

Public Works–Engineering Division

Mission Statement

Primary Functions → The primary function of the Engineering Division is to provide design services and construction management for all capital construction projects. This Division is also charged with the review and approval of plans for single site and subdivision development, permitting work within the public right-of-way, and record keeping of the City’s infrastructure.

Traffic engineering analyses related to the safe and efficient movement of people and goods within the City, accident crash analysis for signaled and un-signalized intersections safety analysis for schools, geometric design of existing and planned roadways and intersections including support of the land development process, and street lighting analysis for all citizen requests.

ENGINEERING DIVISION COST CENTER	2011 BUDGET		INCREASE(DECREASE)		2012 BUDGET	
	PERSONNEL	BUDGET	PERSONNEL	BUDGET	PERSONNEL	BUDGET
ADMINISTRATION	0.50	\$130,572	2.50	\$193,412	3.00	\$323,984
DESIGN ENGINEERING	0.00	2,030	0.00	(2,030)	0.00	0
STORM DRAINAGE	0.50	110,161	0.00	8,921	0.50	119,082
PLANS AND PERMITS	4.00	311,659	2.00	161,116	6.00	472,775
FACILITIES MANAGEMENT	0.50	66,772	0.00	2,045	0.50	68,817
TOTAL	5.50	\$621,194	4.50	\$361,419	10.00	\$984,658
CAPITAL PROJECTS	18.50	\$62,825,000	(1.50)	\$17,500	17.00	\$62,842,500

2011 Accomplishments →

- Applied for and received an additional \$4 million from FEMA and DCEO for flood mitigation.
- Continued inspections and database entry of the City’s storm sewer system and other infrastructure.
- Improved flood affidavit reporting system within GIS.
- Developed water inspection work order map within SharePoint and GIS.
- Developed storm inspection application with GIS.
- Developed Rockford utility map (online based) within GIS.
- Continued working with IT and Traffic to create an online parking map.
- Completed lighting upgrades to the Concourse Parking Deck.
- Completed large and small wind power assessments for placement of wind turbines.
- Continued scanning as-built drawings of City infrastructure and load into SharePoint to provide better accessibility to records.

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- Completed the integration of GIS water services with the water accounts.
- Completed several standard operating procedures and how-to documents.
- Completed Auto-Cad design of water construction projects.
- Completed floor plan Auto-Cad drawings for 75% of the well houses.
- Coordinated the installation of a new 400 ac solar panel field and a power purchase agreement.
- Created a monthly reporting program for construction site inspections.
- Finalized and implemented the Emergency Operations Plan, Public Works Annex and Debris Management Plan.
- Updated Chapter 26 and Chapter 109 of the Code of Ordinances regarding high risk runoff and illicit discharge.
- Created and implemented illicit discharge and high risk runoff site inspections.
- Approved and Implemented the Outdoor Dining Design Guidelines.
- Completed School Crossing Guard Warrant Study.
- Applied for and received two Highway Safety Improvement Program grants.
- Completed Division wide training on Chapter 26, the Subdivision Ordinance, and the Water IEPA permit process.
- Applied for a Safe Routes to School Grant (notification of award will be in late fall of 2011).
- Working with USACE and Illinois State Water Survey on the Hydrology and Hydraulic Study of the Rock River.
- Working with RMAP, HUD, and FEMA on the HUD Sustainability Initiative and Pilot Study for a Regional Storm Water Master Plan.

2012 Goals and Objectives →

- Continue scanning as-built drawings of City infrastructure and load into SharePoint to provide better accessibility to records.
- Continue inspections and database entry of the City's storm sewer system and other infrastructure.

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- Complete the traffic sign inventory and replacement program.
- Complete the traffic signal systems inventory and data entry into GIS.
- Finish layer in GIS for private well systems.
- Complete the City's Storm Water Master Plan.
- Create and update layer in GIS for vault locations and water main easements.
- Complete a minimum of two intersection traffic safety studies.
- Complete all standard operating procedures and how-to documents for Division.
- Complete the online parking map.
- Update the County Wide Multi-Hazard Mitigation Plan.
- Continue entering all asset inventory into GIS from the arterial and collector streets videos.
- Continue working with USACE and Illinois State Water Survey on the Hydrology and Hydraulic Study of the Rock River.
- Continue working with RMAP, HUD, and FEMA on the HUD Sustainability Initiative and Pilot Study for a Regional Storm Water Master Plan.
- Design and build Keith Creek Greenway throughout Churchill Park, dependent upon grant funding.
- Continue inspections for industrial illicit discharge of pollutants into our storm sewer.
- Update the Engineering Design Criteria Manual.

