

# Pavement Management Plan Update





# Pavement Management Team

Steve Tilton – Assistant City Manager

Ryan Gillingham, P.E. – Director of Public Works

Paul Sparkman – Assistant Director of Public Works

Eddie Garza – Streets Superintendent

Tahmid Rahman, P.E. – Public Works Engineer

Mark Holloway – Chief Financial Officer

Gary Graham, P.E. – Director of Engineering

Nick Ataie, P.E. – Capital Projects Manager

Sirous Alavi, Ph.D., P.E., PTOE – Fugro (Consultant)



# Agenda

## MEETING NO. 1 - INFORMATIONAL – [AUG. 3, 2021]

BACKGROUND

STREET CONDITION ASSESSMENT  
METHODOLOGY

DATA ANALYSIS

VALUE OF REPAIRS

INTRODUCE FUNDING SCENARIOS

## MEETING NO. 2 - POLICY DISCUSSION [TONIGHT]

FUNDING SCENARIOS

FUTURE REVENUE DISCUSSION

POLICY FEEDBACK



# Policy Decisions

1. What is the desired overall pavement condition for McKinney roadways?
2. How should McKinney fund future roadway improvements?



# Background



# Highlights From Informational Meeting

## ❑ McKinney Roadways – 1,700 Lane Miles

## ❑ Roadway Funding

- General Funds - \$2.8 million/year
- Capital Improvements – Avg \$6.5 million/year
- Total \$9.3M / Year for Roadway Improvements

