



City of Lawrence
PUBLIC WORKS

END OF YEAR REPORT 2016

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Public Works Director



Contents

Administration	3
Buildings & Structures	5
Engineering	10
Fleet Services	17
Solid Waste	23
Streets/Storm/Traffic	29
What's Happening in 2017	34

Letter from the Director



The divisions of Public Works provide core services 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.

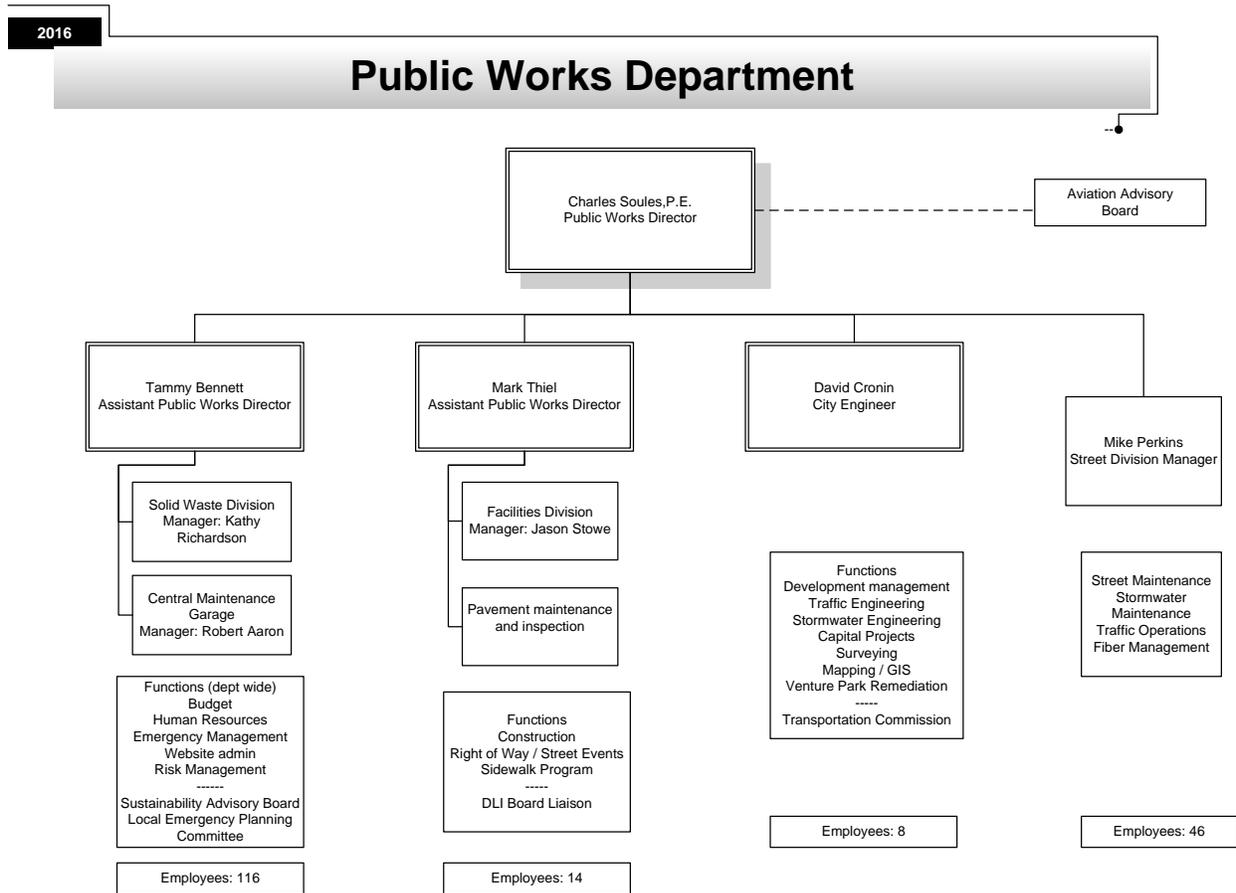
We want our citizens, clients, and customers to have high expectations of government service and we will do our best to meet and exceed those expectations.

As the City of Lawrence undergoes a new Strategic Planning Process in 2017, the Department looks forward to how we will continue to be able contribute to the quality of life in this community.

Thank you for investing some of your time to read about the work put forth by the men and women of Public Works. We look forward to continuing to provide exceptional services for the Lawrence community.

GENERAL ADMINISTRATION

The Public Works Department is organized by core services: administration and services, infrastructure and maintenance. A summary organizational chart is included below for quick reference.



Total Public Works FTEs: 189

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 website administration.

Personnel functions: There were 189 authorized positions in the Public Works Department. In 2016, the department recruited for 22 vacant positions, including promotional opportunities.

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	2014	2015	2016	
001	3000	Street Maintenance	\$ 3,265,498	\$ 2,994,167	\$ 2,993,428	
001	3010	Engineering	\$ 1,005,419	\$ 992,173	\$ 985,455	
001	3020	Traffic Engineering	\$ 723,893	\$ 775,781	\$ 757,704	
001	3030	Airport	\$ 193,686	\$ 135,100	\$ 147,404	
001	3040	Building Maintenance	\$ 870,355	\$ 868,679	\$ 789,454	
001	3060	Street Lights	\$ 870,073	\$ 777,732	\$ 771,795	
001	3070	Levee	\$ 193,987	\$ 183,524	\$ 185,233	
001	2500	Health Department	\$ 1,006,096	\$ 1,003,536	\$ 1,012,381	
214	3800	Gas Tax Fund	\$ 2,544,917	\$ 2,478,329	\$ 2,595,298	
502	3515	Solid Waste Division	\$ 10,705,910	\$ 11,289,819	\$ 11,628,535	
503	2330	Public Parking / Public Works	\$ 253,590	\$ 212,451	\$ 221,451	
504	3210	Central Maintenance Garage	\$ 3,997,492	\$ 3,377,181	\$ 3,261,282	
504	3899	Stormwater	\$ 2,864,871	\$ 2,703,759	\$ 2,723,663	
604	3400	Farmland Remediation	\$ 403,336	\$ 1,340,590	\$ 843,720	
		Total Public Works	\$ 28,899,123	\$ 29,132,821	\$ 28,916,802	
REVENUES						
214		Gas Tax Fund	\$ 2,575,911	\$ 2,668,468	\$ 2,707,127	
502		Solid Waste Division	\$ 11,681,969	\$ 12,988,497	\$ 12,989,561	
504		Central Maintenance Garage	\$ 3,756,894	\$ 3,442,991	\$ 3,178,230	
505		Stormwater Utility	\$ 3,025,147	\$ 3,055,493	\$ 3,079,185	
			\$ 21,039,921	\$ 22,155,449	\$ 21,954,103	

Risk management function: Statistics are collected by the Risk Management office, which tracks all 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.

	2014	2015	2016	2014	2015	2016	2014	2015	2016
	Workers' Comp			Vehicle accident			General liability		
Building Maintenance	0	2	1	0	0	3	1	0	1
Central Maintenance Garage	3	4	2	1	0	0	0	0	0
Engineering Division (& traffic)	1	1	1	1	0	1	0	1	0
Solid Waste Division	26	31	44	18	16	18	28	1	3
Street Division (& storm ops)	4	5	3	10	5	8	9	9	7
Total Public Works	34	43	51	30	21	30	38	11	11

BUILDING and STRUCTURES

The Buildings and Structures Division is responsible for maintenance for municipal buildings except where such services are provided contractually. This division provides maintenance, repair and some small to medium sized renovation projects and services for over 40 buildings and structures. The division is comprised of 8 full time employees. A Building and Structures Manager, Facility Supervisor, an electrician, HVAC technician, custodian and 3 other Senior Maintenance Level workers who assume responsibilities for the parking garages, Airport and Community Health facility.



