

Developing a SUMP

Lessons from the City of Gainesville



Kimley»Horn
Expect More. Experience Better.

August 20, 2026



Introductions



City of Gainesville

Allen McDonald



Kimley-Horn

Colton Hermes, PE



Kimley»Horn

Gainesville History

- Reactive spending – worst first
- Inefficient use of resources
- Inconsistent asset timelines
 - Utility repairs causing trenches on new streets
- Council didn't see need to prioritize infrastructure

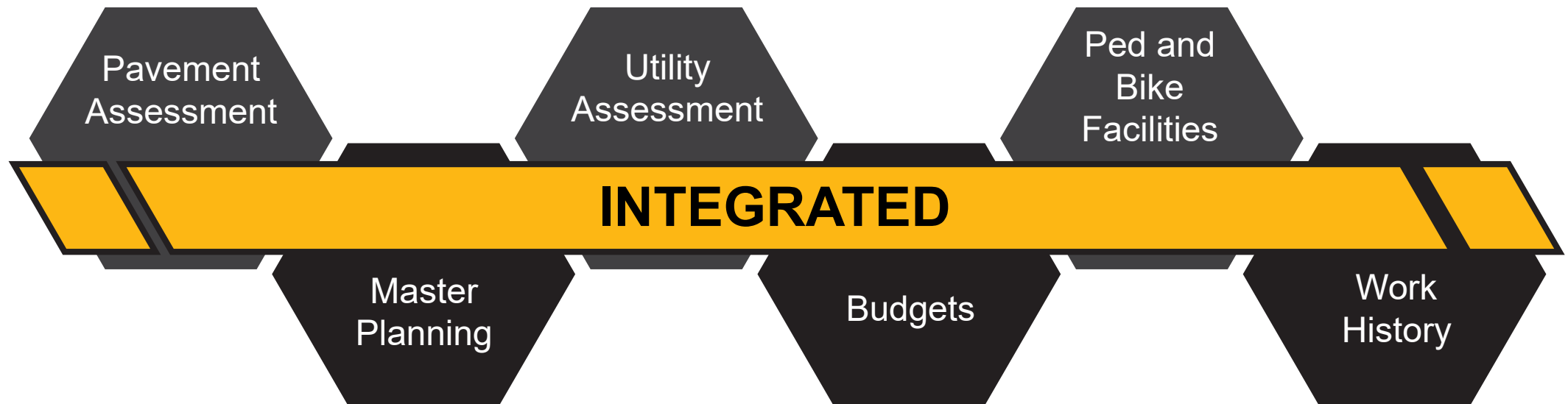
- Population – 18,528
- Streets - 102 C/L miles
- Water - 153 miles
- Sewer - 125 miles
- Storm Drain - 15 miles
- \$250k maintenance budget, bonds for major reconstructs

SUMP Solution

Street and Utility Maintenance Program

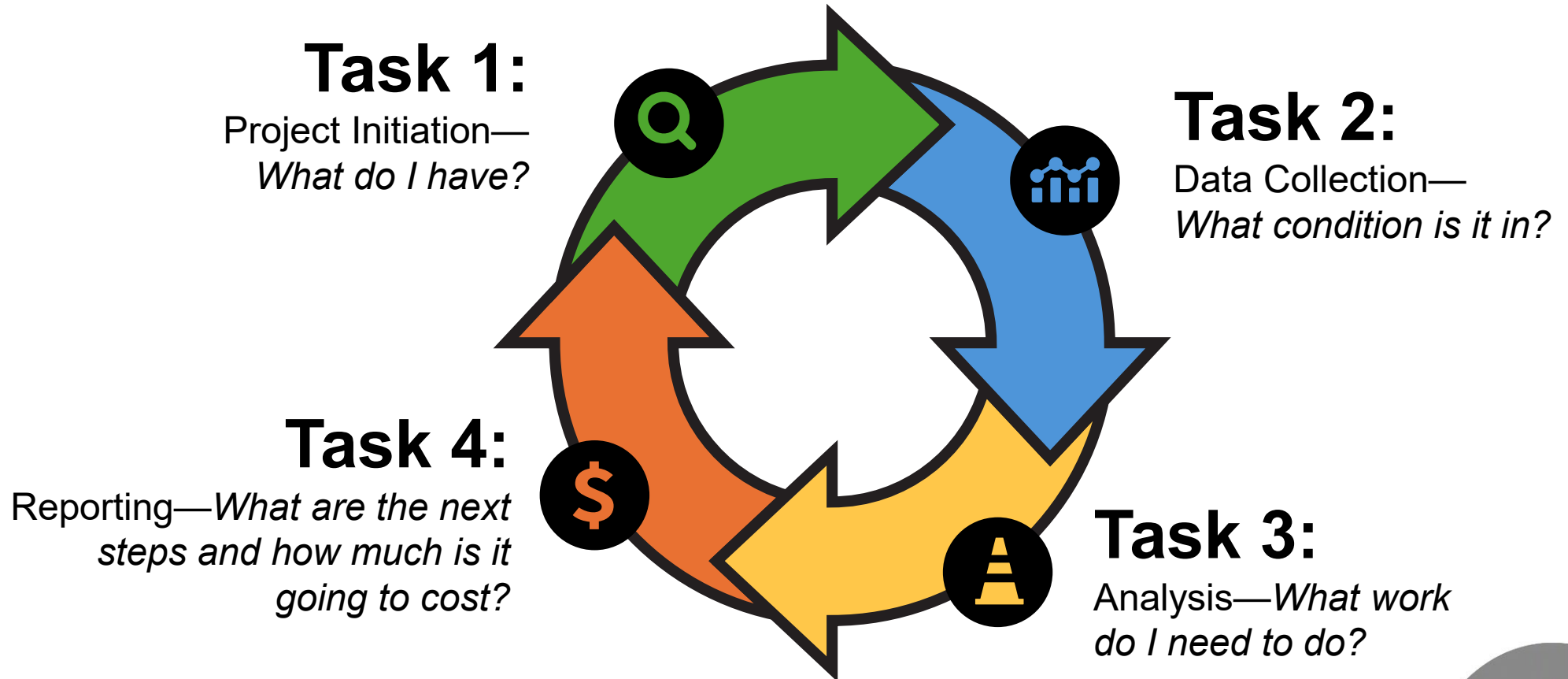
- From 2009 presentation to City Council:
 - **Provide the longest life span for utility and roadway infrastructure**
 - **Allow for changing budget realities**
 - **Objective reasons for specific projects**
- SUMP established in 2010, updated in 2020

