

**Monroe County Engineer  
Amy M. Zwick, P.S., P.E.  
Annual Report for 2021**

**February 10, 2022**

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 brief 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. Through reporting from Townships, occasionally structures are discovered that qualify as a bridge on a township roadway, and need to be added to the County inventory. This occurred for one bridge in 2021, increasing the current number to **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 2021, 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.

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 2021.

## COUNTY PERMIT SUMMARY

### *Special haul permits*

| Special Haul Permits Summary                  | 2021        | 2020        | 2019        | 2018        | 2017        |
|---|-------------|-------------|-------------|-------------|-------------|
| Total Permits Approved                        | 340         | 202         | 526         | 787         | 632         |
| Total permit fees received                    | \$33,775.00 | \$26,225.00 | \$61,500.00 | \$85,625.00 | \$78,803.50 |
| Total fees paid to consultants                | \$0.00      | \$0.00      | \$0.00      | \$1,500.00  | \$13,931.50 |
| Total bridges analyzed (at least once)        | 9           | 4           | 6           | 5           | 35          |
| Total bridges analyzed that were not passable | 2           | 0           | 1           | 0           | 13          |

### *Right of Way Work permits*

| Right-of-Way work Permits Summary    | 2021       | 2020       | 2019       | 2018       | 2017       |
|--------------------------------------|------------|------------|------------|------------|------------|
| Total Permits Approved               | 109        | 155        | 156        | 205        | 171        |
| Total permit fees received by County | \$3,830.00 | \$4,090.00 | \$4,549.00 | \$6,770.00 | \$6,840.00 |
| Total permit fees paid to Townships  | \$500.00   | \$500.00   | \$900.00   | \$950.00   | \$1,625.00 |

## COUNTY EQUIPMENT PURCHASES/SALES

The County Engineers office applied to USDA for funding for equipment purchases in April of 2021. As of the end of 2021, USDA had not been able to provide funding to Monroe County. Below is a summary of equipment purchases made in recent years:

| Equipment                                  | 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               | \$159,534.72        |                     |                    |                     |
| Alamo 22' Samurai Boom Mower x 2           | \$107,254.40        |                     |                    |                     |
| <b>Total</b>                               | <b>\$354,606.25</b> | <b>\$686,278.46</b> | <b>\$40,136.00</b> | <b>\$260,713.01</b> |

As vehicles and equipment age through many hours of use, or through the 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. In 2021 the following equipment was disposed of:

|                                    |      |                   |
|------------------------------------|------|-------------------|
| 2019 F250 XL with collision damage | SOLD | \$6250.00         |
| <b>Total</b>                       |      | <b>\$6,250.00</b> |

## PERSONNEL ACTIVITY

### ***Retirements***

Debbie Smith, Laborer in Bargaining Unit, retired January 29, 2021 with 30 years of service to the County.

### ***Promotions***

NONE

### ***New Hires/Transfers***

Aaron Perkins, Laborer in Bargaining Unit, hired February 16, 2021

Taylor Kinzey, Laborer in Bargaining Unit, hired February 17, 2021

### ***Resignations/Terminations***

James Fleeman, Assistant Engineer, terminated March 12, 2021

Chase Saffle, Laborer in Bargaining Unit, resigned November 30, 2021

### ***Seasonal Hires***

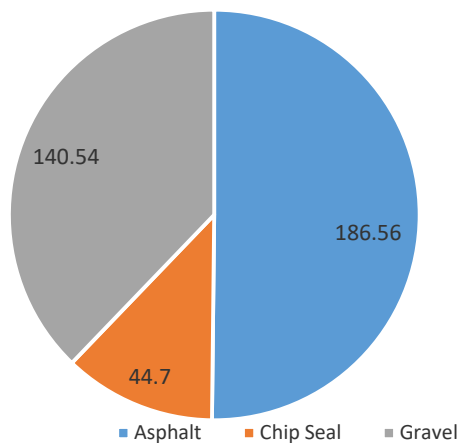
The Engineers Office typically hires seasonal (summer) employees to assist with the increased work load that generally occurs during the summer months. For the 2021 summer season, seven seasonal employees were hired to work various timeframes between May and August. These seasonal workers greatly increase 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 2021 was \$32,281.35.

## 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, we continue to have nearly 140 miles of gravel County roads, and approximately 45 more that are chip seal.

| Road Surface Type | Miles (2017) | % in 2017 | Miles (2021) | % in 2020 |
|-------------------|--------------|-----------|--------------|-----------|
| Asphalt           | 160.113      | 43.17%    | 186.56       | 50.18%    |
| Chip Seal         | 54.544       | 14.71%    | 44.7         | 12.02%    |
| Gravel            | 156.191      | 42.12%    | 140.54       | 37.80%    |

County Road Surface Summary



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. One bridge was added to the inventory in 2021, through the report of discovery by Benton Township. Below is a summary of the rating conditions from 2021 for all bridges on the County inventory.

|                                   | 2021         | 2020         |                |
|-----------------------------------|--------------|--------------|----------------|
| Bridge Inventory Condition Status | # of Bridges | # of Bridges | %              |
| Good (7, 8, 9)                    | 66           | 65           | 36.87%         |
| Fair (5, 6)                       | 85           | 92           | 47.49%         |
| Poor (4 and below)                | 28           | 21           | 15.64%         |
| <b>Total</b>                      | <b>179</b>   | <b>178</b>   | <b>100.00%</b> |

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     | 2021   | 2020   | 2019   | 2018   | 2017   |
|-------------------------|--------|--------|--------|--------|--------|
| Number of Posted Bridge | 34     | 31     | 32     | 31     | 25     |
| % of Total              | 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 2021, 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 | Funding Year |
|--|--|--------------------|--------------|
| MOE-C28-0.56                                 | 80% LBR, 15%Credit Bridge, 5% Local  | \$760,000.00       | FY2023       |
| MOE-C29-6.95                                 | 80%  | \$425,000.00       | FY2023       |
| MOE-CR29-0.85                                | 100% Construction, Local - Design costs  | \$1,253,847.42     | FY2021       |
| MOE - CR12-18.00                             | Engineering - Local responsibility<br>Construction-100% funded                 | \$331,175.00       | 2022         |
| CR27/36/65                                   | OPWC Grant \$400,000<br>TID Grant \$200,000<br>Engineer Cash/In-Kind \$269,799 | \$683,413.85       | 2021         |
| CR28   | 100% (\$500,000 max)   | \$500,000.00       | 2022         |
| CR15, CR105C, CR68, CR88                     | 79%  | \$456,583.00       | FY2020-2022  |
| Roadside Hazard, Sign compliance - 372 miles | 90%  | \$22,338.00        | FY2021       |
| Curve Signage - 3 locations                  | 100%   | \$2,812.04         | FY2021       |
| CR81-1.50, Krebs Hill Road                   | FHWA 100% before , FHWA 80% after, Remainder by County                         | \$693,736.00       | 2020         |
| CR27-2.76                                    | OPWC 76%, FEMA 24%   | \$488,435.68       | 2021         |
| CR10-8.50                                    | OPWC 90%, Local 10%  | \$117,900.95       | 2021         |
| CR22-2.90                                    | OPWC 90%, Local 10%  | \$255,908.97       | 2021         |
| CR81-1.80                                    | OPWC 90%, Local 10%  | \$21,293.44        | 2021         |
| County-wide State disaster                   | EMA 75%, Local 25%   | \$1,745,493.98     | 2020         |
| County-wide NRCS disaster                    | NRCS 90%, State 10%  | \$1,349,175.88     | 2019         |
| County-wide FEMA disaster 4424               | FEMA 75%, State 25%  | \$12,447,168.85    | 2019         |
| County-wide FEMA disaster 4360               | FEMA 75%, State 25%  | \$6,169,073.90     | 2018         |

## **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***

| <b>Project Type</b> | <b>Route/Location</b> | <b>Force Account Cost</b> |
|---------------------|-----------------------|---------------------------|
| Rock Embankment     | CR27-2.62             | \$5,922.92                |
| Rock Embankment     | CR28-0.75             | \$4,908.17                |
| Slip Repair         | CR11-2.10             | \$42,226.21               |
| Slip Maintenance    | CR43-0.60             | \$4,717.87                |

