



**END OF YEAR
REPORT
2006**

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 and SERVICES

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 were 182 authorized positions in the Public Works Department. In 2006, the department recruited for 39 vacant positions. In 2005 and 2005, we filled 29 positions and 15 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.

Annual report summary information

EXPENDITURES					
Fund	Division	Description	2004	2005	2006
214	3800-578	Gas Tax Fund	\$ 2,471,851	\$ 2,418,491	\$ 2,594,695
001	2500-565	Health Department	\$ 843,737	\$ 841,083	\$ 932,709
001	3000-570	Street Maintenance	\$ 1,569,361	\$ 1,969,706	\$ 3,121,727
001	3100-571	Engineering	\$ 643,547	\$ 704,880	\$ 728,431
001	3200-572	Traffic Engineering	\$ 560,813	\$ 550,848	\$ 576,593
001	3300-573	Airport	\$ 79,962	\$ 70,574	\$ 85,144
001	3400-574	Building Maintenance	\$ 595,179	\$ 649,832	\$ 840,994
001	3600-576	Street Lights	\$ 492,262	\$ 491,010	\$ 551,240
001	3700-577	Levee	\$ 99,342	\$ 116,903	\$ 111,891
502	3510-571	Residential Solid Waste	\$ 3,853,726	\$ 4,396,825	\$ 4,637,488
502	3520-572	Commercial Solid Waste	\$ 3,430,455	\$ 3,550,822	\$ 4,189,292
502	3530-573	Waste Reduction / Recycling	\$ 780,898	\$ 870,337	\$ 889,148
504	3200-579	Central Maintenance Garage	\$ 2,138,213	\$ 2,546,417	\$ 2,794,310
505	3900-579	Stormwater	\$ 1,394,007	\$ 10,327,694	\$ 3,308,498
Total Public Works			\$ 18,953,352	\$ 29,505,421	\$ 25,362,159
REVENUES					
214		Gas Tax Fund	\$ 2,470,658	\$ 2,561,489	\$ 2,549,909
502		Solid Waste Division	\$ 8,322,878	\$ 8,624,282	\$ 9,137,590
504		Central Maintenance Garage	\$ 2,229,274	\$ 2,512,128	\$ 2,954,417
505		Stormwater Utility	\$ 2,766,221	\$ 8,082,082	\$ 3,136,622
			\$ 15,789,031	\$ 21,779,981	\$ 17,778,539

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.

	2004	2005	2006	2004	2005	2006	2004	2005	2006
	Workers' Comp requiring medical attention			Vehicle accident claims			General liability claims		
Building Maintenance	0	0	1	0	0	0	0	1	0
Central Maintenance Garage	2	4	3	1	0	0	0	0	0
Engineering Division	2	4	3	0	3	0	5	2	1
Solid Waste Division	32	21	31	3	4	1	8	6	7
Street Division	6	7	8	2	2	3	27	24	12
Total Public Works	42	36	46	6	9	4	40	33	20

Emergency management function:

- Emergency preparedness exercise: March 2, the Public Works Department hosted a tabletop exercise for city and county Public Works personnel for training purposes.



Teri Smith, Assistant Director of Emergency Preparedness, facilitates work of cross-function team including solid waste, streets, buildings, and GIS supervisors.

- March 12, 2006 Microburst: Douglas County received a federal disaster declaration (FEMA 1638-DR-KS) for the microburst on March 12. The Assistant Public Works Director served as the City representative for state and FEMA recovery. The City had \$ 293,623 of eligible expenses, outlined below. Pictures of some of the debris removal and recovery operations can be seen under the Street Division section of this report.

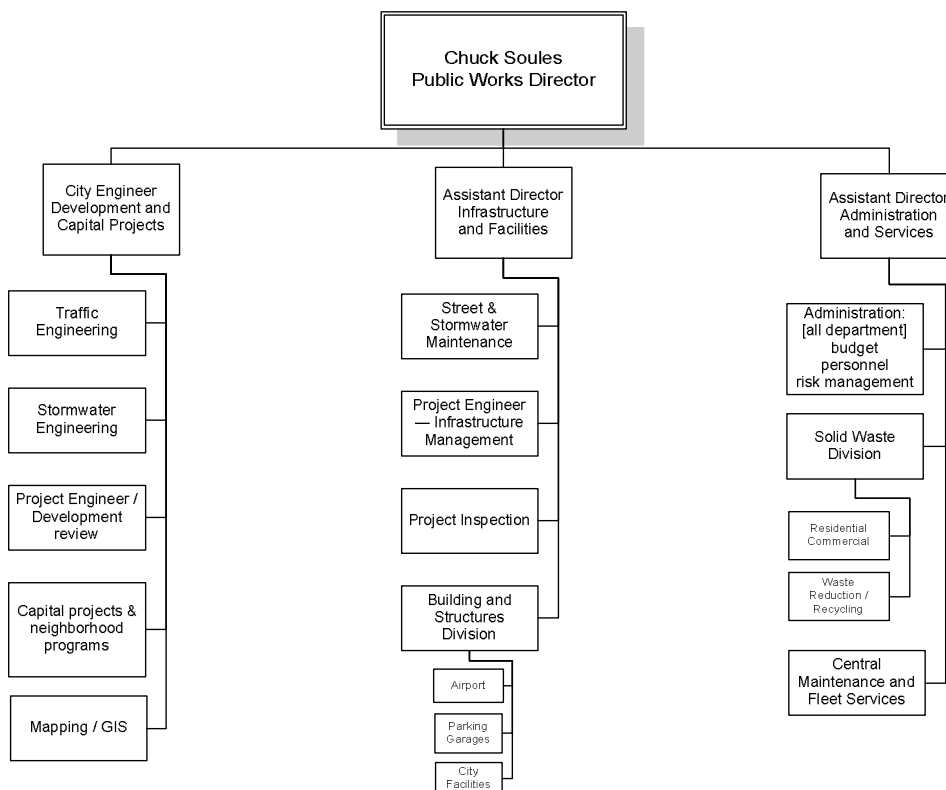
MICROBURST MARCH 12, 2006	
Eligible costs for federally declared disaster	
Debris removal	
Parks and Recreation	\$ 90,482
Public Works: Street Maintenance	\$ 126,256
Public Works: Solid Waste	\$ 15,557
Utilities	\$ 6,623
Damage to structures	
Traffic signs and signals	\$ 19,585
Building insurance deductible	\$ 25,000
Emergency services response	
Fire Medical Department	\$ 6,179
Police Department	\$ 3,942
	\$ 293,623