Buildings and facilities		
City Hall	Community Health Facility	Court Services
Lawrence Arts Center	Riverfront Mall office annex	Computer Training Room annex
Airport Terminal	Airport Hangar A, B, and C	Maintenance Hangar
Airport (G.U.T.S)	Community Hanger	Runway 3-33
Aiport Taxiways	Douglas County Senior Center	Runway 1-19
Street Maintenance facility	Solid Waste facility	Solid Waste Annex, North
Fire / Med Station 1	Fire / Med Station 2	Fire / Med Station 3
Fire / Med Station 4	Fire / Med Station 5	Fire / Med Training
Fire / Med Investigations	Public Safety - Stonebarn Terr	Parking Control offices
Central Maintenance Garage	ITC building	Solid Waste, Kresge Road
New Hampshire Parking Structure	Downtown Lighting	Building demolition
Riverfront Parking Structure	Traffic Engineering	HHW buildings
Vermont Street Parking Garage	Transit office	1920 Moodie Road

Building maintenance: Much of the work completed by the Building Maintenance Division staff is through work order requests and response to nuisance situations. Many services provided by this division are provided by contractors. The Building and Structures Manager is responsible for allocating staff between competing demands, selecting contractors, administering contracts, and monitoring the work performed. Contracts for elevator maintenance, HVAC service and custodial are major contracts administered by this division. The Field Supervisor oversees the day to day operations of the staff and vendors utilized to conduct preventative and emergency maintenance needs. In addition to maintenance work, the division completes snow removal for three parking structures, around numerous buildings, and the runways / taxiways at the Lawrence Municipal Airport. They also respond to issues with the Pinckney and Broken Arrow pedestrian tunnels. Work order statistics are shown in the table below.

Highlights of the work effort for Buildings and Structures in 2016 include:

- Installed security cameras in the River Front Garage
- Replacement of roof top units at City Hall along with DDC control upgrades

- Re-roof of the salt dome at the West 40
- Elevator rehabilitation at City Hall
- Rehabilitation of the retaining wall at Fire Station 3
- Windows replaced at Solid Waste
- Installation of new mini splits HVAC at Solid Waste
- Remodel of Street Division manager and admin space
- Installed cameras at the Tire Shop
- Replaced portions of railing on the North Lawrence sidewalk near N. 2nd
- Foundation repairs at the Arts Center
- Access control completed at Community Health

Work order system: Repair and maintenance requests are submitted through a work order system accessed through the intranet. There are four types of work orders (scheduled, emergency, preventive, and demand) and six priority classifications.

Below is a summary of key statistics monitored through the year.

Facility management	2014	2015	2016
Work order system reporting			
Priority / Response Goal			
0: 2 hours	50%	75%	86%
1: 24 hours	83%	86%	81%
2: 2-3 days	84%	85%	85%
3: one week	78%	70%	77%
4: one month	91%	89%	90%
5: on list	67%	57%	63%
Total work Orders			
0: 2 hours	6	8	7
1: 24 hours	222	155	170
2: 2-3 days	1,181	1,377	1,194
3: one week	160	206	302
4: one month	339	373	279
5: on list	237	321	243
Total work Orders	2145	2,440	2,267

Includes functions with dedicated staff: Community Health, Airport, Parking Garages

Lawrence Municipal Airport: The Lawrence Municipal Airport is operated by a Fixed Base Operator, who takes care of the aviation related activities. The official Airport Manager is the Public Works Director. The department takes care of the day to day facility and airfield maintenance. Mowing adjacent to runways is completed by one maintenance person assigned at facility, as well as all other facility maintenance under City responsibility.

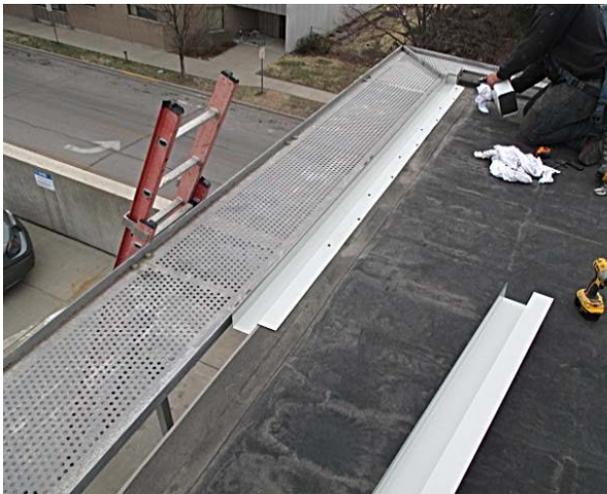
Lawrence Municipal Airport projects:

- Maintenance on KU apron area
- Installed electric hand dryers in the restrooms
- Removed trees and brush along the floodplain
- Trained a new staff member due to retirement

Parking structures: The City owns three 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. 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 492 parking spaces on four levels and is served by two elevators and five stairwells. The structure also offers free two-hour parking areas and pay per day spaces using a self-pay system. The Vermont Street Garage has 320 spaces. The Vermont Garage has one elevator, two stairwells, and two pay stations. Professional engineering services are used to evaluate the parking structures and recommend repairs as needed.

Highlights of projects completed in the parking structures include:

- Installed cameras at the River front garage
- With Street Division assistance repaired alley behind New Hampshire Garage
- Installed gutters and downspouts on the stairway canopies
- New signage at Riverfront Parking Garage
- Built a new leaf vacuum to remove leaves from garage areas
- Repainted stripes at New Hampshire Garage and Fire Medical 3 and other lots



Downtown projects: This division supervises one staff person responsible for maintaining the appearance of the parking structures and other downtown areas, as well as assisting with snow removal and building maintenance projects. Other building maintenance staff members assist on special projects, as needed. Downtown lots were re-striped, as time and weather allowed.

Energy Management: The division assists the Sustainability Coordinator with review of energy management for significant buildings. When feasible and prudent, lighting is changed to more economical options. Below are statistics for the three major buildings managed by Public Works:

Energy consumption	2014	2015	2016
Key buildings			
City Hall			
Electricity (kilowats)	884,883	878,805	824,793
Electricity costs	94,506	90,323	85,162
Electricity usage per sq. ft.	24.6	24.4	22.9
Electricity costs per sq. ft.	2.6	2.5	2.4
Natural gas (thermos)	1,472	1,110	1,090
Natural gas costs	1,364	1,039	993
Natural gas usage per sq. ft.	0.041	0.03	0.03
Natural gas cost per sq.ft.	0.038	0.03	0.03
Community Health facility			
Electricity (kilowats)	1,010,959	927,368	1,001,685
Electricity costs	115,760	107,567	121,493
Electricity usage per sq. ft.	11.69	10.72	11.58
Electricity costs per sq. ft.	1.339	1.24	1.40
Natural gas (thermos)	20,266	16,273	18,654
Natural gas costs	14,973	11,623	11,938
Natural gas usage per sq. ft.	0.234	0.18	0.21
Natural gas cost per sq.ft.	0.173	0.13	0.14
Arts Center			
Electricity (kilowats)	667,711	681,095	739,081
Electricity costs	74,321	73,080	80,155
Electricity usage per sq. ft.	16.69	17.02	18.47
Electricity costs per sq. ft.	1.858	1.83	2.00
Natural gas (thermos)	24,095	19,974	18,433
Natural gas costs	17,756	14,052	11,735
Natural gas usage per sq. ft.	0.602	0.50	0.46
Natural gas cost per sq.ft.	0.444	0.35	0.29

Building and Structures Division pictures in 2016:



Back garage repair



Arts Center Foundation work



Elevator upgrade



NH sewer repair



Sewer line repair



Salt dome roof



Lighting upgrades



Burcham Park striping

ENGINEERING

The Engineering Division is responsible for the review and approval of all public improvement plans for streets, sidewalks, rights of way, driveways and storm sewers. The division administers designs and inspects these projects. The 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.