**Total Slip Repair Project force account costs for 2021 = \$57,775.17**

#### **Historical Force Account costs:**

**2020 = \$227,025.12**

**2019 = \$ 26,357.13**

**2018 = \$67,016.52**

**2017 = \$139,117.14**

## ***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, with the remainder having the design work complete and awaiting construction. Below is a summary of all approved EMA projects, to-date, with the highlighted projects being 100% completed by end of year 2021:

| <b>Road No.</b> | <b>Log Point</b> | <b>Type of Repair</b> | <b>Contract/Force Account</b> |
|-----------------|------------------|-----------------------|-------------------------------|
| 2               | 1.20             | Pipe Piling           | Force Account                 |
| 2               | 3.41             | H-Piling              | Contract                      |
| 4               | 0.60             | H-Piling              | Contract                      |
| 4               | 0.70             | H-Piling              | Contract                      |
| 12              | 0.40             | H-Piling              | Contract                      |
| 12              | 0.90             | H-Piling              | Contract                      |
| 16              | 6.57             | H-Piling              | Contract                      |
| 17              | 1.00             | H-Piling              | Contract                      |
| 22              | 1.50             | H-Piling              | Contract                      |
| 22              | 1.70             | H-Piling              | Contract                      |
| 22              | 2.01             | H-Piling              | Contract                      |
| 25              | 2.068            | H-Piling              | Contract                      |
| 25              | 3.80             | H-Piling              | Contract                      |
| 26              | 3.90             | H-Piling              | Contract                      |
| 26              | 4.26             | H-Piling              | Contract                      |
| 27              | 3.10             | H-Piling              | Contract                      |
| 29              | 0.5              | H-Piling              | Contract                      |
| 38              | 2.6              | H-Piling              | Contract                      |
| 39              | 2.60             | H-Piling              | Contract                      |
| 40              | 4.40             | H-Piling              | Contract                      |
| 40              | 4.70             | H-Piling              | Contract                      |
| 64              | 1.95             | H-Piling              | Contract                      |
| 79              | 4.10             | H-Piling              | Contract                      |
| 79              | 5.50             | H-Piling              | Contract                      |
| 81              | 1.59             | H-Piling              | Contract                      |
| 81              | 1.96             | H-Piling              | Contract                      |
| 11S             | 3.20             | H-Piling              | Contract                      |
| 12              | 18.20            | Rock Embankment       | Contract                      |
| 17              | 0.60             | Rock Embankment       | Contract                      |
| 24              | 0.1              | Rock Embankment       | Contract                      |
| 29              | 9.24             | Rock Embankment       | Contract                      |
| 44              | 0.90             | Rock Embankment       | Contract                      |
| 53              | 1.553            | Rock Embankment       | Contract                      |



|     |       |  |               |
|-----|-------|--|---------------|
| 57  | 0.40  | Rock Embankment                          | Contract      |
| 5   | 1.80  | Gabions                                  | Force Account |
| 2   | 0.24  | Pipe Piling                              | Force Account |
| 2   | 0.60  | Pipe Piling                              | Force Account |
| 2   | 0.70  | Pipe Piling                              | Force Account |
| 2   | 6.25  | Pipe Piling                              | Force Account |
| 4   | 3.40  | Pipe Piling                              | Force Account |
| 11  | 1.75  | Pipe Piling                              | Force Account |
| 13  | 3.80  | Pipe Piling                              | Force Account |
| 33  | 1.28  | Pipe Piling                              | Force Account |
| 42  | 2.49  | Pipe Piling                              | Force Account |
| 43  | 0.80  | Pipe Piling                              | Force Account |
| 43  | 1.40  | Pipe Piling                              | Force Account |
| 43  | 4.90  | Pipe Piling                              | Force Account |
| 45  | 1.90  | Pipe Piling                              | Force Account |
| 47  | 2.40  | Pipe Piling                              | Force Account |
| 47  | 3.60  | Pipe Piling                              | Force Account |
| 47  | 3.70  | Pipe Piling                              | Force Account |
| 53  | 3.30  | Pipe Piling                              | Force Account |
| 65  | 0.08  | Pipe Piling                              | Force Account |
| 68  | 1.7   | Pipe Piling                              | Force Account |
| 68  | 4.2   | Pipe Piling                              | Force Account |
| 73  | 8.505 | Pipe Piling                              | Force Account |
| 73  | 8.8   | Pipe Piling                              | Force Account |
| 77  | 5.3   | Pipe Piling                              | Force Account |
| 84  | 2.10  | Pipe Piling                              | Force Account |
| 11S | 0.50  | Pipe Piling                              | Force Account |
| 11S | 0.60  | Pipe Piling                              | Force Account |
| 11  | 2.10  | Pipe Piling & add guardrail backing      | Force Account |
| 15  | 8.32  | Pipe Piling with Rock Channel Protection | Force Account |
| 15  | 8.35  | Pipe Piling with Rock Channel Protection | Force Account |
| 42  | 3.90  | Rock Embankment                          | Force Account |
| 47  | 2.15  | Rock Embankment                          | Force Account |
| 88  | 3.90  | Rock Embankment                          | Force Account |



County Forces  
installing Pipe Piling  
Walls

***Slip Repairs Contracted*** -None

***Slip Repairs FHWA Funded***

**CR81-1.55 Krebs Hill Road** – ADR & Associates was awarded the design of an extension of an existing Drilled Shaft H-Piling retaining wall at this location, for a total cost of \$49,900.00. Design was 100% funded through FHWA

Disaster/Emergency funds. Construction was completed in 2021, was awarded to Ohio-West Virginia Excavating for a cost of \$279,324.00. Construction will be funded 80% through FHWA, with the remaining cost being the responsibility of the County Engineers Budget.

***Slip Repairs OPWC Funded***

**CR27-2.76** – Stahl Sheaffer was awarded the design of a Drilled Shaft H-Piling retaining wall at this location, for a total cost of \$39,000.00. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$432,926.68 and construction inspection was performed by True Inspection Services at a cost of \$1,314.00. Ohio Public Works Emergency funds were used to pay for \$397,522.17, with the remaining \$35,404.51 being paid from the Engineers budget.



**CR10-8.50**– The County performed the design of a Drilled Shaft H-Piling retaining wall at this location. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$113,564.95, and construction inspection was performed by True Inspection Services at a cost of \$4,336.00. Ohio Public Works Emergency funds were used to pay for \$106,110.85, with the remaining \$11,790.10 being paid from the Engineers Budget.

**CR22-2.90**– The County performed the design of a Drilled Shaft H-Piling retaining wall at this location. Construction was awarded to Ohio-West Virginia Excavating for a total cost of \$246,269.97, and construction inspection was performed by True Inspection Services at a cost of \$9,639.00. Ohio Public Works Emergency funds were used to pay for \$230,318.07, with the remaining \$25,590.90 being paid from the Engineers Budget.

**CR81-1.80 Krebs Hill Road** – A Rock Embankment and culvert replacement project was awarded to Monroe Drilling Operations, with Shelly and Sands completing the asphalt road repairs, for a total cost of \$21,293.44. Ohio Public Works Emergency funds were used to pay for \$19,164.10, with the remaining \$2,129.34 being paid from the Engineers budget.



## ***Slip Repairs FEMA/NRCS 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 has claimed authority over and approved repairs for 24 locations. The remaining 52 locations have either been appealed and denied or are currently in the appeal process with FEMA, because they were not approved with the initial round of assessment.

