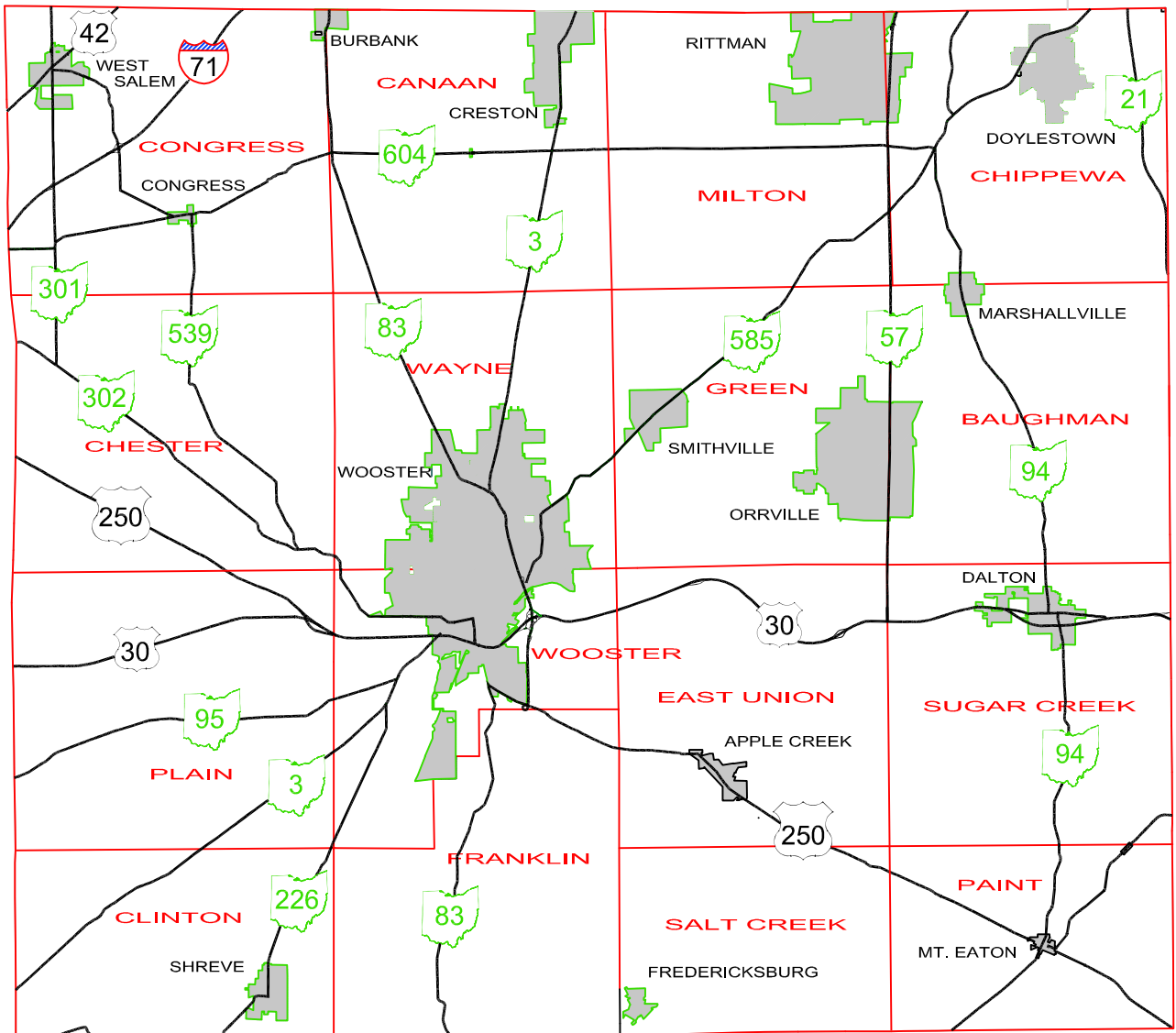




WAYNE COUNTY ENGINEER'S OFFICE

2016 ANNUAL REPORT



SCOTT A. MILLER, P.E., P.S.
WAYNE COUNTY ENGINEER

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WAYNE COUNTY ENGINEER'S OFFICE
SCOTT A. MILLER, P.E., P.S.
WAYNE COUNTY ENGINEER

March 17, 2017

Wayne County Commissioners
428 W. Liberty Street
Wooster, Ohio 44691

RE: 2016 Annual Report

Dear Honorable Commissioners,

Each year, the constituents of Wayne County entrust the Wayne County Engineer in coordination with the Wayne County Commissioners to maintain 500 miles of county infrastructure that includes 494 bridges. The 2016 estimated cost of these important assets is roughly \$97,000,000.

The attached 2016 annual report summarizes the efforts of the Engineer, Highway Maintenance and Tax Map departments over the last year.

Total income, predominately from license plate fees and gasoline tax in 2016 was \$7,378,425. This total is a decrease of \$60,000 from 2015 and only \$100,000 more than receipts from 2007. The average income the Wayne County Engineer's Office has received over the last ten years is \$7,290,500. The cost of materials, equipment and labor continue to increase regularly each year allowing us to spend less each year on infrastructure repair and replacement.

2016 improvements are as follows:

- Replacement of four (4) large culverts; diameter of 48" to 120",
- Replacement of two (2) bridges,
- Rehabilitation of three (3) bridges,
- Chip and Seal 41.96 centerline miles,
- Scratch Pave 6.46 centerline miles,
- Ohio Public Works paving project of 5.10 centerline miles

We will continue to aggressively pursue grant monies to better stretch our local funds.

I want to express my sincere appreciation to my staff for compiling this report and to the Board of Commissioners for their cooperation in achieving our goals.

Our goals for 2017 will be posted on our updated website, www.wayne-county-engineer.com, which is scheduled for May 1, 2017.

