

Wednesday, April 03, 2024  
11:00 AM

City Hall - 141 W. Renfro  
Burleson, TX 76028

1. **CALL TO ORDER**

2. **CITIZEN APPEARANCES**

Each person in attendance who desires to speak to the Committee on an item NOT posted on the agenda, shall speak during this section. A speaker card must be filled out and turned in to the City Secretary prior to addressing the Committee. Each speaker will be allowed three minutes to speak.

Each person in attendance who desires to speak on an item posted on the agenda shall speak when the item is called forward for consideration.

3. **GENERAL**

A. Consider approval of the minutes from the January 10, 2024 Infrastructure & Development committee meeting. *(Staff Contact: Amanda Campos, City Secretary)*

B. Receive a report, hold a discussion, and provide direction regarding the options for temporary closures of the 100 Block of W. Ellison Street. *(Staff Contact: Errick Thompson, Director of Public Works & Engineering)*

C. Receive a report, hold a discussion, and provide direction regarding the Hulen Street Widening Project. *(Staff Contact: Tiana Jackson, Capital Engineering Manager)*

D. Receive a report, hold a discussion, and provide direction regarding the Industrial Pump Station Expansion / Alsbury Pump Station Decommission Project. *(Staff Contact: Errick Thompson, Director of Public Works & Engineering)*

E. Receive a report, hold a discussion, and provide direction regarding the Public Works & Engineering Pavement Management Program. *(Staff Contact: Clinton Sumerall, Deputy Director - Operations)*

4. **EXECUTIVE SESSION**

In accordance with Chapter 551 of the Texas Government Code, the Committee may convene in Executive Session in the City Council Workroom at City Hall to conduct a closed meeting to discuss any item listed on this agenda.

**A. Pending or Contemplated Litigation or to Seek the Advice of the City Attorney Pursuant to Section 551.071**

5. **BOARD REQUESTS FOR FUTURE AGENDA ITEMS OR REPORTS**

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**6. ADJOURN****CERTIFICATE**

I hereby certify that the above agenda was posted on this the 27th of March 2024, by 5:30 p.m., on the official bulletin board at the Burleson City Hall, 141 W. Renfro, Burleson, Texas.



Amanda Campos

City Secretary

**ACCESSIBILITY STATEMENT**

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## Infrastructure & Development Committee

**DEPARTMENT:** City Secretary's Office  
**FROM:** Amanda Campos, City Secretary  
**MEETING:** April 3, 2024

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**SUBJECT:**

Consider approval of the minutes from the January 10, 2024 Infrastructure & Development committee meeting. *(Staff Contact: Amanda Campos, City Secretary)*

**SUMMARY:**

The Infrastructure & Development committee duly and legally met on January 10, 2024 for a regular meeting.

**OPTIONS:**

Committee may approve the minutes as presented or approve with amendments.

**RECOMMENDATION:**

Approve.

**STAFF CONTACT:**

Amanda Campos  
City Secretary  
[acampos@burlesontx.com](mailto:acampos@burlesontx.com)  
817-426-9665

# INFRASTRUCTURE & DEVELOPMENT COUNCIL COMMITTEE

January 10, 2024  
DRAFT MINUTES

## Council Present:

Dan McClendon, Chair  
Chris Fletcher  
Phil Anderson

## Council Absent:

## Staff:

Tommy Ludwig, City Manager  
Harlan Jefferson, Deputy City Manager  
Amanda Campos, City Secretary  
Monica Solko, Deputy City Secretary  
Errick Thompson, Director of Public Works – Engineering  
Michelle McCullough, Assistant Public Works Director/City Engineer  
Jen Basham, Park and Recreation Director  
Alex Philips, Economic Development Director  
Billy Cordell, Police Chief  
Casey Davis, Interim Fire Chief

## 1. **CALL TO ORDER – 11:00 a.m.**

Chair Dan McClendon called the meeting to order. **Time: 11:01 a.m.**

## 2. **CITIZEN APPEARANCES**

- No speakers.

## 3. **REPORTS AND DISCUSSION ITEMS**

### A. **Consider approval of the minutes from the February 8, 2023 Infrastructure & Development committee meeting. (Staff Contact: Amanda Campos, City Secretary)**

Motion made by Dan McClendon and seconded by Chris Fletcher to approve.

Motion passed 3-0.

### E. **Receive a report, hold a discussion, and provide staff feedback on the Hooper Business Park Drainage. (Staff Presenter: Michelle McCullough, Assistant Director/City Engineer) - MOVED**

Michelle McCullough, Assistant Director/City Engineer, gave a report on the Hooper Business Park drainage to the committee.

#### Potential Location for Atmos Regulator Station:

- Option 1 – city owned property (adjacent to 1902/Lakewood Drive ROW)
- Option 2 – Craftmasters (Lakewood Drive ROW)
- Option 3 and 4 – privately owned (RA Development)

The committee was in favor of option 1.

Future Fire Station sites:

- Site 4A - Lakewood Drive – NW of Electrical power lines
- Site 4B - CR 1016B/1016/Chisolm Trail Pkwy
- Site 4C – SW corner of Lakewood Drive/CR 1016 roundabout
- Site 4D – Hooper Business Park
- Site 4E – Johnson County ESD #1
- Site 4F – CR 913, East of FM 1902

The committee asked staff to continue to explore other new sites but to keep 4B in mind.

**D. Receive a report, hold a discussion, and provide staff feedback regarding the Police Headquarters Expansion Project. (Staff Presenter: Errick Thompson, Director of Public Works & Engineering) - MOVED**

Errick Thompson, Director of Public Works and Engineering, updated the committee on the Police headquarters expansion project.

**B. Receive a report, hold a discussion, and provide staff feedback regarding the FY2024 Parks and Recreation and Capital Improvement Program (Staff Presenter: Jen Basham, Director of Parks and Recreation)**

Jen Basham, Director of Parks and Recreation, reported on the FY 2024 Parks and Recreation and Capital Improvement program to the committee.

Projects included:

- Bailey Lake dredging
- Cedar Ridge Park playground replacement
- Meadowcrest Park playground replacement and additional sports court
- Oak Valley restroom addition
- Chisenhall Fields replacing infields with artificial turf (possibly 4 fields)
- Oak Valley south Scott Street Trailhead creating parking lot, bike station and water fountain
- Park monument sign replacement or add signage (possibly 5-6 parks)
- Brick lobby remodel (replace HVAC, desert aire, indoor pool sandfilter, replaster of indoor pool)
- Golf course – 9 improvements (floating intake pipe, tee and wayfinding signage, range side)
- System Wide Master Plan (update 2019 Master Plan)

The community is being asked what they would like to see at each park including ADA.

**C. Receive a report, hold a discussion, and provide staff feedback regarding the Public Works & Engineering five-year Capital Improvement Program**

**(CIP). (Staff Presenter: Errick Thompson, Director of Public Works & Engineering)**

Errick Thompson, Director of Public Works and Engineering, gave a report on the Public Works and Engineering five-year Capital Improvement Program (CIP) to the committee.