SUMP Solution



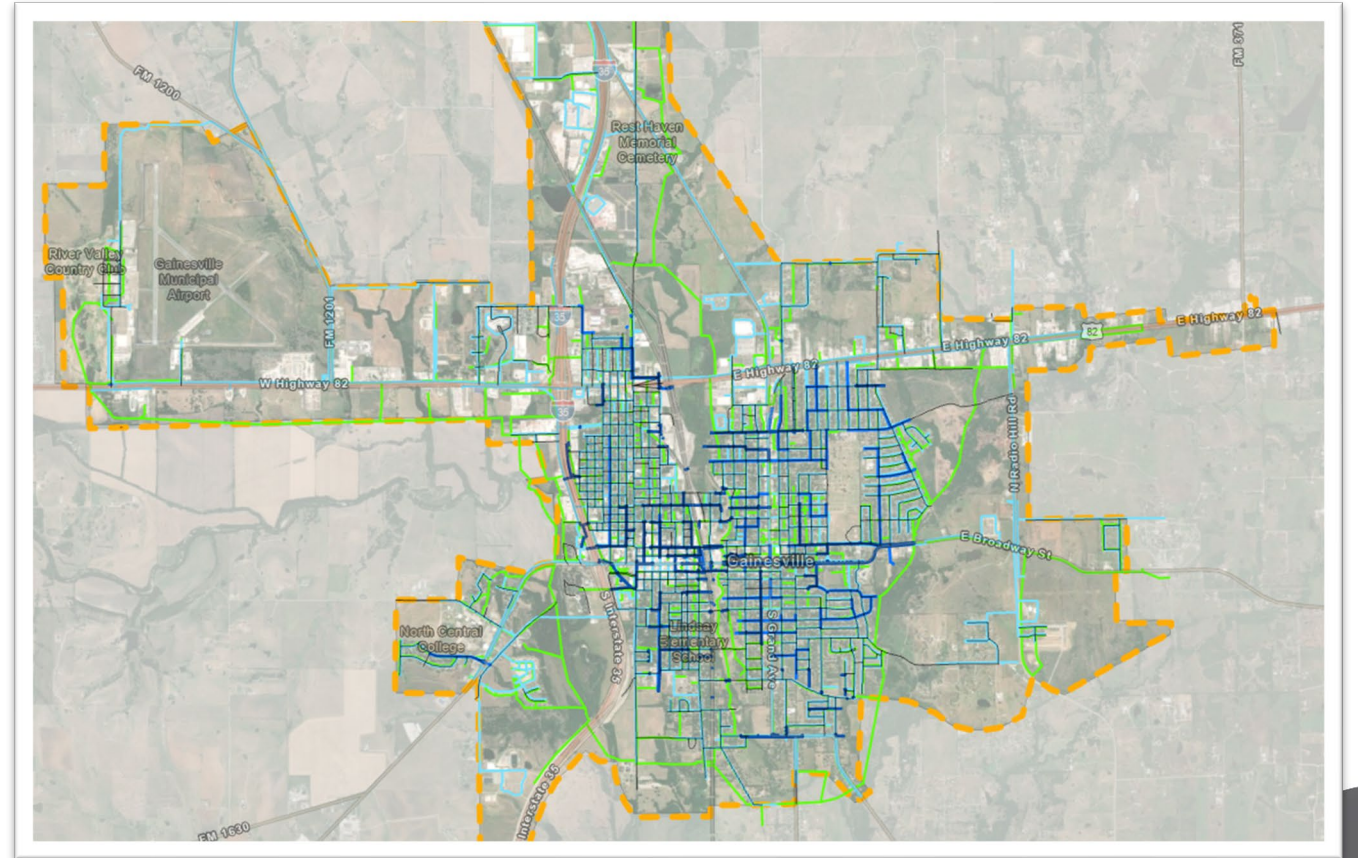
Provide proactive analysis that **integrates all aspects of the City's infrastructure** so the right project gets done at the right time.

SUMP Process



Task 1: Project Initiation

- Establish Network
 - Pavement
 - Utilities
 - Sidewalk
 - Traffic volumes
 - Master Thoroughfare Plan
 - Landmarks



Task 2: Data Collection

- Pavement

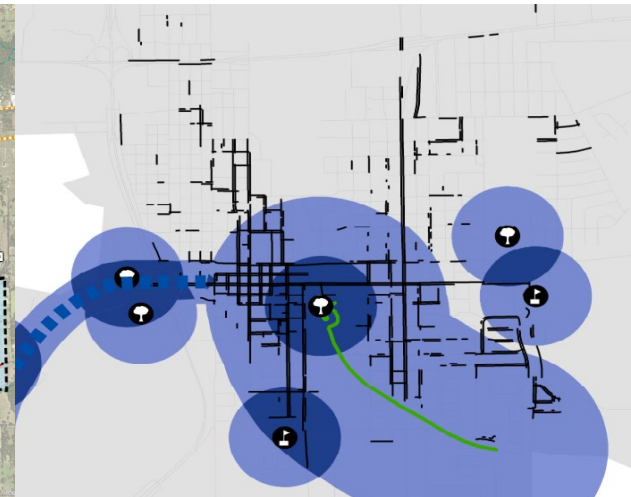
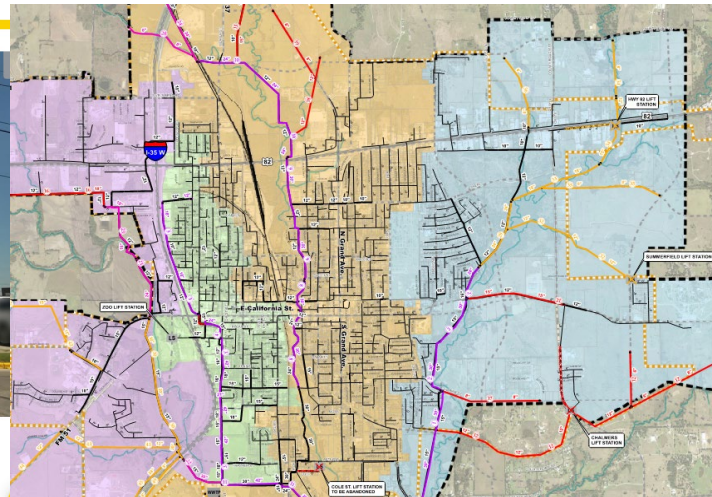
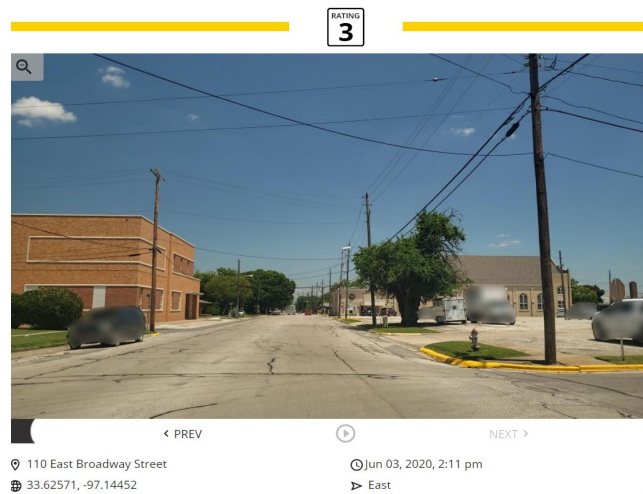
- *Manual*
- *Windshield applications*
- Sensor vans

