



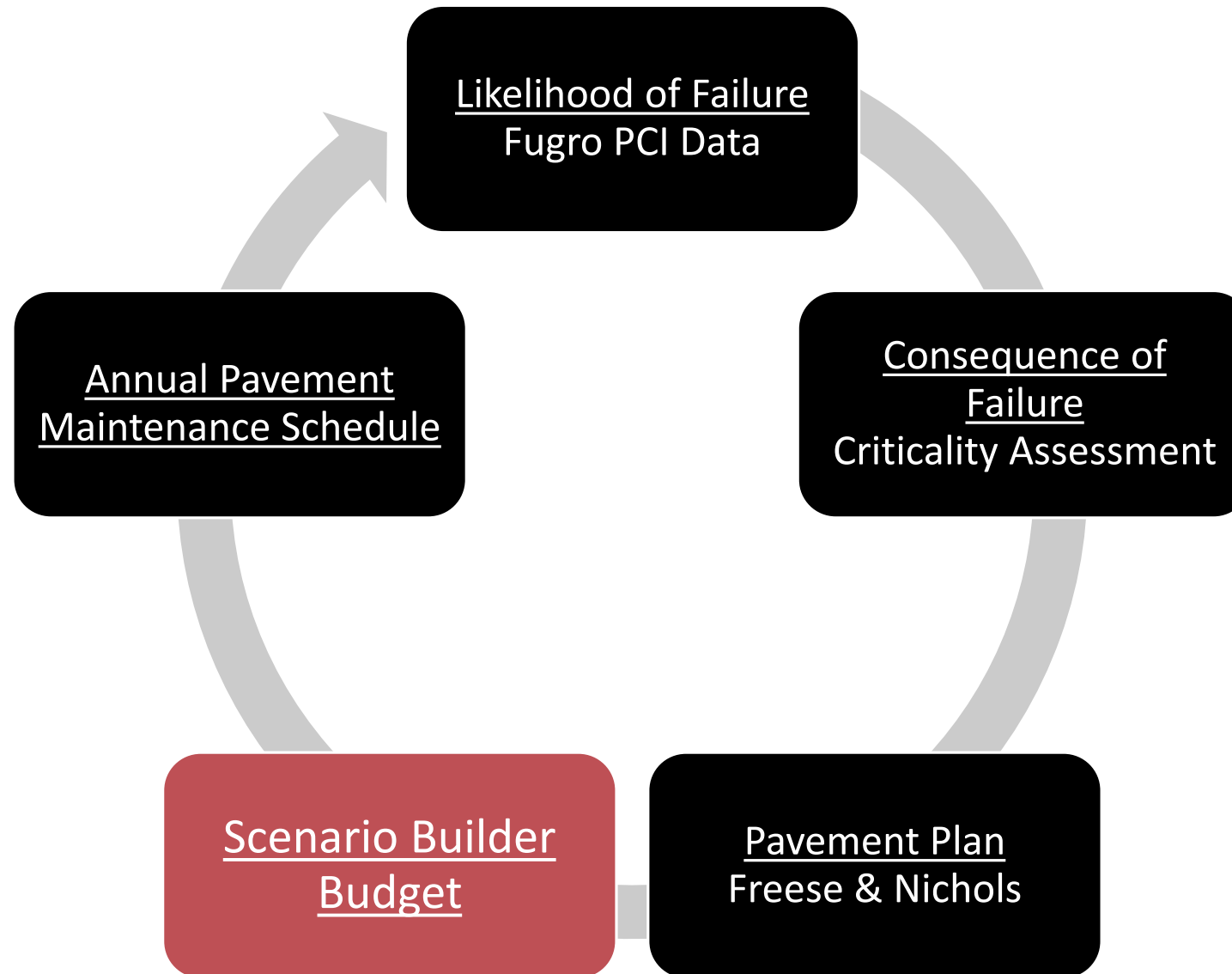
# Asset Management and Pavement Maintenance Update