Discussion included:

- CIP GO Bond Projects
- CIP Non-GO Bond funding projects
- Potential project adjustments
  - SH174 Widening Phase 2 (Wicker Hill to Main St.)
  - Elk Dr., Hillside Dr., and FM 731 Intersection and sidewalk improvements
  - Sidewalk Program options
    - Option 1 Cindy Lane
    - Option 2 Renfro St. pedestrian improvement
    - Option 3 – Vaughn Dr.
    - Option 4 – Pleasant Manor
- Potential Water and Wastewater Project adjustments
  - Village Creek and CR 715 water line looping
  - Offsite water supply from Fort Worth
  - Industrial Blvd. pump station expansion and Alsbury pump station decommission
  - Trunk relief line (Town Creek Basin)
- Potential New Projects:
  - Hidden Creek and Garden traffic signal
  - China King hooded left revision
- Potential FY 25-29 CIP Projects (recently adopted Master Plans)
  - Roadway, Pedestrian, Bicycle:
    - South Hulen (SH 174 to FM 731)
    - North Hulen (Candler to Alsbury Blvd) bridge over BNSF RR
    - Hidden Creek Pkwy. And Dobson St. intersection
    - Hurst Road shared use path
    - Johnson Ave. / Tarrant Ave. / Miller St. shared use path
  - Water & Wastewater
    - 12-inch Shoreline Dr. to CR 802 upper pressure plan water line
    - 16-inch Wilshire Blvd. upper pressure plan transmission water line
    - Village Creek basin 30/36-inch wastewater replacement

**D. Receive a report, hold a discussion, and provide staff feedback regarding the Police Headquarters Expansion Project. (Staff Presenter: Errick Thompson, Director of Public Works & Engineering)**

*Item was moved and discussed above.*

- E. Receive a report, hold a discussion, and provide staff feedback on the Hooper Business Park Drainage. (*Staff Presenter: Michelle McCullough, Assistant Director/City Engineer*)

*Item was moved and discussed above.*

4. **BOARD REQUESTS FOR FUTURE AGENDA ITEMS OR REPORTS**

- Consider a part-time closure of Ellison Street between Main and Wilson.
- Sidewalks on Summercrest.

5. **ADJOURN**

There being no further discussion Chair Dan McClendon adjourned the meeting.

**Time: 12:48 p.m.**

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Monica Solko  
Deputy City Secretary

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**Infrastructure & Development Committee**

**DEPARTMENT:** Public Works & Engineering  
**FROM:** Errick Thompson, P.E., CFM®, Director  
**MEETING:** April 3, 2024

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**SUBJECT:**

Receive a report, hold a discussion, and provide staff feedback regarding the Options for Temporary Closures of the 100 Block of W. Ellison Street. (*Staff Presenter: Errick Thompson, Director of Public Works & Engineering*)

**SUMMARY:**

Staff will present background information for committee discussion of this topic.

**RECOMMENDATION:**

N/A

**PRIOR ACTION/INPUT (Council, Boards, Citizens):**

January 10, 2024, the Infrastructure & Development Committee requested a discussion of this topic at a future committee meeting.

**REFERENCE:**

N/A

**FISCAL IMPACT:**

N/A

**STAFF CONTACT:**

Errick Thompson, P.E., CFM®  
Director of Public Works & Engineering  
ethompson@burlesontx.com  
817-426-9610



THE CITY OF  
**BURLESON**  
TEXAS

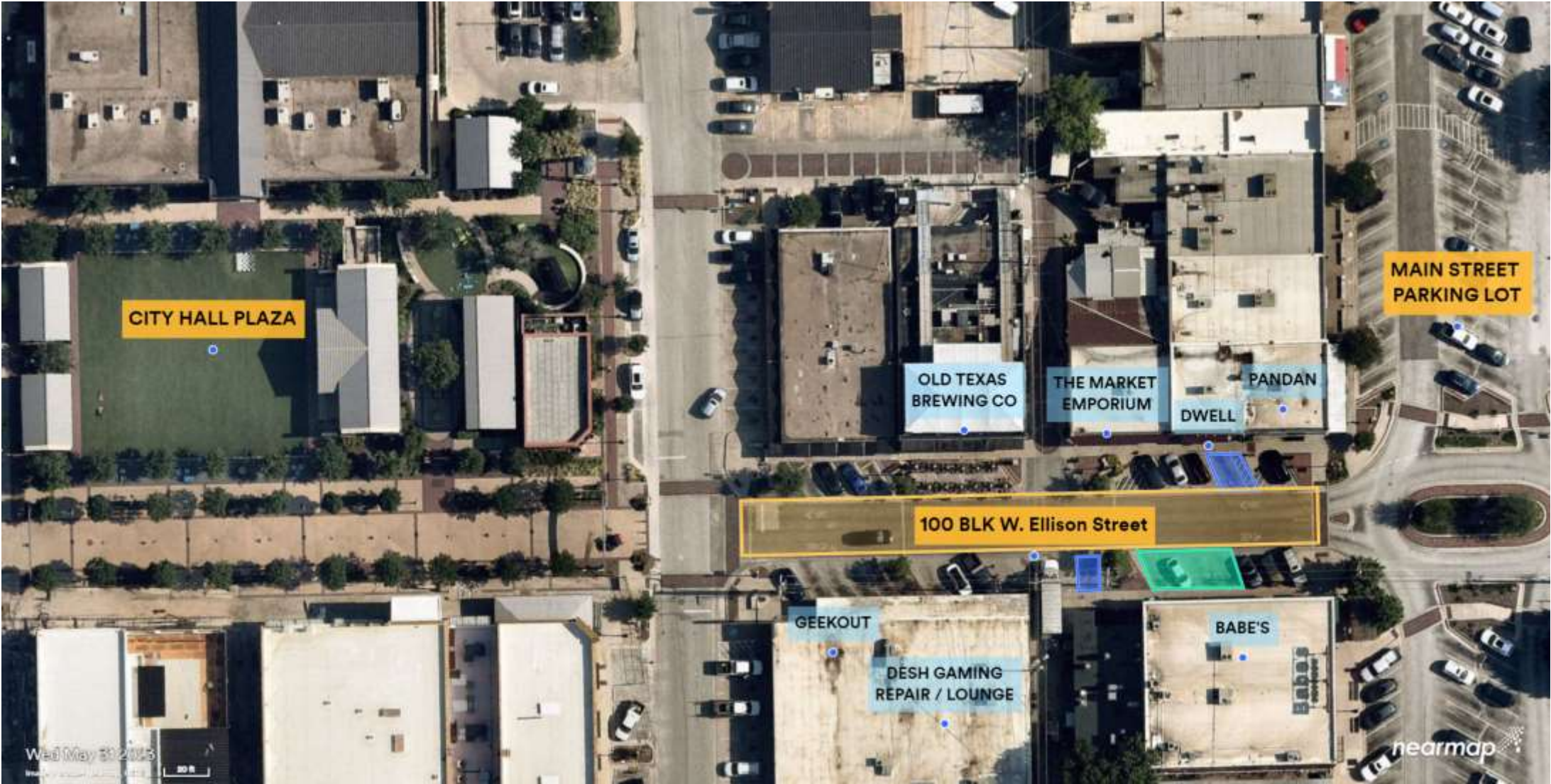
# Temporary Closures of W. Ellison Street



# Background

- I&D Committee requested an upcoming item to discuss options for temporary closures of the 100 block of W. Ellison
- Existing Conditions
- Options for Discussion

# Background





# History

- With the Plaza and Ellison developments, a total of 90 parking spaces were lost - parking lot at City Hall (47 spaces), ROW parking on Ellison (17 spaces), and former Wood Shopping Center (26 spaces)
- Developments have also added spaces: Bufford Lot (77), N. Main Street (53), and additional ROW parking on Wilson (48), Warren (26), Bufford (40) and the redesign of the West City Hall lot – total of 244 spaces gained

**Net Gain: 154 spaces**

In addition, the East Ellison Realignment and Parking Project currently under construction will ultimately add an additional 83 on- and off-street public parking spaces over the next year

# Existing Conditions



Outdoor Seating (by agreement)

Curbside To Go Parking at Babe's (by agreement)



# Existing Conditions

100 Block of W. Ellison has:

- Five different building owners and seven tenants
- 28 parking spaces and 2 handicap spaces
- Food and beverage deliveries as well as trash services to be considered

# Options for Consideration

1. Ad-hoc Closures by Individual Special Event Permits
2. Calendar-based Closures, for example:
  - A. “First Fridays”
  - B. “Second Saturdays”
  - C. Weekends April – September
3. Other
4. Business owner engagement

# Questions / Discussion

Errick Thompson  
Director of Public Works & Engineering  
ethompson@burlesontx.com  
817-426-9610



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## Infrastructure & Development Committee

**DEPARTMENT:** Public Works & Engineering

**FROM:** Tiana Jackson, P.E., CFM, Capital Engineering Manager

**MEETING:** April 3, 2024

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**SUBJECT:**

Receive a report, hold a discussion, and provide staff feedback regarding the Hulen Street Widening Project. (*Staff Presenter: Tiana Jackson, Capital Engineering Manager*)

**SUMMARY:**

Staff will present an update to the Hulen Street Widening Project, including potential future adjustments to the CIP timeline.