Several of the FEMA-approved projects were completed in 2020 & 2021, with a few having the design work complete and awaiting FEMA approval of construction costs. Below is a summary of all approved FEMA projects, to-date, with the highlighted projects being 100% completed by end of year 2021:

| Road No. | Location/Log Point | Type of Repair                | Total Costs  |
|----------|--------------------|-------------------------------|--------------|
| CR10     | 0.3                | Rock Embankment               | \$35,021.66  |
| CR10     | 1.50               | H-Pile/Drilled Shaft          | \$232,091.07 |
| CR10     | 3.93               | H-Pile/Drilled Shaft          | \$268,555.69 |
| CR10     | 5.40               | H-Pile/Drilled Shaft          | \$375,531.85 |
| CR10     | 5.50               | H-Pile/Drilled Shaft          | \$348,488.40 |
| CR10     | 5.58               | H-Pile/Drilled Shaft          | \$387,731.25 |
| CR10     | 7.74               | H-Pile/Drilled Shaft          | \$189,108.63 |
| CR10     | 8.37               | H-Pile/Drilled Shaft          | \$150,205.32 |
| CR11     | 0.19               | H-Pile Drilled Shaft          | \$238,034.93 |
| CR11     | 1.70               | H-Pile/Drilled Shaft          | \$502,270.48 |
| CR11     | 1.87               | H-Pile Drilled Shaft          | \$342,627.59 |
| CR138    | 0.08               | H-Pile/Drilled Shaft          | \$167,843.18 |
| CR14     | 1.34               | Pipe Piling                   | \$50,734.02  |
| CR15     | 0.40               | Asphalt, Base & culvert Only  | \$84,456.61  |
| CR15     | 3.06               | Rock Embankment               | \$17,978.07  |
| CR15     | 7.92               | H-Piling/Drilled Shaft        | \$224,882.16 |
| CR16B    | 1.94               | H-Pile/Drilled Shaft          | \$334,262.69 |
| CR16B    | 3.74               | H-Pile/Drilled Shaft          | \$138,526.55 |
| CR22     | 1.20               | H-Pile/Drilled Shaft          | \$487,450.13 |
| CR22     | 2.08               |                               | \$30,100.00  |
| CR25     | 1.10               | Rock Embankment               | \$8,837.63   |
| CR25     | 2.45               | Asphalt surface and base only | \$0.00       |
| CR25     | 2.80               | H-Pile/Drilled Shaft          | \$158,446.74 |

|      |            |                          |              |
|------|------------|--------------------------|--------------|
| CR26 | 3.93       | Pipe Piling              | \$87,702.94  |
| CR26 | 4.38       | Pipe Piling              | \$37,766.23  |
| CR29 | 0.57       | H-Pile/Drilled Shaft     | \$154,411.07 |
| CR29 | 1.86       | H-Pile/Drilled Shaft     | \$150,372.39 |
| CR29 | 4.05       | H-Pile/Drilled Shaft     | \$106,788.89 |
| CR29 | 6.46       | H-Piling/Drilled Shaft   | \$21,420.05  |
| CR31 | 6.16       | H-Pile/Drilled Shaft     | \$148,684.21 |
| CR31 | 6.68       | Pipe Piling              | \$33,673.24  |
| CR31 | 7.00       | H-Pile Drilled Shaft     | \$238,538.72 |
| CR33 | 2.38       | Rock Embankment          | \$69,246.04  |
| CR35 | 0.17       | Rock Embankment          | \$25,285.02  |
| CR35 | 0.64       | Rock Embankment          | \$13,024.93  |
| CR35 | 1.00       | H-Piling/Drilled Shaft   | \$24,119.50  |
| CR37 | 1.05       | H-Pile/Drilled Shaft     | \$151,568.90 |
| CR38 | 5.45       | H-Pile/Drilled Shaft     | \$240,089.55 |
| CR39 | 3.70       | ASPHALT SURFACE          | \$29,478.61  |
| CR39 | 3.8        | ASPHALT SURFACE          | \$26,638.71  |
| CR4  | 0.15       | Washout and ditch repair | \$47,830.95  |
| CR42 | 5.36       | Rock Embankment          | \$104,014.25 |
| CR43 | 0.31       | H-Pile Drilled Shaft     | \$413,416.19 |
| CR43 | 0.73       | H-Piling/Drilled Shaft   | \$274,332.54 |
| CR43 | 3.96       | H-Piling/Drilled Shaft   | \$304,641.46 |
| CR43 | 5.00       | Pipe Piling              | \$118,821.04 |
| CR43 | 5.84       | Pipe Piling              | \$127,185.50 |
| CR43 | 7.87       | H-Pile/Drilled Shaft     | \$374,446.74 |
| CR43 | 7.40 (add) | H-Pile Drilled Shaft     | \$234,068.67 |
| CR43 | 7.50 (add) | H-Pile Drilled Shaft     | \$370,281.73 |
| CR45 | 0.74       | H-Pile Drilled Shaft     | \$272,004.72 |
| CR45 | 1.92       | H-Pile Drilled Shaft     | \$248,804.52 |
| CR5  | 0.69       | Rock Embankment          | \$11,284.70  |
| CR5  | 0.89       | Rock Embankment          | \$6,393.95   |

|       |      |                                     |              |
|-------|------|-------------------------------------|--------------|
| CR53  | 0.54 | H-Pile/Drilled Shaft                | \$177,126.32 |
| CR53  | 5.33 | Asphalt & base only                 | \$44,648.61  |
| CR53  | 5.44 | Asphalt & base only                 | \$43,747.71  |
| CR64  | 0.27 | H-Pile Drilled Shaft                | \$22,018.00  |
| CR64  | 0.57 | H-Pile/Drilled Shaft                | \$166,401.04 |
| CR64  | 1.95 | H-Pile/Drilled Shaft                | \$269,553.69 |
| CR64A | 1.97 | H-Pile/Drilled Shaft                | \$115,844.90 |
| CR64A | 2.22 | H-Piling/Drilled Shaft              | \$136,075.28 |
| CR68  | 0.98 | Rock Embankment                     | \$9,832.95   |
| CR77  | 1.75 | H-Piling/Drilled Shaft              | \$122,494.20 |
| CR77  | 5.30 | Rock Embankment/Culvert replacement | \$18,054.35  |
| CR79  | 4.50 | H-Pile/Drilled Shaft                | \$14,400.00  |
| CR79  | 4.65 | Road & Culvert repair ONLY          | \$91,203.90  |
| CR85  | 0.59 | H-Pile/Drilled Shaft                | \$420,045.53 |
| CR88  | 0.70 | Rock Embankment                     | \$40,911.05  |
| CR89  | 3.41 | Pipe Piling                         | \$127,541.72 |
| CR92  | 0.12 | H-Pile/Drilled Shaft                | \$257,829.34 |
| CR92  | 0.18 | H-Pile/Drilled Shaft                | \$274,885.24 |
| CR92  | 3.50 | H-Pile/Drilled Shaft                | \$150,979.65 |
| CR96  | 0.43 | H-Piling/Drilled Shaft              | \$196,576.42 |
| CR96  | 0.60 | H-Piling/Drilled Shaft              | \$530,268.91 |
| CR96  | 1.15 | H-Piling/Drilled Shaft              | \$153,937.34 |
| CR96  | 1.17 | H-Piling/Drilled Shaft              | \$125,378.44 |
| CR96  | 2.97 | H-Pile Drilled Shaft                | \$166,370.72 |

All FEMA qualified projects are funded 75% by FEMA and 25% by the State of Ohio, EMA. No local match is required.