In addition to project management, Engineering includes work groups for Stormwater Engineering, Traffic Engineering, Bridge inspection, Levee inspection / monitoring, Surveying, sidewalks, driveways, right-of-way permits and supports services, including providing mapping and GIS functions for public information. The Engineering Division is responsible for the VenturePark redevelopment project including remediation efforts of ground water and future development as industrial site.

Major project management

Including Capital Improvement projects, maintenance projects and new street construction, the Engineering Division oversaw approximately \$14.2M in construction work during 2016. Staff has also been involved in the planning and completion of the \$130M South Lawrence Trafficway.

Below is a summary of major projects managed in 2016:

Major infrastructure projects	Infrastructure Cost
Maple Street Pump Station	\$ 5,937,632
Bob Billings corridor improvements - Kasold to K-10	\$ 2,320,408
KLINK - Mill & overlay of Iowa from 23rd St to 29th St	\$ 584,509
6th & Champion Traffic Signal	\$ 348,180
Bauer Farms Addition	\$ 595,080
19th & Ousdahl intersection improvements	\$ 685,000
HERE Public Improvements - Indiana & Mississippi	\$ 1,520,000
Westwood Hills 8th Plat Addition	\$ 590,000
Westwood Hills 3rd Plat Addition	\$ 465,000
24th Place Addition	\$ 446,000
Fox Chase Phase E	\$ 605,000
Yankee Tank Addition Phase II	\$ 84,756



Bob Billings Parkway Corridor Improvements



6th & Champion Traffic Signal



KLINK-Iowa Street, 29th Street to 23rd Street



19th & Ousdahl intersection

Infrastructure and pavement management

The pavement management program is an on-going effort to evaluate pavements, apply the right preventive maintenance at the right time, and manage the contracts to complete that work.

The Pavement Management System provides the Public Works Department a tool to maintain an inventory of street pavement, respective maintenance and condition history, and the ability to identify needs and impacts associated with preservation strategies and asset management. Streets are rated on a four year cycle where one quarter of the city is inspected each year. By applying this tool and with the continued support of the program, the City has seen the implementation of a wide range of maintenance techniques from preventive maintenance measures to major rehabilitation and reconstruction impacting overall Pavement Condition Index (PCI) and pavement deterioration.

Ratings and conditions	2014	2015	2016
Average PCI rating (overall, end of year)	75.58	75.52	73.97
% of pavement w/ PCI rating of acceptable or above			
Arterial	68.06%	71.64%	66.75%
Collector	79.22%	80.92%	79.40%
Residential	86.75%	88.14%	88.14%
% of curb and gutter rated as			
Good	64.18%	64.77%	65.47%
Fair	27.06%	27.05%	26.35%
Poor	8.77%	8.17%	8.19%

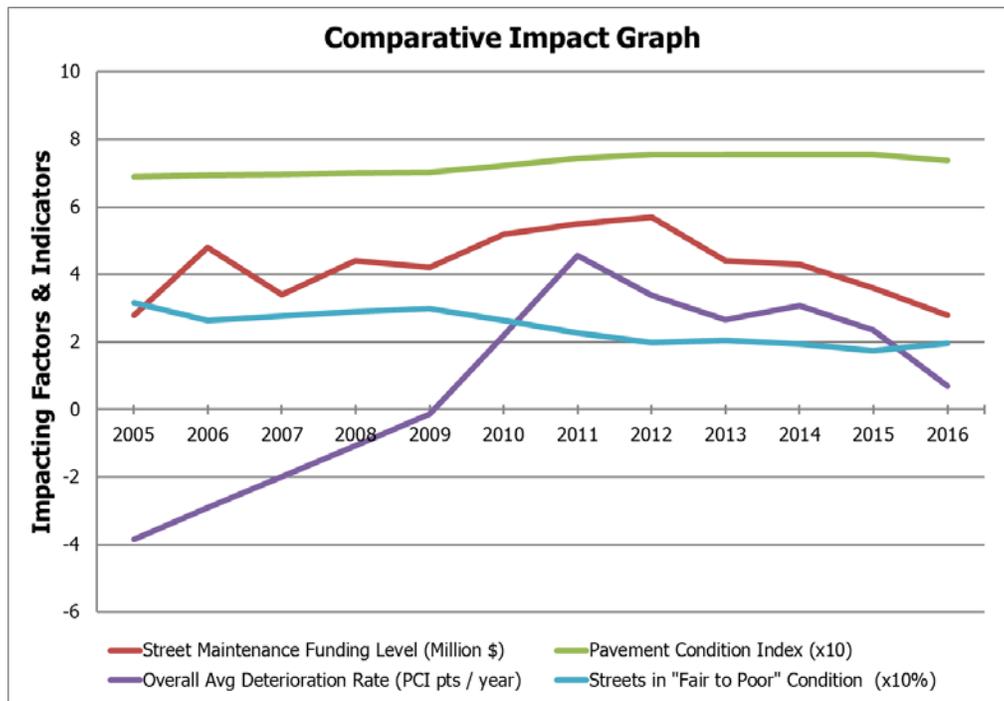
A street segment is considered to be in “unacceptable” condition when the PCI drops below 65 for arterials, 60 for collectors, and 55 for residential streets. (Unacceptable streets generally are not good candidates for preventive maintenance work. They are more likely to require rehabilitation and possibly complete reconstruction.) The Pavement Management System showed 19.74% of street segments were rated as unacceptable at the end of 2016, compared to 17.5% in 2015, 19.5% in 2014, 20.6% in 2013, and 19.8% in 2012.

Contracts are bid annually for the major components of the street maintenance programs. Typically, there are at least four types of maintenance work contracted:

- Microsurfacing (including patch work)
- Overlay and concrete rehabilitation
- KLINK (partially funded by KDOT for pavement rehab of state highways)
- Pavement marking

Work Type	2014	2015	2016
Mill & Overlay (lane miles)	11.95	17.01	13.3
Microsurfacing/ Patching (lane miles)	29.74	14.05	12.4
Concrete Pavement Patching (sq yds)	3,464	3,314	1,359
Curb & Gutter (linear feet)	15,622	20,775	4,224
ADA Access Ramps (each)	20	36	19

Below is a comparative impact graph of funding, pavement condition index, and deterioration rates as presented to the City Commission:



Clinton Parkway at Lawrence Ave



Microsurfacing – W 9th, Iowa to Lawrence Ave

Pedestrian and Bicycle Facility Improvements

The Engineering Division actively contributes to non-motorized methods of transportation by ensuring pedestrian and bicycle facility improvements are included in projects, or are constructed as stand-alone projects.

