



LODI CITY COUNCIL

Carnegie Forum
305 West Pine Street, Lodi

"SHIRTSLEEVE" SESSION

Date: November 12, 2013

Time: 7:00 a.m.

For information regarding this Agenda please contact:

Randi Johl-Olson

City Clerk

Telephone: (209) 333-6702

NOTE: All staff reports or other written documentation relating to each item of business referred to on the agenda are on file in the Office of the City Clerk, located at 221 W. Pine Street, Lodi, and are available for public inspection. If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof. To make a request for disability-related modification or accommodation contact the City Clerk's Office as soon as possible and at least 24 hours prior to the meeting date.

Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Information on the City of Lodi Street Maintenance Program (PW)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

Randi Johl-Olson
City Clerk



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CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Receive Information on the City of Lodi Street Maintenance Program
MEETING DATE: November 12, 2013
PREPARED BY: Public Works Director

RECOMMENDED ACTION: Receive information on the City of Lodi Street Maintenance Program.

BACKGROUND INFORMATION: The City of Lodi maintains nearly 400 lane miles of streets, 360 miles of sidewalk, 66 traffic signals and numerous other traffic control devices. Managing the City's street maintenance program requires balancing many resources including in-house design and construction staff, outside consultants, general engineering contractors, technology, and multiple funding sources.

The purpose of this presentation is to provide an overview of the City's street maintenance program, alternatives for pavement maintenance, a ten-year history of pavement maintenance activities, planning for future maintenance, the 2013 sidewalk survey, and Americans with Disabilities Act improvements.

FISCAL IMPACT: Not applicable.

FUNDING AVAILABLE: Not applicable.

F. Wally Sandelin
Public Works Director

Prepared by Charles E. Swimley, Jr., City Engineer/Deputy Public Works Director

FWS/CES/pmf

APPROVED: _____
Konradt Bartlam, City Manager

The City of Lodi
Public Works



Street Maintenance Program

November 12, 2013

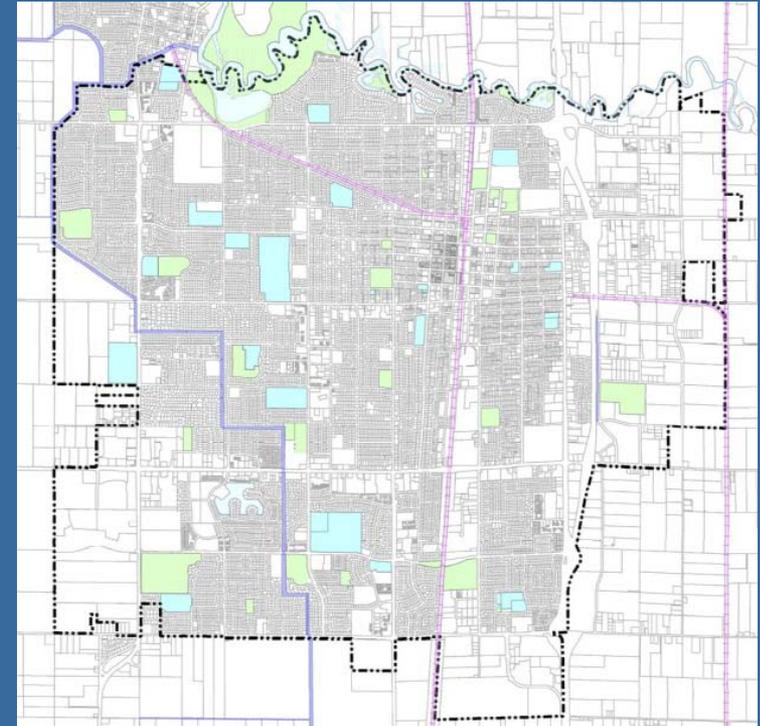
Overview

- Street Infrastructure
- Street Maintenance (Past, Present, Future)
- Funding
- Sidewalk & ADA Ramp Surveys
- Questions



Street Infrastructure

- Pavement and Striping
 - 396 Lane Miles
 - 88 Medians
- Traffic Control Devices
 - 66 Signalized Intersections
 - 890 Stop Signs
 - 76 Yield Signs
 - 835 Crosswalks (Including School Sites)
- Sidewalks
 - 360 Miles
 - 2,600 ADA Ramps
- 2.3 Million Square Feet of Landscape Maintenance
- 7,200 Street Lights (Electric Utility)





Street Classifications

- Street Classifications
 - Residential
 - Collector
 - Arterial
 - Highways (SR12–SR99) Caltrans



Residential (Holt Drive)



Collector (Mills Avenue)



Arterial (Hutchins Street)