**RECOMMENDATION:**

N/A

**PRIOR ACTION/INPUT (Council, Boards, Citizens):**

March 10, 2023, the Council approved a professional services agreement with Teague Nall and Perkins, Inc. for the design of the SW Hulen Street Widening – Candler Dr. to SH174 project in the amount of \$2,107,413. (item 8.B)

**REFERENCE:**

N/A

**FISCAL IMPACT:**

N/A

**STAFF CONTACT:**

Tiana Jackson, P.E., CFM  
Capital Engineering Manager  
ethompson@burlesontx.com  
817-426-9610



# Hulen Street Widening Project Update

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PRESENTED TO THE INFRASTRUCTURE & DEVELOPMENT COMMITTEE

APRIL 3, 2024

# Outline

- ☐ Project Overview and Funding
- ☐ Current Project Status
- ☐ Updated Cost Estimates
- ☐ Committee Feedback



# Hulen Street Improvement Projects

Current project combines three projects (two GO Bond projects, corresponding Water Bond project)



### Hulen Street

#### Wilshire Intersection Improvements

Design and construction of the expansion of the intersection to its ultimate capacity with three northbound lanes, three southbound lanes, dual left turn lanes, and one dedicated right turn lane.



*Estimated Project Cost:* \$1,701,027



Design Construction



### Hulen Street

#### Kelly Drive to Candler Drive

Design and construction of a divided, two-lane roadway with the ability for future expansion.



*Estimated Project Cost:* \$7,803,653



Design Construction

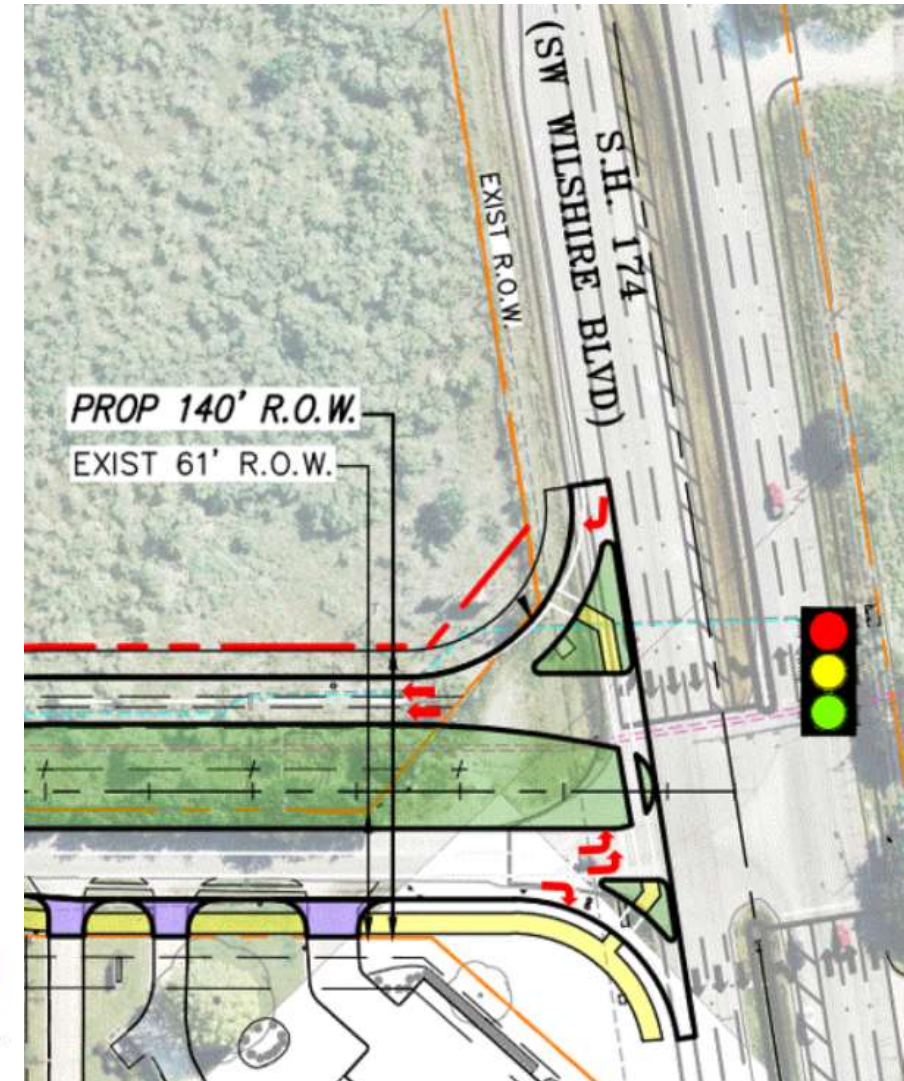
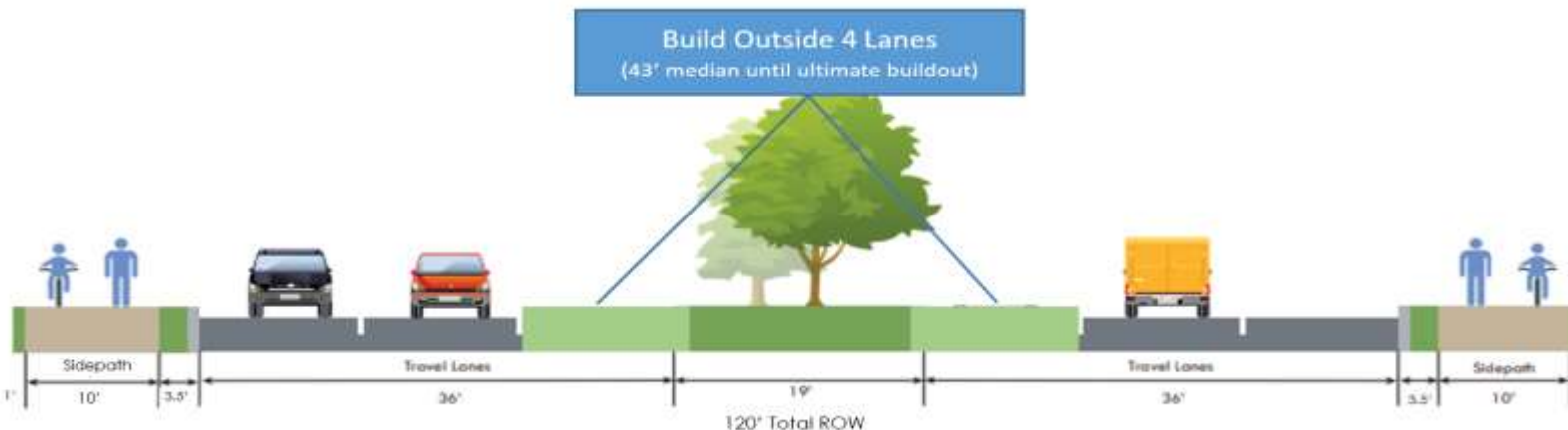
Voter-approved G.O. Bond Projects



# Hulen St Widening - SH 174 to Candler & 16" Waterline

## Project includes:

- Hulen Street reconstruction of two lanes and **possible expansion to four lanes** within ultimate 6-lane right-of-way (SH174 to Candler Drive)
- At SH174 intersection: dual left turn lanes (onto NB SH174) and one right-turn lane (onto SB SH174)
- 10' shared use path on each side
- 16" lower pressure plane water line and sewer extensions crossing Hulen Street to facilitate future development



# Funding Summary

(Current CIP including Amendments Approved 12/11/2023)

Funding Source	Previously Issued Debt	FY24	FY25	Totals
Street & Drainage Bonds	\$1,620,000	--	--	<b>\$1,620,000</b>
2022 GO Bond	--	\$2,000,000	\$7,504,680	<b>\$9,504,680</b>
COs*	--	--	<del>\$4,630,029</del> <b>\$2,208,235</b>	<del><b>\$4,630,029</b></del> <b>\$2,208,235</b>
Water & Sewer Bonds	--	\$464,889	\$3,405,768	<b>\$3,870,657</b>
Cash*	--	--	<b>\$879,259</b>	<b>\$879,259</b>
Roadway Impact Fees*	--	--	<b>\$1,542,535</b>	<b>\$1,542,535</b>