Pedestrian and Bicycle Improvements	2014	2015	2016
Sidewalk (new) -- linear feet	14,200	7,407	20,129
Sidewalk (new) -- project cost	\$ 219,182	\$ 121,400	\$ 342,196
Sidewalk (repairs) -- linear feet	8,254	6,484	9,185
Sidewalk (repairs) -- project cost	\$ 168,026	\$ 119,481	\$ 174,523
Ramps (new)	25	26	120
Ramps (repairs)	87	100	73
Ramp costs (new and repairs)	\$ 114,345	\$ 111,248	\$ 164,050
Bike Lanes -- linear feet	21,301	18,120	200
Bike Lanes -- project cost	\$ 560,500	\$ 625,600	\$ 10,000
Shared Use Path -- linear feet	9,750	25,443	9,241
Shared Use Path -- project cost	\$ 650,000	\$ 873,400	\$ 760,470

Pedestrian Bicycle Issues Task Force

In Spring 2016 the final report was issued from the Pedestrian-Bicycle Issues Task Force. Staff assisted the task force, beginning in Summer 2015, with their meetings and efforts to review bike/ped issues in the community. Staff continues to work on implementing recommendations from the task force including: creating a Transportation Commission, establishing a sidewalk maintenance program, and funding priorities.

Safe Routes to School

City staff continues to look for opportunities to add sidewalks along the designated safe routes and began designing projects to be constructed with grant money in 2017; one project is the CDBG funded sidewalk gap project and the other is the KDOT Transportation Alternative Safe Routes to School project. City staff will continue to work on the safe routes sidewalk network to provide the best options for children that wish to walk or bike to school. City staff is also working with the Lawrence School District and the Lawrence-Douglas County Health Department to review the existing School Area Traffic Control Policy.



Right of Way Management / Street Events

Right-of-way (ROW) and street event permits are now issued through the Public Works Department in City Hall. Changes in 2014 created a centralized "one stop shop" for submitting ROW and street event applications. Public Works coordinates an event review team for the

street events and submits applications that need City Commission approval through the agenda process. No parking signage and meter bags are handled in the same location.

ROW management	2014	2015	2016
ROW permits issued	345	381	396
Street event permits issued	56	54	64
Street events with CC approval	39	47	55

Stormwater Maintenance & Administration

The implementation of the community's comprehensive stormwater management plan continues to be the focus of the Stormwater Utility Staff. This includes the management of the cities storm water network which includes: storm sewer pipe, bridges, channels, and riparian areas. Maintenance and enhancement of these features help to prevent future flood damage as well as improve the water quality of stormwater runoff.

The maintenance and reconstruction of existing storm sewer infrastructure is the responsibility of the stormwater maintenance crew. Work that the crew performs includes curb inlet reconstruction, channel maintenance projects, including debris removal and the installation of new storm sewer lines. The stormwater maintenance crew statistics and information is reported with the Street and Stormwater Maintenance Division.

Outreach, education, and enforcement: The stormwater division continues to promote water conservation and water quality education through public outreach events such as Earth Day and the Pooch Plunge. In addition the stormwater division also continues to emphasize the benefits of rain gardens and rain barrels by working with community organizations to have them installed on private property. Brochures to construct both are available on the City website under Stormwater Engineering. In addition to outreach and education, the Environmental Technician is responsible for enforcing and implementing the Stormwater Pollution Prevention ordinance. This is done with the monitoring of construction sites for proper erosion and sediment control in addition to responding to notifications of illicit discharges.

Stormwater infrastructure: In 2007 the Stormwater Utility launched an inspection program to analyze the existing condition of the City's entire storm sewer network. Ultimately every curb inlet, junction box, man hole and areal inlet will be photographed, inspected and rated. During these field inspections each structure's exact location, dimension, size and material type is verified. Progress on the program is related to staffing as well as task reprioritization, so the work effort can be variable. The following tables summarize the progress to date.

Infrastructure Inspected	2012	2013	2014	2015	2016
curb inlets, area inlets, junction boxes	148	5	39	15	21

Stormwater System Enhancements: The completion of the Maple Street Stormwater Pump Station in 2016 marked the first stormwater project to be let and completed since 2005. Construction on the \$6 million project began in the fall of 2015 and was completed in July of 2016. The project included a new stormwater pump station on the northwest corner of the intersection of 6th and Maple Streets in addition to a new 54" diameter storm sewer gravity

main south of the Union Pacific Railroad Tracks. Dual 48" diameter force mains under the Union Pacific Railroad tracks connect the pump station and the new 54" gravity main. The new pump station capacity volume rate increased from 6 cubic feet per second to 100 cubic feet per second.

The project also included the construction of new larger gate well and outfall structures at the Kansas River Levee. Additional improvements included higher capacity and more hydraulically efficient storm sewer layouts under the intersections of 6th and Locust Streets and 6th and Elm Streets.



Maple Street Pump Station



New Pumps awaiting installation

As previously mentioned the stormwater crew is responsible for maintaining and enhancing the City's stormwater network. The crew completed a major storm sewer system enhancement through the intersection of Wildwood Drive and Grove Drive. This area had a gap in the storm sewer network that previously had allowed drainage from Hartland Drive to daylight across the sidewalk and directly onto Wildwood Drive causing a slippery sidewalk and adversely affecting the condition of the street pavement.



Grove & Wildwood Stormsewer Enhancement



Before system enhancement



Looking north on Wildwood Drive



Construction of system enhancement

During the 2016 the stormwater crew also completed the following projects:

- Rebuilt three curb inlets along Louisiana (28th Pl., 29th Pl., 29th Terrace)
- Rebuilt curb inlets at 7th & Wellington, 6th & Mississippi, 2507 Winterbrook Drive
- Routine maintenance at all of the City's Stormwater Pump Stations
- Reconstructed the existing storm sewer network at the intersection of 5th & Mississippi – past its design life
- Installed underdrain along Monterey Way to solve a situation with a continuous mossy sidewalk

Lawrence VenturePark

In 2016, the last major construction project to be completed on the former Farmland Nitrogen Plant Site was the *Regional Detention Basin*. This basin allows for all of the parcels of ground east of O'Connell Road and north of 23rd Street to be developed without the need for individual stormwater detention basins. R.D. Johnson Excavating Company completed the work at a cost of \$860,262.50 with funding coming from the environmental remediation fund that came with the acquisition of the property.



Regional Detention Basin

The calendar year 2016 also saw the removal of the abandoned above ground piping that was located in the old processing area of the plant. The stormwater crew also removed the above ground piping between the above ground storage tanks and installed it underground. This eliminated the freezing of the circulation lines as well as cleared up the site visually.

Bridge Inspections

Federal Law mandates that all bridges be inspected at least every 24 months. The American Association of State Highway and Transportation Officials (AASHTO) defines a bridge as any structure carrying traffic having an opening along its centerline of the roadway of more than 20 feet between the limits of the extreme openings of abutments, arches, or multiples boxes. The calendar year 2016 coincided with this mandated inspection cycle. Currently the City of Lawrence has nine bridges listed on the National Bridge Inventory (NBI). The current inspection cycle marked the fifth time that city staff has completed these bridge inspections. Of these nine bridges four are considered open span structures with the remainder being classified as reinforced concrete boxes (RCB's). All of the bridges were found to be in overall good condition.