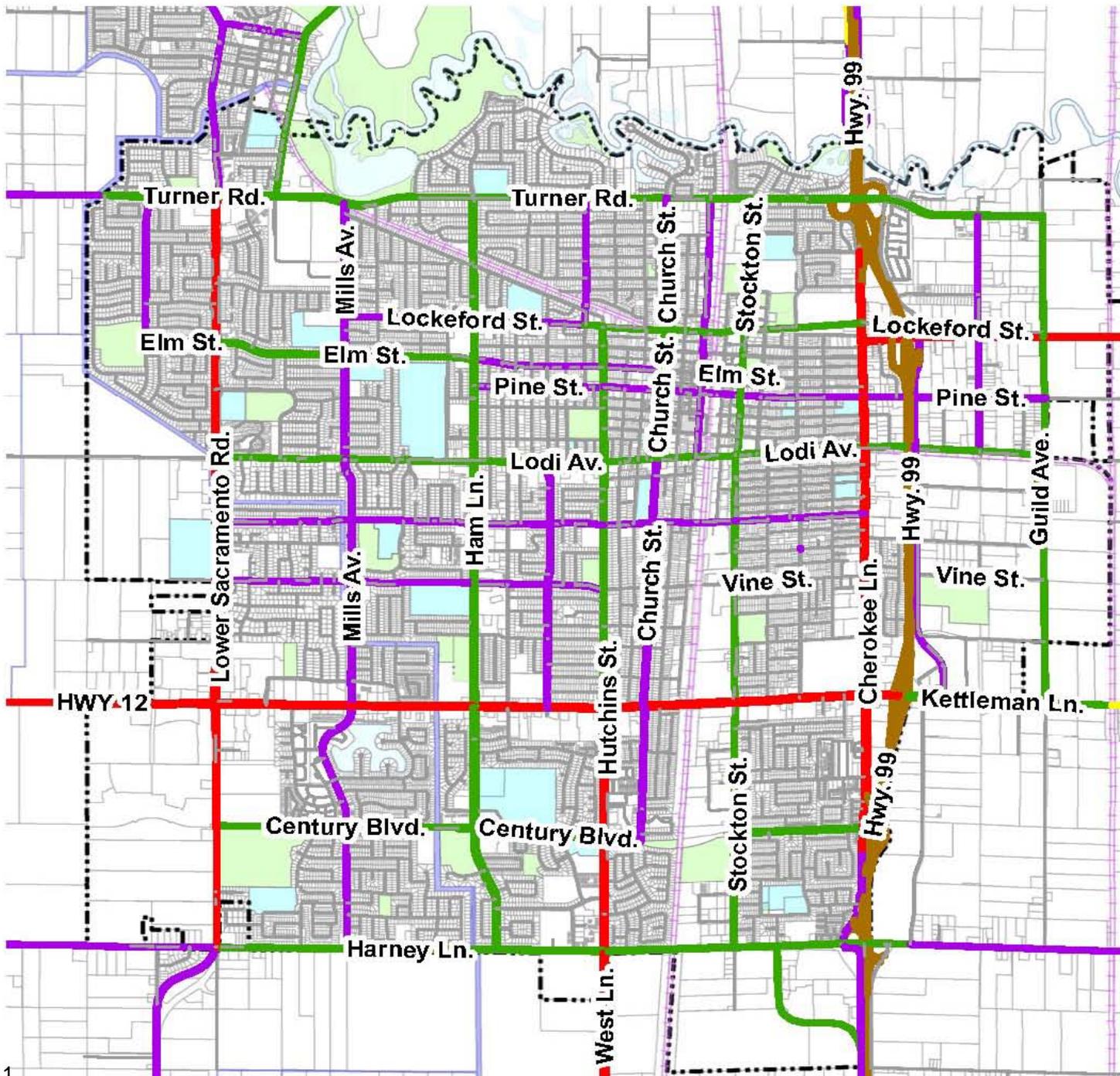


“Expressway” (Harney Lane)



Street Classification

- Interstate
- Other Freeways
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