**Total Project  
\$19,625,366**

\*Project budget amended by Council 12/11/2023 as part of Police Headquarters Expansion Project budget increase

Estimated Budget By Phase		
Design	ROW & Utility Relocations	Construction
\$2,312,600	\$2,396,000	\$14,916,700



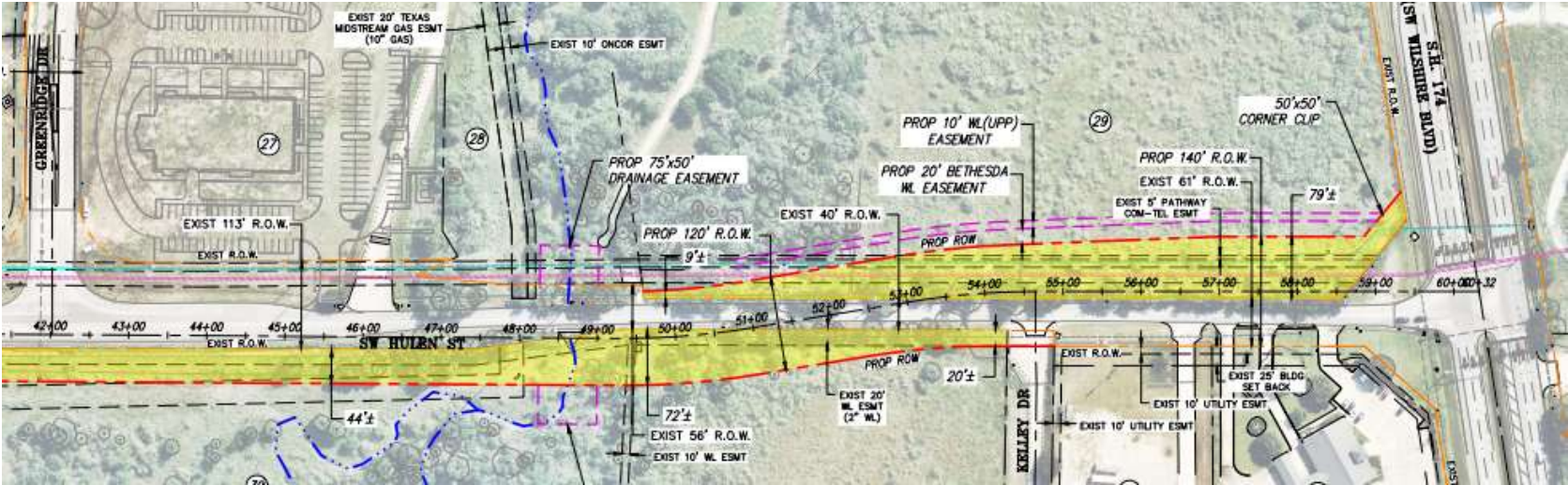
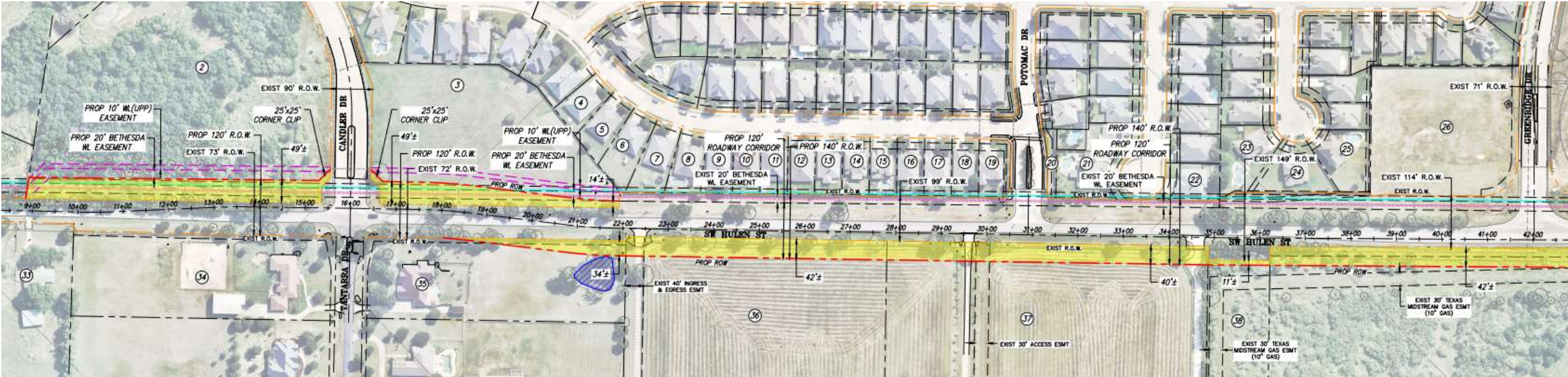
# Project Progress

- ❑ March 2023: Council awarded professional services contract to Teague Nall and Perkins, Inc. (TNP)
- ❑ September 2023: TNP completed all survey and level B subsurface utility engineering efforts to determine existing right-of-way, easements, and horizontal placements of existing utilities
- ❑ January 2024: Preliminary Design Schematic submitted to the City
- ❑ February 2024: Review workshop with City staff