- Utilities

- In-house knowledge
- Record drawings
- *GIS data*
- *Master plans*

- Other

- Traffic counts
- *Street class*
- *ADA Master Plan*



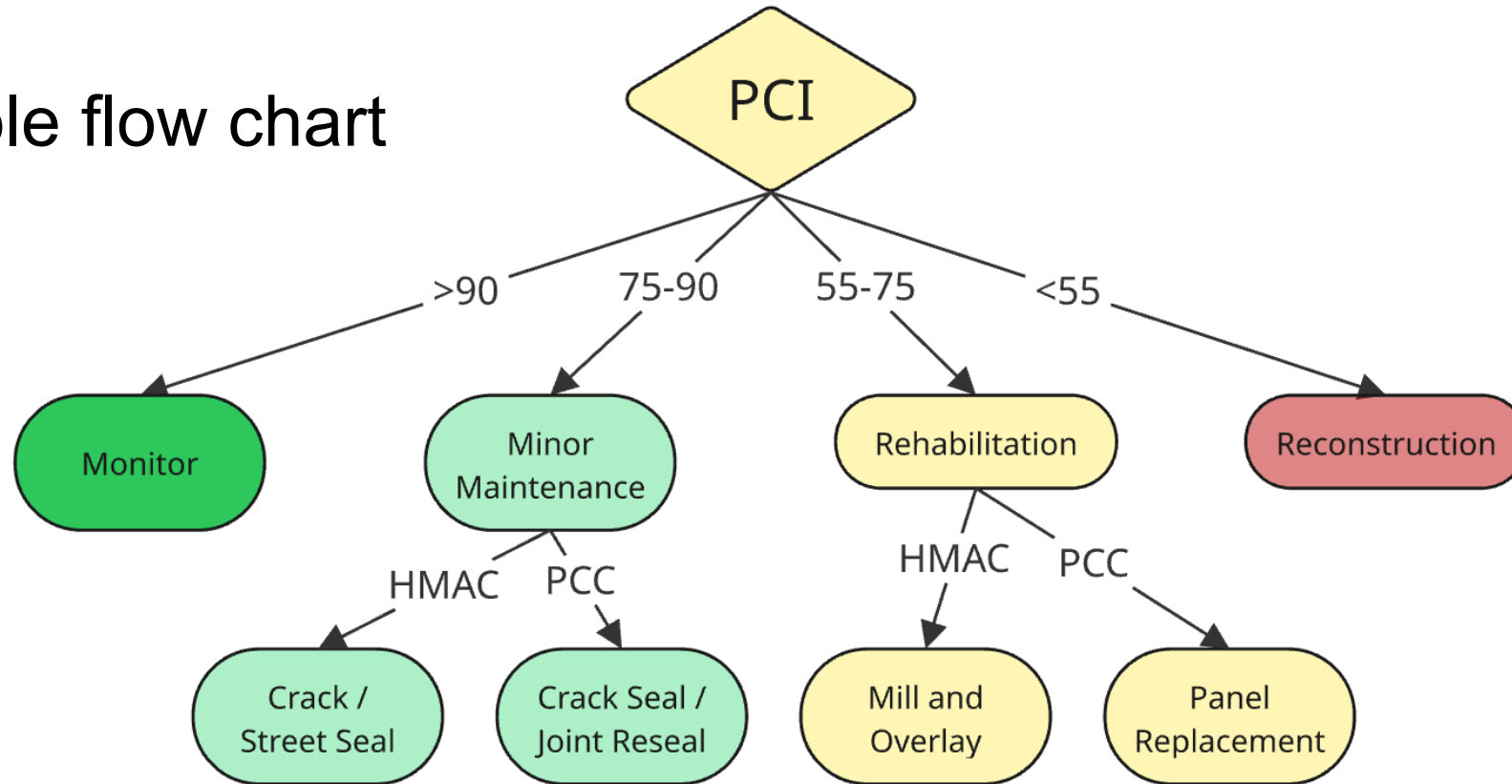
Task 3: Analysis and Processing

Pavement	PCI, IRI, rut data
Utilities	Material/size, age, work history
Sidewalk	Condition, missing connections
Traffic volumes	Counts, current street class
Master Thoroughfare Plan	Future street class
Landmarks	High visibility, traffic generators