## ❑ Pavement Condition Report

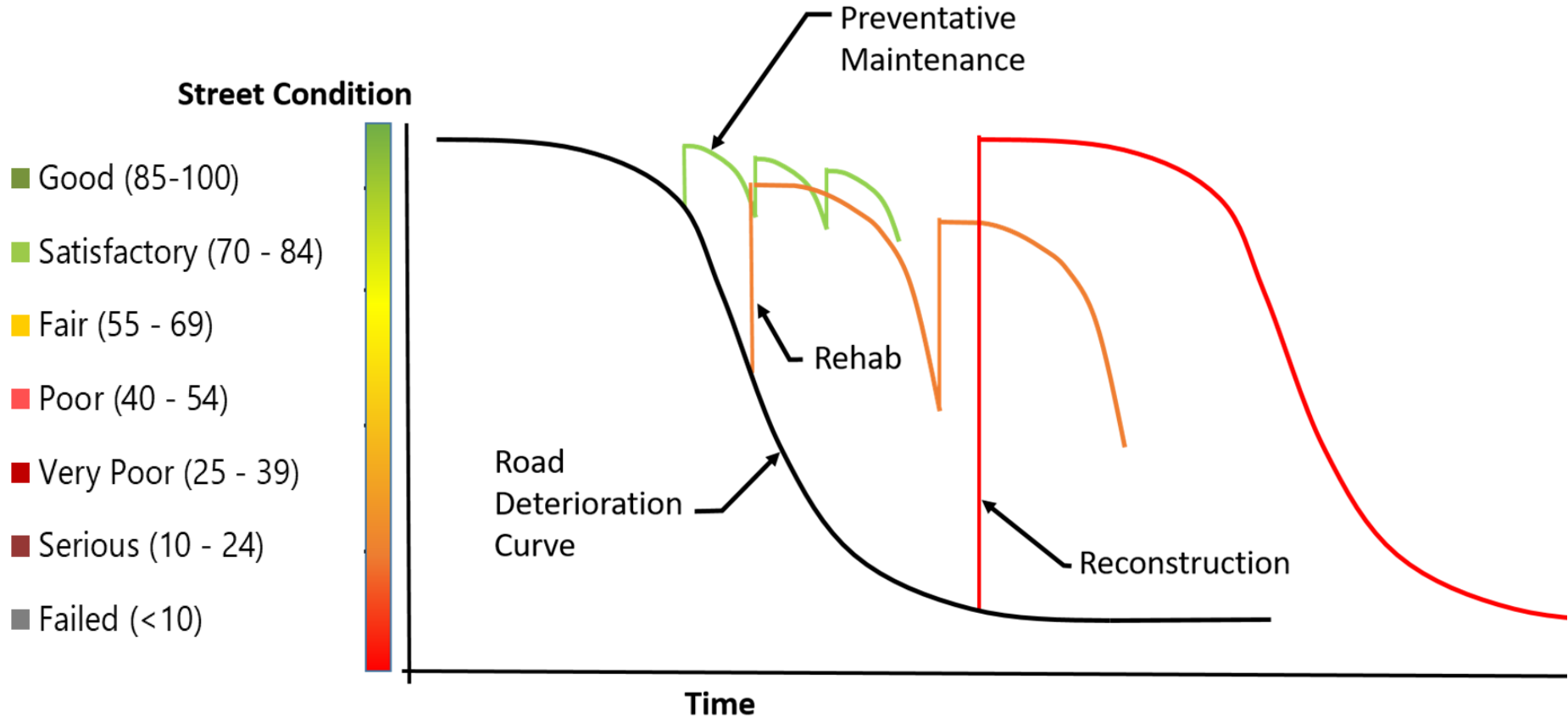
- Average PCI - 71









Develop maintenance and rehabilitation strategies for preserving existing pavement infrastructure by optimizing the use of available budget.

# Roadway Deterioration Curve





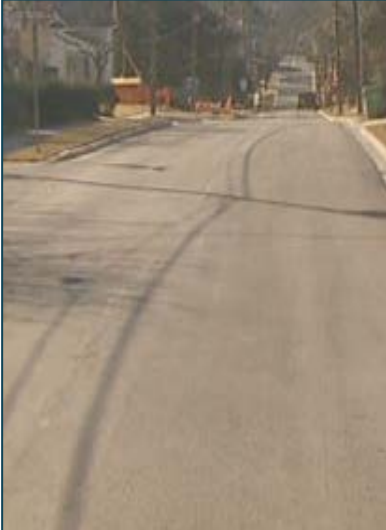



## Concrete Streets – 1420 Lane Miles (88% of streets)

Maintenance (Crack Sealing/Joint Repair)	Minor Rehabilitation (Patching/Mudjack/Panel Replacements)	Major Rehabilitation (Extensive Panel Replacements)	Full Reconstruction
Cost: \$0.25-\$1 per sq ft	Cost: \$5-\$8 per sq ft	Cost: \$10-\$12 per sq ft	Cost: \$20-\$25 per sq ft
Good to Satisfactory (86%) PCI: > 70	Fair (9%) PCI: 55 – 70	Poor to Very Poor (4%) PCI: 25 – 55	Serious to Failed (1%) PCI: < 25
			
S Ridge Rd. @ Stacy Rd and Chisholm Trl	Metro Park Dr @ Hwy 5 and McKinney Pkwy	Heritage Dr. @ Pearson Ave and Redbud Blvd	Davis St. and Johnson St.

Preservation

Rehabilitation

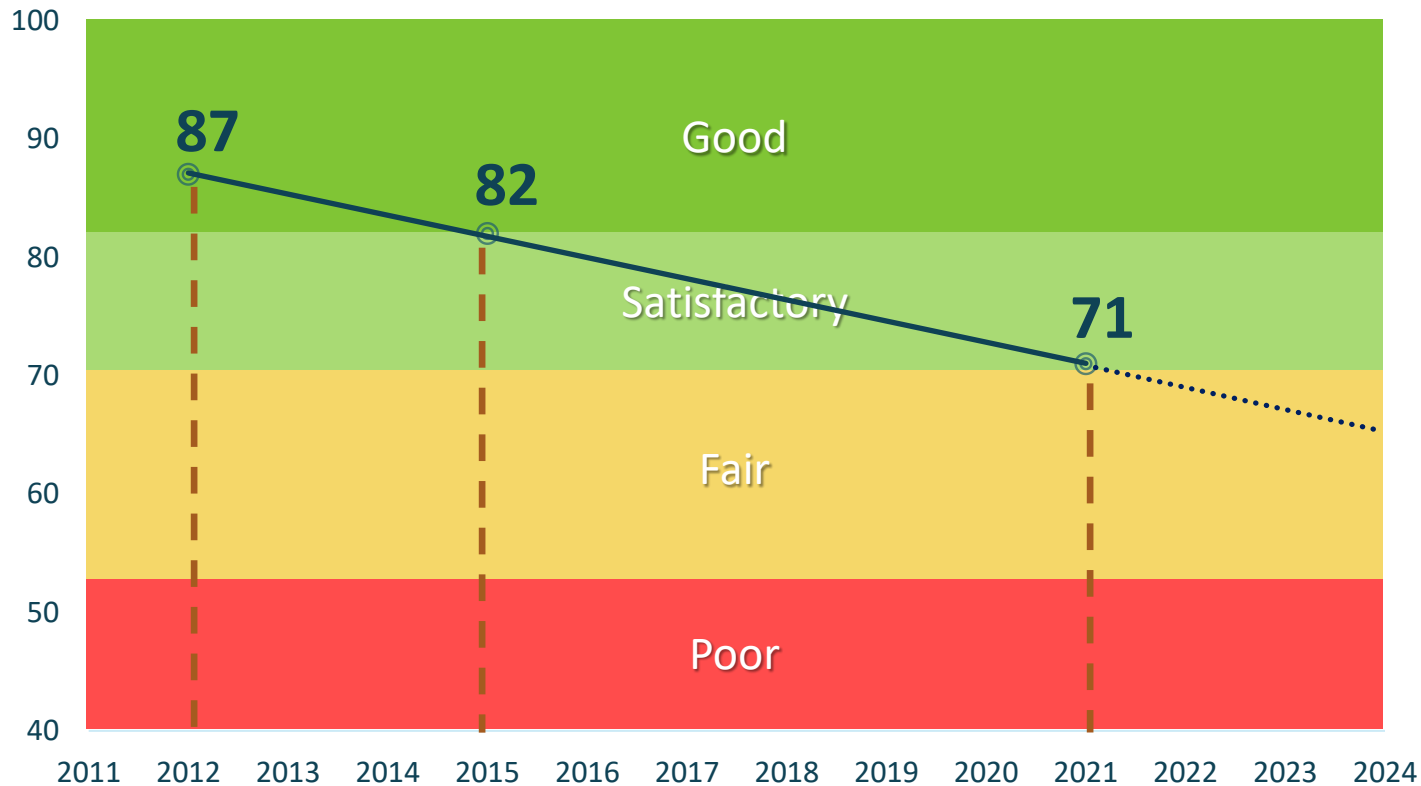
## Asphalt Streets – 192 Lane Miles (12% of streets)

