



# CITY OF BEND

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NATIONAL PAVEMENT PRESERVATION CONFERENCE



IMPACTS AND BENEFITS FROM PAVEMENT PRESERVATION



MICHIGAN STATE  
UNIVERSITY



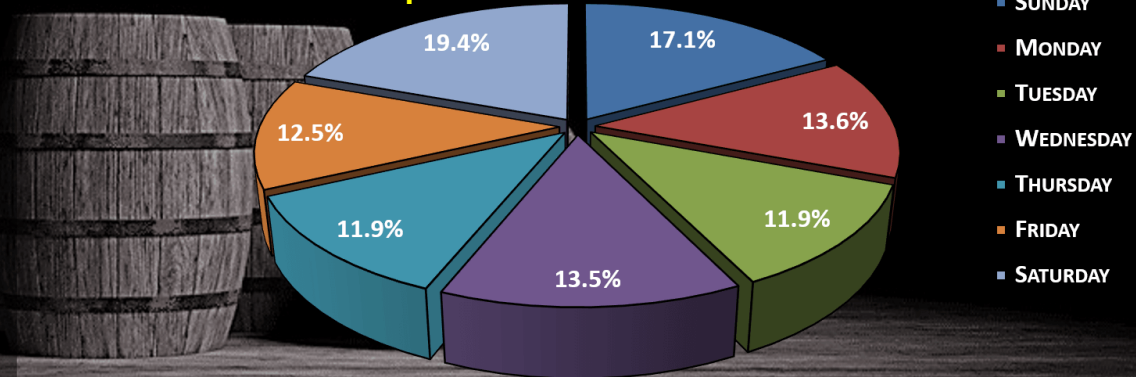


- Hiking
- Biking
- Skiing
- Resorts
- Fishing
- Lakes
- Boating
- Kayaking
- River Rafting
- Shopping
- Food
- **BEER!!!**



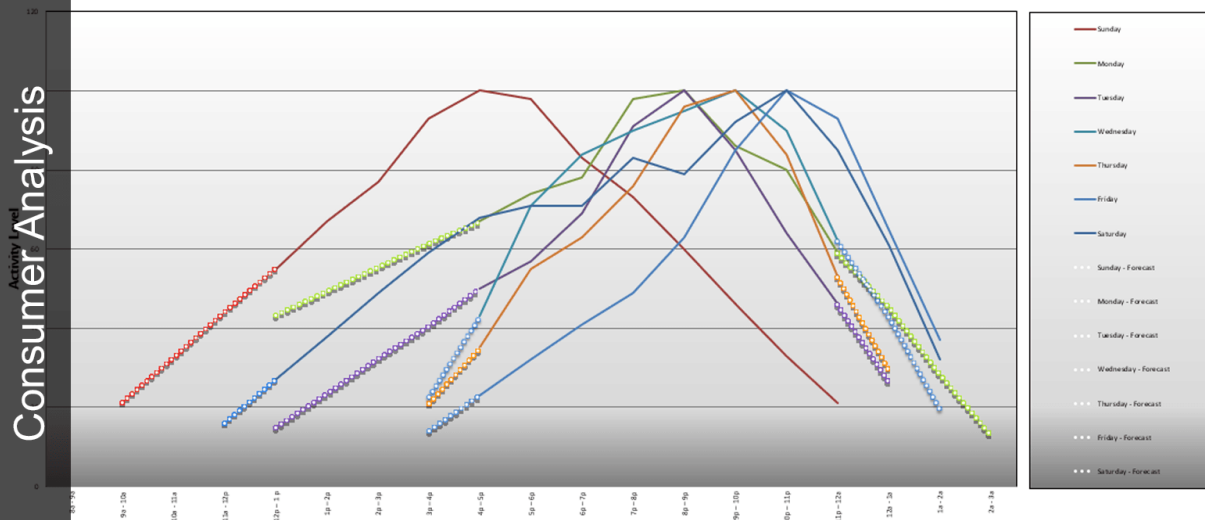
Competitor Analysis

# ~~CONSUMER~~ ACTIVITY BY DAY Consumption



Consumer Analysis

Daily Consumer Activity Levels





- **890 Lane Miles**
  - **20% Arterials (81-PCI)**
  - **10% Collectors (81-PCI)**
  - **70% Residential (74 -PCI)**
  - **Overall network PCI of 76**
- **9 Miles of Gravel Roads**
- **48 Roundabouts & 5 new under construction**





