



End of Year Report 2003

Charles F. Soules, P.E., Public Works Director

INTRODUCTION

The divisions of Public Works provide community services (Solid Waste Division), interdepartmental support and services (Central Maintenance Garage, Building and Structures Division), infrastructure maintenance (Street Maintenance Division, Traffic and Stormwater), and oversee public improvements (Engineering Division). Public Works projects are vital to the growth, health, safety, comfort and quality of life for our community. The annual report highlights the meaningful contributions made by the employees and divisions of the Public Works Department to achieve the overall mission of the City of Lawrence.

MISSION

We are committed to providing excellent city services that enhance the quality of life for the Lawrence community.

VALUES

- We are committed to these basic principles:

Integrity
Courtesy
Fairness
Honesty

- How we get the job done is as important as getting the job done.
- Our interaction with the community will be professional, responsive, direct, personal, caring and appropriate.
- We will promote teamwork, employee satisfaction, and professional development in order to provide innovative, cost effective, efficient service.

We want our citizens, clients, and customers to have high expectations of government service and we will do our best to meet and exceed those expectations.

ADMINISTRATION

The Administrative function of Public Works provides professional support for all divisions and employees in areas such as budget and finance, personnel administration, risk management issues, policy and program development and administration. The division is also responsible for the Public Works Department web site.

Personnel functions: There are 174 authorized positions in the Public Works Department. In 2003, the department recruited for 17 vacant positions. In 2002 and 2001, we filled 32 positions and 36 positions, respectively.

Budget administration: The Public Works Department is responsible for budget development and administration for all divisions listed below. Revenue and expenditure numbers reported below reflect those reported in the accounting system at the beginning of January and have not been audited or adjusted.

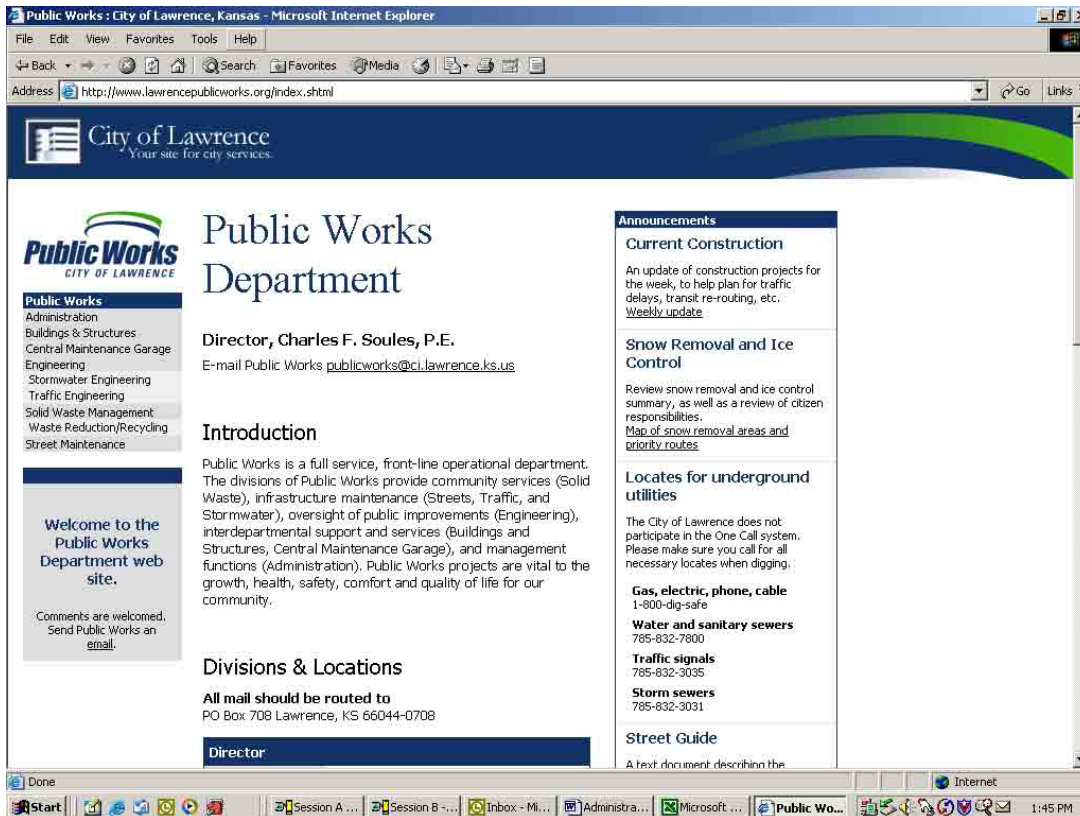
EXPENDITURES					
Fund	Division	Description	2001	2002	2003
214	3800-578	Gas Tax Fund	\$ 2,690,728	\$ 2,829,897	\$ 2,699,707
001	2500-565	Health Department	\$ 651,748	\$ 751,082	\$ 817,073
001	3000-570	Street Maintenance	\$ 939,602	\$ 1,631,992	\$ 1,775,727
001	3100-571	Engineering	\$ 642,799	\$ 641,610	\$ 620,322
001	3200-572	Traffic Engineering	\$ 520,356	\$ 546,863	\$ 545,886
001	3300-573	Airport	\$ 95,803	\$ 105,069	\$ 92,534
001	3400-574	Building Maintenance	\$ 575,235	\$ 555,180	\$ 604,760
001	3600-576	Street Lights	\$ 439,423	\$ 410,878	\$ 487,601
001	3700-577	Levee	\$ 89,101	\$ 101,556	\$ 104,940
502	3510-571	Residential Solid Waste	\$ 3,025,767	\$ 3,427,780	\$ 3,702,330
502	3520-572	Commercial Solid Waste	\$ 2,635,518	\$ 3,173,900	\$ 3,558,470
502	3530-573	Waste Reduction / Recycling	\$ 631,443	\$ 631,726	\$ 768,820
504	3200-579	Central Maintenance Garage	\$ 1,829,960	\$ 1,861,765	\$ 2,001,339
505	3900-579	Stormwater	\$ 2,009,179	\$ 1,867,640	\$ 2,181,509
Total Public Works			\$ 16,776,662	\$ 18,536,939	\$ 19,961,017
REVENUES					
214		Gas Tax Fund	\$ 2,572,332	\$ 2,579,943	\$ 2,391,833
502		Solid Waste Division	\$ 7,207,294	\$ 7,654,843	\$ 7,946,716
504		Central Maintenance Garage	\$ 1,869,881	\$ 1,810,242	\$ 2,023,622
505		Stormwater Utility	\$ 1,959,633	\$ 1,956,967	\$ 2,702,485
			\$ 13,609,140	\$ 14,001,995	\$ 15,064,656