22nd Street over Naismith Channel



Bob Billings Parkway over Atchison Tributary

FLEET SERVICES / Central Maintenance Garage

The Central Maintenance Division provides maintenance and repair services, vehicle specification development, acquisition of new units, and equipment disposal for the city's vehicles and equipment. Central Maintenance also provides fuel management and billing for the city's fuel sites, one at 11th and Haskell and the Wakarusa fuel site. The Central Maintenance Garage mission is to provide managed, cost effective, and timely repairs of the fleet. The fleet plays a critical role in operations and meeting the needs of our citizens. The City of Lawrence has to rely on a fleet to conduct daily operations associated with providing the services that the public depend on for a high quality of life in our city. Vehicles such as fire apparatus and law enforcement vehicles supply the services in emergency situations that citizens rely on. Public works vehicles help provide safe streets and sanitation services for a clean city. Utility fleets support efforts to supply our fresh water and sanitary sewer functions. Parks vehicles help keep our city's parks neat and clean for our citizens can have a high quality of recreation. The City cannot provide any of these services without a safe operating fleet.

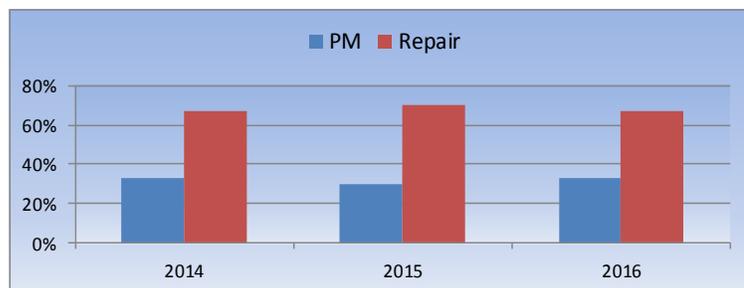
Repairs and Maintenance

Central Maintenance repair and maintenance productivity is examined from a number of different perspectives – total number of work orders, the ratio of preventive maintenance and repair services and service calls due to breakdowns in the field.

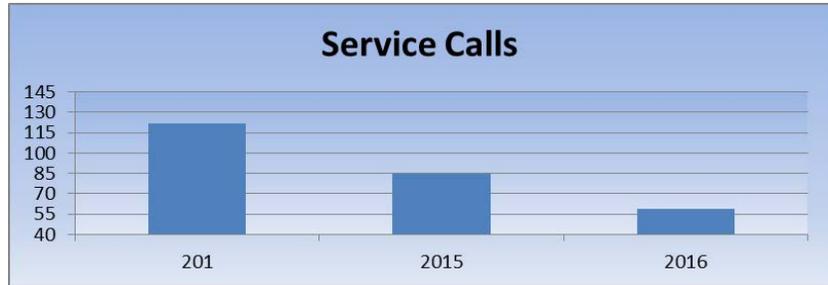


Number of repair orders: Repair orders increased from 2015 numbers. Continuous advancement of technologies of new vehicles can lead to issues with complex electrical functions that are adversely affected by type of use and weather conditions. High use vehicles and components, along with age, are always subject to increase downtime. Repair orders are also affected by operations that affect vehicle use such as weather events, increased infrastructure maintenance, and public events.

Preventive maintenance and repairs: Preventative maintenance is one of the primary goals of the Central Maintenance Garage. Identifying repair needs and addressing them in a cost effective and timely manner is the best defense to increase vehicle uptime. Reactive repairs are often avoidable with the proper preventative maintenance program. A continued goal of the Central Maintenance Garage is to reduce the repair orders and address issues upon the preventative service.



Service calls: Central Maintenance has had three consecutive years of a reduction in service call outs. Increasing efforts to identify issues every time the vehicle is seen, especially in the preventative maintenance process, has helped keep vehicles from failing in the field. Operator staff training has also contributed to problems being addressed before catastrophic failures occur in the field.



Size and Age of Fleet

2016 did see some advancement in the reduction of average age in relation to specific classes of vehicles. Class 1, Class 2, and Class 8 vehicles did see a slight reduction with implementation of new units into the fleet. Continued replacement of aging equipment is a goal to reduce downtime and operational efficiencies for city services. Utilization, critical function, operational costs, parts availability, how effective the unit is in its supporting role, replacement costs, and replacement funding are factors to be evaluated with equipment replacement. It is the responsibility of Central Maintenance and the operating Division to make sure replacement need is justifiable and necessary.

Equipment Vehicle Class Average Age					
Class Code	Class Description	Start Year	End Year	Eq Avg Age	Eq Count
1	LIGHT VEHICLE CLASS 1	1995	2017	10.0	159
1P	POLICE SEDANS	2000	2016	5.2	80
2	3/4 TON VEHICLE CLASS 2	1995	2017	12.1	25
3	1 TON VEHICLE CLASS 3	1990	2016	10.6	43
4	1-1/4 TON VEHICLE CLASS 4	1996	2016	11.7	12
5	1-1/2 TON VEHICLE CLASS 5	1999	2016	4.5	18
6	2 TON VEHICLE CLASS 6	1997	2017	9.1	19
7	2-3/4 TON VEHICLE CLASS 7	1955	2015	13.2	18
8	3 TON PLUS VEHICLE CLASS 8	1992	2017	6.6	77
A	NON HIGHWAY UNIT	1984	2016	11.2	180
B	BOAT	1990	1990	27.0	1
M	MOUNTED ATTACHMENT	1971	2002	23.5	4
S	STATIONARY MOUNTED EQUIPMENT	2008	2008	9.0	1
T	TRAILER	1969	2016	17.4	62
TE	TRAILER W/ MOUNTED EQUIPMENT	1975	2015	17.2	47

As classes of vehicles increase in average age, additional down time can be expected. Parts availability can play a major roll in a fleet to maintain its operational availability. Increasing age can also pose increased failure of components due to age and use. Replacement schedules and vehicle needs will be a continuing focus to make sure city services continue with minimal downtime to ensure quality community services.

Fuel Operations

The Central Maintenance Garage operates three fueling sites, two conventional fuel sites and one alternative fuel site (CNG). Central Maintenance, tracks and bills internal departments for fuel use. Transit buses do not fuel at the City facilities. Central Maintenance purchased 202,325 gallons of unleaded and 307,151 gallons of diesel for city operations. The city had a 1% increase in total gallons used compared to 2015. Although the city's fuel usage increased, the city captured a 14% decrease in fuel costs. Variables in the petroleum market can always pose challenges with managing fuel budgeting. The city does utilize alternative fuel vehicles in its fleet. Currently there are four CNG vehicles with three of them consisting of bi-fuel and one dedicated CNG unit. The city also utilizes hybrid aerial trucks and hybrid sedans in its fleet.

Software integration rollout

Central Maintenance upgraded its software system to increase efficiencies with tracking, reporting, and notification of completed repairs. The new system allows a notification email to be sent when a unit is ready for pick up at the Central Maintenance Garage. Notifications are sent to supervisors helps them manage units and personnel assignments based on vehicle availability. Central Maintenance has integrated to a paperless shop environment for the technician tasks and tracking. This has reduced redundant paperwork for office staff allowing better use of billing and inventory control measures. Central Maintenance has also included a vehicle maintenance request portal that allows service requests and repair status to be seen from the user divisions. This process is currently under testing with the Fire division to work out any issues or concerns. Other city divisions will be brought on board this year. Central Maintenance has also changed task codes within the software to allow more detailed reporting for future analysis in vehicle replacement needs.

Training and Certification

With vehicles and equipment requiring more stringent emission and safety compliance, vehicles have continued to become more complex. This complexity will continue and compound with the advancement of vehicle emission and safety systems. Combine the technically advanced systems and the environment of the equipment used in city operations, training will continue to be a necessity with Central Maintenance Staff. Central Maintenance utilizes multiple sources of training for technicians to include: Jobber training, factory training opportunities, and emergency apparatus training provided by the Heartland Emergency Apparatus Technicians Association. Central Maintenance also organized Forklift, Areal, Rigging and Crane training and certification for multiple Divisions within City operations. Staff had hands on performance testing to pass certification status along with class room instruction and formal written testing. These skills and knowledge will provide safe and efficient operations for their respected Divisions.