---

JANALEA HEMBREE, ASSISTANT TO THE CITY MANAGER

JUSTIN SCHARNHORST, DEPUTY DIRECTOR OF PUBLIC WORKS

NOVEMBER 4, 2024



# Summary of Scenarios

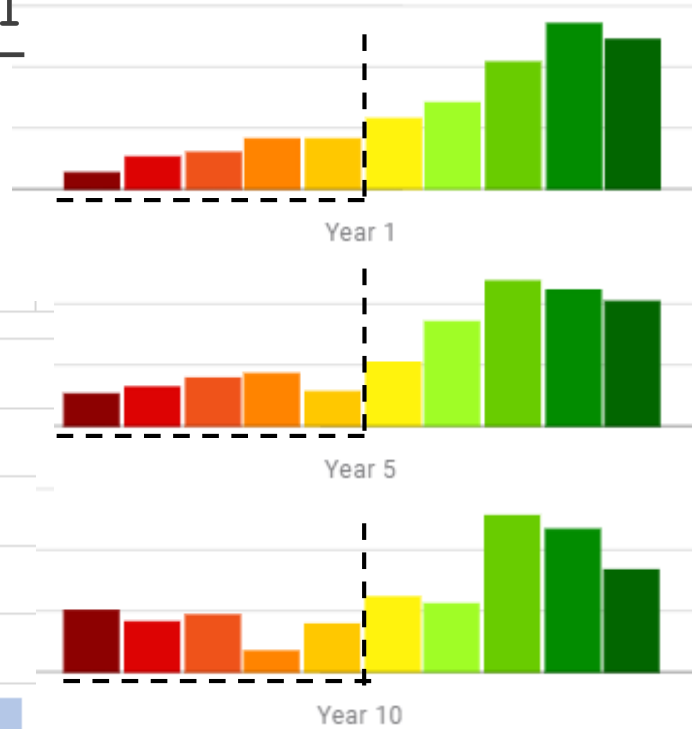
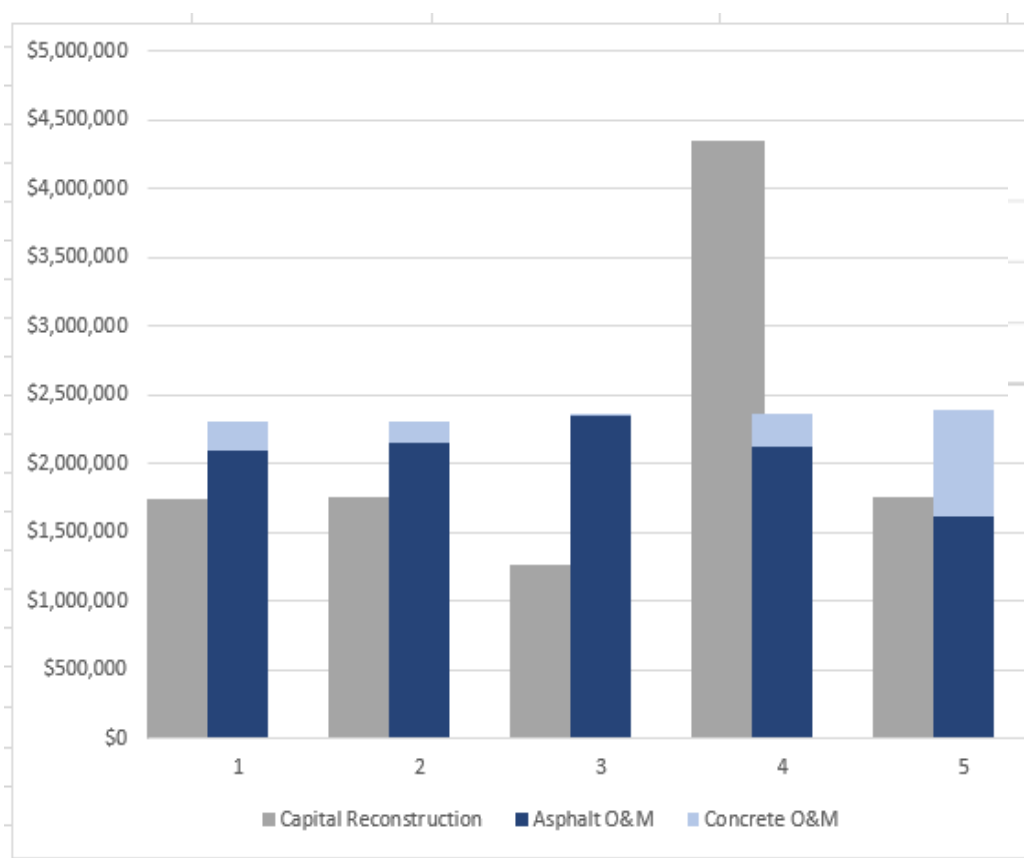
## Presented on September 23

Scenario	Years	O&M Dollars	Capital Dollars	Total Budget	Beginning OCI	5 Year OCI	10 Year OCI
1	10	\$ -	\$ -	\$ -	69.0	60.0	52.0
2	5	\$ 3,716,394	\$ 10,855,620	\$ 14,572,014	69.0	62.5	56.0
3	5	\$ 12,211,011	\$ 10,855,146	\$ 23,066,157	69.0	65.8	62.7
4	5	\$ 3,716,395	\$ 24,998,033	\$ 28,714,428	69.0	64.0	59.5
5	5	\$ 12,211,011	\$ 24,993,389	\$ 37,204,400	69.0	67.3	66.0
6	5	\$ 24,984,410	\$ 71,869,910	\$ 96,854,320	69.0	75.0	--
7	10	\$ 33,554,832	\$ 127,444,231	\$ 160,999,063	69.0	--	75.0
8	5	\$ 11,700,539	\$ 10,859,167	\$ 22,559,706	69.0	63.9	61.2
9	5	\$ 3,716,394	\$ 18,856,710	\$ 22,573,104	69.0	62.1	56.7
10	5	\$ 8,716,393	\$ 13,856,670	\$ 22,573,063	69.0	63.8	59.4
11	5	\$ 6,716,395	\$ 15,858,275	\$ 22,574,670	69.0	63.2	58.2