Risk management function: Statistics are collected by the Administrative Services Department, Risk Management office tracking a workers' compensation incidents requiring medical attention, auto accidents including claims against the City for damage to private vehicles as a result of street conditions such as potholes, and general liability claims. Details for Public Works are reported below.

	2001	2002	2003	2001	2002	2003	2001	2002	2003
	Workers' Comp requiring medical attention			Vehicle accident claims			General liability claims		
Building Maintenance	1	3	0	1	0	0	1	1	0
Central Maintenance Garage	2	1	3	0	0	0	0	0	0
Engineering Division	2	3	6	0	1	1	0	1	5
Solid Waste Division	40	35	29	8	2	4	10	8	13
Street Division	10	5	6	36	8	2	6	10	14
Total Public Works	55	47	44	45	11	7	17	20	32

Highlights and accomplishments:

- The Public Works Department web site was deployed in May, 2003. The site is updated weekly with current construction issues. Enhancements to the web site through the remainder of the year included additions for driveway requirements, tornado response updates, snow response maps, truck route maps, and minutes for boards with liaisons from the department.



- May 8, 2003 tornado response. Damage from this tornado was isolated in a fairly small geographic area. Private property damage was significant within the affected region. There was minimal damage to public infrastructure. The Public Works Department's primary response obligations involved clearing the streets and debris removal. The costs captured below were developed for preliminary evaluation to determine eligibility for disaster reimbursement. Benefit costs and some equipment were not included. Public agencies did not meet the threshold necessary for FEMA funding for this event.

TORNADO RESPONSE MAY 8, 2003		
Estimated costs excluding benefits		
Engineering, Building Maintenance, Administration	\$	3,139
Solid Waste Division (excluding equipment costs)	\$	3,011
Street Maintenance Division	\$	17,229
	\$	23,379

- All employees completed diversity training focused on communications between genders.
- An all-employee barbeque was held in May to honor Public Works Week. Exceptional catering was provided by the Director of Public Works and the Building Maintenance Division.
- Public Works employees served on a variety of City-wide committees, including the following: the employee relations council (ERC) and related subcommittees, compensation evaluation committee, health care committee, the position review committee, web developers committee.
- Regular meetings were held with representatives of Public Works who are participating in the Employee Relations Council to facilitate communication with all employee groups.
- Three blood drives were hosted at the 11th and Haskell facilities.
- Charles Soules, Public Works Director, served as President of the Kansas Chapter of APWA.
- Terese Gorman served on the 2004 Mid-America APWA conference planning committee.
- Tammy Bennett was elected as Treasurer of the Kansas Chapter of APWA.

BUILDING MAINTENANCE

The Building Maintenance Division is responsible for building maintenance for municipal buildings except where such services are provided contractually. In addition to maintenance costs, utility costs for some buildings are paid out of this division's budget. The division provides maintenance services and/or technical support for approximately 30 facilities:

City Hall; Court Services; five Public Works facilities; Fire/Medical facilities; six buildings at the Lawrence Municipal Airport; the Public Library; the Police annex facility; the Riverfront Parking Garage; the Downtown 2000 (New Hampshire Street) Parking Garage and four city owned buildings occupied by community service agencies – the Arts Center, Health Care Access, Lawrence/Douglas



County Senior Center, and the Community Health facility. The division also provides assistance with downtown lighting, canopies, and various buildings at cemetery.