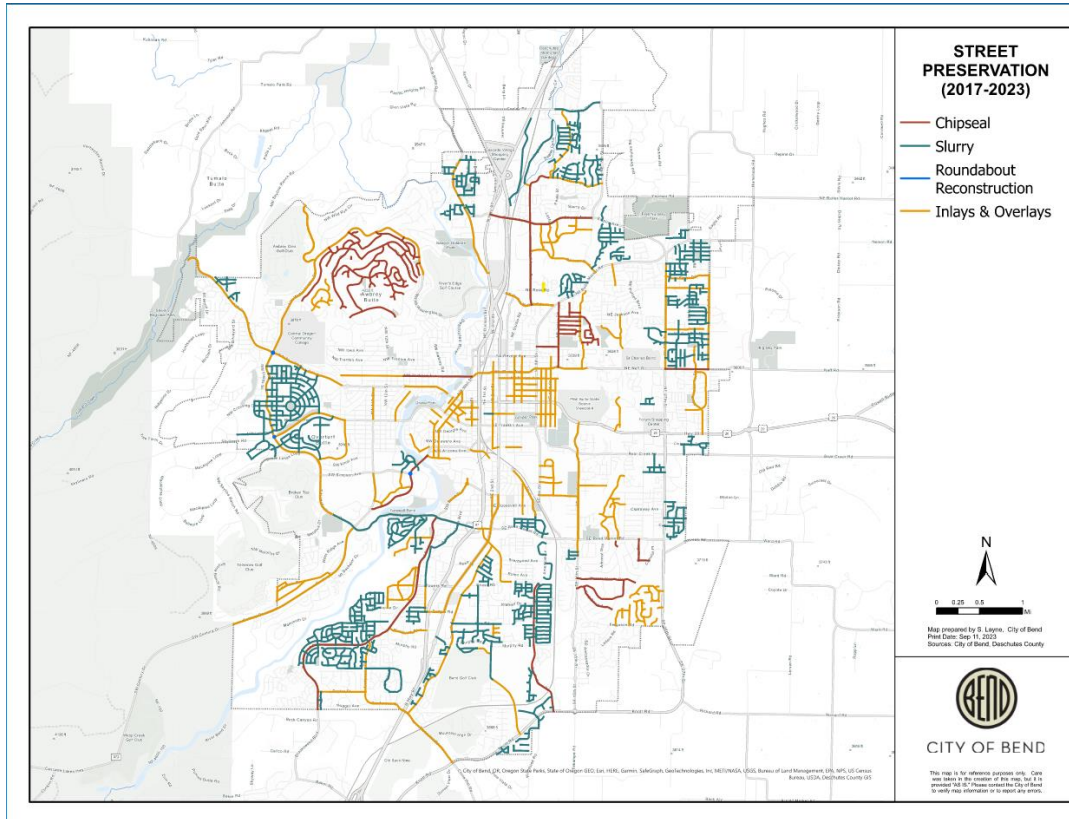
# TOOLS

# SELF-PERFORMED AND CONTRACTED

The City of Bend utilizes pavement management strategies; self performed and contracted work.

**Types of Preventative Maintenance include:**

- **Crack Seal Program**
- **Chip Seal (Contracted)**
- **Overlay**
- **Grind /Inlay**
- **Full Depth Reclamation**
- **Slurry Seal**
- **Cape Seal**
- **Rubberized Chip Seal**
- **PCC - Roundabouts and Streets**





