\$1,322,847.17	18.7%
OTHER RECEIPTS	\$171,906.30	2.4%
OIL & GAS RECEIPTS	\$168,375.00	2.4%
TOTAL	\$7,086,314.53	100%

County Engineer Budget – 2023 Expenditures Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
<i>SALARIES OFFICIALS</i>	\$109,292.00	1.82%
<i>SALARIES EMPLOYEES</i>	\$359,880.00	6.00%
<i>LABORERS SALARIES</i>	\$849,266.58	14.16%
<i>RETIREMENT SIC/VAC PAY</i>	\$0.00	0.00%
<i>SUPPLIES</i>	\$4,559.85	0.08%
<i>TAX MAP SUPPLIES</i>	\$1,500.00	0.03%
<i>UNIFORMS & PPE</i>	\$8,581.08	0.14%
<i>WELDING SUPPLIES</i>	\$5,309.05	0.09%
<i>ROAD MATERIALS</i>	\$1,003,334.74	16.73%
<i>EQUIPMENT</i>	\$107,938.00	1.80%
<i>CONTRACT REPAIRS (O&G)</i>	\$10,650.00	0.18%
<i>CONTRACT SERVICES (ISSUE I COUNTY)</i>	\$83,112.62	1.39%
<i>CONTRACTS</i>	\$418,469.12	6.98%
<i>EMA CONTRACTS</i>	\$135,511.85	2.26%
<i>ODOT</i>	\$1,225,820.00	20.44%
<i>TRAVEL EXPENSES</i>	\$500.00	0.01%
<i>ADVERTISING & PRINTING</i>	\$8,058.03	0.13%
<i>PERS/STRS</i>	\$176,493.90	2.94%
<i>WORKERS COMPENSATION</i>	\$8,998.87	0.15%
<i>UNEMPLOYMENT COMP.</i>	\$0.00	0.00%
<i>OTHER EXPENSES</i>	\$22,883.07	0.38%
<i>RIGHT OF WAY PERMITS -Expense</i>	\$100.00	0.00%
<i>TRANSFERS</i>	\$0.00	0.00%
<i>ADVANCES OUT</i>	\$304,800.00	5.08%
<i>INSURANCE</i>	\$262,730.47	4.38%
<i>GROUP & LIABILITY</i>	\$15,000.00	0.25%
<i>LEGAL FEES</i>	\$195.00	0.00%
<i>NOTES</i>	\$0.00	0.00%
<i>FUEL</i>	\$211,008.38	3.52%
<i>UTILITIES</i>	\$24,949.94	0.42%
<i>DOT TESTING</i>	\$1,714.00	0.03%
<i>PRINCIPAL - USDA LOAN</i>	\$55,360.63	0.92%
<i>INTEREST-USDA LOAN</i>	\$9,631.60	0.16%
<i>OPWC LOAN</i>	\$27,205.74	0.45%
<i>VEHICLE MAINT.(IN HOUSE)</i>	\$174,070.79	2.90%
<i>VEHICLE (OUTSIDE REPAIRS)</i>	\$109,372.06	1.82%
<i>LEASES</i>	\$0.00	0.00%
<i>MEDICARE TAX</i>	\$18,391.74	0.31%
<i>DUES</i>	\$1,520.10	0.03%
<i>BUILDING & GROUNDS MAINTENANCE</i>	\$1,741.60	0.03%
<i>OFFICE MAINTENANCE</i>	\$11,260.79	0.19%
<i>SIGNS</i>	\$12,629.96	0.21%
<i>BRIDGE MATERIALS</i>	\$45,329.90	0.76%
<i>CONTRACTS</i>	\$171,195.00	2.85%
<i>BRIDGE CREDITS</i>	\$0.00	0.00%
<i>CONTRACT BRIDGES</i>	\$0.00	0.00%
<i>PERSONEL EXPENDITURES</i>	\$1,811,043.64	30.2%
<i>NON-PERSONEL EXPENDITURES</i>	\$4,187,322.82	69.8%
TOTAL	\$5,998,366.46	100.0%

FUNDING & THE FUTURE

FUNDING SUMMARY SHEET (2017-PRESENT)



Project Type	GRANTS RECEIVED	LOANS RECEIVED	LOCAL MATCH	TOTAL FUNDED PROJECTS COSTS
Bridge	\$9,264,481.25	\$350,000.00	\$1,252,841.04	\$10,867,322.29
Bridge Load Ratings	\$334,306.05	\$0.00	\$2,129.34	\$336,435.39
Road	\$7,484,855.02	\$1,220,153.97	\$2,492,397.35	\$11,197,406.34
Drainage	\$366,823.00	\$0.00	\$89,760.00	\$456,583.00
Safety	\$276,948.15	\$0.00	\$14,105.35	\$291,053.50
Sign	\$66,128.16	\$0.00	\$7,198.44	\$73,326.60
Equipment	\$555,767.66	\$576,000.00	\$20,000.00	\$1,151,767.66
Guardrail	\$264,362.20	\$0.00	\$0.00	\$264,362.20
Slip Repair/Flood Damage	\$36,085,155.56	\$0.00	\$1,643,496.71	\$37,728,652.27
TOTALS	\$54,698,827.05	\$2,146,153.97	\$5,521,928.23	\$62,366,909.25
	88%	3%	9%	100%

The County Engineers office takes pride in being able to “stretch a dollar” and find creative ways to accomplish the large amount of work needed, with a less-than-adequate budget. The table above shows just how well we have been able to do that in the past 7 years, with 88% of all funded projects being covered with money OTHER than County funds. You can also see how important it is to be able to supply Local Match money. A mere 12% of match money/loans has afforded the County over \$54,000,000.00 in road, bridge and infrastructure improvements.

With the constant increase in material and equipment costs, projects will continue to grow in price. Despite the diligent efforts of our crews and the large amount of funding we are able to secure, the County Engineers office still continues to be underfunded. We will continue to prioritize projects based on impact to the public, funding availability and other pertinent factors. Despite the overwhelming amount of work that lies ahead for the County, we will continue to plan and make the most of our funds available. The following table outlines future projects that have funding secured and will be completed over the next few years.

2024 & FUTURE FUNDING

Project Type	Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
Slip Repairs/Flood Damage	County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
Slip/Flood Damage (June)	County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
Slip/Flood Damage (May)	County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
Bridge	MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
Bridge	MOE-T0183-0.13	100%	\$465,000.00	2023
Bridge	MOE-T2001-0.13	100%	\$450,000.00	2023
Road/Resurfacing	CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
Slip Repair	CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
Slip/Flood Damage (January)	County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
Bridge	MOE-TR0307-0.75	80%	\$836,652.10	2024
Bridge	MOE-TR1206-0.01	80%	\$550,932.00	2024
Bridge	MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
Bridge	MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
Road Improvement	CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
Road/Resurfacing	CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
Safety - Pavement Marking	New Pavement Marking	100%	\$150,000.00	FY2024
Sign	Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
Road/Resurfacing	CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

**Monroe County Engineer
Amy M. Zwick, P.S., P.E.
Annual Report for 2023**

January 26, 2024

Per the Ohio Revised Code, Section 5543.02, I am providing an annual report for the review and record of the Monroe County Commissioners. This report will provide a summary of the activities during the calendar year on County-owned roads, bridges and other infrastructure.

The County Engineers office is responsible for the maintenance and upkeep of **372 miles** of County Roads, including all drainage, culverts, signs, mowing, guardrail, snow/ice treatment and embankment stability. The Engineer's office is also responsible for all bridges on County Roads, and bridges on Township Roads. The current number is **179 bridges** on the County Engineers inventory.

The County Engineers budget is financed through a gasoline tax and a vehicle registration tax, as well as minor income from permit fees and sales/services. For several years, this financing has been extremely lacking, limiting the Engineers office's ability to maintain roads and bridges at a safe and good condition. Whenever possible, Federal grant money and Ohio Public Works funds have been applied for, to replace those lacking funds. In more recent years, Oil & Gas industry has moved into Monroe County and the Operators have contributed significantly to the upgrade/improvements of the County's infrastructure. In 2020 and continuing through 2023, Oil & Gas activity took a major downturn in Monroe County, which is reflected in the decrease in permits, RUMAs, and road upgrades/improvements.

In a continued effort to generate additional income and close the gap in the Engineers needed funds, the option of enacting additional permissive vehicle registrations has been discussed multiple times. The Commissioners held the two required public hearings in April 2019. Based on public input, the motion was made against enacting any additional permissive taxes at this time. This topic was revisited in discussions between Commissioners and Engineers offices since 2019, but has not been pursued any further.

Thanks to the efforts of many individuals across Ohio, in mid-2019 the State approved an increase in the rate and modification of the distribution of revenue from motor fuel excise taxes (fuel tax). This increase took effect July 1, 2019. Projected data for 2020 indicated that each County Engineer would receive an additional \$1 to \$1.5 million. Unfortunately, with the COVID-19 pandemic occurrence, the impact of the fuel tax increase was offset by the sudden decrease in fuel consumption. The long-term effect of COVID-19 on remote-working is anticipated to reduce the fuel consumption permanently, with an estimate of 25% reduction in fuel excise tax income for County Engineers.

In 2023, The Commissioners were asked for financial assistance regarding multiple roads and bridges that were affected by weather events in May/June 2022 and January 2023. A one-time contribution of \$153,750 was transferred from the General Fund, into the Engineers funds. This amount was used at the local match requirement for the repairs approved through Ohio EMA and Ohio Public Works Commission. With this \$153,750, the Engineers Office was able to match \$461,250 in State emergency/disaster grants to complete repairs on several County Roads and Bridges, without further depletion of the Engineers annual maintenance budget.

While the County Engineers office continues to stretch each dollar as far as we can, by applying for as many grants as we can afford to match, performing work in-house when cost-effective, and working with Oil & Gas operators to cost-share on projects, the funds required to maintain "status-quo" are still not able to be met solely on the Engineers budget alone. Future plans of additional funding sources will need to be seriously considered, in order to prevent our county infrastructures deterioration.

Please continue to the following pages for more detailed information on the projects and activities of the Engineers Office in 2023.

COUNTY PERMIT SUMMARY

Special haul permits

Special Haul Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	236	282	340	202	526
Total permit fees received	\$24,650.00	\$32,425.00	\$33,775.00	\$26,225.00	\$61,500.00
Total fees paid to consultants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total bridges analyzed (at least once)	7	1	9	4	6
Total bridges analyzed that were not passable	2	0	2	0	1

Right of Way Work permits

Right-of-Way work Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	95	106	109	155	156
Total permit fees received by County	\$3,490.00	\$3,580.00	\$3,830.00	\$4,090.00	\$4,549.00
Total permit fees paid to Townships	\$100.00	\$550.00	\$500.00	\$500.00	\$900.00

COUNTY EQUIPMENT PURCHASES/SALES

Since the onset of the COVID-19 pandemic, trucks and equipment purchases have been delayed and/or there are significant backlogs in production. The new trend that seems to be forming is to order a truck or new equipment, then wait up to 12 months for delivery. In some cases, the number of orders being taken per year is limited, and the option to order is not even possible. Below is a summary of equipment purchases made in recent years, with notes where equipment funds were encumbered in one year, but the equipment was not received until the following year or after:

Equipment	2023	2022	2021	2020	2019	2018
2019 F250 Regular Cab Truck x 3						\$89,111.49
John Deere 710 Backhoe Loader						\$143,313.52
Wacker BS60-4A Compactor						\$2,682.00
Meyer Snow Plow & Install x 3						\$16,356.00
Tiger Model Ditch Cleaner Attachment						\$9,250.00
2020 f450 Regular Cab Truck x 1					\$40,136.00	
2021 International HV507 Dump w/ Plows x 2				\$296,728.46		
2018 Case 621G Wheel Loader				\$139,750.00		
2016 Gradall D152				\$149,900.00		
2019 Bomag Roller				\$99,900.00		
2018 Bomag Roller			\$47,500.00			
2018 Felling Tilt Trailer (Used)			\$4,605.13			
2022 F250 Regular Cab Truck			\$35,712.00			
John Deere 6110M Tractor x 2		Received	\$159,534.72			
Alamo 22' Samurai Boom Mower x 2		Received	\$107,254.40			
2022 F250 Regular Cab Truck	Received	\$37,175.00				
2022 F250 Regular Cab Truck	Received	\$45,420.00				
2023 F450 Regular Cab, Dump Bed & Plow	\$103,688.00	Ordered				
2023 International HV507 Dump Truck x 2	\$377,797.32	Ordered				
Total	\$481,485.32	\$82,595.00	\$354,606.25	\$686,278.46	\$40,136.00	\$260,713.01
*Anticipated receipt in 2023 - not received. Funds carried over to 2024						

As vehicles and equipment age through use, or normal course of technology improvements, they reach a point where they become obsolete, unfit or unneeded for public use. At this point the Engineers Office requests approval from the Commissioners to dispose of these pieces of equipment, either through sale or proper method of disposal. The following pieces were sold or auctioned in 2023:

Ford 6610 Tractor with ditching attachment - \$6921.00 2006 Chevy 2500HD Truck - \$1400.00
 2009 F450 Super Duty with Dump Bed - \$1400.00

PERSONNEL ACTIVITY

Retirements

NONE

Promotions

NONE

New Hires/Transfers

Donny Young, Mechanic in Bargaining Unit, hired August 14, 2023

Kasen Kinzy, Laborer in Bargaining Unit, hired August 21, 2023

Jodie Kuhn, Confidential Secretary/Payroll Clerk, hired September 3, 2023

Cody Pittman, Laborer in Bargaining Unit, hired September 5, 2023

Aaron Perkins, Laborer in Bargaining Unit, rehired October 23, 2023

Resignations/Terminations

Ted Bier, Mechanic in Bargaining Unit, resigned May 22, 2023

Tom Harris, Laborer in Bargaining Unit, resigned June 1, 2023

Anna Jones, Engineer Assistant, terminated August 31, 2023

Aaron Perkins, Laborer in Bargaining Unit, resigned September 14, 2023

Cory Ridgeway, Laborer in Bargaining Unit, resigned December 1, 2023

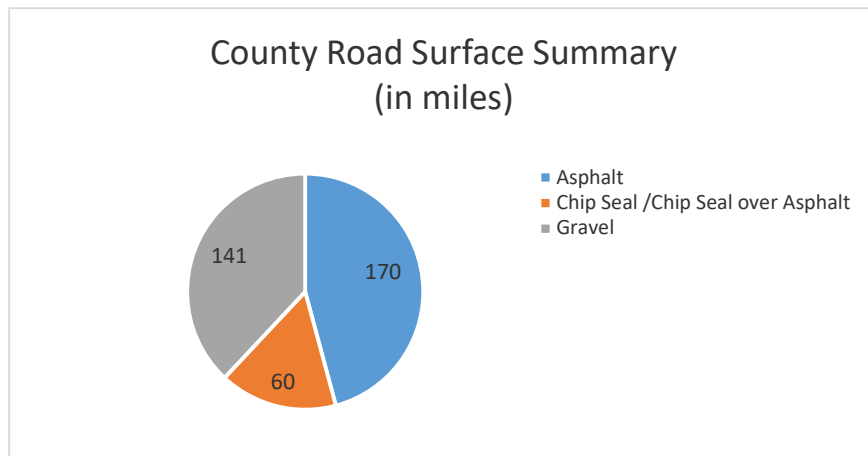
Seasonal Hires

The Engineers Office typically hires seasonal (summer) employees to assist with the increased work load that generally occurs during the summer months. For the 2023 summer season, eleven seasonal employees were hired to work various timeframes between May and September. These seasonal workers greatly increase our ability to form multiple work crews and complete several more projects than in the off-season. The total cost for all seasonal employees for 2023 was \$28,123.45.

ROAD & BRIDGE INVENTORY

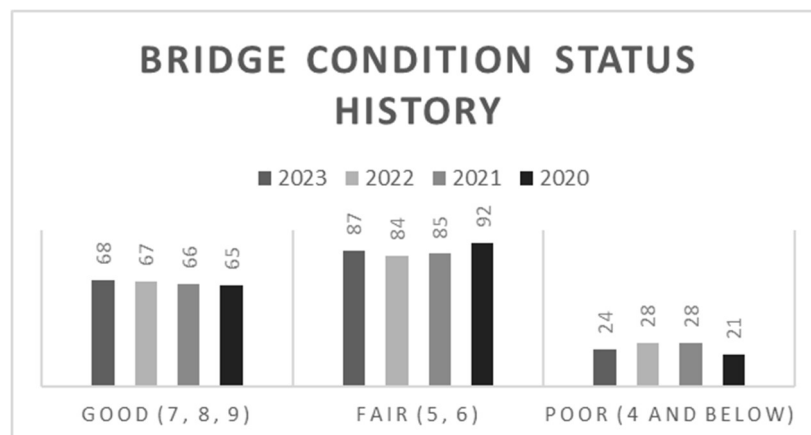
Monroe County roads are composed of a combination of three types of road surfaces: Asphalt, Chip Seal and Gravel. In recent years, Oil & Gas operators have upgraded several miles of County roads that were previously gravel or chip seal, to asphalt. However, the County Engineers budget does not provide enough to maintain the increased asphalt surfaces, nor to upgrade chip seal or gravel surfaces to asphalt. The trend is to chip seal over asphalt roads for preservation purposes and return once-hard surface roads to gravel, if the traffic volume is low enough to warrant.

Road Surface Type	Miles (2017)	% in 2017	Miles (2023)	% in 2023
Asphalt	160.113	43.17%	170	45.82%
Chip Seal /Chip Seal over Asphalt	54.544	14.71%	60	16.17%
Gravel	156.191	42.12%	141	38.01%



All bridges on the County inventory are inspected at least annually and rated on a scale from 1-9, with “9” being new or like new condition. Below is a summary of the rating conditions from 2023 for all bridges on the County inventory.

	2023	2022	2021	2020
Bridge Inventory Condition Status	# of Bridges	# of Bridges	# of Bridges	# of Bridges
Good (7, 8, 9)	68	67	66	65
Fair (5, 6)	87	84	85	92
Poor (4 and below)	24	28	28	21
Total	179	179	179	178



When a bridge is unable to support the required Ohio Legal Loadings, it is load-posted with signage to indicate to the traveling public what weights are allowed to cross the structure safely. Below is a summary of the posted bridges over the past years.

Load Posted Bridges	2023	2022	2021	2020	2019	2018	2017
Number of Posted Bridge	34	35	34	31	32	31	25
% of Total	18.99%	19.55%	18.99%	17.42%	17.98%	17.42%	14.04%

FUNDED PROJECTS SUMMARY – COMPLETED & ACTIVE

Each year the County Engineers office applies for several types of funding, which have specific targets or qualifications that determine what roads, bridges, etc. the funding can be used on. Nearly every funding source also requires local participation through funding match or in-house contributions of labor, equipment and/or materials. Below is a summary of the projects either completed or on-going in 2023, with funding sources associated. Rows that are shaded are complete and the rows with white background are on-going. More details on each project will be included in the following sections of this report.

Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
County-wide State disaster March 2020	EMA 75%, Local 25%	\$5,151,398.91	2020
County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
MOE-TR199-2.38 & 2.57	OPWC \$400,000grant/\$350,000 Loan	\$621,069.80	2023
MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
MOE-T0183-0.13	100%	\$465,000.00	2023
MOE-T2001-0.13	100%	\$450,000.00	2023
CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
CR9A-0.52 Road Slip	OPWC \$180,100, County \$65,000	\$245,509.05	2023

CR22-1.30/CR43-1.52/CR40-6.10	OPWC \$241,000, County \$39,000 in materials	\$148,795.67	2023
CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
MOE-TR0307-0.75	80%	\$836,652.10	2024
MOE-TR1206-0.01	80%	\$550,932.00	2024
MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
MOE-C28-0.56	80% LBR, 15%Credit Bridge, 5% Local	\$742,593.88	FY2023
MOE-C29-6.95	80%	\$533,224.09	FY2023
Various CR Guardrail	100%	\$264,362.20	FY2023
CR12 (Graysville to SR800) FDR & paving	CSTP \$2,000,000 cap, OPWC \$400,000 grant, remainder local	\$3,276,996.00	FY2023
Curve Signage - 1 location	100%	\$1,668.00	FY2023
Sign Upgrade project - Various signs	80%	\$8,045.10	FY2023
CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
New Pavement Marking	100%	\$150,000.00	FY2024
Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

Infrastructure Improvements, Repairs & Maintenance

The County Engineers Office manages several types of projects each year in order to maintain, and hopefully, improve our County's Roads and Bridge system. Routine project types are:

- (1) Slip Repairs
- (2) Culvert Repairs & Maintenance
- (3) Road Repairs & Maintenance
- (4) Bridge Repairs & Maintenance

These infrastructure improvements, repairs and maintenance are achieved through a number of methods:

- (1) In-house/Force Account – County employees, equipment and material are used
- (2) Contracted out – County awards project(s) to contractor(s). Typically, this is done when the County forces are unable to perform the work needed.
- (3) Outside entity contract – An entity other than the County contracts work to be done on County-owned infrastructure through a Road Use agreement or permit. Typically, this will be done by an Oil & Gas Operator.
- (4) Funded - Funding authority awards project(s) to contractor(s). This can include funds that the County applied for, or funds that were made available due to a weather event, such as flooding.

In the following several sections, summaries and information will be provided on the many different types of projects completed this year.