Much of the work completed by the Building Maintenance Division staff is emergency repair and response to nuisance situations. Many services provided by this division are provided by contractors. The Building Maintenance Manager is responsible for selecting contractors, administering contracts, and monitoring the work.

Contracted repairs and improvements

- Trash enclosures reconstructed in the 800 block of Vermont.
- Demolition of several buildings, and old airport hanger, old house in county by the airport.
- Lawrence airport improvements. Runaway and Hanger construction.
- Installation of chain link fencing at airport.
- Installation of irrigation system at the West 40.
- Roof leak repairs at fire station # 3.
- Carnegie Building stabilization project.
- Bid HVAC for ITC (Police Department). Work to be completed in 2004.
- Bid HVAC for Information systems back up system. Work to be completed in 2004.

In-house project completed

- Built and landscaped memorial for fallen officers at ITC (Police Department).
- Scraped and painted sections of the covered walkway in the 800 block of Massachusetts.
- Constructed new office area for Neighborhood resources.
- Set up for and assisted with air show during the Bob Dole event.
- Large Lawrence sign at airport was cleaned and repainted.
- Maintenance on gutters on covered walkway 800 block of Massachusetts.
- Converted storage area in old Parks and Recreation office 4th floor into an office.
- Replaced door closer at Fire Station # 3.
- Completed transition to the new Arts Center (plaque moved, miscellaneous).
- New janitors' closet constructed at the SWAN building.
- File storage area on the third floor of City Hall -- cleaned, organized, old files removed.
- Disposed of/destroy out of date files stored in dead storage at SWAN.
- Additional lighting installed for file storage area in SWAN facility.
- Old computers and surplus items hauled from SWAN to traffic for annual auction.
- Annual maintenance for emergency lighting backup system at City hall.
- Reconfigured cubicles in Planning office twice.
- Garbage disposal installed for kitchen area in the City Manager's office.
- North side of City Hall window cleaning completed.
- Repaired gap between window units and concrete at Transit office.
- Old taxiway at airport closed off.
- Congressional Circle roundabout lighting -- wiring installed / corrected.
- Participated in emergency response committee for City Hall.
- Security cameras for the entrances and exits of City Hall installed.
- Painted parking spaces in garage and parking lots.
- Installed electrical service for airport at the sight of the old hangers.

Memorial for fallen officers constructed at ITC



In 2003, the Building Maintenance Division had a licensed Master Electrician on staff full time, resulting in significant savings to the City. Another employee took the course and is now licensed for servicing backflow prevention devices.

CENTRAL MAINTENANCE GARAGE

The Central Maintenance Garage operates as an internal service fund to provide fuel, management, and repair services for the City’s fleet of vehicles and equipment. The maintenance facility is located at 11th and Haskell. Fuel stations are located at 11th and Haskell and the “west 40” property near 18th and Wakarusa.

Repairs and Maintenance

One goal set for this year was to reach a productivity level of 70% preventative maintenance and 30% repairs. The intent of this goal is to identify and repair more problems while the unit is in for routine maintenance, thus reducing downtime and unscheduled repairs. We continue to make progress toward this goal. The chart below shows the percentage of repairs versus preventative maintenance based on hours and dollars billed against the two types of work orders.

percentage of work	2001	2002	2003
Repairs	62.0%	53.0%	51.6%
Preventive maintenance	38.0%	38.0%	48.4%

Fuel station upgrade

A new fueling system was purchased in 2003 called Fuel Master. The fueling system provides the software backbone for management of the fueling programs for all the fleet. The new system will improve reliability and is designed to be more user-friendly. The new system was installed at the West 40 facility in late fall. The facility at 11th and Haskell was completed in January 2004. Further enhancements to the system are planned in 2004.



Highlights and accomplishments:

- Service calls: A significant goal for the division is to reduce the number of service calls. Some service calls are unavoidable, such as accidents and punctured tires. Generally, a reduction in service calls indicates a higher level of reliability in the fleet. In 2003, there was a reduction in the number of tire calls but the total of calls remained the same as last year. With the fleet increasing by nineteen units, this represents an improvement in reliability.

