

Pavement Management Program

***Program Update, Cycle Two Status Report &
2010 Street Maintenance Program***



City of Lawrence
PUBLIC WORKS

Executive Summary

12/01/2009

Presented by

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Program Overview

- Start of current program 2005
- 805 Lane miles of pavements
- Cycle 1 complete Oct. 2005 - 299 center-line miles
- Cycle 2 complete Oct. 2009 – 319.5 center-line miles
- PCI – Pavement Condition Index
 - Is a numerical value (0 to 100) assigned based on the visual street condition and ride. 100 represents a pavement with no visible distresses

PCI Goals

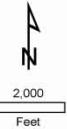
- Prevent further deterioration
- Establish a maintenance plan
- Critical points
 - Arterial 65
 - Collector 60
 - Residential 55
- Cycle 1 - 31.5% in “unacceptable” range
- **Cycle 2 - 29.8% in “unacceptable” range**
 - **Making progress**
- “unacceptable” means not a good candidate for preventative maintenance – suggests rehabilitation
 - Mill and overlay
 - complete rebuild

Pavement Condition Index Map: Lawrence, KS

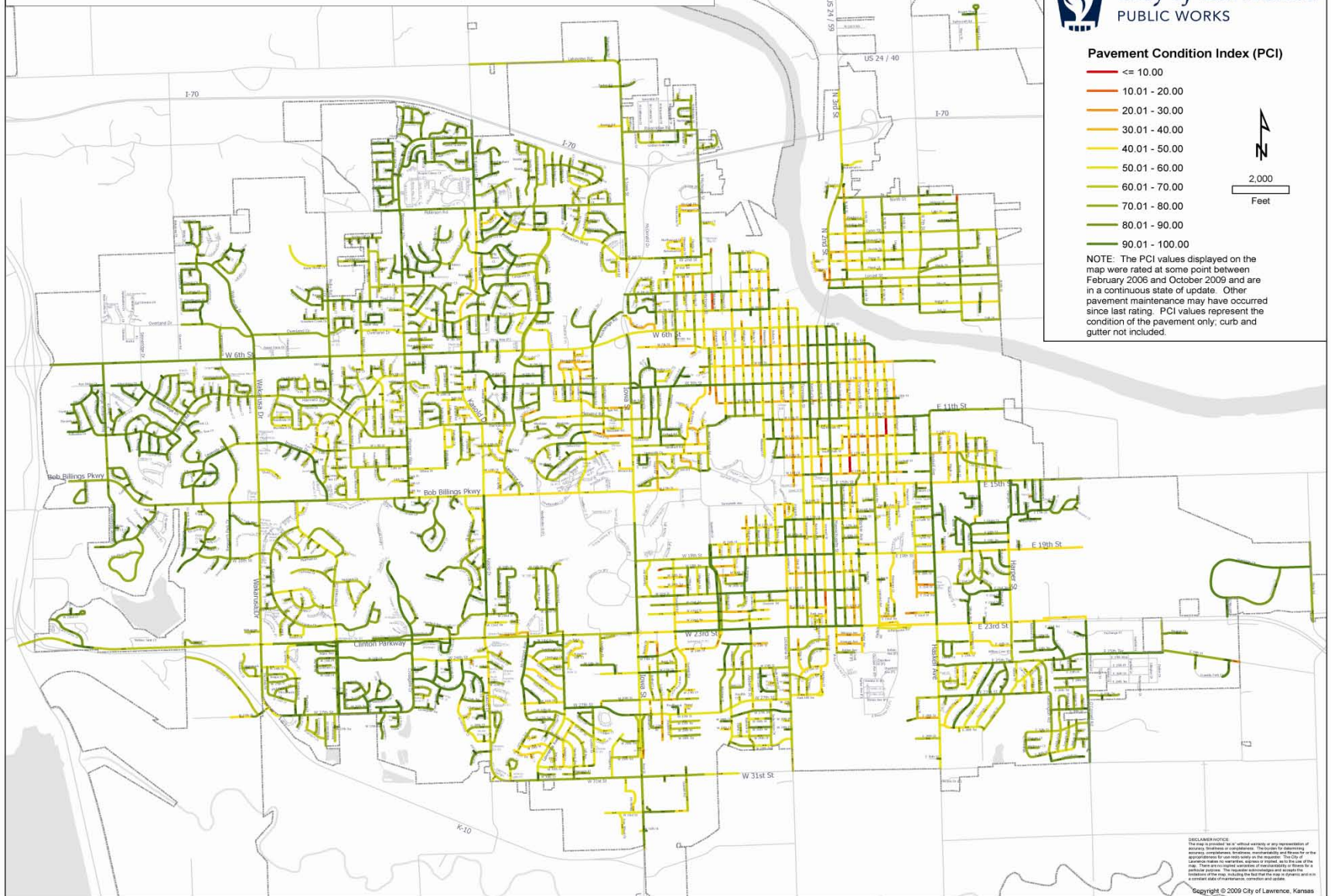


Pavement Condition Index (PCI)

- <= 10.00
- 10.01 - 20.00
- 20.01 - 30.00
- 30.01 - 40.00
- 40.01 - 50.00
- 50.01 - 60.00
- 60.01 - 70.00
- 70.01 - 80.00
- 80.01 - 90.00
- 90.01 - 100.00



NOTE: The PCI values displayed on the map were rated at some point between February 2006 and October 2009 and are in a continuous state of update. Other pavement maintenance may have occurred since last rating. PCI values represent the condition of the pavement only, curb and gutter not included.



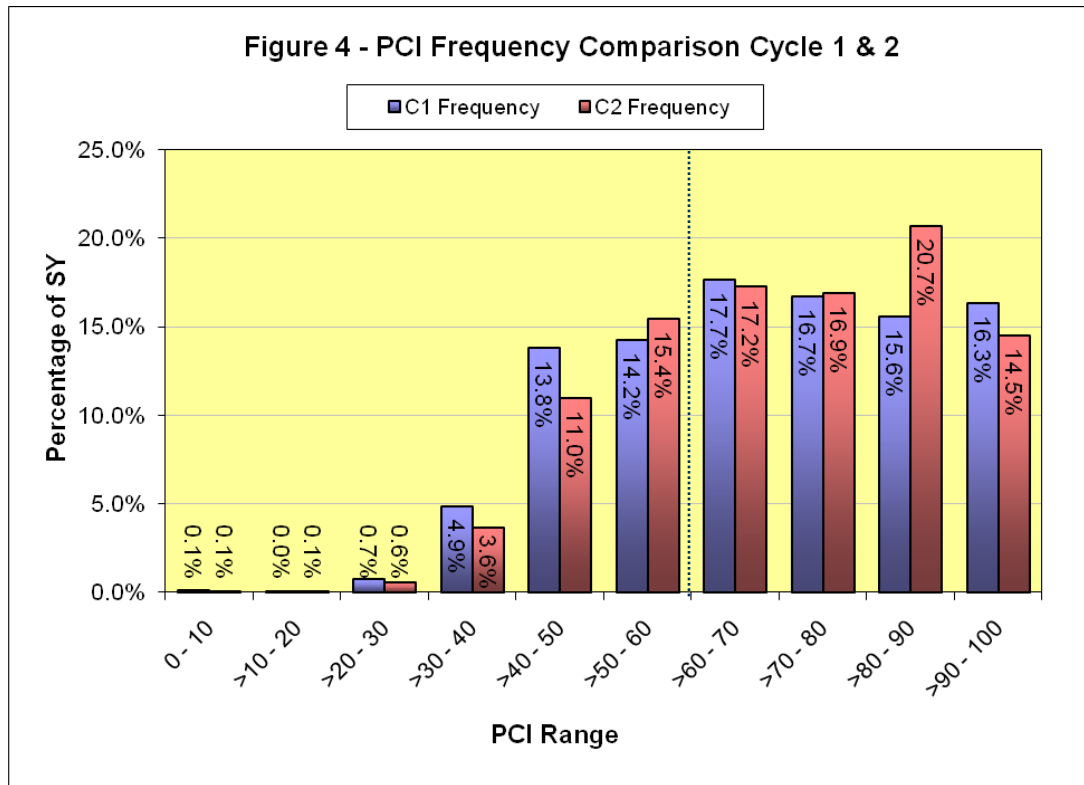
DISCLAIMER NOTICE:
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Average PCI

