

# Memorandum



Date: April 27, 2007  
To: Honorable Mayor and Members of the City Council  
Subject: Street Services ISO 9001 Quality Management Progress Report

On Wednesday, May 2, 2007 you will be briefed on the status of the ISO 9001 Quality Management System Implementation within the Department of Street Services. Attached are the briefing materials for your review prior to Wednesday's discussion.

Please let me know if you have any additional questions or concerns.

A handwritten signature in black ink, appearing to read 'Ramon F. Miguez'.

**Ramon F. Miguez, P.E.**  
**Assistant City Manager**

cc. Mary K. Suhm, City Manager  
Deborah Watkins, City Secretary  
Thomas P. Perkins, City Attorney  
Craig D. Kinton, City Auditor  
Judge Jay Robinson  
Ryan S. Evans, First Assistant City Manager  
Charles W. Daniels, Assistant City Manager  
Jill E. Jordan, P.E., Assistant City Manager  
A. C. Gonzalez, Assistant City Manager  
David K. Cook, Chief Financial Officer



# ISO-9001: Quality Management System Progress Report

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*Department of Street Services*

May 2, 2007



# Purpose

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- Provide an overview of the Department of Street Services
  
  - Provide background of ISO 9001 certification process
  
  - Review of ISO 9001 Implementation
  
  - Next steps
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# Overview

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- \$52M budget with 584 employees
- Organized into four business units:
  - Street Repair Division
  - Service Maintenance Areas (5)
  - Flood Control
  - Contracts, Finance, and Inspections

# Overview

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- Responsible for:
  - Street maintenance and repair
  - Right-of-way maintenance and CBD Night Operations
  - Flood Control and river levee maintenance

# Background

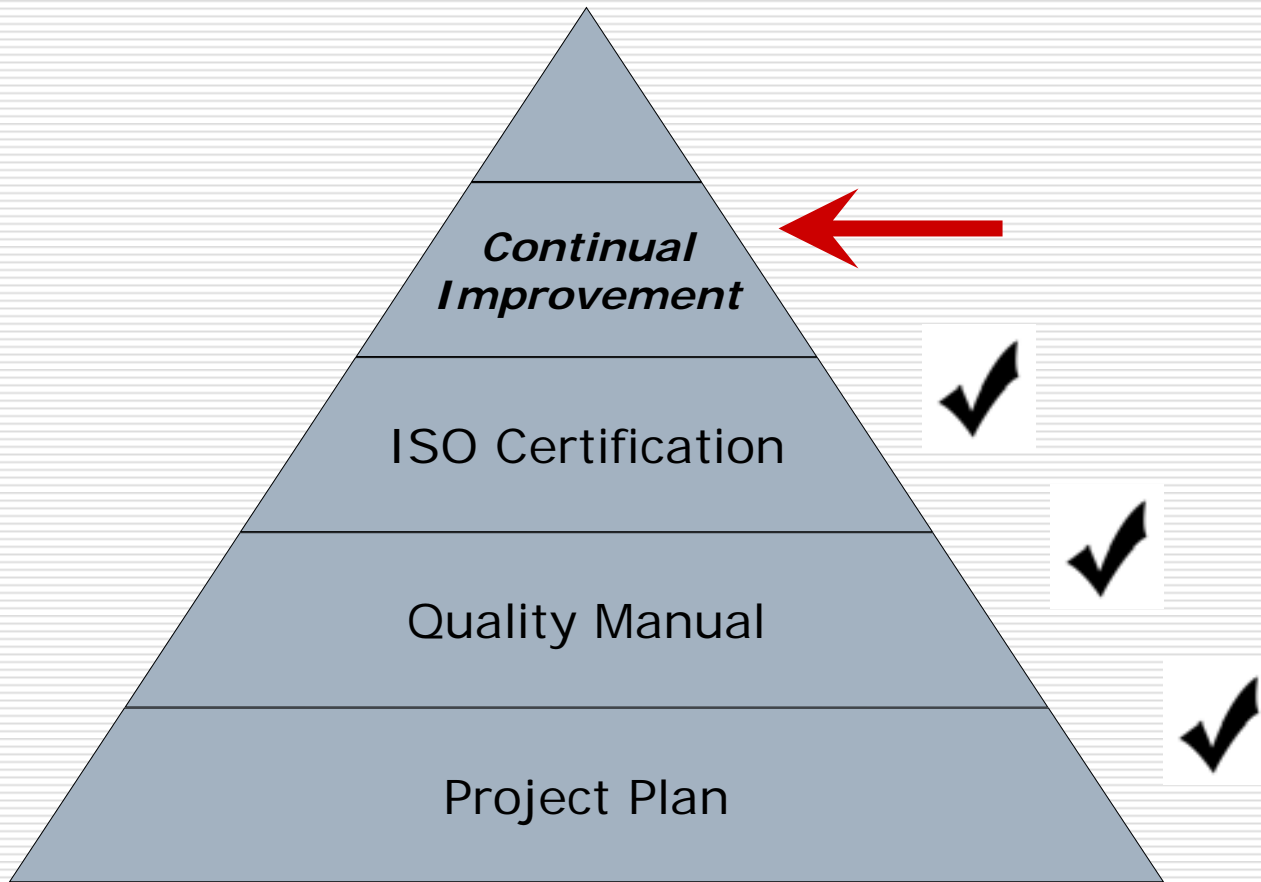
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- What is ISO 9001?
  - International Organization for Standardization (ISO) 9001
  - An internationally recognized quality management standard
  - Certification is a coveted recognition for quality management
  - Dallas is the first major city in the United States to achieve ISO 9001 certification for an entire city department