CR64-0.57  
Completed Wall



NRCS projects were not approved to start design until the end of December 2020, and all work was completed in 2021. NRCS eligible work items were 90% funded through NRCS funds, and the remaining project cost was funded through the State EMA match. The NRCS projects are summarized in the table below.

| Road           |                     | Proposed Treatment | Project Total<br>Actual Costs |
|----------------|---------------------|--------------------|-------------------------------|
| County Rd 29   | (Sunfish Creek Rd.) | Drilled Shaft      | \$457,683.60                  |
| County Rd 15   |                     | Drilled Shaft      | \$447,741.07                  |
| County Rd 11   | (Barnes Run Rd.)    | Drilled Shaft      | \$226,526.35                  |
| County Rd 11   | (Barnes Run Rd.)    | Drilled Shaft      |                               |
| County Rd 22   | (Barnes Run Rd.)    | Grouted Rip Rap    | \$87,837.79                   |
| County Rd 22   | (Barnes Run Rd.)    | Grouted Rip Rap    |                               |
| County Rd 15   | (Witten Creek Rd.)  | Grouted Rip Rap    |                               |
| County Rd 11   | (Dogskin Rd.)       | Grouted Rip Rap    |                               |
| County Rd 19   | (Brownsville Rd.)   | Grouted Rip Rap    |                               |
| County Rd 45   | (Moose Ridge Rd.)   | Rip Rap            | \$50,944.84                   |
| County Rd 72   | (Wolfpen Rd.)       | Rip Rap            |                               |
| Twp 472 Bridge | (Eddie Ridge Rd.)   | Sheetpiling        | \$21,181.39                   |
| County Rd 11   | (Barnes Run Rd.)    | Gabions            | \$57,260.85                   |





CR11 Gabion Wall  
construction



CR22 Grouted Rip  
Rap construction



## CULVERT REPAIRS AND MAINTENANCE

### *Culvert Replacement In-House/Force-Account*

| Project Type          | Route/Location      | Force Account Cost |
|-----------------------|---------------------|--------------------|
| Culvert Installations | CR11-7.00-7.14-7.5  | \$13,540.11        |
| Culvert Installations | CR43-5.64           | \$1,852.34         |
| Culvert Replacement   | CR11-1.61           | \$2,376.67         |
| Culvert Replacement   | CR10-5.88-9.80      | \$43,434.51        |
| Culvert Replacement   | CR28                | \$39,657.08        |
| Culvert Replacement   | CR30-0.49-1.027     | \$12,149.11        |
| Culvert Replacement   | CR43-5.34-6.82      | \$21,797.96        |
| Culvert Replacement   | CR65-0.12-1.00      | \$15,308.89        |
| Culvert Replacement   | CR27-1.375-2.80     | \$28,653.40        |
| Culvert Replacement   | CR36-0.00-0.42      | \$18,509.39        |
| Culvert Replacement   | CR31-5.09 & 5.20    | \$7,305.93         |
| Culvert Replacement   | CR13                | \$7,061.43         |
| Culvert Replacement   | CR16B-3.021 - 3.173 | \$11,007.02        |

**Total Culvert Project force account costs for 2021 = \$222,653.84**

### **Historical Force Account costs:**

**2020 = \$410,673.08**

**2019=\$246,008.63**

**2018 = \$102,593.82**

**2017 = \$518,126.46**

|                                    | 2021        | 2020          |                |
|------------------------------------|-------------|---------------|----------------|
| Culvert Inventory Condition Status |             | # of Culverts | %              |
| Good (A)                           | 749         | 1223 (37.2%)  | 23.83%         |
| Fair/Functional (B)                | 812         | 808 (24.6%)   | 25.84%         |
| Poor/Failed(C, D)                  | 1582        | 1257 (38.2%)  | 50.33%         |
| <b>Total</b>                       | <b>3143</b> | <b>3288</b>   | <b>100.00%</b> |

### **Culverts Contracted/Funded –**

**FLAP (Federal Land Access Program)** – FLAP funds were awarded for replacement of 108 culverts on CR15, CR105, CR68, & CR88. This project was administered through ODOT and awarded to Litman Excavating. Final project costs were \$378,162.93, with FLAP covering \$288,402.93, and the remaining \$89,760.00 being contributed from the County Engineers budget.

## ROADWAY REPAIRS AND MAINTENANCE

### *Chip Seal In-House/Force-Account*

| Project Type          | Route/Location  | Force Account Cost |
|-----------------------|-----------------|--------------------|
| Chip Seal             | CR1             | \$17,546.73        |
| Chip Seal             | CR6             | \$7,034.73         |
| Chip Seal             | CR42            | \$528,080.76       |
| Chip Seal             | CR57            | \$57,805.19        |
| Chip Seal             | CR100           | \$35,408.83        |
| Chip Seal             | Center Township | \$2,439.14         |
| Chip Seal Dust Strips | CR30            | \$17,923.53        |
| Chip Seal Dust Strips | CR65            | \$12,479.10        |
| Chip Seal Dust Strips | CR76            | \$5,325.10         |
| Chip Seal Dust Strips | CR40            | \$6,468.12         |
| Chip Seal Dust Strips | CR13            | \$5,832.03         |
| Chip Seal Dust Strips | CR5             | \$34,971.02        |
| Chip Seal Dust Strips | CR38            | \$13,816.36        |

**Total Chip Seal Project force account costs for 2021 = \$745,130.64**

**Historical Force Account Costs: 2020 = \$221,313.00**

**2019 = \$9,726.54**

**2018 = \$32,027.65**

**2017 = \$79,268.10**

### *Chip Seal Contracted/Funded*

**County Road 38 Chip Seal** - Russell Standard was contracted to perform chip seal repairs on specific locations of County Road 38, for a total cost of \$108,889.50. This work was funded through Oil & Gas operator contributions (\$98,550.00) as well as a partial reimbursement through FEMA (\$10,339.50) project associated damages.

### *Emergency Services*

**Snow & Ice Removal** - County forces provide snow & ice removal for all 372 miles of County Roads during the winter months. In 2021, a total of \$359,398.57 was spent on this service.

Labor = \$102,063.87

Materials = \$145,796.82

Equipment Usage = \$111,537.88

**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 2021, over 224 man-hours were spent for a total of **\$8,347.41** 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 2021, a total of **\$562,846.21** was spent on this service.

Labor = \$203,860.23 (6723.50 man-hours)

Equipment Usage = \$358,985.98

### ***Miscellaneous Road Improvements In-House/Force-Account***

| <b>Project Type</b>    | <b>Route/Location</b> | <b>Force Account Cost</b> |
|------------------------|-----------------------|---------------------------|
| County Wide Mowing     |                       | \$562,846.21              |
| Curve Sign             |                       | \$2,529.14                |
| Dust Control           | CR106                 | \$11,426.27               |
| Grader Patching        | CR73                  | \$12,311.85               |
| Guardrail Installation | CR40                  | \$726.07                  |
| Snow and Ice removal   |                       | \$359,398.87              |

**Total Miscellaneous Road Improvement Project force account costs for 2021 = \$1,536,274.54**

### **Historical Force Account costs:**

**2020 = \$852,472.59**

**2019 = \$567,101.21**

**2018 = \$110,527.00**

**2017=\$510,840.47**

### ***Miscellaneous Road Improvements Contracted***

**County Road 42 Asphalt Mill & Fill Repairs** – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 42, for a total cost of \$47,728.00. This work was funded through the Engineers Budget (\$36,493) as well as a partial reimbursement through FEMA (\$11,235) project associated damages.

**County Road 100 Asphalt Mill & Fill Repairs** – K and F Excavating was contracted to perform Asphalt Mill & Fill patch repairs on specific locations of County Road 100, for a total cost of \$35,432.00. This work was funded through the Engineers Budget entirely.

**CR30 Road Improvement Project** – Spot cement stabilization with an asphalt overlay, culvert replacements and drainage improvements for the 0.72-Mile asphalt section of County Road 30.

The cement stabilization & asphalt overlay portion of the project was awarded to Shelly & Sands Inc.. Their portion of the project work totaled \$147,254.00. The County replaced culverts and performed drainage improvements, at a cost of \$12,149.11, for a final project cost of \$159,403.11. The entire project was funded through the Engineers budget, with \$12,149.11 of that being in-kind county forces work.

#### ***Miscellaneous Road Improvements Funded***

**Ohio Public Works Commission (OPWC) Project** – Spot cement stabilization with an asphalt overlay, culvert replacement and drainage improvements on three sections of County Roads 27, 36 and 65.

The cement stabilization & asphalt overlay portion of the project was awarded to Shelly & Sands Inc.. Their portion of the project work totaled \$623,033.40. The County replaced culverts and performed drainage improvements, at a cost of \$60,380.45, for a final project cost of \$683,413.85. OPWC Grant covered \$400,000.00 of the project costs. The remaining project cost (\$283,413.85) was paid from the Engineers budget, with \$60,380.45 of that being in-kind county forces work and the Transportation Improvement District funding a reimbursement of \$200,000.00.