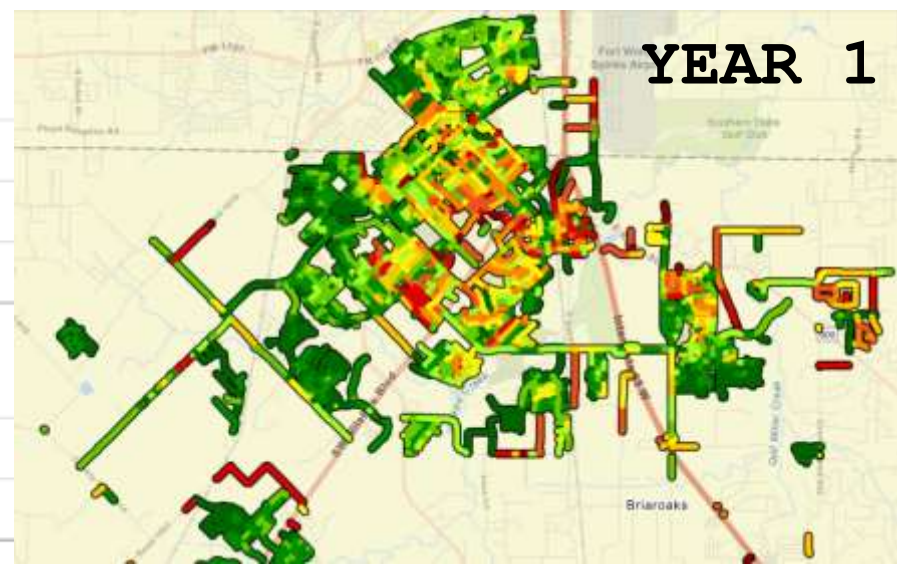
# SCAII

## Recommendation

### *Additional 1.6m in O&M*



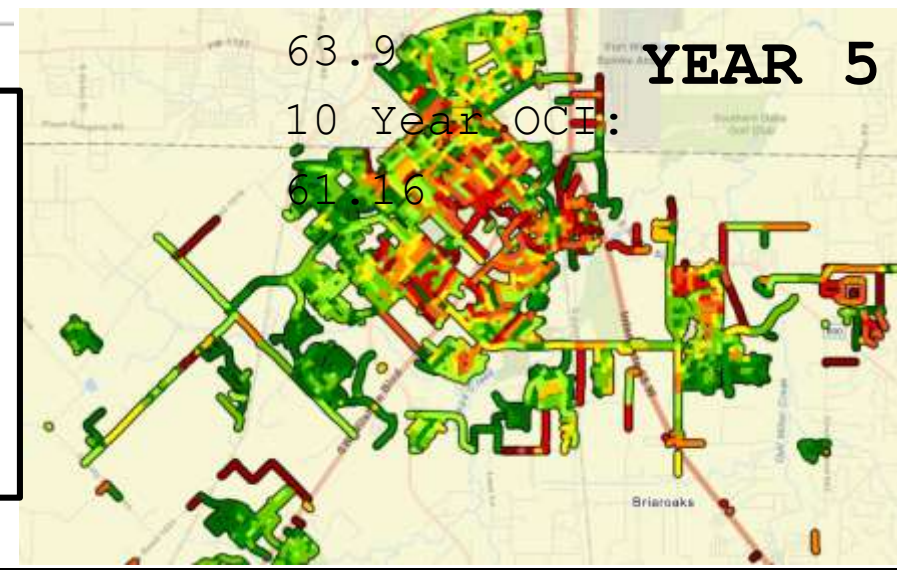
<u>O&amp;M Budget</u>
\$11,700,539
<u>Capital Budget</u>
\$10,859,167
<u>Total 5-Year Budget</u>
\$22,559,706