# Background

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- Why is ISO 9001 important to the City of Dallas?
  - Our goal is to:
    - Align everyday work with our quality policy
    - Provide targets that can be measured
    - Allow easy review of performance
    - Drive continual improvement





# Background

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- On February 23, 2005 the Council approved a contract with the University of Texas at Arlington-TMAC to assist with the implementation of ISO 9001 within the Street Repair Division of Street Services
- On May 10, 2006 the Council approved a multi-year contract with the University of Texas at Arlington-TMAC to implement an ISO 9001 Quality Management System for the entire Department of Street Services and other City Departments

# Background

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- ❑ Council Committees were provided periodic progress reports on Street Services progress
- ❑ Process-mapped each service provided to assist us in understanding the work
- ❑ Developed work instructions for employees to standardized work processes
- ❑ Established measurable objectives to serve as guiding principles for each business unit

# Background

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- Conducted a series of internal audits to identify opportunities for improvement
- Held management reviews to foster decision making
- Developed a quality manual to outline the StreetWorks way of doing business

# Background

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- ❑ Pre-Assessment was conducted on January 18-19, 2007
- ❑ Final-Audit was completed February 28, 2007 through March 2, 2007
- ❑ ISO 9001 Certification was awarded March 13, 2007

# Status and Review

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- Developed measurable objectives that address:
  - Delivery of service
  - Efficiency
  - Quality
  - Customer feedback

## Business Unit: Service Maintenance Areas

Objective	Measurement	Source
<i>1. Delivery of Service / Efficiency</i>		
Respond to 3-1-1 service requests in accordance to the Service Level Agreement	The total number of service requests completed compared to the total number available to be worked on	Customer Service Response Management System
<i>2. Quality</i>		
Establish an inspection results baseline to set future quality standards		STS Inspection Program
<i>3. Customer Feedback</i>		
Receive a satisfactory score on the Customer Feedback Surveys performed	Review Street Services related results of citywide 5% Customer Feedback Survey conducted	Strategic Customer Service 5% Customer Feedback Survey

Asphalt Street Repair- Level Up Efficiency (\$/per SY)	District 1	District 2	District 3	District 4	District 5	Nights
<b>Benchmark</b>	<b>\$9.00</b>	<b>\$9.00</b>	<b>\$9.00</b>	<b>\$9.00</b>	<b>\$9.00</b>	<b>NA</b>
<b>October</b>	\$ 7.69	\$ 6.01	\$ 7.91	\$ 9.36	\$ 11.77	-
<b>November</b>	\$ 7.06	\$ 5.63	\$ 7.61	\$ 9.36	\$ 11.64	-
<b>December</b>	\$ 10.85	\$ 9.12	\$ 9.81	\$ 8.93	\$ -	-
<b>January</b>	\$ 17.76	\$ 11.06	\$ 14.18	\$ 11.26	\$ 10.34	-
<b>February</b>	\$ 10.38	\$ 9.09	\$ 12.70	\$ 12.12	\$ 14.52	-

