

## **City of Kirkwood Public Works Street Division**

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### **Mission Statement**

- To assure public safety and free flow of vehicle/pedestrian traffic through reliable and economical maintenance and repair of City streets, bridges, public parking lots, traffic control signs, and pavement markings
- To ensure a safe and aesthetically pleasing streetscape through maintenance of right-of-way trees and public grounds.
- To respond efficiently to urgent community needs, emergencies, or seasonal needs such as snow/ice removal, fallen trees, sign replacement, hazardous trees, and temporary street repairs.

### **General Description**

The Street Division is responsible for the maintenance and repair of 221 lane miles of street pavement (62 lane miles of concrete streets and 159 lane miles of asphalt streets), approximately 200 miles of concrete and asphalt curbs, 7 City bridges, subdivision walkways, drainage culverts under roadways; traffic control signs and pavement markings; over 14 acres of public grounds at 56 locations; and trees on public grounds and along the public rights-of-way. Street maintenance and repair includes patching of deteriorated asphalt pavement, crack filling of asphalt and concrete streets, sealing of bridge decks, routine cleaning of street pavement, removal of dead animals from City streets, snow/ice removal from street pavement and sidewalks adjacent to public buildings and grounds, and removal of dead trees and hazardous limbs on public rights-of-way. Concrete street replacement and asphaltic overlays are performed through contract.

Due to recent budget restrictions, the Public Works strategy for street repairs now involves the use of private contractors for asphalt overlays and major street repairs. The Street Division has changed its direction and is focusing on routine maintenance and small repairs of a maintenance nature. This includes the crack sealing of concrete and asphalt streets, asphalt street patching, bridge deck sealing, repair/replacement of asphalt curbs, forestry operations, sign/pavement markings, maintenance of City property, and street cleaning. New construction, asphalt overlays, and concrete street replacement are contracted out.

The Public Works Department Street Division has identified the following performance measurements: Staffing levels, comparison of street budgets of other municipal street operations, cost of traffic control devices (signs and pavement markings), response to winter storms, forestry costs, and street sweeper operations.

## City of Kirkwood Public Works Street Division

### Staffing

The Street Division is proposing a staff of 13 employees, which is a 12-employee reduction since FY02. There will be one general street maintenance crew, a curb/sidewalk/forestry crew, a grounds crew, a sign crew, and a street cleaning crew with the following positions. This year's budget maintains the staffing level at 13 total.

POSITION	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Street Director	1	1	1	1	1	1	1	1
Supervisor	2	2	2	2	2	2	2	2
Lead Street Maint Worker	5	4	4	4	4	5	4	4
Street Maint. Worker	15	14	12	10	8	4	5	5
Customer Service Asst.						1	1	1
<b>TOTAL</b>	<b>23</b>	<b>21</b>	<b>19</b>	<b>17</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>13</b>

The Street Division is proposing only two seasonal positions during the summer months for ground maintenance, sign replacements, and general construction labor.

### Street Budget Survey

In October 2005, the Public Works Department obtained comparison data from other municipalities in St. Louis County. The results of that survey are in the following chart. Kirkwood has a low expense amount per lane mile. This can be attributed to: the program of sealcoating of asphalt streets (now discontinued), which is relatively inexpensive; and the continued deferral of required maintenance such as overlaying asphalt streets, replacing concrete street pavement and repair/replacement of the concrete and asphalt curbs.

STREET BUDGET SURVEY								
October 31, 2005								
City	Lane Miles of Street	Number of Employees in Street Division	Operating Budget for Street Division	Capital Improvements Budget for Streets	Lane miles per Street Division Employee	Operating Budget Per Employee	Operating Budget Per Lane Mile of Street	Operating + Capital Budget per Lane Mile of Street
Ladue	22	10	\$1,473,000	\$470,000	2.20	\$147,300	\$66,955	\$88,318
Richmond Heights	33	15	\$893,848	\$1,357,220	2.20	\$59,590	\$27,086	\$68,214
Town and Country(1)	40	3	\$800,000	\$500,000			\$20,000	\$32,500
Clayton	50	21	\$2,911,000	\$1,858,152	2.38	\$138,619	\$58,220	\$95,383
Jennings	52	16	\$756,000	\$400,000	3.25	\$47,250	\$14,538	\$22,231
Des Peres	85	8	\$639,380	\$527,000	10.63	\$79,923	\$7,522	\$13,722
Creve Coeur	149	11	\$1,240,909	\$855,000	13.55	\$112,810	\$8,328	\$14,067
Maryland Heights	190	21	\$2,265,000	\$8,500,000	9.05	\$107,857	\$11,921	\$56,658
<b>Kirkwood</b>	<b>221</b>	<b>17</b>	<b>\$1,585,325</b>	<b>\$242,902</b>	<b>13.00</b>	<b>\$93,254</b>	<b>\$7,173</b>	<b>\$8,273</b>
St. Louis County	3079	532	\$43,668,043	\$39,177,285	5.79	\$82,083	\$14,183	\$26,907
<b>Average</b>					<b>6.89</b>		<b>\$23,593</b>	
(1) All maintenance is contracted out.								