SLIP REPAIRS

Slip Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
PILING WALL MAINTENANCE	CR 15 - 8.39	\$973.83
PILING WALL MAINTENANCE	CR26	\$1,044.52
PILING WALL MAINTENANCE	CR 53 - 3.25	\$1,096.75
ROCK EMBANKMENT	CR 9A - 0.14	\$5,828.01
ROCK EMBANKMENT	CR 9A - 2.40	\$18,391.38
SLIP MAINTENANCE	CR 33 - 0.99	\$1,000.20
SLIP REPAIR	CR 2 - 0.65	\$12,093.02
SLIP REPAIR	CR 2 - 1.40	\$40,563.71
SLIP REPAIR	CR 4 - 6.42	\$48,317.07
SLIP REPAIR	CR 84 - 1.90	\$53,494.09
SLIP/PILING MAINTENANCE	CR 12 - 14.20	\$5,269.66

Total Slip Repair Project force account costs for 2023 = \$188,072.24

Slip Repairs EMA Funded

2020 EMA Event

A total of 75 slips/damage areas qualified and were reported under the EMA event that occurred in spring of 2020. These projects are only partially funded by EMA state disaster funds (75% of contract work, approximately 60% of Force Account work). The County Engineers budget must cover the remaining costs.

Several of the EMA-approved projects were completed in 2021 & 2022, with the remainder being completed in 2023. Below is a summary of all approved 2020 EMA projects, with all of them being complete.

Road No.	Log Point	Type of Repair	FINAL Actual Cost	Contract/Force Account
2	0.24	Pipe Piling	\$66,824.73	COMBINED
2	0.60	Pipe Piling	\$37,693.51	COMBINED
2	0.70	Pipe Piling	\$84,492.58	COMBINED
2	1.20	Pipe Piling	\$60,586.68	COMBINED
2	3.41	H-Piling	\$126,201.24	Contract
2	6.25	Pipe Piling	\$41,302.68	Force Account
4	0.60	H-Piling	\$119,164.45	Contract
4	0.70	H-Piling	\$132,531.97	Contract
4	3.40	Pipe Piling	\$114,177.05	Contract
4		Debris & Mud Removal - County Forces	\$1,106.76	Force Account
5	1.80	Gabions	\$66,075.90	Contract
11	1.75	Pipe Piling	\$28,791.87	Force Account
11	2.10	Pipe Piling & add guardrail backing	\$42,226.21	Force Account
12	0.40	H-Piling	\$120,181.91	Contract
12	0.90	H-Piling	\$162,866.61	Contract
12	18.20	Rock Embankment	\$22,421.00	Force Account
13	3.80	Pipe Piling	\$41,209.38	Force Account
15	8.32	Pipe Piling with Rock Channel Protection	\$16,754.13	Force Account
15	8.35	Pipe Piling with Rock Channel Protection	\$29,275.24	Force Account
16	6.57	H-Piling	\$158,789.54	Contract

17	0.60	Rock Embankment	\$27,241.99	Contract
17	1.00	H-Piling	\$245,207.30	Contract
22	1.50	H-Piling	\$200,448.35	Contract
22	1.70	H-Piling	\$122,039.25	Contract
22	2.01	H-Piling	\$244,412.83	Contract
24	0.1	Rock Embankment	\$28,121.95	Contract
25	2.068	H-Piling	\$95,498.90	Contract
25	3.80	H-Piling	\$85,860.00	Contract
26	3.90	H-Piling	\$162,131.60	Contract
26	4.26	H-Piling	\$230,985.50	Contract
27	3.10	H-Piling	\$89,160.58	Contract
29	0.5	H-Piling	\$90,015.00	Contract
29	9.24	Rock Embankment	\$64,458.58	Contract
33	1.28	Pipe Piling	\$27,568.35	Force Account
38	2.6	H-Piling	\$136,375.07	Contract
39	2.60	H-Piling	\$93,175.82	Contract
40	4.40	H-Piling	\$152,091.52	Contract
40	4.70	H-Piling	\$141,416.45	Contract
42	2.49	Pipe Piling	\$40,514.22	Force Account
42	3.90	Rock Embankment	\$45,212.75	Contract
42		Debris & Mud Removal - County Forces	\$4,305.39	Force Account
43	0.80	Pipe Piling	\$53,238.45	COMBINED
43	1.40	Pipe Piling	\$65,800.62	COMBINED
43	4.90	Pipe Piling	\$49,954.59	COMBINED
44	0.90	Rock Embankment	\$18,196.82	Contract
45	1.90	Pipe Piling	\$39,567.97	Force Account
47	2.15	Rock Embankment	\$3,669.97	Force Account
47	2.40	Pipe Piling	\$28,019.70	Force Account
47	3.60	Pipe Piling	\$23,682.87	Force Account
47	3.70	Pipe Piling	\$14,896.84	Force Account
53	1.553	Rock Embankment	\$14,472.25	Contract
53	3.30	Pipe Piling	\$31,335.50	Force Account
57	0.40	Rock Embankment	\$28,118.20	Contract
60		Debris & Mud Removal -	\$1,709.70	Force Account

		County Forces		
64	1.95	H-Piling	\$226,843.95	Contract
65	0.08	Pipe Piling	\$43,730.16	Force Account
68	1.7	Pipe Piling	\$37,208.84	Force Account
68	4.2	Pipe Piling	\$25,610.73	Force Account
73	8.505	Pipe Piling	\$39,098.93	Force Account
73	8.8	Pipe Piling	\$38,230.98	Force Account
77	5.3	Pipe Piling	\$21,771.65	Force Account
79	4.10	H-Piling	\$149,951.70	Contract
79	5.50	H-Piling	\$232,153.48	Contract
81	1.59	H-Piling	\$113,937.80	Contract
81	1.96	H-Piling	\$103,736.75	Contract
84	2.10	Pipe Piling	\$32,360.54	Force Account
88	3.90	Rock Embankment	\$7,329.81	Force Account
89		Debris & Mud Removal - County Forces	\$3,142.42	Force Account
11S	0.50	Pipe Piling	\$14,009.71	Force Account
11S	0.60	Pipe Piling	\$30,650.42	Force Account
11S	3.20	H-Piling	\$389,021.36	Contract

2022 EMA Events (May & June)

Two separate disaster declarations affected Monroe County in 2022, in May & June. The majority of the May and June 2022 damages were addressed immediately after the storm event and in 2023, with only one location left to be repaired in 2024. Below are the summary tables of the damage locations for each event.

Road	Damage	Work Complete?	Force Account/Contract
CR29	Slip/mudslide #1	Yes	Force Account
CR29	Slip/mudslide #2	Yes	Force Account
CR29	culverts plugged	Yes	Force Account
CR27	Slip/mudslide #1	Yes	Force Account
CR36	ditch & culvert plugging	Yes	Force Account
CR27	embankment & ditch erosion/rockslide	Yes	Force Account
CR77	ditch & culvert plugging, road wash-out	Yes	Force Account
CR45	culverts plugged & road wash-out	Yes	Force Account
CR17	debris and road wash-out	Yes	Force Account
CR41	ditch and roadway washout, plugged culverts	Yes	Force Account
CR100	ditch erosion and plugged culverts	Yes	Force Account
TR183	TR183-0.50 Bridge closure – major debris impact and flooding	YES	Contract
CR53	Slip on upslope side - 150' long	No	Force Account
CR42	Erosion on downslope/creek side	YES	Contract

Type of Damage	Road ID	Work completion status	Contract
Tree/Debris Removal	CR105	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105B	Complete	Force Account
Bridge Damage/Plugged with Debris	CR105C	Debris removed & blocks re-set on 6-21-22	Force Account
Tree/Debris Removal	CR105C	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Tree/Debris Removal	CR13	Complete	Force Account
Ditch erosion/plugged culverts	CR138	Complete	Force Account
Tree/Debris Removal	CR14	Complete	Force Account
Culvert(s) plugged	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Culvert(s) plugged	CR16	Completed on 6-21-22	Force Account
Tree/Debris Removal	CR16	Complete	Force Account
Tree/Debris Removal	CR16B	Complete	Force Account
Tree/Debris Removal	CR19	Complete	Force Account
Tree/Debris Removal	CR29	Complete	Force Account
Tree/Debris Removal	CR40	Complete	Force Account
Road washout	CR57	Complete 6-21-22	Force Account
Tree/Debris Removal	CR57	Complete	Force Account
Tree/Debris Removal	CR58	Complete	Force Account
Culvert(s) plugged	CR59	Complete	Force Account
Tree/Debris Removal	CR59	Complete	Force Account
Tree/Debris Removal	CR60	Complete	Force Account
Tree/Debris Removal	CR68	Complete	Force Account
Tree/Debris Removal	CR70	Complete	Force Account
Tree/Debris Removal	CR73	Complete	Force Account
Tree/Debris Removal	CR88	Complete	Force Account
Tree/Debris Removal	CR90	Complete	Force Account
Ditch erosion/culverts plugged	CR99	Complete	Force Account
Emergency Road Clearing		COMPLETE 6/16-6/18	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR14	Complete 6-21-22	Force Account
Ditch erosion	CR54	Complete	Force Account
Roadway washout	CR78	Complete	Force Account
Culvert Washout	CR16B	Culvert re-installed on 6-21-22	Force Account
Road Embankment Erosion	CR15	Complete	Contract
Road washout	CR15	Complete	Contract
Road Embankment Erosion	CR42	Complete	Contract

2023 EMA Events (January)

Another bout of bad weather hit Monroe County in January 2023, causing a significant amount of damage, and resulting in a disaster declaration. While several of the damage areas were repaired in 2023, 14 locations still need repairs and are slated for completion in 2024. The table below lists damage locations for this event.

Road	Damage	Contract/Force Account	Work Complete?
CR10	Slip/mudslide	Force Account	Yes
CR105	Culvert plugged/washout	Force Account	Yes
CR11	Ditch & culverts plugging	Force Account	Yes
CR138	Culverts plugged/washout	Force Account	Yes
CR15	Slip/Mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR44	Plugged culvert, shoulder erosion	Force Account	Yes
CR13	Road washout/culvert plugged/flooding	Force Account	Yes
CR29	Slip/mudslides	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Road washout/flooding	Force Account	Yes
CR57	Road washout/flooding	Force Account	Yes
CR65	Road washout/flooding	Force Account	Yes
CR72	Slip/mudslide	Force Account	Yes
CR78	Road washout/flooding/plugged culverts	Force Account	YES
CR88	Slip/mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR88	Slip/mudslide (39-35-13, 81-07-51)	Force Account	Yes
CR88	Slip/Mudslide (39-35-13, 81-07-52)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR9A-1.72	Road washout/culvert plugging	Force Account & Contract	YES
CR96	Slip/Mudslide (39.635529, 80.875451)	Oil & Gas operator completed	Yes
TR183	TR183-0.50 Bridge flooding/approach washout	Township complete - not seeking reimbursement	Yes

CR15-1.81	Slip (39-35-41, 81-14-58)	Contract	No
CR15-8.00	Slip	Force Account	No
CR22	Slip - 60 feet long	Contract	YES
CR26-4.60	Large culvert & adjacent culvert overtopped and road washout, culverts plugged	Force Account	YES
CR29-8.00	Culvert plugging/washout	Contract	No
CR40-0.96	Road washout/flooding	Contract	No
CR40-6.10	Slip - 70 feet long	Contract	YES
CR42	Slip/Stream Erosion - 100 feet	Contract	YES
CR42-0.83	Road flooding/surface damage	Contract	No
CR43-1.52	Slip - 60 feet long	Contract	YES
CR43-5.00	Slip & broken culvert	Force Account	No
CR45-4.40	Slip/Erosion	Contract	No
CR47-1.295	Culvert plugging/washout	Force Account	No
CR47-1.65	Road washout/flooding	Force Account	No
CR47-3.97	Slip/Erosion/plugged culvert	Force Account	YES
CR72-1.954	Culvert plugged/washout	Force Account	No
CR81-0.94	Slip	Contract	NO
CR89-0.40	Road washout/flooding	Contract	No
CR89-0.498	Culvert plugging/washout	Combination	No
TR1206	TR1206 Bridge washout/failure	Jackson Township completed	YES
TR358	TR358 Bridge - flooding/washout of backfill	Force Account	No

Slip Repairs Contracted

CR15-0.95 – Monroe Drilling Operations was contracted to perform a Rock Embankment slip repair on County Road 15, for a total cost of \$20,841.90. Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$11,690.00. This work was funded through the Engineers Budget 100%

Slip Repairs OPWC Funded

CR29-1.86 Extension - The County Engineers office prepared the design plans for a Drilled Shaft H-Piling retaining wall extension. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$56,770.40 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR4-2.50 – Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$187,587.83 spent in 2023 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Asphalt surface repairs are planned for 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR10-8.07– Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR12-5.50 - Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR22-1.30, CR40-6.10 & CR43-1.52 – Monroe County Engineers Office provided the materials for three pipe piling walls at a cost of \$27,561.45. The installation of the pipe piling walls was contracted to Bob Lanes Welding for a total cost of \$65,002.65, while the asphalt road repairs were contracted to K & F Excavating for a cost of \$23,831.55. Stahl Sheaffer performed inspection services for a total cost of \$32,400.00, bringing the total project cost to \$148,795.65. Ohio Public Works Emergency Funds were used to pay for all of the contract work, and the materials provided by the County served as our local match.

Slip Repairs FEMA Funded

2019 FEMA Event

A total of 206 slips qualified and were reported under the FEMA event that occurred in February, 2019. Of the total, 130 locations have been validated by FEMA to-date. NRCS claimed authority over and approved repairs for 24 locations, which are all complete. The following projects are in progress and are anticipated to be completed in 2024:

CR47-3.95 – Construction to be completed spring/summer 2024.

CR26-6.43 – Construction to be completed spring/summer 2024.

All FEMA qualified projects are funded 75% by FEMA and 25% by the State of Ohio, EMA. No local match is required. The remaining 52 locations have been appealed and denied, leaving a large amount of damage for the County to fund repairs. These locations are not anticipated to be repaired immediately, as there are no available funds in the Engineers budget to perform the work.





CR38-0.43 DENIED FEMA FUNDING FOR SLIP
REPAIR.

INCOME SURVEYS ARE BEING DONE IN EARLY
2024 TO SEE IF THE AREA IS ELIGIBLE FOR
CRITICAL INFRASTRUCTURE FUNDS.

CULVERT REPAIRS AND MAINTENANCE

Culvert Replacement In-House/Force-Account

Project Type	Route/Location	Force Account Cost
BOX CULVERT	CR 9A - 1.72	\$9,618.80
CULVERT REPLACEMENTS	CR 105B - 0.08 & 0.18	\$6,511.00
CULVERT REPLACEMENT	CR 16B - 1.01	\$5,882.89
CULVERT REPLACEMENT	CR26-4.57	\$36,946.99
CULVERT REPLACEMENT	CR29-8.22	\$12,926.11
CULVERT REPLACEMENT	CR 29 - 8.44	\$4,481.81
CULVERT REPLACEMENT	CR 33 - 1.27	\$2,562.33
CULVERT REPLACEMENT	CR43-8.58, 8.22, 7.96 & 7.90	\$22,709.21
CULVERT REPLACEMENT	CR 105A - 1.53	\$3,113.74
CULVERT REPLACEMENT	CR 11 - 2.95	\$9,500.43
CULVERT REPLACEMENTS	CR 4 - 078,1.14,1.30,1.78,2.72,3.15, 3.99 & 4.09	\$38,357.18
CULVERT REPLACEMENTS	CR9A MULTIPLE LOCATIONS	\$77,405.86
CULVERT REPLACEMENTS	CR 15 - 8.07 & 8.15	\$10,766.52
CULVERT REPLACEMENTS	CR26-4.60 & 4.61	\$10,851.83
CULVERT REPLACEMENTS	CR 54 - 0.456,0.544,1.126,1.193	\$10,220.19
CULVERT REPLACEMENTS	CR 61 - 1.705,1.59,1.63 & 1.67	\$12,498.83

Total Culvert Project force account costs for 2023 = \$274,353.72

Culvert Replacements – Contracted/Funded (Excludes FEMA & EMA projects)

County Road 9A Box Culvert Installation – McConnell Contracting Inc. & Mustang Crane were contracted to perform the installation and setting of a concrete box culvert on County Road 9A, for a total cost of \$42,750.00 and \$3,770.00, respectively. This work was funded through the Engineers Budget 100%.

	2023	2022	2021	2020	
Culvert Inventory Condition Status	# of Culverts	# of Culverts	# of Culverts	# of Culverts	% for 2023
Good (A)	1080	935	749	1223	30.90%
Fair/Functional (B)	795	769	812	808	22.75%
Poor/Failed(C, D)	1620	1481	1582	1257	46.35%
Total	3495	3185	3143	3288	100.00%

ROADWAY REPAIRS AND MAINTENANCE

Road Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
ASPHALT BASE REPAIRS	CR 12	\$6,160.76
CHIP SEAL	CR 10	\$76,078.24
CHIP SEAL	CR 96	\$66,486.04
CHIP SEAL - DUST CONTROL	CR 1	\$3,787.20
CHIP SEAL - DUST CONTROL	CR 6	\$11,239.22
CHIP SEAL - DUST CONTROL	CR 26	\$5,810.25
CHIP SEAL - DUST CONTROL	CR 30	\$3,557.77
COLD MIX ROAD LEVELING	CR14	\$13,737.90
HOT MIX PATCHING	CR 96	\$8,363.79
ROAD BERMING	CR12	\$62,749.38
ROAD PROFILE IMPROVEMENT	CR9A	\$51,811.88
SINGLE CHIP SEAL	CR 1 - NORTH	\$39,021.92
SINGLE CHIP SEAL	CR 1 - SOUTH	\$24,493.44
SINGLE CHIP SEAL	CR 3	\$9,471.13
SINGLE CHIP SEAL	CR 81 - 1.07 THRU 2.33	\$27,251.93

Total Road Repairs Project force account costs for 2023 = \$410,020.85

Emergency Services

Snow & Ice Removal - County forces provide snow & ice removal for all 372 miles of County Roads during the winter months. In 2023, a total of \$88,010.21 was spent on this service.

Debris & Tree Removal – County forces respond AFTER HOURS to trees and debris that fall into the roadway, causing a hazard for the traveling public. In 2023, over 215.5 man-hours were spent for a total of **\$8702.30** in OVERTIME Labor costs for this service. Equipment and fuel costs are not included in the total. Debris & Tree removal during normal business hours is not included in the total.

All Emergency service costs are paid from by the County Engineers Budget.

Roadside Mowing

County-Wide Road side mowing - County forces provide roadside mowing for all 372 miles of County Roads throughout the year, with a goal to make at least 2 passes on each road annually and spend as much time as feasible to make additional passes to increase the width we can clear along the roads. In 2023, a total of **\$611,315.3** was spent on this service.

Labor = \$225,026.57 (7315.5 man-hours)

Equipment Usage = \$386,288.74

Miscellaneous Road Improvements In-House/Force-Account

Project Type	Route/Location	Force Account Cost
2023 MOWING	COUNTY WIDE	\$611,315.30
2023 SIGN INSTALLATIONS	COUNTY WIDE	\$11,274.02
2023 SPRING COLD MIX		\$36,081.31
SNOW AND ICE REMOVAL	COUNTY WIDE	\$88,010.21

Total Miscellaneous Road Improvement Project force account costs for 2023 = \$746,680.84

Miscellaneous Road Improvements Contracted

CR2-1.40 Slip Repair—Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$37,586.60. This work was funded through the Engineers Budget 100%.

County Road 27 Asphalt Mill & Fill Repairs – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 27, for a total cost of \$2500.00. This work was funded through the Engineers Budget.

County Road 79 Asphalt Overlay – Shelly and Sands Inc. was contracted to an perform Asphalt overlay on a section of County Road 79, for a total cost of \$42,376.44.00. This work was funded through the Engineers Budget.

Miscellaneous Road Improvements Funded

Ohio Public Works Commission (OPWC) /CSTP Project – The 2022 OPWC project funding was paired with CSTP (County Surface Transportation Program) funds, to cement stabilize and resurface County Road 12, Greenbrier Road/Trail Run Road, for approximately 10.5 miles between Graysville and State Route 800. This project was originally slated for construction in July 2022, but due to drastically high bid pricing, the project scope was revised and re-bid in December 2022. Construction was awarded to Shelly and Sands and was completed in 2023. Project total cost was \$3,276,996.00. CSTP funds provided \$2,000,000 in grant, with OPWC grant covering \$400,000 and the remainder being paid from the Engineer budget funds.

Ohio Public Works Commission (OPWC) – This 2023 OPWC project funding was utilized for cement stabilization and resurfacing of CR9A, Six Points Road, for a total length of 2.74 miles. The construction was awarded to Shelly and Sands, with the cement stabilization and base asphalt being completed in 2023. The surface asphalt is slated for completion in 2024. Total funds expended in 2023 for this work was \$880,943.42. OPWC grant allowance of \$400,000 will be used, with the remainder being paid for through OPWC loan and the Engineers budget funds.

A second 2023 OPWC project funding was utilized for repairing a slip by installation of an H-Piling retaining wall on CR9A, at the 0.52-mile marker. The construction was awarded to Litman Excavating, with inspection being contracted to Stahl Sheaffer. All work was completed in 2023 for a total project cost of \$245,590.49. OPWC grant allowance of \$180,100 was utilized, with the remainder being funded through OPWC loan and the Engineer budget funds.