- NIMS compliant training: National Incident Management System (NIMS) and Incident Command System (ICS) training was required in 2006 for first responders, including Public Works and Utilities personnel. The training was required to maintain eligibility for future Homeland Security grant funding and FEMA disaster reimbursement. Over three days in October, over 90 personnel from both City and County Public Works Departments and the City Utilities Department successfully completed the NIMS and ICS classes. Training was provided by Paula Phillips, Director of Emergency Preparedness and Shaun Coffey, Division Chief for the Fire-Medical Department.



Paula Phillips, Emergency Preparedness Director, and Division Chief Shaun Coffey provide NIMS 700 and ICS 100 training for 90 city and county Public Works and Utilities personnel.

Organizational issues: In the spring 2006, the department reorganized functions to better align resources with community priorities.



ADA Coordinator: The ADA Coordinator for the City of Lawrence works to insure accessibility of City facilities, services, and programs. The ADA Coordinator meets with the Access Task Force at least annually, and maintains open communication to problem solve any issues that arise during the course of the year. One of the special projects in 2006 included completing a sidewalk segment to allow a continuous accessible path from one of the transit system shelters to an adjacent retail area along 31st Street.

Public Works website management: The Public Works website incorporates general information of interest to the public for the various divisions – engineering, traffic, stormwater, streets, solid waste, building maintenance, and fleet services. The web site received numerous enhancements in 2006. Construction information is updated weekly. Web pages were initiated for special projects to provide timely information to the neighborhoods and other interested parties, such as a web page for the Kasold reconstruction.

Other highlights and accomplishments:

- A goal setting session was held in February with all division managers, facilitated by Carol Nalbandian. The goal setting process was followed with a valuable team-building exercise for division managers.
- Exchange day activities: Public Works hosted members of the management team in solid waste collection and fleet services. Two Public Works managers participated with functions in other departments – fire-medical training and transit operations.
- The annual Public Works BBQ was held in May to honor Public Works Week. Employees who attended were eligible for raffle prizes.
- Public Works employees served on a variety of City-wide committees, including the following: the employee relations council (ERC), position evaluation committee, health care committee, web developers committee, marketing communications team, employee and management team communications, grants review team, energy management committee, and the benefits 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.
- American Public Works Association International Congress and Exposition was held in Kansas City, Missouri in September. On behalf of the Kansas Chapter, Tammy Bennett and Terese Gorman served on the congress steering committee. In addition, they served as co-chairs with the Missouri chapter for an operational subcommittee to provide session moderators during education sessions, requiring the coordination of 150 volunteers.
- Tammy Bennett continued her term as Treasurer of the Kansas Chapter of APWA.

BUILDING and STRUCTURES

The Buildings and Structures Division is responsible for maintenance for municipal buildings except where such services are provided contractually. This division takes responsibility for the two multi-level parking structures and a variety of project and facility responsibilities at the airport. 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 40 facilities.



In 2006, the division added a Senior Maintenance Worker with certifications in Heating, Ventilation, and Air Conditioning (HVAC). The addition of the specialist to the staff greatly enhances the ability to manage these systems internally, improving both cost effectiveness and responsiveness to customer requests.

Buildings and facilities		
City Hall	Community Health Facility	Carnegie Building
Lawrence Arts Center	Riverfront Mall office annex	Computer Training Room annex
Airport Terminal	Airport Hangar A	Airport Hangar B
Airport Hangar C	Community Hanger	Maintenance Hangar
Airport (G.U.T.S)	Runway 1-19	Runway 15-33
Airport Taxiways	Solid Waste facility	Solid Waste Annex, North
Fire / Med Station 1	Douglas County Senior Center	Fire / Med Station 2
Fire / Med Station 3	Fire / Med Station 4	Fire / Med Station 5
Fire / Med Station 6	Fire and Rescue Training	Street Maintenance facility
Central Maintenance Garage	ITC building	Traffic Engineering
New Hampshire Parking Structure	Downtown electrical (primary)	Building demolition
Riverfront Parking Structure	Transit offices	HHW buildings
Court services annex	Health Care Access	Lawrence Public Library

Lawrence Municipal Airport: The Lawrence Municipal Airport is operated by a Fixed Base Operator. The official Airport Manager is the Assistant City Manager. Mowing adjacent to runways is completed by the Street Maintenance Division. All other facility management is the responsibility of the Buildings and Structures Division.