Beginning OCI:  
69

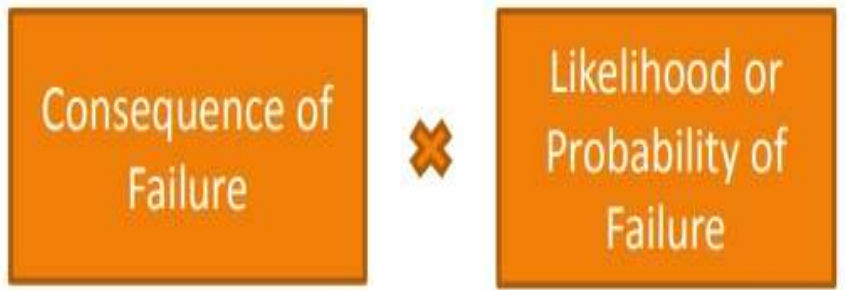
5 Year OCI:  
63.9

10 Year OCI:  
61.16



\* 3% Escalation on maintenance cost and original O&M budget

# Scenario Assumptions



Risk Score  
**3.6/25**

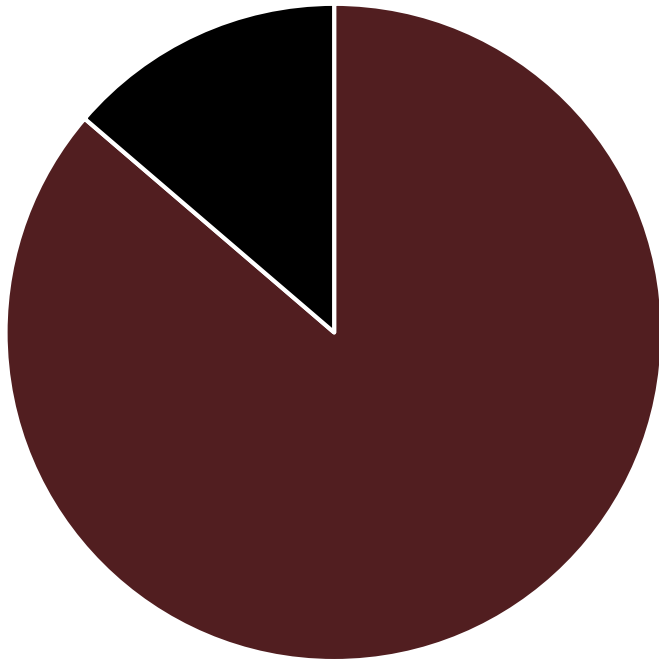
Estimated OCI  
**69.7**



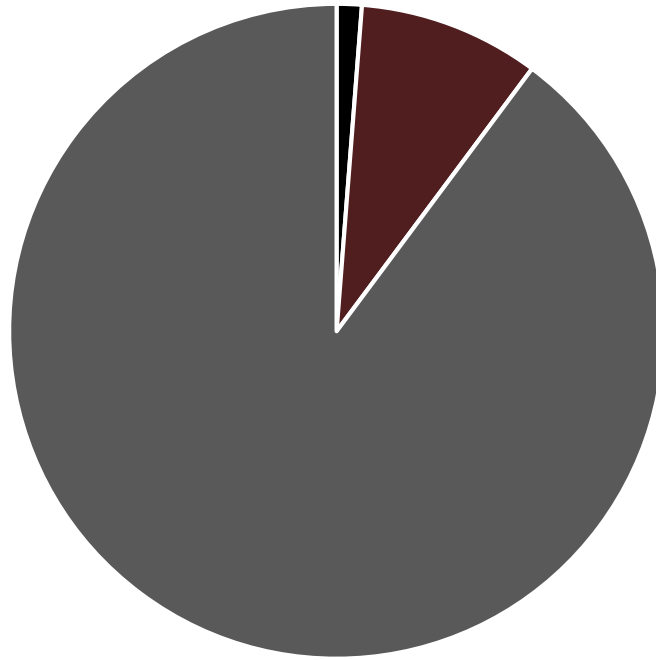
\* For Illustrative purposes

# Repair Costs per Activity

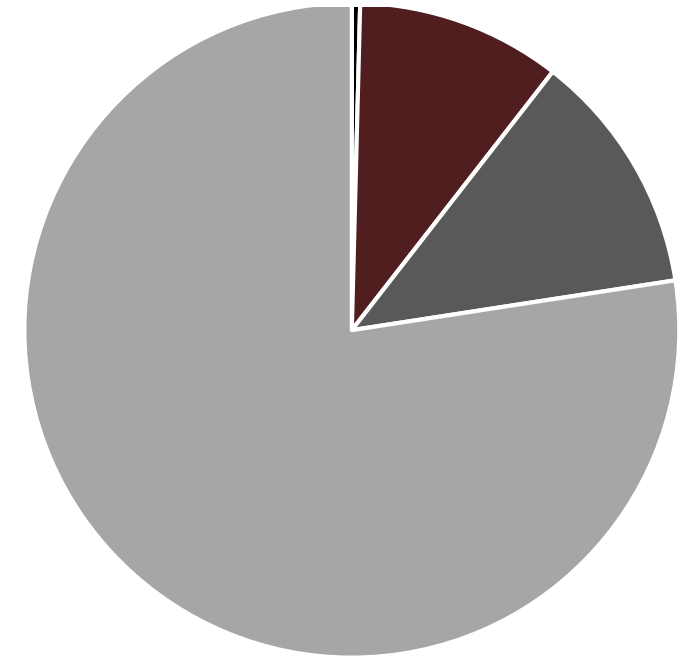
## Repairs



## Asphalt



## Concrete



**Asphalt**  
\$1,984,355

**Concrete**  
\$315,646

**Maintenance Sealing**  
\$24,570

**Microsurface**  
\$177,534

**Mill & Overlay**  
\$1,782,251

**Joint Sealing**  
\$1,289

**Small Size Repair**  
\$31,910

**Maintenance Sealing**  
\$38,031