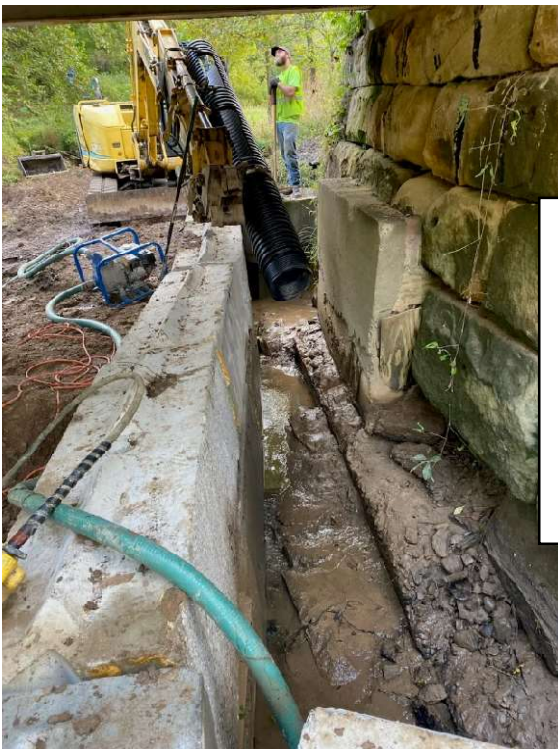
Ohio Department of Development Roadwork Development Grant – The Monroe County Engineers Office applied and received \$1,500,000 in 629 Road Development Funds to make repairs and improvements to County Road 26, Beautiful Ridge Road, specifically at the 5.72-mile marker, where there is a failed piling wall. These funds were awarded to replace the piling wall and make repairs/improvements to County Road 26, in order to prevent impact to the commercial business that rely on this route for all deliveries and access. Design work for the repairs was completed in 2023, for a total cost of \$67,800.00. The project will be bid and constructed in 2024.

BRIDGE IMPROVEMENTS AND REPAIRS

In-House/Force Account

Project Type	Route/Location	Force Account Cost
BRIDGE BOX CULVERT REPAIR	CR 15 - 7.93	\$4,687.50
BRIDGE ABUTMENT REPAIR	CR 100 - 0.68	\$10,484.90
BRIDGE MAINTENANCE	SWITZ TR84-0.01	\$8,674.42
BRIDGE RE-DECK & MAINTENANCE	SUNSBURY TWP. 141 - 0.84	\$18,074.18
BRIDGE REPAIR	CR 9A - 0.98	\$12,817.38
BRIDGE REPLACEMENT	BENTON TWP. 530	\$63,698.05

Total Bridge Project force account costs for 2023 = \$118,436.43



County crews
performing bridge
work

CR9A-0.98 (left) and
TR530-0.54 (right)



Contracted/Funded

CR28-0.56 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



CR28-0.56 Bridge
replaced in 2023



CR29-6.95 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



**CR29-6.95 Bridge
replaced in 2023**



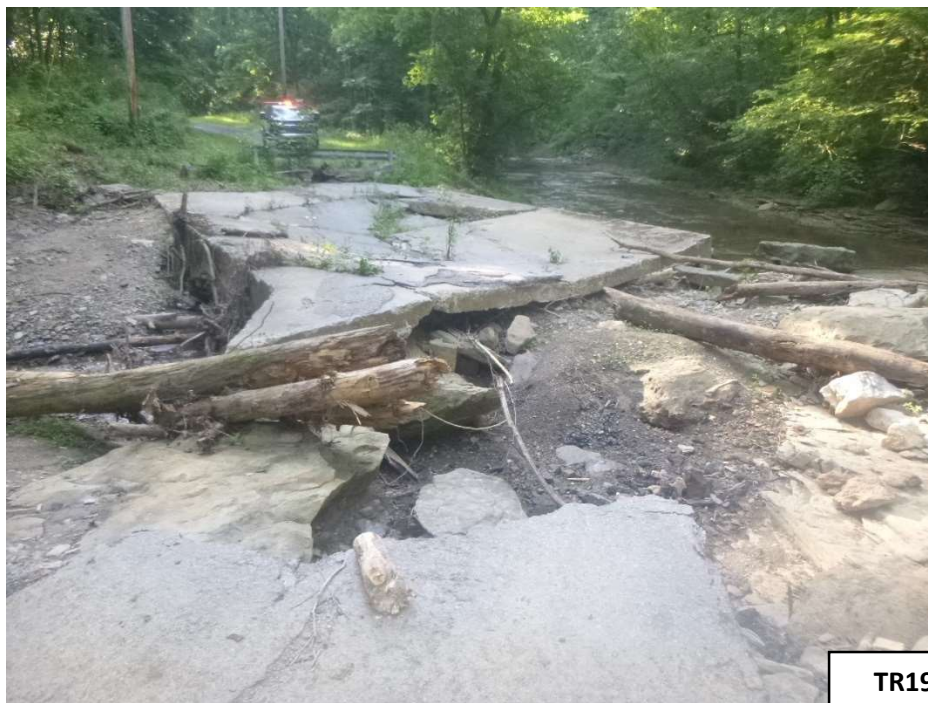
TR199-2.38 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



TR199-2.38 Bridge
replaced in 2023



TR199-2.57 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



**TR199-2.57 Bridge
replaced in 2023**



TR307-0.75 Bridge replacement project design was completed in 2022. The bridge construction started in 2023 and will finish early in 2024. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



TR183-0.13 Bridge replacement project design-build scope was completed in 2022. The original contract was cancelled and the bridge is now slated for construction to start in late 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge replacement project design-build scope was completed in 2022. The bridge is slated for construction to start and complete in 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge to be replaced in 2024

TR1206-0.01 Bridge replacement design for this project will be completed by summer of 2023. The bridge is slated for construction to be complete by fall of 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



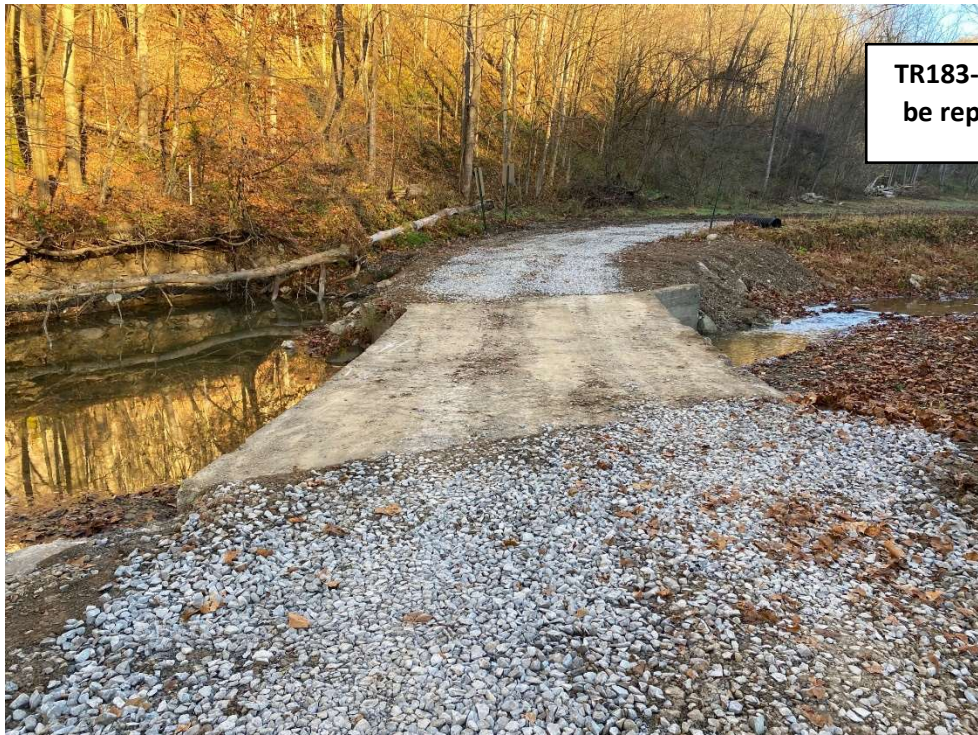
TR1206-0.01 Bridge to be replaced in 2024

TR1004-2.27 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete in 2026. The design costs and construction will be shared funding through Federal Land Access Program and County Engineer budget funds.



TR1004-2.27 Bridge to be replaced in 2026

TR183-0.50 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete by summer of 2025. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR183-0.50 Bridge to be replaced in 2025

OIL & GAS ACTIVITY

There are currently 13 different Oil & Gas Companies with at least one active RUMA in Monroe County. Over the past few years, several of the previous companies have merged or sold to form larger singular operators, and in the process, RUMAs have been combined into a “Master RUMA” which contains a list of all affected roadways for each Operator. Below is a summary of RUMA activity:

O & G RUMA Activity Summary	2023	2022	2021	2020	2019	2018	2017
New RUMAs	12	3	6	7	13	30	30
Renewed RUMAs	5	5	6	42	46	19	41
Terminated/Modified RUMAs	4	4	*several RUMAs terminated to create a Master RUMA for each Operator	11	19	35	19
Total Number of Operators with at least one RUMA	13	14	14	19	23	23	19

As part of their activities, these Oil & gas Companies often need to improve the County’s current infrastructure. The following table is a summary of the Infrastructure Improvements made by Oil & Gas Companies in 2023. Maintenance items such as dust control and temporary patching are not included in this list.

<i>Company</i>	<i>Road #/Name</i>	<i>Improvement/Work Done</i>	<i>Total Cost of Improvements</i>
Antero	CR69, Walter Ridge Road	Asphalt spot repairs	\$47,370.33
Antero	CR69, Walter Ridge Road	Crack sealing	\$4,130.72
Diversified	CR19, Brownsville-Countyline Road	Asphalt spot repairs	\$12,000.00
Diversified	CR12, Trail Run Road	Asphalt spot repairs	\$6,375.00
Diversified	CR67, Dent Ridge Road	Asphalt Paving	\$484,456.29
Equinor	CR4, Sykes Ridge Road	CR4-5.93/5.96 Slip Repairs	\$616,000.00
Equinor	CR4, Sykes Ridge Road	Asphalt spot repairs	\$882,000.00
Equinor	CR26, Beautifull Ridge Road	CR26-0.90 Crane Accident Repairs	\$174,000.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Damage settlement for RUMA road use	\$100,000.00
Equitrans Midstream	CR64, Cain Ridge Road	Culvert replacement	\$3,150.00
Equitrans Midstream	CR43, Long Ridge Road	Dithing and Berming	\$3,875.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Spreading aggregate	\$17,123.79
Equitrans Midstream	CR45, Moose Ridge Road	Asphalt spot repairs	\$38,398.97
SWN	CR10, Benwood Road	Ditching/Clean up	\$13,449.09
SWN	CR65, Flauhaus Ridge Road	Road Improvements for RUMA	\$18,832.54
SWN	CR43, Long Ridge Road	Asphalt Overlay	\$161,796.67
SWN	CR96, Baptist Ridge Road	Spot Base repairs & Pothole repairs	\$21,425.86
		TOTAL	\$2,604,384.26

COUNTY ENGINEER FUNDING, REVENUE & EXPENDITURES SUMMARY

Projects Summary

Road & Bridge Funding Summary	2023	2022	2021	2020	2019	2018
In-House/Force Account Funds	\$2,296,723.24	\$2,389,943.55	\$2,285,644.39	\$1,772,341.29	\$1,670,724.37	\$968,357.29
County Engineer (local match) funds, including loans	\$987,216.54	\$1,308,675.73	\$1,033,556.23	\$489,568.83	\$459,055.10	\$573,854.21
County General Funds	\$228,750.00	\$75,000.00	\$75,000.00	\$75,000.00	\$102,690.00	\$410,773.62
Oil & Gas Funds	\$2,604,384.26	\$1,566,324.69	\$2,321,668.18	\$4,795,921.00	\$10,401,034.55	\$9,610,872.72
CDBG Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$255,750.00	\$0.00
FHWA/ODOT Funds	\$3,894,271.25	\$708,938.31	\$2,319,559.46	\$51,795.38	\$1,778,428.08	\$1,089,558.59
OPWC Funds	\$1,680,187.80	\$367,961.31	\$1,211,814.10	\$603,596.70	\$652,275.00	\$400,000.00
Ohio Department of Development Funds	\$67,800.00					
FEMA/EMA Funds	\$1,731,927.50	\$6,466,539.68	\$10,141,475.94	\$5,290,496.00	\$4,734,455.77	\$567,976.81
NRCS Funds	\$0.00	\$0.00	\$1,023,643.58	\$0.00	\$0.00	\$0.00
Federal Land Access Program Funds	\$31,280.22	\$0.00	\$456,583.00	\$0.00	\$0.00	\$0.00
Transportation Improvement District Funds	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.00
USDA Funds	\$0.00	\$288,000.00	\$0.00	\$297,000.00	\$0.00	\$141,000.00
TOTALS	\$13,522,540.81	\$13,171,383.27	\$21,068,944.88	\$13,375,719.20	\$20,054,412.87	\$13,762,393.24

County Engineer Budget – 2023 Revenue Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
GASOLINE TAX	\$3,827,153.05	54.0%
INTEREST	\$23,893.15	0.3%
MOTOR VEHICLE LICENSES	\$1,077,816.78	15.2%
PERMISSIVE MVL	\$81,663.06	1.2%
COUNTY COURT FINES	\$10,069.15	0.1%
JUVENILE COURT FINES	\$0.00	0.0%
COMMON PLEAS COURT FINES	\$0.00	0.0%
SPECIAL HAUL PERMITS	\$22,170.00	0.3%
RIGHT OF WAY PERMITS	\$3,460.00	0.0%
SALE & SERVICE	\$41,816.99	0.6%
(National Forest Sales)	\$26,603.29	0.4%
REFUND &/OR REIMBURSEMENT	\$165,022.88	2.3%
TRANSFERS IN	\$143,517.71	2.0%
ADVANCES IN	\$1,322,847.17	18.7%
OTHER RECEIPTS	\$171,906.30	2.4%
OIL & GAS RECEIPTS	\$168,375.00	2.4%
TOTAL	\$7,086,314.53	100%

County Engineer Budget – 2023 Expenditures Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
SALARIES OFFICIALS	\$109,292.00	1.82%
SALARIES EMPLOYEES	\$359,880.00	6.00%
LABORERS SALARIES	\$849,266.58	14.16%
RETIREMENT SIC/VAC PAY	\$0.00	0.00%
SUPPLIES	\$4,559.85	0.08%
TAX MAP SUPPLIES	\$1,500.00	0.03%
UNIFORMS & PPE	\$8,581.08	0.14%
WELDING SUPPLIES	\$5,309.05	0.09%
ROAD MATERIALS	\$1,003,334.74	16.73%
EQUIPMENT	\$107,938.00	1.80%
CONTRACT REPAIRS (O&G)	\$10,650.00	0.18%
CONTRACT SERVICES (ISSUE I COUNTY)	\$83,112.62	1.39%
CONTRACTS	\$418,469.12	6.98%
EMA CONTRACTS	\$135,511.85	2.26%
ODOT	\$1,225,820.00	20.44%
TRAVEL EXPENSES	\$500.00	0.01%
ADVERTISING & PRINTING	\$8,058.03	0.13%
PERS/STRS	\$176,493.90	2.94%
WORKERS COMPENSATION	\$8,998.87	0.15%
UNEMPLOYMENT COMP.	\$0.00	0.00%
OTHER EXPENSES	\$22,883.07	0.38%
RIGHT OF WAY PERMITS -Expense	\$100.00	0.00%
TRANSFERS	\$0.00	0.00%
ADVANCES OUT	\$304,800.00	5.08%
INSURANCE	\$262,730.47	4.38%
GROUP & LIABILITY	\$15,000.00	0.25%
LEGAL FEES	\$195.00	0.00%
NOTES	\$0.00	0.00%
FUEL	\$211,008.38	3.52%
UTILITIES	\$24,949.94	0.42%
DOT TESTING	\$1,714.00	0.03%
PRINCIPAL - USDA LOAN	\$55,360.63	0.92%
INTEREST-USDA LOAN	\$9,631.60	0.16%
OPWC LOAN	\$27,205.74	0.45%
VEHICLE MAINT.(IN HOUSE)	\$174,070.79	2.90%
VEHICLE (OUTSIDE REPAIRS)	\$109,372.06	1.82%
LEASES	\$0.00	0.00%
MEDICARE TAX	\$18,391.74	0.31%
DUES	\$1,520.10	0.03%
BUILDING & GROUNDS MAINTENANCE	\$1,741.60	0.03%
OFFICE MAINTENANCE	\$11,260.79	0.19%
SIGNS	\$12,629.96	0.21%
BRIDGE MATERIALS	\$45,329.90	0.76%
CONTRACTS	\$171,195.00	2.85%
BRIDGE CREDITS	\$0.00	0.00%
CONTRACT BRIDGES	\$0.00	0.00%
PERSONEL EXPENDITURES	\$1,811,043.64	30.2%
NON-PERSONEL EXPENDITURES	\$4,187,322.82	69.8%
TOTAL	\$5,998,366.46	100.0%

FUNDING & THE FUTURE

FUNDING SUMMARY SHEET (2017-PRESENT)



Project Type	GRANTS RECEIVED	LOANS RECEIVED	LOCAL MATCH	TOTAL FUNDED PROJECTS COSTS
Bridge	\$9,264,481.25	\$350,000.00	\$1,252,841.04	\$10,867,322.29
Bridge Load Ratings	\$334,306.05	\$0.00	\$2,129.34	\$336,435.39
Road	\$7,484,855.02	\$1,220,153.97	\$2,492,397.35	\$11,197,406.34
Drainage	\$366,823.00	\$0.00	\$89,760.00	\$456,583.00
Safety	\$276,948.15	\$0.00	\$14,105.35	\$291,053.50
Sign	\$66,128.16	\$0.00	\$7,198.44	\$73,326.60
Equipment	\$555,767.66	\$576,000.00	\$20,000.00	\$1,151,767.66
Guardrail	\$264,362.20	\$0.00	\$0.00	\$264,362.20
Slip Repair/Flood Damage	\$36,085,155.56	\$0.00	\$1,643,496.71	\$37,728,652.27
TOTALS	\$54,698,827.05	\$2,146,153.97	\$5,521,928.23	\$62,366,909.25
	88%	3%	9%	100%

The County Engineers office takes pride in being able to “stretch a dollar” and find creative ways to accomplish the large amount of work needed, with a less-than-adequate budget. The table above shows just how well we have been able to do that in the past 7 years, with 88% of all funded projects being covered with money OTHER than County funds. You can also see how important it is to be able to supply Local Match money. A mere 12% of match money/loans has afforded the County over \$54,000,000.00 in road, bridge and infrastructure improvements.

With the constant increase in material and equipment costs, projects will continue to grow in price. Despite the diligent efforts of our crews and the large amount of funding we are able to secure, the County Engineers office still continues to be underfunded. We will continue to prioritize projects based on impact to the public, funding availability and other pertinent factors. Despite the overwhelming amount of work that lies ahead for the County, we will continue to plan and make the most of our funds available. The following table outlines future projects that have funding secured and will be completed over the next few years.

2024 & FUTURE FUNDING

Project Type	Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
Slip Repairs/Flood Damage	County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
Slip/Flood Damage (June)	County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
Slip/Flood Damage (May)	County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
Bridge	MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
Bridge	MOE-T0183-0.13	100%	\$465,000.00	2023
Bridge	MOE-T2001-0.13	100%	\$450,000.00	2023
Road/Resurfacing	CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
Slip Repair	CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
Slip/Flood Damage (January)	County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
Bridge	MOE-TR0307-0.75	80%	\$836,652.10	2024
Bridge	MOE-TR1206-0.01	80%	\$550,932.00	2024
Bridge	MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
Bridge	MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
Road Improvement	CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
Road/Resurfacing	CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
Safety - Pavement Marking	New Pavement Marking	100%	\$150,000.00	FY2024
Sign	Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
Road/Resurfacing	CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

**Monroe County Engineer
Amy M. Zwick, P.S., P.E.
Annual Report for 2023**

January 26, 2024

Per the Ohio Revised Code, Section 5543.02, I am providing an annual report for the review and record of the Monroe County Commissioners. This report will provide a summary of the activities during the calendar year on County-owned roads, bridges and other infrastructure.

The County Engineers office is responsible for the maintenance and upkeep of **372 miles** of County Roads, including all drainage, culverts, signs, mowing, guardrail, snow/ice treatment and embankment stability. The Engineer's office is also responsible for all bridges on County Roads, and bridges on Township Roads. The current number is **179 bridges** on the County Engineers inventory.

The County Engineers budget is financed through a gasoline tax and a vehicle registration tax, as well as minor income from permit fees and sales/services. For several years, this financing has been extremely lacking, limiting the Engineers office's ability to maintain roads and bridges at a safe and good condition. Whenever possible, Federal grant money and Ohio Public Works funds have been applied for, to replace those lacking funds. In more recent years, Oil & Gas industry has moved into Monroe County and the Operators have contributed significantly to the upgrade/improvements of the County's infrastructure. In 2020 and continuing through 2023, Oil & Gas activity took a major downturn in Monroe County, which is reflected in the decrease in permits, RUMAs, and road upgrades/improvements.

In a continued effort to generate additional income and close the gap in the Engineers needed funds, the option of enacting additional permissive vehicle registrations has been discussed multiple times. The Commissioners held the two required public hearings in April 2019. Based on public input, the motion was made against enacting any additional permissive taxes at this time. This topic was revisited in discussions between Commissioners and Engineers offices since 2019, but has not been pursued any further.