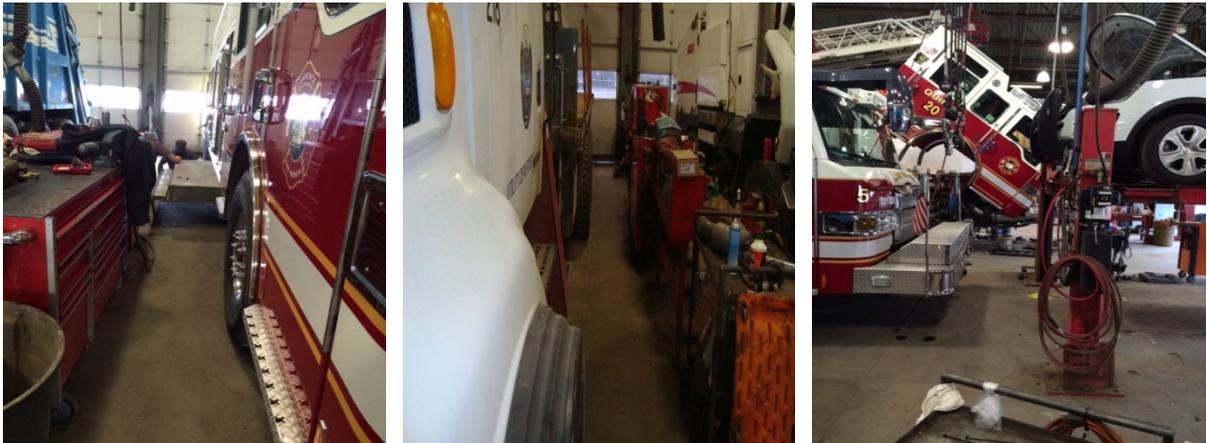


Central Maintenance staff continued their certification status over the 2016 year. Staff continued to gain certification through industry organizations such as The Automotive Service Excellence (ASE), Emergency Vehicle Technicians Certification Commission (EVT), and the Tire Industry Association (TIA). Currently Central Maintenance has 73% of staff holding certification status through these organizations with several holding advanced and master status.

Challenges

Central Maintenance continues to have challenges servicing larger equipment that perform more efficient duties in the city's respected divisions. This larger equipment poses safety concerns and efficiency concerns with the limited space in the Central Maintenance Facility. Industry advancement in communication protocols, service information, industry training, diverse fleet architecture, and service equipment are all continuing challenges the Central Maintenance will have to face now and in the future.

Crowded shop with diverse equipment

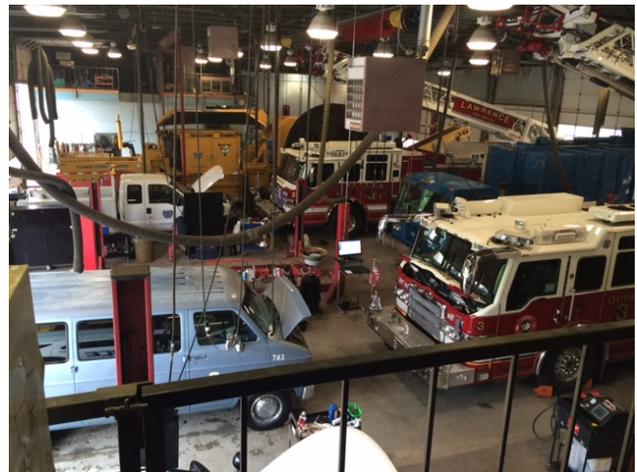


Performance measures: The performance measurement system provides additional tools to evaluating and reporting fleet operations.

performance measures	2014	2015	2016
Average operational fleet readiness			
fire department	97.3%	98.7%	95.2%
police department	97.4%	96.4%	96.5%
all other heavy duty equipment	96.2%	94.3%	93.4%
all other light duty equipment	97.5%	98.5%	98.0%
Average days to complete work order			
heavy duty preventive maintenance	7.54	6.14	5.36
heavy duty repair	2.51	2.38	2.74
light duty preventive maintenance	3.60	2.42	2.61
light duty repair	2.19	1.85	3.09
Avg percent mechanics hours billed			
Average fuel cost per 1000 miles driven			
heavy equipment / vehicle	924.12	598.45	536.18
light equipment / vehicle	303.84	219.95	181.69
Number of repeat repair orders	38	31	43
Fuel storage system tests completed	250	252	254

By the numbers

FLEET STATISTICS	2014	2015	2016
Miles driven			
Police Department	1,012,986	1,003,254	1,017,641
Public Works	900,493	929,858	968,957
Fire Medical	330,609	341,712	334,852
Utilities Department	283,344	313,160	300,372
Parks and Recreation	226,443	237,528	251,439
Miscellaneous (admin., BI, plan., etc)	145,297	152,036	112,545
Total miles	2,899,172	2,977,548	2,985,806
Off road equipment usage (hours)	26,978	29,808	33,507
Operations			
Repair orders completed	2,995	2,988	2,470
Preventive maintenance orders completed	975	911	816
Billing			
Total number of hours billed	16,221	12,981	14,762
Total labor (in \$\$)	738,850	649,091	741,403
Total parts (in \$\$)	1,155,052	1,110,685	1,194,723
Commercial (sublet) (in \$\$)	208,478	163,979	201,057
Miscellaneous	21,230	21,288	29,064
Total dollars billed for repairs	2,123,610	1,987,837	2,166,249
Fuel system			
Total fuel sold for year (gallons)	489,679	497,401	509,476
Total diesel fuel sold (in dollars)	1,000,893	684,580	601,883
Total unleaded gasoline sold (in dollars)	635,541	435,595	378,168
Total fuel sales (in dollars)	1,636,435	1,120,176	980,051
Total Operational Billing	3,760,045	3,108,013	3,146,300



SOLID WASTE DIVISION

The Solid Waste Division represents an enterprise fund, or utility, created for the purpose of managing solid waste for the City of Lawrence. Comprehensive solid waste services are provided for residential, commercial, and industrial customers. Services include collection, disposal, recycling, and technical assistance, see box to the right.

The Solid Waste Division services 31,078 residential accounts (includes both single-family and multi-family residences) and 2,025 commercial accounts.

Solid Waste Services

Residential customers

- Solid Waste (trash) collection weekly
- Single-stream recycling collection every-other-week
- Yard waste collection weekly (March - December)
- Bulky item collection upon request
- Tire collection (5 per household per year)
- Household hazardous waste drop-off by appointment
- Sorted recycling drop-offs (glass, cardboard, etc)
- Brush drop-off area (Saturdays, March - December)
- Compost and woodchips for sale (Saturdays, March - December)

Commercial / Industrial / Institutional

- Trash dumpster services (front or rear load)
- Roll-off services
- Qualified business hazardous waste drop-off by appointment
- Cardboard collection for recycling

Special events

- Earth Day Parade and Celebration in the park (April)
- Electronic Recycling Events (two per year)
- Holiday Toy Drive (employee-initiated)

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

Tons collected	2014	2015	2016
Tons solid waste collected for disposal	61,556	64,096	66,500
Tons single-stream recycling	1,227	5,327	5,428
Tons (est.) collected for composting and recycling (curbside and drop-off)	14,187	21,381	20,879

*single-stream residential recycling began October 21, 2014

Residential Collection

The number of housing units grew slightly in 2016. Residential growth has a direct impact on our residential services. Thirteen crews pick up residential trash and six crews pick up residential recycling. The trash crews also pick up all rear-load commercial trash dumpsters

along their residential routes. These same crews picked up yard waste on Mondays only, March through mid-December.

