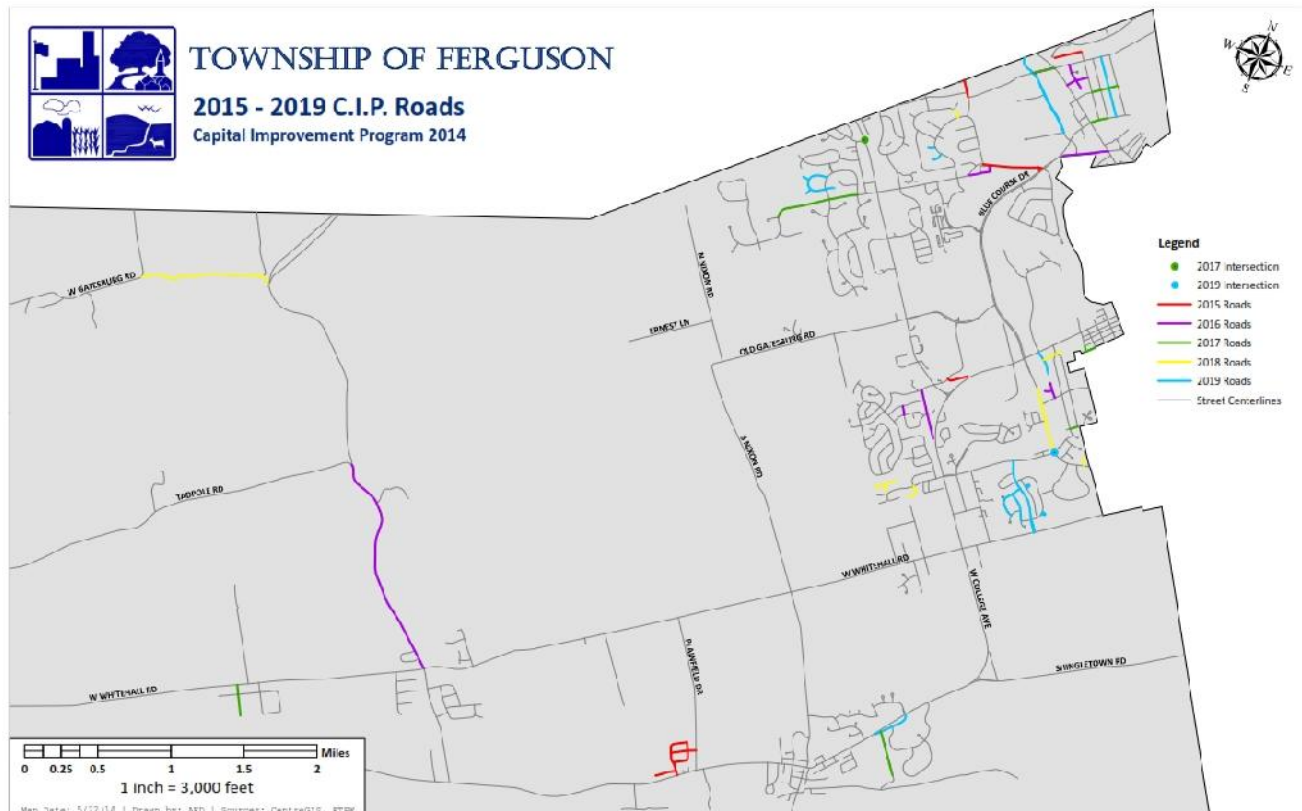


## ROAD PROJECTS

Road Projects make up the bulk of the capital expenditures for the township. For the term of this CIP, road projects total **\$9,843,000** or **72.0%** of the total capital expenditures for all capital projects funds. The map below depicts the various roadwork that that township is planning to undertake during the term of this capital plan.



The proposed roundabout on Valley Vista road is contingent upon grant funding. Grant funding of 80% is included to offset the cost of construction. It is common for the state to make payments, as the project is underway. Therefore, the timing of the grant funding matches the timing of the construction in 2017.