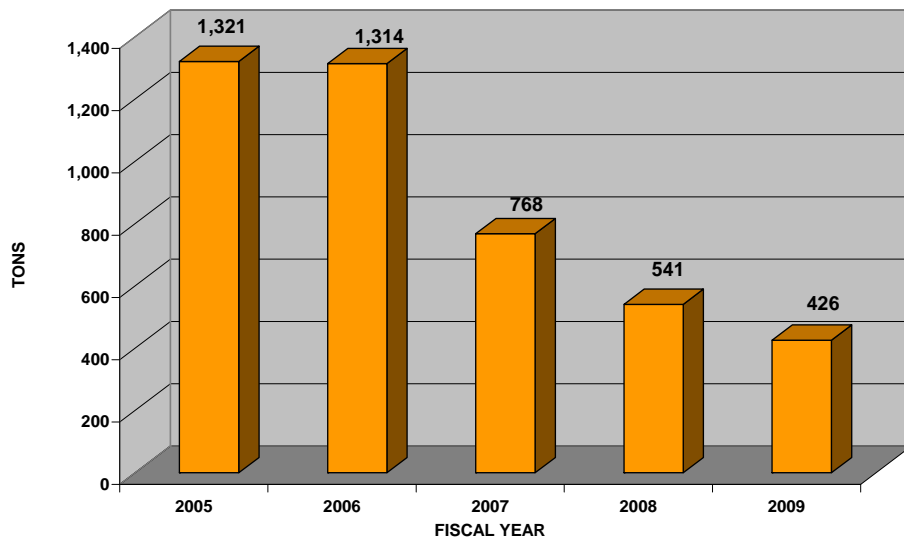
# City of Kirkwood Public Works Street Division

## Street Maintenance

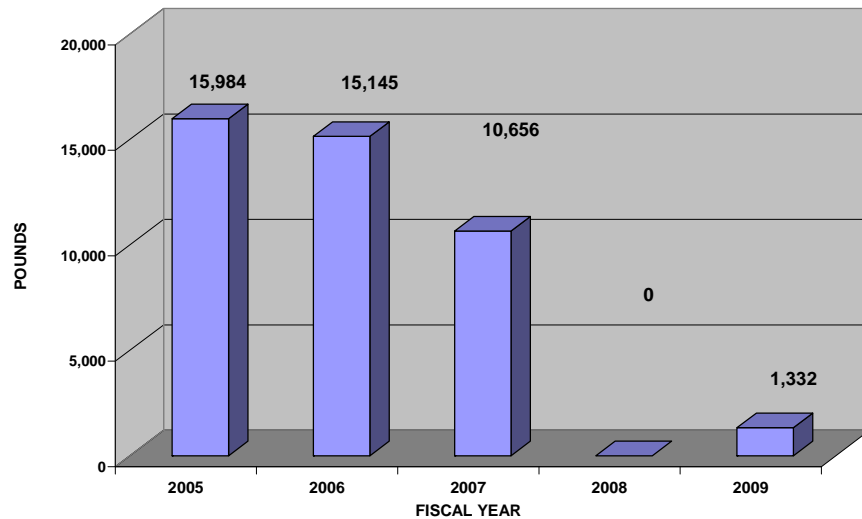
Major street maintenance, asphalt overlay, and concrete street replacement are included in the capital budget. This work is performed by contract with contract management and inspections performed by Engineering Division.