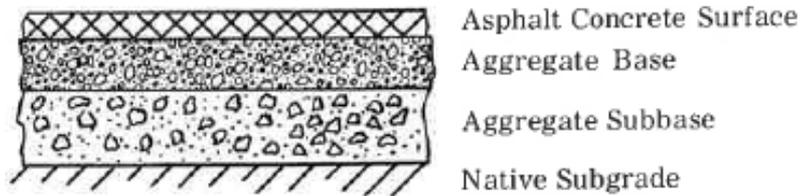




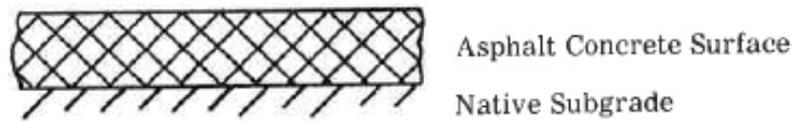
Pavement Types

TYPICAL PAVEMENT STRUCTURAL COMPONENTS

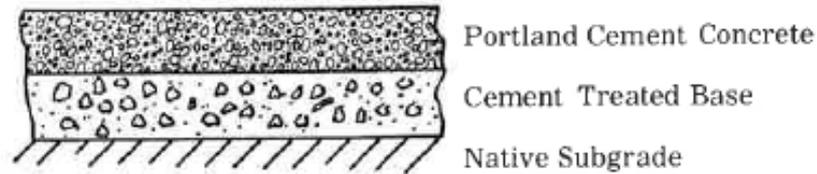
FLEXIBLE PAVEMENTS



FULL DEPTH ASPHALT CONCRETE

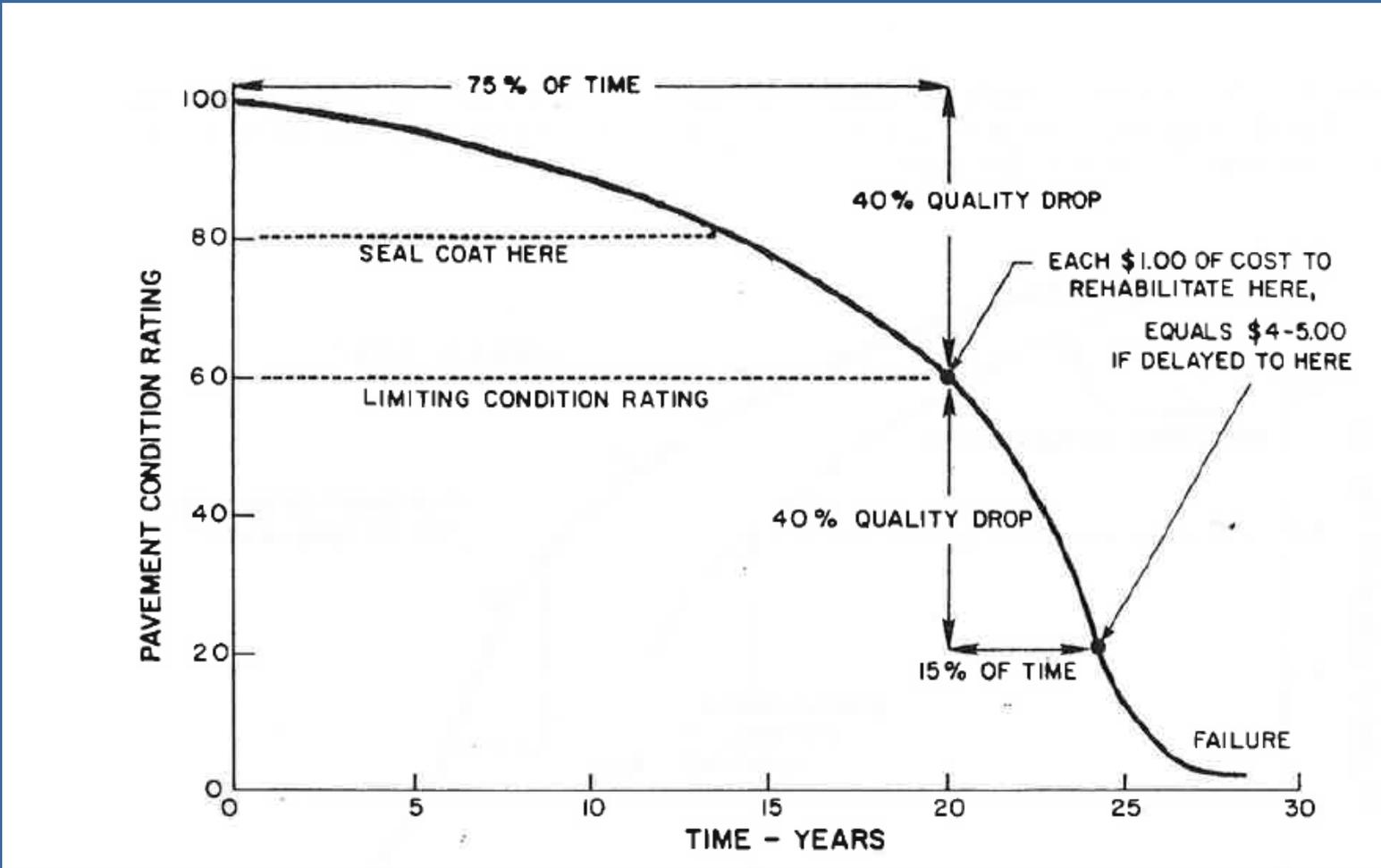


RIGID PAVEMENTS





Pavement Condition vs. Time





Signs of Pavement Stress

How do you know when
the pavement is bad?



Signs of Pavement Stress

- Cracking
 - Reflective
 - Alligator
 - Block
 - Longitudinal
 - Transverse
- Others
 - Rutting
 - Shoving
 - Raveling



Alligator



Block



Transverse



Rutting



Raveling



Signs of Pavement Stress

Pavement Failure





Signs of Pavement Stress

What can you do about it?

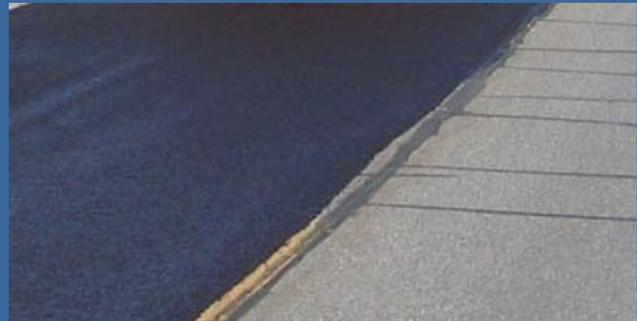


Treatment Types

- Sealing
 - Crack Seal
 - Slurry Seal
 - Chip Seal
 - Cape Seal
 - Microsurfacing



Crack Seal



Slurry



Cape Seal



Microsurfacing



Treatment Types

- Repair
 - Base Failure Repair (Digout)
 - Thin Overlay
 - Thick Overlay
 - Full Reconstruction



Base Failure Repair



Overlay



Full Reconstruction

Treatment Costs



Street Treatment Type	Typical Cost per SF
Crack Seal	Varies (\$3-\$5 per pound) or \$/SF
Slurry Seal	\$.13-\$.18 / SF
Chip Seal	\$.20- \$.30 / SF
Cape Seal (Rubberized Chip)	\$.33-\$.45 / SF
Microsurfacing	\$1.00-\$2.00 / SF
Base Failure Repair	\$5-\$15 / SF
Thin Overlay (< 3/4")	\$.75-\$1.00 / SF
Overlay (1"-4")	\$1.25-\$3.00 / SF
Reconstruct	\$4-\$7 / SF



Where We've Been...