<b>AVERAGE</b>	\$ 10.75	\$ 8.18	\$ 10.44	\$ 10.21	\$ 9.65	-
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<b>October Comments:</b>	
District 1	Cost was low due to higher volume of large level ups.
<b>November Comments:</b>	
District 2	Special Project: Veteran's Day (Mountain Creek Pkwy-1600 SY)
<b>December Comments:</b>	
District 5	One of two patch trucks down. Focused on pothole repair.
<b>January Comments:</b>	
District 1	Special Project: Fair Park Extension (extensive full depth level-ups).
<b>February Comments:</b>	
	No comments.

Note: Average cost will increase in the winter months due to the use of a cold patch material on rainy days and when the temperatures stay below 45 degrees (\$80/ton vs. \$45/ton for hot-mix).

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## Business Unit: Street Repair Division

Objective	Measurement	Source
<i>1. Delivery of Service / Efficiency</i>		
Perform Service Request for major asphalt and concrete street repair in accordance with the SLA	The number of service requests completed per the goal	Customer Service Response Management System
<i>2. Delivery of Service / Efficiency</i>		
Perform Streets 2010 projects and prep-work for preventative treatments in accordance with 2006/07 2010 program goals	The number of planned projects completed per plan	Fiscal Year 06-07 2010 Project List
<i>3. Quality</i>		
Establish an inspection results baseline to set future quality standards		STS Inspection Program
<i>4. Customer Feedback</i>		
Receive a satisfactory score on the Customer Feedback Surveys performed	Review Street Services related results of citywide 5% Customer Feedback Survey conducted	Strategic Customer Service 5% Customer Feedback Survey

## Business Unit: Flood Control

Objective	Measurement	Source
<i>1. Delivery of Service / Efficiency</i>		
Perform work on the pumps, motors, sumps, and levees in accordance to the standards set by the United States Army Corp of Engineers	United States Army Corps of Engineers annual and/or periodic reports	United States Army Corp of Engineers Report
<i>2. Efficiency / Quality</i>		
Ensure 95% of pumps are readily available during the rainy season (March-May, September-November) and 80% of pumps are available during the non-rainy season (December-February, June-August)	Total number of downtime hours divided by the total hours available each month	Flood Control Preventative Maintenance Schedule
<i>3. Customer Feedback</i>		
Analyze and decrease the number of avoidable incidents by performing post event assessments	Results of post event assessments	Flood Control Post Assessment Report

# Business Unit: Contracts, Finance, and Inspections

Objective	Measurement	Source
<i>1. Delivery of Service / Efficiency / Quality / Customer Feedback</i>		
Process 100% of payments for services according to guidelines detailed in the service contract	The number of payments within 21 days divided by the total number of payments processed monthly	Accounts Payable Log
<i>2. Quality</i>		
Establish an inspection schedule and completion baseline to set future standards	<p>The number of inspections compared to the number of inspections scheduled</p> <p>The number of inspections completed on time compared to the number of inspections scheduled</p>	STS Inspection Program Inspection Log
<i>3. Customer Feedback</i>		
Establish a baseline for performance on inspections	The number of disputes divided by the number of inspections completed per the target	Inspection Log