Thanks to the efforts of many individuals across Ohio, in mid-2019 the State approved an increase in the rate and modification of the distribution of revenue from motor fuel excise taxes (fuel tax). This increase took effect July 1, 2019. Projected data for 2020 indicated that each County Engineer would receive an additional \$1 to \$1.5 million. Unfortunately, with the COVID-19 pandemic occurrence, the impact of the fuel tax increase was offset by the sudden decrease in fuel consumption. The long-term effect of COVID-19 on remote-working is anticipated to reduce the fuel consumption permanently, with an estimate of 25% reduction in fuel excise tax income for County Engineers.

In 2023, The Commissioners were asked for financial assistance regarding multiple roads and bridges that were affected by weather events in May/June 2022 and January 2023. A one-time contribution of \$153,750 was transferred from the General Fund, into the Engineers funds. This amount was used at the local match requirement for the repairs approved through Ohio EMA and Ohio Public Works Commission. With this \$153,750, the Engineers Office was able to match \$461,250 in State emergency/disaster grants to complete repairs on several County Roads and Bridges, without further depletion of the Engineers annual maintenance budget.

While the County Engineers office continues to stretch each dollar as far as we can, by applying for as many grants as we can afford to match, performing work in-house when cost-effective, and working with Oil & Gas operators to cost-share on projects, the funds required to maintain "status-quo" are still not able to be met solely on the Engineers budget alone. Future plans of additional funding sources will need to be seriously considered, in order to prevent our county infrastructures deterioration.

Please continue to the following pages for more detailed information on the projects and activities of the Engineers Office in 2023.

COUNTY PERMIT SUMMARY

Special haul permits

Special Haul Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	236	282	340	202	526
Total permit fees received	\$24,650.00	\$32,425.00	\$33,775.00	\$26,225.00	\$61,500.00
Total fees paid to consultants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total bridges analyzed (at least once)	7	1	9	4	6
Total bridges analyzed that were not passable	2	0	2	0	1

Right of Way Work permits

Right-of-Way work Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	95	106	109	155	156
Total permit fees received by County	\$3,490.00	\$3,580.00	\$3,830.00	\$4,090.00	\$4,549.00
Total permit fees paid to Townships	\$100.00	\$550.00	\$500.00	\$500.00	\$900.00

COUNTY EQUIPMENT PURCHASES/SALES

Since the onset of the COVID-19 pandemic, trucks and equipment purchases have been delayed and/or there are significant backlogs in production. The new trend that seems to be forming is to order a truck or new equipment, then wait up to 12 months for delivery. In some cases, the number of orders being taken per year is limited, and the option to order is not even possible. Below is a summary of equipment purchases made in recent years, with notes where equipment funds were encumbered in one year, but the equipment was not received until the following year or after:

Equipment	2023	2022	2021	2020	2019	2018
2019 F250 Regular Cab Truck x 3						\$89,111.49
John Deere 710 Backhoe Loader						\$143,313.52
Wacker BS60-4A Compactor						\$2,682.00
Meyer Snow Plow & Install x 3						\$16,356.00
Tiger Model Ditch Cleaner Attachment						\$9,250.00
2020 f450 Regular Cab Truck x 1					\$40,136.00	
2021 International HV507 Dump w/ Plows x 2				\$296,728.46		
2018 Case 621G Wheel Loader				\$139,750.00		
2016 Gradall D152				\$149,900.00		
2019 Bomag Roller				\$99,900.00		
2018 Bomag Roller			\$47,500.00			
2018 Felling Tilt Trailer (Used)			\$4,605.13			
2022 F250 Regular Cab Truck			\$35,712.00			
John Deere 6110M Tractor x 2		Received	\$159,534.72			
Alamo 22' Samurai Boom Mower x 2		Received	\$107,254.40			
2022 F250 Regular Cab Truck	Received	\$37,175.00				
2022 F250 Regular Cab Truck	Received	\$45,420.00				
2023 F450 Regular Cab, Dump Bed & Plow	\$103,688.00	Ordered				
2023 International HV507 Dump Truck x 2	\$377,797.32	Ordered				
Total	\$481,485.32	\$82,595.00	\$354,606.25	\$686,278.46	\$40,136.00	\$260,713.01
*Anticipated receipt in 2023 - not received. Funds carried over to 2024						

As vehicles and equipment age through use, or normal course of technology improvements, they reach a point where they become obsolete, unfit or unneeded for public use. At this point the Engineers Office requests approval from the Commissioners to dispose of these pieces of equipment, either through sale or proper method of disposal. The following pieces were sold or auctioned in 2023:

Ford 6610 Tractor with ditching attachment - \$6921.00 2006 Chevy 2500HD Truck - \$1400.00
 2009 F450 Super Duty with Dump Bed - \$1400.00

PERSONNEL ACTIVITY

Retirements

NONE

Promotions

NONE

New Hires/Transfers

Donny Young, Mechanic in Bargaining Unit, hired August 14, 2023

Kasen Kinzy, Laborer in Bargaining Unit, hired August 21, 2023

Jodie Kuhn, Confidential Secretary/Payroll Clerk, hired September 3, 2023

Cody Pittman, Laborer in Bargaining Unit, hired September 5, 2023

Aaron Perkins, Laborer in Bargaining Unit, rehired October 23, 2023

Resignations/Terminations

Ted Bier, Mechanic in Bargaining Unit, resigned May 22, 2023

Tom Harris, Laborer in Bargaining Unit, resigned June 1, 2023

Anna Jones, Engineer Assistant, terminated August 31, 2023

Aaron Perkins, Laborer in Bargaining Unit, resigned September 14, 2023

Cory Ridgeway, Laborer in Bargaining Unit, resigned December 1, 2023

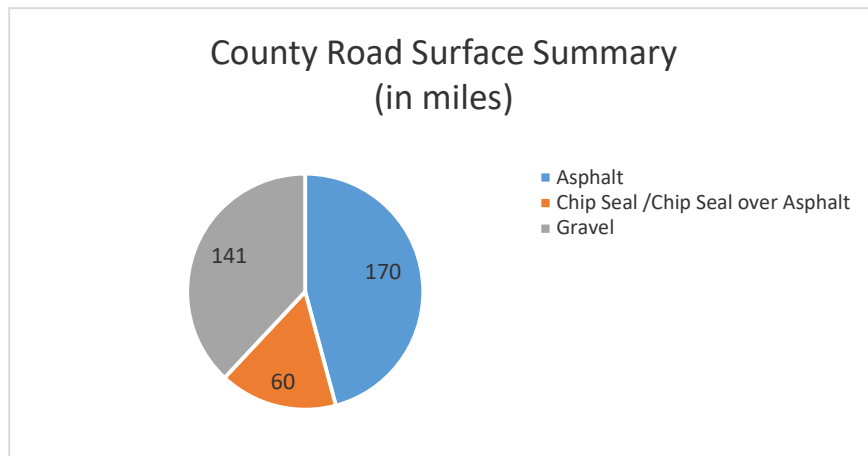
Seasonal Hires

The Engineers Office typically hires seasonal (summer) employees to assist with the increased work load that generally occurs during the summer months. For the 2023 summer season, eleven seasonal employees were hired to work various timeframes between May and September. These seasonal workers greatly increase our ability to form multiple work crews and complete several more projects than in the off-season. The total cost for all seasonal employees for 2023 was \$28,123.45.

ROAD & BRIDGE INVENTORY

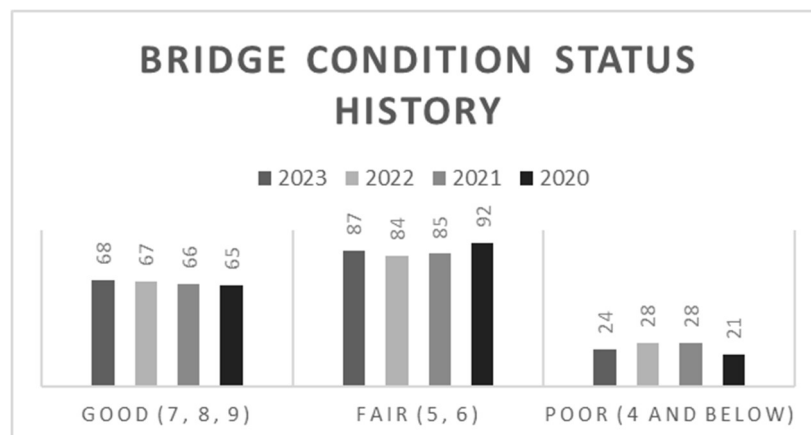
Monroe County roads are composed of a combination of three types of road surfaces: Asphalt, Chip Seal and Gravel. In recent years, Oil & Gas operators have upgraded several miles of County roads that were previously gravel or chip seal, to asphalt. However, the County Engineers budget does not provide enough to maintain the increased asphalt surfaces, nor to upgrade chip seal or gravel surfaces to asphalt. The trend is to chip seal over asphalt roads for preservation purposes and return once-hard surface roads to gravel, if the traffic volume is low enough to warrant.

Road Surface Type	Miles (2017)	% in 2017	Miles (2023)	% in 2023
Asphalt	160.113	43.17%	170	45.82%
Chip Seal /Chip Seal over Asphalt	54.544	14.71%	60	16.17%
Gravel	156.191	42.12%	141	38.01%



All bridges on the County inventory are inspected at least annually and rated on a scale from 1-9, with “9” being new or like new condition. Below is a summary of the rating conditions from 2023 for all bridges on the County inventory.

	2023	2022	2021	2020
Bridge Inventory Condition Status	# of Bridges	# of Bridges	# of Bridges	# of Bridges
Good (7, 8, 9)	68	67	66	65
Fair (5, 6)	87	84	85	92
Poor (4 and below)	24	28	28	21
Total	179	179	179	178



When a bridge is unable to support the required Ohio Legal Loadings, it is load-posted with signage to indicate to the traveling public what weights are allowed to cross the structure safely. Below is a summary of the posted bridges over the past years.

Load Posted Bridges	2023	2022	2021	2020	2019	2018	2017
Number of Posted Bridge	34	35	34	31	32	31	25
% of Total	18.99%	19.55%	18.99%	17.42%	17.98%	17.42%	14.04%

FUNDED PROJECTS SUMMARY – COMPLETED & ACTIVE

Each year the County Engineers office applies for several types of funding, which have specific targets or qualifications that determine what roads, bridges, etc. the funding can be used on. Nearly every funding source also requires local participation through funding match or in-house contributions of labor, equipment and/or materials. Below is a summary of the projects either completed or on-going in 2023, with funding sources associated. Rows that are shaded are complete and the rows with white background are on-going. More details on each project will be included in the following sections of this report.

Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
County-wide State disaster March 2020	EMA 75%, Local 25%	\$5,151,398.91	2020
County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
MOE-TR199-2.38 & 2.57	OPWC \$400,000grant/\$350,000 Loan	\$621,069.80	2023
MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
MOE-T0183-0.13	100%	\$465,000.00	2023
MOE-T2001-0.13	100%	\$450,000.00	2023
CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
CR9A-0.52 Road Slip	OPWC \$180,100, County \$65,000	\$245,509.05	2023

CR22-1.30/CR43-1.52/CR40-6.10	OPWC \$241,000, County \$39,000 in materials	\$148,795.67	2023
CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
MOE-TR0307-0.75	80%	\$836,652.10	2024
MOE-TR1206-0.01	80%	\$550,932.00	2024
MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
MOE-C28-0.56	80% LBR, 15%Credit Bridge, 5% Local	\$742,593.88	FY2023
MOE-C29-6.95	80%	\$533,224.09	FY2023
Various CR Guardrail	100%	\$264,362.20	FY2023
CR12 (Graysville to SR800) FDR & paving	CSTP \$2,000,000 cap, OPWC \$400,000 grant, remainder local	\$3,276,996.00	FY2023
Curve Signage - 1 location	100%	\$1,668.00	FY2023
Sign Upgrade project - Various signs	80%	\$8,045.10	FY2023
CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
New Pavement Marking	100%	\$150,000.00	FY2024
Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

Infrastructure Improvements, Repairs & Maintenance

The County Engineers Office manages several types of projects each year in order to maintain, and hopefully, improve our County's Roads and Bridge system. Routine project types are:

- (1) Slip Repairs
- (2) Culvert Repairs & Maintenance
- (3) Road Repairs & Maintenance
- (4) Bridge Repairs & Maintenance

These infrastructure improvements, repairs and maintenance are achieved through a number of methods:

- (1) In-house/Force Account – County employees, equipment and material are used
- (2) Contracted out – County awards project(s) to contractor(s). Typically, this is done when the County forces are unable to perform the work needed.
- (3) Outside entity contract – An entity other than the County contracts work to be done on County-owned infrastructure through a Road Use agreement or permit. Typically, this will be done by an Oil & Gas Operator.
- (4) Funded - Funding authority awards project(s) to contractor(s). This can include funds that the County applied for, or funds that were made available due to a weather event, such as flooding.

In the following several sections, summaries and information will be provided on the many different types of projects completed this year.

SLIP REPAIRS

Slip Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
PILING WALL MAINTENANCE	CR 15 - 8.39	\$973.83
PILING WALL MAINTENANCE	CR26	\$1,044.52
PILING WALL MAINTENANCE	CR 53 - 3.25	\$1,096.75
ROCK EMBANKMENT	CR 9A - 0.14	\$5,828.01
ROCK EMBANKMENT	CR 9A - 2.40	\$18,391.38
SLIP MAINTENANCE	CR 33 - 0.99	\$1,000.20
SLIP REPAIR	CR 2 - 0.65	\$12,093.02
SLIP REPAIR	CR 2 - 1.40	\$40,563.71
SLIP REPAIR	CR 4 - 6.42	\$48,317.07
SLIP REPAIR	CR 84 - 1.90	\$53,494.09
SLIP/PILING MAINTENANCE	CR 12 - 14.20	\$5,269.66

Total Slip Repair Project force account costs for 2023 = \$188,072.24

Slip Repairs EMA Funded

2020 EMA Event

A total of 75 slips/damage areas qualified and were reported under the EMA event that occurred in spring of 2020. These projects are only partially funded by EMA state disaster funds (75% of contract work, approximately 60% of Force Account work). The County Engineers budget must cover the remaining costs.

Several of the EMA-approved projects were completed in 2021 & 2022, with the remainder being completed in 2023. Below is a summary of all approved 2020 EMA projects, with all of them being complete.

Road No.	Log Point	Type of Repair	FINAL Actual Cost	Contract/Force Account
2	0.24	Pipe Piling	\$66,824.73	COMBINED
2	0.60	Pipe Piling	\$37,693.51	COMBINED
2	0.70	Pipe Piling	\$84,492.58	COMBINED
2	1.20	Pipe Piling	\$60,586.68	COMBINED
2	3.41	H-Piling	\$126,201.24	Contract
2	6.25	Pipe Piling	\$41,302.68	Force Account
4	0.60	H-Piling	\$119,164.45	Contract
4	0.70	H-Piling	\$132,531.97	Contract
4	3.40	Pipe Piling	\$114,177.05	Contract
4		Debris & Mud Removal - County Forces	\$1,106.76	Force Account
5	1.80	Gabions	\$66,075.90	Contract
11	1.75	Pipe Piling	\$28,791.87	Force Account
11	2.10	Pipe Piling & add guardrail backing	\$42,226.21	Force Account
12	0.40	H-Piling	\$120,181.91	Contract
12	0.90	H-Piling	\$162,866.61	Contract
12	18.20	Rock Embankment	\$22,421.00	Force Account
13	3.80	Pipe Piling	\$41,209.38	Force Account
15	8.32	Pipe Piling with Rock Channel Protection	\$16,754.13	Force Account
15	8.35	Pipe Piling with Rock Channel Protection	\$29,275.24	Force Account
16	6.57	H-Piling	\$158,789.54	Contract

17	0.60	Rock Embankment	\$27,241.99	Contract
17	1.00	H-Piling	\$245,207.30	Contract
22	1.50	H-Piling	\$200,448.35	Contract
22	1.70	H-Piling	\$122,039.25	Contract
22	2.01	H-Piling	\$244,412.83	Contract
24	0.1	Rock Embankment	\$28,121.95	Contract
25	2.068	H-Piling	\$95,498.90	Contract
25	3.80	H-Piling	\$85,860.00	Contract
26	3.90	H-Piling	\$162,131.60	Contract
26	4.26	H-Piling	\$230,985.50	Contract
27	3.10	H-Piling	\$89,160.58	Contract
29	0.5	H-Piling	\$90,015.00	Contract
29	9.24	Rock Embankment	\$64,458.58	Contract
33	1.28	Pipe Piling	\$27,568.35	Force Account
38	2.6	H-Piling	\$136,375.07	Contract
39	2.60	H-Piling	\$93,175.82	Contract
40	4.40	H-Piling	\$152,091.52	Contract
40	4.70	H-Piling	\$141,416.45	Contract
42	2.49	Pipe Piling	\$40,514.22	Force Account
42	3.90	Rock Embankment	\$45,212.75	Contract
42		Debris & Mud Removal - County Forces	\$4,305.39	Force Account
43	0.80	Pipe Piling	\$53,238.45	COMBINED
43	1.40	Pipe Piling	\$65,800.62	COMBINED
43	4.90	Pipe Piling	\$49,954.59	COMBINED
44	0.90	Rock Embankment	\$18,196.82	Contract
45	1.90	Pipe Piling	\$39,567.97	Force Account
47	2.15	Rock Embankment	\$3,669.97	Force Account
47	2.40	Pipe Piling	\$28,019.70	Force Account
47	3.60	Pipe Piling	\$23,682.87	Force Account
47	3.70	Pipe Piling	\$14,896.84	Force Account
53	1.553	Rock Embankment	\$14,472.25	Contract
53	3.30	Pipe Piling	\$31,335.50	Force Account
57	0.40	Rock Embankment	\$28,118.20	Contract
60		Debris & Mud Removal -	\$1,709.70	Force Account

		County Forces		
64	1.95	H-Piling	\$226,843.95	Contract
65	0.08	Pipe Piling	\$43,730.16	Force Account
68	1.7	Pipe Piling	\$37,208.84	Force Account
68	4.2	Pipe Piling	\$25,610.73	Force Account
73	8.505	Pipe Piling	\$39,098.93	Force Account
73	8.8	Pipe Piling	\$38,230.98	Force Account
77	5.3	Pipe Piling	\$21,771.65	Force Account
79	4.10	H-Piling	\$149,951.70	Contract
79	5.50	H-Piling	\$232,153.48	Contract
81	1.59	H-Piling	\$113,937.80	Contract
81	1.96	H-Piling	\$103,736.75	Contract
84	2.10	Pipe Piling	\$32,360.54	Force Account
88	3.90	Rock Embankment	\$7,329.81	Force Account
89		Debris & Mud Removal - County Forces	\$3,142.42	Force Account
11S	0.50	Pipe Piling	\$14,009.71	Force Account
11S	0.60	Pipe Piling	\$30,650.42	Force Account
11S	3.20	H-Piling	\$389,021.36	Contract

2022 EMA Events (May & June)

Two separate disaster declarations affected Monroe County in 2022, in May & June. The majority of the May and June 2022 damages were addressed immediately after the storm event and in 2023, with only one location left to be repaired in 2024. Below are the summary tables of the damage locations for each event.

Road	Damage	Work Complete?	Force Account/Contract
CR29	Slip/mudslide #1	Yes	Force Account
CR29	Slip/mudslide #2	Yes	Force Account
CR29	culverts plugged	Yes	Force Account
CR27	Slip/mudslide #1	Yes	Force Account
CR36	ditch & culvert plugging	Yes	Force Account
CR27	embankment & ditch erosion/rockslide	Yes	Force Account
CR77	ditch & culvert plugging, road wash-out	Yes	Force Account
CR45	culverts plugged & road wash-out	Yes	Force Account
CR17	debris and road wash-out	Yes	Force Account
CR41	ditch and roadway washout, plugged culverts	Yes	Force Account
CR100	ditch erosion and plugged culverts	Yes	Force Account
TR183	TR183-0.50 Bridge closure – major debris impact and flooding	YES	Contract
CR53	Slip on upslope side - 150' long	No	Force Account
CR42	Erosion on downslope/creek side	YES	Contract

Type of Damage	Road ID	Work completion status	Contract
Tree/Debris Removal	CR105	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105B	Complete	Force Account
Bridge Damage/Plugged with Debris	CR105C	Debris removed & blocks re-set on 6-21-22	Force Account
Tree/Debris Removal	CR105C	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Tree/Debris Removal	CR13	Complete	Force Account
Ditch erosion/plugged culverts	CR138	Complete	Force Account
Tree/Debris Removal	CR14	Complete	Force Account
Culvert(s) plugged	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Culvert(s) plugged	CR16	Completed on 6-21-22	Force Account
Tree/Debris Removal	CR16	Complete	Force Account
Tree/Debris Removal	CR16B	Complete	Force Account
Tree/Debris Removal	CR19	Complete	Force Account
Tree/Debris Removal	CR29	Complete	Force Account
Tree/Debris Removal	CR40	Complete	Force Account
Road washout	CR57	Complete 6-21-22	Force Account
Tree/Debris Removal	CR57	Complete	Force Account
Tree/Debris Removal	CR58	Complete	Force Account
Culvert(s) plugged	CR59	Complete	Force Account
Tree/Debris Removal	CR59	Complete	Force Account
Tree/Debris Removal	CR60	Complete	Force Account
Tree/Debris Removal	CR68	Complete	Force Account
Tree/Debris Removal	CR70	Complete	Force Account
Tree/Debris Removal	CR73	Complete	Force Account
Tree/Debris Removal	CR88	Complete	Force Account
Tree/Debris Removal	CR90	Complete	Force Account
Ditch erosion/culverts plugged	CR99	Complete	Force Account
Emergency Road Clearing		COMPLETE 6/16-6/18	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR14	Complete 6-21-22	Force Account
Ditch erosion	CR54	Complete	Force Account
Roadway washout	CR78	Complete	Force Account
Culvert Washout	CR16B	Culvert re-installed on 6-21-22	Force Account
Road Embankment Erosion	CR15	Complete	Contract
Road washout	CR15	Complete	Contract
Road Embankment Erosion	CR42	Complete	Contract

2023 EMA Events (January)

Another bout of bad weather hit Monroe County in January 2023, causing a significant amount of damage, and resulting in a disaster declaration. While several of the damage areas were repaired in 2023, 14 locations still need repairs and are slated for completion in 2024. The table below lists damage locations for this event.