**41.3%**  
Bend-La Pine  
Schools

**22.0%**  
City of  
Bend

**14.2%**  
Deschutes  
County

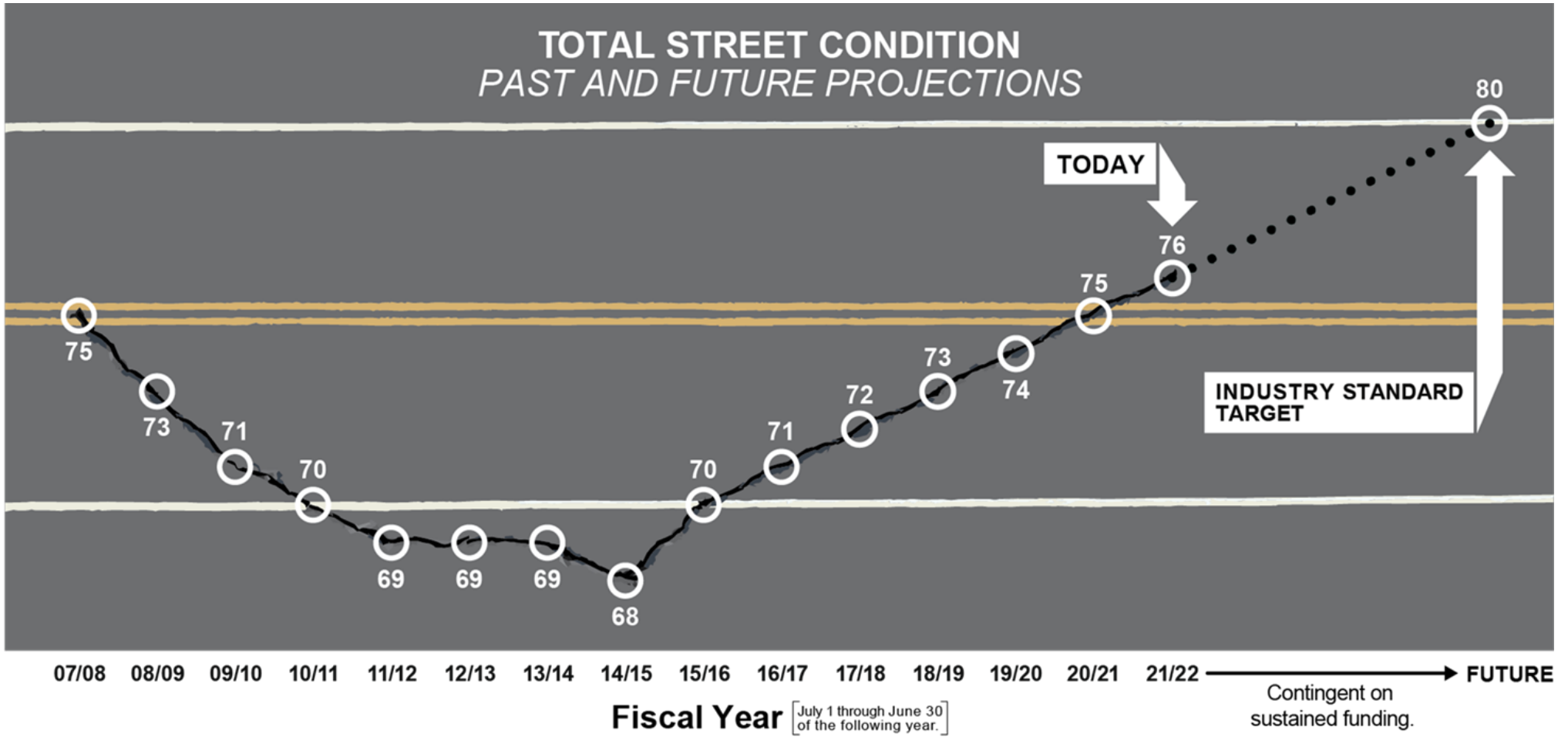
**9.9%**  
Park  
& Rec

**12.6%**  
Other\*

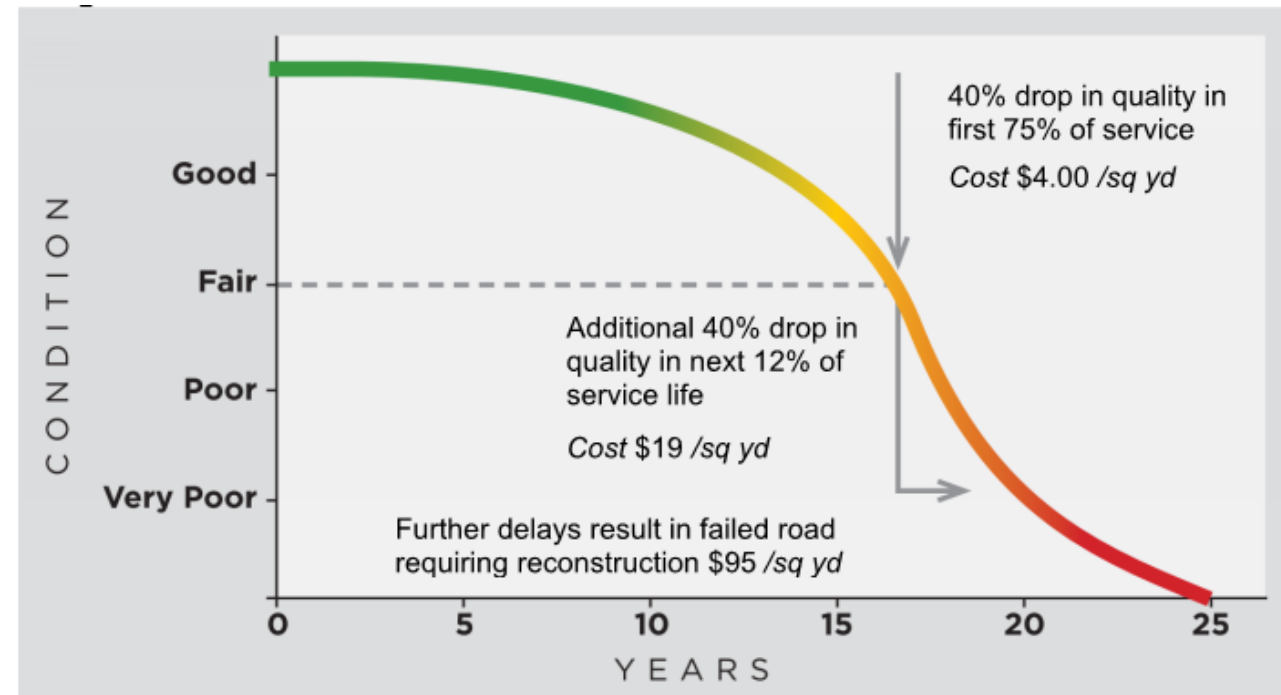
\*Library 5.5%, COCC 4.3%,  
911 2.2%, High Desert ESD 0.6%

# TOTAL STREET CONDITION PAST AND FUTURE PROJECTIONS

Pavement Condition Index (PCI)





