

Engineering

Agency Number: **53**
 Budget Function: **Public Works and Transportation**

The Engineering Division is responsible for the contract design for all public works construction; the supervision and inspection of all street, highway, sidewalk and bike path construction; all City surveying and mapping operations including maintenance of the City's Official Map, street and utility records; management of the Madison Sewer Utility plus the design, operation and maintenance of sanitary sewer facilities and storm sewer systems; the review of land use changes for public works feasibility; the research and development services supporting the solid waste management program; and the preparation of various studies relating to Public Works. The City Engineer serves as Team Leader of the Department of Public Works and Transportation.

<u>Major Service</u>	<u>1998 Actual</u>	<u>1999 Budget</u>	<u>1999 Projected</u>	<u>2000 Request</u>	<u>2000 Executive</u>	<u>2000 Adopted</u>
Sanitary Sewers	\$ 0	\$ 55,740	\$ 55,740	\$ 0	\$ 0	\$ 71,546
Storm Water Management	957,348	1,119,986	1,119,986	1,104,178	1,065,052	1,093,983
Mapping & Records	316,446	367,915	367,915	434,787	413,226	423,658
Streets & Highways	464,369	749,609	749,609	792,662	772,477	810,373
Sidewalks	(28,338)	175,330	175,330	172,479	171,209	179,884
Environmental Engineering	736,281	510,909	510,909	475,383	471,864	495,345
Agency Total	<u>\$ 2,446,107</u>	<u>\$ 2,979,489</u>	<u>\$ 2,979,489</u>	<u>\$ 2,979,489</u>	<u>\$ 2,893,828</u>	<u>\$ 3,074,789</u>

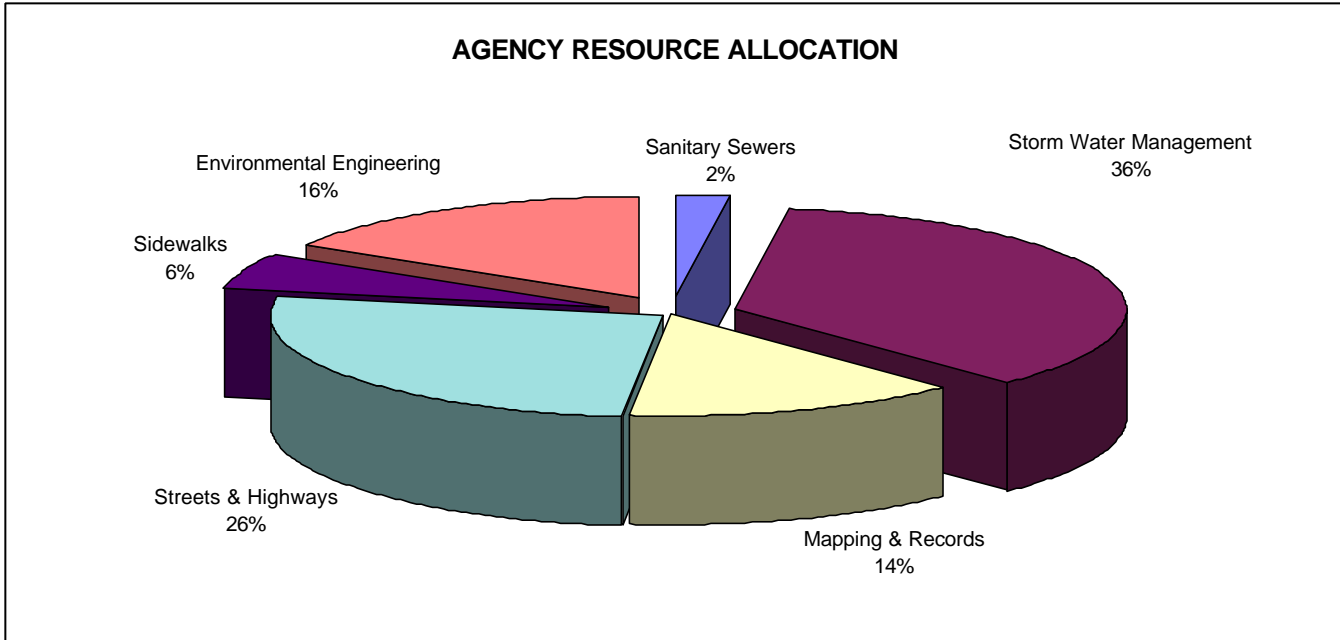
Adopted Budget Highlights

The Budget includes:

1. The addition of one new Engineer 2 position. This position will be utilized as a design engineer for federally-funded street projects. Salary and benefits are offset in their entirety by billings to the capital budget.
2. Landscaping funding of \$25,000 to maintain the shrubbery and landscaped areas on several streets including John Nolen Drive.
3. One Engineering Aide position added at mid-year, replacing an hourly position involved with the location of storm and sanitary sewers. Increased permanent salaries and benefit expenses are entirely offset by savings in hourly wages and increased billings to the Sewer Utility.

In addition to the Requested Budget amount shown above, the agency submitted supplemental budget requests with no net impact upon the tax levy.

Engineering



Budget Service Descriptions:

Sanitary Sewers

Sanitary Sewers manages, operates, constructs and maintains the Madison Sewer Utility. The Sewer Utility directs the planning, design, construction and repair of public sanitary sewer facilities. All proposed land use changes are reviewed for sanitary sewer impact prior to approval. Extensions to the public sewerage system are financed by the owners of lands directly benefitting from the improvements, or through construction by private developers. Developers construct sewers at their own expense in accordance with City design standards and specifications. The Sewer Utility assumes ownership and responsibility for maintenance and operation of these sewers upon acceptance of the improvements by the Common Council. Maintenance efforts include the repair, cleaning, and removal of blockages in over 665 miles of sewer main managed by the Sewer Utility.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 2,409,411	\$ 2,625,374	\$ 2,703,921
Less Inter-Agency Billings	<u>2,409,411</u>	<u>2,569,634</u>	<u>2,632,375</u>
Net Total	<u>\$ 0</u>	<u>\$ 55,740</u>	<u>\$ 71,546</u>

Storm Water Management

The Storm Water Management function provides services for design, review, construction and maintenance of a storm system consisting of about 275 miles of pipe and open channel systems for flood control and runoff water quality. The City's WPDES discharge permit requires the system to reduce non-point source pollution to area lakes and streams. This is done using an expanding system of more than 30 wet ponds and other best management practices. Maintenance of this system is an increasingly important and costly component of this service as the average age of the system increases and rehabilitation of parts of the system becomes necessary. This function also provides City residents access to professional review of drainage problems which occur on or adjacent to their property. Engineering staff review the existing conditions, act as a mediator for multiple party problems, and provide possible solutions.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 1,059,192	\$ 1,202,986	\$ 1,165,483
Less Inter-Agency Billings	<u>101,844</u>	<u>83,000</u>	<u>71,500</u>
Net Total	<u>\$ 957,348</u>	<u>\$ 1,119,986</u>	<u>\$ 1,093,983</u>

Mapping & Records

Mapping and Records reviews new subdivisions, land divisions, conditional use permits, parking lot plans, applications for building permits and applications for new public land in general. This service also prepares legal descriptions for acquisition, street rights-of-way and street vacations. It also maintains the City's Official Maps, Assessors' Parcel Maps, Fire Department Run Maps, Police Sector Maps, storm sewer records, sanitary sewer records, and assigns street names and addresses. The map records are in digital form and are available from the Mapping/GIS system. This service also administers the street opening permit ordinance which coordinates City and Utility Company work. Clerical services for the division are also provided by this service. This service also provides all hardware and software support for the Mapping/GIS system network.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 316,446	\$ 367,915	\$ 469,658
Less Inter-Agency Billings	<u>0</u>	<u>0</u>	<u>46,000</u>
Net Total	<u>\$ 316,446</u>	<u>\$ 367,915</u>	<u>\$ 423,658</u>