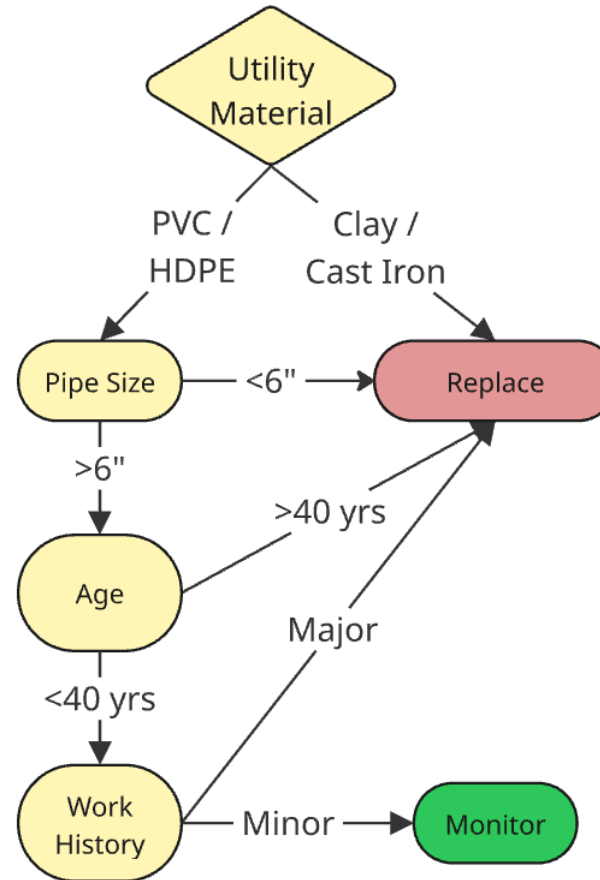
Task 3: Analysis and Processing

- Example flow chart



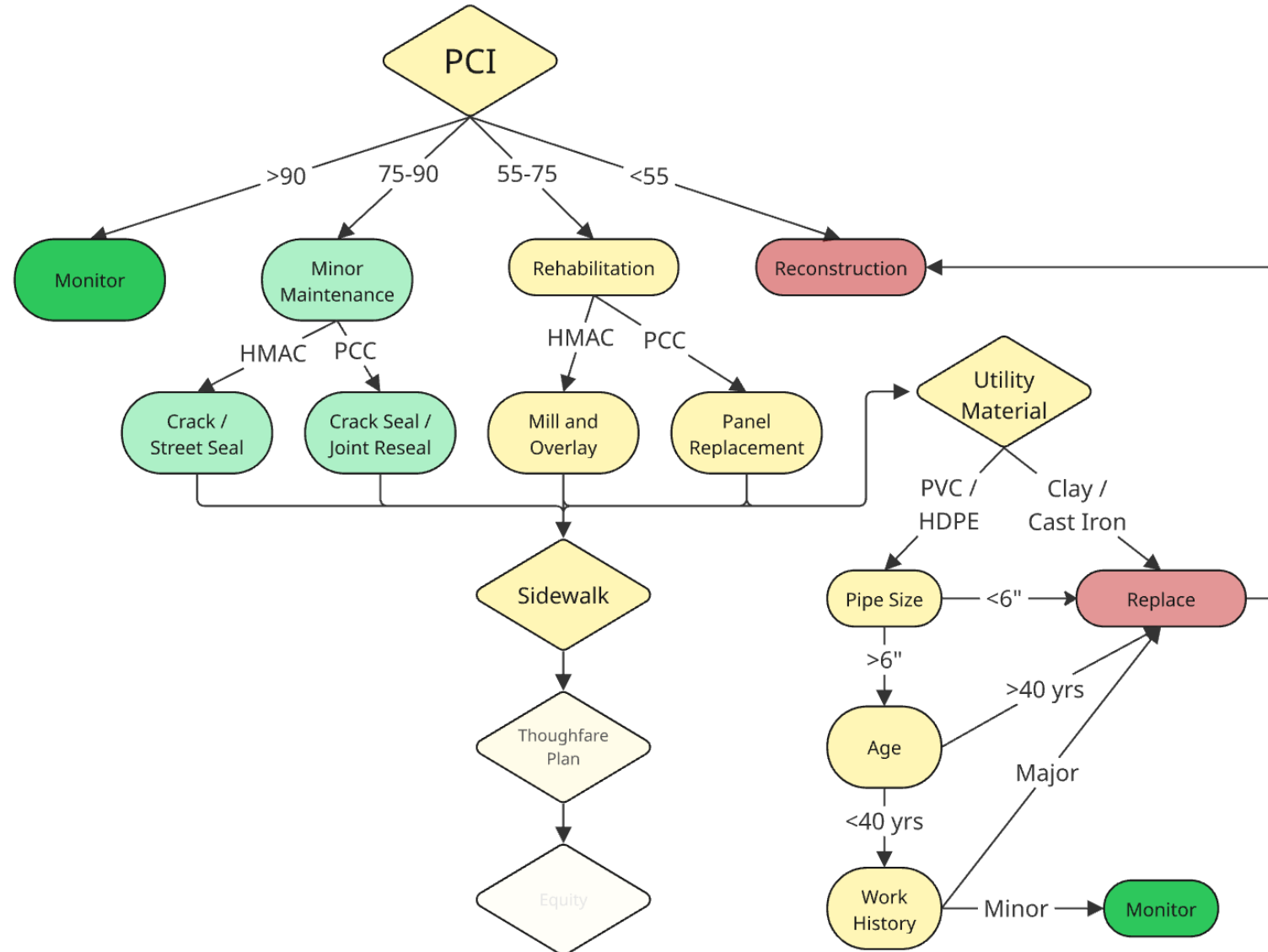
Task 3: Analysis and Processing

- Example flow chart



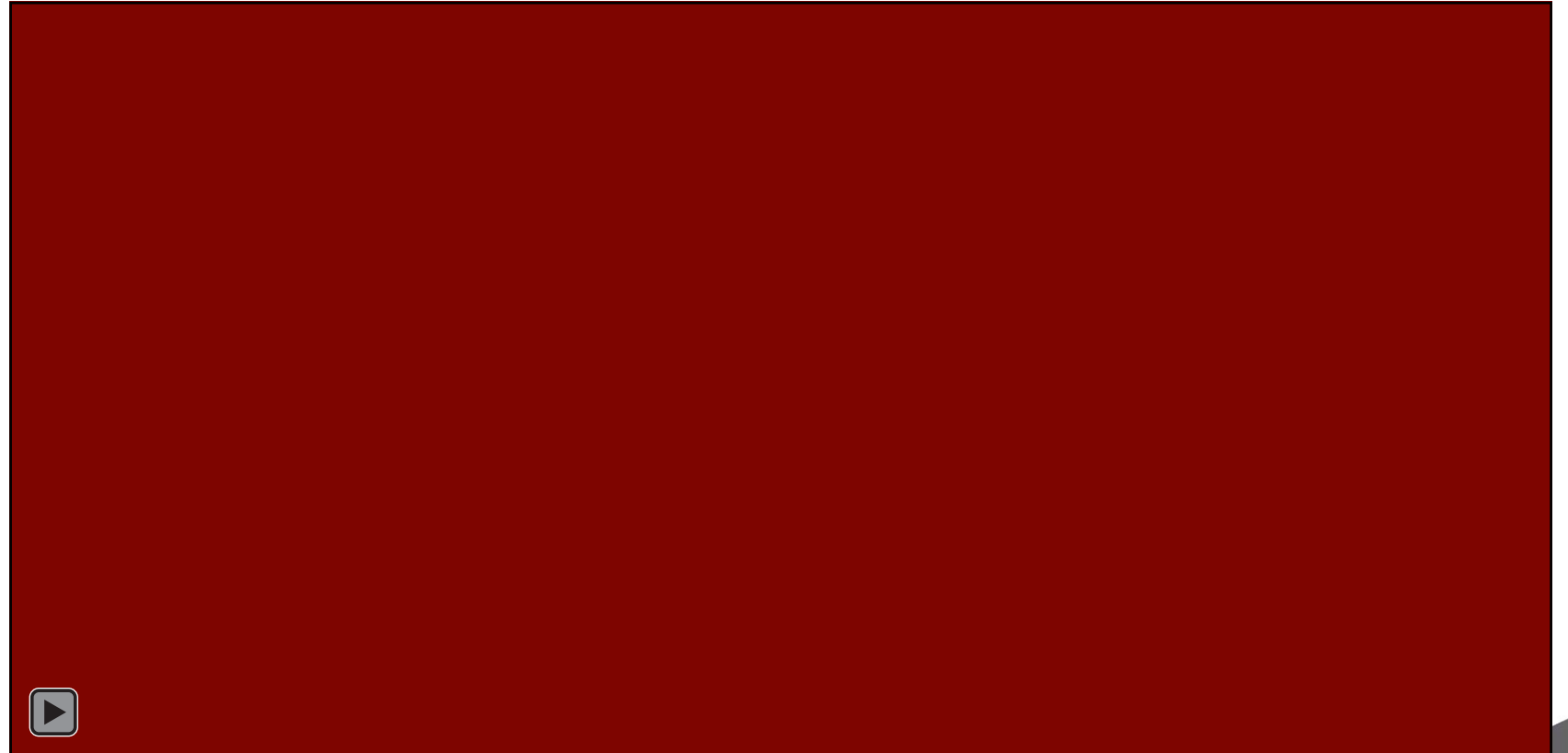