A look at residential trash cart size at single-family households (percent breakdown by size):



Cart size	Units	% of households
35 gallon	2,516	10.03%
65 gallon	13,821	55.10%
95 gallon	6,932	27.63%

The chart below highlights some of the residential collection activity.

	2014	2015	2016
Bulk items collected	2,926	3,288	2,358
Tires collected	1,805	1,812	1,588

Notes on the services mentioned above: 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 tires 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 or recycled.

Residential crews also performed alley litter collections on Fridays (or as needed) on a rotating basis among neighborhoods with alleys. Downtown alleys were patrolled for litter as well. Several neighborhood cleanups were performed at the request of and in coordination with neighborhood associations.



Waste reduction and recycling efforts: The chart below highlights some of the waste reduction and recycling programs of the Solid Waste Division.

	2014	2015	2016
Single-stream residential recycling	1,227	5,372	5,428
Grass, leaves, and brush collected	9,686	13,236	12,928
Avoided disposal costs in \$\$ (yard waste)	261,909	369,814	361,208
Christmas trees collected (tons)	11	13	15
Household haz waste participants served	2,873	3,188	3,747
Business haz waste participants served	103	108	104
Product reuse participants	597	618	557
Metal scrap & freon containing items (tons)	46	41	48.54
Old Corrugated Cardboard OCC (tons)	1,530	1,704	1,708
Average price per ton generated on OCC	91.79	71.59	82.08
Old Newspapers ONP (tons)	260	189	167
Mixed Paper MIX (tons)	371	340	190
Sorted Office Paper SOP (tons)	39	35	53
Glass (tons)	1,075	492	451

Yard waste collection and compost program: The community achieved a 99.9% compliance rate with preferred yard waste container set outs (cans, city trash/yard waste carts and compostable paper bags). Community-wide collection of yard waste on a single day remains challenging for solid waste crews, but the high compliance with preferred container requirements makes the collection process safer and much more efficient, as well as improving the final quality of the compost. Compost and woodchip sale events continue to be very popular and a valuable way of returning this resource to the community. Compost and woodchip material was also made available for purchase on Saturdays (self-load) during public drop-off hours 10 a.m. to 4 p.m.

	2014	2015	2016
Preferred YW container compliance	99.90%	99.80%	99.90%
Vehicle visits during sale events	956	1,353	1,894
Tons of material distributed	671	2,083	7,414 *

*2016 includes distribution of unfinished compost to larger groups (not previously counted)

Household hazardous waste (HHW) and business hazardous waste (BHW) programs: The HHW and BHW programs are important components of solid waste services in reducing the potential toxicity of the materials taken to the landfill. The amount of hazardous waste dropped off at the HHW Facility increased by 5.1% compared to the prior year. The majority of the households participating were from Lawrence but 15.8% were Douglas County residents living outside the Lawrence city limits.

In 2016, the new Household Hazardous Waste Facility at 2201 Kresge Road opened to the public. This new City property was purchased for the purpose of re-locating Solid Waste Division operations and the Household Hazardous Waste Facility. Development of the property is planned for multiple phases in future years.

Drop-off recycling program: The Solid Waste Division offers recycling drop-off bins for cardboard, newspaper, mixed paper, and glass with the support of property owners (see locations below). There was a consistent amount of fibers dropped off at these bins even with the implementation of residential curbside recycling.



	2014	2015	2016
Fiber programs recovery (tons)	2,200	2,267	2,118
Fiber program revenue (\$\$)	\$175,043	\$147,805	\$167,260

Special events and public outreach / education: Public outreach and education remained a strong component of the Solid Waste Division activities.

- Electronic Recycling Events (spring / fall): The division continued to host two collection events per year to collect electronic waste.
- Compost and Woodchips Sale Events (spring / fall): There were two sale events for compost and woodchips in 2016 in which the division loaded trucks and trailers. The material was also available for sale every Saturday between March and mid-December (self-load only).
- Earth Day Celebration (April): Staff organized the annual Earth Day Celebration in the Park, in conjunction with a parade.
- America Recycles Day (November): America Recycles Day Event is another opportunity for educating the public and raising awareness for recycling. The event included a paper shred event (recycled 5.3 tons of paper) and a Recycle for Sight Collection drive at participating schools (collected 68 pairs of glasses).



Commercial Collection

Growth in the commercial sector continued. The Division reviews site plans for accessibility, location of refuse containers, and type of service required and makes comments to the Planning Department as necessary.

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.

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

	2014	2015	2016
Roll-off service calls	6,399	7,652	8,438
Permanent accounts	64%	52%	49%
Revenue from roll-off service	975,352	1,279,058	1,415,490
Tons of solid waste from roll-offs	19,720	22,856	24,886
Compactor units in service	31	31	27

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.

In addition to trash services, the Division provides corrugated cardboard and office paper collection for recycling for small to medium-sized businesses. Commercial single-stream recycling will launch in 2017.





STREET MAINTENANCE DIVISION

The Street Maintenance Division is responsible for the routine maintenance of the City's streets, alleys, curbs, and gutters. The division is responsible for 857 lane miles with 46 employees. The work force is divided into five groups -- asphalt, concrete, stormwater green (levee/sweeping/alleys), storm water gray (pipes, catch basins, and ditches), and traffic/fiber.

The Street Maintenance Division provides a wide range of services for our citizens, for transportation maintenance and for community events. Normal activities include pot hole patching, curb and gutter repair, City owned sidewalks and wheel chair ramps, crack sealing, street sweeping, snow removal and storm drain and pipe cleaning. These are the activities visible in the community every day.

The division maintains the Kansas River Levee system. The levee covers 2600 acres and is about 19.6 miles long. The Levee protects North Lawrence and a large portion of farm land in Douglas County from the Kansas River and Mud Creek. The river levels are monitored by our staff year round and are the first to respond to rising water levels. There are also 8 miles of the levee top for recreation, a popular place for walking, jogging and bike riding.

The stormwater crew takes care of 250 miles of open drainage, many of which are in remote areas of the City. The crew takes care of three storm water pump stations in North Lawrence. These pumps keep the underpass on North 2nd street dry and remove up to 22,000 gallons of water per minute from the low lying areas every time it rains.

The Street Division provides traffic control devices for special events, all emergencies such as fires or major traffic accidents and as needed throughout the community. All members of the Division have received training for natural disasters such as tornadoes or floods and are experts at debris management and removal. The division often assists other City Departments with heavy construction projects that involve earth moving, concrete and asphalt work. It is safe to say that no matter what happens in Lawrence, the Street Division is there providing service.

The winter season of 2016 has been was a bit unusual with extreme cold weather and several ice events and weekend storms. Snow and Ice events numbered 9 recorded events and several other small ice or patrol events. But that only tells part of the story; 2016 continued a pattern of small but pesky storms.