Road	Damage	Contract/Force Account	Work Complete?
CR10	Slip/mudslide	Force Account	Yes
CR105	Culvert plugged/washout	Force Account	Yes
CR11	Ditch & culverts plugging	Force Account	Yes
CR138	Culverts plugged/washout	Force Account	Yes
CR15	Slip/Mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR44	Plugged culvert, shoulder erosion	Force Account	Yes
CR13	Road washout/culvert plugged/flooding	Force Account	Yes
CR29	Slip/mudslides	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Road washout/flooding	Force Account	Yes
CR57	Road washout/flooding	Force Account	Yes
CR65	Road washout/flooding	Force Account	Yes
CR72	Slip/mudslide	Force Account	Yes
CR78	Road washout/flooding/plugged culverts	Force Account	YES
CR88	Slip/mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR88	Slip/mudslide (39-35-13, 81-07-51)	Force Account	Yes
CR88	Slip/Mudslide (39-35-13, 81-07-52)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR9A-1.72	Road washout/culvert plugging	Force Account & Contract	YES
CR96	Slip/Mudslide (39.635529, 80.875451)	Oil & Gas operator completed	Yes
TR183	TR183-0.50 Bridge flooding/approach washout	Township complete - not seeking reimbursement	Yes

CR15-1.81	Slip (39-35-41, 81-14-58)	Contract	No
CR15-8.00	Slip	Force Account	No
CR22	Slip - 60 feet long	Contract	YES
CR26-4.60	Large culvert & adjacent culvert overtopped and road washout, culverts plugged	Force Account	YES
CR29-8.00	Culvert plugging/washout	Contract	No
CR40-0.96	Road washout/flooding	Contract	No
CR40-6.10	Slip - 70 feet long	Contract	YES
CR42	Slip/Stream Erosion - 100 feet	Contract	YES
CR42-0.83	Road flooding/surface damage	Contract	No
CR43-1.52	Slip - 60 feet long	Contract	YES
CR43-5.00	Slip & broken culvert	Force Account	No
CR45-4.40	Slip/Erosion	Contract	No
CR47-1.295	Culvert plugging/washout	Force Account	No
CR47-1.65	Road washout/flooding	Force Account	No
CR47-3.97	Slip/Erosion/plugged culvert	Force Account	YES
CR72-1.954	Culvert plugged/washout	Force Account	No
CR81-0.94	Slip	Contract	NO
CR89-0.40	Road washout/flooding	Contract	No
CR89-0.498	Culvert plugging/washout	Combination	No
TR1206	TR1206 Bridge washout/failure	Jackson Township completed	YES
TR358	TR358 Bridge - flooding/washout of backfill	Force Account	No

Slip Repairs Contracted

CR15-0.95 – Monroe Drilling Operations was contracted to perform a Rock Embankment slip repair on County Road 15, for a total cost of \$20,841.90. Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$11,690.00. This work was funded through the Engineers Budget 100%

Slip Repairs OPWC Funded

CR29-1.86 Extension - The County Engineers office prepared the design plans for a Drilled Shaft H-Piling retaining wall extension. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$56,770.40 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR4-2.50 – Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$187,587.83 spent in 2023 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Asphalt surface repairs are planned for 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR10-8.07– Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR12-5.50 - Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR22-1.30, CR40-6.10 & CR43-1.52 – Monroe County Engineers Office provided the materials for three pipe piling walls at a cost of \$27,561.45. The installation of the pipe piling walls was contracted to Bob Lanes Welding for a total cost of \$65,002.65, while the asphalt road repairs were contracted to K & F Excavating for a cost of \$23,831.55. Stahl Sheaffer performed inspection services for a total cost of \$32,400.00, bringing the total project cost to \$148,795.65. Ohio Public Works Emergency Funds were used to pay for all of the contract work, and the materials provided by the County served as our local match.

Slip Repairs FEMA Funded

2019 FEMA Event

A total of 206 slips qualified and were reported under the FEMA event that occurred in February, 2019. Of the total, 130 locations have been validated by FEMA to-date. NRCS claimed authority over and approved repairs for 24 locations, which are all complete. The following projects are in progress and are anticipated to be completed in 2024:

CR47-3.95 – Construction to be completed spring/summer 2024.

CR26-6.43 – Construction to be completed spring/summer 2024.

All FEMA qualified projects are funded 75% by FEMA and 25% by the State of Ohio, EMA. No local match is required. The remaining 52 locations have been appealed and denied, leaving a large amount of damage for the County to fund repairs. These locations are not anticipated to be repaired immediately, as there are no available funds in the Engineers budget to perform the work.





CR38-0.43 DENIED FEMA FUNDING FOR SLIP
REPAIR.

INCOME SURVEYS ARE BEING DONE IN EARLY
2024 TO SEE IF THE AREA IS ELIGIBLE FOR
CRITICAL INFRASTRUCTURE FUNDS.

CULVERT REPAIRS AND MAINTENANCE

Culvert Replacement In-House/Force-Account

Project Type	Route/Location	Force Account Cost
BOX CULVERT	CR 9A - 1.72	\$9,618.80
CULVERT REPLACEMENTS	CR 105B - 0.08 & 0.18	\$6,511.00
CULVERT REPLACEMENT	CR 16B - 1.01	\$5,882.89
CULVERT REPLACEMENT	CR26-4.57	\$36,946.99
CULVERT REPLACEMENT	CR29-8.22	\$12,926.11
CULVERT REPLACEMENT	CR 29 - 8.44	\$4,481.81
CULVERT REPLACEMENT	CR 33 - 1.27	\$2,562.33
CULVERT REPLACEMENT	CR43-8.58, 8.22, 7.96 & 7.90	\$22,709.21
CULVERT REPLACEMENT	CR 105A - 1.53	\$3,113.74
CULVERT REPLACEMENT	CR 11 - 2.95	\$9,500.43
CULVERT REPLACEMENTS	CR 4 - 078,1.14,1.30,1.78,2.72,3.15, 3.99 & 4.09	\$38,357.18
CULVERT REPLACEMENTS	CR9A MULTIPLE LOCATIONS	\$77,405.86
CULVERT REPLACEMENTS	CR 15 - 8.07 & 8.15	\$10,766.52
CULVERT REPLACEMENTS	CR26-4.60 & 4.61	\$10,851.83
CULVERT REPLACEMENTS	CR 54 - 0.456,0.544,1.126,1.193	\$10,220.19
CULVERT REPLACEMENTS	CR 61 - 1.705,1.59,1.63 & 1.67	\$12,498.83

Total Culvert Project force account costs for 2023 = \$274,353.72

Culvert Replacements – Contracted/Funded (Excludes FEMA & EMA projects)

County Road 9A Box Culvert Installation – McConnell Contracting Inc. & Mustang Crane were contracted to perform the installation and setting of a concrete box culvert on County Road 9A, for a total cost of \$42,750.00 and \$3,770.00, respectively. This work was funded through the Engineers Budget 100%.

	2023	2022	2021	2020	
Culvert Inventory Condition Status	# of Culverts	# of Culverts	# of Culverts	# of Culverts	% for 2023
Good (A)	1080	935	749	1223	30.90%
Fair/Functional (B)	795	769	812	808	22.75%
Poor/Failed(C, D)	1620	1481	1582	1257	46.35%
Total	3495	3185	3143	3288	100.00%

ROADWAY REPAIRS AND MAINTENANCE

Road Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
ASPHALT BASE REPAIRS	CR 12	\$6,160.76
CHIP SEAL	CR 10	\$76,078.24
CHIP SEAL	CR 96	\$66,486.04
CHIP SEAL - DUST CONTROL	CR 1	\$3,787.20
CHIP SEAL - DUST CONTROL	CR 6	\$11,239.22
CHIP SEAL - DUST CONTROL	CR 26	\$5,810.25
CHIP SEAL - DUST CONTROL	CR 30	\$3,557.77
COLD MIX ROAD LEVELING	CR14	\$13,737.90
HOT MIX PATCHING	CR 96	\$8,363.79
ROAD BERMING	CR12	\$62,749.38
ROAD PROFILE IMPROVEMENT	CR9A	\$51,811.88
SINGLE CHIP SEAL	CR 1 - NORTH	\$39,021.92
SINGLE CHIP SEAL	CR 1 - SOUTH	\$24,493.44
SINGLE CHIP SEAL	CR 3	\$9,471.13
SINGLE CHIP SEAL	CR 81 - 1.07 THRU 2.33	\$27,251.93

Total Road Repairs Project force account costs for 2023 = \$410,020.85

Emergency Services

Snow & Ice Removal - County forces provide snow & ice removal for all 372 miles of County Roads during the winter months. In 2023, a total of \$88,010.21 was spent on this service.

Debris & Tree Removal – County forces respond AFTER HOURS to trees and debris that fall into the roadway, causing a hazard for the traveling public. In 2023, over 215.5 man-hours were spent for a total of **\$8702.30** in OVERTIME Labor costs for this service. Equipment and fuel costs are not included in the total. Debris & Tree removal during normal business hours is not included in the total.

All Emergency service costs are paid from by the County Engineers Budget.

Roadside Mowing

County-Wide Road side mowing - County forces provide roadside mowing for all 372 miles of County Roads throughout the year, with a goal to make at least 2 passes on each road annually and spend as much time as feasible to make additional passes to increase the width we can clear along the roads. In 2023, a total of **\$611,315.3** was spent on this service.

Labor = \$225,026.57 (7315.5 man-hours)

Equipment Usage = \$386,288.74

Miscellaneous Road Improvements In-House/Force-Account

Project Type	Route/Location	Force Account Cost
2023 MOWING	COUNTY WIDE	\$611,315.30
2023 SIGN INSTALLATIONS	COUNTY WIDE	\$11,274.02
2023 SPRING COLD MIX		\$36,081.31
SNOW AND ICE REMOVAL	COUNTY WIDE	\$88,010.21

Total Miscellaneous Road Improvement Project force account costs for 2023 = \$746,680.84

Miscellaneous Road Improvements Contracted

CR2-1.40 Slip Repair—Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$37,586.60. This work was funded through the Engineers Budget 100%.

County Road 27 Asphalt Mill & Fill Repairs – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 27, for a total cost of \$2500.00. This work was funded through the Engineers Budget.

County Road 79 Asphalt Overlay – Shelly and Sands Inc. was contracted to an perform Asphalt overlay on a section of County Road 79, for a total cost of \$42,376.44.00. This work was funded through the Engineers Budget.

Miscellaneous Road Improvements Funded

Ohio Public Works Commission (OPWC) /CSTP Project – The 2022 OPWC project funding was paired with CSTP (County Surface Transportation Program) funds, to cement stabilize and resurface County Road 12, Greenbrier Road/Trail Run Road, for approximately 10.5 miles between Graysville and State Route 800. This project was originally slated for construction in July 2022, but due to drastically high bid pricing, the project scope was revised and re-bid in December 2022. Construction was awarded to Shelly and Sands and was completed in 2023. Project total cost was \$3,276,996.00. CSTP funds provided \$2,000,000 in grant, with OPWC grant covering \$400,000 and the remainder being paid from the Engineer budget funds.

Ohio Public Works Commission (OPWC) – This 2023 OPWC project funding was utilized for cement stabilization and resurfacing of CR9A, Six Points Road, for a total length of 2.74 miles. The construction was awarded to Shelly and Sands, with the cement stabilization and base asphalt being completed in 2023. The surface asphalt is slated for completion in 2024. Total funds expended in 2023 for this work was \$880,943.42. OPWC grant allowance of \$400,000 will be used, with the remainder being paid for through OPWC loan and the Engineers budget funds.

A second 2023 OPWC project funding was utilized for repairing a slip by installation of an H-Piling retaining wall on CR9A, at the 0.52-mile marker. The construction was awarded to Litman Excavating, with inspection being contracted to Stahl Sheaffer. All work was completed in 2023 for a total project cost of \$245,590.49. OPWC grant allowance of \$180,100 was utilized, with the remainder being funded through OPWC loan and the Engineer budget funds.

Ohio Department of Development Roadwork Development Grant – The Monroe County Engineers Office applied and received \$1,500,000 in 629 Road Development Funds to make repairs and improvements to County Road 26, Beautiful Ridge Road, specifically at the 5.72-mile marker, where there is a failed piling wall. These funds were awarded to replace the piling wall and make repairs/improvements to County Road 26, in order to prevent impact to the commercial business that rely on this route for all deliveries and access. Design work for the repairs was completed in 2023, for a total cost of \$67,800.00. The project will be bid and constructed in 2024.

BRIDGE IMPROVEMENTS AND REPAIRS

In-House/Force Account

Project Type	Route/Location	Force Account Cost
BRIDGE BOX CULVERT REPAIR	CR 15 - 7.93	\$4,687.50
BRIDGE ABUTMENT REPAIR	CR 100 - 0.68	\$10,484.90
BRIDGE MAINTENANCE	SWITZ TR84-0.01	\$8,674.42
BRIDGE RE-DECK & MAINTENANCE	SUNSBURY TWP. 141 - 0.84	\$18,074.18
BRIDGE REPAIR	CR 9A - 0.98	\$12,817.38
BRIDGE REPLACEMENT	BENTON TWP. 530	\$63,698.05

Total Bridge Project force account costs for 2023 = \$118,436.43



County crews
performing bridge
work

CR9A-0.98 (left) and
TR530-0.54 (right)



Contracted/Funded

CR28-0.56 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



**CR28-0.56 Bridge
replaced in 2023**



CR29-6.95 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



**CR29-6.95 Bridge
replaced in 2023**



TR199-2.38 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



TR199-2.38 Bridge
replaced in 2023



TR199-2.57 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



**TR199-2.57 Bridge
replaced in 2023**



TR307-0.75 Bridge replacement project design was completed in 2022. The bridge construction started in 2023 and will finish early in 2024. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



TR183-0.13 Bridge replacement project design-build scope was completed in 2022. The original contract was cancelled and the bridge is now slated for construction to start in late 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge replacement project design-build scope was completed in 2022. The bridge is slated for construction to start and complete in 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge to be replaced in 2024

TR1206-0.01 Bridge replacement design for this project will be completed by summer of 2023. The bridge is slated for construction to be complete by fall of 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



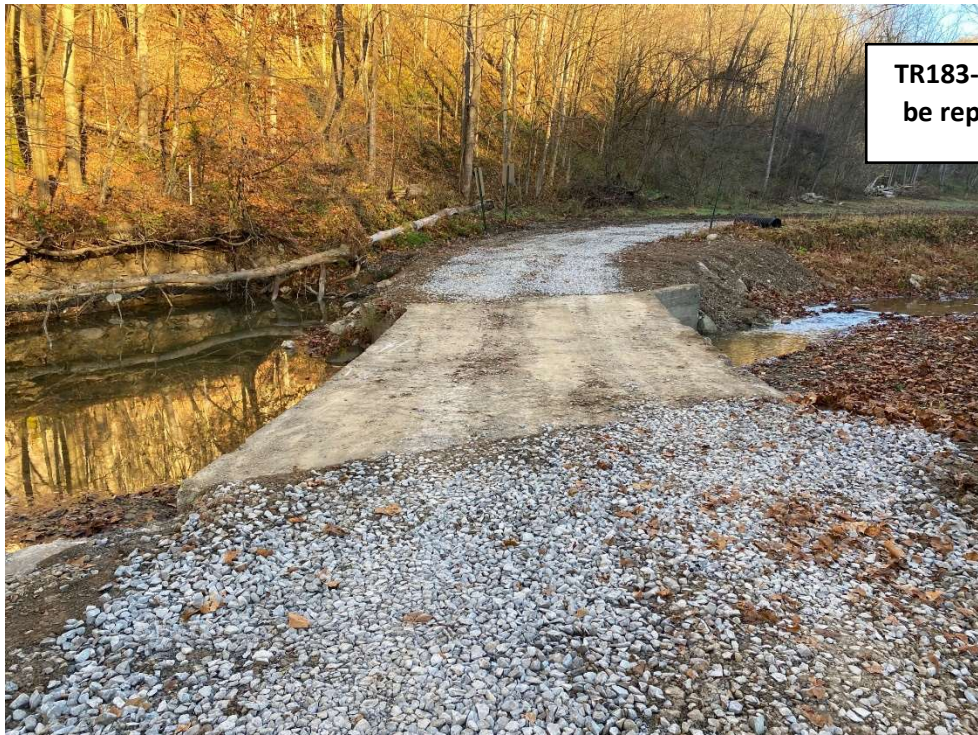
TR1206-0.01 Bridge to be replaced in 2024

TR1004-2.27 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete in 2026. The design costs and construction will be shared funding through Federal Land Access Program and County Engineer budget funds.



TR1004-2.27 Bridge to be replaced in 2026

TR183-0.50 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete by summer of 2025. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR183-0.50 Bridge to be replaced in 2025

OIL & GAS ACTIVITY

There are currently 13 different Oil & Gas Companies with at least one active RUMA in Monroe County. Over the past few years, several of the previous companies have merged or sold to form larger singular operators, and in the process, RUMAs have been combined into a “Master RUMA” which contains a list of all affected roadways for each Operator. Below is a summary of RUMA activity:

O & G RUMA Activity Summary	2023	2022	2021	2020	2019	2018	2017
New RUMAs	12	3	6	7	13	30	30
Renewed RUMAs	5	5	6	42	46	19	41
Terminated/Modified RUMAs	4	4	*several RUMAs terminated to create a Master RUMA for each Operator	11	19	35	19
Total Number of Operators with at least one RUMA	13	14	14	19	23	23	19

As part of their activities, these Oil & gas Companies often need to improve the County’s current infrastructure. The following table is a summary of the Infrastructure Improvements made by Oil & Gas Companies in 2023. Maintenance items such as dust control and temporary patching are not included in this list.

