

STREETS and DRAINAGE

MISSION STATEMENT:

The mission of the Streets and Drainage Department is to maintain high-quality public transportation and drainage infrastructure to enhance safety and provide effective traffic circulation.

CORE FUNCTIONS:

- 1) **Street repairs and maintenance** - Provide quality maintenance for streets, sidewalks and alleys
- 2) **Drainage channels** - Clean and maintain creeks and channels
- 3) **Signs, signals and markings** - Install and maintain traffic signs, signals and markings

2015 - 2016 WORK PLAN

CORE FUNCTION: #1 Street repairs and maintenance

Action:

- Continue to work with Dallas County to overlay streets
- Repair potholes
- Repair streets due to utility cuts
- Install permanent street patches
- Provide American Disabilities Act (ADA) compliant barrier-free ramps
- Crack seal streets, as necessary, and maintain 310 miles of streets and 133 miles of storm sewer
- Maintain streets and alleys in a clean and safe condition
- Inclement weather response

CORE FUNCTION: #1 Street repairs and maintenance...Continued

Activity Measurement:

- Overlay (a minimum of) \$250,000 worth of asphalt streets annually
- Fill potholes within two business days of notification
- Repair utility cuts within two business days of notification
- Complete approximately 100 permanent patch repairs annually
- Inspect barrier-free sidewalk ramps for compliance with ADA monthly
- Respond to requests of clearing of debris from streets, sidewalks and alleys ways within two hours
- Deploy sanding operations within 1 hour of ice storm events

Meets City Council's Premier Statements:

Cedar Hill is Safe.

Cedar Hill is Clean.

CORE FUNCTION: #2 Drainage channels

Action:

- Maintain creeks and channels to ensure flow of storm water
- Inspect creeks and channels for debris
- Use outside sources and equipment, when available, to clean difficult conditions

Activity Measurement:

- Arrive at emergencies and initiate repairs within 45 minutes of initial report
- Complete non-emergency drainage requests within 90 days of notification
- Inspect all potentially hazardous creeks and channels twice a year

Meets City Council's Premier Statements:

Cedar Hill is Clean.

Cedar Hill has Excellent, Safe and Efficient Infrastructure.

CORE FUNCTION: #3 Signs, signals and markings

Action:

- Install and maintain traffic signs, signals and markings
- Perform an inventory of signage within the right-of-way
- Inspect and maintain signs and markings for clarity and appearance, includes graffiti removal or replacement of vandalized signs
- Emergency response to signal outages

Activity Measurement:

- Install signs, signals and markings within 72 hours of receiving work order
- Reinstall damaged Stop sign(s) within four hours of notification
- Inspect and inventory signs, signals and markings annually
- Respond to graffiti clean-up requests within one day of notification
- Initiate installation of temporary signs during signal outages within one hour of notification

Meets City Council's Premier Statements:

Cedar Hill is Safe.

Cedar Hill has Excellent, Safe and Efficient Infrastructure.

SUMMARY - STREETS & DRAINAGE

EXPENDITURES	ACTUAL FY 13	ACTUAL FY 14	BUDGET FY 15	EST. FY 15	FISCAL YEAR CONTINUED	2015-2016 GROWTH	PROPOSED
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Personnel	\$ 805,456	\$ 827,346	\$ 899,200	\$ 867,105	\$ 863,575	\$ 955,450	\$ 863,575
Supplies	47,758	49,916	54,500	37,000	62,500	62,900	62,500
Maintenance	206,627	202,060	222,000	209,000	229,000	229,000	229,000
Services	76,073	66,195	72,340	72,340	72,745	72,745	72,745
Utilities	541,883	646,332	506,105	505,890	517,210	517,810	517,210
Lease/Rentals	28,282	22,738	44,685	27,145	42,060	63,670	42,060
Sundry	8,841	10,752	9,010	14,110	11,010	13,010	11,010
TOTAL Dept. Budget	\$ 1,714,920	\$ 1,825,339	\$ 1,807,840	\$ 1,732,590	\$ 1,798,100	\$ 1,914,585	\$ 1,798,100

STAFFING	ACTUAL FY 13	ACTUAL FY 14	BUDGET FY 15	EST. FY 15	FISCAL YEAR CONTINUED	2015-2016 GROWTH	PROPOSED
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Street Maintenance Supervisor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Signs & Signals Coordinator	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Crew Chief (Maintenance)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Crew Chief (Drainage)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Street Maintenance Worker	8.25	8.25	8.25	8.25	8.40	10.40	8.40

TOTAL Department Staff	14.25	14.25	14.25	14.25	14.40	16.40	14.40
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REPLACEMENT VEHICLES & EQUIPMENT:	ACTUAL COST	LEASE COST	FUNDED
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Three-Quarter Ton Pick-Up Truck	\$ 50,000	\$ 12,917	Yes
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PROGRAMS:	PRIORITY	COST	FUNDED
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Signs and Signals Workers (2)	1	\$ 94,875	No
Motor Grader	2	\$ 21,610	No

Streets and Drainage

Program One (1), Two Signs/Signals Maintenance Workers

Program Cost: \$ 94,875

Tax Rate Impact: \$0.0032

Included in City Manager's Budget: No

Program Description:

As the City grows, the number of traffic signs, signals, and markings increase. As the number of traffic signs and signals increase, the responsibility associated with their safe operation and maintenance is increased. There are licensing requirements and liability issues related to the proper maintenance of records as well as the actual operation of these traffic signs, signals, and markings.