Maintenance (Crack Seal/Fog Seal)	Minor Rehabilitation (Patching/Slurry Seal)	Major Rehabilitation (Mill and Overlay)	Reconstruction (AC Reclamation)
Cost: \$0.1-\$0.25 per sq ft	Cost: \$1-\$1.5 per sq ft	Cost: \$3-\$4 per sq ft	Cost: \$5-\$8 per sq ft
Good to Satisfactory (20%) PCI > 70	Fair (20%) PCI: 55 – 70	Poor to Very Poor (41%) PCI: 25 – 55	Serious to Failed (19%) PCI < 25
			
W Howell St. @ S College St and S Parker St	E Virginia St @ Lively Hill St and Lincoln St	N Tennessee St @ Erwin St to White St	Benge St @ Henry St to Howell St

Preservation

Rehabilitation

## Historical McKinney Overall PCI Scores



# Potential Revenue Sources For Roadways



# Potential Revenue Sources For Roadways

1

## PROPERTY TAX

- Dedicated Budget Item For Streets
- Financing – Bonds or yearly allocations

2

## SALES TAX

Current City Sales Tax  
1.0% - State Authorized  
0.5% - Type A - MEDC  
0.5% - Type B - MCDC  
2.0% - Total

3

## OTHER

- Grants – State and Federal
- Water and Wastewater Funds
- Street Maintenance Fee

# Property Tax

- Current Budget
  - Approx. \$9M / Year For Roadway Improvements (Maintenance and Capital)
- Roadway Bond Options (GO Bonds require voter approval)

Bond Options	Alternative 1	Alternative 2
Amount	\$50M Bond in FY24	\$100M Bond in FY24
Distribution	\$5M for 10 years	\$10M for 10 years
Length	20 Years	20 Years
Cost to resident	\$0.01 increase per \$100 assessed valuation for I&S	\$0.018 increase per \$100 assessed valuation for I&S