**Local Roads Oil & Shale Program** - CR28 Road Improvement project included culvert replacements, drainage improvements, asphalt overlay, berming and pavement marking. County forces replaced the culverts and performed the drainage grading for a total cost of \$61,444.08. The remaining work was bid through ODOT, awarded to Shelly and Sands Inc. and completed for a total cost of \$523,360.00. The Engineers budget contributed \$23,360.00, and the remainder was funded through the Local Roads program funding.

## BRIDGE IMPROVEMENTS AND REPAIRS

### *In-House/Force Account*

| Project Type           | Route/Location | Force Account Cost |
|------------------------|----------------|--------------------|
| Bridge Approach Repair | CR29-8.54      | \$4,239.21         |

**Total Bridge Project force account costs for 2021 = \$4,239.21**

### **Historical force account costs:**

**2020 = \$58,762.63**

**2019 = \$58,967.16**

**2018 = \$77,459.20**

**2017 = \$102,268.09**

### *Contracted/Funded*

**CR29-0.85 Bridge** replacement project design was completed in 2020, by HammonTree & Associates, with a total design cost of \$35,000.00. The construction was bid through ODOT and awarded to Shelly & Sands, Inc. The bridge was completed in July of 2021, for a cost of \$835,228.37. The design costs for the project are 100% funded through the Engineers budget, while the construction was 100% funded through FHWA/Ohio Bridge Partnership Program funds.



CR29-0.85 Bridge  
BEFORE







**CR12-18.00 Bridge** replacement project design was completed in 2020, by Stahl Sheaffer, with a total design cost of \$28,675.00. The design costs for the project are 100% funded through the Engineers budget, while the construction will be 100% funded through FHWA/Ohio Bridge Partnership Program funds. Estimated cost for construction is \$280,000.00 and will be completed in 2022.





**CR12-20.15 Bridge** replacement project design was completed in 2020, by Stahl Sheaffer, with a total design cost of \$22,025.00. The replacement of this bridge was primarily completed in 2021 by contract with some outstanding punch-list items to be finished in 2022, for an estimated final construction cost of \$443,762.98. This project will be completely financed by the Engineers Budget.



CR12-20.15 Bridge  
BEFORE







CR12-20.15 Bridge  
AFTER

## OIL & GAS ACTIVITY

There are currently 14 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. While the miles of roadway under RUMA have not changed greatly, the number of RUMAs continues to decrease. Below is a summary of RUMA activity:

| O & G RUMA Activity Summary                      | 2021   | 2020 | 2019 | 2018 | 2017 |
|--|--|------|------|------|------|
| New RUMAs  | 6  | 7    | 13   | 30   | 30   |
| Renewed RUMAs                                    | 6  | 42   | 46   | 19   | 41   |
| Terminated RUMAs                                 | *several RUMAs<br>terminated to create a<br>Master RUMA for each<br>Operator | 11   | 19   | 35   | 19   |
| Total Number of Operators with at least one RUMA | 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 2021. 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> |
|----------------|---------------------------|--|-----------------------------------|
| Montage        | CR10, Benwood Rad         | Asphalt Widening                               | \$247,600.00                      |
| Montage        | CR96, Baptist Ridge Road  | Chip and Seal/ Slip Repair                     | \$77,410.50                       |
| Montage        | CR43, Long Ridge Road     | Asphalt Repairs & Chip and Seal                | \$51,760.00                       |
| Montage        | CR84, John Lengacher Road | Asphalt Paving/FDR/ Ditching & Retaining Walls | \$554,075.66                      |
| Montage        | CR10, Benwood Road        | Asphalt Overlay                                | \$121,694.04                      |
| Equitrans      | CR64A, Cochran Hill Road  | Asphalt Mill & Fill Repairs                    | \$5,850.00                        |
| Equitrans      | CR29, Sunfish Creek Road  | Asphalt Repairs                                | \$10,725.00                       |
| Eureka         | CR5, Atkinson Run Road    | Culvert Replacement                            | \$35,523.00                       |
| Eureka         | CR64A, Cochran Hill Road  | Chip Seal Repairs                              | \$5,750.00                        |

|  |   |   |                       |
|--|---|---|-----------------------|
| Eureka   | CR29, Sunfish Creek Road                        | Chip Seal Repairs                         | \$4,600.00            |
| Eureka   | CR96, Baptist Ridge Road                        | Chip Seal Repairs                         | \$6,909.13            |
| Eureka   | CR101, Roy Watson                               | Chip Seal Repairs                         | \$21,754.75           |
| Eureka   | CR9A, Six Points Road                           | Asphalt repairs/ Chip and Seal            | \$92,090.00           |
| Eureka   | CR38, Headley Ridge Road                        | Chip Seal Repairs                         | \$8,114.00            |
| Eureka   | CR5, Atkinson Run Road                          | Chip Seal Repairs                         | \$13,450.40           |
| Equinor  | CR4, Sykes Ridge Road                           | Asphalt base Repairs/ Mill & Fill Repairs | \$103,000.00          |
| Equinor  | CR4, Sykes Ridge Road                           | Asphalt Repairs                           | \$23,000.00           |
| Equinor/Equitrans/Montage  | CR64, Cain Ridge Road                           | Asphalt & Chip Seal Repairs               | \$57,730.28           |
| Equinor  | CR43, Long Ridge Road                           | Asphalt Repairs                           | \$150,466.32          |
| Markest/Ohio Oil Gathering   | CR1, Kings Highway                              | Base Repair                               | \$43,700.00           |
| Markest/Ohio Oil Gathering   | CR27, Moore Ridge Road                          | Shoulder Repairs and Base Repairs         | \$62,807.50           |
| Markest/Ohio Oil Gathering   | CR36, Ozark Eddy-Bridge Road                    | Base Repair                               | \$7,675.00            |
| Enbridge/Columbia Leach Xpress/ EPC/Rover                              | CR44, Swazey Road                               | Asphalt Paving                            | \$170,592.55          |
| Rover  | CR27, Moore Ridge Road                          | Asphalt Paving                            | \$680,030.00          |
| CNX/Enbridge/Rover/Equitrans/Summit/Eureka/Dominion/ORS/Columbia Leach | CR37, Boltz Hill Road & CR25, German Ridge Road | Shoulder back up & Asphalt Repairs        | \$1,934,790.25        |
| Gulfport   | CR23, Pugh Ridge Road                           | Asphalt Overlay                           | \$155,000.00          |
| Antero Resources   | CR2, Miltonsburg-Calais Rd                      | Asphalt Repairs                           | \$120,000.00          |
| Antero Resources   | CR39, Harper Ridge Road                         | Asphalt Repairs                           | \$29,822.62           |
|  |   | <b>TOTAL</b>                              | <b>\$4,795,921.00</b> |

