

# TRAFFIC ENGINEERING

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## Mission Statement

The mission of the Traffic Engineering Department is responsibility for all aspects of roadway traffic engineering and operations/maintenance including implementation of programs related thereto. General areas of responsibility include: traffic signals, installation and maintenance of fiber optics, WiFi, electrical maintenance, traffic signs, pavement markings, street signs, bus route signs, truck route signs, impact attenuators, traffic design/review, transportation planning, accident analysis, traffic level-of-service analysis and liaison with other agencies.

## Goals and Objectives

The Traffic Engineering Department endeavors to provide safe and efficient movement of vehicles, people and goods through the community as advocated by the established regulations and the elected administration. Goals and objectives can be categorized into the following areas:

- 1) The department strives to produce and make available the maximum level of service for traffic with the limited resources available for capital improvements and operation.
- 2) The department attempts to develop new engineering techniques for moving persons and goods safely and efficiently.
- 3) The department continues to create and maintain a communication channel between the administration and the public. This is to align department services in accordance with administrative policy making, as well as provide the timely interchange of incoming and outgoing information with the public.

## Indicators:

	<u>2009</u> <u>Actual</u>	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Estimated</u>	<u>2012</u> <u>Projected</u>
Engineering/Administration Staff:				
Accident Records & Analysis	8,055	9,000	9,200	9,200
Fatal Accident Investigation	14	13	12	12
Development & Building Plans Processed	119	80	100	130
Board of Safety Reports	63	90	100	100
Traffic Counts Conducted	62	66	70	65
Traffic Studies Conducted	240	250	250	250
Traffic Investigations (complaints)	400	425	425	425

## Signal Division:

New Signals Installed	6	7	1	6
Total Signals In Service	381	385	386	388
Total Flashing Beacons In Service	50	51	51	47
Total Pedestrian Signal Locations In Service	193	198	203	203
Signals Modernized	20	27	27	27
Signal Accident Repairs	28	29	35	40

	<u>2009</u> <u>Actual</u>	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Estimated</u>	<u>2012</u> <u>Projected</u>
<b>Signal Division (cont'd)</b>				
Signal Bulbs Replaced (Emergency)	7	10	10	10
Signal Bulbs Replaced (Routine)	0	0	0	0
Signal Trouble Calls	963	1,000	1,350	1,000
Controller Maintenance	422	425	430	455
Detector Loop Repairs	66	70	70	50
Signal Work Orders	235	250	250	200
Cable Locates	0	0	0	0

### **Sign & Marking Division**

Signs Installed	1,124	799	800	900
Signs Relocated	680	567	600	700
Signs Replaced	3,103	3,300	3,400	3,500
Signs Removed	1,497	1,600	1,700	1,800
Signs Manufactured	5,200	4,370	5,000	5,100
Street Lanes Marked-Painted Miles	880	690	700	750
Curb Parking Marked (Yellow Curb)	9,555 ft.	14,963 ft.	15,000 ft.	15,500 ft.
Crosswalks Marked	865	807	900	920
Lane Arrows Marked	1,006	988	1,000	1,100
Parking Stalls Marked	402	209	250	300