# Sales Tax - ¼ Cent For Roadway Improvements

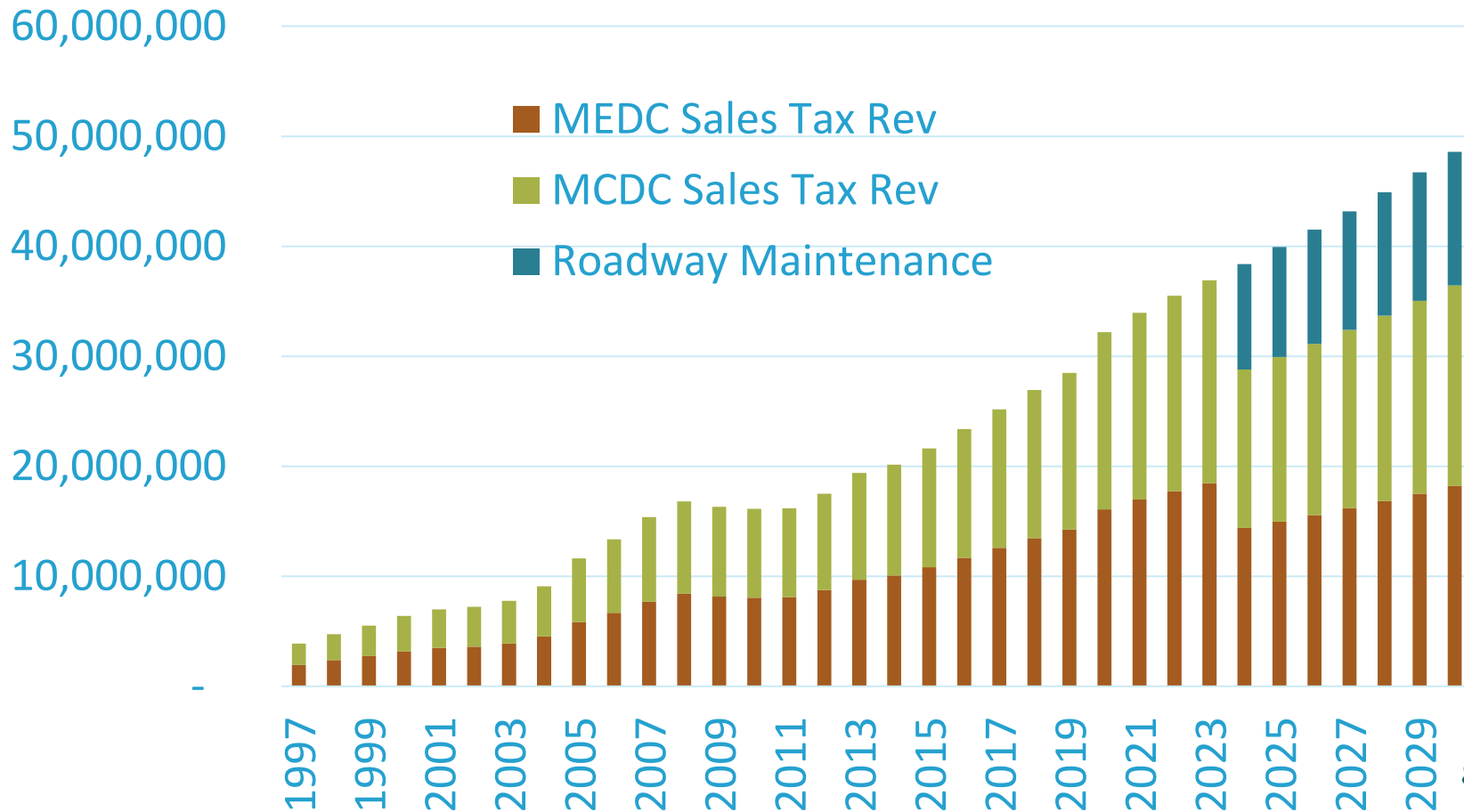
- Requires Citywide Election to Reduce Type A and/or Type B sales tax and Reauthorize it for Roadway Maintenance
  - Election – May or November
- If passed, requires subsequent Voter Reauthorization
  - First, 4 years after election
  - Second, 10 years after first reauthorization

One alternative:

Description	Current	Alternative
General McKinney Sales Tax	1.0%	1.0%
Type A – (MEDC)	0.5%	0.375%
Type B – (MCDC)	0.5%	0.375%
Roadway Maintenance		0.25%
<b>Total</b>	<b>2.0%</b>	<b>2.0%</b>