Task 3: Analysis and Processing

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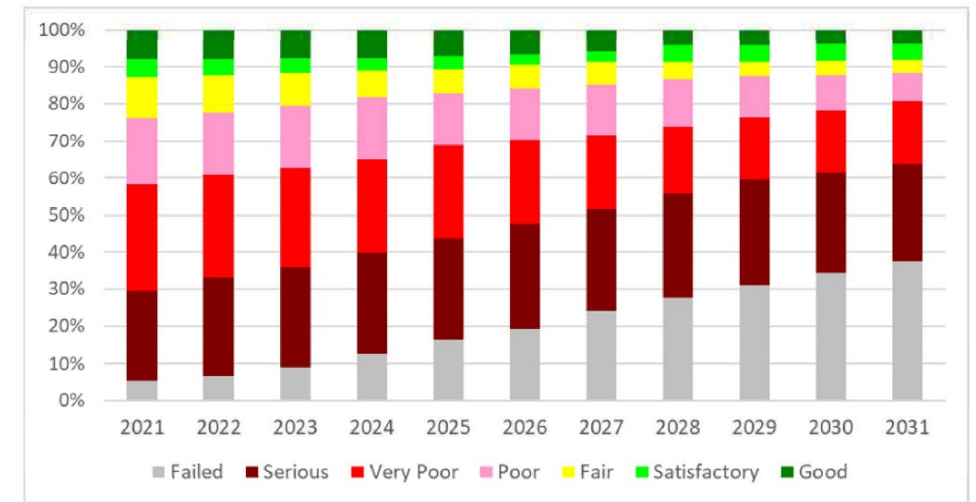
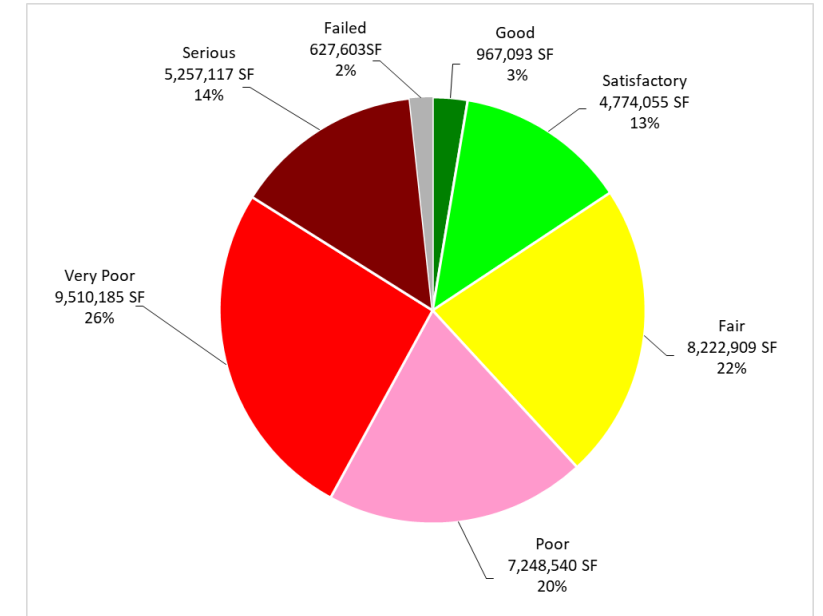
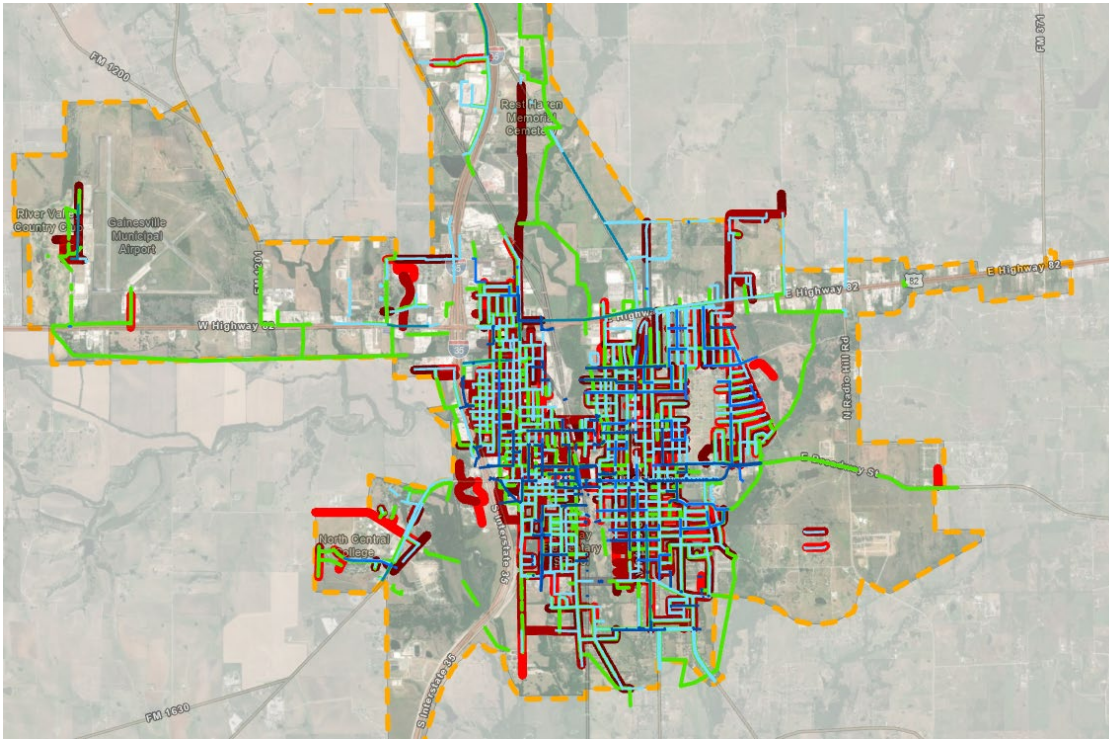
Task 4: Reporting and Delivery