The Street Division concentrates its efforts on routine street maintenance, including crack filling, on both concrete and asphalt streets; patching and minor repairs; asphalt curb replacement; concrete pavement joint repair; and bridge deck sealing.

**ASPHALTIC CONCRETE (TONS)**



**HOT CRACK SEALING MATERIAL**



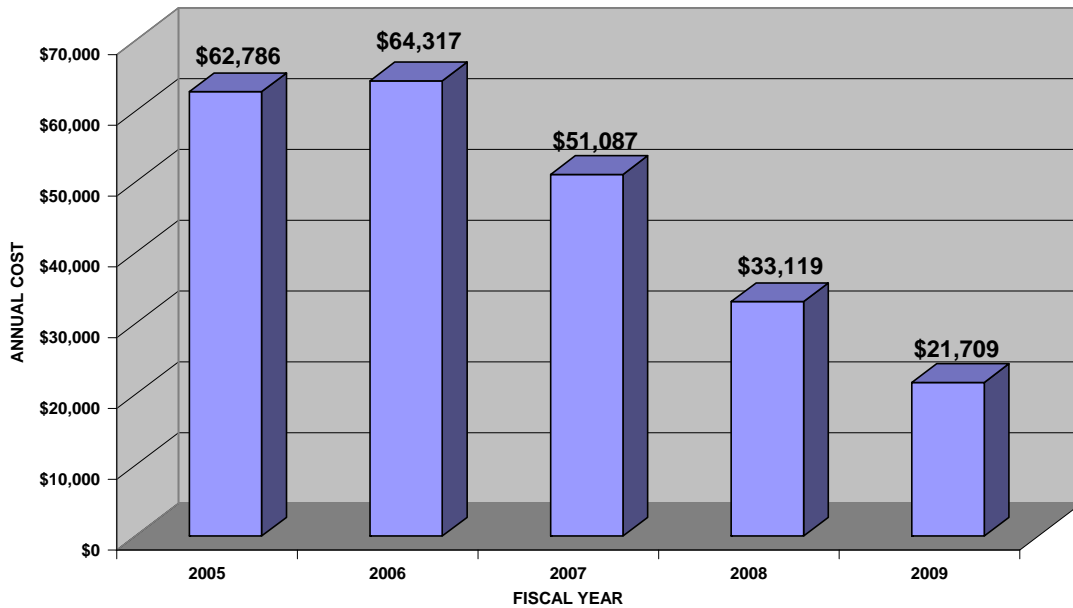
# City of Kirkwood Public Works Street Division

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## Traffic Control Devices

The Street Division sign crew consists of one or two people (as needed) who are responsible for the maintenance of traffic control signs and pavement markings on over 100 miles of streets. The public demand for increased vehicular, pedestrian and bicycle safety has expanded the need for better and more signage and pavement markings. Due to the escalating outside contract costs for installing thermoplastic pavement markings (center lines, lane lines, stop bars, crosswalks, traffic arrows, railroad crossing warnings), the Street Division began in 2001 to use "Hot Tape" for most pavement markings. Striping of centerlines and lane lines is performed by contract. In 2006, the Street Division procured a new sign-lettering machine. This equipment improves efficiency by providing the ability to re-use existing metal sign blanks and allows the use of more reflective material. The Street Division re-faces existing signs to reduce sign costs.

**CITY OF KIRKWOOD  
PUBLIC WORKS - STREET DIVISION  
COST OF TRAFFIC CONTROL DEVICES**



# City of Kirkwood Public Works Street Division

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## Snow/Ice Removal

Public perception of snow removal is almost entirely based on timeliness. The Street Division has reasonably good response time, which is aided by the use of a weather service. However, the Street Division time to completely clear the City's public streets after a storm lags behind neighboring communities. This trend is expected to continue with the loss of ten positions within the Street Division. During winter storms, all Street Division personnel are used for the clearing of City streets, some Public Works personnel are also used as needed, and all Public Works personnel are subject to call in extreme winter conditions.

Snow/ice removal costs are not a factor of total snowfall. The controlling cost factors for clearing winter streets include the number of callouts, when the winter weather occurs (off duty hours, Saturdays, Sundays), temperature, and type/length of precipitation. The Building Maintenance Division is responsible for clearing sidewalks on City properties. FY03 was the most costly in terms of material usage and labor in recent memory. Total costs vary significantly from season to season and are difficult to predict.