Streets & Highways

Streets and Highways provides for the review of streets and bridges, the design of streets and bridges, and the review of design work by consultants. Citizen involvement in projects undertaken is a high priority as is quality design of Streets and Highways. Maintaining the safety of the City's bridges through biannual inspections, routine maintenance and scheduled rehabilitation and replacement is part of this program. This program involves local streets, collector streets and arterial streets. Other services provided include review of Plats and Certified Survey Maps, conditional use applications, and planned unit developments to ensure that they are compatible with future transportation needs. The City now maintains approximately 640 miles of streets and 47 bridges greater than 20 feet in length.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 1,104,200	\$ 1,250,085	\$ 1,358,400
Less Inter-Agency Billings	<u>639,831</u>	<u>500,476</u>	<u>548,027</u>
Net Total	<u>\$ 464,369</u>	<u>\$ 749,609</u>	<u>\$ 810,373</u>

Sidewalks

The responsibility of this service is to maintain sidewalks through the general sidewalk repair and rehabilitation program; construct handicap ramps in the designated repair areas or in specific locations as requested; inspect sidewalk and drive apron construction by private contractors who must be licensed by the City and must obtain permits before doing the work; inform the public and other governmental agencies about sidewalks damaged by private contractors, illegal street encroachments, underground vaults in the streets, injury claims resulting from unsafe sidewalks, and legislation for handicapped facilities on construction projects; administer a rebate program where the City will reimburse a property owner \$2.00/ sq. ft. of sidewalk repaired; and repair sidewalk, curb and gutter as requested by property owners.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 261,811	\$ 294,130	\$ 301,884
Less Inter-Agency Billings	<u>290,149</u>	<u>118,800</u>	<u>122,000</u>
Net Total	<u>\$ (28,338)</u>	<u>\$ 175,330</u>	<u>\$ 179,884</u>

Environmental Engineering

This service provides all of the environmental engineering, research, legislative analysis and planning for the City except for storm water management. Responsibilities include management of closed landfills and fuel tanks, environmental audits, siting of new landfills and long range waste management plans. Most work is required by State law. Operation and maintenance of large landfill gas and leachate collection systems are significant tasks and require engineers to be available 24 hours per day.

Service Summary			
	1998 Actual	1999 Budget	2000 Adopted
Total Expenditures	\$ 741,637	\$ 733,209	\$ 845,345
Less Inter-Agency Billings	<u>5,356</u>	<u>222,300</u>	<u>350,000</u>
Net Total	<u>\$ 736,281</u>	<u>\$ 510,909</u>	<u>\$ 495,345</u>

Engineering Summary by Major Object of Expenditure

	1998 Actual	1999 Budget	1999 Projected	2000 Request	2000 Executive	2000 Adopted
Permanent Salaries	\$ 3,486,641	\$ 3,958,111	\$ 3,958,111	\$ 3,973,130	\$ 3,968,191	\$ 4,108,867
Hourly Employee Pay	221,061	164,401	164,401	205,001	195,716	200,608
Overtime Pay	106,901	104,682	104,682	110,000	110,000	112,751
Fringe Benefits	1,232,221	1,243,555	1,243,555	1,253,206	1,250,770	1,336,215
Purchased Services	153,776	219,300	219,300	356,800	341,800	341,800
Supplies	192,446	220,000	220,000	212,000	192,000	192,000
Inter-Departmental Charges	483,753	477,550	477,550	488,370	508,370	508,370
Debt/Other Financing Uses	0	0	0	0	0	0
Fixed Assets	<u>15,899</u>	<u>86,100</u>	<u>86,100</u>	<u>88,080</u>	<u>44,080</u>	<u>44,080</u>
Total Expenditures	\$ 5,892,699	\$ 6,473,699	\$ 6,473,699	\$ 6,686,587	\$ 6,610,926	\$ 6,844,691
Inter-Agency Billings	<u>3,446,592</u>	<u>3,494,210</u>	<u>3,494,210</u>	<u>3,707,098</u>	<u>3,717,098</u>	<u>3,769,902</u>
Net Budget	<u>\$ 2,446,107</u>	<u>\$ 2,979,489</u>	<u>\$ 2,979,489</u>	<u>\$ 2,979,489</u>	<u>\$ 2,893,828</u>	<u>\$ 3,074,789</u>