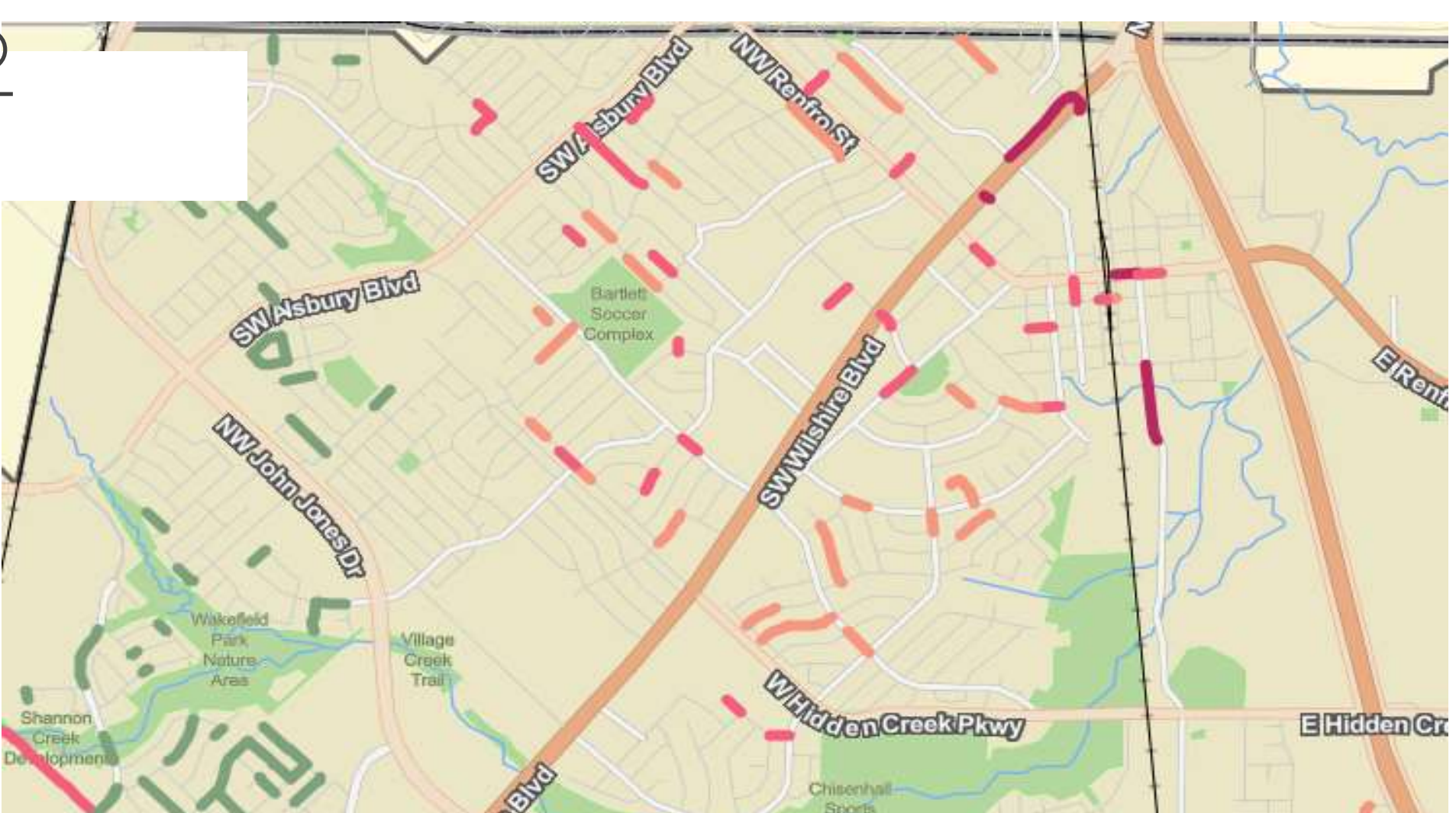
**Medium Size Repair**  
\$244,416

# Scenario Model

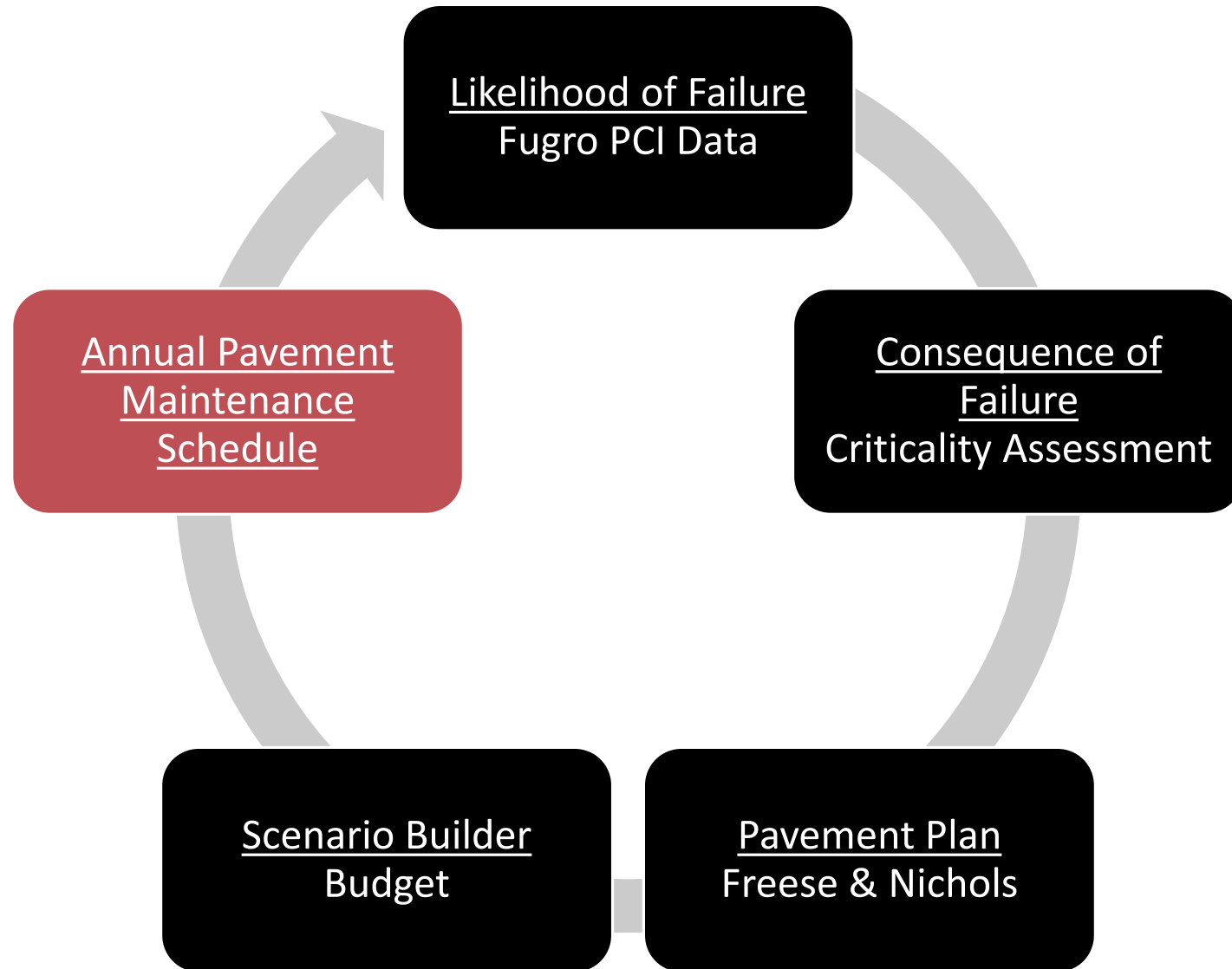
O&M Budget  
\$2,299,99.59

Beginning OCI:  
68.2  
Ending OCI:  
67.02

Beginning Risk:  
Arterials: 2.00%  
Collector Risk:  
10.40%  
Local: 87.50%



Plan Year	Asset ID	Activity	Pavement Classification	Street
1	TSC27773	Asphalt Microsurface	Asphalt	SW HULEN ST
1	TSC200489	Concrete Joint Sealing	Concrete	STREAMSIDE DR
1	TSC26581	Asphalt Mill & 2" Overlay	Asphalt	TARVER RD
1	TSC28949	Asphalt Mill & 2" Overlay	Asphalt	S HURST RD
1	TSC26918	Asphalt Microsurface	Asphalt	NW ANN LOIS LN
1	TSC125633	Concrete Medium Size Full-Depth	Concrete	ST ANDREWS DR