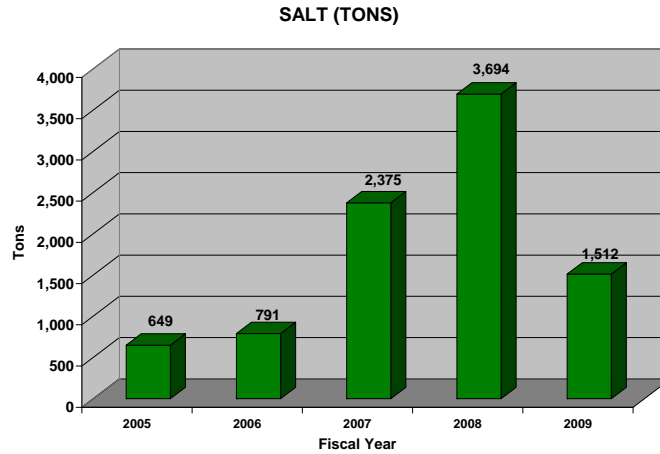
### CITY OF KIRKWOOD PUBLIC WORKS - STREET DIVISION WINTER STORM COSTS

<b>Fiscal Year</b>	<b>Date of First Storm</b>	<b>Number of Call Outs</b>	<b>Snow (Inches)</b>	<b>Salt (Tons)</b>	<b>Labor Hours</b>	<b>Total Costs*</b>
2000	12/27/99	5	10.60	1,266	440	\$46,588
2001	12/06/00	12	15.35	3,108	1,370	\$125,689
2002	01/06/02	5	10.75	1,528	580	\$79,580
2003	11/24/02	15	32.20	5,223	3,482	\$491,244
2004	12/12/03	15	6.80	3,219	1,218	\$181,215
2005	11/24/04	5	7.50	649	278	\$34,254
2006	12/06/05	4	6.00	791	528	\$44,267
2007	11/16/06	7	11.50	2,375	1,437	\$175,747
2008	12/06/07	9	26.30	3,694	2,122	\$250,980
2009	11/30/08	7	10.50	1,512	1,490	\$135,748

\* Total costs include labor, equipment, and material.

# City of Kirkwood Public Works Street Division

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## Grounds and Tree Services

The Street Division is responsible for the maintenance of public grounds (except parks) and trees along public rights-of-way. Citizen expectations in the area of tree services are increasing. Due to limited resources, the Street Division tree service is limited to removal of dead trees and pruning of hazardous tree limbs on public rights-of-way. The creation of the Urban Forestry Commission and citizen demands has forced an expansion of this service. The trend is expected to continue. Tree operations were previously performed in the fall by one of the street crews. However, due to liability issues and public safety, dead and hazardous trees are now removed year round. The grounds maintenance person performs daily and seasonal maintenance of the public grounds. During the summer season a temporary employee is assigned to this crew. The grounds crew maintains 56 locations with a total land area of more than 14 acres.

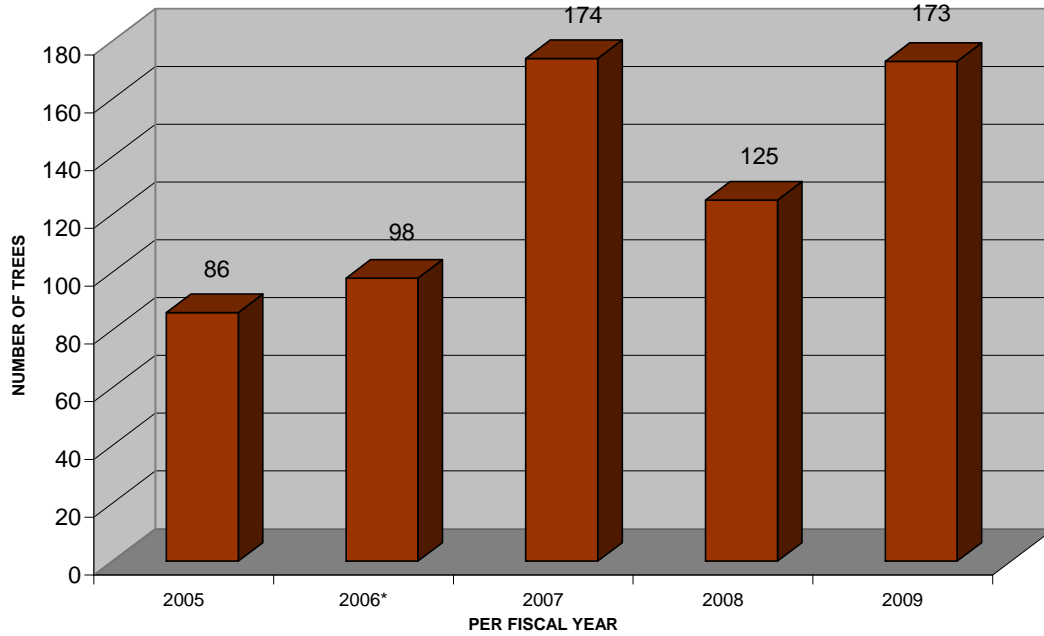
**CITY OF KIRKWOOD  
PUBLIC WORKS - STREET DIVISION  
HAZARDOUS PUBLIC TREES REMOVED**