The 2006 Airport project consisted of constructing a new Taxiway D and eradication of the existing taxiway. The project consisted of 2750 L.F of Grading, 9 " fly ash treated sub grade, 10 inch rock base, and 5 inches of asphalt with pavement markings. Hamms was the general contractor for this project which started on August 21st and was

completed on November 10th. Project cost was \$1,214,232.31 and was accepted by the FAA on November 28 2006.

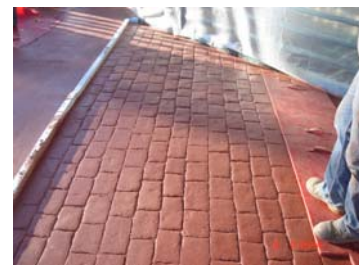


Parking structures: The City owns two multi-level parking structures. The Riverfront Parking garage has a total of 510 parking spaces on two levels. Springhill Suites by Marriott leases 110 parking spaces on the upper deck for sole use by the hotel. Over 25 spaces were reconfigured into the portico drop off area at the hotel entrance. The remainder of the upper level parking is free two-hour parking. The lower level parking is paid per day using two walk-up self-pay stations. The New Hampshire Parking garage has a total of 493 parking spaces on four levels and is served by two elevators and five stairwells. The New Hampshire structure has fire sprinkler protection on ground level. This structure also offers free two-hour parking areas and pay per day spaces using a self-pay system. Professional engineering services are used to evaluate the parking structures and recommend repairs as needed.

In 2006, a large scale parking garage maintenance project was undertaken on both downtown parking structures. The project included structural repairs, deck repairs, support beam repair, expansion joint replacement and sealing of top decks on both parking garages.



Expansion joint and beam repairs



new concrete walkway

Downtown projects: This division supervises one staff person responsible for maintaining the appearance of the two parking structures and other downtown areas, as well as assisting with snow removal and building maintenance projects. Other building maintenance staff assist on special projects, as needed. In 2006, special projects downtown focused on recovery from damage from a microburst, overhead lighting repair, and some electrical work. Street lighting will become the responsibility of Traffic

Engineering and electrical services for planters and downtown trees will be Parks and Recreation. Downtown lots were re-stripped, as time and weather allowed.

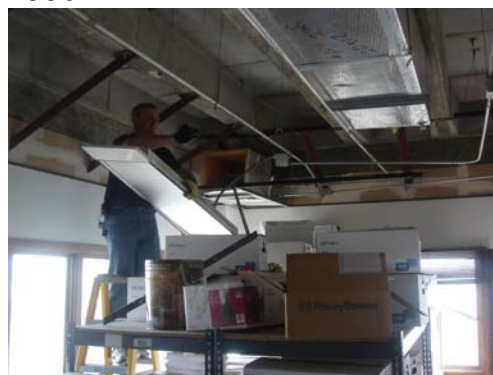
Building maintenance: Much of the work completed by the Building Maintenance Division staff is emergency repair and response to nuisance situations. Many services provided by this division are provided by contractors. The Building Maintenance Manager is responsible for allocating staff between competing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

Sampling of projects, 2006
<ul style="list-style-type: none"> Office renovations for Legal Services Office renovations for City Manager's office Construction of office space for Infrastructure and Development Coordinator HVAC renovation, final phase for City Hall Risk Management office construction at old fire administration offices Opening of Fire Station 5 Security camera project for Municipal Court Father's Day Fly-in at Lawrence Municipal Airport Demolition of 524 N. 7th Street Inspection of downtown electrical in conjunction with waterline project Installation of new electrical services for tree grate pilot project Air quality issue and remediation with building owner for Court Services facilities Developed RFP for generators for multiple facilities Downtown trash enclosure reconstruction Evaluation and selection of work order software Nuisance abatement in parking garages

Building and Structures Division pictures in 2006:



Pole for replacement downtown



2nd floor HVAC demolition prior to renovation



Downtown electrical



Deck at ITC facility

ENGINEERING DIVISION

The Engineering Division is responsible for the review and approval of all plans for streets, 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 Management

Coordinated infrastructure management is an on-going priority. Pavement restoration and maintenance is coordinated with pavement management, as detailed below. Contracted repair and maintenance for 2006:

ITEM	2004	2005	2006
Street overlay (in miles)	10.40	9.80	12.80
Curb and gutter replacement (in miles)	10.6	8.1	10.2

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	2004	2005	2006
Linear Feet of Pavement	26,571	38,504	42,686
Linear Feet of Curb & Gutter*	104,689	124,873	139,267
Linear Feet of Storm Sewer	6,481	21,330	16,242
Linear Feet of Sanitary Sewer	46,117	53,537	Utility dept
Linear Feet of 4" x 5' Sidewalk*	34,383	41,352	22,221
Linear Feet of 4" x 6' Sidewalk*	5,550	0	5,387
Linear Feet of 10' x 6" Rein. Rec. Path	0	803	4,039
Linear Feet of Milling	54,945	51,766	66,997
Linear Feet of Asphalt Overlay	54,945	51,766	67,586
Linear Feet of Retaining Wall	1374	570	0
Square Yards of 3.5" White Topping	0	0	0
Traffic Signal	4	1	1
Accessible curb ramps*	184	245	154
Structures	0	0	3
TOTAL COST OF PROJECTS	\$8,260,330	\$15,060,514	\$9,299,267

*new construction and removal / replacement

Several major projects were undertaken in 2006 – two of which are highlighted below.