Sincerely,

Scott A. Miller, P.E., P.S.
Wayne County Engineer

PIPELINE CONSTRUCTION THROUGH WAYNE COUNTY

The Wayne County Engineer's Office was notified in 2016 that two (2) interstate pipeline companies are planning to begin construction through Wayne County in 2017. Both of these pipeline projects are subject to the rules and regulations of the Federal Energy Regulatory Commission (FERC). **ET ROVER PIPELINE, LLC** is planning to construct twin, 42" pipelines (20' apart) to transport natural gas. Both ROVER pipelines will traverse 28 miles through rural Paint, Salt Creek, Franklin, Wooster and Plain Townships. Each pipeline will have a maximum operating pressure of 1,440 pounds per square inch (psi). The proposed pipelines will require a 150' construction easement with a 60' wide permanent easement. A mainline Compressor Station is proposed at the northwest corner of Elyria Road and U.S. 30 in Plain Township. **NEXUS GAS TRANSMISSION, LLC** is another pipeline company that is planning to construct a 36" pipeline traversing six (6) miles through Chippewa Township. The pipeline will transport natural gas and will have a maximum operating pressure of 1,440 psi. The proposed pipeline will require a 100' construction easement with a 50' wide permanent easement.

In addition to the above pipelines, **KINDER MORGAN** is proposing to construct the **UTOPIA EAST PIPELINE PROJECT** in 2017 through Wayne County. This new 12" pipeline system will transport previously refined or fractionated products across Ohio and Michigan, ending at Windsor, Ontario. The pipeline route will have a 50' permanent easement and will traverse through Paint, Salt Creek, East Union, Franklin, Wooster, Plain and Chester Townships. The UTOPIA pipeline will have an initial capacity estimated to be 50,000 barrels per day (bpd) and can be expanded to 75,000 bpd with the construction of additional pump stations. At this time, no pump stations are proposed in Wayne County. The UTOPIA pipeline is not subject to FERC rules and regulations, but is subject to approval and oversight by the Pipeline and Hazardous Materials Safety Administration, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Ohio Department of Natural Resources and Ohio Environmental Protection Agency.

PIPELINE CONSTRUCTION THROUGH WAYNE COUNTY

The Wayne County Engineer's Office (WCEO) is involved with Road Bore Permits for each County Road the pipeline companies will be crossing. The WCEO also requires Special Hauling Permits on County Roads used by the pipeline companies for moving oversize/overweight vehicles. Drive Pipe Permits will need to be acquired by the pipeline companies so they can install various construction entrances for ingress/egress to County Roads.

A Pipeline Road Use Maintenance Agreement (RUMA) has been negotiated with each pipeline company by the Wayne County Prosecutor's Office and approved by the Wayne County Commissioners. The purpose of the RUMA is to protect County Roads from damage that may be caused by excessive truck traffic during construction of the pipelines. The RUMA has specific terms and bonding requirements that the pipeline companies are to adhere to for preventing and/or repairing any damages to County Roads. Pipeline RUMA's will also be administered by the WCEO for Township Road haul routes should the respective Township Trustees choose to partner with the County's RUMA.



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DUTIES OF THE COUNTY ENGINEER

The Engineer has the responsibility of performing for the County all duties authorized or declared by law to be done by a civil engineer or surveyor, and accordingly must hold registration certificates of the State of Ohio as both Professional Engineer and Professional Surveyor.

The Engineer, in cooperation with the County Commissioners, is responsible for all maintenance, repair, widening, resurfacing, reconstruction, and construction of roads and bridges on the county highway system.

The Engineer serves as an advisor to the Township Trustees for the maintenance, repair, widening, resurfacing, and reconstruction of their highways. The bridges on the township highway system are the full responsibility of the County.

The Engineer is also responsible for many bridges within municipalities. These bridges are located on streets which are extensions of county or township roads.

Also, the Engineer must maintain a perpetual inventory of all bridges on the county and township highway system, including an annual inspection and evaluation of the condition and load carrying capacity of each bridge.

The Engineer is the Tax Map Draftsman for the County and at the discretion of the County Commissioners, he may also serve as the Acting Sanitary Engineer and as a member of the County Planning Commission.

OHIO HIGHWAYS AND ROADS

| <u>System</u> | <u>Mileage</u> | <u>Maintained By</u> |
|------------------|----------------|-----------------------------------|
| State Highway | 19,228 | Ohio Department of Transportation |
| County Road | 28,970 | County Engineers |
| Township Road | 41,573 | Township Trustees |
| Municipal Street | <u>31,725</u> | Incorporated Cities & Villages |
| TOTAL | 121,496 | |