Each year all roadways in the Township are inspected and the condition assessed and documented in the form of a pavement inspection report. This report is utilized by the Public Works Director to prioritize capital road improvements and determine appropriate roadways for road surface preservation techniques such as Microsurfacing. In 2015, all capital road improvements are candidates for base repair and a new asphalt wearing surface. In some cases the existing asphalt surface will be milled off, and in some cases the existing surface will be overlaid. Budget pricing is based on historical costs for the Township and estimated by the linear foot. For example, an asphalt overlay of a 26 foot wide residential street in 2015 is estimated to cost \$35/linear foot, assuming FTPW performs base repair and other activities

such as sign installation, mail box replacement or resetting, topsoil or shoulder backup, seed and soil supplements. Additional costs are incurred if the storm pipe, curb, or sidewalk ramps are in need of repair. These additional costs are reflected in the linear foot price for the roadway in the CIP. A road requiring cold in place recycling or reclamation can cost an additional \$40/linear foot. The 2014 paving projects with all work done by contract including cold in place recycling cost \$118/linear foot.

### **Storm Pipe Improvements**

Prior to a roadway being overlaid with new asphalt, the condition of the inlets and storm pipe is assessed either visually or by remote controlled camera. The CIP reflects any anticipated costs due to inlet and storm pipe replacement. New inlets set in place can cost \$3,000 each, less if just the top is being replaced. The cost of storm pipe replacement varies based on the length of pipe to be replaced, diameter of the pipe, the type of pipe material, and other work associated with the storm pipe replacement such as other utility relocation costs and if the above curb or sidewalk needs replaced. A typical 18 inch diameter high density polyethylene (HDPE) pipe installed will add about \$75/linear foot to the project cost.

### **Americans with Disability Act (ADA) Handicap Accessibility Sidewalk Intersection Ramp Improvements**

Upgrades to sidewalk intersection concrete ramps are included in the CIP in the year the roadway is identified for improvement. Guidelines and rules for construction of these ramps promulgated by the federal government change often and staff goes to training to stay abreast of the latest requirements. The cost varies for each ramp depending on the existing grades and number of sidewalk blocks that need to be removed to reconstruct the ramp to the proper grades. \$4,000 is budgeted for each ramp that needs to be replaced. Truncated domes are required at these crossings. The Township Engineer may determine that it is technically infeasible to upgrade some ramps. Eight (8) ramps are proposed to be reconstructed in 2015.

The Public Works Department sometimes rents a paver and performs small paving projects. In 2015, the Department proposes to pave Pine Hall Court. Often these small paving projects get expensive when done by contract due to the mobilization requirements for such a small project.

<b>ROADS - Description</b>	<b>Const Year</b>	<b>Construction Year Cost</b>	
<b>2015</b>			
Microsurfacing and pavement preservation Townshipwide	2015	\$242,000	
Pine Hall Court materials and paver	2015	\$24,000	
<b>Subtotal Liquid Fuels</b>			<b>\$266,000</b>
White property acquisition 8.9 acres	2015	\$220,000	
<b>Subtotal Capital Reserve Fund</b>			<b>\$220,000</b>
Bikepaths and parking lots pavement repair, sealcoating, line striping	2015	\$33,000	
Traffic Signal Optimization - Study, Timing, minor capital improvement (4 intersections per year)	2015	\$22,000	
Circleville Rd from East Park Hills Avenue to Blue Course Drive - base repair by FTPW, mill and overlay, no drainage, no curb	2015	\$118,000	
Wyoming Ave. - asphalt overlay (base repair by FTPW)	2015	\$65,000	
Wyandotte Lane - asphalt overlay (base repair by FTPW)	2015	\$33,000	
Delaware Road - asphalt overlay (base repair by FTPW)	2015	\$45,000	
Kansa Ave.- paved swales and asphalt overlay (base repair by FTPW) (paid using Piney Ridge funds)	2015	\$42,000	
Kansa drainage (pipe 652 Kansa to 667 Kansa backyard or from cul-de-sac to intermittent stream to accept sump pump discharge) (paid using Piney Ridge funds)	2015	\$41,000	
<b>Kansa drainage inlets</b> (partially paid using Piney Ridge funds)	2015	\$13,000	
Kansa utility relocation	2015	\$17,000	
Kansa ROW (drainage easement)	2015	\$6,000	
Suburban Ave - mill curblines, overlay, (base repair by FTPW)	2015	\$51,000	
Suburban Ave - select curb repair	2015	\$10,000	
<b>Suburban Ave stormpipe</b>	2015	\$83,000	
Suburban Avenue Engineering (drainage study, survey, flood plain mapping)	2015	\$33,000	
Park Lane - from Aaron Dr to Ferguson/Patton line, mill curblines and overlay, no drainage, no curb (base repair by FTPW)	2015	\$22,000	
Park Lane from Aaron Dr to Ferguson/Patton line, ADA ramps	2015	\$35,000	
Design a left turn lane on Valley Vista Dr. at Bachman Lane considering a Round-a-bout or Traffic Signal	2015	\$55,000	
<b>TIF SUBTOTAL</b>			<b>\$724,000</b>
<b>TOTAL</b>		<b>\$1,210,000</b>	