Service calls	2001	2002	2003
Tire repairs			64
Break-downs			209
Total			273

- Overhead Doors: The replacement of the overhead doors on the west side of the shop was completed. A door was also replaced on the tire shop. The total cost of the replacements was \$15,473. All the doors are now insulated with weather strips. Replacement of the doors and improvements to the heaters have made significant reductions in the amount of natural gas needed to heat this facility. The reduction of natural gas usage should pay for the door replacement within three years.
- Break room upgrade: The tile floor in the office and break room areas was replaced. The original floor contained asbestos and was removed by a special contractor.
- Phone system upgrade: The phone system at the maintenance facility was replaced because of static and line failures. The replacement system has fewer features and adjustments are being made to accommodate the new system.
- Recycling: The Central Maintenance Garage is actively engage in recycling and the handling of materials in the most environmentally friendly ways feasible for the operations.
 - Used oil products: 1793 gallons burned in waste oil heater and 3830 gallons recycling through Midland Clearwater Refinery.
 - Antifreeze: 220 gallons recycled through Wynn's products. The program has expanded to collect and recycle Dexcool (pink) antifreeze. Once recycled, it becomes standard 36,000 mile antifreeze.
 - Batteries: All automotive batteries are recycled by Interstate Battery. Flashlight type batteries are recycled through the HHW program.
 - Mercury switch program: Mechanics continue to check city vehicles for the presence of mercury switches as part of the preventive maintenance program. Most of the switches are in the form of under hood and trunk lights, typically on older vehicles. Mercury switches are removed and recycled through Solid Waste Division. Five switches were removed and disposed this year.
- Motor pool operations: Central Maintenance currently has six vehicles and one tow behind air compressor in stock and available for rental to departments in need one of their vehicles are down or when a department needs to send a group of people to a meeting or training session. These vehicles are older units and include a seven-passenger van, Crown Victoria, Blazer, 1 ton, and two pickups. The motor pool rentals totaled 353 days this year at an income of \$7,060.00.
- Joint purchasing: The Garage Manager joined with the Purchasing Specialist to research opportunities for cooperative purchasing with the school district and the county. The City joined the County on the purchase of police cars. In addition, this team and the County's purchasing agent attended the Metropolitan Cooperative Purchasing meetings (KC metro area) and held a meeting with local vehicle dealers. The city and county are now participating in the Kansas City vehicle purchasing agreement. This agreement has already saved the city over two thousand dollars

just on the purchase of two pickups and ten patrol cars. The City and County have also entered into a new contract with Nationwide Auction Services for the disposal of surplus vehicles and property, after a comparison of services and prices with other disposal operations in the Kansas City area.

FLEET STATISTICS	2002	2003
Miles driven		
Police Department	1,087,347	1,086,026
Public Works	987,455	990,384
Fire Medical	297,166	276,849
Utilities Department	285,157	284,352
Parks and Recreation	270,086	267,520
Miscellaneous (admin., BI, plan., etc)	201,331	197,052
Total miles	3,128,542	3,102,183
Off road equipment usage (hours)	27,856	18,872
Operations		
Repair orders completed	2,298	2,444
Preventive maintenance orders completed	996	1,017
Billing		
Total number of hours billed	12,893	13,575
Total labor (in \$\$)	602,660	603,666
Total parts (in \$\$)	598,539	628,082
Commercial (sublet) (in \$\$)	77,214	106,488
Miscellaneous	1,992	24,312
Total dollars billed for repairs	1,370,772	1,376,124
Fuel system		
Total fuel sold for year (gallons)	441,870	441,717
Total diesel fuel sold (in dollars)	275,939	317,574
Total unleaded gasoline sold (in dollars)	295,032	330,252
Total fuel sales (in dollars)	570,971	647,826
Total Operational Billing	1,943,233	2,011,192

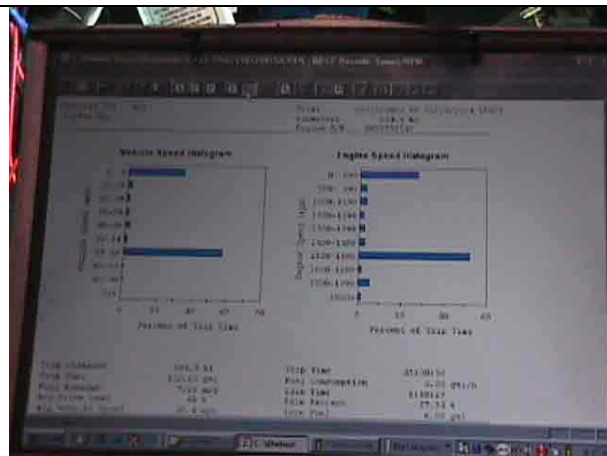
Central Maintenance Garage photos for 2003:



Central Maintenance Garage



1141 Haskell Avenue



ENGINEERING DIVISION

The Engineering Division is responsible for the review and approval of all plans for streets, sanitary sewers, sidewalks, and storm sewers. The division administers these projects and inspects project construction. This division evaluates pavement condition and contracts for major pavement restoration and replacement. The Engineering Division solicits grants and other funding for major reconstruction or new construction projects.

