

**City of Findlay  
Engineering Department**



**2019 Annual Report**

# Engineering Department

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Paul E. Schmelzer, P.E., P.S.  
Safety Director

Brian A. Thomas, P.E., P.S.  
Service Director

**January 23, 2020**

**RE: Engineering Department Annual Report for Calendar Year 2019**

The City of Findlay Engineering Department has endeavored to provide citizens, developers, contractors, City departments, and other interested parties with the best service possible in regard to all of the following functions:

- Civil Engineering
- Project management
- Engineering records maintenance
- Infrastructure tracking
- Construction inspection
- Plan review
- Infrastructure planning
- Bonding, inspection, tracking of private development
- Contracting for City departments
- Utility/sidewalk permitting
- Address assignment
- GIS development
- Support for USACE Flood Feasibility Study
- Representation to numerous City Committees and Commissions
- Prevailing wage coordination
- Flood Hazard Mitigation
- City mapping
- Airport grant administration

The varied knowledge base, expertise and dedication of the Engineering Department staff make the provision of these services possible. The knowledge of our staff is truly our greatest asset, essential to maintaining cost effective and efficient service. The City Engineer continued the role of Director of Public Service and will continue that role in 2020. The Department had 7 full time employees, listed below for 2019:

Sara Klay	Project Coordinator
Jeremy Kalb	Project Manager
Jeff Corbin	Construction Inspector
Greg Craven	Engineering Technician (GIS)
Brooke Weininger	Engineer (EI)
Mitch Heacock	Inspector/MS4 coordinator
Brian Thomas	Director of Public Service/Acting City Engineer

Deidre Ramthun continues to assist the office on a part-time basis as an administrative assistant in addition to her duties with the Civil Service Commission.

The following pages contain the Annual Operations Summary listing detailed statistical information and summaries of the projects the Engineering Department has worked on.

Please do not hesitate to contact me with any questions you may have regarding this information or department operations in general.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Brian A. Thomas', with a long, sweeping horizontal line extending to the right.

Brian A. Thomas, PE, PS, CPESC, CFM  
Director of Public Service/Acting City Engineer

### **City Planning Commission (CPC)**

The Engineering Department reviewed and made recommendations for the following submittals to the CPC; Twenty seven (27) site plans, three (3) preliminary subdivision plats, three (3) final subdivision plats, ten (10) zoning amendments, three (3) conditional use applications and one (1) street or alley vacations.

### **Development Inspections**

Engineering staff provided inspection and oversight for improvements that impact the City's infrastructure on the following projects; Crawford Station, Somerset Park 4<sup>th</sup> Addition, Glenmar 2<sup>nd</sup> Addition, Hickory Lake 2<sup>nd</sup> Addition, Ohio Logistics Building Addition at 1800 Production Drive, AutoLiv.

### **Resurfacing 2019**

Thirteen (13) road sections totaling 8.09 lane miles in length were resurfaced and 4.76 miles of curb were replaced through the use of a contractor. Paving and milling costs totaled \$618,613.03. Curb, sidewalk and driveway replacements added \$730,115.53 to the final cost of \$1,348,728.56.

### **Resurfacing 2019 – ODOT Large City funding**

Two (2) road section totaling 2.67 lane miles in length were resurfaced and 1.64 miles of curb were replaced through the use of a contractor. Funding from the Ohio Department of Transportation (ODOT) provided the majority of the construction cost (\$395,969.51). The remainder (\$119,825.00) was paid with City's Capital Improvement Fund. The City will be receiving approximately \$11,223.22 from ODOT as a reimbursement to help cover the expenses of construction inspection services that were provided by the City Inspectors.

### **Blanchard Street 16 inch Waterline**

This project installed 0.96 miles of 16" waterline on Blanchard Street from Sandusky Street to 6<sup>th</sup> Street to replace several smaller sized waterlines. The contract was awarded to Helms and Sons Excavating of Findlay for a cost \$1,314,065.28.