- Visualization



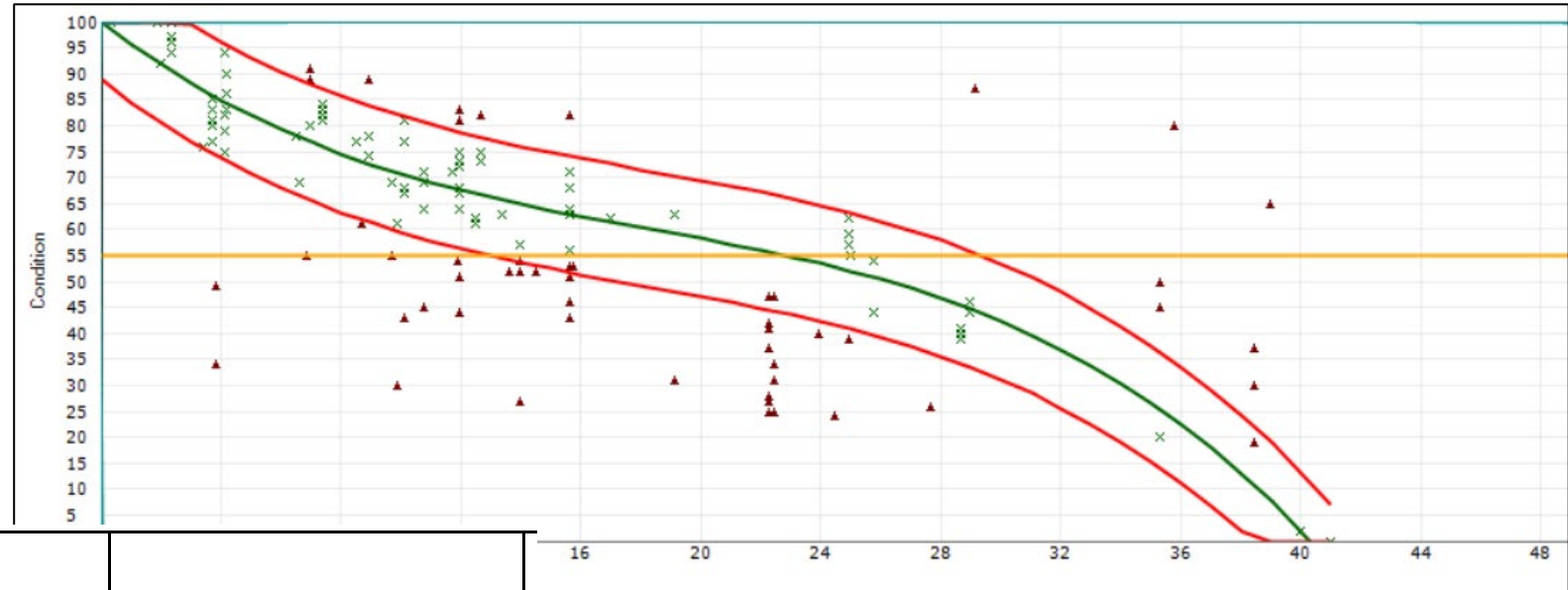
Task 4: Reporting and Delivery

- Visualization



Task 4: Reporting and Delivery

- Visualization
- Maintenance recommendations
- Predictive models



Maintenance Recommendation (2021)	Maintenance Recommendation (2026)	Maintenance Recommendation (2031)
Global+Preventive	Global+Preventive	M&OL
M&OL+Base Repair	Reconstruction	Reconstruction
Reconstruction	Reconstruction	Reconstruction
M&OL+Base Repair	Reconstruction	Reconstruction



Task 4: Reporting and Delivery

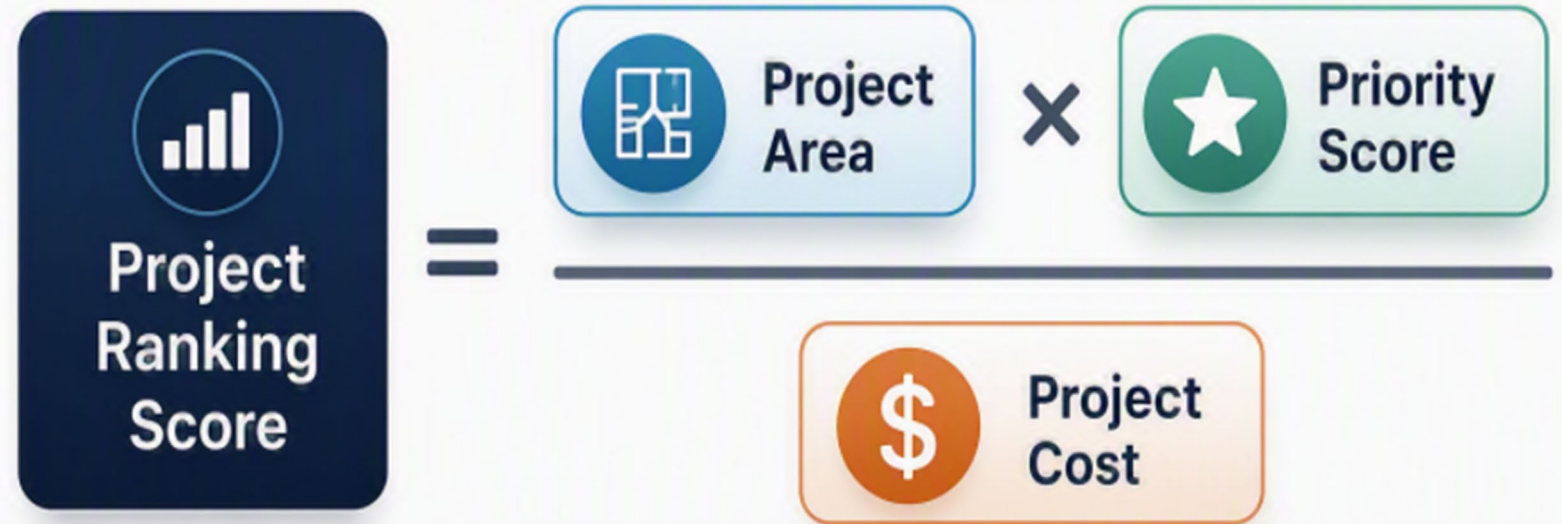
- Visualization
- Maintenance recommendations
- Predictive models
- Prioritization

Priority Category	Description	Maximum Score
Pavement Rating	Analyzes PCI and brick street ratings. Segments in worse condition receive a higher priority.	45
Curb and Sidewalk Rating	Evaluates each segment for presence of existing curb and sidewalk. Segments without curb and segments identified in the Sidewalk Master Plan priority zones receive higher priority.	5
Wastewater Rating	Evaluates each segment for material type and size of existing sanitary sewer lines. Segments with sanitary sewer diameters less than 6", in an outdated material, or identified in the Wastewater Master Plan CIP receive higher priority.	12
Water Rating	Evaluates each segment for material type and size of existing sanitary sewer lines. Segments with sanitary sewer diameters less than 6", in an outdated material, or identified in the Water Master Plan CIP receive higher priority.	12
Storm Rating	Prioritizes segments based on the priorities provided in the Flood Plain Management Report.	6
Connectivity Rating	Prioritizes segments that are identified in the Master Thoroughfare Plan. More significant streets such as arterials receive higher priority. Also evaluates segments for connectivity to previously completed SUMP projects.	20
Total Score		100



Task 4: Reporting and Delivery

- Visualization
- Maintenance recommendations
- Predictive models
- Prioritization



Task 4: Reporting and Delivery

- Visualization
- Maintenance recommendations
- Predictive models
- Prioritization
- Budgeting

Roadway	\$341,225,000
Sidewalk	\$22,963,000
Water	\$138,387,000
Water CIP Projects	\$89,162,000
Existing Water Updates	\$49,226,000
Sewer	\$157,154,000
Wastewater CIP Projects	\$97,561,000
Existing Wastewater Updates	\$59,593,000
Stormwater	\$44,866,000
Stormwater CIP Projects	\$28,408,000
Existing Stormwater Updates	\$16,458,000
Total	\$704,595,000