Infrastructure Expenditures

In 2003, the City had budgeted \$2,500,000, in all the budgeted funds combined, to use for maintenance of our infrastructure. From these budgeted funds, we spent approximately \$1,200,000 milling and overlay existing streets, \$900,000 removing and reconstructing concrete curb and gutter, and \$400,000 on miscellaneous repairs such as removing and replacing sidewalk recreational paths, removing and replacing concrete pavement that cannot be overlaid, white-topping an intersection, and reconstructing existing storm sewer inlets. A sidewalk contract was bid in 2003, with work being completed in 2003 and 2004. Contracted repair and maintenance for 2003:

ITEM	2002	2003
Street overlay (in miles)	13.13	11.60
Curb and gutter replacement (in miles)	9.7	15.2

The chart below summarizes all public infrastructure contracts administered and inspected by the Engineering Division, including overlay and curb repair, benefit districts, and private projects. Stormwater projects are detailed in the next section.

ITEM	2002	2003
Linear Feet of Pavement	26,219	22,296
Linear Feet of Curb & Gutter	98,446	99,617
Linear Feet of Waterline	23,142	22,391
Linear Feet of Storm Sewer	18,440	14,495
Linear Feet of Sanitary Sewer	24,257	22,989
Linear Feet of 4" x 5' Sidewalk	22,292	19,205
Linear Feet of 4" x 6' Sidewalk	16,798	6,836
Linear Feet of 10' x 6" Rein. Rec. Path	7,630	6,021
Linear Feet of Milling	54,252	119,728
Linear Feet of Asphalt Overlay	55,782	119,728
Linear Feet of Retaining Wall	331	0
Square Yards of 3.5" White Topping	470	2650
Traffic Signal	2	3
Structures	4	0
TOTAL COST OF PROJECTS	\$10,639,922	\$11,913,844

Clinton Parkway was one of the major maintenance projects completed in 2003. The intersection of Clinton Parkway and Inverness received a white-topping (concrete overlay on asphalt base). The remainder of the parkway received an overlay and re-striping.

Clinton Parkway 2003



Pavement Management Program

A full-time Assistant City Engineer was hired in June, 2003. Approximately 50% of this employee's time is dedicated to the development and implementation of a pavement management program. The City of Lawrence's pavement management system will be based on the analysis of databased pavement condition information. This pavement condition data will be attained through the use of an objective pavement condition survey. The pavement condition survey has been developed to identify existing visual pavement distresses on flexible, composite, and rigid pavement types. The objectives of this pavement condition survey are to determine the present condition of pavement in terms of surface condition and apparent structural integrity, to provide a common condition index for comparing the status of all pavements, and a means to provide justification for performing pavement maintenance and repair projects, along with the

evaluation of current design standards. Information collected from the surveys will be entered into a geo-database structure.

The pavement management system will be used to demonstrate the benefits associated with the timely use of preventative maintenance and repair techniques on street pavements. These benefits will include the ability to determine where and what type of preventative maintenance is needed and, when applied, result in an improved overall pavement condition of the City's streets, a reduction of preservation costs, and an extension of the pavement life cycle.

A pavement condition survey manual is being compiled and will be completed in early 2004. This manual gives the procedure and guideline criterion for performing a pavement condition survey, to ensure uniformity in data collection. Initial data collection was completed in a small pilot area. Data collection or condition surveys will be the primary focus in the first half of 2004 for the pavement management program.

Stormwater Maintenance and Administration

The Stormwater Maintenance Crew continued to focus on curb inlet replacement and debris removal priorities. They also completed an open channel grading project near 27th and Belle Haven to facilitate an upstream contracted project.

The Stormwater Engineer continued to review drainage studies, plats, site plans, development plans and construction drawings related to development projects. This year we purchased a scanner and will transition development information to digital storage and retrieval. The *1996 Stormwater Management Master Plan* has also been scanned and is now available on-line.



Inspecting a collapsed storm sewer near 7th and Maine

The Stormwater Quality Technician submitted our NPDES Phase II permit application to KDHE prior to the March 10, 2003 deadline. We continued to implement the 2001 Stormwater Pollution Prevention ordinance. In particular, construction site controls were enforced with greater consistency and attention.

The Administrative Clerk continues to review and correct stormwater fees charged to landowners. GIS aeriels and an account database are used to find changed accounts, new accounts or incorrect information.

Major stormwater projects completed or underway

Capital Improvements were a major focus during 2003. Several flood control projects were completed or bid as a result of \$7.7 million in funding provided in 2002. The Stormwater Engineer coordinated consulting, design, plan creation, public meetings, land acquisition, bidding and inspection for these projects.

The 21st Street, Stewart to Naismith Storm Sewer Improvements were completed in March, 2003. This project replaced several underground storm sewers and rebuilt 21st Street at a total cost of \$1,774,000. The new system will relieve flooding of streets and homes in the neighborhood.

The 21st Street, Kentucky to Barker Court Storm Sewer Improvements were completed in November, 2003. This project replaced underground storm sewers and sanitary sewers and rebuilt several streets at a total cost of \$2.6 million. Flooding of basements and streets will be relieved by the new systems. A second phase of this project will be completed in 2004 to replace downstream road crossing culverts at 19th Street and Learnard Avenue.