### **Project Designs**

In 2019, the engineering department was responsible for the design of several other projects that will not enter the constructed phase until 2020. Some of these projects were designed by engineering staff while others were designed by consultants and were reviewed and approved by engineering staff. These projects include: Howard Street Sewer Separation, Howard Street Waterline Replacement, Olive Street Waterline Replacement, Rutherford Avenue Waterline Replacement, West Melrose Avenue Waterline Replacement, Sixth Street Waterline Replacement, Madison and Monroe Sewer Replacements, Cimarron Court Drainage Project, Blanchard Street Catch Basin Project, Blanchard St. & Lincoln St. Bike Lanes, Greenway Trail Extension Phase 1 and County Road 236 Widening Project. These projects were all designed so that they could be bid for construction early in the 2020 in an attempt to get better pricing from contractors that will be looking for work to fill up their 2020 construction schedule.

### **Key Performance Indicators (KPIs)**

In 2019, Engineering continued to measure the Key Performance Indicators that were setup in 2016. These include:

- Project Cost Management – Looking at the percent of projects that were closed that were at or below the bid price. In 2019, 15 out of the 18 projects that were closed were at or below the bid price (83%). This is lower than the goal of 100%.
- Miles Paved – Tracking the number of lane miles that were paved during the year. Please note that this includes all paving done on City streets but does not include work done on alleys (i.e. resurfacing project plus resurfacing ODOT large city funding plus paving done by the Street Department). For 2019, a total of 17 lane miles were paved. This was slightly below the goal of 18.93 lane miles. The amount of paving that can be completed in a year depends upon the amount of curb that also needs to be replaced on the street that are being paved. In years where there is less curb work needed, more paving can be completed and vice versa.
- Projects bid versus planned – Looking on a quarter by quarter basis at the number of projects that engineering would like to get out to bid versus the actual number that are bid. In 2019, a total of 31 projects were bid, which was more than the goal of 24.
- MS4 Compliance – Looking at the percentage of days that the City is in compliance with the MS4 requirements established by the Ohio Environmental Protection Agency. In 2019, the engineering once again met the goal of 100% days in compliance.

The graphs showing the KPIs as they stand at the end of 2019 is included at the end of this report.

### **Planning for 2020**

Final design and construction plans are scheduled for completion and construction is planned for the following projects in 2020:

Howard Street Sewer Separation  
Howard Street Waterline Replacement  
Olive Street Waterline Replacement  
Rutherford Avenue Waterline Replacement  
West Melrose Avenue Waterline Replacement  
Sixth Street Waterline Replacement  
Madison and Monroe Sewer Replacements  
Cimarron Court Drainage Project  
Blanchard Street Catch Basin Project  
Blanchard St. & Lincoln St. Bike Lanes  
County Road 236 Widening Project  
2020 Annual Sewer & Manhole Lining Program  
2020 Annual Sewer Televising  
Phase 2 of the Cube Parking Lot Repairs  
Logan Avenue Phase 3  
Blue Bonnet and Bittersweet Sanitary Sewers  
Annual Street Resurfacing/Curb Repairs  
Blanchard River Greenway Trail, Phase 2

**CITY OF FINDLAY  
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY  
FOR THE YEAR OF 2019**

The following information is provided as a report of operations in the Engineering Department for the year 2019. Corresponding years 2017 and 2018 are shown for comparison.

**NEW SANITARY SEWER**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
8" Force Main	- LF	0 LF	0 LF
6" Force Main	- LF	0 LF	0 LF
4" Force Main	- LF	0 LF	0 LF
6"	- LF	109 LF	0 LF
8"	7,124 LF	4133 LF	5,904 LF
10"	456 LF	1413 LF	354 LF
12"	- LF	1336 LF	0 LF
15"	- LF	0 LF	1,342 LF
18"	- LF	25 LF	0 LF
42"	10 LF	0 LF	0 LF
<b>TOTALS</b>	<u>7,590 LF</u>	<u>7,016 LF</u>	<u>7,600 LF</u>

**SANITARY SEWER PERMITS ISSUED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Outside City	68	45	58
Inside City	76	82	62
<b>TOTALS</b>	<u>144</u>	<u>127</u>	<u>120</u>

**SANITARY SEWER FEES COLLECTED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Tap/Inspection Fees	\$ 12,075.00	\$11,826.00	\$13,395.00
Impact/Capacity Fees	\$ 109,516.00	\$126,805.60	\$161,828.00
Rotary Fees	\$ 12,979.00	\$3,884.47	\$76,172.00
	<u>\$ 134,570.00</u>	<u>\$142,516.07</u>	<u>\$251,395.00</u>

**CITY OF FINDLAY  
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY  
FOR THE YEAR OF 2019**

The following information is provided as a report of operations in the Engineering Department for the year 2019. Corresponding years 2017 and 2018 are shown for comparison.