<i>Company</i>	<i>Road #/Name</i>	<i>Improvement/Work Done</i>	<i>Total Cost of Improvements</i>
Antero	CR69, Walter Ridge Road	Asphalt spot repairs	\$47,370.33
Antero	CR69, Walter Ridge Road	Crack sealing	\$4,130.72
Diversified	CR19, Brownsville-Countyline Road	Asphalt spot repairs	\$12,000.00
Diversified	CR12, Trail Run Road	Asphalt spot repairs	\$6,375.00
Diversified	CR67, Dent Ridge Road	Asphalt Paving	\$484,456.29
Equinor	CR4, Sykes Ridge Road	CR4-5.93/5.96 Slip Repairs	\$616,000.00
Equinor	CR4, Sykes Ridge Road	Asphalt spot repairs	\$882,000.00
Equinor	CR26, Beautifull Ridge Road	CR26-0.90 Crane Accident Repairs	\$174,000.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Damage settlement for RUMA road use	\$100,000.00
Equitrans Midstream	CR64, Cain Ridge Road	Culvert replacement	\$3,150.00
Equitrans Midstream	CR43, Long Ridge Road	Dithing and Berming	\$3,875.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Spreading aggregate	\$17,123.79
Equitrans Midstream	CR45, Moose Ridge Road	Asphalt spot repairs	\$38,398.97
SWN	CR10, Benwood Road	Ditching/Clean up	\$13,449.09
SWN	CR65, Flauhaus Ridge Road	Road Improvements for RUMA	\$18,832.54
SWN	CR43, Long Ridge Road	Asphalt Overlay	\$161,796.67
SWN	CR96, Baptist Ridge Road	Spot Base repairs & Pothole repairs	\$21,425.86
		TOTAL	\$2,604,384.26

COUNTY ENGINEER FUNDING, REVENUE & EXPENDITURES SUMMARY

Projects Summary

Road & Bridge Funding Summary	2023	2022	2021	2020	2019	2018
In-House/Force Account Funds	\$2,296,723.24	\$2,389,943.55	\$2,285,644.39	\$1,772,341.29	\$1,670,724.37	\$968,357.29
County Engineer (local match) funds, including loans	\$987,216.54	\$1,308,675.73	\$1,033,556.23	\$489,568.83	\$459,055.10	\$573,854.21
County General Funds	\$228,750.00	\$75,000.00	\$75,000.00	\$75,000.00	\$102,690.00	\$410,773.62
Oil & Gas Funds	\$2,604,384.26	\$1,566,324.69	\$2,321,668.18	\$4,795,921.00	\$10,401,034.55	\$9,610,872.72
CDBG Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$255,750.00	\$0.00
FHWA/ODOT Funds	\$3,894,271.25	\$708,938.31	\$2,319,559.46	\$51,795.38	\$1,778,428.08	\$1,089,558.59
OPWC Funds	\$1,680,187.80	\$367,961.31	\$1,211,814.10	\$603,596.70	\$652,275.00	\$400,000.00
Ohio Department of Development Funds	\$67,800.00					
FEMA/EMA Funds	\$1,731,927.50	\$6,466,539.68	\$10,141,475.94	\$5,290,496.00	\$4,734,455.77	\$567,976.81
NRCS Funds	\$0.00	\$0.00	\$1,023,643.58	\$0.00	\$0.00	\$0.00
Federal Land Access Program Funds	\$31,280.22	\$0.00	\$456,583.00	\$0.00	\$0.00	\$0.00
Transportation Improvement District Funds	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.00
USDA Funds	\$0.00	\$288,000.00	\$0.00	\$297,000.00	\$0.00	\$141,000.00
TOTALS	\$13,522,540.81	\$13,171,383.27	\$21,068,944.88	\$13,375,719.20	\$20,054,412.87	\$13,762,393.24

County Engineer Budget – 2023 Revenue Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
GASOLINE TAX	\$3,827,153.05	54.0%
INTEREST	\$23,893.15	0.3%
MOTOR VEHICLE LICENSES	\$1,077,816.78	15.2%
PERMISSIVE MVL	\$81,663.06	1.2%
COUNTY COURT FINES	\$10,069.15	0.1%
JUVENILE COURT FINES	\$0.00	0.0%
COMMON PLEAS COURT FINES	\$0.00	0.0%
SPECIAL HAUL PERMITS	\$22,170.00	0.3%
RIGHT OF WAY PERMITS	\$3,460.00	0.0%
SALE & SERVICE	\$41,816.99	0.6%
(National Forest Sales)	\$26,603.29	0.4%
REFUND &/OR REIMBURSEMENT	\$165,022.88	2.3%
TRANSFERS IN	\$143,517.71	2.0%
ADVANCES IN	\$1,322,847.17	18.7%
OTHER RECEIPTS	\$171,906.30	2.4%
OIL & GAS RECEIPTS	\$168,375.00	2.4%
TOTAL	\$7,086,314.53	100%

County Engineer Budget – 2023 Expenditures Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
SALARIES OFFICIALS	\$109,292.00	1.82%
SALARIES EMPLOYEES	\$359,880.00	6.00%
LABORERS SALARIES	\$849,266.58	14.16%
RETIREMENT SIC/VAC PAY	\$0.00	0.00%
SUPPLIES	\$4,559.85	0.08%
TAX MAP SUPPLIES	\$1,500.00	0.03%
UNIFORMS & PPE	\$8,581.08	0.14%
WELDING SUPPLIES	\$5,309.05	0.09%
ROAD MATERIALS	\$1,003,334.74	16.73%
EQUIPMENT	\$107,938.00	1.80%
CONTRACT REPAIRS (O&G)	\$10,650.00	0.18%
CONTRACT SERVICES (ISSUE I COUNTY)	\$83,112.62	1.39%
CONTRACTS	\$418,469.12	6.98%
EMA CONTRACTS	\$135,511.85	2.26%
ODOT	\$1,225,820.00	20.44%
TRAVEL EXPENSES	\$500.00	0.01%
ADVERTISING & PRINTING	\$8,058.03	0.13%
PERS/STRS	\$176,493.90	2.94%
WORKERS COMPENSATION	\$8,998.87	0.15%
UNEMPLOYMENT COMP.	\$0.00	0.00%
OTHER EXPENSES	\$22,883.07	0.38%
RIGHT OF WAY PERMITS -Expense	\$100.00	0.00%
TRANSFERS	\$0.00	0.00%
ADVANCES OUT	\$304,800.00	5.08%
INSURANCE	\$262,730.47	4.38%
GROUP & LIABILITY	\$15,000.00	0.25%
LEGAL FEES	\$195.00	0.00%
NOTES	\$0.00	0.00%
FUEL	\$211,008.38	3.52%
UTILITIES	\$24,949.94	0.42%
DOT TESTING	\$1,714.00	0.03%
PRINCIPAL - USDA LOAN	\$55,360.63	0.92%
INTEREST-USDA LOAN	\$9,631.60	0.16%
OPWC LOAN	\$27,205.74	0.45%
VEHICLE MAINT.(IN HOUSE)	\$174,070.79	2.90%
VEHICLE (OUTSIDE REPAIRS)	\$109,372.06	1.82%
LEASES	\$0.00	0.00%
MEDICARE TAX	\$18,391.74	0.31%
DUES	\$1,520.10	0.03%
BUILDING & GROUNDS MAINTENANCE	\$1,741.60	0.03%
OFFICE MAINTENANCE	\$11,260.79	0.19%
SIGNS	\$12,629.96	0.21%
BRIDGE MATERIALS	\$45,329.90	0.76%
CONTRACTS	\$171,195.00	2.85%
BRIDGE CREDITS	\$0.00	0.00%
CONTRACT BRIDGES	\$0.00	0.00%
PERSONEL EXPENDITURES	\$1,811,043.64	30.2%
NON-PERSONEL EXPENDITURES	\$4,187,322.82	69.8%
TOTAL	\$5,998,366.46	100.0%

FUNDING & THE FUTURE

FUNDING SUMMARY SHEET (2017-PRESENT)



Project Type	GRANTS RECEIVED	LOANS RECEIVED	LOCAL MATCH	TOTAL FUNDED PROJECTS COSTS
Bridge	\$9,264,481.25	\$350,000.00	\$1,252,841.04	\$10,867,322.29
Bridge Load Ratings	\$334,306.05	\$0.00	\$2,129.34	\$336,435.39
Road	\$7,484,855.02	\$1,220,153.97	\$2,492,397.35	\$11,197,406.34
Drainage	\$366,823.00	\$0.00	\$89,760.00	\$456,583.00
Safety	\$276,948.15	\$0.00	\$14,105.35	\$291,053.50
Sign	\$66,128.16	\$0.00	\$7,198.44	\$73,326.60
Equipment	\$555,767.66	\$576,000.00	\$20,000.00	\$1,151,767.66
Guardrail	\$264,362.20	\$0.00	\$0.00	\$264,362.20
Slip Repair/Flood Damage	\$36,085,155.56	\$0.00	\$1,643,496.71	\$37,728,652.27
TOTALS	\$54,698,827.05	\$2,146,153.97	\$5,521,928.23	\$62,366,909.25
	88%	3%	9%	100%

The County Engineers office takes pride in being able to “stretch a dollar” and find creative ways to accomplish the large amount of work needed, with a less-than-adequate budget. The table above shows just how well we have been able to do that in the past 7 years, with 88% of all funded projects being covered with money OTHER than County funds. You can also see how important it is to be able to supply Local Match money. A mere 12% of match money/loans has afforded the County over \$54,000,000.00 in road, bridge and infrastructure improvements.

With the constant increase in material and equipment costs, projects will continue to grow in price. Despite the diligent efforts of our crews and the large amount of funding we are able to secure, the County Engineers office still continues to be underfunded. We will continue to prioritize projects based on impact to the public, funding availability and other pertinent factors. Despite the overwhelming amount of work that lies ahead for the County, we will continue to plan and make the most of our funds available. The following table outlines future projects that have funding secured and will be completed over the next few years.

2024 & FUTURE FUNDING

Project Type	Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
Slip Repairs/Flood Damage	County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
Slip/Flood Damage (June)	County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
Slip/Flood Damage (May)	County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
Bridge	MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
Bridge	MOE-T0183-0.13	100%	\$465,000.00	2023
Bridge	MOE-T2001-0.13	100%	\$450,000.00	2023
Road/Resurfacing	CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
Slip Repair	CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
Slip/Flood Damage (January)	County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
Bridge	MOE-TR0307-0.75	80%	\$836,652.10	2024
Bridge	MOE-TR1206-0.01	80%	\$550,932.00	2024
Bridge	MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
Bridge	MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
Road Improvement	CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
Road/Resurfacing	CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
Safety - Pavement Marking	New Pavement Marking	100%	\$150,000.00	FY2024
Sign	Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
Road/Resurfacing	CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

Monroe County Engineer
Amy M. Zwick, P.S., P.E.
Annual Report for 2023

January 26, 2024

Per the Ohio Revised Code, Section 5543.02, I am providing an annual report for the review and record of the Monroe County Commissioners. This report will provide a summary of the activities during the calendar year on County-owned roads, bridges and other infrastructure.

The County Engineers office is responsible for the maintenance and upkeep of **372 miles** of County Roads, including all drainage, culverts, signs, mowing, guardrail, snow/ice treatment and embankment stability. The Engineer's office is also responsible for all bridges on County Roads, and bridges on Township Roads. The current number is **179 bridges** on the County Engineers inventory.

The County Engineers budget is financed through a gasoline tax and a vehicle registration tax, as well as minor income from permit fees and sales/services. For several years, this financing has been extremely lacking, limiting the Engineers office's ability to maintain roads and bridges at a safe and good condition. Whenever possible, Federal grant money and Ohio Public Works funds have been applied for, to replace those lacking funds. In more recent years, Oil & Gas industry has moved into Monroe County and the Operators have contributed significantly to the upgrade/improvements of the County's infrastructure. In 2020 and continuing through 2023, Oil & Gas activity took a major downturn in Monroe County, which is reflected in the decrease in permits, RUMAs, and road upgrades/improvements.

In a continued effort to generate additional income and close the gap in the Engineers needed funds, the option of enacting additional permissive vehicle registrations has been discussed multiple times. The Commissioners held the two required public hearings in April 2019. Based on public input, the motion was made against enacting any additional permissive taxes at this time. This topic was revisited in discussions between Commissioners and Engineers offices since 2019, but has not been pursued any further.

Thanks to the efforts of many individuals across Ohio, in mid-2019 the State approved an increase in the rate and modification of the distribution of revenue from motor fuel excise taxes (fuel tax). This increase took effect July 1, 2019. Projected data for 2020 indicated that each County Engineer would receive an additional \$1 to \$1.5 million. Unfortunately, with the COVID-19 pandemic occurrence, the impact of the fuel tax increase was offset by the sudden decrease in fuel consumption. The long-term effect of COVID-19 on remote-working is anticipated to reduce the fuel consumption permanently, with an estimate of 25% reduction in fuel excise tax income for County Engineers.

In 2023, The Commissioners were asked for financial assistance regarding multiple roads and bridges that were affected by weather events in May/June 2022 and January 2023. A one-time contribution of \$153,750 was transferred from the General Fund, into the Engineers funds. This amount was used at the local match requirement for the repairs approved through Ohio EMA and Ohio Public Works Commission. With this \$153,750, the Engineers Office was able to match \$461,250 in State emergency/disaster grants to complete repairs on several County Roads and Bridges, without further depletion of the Engineers annual maintenance budget.

While the County Engineers office continues to stretch each dollar as far as we can, by applying for as many grants as we can afford to match, performing work in-house when cost-effective, and working with Oil & Gas operators to cost-share on projects, the funds required to maintain "status-quo" are still not able to be met solely on the Engineers budget alone. Future plans of additional funding sources will need to be seriously considered, in order to prevent our county infrastructures deterioration.

Please continue to the following pages for more detailed information on the projects and activities of the Engineers Office in 2023.

COUNTY PERMIT SUMMARY

Special haul permits

Special Haul Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	236	282	340	202	526
Total permit fees received	\$24,650.00	\$32,425.00	\$33,775.00	\$26,225.00	\$61,500.00
Total fees paid to consultants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total bridges analyzed (at least once)	7	1	9	4	6
Total bridges analyzed that were not passable	2	0	2	0	1

Right of Way Work permits

Right-of-Way work Permits Summary	2023	2022	2021	2020	2019
Total Permits Approved	95	106	109	155	156
Total permit fees received by County	\$3,490.00	\$3,580.00	\$3,830.00	\$4,090.00	\$4,549.00
Total permit fees paid to Townships	\$100.00	\$550.00	\$500.00	\$500.00	\$900.00

COUNTY EQUIPMENT PURCHASES/SALES

Since the onset of the COVID-19 pandemic, trucks and equipment purchases have been delayed and/or there are significant backlogs in production. The new trend that seems to be forming is to order a truck or new equipment, then wait up to 12 months for delivery. In some cases, the number of orders being taken per year is limited, and the option to order is not even possible. Below is a summary of equipment purchases made in recent years, with notes where equipment funds were encumbered in one year, but the equipment was not received until the following year or after:

Equipment	2023	2022	2021	2020	2019	2018
2019 F250 Regular Cab Truck x 3						\$89,111.49
John Deere 710 Backhoe Loader						\$143,313.52
Wacker BS60-4A Compactor						\$2,682.00
Meyer Snow Plow & Install x 3						\$16,356.00
Tiger Model Ditch Cleaner Attachment						\$9,250.00
2020 f450 Regular Cab Truck x 1					\$40,136.00	
2021 International HV507 Dump w/ Plows x 2				\$296,728.46		
2018 Case 621G Wheel Loader				\$139,750.00		
2016 Gradall D152				\$149,900.00		
2019 Bomag Roller				\$99,900.00		
2018 Bomag Roller			\$47,500.00			
2018 Felling Tilt Trailer (Used)			\$4,605.13			
2022 F250 Regular Cab Truck			\$35,712.00			
John Deere 6110M Tractor x 2		Received	\$159,534.72			
Alamo 22' Samurai Boom Mower x 2		Received	\$107,254.40			
2022 F250 Regular Cab Truck	Received	\$37,175.00				
2022 F250 Regular Cab Truck	Received	\$45,420.00				
2023 F450 Regular Cab, Dump Bed & Plow	\$103,688.00	Ordered				
2023 International HV507 Dump Truck x 2	\$377,797.32	Ordered				
Total	\$481,485.32	\$82,595.00	\$354,606.25	\$686,278.46	\$40,136.00	\$260,713.01
*Anticipated receipt in 2023 - not received. Funds carried over to 2024						

As vehicles and equipment age through use, or normal course of technology improvements, they reach a point where they become obsolete, unfit or unneeded for public use. At this point the Engineers Office requests approval from the Commissioners to dispose of these pieces of equipment, either through sale or proper method of disposal. The following pieces were sold or auctioned in 2023:

Ford 6610 Tractor with ditching attachment - \$6921.00 2006 Chevy 2500HD Truck - \$1400.00
 2009 F450 Super Duty with Dump Bed - \$1400.00

PERSONNEL ACTIVITY

Retirements

NONE

Promotions

NONE

New Hires/Transfers

Donny Young, Mechanic in Bargaining Unit, hired August 14, 2023

Kasen Kinzy, Laborer in Bargaining Unit, hired August 21, 2023

Jodie Kuhn, Confidential Secretary/Payroll Clerk, hired September 3, 2023

Cody Pittman, Laborer in Bargaining Unit, hired September 5, 2023

Aaron Perkins, Laborer in Bargaining Unit, rehired October 23, 2023

Resignations/Terminations

Ted Bier, Mechanic in Bargaining Unit, resigned May 22, 2023

Tom Harris, Laborer in Bargaining Unit, resigned June 1, 2023

Anna Jones, Engineer Assistant, terminated August 31, 2023

Aaron Perkins, Laborer in Bargaining Unit, resigned September 14, 2023

Cory Ridgeway, Laborer in Bargaining Unit, resigned December 1, 2023

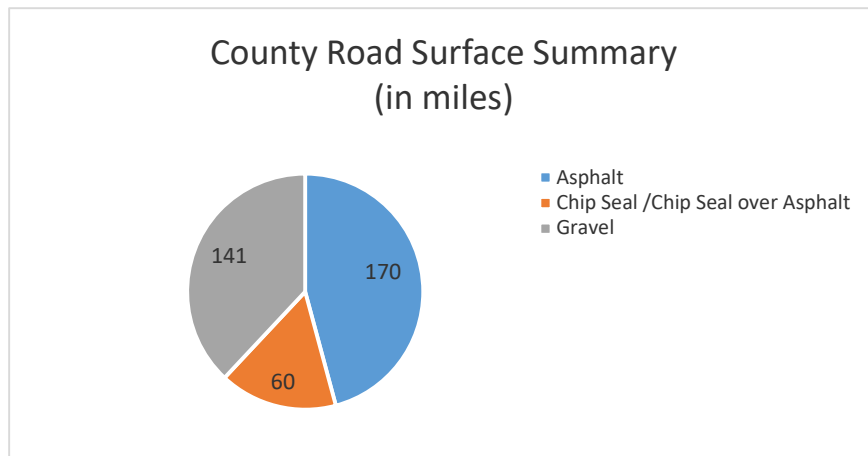
Seasonal Hires

The Engineers Office typically hires seasonal (summer) employees to assist with the increased work load that generally occurs during the summer months. For the 2023 summer season, eleven seasonal employees were hired to work various timeframes between May and September. These seasonal workers greatly increase our ability to form multiple work crews and complete several more projects than in the off-season. The total cost for all seasonal employees for 2023 was \$28,123.45.

ROAD & BRIDGE INVENTORY

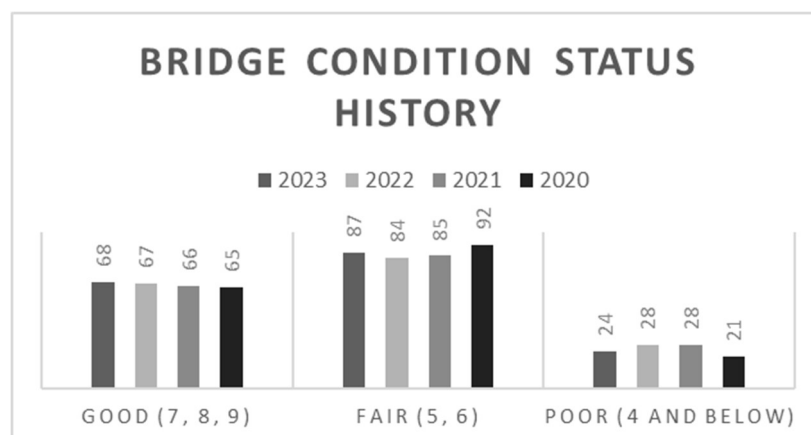
Monroe County roads are composed of a combination of three types of road surfaces: Asphalt, Chip Seal and Gravel. In recent years, Oil & Gas operators have upgraded several miles of County roads that were previously gravel or chip seal, to asphalt. However, the County Engineers budget does not provide enough to maintain the increased asphalt surfaces, nor to upgrade chip seal or gravel surfaces to asphalt. The trend is to chip seal over asphalt roads for preservation purposes and return once-hard surface roads to gravel, if the traffic volume is low enough to warrant.

Road Surface Type	Miles (2017)	% in 2017	Miles (2023)	% in 2023
Asphalt	160.113	43.17%	170	45.82%
Chip Seal /Chip Seal over Asphalt	54.544	14.71%	60	16.17%
Gravel	156.191	42.12%	141	38.01%



All bridges on the County inventory are inspected at least annually and rated on a scale from 1-9, with “9” being new or like new condition. Below is a summary of the rating conditions from 2023 for all bridges on the County inventory.

	2023	2022	2021	2020
Bridge Inventory Condition Status	# of Bridges	# of Bridges	# of Bridges	# of Bridges
Good (7, 8, 9)	68	67	66	65
Fair (5, 6)	87	84	85	92
Poor (4 and below)	24	28	28	21
Total	179	179	179	178



When a bridge is unable to support the required Ohio Legal Loadings, it is load-posted with signage to indicate to the traveling public what weights are allowed to cross the structure safely. Below is a summary of the posted bridges over the past years.

Load Posted Bridges	2023	2022	2021	2020	2019	2018	2017
Number of Posted Bridge	34	35	34	31	32	31	25
% of Total	18.99%	19.55%	18.99%	17.42%	17.98%	17.42%	14.04%

FUNDED PROJECTS SUMMARY – COMPLETED & ACTIVE

Each year the County Engineers office applies for several types of funding, which have specific targets or qualifications that determine what roads, bridges, etc. the funding can be used on. Nearly every funding source also requires local participation through funding match or in-house contributions of labor, equipment and/or materials. Below is a summary of the projects either completed or on-going in 2023, with funding sources associated. Rows that are shaded are complete and the rows with white background are on-going. More details on each project will be included in the following sections of this report.

Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
County-wide State disaster March 2020	EMA 75%, Local 25%	\$5,151,398.91	2020
County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
MOE-TR199-2.38 & 2.57	OPWC \$400,000grant/\$350,000 Loan	\$621,069.80	2023
MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
MOE-T0183-0.13	100%	\$465,000.00	2023
MOE-T2001-0.13	100%	\$450,000.00	2023
CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
CR9A-0.52 Road Slip	OPWC \$180,100, County \$65,000	\$245,509.05	2023

CR22-1.30/CR43-1.52/CR40-6.10	OPWC \$241,000, County \$39,000 in materials	\$148,795.67	2023
CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
MOE-TR0307-0.75	80%	\$836,652.10	2024
MOE-TR1206-0.01	80%	\$550,932.00	2024
MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
MOE-C28-0.56	80% LBR, 15%Credit Bridge, 5% Local	\$742,593.88	FY2023
MOE-C29-6.95	80%	\$533,224.09	FY2023
Various CR Guardrail	100%	\$264,362.20	FY2023
CR12 (Graysville to SR800) FDR & paving	CSTP \$2,000,000 cap, OPWC \$400,000 grant, remainder local	\$3,276,996.00	FY2023
Curve Signage - 1 location	100%	\$1,668.00	FY2023
Sign Upgrade project - Various signs	80%	\$8,045.10	FY2023
CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
New Pavement Marking	100%	\$150,000.00	FY2024
Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025

Infrastructure Improvements, Repairs & Maintenance

The County Engineers Office manages several types of projects each year in order to maintain, and hopefully, improve our County's Roads and Bridge system. Routine project types are:

- (1) Slip Repairs
- (2) Culvert Repairs & Maintenance
- (3) Road Repairs & Maintenance
- (4) Bridge Repairs & Maintenance

These infrastructure improvements, repairs and maintenance are achieved through a number of methods:

- (1) In-house/Force Account – County employees, equipment and material are used
- (2) Contracted out – County awards project(s) to contractor(s). Typically, this is done when the County forces are unable to perform the work needed.
- (3) Outside entity contract – An entity other than the County contracts work to be done on County-owned infrastructure through a Road Use agreement or permit. Typically, this will be done by an Oil & Gas Operator.
- (4) Funded - Funding authority awards project(s) to contractor(s). This can include funds that the County applied for, or funds that were made available due to a weather event, such as flooding.