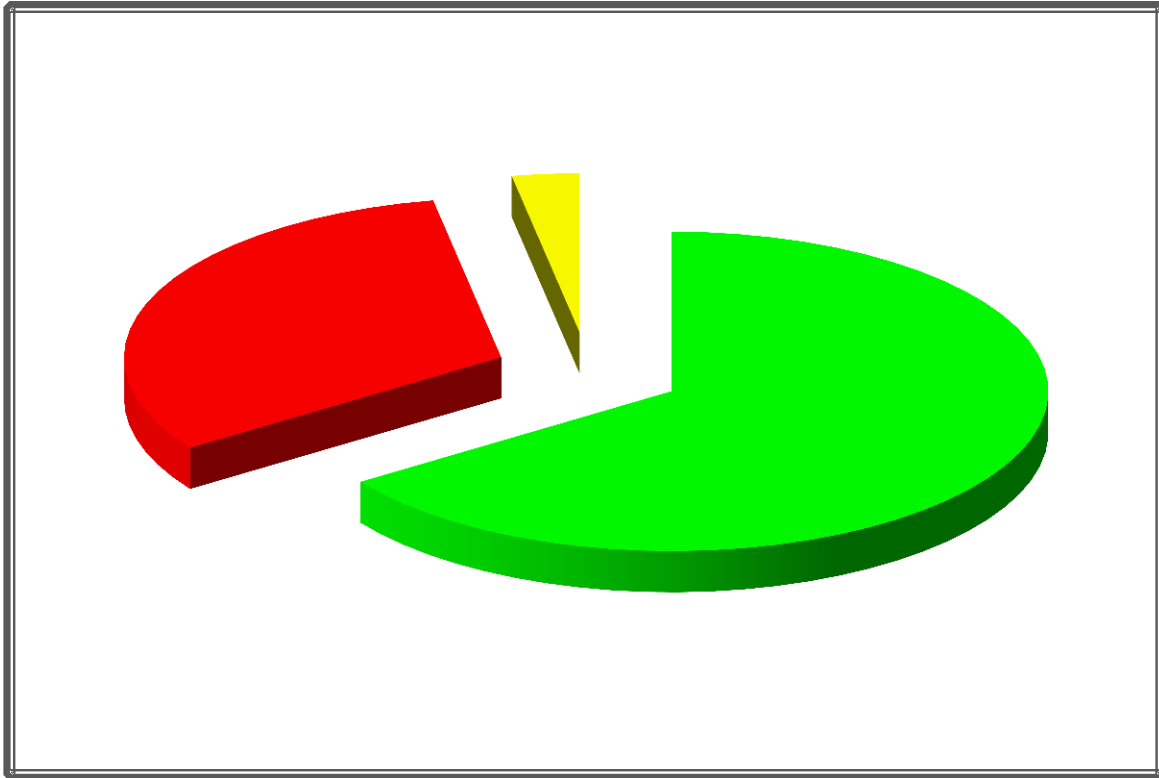
WAYNE COUNTY HIGHWAYS AND ROADS

| <u>System</u> | <u>Mileage</u> | <u>Maintained By</u> |
|------------------|----------------|-----------------------------------|
| State Highway | 253 | Ohio Department of Transportation |
| County Road | 500 | Wayne County Engineer |
| Township Road | 561 | Township Trustees |
| Municipal Street | <u>277</u> | Incorporated Cities & Villages |
| TOTAL | 1,591 | |

TOWNSHIP ROAD MILEAGE

| | | | | | | | |
|----------|-------|------------|-------|--------|-------|-------------|-------|
| Baughman | 36.86 | Clinton | 26.05 | Green | 34.62 | Salt Creek | 23.81 |
| Canaan | 26.57 | Congress | 36.06 | Milton | 33.15 | Sugar Creek | 46.95 |
| Chester | 44.79 | East Union | 41.92 | Paint | 23.22 | Wayne | 35.03 |
| Chippewa | 50.84 | Franklin | 30.53 | Plain | 37.58 | Wooster | 33.87 |

2016 INCOME

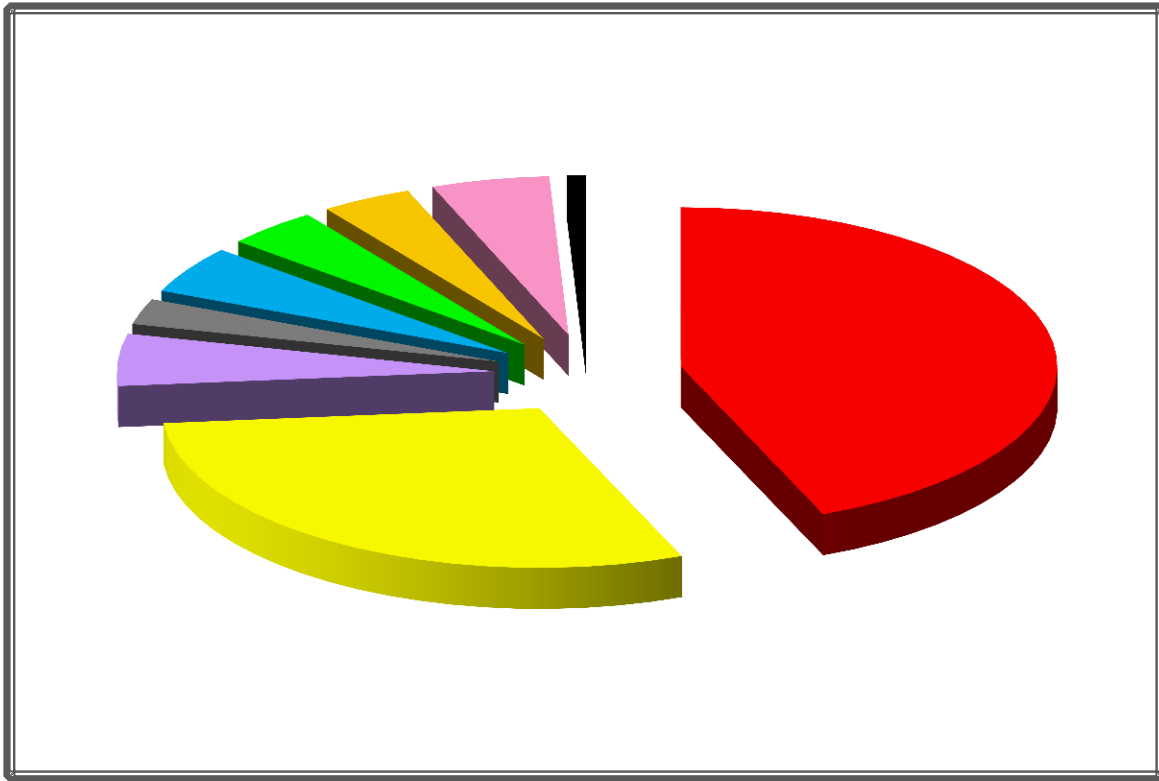


WHERE THE MONEY COMES FROM

| | | | |
|--|-------------------------------|--------------------|---------------|
| | License Fees & Permissive Tax | \$4,826,352 | 65.4% |
| | Gasoline Tax | 2,338,616 | 31.7% |
| | Traffic Fines, Fees, & Misc. | <u>213,457</u> | <u>2.9%</u> |
| | TOTAL | \$7,378,425 | 100.0% |

REAL ESTATE TAXES ARE NOT USED FOR COUNTY HIGHWAY PURPOSES.

