

**City of Findlay
Engineering Department**



2018 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 31, 2019

RE: Engineering Department Annual Report for Calendar Year 2018

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
- 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. With the support of the Administration, the Department hired a new Graduate Engineer to fill a vacancy created by a resignation during 2018. The City Engineer also continued the role of Director of Public Service and will continue that role in 2019. The Department had 7 full time employees, listed below for 2018:

Amanda Mooney	Project Coordinator
Jeremy Kalb	Project Manager
Jeff Corbin	Construction Inspector
Greg Craven	Engineering Technician (GIS)
Brooke Weininger	Graduate Engineer
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,



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 four (24) site plans, five (5) preliminary subdivision plats, eight (8) final subdivision plats, sixteen (16) zoning amendments, two (2) special use/home occupation requests, six (6) conditional use applications and four (4) street or alley vacations.

Development Inspections

Engineering staff provided inspection and oversight for improvements that impact the City's infrastructure on the following projects; Campbell Soup, Deer Landing 1st Addition, Glenmar 1st Addition Plat 2, AutoLiv, Spring Lake 1st Addition, and South Ridge Estates.

Resurfacing 2018

Fifteen (15) road sections totaling 7.42 lane miles in length were resurfaced and 2.58 miles of curb were replaced through the use of a contractor. Paving and milling costs totaled \$360,918.49. Curb, sidewalk and driveway replacements added \$347,983.50 to the final cost of \$708,901.99.

Resurfacing 2018 – ODOT Large City funding

One (1) road section totaling 9.80 lane miles in length were resurfaced and 1.18 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 (\$533,374.07). The remainder (\$162,087.45) was paid with City's Capital Improvement Fund. The City will be receiving approximately \$17,000 from ODOT to help cover the expenses of construction inspection services that were provided by the City Inspectors.

Sewer Lining Program 2017

This annual program adds a plastic liner to sanitary sewers to prevent storm water and groundwater infiltration and to structurally rehabilitate deteriorating sewers. In 2018, approximately 3,761 feet of 8" sewer, 4,079 feet of 10" sewer, and 1,982 feet of 12" sewer was lined. The total length of sanitary sewer lined was approximately 9,822 feet. LiquiForce Services of Romulus, Michigan performed the work at a cost of \$406,531.

Park Street Rehabilitation

This project reconstructed Park Street and installed new waterline on Park Street between Lima Street to Hancock Street. The total length of waterline installed was 950 feet. The contract was awarded to Hohenbrink Excavating of Findlay for a cost \$257,219.94.

Fishlock Avenue Improvements

This project replaced the curbs, replaced the waterline and repaved Fishlock Avenue from Sandusky Street to Blanchard Avenue. The total length of curb removed and replaced was 8,130 feet while 3,971 feet of waterline was installed. The contract was awarded to JDR Excavating of Findlay for a cost \$839,788.20.

Area B4-B6 Sewer Separation – Phase I and Phase II

This project installed storm sewers on Foulke Avenue, Allen Avenue, Midland Avenue, Garfield Avenue and George Street (from the railroad tracks to Crystal Avenue). The existing waterline was also replaced on Garfield Avenue and George Street. The total length of storm sewers installed was 5,902 feet, while the total length of waterline installed was 2,389 feet. The contract was awarded to Helms & Sons Excavating of Findlay for a cost \$923,302.75. Funding for the majority of the project came from grants from Ohio Public Works Commission (\$500,000) and Community Development Block Grant (\$129,000). The remainder of the costs came from the City of Findlay's Water Fund and Capital Improvement Fund.

Key Performance Indicators (KPIs)

In 2018, 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
- Miles Paved – Tracking the number of lane miles that were paved during the year. Please note that this includes all paving done in the City (i.e. resurfacing project plus resurfacing ODOT large city funding plus paving done by the Street Department)
- 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.
- 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.

The graphs showing the KPIs as they stand at the end of 2018 is included in this report.

Planning for 2019

Final design and construction plans are scheduled for completion and construction is planned for the following projects in 2019:

ODOT Large City FY 19 Resurfacing
Resurfacing 2019
Lima Avenue/Western Avenue Signal Improvements
Blanchard Street Waterline
Madison and Monroe Sewer Replacement
2019 Annual Sewer & Manhole Lining Program
2019 Annual Sewer Televising

**CITY OF FINDLAY
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY
FOR THE YEAR OF 2018**

The following information is provided as a report of operations in the Engineering Department for the year 2018. Corresponding years 2016 and 2017 are shown for comparison.