The 27th Street to Saratoga Court Storm Sewer Improvements were completed in August, 2003 at a cost of \$191,000. This project replaced a collapsed storm sewer and was coordinated with a Department of Utilities sanitary sewer project.

The 13th and Oregon Storm Drainage Improvement Project was bid in December, 2003. This project will be completed in late 2004 at a total cost of \$3.9 million. Competitive bids on all 2003 projects allowed us to fund a study of North Lawrence drainage problems, to be completed by the end of 2004.

21ST STREET, STEWART TO NAISMITH STORM SEWER IMPROVEMENTS



System outlet before construction



System outlet after construction

21ST STREET, KENTUCKY TO BARKER COURT STORM SEWER IMPROVEMENTS



System outlet before construction



System outlet during construction



Storm and sanitary sewers under construction



Completed project

Traffic Engineering and operations

The Traffic Engineering Division reviews plats and site plans, street plans, analyzes traffic data, and provides professional and technical data to the Traffic Safety Commission. Field crews are responsible for signal maintenance, signal timing, street signs, and pavement markings. The Traffic Engineer also works with community and neighborhood groups to address specific concerns.

STATISTICS	2003
Traffic Signals Maintained	80
School Beacons Maintained	27
Traffic Signal Work Orders Completed	1425
Traffic Sign/Pavement Marking Work Orders Completed	2232
Electronic Traffic Counts Conducted	284
Manual Traffic Counts Conducted	79
School Crossing Counts Conducted	60
Traffic Safety Commission meetings administered	10

Some of the highlights and accomplishments of the Traffic Engineering Division for 2003 include:

- Continued upgrade of school signs from black/yellow to black/fluorescent yellow-green.
- Completed installation of LOOK pavement markings at official school crosswalks.
- Installed temporary traffic calming devices in the University Place Neighborhood.
- Re-installed temporary traffic calming devices in the Quail Run Neighborhood.
- Traffic signal upgrades initiated at 6th Street & Lawrence Avenue and 6th Street & Kasold Drive.
- Continued upgrade of pedestrian signals to Light Emitting Diodes.
- Reevaluated and optimized traffic signal coordination plans throughout the city.
- Obtained highway safety funding and initiated design for a traffic signal at 7th Street & Kentucky Street.
- Began a program of providing countdown timers at signalized pedestrian crossings.
- Developed a policy for construction of Speed Humps and Speed Cushions on city streets.
- David Woosley continued serving on the Institute of Transportation Engineers Traffic Engineering Council Executive Board, and on the International Municipal Signal Association Central Section Executive Board.
- Debbie Rollins was re-elected President of the International Municipal Signal Association (IMSA) Central Section.



Traffic calming in University Place Neighborhood

SOLID WASTE DIVISION

The Solid Waste Division represents an enterprise fund, or utility, created for the purpose of managing the solid waste for the City of Lawrence. Comprehensive solid waste services are provided for residents, businesses, and industry. Services include collection, disposal, recycling, and technical assistance.

The following chart provides a brief comparison for all services combined:

Tons collected	2001	2002	2003
Tons collected for disposal	68,664	67,784	68,731
Tons (est.) collected for recycling / composting	8,191	10,500	11,700

In 2002, Lawrence achieved a 32% recycling rate which is one of the highest in the state and is higher than the national average for that year. The recycling rate is likely to be slightly higher in 2003. (The Annual Recycling Report will be prepared in the spring when final numbers are available.)

The Solid Waste Division is comprised of three functional divisions: Residential Collection; Commercial Collection (which includes Maintenance Operations); and Waste Reduction and Recycling (WRR).

Residential Collection

The number of housing units continued to grow at a high rate in 2003, which has a significant impact on our residential services. Sixteen three-member rear-loader crews pick up the residential waste. These crews also pick up all rear-loader commercial waste along their residential routes as well as the grass and leaves for composting.

The chart below highlights some of the residential collection activity.

	2001	2002	2003
Roll-out carts		4,765	5,294
Bulk items collected	4,027	4,236	4,138
Freon containing items	553	589	640
Tires collected	2,304	2,791	2,678

Notes on the services mentioned above: Roll-out trash carts are rented to customers in two sizes, 90 and 65 gallon. The carts allow for automated collection, reducing the potential for injury to the solid waste loaders. Bulky items, including refrigerators and air conditioners, are collected by appointment. The Division is required by Federal law to recover freon from refrigerators and air conditioners that are collected. Freon was recovered in-house by certified technicians from Maintenance Operations. Tires are collected by appointment at no cost to residents (limit of 5 per household per year). Whole tires are not permitted to be disposed in the landfill. The tires were picked up

from the Solid Waste facility by private companies and then shredded and monofilled (65%) or recycled (35%) at a cost to us of \$3,775.

Residential crews performed alley litter collections on Fridays on a rotating basis among neighborhoods with alleys. Downtown alleys were patrolled for litter on every Friday.