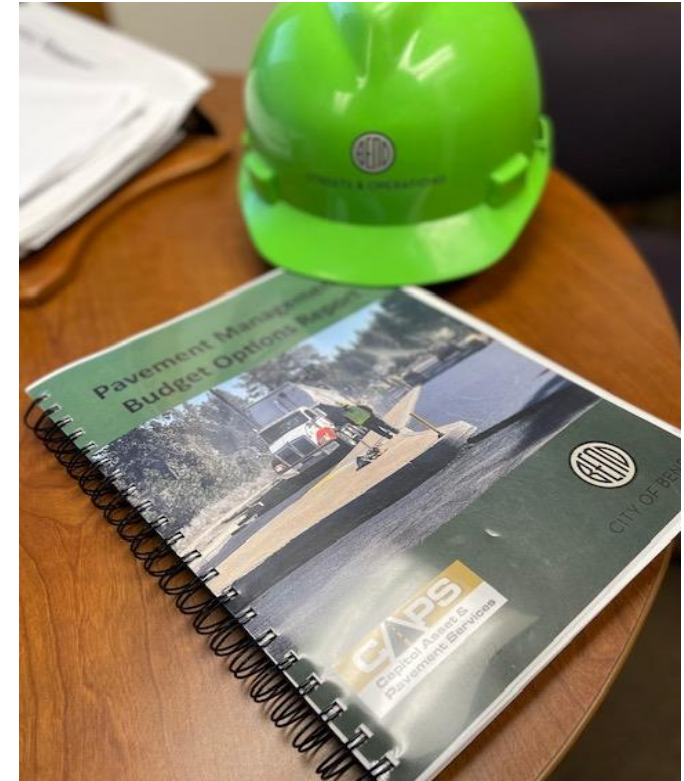


## OUTREACH AND EDUCATE

- Staff – They must be onboard
- Management
- Community
- Elected Officials
- Most importantly (Train Yourself)

# FISICAL RESPONSIBILITY & TRANSPARENCY

- More public outreach – Trust
- Document
- Set goals
- Show your results
- Celebrate successes !!



