

Pavement Management Program

2011 Street Maintenance Program



City of Lawrence
PUBLIC WORKS

Executive Summary

12/14/2010

Presented by

Mark Thiel

Assistant Director Public Works

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
- Cycle 3, Phase 1 complete (27%) or 88.7 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
- Cycle 3 – 26.28% in “unacceptable” range
- “unacceptable” means not a good candidate for preventative maintenance – suggests rehabilitation
 - complete rebuild

Pavement Condition Index Map: Lawrence, KS

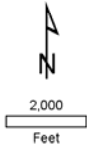


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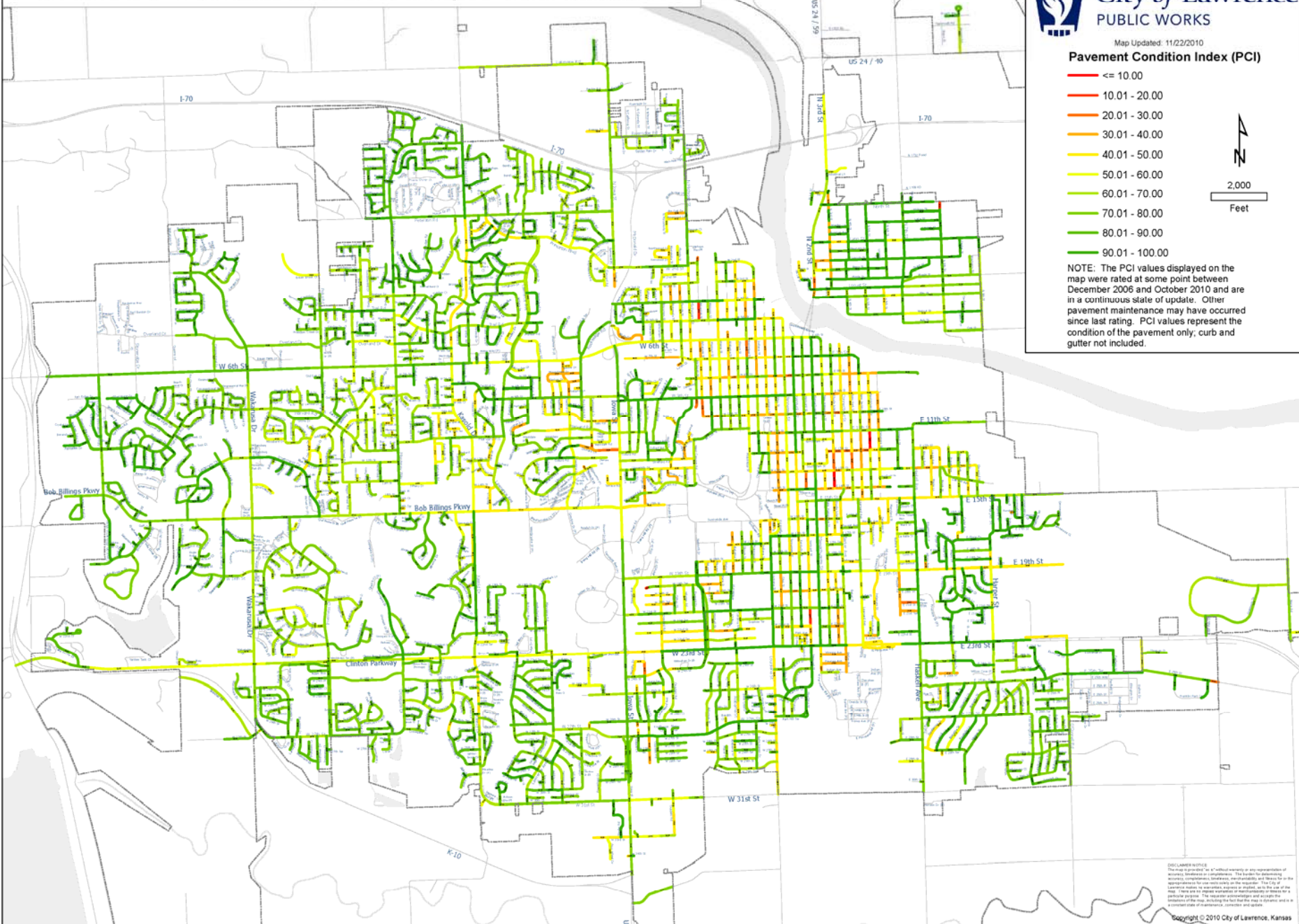
Map Updated: 11/22/2010