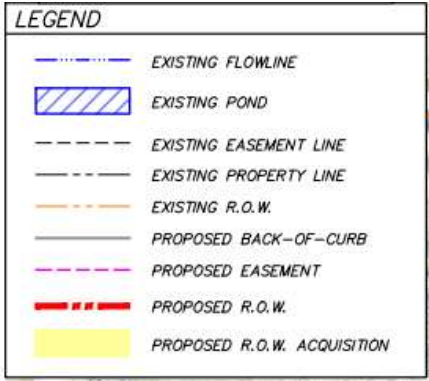




# Preliminary Design ROW Analysis

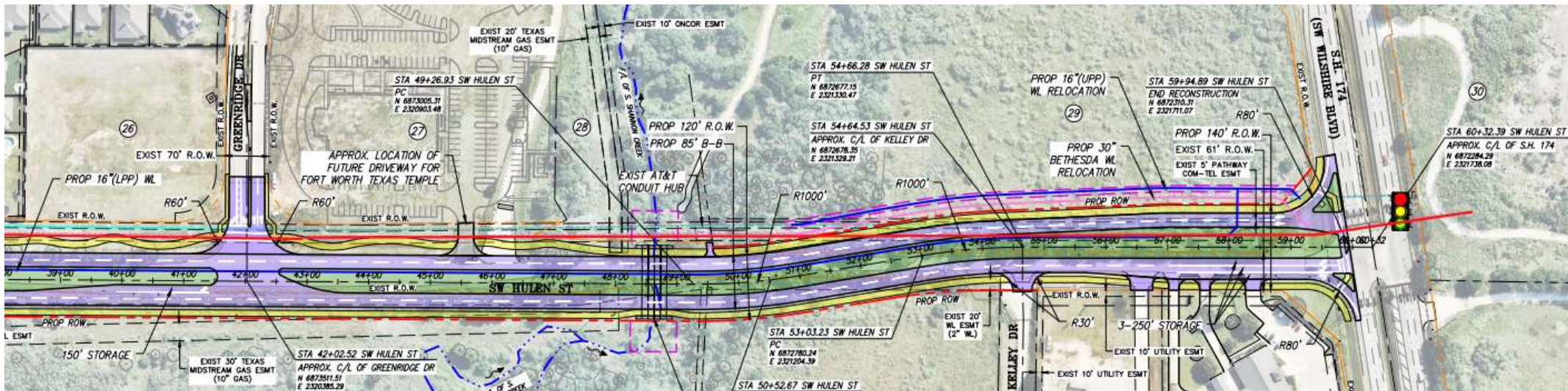


Main Lanes-Proposed 120' ROW  
Hulen & SH174 intersection- 140' ROW





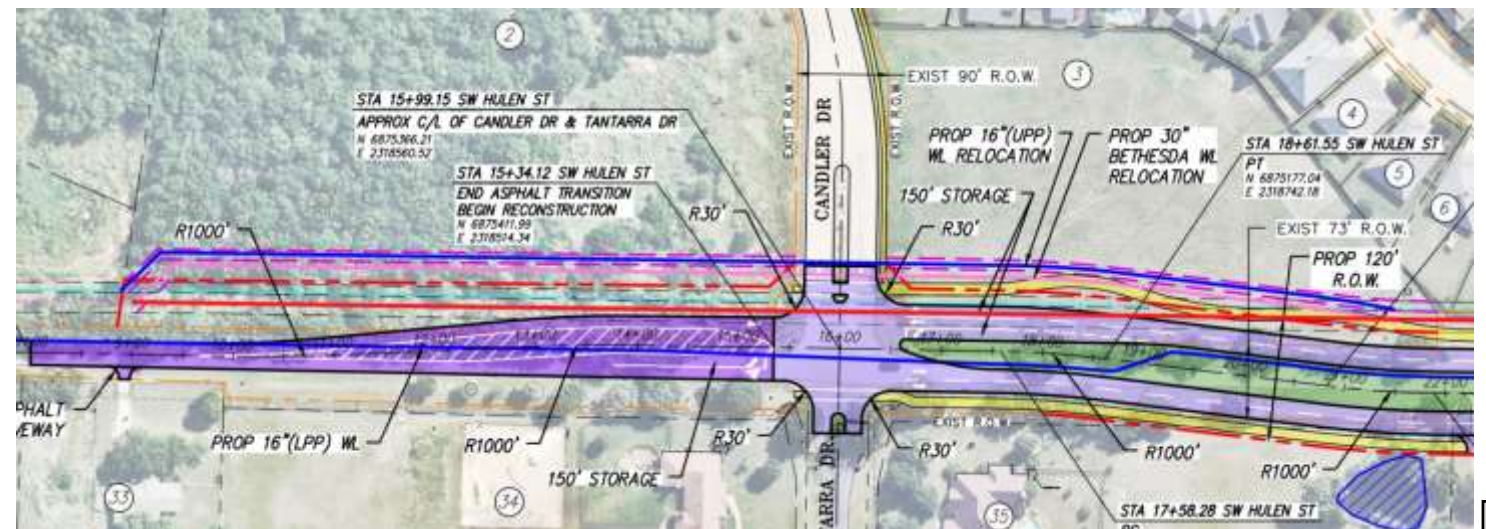
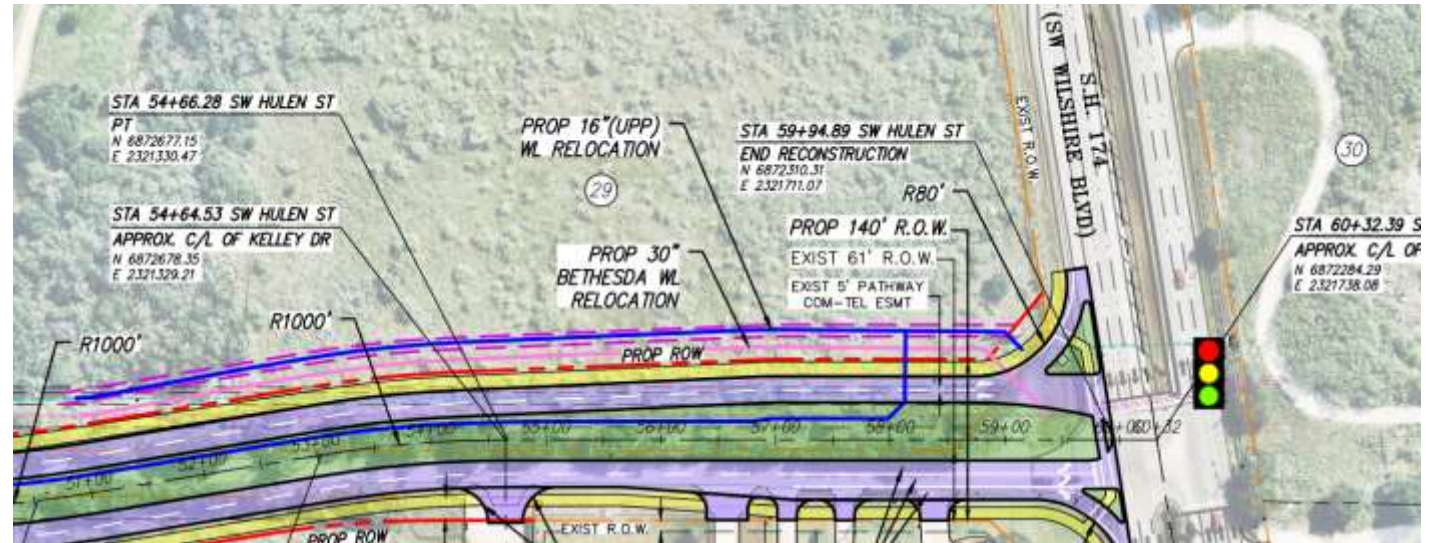
*Item C.*





# Critical Path - Utilities

- ❑ Bethesda and City Water Lines
  - ❑ Exclusive 20' Bethesda Easement with 30" line (project pays for relocation)
  - ❑ Current alignment relocates approximately 2,135 LF of 30" & City's 16" Upper Pressure Plan line roughly \$2.36M (adjacent light pink and blue lines)
  - ❑ Met with Bethesda March 14th - additional SUE requested (results due early April) to explore options to avoid/ reduce relocations
- ❑ Oncor overhead electric - coordination underway; cost estimate and schedule pending



# Budget Recap and Updated Cost Estimates

Full 4-lane Project Estimates				
	Design	ROW & Utility Relocations	Construction	Project Total
Budget	\$2,312,600	\$2,396,000	\$14,916,700	\$19,625,366
Current Estimates	\$2,312,600	\$4,040,000	\$25,128,102	\$31,480,702

Original 2021 drafted budget did not include: Bethesda and City water line relocations, landscaping, or full storm drainage system

**(\$11.9m)**

**Updated project cost estimates necessitate a broader amendment to the Five-year CIP over the coming months**

# Potential Paths Forward

Budget By Phase - Construction of 4 lanes			
Design	ROW & Utility Relocations	Construction	Total Project Budget
\$2,312,600	\$2,396,000	\$14,916,700	\$19,625,366

## Estimates By Phase (March 2024 TNP Estimates)

Design	ROW & Utility Relocations	Construction	Project Scope	Total Project Estimate
\$2,312,600	\$4,040,000	\$25,128,102	Four lanes; two - 10' shared use paths; ultimate storm drainage; ultimate ROW	\$31,480,702
	\$4,040,000	\$20,685,677	Two outside lanes; one - 10' shared use path; ultimate storm drainage; ultimate ROW	\$27,038,277
	\$1,677,000	\$15,200,760	Two inside lanes; one - 10' shared use path; interim storm (bar ditches); ultimate ROW; no waterline relocation	\$19,190,360*