NEW SANITARY SEWER

	<u>2018</u>	<u>2017</u>	<u>2016</u>
8" Force Main	0 LF	0 LF	0 LF
6" Force Main	0 LF	0 LF	0 LF
4" Force Main	0 LF	0 LF	0 LF
6"	109 LF	0 LF	0 LF
8"	4133 LF	5,904 LF	5,028 LF
10"	1413 LF	354 LF	1,954 LF
12"	1336 LF	0 LF	2,287 LF
15"	0 LF	1,342 LF	0 LF
18"	25 LF	LF	0 LF
TOTALS	7,016 LF	7,600 LF	9,269 LF

SANITARY SEWER PERMITS ISSUED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Outside City	45	58	69
Inside City	82	62	82
TOTALS	127	120	151

SANITARY SEWER FEES COLLECTED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Tap/Inspection Fees	\$11,826.00	\$13,395.00	\$13,605.00
Impact/Capacity Fees	\$126,805.60	\$161,828.00	\$243,819.00
Rotary Fees	\$3,884.47	\$76,172.00	\$37,573.00
	\$142,516.07	\$251,395.00	\$294,997.00

**CITY OF FINDLAY
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY
FOR THE YEAR OF 2018**

The following information is provided as a report of operations in the Engineering Department for the year 2018. Corresponding years 2016 and 2017 are shown for comparison.

NEW STORM SEWER

	<u>2018</u>	<u>2017</u>	<u>2016</u>
6"	0 LF	0 LF	0 LF
8"	0 LF	280 LF	0 LF
10"	33 LF	150 LF	176 LF
12"	2,128 LF	2,423 LF	502 LF
15"	536 LF	2,261 LF	1,083 LF
18"	1,185 LF	2,361 LF	410 LF
21"	0 LF	0 LF	0 LF
24"	855 LF	953 LF	468 LF
27"	0 LF	0 LF	0 LF
30"	514 LF	2,540 LF	0 LF
36"	1,740 LF	0 LF	0 LF
42"	1,059 LF	0 LF	0 LF
48"	1,147 LF	0 LF	0 LF
54"	384 LF	0 LF	0 LF
60"	0 LF	0 LF	0 LF
84"	0 LF	0 LF	0 LF
TOTALS	9,581 LF	10,968 LF	2,639 LF

STORM SEWER PERMITS ISSUED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Outside City	10	35	33
Inside City	51	58	51
TOTALS	61	93	84

STORM SEWER FEES COLLECTED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Tap/Inspector Fees	\$4,655.00	\$7,630.00	\$6,825.00

**CITY OF FINDLAY
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY
FOR THE YEAR OF 2018**

The following information is provided as a report of operations in the Engineering Department for the year 2018. Corresponding years 2016 and 2017 are shown for comparison.

NEW WATERLINE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
2"	0 LF	865 LF	313 LF
6"	4,900 LF	7,954 LF	3,243 LF
8"	14,417 LF	5,271 LF	8,623 LF
10"	7,574 LF	1,420 LF	0 LF
12"	1,320 LF	932 LF	1,668 LF
16"	3,913 LF	0 LF	0 LF
20"	0 LF	0 LF	1,930 LF
24"	0 LF	0 LF	2,320 LF
30"	0 LF	0 LF	0 LF
36"	0 LF	0 LF	0 LF
TOTALS	<u>32,124 LF</u>	<u>16,442 LF</u>	<u>18,097 LF</u>

WATER SERVICE PERMITS ISSUED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Outside City	54	54	73
Inside City	91	84	71
TOTALS	<u>145</u>	<u>138</u>	<u>144</u>

WATER FEES COLLECTED

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Tap/Meter Fees	\$143,200.00	\$134,225.00	\$143,550.00
Rotary Fees	\$39,642.18	\$24,828.00	\$20,526.00
TOTALS	<u>\$182,842.18</u>	<u>\$159,053.00</u>	<u>\$164,076.00</u>

**CITY OF FINDLAY
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**OPERATIONS SUMMARY
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NEW PAVEMENT (HARD SURFACE WITH CURB)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total(construction and annexations)	1.06 Miles	0.17 Miles	0.30 Miles

STREET RESURFACING

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total Increase	32,485 LF 6.15 Miles	61,934 LF 11.73 Miles	25,648 LF 4.86 Miles

CURB CUT PERMITS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Permits Issued	171	92	66
Fees Collected	\$4,275.00	\$2,225.00	\$1,650.00

SIDEWALK PERMITS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total Repaired	3933 LF	4595 LF	3267 LF
Total Constructed	3159.5 LF	4449 LF	4287 LF
Permits Issued	149	105	98

ANNEXATIONS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total Increase	49068.000 Acres 76.669 Sq Mi.	0.000 Acres 0.000 Sq Mi.	0.172 Acres 0.000 Sq Mi.

