

# LUCAS COUNTY ENGINEER'S 2011 ANNUAL REPORT



Lucas County Engineers Office  
Keith G. Earley, P.E., P.S., Lucas County Engineer



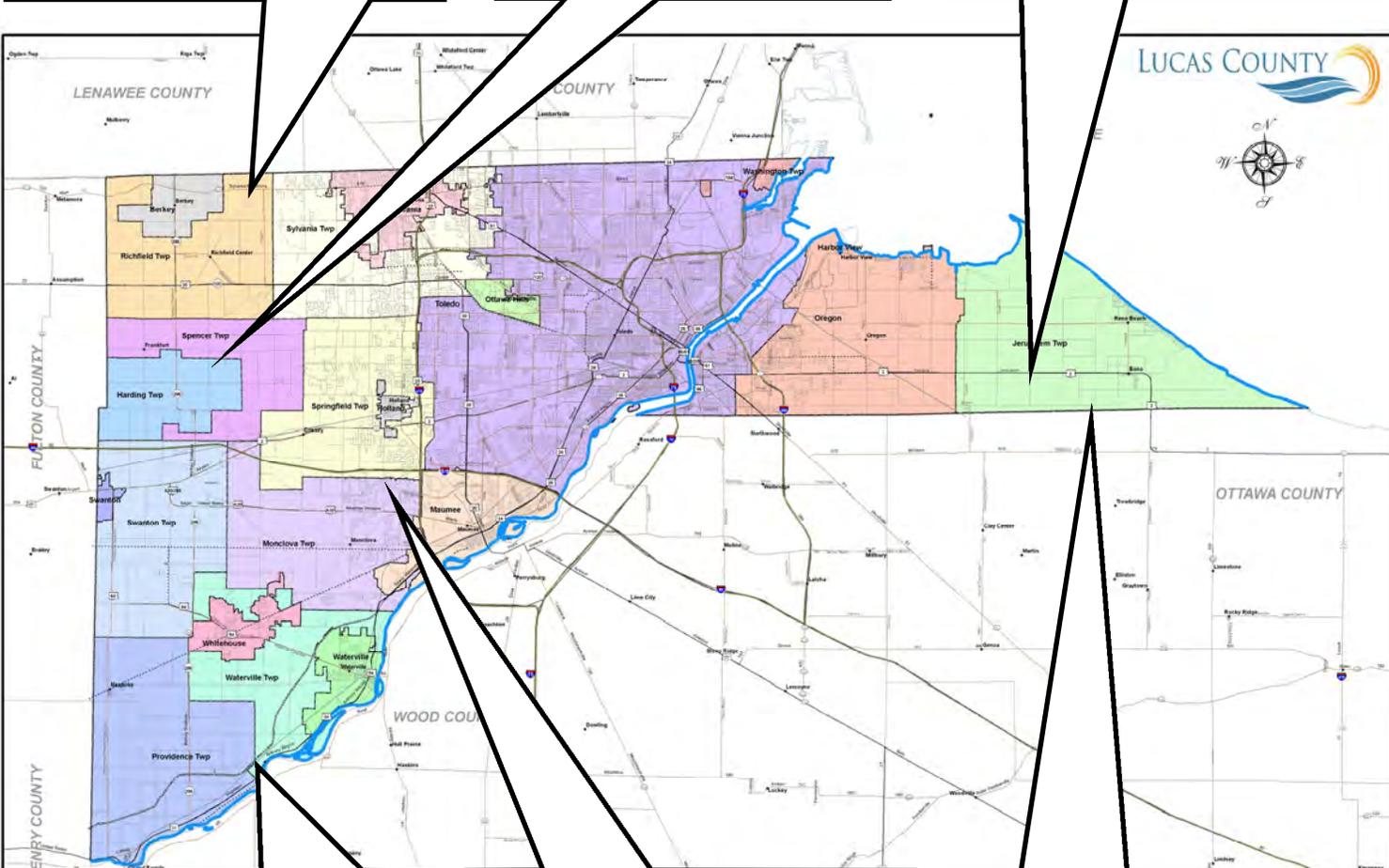
Richfield Center Road—Brint Road to Sylvania—  
Metamora Road



Raab Road Bridge #275



Decant Road—Brown Road to S.R. 2



Hertzfeld Road—U.S. 24 to Vollmer Road



Holloway Road—Salisbury Road to Garden Road



Brown Road—Nissen Road to Turnau Road

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Editor—Brian S. Miller

**LUCAS COUNTY  
OHIO**



*Keith G. Earley, P.E., P.S.*  
Lucas County Engineer

JUNE 1st, 2012

Responsible Action is Necessary

A good highway system is a vital component of our economic prosperity. We depend on it to perform our daily commercial and personal activities. If we hope to maintain or improve our infrastructure, a suitable level of financial investment is required. In Lucas County, our dedicated revenue for county maintained roads and bridges is slightly less than it was twelve years ago while overall costs have increased over 50%, some costs such as asphalt paving have more than doubled, and the situation is similar across the state. We have reduced our workforce by 35%, and many people have taken on additional duties. We are doing what we can to reduce our long term operating costs, to free up money for roadway preservation and improvement projects. We would like to make improvements that would last 15 years or more, but financial conditions have forced us to rely on preservation projects that will probably only last three to eight years. We expect that a more expensive project will be needed in the near future, and hope that adequate funding will be available.\*

Our Lucas County maintained highway system is currently in good condition, but revenue will have to be increased if we hope to preserve this valuable asset. Funding issues on the state and national level need to be resolved soon or the solutions become much more expensive. Delaying action until the condition is so bad that there is a public outcry is not a responsible course of action, but it is politically expedient in the short term. Major rehabilitation can cost ten times what timely maintenance would have cost. Rough roads can cause expensive repair to vehicles and increased operating costs. The cost of delay and wasted fuel from congestion in urban areas is much more than most people realize and much of that cost is passed on to consumers in the price of products as illustrated by our McCord Road underpass project. According to calculations done to federal standards, users would save \$17 million per year by reducing delay, reducing wasted fuel, crash reduction and green house gas reduction. Just reducing the wasted fuel would more than pay for the improvement and the delay is much worse in other locations around urban areas. We have infrastructure improvements that need to be done and well worth the investment, and we have 17% unemployment in the construction sector. Delaying necessary improvements does not save money, it wastes money. Inadequate investment in infrastructure is not simply a Lucas County problem, it is a statewide problem and a nationwide problem. We should be investing in our infrastructure and putting people to work. Delaying action will put a heavy burden on future generations. Ten year treasury bonds are currently costing only 1.5%, future generations would be better served if we borrowed much of the funding, but we should have a responsible plan for repayment, including some scheduled increased fees.

We have devoted public employees struggling to provide good services with limited resources, and I thank them for their efforts. We need to perform the necessary maintenance and we need to put more private contractors to work soon, building the infrastructure improvements necessary for future generations.

I would like to thank our dedicated employees. If you have questions or concerns, please call us at 419.213.4540 or visit our website [www.co.lucas.oh.us/engineer](http://www.co.lucas.oh.us/engineer).

We appreciate the positive response to last year's report. Your feedback is always welcome. Very truly yours,

*Keith Earley*

\*12 years ago, we averaged resurfacing a mile of county road once every 20 years. Currently, our funding supports once every 30 years. The design life of a resurfacing project is 15 to 20 years.