In the following several sections, summaries and information will be provided on the many different types of projects completed this year.

SLIP REPAIRS

Slip Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
PILING WALL MAINTENANCE	CR 15 - 8.39	\$973.83
PILING WALL MAINTENANCE	CR26	\$1,044.52
PILING WALL MAINTENANCE	CR 53 - 3.25	\$1,096.75
ROCK EMBANKMENT	CR 9A - 0.14	\$5,828.01
ROCK EMBANKMENT	CR 9A - 2.40	\$18,391.38
SLIP MAINTENANCE	CR 33 - 0.99	\$1,000.20
SLIP REPAIR	CR 2 - 0.65	\$12,093.02
SLIP REPAIR	CR 2 - 1.40	\$40,563.71
SLIP REPAIR	CR 4 - 6.42	\$48,317.07
SLIP REPAIR	CR 84 - 1.90	\$53,494.09
SLIP/PILING MAINTENANCE	CR 12 - 14.20	\$5,269.66

Total Slip Repair Project force account costs for 2023 = \$188,072.24

Slip Repairs EMA Funded

2020 EMA Event

A total of 75 slips/damage areas qualified and were reported under the EMA event that occurred in spring of 2020. These projects are only partially funded by EMA state disaster funds (75% of contract work, approximately 60% of Force Account work). The County Engineers budget must cover the remaining costs.

Several of the EMA-approved projects were completed in 2021 & 2022, with the remainder being completed in 2023. Below is a summary of all approved 2020 EMA projects, with all of them being complete.

Road No.	Log Point	Type of Repair	FINAL Actual Cost	Contract/Force Account
2	0.24	Pipe Piling	\$66,824.73	COMBINED
2	0.60	Pipe Piling	\$37,693.51	COMBINED
2	0.70	Pipe Piling	\$84,492.58	COMBINED
2	1.20	Pipe Piling	\$60,586.68	COMBINED
2	3.41	H-Piling	\$126,201.24	Contract
2	6.25	Pipe Piling	\$41,302.68	Force Account
4	0.60	H-Piling	\$119,164.45	Contract
4	0.70	H-Piling	\$132,531.97	Contract
4	3.40	Pipe Piling	\$114,177.05	Contract
4		Debris & Mud Removal - County Forces	\$1,106.76	Force Account
5	1.80	Gabions	\$66,075.90	Contract
11	1.75	Pipe Piling	\$28,791.87	Force Account
11	2.10	Pipe Piling & add guardrail backing	\$42,226.21	Force Account
12	0.40	H-Piling	\$120,181.91	Contract
12	0.90	H-Piling	\$162,866.61	Contract
12	18.20	Rock Embankment	\$22,421.00	Force Account
13	3.80	Pipe Piling	\$41,209.38	Force Account
15	8.32	Pipe Piling with Rock Channel Protection	\$16,754.13	Force Account
15	8.35	Pipe Piling with Rock Channel Protection	\$29,275.24	Force Account
16	6.57	H-Piling	\$158,789.54	Contract

17	0.60	Rock Embankment	\$27,241.99	Contract
17	1.00	H-Piling	\$245,207.30	Contract
22	1.50	H-Piling	\$200,448.35	Contract
22	1.70	H-Piling	\$122,039.25	Contract
22	2.01	H-Piling	\$244,412.83	Contract
24	0.1	Rock Embankment	\$28,121.95	Contract
25	2.068	H-Piling	\$95,498.90	Contract
25	3.80	H-Piling	\$85,860.00	Contract
26	3.90	H-Piling	\$162,131.60	Contract
26	4.26	H-Piling	\$230,985.50	Contract
27	3.10	H-Piling	\$89,160.58	Contract
29	0.5	H-Piling	\$90,015.00	Contract
29	9.24	Rock Embankment	\$64,458.58	Contract
33	1.28	Pipe Piling	\$27,568.35	Force Account
38	2.6	H-Piling	\$136,375.07	Contract
39	2.60	H-Piling	\$93,175.82	Contract
40	4.40	H-Piling	\$152,091.52	Contract
40	4.70	H-Piling	\$141,416.45	Contract
42	2.49	Pipe Piling	\$40,514.22	Force Account
42	3.90	Rock Embankment	\$45,212.75	Contract
42		Debris & Mud Removal - County Forces	\$4,305.39	Force Account
43	0.80	Pipe Piling	\$53,238.45	COMBINED
43	1.40	Pipe Piling	\$65,800.62	COMBINED
43	4.90	Pipe Piling	\$49,954.59	COMBINED
44	0.90	Rock Embankment	\$18,196.82	Contract
45	1.90	Pipe Piling	\$39,567.97	Force Account
47	2.15	Rock Embankment	\$3,669.97	Force Account
47	2.40	Pipe Piling	\$28,019.70	Force Account
47	3.60	Pipe Piling	\$23,682.87	Force Account
47	3.70	Pipe Piling	\$14,896.84	Force Account
53	1.553	Rock Embankment	\$14,472.25	Contract
53	3.30	Pipe Piling	\$31,335.50	Force Account
57	0.40	Rock Embankment	\$28,118.20	Contract
60		Debris & Mud Removal -	\$1,709.70	Force Account

		County Forces		
64	1.95	H-Piling	\$226,843.95	Contract
65	0.08	Pipe Piling	\$43,730.16	Force Account
68	1.7	Pipe Piling	\$37,208.84	Force Account
68	4.2	Pipe Piling	\$25,610.73	Force Account
73	8.505	Pipe Piling	\$39,098.93	Force Account
73	8.8	Pipe Piling	\$38,230.98	Force Account
77	5.3	Pipe Piling	\$21,771.65	Force Account
79	4.10	H-Piling	\$149,951.70	Contract
79	5.50	H-Piling	\$232,153.48	Contract
81	1.59	H-Piling	\$113,937.80	Contract
81	1.96	H-Piling	\$103,736.75	Contract
84	2.10	Pipe Piling	\$32,360.54	Force Account
88	3.90	Rock Embankment	\$7,329.81	Force Account
89		Debris & Mud Removal - County Forces	\$3,142.42	Force Account
11S	0.50	Pipe Piling	\$14,009.71	Force Account
11S	0.60	Pipe Piling	\$30,650.42	Force Account
11S	3.20	H-Piling	\$389,021.36	Contract

2022 EMA Events (May & June)

Two separate disaster declarations affected Monroe County in 2022, in May & June. The majority of the May and June 2022 damages were addressed immediately after the storm event and in 2023, with only one location left to be repaired in 2024. Below are the summary tables of the damage locations for each event.

Road	Damage	Work Complete?	Force Account/Contract
CR29	Slip/mudslide #1	Yes	Force Account
CR29	Slip/mudslide #2	Yes	Force Account
CR29	culverts plugged	Yes	Force Account
CR27	Slip/mudslide #1	Yes	Force Account
CR36	ditch & culvert plugging	Yes	Force Account
CR27	embankment & ditch erosion/rockslide	Yes	Force Account
CR77	ditch & culvert plugging, road wash-out	Yes	Force Account
CR45	culverts plugged & road wash-out	Yes	Force Account
CR17	debris and road wash-out	Yes	Force Account
CR41	ditch and roadway washout, plugged culverts	Yes	Force Account
CR100	ditch erosion and plugged culverts	Yes	Force Account
TR183	TR183-0.50 Bridge closure – major debris impact and flooding	YES	Contract
CR53	Slip on upslope side - 150' long	No	Force Account
CR42	Erosion on downslope/creek side	YES	Contract

Type of Damage	Road ID	Work completion status	Contract
Tree/Debris Removal	CR105	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105A	Complete	Force Account
Tree/Debris Removal	CR105B	Complete	Force Account
Bridge Damage/Plugged with Debris	CR105C	Debris removed & blocks re-set on 6-21-22	Force Account
Tree/Debris Removal	CR105C	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Tree/Debris Removal	CR12	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Culvert(s) plugged	CR13	Complete	Force Account
Tree/Debris Removal	CR13	Complete	Force Account
Ditch erosion/plugged culverts	CR138	Complete	Force Account
Tree/Debris Removal	CR14	Complete	Force Account
Culvert(s) plugged	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Tree/Debris Removal	CR15	Complete	Force Account
Culvert(s) plugged	CR16	Completed on 6-21-22	Force Account
Tree/Debris Removal	CR16	Complete	Force Account
Tree/Debris Removal	CR16B	Complete	Force Account
Tree/Debris Removal	CR19	Complete	Force Account
Tree/Debris Removal	CR29	Complete	Force Account
Tree/Debris Removal	CR40	Complete	Force Account
Road washout	CR57	Complete 6-21-22	Force Account
Tree/Debris Removal	CR57	Complete	Force Account
Tree/Debris Removal	CR58	Complete	Force Account
Culvert(s) plugged	CR59	Complete	Force Account
Tree/Debris Removal	CR59	Complete	Force Account
Tree/Debris Removal	CR60	Complete	Force Account
Tree/Debris Removal	CR68	Complete	Force Account
Tree/Debris Removal	CR70	Complete	Force Account
Tree/Debris Removal	CR73	Complete	Force Account
Tree/Debris Removal	CR88	Complete	Force Account
Tree/Debris Removal	CR90	Complete	Force Account
Ditch erosion/culverts plugged	CR99	Complete	Force Account
Emergency Road Clearing		COMPLETE 6/16-6/18	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR13	Complete	Force Account
Road washout	CR14	Complete 6-21-22	Force Account
Ditch erosion	CR54	Complete	Force Account
Roadway washout	CR78	Complete	Force Account
Culvert Washout	CR16B	Culvert re-installed on 6-21-22	Force Account
Road Embankment Erosion	CR15	Complete	Contract
Road washout	CR15	Complete	Contract
Road Embankment Erosion	CR42	Complete	Contract

2023 EMA Events (January)

Another bout of bad weather hit Monroe County in January 2023, causing a significant amount of damage, and resulting in a disaster declaration. While several of the damage areas were repaired in 2023, 14 locations still need repairs and are slated for completion in 2024. The table below lists damage locations for this event.

Road	Damage	Contract/Force Account	Work Complete?
CR10	Slip/mudslide	Force Account	Yes
CR105	Culvert plugged/washout	Force Account	Yes
CR11	Ditch & culverts plugging	Force Account	Yes
CR138	Culverts plugged/washout	Force Account	Yes
CR15	Slip/Mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR44	Plugged culvert, shoulder erosion	Force Account	Yes
CR13	Road washout/culvert plugged/flooding	Force Account	Yes
CR29	Slip/mudslides	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Slip/Mudslide	Force Account	Yes
CR45	Road washout/flooding	Force Account	Yes
CR57	Road washout/flooding	Force Account	Yes
CR65	Road washout/flooding	Force Account	Yes
CR72	Slip/mudslide	Force Account	Yes
CR78	Road washout/flooding/plugged culverts	Force Account	YES
CR88	Slip/mudslide (39-36-14, 81-12-15)	Force Account	Yes
CR88	Slip/mudslide (39-35-13, 81-07-51)	Force Account	Yes
CR88	Slip/Mudslide (39-35-13, 81-07-52)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR88	Slip/Mudslide (39-35-14, 81-07-54)	Force Account	Yes
CR9A-1.72	Road washout/culvert plugging	Force Account & Contract	YES
CR96	Slip/Mudslide (39.635529, 80.875451)	Oil & Gas operator completed	Yes
TR183	TR183-0.50 Bridge flooding/approach washout	Township complete - not seeking reimbursement	Yes

CR15-1.81	Slip (39-35-41, 81-14-58)	Contract	No
CR15-8.00	Slip	Force Account	No
CR22	Slip - 60 feet long	Contract	YES
CR26-4.60	Large culvert & adjacent culvert overtopped and road washout, culverts plugged	Force Account	YES
CR29-8.00	Culvert plugging/washout	Contract	No
CR40-0.96	Road washout/flooding	Contract	No
CR40-6.10	Slip - 70 feet long	Contract	YES
CR42	Slip/Stream Erosion - 100 feet	Contract	YES
CR42-0.83	Road flooding/surface damage	Contract	No
CR43-1.52	Slip - 60 feet long	Contract	YES
CR43-5.00	Slip & broken culvert	Force Account	No
CR45-4.40	Slip/Erosion	Contract	No
CR47-1.295	Culvert plugging/washout	Force Account	No
CR47-1.65	Road washout/flooding	Force Account	No
CR47-3.97	Slip/Erosion/plugged culvert	Force Account	YES
CR72-1.954	Culvert plugged/washout	Force Account	No
CR81-0.94	Slip	Contract	NO
CR89-0.40	Road washout/flooding	Contract	No
CR89-0.498	Culvert plugging/washout	Combination	No
TR1206	TR1206 Bridge washout/failure	Jackson Township completed	YES
TR358	TR358 Bridge - flooding/washout of backfill	Force Account	No

Slip Repairs Contracted

CR15-0.95 – Monroe Drilling Operations was contracted to perform a Rock Embankment slip repair on County Road 15, for a total cost of \$20,841.90. Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$11,690.00. This work was funded through the Engineers Budget 100%

Slip Repairs OPWC Funded

CR29-1.86 Extension - The County Engineers office prepared the design plans for a Drilled Shaft H-Piling retaining wall extension. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$56,770.40 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR4-2.50 – Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$187,587.83 spent in 2023 and construction inspection was performed by Stahl Sheaffer at a cost of \$17,250. Asphalt surface repairs are planned for 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR10-8.07– Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR12-5.50 - Stahl Sheaffer was awarded the geotechnical analysis contract at this location, for a total cost of \$20,200. The County Engineers office then prepared the design plans for a Drilled Shaft H-Piling retaining wall repair. Construction was awarded to Ohio-West Virginia Excavating and will be completed in 2024. Ohio Public Works Emergency funds were used to pay 90% of all project costs, with the Engineers office supplying the in-kind design work and remainder of cash as local match.

CR22-1.30, CR40-6.10 & CR43-1.52 – Monroe County Engineers Office provided the materials for three pipe piling walls at a cost of \$27,561.45. The installation of the pipe piling walls was contracted to Bob Lanes Welding for a total cost of \$65,002.65, while the asphalt road repairs were contracted to K & F Excavating for a cost of \$23,831.55. Stahl Sheaffer performed inspection services for a total cost of \$32,400.00, bringing the total project cost to \$148,795.65. Ohio Public Works Emergency Funds were used to pay for all of the contract work, and the materials provided by the County served as our local match.

Slip Repairs FEMA Funded

2019 FEMA Event

A total of 206 slips qualified and were reported under the FEMA event that occurred in February, 2019. Of the total, 130 locations have been validated by FEMA to-date. NRCS claimed authority over and approved repairs for 24 locations, which are all complete. The following projects are in progress and are anticipated to be completed in 2024:

CR47-3.95 – Construction to be completed spring/summer 2024.

CR26-6.43 – Construction to be completed spring/summer 2024.

All FEMA qualified projects are funded 75% by FEMA and 25% by the State of Ohio, EMA. No local match is required. The remaining 52 locations have been appealed and denied, leaving a large amount of damage for the County to fund repairs. These locations are not anticipated to be repaired immediately, as there are no available funds in the Engineers budget to perform the work.





CR38-0.43 DENIED FEMA FUNDING FOR SLIP
REPAIR.

INCOME SURVEYS ARE BEING DONE IN EARLY
2024 TO SEE IF THE AREA IS ELIGIBLE FOR
CRITICAL INFRASTRUCTURE FUNDS.

CULVERT REPAIRS AND MAINTENANCE

Culvert Replacement In-House/Force-Account

Project Type	Route/Location	Force Account Cost
BOX CULVERT	CR 9A - 1.72	\$9,618.80
CULVERT REPLACEMENTS	CR 105B - 0.08 & 0.18	\$6,511.00
CULVERT REPLACEMENT	CR 16B - 1.01	\$5,882.89
CULVERT REPLACEMENT	CR26-4.57	\$36,946.99
CULVERT REPLACEMENT	CR29-8.22	\$12,926.11
CULVERT REPLACEMENT	CR 29 - 8.44	\$4,481.81
CULVERT REPLACEMENT	CR 33 - 1.27	\$2,562.33
CULVERT REPLACEMENT	CR43-8.58, 8.22, 7.96 & 7.90	\$22,709.21
CULVERT REPLACEMENT	CR 105A - 1.53	\$3,113.74
CULVERT REPLACEMENT	CR 11 - 2.95	\$9,500.43
CULVERT REPLACEMENTS	CR 4 - 078,1.14,1.30,1.78,2.72,3.15, 3.99 & 4.09	\$38,357.18
CULVERT REPLACEMENTS	CR9A MULTIPLE LOCATIONS	\$77,405.86
CULVERT REPLACEMENTS	CR 15 - 8.07 & 8.15	\$10,766.52
CULVERT REPLACEMENTS	CR26-4.60 & 4.61	\$10,851.83
CULVERT REPLACEMENTS	CR 54 - 0.456,0.544,1.126,1.193	\$10,220.19
CULVERT REPLACEMENTS	CR 61 - 1.705,1.59,1.63 & 1.67	\$12,498.83

Total Culvert Project force account costs for 2023 = \$274,353.72

Culvert Replacements – Contracted/Funded (Excludes FEMA & EMA projects)

County Road 9A Box Culvert Installation – McConnell Contracting Inc. & Mustang Crane were contracted to perform the installation and setting of a concrete box culvert on County Road 9A, for a total cost of \$42,750.00 and \$3,770.00, respectively. This work was funded through the Engineers Budget 100%.

	2023	2022	2021	2020	
Culvert Inventory Condition Status	# of Culverts	# of Culverts	# of Culverts	# of Culverts	% for 2023
Good (A)	1080	935	749	1223	30.90%
Fair/Functional (B)	795	769	812	808	22.75%
Poor/Failed(C, D)	1620	1481	1582	1257	46.35%
Total	3495	3185	3143	3288	100.00%

ROADWAY REPAIRS AND MAINTENANCE

Road Repairs In-House/Force-Account

Project Type	Route/Location	Force Account Cost
ASPHALT BASE REPAIRS	CR 12	\$6,160.76
CHIP SEAL	CR 10	\$76,078.24
CHIP SEAL	CR 96	\$66,486.04
CHIP SEAL - DUST CONTROL	CR 1	\$3,787.20
CHIP SEAL - DUST CONTROL	CR 6	\$11,239.22
CHIP SEAL - DUST CONTROL	CR 26	\$5,810.25
CHIP SEAL - DUST CONTROL	CR 30	\$3,557.77
COLD MIX ROAD LEVELING	CR14	\$13,737.90
HOT MIX PATCHING	CR 96	\$8,363.79
ROAD BERMING	CR12	\$62,749.38
ROAD PROFILE IMPROVEMENT	CR9A	\$51,811.88
SINGLE CHIP SEAL	CR 1 - NORTH	\$39,021.92
SINGLE CHIP SEAL	CR 1 - SOUTH	\$24,493.44
SINGLE CHIP SEAL	CR 3	\$9,471.13
SINGLE CHIP SEAL	CR 81 - 1.07 THRU 2.33	\$27,251.93

Total Road Repairs Project force account costs for 2023 = \$410,020.85

Emergency Services

Snow & Ice Removal - County forces provide snow & ice removal for all 372 miles of County Roads during the winter months. In 2023, a total of \$88,010.21 was spent on this service.

Debris & Tree Removal – County forces respond AFTER HOURS to trees and debris that fall into the roadway, causing a hazard for the traveling public. In 2023, over 215.5 man-hours were spent for a total of **\$8702.30** in OVERTIME Labor costs for this service. Equipment and fuel costs are not included in the total. Debris & Tree removal during normal business hours is not included in the total.

All Emergency service costs are paid from by the County Engineers Budget.

Roadside Mowing

County-Wide Road side mowing - County forces provide roadside mowing for all 372 miles of County Roads throughout the year, with a goal to make at least 2 passes on each road annually and spend as much time as feasible to make additional passes to increase the width we can clear along the roads. In 2023, a total of **\$611,315.3** was spent on this service.

Labor = \$225,026.57 (7315.5 man-hours)

Equipment Usage = \$386,288.74

Miscellaneous Road Improvements In-House/Force-Account

Project Type	Route/Location	Force Account Cost
2023 MOWING	COUNTY WIDE	\$611,315.30
2023 SIGN INSTALLATIONS	COUNTY WIDE	\$11,274.02
2023 SPRING COLD MIX		\$36,081.31
SNOW AND ICE REMOVAL	COUNTY WIDE	\$88,010.21

Total Miscellaneous Road Improvement Project force account costs for 2023 = \$746,680.84

Miscellaneous Road Improvements Contracted

CR2-1.40 Slip Repair—Shelly and Sands Inc. was contracted to provide asphalt repairs at this location for a total cost of \$37,586.60. This work was funded through the Engineers Budget 100%.

County Road 27 Asphalt Mill & Fill Repairs – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 27, for a total cost of \$2500.00. This work was funded through the Engineers Budget.