Last Ten Years



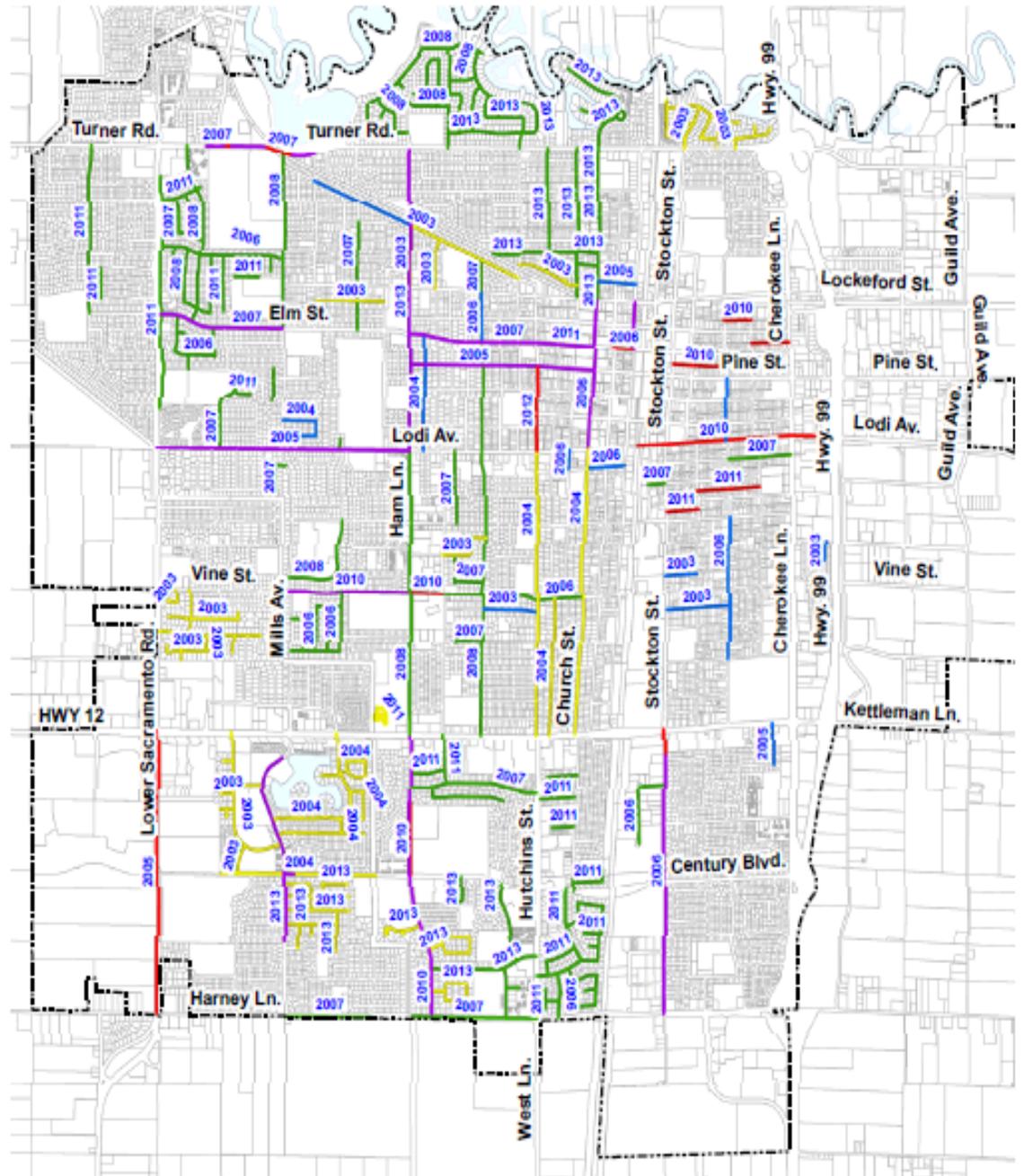
- Annual Crack Sealing Projects (City Forces and Contractors)
- 7 Restriping Projects
- 5 Cape Seal and Slurry Projects
- 14 Thin Overlay Project (City Forces)
- 17 Thick Overlay / Reconstruction Projects
- 4 Alley Reconstruction Projects

Street Improvements 2003 - 2013



LEGEND:

- Street Reconstruction
- Thick Overlay
- Thin Overlay
- Rubberized Cape Seal
- Slurry





Last Ten Years

- Street Reconstruction: 7.0 Lane Miles
- Thick Overlay: 18.5 Lane Miles
- Thin Overlay: 6.5 Lane Miles
- Rubberized Chip / Cape Seal: 49.5 Lane Miles
- Slurry Seal: 25.5 Lane Miles

Alley Improvements 2003 - 2013



LEGEND:

 Reconstructed Alleys

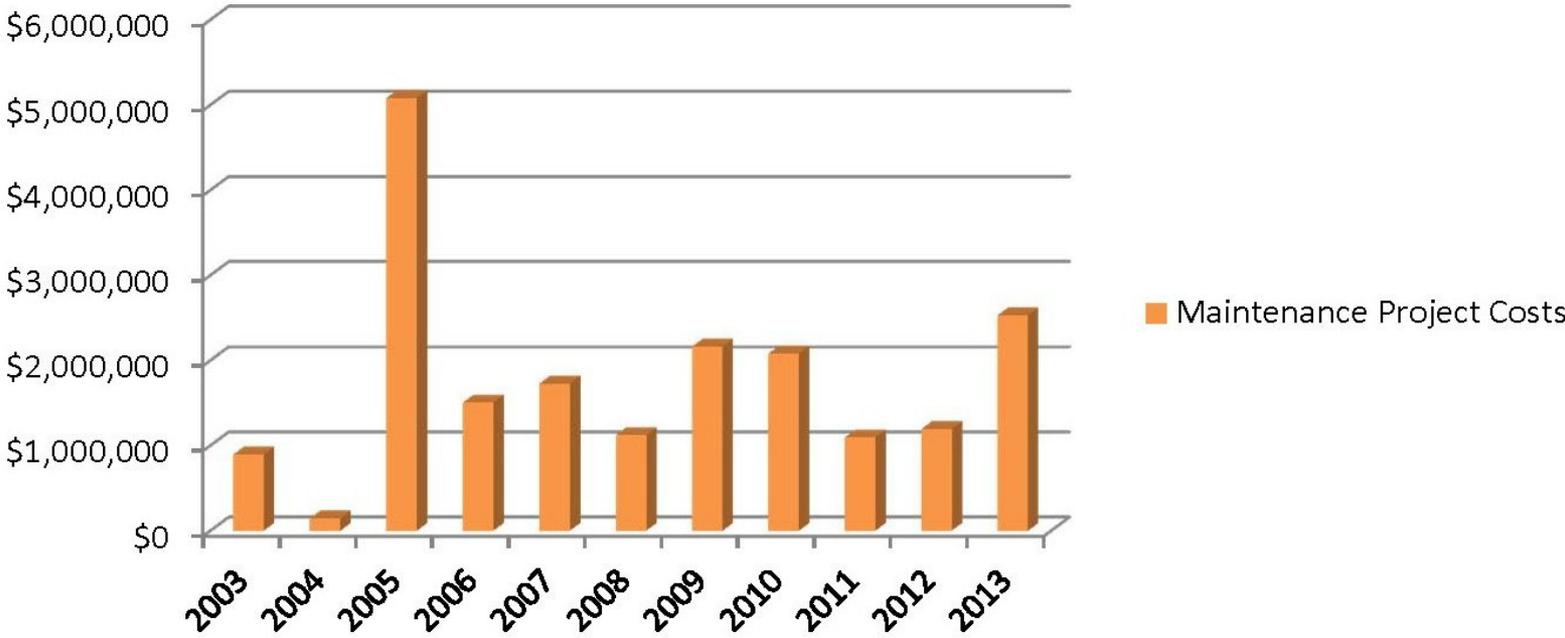




Last Ten Years

Street Maintenance and Improvement Project Costs 2003 - 2013

Maintenance Project Costs



Total: \$19.5 Million



Where We're Going...



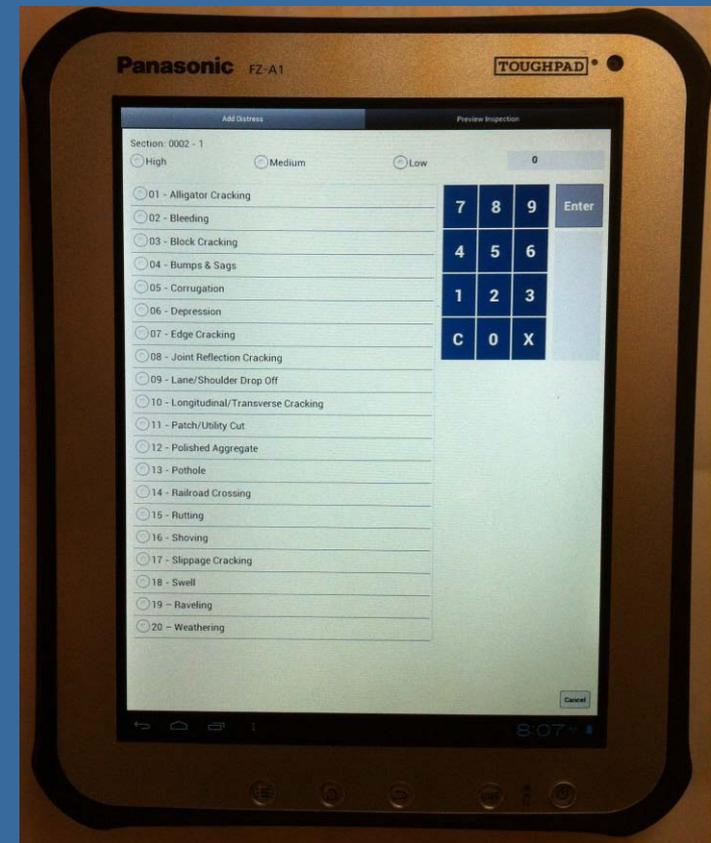
Where We're Going

- New Pavement Management Program
 - StreetSaver
 - Developed by the Bay Area Metropolitan Transportation Commission (MTC)
 - Used by over 400 Local Agencies in California
 - Uses a Standardized Pavement Condition Index (PCI) Rating System



Where We're Going

- How it Works:
 - Inspection of Each Street
 - By City Staff
 - Calculates PCI (67 in 2009)
 - Treatments Recommended





Where We're Going

- Why We Use it?
 - Project Prioritization
 - Tracks Pavement Condition Index
 - Compare Lodi to Other Cities
 - Budget Tool
 - Cost Savings

Condition Category	Pavement Condition	PCI Category
I	Good to Excellent	100
II / III	Fair	70
IV	Poor	50
V	Very Poory / Failed	25
		0