**COMPLETE VERSIONS OF THE ANNUAL REPORT AND 5-YR. CAPITAL IMPROVEMENT REPORT ARE ON THE WEB**



## **RESPONSIBILITIES OF THE LUCAS COUNTY ENGINEER'S OFFICE**

1. Inspection, maintenance, repair, widening, resurfacing and reconstruction of pavements and storm drainage for the Lucas County Highway System. Road maintenance duties include traffic control, safety projects, mowing, snow removal, bridge/culvert maintenance, berming, pavement repair, roadside ditch and storm drainage improvements and similar functions.
2. Maintaining public surveying records, bridge/culvert data, property tax maps and the County/Township's road, culvert and drainage records.
3. Advising and providing engineering/surveying services to the eleven (11) Townships in regard to maintenance, construction and repair of the Township Highway System.
4. Overseeing design and construction of new subdivisions and reviewing site plans and permits for development projects in the Townships.
5. Inspection, repair, reconstruction and replacement of bridges on the County and Township roadway systems.
6. Maintaining and repairing ditches and retention areas that have been petitioned by affected property owners. Working with the Toledo Area Sanitary District on needed ditch cleanouts.
7. Administering District 12's (Lucas County) Program for the Ohio Public Works Commission to implement the State Capital Improvement Program, the Local Transportation Improvement Program, Job Ready Sites (JRS), and the Clean Ohio Revitalization Fund Program (CORF).
8. Participating by co-operative agreements, in certain road and bridge projects with the Townships, Cities and Villages of the County.
9. Managing the new Lucas County Phase 2 Storm Water District

## 2011 ANNUAL REPORT

To: The Honorable Board of County Commissioners & the Citizens of Lucas County

The purpose of this report is to discuss the current condition of our highway system, significant projects completed, underway, and planned, and to discuss the long term outlook and needs.

### Current Condition

Currently, more than half of the 282 centerline miles of county maintained roads have paved shoulders, 4 to 6 feet wide on each side, and many of the deeper roadside ditches have been enclosed for additional safety. Additional lanes have been added to accommodate increased traffic, and we currently maintain 647.4 lane miles. Most all of the pavements are in relatively good condition with very few potholes or other forms of significant distress. All of our bridges can safely handle legal loads. Many improvements have been made to our traffic signals and all have energy efficient LED bulbs with battery backup for power outages. Most of our signing has been recently upgraded and in very good condition. Numerous improvements at intersections have been made over the past eleven years resulting in minimal delay at most intersections. More improvements are needed, but overall the system is in relatively good condition.

### Significant Projects Constructed

#### Rabb Road Bridge #275 and Roadway



State Funding: \$303,000  
Engineer: \$137,000  
Harding Twp.: \$87,000

#### McCord Road / Perrysburg-Holland Road North and South of Airport Highway Part of the Resurfacing Program



## Road Resurfacing Program

Sixty three percent of the projects let to construction in 2011 were devoted to road resurfacing. The following list of roads were selected to ensure that all four quadrants of the county were represented in this annual resurfacing program (12.07 miles):

Anchor Point Road (Corduroy Road to Marina entrance)  
Brown Road (Nissen Road to Turnau Road)  
Brown Road/Cousino Road (south limit of Lucas County Br. #1467 to Short Rd.)  
Corduroy Road (Rialto Drive to East Avenue)  
Cousino Road (Corduroy Road to Cedar Point Road)  
Decant Road (Brown Road to SR 2)  
Dorr Street (Irwin Road to Crissey Road N)  
Frankfort Road (Lathrop Road to SR 295)  
Heller Road (Neowash Road to Doran Road)  
Hertzfeld Road (US 24 to Neowash Road)  
King Road (0.1 mile north of Hill Avenue to 0.06 mile south of Nebraska Avenue)  
Manley Road (Salisbury Road to City of Maumee Limit)  
Martin-Williston Road (Ottawa County Limit to Brown Road)  
McCord Road/Perrysburg-Holland Road (0.22 mi. south of SR 2 to south of Hall Street)  
Nissen Road (Ottawa County Limit to Brown Road)  
Park Colony Boulevard (Corduroy Road to Lakeway Drive)  
Perrysburg-Holland Road/McCord Road (0.22 mile south of SR 2 to 0.12 north of Spring Valley Drive)  
Richfield Center Road (Sylvania Avenue to Brint Road)  
Richfield-Center Road (Brint Road to Sylvania-Metamora Road)

State Funding: \$1.2 million  
Engineer: \$1.7 million



Cousino Road at Cedar Point Rd.



Hertzfeld Road  
(US24 to Neowash Rd.)

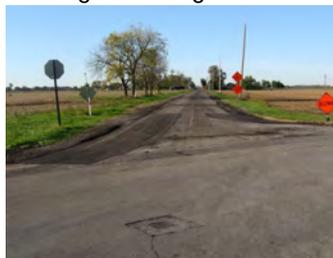


Decant Road  
(Brown Rd. to SR2)



Manley Road at Salisbury Rd.

During - Looking South



Richfield Center Rd. at Brint Road

After - Looking North



# CONSTRUCTION SUMMARY FOR 2011

Let by County Engineer

PROJECT NAME	PROJECT MANAGER	PROJECT LET DATE	CURRENT ENGINEER ESTIMATE	AWARDED CONTRACTOR	AWARDED AMOUNT
Raab Road Reconstruction & Bridge #275 Replacement (Joint project w/ Harding Twp)	PMO	LET 02/23/11	\$ 704,075	Schoen, Inc.	\$ 527,419.70
Manley Road Resurfacing	JML	LET 02/23/11	\$ 234,271	Shelly Co.	\$ 202,854.50
Hertzfeld Road Resurfacing	JML	LET 02/23/11	\$ 220,769	Gerken Paving, Inc.	\$ 186,058.00
Annual Crack Seal Program (includes Monclova Twp)	JSP	LET 02/24/11	\$ 227,800	D.G. Slurry Seal of Toledo	\$ 199,025.00
Annual Traffic Safety Program - Traffic Signal Upgrades	RLM	LET 02/24/11	\$ 163,945	E.T. Electric, Co., LLC	\$ 133,900.00
Annual Chip Seal Program Heller Road & Irwin Road	JSP	LET 02/24/11	\$ 49,916	Henry W. Bergman, Inc.	\$ 47,274.54
Annual Bridge Repair Program Sturbridge Road Bridge #3086	BAZ	LET 03/23/11	\$ 140,093	Bridge Overlay Systems	\$ 135,555.30
Ohio Street Reclamation (Joint project w/ Village of Berkey)	JML	LET 04/06/11	\$ 65,364	Tenmile Creek Excavating, Ltd.	\$ 57,465.60
Archbold-Whitehouse Road Storm Sewer Project	BWM	LET 04/06/11	\$ 139,053	B & J Concrete Construction Co.	\$ 109,295.00
Annual Emulsified Seal Coat Program (4.5 miles)	JSP	LET 04/20/11	\$ 113,559	D.G. Slurry Seal of Toledo	\$ 105,894.20
Annual Traffic Safety Program - RPM Replacement	RLM	LET 05/18/11	\$ 106,112	American Highway Safety, LLC	\$ 78,220.00
Annual Microsurfacing Project (includes Monclova Township)	JSP	LET 06/08/11	\$ 173,657	D.G. Slurry Seal of Toledo	\$ 158,632.50
OPWC Resurfacing Project, Ph 1 (4.63 miles in Jerusalem Twp)	JSP	LET 07/20/11	\$ 1,345,580	The Shelly Co.	\$ 1,156,933.85
Culvert Replacement Project (#316 Lathrop Rd & #793 Hertzfeld Rd)	PMO	LET 07/20/11	\$ 136,340	Schoen, Inc.	\$ 96,768.00
OPWC Resurfacing Program Ph 2 (2.76 miles in Springfield & Richfield Twp)	JSP/JML	LET 07/28/11	\$ 883,926	Gerken Paving, Inc.	\$ 723,550.35
Old Airport Hwy Storm Sewer	BWM	LET 08/03/11	\$ 129,039	Ohio Exc. & Sewer Contractors	\$ 96,631.50
2011 Annual Overlay Program (2.90 miles)	JSP	LET 08/26/11	\$ 715,782	Gerken Paving, Inc.	\$ 658,682.10
<b>TOTALS</b>			<b>\$ 5,549,281</b>		<b>\$ 4,674,160.14</b>