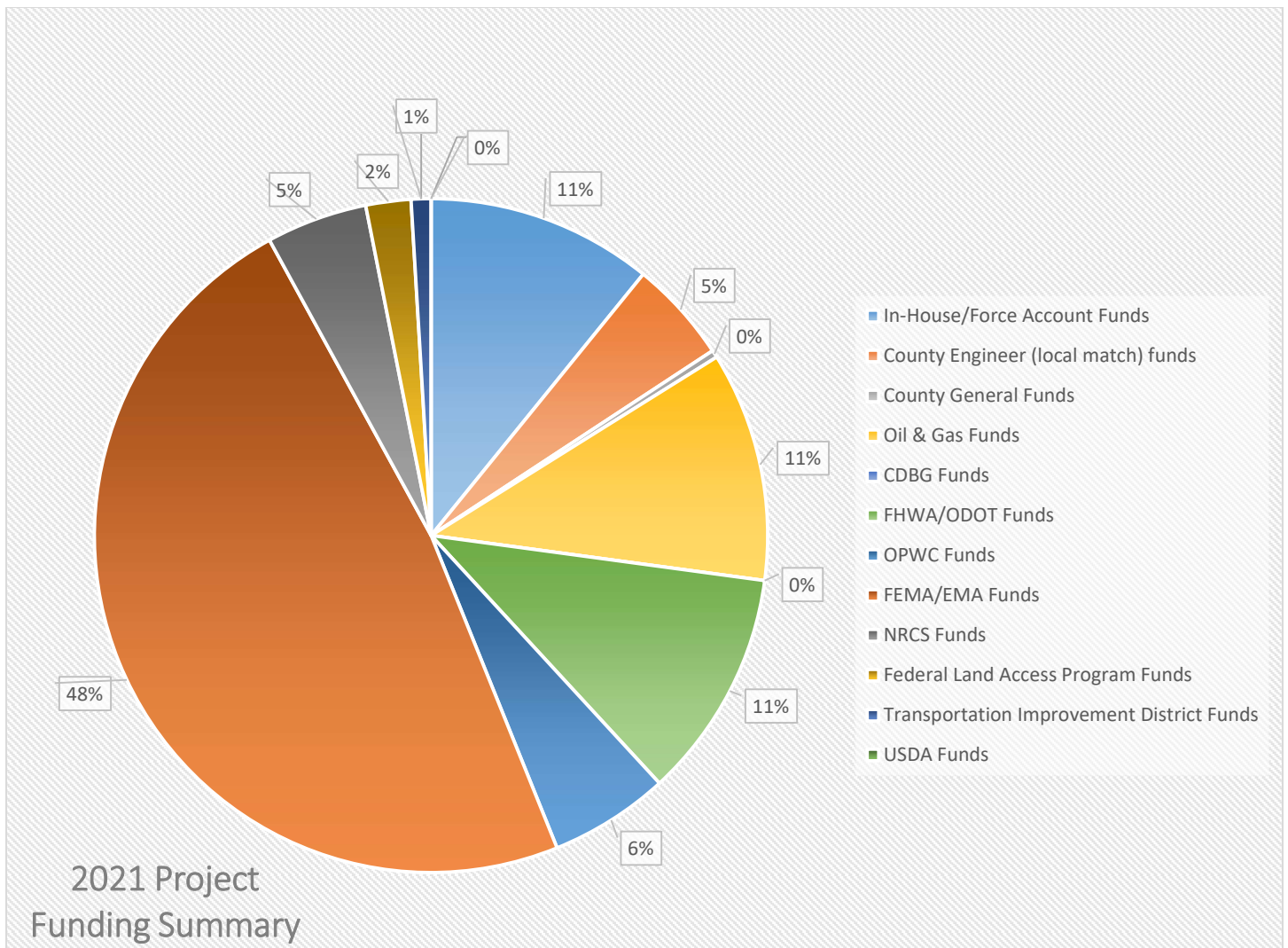
| <b>Company</b>      | <b>Road #/Name</b>        | <b>Improvement/Work Done</b>               | <b>Total Cost of Improvements</b> |
|---------------------|---------------------------|--|-----------------------------------|
| Antero Resources    | CR69, Walter Ridge Road   | Asphalt Repairs                            | \$15,576.56                       |
| Antero Resources    | CR39, Harper Ridge Road   | Asphalt Repairs                            | \$28,470.57                       |
| Antero Resources    | CR100, Keylor Hill Road   | Chip Seal                                  | \$28,140.00                       |
| Diversified         | CR12, Trail Run Road      | Asphalt Paving/FDR/<br>Ditching & Culverts | \$1,036,448.00                    |
| Equinor             | CR84, John Lengacher Road | Asphalt Repairs                            | \$25,733.00                       |
| Equinor             | CR43, Long Ridge Road     | Shoulder back-up                           | \$101,925.00                      |
| Eureka              | CR43, Long Ridge Road     | Asphalt base repairs & resurfacing         | \$122,735.00                      |
| Gulfport Appalachia | CR76, Morris Road         | Grading & Aggregate surfacing              | \$45,000.00                       |
| SWN                 | CR38, Headley Ridge Road  | Chip and Seal Repair                       | \$98,550.00                       |
| SWN                 | CR38, Headley Ridge Road  | Asphalt Repairs                            | \$42,664.36                       |
| SWN                 | CR10, Benwood Road        | H-Piling Slip Repair                       | \$102,800.00                      |
| SWN                 | CR10, Benwood Road        | Asphalt Repairs & Overlay                  | \$345,253.16                      |
| SWN                 | CR10A, Griffith Road      | Asphalt Repairs & Overlay                  | \$328,372.53                      |
| <b>TOTAL</b>        |                           |  | <b>\$2,321,668.18</b>             |

## COUNTY ENGINEER FUNDING, REVENUE & EXPENDITURES SUMMARY

### Projects Summary

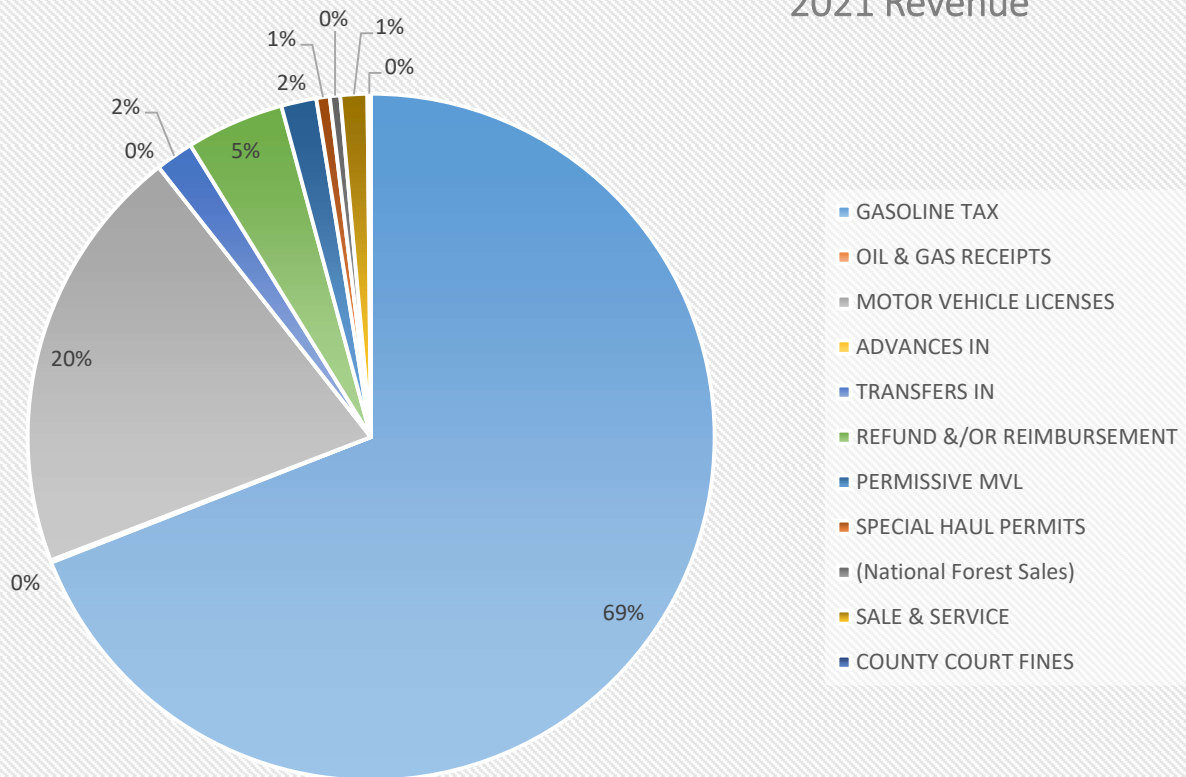
| <b>Road &amp; Bridge Funding Summary</b>  | <b>2021</b>            | <b>2020</b>            | <b>2019</b>            | <b>2018</b>            | <b>2017</b>           |
|---|------------------------|------------------------|------------------------|------------------------|-----------------------|
| In-House/Force Account Funds              | \$2,285,644.39         | \$1,772,341.29         | \$1,670,724.37         | \$968,357.29           | \$1,194,571.83        |
| County Engineer (local match) funds       | \$1,033,556.23         | \$489,568.83           | \$459,055.10           | \$573,854.21           | \$177,170.31          |
| County General Funds                      | \$75,000.00            | \$75,000.00            | \$102,690.00           | \$410,773.62           | \$75,000.00           |
| Oil & Gas Funds                           | \$2,321,668.18         | \$4,795,921.00         | \$10,401,034.55        | \$9,610,872.72         |                       |
| CDBG Funds                                | \$0.00                 | \$0.00                 | \$255,750.00           | \$0.00                 | \$0.00                |
| FHWA/ODOT Funds                           | \$2,319,559.46         | \$51,795.38            | \$1,778,428.08         | \$1,089,558.59         | \$449,069.09          |
| OPWC Funds                                | \$1,211,814.10         | \$603,596.70           | \$652,275.00           | \$400,000.00           | \$374,772.14          |
| FEMA/EMA Funds                            | \$10,141,475.94        | \$5,290,496.00         | \$4,734,455.77         | \$567,976.81           | \$0.00                |
| NRCS Funds                                | \$1,023,643.58         |                        |                        |                        |                       |
| Federal Land Access Program Funds         | \$456,583.00           |                        |                        |                        |                       |
| Transportation Improvement District Funds | \$200,000.00           |                        |                        |                        |                       |
| USDA Funds                                | \$0.00                 | \$297,000.00           | \$0.00                 | \$141,000.00           | \$0.00                |
| <b>TOTALS</b>                             | <b>\$21,068,944.88</b> | <b>\$13,375,719.20</b> | <b>\$20,054,412.87</b> | <b>\$13,762,393.24</b> | <b>\$2,270,583.37</b> |