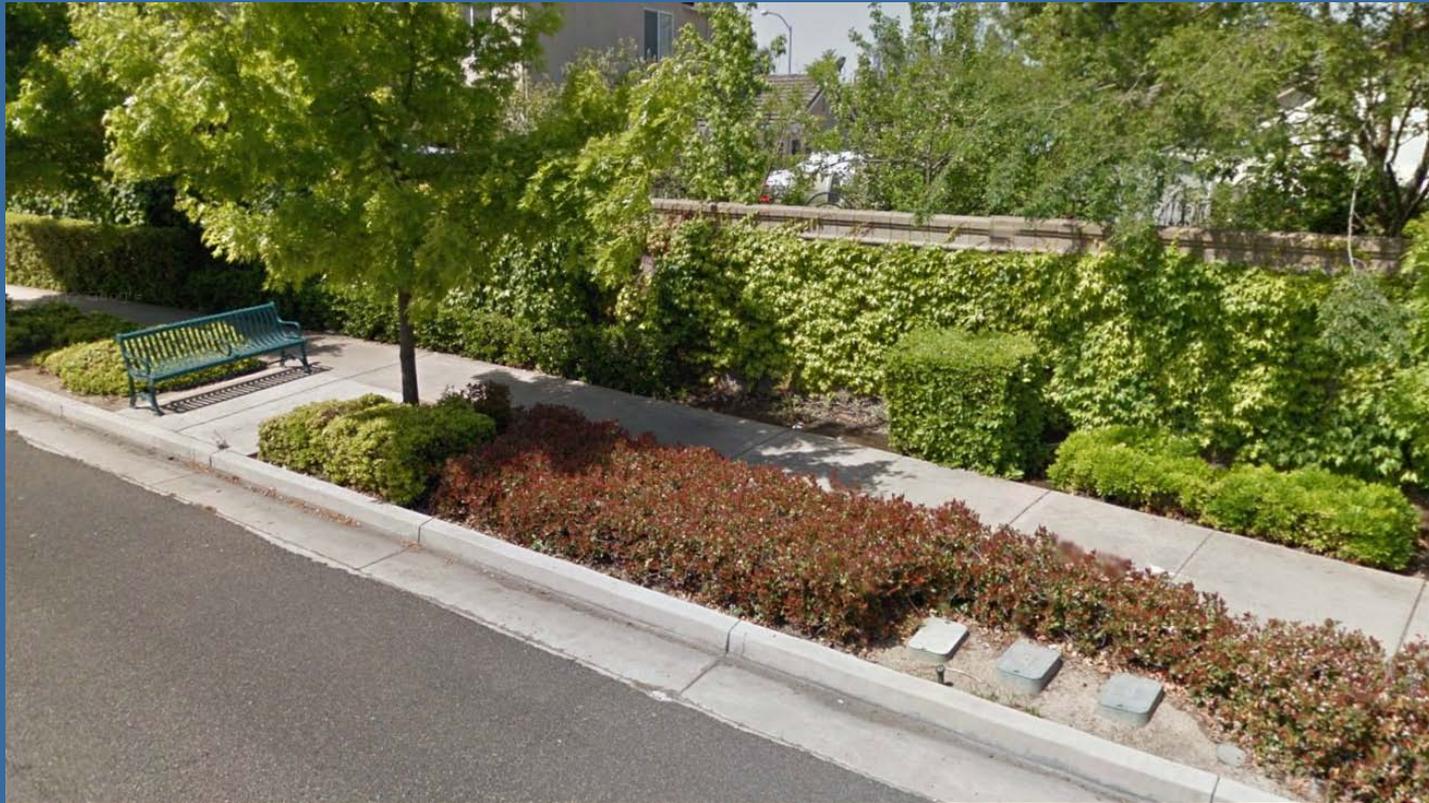
Funding

- 
- Local
 - Measure K
 - Developer Paid (formally Impact Fees)
 - State
 - STIP (State Transportation Improvement Program)
 - RTIF (Regional Transportation Improvement Fund)
 - TDA Bike Ped
 - Prop 1B / Prop 42
 - Gas Tax
 - Gas Tax Swap (Formally Prop 42)
 - Federal
 - CDBG (Community Block Grant)
 - TE (Transportation Enhancement)
 - CMAQ (Congestion Management)
 - RSTP (Regional Surface Transportation Program)



Sidewalks & ADA Ramps

From Streets to Sidewalks...



Lower Sacramento Road



Sidewalks & ADA Ramps

- 360 Miles of Sidewalk
- 2,600 ADA Ramps
- Surveys
 - 2013 Sidewalk Survey
 - Identifying Potential Tripping Hazards
 - 2002 ADA Ramp Survey
 - Updated with New Projects
- Both Inventories Managed Internally (GIS)



2013 Sidewalks Survey

- Modified Duty Parks Dept. Employee
- April – August 2013
- Identify Potential Tripping Hazards Citywide
- Vertical Offsets $> \frac{1}{2}$ "
- By Address
- Used a Tablet Computer

 **Sidewalk Survey Form** Add Record ◀ ▶

District: Field Survey Date:

Address: Reverse Frontage?

APN:

Sidewalk Damage Type: AC Sidewalk?

Sidewalk Repair Width: Previously Repaired?

Sidewalk Repair Length:

Sidewalk Offset (inch): Sidewalk Offset Type:

Sidewalk Crack Conditic: Repair Type:

C and G Damage Type:

C and G Repair Length:

Damage Caused by Tree? City/Private?