# TOWNSHIP CONSTRUCTION SUMMARY FOR 2011

To be bid by Township or County – Design and Inspection by County Engineer

PROJECT NAME	PROJECT MANAGER	PROJECT LET DATE	CURRENT ENGINEER ESTIMATE	AWARDED CONTRACTOR	AWARDED AMOUNT
2011 Annual Resurfacing Phase 1 (1.60 miles) (Sylvania Township)	SLR	LET (02/24/11)	\$ 364,044	Gerken Paving, Inc.	\$ 314,674.60
Raab Road incl LCE Bridge #275 (Bid by LCE) (Harding Township)	PMO	LET (02/23/11)	See LCE 2011 Forecast	Schoen, Inc.	See LCE 2011 Forecast
2011 Crack Seal (Bid w/LCE project) (Monclova Township)	JSP	LET (02/24/11)	See LCE 2011 Forecast	D.G. Slurry Seal of Toledo, Inc.	See LCE 2011 Forecast
Black Road Widening & Resurfacing (Monclova Township)	SLR	LET (04/08/11)	\$ 419,357	Gerken Paving, Inc.	\$ 355,963.88
2011 Annual Resurfacing Phase 2 Silica Drive & Westacre Subdivision (0.91 miles) (Sylvania Township)	SLR	LET (05/12/11)	\$ 701,427	Diversified Road & Pipe, Inc.	\$ 637,956.25
2011 OPWC Road Improvements (Merger, Corporate, Trust, Venture, International, Fairbourne, Hidden Forest) (Springfield Township)	BWM	LET (06/06/11)	\$ 793,852	Gerken Paving, Inc.	\$ 566,020.01
2011 Emulsified Seal Coat (Bid w/ LCE project) (Monclova Township)	JSP	LET (06/08/11)	\$ 22,930	See LCE 2011 Forecast	\$ 19,060.30
Concrete Road Repairs (Sylvania Township)	SLR	LET (06/09/11)	\$ 115,703	Quinn Concrete Construction, Inc.	\$ 90,045.00
2011 Emulsified Seal Coat Project (Sylvania Township)	SLR	LET (07/26/11)	\$ 45,702	Roadway Services, Inc.	\$ 42,111.43
2011 Jerusalem Twp Resurfacing (Jerusalem Township)	PMO	LET (08/16/11)	\$ 136,054	Henry W. Bergman, Inc.	\$ 127,063.80
Miller Road Resurfacing (Richfield Township)	PMO	BID (09/06/11)	\$ 51,801	Geddis Paving & Excavating, Inc.	\$ 48,080.90
Coder Road Culvert #686 Replacement (Monclova Township)	PMO	Hold until 2012	\$ 66,000		
		<b>TOTALS</b>	<b>\$ 2,716,870</b>		<b>\$2,200,976.17</b>



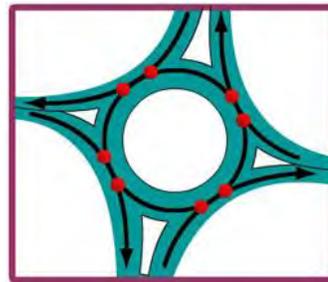
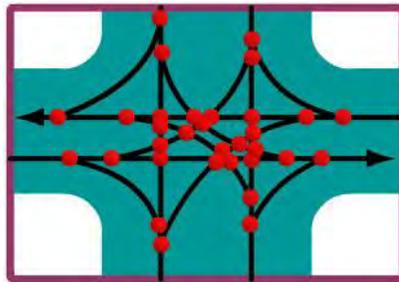
# Lucas County Roundabout Projects

## BENEFITS OF MODERN ROUNDABOUTS

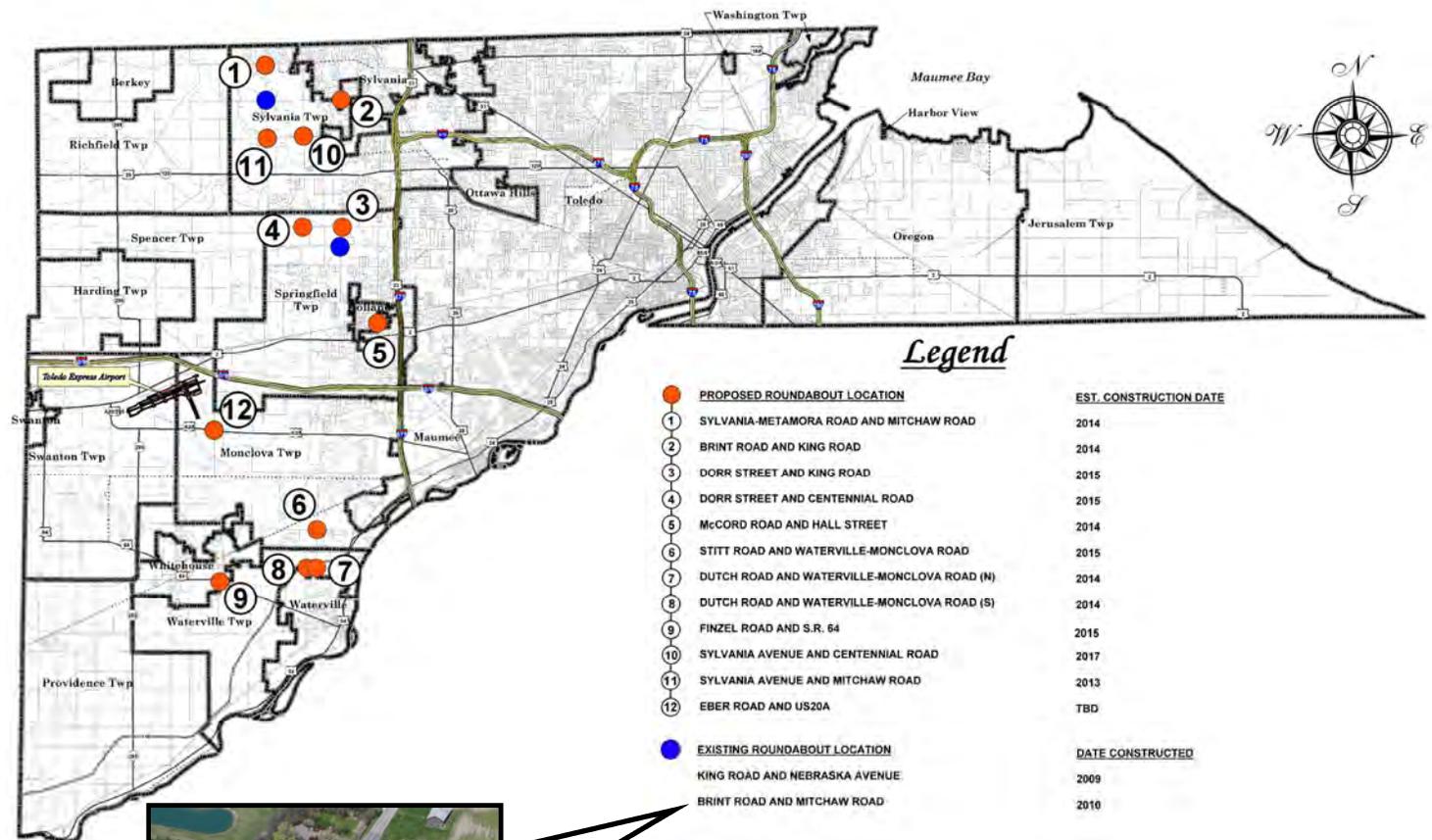
According to the [Insurance Institute for Highway Safety](#) (IIHS) some of the most important benefits of the modern roundabout are:

- Reduces injury accidents by 75 percent and fatal accidents by 90 percent.
- Increases efficient traffic flow up to 50 percent.
- Helps the environment by reducing carbon emissions by double digits.
- Decreases fuel consumption by as much as 30 percent.
- Costs less than widening for turn lanes & traffic signals and does not require expensive equipment or maintenance.

Red dots indicate 32 Vehicle to Vehicle conflict points in a standard four way intersection



Red dots indicate 8 Vehicle to Vehicle conflict



Brint Rd.-Mitchaw Rd. Roundabout

## Significant Projects Underway or Completed

### North Jerome Road Extension (Monclova Road to Fallen Timbers Mall) - Complete

The project widened & realigned North Jerome Road from Monclova Road to The Shops at Fallen Timbers Town Center Drive D. The project included signalization and turn lanes at Monclova Road upgrades to the rail crossing, new water lines, sanitary sewer lines and storm sewers. Bike and pedestrian facilities connect to the Wabash Cannonball Bike Trail. The County Engineer's office performed plan review, right of way acquisition and construction engineering.



Intersection of Russell Road and  
North Jerome Road



Looking north to Monclova Road along  
Bike Path next to North Jerome Road

### McCord Road from Regents Park Blvd to Central Avenue

This 2012 federal-aid project will add a center Two Way Left Turn Lane throughout the project along with paved shoulders on each side of the roadway. A large storm sewer will be replaced and some sidewalk will be constructed along the west side. The project was let to construction on February 22, 2012 for \$1,578,705 and will be substantially complete in August, 2012.

Federal Funding: \$1.450 million  
OPWC Funding: \$0.343 million  
Engineer: \$0.157 million

### Angola Road & Holland Sylvania Road Improvements

Additional turn lanes will be added and signalization will be upgraded including coordination with the railroad crossing gates. The project should reduce delay and reduce the number of crashes. The project was let to construction April 18, 2012 for \$572,232 and will be substantially complete by November, 2012.

Federal Funding: \$0.480 million  
OPWC Funding: \$0.225 million  
Engineer: \$0.125 million

## McCord Road Underpass (Update)

### Picture of Crossing

Last year, we reported that \$13.3 million, the last piece of funding needed for the underpass, had been approved by the ODOT through their Transportation Review Advisory Council (TRAC) process and construction was scheduled to begin in 2014 on this much needed \$35 million railroad grade separation project in the Village of Holland/Springfield Township next to Springfield High School. Since that time ODOT has reevaluated their financial resources and delayed funding on many projects, including his one for eight years unless additional ODOT revenue is obtained. If the project is delayed eight years, the commitment from other funding sources will have expired and an additional \$15 million will likely be necessary due to inflation.

The design of these improvements is nearly complete and we are proceeding on the right of way acquisition process. To cover the delayed ODOT funding, we applied for \$10 million in stimulus funds with the U.S. Department of Transportation. If those funds are approved we would have to award the construction by June of next year, so we are proceeding as rapidly as possible and hopefully we will be ready if funding from any source becomes available next year or soon thereafter.

The U.S. Department of Transportation predicts that rail traffic on this section of Norfolk Southern Railroad, between east coast seaports and Chicago will more than double over the next ten years. The section between Toledo and Chicago is the longest section in the US capable of handling double stacked containers. The USDOT produced graph shown below *dramatically* shows the projected increased traffic. The railroad bridge is being designed to accommodate two additional tracks. **We already have about 100 trains per day and the situation will be unbearable if that train traffic doubles, and there are no reliable alternatives for emergency response.**

Con't. on Page 11.



McCord Road Railroad Crossing



When we applied for the stimulus funds a Benefit/ Cost Analysis was required and the table below shows the results of those calculations according to federal standards. The Summary of Estimated Build Scenario Delay, Fuel, Emission & Accident Reduction Benefits as shown below indicate a **\$17 million per year savings** to highway users by building the improvements.