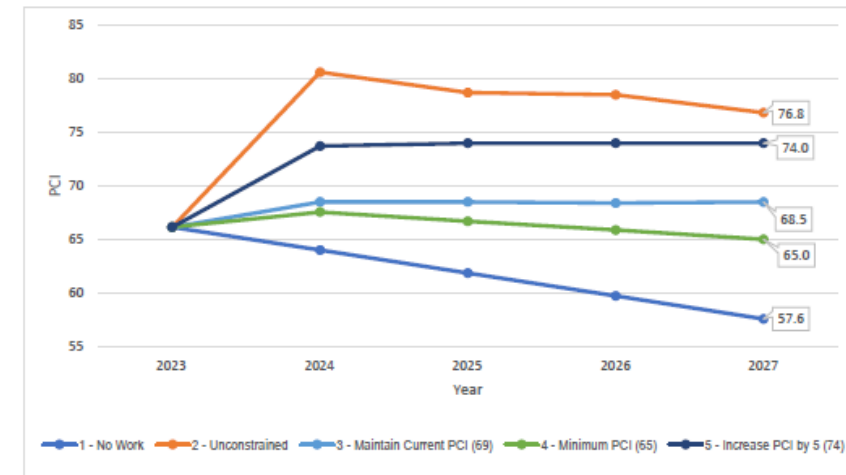
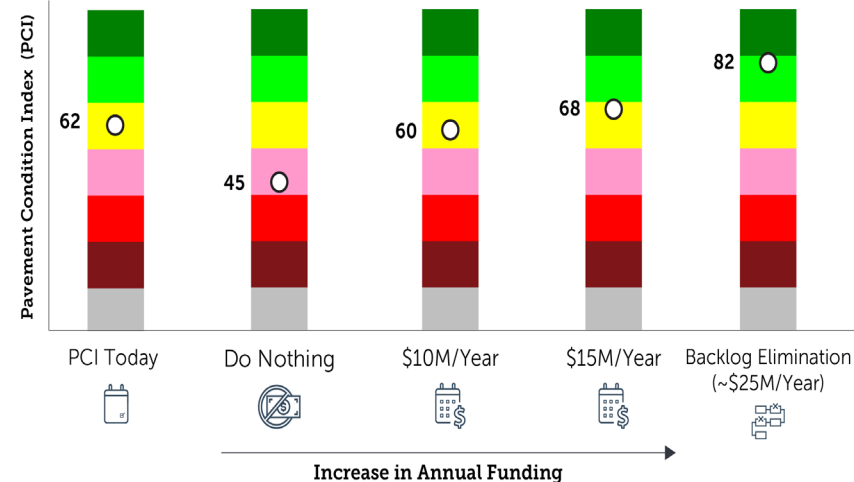


Task 4: Reporting and Delivery

- Visualization
- Maintenance recommendations
- Predictive models
- Prioritization
- Budgeting

Opinion of Probable Construction Cost (OPCC)

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	10" Concrete Pavement w/ 6" Curb	10,787.55	SY	\$70.00	\$755,128.16
2	6" Lime Stabilized Subgrade	11,866.30	SY	\$15.00	\$177,994.50
3	Unclassified Street Excavation	12,945.05	CY	\$50.00	\$647,252.71
4	5 ft Sidewalk	1,595.13	LF	\$40.00	\$63,805.05
5	Traffic & Erosion Control (@3%)	1	LS	\$49,325.41	\$49,325.41
6	Water Line Replacement	1	LS	\$325,200.00	\$325,200.00
7	Wastewater Line Replacement	1	LS	\$325,200.00	\$325,200.00
8	Proposed Water	1	LS	\$358,000.00	\$358,000.00
9	Mobilization (10% of Construction)	1	LS	\$270,190.58	\$270,190.58



SUMP Results

Project Priority Ranking	Project Name	Project OPCC	OPCC Road	OPCC Sanitary	OPCC Water	OPCC Storm	OPCC Sidewalk	Project Length (FT)	Project Area (SY)	Recommended Repair	Overall Project Rating
1	G2	\$ 428,000	\$ 428,000	\$ -	\$ -	\$ -	\$ -	14,849	51,399	Seal Coat & Crack Sealing	15.41
2	G1	\$ 277,000	\$ 277,000	\$ -	\$ -	\$ -	\$ -	13,471	39,817	Seal Coat & Crack Sealing	11.35
3	G3	\$ 392,000	\$ 392,000	\$ -	\$ -	\$ -	\$ -	15,195	47,109	Seal Coat & Crack Sealing	11.54
4	P1	\$ 45,000	\$ 45,000	\$ -	\$ -	\$ -	\$ -	7,401	21,170	Crack Seal	6.44
5	P2	\$ 26,000	\$ 26,000	\$ -	\$ -	\$ -	\$ -	4,429	13,080	Crack Seal	9.21
6	M01	\$ 32,000	\$ 32,000	\$ -	\$ -	\$ -	\$ -	184	531	Mill & Overlay	31.35
7	R003	\$ 503,000	\$ 404,934	\$ 96,600	\$ -	\$ -	\$ -	450	1,299	Reconstruction	54.00
8	M03	\$ 327,000	\$ 327,000	\$ -	\$ -	\$ -	\$ -	1,556	5,531	Mill & Overlay	27.30
9	N09	\$ 332,000	\$ 332,000	\$ -	\$ -	\$ -	\$ -	1,490	4,305	Mill & Overlay + Base Repair	31.64
10	N03	\$ 435,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	1,762	5,653	Mill & Overlay + Base Repair	37.06

SUMP Results

Kimley-Horn and Associates, Inc.

Pavement Project Summary Page

Project Information

Client: City of Gainesville, Texas

Program 2020 Street and Utility Maintenance Program

X01 Proj 061042050

Project Location

Project:

Date: 2021-02-24

Design: TDM

Check: CH

B01

Existing Conditions								
Segment Name	Material	Pavement PCI	Existing Sidewalk	Existing Curb & Gutter	Existing Water Line	Existing San. Sewer Line	Master Thoroughfare Plan	Recommendation
Commerce St (W Broadway St to Mid-Block)	Brick	0 Yes	Yes	Yes	6" PVC	6" Vitrified Clay	Brick	Brick
Commerce St (Mid-Block to W Elm St)	Brick	0 Yes	Yes	Yes	2" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (W Elm St Intersection to W Elm St Intersection)	Brick	0 Yes	Yes	Yes	2" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (W Elm St to Mid-Block)	Brick	0 Yes	Yes	Yes	2" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (Mid-Block to W California St)	Brick	0 Yes	Yes	Yes	8" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (W California St to Mid-Block)	Brick	0 Yes	Yes	Yes	8" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (Mid-Block to E Main St)	Brick	0 Yes	Yes	Yes	8" Cast Iron	6" Vitrified Clay	Brick	Brick
Commerce St (E Main St Intersection to E Main St Intersection)	Brick	0 Yes	Yes	Yes	8" Cast Iron	6" Vitrified Clay	Brick	Brick