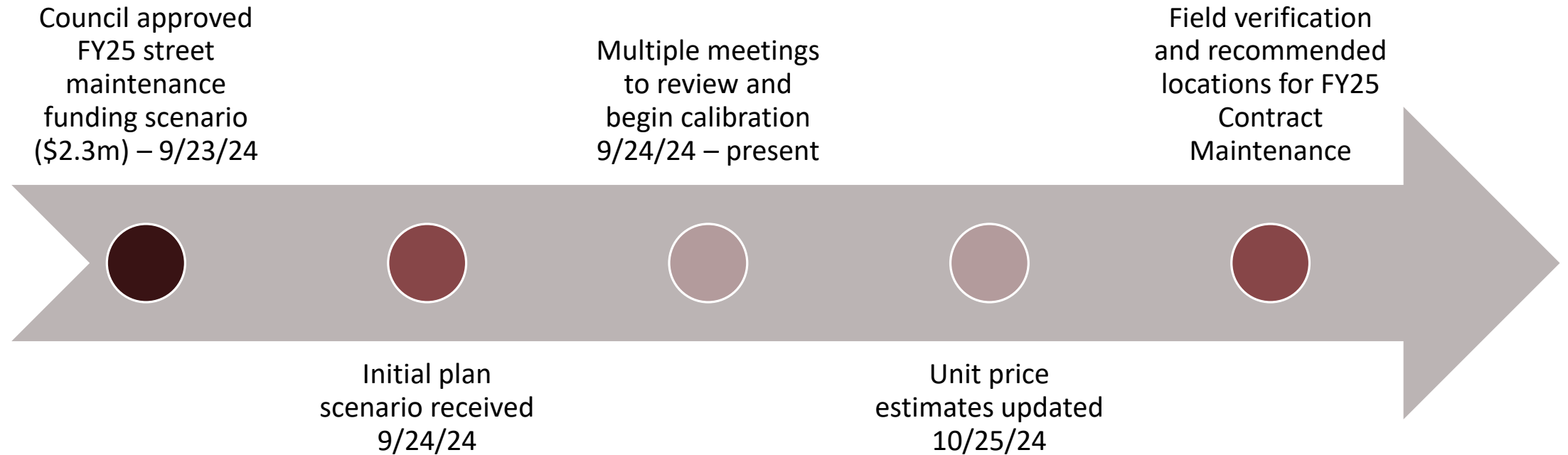


# Public Works Process

- Navigating asset management export
- Calibration of modified data
- Next steps to verify information
- Final proposed process to plan adoption



# Timeline



Maintenance Treatment	Year 1 Estimated Cost	Year 2 Estimated Cost
Asphalt Maintenance Sealing	\$ 24,570	\$ 16,042
Asphalt Microsurface	\$ 177,534	\$ 191,926
Asphalt Mill & 2" Overlay	\$ 1,782,251	\$ 2,049,661
Concrete Joint Sealing Total	\$ 1,289	\$ 66
Concrete Maintenance Sealing	\$ 38,031	\$ 47,568
Concrete Medium Size Full-Depth	\$ 244,416	\$ -
Concrete Small Size Full-Depth	\$ 31,910	\$ 4,735
<b>Total Estimated Cost</b>	<b>\$ 2,300,000</b>	<b>\$ 2,309,999</b>

## Year 1 & 2 Summary Recommendations from Asset Management

# Calibration

Asset Management program maturation entails calibration and field verification activities that must be undertaken by staff to include:

- Enhancing the use of GIS mapping to facilitate field verification (and later bidding and public reporting)
- Incorporating pavement marking replacement into cost estimates (quantified as part of field verification)
- Verifying via site visits to include:
  - Confirmation of maintenance treatment
  - Quantifying pavement markings to be replaced
  - Confirmation of project limits