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 December 2006 and October 2010 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.



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Average PCI

- The overall PCI
 - Cycle 1 = 69.0
 - Cycle 2 = 70.28
 - Cycle 3, Phase 1 = 77.83
- Positive movement of PCI average
- Curb and Gutter condition do not impact the PCI for streets

Deterioration Rates

- Shows progress of program
- Broken down by pavement type
- “-” indicates decline in PCI
- “+” indicates a incline in PCI

Deterioration Rates

by pavement type

TABLE 1 – Comparison of 1st Quarter Cycle 3 Comparable Segments w/ Full Cycle 2 Deteriorations Rates

Pavement Type	Street Classification	C2- Deterioration Rate	C3- Deterioration Rate
Flexible (Asphalt) w/ No Past Overlay	Arterial	-2.60	+6.23
	Collector	-1.84	+1.43
	Residential	-1.18	+6.78
Flexible (Asphalt) w/ Past Overlay	Arterial	-2.66	-0.09
	Collector	-1.00	-1.32
	Residential	+2.28	+2.09
Composite (Asphalt over Concrete/Brick)	Arterial	+1.58	+35.89
	Collector	+0.86	+13.33
	Residential	+0.72	+5.27
Rigid (Concrete)	Arterial	-0.93	-3.67
	Collector	-0.21	+3.99
	Residential	-0.35	-0.49