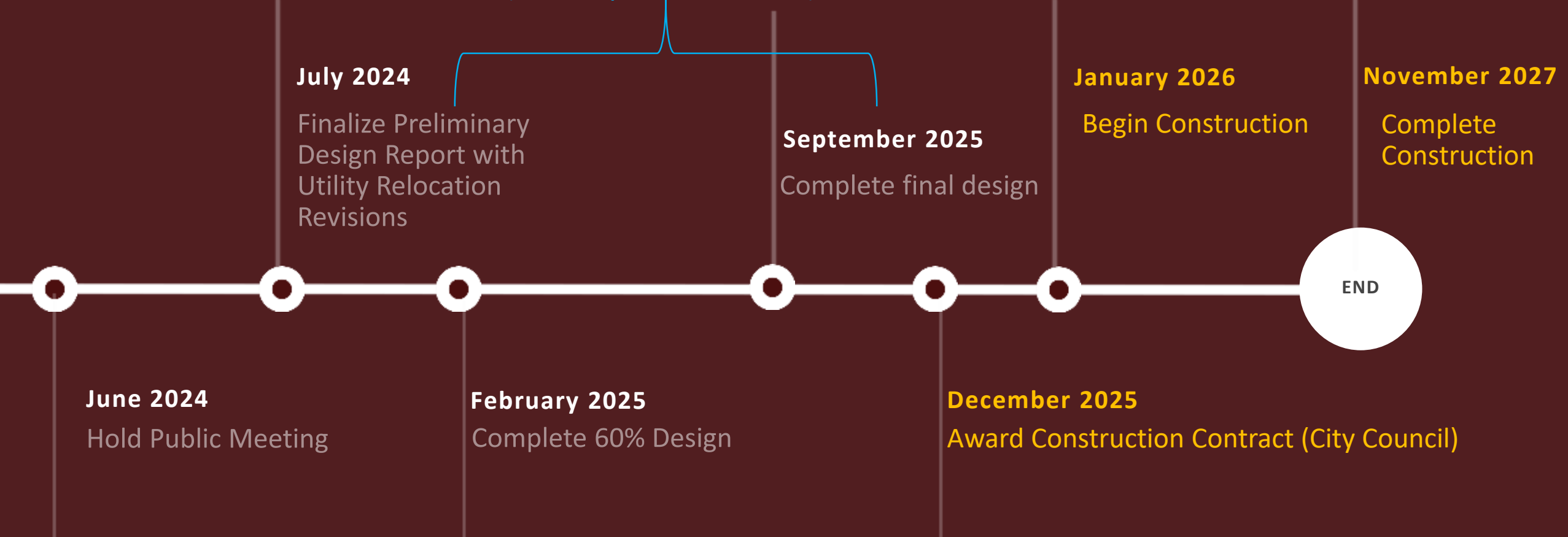
*\* Not recommended but included for context of what could be feasible within current budget*

# Possible Timeline Ahead



Item C.

Franchise Utility Relocation & Easement Acquisition  
(February - October 2025)



Staff will recommend construction funding planned in FY25 be moved to at least FY26 in 5-Year CIP update for FY25-FY29  
Project cost estimate necessitates a broader amendment to the Five-year CIP over the next several months

# Requesting Committee Feedback

- Preliminary Design alignment – slight meanders in vicinity of Candler to avoid pond and approaching SH 174 intersection to avoid bank property
- Proceed with designing reconstruction of:
  - Full four-lane project (~\$31.5m)
  - Two outer lanes and ultimate storm drainage (~\$27m)
  - Two inner lanes with interim storm drainage (~\$19m)

**Council will have input on updating the Five-year CIP for FY25-FY29 over the coming months - that is anticipated to identify additional funding needed to construct the project as early as FY26**



# Questions / Discussion

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Tiana Jackson, P.E., CFM  
Capital Engineering Manager  
tjackson@burlesontx.com  
817-426-9619

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**Infrastructure & Development Committee**

**DEPARTMENT:** Public Works & Engineering  
**FROM:** Errick Thompson, P.E., CFM®, Director  
**MEETING:** April 3, 2024

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**SUBJECT:**

Receive a report, hold a discussion, and provide staff feedback regarding the Industrial Pump Station Expansion / Alsbury Pump Station Decommission Project. (*Staff Presenter: Errick Thompson, Director of Public Works & Engineering*)

**SUMMARY:**

Staff will present an update on the project's scope, estimated cost, and schedule.

**RECOMMENDATION:**

N/A

**PRIOR ACTION/INPUT (Council, Boards, Citizens):**

March 6, 2023, the Council approved a professional services agreement with Kimley-Horn and Associates, Inc. for the design of the project.

January 10, 2024, the Infrastructure & Development Committee received an update on the Five-year CIP including cost increases for this project.

**REFERENCE:**

N/A

**FISCAL IMPACT:**

N/A

**STAFF CONTACT:**

Errick Thompson, P.E., CFM®  
Director of Public Works & Engineering  
ethompson@burlesontx.com  
817-426-9610





# Industrial Pump Station Expansion / Alsbury Pump Station Decommission Project Update



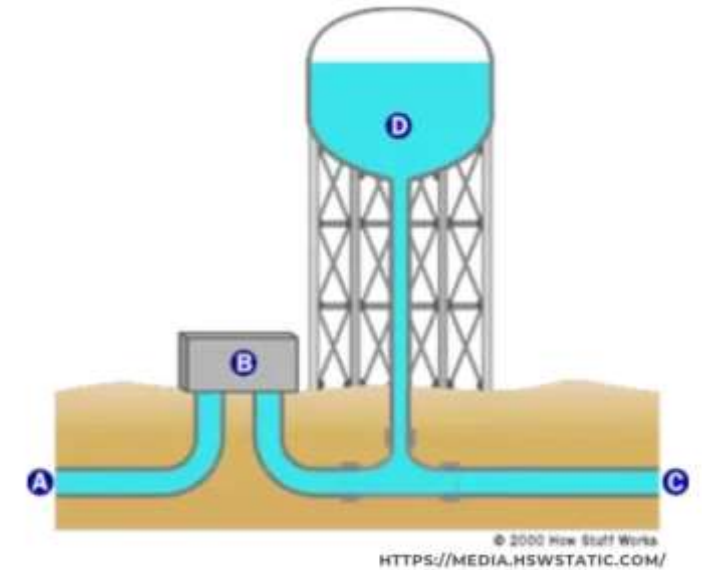
# Agenda

- Project Background
- Project Status Update
- Committee Feedback



# Background

- FY23 Five-Year CIP for Water included two strategically coordinated projects focused on providing build-out water supply
  - \$7.355m distributed over FY23 – FY25 for expansion of the Industrial Pump Station and Decommissioning of the Alsbury Pump Station
  - \$16.268m distributed over FY24 – FY26 for Burleson's pro-rata share of the cost of the pipeline to bring additional water supply from Fort Worth
- City Council awarded design contract to Kimley-Horn March 6, 2023 (\$1.155m) for the pump stations project
- City Council approved an amendment to the wholesale water supply agreement with Fort Worth December 11, 2023 (with slightly updated cost estimate of \$16.332m)
- Staff updated Infrastructure & Development Committee in January 2024 on updated cost estimate for the pump stations project (\$17.665m total, \$15.913 construction)



- A. Input water from Fort Worth
- B. Pump Station
- C. Water from pumps or storage to distribution lines
- D. Storage (either elevated or ground tanks)

# Pump Stations Project Update

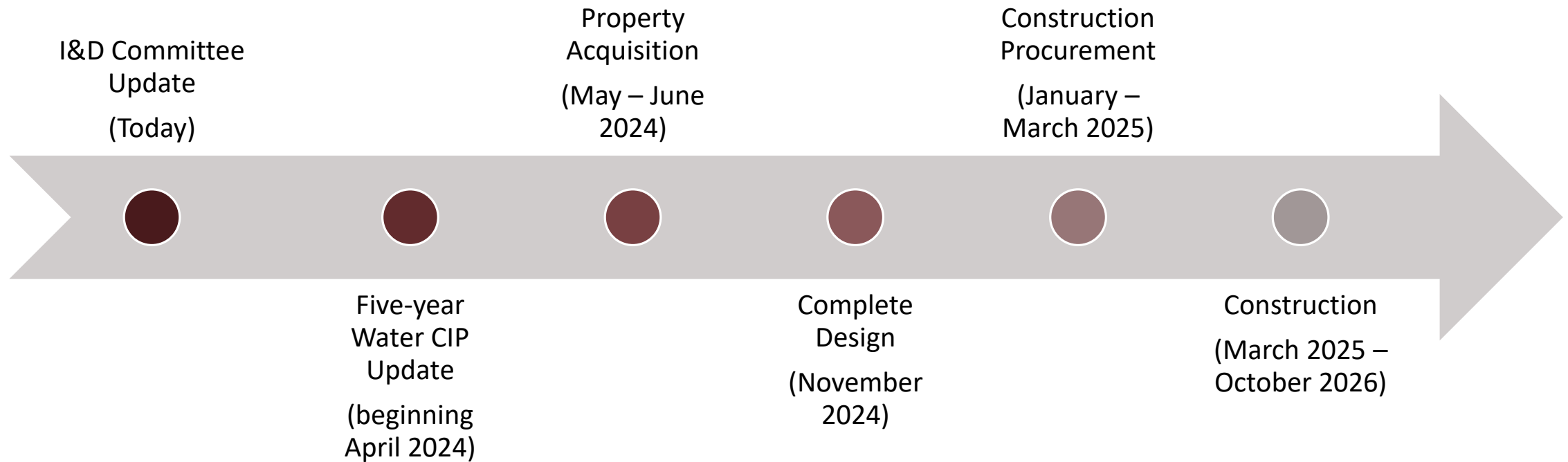
- Conceptual Analysis to confirm scope details completed August 2023 and recommended changes to match updated build-out needs and align with additional supply from Fort Worth
  - Increase in pumping capacity expansion from 4 MGD to 8.5 MGD
  - Addition of a two million gallon ground storage tank
  - Total Construction Estimate \$16.11m
- Survey, geotechnical investigation, and preliminary engineering began October 2023
- Property appraisal underway for land acquisition
- Draft Preliminary Design Report completed March 2024 (\$15.58m construction)