Pot holes calls for this year from the Pot Hole Hot Line and from the web site e-mail form has gone from 213 in 2013 to 548 in 2016. As the number of calls for pothole repair increases the actual road deterioration rate appears to be increasing as well. Calls and inquires for curb and gutter repairs nearly equaled the pothole numbers reaching 497. Because of the increased weather related road deterioration the need for internal pavement repairs sky rocketed. The number of potholes patched increased from 8891 in 2015 to 10,126 in 2016. This increased need was seen in all phases of the



system with increased deterioration of asphalt , concrete pavements and curb and gutter. Despite the fact that more of our time was devoted to surface patching we were still able to maintain our crack seal program. By targeting both streets that are on the normal rotation of streets and those that have recent contract maintenance actions this approach provided for more than 56.5 miles of crack sealing.

The Street Division supported several major events not related to street repairs last year. They were the St. Patrick’s Day Lawrence Parade, Downtown Shotput and the annual Lawrence Old Fashion Horse Parade. These special events, along with numerous runs, walks, sidewalk sales, require putting up signs and placing barricades, extra sweeping and general assistance to other departments.

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 2016	
	(in addition to routine maintenance)
1	Oversaw the installation of fiber backbone
2	Graded alleys 2 times
3	Swept Residential streets 3 times and Arterials/ Collectors 3 times
4	Swept the downtown 10 times
5	Swept the University area 4 times
6	Swept airport aprons monthly
7	Had 2 snow and 7 ice events
8	Responded to 548 pothole, and 497 curb and gutter complaints
9	Mowed the entire levee 4 times
	Mowed approx. 6,182 acres of right-of-way, City property and drainage
10	ditches
11	Installed over 1982’ of new storm water culvert
12	Storm water improvements Wildwood and Grove
13	Repaired maintenance items from USACE periodical inspection
14	Installed Rip Rap on the Levee system as required by the USACE
15	Repaired/replaced curbs 8423’.
16	Concrete patching and pavement rehabilitation 26211 sq. ft.
17	Upgrade crosswalk and school crossing markings to permanent material
18	Crack sealed more than 56.5 miles of streets
19	Valley gutter and curb replacement Lake Alva mar
20	Storm Water improvements and bulb out at 11th and N.H.
21	Completed new storm water system in conjunction with the HERE project
22	Internal street overlay's
23	Repaired numerous and replaced catch basins
24	Driveway repairs Fire Training Center
25	Street restoration for in house utility cuts

STREET MAINTENANCE STATISTICS	2014	2015	2016
Paving projects			
Tons of asphalt placed	3,546	3,977	3,439
Cubic yards of concrete placed	1,027	1,709	1,507
Patching pot holes / pavement			
Reports to Pot Hole Hot Line / On-line form	537	213	548
Tons of patch material placed	315	336	497
Number of potholes/locations patched	9,874	8,891	10,126
Concrete work			
Concrete pavement (square feet)	27,670	48,991	26,211
Lineal feet of curb replaced	4,909	4,110	8,423
Street Sweeping			
Lane miles completed	7,251	8,398	7,729
Tons of debris collected	7,316	7,888	6,763
Crack sealing			
Pounds of material used (by street division)	67,643	82,551	74,591
Mowing activities			
Right of way and drainage area acres	3,912	4,086	3,582
Levee acres mowed	2,600	2,600	2,600
Snow removal			
Number of storms (winter season, e.g., 13-14)	13	12	9
Inches of snowfall for season	29.7	9.4	5.5
Tons of material spread			
Salt tons	4,428	4,741	3,249
Sand tons	4,054	1,922	730
Liquid Brine gallons	68,536	78,873	46,492

Stormwater Infrastructure Maintenance: Routine maintenance of the existing stormwater network includes the cleaning of ditches, storm sewer pipes, inlet throats and catch basins. Stormwater operations crews are managed under the Street Maintenance Division. The following summarizes the work completed in 2016:

STORMWATER MAINTENANCE	2014	2015	2016
Ditches cleaned (feet)	2,526	2,619	2,203
Stormsewer pipe installed (feet)	2,027	2,666	1,982
Curb inlets (throat) cleaned	1,872	1,859	3,638
Curb inlets rebuilt	23	47	43
Stormsewer pipe rodded / cleaned (feet)	1,142	1,125	3,101
Catch basins checked	24	51	178
Catch basins vacuumed	15	23	103

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. The group designs, installs, and maintains the Intelligent Transportation System (ITS). Field crews provide signal maintenance, fiber optic network oversight, signal timing, street signs, pavement markings, city-owned street-lighting and assist in emergency operations. The Traffic Engineer works with community and neighborhood groups to address specific concerns.

Traffic maintenance operations	2014	2015	2016
Number of Traffic Signals Maintained	84	99	102
Number of Mid-Block Pedestrian Signals Maintained	2	2	4
Number of Pedestrian Hybrid Beacons Maintained	10	12	12
Number of School Beacons Maintained	43	43	43
Number of Traffic Signal Service Calls	625	582	658
Number of Traffic Signal Preventive Maintenance Inspections	25	68	89
Number of Electronic Traffic Counts	136	187	178
Number of Manual Traffic Counts	47	62	67
Number of New Signs Installed	208	258	224
Number of Signs Upgraded	95	61	77
Number of Signs Repaired	1559	1582	1469
Lineal Feet of Pavement Markings Painted	209,196	280,198	276,734
Number of School Crosswalks & Stop Lines Painted	2	1	0
Number of Pedestrian Crosswalks & Stop Lines Painted	0	19	21
Number of Pavement Marking Arrows Painted	3	20	16
Square Feet of Pavement Marking Material Installed	218	5693	1814
Total miles of Fiber Optic Installed	25	41	4.1

Fiber

The Traffic Division plays an integral part in the development and maintenance of the city owned and maintained fiber optic network. The Traffic Division works closely with the Information Technology group to design and field check new projects, this group also provide the critical inspection component, and the ongoing maintenance of the system. The past year has seen continued growth within the system with 4.1 miles of new fiber installed and several projects that connected core facilities. As an underground utility the City of Lawrence is responsible for locating the utility within the Right of Way, in the past year the Traffic Division has performed 837 locates citywide in response to Dig Safe locate requests. This new utility has continued to grow and now has 50 miles of backbone fiber installed and in use. The fiber lease program continues to grow as more private partners are seeking the opportunity to join the system.



Paving



Concrete work



5th and Michigan



11th and Rhode Island underground



11th and Rhode Island – above ground



Hampton – before / during



Hampton progress



Snow operations



Wing plow

What's happening in 2017

To conclude the 2016 Public Works Annual Report, here are some highlights for what is upcoming in 2017:

Major projects planned for 2017 include:

- FCIP improvements for City facilities
- 23rd and Ousdahl intersection and drainage improvements
- Kasold Drive, Bob Billings Parkway to 6th Street
- Wakarusa Drive, Legends to 6th Street
- 19th and Naismith intersection
- CDBG Sidewalk Gap project

Solid Waste Division:

- Solid Waste route changes moving yard waste collection to same day as trash and recycling
- Continued efforts for facility planning, Solid Waste Facility at Kresge Road Phase 2 ready for bid / award, for alternative planning for larger campus
- Business and commercial recycling options will be presented for consideration

Street Maintenance Division (includes street, stormwater, traffic, and fiber maintenance):

- USACE rip rap on Kansas River Levee
- Crack sealing, pavement preservation
- Paver replacement N 2nd and N 3rd Streets
- Curb, patching, and sidewalk rehab in conjunction with 2017 street maintenance program
- Upgrade and new installation of preemption equipment
- Internal mill and overlay program
- Stormwater upgrades for 11th and Rhode Island
- Stormwater improvements at Monterey Way and Running Ridge
- On-going traffic programs – pavement marking, crosswalks, fiber installation, GPS fiber backbone and handholds