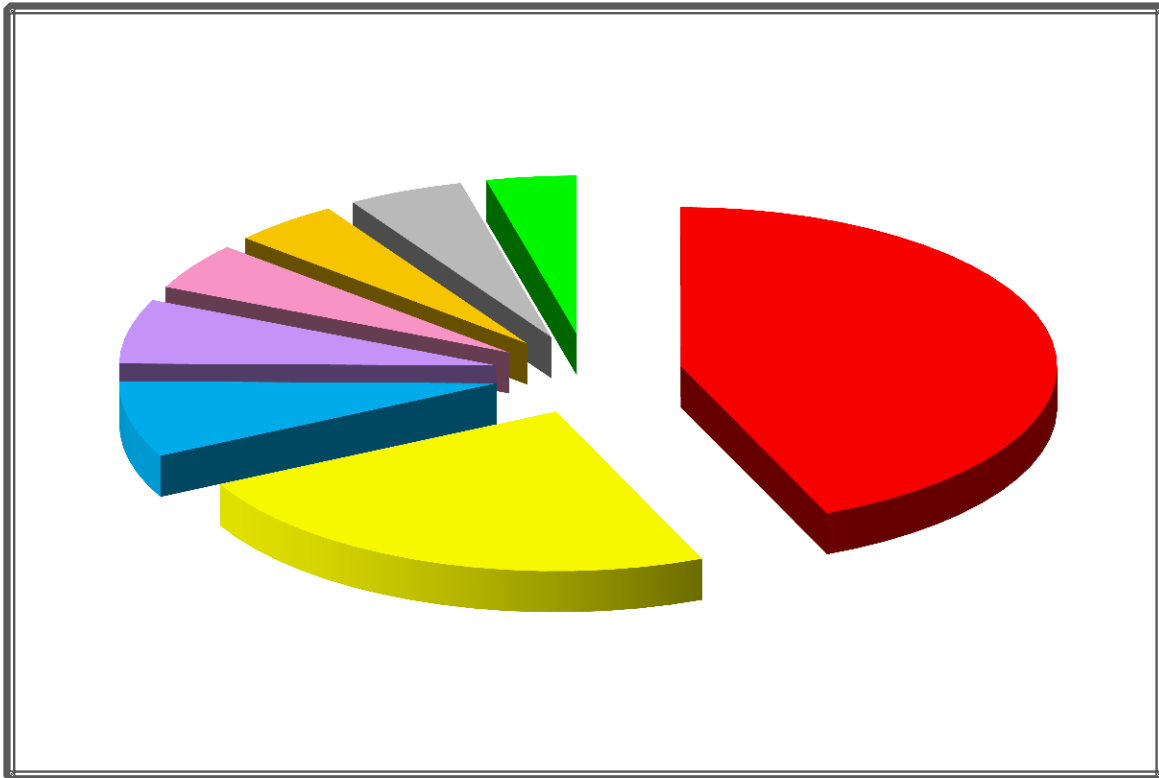
2016 EXPENDITURES



WHERE THE MONEY GOES

| | | | |
|--|---|--------------------|---------------|
| | Labor and Fringes | \$3,165,447 | 43.8% |
| | Road Materials & Contracts | 2,141,945 | 29.7% |
| | Repair, Fuel, Etc. | 381,334 | 5.3% |
| | OPWC Projects | 365,600 | 5.1% |
| | Bridge Materials & Contracts | 349,182 | 4.8% |
| | Note Repayment | 287,272 | 4.0% |
| | Contracts (Repairs & Services), Compensation & Damage, Advertising & Printing | 281,724 | 3.9% |
| | Equipment | 188,590 | 2.6% |
| | Grants to Townships | <u>59,028</u> | <u>0.8%</u> |
| | TOTAL | \$7,220,122 | 100.0% |

2017 PROJECTED APPROPRIATIONS



| | | | |
|--|---|--------------------|---------------|
| | Labor and Fringes | \$3,328,450 | 43.7% |
| | Road Materials & Contracts | 1,815,789 | 23.8% |
| | Bridge Materials & Contracts | 588,400 | 7.7% |
| | Repair, Fuel, Etc. | 500,000 | 6.5% |
| | Equipment | 380,200 | 5.0% |
| | OPWC Projects | 364,825 | 4.8% |
| | Contracts (Repairs & Services), Compensation & Damage, Advertising & Printing | 351,050 | 4.6% |
| | Note Repayment | <u>295,300</u> | <u>3.9%</u> |
| | TOTAL | \$7,624,014 | 100.0% |

PERSONNEL

ROGER K. TERRILL, P.E., P.S.
COUNTY ENGINEER

(Ret'd. 12-31-16)

SCOTT A. MILLER, P.E, P.S.
COUNTY ENGINEER

(Eff. 1-2-17)

ADMINISTRATIVE SERVICES DEPARTMENT

Pamela Brown
Administrative Assistant

Cindy Nolt
Account Clerk II

ENGINEERING DEPARTMENT

Larry Conn
Engineering Services Manager

Eric Liew
Deputy Engineer (Bridges)

John Zaranec (Eff. 2-14-16)
Deputy Surveyor

Mark Spademan
Deputy Engineer (Subdivisions)

Larry Warner
Engineering Inspector

Jeffrey Sparr
Deputy Engineer (Highways)

Michael Barnhouse
Engineering Technician

Matt Sigler
Engineering Technician

TAX MAP DEPARTMENT

Douglas Green
Tax Map Supervisor

Mike Martin
Tax Map Specialist

PERSONNEL

Continued

HIGHWAY MAINTENANCE DEPARTMENT

Highway Superintendent

Ben Saurer

Assistant Highway Superintendent

Gale Wilcox

Supervisors

Bill Sprinkle

Mike Pritchett

Dean Whitman

H i g h w a y W o r k e r s

Keith Badertscher

John Baldner

Larry Bresson

Scott Cantrell

Dale Cutter

Les Durstine (Ret'd. 8-31-16)