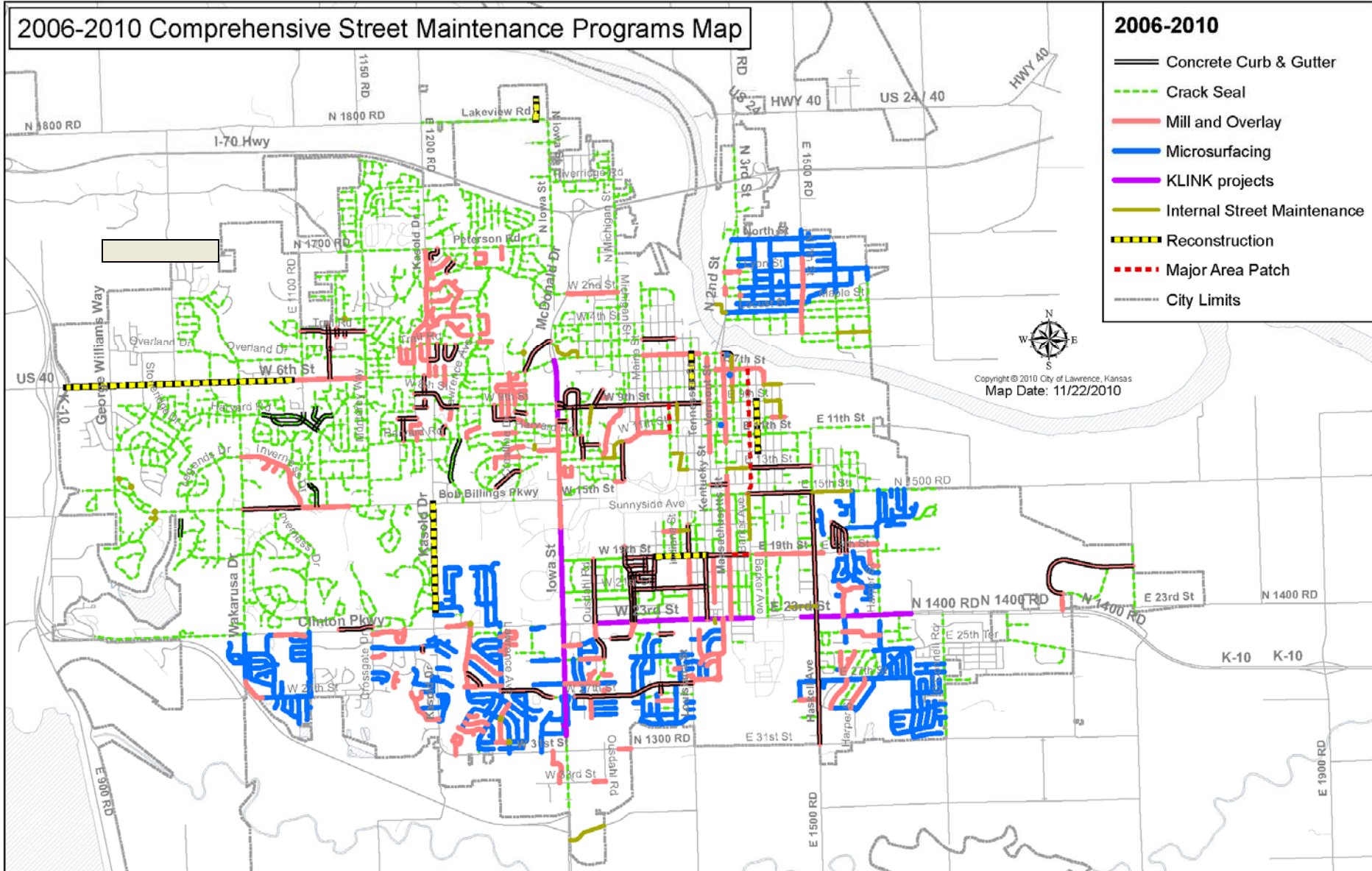
2006-2010 Comprehensive Street Maintenance Programs Map

2006-2010

- Concrete Curb & Gutter
- Crack Seal
- Mill and Overlay
- Microsurfacing
- KLINK projects
- Internal Street Maintenance
- Reconstruction
- Major Area Patch
- City Limits



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Map Date: 11/22/2010



Maintenance Programs Contracted



Maintenance Programs

In- House



Summary of Program

- Average PCI increased by 10.74% from cycle 2 to cycle 3
 - 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

2011 Program

- In August 2010 commission approved \$5.85 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

- Kasold (6th to Peterson)
- 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