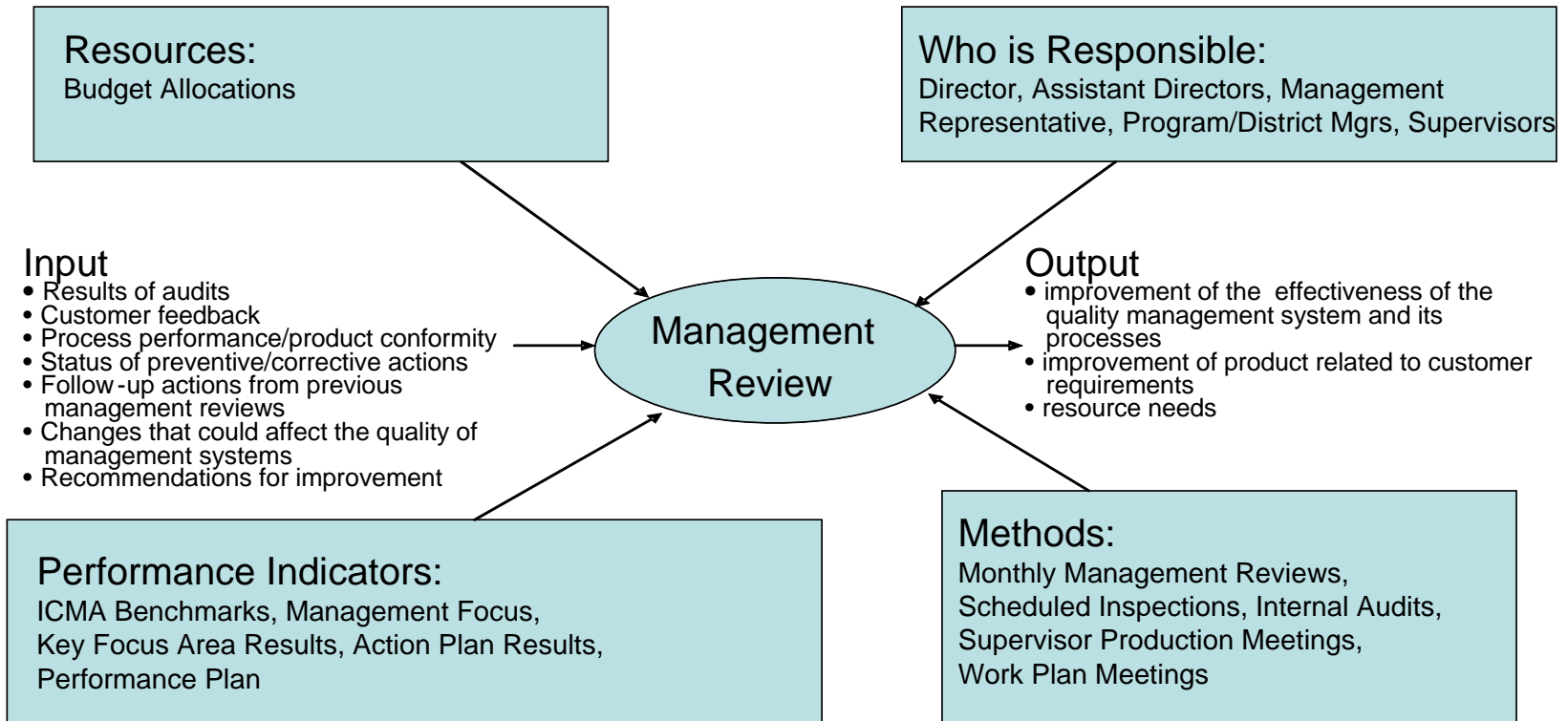
# Review

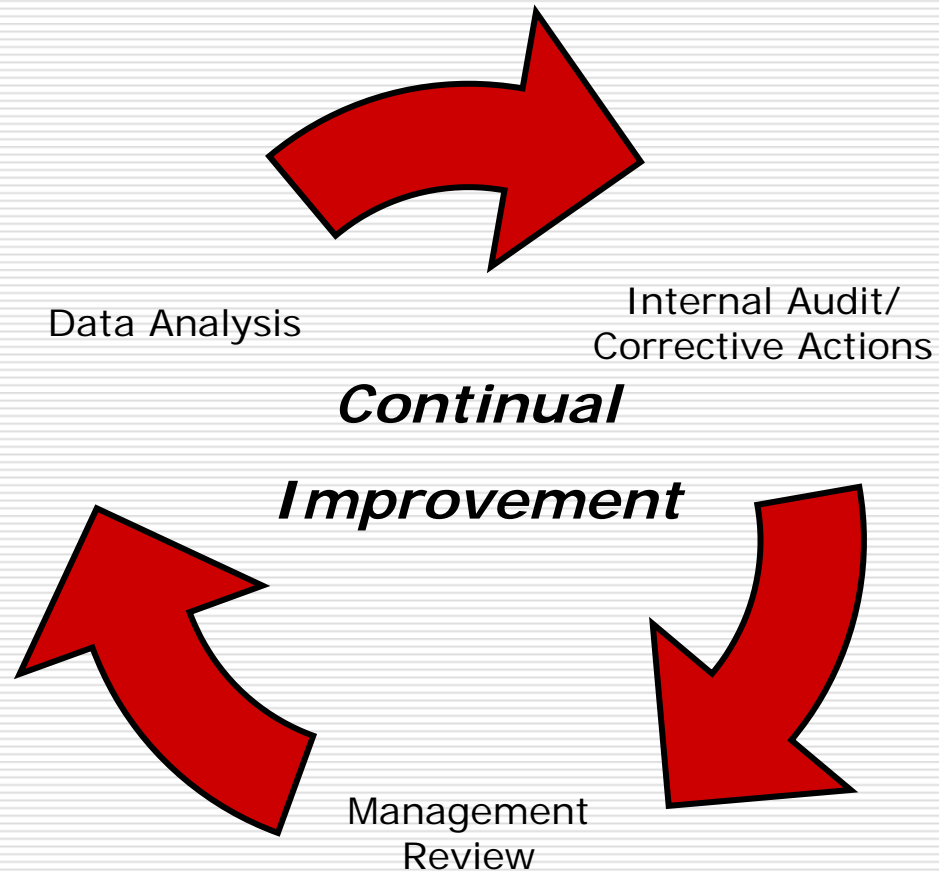
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- Conduct management reviews that address:
  - Resources
  - Performance Indicators
  - Methods
  - Accountability
- Management reviews are a requirement of the ISO 9001 Standard