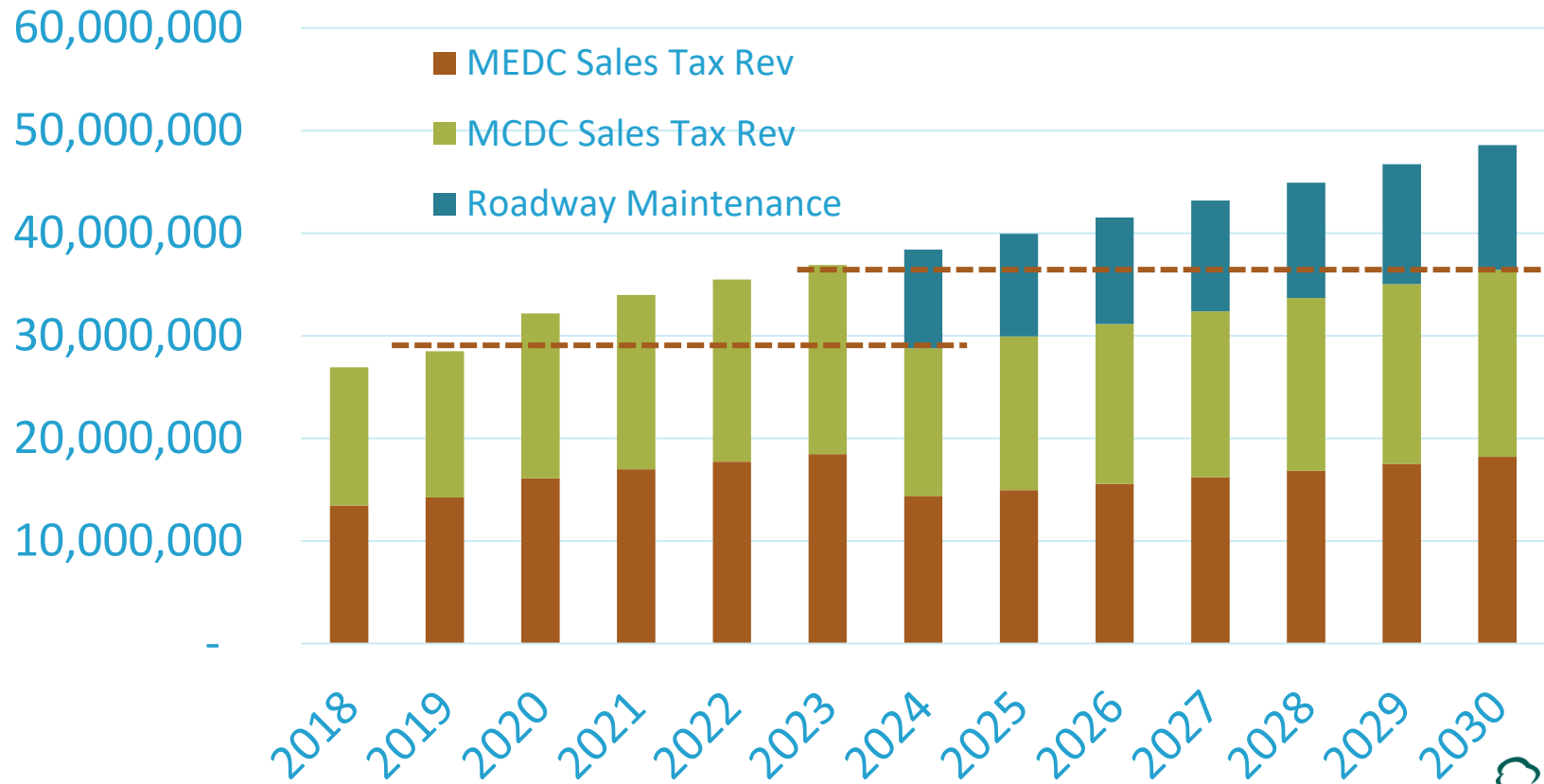


# ¼ Cent Sales Tax - Street Improvements





# ¼ Cent Sales Tax - Street Improvements



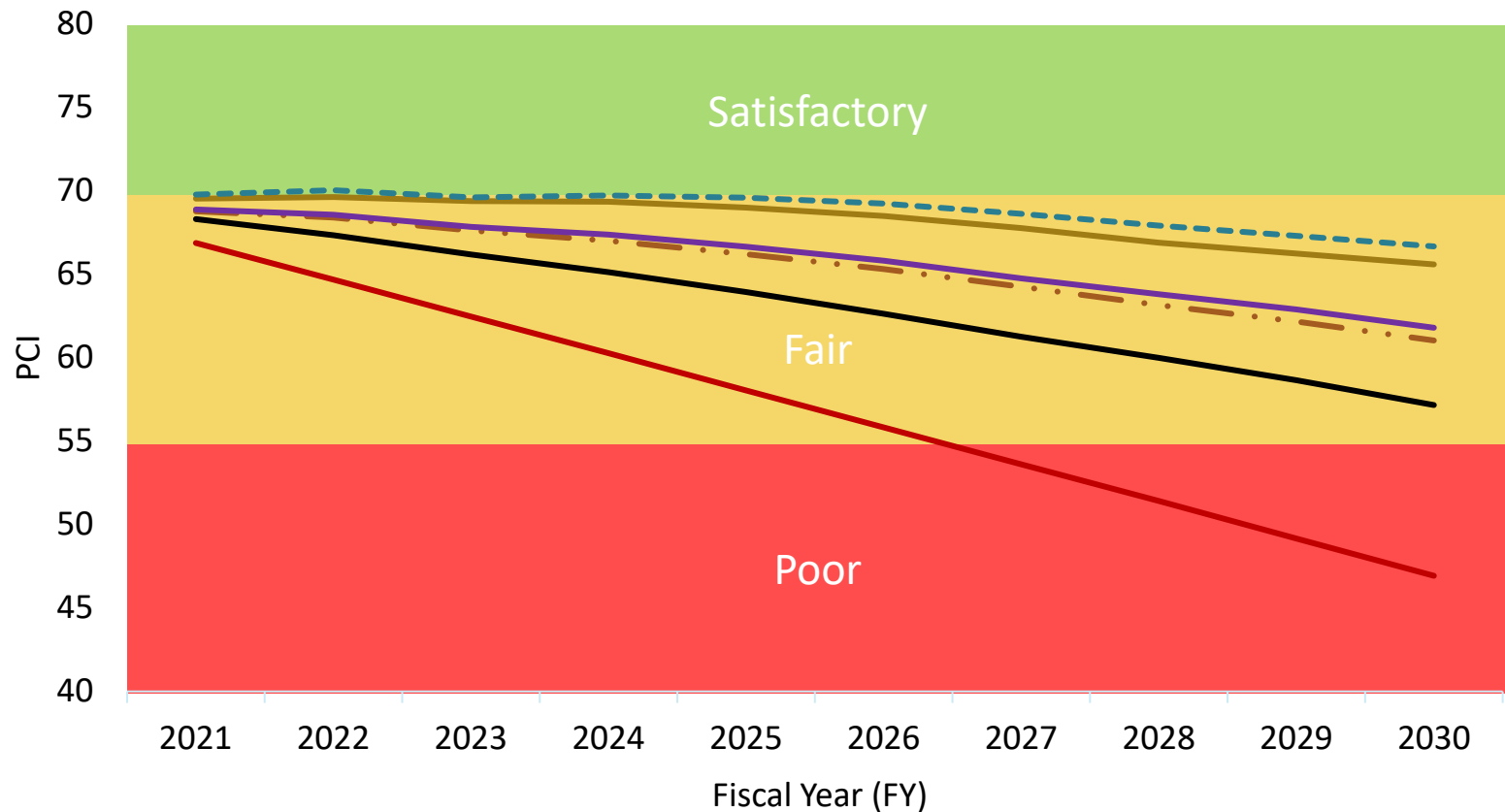
# Analysis



## Annual Roadway Improvement Budget Scenarios

Budget Scenario	Street Investment Per Year	General Fund	GO Bonds	Sales Tax Allocation	Fixed Road Fee
1 (No Funds)	↓ \$0.00	↓ \$0	↓ \$0	\$0	\$0
2 (Current Budget Avg)	\$9.3M	\$4.3M	\$5M	\$0	\$0
3 (Roadway Fee)	↑ \$13.5M	\$4.3M	\$5M	\$0	↑ \$4.2M
4 (\$50M Bond)	↑ \$14.3M	\$4.3M	↑ \$10M	\$0	\$0
5 (\$100M Bond)	↑ \$19.3M	\$4.3M	↑ \$15M	\$0	\$0
6 (Sales Tax)	↑ \$20.8M	\$4.3M	\$5M	↑ \$9.6M - \$13.6M	\$0

# Impact of Funding Scenarios on Overall PCI Score



- Scenario 1 (No Funds)
- Scenario 3 (Roadway Fee - \$13.5M/Yr)
- Scenario 5 (\$100M Bond - \$19.3M/Yr)

- Scenario 2 (Current Budget - \$9.3M/Yr)
- Scenario 4 (\$50M Bond - \$14.3M/Yr)
- Scenario 6 (Sales Tax - \$20.8M/Yr)

# Summary



# Staff Summary

- Update Pavement Management Plan every three years to reflect changes in pavement condition scores
- Recommend that overall PCI index for McKinney remain within the Fair category or above
- Recommend developing funding strategies to support roadway improvements for next 5-10 years
- Increased focus on preventative maintenance and rehabilitation
- Continue with Existing Infrastructure Presentation Series