<b>ROADS - Description</b>	<b>Const Year</b>	<b>Construction Year Cost</b>	
<b>2016</b>			
Microsurfacing and pavement preservation Townshipwide	2016	\$266,000	
Knob Hill Road materials and paver	2016	\$38,000	
Iroquois Road materials and paver	2016	\$12,000	
<b>Subtotal Liquid Fuels</b>			<b>\$316,000</b>
<b>Subtotal Capital Reserve Fund from General Fund</b>			<b>\$0</b>
Bikepaths and parking lots pavement repair, sealcoating, line striping	2016	\$36,000	
Traffic Signal Optimization - Study, Timing, minor capital improvement	2016	\$24,000	
Tadpole Road from W Gatesburg Road to Whitehall Road - mill and overlay (base repair by FTPW)	2016	\$347,000	
West Cherry Lane, mill and overlay, Atherton St. west to terminus (base repair by FTPW)	2016	\$61,000	
Science Park Court - (base repair by FTPW) overlay, no curb, no drainage	2016	\$80,000	
Denton Avenue - (base repair by FTPW) overlay, no curb, no drainage	2016	\$38,000	
Denton Ave ADA ramps	2016	\$10,000	
Cromer Drive - (base repair by FTPW) and overlay, no curb, no drainage	2016	\$27,000	
Kennelworth Court (Haymarket) - mill and overlay, no curb, no drainage	2016	\$17,000	
Conover Lane (Haymarket) - mill and overlay, no curb, no drainage	2016	\$25,000	
Engineering for a new turn lane on W Aaron Drive from Martin Street to N Atherton Street	2016	\$42,000	
Utility relocation for a new turn lane on W Aaron Drive from Martin Street to N Atherton Street	2016	\$18,000	
Left turn Valley Vista Drive and Bachman Lane - Utility	2016	\$30,000	
Left turn Valley Vista Drive and Bachman Lane - ROW	2016	\$0	
<b>TIF SUBTOTAL</b>			<b>\$755,000</b>
<b>TOTAL</b>		<b>\$1,071,000</b>	

<b>ROADS - Description</b>	<b>Const Year</b>	<b>Construction Year Cost</b>	
<b>2017</b>			
Microsurfacing and pavement preservation Townshipwide	2017	\$293,000	
Myrtle Ave btwn McBath St and Madison St - FTPW mill and overlay	2017	\$27,000	
Subtotal Liquid Fuels			\$320,000
West College Ave Streetscape construction	2017	\$2,000,000	
Subtotal Capital Reserve Fund from General Fund			\$2,000,000
Bikepaths and parking lots pavement repair, sealcoating, line striping	2017	\$40,000	
Traffic Signal Optimization - Study, Timing, minor capital improvement	2017	\$3,000	
W Aaron Drive from Martin Street to N Atherton Street, new turn lane, curb replacement, some drainage	2017	\$295,000	
East North Hills Place between N Allen St and Curtin Street, (base repair by FTPW) mill, overlay, no drainage, no curb, no ramps	2017	\$44,000	
Timothy Lane - (base repair by FTPW) overlay, no drainage, no curb	2017	\$52,000	
Sleepy Hollow Dr btwn Circleville Road and a point 0.59 miles west, mill and overlay, no drainage, no curb (base repair by FTPW)	2017	\$205,000	
Sycamore Drive - (base repair by FTPW) overlay	2017	\$74,000	
Sycamore Drive drainage ditches and driveway culverts	2017	\$212,000	
W Clinton Ave - between Atherton St. and Linn St. (base repair by FTPW) overlay	2017	\$38,000	
Corl Street between W Beaver Ave and Highland Alley - (base repair by FTPW) overlay	2017	\$10,000	
Highland Alley - (base repair by FTPW) and overlay	2017	\$45,000	
Round-a-bout or Left turn lane and traffic signal at Valley Vista and Bachman - Construction	2017	\$998,000	
<b>TIF SUBTOTAL</b>			<b>\$2,016,000</b>
<b>TOTAL</b>		<b>\$4,336,000</b>	