County Road 79 Asphalt Overlay – Shelly and Sands Inc. was contracted to an perform Asphalt overlay on a section of County Road 79, for a total cost of \$42,376.44.00. This work was funded through the Engineers Budget.

Miscellaneous Road Improvements Funded

Ohio Public Works Commission (OPWC) /CSTP Project – The 2022 OPWC project funding was paired with CSTP (County Surface Transportation Program) funds, to cement stabilize and resurface County Road 12, Greenbrier Road/Trail Run Road, for approximately 10.5 miles between Graysville and State Route 800. This project was originally slated for construction in July 2022, but due to drastically high bid pricing, the project scope was revised and re-bid in December 2022. Construction was awarded to Shelly and Sands and was completed in 2023. Project total cost was \$3,276,996.00. CSTP funds provided \$2,000,000 in grant, with OPWC grant covering \$400,000 and the remainder being paid from the Engineer budget funds.

Ohio Public Works Commission (OPWC) – This 2023 OPWC project funding was utilized for cement stabilization and resurfacing of CR9A, Six Points Road, for a total length of 2.74 miles. The construction was awarded to Shelly and Sands, with the cement stabilization and base asphalt being completed in 2023. The surface asphalt is slated for completion in 2024. Total funds expended in 2023 for this work was \$880,943.42. OPWC grant allowance of \$400,000 will be used, with the remainder being paid for through OPWC loan and the Engineers budget funds.

A second 2023 OPWC project funding was utilized for repairing a slip by installation of an H-Piling retaining wall on CR9A, at the 0.52-mile marker. The construction was awarded to Litman Excavating, with inspection being contracted to Stahl Sheaffer. All work was completed in 2023 for a total project cost of \$245,590.49. OPWC grant allowance of \$180,100 was utilized, with the remainder being funded through OPWC loan and the Engineer budget funds.

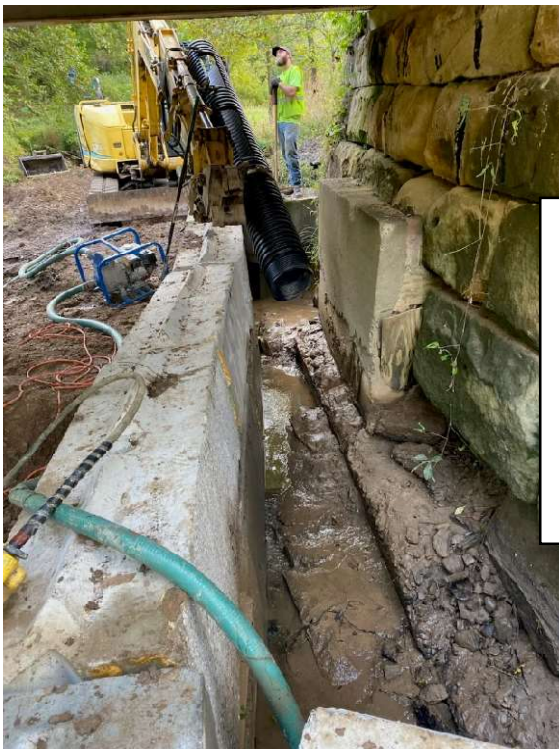
Ohio Department of Development Roadwork Development Grant – The Monroe County Engineers Office applied and received \$1,500,000 in 629 Road Development Funds to make repairs and improvements to County Road 26, Beautiful Ridge Road, specifically at the 5.72-mile marker, where there is a failed piling wall. These funds were awarded to replace the piling wall and make repairs/improvements to County Road 26, in order to prevent impact to the commercial business that rely on this route for all deliveries and access. Design work for the repairs was completed in 2023, for a total cost of \$67,800.00. The project will be bid and constructed in 2024.

BRIDGE IMPROVEMENTS AND REPAIRS

In-House/Force Account

Project Type	Route/Location	Force Account Cost
BRIDGE BOX CULVERT REPAIR	CR 15 - 7.93	\$4,687.50
BRIDGE ABUTMENT REPAIR	CR 100 - 0.68	\$10,484.90
BRIDGE MAINTENANCE	SWITZ TR84-0.01	\$8,674.42
BRIDGE RE-DECK & MAINTENANCE	SUNSBURY TWP. 141 - 0.84	\$18,074.18
BRIDGE REPAIR	CR 9A - 0.98	\$12,817.38
BRIDGE REPLACEMENT	BENTON TWP. 530	\$63,698.05

Total Bridge Project force account costs for 2023 = \$118,436.43



County crews
performing bridge
work

CR9A-0.98 (left) and
TR530-0.54 (right)



Contracted/Funded

CR28-0.56 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



CR28-0.56 Bridge
replaced in 2023



CR29-6.95 Bridge replacement project design was completed in 2022. The bridge replacement was completed in 2023. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



**CR29-6.95 Bridge
replaced in 2023**



TR199-2.38 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



TR199-2.38 Bridge
replaced in 2023



TR199-2.57 Bridge replacement project design was completed in 2022. The bridge construction was completed in 2023. The design and construction costs are funded through Ohio Public Works Infrastructure Grant and Loan program.



**TR199-2.57 Bridge
replaced in 2023**



TR307-0.75 Bridge replacement project design was completed in 2022. The bridge construction started in 2023 and will finish early in 2024. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/LBR Program funds.



TR183-0.13 Bridge replacement project design-build scope was completed in 2022. The original contract was cancelled and the bridge is now slated for construction to start in late 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge replacement project design-build scope was completed in 2022. The bridge is slated for construction to start and complete in 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR2001-0.13 Bridge to be replaced in 2024

TR1206-0.01 Bridge replacement design for this project will be completed by summer of 2023. The bridge is slated for construction to be complete by fall of 2024. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



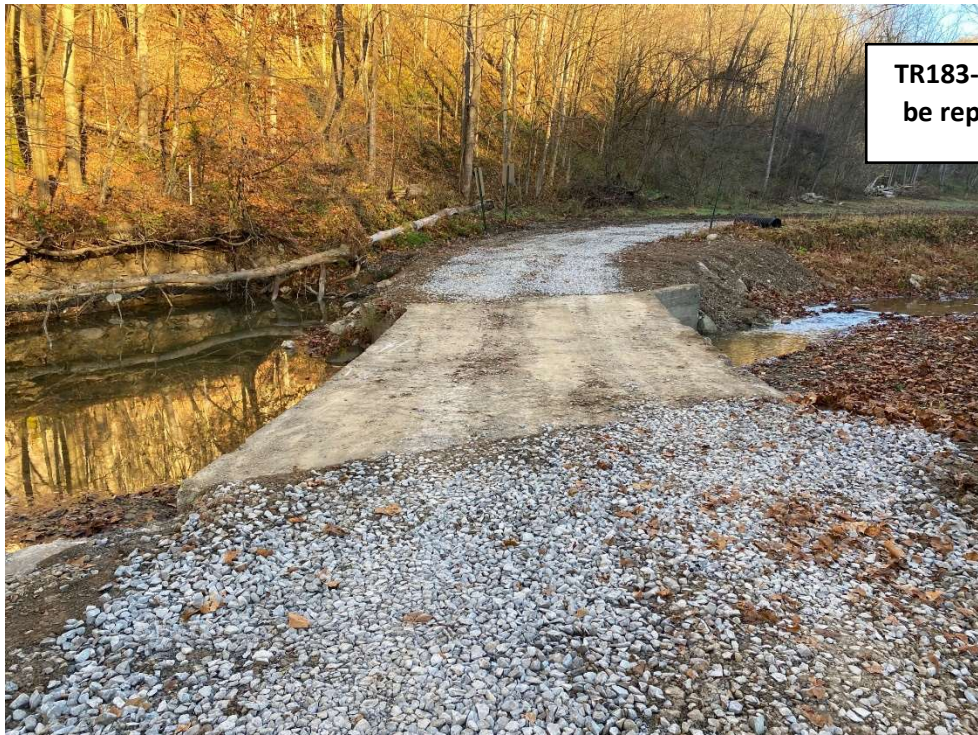
TR1206-0.01 Bridge to be replaced in 2024

TR1004-2.27 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete in 2026. The design costs and construction will be shared funding through Federal Land Access Program and County Engineer budget funds.



TR1004-2.27 Bridge to be replaced in 2026

TR183-0.50 Bridge replacement design for this project will be completed by summer of 2024. The bridge is slated for construction to be complete by summer of 2025. The design costs and construction will be 100% funded through FHWA/BFP Program funds.



TR183-0.50 Bridge to be replaced in 2025

OIL & GAS ACTIVITY

There are currently 13 different Oil & Gas Companies with at least one active RUMA in Monroe County. Over the past few years, several of the previous companies have merged or sold to form larger singular operators, and in the process, RUMAs have been combined into a “Master RUMA” which contains a list of all affected roadways for each Operator. Below is a summary of RUMA activity:

O & G RUMA Activity Summary	2023	2022	2021	2020	2019	2018	2017
New RUMAs	12	3	6	7	13	30	30
Renewed RUMAs	5	5	6	42	46	19	41
Terminated/Modified RUMAs	4	4	*several RUMAs terminated to create a Master RUMA for each Operator	11	19	35	19
Total Number of Operators with at least one RUMA	13	14	14	19	23	23	19

As part of their activities, these Oil & gas Companies often need to improve the County’s current infrastructure. The following table is a summary of the Infrastructure Improvements made by Oil & Gas Companies in 2023. Maintenance items such as dust control and temporary patching are not included in this list.

<i>Company</i>	<i>Road #/Name</i>	<i>Improvement/Work Done</i>	<i>Total Cost of Improvements</i>
Antero	CR69, Walter Ridge Road	Asphalt spot repairs	\$47,370.33
Antero	CR69, Walter Ridge Road	Crack sealing	\$4,130.72
Diversified	CR19, Brownsville-Countyline Road	Asphalt spot repairs	\$12,000.00
Diversified	CR12, Trail Run Road	Asphalt spot repairs	\$6,375.00
Diversified	CR67, Dent Ridge Road	Asphalt Paving	\$484,456.29
Equinor	CR4, Sykes Ridge Road	CR4-5.93/5.96 Slip Repairs	\$616,000.00
Equinor	CR4, Sykes Ridge Road	Asphalt spot repairs	\$882,000.00
Equinor	CR26, Beautifull Ridge Road	CR26-0.90 Crane Accident Repairs	\$174,000.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Damage settlement for RUMA road use	\$100,000.00
Equitrans Midstream	CR64, Cain Ridge Road	Culvert replacement	\$3,150.00
Equitrans Midstream	CR43, Long Ridge Road	Dithing and Berming	\$3,875.00
Equitrans Midstream	CR77, Barber Ridge Road/CR45, Moose Ridge Road	Spreading aggregate	\$17,123.79
Equitrans Midstream	CR45, Moose Ridge Road	Asphalt spot repairs	\$38,398.97
SWN	CR10, Benwood Road	Ditching/Clean up	\$13,449.09
SWN	CR65, Flauhaus Ridge Road	Road Improvements for RUMA	\$18,832.54
SWN	CR43, Long Ridge Road	Asphalt Overlay	\$161,796.67
SWN	CR96, Baptist Ridge Road	Spot Base repairs & Pothole repairs	\$21,425.86
		TOTAL	\$2,604,384.26

COUNTY ENGINEER FUNDING, REVENUE & EXPENDITURES SUMMARY

Projects Summary

Road & Bridge Funding Summary	2023	2022	2021	2020	2019	2018
In-House/Force Account Funds	\$2,296,723.24	\$2,389,943.55	\$2,285,644.39	\$1,772,341.29	\$1,670,724.37	\$968,357.29
County Engineer (local match) funds, including loans	\$987,216.54	\$1,308,675.73	\$1,033,556.23	\$489,568.83	\$459,055.10	\$573,854.21
County General Funds	\$228,750.00	\$75,000.00	\$75,000.00	\$75,000.00	\$102,690.00	\$410,773.62
Oil & Gas Funds	\$2,604,384.26	\$1,566,324.69	\$2,321,668.18	\$4,795,921.00	\$10,401,034.55	\$9,610,872.72
CDBG Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$255,750.00	\$0.00
FHWA/ODOT Funds	\$3,894,271.25	\$708,938.31	\$2,319,559.46	\$51,795.38	\$1,778,428.08	\$1,089,558.59
OPWC Funds	\$1,680,187.80	\$367,961.31	\$1,211,814.10	\$603,596.70	\$652,275.00	\$400,000.00
Ohio Department of Development Funds	\$67,800.00					
FEMA/EMA Funds	\$1,731,927.50	\$6,466,539.68	\$10,141,475.94	\$5,290,496.00	\$4,734,455.77	\$567,976.81
NRCS Funds	\$0.00	\$0.00	\$1,023,643.58	\$0.00	\$0.00	\$0.00
Federal Land Access Program Funds	\$31,280.22	\$0.00	\$456,583.00	\$0.00	\$0.00	\$0.00
Transportation Improvement District Funds	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.00
USDA Funds	\$0.00	\$288,000.00	\$0.00	\$297,000.00	\$0.00	\$141,000.00
TOTALS	\$13,522,540.81	\$13,171,383.27	\$21,068,944.88	\$13,375,719.20	\$20,054,412.87	\$13,762,393.24

County Engineer Budget – 2023 Revenue Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
GASOLINE TAX	\$3,827,153.05	54.0%
INTEREST	\$23,893.15	0.3%
MOTOR VEHICLE LICENSES	\$1,077,816.78	15.2%
PERMISSIVE MVL	\$81,663.06	1.2%
COUNTY COURT FINES	\$10,069.15	0.1%
JUVENILE COURT FINES	\$0.00	0.0%
COMMON PLEAS COURT FINES	\$0.00	0.0%
SPECIAL HAUL PERMITS	\$22,170.00	0.3%
RIGHT OF WAY PERMITS	\$3,460.00	0.0%
SALE & SERVICE	\$41,816.99	0.6%
(National Forest Sales)	\$26,603.29	0.4%
REFUND &/OR REIMBURSEMENT	\$165,022.88	2.3%
TRANSFERS IN	\$143,517.71	2.0%
ADVANCES IN	\$1,322,847.17	18.7%
OTHER RECEIPTS	\$171,906.30	2.4%
OIL & GAS RECEIPTS	\$168,375.00	2.4%
TOTAL	\$7,086,314.53	100%

County Engineer Budget – 2023 Expenditures Summary

DESCRIPTION	2023 EOY FINAL	% of TOTAL
SALARIES OFFICIALS	\$109,292.00	1.82%
SALARIES EMPLOYEES	\$359,880.00	6.00%
LABORERS SALARIES	\$849,266.58	14.16%
RETIREMENT SIC/VAC PAY	\$0.00	0.00%
SUPPLIES	\$4,559.85	0.08%
TAX MAP SUPPLIES	\$1,500.00	0.03%
UNIFORMS & PPE	\$8,581.08	0.14%
WELDING SUPPLIES	\$5,309.05	0.09%
ROAD MATERIALS	\$1,003,334.74	16.73%
EQUIPMENT	\$107,938.00	1.80%
CONTRACT REPAIRS (O&G)	\$10,650.00	0.18%
CONTRACT SERVICES (ISSUE I COUNTY)	\$83,112.62	1.39%
CONTRACTS	\$418,469.12	6.98%
EMA CONTRACTS	\$135,511.85	2.26%
ODOT	\$1,225,820.00	20.44%
TRAVEL EXPENSES	\$500.00	0.01%
ADVERTISING & PRINTING	\$8,058.03	0.13%
PERS/STRS	\$176,493.90	2.94%
WORKERS COMPENSATION	\$8,998.87	0.15%
UNEMPLOYMENT COMP.	\$0.00	0.00%
OTHER EXPENSES	\$22,883.07	0.38%
RIGHT OF WAY PERMITS -Expense	\$100.00	0.00%
TRANSFERS	\$0.00	0.00%
ADVANCES OUT	\$304,800.00	5.08%
INSURANCE	\$262,730.47	4.38%
GROUP & LIABILITY	\$15,000.00	0.25%
LEGAL FEES	\$195.00	0.00%
NOTES	\$0.00	0.00%
FUEL	\$211,008.38	3.52%
UTILITIES	\$24,949.94	0.42%
DOT TESTING	\$1,714.00	0.03%
PRINCIPAL - USDA LOAN	\$55,360.63	0.92%
INTEREST-USDA LOAN	\$9,631.60	0.16%
OPWC LOAN	\$27,205.74	0.45%
VEHICLE MAINT.(IN HOUSE)	\$174,070.79	2.90%
VEHICLE (OUTSIDE REPAIRS)	\$109,372.06	1.82%
LEASES	\$0.00	0.00%
MEDICARE TAX	\$18,391.74	0.31%
DUES	\$1,520.10	0.03%
BUILDING & GROUNDS MAINTENANCE	\$1,741.60	0.03%
OFFICE MAINTENANCE	\$11,260.79	0.19%
SIGNS	\$12,629.96	0.21%
BRIDGE MATERIALS	\$45,329.90	0.76%
CONTRACTS	\$171,195.00	2.85%
BRIDGE CREDITS	\$0.00	0.00%
CONTRACT BRIDGES	\$0.00	0.00%
PERSONEL EXPENDITURES	\$1,811,043.64	30.2%
NON-PERSONEL EXPENDITURES	\$4,187,322.82	69.8%
TOTAL	\$5,998,366.46	100.0%

FUNDING & THE FUTURE

FUNDING SUMMARY SHEET (2017-PRESENT)



Project Type	GRANTS RECEIVED	LOANS RECEIVED	LOCAL MATCH	TOTAL FUNDED PROJECTS COSTS
Bridge	\$9,264,481.25	\$350,000.00	\$1,252,841.04	\$10,867,322.29
Bridge Load Ratings	\$334,306.05	\$0.00	\$2,129.34	\$336,435.39
Road	\$7,484,855.02	\$1,220,153.97	\$2,492,397.35	\$11,197,406.34
Drainage	\$366,823.00	\$0.00	\$89,760.00	\$456,583.00
Safety	\$276,948.15	\$0.00	\$14,105.35	\$291,053.50
Sign	\$66,128.16	\$0.00	\$7,198.44	\$73,326.60
Equipment	\$555,767.66	\$576,000.00	\$20,000.00	\$1,151,767.66
Guardrail	\$264,362.20	\$0.00	\$0.00	\$264,362.20
Slip Repair/Flood Damage	\$36,085,155.56	\$0.00	\$1,643,496.71	\$37,728,652.27
TOTALS	\$54,698,827.05	\$2,146,153.97	\$5,521,928.23	\$62,366,909.25
	88%	3%	9%	100%

The County Engineers office takes pride in being able to “stretch a dollar” and find creative ways to accomplish the large amount of work needed, with a less-than-adequate budget. The table above shows just how well we have been able to do that in the past 7 years, with 88% of all funded projects being covered with money OTHER than County funds. You can also see how important it is to be able to supply Local Match money. A mere 12% of match money/loans has afforded the County over \$54,000,000.00 in road, bridge and infrastructure improvements.

With the constant increase in material and equipment costs, projects will continue to grow in price. Despite the diligent efforts of our crews and the large amount of funding we are able to secure, the County Engineers office still continues to be underfunded. We will continue to prioritize projects based on impact to the public, funding availability and other pertinent factors. Despite the overwhelming amount of work that lies ahead for the County, we will continue to plan and make the most of our funds available. The following table outlines future projects that have funding secured and will be completed over the next few years.

2024 & FUTURE FUNDING

Project Type	Bridge/Road Number/Description	Percent Funded	Project Total Cost (Estimate if not completed)	Funding Year
Slip Repairs/Flood Damage	County-wide FEMA disaster 4424	FEMA 75%, State 25%	\$16,430,241.30	2019
Slip/Flood Damage (June)	County-wide State disaster (June)	EMA 75%, Local 25%	\$107,435.65	2022
Slip/Flood Damage (May)	County-wide State disaster (May)	EMA 75%, Local 25%	\$52,070.04	2022
Bridge	MOE-TR1004-2.27	80% FLAP/20% Local	\$855,320.00	2023
Bridge	MOE-T0183-0.13	100%	\$465,000.00	2023
Bridge	MOE-T2001-0.13	100%	\$450,000.00	2023
Road/Resurfacing	CR9A	OPWC \$400,000grant/\$258,000 Loan, \$234,793 County	\$891,943.42	2023
Slip Repair	CR4-2.50, CR10-8.07, CR12-5.50, CR29-1.86extension	OPWC 90%, Local 10%	\$862,036.00	2023
Slip/Flood Damage (January)	County-wide State disaster (January)	EMA 75%, Local 25%	\$225,139.95	2023
Bridge	MOE-TR0307-0.75	80%	\$836,652.10	2024
Bridge	MOE-TR1206-0.01	80%	\$550,932.00	2024
Bridge	MOE-T0183-00.50	100% Design/Construction , Local pays CE/Inspection	\$751,000.00	2025
Bridge	MOE-TR2214-0.06	100% Design/Construction , Local pays CE/Inspection	\$987,000.00	2026
Road Improvement	CR26-5.72 Slip & Road Improvements	\$1,500,000	\$1,500,000.00	FY2024
Road/Resurfacing	CR29/29A	100% up to \$500,000 MAX	\$569,311.13	FY2024
Safety - Pavement Marking	New Pavement Marking	100%	\$150,000.00	FY2024
Sign	Sign Upgrade project - Various signs	80%	\$15,000.00	FY2024
Road/Resurfacing	CR22	\$500,000 MAX (Local Roads) \$400,000(OPWC grant) \$325,000(OPWC loan)	\$1,572,730.00	FY2025