# Budget Scenarios

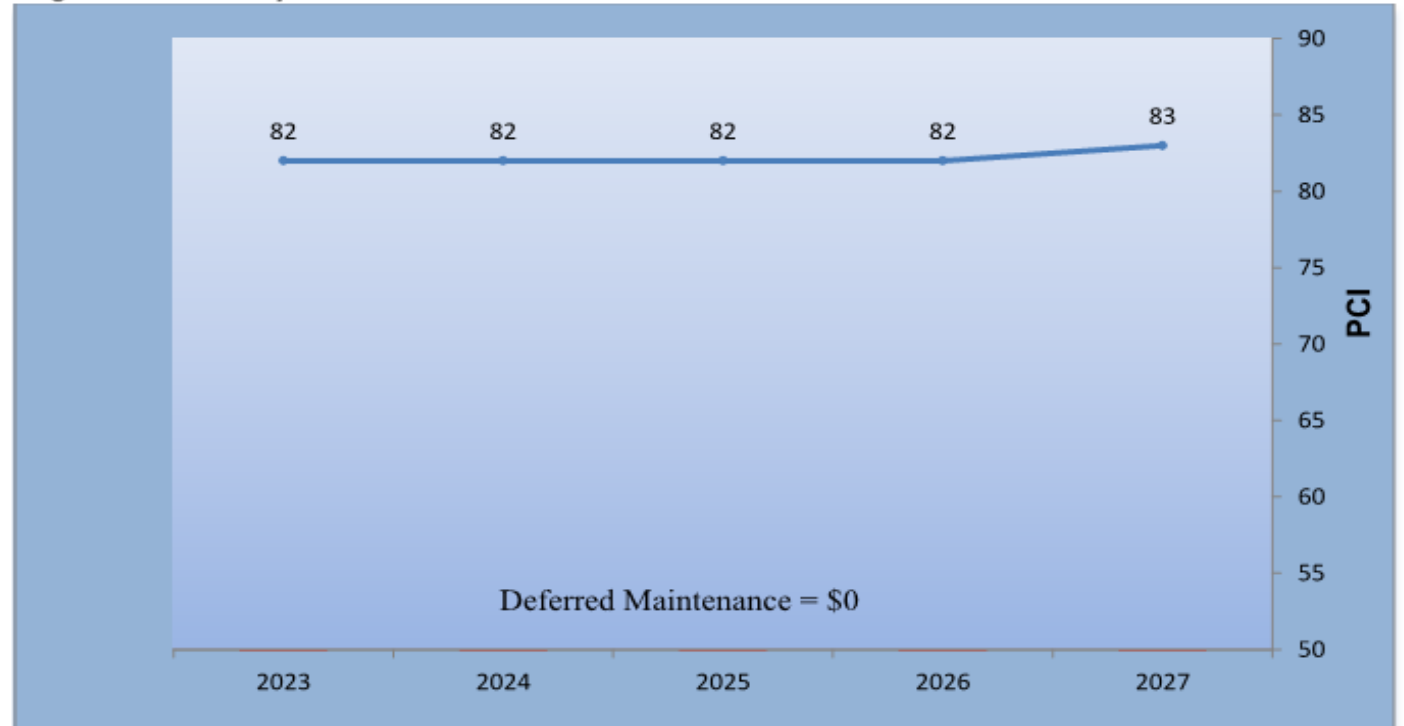
Scenario Name	5 Year Budget	2027 PCI (change)	2027 Deferred Maintenance	2027 % Good	2027 % Very Poor
1 – Unconstrained	\$83.5 million	83 (+7)	\$0	91.8%	0.0%
2 – Current Investment	\$15.0 million	74 (-2)	\$70.3 million	81.6%	5.5%
3 – Maintain PCI at 76	\$22.5 million	76 (0)	\$64.1 million	85.1%	5.4%
4 – Increase PCI to 77	\$29.0 million	77 (+1)	\$58.0 million	86.1%	4.9%

# 5 Year - Unconstrained

- The ideal investment strategy no funding constraints for 5 years
- Bulk of needs are in the first year
- \$83.5 million – not a reality
- Complete network PCI above 80