Damage Caused by Utility Utility Owner:

Note:



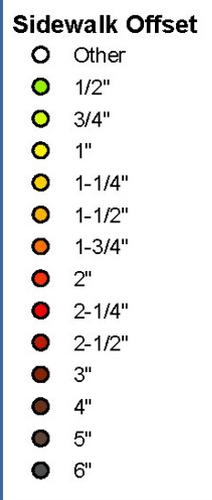
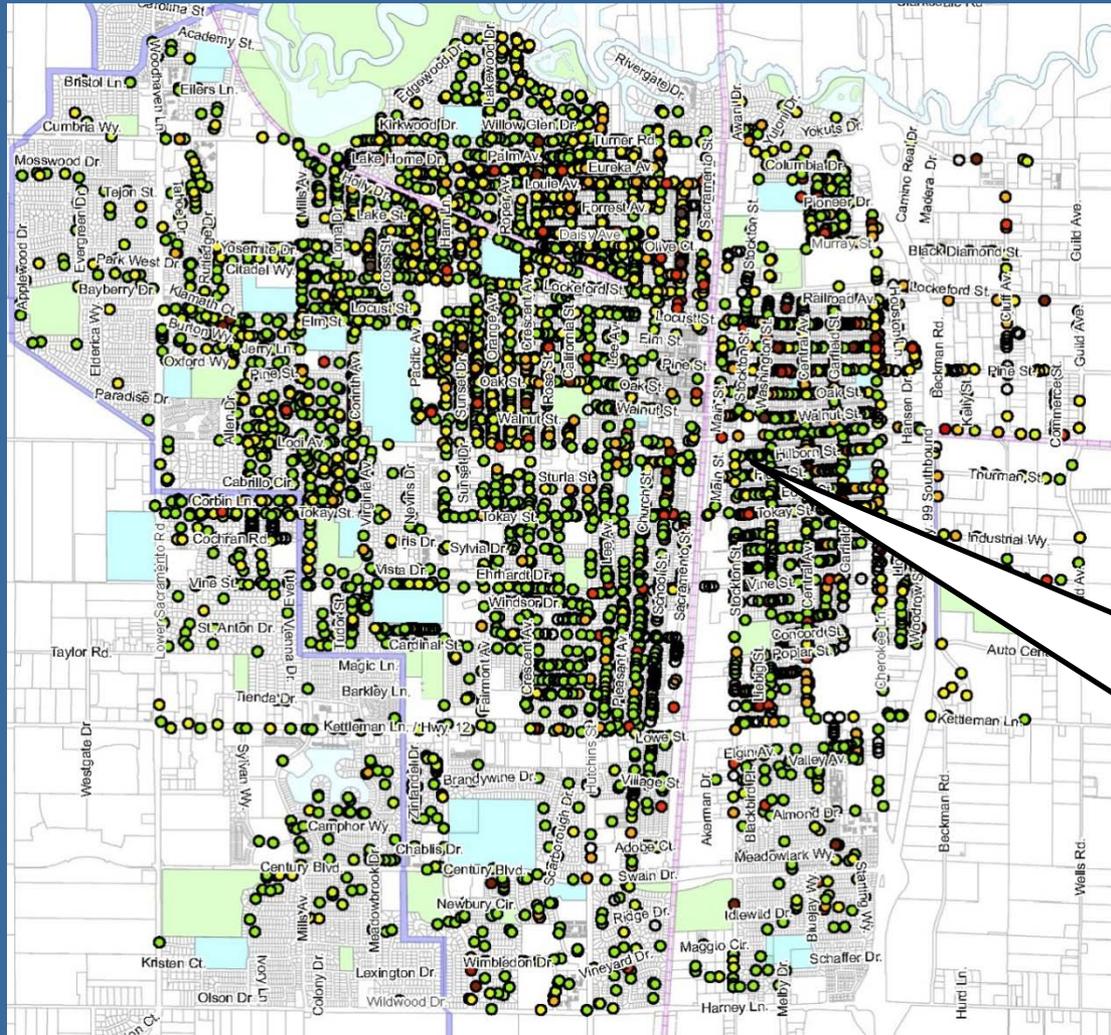
2013 Sidewalk Survey

So How Bad is It?





2013 Sidewalks Survey





2013 Sidewalk Survey

- Survey Results:
 - 10,988 Locations
 - 3,796 Grindable (0.5"-1.25" & Clean Edge)
 - 6,226 Patchable (0.5"-2" & Any Edge)
 - 643 Sidewalk Reconstruction Locations (>2" Offsets)
 - 258 Locations Missing Sidewalk

2013 Sidewalk Survey



- What Are We Doing About It?
 - Sidewalk Grinding Contract
 - \$150,000 Budgeted 13/14 – 14/15
 - Misc. Concrete Replacement Contract (Starting at 4"+ Locations)
 - \$300,000 Budgeted 13/14 – 14/15
 - Notifying Homeowners at Private Tree Locations
 - Streets Dept. Patching





2013 Sidewalk Survey

Cost to Fix it All:

Item	Description	Locations	Est. Quantity	Unit	Unit Cost	Total Cost
1)	Grind	3,796	18,980	Lineal Feet	\$6	\$113,880
2)	Patch	6,226	6,226	Each	\$25	\$155,650
3)	Reconstruct Sidewalk	643	22,640	Square Feet	\$18	\$407,520
4)	Reconstruct Curb & Gutter	328	4,807	Lineal Feet	\$75	\$360,525
5)	Construct Sidewalk (Gaps)	258	32,469	Square Feet	\$14	\$454,566
6)	Construct Curb & Gutter (Gaps)	29	1,099	Lineal Feet	\$60	\$65,940

Total Cost for All Improvements: \$ 1,558,081

Notes:

- 1 Grinding may only be performed at select locations with offsets less than 1.25".
- 2 Patching will only be performed at select locations with offsets less than 2".
- 3 Any offset greater than 2" is assumed to require reconstruction.
- 4 All AC paths are removed and replaced with concrete.
- 5 Assuming sidewalk replacement areas of 5' x 10' when not identified by the survey.
- 6 Assuming curb and gutter replacement lengths of 10' when not identified by the survey.
- 7 Some overlapping may existing to reconstruct / construct sidewalk and curb & gutter.
- 8 Unit costs include contract administration.