## Summary of Estimated Build Scenario Delay, Fuel, Emission, & Accident Reduction Benefits

McCord Rd. Grade Separation & Roundabout Project

Calendar Year	Project Year [2]	Delay Savings (\$2012)		Fuel Consumption Savings (\$2012)		CO2 Emissions Savings (\$2012)	NOx Emissions Savings (\$2012)		VOC Emissions Savings (\$2012)		Accident Reduction Savings (\$2012)	ESTIMATED BENEFIT TOTALS	
		7% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate		7% Discount Rate	3% Discount Rate
2010													
2011													
2012	Calart												
2013	C1												
2014	C2	-\$3,188,376	-\$3,713,264	\$4,677,424	\$5,447,446	\$382,703	\$104,537	\$121,747	\$46,607	\$54,279		\$2,022,900	\$2,293,000
2015	C3	-\$2,799,976	-\$3,387,560	\$4,442,840	\$5,375,196	\$390,915	\$97,986	\$118,548	\$43,958	\$52,698		\$2,175,400	\$2,548,800
2016	1	\$9,434,884	\$11,858,121	\$3,706,291	\$4,658,208	\$356,110	\$80,565	\$101,257	\$23,318	\$29,307	\$193,800	\$13,795,000	\$17,196,900
2017	2	\$9,014,718	\$11,770,042	\$3,368,381	\$4,395,307	\$348,004	\$72,124	\$94,169	\$20,880	\$27,235	\$195,816	\$13,018,000	\$16,830,600
2018	3	\$8,590,730	\$11,652,054	\$3,068,706	\$4,162,245	\$339,276	\$64,443	\$87,407	\$18,623	\$25,259	\$197,832	\$12,279,700	\$16,464,100
2019	4	\$8,183,635	\$11,530,953	\$2,782,281	\$3,920,306	\$329,925	\$57,459	\$80,900	\$16,589	\$23,375	\$199,847	\$11,569,800	\$16,083,400
2020	5	\$7,793,038	\$11,407,023	\$2,543,995	\$3,723,781	\$319,951	\$51,111	\$74,814	\$14,742	\$21,579	\$201,863	\$10,924,800	\$15,749,000
2021	6	\$7,416,522	\$11,280,529	\$2,280,889	\$3,498,266	\$311,664	\$45,349	\$68,997	\$13,006	\$19,868	\$203,879	\$10,273,400	\$15,353,200
2022	7	\$7,059,695	\$11,151,727	\$2,022,239	\$3,194,414	\$301,414	\$40,322	\$63,378	\$11,546	\$18,239	\$205,895	\$9,640,900	\$14,935,100
2023	8	\$6,715,999	\$11,020,858	\$1,791,957	\$2,940,578	\$291,447	\$35,304	\$58,065	\$10,769	\$16,887	\$207,911	\$9,052,900	\$14,535,600
2024	9	\$6,387,061	\$10,888,152	\$1,564,996	\$2,667,871	\$279,641	\$31,095	\$53,098	\$9,925	\$15,210	\$209,926	\$8,481,700	\$14,113,900
2025	10	\$6,072,461	\$10,753,827	\$1,372,273	\$2,430,182	\$267,993	\$27,216	\$48,197	\$7,796	\$13,806	\$211,942	\$7,959,700	\$13,726,000
2026	11	\$5,771,671	\$10,618,090	\$1,204,081	\$2,215,136	\$254,631	\$23,711	\$43,621	\$6,778	\$12,470	\$213,968	\$7,474,900	\$13,358,000
2027	12	\$5,484,247	\$10,481,138	\$1,047,969	\$2,002,620	\$241,304	\$20,948	\$39,270	\$5,860	\$11,200	\$215,974	\$7,015,900	\$12,991,600
2028	13	\$5,209,729	\$10,343,155	\$910,339	\$1,808,556	\$228,386	\$17,898	\$35,136	\$5,034	\$9,994	\$217,989	\$6,587,800	\$12,641,200
2029	14	\$4,947,656	\$10,204,319	\$785,876	\$1,620,832	\$210,721	\$15,132	\$31,209	\$4,290	\$8,848	\$220,005	\$6,183,700	\$12,296,000
2030	15	\$4,697,577	\$10,064,798	\$664,835	\$1,424,443	\$194,904	\$12,627	\$27,482	\$3,622	\$7,761	\$222,021	\$5,795,800	\$11,941,500
2031	16	\$4,459,043	\$9,924,743	\$556,268	\$1,238,118	\$177,684	\$10,758	\$23,945	\$3,023	\$6,729	\$224,037	\$5,430,900	\$11,595,300
2032	17	\$4,231,614	\$9,784,311	\$459,061	\$1,061,438	\$160,186	\$8,900	\$20,581	\$2,487	\$5,751	\$226,053	\$5,088,400	\$11,258,400
2033	18	\$4,014,859	\$9,643,640	\$372,192	\$894,000	\$141,410	\$7,249	\$17,411	\$2,008	\$4,824	\$228,068	\$4,765,800	\$10,929,400
2034	19	\$3,808,353	\$9,502,863	\$294,724	\$735,416	\$122,233	\$6,771	\$14,400	\$1,582	\$3,947	\$230,084	\$4,462,800	\$10,609,000
2035	20	\$3,608,328	\$9,363,016	\$225,799	\$585,311	\$101,001	\$4,455	\$11,549	\$1,202	\$3,116	\$232,100	\$4,223,800	\$10,417,000
		<b>\$16,965,442</b>	<b>\$206,262,533</b>	<b>\$40,141,905</b>	<b>\$50,009,631</b>	<b>\$5,750,403</b>	<b>\$834,443</b>	<b>\$1,235,120</b>	<b>\$271,683</b>	<b>\$392,182</b>	<b>\$4,259,000</b>	<b>\$168,224,000</b>	<b>\$227,870,000</b>

[1] All \$2010 include applicable annualized discount rates in compliance with TRB's guidance for benefits preparation.  
 [2] Project is values are estimated over 20-year project design life (bulk) in addition to years of construction. Anticipated construction includes start-up late 2012 with construction of temporary road and MOT schemes during 2013 (mainline McCord open) and full construction (McCord closed) in 2014-2015.

In addition, this section of railroad is a designated hazardous material route, immediately next to a large school complex and a large senior citizen complex.

Complete funding is uncertain, but we hope to be ready by June of 2013 if funding becomes available. Bike and pedestrian facilities are included with the project.

### Long Term Outlook & Needs

Our roadway system of 282 miles is currently in good condition. In 2011, we paved approximately 14.9 miles. We will pave 10.32 miles in 2012 and 8.50 miles in 2013. We can maintain our roadway system's good condition if we do 35 miles of preventative maintenance and 10 miles of rehabilitation and reconstruction miles per year within the 6-year C.I.P. **We are projecting an average of 10 miles of resurfacing and 45 miles of preventative maintenance per year for the next six years (2012 – 2017).** Depending on what other improvements are planned for any given year, road construction miles will vary.

Our bridges and culverts are in good condition as well. Many of our bridges and culverts have been replaced and/or repaired with prior road construction projects. There are currently 7 major bridge replacement projects scheduled to be let in the next 6-year period. These particular bridges will be stand alone construction projects.

Matching funds from outside sources have helped increase our construction output over the past several years, and our continuous effort to secure additional matching funds for 2012 and beyond is a necessity if we are to maintain our system and try to keep up with inflation and high fuel costs. For our 6-year C.I.P budget (2012 – 2017) approximately 58% will be matching funds from other public agencies:

Federal Funds	\$44,973,000
Ohio Public Works Commission	\$ 9,580,000
Other Agencies	\$ 1,026,000
<b>Total</b>	<b>\$55,579,000*</b>

\*This amount includes the Federal dollars for the McCord Road Grade Separation Project.

## EXPENSES

	<u>1999 – 2003</u>	<u>2004 – 2008</u>	<u>2009 – 2013</u>	<u>2014 - 2018</u>
Operating	\$ 36,011,574	\$ 33,184,708	\$ 29,747,583	\$ 30,000,000
C.I.P.	\$ 43,015,029	\$ 46,765,736	\$ 62,524,630	\$ 44,939,000
	<b>\$ 79,026,603</b>	<b>\$ 79,950,444</b>	<b>\$ 92,272,213</b>	<b>\$ 74,939,000</b>

## REVENUE

Outside	\$ 18,304,734	\$ 18,171,452	\$ 30,160,808	\$ 15,065,000
Dedicated	\$ 57,409,727	\$ 62,344,807	\$ 57,619,192	\$ 59,874,000
Carry-Over/ Reserve	\$ 3,312,142	\$ —	\$ 4,492,213	\$ —
	<b>\$ 79,026,603</b>	<b>\$ 80,516,259</b>	<b>\$ 92,272,213</b>	<b>\$ 74,939,000</b>

## C.I.P.

	<u>1999 - 2003</u>	<u>2004 - 2008</u>	<u>2009 – 2013</u>	<u>2014 – 2018</u>
Bridge Repairs	9 (8)	6 (8)	13 (8)	5 (8)
Bridge Replacements	15 (10)	9 (10)	6 (10)	5 (10)
Road Rehabilitation/ Reconstruction	128 (100)	81 (90)*	61 (50)	52 (50)
Road Preservation	N/A	28 (35)	205 (175)	225 (175)
Drainage	11 (10)	7 (10)	15 (10)	17 (10)
Intersections	6 (4)	5 (4)	5 (2)	7 (2)
Signals/Upgrades	9 (5)	5 (5)	24 (3)	1 (3)
Safety Programs	10 (7)	12 (7)	8 (5)	5 (5)

\* Roadway improvements/maintenance was split into these two categories beginning in 2008 to reflect our efforts to balance the maintenance and improvement needs of our Roadway System and declining dedicated revenues.