# Management Review

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# Review

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- Initial Return on Investment
  - A documented quality management system
  - Improved internal communication
  - Consistent and repeatable processes
  - Customer feedback showing signs of increased customer satisfaction
  - Corrective and preventative action systems to facilitate continual improvement
  - Employee buy-in through training and involvement

# Review

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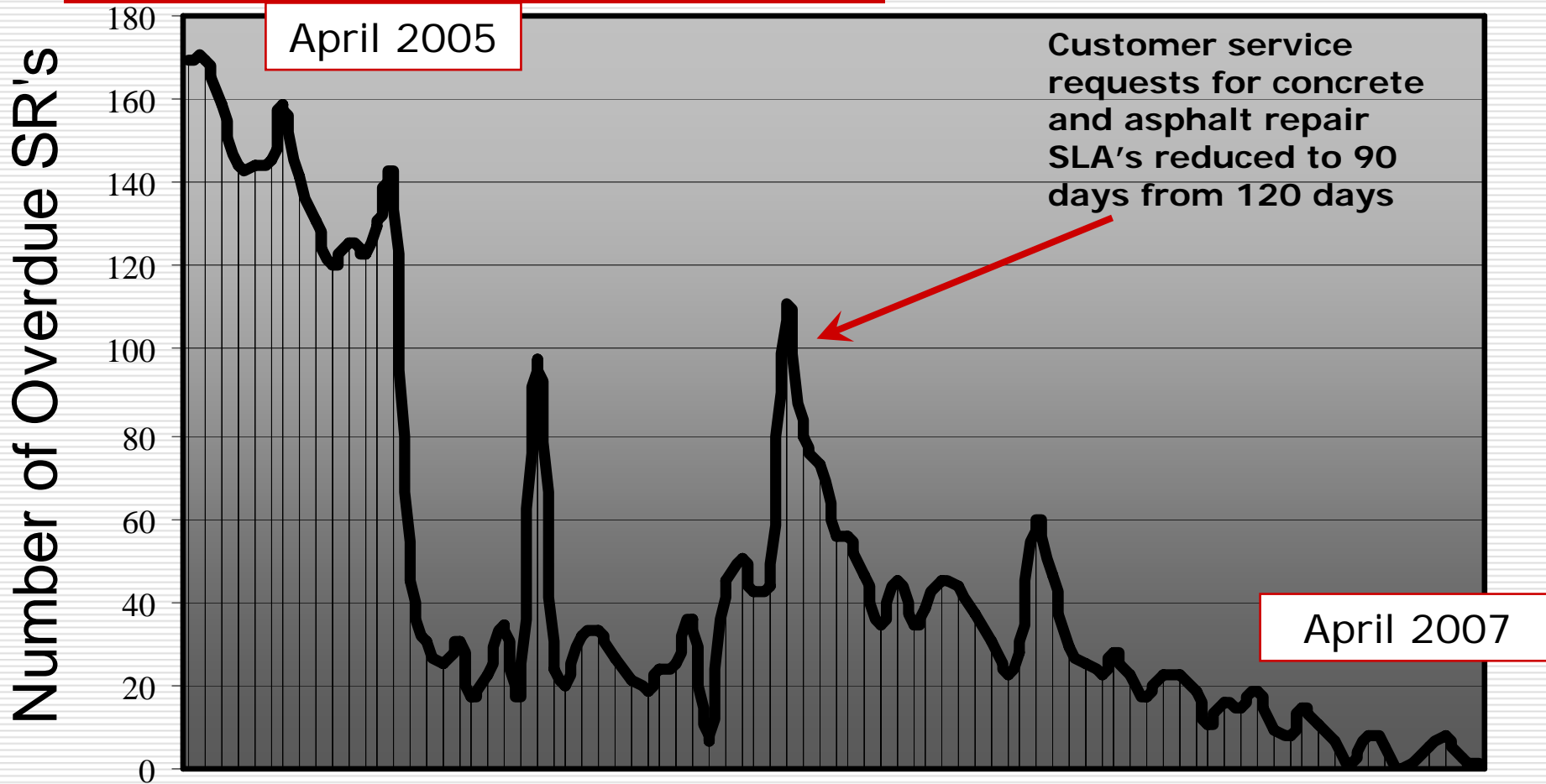
## Return on Investment