TRAFFIC ENGINEERING  
 Dept # 0011 - 0100  
 2012 BUDGET COMPARISON

	2010 ACTUAL	2011 ACTUAL THRU 30-Jun-2011	2011 REVISED BUDGET	2012 SUBMITTED	\$ INCREASE (DECREASE) FROM 2011 REVISED	% CHANGE FROM 2011 REV TO 2012
5111 TOTAL WAGES	1,077,291		1,139,069	1,678,734	539,665	47.38%
5131 PERF - EMPLOYERS SHARE	122,940		138,360	162,245	23,885	
5132 FICA	119,973		128,379	128,423	44	
5134 LIFE MEDICAL & HEALTH INSURAN	306,900		316,200	365,800	49,600	
5136 UNEMPLOYMENT COMPENSATION	1,658		1,678	1,679	1	
5137 WORKERS COMP INSURANCE	60,359		63,176	42,849	(20,327)	
513A PERF - EMPLOYEES/PD BY CITY	47,589		48,834	48,674	(160)	
513R RETIREES HEALTH INSURANCE	59,400		61,200	70,800	9,600	
<b>Total 5100</b>	<b>\$1,796,111</b>	<b>\$919,204</b>	<b>\$1,896,896</b>	<b>\$2,499,204</b>	<b>\$602,308</b>	<b>31.75%</b>
5212 STATIONERY & PRINTED FORMS	143		550	550	-	
5214 SAFETY ITEMS/SUPPLIES	3,631		7,740	7,740	-	
5219 OTHER OFFICE SUPPLIES	5,056		6,050	6,050	-	
5231 GASOLINE	33,542		38,509	47,058	8,549	
5232 DIESEL FUEL / FUEL OIL	5,446		6,478	6,201	(277)	
5246 HOUSEHOLD & CLEANING SUPPLIES	1,373		2,700	2,700	-	
5261 BLDG REPAIR & MAINT MATERIALS	1,760		1,250	1,250	-	
5263 OTHER EQUIPMENT REPAIR PARTS	-		1,450	1,450	-	
5264 SIGN DIVISION/MATERIAL	64,801		72,000	72,000	-	
5265 SIGNAL DIVISION/MATERIAL	198,363		211,500	211,500	-	
5275 PAVEMENT MARKING MATERIALS	92,579		116,620	106,620	(10,000)	
5299 OTHER MATERIALS & SUPPLIES	350		300	300	-	
<b>Total 5200</b>	<b>\$407,043</b>	<b>\$194,415</b>	<b>\$465,147</b>	<b>\$463,419</b>	<b>(\$1,728)</b>	<b>- 0.37%</b>
5317 INSTRUCTIONAL SERVICES	-		600	600	-	
531E RANDOM DRUG TESTS	383		700	700	-	
531K SEMINAR FEES	185		1,000	1,000	-	
531M SECURITY SERVICES	523		280	280	-	
531Q RADIO SHOP SERVICES	2,030		1,150	1,150	-	
5322 POSTAGE	484		400	400	-	
5323 TELEPHONE & TELEGRAPH	15,168		21,900	-	(21,900)	
5324 TRAVEL EXPENSES	110		1,500	1,500	-	
5326 MILEAGE	48		400	400	-	
532C CELL PHONE	7,123		6,400	6,400	-	
532L LONG DISTANCE CHARGES	173		240	-	(240)	
5331 PRINTING OTHER THAN OFFC SUPPL	-		150	150	-	
5332 PUBLIC OF LEGAL NOTICES/ADVTER	-		400	400	-	
5333 PHOTOGRAPHY & BLUEPRINTING	-		1,800	1,800	-	
5342 LIABILITY INSURANCE	11,574		12,699	11,488	(1,211)	
5351 ELECTRICITY	95,434		127,000	127,000	-	
5352 NATURAL GAS	14,608		22,328	19,910	(2,418)	
5353 WATER	2,840		1,800	1,800	-	
5356 SOLID WASTE DISPOSAL	107		1,100	1,100	-	
5358 HAZARDOUS WASTE DISPOSAL	-		1,200	1,200	-	

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5361 CONTRACTED BLDG & STRUCT REPAI	-		950	950	-	
5363 CONTRACTED OTHER EQUIPMT REPAI	9,376		10,000	10,000	-	
5365 JANITORIAL & LAUNDRY SERVICE	7,642		6,290	6,290	-	
5369 CONTRACTED SERVICE	-		-	11,400	11,400	
536N GARAGE CONTRACT - NONTARGET	5,083		4,071	3,082	(989)	
536T GARAGE CONTRACT - TARGET	71,273		74,062	92,911	18,849	
5374 OTHER EQUIPMENT RENTAL	135		3,025	3,025	-	
5377 CC BUILDING PARKING	1,262		1,200	-	(1,200)	
5391 SUBSCRIPTIONS AND DUES	2,443		1,550	1,550	-	
5392 LICENSES	161		1,000	1,000	-	
5399 OTHER SERVICES AND CHARGES	582		600	600	-	
539B MASTER LEASE	73,717		75,043	58,951	(16,092)	
<b>Total 5300</b>	<b>\$322,461</b>	<b>\$169,269</b>	<b>\$380,838</b>	<b>\$367,037</b>	<b>(\$13,801)</b>	<b>- 3.62%</b>
5443 PURCHASE OF OFFICE EQUIPMENT	-		4,000	4,000	-	
5444 PURCHASE OF OTHER EQUIPMENT	-		14,000	14,000	-	
<b>Total 5400</b>	<b>\$-</b>	<b>\$5,251</b>	<b>\$18,000</b>	<b>\$18,000</b>	<b>\$-</b>	<b>0.00%</b>
<b>Total</b>	<b>\$2,525,615</b>	<b>\$1,288,139</b>	<b>\$2,760,881</b>	<b>\$3,347,660</b>	<b>\$586,779</b>	<b>21.25%</b>

**Traffic Engineering 2012-2016 Capital Improvement Program**

FUNDING SOURCE CODE:	GRP-Grant Pending	PT-Property Tax
CC-Cumulative Capital Fund	LE-Lease	RB-Revenue Bond
CDBG-Community Development Block Grant	InfraBd-Infrastructure Bond	ST-State Source
CEDIT-Co. Economic Development Income Tax	LRS-Local Roads & Streets	SU-Sewer Utility
CO-County Source	MISC-Miscellaneous	SWU-Stormwater Utility
FED-Federal Source	MVH-Motor Vehicle Highway	TIF-Tax Increment Financing
GOB-General Obligation Bond	PCBF-Park Cumulative Bldg. Fund	UF-User Fee
GRA-Grant Approved	PS-Private Source	WU-Water Utility