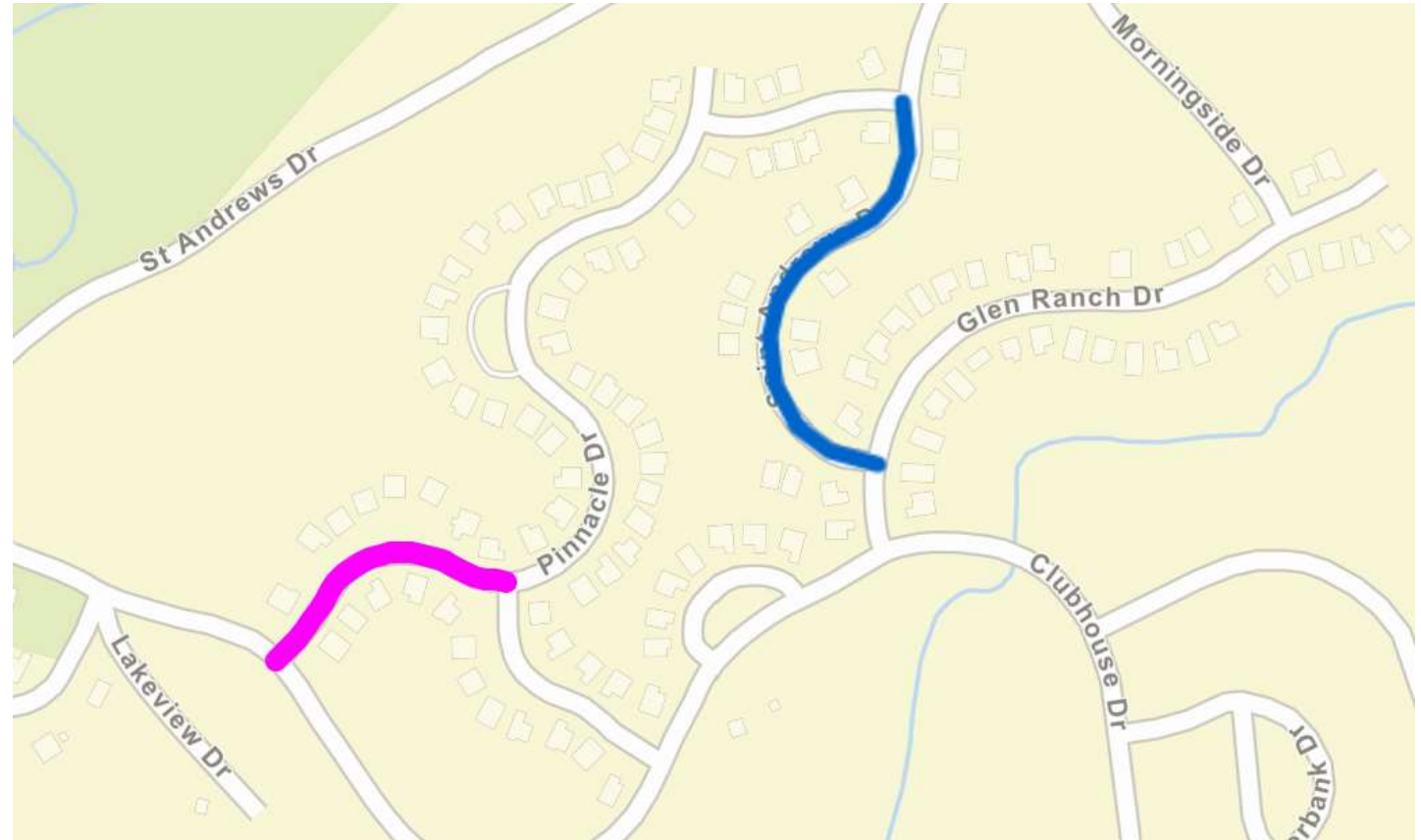
These activities are anticipated to be more time-consuming this year (first time) than in future years.

No section of Alsbury, Hidden Creek, or Renfro has been recommended for improvements by the asset management program

# Field Verification Example

- The segment of street recommended for concrete panel replacement is in Mountain Valley.
- Pinnacle Drive, highlighted in pink, spans 685 feet with an estimated repair cost of \$59,197.