Bob Ewing

Jeff Grassman

Jon Hudson

Mike Hyatt

Corey Keplar

Scott Loving

Kevin Miller

Patrick Miller

David Mowrer

Zenith Mowrer (Eff. 10-3-16)

Tom Nolletti

Tom Shamp

Jaime Sigler

Brian Spotts

Stephen Stewart

Kevin Troyer

Bryan Weiser

Craig Wuthrich

Jeffrey Zerrer

Mechanic

Joe Burns

Parts Department

Bob Tenney

Sign Shop

Jeffrey Metcalf

Brock Yoder

HIGHWAY MAINTENANCE REPORT

MAINTENANCE AND CONSTRUCTION

County forces improved the pavement surface on several roads by placing a leveling (or scratch) course of asphalt concrete. The roads in the following table were scratched full-width in 2016.

| <u>Road No.</u> | <u>Name</u> | <u>Section</u> | <u>Miles</u> |
|-----------------|--------------------|----------------|--------------|
| 1 | Centerville | B* | 0.22 |
| 2 | Harrison | B*,C* | 0.26 |
| 22 | Mechanicsburg | B-C | 2.45 |
| 34 | Kister | B* | 0.16 |
| 48 | Pleasant Home | B* | 1.17 |
| 77 | Moreland | H* | 0.30 |
| 86 | Smithville-Western | F* | 0.76 |
| 94A | Carr | D | 1.14 |
| Total | | | 6.46 |

* - Partial Section

Sections B-C (2.45 Mi.) of C.R. 22 (Mechanicsburg Road) were scratch paved by county forces. The Stark-Tuscarawas-Wayne Recycling District provided a \$50,000 grant towards the project. The City of Wooster also contributed \$9,120.



HIGHWAY MAINTENANCE REPORT

Continued

Several roads also received a chip/seal surface treatment by county forces.

| <u>Road No.</u> | <u>Name</u> | <u>Section</u> | <u>Miles</u> |
|-----------------|---------------|----------------|--------------|
| 3 | Metcalf | A | 1.01 |
| 16 | Funk | A-B,C* | 3.45 |
| 21 | Franchester | E | 0.28 |
| 22 | Mechanicsburg | E*-F | 3.34 |
| 36 | Stratton | E-G | 3.74 |
| 48 | Pleasant Home | A*,B* | 1.80 |
| 51 | Canaan Center | I* | 0.39 |
| 59 | Sterling | D* | 0.59 |
| 70 | West Salem | A-H | 9.28 |
| 104 | Newkirk | A-B,C* | 2.72 |
| 111 | Jeffrey | A-B | 1.43 |
| 128 | Wohlgamuth | A | 1.49 |
| 149 | Elyria | H-K | 4.14 |
| 161 | Martin | A-E | 5.58 |
| 249 | Maple Grove | A-C | 2.72 |
| Total | | | 41.96 |

C.R. 22 CEDAR VALLEY ROAD



HIGHWAY MAINTENANCE REPORT

Continued

- Sections E-F of C.R. 44 (Apple Creek Road) were resurfaced in 2016. The existing pavement was resurfaced with a 1.5" overlay of asphalt concrete beginning 200' north of C.R. 30A and continuing northward 0.55 mile and from 0.02 mile south of T.R. 144 continuing northward 0.93 mile. From the intersection of C.R. 30A (East Lincoln Way) northward 200' and from 0.05 mile south of Suttle Lane to 0.02 mile south of T.R. 144, the existing pavement was milled 1.5" and then paved with 1.5" of asphalt concrete. The total cost of the project was \$186,918. The project was financed by the Ohio Public Works Commission (\$93,459) and Wayne County (\$93,459). Superior Paving & Materials, Inc. from North Canton, Ohio was the prime contractor.

C.R. 44



C.R. 52



- Sections C-E of C.R. 52 (Kidron Road) were also resurfaced. The existing pavement was resurfaced with a 1.5" overlay of asphalt concrete beginning at U.S. 250 and continuing northward 1.56 mile. From this point northward to C.R. 188 (Hackett Road) or 1.50 mile, the existing pavement was milled 1.5" and then paved with 1.5" of asphalt concrete. The total cost of the project was \$259,382. The project was financed with a loan (\$51,876) and a grant (\$51,876) from the Ohio Public Works Commission, and Wayne County (\$155,629). Superior Paving & Materials, Inc. from North Canton, Ohio was the prime contractor.

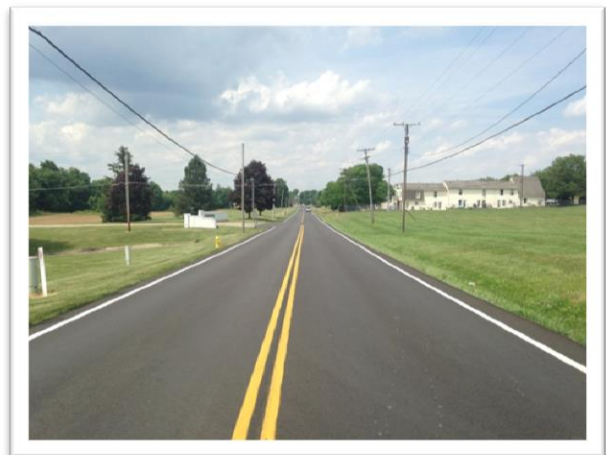
HIGHWAY MAINTENANCE REPORT

Continued

✚ A contract was also awarded to Strawser Construction, Inc. from Columbus, Ohio to microsurface a portion of C.R. 30A (Old Lincoln Way) in 2016. The project limits were between U.S. 250 (Ashland Road) and S.R. 302 (Lattasburg Road). The total cost of the project was \$116,382. The project was contracted through ODOT's Cooperative Purchasing Program. Local funds financed the project.



✚ Wayne County participated with the City of Wooster on a joint resurfacing project which included a portion of Mechanicsburg Road. Wayne County's share of the project costs was \$34,764. The project within the City was financed with federal Large Cities funds (80%) and local funds. The Melway Paving Company from Holmesville, Ohio was the prime contractor.