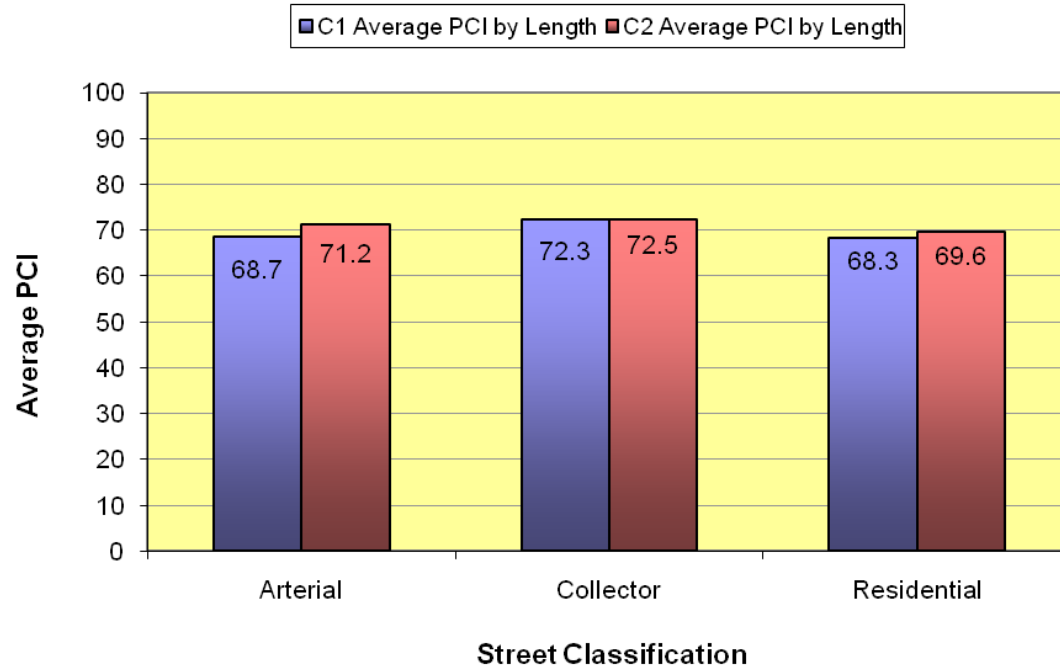
- The overall PCI
 - Cycle 1 = 69.0
 - Cycle 2 = 70.28
- Positive movement of PCI average
- Curb and Gutter condition do not impact the PCI for streets