**NEW STORM SEWER**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
6"	- LF	0 LF	0 LF
8"	180 LF	0 LF	280 LF
10"	743 LF	33 LF	150 LF
12"	6,563 LF	2,128 LF	2,423 LF
15"	892 LF	536 LF	2,261 LF
18"	1,760 LF	1,185 LF	2,361 LF
21"	- LF	0 LF	0 LF
24"	2,020 LF	855 LF	953 LF
27"	- LF	0 LF	0 LF
30"	1,190 LF	514 LF	2,540 LF
36"	1,604 LF	1,740 LF	0 LF
42"	1,059 LF	1,059 LF	0 LF
48"	1,147 LF	1,147 LF	0 LF
54"	384 LF	384 LF	0 LF
60"	- LF	0 LF	0 LF
84"	- LF	0 LF	0 LF
<b>TOTALS</b>	<u>17,542 LF</u>	<u>9,581 LF</u>	<u>10,968 LF</u>

**STORM SEWER PERMITS ISSUED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Outside City	42	10	35
Inside City	55	51	58
<b>TOTALS</b>	<u>97</u>	<u>61</u>	<u>93</u>

**STORM SEWER FEES COLLECTED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Tap/Inspecton Fees	\$ 7,875.00	\$4,655.00	\$7,630.00

**CITY OF FINDLAY  
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY  
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The following information is provided as a report of operations in the Engineering Department for the year 2019. Corresponding years 2017 and 2018 are shown for comparison.

**NEW WATERLINE**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
2"	- LF	- LF	865 LF
6"	5,585 LF	4,900 LF	7,954 LF
8"	6,984 LF	14,417 LF	5,271 LF
10"	10 LF	7,574 LF	1,420 LF
12"	2,660 LF	1,320 LF	932 LF
16"	5,062 LF	3,913 LF	- LF
20"	- LF	- LF	- LF
24"	- LF	- LF	- LF
30"	- LF	- LF	- LF
36"	- LF	- LF	- LF
<b>TOTALS</b>	<u>20,301 LF</u>	<u>32,124 LF</u>	<u>16,442 LF</u>

**WATER SERVICE PERMITS ISSUED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Outside City	68	54	54
Inside City	53	91	84
<b>TOTALS</b>	<u>121</u>	<u>145</u>	<u>138</u>

**WATER FEES COLLECTED**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Tap/Meter Fees	\$ 127,563.00	\$143,200.00	\$134,225.00
Rotary Fees	\$ 15,098.00	\$39,642.18	\$24,828.00
<b>TOTALS</b>	<u>\$ 142,661.00</u>	<u>\$182,842.18</u>	<u>\$159,053.00</u>



**CITY OF FINDLAY  
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY  
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**NEW PAVEMENT (HARD SURFACE WITH CURB)**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total(construction and annexations)	0.99 Miles	1.06 Miles	0.17 Miles

**STREET RESURFACING**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total Increase	70,117 LF 13.28 Miles	32,485 LF 6.15 Miles	61,934 LF 11.73 Miles

**CURB CUT PERMITS**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Permits Issued	85	171	92
Fees Collected	\$ 1,475.00	\$4,275.00	\$2,225.00

**SIDEWALK PERMITS**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total Repaired	3337.5 LF	3933 LF	4595 LF
Total Constructed	1876 LF	3159.5 LF	4449 LF
Permits Issued	130	149	105

**ANNEXATIONS**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total Increase	36.689 Acres 0.05777 Sq Mi.	49.068 Acres 0.077 Sq Mi.	0.000 Acres 0.000 Sq Mi.

**CITY OF FINDLAY  
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY  
FOR THE YEAR OF 2019**

**WATERLINES**

Total through 2018	330.74 Miles
Constructed - 2019	3.84 Miles
Removed - 2019	0.00 Miles
<b>TOTAL through 2019</b>	<b>334.58 Miles</b>

**SANITARY SEWERS**

Total through 2018	302.05 Miles
Constructed - 2019	1.44 Miles
Removed - 2019	0.00 Miles
<b>TOTAL through 2019</b>	<b>303.69 Miles</b>