✚ Also in 2016, the Wayne County Engineer's Office assisted the Wooster Township Trustees on an Ohio Public Works project. Development of construction plans and project administration was provided by the Engineer's Office. Tolbert Road (0.44 Mi.) and Batdorf Road (1.17 Mi.) were resurfaced with a 2" overlay of bituminous cold mix. The total cost of the project was \$178,063. The project was financed by Ohio Public Works funds (\$89,032) and Wooster Township (\$89,031). The Melway Paving Company from Holmesville, Ohio was the prime contractor.

HIGHWAY MAINTENANCE REPORT

Continued

SNOW AND ICE CONTROL

Heavy equipment available for snow and ice control includes; 29 plow trucks with spreaders and 2 V-plow graders.

| | <u>WINTER 2013-</u> <u>2014</u> | <u>WINTER 2014-</u> <u>2015</u> | <u>WINTER 2015-</u> <u>2016</u> |
|-----------------------|------------------------------------|------------------------------------|------------------------------------|
| Salt & Cinders (Tons) | 8,997 | 7,865 | 3,808 |
| Labor | 235,266 | 238,303 | 103,750 |
| Equipment | 304,096 | 319,829 | 143,680 |
| Material | 260,151 | 243,407 | 164,963 |
| Total | \$799,513 | \$801,539 | \$412,393 |

WEED AND BRUSH CONTROL

In 2016, guardrail spraying was performed by DeAngelo Brothers, Inc. from Hazleton, Pennsylvania at a total cost of \$15,625. County maintenance crews conducted mowing operations in the summer and performed brush cutting during the winter months.

EQUIPMENT PURCHASES

| <u>2016</u> | <u>2017 - Tentative</u> |
|---|--------------------------|
| 1 Tandem-Axle Dump Truck | 1 Tandem-Axle Dump Truck |
| 1 Snow & Ice Package for Tandem-Axle Dump Truck | 2 Pickups |
| | 1 Tractor w/Mower |
| | |

PLANNING AND PROGRAMMING

The roads comprising the maintenance program are selected after an evaluation of the condition of each road. Information for all county roads is available in various electronic files. This information aids in the preparation of the annual highway maintenance program.

The highway inventory consists of approximately 470 road sections. During 2016, all sections were reevaluated.

Permits were issued for the following:

| | |
|-----|------------------|
| 115 | Drive Pipes |
| 134 | Utility Permits |
| 34 | Ditch Enclosures |

The utility permits were primarily for public utilities and the oil and gas industry. Drive pipe permits were for private, commercial, and industrial drives. Permits were also issued for 21 oversize or overweight loads.

In addition, the engineering inspectors are often asked to inspect a variety of problems, to determine whether or not the problems are the responsibility of the County, and if so, what measures should be taken to correct the problems.

WAYNE COUNTY ROAD AND BRIDGE FACTS

- 📍 Ranked 4th in the state for county road mileage.
- 📍 Ranked 2nd in the state for bridges inspected & maintained.
- 📍 Ranked 14th in the state for land area.
- 📍 Ranked 24th in the state for population – 114,520 (2010 Census)

COMPARISON WITH ADJOINING COUNTIES

| | <u>Ashland</u> | <u>Holmes</u> | <u>Medina</u> | <u>Stark</u> | <u>Summit</u> | <u>Wayne</u> |
|---|----------------|---------------|---------------|--------------|---------------|--------------|
| Co. Road Mileage | 282 | 249 | 326 | 407 | 182 | 500 |
| Twp. Road Mileage | 405 | 567 | 492 | 1,313 | 348 | 561 |
| Bridges, 10' Span or Greater | 221 | 281 | 290 | 329 | 311 | 494 |
| Land Area (Sq. Mi.) | 424 | 423 | 422 | 576 | 413 | 555 |

LARGE CULVERT REPORT

The Wayne County Engineer is responsible for inspection, maintenance, and construction of 306 large culverts on county roads and extensions of those roads through municipalities. Large culverts are defined as culverts having a span or rise greater than or equal to 48". Structures with a span greater than/equal to 120" are considered bridges.

INSPECTION


Inspections of large culverts are performed on a five (5) year rotation in accordance with the latest Ohio Department of Transportation "Culvert Management Manual." Some culverts are inspected and monitored more frequently because of known deficiencies.

At the request of the Township Trustees; the Wayne County Engineer's Office will inspect the large culverts on township roads. There are approximately 242 large culverts on township roads.

CONSTRUCTION

Four (4) large culverts were replaced in 2016.

THE FOLLOWING LARGE CULVERTS WERE REPLACED IN 2016:

 **CON 178-2.146** on Britton Road in Congress Township. An existing 84" metal pipe was replaced with a 8' span x 8' rise x 112' length precast reinforced concrete box culvert. Replacement work was completed by county forces. Local monies financed the project at a total cost of \$93,803.



LARGE CULVERT REPORT

Continued

FRA 54-2.135 on Honeytown Road in Franklin Township. An existing 36" span x 36" rise stone and concrete box was replaced with 40' of 48" plastic pipe. Replacement work was completed by county forces. Local monies financed the project at a total cost of \$18,190.



GRE 120-2.895 on Five Points Road in Green Township. An existing 48" metal pipe was replaced with 40' of 48" metal pipe. Replacement work was completed by county forces. Local monies financed the project at a total cost of \$7,048.



SUG 80-2.780 on Jericho Road in Sugar Creek Township. An existing 72" span x 44" rise metal pipe was replaced with 40' of 60" reinforced concrete pipe. Replacement work was completed by county forces. Local monies financed the project at a total cost of \$29,001.



BRIDGE STATUS

1) INSPECTION, MAINTENANCE, AND CONSTRUCTION RESPONSIBILITY

- 29 On streets within municipalities (extensions to county or township roads).
- 243 On county roads.
- 222 On township roads.
- 494 Total bridges for inspection.