Kasold Reconstruction: The project involves a total reconstruction of the roadway from 15th Street to 22nd. The previous roadway consisted of 4 lanes with a center

median. The new roadway will have a typical section including four 11 ft. lanes, turning lanes at appropriate intersections, an 8 ft. wide sidewalk on the west side of the street, landscaped median, new water main and storm sewer. The street cross section includes a treated base and 10 in. concrete pavement. The project has maintained at least one lane of traffic in each direction during construction. Completion of the project is expected in October 2007.



Kasold Drive, prior to reconstruction



Preparation



Excavation area



Paver



New concrete



Wall work

North Kasold: The Kasold North project is the reconstruction of Kasold Drive from Peterson Road to the KTA Bridge. The project will reconstruct the existing chip and seal road to a major arterial, including turn lanes at appropriate intersections, two roundabouts, curb and gutter, sidewalks on both sides, and underground storm sewers. The Kansas Department of Transportation is funding 80% of the project. Initial construction began in 2006 and will be completed in 2007.



Selected alternative



Beginning construction



preparation

Pavement Management Program

The Project Engineer for Pavement Management completed the pavement inventory in late 2005. Summary data were reported to the City Commission in February regarding street conditions. Approximately 299 miles (1922 segments) of road were inventoried for the cycle. The overall average PCI for Lawrence streets was 69.0. The average PCI for brick, composite, flexible, and rigid pavements are shown below in Figure 1. The average PCI for arterial, collector, and residential streets are shown in Figure 2. Please note that curb and gutter conditions on the pavement segments surveyed does not impact the PCI for the street.

Figure 1

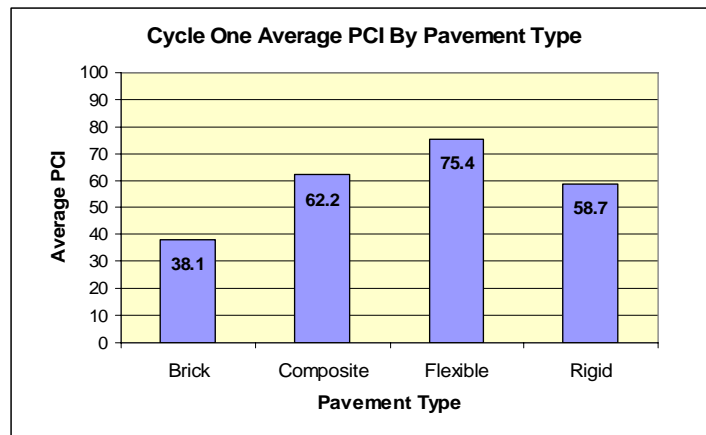
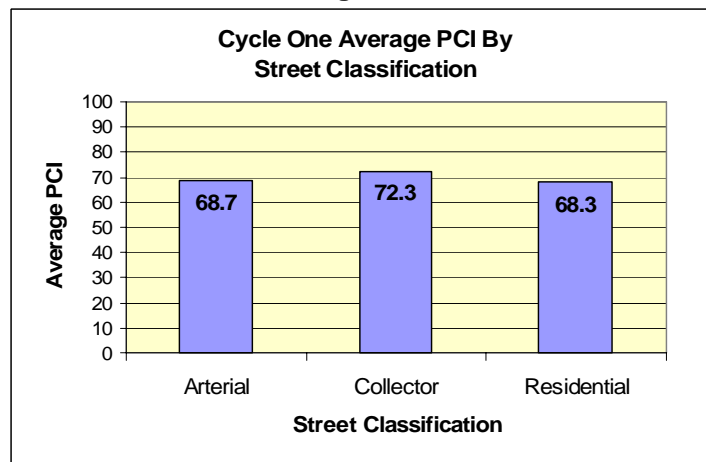


Figure 2



Typically, a street segment is considered to be in “unacceptable” condition when the PCI drops below 65 for arterials, 60 for collectors, and 55 for residential streets. (Unacceptable streets generally are not good candidates for preventive maintenance work. They are more likely to require complete reconstruction.) During the first rating cycle, it was determined that 31.5% of street segments were rated as unacceptable. The 2006 pavement programs included mill and overlay, curb and gutter replacement, and an aggressive crack-sealing program.

Stormwater maintenance and administration

The stormwater maintenance crew continued to focus on curb inlet replacement, debris removal, channel reconstruction projects, and enforcement, along with education and outreach.

Outreach, education, and enforcement: The water festival in 2006 was named April Showers to Water Towers, held in conjunction with Earth Day. The division is also working to promote Rain Gardens in the community. The City received a \$5000 grant in conjunction with the Douglas County Master Gardeners to fund two demonstration rain gardens, seen below. Presentations are also given regularly to community groups regarding this method of stormwater management.



In addition to outreach and education, the Stormwater Quality Technician is responsible for enforcing and implementing the Stormwater Pollution Prevention ordinance.

Stormwater review and management: Administrative support reviews and corrects stormwater fees charged to landowners. GIS aerials and an account database are used to find changed accounts, new accounts or incorrect information.

The Stormwater Engineer reviews drainage studies, plats, site plans, development plans and construction drawings related to development projects. All records are being converted to scanned, digital storage that is referenced within the GIS system. The major challenge for the stormwater engineer in 2006 was to mesh the priorities of the Stormwater Management Master Plan with the recently completed North Lawrence Drainage Study.