	2023	2024	2025	2026	2027	Total
Budget Total	\$32,798,793	\$10,778,434	\$12,308,735	\$9,929,440	\$17,686,565	\$83,501,967
Rehabilitation budget	\$26,386,891	\$8,181,981	\$8,873,815	\$7,138,924	\$13,628,918	\$64,210,528
Preventative Maintenance budget	\$6,411,902	\$2,596,452	\$3,434,919	\$2,790,515	\$4,057,647	\$19,291,435
Deferred Maintenance	\$0	\$0	\$0	\$0	\$0	---
PCI	82	82	82	82	83	

Figure 8. Summary of Results from Scenario 1 — Unconstrained Needs



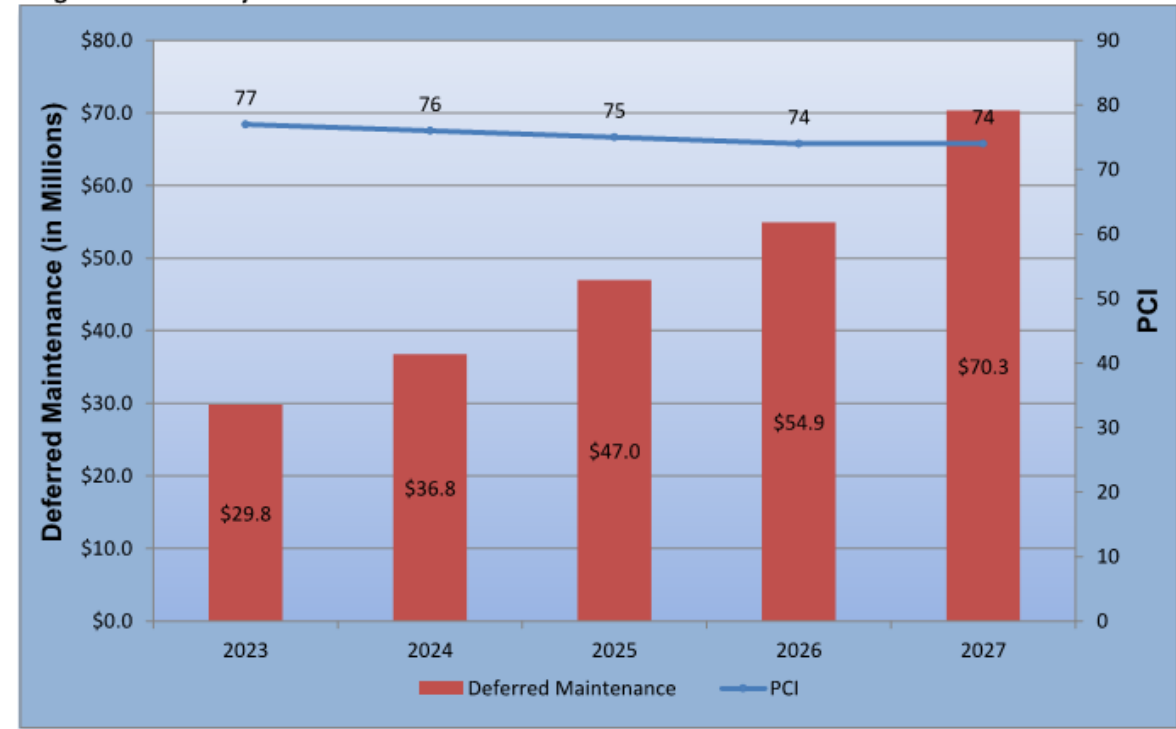
# 5 Year – @ Current investment Level

- Current level of commitment from the general fund
- At this amount we are peaking this year and will start to slide each year moving forward
- PCI will decrease 2 to 3 points over time
- Deferred Maintenance increases



	2023	2024	2025	2026	2027	Total
Budget Total	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
Rehabilitation budget	\$2,399,285	\$2,399,656	\$2,399,624	\$2,399,470	\$2,398,931	\$11,996,967
Preventative Maintenance budget	\$600,649	\$599,828	\$600,363	\$600,353	\$601,017	\$3,002,210
Deferred Maintenance	\$29,798,858	\$36,781,659	\$47,011,279	\$54,933,507	\$70,331,350	---
PCI	77	76	75	74	74	