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Budget Summary

PUBLIC WORKS ENGINEERING DIVISION BUDGET SUMMARY					
APPROPRIATION	2009 <u>ACTUAL</u>	2010 <u>ACTUAL</u>	2011 <u>BUDGET</u>	2012 <u>BUDGET</u>	INCREASE (DECREASE)
PERSONNEL	\$815,762	\$572,523	\$422,844	\$775,203	\$352,359
CONTRACTUAL	138,406	302,103	191,600	202,705	11,105
SUPPLIES	9,017	5,788	6,750	6,750	0
CAPITAL	0	0	0	0	0
TOTAL	<u>\$963,185</u>	<u>\$880,414</u>	<u>\$621,194</u>	<u>\$984,658</u>	<u>\$363,464</u>

STAFFING REVIEW	2009	2010	2011	2012	INCREASE (DECREASE)
ENGINEERING	10.00	7.45	5.50	10.00	4.50
CAPITAL PROJECTS	<u>16.30</u>	<u>17.05</u>	<u>18.50</u>	<u>17.00</u>	<u>(1.50)</u>
TOTAL	26.30	24.50	24.00	27.00	3.00

FUNDING SOURCE	2011 <u>AMOUNT</u>	2011 <u>PERCENTAGE</u>	2012 <u>AMOUNT</u>	2012 <u>PERCENTAGE</u>
PROPERTY TAXES				
FRINGE BENEFIT REIMBURSEMENTS	\$61,266	10.0	\$113,142	11.5
FEES	26,100	4.2	473,800	48.1
OTHER GOVERNMENTS	24,000	3.9	24,000	2.4
INTERDIVISIONAL PURCHASE OF SERVICES	246,690	39.7	47,900	4.9
GENERAL REVENUES	<u>263,138</u>	<u>42.2</u>	<u>325,816</u>	<u>33.1</u>
TOTAL	<u>\$621,194</u>	<u>100.0</u>	<u>\$984,658</u>	<u>100.0</u>

Budget Analysis

The 2012 budget of \$984,658 is an increase of \$363,464 (58.5%) from 2011. Personnel costs increase \$352,359 from the previous year, as a result of shifting engineering staff previously budgeted in the Capital Program and the Water Division to this division. The staff are funded by a transfer from the water fund. Increases occurred in all personnel accounts.

Contractual services increase \$11,105 from the prior year. Increases occur in telephone charges (\$2,000) due to increased usage and IT charges increase \$3,400 due to a reallocation of support costs based on usage. Building rental increases \$4,900 due to increases in costs, and risk management increases \$5,200 due to cost reallocation and changes in staffing levels. Increases are offset by a decrease in fuel (\$5,900) to reflect actual usage. The supplies group remains unchanged.

In 2010, the Engineering Division spent \$880,414 or 86.6% of its budgeted allocation. For 2011, it is expected that 100% of the allocation will be spent. In the past several years, 67% to 96% of the budget has been spent.