PCI Comparison Cycle 1 and 2

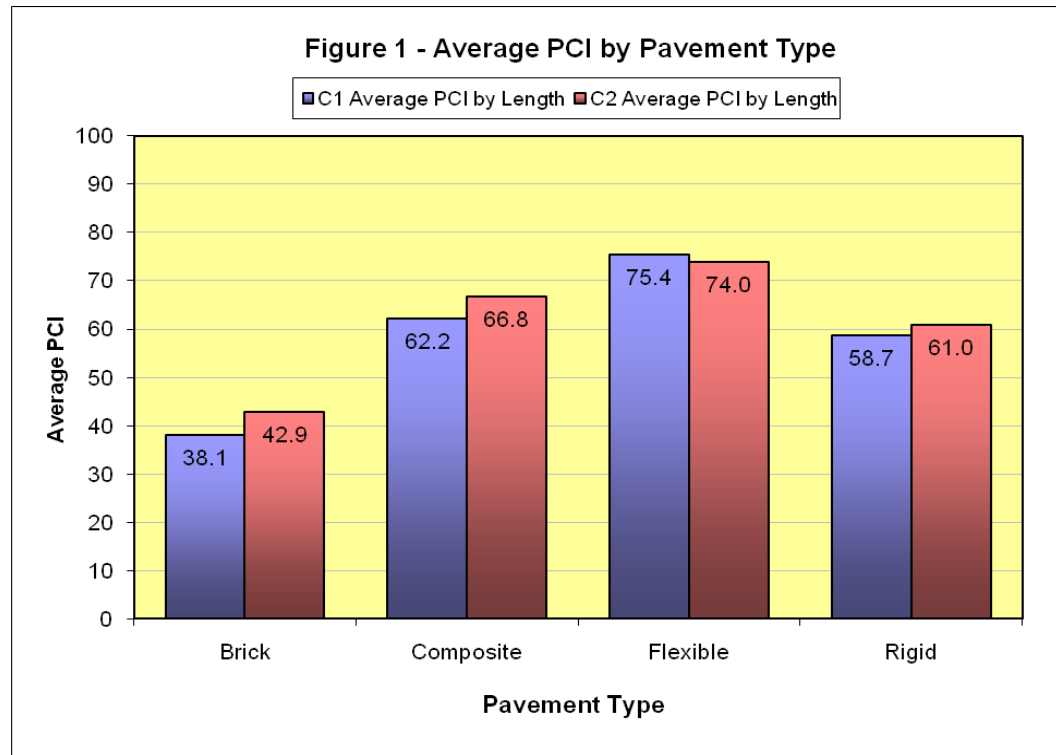


Average PCI by Street Classification

Figure 2 - Average PCI by Street Classification

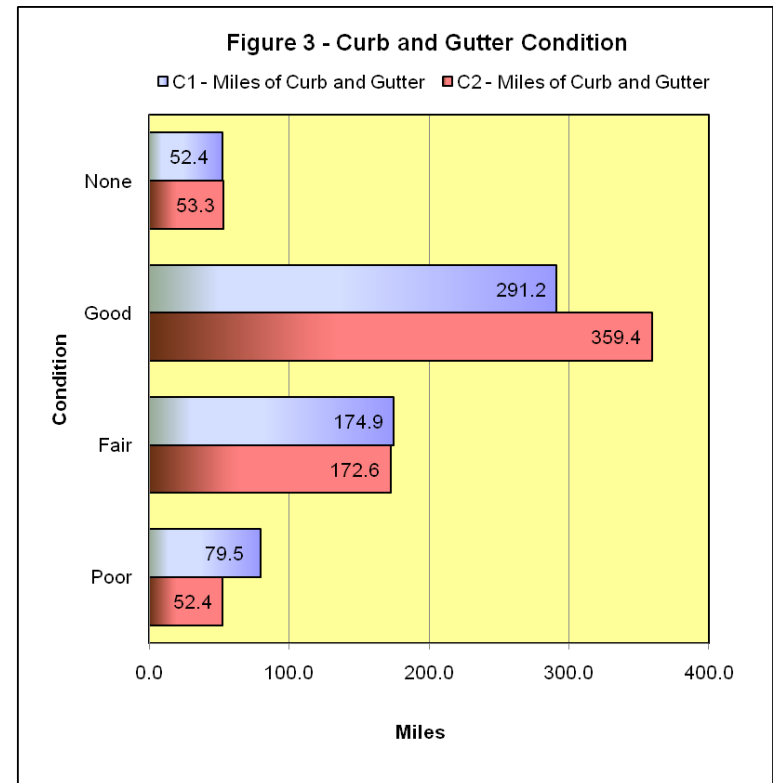


Average PCI by Pavement Type



Curb and Gutter Condition

- From Cycle 1 to Cycle 2 the amount of curb in good condition has increased by 68 miles
- Rated to Poor, Fair, or Good



Deterioration Rates

- **Overall deterioration rates have slowed down or made positive gains**
- Strongest gain was composite streets (asphalt over concrete or brick)
- “-” indicates decline in PCI
- “+” indicates a incline in PCI