Maintenance operations: Stormwater maintenance operations are coordinated through the Stormwater Engineer but overseen by the Street and Stormwater Division. In addition to catch basin reconstruction and general maintenance, the crews complete some planned improvements. In 2006, their major project was Meadows Place stormwater improvements. To alleviate flooding in an adjacent neighborhood, stormwater maintenance crews constructed a relief channel connecting to an existing drainage channel and completed maintenance on the drainage structures under Kasold Drive.

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	2004	2005	2006
Traffic Signals Maintained	81	83	85
School Beacons Maintained	27	27	31
Traffic Signal Work Orders Completed	645	464	406
Traffic Sign/Pavement Marking Work Orders Completed	1362	1616	1960
Electronic Traffic Counts Conducted	394	278	141
Manual Traffic Counts Conducted	60	59	8

Some of the highlights and accomplishments of Traffic Engineering for 2006 include:

- Worked with a variety of neighborhoods and localized areas on traffic calming planning, such as East 13th Street, West 8th Street/9th Street and the Indian Hills Neighborhood Association.
- Traffic signal upgrades completed at 6th Street & Kentucky Street and at Clinton Parkway & Kasold Drive.
- Worked with the East Lawrence Neighborhood Association to develop a plan to provide a safe pedestrian crossing on 11th Street.
- Reevaluated and optimized traffic signal coordination plans throughout the city.
- Began a program of adding battery back-up systems to major signalized intersections.
- Continued a program of providing countdown timers at signalized pedestrian crossings.
- David Woosley continued serving on the Institute of Transportation Engineers' Traffic Engineering Council Executive Board, and on the International Municipal Signal Association (IMSA) Central Section Executive Board. Woosley was also appointed as a representative from the IMSA to the National Committee on Uniform Traffic Control Devices and serves on the Regulatory & Warning Signs sub-committee.
- Debbie Rollins served as past-President of the International Municipal Signal Association (IMSA) Central Section.



Stop sign post-accident. Traffic employee begins repair.



6th and Kentucky project, northbound view

FLEET SERVICES / 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 Wakarusa Service Center location. In 2006, the garage took over management responsibilities for the fire-medical fleet, adding some service facilities at 19th and Haskell. The fleet included 714 units at the end of 2006.

Repairs and Maintenance

Productivity: One goal for fleet services is to focus an increasing level of energy on preventive maintenance versus repairs. The intent is to identify and repair more problems while the unit is in for routine maintenance, thus reducing downtime and unscheduled repairs. The garage continues 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	2004	2005	2006
Repairs	50.3%	51.6%	53.0%
Preventive maintenance	49.7%	48.4%	47.1%

Service calls: Another key 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 2006, there was an increase in the total number of both tire calls and service calls. The increase in service calls is a combination of increasing the fleet by 20 units and deferring replacement of equipment due to budgetary constraints.

Service calls	2004	2005	2006
Tire repairs	51	66	78
Break-downs	214	182	196
Total	265	248	274

Highlights and accomplishments:

- Fire-Medical Fleet Integration: The major project for the division in 2006 was to integrate Fire-Medical fleet management services into normal operations. The addition of these fleet responsibilities included additional staff previously reporting to the Fire-Medical Department and service bays at 1941 Haskell. That facility handles all the preventive maintenance on the ambulances and takes care of small repairs on the fire apparatus. In addition, Fire-Medical light and radio installations are completed at the facility. Mechanics are



rotated to the new facility to ensure safe staffing levels in all locations. The division continues working closely with the Fire-Medical Department to manage all transition issues.

- Exterior storage: Space is a critical issue for the Central Maintenance Garage at 11th and Haskell. Some relief may be achieved when the Wakarusa Service Center is constructed. As a temporary measure, a weather tight storage unit was added to the site in 2006.



- Heavy duty tire repair: Equipment was added to the tire shop to provide staff the ability to work on larger tires more safely. The outcome will be to provide more services for the fleet in a cost effective and safe manner.



- Recycling: The Central Maintenance Garage is actively engaged in recycling and the handling of materials in the most environmentally friendly ways feasible for the operations.
 - Used oil products: 1,904 gallons burned in waste oil heater and 2,870 gallons recycling through Midland Clearwater Refinery.
 - Antifreeze: 500 gallons recycled from fleet vehicles. Recycling coolant is environmentally friendly and saves money. The average cost of virgin coolant in 2006 was \$0.83 per quart. Recycling our anti-freeze cost only \$.55 per quart.
 - Batteries: All automotive batteries are recycled by Interstate Battery. Flashlight type batteries are recycled through the HHW program.
 - In-sourcing: The first year of selling fuel to the Lawrence-Douglas County Housing Authority was completed successfully in 2006.
- Motor pool operations: Central Maintenance reduced the motor pool to five vehicles and one tow behind air compressor in stock and available for rental to departments. These vehicles are older units and include a seven-passenger van, Crown Victoria, 1 ton, and two pickups. The motor pool rentals totaled 275 days this year at an income of \$5500.
- Joint purchasing: The central maintenance garage continues to work closely with finance by participating in the MACPP cooperative vehicle bid process. All standard vehicles are now purchased under this program. All surplus vehicles are now sold on E-bay. Alan Landis handles the sale. Inquiries are directed to the garage and assistance is rendered as needed.