*will necessitate an update to the Five-year Water CIP as was presented to the committee in January*





# Project Schedule Forecast



# Questions / Discussion

Errick Thompson  
Director of Public Works & Engineering  
ethompson@burlesontx.com  
817-426-9610

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**Infrastructure & Development Committee**

**DEPARTMENT:** Public Works & Engineering

**FROM:** Clinton Sumerall, Deputy Director - Operations

**MEETING:** April 3, 2024

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**SUBJECT:**

Receive a report, hold a discussion, and receive feedback regarding the Public Works & Engineering Pavement Management Program. (*Staff Presenter: Clinton Sumerall, Deputy Director - Operations*)

**SUMMARY:**

Staff will present an update to the completed pavement assessment including potential maintenance and rebuilding strategies. The committee's feedback is sought to assist Public Works & Engineering in developing a management plan to present to council.

**RECOMMENDATION:**

N/A

**PRIOR ACTION/INPUT (Council, Boards, Citizens):**

March 20, 2023, Council approved proposal to conduct pavement assessment with Fugro USA Land, Inc. through a cooperative purchasing agreement with the North Central Texas Council of Governments

March 4, 2024, Council adopted City Council Policy 43, City of Burleson Asset Management Policy and Corporate Risk Matrix.

**FISCAL IMPACT:**

N/A

**STAFF CONTACT:**

Clinton Sumerall  
Deputy Director - Operations  
csumerall@burlesontx.com  
682.312.2790





# Pavement Assessment Update

# How Pavement Management Fits Into The Larger Citywide AM Initiative



# Pavement Management Program Components



## Pavement Condition Assessment

- Provide Empirical Pavement Condition Information of the Roadway Network
- Summarize Distress Type, Distress Severity, and Distress Frequency For Each Roadway
- Inform Roadway Deterioration Curves and Impact of Maintenance Activities

## Pavement Network Management Plan

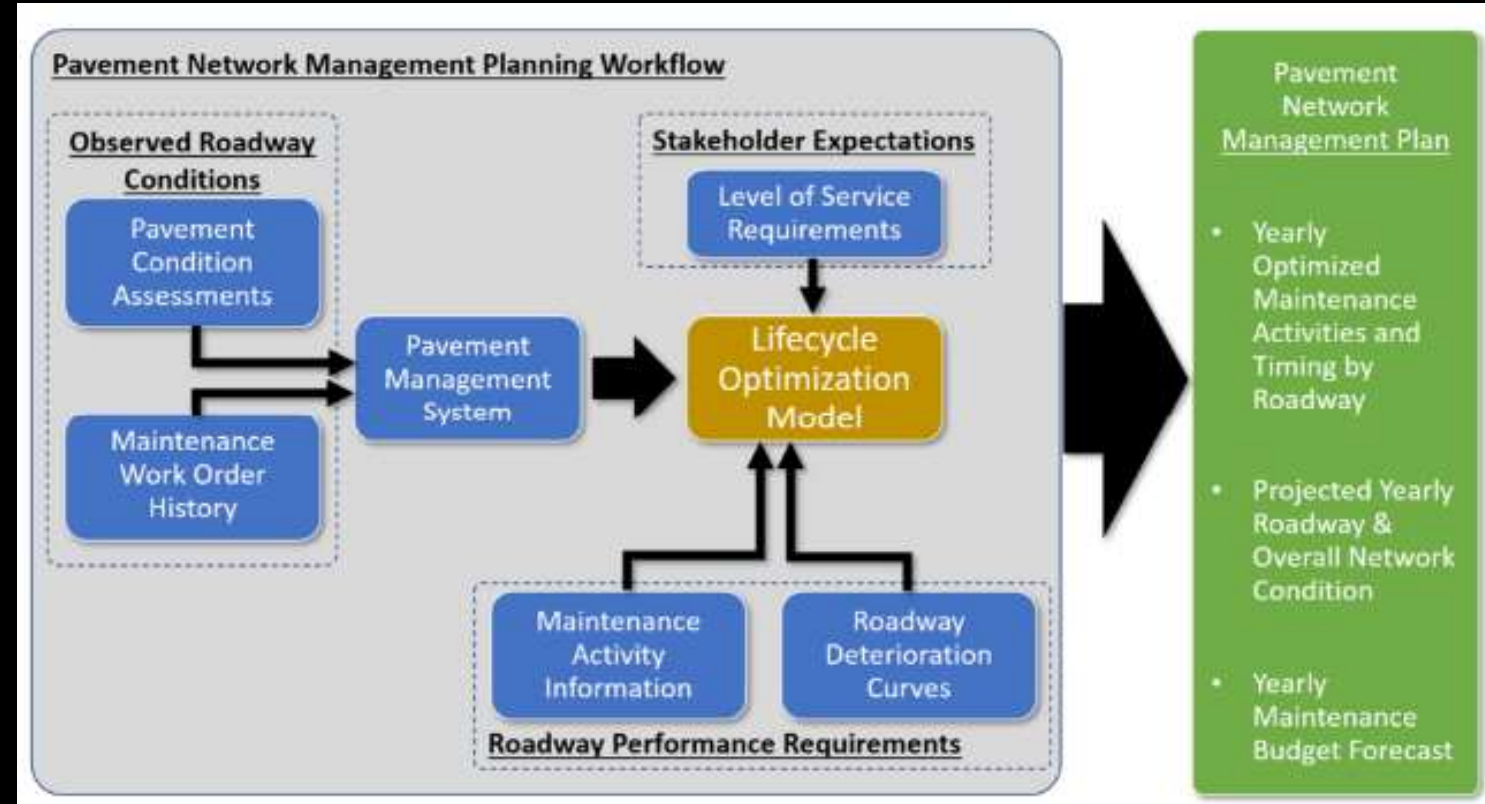
- Predict Future Roadway Condition based on Deterioration Curves
- Utilize Lifecycle Optimization Model to Identify Optimized Maintenance Activity Timing for each Roadway within Planning Horizon to Meet Level of Service Requirements
- Develop a 5, 10, and 20-year Pavement Network Management Plan to Forecast Yearly Maintenance Activity, Budgetary Requirements, and Roadway Network Condition
- Updated as new pavement condition data becomes available

## Pavement Improvement Planning Process

- Define Scope of Roadway Improvement Projects based on Optimized Maintenance Activity Timing and Pavement Distresses Observed During Pavement Condition Assessment Survey
- Consideration for Co-located Utility Renewal Replacement Improvements
- Package Adjacent Optimized Roadway Maintenance Activities into Projects

# Purpose And Goals Of Study

- Incorporate recently completed pavement condition results into Cartegraph
- Utilize Cartegraph to evaluate strategies to efficiently maintain the roadway network
- Estimate cost and quantity of maintenance activities to:
  - Achieve an overall network condition target within a defined timeframe
  - Maintain network conditions long-term
  - Efficiently manage backlog



# Initial Pavement Assessment Findings



- Initial pavement assessment performed in 2021.
- Provided city with a report where overall OCI score was 82.
- After review of the initial findings, city staff had concerns with the scores provided as there were a number of scores missing or listed at negative values and in many cases the scores provided were much higher than actual road conditions.
- Additionally, integration with Cartegraph was not included as part of procurement process.