Item #	Project Title & Description	Funding Source	Expenditure				
			2012	2013	2014	2015	2016
1	Vehicles	LE-Lease	-	128,000	100,000	100,000	120,000
	Locator Pickup 2002 unit 22010		-	30,000			
	Signal Trouble Truck			98,000			
	Challenger Lift, Signal Crew Cab Pickup 19.99 Unit 29515				100,000		
	Signal Bucket Truck					100,000	
	Digger Derrick						120,000
2	Equipment	LRS	14,000	28,000	35,000	35,000	35,000
	Paint Machine for Arrow Truck - Locator		14,000				
	Arrow Board			28,000			
	Backhoe/Trencher				35,000		
	Walk Behind Paint/Concrete Saw					35,000	
	Air Compressor						35,000
3	Actra Fiber Optic Cable Update	LRS	-	10,000	10,000	10,000	10,000
4*	Traffic Signal Modernization Program - 4 intersections/year	LRS	90,000	90,000	90,000	90,000	90,000
	a. Illinois & Getz						
	b. unspecified signal installation						
	c. unspecified Hawk location						
	d. unspecified Pedestrian Crossing		90,000				
	e. unspecified signal installation						
	f. unspecified Hawk location						
	g. unspecified Pedestrian Crossing			90,000			
	h. unspecified signal installation						
	i. unspecified Hawk location						
	j. unspecified Pedestrian Crossing				90,000		
	k. unspecified signal installation						
	l. unspecified Hawk location						
	m. unspecified Pedestrian Crossing					90,000	
	n. unspecified signal installation						
	o. unspecified Hawk location						
	p. unspecified Pedestrian Crossing						90,000
5*	Traffic Signal Controller Replacement Program - 6 units complete	LRS	45,000	45,000	45,000	45,000	45,000
	1. Aboite Center Rd. & Coventry Lane						
	2. Crescent & Hobson						
	3. Goshen & Independence						
	4. Hobson & Lake						
	5. Lake & Randallia						
	6. Reed Rd. & State						
6*	Traffic Signal Head Replacement - 10 intersections/year	LRS	15,000	15,000	15,000	15,000	15,000
	2012 Replacements						
	1. Apple Glen & W. Jefferson						
	2. Broadway & G.E.						
	3. Calhoun & Creighton						
	4. Calhoun & Jefferson						
	5. Calhoun & Washington						
	6. Coldwater & Coldwater Crossing						
	7. Ewing & Washington						
	8. Fairfield & Lwr. Huntington						
	9. Harrison & Jefferson						
	10. Lake & Reed						
7*	Expand/Upgrade ATMS Computerized Signal System	LRS	50,000	50,000	50,000	50,000	-
8	Office Equipment Replacement	LRS	4,000	4,000	4,000	4,000	-
<b>TOTAL</b>			<b>218,000</b>	<b>370,000</b>	<b>349,000</b>	<b>349,000</b>	<b>315,000</b>

\* Although capital improvements, actual expenditures will be made from the 5200 budget series.

The Traffic Engineering / Traffic Operations Department is responsible for all aspects of roadway Traffic Engineering operations and maintenance. Areas of responsibility include: the design, installation, timing and maintenance of traffic signals, pavement markings, sign installation, maintenance, traffic design and review, transportation planning, traffic calming devices, accident record compiling and analysis. Signal service personnel are on duty 24 hours a day, seven days a week. Sign personnel respond to knockdowns of stop and yield signs and are on an call basis during non-working hours.

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Revenue for departmental funding comes from Local Roads and Streets (LRS), contracts with INDOT, Allen County, New Haven, and claims reimbursements, as well as subsidy from the property tax. Improvements to high volume traffic routes such as signalization, intersection interconnects, signal modernization's, separate turn lanes, and additional "thru" lanes have depended upon CEDIT, federal and private sources for funding.

- 1 & 2 Vehicles and equipment are replaced on a rotating basis based on 1) maintenance costs 2) mileage 3) age.
- 3 Actra fiber optic conversion. This item will include replacing electronic equipment to utilize fiber optic cable for interconnection of traffic signals.
- 4 Traffic Signal Modernization - This program updates a signalized intersection to aluminum mast arm poles, 12" traffic signal indications and new wiring. Intersections with steel poles and 8" signal indications that were last modernized in the 60's are currently being done. This program is updated annually to coordinate with transportation projects.
- 5 Traffic Signal Controller Replacement - This program replaces obsolete and discontinued traffic signal control units that have been in service for at least ten years.
- 6 Traffic Signal Head Replacement-This program replaces traffic signal indications which were installed in the 70's The program is designed as a preventative maintenance and safety program.
- 7 In 2000 and 2001 our Eagle Contract Traffic Signal Control System was replaced with an Eagle Actra Advanced Traffic Management System. The new system allows expansion of our computerized traffic signal network.
- 8 Office equipment replacement: printers, scanners, etc.