2) GENERAL DATA FOR COUNTY INSPECTED BRIDGES

- 95 Too narrow (less than 20').
- 39 Posted load limits.
- 39 Structurally deficient.
- 102 Functionally obsolete.

3) OTHER 2016 BRIDGE FACTS

Average age for 454 bridges with a recorded year built is 44.4 years - useful life is considered to be 50 years. For the other 40 bridges, the year built is unknown.

Average overall bridge length is 39.72 feet.

Maintain 3.26 miles of bridge deck.

Note: The information shown above is for bridges having a span of 10' or greater.

BRIDGE REPORT

The Wayne County Engineer is responsible for inspection, maintenance, and construction of 494 bridges on county and township roads, and extensions of those roads through municipalities.

INSPECTION

Annual inspections for 494 bridges are performed in accordance with the latest Ohio Department of Transportation “Bridge Inspection Manual.” Some bridges are inspected and monitored more frequently because of known deficiencies.

LOAD RATINGS

To be in compliance with the National Bridge Inspection Standards; the Federal Highway Administration (FHWA) requires ratings on all structures with a span greater than 20’. The load rating is performed for the safety of the traveling public. The carrying-capacity of all bridges in the State of Ohio are rated using a standard set of vehicles, called “Ohio Legal Loads”. In addition to the current Ohio rating practice of using Ohio legal trucks, the Ohio Department of Transportation (ODOT) has implemented a plan of action in response to the Federal Highway Administration (FHWA) requirement to incorporate the Specialized Hauling Vehicles (SHV) as per AASHTO’s “Manual for Bridge Evaluation, Second Edition” into all new load rating analyses.

Ratings for 12 bridges were submitted to ODOT in 2016. The ratings performed resulted with no new or revised postings of load limits on Wayne County bridges. In addition, the posting of load limits were removed on 4 bridges in 2016.

MAINTENANCE

County forces performed maintenance work ranging from minor structural repairs to replacing damaged guardrail on 33 bridges in 2016.

BRIDGE REPORT


Continued

CONSTRUCTION

Two (2) bridges were replaced and three (3) bridges were rehabilitated in 2016.

Considering the average life expectancy is 50 years for the typical bridge, we should be replacing more than 10 bridges per year. An average of 5.7 bridges per year have been replaced over the past 10 years.

THE FOLLOWING BRIDGES WERE REPLACED IN 2016:

 **SUG 188-3.03** on Hackett Road in Sugar Creek Township. Age 81 years, 28.3' span, 16.2' wide, single span steel girder bridge was replaced with a 10' span x 7' rise x 63' length precast reinforced concrete box culvert. Lockhart Concrete Company, Inc. from Akron, Ohio was the prime contractor. Ohio Public Works Commission and local monies financed the project at a cost of \$219,543.



BRIDGE REPORT

Continued

THE FOLLOWING BRIDGES WERE REPLACED IN 2016 (CON'T.):

- SUG 301-0.25** on Kurzen Road in Sugar Creek Township. Age unknown, 18.6' span, 15.9' wide, single span steel beam bridge was replaced with a 9' span x 5' rise x 45' length precast reinforced concrete box culvert. Replacement work was completed by county forces. Local monies financed the project at a cost of \$73,415.




THE FOLLOWING BRIDGES WERE REHABILITATED IN 2016:


- CHE 269-0.17** on Crater Road in Chester Township. Removal of existing timber deck and steel beam superstructure. Replaced with new steel beam superstructure and timber deck. Alexander's Sandblasting and Painting Ltd. from Big Prairie, Ohio painted the steel superstructure. The project also included repair work to existing abutments and minor approach roadway improvements. The work was done by county forces. Local monies financed the project at a cost of \$25,002.

BRIDGE REPORT

Continued

THE FOLLOWING BRIDGES WERE REHABILITATED IN 2016 (CON'T.):

 **CLI 290-2.75** on Schwartzwalder Road in Clinton Township. Removal of existing timber deck and 3 deteriorated steel beams of steel beam superstructure. Replaced with 3 new steel beams in superstructure and timber deck. The project also included repair work to existing abutments and minor approach roadway improvements. The work was done by county forces. Local monies financed the project at a cost of \$11,457.

 **PLA 83-0.12** on Millbrook Road in Plain Township. Removal of existing timber deck and steel thru girder superstructure. Replaced with new steel beam superstructure and timber deck. Alexander's Sandblasting and Painting Ltd. from Big Prairie, Ohio painted the steel superstructure. The project also included repair work to existing abutments and minor approach roadway improvements. The work was done by county forces. Local monies financed the project at a cost of \$83,177.



TRAFFIC CONTROL

The primary responsibility of our traffic control staff is the inspection and maintenance of over 8,500 road signs along nearly 500 miles of county roads and at narrow and load-limited bridges on township roads. The focus of the sign crew's efforts in 2016 (after the top priority of repairing or replacing damaged, vandalized or stolen stop and yield signs) was to upgrade signing at curves and sharp turns along all county roads to meet current state standards and to assist drivers in negotiating these turns, particularly at night. Our traffic control staff plans to complete this project in 2017.

Wayne County has responsibility for traffic signals and flashers on Back Orrville Road, Canal Road, East Lincoln Way, and Smithville-Western Road. The Highway Department uses Lampion Companies, LLC of Wadsworth, Ohio to service and repair these units. Lampion submitted invoices in 2016 totaling \$12,138. Most of the cost was for the replacement of buried loop detectors at the intersection of East Lincoln Way and Apple Creek Road and failing loop detection equipment at the intersection of Apple Creek Road and Back Orrville Road. Also, the County Engineer's Office compensated Lampion in 2016 to train our sign crew to do basic troubleshooting on the control panels to minimize service calls due to minor voltage fluctuations and weather conditions.