FLEET STATISTICS	2004	2005	2006
Miles driven			
Police Department	1,145,061	1,119,047	973,951
Public Works	994,534	994,520	977,822
Fire Medical	267,089	284,241	336,997
Utilities Department	382,537	365,937	416,375
Parks and Recreation	271,632	278,334	286,347
Miscellaneous (admin., BI, plan., etc)	113,828	110,246	97,262
Total miles	3,174,681	3,152,325	3,088,754
Off road equipment usage (hours)	22,656	26,699	21,256
Operations			
Repair orders completed	2,332	2,582	2,642
Preventive maintenance orders completed	1,036	1,100	1,111
Billing			
Total number of hours billed	13,575	13,376	14,926
Total labor (in \$\$)	612,085	602,351	746,300
Total parts (in \$\$)	678,414	739,621	837,123
Commercial (sublet) (in \$\$)	112,733	144,034	171,003
Miscellaneous	23,688	25,768	25,440
Total dollars billed for repairs	1,440,140	1,512,074	1,779,866
Fuel system			
Total fuel sold for year (gallons)	455,653	460,868	447,728
Total diesel fuel sold (in dollars)	400,517	531,821	613,219
Total unleaded gasoline sold (in dollars)	396,082	484,983	525,294
Total fuel sales (in dollars)	796,600	1,016,804	1,138,512
Total Operational Billing	2,225,058	2,530,021	2,920,172

Central Maintenance Garage photos:

The Fire Chef's care being wired and prepped for radios



Reese Nordhus wins first place in APWA Metro Snow Expo.



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	2004	2005	2006
Tons collected for disposal	71,589	71,221	75,361
Tons (est.) collected for recycling / composting	12,808	14,832	15,174

In 2005, Lawrence achieved a 34% 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 similar in 2006. (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 2005 and 2006, which has a significant impact on our residential services. Seventeen 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.

	2004	2005	2006
Roll-out carts	5,607	6,211	6,948
Bulk items collected	4,588	3,890	3,830
Freon containing items	595	455	476
Tires collected	1,991	2,469	2,642

Notes on the services mentioned above: Roll-out trash 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%).

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 included the Pinckney 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



Presentation at Langston Hughes



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 in 2006 (with total inventory in parentheses) include:

Rear-loader containers – 105 (2,089)

Front-loader containers – 0 (568)

Roll-off containers – 22 (337)

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 is has been followed.

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

	2004	2005	2006
Roll-off service calls	6,884	7,004	7,654
Permanent accounts	69%	68%	62%
Revenue from roll-off service	1,379,034	1,446,771	1,657,950

The Division continued promoting the expansion of its compactor leasing program in 2006. The total number of customers leasing containers from the Solid Waste Division at the end of 2006 was eighteen, up from fifteen in 2005.

The Division continued the rate audit of downtown businesses. 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.



Waste Reduction and Recycling

Waste Reduction and Recycling (WRR) expanded on existing collection programs, made program improvements, and added new programs in 2006.

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.

	2004	2005	2006
Grass, leaves, and brush collected	9,670	10,929	11,416
Avoided disposal (est) costs in \$\$	185,181	209,290	218,616
Christmas trees collected (tons)	23	26	33
HHW/SQG program collections (lbs.)	130,000	167,715	168,742
HHW participants served	2,566	2,751	2,802
SQG participants served	83	68	88
Old Corrugated Cardboard OCC (tons)	750	920	760
Old Newspapers ONP (tons)	822	1,038	866
Sorted Office Paper SOP (tons)	31	29	29

Yard trimmings collection program: After a successful five-year pilot program encouraging the use of cans, carts, and compostable bags for yard trimmings, the City implemented a preferred container ordinance in 2005. The ordinance prohibited the use of plastic bags for packaging yard waste. Acceptable containers for yard trimming collection are cans, carts, and compostable bags. Compliance with the preferred containers has occurred quickly, as a result of the extended pilot program and comprehensive outreach and education. Preferred container set-outs averaged 97.8% in 2005 and 98.5% in 2006. In addition, 53 compost bins were sold to residential customers to assist with the management of yard trimmings at home.

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 has matured nicely from a weekend collection event to a standardized service by appointment. In 2005, a new HHW storage building was completed. Participation by households in HHW and businesses and institutions in the Small Quantity Generator (SQG) collection program increased from 2,819 in 2005 to 2,890 participants in 2006.

Compost program and facility: WRR staff continued to monitor the quality of compost at the Wood Recovery and Composting Facility. Compost is tested regularly for the herbicide Cloyralid and the material is screened to remove debris.

	2004	2005	2006
# of give-away event days	3	6	6
Vehicle visits		1,100	1,074
Tons of material distributed		769	

Fibers recycling program: Fibers collection programs continues to be a well-run service for commercial areas and residential drop-off. Data is reported in the chart for WRR. Current recycling drop off locations are listed below.

CITY OPERATED RECYCLING DROP OFF SITES			newspaper	cardboard
Checkers Food Store	2300 Louisiana	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Dillon's Food Store	6th & Wakarusa	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Douglas County Bank	9th and Kentucky	<input checked="" type="checkbox"/>		
Hillcrest Shopping Center	9th and Centennial	<input checked="" type="checkbox"/>		
Hobby Lobby	1801 W. 23rd	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Hy-Vee Food Store	3504 Clinton Parkway	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Hy-Vee Food Store	6th and Monterey Way	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
North Lawrence	740 N. 2nd	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Prairie Park Elementary Schoc	2711 Kensington	<input checked="" type="checkbox"/>		
Westlake's Ace Hardware	6th and Kasold	<input checked="" type="checkbox"/>		

Public education and outreach remained a strong component of WRR activities. Events in 2006 included the Earth Day Parade, Home Energy Conservation Fair, the Lawrence Sesquicentennial celebration, as well as speaking at more than 30 different venues and giving tours of the recycling facility to interested groups.