Deterioration Rates

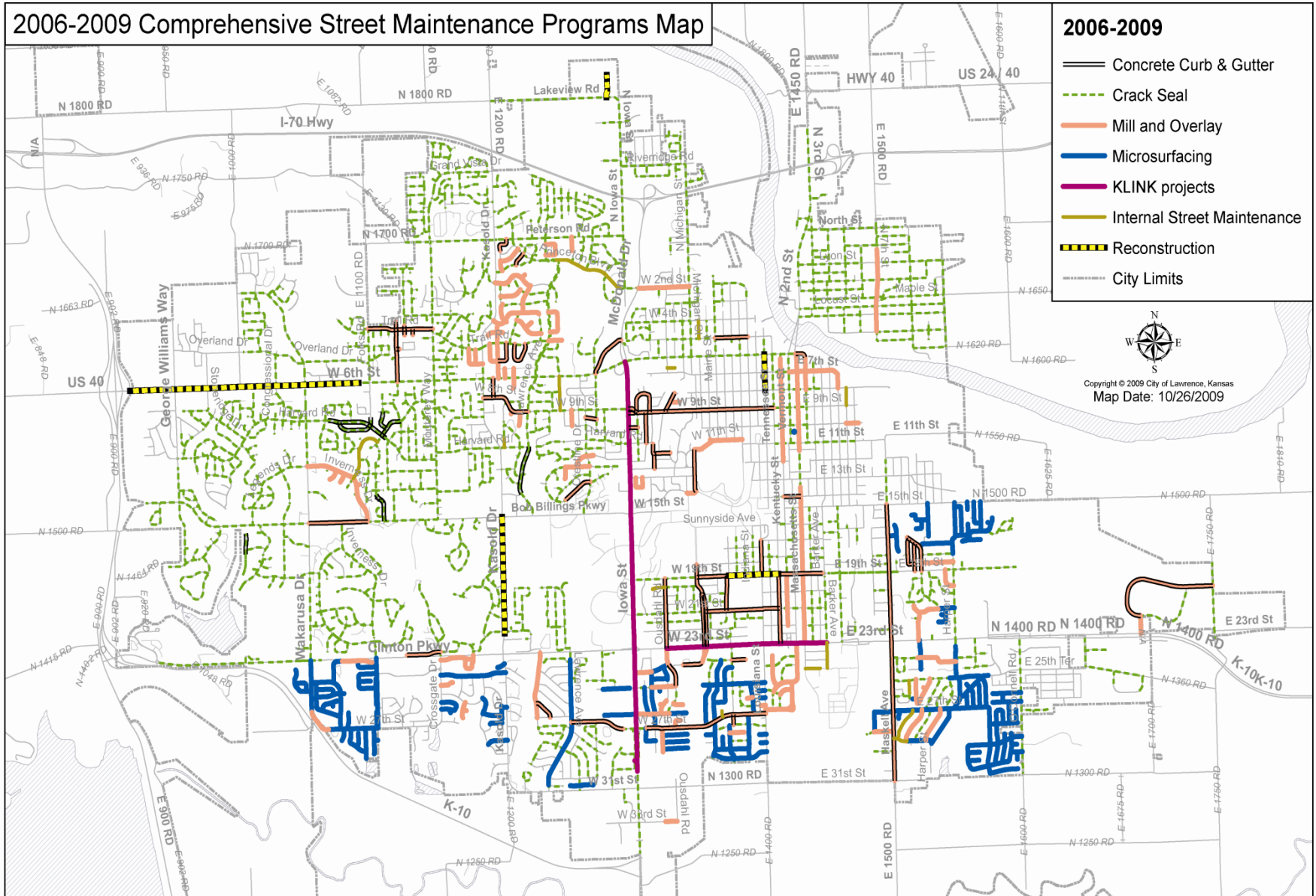
by pavement type

TABLE 1			
Pavement Type	Street Classification	C1 – Deterioration Rate	C2- Deterioration Rate
Flexible (Asphalt) w/ No Past Overlay	Arterial	-2.40	-2.60
	Collector	-2.38	-1.84
	Residential	-2.40	-1.18
Flexible (Asphalt) w/ Past Overlay	Arterial	-6.42	-2.66
	Collector	-5.60	-1.00
	Residential	-5.27	+2.28
Composite (Asphalt over Concrete/Brick)	Arterial	-8.70	+1.58
	Collector	-5.62	+0.86
	Residential	-3.84	+0.72
Rigid (Concrete)	Arterial	-1.97	-0.93
	Collector	-1.50	-0.21
	Residential	-1.41	-0.35