<u>FISCAL YEAR</u>	<u>NUMBER OF TREES REMOVED</u>
2005	86
2006*	98
2007	174
2008	125
2009	173

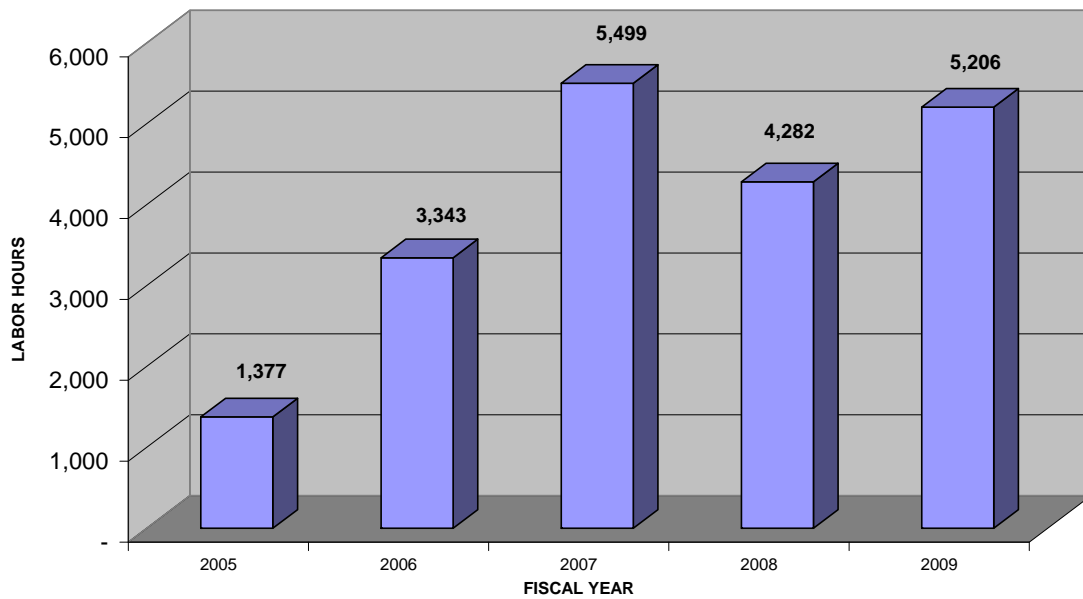
\* Does not include trees removed by contract after the severe December ice-storm.

# City of Kirkwood Public Works Street Division

CITY OF KIRKWOOD  
PUBLIC WORKS - STREET DIVISION  
HAZARDOUS PUBLIC TREES REMOVED



CITY OF KIRKWOOD  
PUBLIC WORKS - STREET DIVISION  
FORESTRY/GROUNDS MAINTENANCE LABOR HOURS



## **City of Kirkwood Public Works Street Division**

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### **Street Sweeping**

Prior to FY05, the City Street Division provided extraordinary street cleaning services by operating the street sweeper on a daily basis with a rotating schedule in which all streets were swept monthly and the business district was swept daily. Due to escalating disposal and equipment maintenance costs, the sweeping schedule has been reduced to twice a week. One of two City street sweepers was sold and is not scheduled for replacement. The current sweeper is down for repairs more often than being out on the street doing its intended job. Replacement was approved in the FY10 budget but has not been purchased as of August 27, 2009.