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Personnel Review

PUBLIC WORKS ENGINEERING DIVISION				
BENEFITS AND SALARIES	2011	2012	INCREASE/	
SALARY	<u>BUDGET</u>	<u>BUDGET</u>	<u>(DECREASE)</u>	
PERMANENT	\$282,276	\$504,359	\$222,083	
TEMPORARY	0	0	0	
OVERTIME	0	0	0	
MERIT PAY	0	0	0	
SALARY ADJUSTMENT	0	0	0	
TOTAL SALARIES	<u>\$282,276</u>	<u>\$504,359</u>	<u>\$222,083</u>	
BENEFITS				
IMRF RETIREMENT	\$57,754	\$105,058	\$47,304	
UNEMPLOYMENT TAX	990	1,800	810	
WORKMEN'S COMPENSATION	2,522	6,284	3,762	
HEALTH INSURANCE	76,232	151,762	75,530	
LIFE INSURANCE	430	780	350	
PARKING BENEFITS	2,640	5,160	2,520	
TOTAL BENEFITS	<u>\$140,568</u>	<u>\$270,844</u>	<u>\$130,276</u>	
TOTAL COMPENSATION	<u>\$422,844</u>	<u>\$775,203</u>	<u>\$352,359</u>	
	POSTION	2011	2012	INCREASE/
POSITION TITLE	<u>RANGE</u>	<u>EMPLOYEES</u>	<u>EMPLOYEES</u>	<u>(DECREASE)</u>
CITY ENGINEER	E-12	0.50	0.50	0.00
WATER ENGINEER	E-11	0.00	1.00	1.00
ENGINEERING OPERATIONS MANAGER	E-10	0.50	0.50	0.00
STORM WATER PROJECT MANAGER	E-8	0.50	0.50	0.00
PROJECT MANAGER	E-8	0.50	0.50	0.00
ASST OPERATIONS MANAGER	E-8	0.00	1.00	1.00
SENIOR ENGINEERING TECHNICIAN	E-6	0.50	3.50	3.00
ENGINEERING TECHNICIAN	E-5	3.00	1.00	(2.00)
SR OFFICE ASSISTANT	E-4	0.00	1.00	1.00
SENIOR CLERK	A-19	0.00	0.50	0.50
TOTAL PERSONNEL		<u>5.50</u>	<u>10.00</u>	<u>4.50</u>

Performance Measurements

	2009 Actual	2010 Actual	2011 Estimated	2012 Projected
Number of ROW/utility permits issued	1,383	1,512	1,300	1,300
Number of engineering plans reviewed	94	70	75	75
Number of right-of-way/other permits issued	240	239	200	200

**PUBLIC WORKS-ENGINEERING DIVISION
NEXT YEAR/CURRENT YEAR BUDGET ANALYSIS**

Account	Description	2010 ACTUAL	2011 BUDGET	6 MONTH ACTUAL	2012 BUDGET	CHANGE 12-11
71112	Salaries Permanent	390,375	282,276	193,151	504,359	222,083
71122	Salaries Overtime Perm	93	-	-	-	-
71251	IMRF	77,672	57,754	39,129	105,057	47,303
71253	Unemployment	594	990	1,169	1,800	810
71262	Workmen's Compensation	7,861	2,522	2,366	6,285	3,763
71263	Health Insurance	91,796	76,232	46,061	151,762	75,530
71264	Life Insurance	556	430	218	780	350
71271	Parking Benefits	3,576	2,640	1,320	5,160	2,520
TOTAL PERSONNEL		572,523	422,844	283,415	775,203	352,359
72203	Wireless	-	-	-	2,800	2,800
72211	Printing & Publication	717	400	1	400	-
72212	Postage	127	-	211	-	-
72213	Telephone	8,161	6,175	3,634	5,380	(795)
72214	Travel	-	-	429	-	-
72215	Dues	580	900	-	900	-
72216	Subscriptions	34	300	-	300	-
72218	Service Contracts	194,938	65,280	17,297	64,280	(1,000)
72252	Maint-Equipment	-	1,400	-	1,400	-
72255	Maint-Office & Furniture	-	4,000	-	4,000	-
72263	Microcomputer	50,050	47,460	23,730	50,860	3,400
72264	Vehicle Repairs	9,423	8,000	3,025	9,500	1,500
72265	Fuel	3,820	14,450	1,039	8,570	(5,880)
72267	Risk Management	22,800	23,670	11,835	28,850	5,180
72271	Rental Equipment	214	1,000	906	2,000	1,000
72272	Rental Building	11,090	18,210	9,105	23,110	4,900
72290	Education And Training	149	355	-	355	-
TOTAL CONTRACTUAL		302,103	191,600	71,214	202,705	11,105
75501	Public Works	588	-	-	-	-
75509	Books	106	300	-	300	-
75520	Small Equipment And Tools	487	1,500	494	1,500	-
75523	Drafting & Engineering	-	500	-	500	-
75560	Office General Supplies	2,244	1,900	119	1,900	-
75570	Computer Noncapital	2,363	2,550	-	2,550	-
TOTAL SUPPLIES		5,788	6,750	613	6,750	-
TOTAL ENGINEERING DIVISION		880,414	621,194	355,242	984,658	363,464