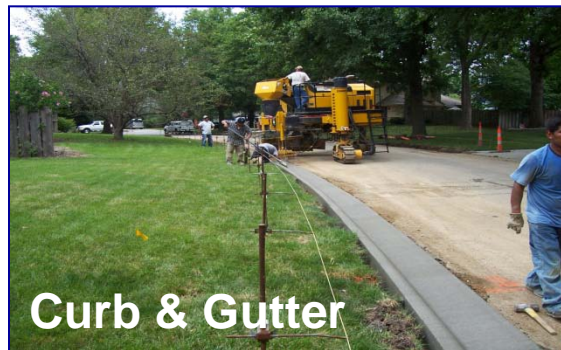
Program Funding 2006 to 2009

TABLE 2	Actual Dollars (Approx.)	Description
Contracted Street Maintenance Program (2006 through 2009)	\$16.05 million	Crack Sealing – 443.0 lane-miles Microsurfacing – 69.0 lane-miles Milling & Overlay – 87.3 lane-miles Curb & Gutter – Approx. 31.4 miles
Public Works Internal Street Maintenance	\$1.1 million	Asphaltic & Concrete Material Costs Only
W 6 th St - Folks Rd to K-10	\$15 million	Reconstruction, Widening, Mill & Overlay – 2006 Completion
Kasold Dr – Bob Billings Pkwy to W 22 nd St	\$5.39 million	Concrete Reconstruction – 2007 Completion
Ohio St – W 6 th St to W 8 th St	\$680,000	Brick Reconstruction – 2008 Completion
W 19 th St – Tennessee St to Alabama St	\$1.0 million	Reconstruction, Widening, Mill & Overlay – 2008 Completion

2006-2009 Comprehensive Street Maintenance Programs Map



Maintenance Programs



Summary of Program

- Average PCI increased by 1.86% from cycle 1 to cycle 2
 - Indicates program is moving in a positive direction toward sustainability
 - Good decisions are being made
- Deterioration rates are slowing
- The overall percentage of “unacceptable” streets has declined

2010 program

- In August 2009 commission approved \$5.1 million
- Projects selected using
 - Pavement management database (PCI's)
 - Constituent concerns
 - Known problem areas
 - Coordination with other projects / agencies
 - Utilities, development, new construction
 - Bicycle advisory committee review of plan
 - Selection of diverse locations throughout the city

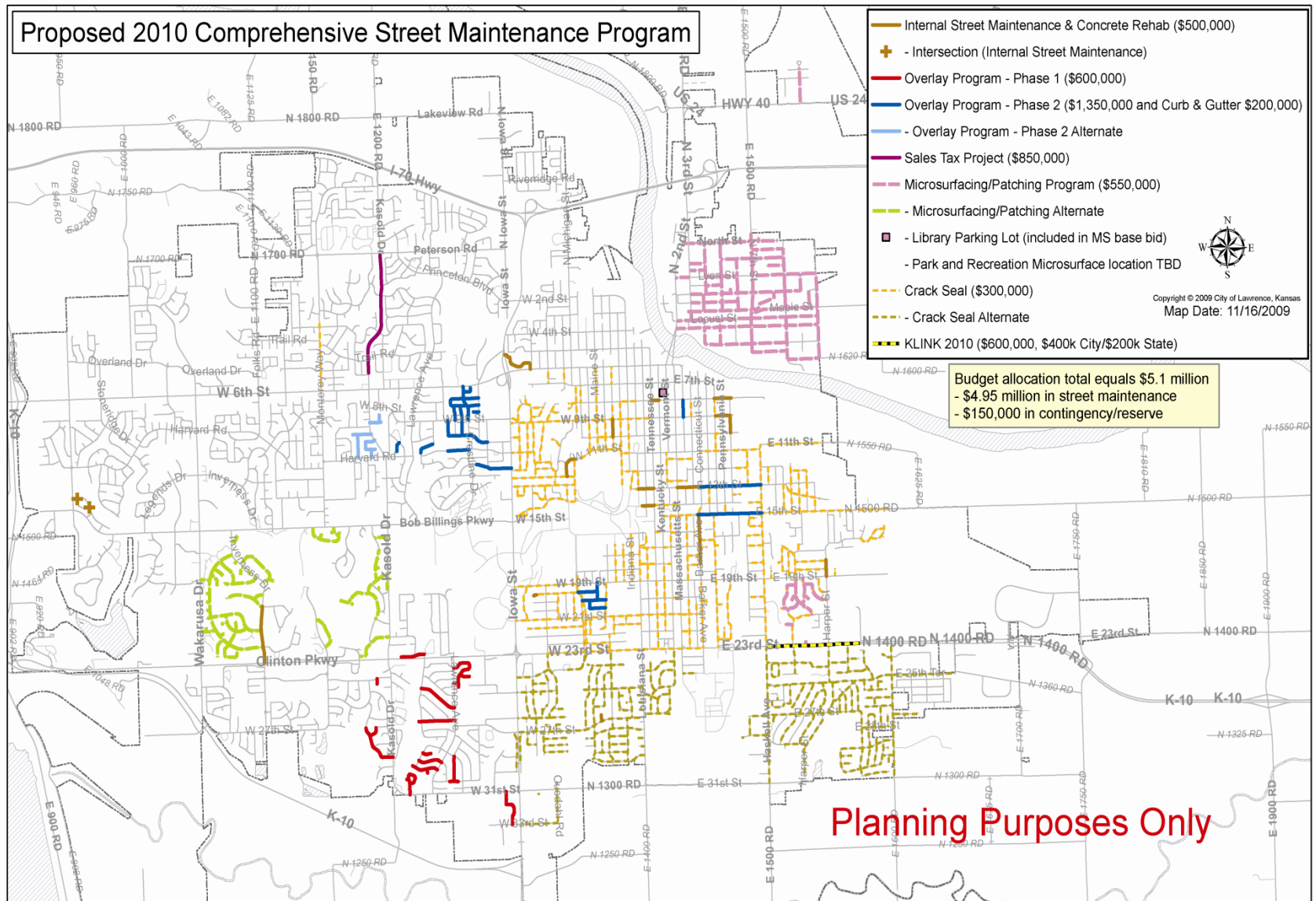
Bicycle Advisory Committee Recommendations