# Current Assessment Findings



- In 2023, Fugro was hired to perform a pavement assessment for the city.
- Results were provided to the city in the form of a report as well as electronically to be pushed into Cartegraph.
- Updated assessment showed that the Burleson Streets network had an average score of 68, 20% lower than the previous assessment.
- Current assessment shows that of the City's 222 total miles of road network, 38 miles have scores below 40 which will require reconstruction.
- Freese and Nichols have been working with City Staff to push data into Cartegraph for analysis.



# 2021 Assessment vs 2024 Assessment

2021 Assessment			
Overall Network OCI	Group	Description	OCI
82	Pavement Type	Asphalt	75
		Concrete	88
	Functional Class	Arterial	85
		Collector	81
		Local	82

2024 Assessment			
Overall Network OCI	Group	Description	OCI
68	Pavement Type	Asphalt	51
		Concrete	83
	Functional Class	Arterial	71
		Collector	65
		Local	68

\*The 2024 assessment report also highlighted a disparity between the previous assessment and current assessment. Specifically, more than 20% of the scores in the two surveys had a 50% differential.



# Maintenance and Rebuilding Strategy



## Strategy Options

- Determine “acceptable” average network condition score by road classification type.
- Determine “acceptable” level of backlog or percentage of failed roadway network.
- Once maintenance treatment bid items are awarded, determine how long will it take to bring excess backlog into compliance and what is the financial impact of this.

## Consultant Recommendations

- Maintain an average network condition score of 75.
- Keep the percentage of roadway network in failed condition below 10%.
- Reconstruct failed roadways within 5 years, as budget resources allow.

# Backlog /Reconstruction 10 year example



The calculation below uses a goal to keep the total number of failed roadways at less than 10% of the total network. The projection is set to a 10 year interval to meet that goal. The costs listed below do not include any other maintenance treatments which would need additional funding. Provided the rest of the road network is maintained in accordance with the forthcoming management plan, no additional road sections should reach a failed status (>40 OCI).

City of Burleson Streets	
Total Network (miles)	222
Backlog (miles)	38
Backlog (SF)	5,249,000.00
Total Value	\$ 600,731,474.21

Backlog Management Goals	
Backlog Goal (Percent of total network)	10%
Reach Backlog Goal (Years)	10
Backlog Age	
Backlog Goal	22.2
Miles Exceeding Goal	15.8

Plan Year	Year	Total Backlog (miles)	Reconstruct Mileage to Manage Backlog	Reconstruct Cost to Manage Backlog
1	2024	38	1.58	\$ 4,275,476
2	2025	36.4	1.58	\$ 4,275,476
3	2026	34.8	1.58	\$ 4,275,476
4	2027	33.3	1.58	\$ 4,275,476
5	2028	31.7	1.58	\$ 4,275,476
6	2029	30.1	1.58	\$ 4,275,476
7	2030	28.5	1.58	\$ 4,275,476
8	2031	26.9	1.58	\$ 4,275,476
9	2032	25.4	1.58	\$ 4,275,476
10	2033	23.8	1.58	\$ 4,275,476
11	2034	22.2		

# Typical Planned Maintenance Activities



## MAXIMIZE

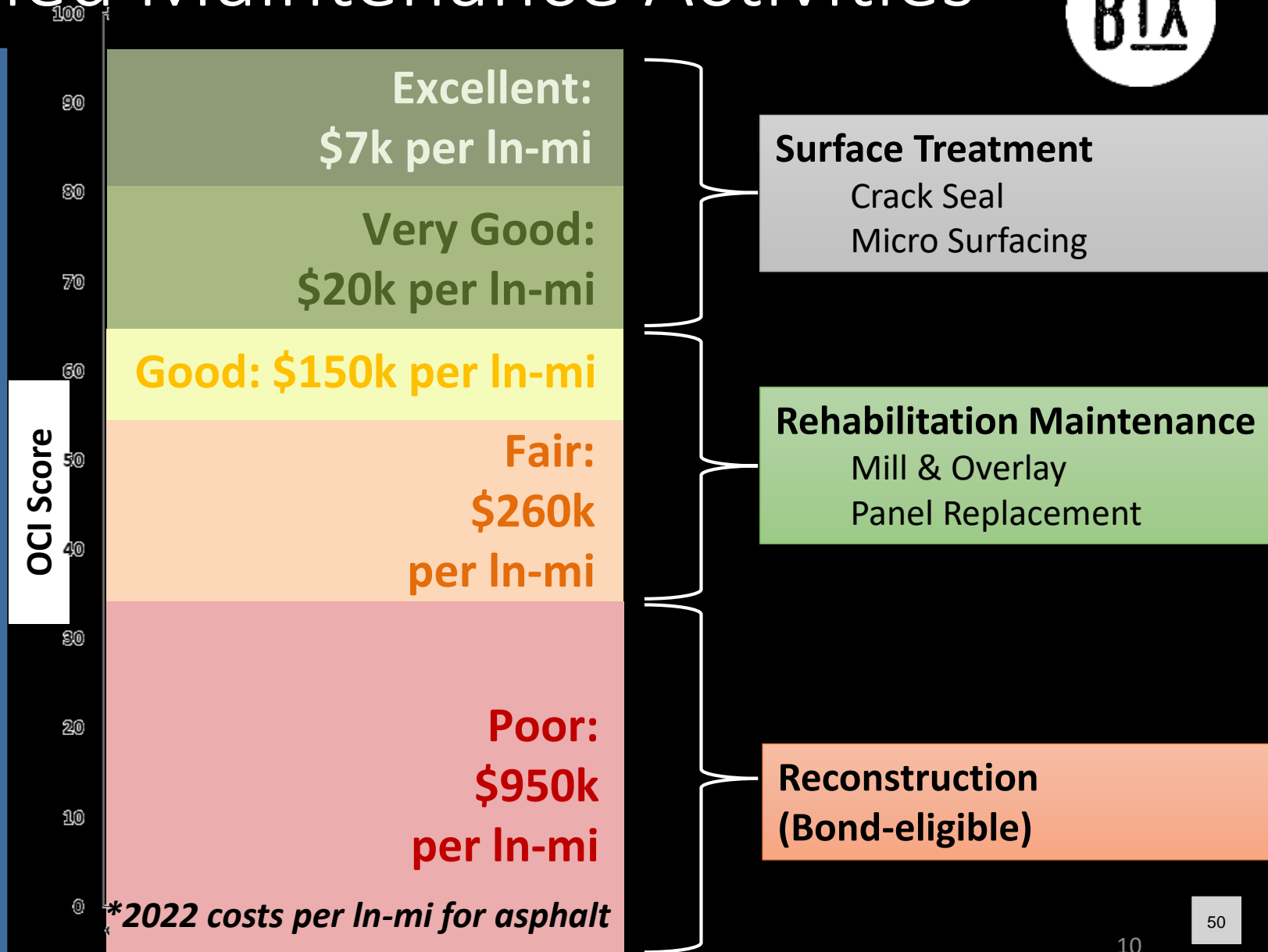


Network OCI  $\geq 70$   
Community satisfaction  
Roadway safety

## MINIMIZE



Backlog % ( $\leq 10\%$ )  
Whole Life Cost  
Backlog % achievement  
timeframe  
Backlog Age  
Construction fatigue



# Next steps

- Continue working with Freese and Nichols to push assessment data from “test” data base into production.
- Formalize backlog (rebuilding) vs maintenance funding and expectations as well as where ideal average network score should be.
- Pavement Maintenance bid documents are being prepared for advertising.
- Once contracts are finalized, bid amounts can be pushed to Cartegraph’s “scenario builder” to help Public Works & Engineering estimate and project budget resources.
- Develop and bring 5 and 10 year pavement management plan forward for council review.





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