Currently, the Signs and Signals Section of the Streets Division has one Coordinator and one signs and signals maintenance worker assigned to this work. The City currently maintains an inventory of approximately 8,000 signs, 14 signalized intersections and 33 school zone flashers. They also maintain all the markings, such as crosswalks, stop bars, and lane markings, throughout the city and manufacture all signs that are used within the city. Traffic studies are also conducted that include warrant studies for traffic control devices such as; speed limit signs, stop signs, and traffic signals. Also, studies are performed for traffic volume. These newly created positions will also provide adequate enumeration for the responsibilities that are intrinsic to such position.

A thirteen city survey was performed to inquire number of personnel and crew sizes, please refer to table on next page:

CITY	PERSONNEL	# CREWS	# PEOPLE PER CREW
BEDFORD	1 (currently hiring 1)	1	1
COPPELL	7	2	4/3
DESOTO	2	1	2
DUNCANVILLE	4	1	3
EULESS	2.5 (1 Supervisor, 1 Staff and .5 borrowed)	1	1 Traffic Technician .5 - staff borrowed from Street Department, as needed)
GRAND PRAIRIE	Signals-9 (including Supervisor) Signs-10 (including Supervisor)	Signals-3 Signs-2	Signals-3/3/2 Signs-4
GRAPEVINE	8	4	2
KELLER	1	1	1
LANCASTER	1	1	1
MANSFIELD	3 (1 Supervisor, 1 Signal Technician and 1 Sign Technician)	1	3
ROWLETT	2	2	1 - Sign & 1 Signal
CEDAR HILL	2	1	2
AVERAGE	4.3	2	2

Benefits if approved:

- ✓ Increased level of response to signs/signal repair,
- ✓ Provide for increase in maintenance of pavement markings
- ✓ Increase in sign manufacturing.
- ✓ Public safety would be increased.

A one ton crew service vehicle would be needed as a sign/marking vehicle for this crew. Cost is \$31,000.

If this program is not funded:

The City cannot keep pace with the existing inventory and future growth. Additionally, as the City's population increases past 50,000, it is expected that the City will become responsible for the installation and maintenance of traffic signals on State highways.

Program Two (2), Motor Grader

Program Cost: \$ 21,610

Tax Rate Impact: \$0.0007

Included in City Manager's Budget: No

Program Description:

This program would provide funding to allow the City to purchase a motor grader with a 10-foot moldboard. This equipment is essential to provide asphalt street repairs resulting in a smoother ride surface, faster and better quality shoulder maintenance, provide for various types of barrow ditch repair, and for snow/sleet removal other than what is possible with equipment that the City currently possesses. When the grader is leased, at times it takes anywhere from two weeks to a month to receive it, thus delaying completion of projects.

Benefits if approved:

- ✓ Large street repairs will be completed more timely and surface will have a smoother ride,
- ✓ Shoulders and drainage ditches along non-curbed roadways could be better maintained and better graded,
- ✓ Can turn a two or three day job into a one day job saving labor and equipment hours.
- ✓ Safety of employees and citizens
- ✓ Savings on renting equipment- approximately \$4,200/month in rental fees
- ✓ less labor time-approximately 30% which would be approximately \$8,640 in saved labor costs for one month
- ✓ Removal of snow/sleet off critical roadways – allowing for quicker/safer reopening of roadways to thru traffic

The motor grader is currently being rented for an average of two months, which is what the current budget allows. Total costs for rental and labor savings for this time frame is \$25,680. Program cost is \$21,610 per year. The difference is \$4,070 in savings per year in buying versus renting, based on two months rental. If the equipment is acquired, we would be able to use the grader on a more regular basis, thus allowing for even greater cost savings.

If this program is not funded:

The Department will continue to approach maintenance in the same historic manner, which will result in a less optimum ride for traffic. Also, without this equipment, the quality and quantity of road repairs, shoulder maintenance, and ditch work being completed will occur over longer periods of time.



Finance Department's Comments:

This program is eligible for the Equipment Lease Fund. The budgeted cost of the motor grader is \$160,000 with a lease cost of \$21,610 for 15 years.

STREETS & DRAINAGE

CURRENT VEHICLES & EQUIPMENT:

ITEM	X IF ITEM IS UNRELIABLE	YEAR	MILEAGE	DESCRIPTION OF REPLACEMENT ITEM	ESTIMATED COST	CM LIFE	CM APPROVED
Vehicles:							
Ford Dump truck		2012	19,000				
Ford 1 ton utility dually GAS		2011	40,000				
F-350 (# 810)		2008	64,000				
F-800 Dump Truck		2008	46,000				
F-350 (# 804)		2007	74,000				
F-450 Bucket Truck		2006	122,000				
F-250 (# 806)		2015	4,000				
Sterling 12 yard dump		2003	84,000				
Ford 1/2 ton 4x4	X	2001	82,000	3/4-Ton 4X4 (Snow Kit)	\$ 50,000	5 Years	Yes
Equipment:							
Warren Sandspreader 8yard		2012					
John Deere Backhoe		2012	560 hours				
Wanco Message Boards (2)		2011					
John Deere 410 Backhoe		2010	1,850 hours				
Husqvarna concrete Saw		2008	280 hours				
CAT Skidsteer Loader		2006	2,375 hours				
Quickie Saw		2005					
Striping Machine		2014					
Equipment Trailer		2004					
9 Foot Cubic Concrete Mixer		2004					
Quickie Saw		2004					
Arrow Boards (2)		2004					
Vibrating Roller		2003					
Vibrate Plate Tamper		2002					
Crack Sealing Machine		2000					
Warren Sandspreaders 6 Yard(2)		1997					
Honda Generator		1993					
Trailer 16' (2)		1991					
Trailer 12' (Hauls Roller)		1990					