Several neighborhood cleanups were performed at the request of and in coordination with neighborhood associations. These were the Pinckney neighborhood, Old West Lawrence, and North Lawrence neighborhoods. Most were done on Fridays because the neighborhoods can avoid paying additional costs for Division personnel and equipment, which they must pay if they have us participate on a Saturday.

Residential collection situations



Commercial Collection

Growth in the commercial sector continued with new businesses, strip malls, apartment houses and other entities requiring waste collection services. The Division reviewed numerous site plans for accessibility, location of refuse containers, and type of service required and made comments to the Planning Department as necessary.

Additional inventory of collection containers purchased last year (with total inventory in parentheses) include:

- Rear-loader containers – 85 (1,814)
- Front-loader containers – 59 (532)
- Roll-off containers – 16 (280)

Maintenance Operations maintains existing containers, prepares new containers for service, and delivers containers to new locations. They also do routine maintenance on collection vehicle packer bodies and other equipment used within the Division. A weekly schedule for packer maintenance was initiated in 2002.

Roll-off solid waste services are an important part of our commercial service delivery. The chart below highlights roll-off activity:

	2001	2002	2003
Roll-off service calls	6,518	6,099	6,499
Permanent accounts		63%	66%
Revenue from roll-off service	1,242,516	1,238,655	1,319,593

The Division continued promoting the expansion of its compactor leasing program in 2003. The total number of customers leasing containers from the Solid Waste Division at the end of 2003 was eleven.

The Division continued the rate audit of downtown businesses concentrating in the 800 block of New Hampshire. Periodic rate reviews are necessary in the downtown area due to the changing businesses. Also many businesses use shared containers located on city-owned right-of way or parking lots. Those rates are determined by square-footage of the business and type of business.

Rear-load dumpster operations



Waste Reduction and Recycling

Waste Reduction and Recycling received an “Environmental Excellence Award” which is presented annually to an entity in the Kansas City Metro area from Bridging the Gap, a private resource conservation and recycling group.

Waste Reduction and Recycling (WRR) expanded on existing collection programs, made program improvements, and added new programs in 2003. The Annual Recycling Report is produced in the spring when all final data is available so the numbers here are approximate for many materials.

The chart below highlights some of the programs in which the Waste Reduction and Recycling staff is involved. These programs are typically implemented as a partnership between WR/R staff and the operations side of Solid Waste for collection and processing.

	2001	2002	2003
Grass and leaves collected	6,000	8,000	9,750
Avoided disposal (est) costs in \$\$	115,000	153,000	186,000
Christmas trees collected (tons)	39	38	33
HHW program collections (in pounds)	86,500	100,000	94,000
HHW participants served	2,053	1,992	1,710
Small quantity generator collections (lbs)	NA	10,000	3,431
SQG participants served	NA	24	51
Old Corrugated Cardboard OCC (tons)	509	641	658
Old Newspapers ONP (tons)	950	704	790

Yardwaste pilot program: The pilot program has been a multi-year effort to provide volunteer households with compostable bags to educate citizens and monitor effectiveness at changing behavior. In 2003, 228 households from the Brook Creek, University Place, and Prairie Park neighborhoods participated in the compostable bag pilot program. The program has raised the rate of “preferred” containers (carts, cans or compostable bags instead of plastic) being set out to 25% which is double the rate of two years ago. WR/R staff is working toward the goal of eliminating plastic bag use for yard waste in 2005.

Household hazardous waste (HHW) program: The HHW program remains an important component of solid waste services in reducing the potential toxicity of the materials taken to the landfill. The program underwent significant operational changes in 2003 – transitions from a weekend collection event to a standardized service by appointment. An office was built at the facility which has enabled an employee to staff the facility so that citizens have easier access to drop off their HHW. The office was financed primarily by a grant from the state.

Compost program and facility: A large site was completed on East 11th Street for use by the compost program. The facility provides improved access and a hard surface for storing and processing materials. The additional space will allow for more efficient

processing of materials and a better grade of overall compost. The permit application has been submitted to the state. The facility will become operational in 2004. The third annual compost giveaway was temporarily postponed due to contamination from the herbicide Clopyralid. Much of the compost produced was or will be utilized in city projects.

Sorted office waste paper (SOW) program: The Sorted Office Waste Paper (SOW) collection program which was initiated in 2002 continued to grow. Ninety-two businesses, offices and schools were served on a scheduled basis and 16 tons of SOW were collected. A Solid Waste Implementation Grant for an additional horizontal baler to serve the program was received from the state. The baler was installed in 2003. An additional Solid Waste Implementation Grant was received in 2003 to apply toward the cost of a small dedicated rear-loader for the office paper program.

WRR is responsible for monitoring the success of the Environmentally Procurement Policy.

Public education and outreach remained a strong component of WRR activities. Events in 2003 included the Parade for the Earth, Home Energy Conservation Fair, America Recycles Day, Eagle’s Day, as well as speaking at approximately 33 different venues and giving tours of the recycling facility to interested groups.