Figure 9. Summary of Results from Scenario 2 — Current Investment Level



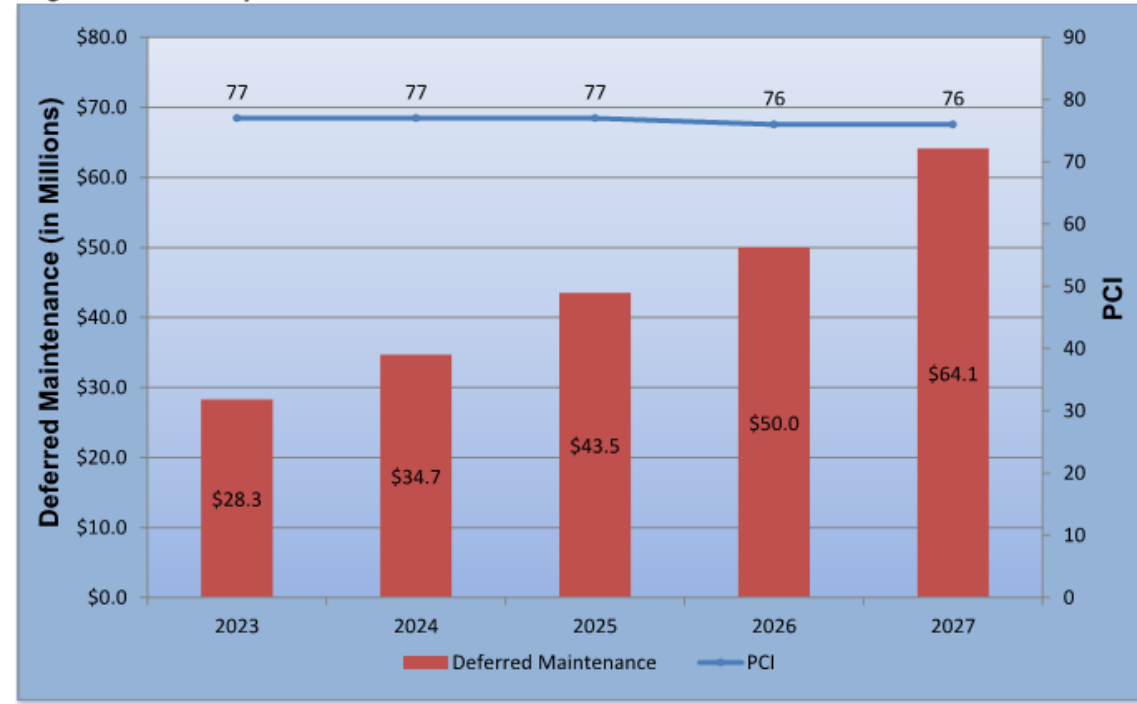
# 5 Year – Maintain Current PCI (76)

- Increase budget by \$1.5 million
- PCI remains level
- Deferred Maintenance Increases



	2023	2024	2025	2026	2027	Total
<b>Budget Total</b>	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000	\$4,500,000	<b>\$22,500,000</b>
<b>Rehabilitation budget</b>	\$3,599,484	\$3,599,165	\$3,599,280	\$3,599,146	\$3,595,306	<b>\$17,992,380</b>
<b>Preventative Maintenance budget</b>	\$900,374	\$900,284	\$900,649	\$900,637	\$904,318	<b>\$4,506,261</b>
<b>Deferred Maintenance</b>	\$28,298,934	\$34,680,836	\$43,524,549	\$49,989,181	\$64,088,983	---
<b>PCI</b>	77	77	77	76	76	

Figure 10. Summary of Results from Scenario 3 — Maintain PCI at 76



# SYNERGY OPPORTUNITIES

- **City Departments**
- **Agency partners (ODOT, BPRD)**
- **Public /Private Partnerships,**
- **Private Development Engineering**
- **Complete Street approach**
- **BNSF**



# FUNDAMENTALS

- Keep Up On Training
- Keep Educating
- Keep communicating
- Keep Trust
- Keep Building Relationships
- Keep Showing off what you do good
- Don't stop beating the drum - "Keeping your good roads"



# Questions ???



## STREETS & OPERATIONS

Maintenance. Improvement. Connection.