**County Engineer Budget – 2021 Revenue Summary**

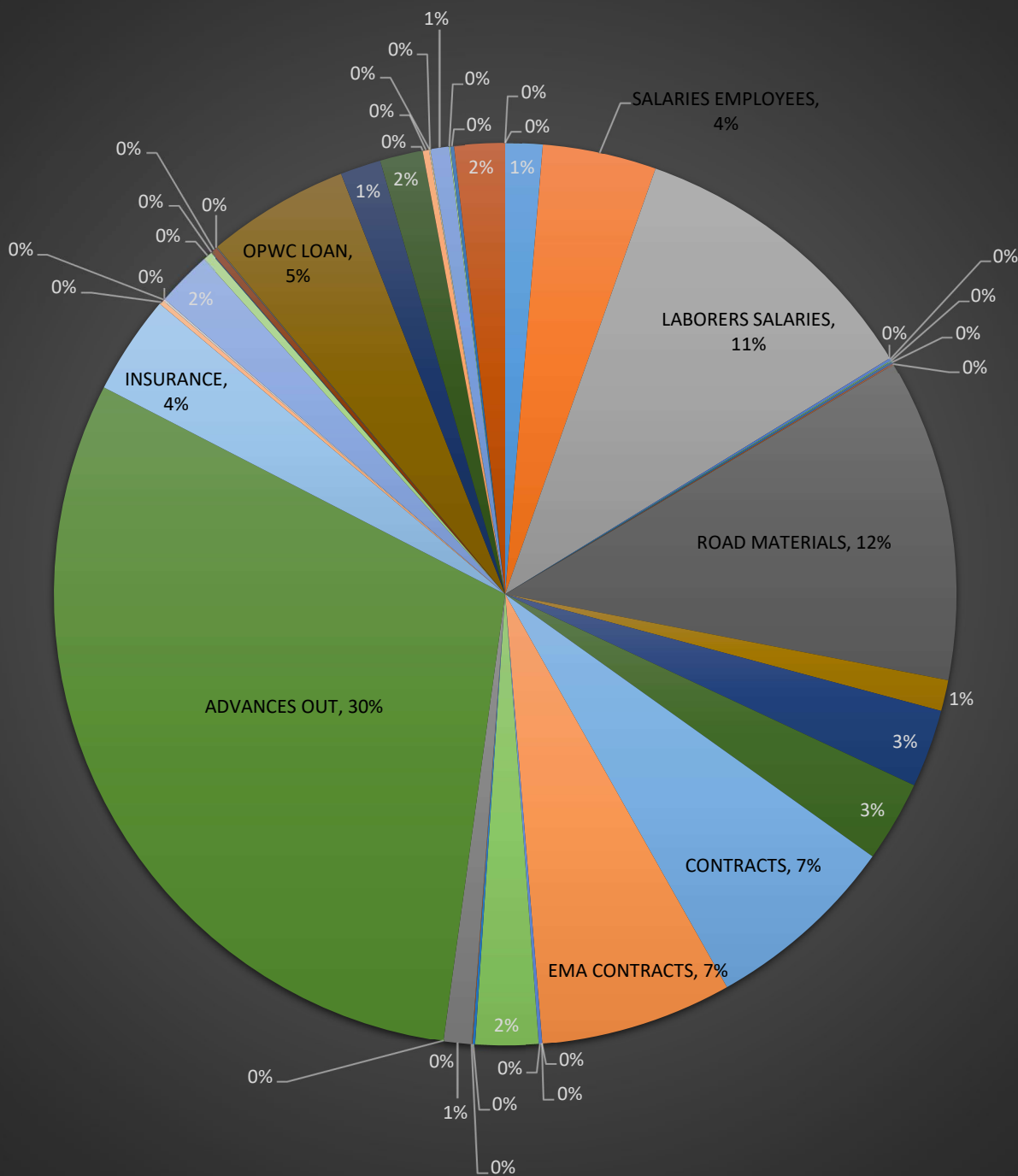
## 2021 Revenue



| DESCRIPTION                    | 2021 EOY FINAL        | % of TOTAL  |
|--------------------------------|-----------------------|-------------|
| GASOLINE TAX                   | \$3,739,694.30        | 68.8%       |
| OIL & GAS RECEIPTS             | \$5,866.87            | 0.1%        |
| MOTOR VEHICLE LICENSES         | \$1,095,480.98        | 20.1%       |
| ADVANCES IN                    | \$0.00                | 0.0%        |
| TRANSFERS IN                   | \$96,863.77           | 1.8%        |
| REFUND &/OR REIMBURSEMENT      | \$249,795.24          | 4.6%        |
| PERMISSIVE MVL                 | \$89,779.61           | 1.7%        |
| SPECIAL HAUL PERMITS           | \$33,875.00           | 0.6%        |
| (National Forest Sales)        | \$26,935.66           | 0.5%        |
| SALE & SERVICE                 | \$68,150.81           | 1.3%        |
| COUNTY COURT FINES             | \$9,102.52            | 0.2%        |
| INTEREST                       | \$4,553.93            | 0.1%        |
| OTHER RECEIPTS                 | \$15,000.00           | 0.3%        |
| RIGHT OF WAY PERMITS           | \$3,690.00            | 0.1%        |
| MISC. INSURANCE & COBRA PAY-IN | \$0.00                | 0.0%        |
| JUVENILE COURT FINES           | \$13.32               | 0.0%        |
| COMMON PLEAS COURT FINES       | \$0.00                | 0.0%        |
| <b>TOTAL</b>                   | <b>\$5,438,802.01</b> | <b>100%</b> |