**CITY OF FINDLAY
DEPARTMENT OF ENGINEERING**

**OPERATIONS SUMMARY
FOR THE YEAR OF 2018**

WATERLINES

Total through 2017	324.66 Miles
Constructed - 2018	6.08 Miles
Removed - 2018	0.00 Miles
TOTAL through 2018	330.74 Miles

SANITARY SEWERS

Total through 2017	300.72 Miles
Constructed - 2018	1.33 Miles
Removed - 2018	0.00 Miles
TOTAL through 2018	302.05 Miles

STREET RIGHT-OF-WAY AND PAVEMENT

Hard surface with curb through 2017	134.35 Miles
Hard surface without curb through 2017	61.25 Miles
TOTAL pavement through 2017	195.60 Miles
TOTAL Right-of-Way through 2017	195.22 Miles
Vacated -2018	
Hard surface with curb	0.00 Miles
Hard surface without curb	0.00 Miles
Right-of-way	0.00 Miles
Constructed - 2018	
Hard surface with curb	0.34 Miles
Hard surface without curb	0.00 Miles
Dedicated - 2018	
Right-of-way	0.34 Miles
Annexed - 2018	
Hard surface with curb	0.00 Miles
Hard surface without curb	0.00 Miles
Right-of-way	0.00 Miles
TOTAL Hard Surface with curb - 2018	134.69 Miles
TOTAL Hard Surface without curb - 2018	61.25 Miles
TOTAL Pavement through 2018	195.94 Miles
TOTAL Right-of-way through 2018	195.56 Miles

ANNEXATIONS

Total through 2017		20.1587 Sq. Miles
Annexations - 2018	1.130 Acres	0.0018 Sq. Miles
TOTAL through 2018		20.1605 Sq. Miles

Dept.	ENGINEERING	ENGINEERING																										
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	<table border="1"> <caption>LANE MILES PAVED</caption> <thead> <tr> <th>Year</th> <th>Miles</th> </tr> </thead> <tbody> <tr> <td>2012</td> <td>10,000</td> </tr> <tr> <td>2013</td> <td>18,000</td> </tr> <tr> <td>2014</td> <td>30,000</td> </tr> <tr> <td>2015</td> <td>15,000</td> </tr> <tr> <td>2016</td> <td>12,000</td> </tr> <tr> <td>2017</td> <td>30,000</td> </tr> <tr> <td>2018</td> <td>18,000</td> </tr> </tbody> </table>	Year	Miles	2012	10,000	2013	18,000	2014	30,000	2015	15,000	2016	12,000	2017	30,000	2018	18,000	<table border="1"> <caption>MS4 Compliance</caption> <thead> <tr> <th>Quarter</th> <th>% Days in Compliance</th> </tr> </thead> <tbody> <tr> <td>Qtr 1</td> <td>95%</td> </tr> <tr> <td>Qtr 2</td> <td>95%</td> </tr> <tr> <td>Qtr 3</td> <td>95%</td> </tr> <tr> <td>Qtr 4</td> <td>95%</td> </tr> </tbody> </table>	Quarter	% Days in Compliance	Qtr 1	95%	Qtr 2	95%	Qtr 3	95%	Qtr 4	95%
Year	Miles																											
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Other/ comments	The lane miles paved each year is based on projects in the Capital Plan and availability of other funding sources in a given year.	Our target is 100% compliance. 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.																										



(Scroll or page up/down to see more departmental KPIs)

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"> <thead> <tr> <th>Quarter</th> <th>Planned</th> <th>Bid</th> </tr> </thead> <tbody> <tr> <td>Qtr 1</td> <td>10</td> <td>2</td> </tr> <tr> <td>Qtr 2</td> <td>10</td> <td>12</td> </tr> <tr> <td>Qtr 3</td> <td>6</td> <td>5</td> </tr> <tr> <td>Qtr 4</td> <td>8</td> <td>5</td> </tr> </tbody> </table>	Quarter	Planned	Bid	Qtr 1	10	2	Qtr 2	10	12	Qtr 3	6	5	Qtr 4	8	5	<p>% Projects closed at or below bid and/or estimate</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Projects</th> <th>% Closed</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> </tbody> </table>	Year	Projects	% Closed	2015	19	84%	2016	5	100%	2017	12	92%	2018	12	100%
Quarter	Planned	Bid																														
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2018	12	100%																														
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.																														



(Scroll or page up/down to see more departmental KPIs)