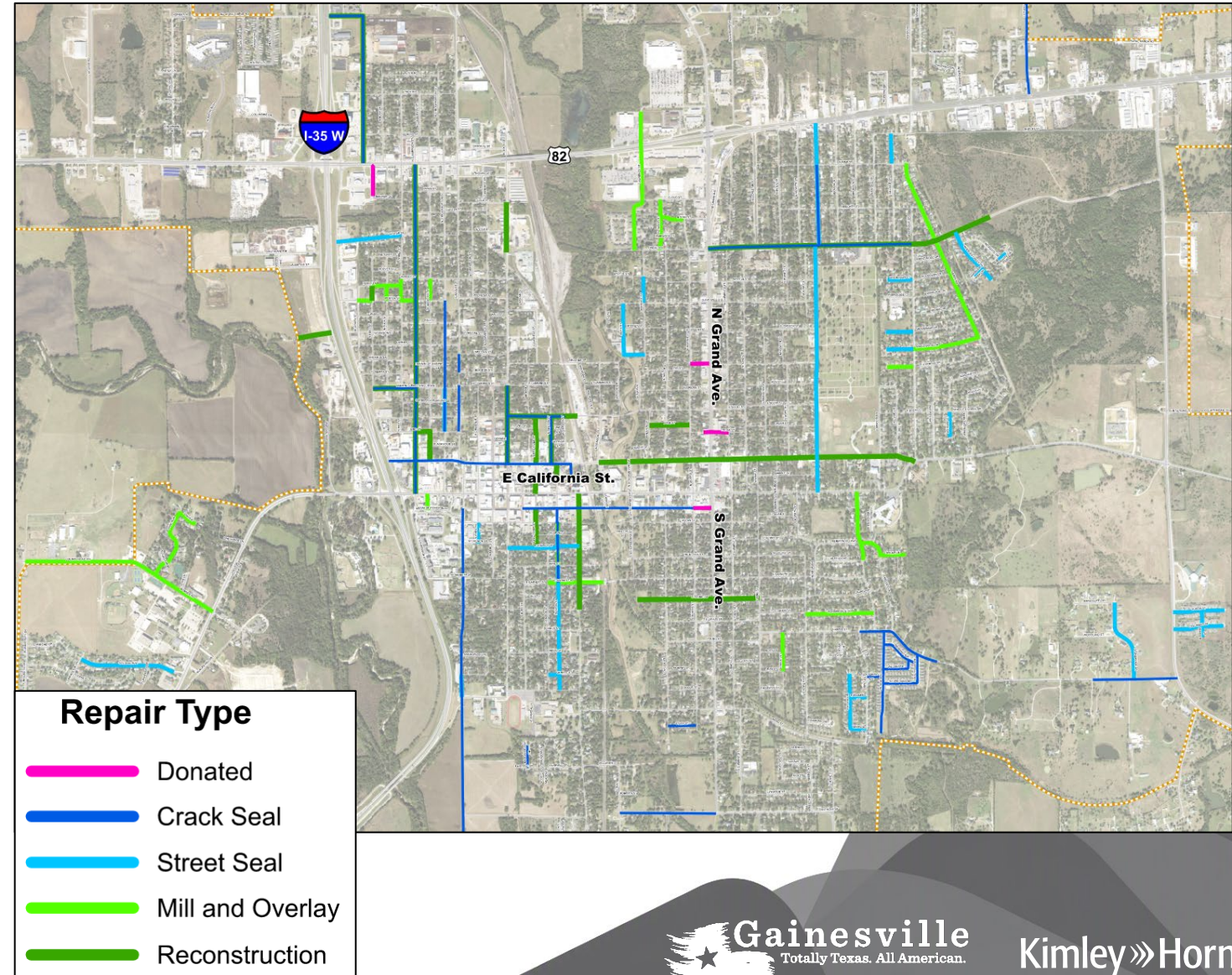
Priority Ratings								
Segment Name	Area (SY)	Pavement Rating	Curb & Sidewalk Rating	Wastewater Rating	Water Rating	Storm Rating	Connectivity Rating	Overall Rating
Commerce St (W Broadway St to Mid-Block)	409.73	42.8	0.5	2.0	0.0	0.0	0.0	45.3
Commerce St (Mid-Block to W Elm St)	508.89	42.8	0.5	2.0	3.0	0.0	0.0	48.3
Commerce St (W Elm St Intersection to W Elm St Intersection)	97.32	42.8	0.5	2.0	3.0	0.0	0.0	48.3
Commerce St (W Elm St to Mid-Block)	452.09	42.8	0.5	2.0	3.0	0.0	0.0	48.3
Commerce St (Mid-Block to W California St)	419.17	42.8	0.5	2.0	1.0	0.0	0.0	46.3
Commerce St (W California St to Mid-Block)	432.69	31.5	0.5	0.0	1.0	0.0	0.0	33.0
Commerce St (Mid-Block to E Main St)	408.99	15.8	0.5	2.0	1.0	0.0	0.0	19.3
Commerce St (E Main St Intersection to E Main St Intersection)	78.46	31.5	0.5	2.0	1.0	0.0	0.0	35.0
Total Area:	2,794.33						Project Rating:	40.59

Option of Probable Construction Cost (OPCC)				
No.	Item Description	Quantity	Unit	Item Cost
1	Salvage Existing Brick Pavers	2,794.33 SY		\$83,829.99
2	Brick Paver Street	2,794.33 SY		\$335,519.96
3	6" Lime Stabilized Subgrade	3,073.77 SY		\$46,106.50
4	Unclassified Street Excavation	3,353.20 CY		\$167,659.98
5	5 ft Sidewalk	1,545.25 LF		\$61,810.13
6	Traffic & Erosion Control (@3%)	1 LS		\$20,841.80
7	Water Line Replacement	1 LS		\$86,200.00
8	Wastewater Line Replacement	1 LS		\$85,300.00
9	Mobilization (10% of Construction)	1 LS		\$68,706.84
Sub Total:				\$976,900.00
Construction Contingency:				\$252,800.00
Engineering and Survey:				\$195,200.00
Project Cost Total:				\$1,424,900.00

The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Options of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposed, bid, or actual construction costs will not vary from its options of probable costs.

SUMP Results

- Streets
 - 33,400 LF reconstructed
 - 23,500 LF milled and overlaid
 - 49,500 LF crack sealed
- Water
 - 23,200 LF installed
- Sewer
 - 27,000 LF installed
- Storm Drain
 - 19,000 LF installed



Lessons Learned

- Need deliverables to speak to decision makers
- Make prioritization process data driven
- Build program to be dynamic
 - Priorities, needs, and budgets are always changing
- Reevaluate selected projects before funding
- Start building database now
- Take full advantage of technology



Questions?

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