**STREET RIGHT-OF-WAY AND PAVEMENT**

Hard surface with curb through 2018	134.69 Miles
Hard surface without curb through 2018	61.25 Miles
<b>TOTAL pavement through 2018</b>	<b>195.94 Miles</b>
<b>TOTAL Right-of-Way through 2018</b>	<b>195.56 Miles</b>
Vacated -2019	
Hard surface with curb	0.00 Miles
Hard surface without curb	0.00 Miles
Right-of-way	0.00 Miles
Constructed - 2019	
Hard surface with curb	0.99 Miles
Hard surface without curb	0.00 Miles
Dedicated - 2019	
Right-of-way	0.99 Miles
Annexed - 2019	
Hard surface with curb	0.00 Miles
Hard surface without curb	0.00 Miles
Right-of-way	0.00 Miles
<b>TOTAL Hard Surface with curb - 2019</b>	<b>135.68 Miles</b>
<b>TOTAL Hard Surface without curb - 2019</b>	<b>61.25 Miles</b>
<b>TOTAL Pavement through 2019</b>	<b>196.93 Miles</b>
<b>TOTAL Right-of-way through 2019</b>	<b>196.55 Miles</b>

**ANNEXATIONS**

Total through 2018		20.1605 Sq. Miles
Annexations - 2019	36.689 Acres	0.0578 Sq. Miles
<b>TOTAL through 2019</b>		<b>20.2183 Sq. Miles</b>

<b>Dept.</b>	<b>ENGINEERING</b>		<b>ENGINEERING</b>
KPI Measure	Lane miles paved		MS4 Compliance
Rationale/ Definition	Lane miles paved measures our progress in street maintenance and improvements.		MS4 relates to our adherence to certain USEPA standards.
Frequency	Annually		Quarterly
Data Source	City Engineer		City Engineer
Graph			
Other/ comments	<p>The lane miles paved each year is based on projects in the Capital Plan and availability of other funding sources in a given year.</p> <p>The target is the 5 year average of miles paved.</p>		<p>Our target is 100% compliance.</p> <p>MS4 stands for Municipal Separate Storm Sewer System. The MS4 standards relate to storm water runoff, erosion, and water quality. It is to protect surface water such as Blanchard River, Eagle Creek, etc.</p>



Dept.	ENGINEERING		ENGINEERING																																	
KPI Measure	Projects: # Planned vs. # Bid		% of Projects closed at or below bid and/or estimate																																	
Rationale/ Definition	This measure shows our ability to be pro-active and get planned projects out to bid timely.		This measure tracks our ability to keep costs within project estimates.																																	
Frequency	Quarterly		Annually																																	
Data Source	City Engineer		City Engineer																																	
Graph	<p>Projects: # Planned vs. # Bid</p> <table border="1"> <caption>Projects: # Planned vs. # Bid (2019)</caption> <thead> <tr> <th>Quarter</th> <th>Planned</th> <th>Bid</th> </tr> </thead> <tbody> <tr> <td>Qtr 1</td> <td>6</td> <td>5</td> </tr> <tr> <td>Qtr 2</td> <td>6</td> <td>4</td> </tr> <tr> <td>Qtr 3</td> <td>4</td> <td>6</td> </tr> <tr> <td>Qtr 4</td> <td>14</td> <td>8</td> </tr> </tbody> </table>		Quarter	Planned	Bid	Qtr 1	6	5	Qtr 2	6	4	Qtr 3	4	6	Qtr 4	14	8	<p>% Projects closed at or below bid and/or estimate</p> <table border="1"> <caption>% Projects closed at or below bid and/or estimate</caption> <thead> <tr> <th>Year</th> <th>Projects</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>2015</td> <td>19</td> <td>84%</td> </tr> <tr> <td>2016</td> <td>5</td> <td>100%</td> </tr> <tr> <td>2017</td> <td>12</td> <td>92%</td> </tr> <tr> <td>2018</td> <td>12</td> <td>100%</td> </tr> <tr> <td>2019</td> <td>18</td> <td>83%</td> </tr> </tbody> </table>	Year	Projects	Percentage	2015	19	84%	2016	5	100%	2017	12	92%	2018	12	100%	2019	18	83%
Quarter	Planned	Bid																																		
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Other/ comments	We develop and follow a 5-year capital plan (revised annually) which includes multiple year grants, etc. Each year the projects are planned by quarter based on nature of the project and to obtain optimal pricing.		This is a newer measure and no formal targets have been set.																																	