## County Engineer Budget – 2021 Expenditures Summary

2021 Expenditures



| DESCRIPTION | 2021 EOY FINAL | % of TOTAL |
|-------------|----------------|------------|
|-------------|----------------|------------|

|   |                       |               |
|---|-----------------------|---------------|
| <i>SALARIES OFFICIALS</i>                 | \$105,565.00          | 1.33%         |
| <i>SALARIES EMPLOYEES</i>                 | \$323,339.71          | 4.07%         |
| <i>LABORERS SALARIES</i>                  | \$860,077.84          | 10.84%        |
| <i>RETIREMENT SIC/VAC PAY</i>             | \$0.00                | 0.00%         |
| <i>SUPPLIES</i>                           | \$7,343.21            | 0.09%         |
| <i>TAX MAP SUPPLIES</i>                   | \$2,399.11            | 0.03%         |
| <i>UNIFORMS &amp; PPE</i>                 | \$6,752.34            | 0.09%         |
| <i>WELDING SUPPLIES</i>                   | \$3,649.45            | 0.05%         |
| <i>ROAD MATERIALS</i>                     | \$917,497.05          | 11.56%        |
| <i>EQUIPMENT</i>                          | \$87,817.13           | 1.11%         |
| <i>CONTRACT REPAIRS (O&amp;G)</i>         | \$222,010.00          | 2.80%         |
| <i>CONTRACT SERVICES (ISSUE I COUNTY)</i> | \$230,923.40          | 2.91%         |
| <i>CONTRACTS</i>                          | \$551,387.78          | 6.95%         |
| <i>EMA CONTRACTS</i>                      | \$544,920.15          | 6.87%         |
| <i>ODOT</i>                               | \$0.00                | 0.00%         |
| <i>TRAVEL EXPENSES</i>                    | \$250.00              | 0.00%         |
| <i>ADVERTISING &amp; PRINTING</i>         | \$10,000.00           | 0.13%         |
| <i>PERS/STRS</i>                          | \$178,144.75          | 2.25%         |
| <i>WORKERS COMPENSATION</i>               | \$7,728.47            | 0.10%         |
| <i>UNEMPLOYMENT COMP.</i>                 | \$1,189.14            | 0.01%         |
| <i>OTHER EXPENSES</i>                     | \$80,206.40           | 1.01%         |
| <i>RIGHT OF WAY PERMITS -Expense</i>      | \$0.00                | 0.00%         |
| <i>TRANSFERS</i>                          | \$0.00                | 0.00%         |
| <i>ADVANCES OUT</i>                       | \$2,410,550.00        | 30.38%        |
| <i>INSURANCE</i>                          | \$282,238.43          | 3.56%         |
| <i>GROUP &amp; LIABILITY</i>              | \$12,864.00           | 0.16%         |
| <i>LEGAL FEES</i>                         | \$5,650.30            | 0.07%         |
| <i>NOTES</i>                              | \$0.00                | 0.00%         |
| <i>FUEL</i>                               | \$157,401.86          | 1.98%         |
| <i>UTILITIES</i>                          | \$25,904.10           | 0.33%         |
| <i>DOT TESTING</i>                        | \$2,500.00            | 0.03%         |
| <i>PRINCIPAL - USDA LOAN</i>              | \$17,900.00           | 0.23%         |
| <i>INTEREST-USDA LOAN</i>                 | \$3,968.34            | 0.05%         |
| <i>OPWC LOAN</i>                          | \$404,038.75          | 5.09%         |
| <i>VEHICLE MAINT.(IN HOUSE)</i>           | \$115,977.98          | 1.46%         |
| <i>VEHICLE (OUTSIDE REPAIRS)</i>          | \$121,994.15          | 1.54%         |
| <i>LEASES</i>                             | \$0.00                | 0.00%         |
| <i>MEDICARE TAX</i>                       | \$17,996.68           | 0.23%         |
| <i>DUES</i>                               | \$1,804.00            | 0.02%         |
| <i>BUILDING &amp; GROUNDS MAINTENANCE</i> | \$1,512.73            | 0.02%         |
| <i>OFFICE MAINTENANCE</i>                 | \$53,660.84           | 0.68%         |
| <i>SIGNS</i>                              | \$3,394.68            | 0.04%         |
| <i>BRIDGE MATERIALS</i>                   | \$10,701.60           | 0.13%         |
| <i>CONTRACTS</i>                          | \$143,651.50          | 1.81%         |
| <i>BRIDGE CREDITS</i>                     | \$0.00                | 0.00%         |
| <i>CONTRACT BRIDGES</i>                   | \$0.00                | 0.00%         |
| <hr/>                                     |                       |               |
| <i>PERSONEL EXPENDITURES</i>              | \$1,785,532.36        | 22.5%         |
| <i>NON-PERSONEL EXPENDITURES</i>          | \$6,149,378.51        | 77.5%         |
| <b>TOTAL</b>                              | <b>\$7,934,910.87</b> | <b>100.0%</b> |



## FUNDING & THE FUTURE

### FUNDING SUMMARY SHEET (2017-PRESENT)



| Project Type             | GRANTS RECEIVED        | LOANS RECEIVED      | LOCAL MATCH           | TOTAL FUNDED PROJECTS COSTS |
|--------------------------|------------------------|---------------------|-----------------------|-----------------------------|
| Bridge                   | \$4,949,570.20         | \$0.00              | \$738,460.22          | \$5,688,030.42              |
| Bridge Load Ratings      | \$8,948.25             | \$0.00              | \$8,948.25            | \$17,896.50                 |
| Road                     | \$5,990,432.91         | \$637,153.97        | \$1,119,426.18        | \$7,747,013.06              |
| Drainage                 | \$366,823.00           | \$0.00              | \$89,760.00           | \$456,583.00                |
| Safety                   | \$126,948.15           | \$0.00              | \$14,105.35           | \$141,053.50                |
| Sign                     | \$46,024.08            | \$0.00              | \$2,589.42            | \$48,613.50                 |
| Equipment                | \$241,405.46           | \$314,000.00        | \$20,000.00           | \$575,405.46                |
| Guardrail                | \$300,000.00           | \$0.00              | \$0.00                | \$300,000.00                |
| Slip Repair/Flood Damage | \$25,650,402.90        | \$0.00              | \$321,196.00          | \$25,971,598.89             |
| <b>TOTALS</b>            | <b>\$37,680,554.95</b> | <b>\$951,153.97</b> | <b>\$2,314,485.41</b> | <b>\$40,946,194.33</b>      |
|                          | <b>92%</b>             | <b>2%</b>           | <b>6%</b>             | <b>100%</b>                 |

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 5 years, with 92% 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 8% of match money/loans has afforded the County over \$40,000,000.00 in road, bridge and infrastructure improvements.

With the ever-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.

## 2022 & FUTURE FUNDING

| Project Type              | Bridge/Road Number/Description       | Percent Funded   | Project Total Cost | Funding Year |
|---------------------------|--------------------------------------|--|--------------------|--------------|
| Bridge                    | MOE-C28-0.56                         | 80% LBR, 15%Credit Bridge, 5% Local                            | \$760,000.00       | FY2023       |
| Bridge                    | MOE-C29-6.95                         | 80%  | \$425,000.00       | FY2023       |
| Bridge                    | MOE-TR0307-0.75                      | 80%  | \$1,106,000.00     | 2024         |
| Bridge                    | MOE - CR12-18.00                     | Engineering - Local responsibility<br>Construction-100% funded | \$331,175.00       | 2022         |
| Bridge                    | MOE-TR1206-0.01                      | 80%  | \$425,000.00       | 2027         |
| Road/Resurfacing          | CR12 (SR26 to SR800) HIR & Chip Seal | CSTP \$2,000,000 cap, OPWC \$400,000 grant, remainder local    | \$2,866,073.16     | FY2023       |
| Road/Resurfacing          | CR106                                | 100% (\$500,000 max)   | \$401,189.00       | FY2023       |
| Sign                      | Curve Signage - 3 locations          | 100%   | \$3,940.00         | FY2022       |
| Sign                      | Sign Upgrade project - Various signs | 80%  | \$2,700.00         | FY2022       |
| Guardrail                 | Various CR locations                 | 100%   | \$300,000.00       | FY2023       |
| Slip Repairs/Flood Damage | County-wide State disaster           | EMA 75%, Local 25%   | \$1,745,493.98     | 2020         |
| Slip Repairs/Flood Damage | County-wide FEMA disaster 4424       | FEMA 75%, State 25%  | \$12,447,168.85    | 2019         |



TR307-0.75 Bridge  
Slated for replacement in  
2024