- 13th St. will remain a bike route, no bike lane
- 15th St. (Haskell to Prospect). Mill and overlay and add a bike lane Massachusetts to Prospect as part of the 2010 program
- 17th (Illinois to Indiana). Request to add to the 2010 maintenance program with no bike lane
- 7th St. (Tennessee to Florida) add bike lanes as part of a future maintenance program
- Princeton – add bike lanes as part of a future program

2010 Program Projects

- Crack Sealing
- Microsurfacing
- Overlay –
 - Phase I
 - Phase II
- Infrastructure sales tax
 - Kasold : 6th to Peterson
- KLINK
 - 23rd St. : Haskell to city limits
- Other projects
 - Downtown parking lot microsurface
 - Alley project one block
 - New York brick restoration – ARRA funds
 - In-house projects
- Program will begin earlier with bidding in Feb to Apr and construction beginning in May

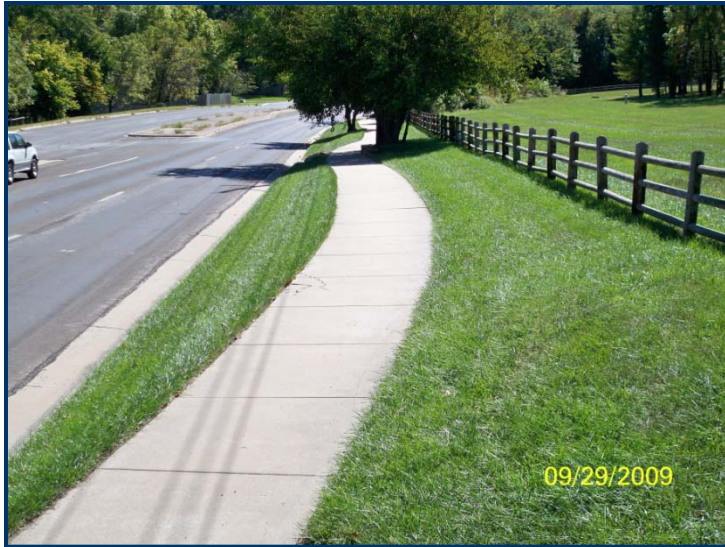
Proposed 2010 Comprehensive Street Maintenance Program



Kasold : 6th to Peterson (current)



Kasold : 6th to Peterson (goal)



Continue Sidewalk south



Landscaped Median,
sidewalk & Bike Lane –
Kasold north of Peterson

What's New

- Development of a 5 year plan
- In addition to current program we are adding
 - Wide joint crack sealing
 - Monterey Way, North of 6th
 - Concrete street patching
 - Inverness Dr, 23rd north
 - Barker St., 15th south
 - In-house
 - Bluffs Drive
 - Harper
 - 9th & Pennsylvania
 - West Hills Terr.

Questions?