2011 Program Projects

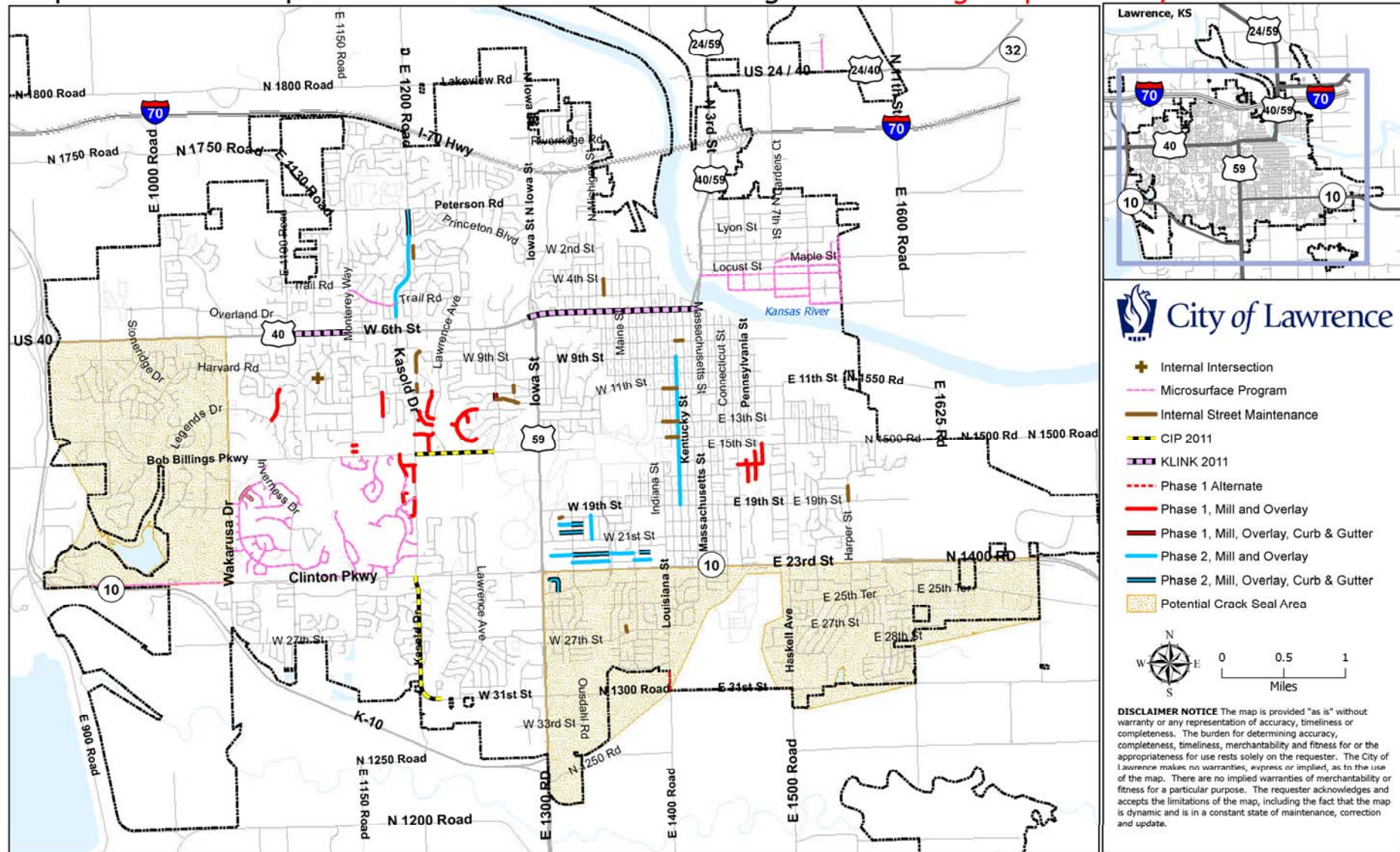
- Crack Sealing (In-House), Wide Joint Sealing, Polymer Patching
- Microsurfacing
- Concrete Rehabilitation (In-House and Contracted)
- Overlay –
 - Phase I
 - Phase II
- Infrastructure sales tax
 - Kasold : 5th Terr. to Peterson Ave.
- KLINK
 - 6th St. Massachusetts to Iowa & Monterey Way to Folks
- Other projects
 - Downtown parking lot microsurface
 - Kasold (23rd to 31st) CIP / KDOT
 - Bob Billings Parkway (West Bound Kasold to Crestline)
 - In-house projects

2011 Pavement Management Program Project Time Lines

[illegible]

Proposed 2011 Comprehensive Street Maintenance Program **Planning Purposes Only**

Revised: 11/15/2010



Kasold : 5th Terr. to Peterson



What's New

- Development of a 5 year plan
- In-House crack sealing
- Street Patching
 - Polymer patching
 - Spray injection patching
- Traffic calming installation
 - Carmel & Wimbledon
 - N 9th (Locust to Walnut)
 - Looking at Trail Rd (Kasold to Monterey Way)

Questions?