# LUCAS COUNTY PAVEMENT INFORMATION

Pavement Rankings *	2010 Miles	2011 Miles
Best: No Work	119.7	98.6
Maintenance Work	133.7	153.2
Resurface	40.5	43.3
Widening & Resurfacing	2.8	1.4
Poorest: Reconstruction	1.0	1.5
	297.7	298.0

\*Includes Shared Roads with Other Jurisdictions

Pavement Work	2010 Miles	2011 Miles
Crack Seal (Contract)	26.9	32.4
Surface Seal (Contract)	9.2	9.1
Resurfacing Wide/ Resurfacing, or Reconstruction (Contract) *	18.3	14.9
<b>TOTAL</b>	54.4	56.4
% of System (Overall)	18.3%	18.9%

Microsurfacing Project



Holloway Road  
(Salisbury Rd. to Garden Rd.)

Resurfacing Project



Brown Road  
(Nissen Rd. to Turnau Rd.)

Width Summary		State Average (CEAO 2003)
24' Wide or more	40%	All Ohio County Roads 20 feet wide or more equal 31%
22' to 24' Wide	19.6%	
20' to 22' Wide	21.4%	
18' to 20' Wide	16.8%	
16' to 18' Wide	1.7%	
Less than 16'	0.5%	

State Average Unpaved County Roads: 8%  
Lucas County System of Unpaved Roads: 0%

CEAO minimum criteria is 20 foot wide road for County roads:

- All of Ohio County Roads at 20 ft. or more: 31%  
- Lucas County Roads at 20 ft. or more: 81%

- Average Lucas County Road Width is 23.9 feet.
- Total lane miles 647.4 +/-.
- Approximate travel lane surface area = 4,136,090 sq. yds.
- Approximate paved berm surface area = 687,949 sq. yds.
- Average Lucas County Maintained Road ADT is 2390 vehicles per day +/-.
- 154.2 miles (51.8% of System) has paved asphalt berms.

## Summary of Structures Inspected By The Lucas County Bridge Engineer

	Category	Vehicular Bridges	Pedestrian Bridges	Culverts
Inspection, Inventory and Reporting by Lucas County	Lucas County Roads	104	0	3
	Township Roads	56	0	0
	BLCC Trails	0	4	0
	Metroparks	3	4	0
	Municipalities			
	Berkey	3	0	0
	Holland	1	0	0
	Maumee	2	0	0
	Ottawa Hills	6	1	0
	Oregon	8	0	0
	Sylvania	12	1	0
	Toledo	13	0	0
	Whitehouse	3	1	1
<b>Sub-Totals</b>	<b>211</b>	<b>11</b>	<b>4</b>	
Inventory by Others, Cursory Inspection by Lucas County	Municipal Trails	0	1	0
	County Roads over US23/I475	6	0	0
	Municipalities			
	Toledo	1	0	0
	Whitehouse	0	1	1
	<b>Sub-Totals</b>	<b>7</b>	<b>2</b>	<b>1</b>
<b>Totals</b>		<b>218</b>	<b>13</b>	<b>5</b>



Bridge #263 on Frankfort Rd.



Bridge #727 on Monclova Rd.



Rabb Rd. Improvement @ Raab Road Bridge #275

## LUCAS COUNTY CULVERT INVENTORY

Township / Location	Number on County/Bikeway Road System
Harding	12
Jerusalem	20
Monclova	35
Providence	25
Richfield	20
Spencer	21
Springfield	40
Swanton	12
Sylvania	38
Washington	2
Waterville	16
<b>Sub-Total</b>	<b>241</b>
Bike Trails	25
<b>Total</b>	<b>266</b>

PHYSICAL CONDITION		BIKE-TRAILS
Good	228	21
Fair	6	1
Poor	7	3
Critical	0	0
	241	25
	<b>266</b>	

**Note:** The above numbers represent structures with spans greater than or equal to 2'; but less than 3' with both ends open, and spans greater than or equal to 3', but less than 10' regardless of open ends.



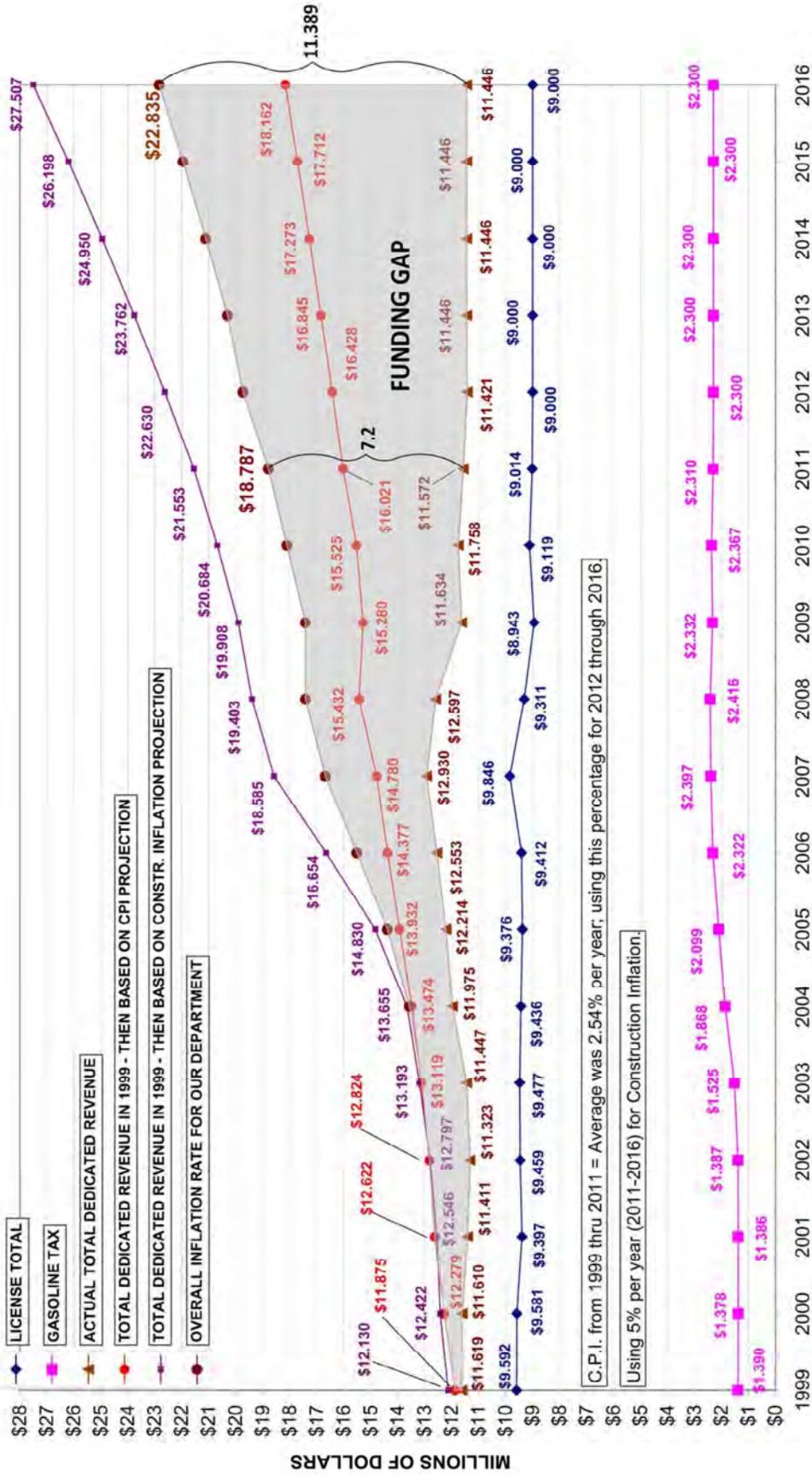
Culvert #307 on Fulton-Lucas Rd.