CITY OPERATED RECYCLING DROP OFF SITES	
Old Newspaper (ONP)	
Checkers Food Store	2300 Louisiana
Hillcrest Shopping Center	9th and Centennial
Hobby Lobby	1801 W. 23rd
Hy-Vee Food Store	3504 Clinton Parkway
Hy-Vee Food Store	6th and Monterey Way
Lonnie's Recycling	501 Maple
Prairie Park Elementary School	2711 Kensington
Westlake's Ace Hardware	6th and Kasold
Douglas County Bank	9th and Kentucky/Tennessee
Old Corrugated Cardboard (OCC)	
Hy-Vee Food Store	6th and Monterey Way
Hy-Vee Food Store	3504 Clinton Parkway

Highlights and accomplishments:

The Solid Waste Division continued to increase its emphasis on training and safety.

- The Division has a meaningful, constructive safety program which rewards those who have not been cited for any unsafe procedures over each six-month period. The program is designed to be easy to use and avoid pitfalls of unfair treatment and “scoring”. It is all or nothing; employees must perform safely with no unsafe acts for the review period in order to receive a safety award.

- Driver training programs included a training course for prospective drivers, driving in snow and ice (all drivers), procedures for backing and maneuvering in restricted spaces (all collection personnel), as well as targeted training for individuals who commit an unsafe act or procedure.
- Periodic training sessions were held on the proper procedures for emptying containers and carts. These were conducted with a few crews at a time to allow for hands on training and discussion.
- Guidelines are established requiring trucks to maintain a speed of 5 mph below the posted speed limit.
- General safety sessions are held on a regular basis covering specific items for short periods, usually at the beginning of a work shift.
- Nineteen individuals received annual hazardous waste training. Three received 24-hour training which makes them eligible to work with HHW at our facility, and sixteen received annual 8-hour refresher training as required by law.



STREET MAINTENANCE DIVISION

The Street Maintenance Division is responsible for the routine maintenance of the City's streets, alleys, curbs, and gutters. The budget provides funds for concrete, asphalt, sand, rock, and salt for snow and ice control. Additional funds are budgeted for outside firms to assist in removing snow. The work crews require the use of variety of equipment and vehicles. The cost of equipment maintenance and fuel is included in this budget.

Highlights and accomplishments:

The majority of work completed by the division is routine maintenance and small projects that are not cost effective to contract. The details of the maintenance work are listed in the table on the following page. Other notable projects included:

- Completion of the pavement portion for Phase II of the compost site on East 11th Street for the Solid Waste Division. The project included over 1170 labor hours to complete the asphalt and berming requirements.
- New floor installation for the salt storage dome at the West 40 property. Removal and replacement of the floor required over 260 labor hours and used 105 cubic yards of material.
- Completion of preparatory work for the City's chip and seal contract for the year. For example, the streets in Western Hills were prepared using a coarse aggregate asphalt mix. The chip seal surface was applied by contract over the coarse aggregate.
- The crack-sealing program for fall / winter 2003-2004 was initiated. The area of focus this year includes 23rd Street, Massachusetts to Iowa, and North Lawrence. Work will carry-over into the beginning of 2004.
- A new heated asphalt patching unit was purchased that will allow for more permanent pot hole patching during the winter, when asphalt plants are typically closed.



STREET MAINTENANCE STATISTICS	2002	2003
Paving projects		
Number of projects	13	16
Tons of asphalt placed	1,986	3,649
Lineal feet of pavement replaced	7,950	14,608
Labor hours used	1,170	2,884
Patching pot holes / pavement		
Number of calls to Pot Hole Hot Line	5,301	n/a
Tons of patch material placed	3,657	1,623
Labor hours used (temporary patches)	1,351	981
Labor hours used (regular patches)	5,167	4,860
Curb replacement		
Lineal feet of curb replaced	1,735	3,855
Labor hours used	633	1,407
Valley gutter replacement		
Number of projects completed	22	29
Cubic yards of material placed	568	467
Labor hours used	2,191	2,656
Street Sweeping		
Lane miles completed	8,003	5,380
Labor hours used	5,280	4,706
Crack sealing		
Pounds of material used	26,990	17,040
Lineal feet of cracks sealed	94,465	59,640
Labor hours used	1,985	1,630
Guardrail replacment		
Feet of guardrail replaced	1,125	113
Labor hours	730	112
Mowing activities		
Right of way and drainage area acres	4,070	4,906
Labor hours used (ROW and drainage)	370	446
Levee acres mowed	19,140	10,252
Labor hours used (levee)	1,740	932
Aiport acres mowed	9,713	8,932
Labor hours used (airport)	883	812
Snow removal		
Number of storms requiring 24-hour operations	6	7
Number of storms requiring plow operations	2	2
Snow hauled from central business district	1	0
Labor hours used	3,845	6,686
Tons of material spread	4,036	7,158

2003 Lawrence Public Works Improvements