Wayne County again had a reduced longitudinal pavement marking program in 2016. Markings included nearly 90 miles of center lines and over 80 miles of edge lines. The County Engineer's Office incorporates the painting of auxiliary markings on various county roads at railroad crossings, schools, left turn lanes, entrance ramps and intersections in the pavement marking contract in an effort to better coordinate both types of work. Dura Mark, Inc. of Aurora, Ohio, billed the county \$93,648 to complete this work. In addition, the County Engineer's Office paid Aero-Mark of Streetsboro, Ohio \$16,414 to restripe portions of five (5) county roads which were resurfaced late in 2015 or early in 2016. Finally, pavement markings were included in the contracts for resurfacing sections of Apple Creek Road and Kidron Road.

TRAFFIC CONTROL

Continued

Projects slated for 2017 include:

- A safety study of the C.R. 23 (Back Orrville Road) corridor, which is plagued by an average of 50 crashes per year. Wayne County will be reimbursed 90% of an engineering consultant's fee for this report, which will be used to justify programming federal funds for improvements.
- Speed zone studies for Plain and Wooster Township.
- Conversion of the Friendsville Road / West Salem Road intersection from Two-Way Stop to All-Way Stop, including adding overhead flashing red beacons. Eighty (80%) of the construction cost will be covered by federal funds.
- Completion of construction plans and right-of-way acquisition for conversion of the Friendsville Road / Smithville-Western Road intersection to a rural roundabout in the summer of 2018, for which 80% of the construction cost will also be covered by federal funds.

SUBDIVISIONS

Due to the sustained shift in rural residential housing construction toward single lot, infill, access easement, and common access drive projects; no new public subdivision roads were constructed or approved by the Wayne County Engineer, or accepted for dedication by the Board of Wayne County Commissioners in 2016.

Given this break in activity, the Wayne County Engineer's Office recently created standard typical road sections and detail sheets which area engineering consultants may incorporate into future plans to streamline reviews once demand for new residential allotment projects resumes. In conjunction with this, in 2017, the office intends to revise the 2009 *Engineering Code for Subdivision Development* to update and clarify the process for specifying and approving the construction or modification of public infrastructure outside municipal boundaries.

TAX MAP DEPARTMENT

The Primary function of the Tax Map Department is to process all deeds and record the parcel transfers on the appropriate map(s). Some of the instruments that the Department is required to review and approve are as follows: warranty deeds, quit claim deeds, executor's deeds, certificate of transfers, deeds of trustees, transfer on death affidavits, land contracts, sheriff's deeds, etc.

The Tax Map Department also retains and maintains historical tax maps, property surveys, railroad and highway right-of-way maps for public viewing and research. The Department provides a current set of tax maps to the County Auditor for taxation purposes. Every parcel of land in Wayne County is mapped and kept current with each landowner. These maps are available for viewing in the front office or on the department's website at http://wayne-county-engineer.com/Tax_Maps_&_Surveys/default.html. Tax maps of past years dated from 1929 forward are retained in a reference library and are available for viewing.

In 2016, there were approximately 59,460 tax parcels in Wayne County. There were 4,300 conveyances processed through this department during the year.

The Tax Map Department also administers the continuation of the county house numbering system. Numbers are assigned to new and existing building sites, cell tower sites, etc. that require an address. The new numbers are registered on a separate set of maps and index cards. New addresses are submitted to area post offices.

For many years, surveyors have been required to submit their survey plats for review and entry into the land records. There are approximately 34,382 surveys dating back to 1815. These surveys include numerous plats of allotments, subdivisions, and annexations. In 2016, this department reviewed and processed 250 survey plats.

TAX MAP DEPARTMENT

Continued

This office prepares and maintains numerous volumes of other related maps, plats and drawings that form a part of the county mapping system. The office personnel deserve credit for performing the diversified duties that are required in serving the public and maintaining an efficient and well managed Tax Map Department.

RIGHT-OF-WAY

The Right-of-Way Section of the Engineering Department is responsible for maintaining the right-of-way records for county and township roads and drainage systems within the County.

The main duty of this office is the acquisition of additional right-of-way required for road and bridge improvements. The work involves preparation of documents which include easements, work agreements and rights-of-entry for specific purposes on privately owned lands. Negotiations with property owners are of vital importance in the acquisition process.

Road right-of-way information is available at this office, which is used extensively by local governments, private and public utility companies, engineering and surveying practitioners, the Highway Maintenance Department, and the general public.

The office also establishes existing and proposed right-of-way limits on various roads for public improvements and reviews annexations for accuracy for the Board of Wayne County Commissioners.

Work will be required in 2017 on several projects that are now in the design stage along with other 2017 projects that will develop within the year.

SURVEYING

The primary function of the Surveying Section is to perform field surveys for engineering of public improvements consisting of: roads, bridges, culverts, and drainage. Surveying data collected in the field is downloaded in the office, post-processed and a base map is created to facilitate the design of various projects by department engineers. After the projects are designed, the surveying section sets horizontal and vertical control monuments in the field for construction. The Surveying Section also reviews and/or performs surveying (as required by Ohio Statute) for annexations and road dedications/vacations in preparation for public viewings and public hearings.

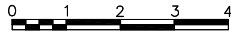
The office also maintains an inventory of monuments that mark the original land divisions of the County and also has a record of Global Positioning Monuments (GPS) that were established throughout the County in 2000. The GPS monuments (approximately 200) have very precise horizontal and vertical positions relative to the earth. These monuments were utilized in the creation of Wayne County's current Geographical Information System (GIS). The Wayne County GPS monuments are accessible through the following link:

http://www.wayne-county-engineer.com/gps_pts_ver2.pdf

2016 CONSTRUCTION MAP



Scale in Miles



CULVERT REPLACEMENT



CULVERT REPAIR



BRIDGE REPLACEMENT



BRIDGE REHABILITATION



** ROAD RESURFACING



** ROAD MICROSURFACING



** ROAD RESURFACING - CITY OF WOOSTER

** BY CONTRACT

WAYNE COUNTY, OHIO

STATE ROUTES

COUNTY ROADS

TOWNSHIP ROADS