Highlights and accomplishments:

- The Solid Waste Division continues to focus 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. In-house training programs are offered for continuing to build skill levels for existing jobs and prepare employees for advancement, if interested.
- 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.
- Michelle Crank, WRR Specialist, had an article featured in **MSW Solutions** (2-6-2006), the newsletter of the Solid Waste Association of North America. The article,

titled “Business Recycling Program: Commercial Recycling Services Aid in Increasing Community Recycling Rate,; can be viewed at:

<http://newsmanager.commpartners.com/swanamsw/issues/2006-02-02/5.html>

- The sixth annual Home Energy Fair and Sustainable Homes Tour was hosted by WRR – another tremendously successful event. The primary focus is to provide information about the costs, benefits, and strategies to reduce energy bills in the home.
- The composting facility and yard trimming collection program was covered by the Kansas Department of Health and Environment’s **Solid Waste Update** publication, March 2006. Ken Powell, Bureau of Waste Management, authored the article covering the program’s history, growth, and success.
- WRR staff conducted several rain barrel workshops to assist Lawrence residents in managing rainwater for maximum benefit on their properties.
- The WRR Division launched a recycling campaign targeting university students – take a study break – go recycle.

HOM ENERGY CONSERVATION FAIR 2006



Russ Rudy, KS Energy Office was a popular speaker with his presentation, “Case study: Energy Performance Retrofit for Olathe household”.



This year evidenced the largest Energy Fair to date with participation over 500; two sold out Sustainable Homes Tour (100 seats sold); and 45 Vendors.



Whether it be solar-powered, self-powered or soy-bean powered—there was a mode of transportation to suit most anyone’s interest!

Recycling Tip #398

You know it as just another’s cell, lobby, ball court, we use soiled office paper, a highly recyclable item. Making paper from recycled materials results in 74% less air pollution and 35% less water pollution than virgin paper.

Take a study break, go recycle.
Visit www.lawrencecycles.org

LAWRENCE WASTE REDUCTION & RECYCLING 832-3030

Recycling Tip #304

You know it as trash from Friday night’s party. We use it as one of the most valuable recyclables. Each minute 113,204 cans are recycled. You can make it 113,205.

Take a study break, go recycle.
Visit www.lawrencecycles.org

LAWRENCE WASTE REDUCTION & RECYCLING 832-3030

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 a variety of equipment and vehicles. The cost of equipment maintenance and fuel is 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 later in this section. Other notable projects included:

STREET MAINTENANCE PROJECTS 2006	
<i>represents a <u>sample</u> of projects completed by maintenance crews</i>	
Resurfacing N. 2nd and Locust Base failure repairs Rivera Drive Turnberry and Inverness 19th and Alabama Nathan Drive 1300 block, Tennessee alley 2100 block Ohio 23rd and Vermont 22nd Street 1100 block of Indiana 2300 block of Barker Approaches, valley gutters, intersections Morningside Dr at Brush Creek Morningside Dr at Morningside Court W. 2nd St. at Michigan Special projects Wall removal 900 block alley, Kentucky and Vermont Sinkhole: Tennessee and Gower Place Sinkhole: 600 block alley, Louisiana and Ohio	Curb repair and replacement Clinton Parkway frontage W 2nd Street Inverness (various locations) Wagon Wheel Maple Street Atchison Frontier Street 6th Street (various locations) Pedestrian and sidewalk issues 31st Street at Iowa (missing link) Mid-block crossings on New Hampshire Harvard Road at Columbine W 7th at Alabama (brick) Accessible pad for bus at 6th and Kasold Crosswalk and ramp at Outdoor Aquatic Center Fire Station #4 and Fire Station #1

- Street and stormwater maintenance crews were absolutely critical in the rapid recovery from the March microburst. Response and recovery operations disrupted normal work plans for four to six weeks of the construction season.
- Repairs to the intersection of 2nd and Locust as a temporary measure to enhance usability of the arterial route until the intersection is reconstructed in 2007 through KDOT grants.
- Crack-sealing along main thoroughfares. In 2006, the primary project was 6th Street.

- Advance patching and preparation for 2006 mill and overlay contracts to provide coordinated pavement management program in the most cost effective manner.
- Levee management, which includes gate repairs, slope management, weed control to ensure levee integrity, mowing, access control and some walking surface repairs.