### Improved:

- Non-hazardous pothole SLA from 120 days to 5 days
- Concrete repair SLA from 120 days to 90 days
- Asphalt repair SLA from 120 days to 90 days
- Fleet preventative maintenance record
- Risk management report card
- Environmental compliance
- Response to customer service requests



## Overdue SRs Since the ISO Certification Process Began



# Next Steps

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- Continue to work the ISO 9001 plan
    - Registration is not permanent and must be renewed every three years
    - The Registrar will return annually to conduct an audit of 1/3 of our organization
    - Every 3 years a full external audit is conducted
  
  - Focus on training and development
  - Conduct internal audits
  - Develop a 5 year "Road Map"
  - Pursue continual improvement
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# Appendix

# Street Repair Division

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- Types of major maintenance repairs:
  - Partial reconstruction
    - Removal and replacement of large, failed sections of concrete streets
    - Includes breakout and removal of old concrete
    - Repair of any existing base failures
    - Placing new concrete in failed areas to restore the street to good condition
  - Rehabilitation
    - A treatment for asphalt streets without a curb and gutter
    - Street surface is repaired and crack-sealed if necessary
    - Application of an under-seal followed by a 2" layer of asphalt

# Street Repair Division

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- Types of major maintenance repairs:
  - Restoration
    - Grinding and pulverizing an asphalt street
    - Recycling of the old base and surface material into the new street
    - Application of an under-seal followed by a 2" layer of asphalt
  - Full-Depth Repairs
    - Partial replacement of street/alley pavements

# Service Maintenance Areas

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- Primary intake of Service Requests (311)
  - Routine maintenance
    - Pothole repair
    - Radio dispatch for roadway emergencies
    - Street/alley repair
    - Roadside drainage
    - Inlet cleaning
    - Illegal dumping
    - Guardrail repair
    - Mowing of surplus property
  - Night operations
    - Fire Response
    - Right-of-way cleaning in CBD
    - Sanding oil spills
    - Traffic control at accidents

# Flood Control

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- Funded by Storm Water
  - \$7M FY06-07
- Provide flood protection by maintaining and operating the Trinity River Levee System
  - 30 miles of levees
  - 16 pump stations
  - 63 pumps
  - Protects 10,000 acres or 17% of the City's tax base
- Monitor 41 flooded roadway warning sites on roadways prone to localized flooding
- General maintenance:
  - 117 miles of creeks
  - 51 miles of lined channels
  - 58 acres of detention/retention basins
  - Mowing of the floodway, levees, and sumps

# Contracts, Finance, and Inspections

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- Mowing of medians and right-of-ways
  - 1600 acres per cycle
    - 18-19 cycles annually
- Street sweeping for major thoroughfares
  - 2,186 gutter miles monthly
- Litter pick-up
  - Collect and remove 1,500 cubic yards of litter annually
- Preventative maintenance treatments
  - Slurry sealant for residential streets
    - Prevents water infiltration
    - 105 lane miles annually
  - Micro surfacing for high traffic thoroughfares
    - Prevents water infiltration
    - 120 lane miles annually