ADA Ramp Survey

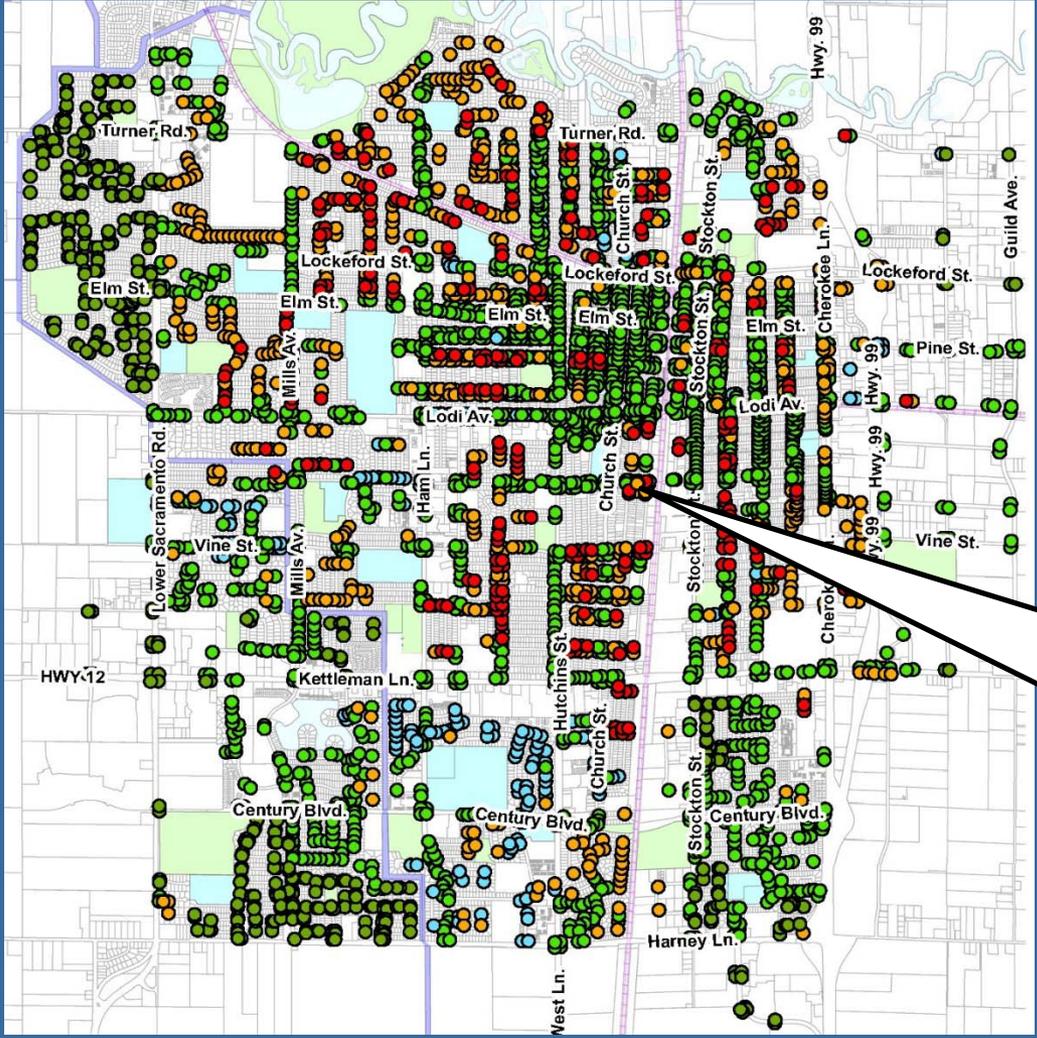
2002 ADA Ramp Survey



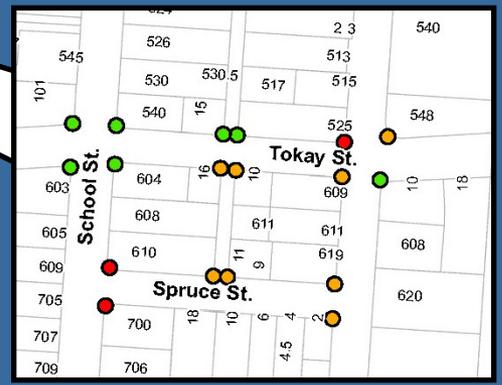
Southeast corner of Turner and Laurel



ADA Ramp Survey Data



- No Ramp, with Catch Basin
- No Ramp, No Obstructions
- Ramp Significantly Out of Compliance
- Ramp met ADA at Time of Survey
- Ramp Constructed After Survey





ADA Ramp Survey Data

- ADA Ramp Inventory
 - 3,508 Total Locations that Should Have Ramps
 - 637: No Ramp, No Obstructions
 - 278: No Ramp, Catch Basin in Ramp Area
 - 200: Significantly out of Compliance
 - 1,935: New Ramp or Ramp that Met 2007 ADA
 - 458: Ramps Not Surveyed, Presumed To Meet 2007 ADA (Constructed with Newer Subdivisions)



ADA Improvements

Cost to Fix All Ramps:

Quantity	Description	Estimated Cost / Ramp	Total
637	No Ramp, No Obstructions	\$5,000	\$3,185,000
278	No Ramp, Catch Basin in Ramp area	\$10,000	\$2,780,000
200	Significantly Out of Compliance	\$5,000	\$1,000,000
1935	New or Met ADA at Time of Survey (Needs Detectable Warnings)	\$400	\$774,000
458	Ramp Constructed After Survey (Needs Detectable Warnings)	\$400	\$183,200
Estimated Total to Bring All City Ramps into Compliance :			\$7,922,200



Questions