Culvert #734 on Ramm Rd.

## GAP IN DEDICATED FUNDS

All dedicated funding for Lucas County maintained roads and bridges comes from Motor Vehicle License Plate fees and a portion of the Ohio Gasoline Tax. In 2011, Lucas County received \$9.014 million from license plates, \$578,000 less than received in 1999. In 2011, Lucas County received \$2.31 million from the gas tax, making the total dedicated funding \$11.712 million, which is slightly less than the \$11.619 million received in 1999.



While dedicated revenue has remained static or slightly declining, costs have increased considerably. The overall Consumer Price Index has increased 35% over the past 12 years, but highway construction costs have increased 78%. Since at least half of our costs are related to highway construction, we have at least a \$7.2 million (62%) shortfall in 2011 compared to our 1999 purchasing power. By 2016, that shortfall is expected to increase to \$11.4 million. We would need double our anticipated revenue in 2016.

## A History in Pictures...



Lucas County Engineers out in the field—Early 1930's



Snow Removal—1936



Erosion assessment @ Bridge #551 on Angola Road @ Drennen Ditch — 1934



The construction of the Lucas Co. Engineer's Road Maintenance Garage—June, 1934



Surface Treatment—Angola Road—1934



Brian W. Miller, Drainage Engineer - near completion of the Lucas County Engineer's Offices at 1 Government Center, Downtown Toledo — Dec. 1982



Surface Treatment—Decant Road looking North—1934



Decant Road looking North—Present

## SERVICE AWARDS



Jeff Lohse*	30 yrs	Mark Drennen*	20 yrs
Joe Poulson	30 yrs	Ron Myers	20 yrs
Jeff Winn	30 yrs	Kelly Forgette*	10 yrs
Tom Brinkman*	25 yrs	Wayne Boyd	10 yrs
Debbie Dressel	25 yrs		
John Perlaky	25 yrs		
Doug Sweeney	25 yrs		
Phil Scofield	25 yrs		

\*Service Award Recipients pictured with Keith Earley, Lucas County Engineer (Left)

## RETIREMENTS



Dave Linker

Tom Brinkman



Keith Earley and Jeff Lohse with Retirees



Scott Bernhard

Pat O'Boyle

## GIS News—Ohio's L.B.R.S. Continued



The Location Based Response System (LBRS) is an initiative of the Ohio Geographically Referenced Information Program (OGRIP). The LBRS establishes partnerships between State and County government for the creation of spatially accurate street centerlines with address ranges and field verified site-specific address locations.

The Location Based Response System (LBRS) for Lucas County is now in its quality control and checking phase. The cooperating Lucas County's agencies and the City of Toledo are working together to reduce errors in the mapping of street addresses, to increase street centerline accuracy and street names. The LBRS supports a multi-jurisdictional approach to protecting the health, safety and welfare of the state's constituents. The United States Post Office has verified that the addressing has a 95.4% accuracy.

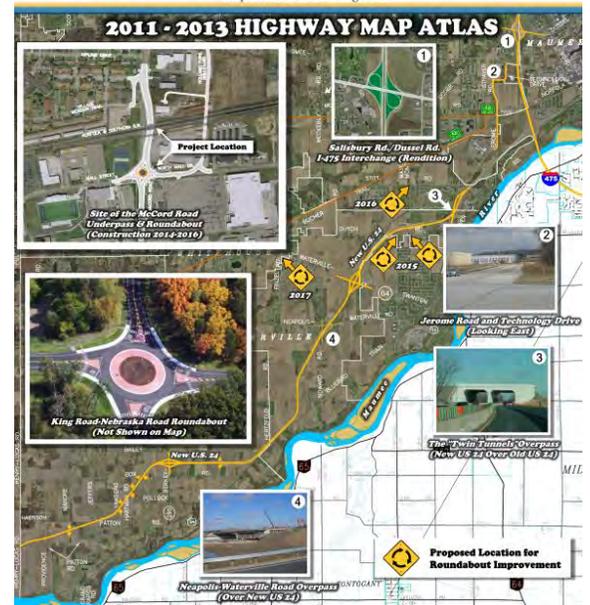
## Lucas County Engineer's 2011-2013 Highway Map Atlas

The Lucas County Engineer's Office has released its latest edition of the Highway Map Atlas and folded Highway Map. We also have an online version of the County Map on the Lucas County website @ [www.co.lucas.oh.us](http://www.co.lucas.oh.us). Click on the "Online County Map" icon on the right hand side of the main web page. This online map is updated more frequently and easily locates streets and points of interest. The first copy is free to Lucas County residents and for people living outside the County the cost is \$2.00 per map.

Our office has expanded the distribution points where you can pick up a copy of this updated County map. The following is a list of those distribution points:

1. Lucas County Engineer's Maintenance Garage, 2504 Detroit Avenue, Maumee, Ohio 419.893.2232
2. Lucas County Engineer's Downtown Office, One Government Center, Suite 870, Toledo, Ohio 419.213.4540
3. The Toledo Lucas County Public Main Library and its 18 branches.

If you choose to have a copy of the map mailed to your home, you will be charged for shipping and handling. If you have any suggestions to make the Lucas County Highway map better and more user friendly, please contact my office by calling 419.213.4448 or by e-mail at [jshultz@co.lucas.oh.us](mailto:jshultz@co.lucas.oh.us)



## Lucas County Stormwater Utility

Phase II Community for Ohio EPA Regulations

Covering the 7-Phase II Townships—Sylvania, Springfield, Monclova, Spencer, Waterville, , Washington & Jerusalem Townships

Lucas County Commissioners established rates for a stormwater utility on May 20, 2011 (Resolution No. 11-408) the first collection was made on the first half tax bill in January of 2012. The funding is used to meet our EPA Regulations and to help reduce flooding in our Phase II communities. The annual budget for the Storm Water Utility (SWU) is approximately 1.9 million dollars. The utility has formed a Storm Water Action Group (SWAG) comprised of a representative from all seven named townships and a representative for the Lucas County Commissioners. The SWAG meets quarterly to go over policy and drainage concerns that they may have in their township. We plan to spend over 1 million dollars for drainage improvement in 2012 and in the winter months of 2013.

The SWU recently responded to an EPA audit that was done in 2011 and we will be constantly updating and analyzing our Storm Water Management Plan (SWMP) (required by the Ohio EPA) to stay current with more restrictive regulations. The consulting firm that helped in the decision process of forming the SWU suggested three new hires to help run the utility. The SWU has hired one part time student to update and maintain GIS information on storm sewers, BMP, septic systems and other related permitting items required by Ohio EPA. We also plan to hire a new person to help manage our SWMP and perform Stormwater Pollution Prevention Plans (SWPPPs) for the County and Township facilities. We have kept the hiring to a minimum by using existing staff and other agencies expertise to keep cost down and reduce overhead. We have also hired consultants to complete some of our in depth analysis on flooding problems and to keep up with our current work load.