<b>ROADS - Description</b>	<b>Const Year</b>	<b>Construction Year Cost</b>	
<b>2018</b>			
Microsurfacing and pavement preservation Townshipwide	2018	\$322,000	
Subtotal Liquid Fuels			\$322,000
Subtotal Capital Reserve Fund			\$0
Bikepaths and parking lots pavement repair, sealcoating, line striping	2018	\$44,000	
Traffic Signal Optimization - Study, Timing, minor capital improvement	2018	\$3,000	
W Gatesburg Road - from Boundary Oaks to Scotia Road (base repair by FTPW) scratch and overlay	2018	\$314,000	
Ash Ave (Pine Hall, Haymarket) - (base repair by FTPW) overlay, no drainage, no curb	2018	\$33,000	
Wells Terrace (Haymarket) - (base repair by FTPW) overlay	2018	\$14,000	
Wells Terrace - replace bituminous curb with concrete mountable BCBC mounted curb	2018	\$14,000	
Wells Terrace - ADA ramps	2018	\$12,000	
Pamela Circle (Good Hope Farms) - (base repair by FTPW) and overlay, no drainage	2018	\$31,000	
Pamela Circle (Good Hope Farms) - replace bituminous curb with concrete mountable BCBC mounted curb	2018	\$33,000	
Pamela Circle ADA ramps	2018	\$12,000	
Fairfield Circle (Good Hope Farms) - (base repair by FTPW) overlay	2018	\$38,000	
Fairfield Circle (Good Hope Farms) - replace bituminous curb with concrete mountable BCBC mounted curb	2018	\$42,000	
Fairfield Circle (Good Hope Farms) - ADA ramps	2018	\$12,000	
Stafford Circle (Good Hope Farms)	2018	\$22,000	
Stafford Circle (Good Hope Farms) -replace bituminous curb with concrete mountable BCBC mounted curb	2018	\$25,000	
Blue Course Drive - from Bristol Avenue to a point 600 feet north of Westerly Parkway (base repair by FTPW) mill, overlay, no curb	2018	\$197,000	
Blue Course Drive from Bristol Avenue to a point 600 feet north of Westerly Parkway - ADA ramps	2018	\$35,000	
Blue Course Drive from Bristol Avenue to a point 600 feet north of Westerly Parkway - inlet tops, no pipe	2018	\$55,000	
Princeton Drive - between Dogwood Circle and East Park Hills Ave, (base repair by FTPW) overlay, no curb, no drainage	2018	\$16,000	
TIF SUBTOTAL			\$952,000
TOTAL		\$1,274,000	

<b>ROADS - Description</b>	<b>Const Year</b>	<b>Construction Year Cost</b>	
<b>2019</b>			
Microsurfacing and pavement preservation Townshipwide	2019	\$354,000	
Subtotal Liquid Fuels			\$354,000
Subtotal Capital Reserve Fund			\$0
Bikepaths and parking lots pavement repair, sealcoating, line striping	2019	\$48,000	
Traffic Signal Optimization - Study, Timing, minor capital improvement	2019	\$32,000	
New Traffic Signal - Blue Course and Bristol	2019	\$403,000	
Owens - base repair and overlay	2019	\$51,000	
Owens - replace bituminous curb with concrete mountable BCBC mounted curb	2019	\$48,000	
Harris Street	2019	\$125,000	
Appletree Circle (Park Hills) base repair and overlay, no inlets, no HC ramps	2019	\$20,000	
Appletree Circle, new concrete mountable curb	2019	\$20,000	
Avebury Circle (Park Hills)	2019	\$25,000	
Meckley Drive	2019	\$86,000	
Martin Street from Park Crest Lane to Patton Township Line, mill and overlay, no curb, no drainage, 3 lanes	2019	\$272,000	
Shagbark Court (Chestnut Ridge)	2019	\$21,000	
Sassafras Court (Chestnut Ridge)	2019	\$17,000	
Hickory Hill Drive (Chestnut Ridge)	2019	\$90,000	
Ashburton Court (Chestnut Ridge)	2019	\$20,000	
Manor Court (Stonebridge)	2019	\$18,000	
Sheffield Court (Stonebridge)	2019	\$17,000	
Williamsburg Drive (Stonebridge)	2019	\$62,000	
Red Lion Drive (Stonebridge)	2019	\$74,000	
Stonebridge Drive (Stonebridge)	2019	\$149,000	
TIF SUBTOTAL			\$1,598,000
TOTAL		\$1,952,000	