Microburst response, Street Division Crews



Curb repair, Nathan Drive



Natalie Drive repairs



Crack sealing, 6th Street

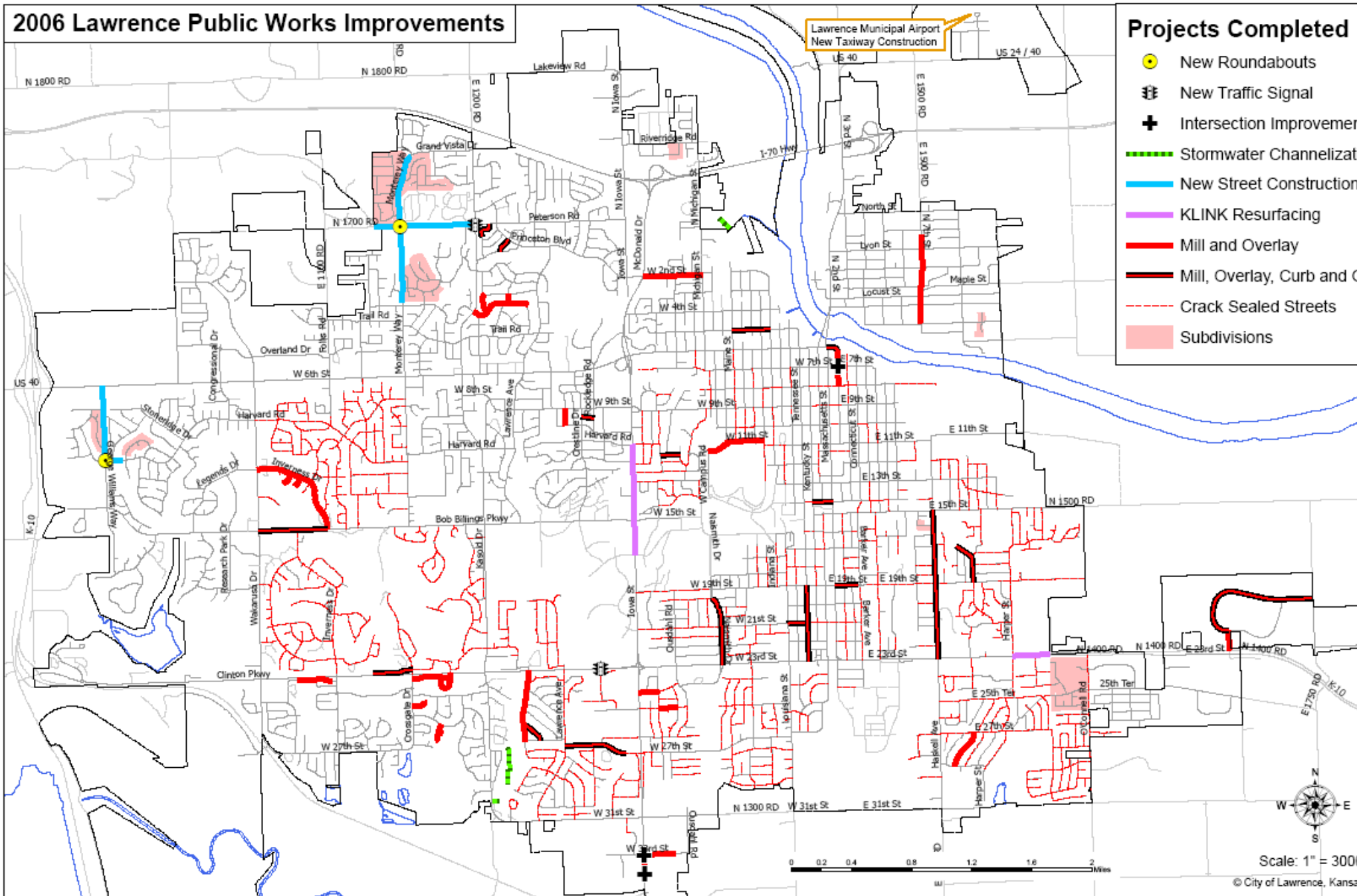


Crack sealing, 6th Street



STREET MAINTENANCE STATISTICS	2004	2005	2006
Paving projects			
Number of projects	23	62	49
Tons of asphalt placed	2,687	5,380	1,219
Cubic yards of concrete placed		368	238
Lineal feet of pavement replaced	10,748	21,560	4,888
Labor hours used	2,034	6,059	5,195
Patching pot holes / pavement			
Number of calls to Pot Hole Hot Line	814	716	392
Tons of patch material placed	7,574	1,013	542
Labor hours used (temporary patches)	2,737	2,522	683
Labor hours used (regular patches)	1,476	4,350	1,821
		7,901	5,716
Curb replacement			
Lineal feet of curb replaced	4,253	884	2,049
Labor hours used	1,552	300	1,601
Valley gutter replacement			
Number of projects completed	19	11	6
Cubic yards of material placed	535	243	189
Labor hours used	2,623	11,667	1,061
Street Sweeping			
Lane miles completed	4,350	6,884	8,752
Labor hours used	4,442	4,957	5,051
Cubic yards collected			10,774
Crack sealing			
Pounds of material used (by street division)	15,480	7,020	31,050
Lineal feet of cracks sealed (by street division)	54,180	24,570	93,150
Labor hours used	1,230	566	2,164
Pounds of material used (by contractor)		75,000	386,580
Lineal feet of cracks sealed (by contractor)		262,500	
Lane miles crack sealed (contract)			158
Guardrail replacment			
Feet of guardrail replaced	100	75	100
Labor hours	108	88	76
Mowing activities			
Right of way and drainage area acres	1,200	2,530	2,189
Labor hours used (ROW and drainage)	284	598	417
Levee acres mowed	26,000	14,278	16,720
Labor hours used (levee)	2,363	1,298	1,520
Aiport acres mowed	4,500	7,712	5,789
Labor hours used (airport)	732	1,254	1,124
Snow removal			
Number of storms (winter season,e.g., 05-06)		8	9
Number of storms requiring 24-hour operations	5	2	4
Number of storms requiring plow operations	2	2	1
Snow hauled from central business district	1	1	0
Labor hours used	5,387	3,511	4,386
Tons of material spread	5,557	3,286	3,487

2006 Lawrence Public Works Improvements



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