## Mountain Valley



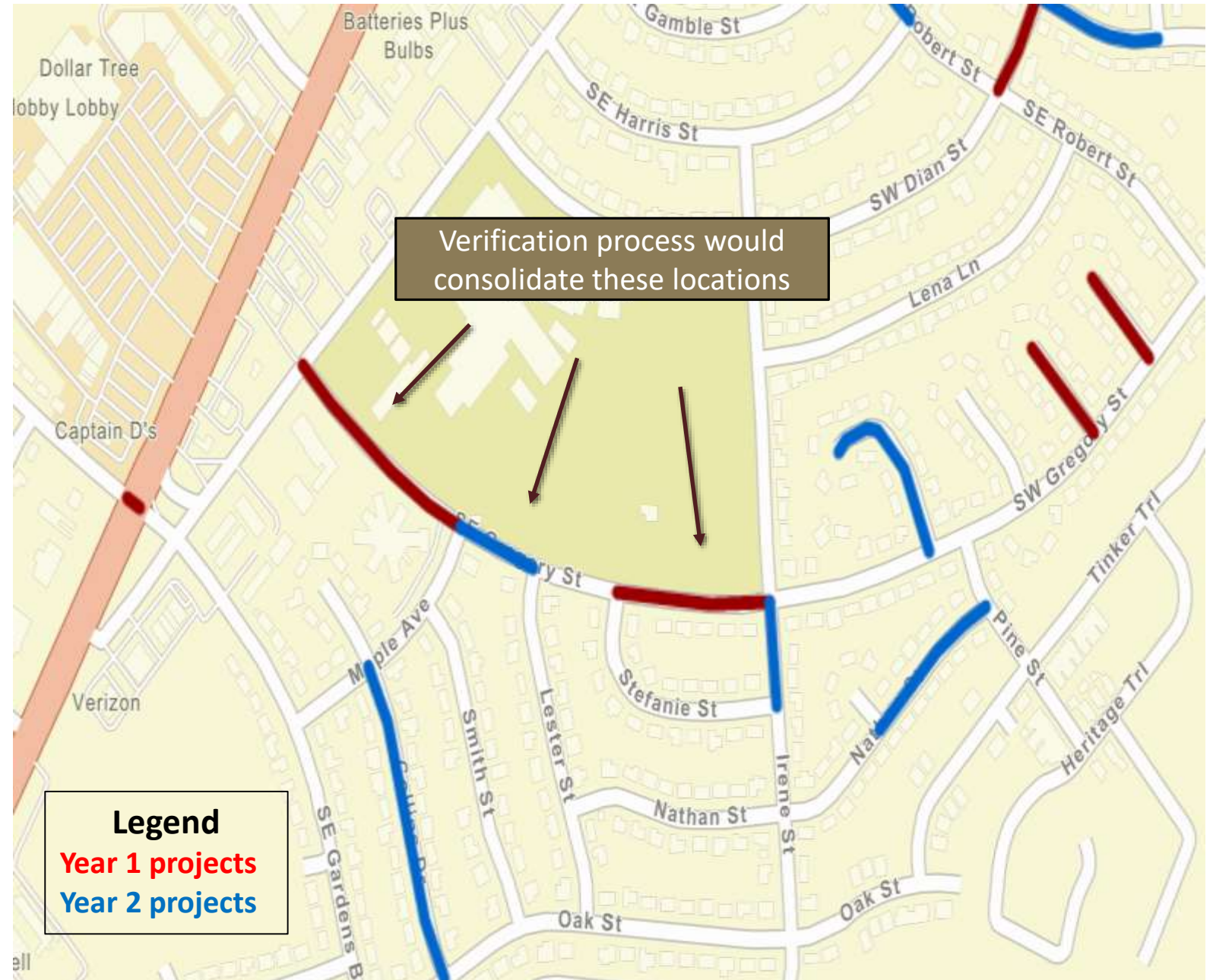
# Pinnacle Drive

The specific segment requiring attention is approximately 80 feet of the 685' block length. The field verification process is designed to clarify and confirm the quantities of work to be performed.



# Field Verification Example Two

- Various segments in the vicinity of Burleson Collegiate High School are recommended by the asset management program for mill and overlay treatment.
- Field verification will help reduce mobilization costs by determining whether segments should be combined and moved to either year one or two.



# Options for Council Consideration and Feedback



## Staff Recommendation

Option 1
\$2.3m
<ul style="list-style-type: none"><li>▪ \$700k concrete repair contract</li><li>▪ \$1.6m maintenance contracts as recommended by staff following additional calibration / field verification</li></ul>
Consider concrete repair contract November/December - Advertise ITB in January – contract award March – all work completed August

Option 2
\$2.3m
<ul style="list-style-type: none"><li>▪ Full calibration / field verification of asset management program recommendation</li></ul>
Advertise ITB in March – contract award in May – work completed in September



# Options for Major Thoroughfares

While balancing model calibration, Public Works has prepared a concrete contract to address repair needs on our major thoroughfares.

Location	Estimated Cost	Comments
<b>Contract ready for consideration on November 18th – Pending feedback</b>		
Multiple locations along Hidden Creek Parkway and additional smaller repairs on Alsbury and Renfro.	\$700,000	FY 24-25 Street Maintenance Fund

# Hidden Creek Parkway

- Alsbury, Renfro, and Hidden Creek Parkway that are not fully addressed in the current asset management plan.
- To address this, option 1 includes a concrete repair contract focused on largely on problem areas on Hidden Creek Parkway.

Example location of Hidden Creek near Hidden Lake Drive and Fire Station 16.



# Hidden Creek and Hidden Oaks Drive



Proper joint seal to prevent water penetration and more costly future repairs

# Hidden Creek and Cardinal Ridge



# Recently Completed, Currently Underway and Upcoming Work



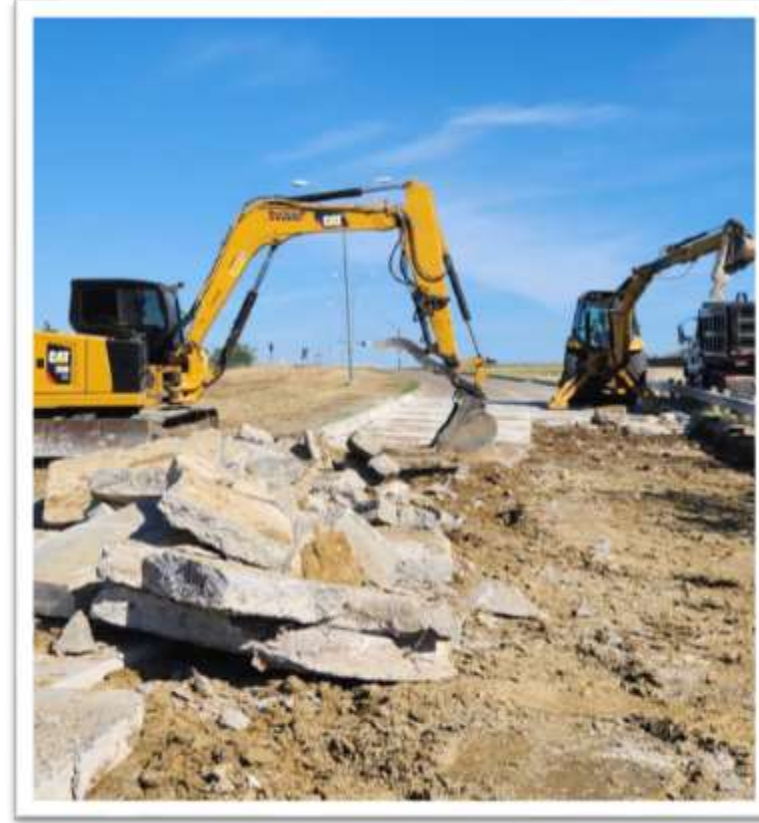
<b>Funded by FY23-24 Operating Funds</b>	
Alsbury Blvd – 3 locations	\$110,000
Hidden Vistas near Hidden Creek Parkway	\$49,000
NW Renfro and Silver Ridge	\$20,530
1200 Blk E. Hidden Creek	\$16,800
<b>Total</b>	<b>\$196,330</b>



NW Renfro and Silver Ridge



1200 Blk E. Hidden Creek



Hidden Vistas

## Recent Projects

# Questions / Direction

---

Janalea Hembree  
Assistant to the City Manager  
[jhembree@burlesontx.com](mailto:jhembree@burlesontx.com)  
817.426.9299

Justin Scharnhorst  
Deputy Director Public Works  
[jscharnhorst@burlesontx.com](mailto:jscharnhorst@burlesontx.com)  
817.426.9646