Our new hire will concentrate on water quality issues such as SWPPP, fertilizer usage, herbicides, maintenance activities, and other water quality issues. Some practices you can do at your home or at your place of business. Use pesticides, herbicides and fertilizers as a last resort. Do not apply chemicals to lawns during high winds or before expected rainfall events.

Avoid applying chemicals near streams and other sensitive areas. Limit the use of fertilizers by aerating soils, testing soils to determine nutrient levels, and switching to organic fertilizers. Use non-toxic, organic substitutes when possible. Mix chemicals away from storm drains. Clean spills promptly with absorbents and protect storm drains from spills. If we all do our part we can help keep our rivers, streams, and lakes in a condition that is both fishable and swimmable from now and years to come.

For more information about the storm water utility and how Phase II affects you and our County, please contact our office or visit our website [www.lucascountyoh.gov/engineer](http://www.lucascountyoh.gov/engineer).

### A NEW Storm Water Utility District

Lucas County Responds To Local Needs and Federal Regulations

Protecting the Environment... Safeguarding Public Health and Safety

Lucas County Storm Water Utility District

### Lucas County's Approach to Storm Water Management

Lucas County is blessed with an abundant water supply. Our rivers, streams and Lake Erie are enjoyed by area residents and are essential to our region's prosperity.



You can have too much of a good thing. Lucas County was built on a swamp and that means our area doesn't drain well. Much of Lucas County is plagued by flooding during heavy rains or spring thaws.

### Why Is This Program Necessary?

#### Water Quality Problems

According to the United States Environmental Protection Agency (U.S. EPA), 40 percent of our nation's waterways remain polluted and storm water runoff is a leading source.



Storm water pollution can occur when it rains, as oil, salt, litter, soil, fertilizer and pesticides are washed into nearby street drains. Most of these drains empty directly into the streams and rivers that we use for fishing, swimming and boating, resulting in unusable, polluted waterways.

#### New Federal Regulations & Local Needs

To protect and improve the quality of our waterways, the U.S. EPA has issued new regulations that require communities like Lucas County to reduce the pollutants in storm water runoff.

#### Paying for an Unfunded Mandate

Because Federal and State funding is not available, Lucas County residents and businesses will have to absorb the costs of meeting the new water quality regulations and for repairing the existing storm water infrastructure.

#### Key Input and Review

Over the past six years, a Storm Water Advisory Committee (SWAC) comprised of fifteen key stakeholders, county staff, and consultants met to develop program policies and procedures for the Storm Water District program. In addition, two public hearings were held to solicit public input.



## STAFF DIRECTORY

### LUCAS COUNTY ENGINEER

Keith G. Earley, PE, PS 213-4539

### ADMINISTRATION

Administrative Deputy	Mark Drennen, MPA	213-4401
Clerical Supervisor	Missy Dixon	213-4548
Computer/CADD System Mgr.	Brian S. Miller	213-2074
Account Specialist	Kara Moore	213-4549
Engineering Records Technician	Sheila Marciniak	213-4674

### ROAD MAINTENANCE DEPT.

893-2232

Acting Superintendent	Greg Wimberly
Acting Assistant Superintendent	Ryan Belinski
Road Foreman	John Bowser
Accounting Specialist	Kimberly Kettman
Accounting Specialist	Nancy Ovens

### DESIGN, CONSTRUCTION & TRAFFIC STAFF

Chief Deputy Engineer	Jeffery Lohse, P.E.	213-4558
Bridge Engineer	Bryan Zienta, P.E.	213-4094
Chief Surveyor	Denny Pritscher, P.S.	213-4552
Construction Engineer	Joel Palermo, P.E.	213-4527
Const. Project Supervisor	Joshua Hazard, E.I.	213-2072
Design Engineer	Patrick O'Boyle, P.E.	213-4404
Drainage Engineer	Brian W. Miller, P.E.	213-4556
Drainage & GIS	Robert Neubert	213-4555
Planning Engineer	Doug Parrish, P.E.	213-4550
R/W Coordinator	Scott Bernhard	213-4547
Township Engineer	Sarah Rowland, P.E.	213-4557
Traffic Operations Eng.	Ronald Myers, P.E.	213-4403
Traffic Operations	Kyle Warner, E.I.	213-2075

M.P.A. Masters of Public Administration

P.E. Professional Engineer

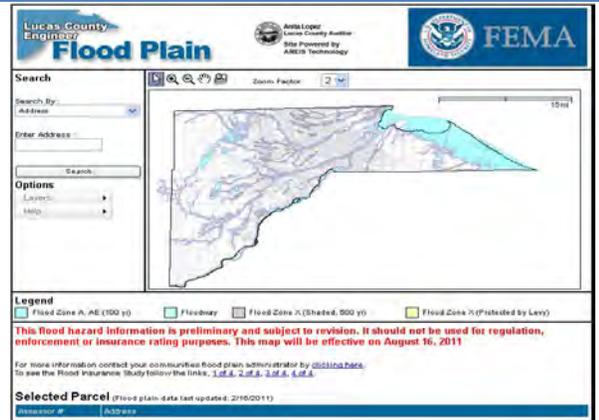
P.S. Professional Surveyor

E.I. Engineer Intern

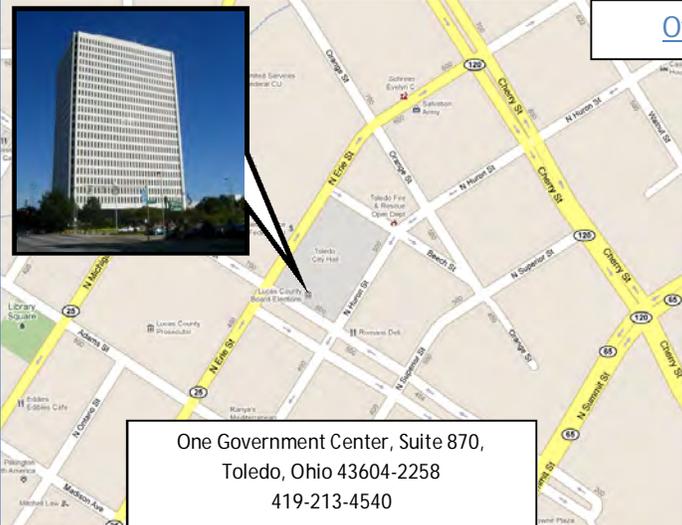
## Digital Flood Insurance Rate Maps

Lucas County has received the final Digital Flood Insurance Rate Map (D-FIRM) from FEMA. The map will be effective on August 16, 2011. This new D-FIRM is on the County's website and allows property owners all over the County to see the Floodplain in relation to their property and structures. This map represents a complete update of Lucas County and includes several new flood studies. The map is based on our 2001 digital contours and uses our 2006 aerial photos.

Visit our website @ [www.co.lucas.oh.us/engineer](http://www.co.lucas.oh.us/engineer)



### Office Locations



One Government Center, Suite 870,  
Toledo, Ohio 43604-2258  
419-213-4540

20



2504 Detroit Avenue,  
Maumee, Ohio 43537  
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