

JOHNSON ROAD IMPROVEMENT UPDATE

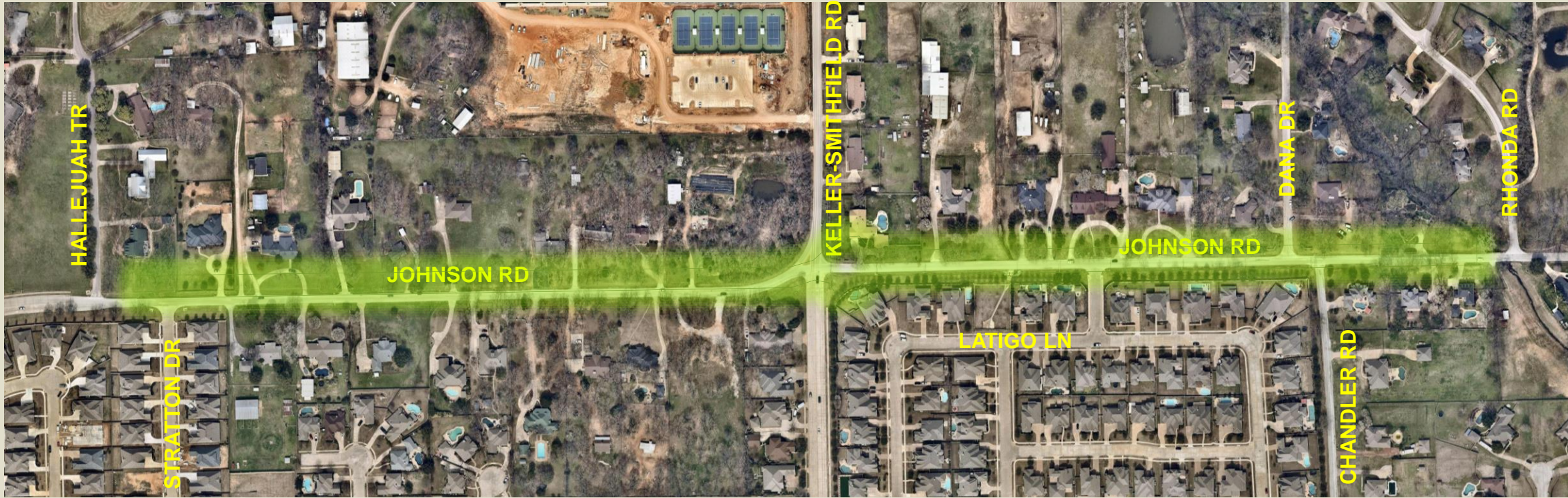
COUNCIL WORK SESSION
November 5, 2019



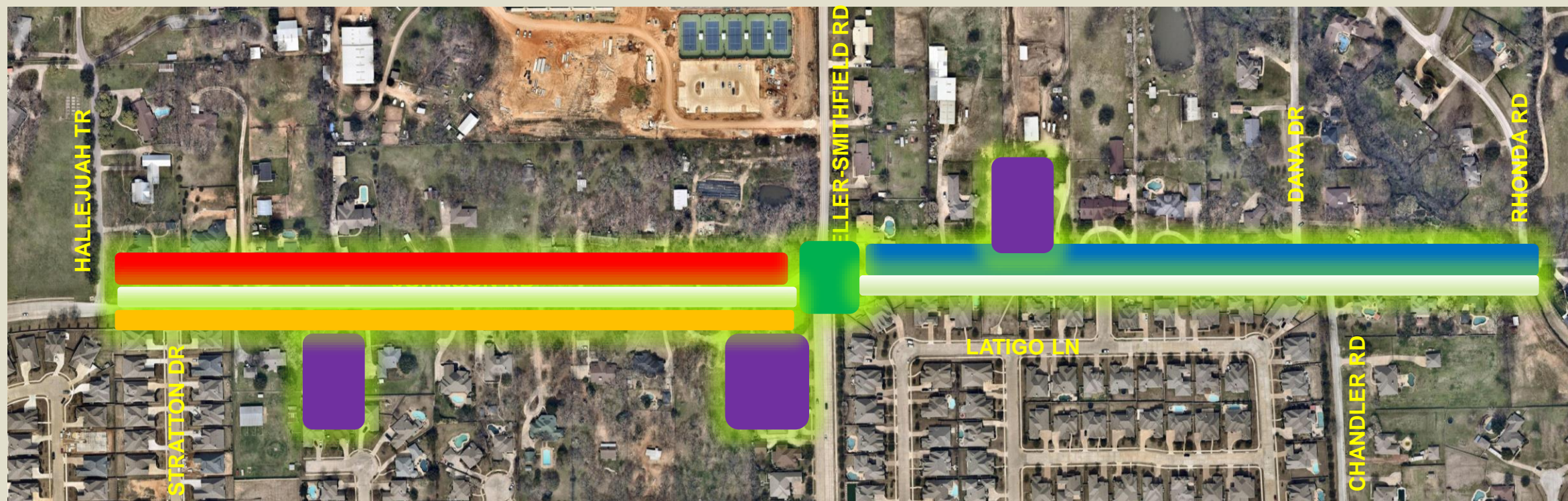
Jonathan Bengfort, PE

Caleb Milligan, PE

Project Overview



Project Overview



2019

2020

2021

2022

2023

Estimated Combined Project Timeline

JOHNSON ROAD PROJECT CONSOLIDATION

Project Name	Budget	Funding Sources	Funding Year
Johnson Road-Keller Smithfield Roundabout	925,000	General Fund, St Maint, Road Impact Fee	FY 2018
Johnson Road Reconstruction <i>(Rufe Snow to Keller Smithfield)</i>	2,000,000	General Fund, Road Impact Fee	FY 2019
Johnson Road Reconstruction <i>(Keller Smithfield to Rhonda)</i>	2,000,000	General Fund	FY 2020
Johnson Rd 12" Water Lines	800,000	W/WW Debt	FY 2020
Trail System Expansion	216,000	Keller Development Corporation	FY 2020
	\$5,941,000		

Goals for Tonight

- **Review Project Goals & Options**
- **Share Public Input Results**
- **Present Initial Recommendations**
 - *Project Element Realities/Limitations*
 - *Best Practices*
 - *Opportunities for Creativity*
- **Discussion / Get Green Light for Public Input Meeting 2**
 - *Tentatively scheduled Monday, Nov. 18*

Project Goals

- Intersection Operation
- Utility Coordination
- Vehicular Safety
- Pedestrian Safety
- Drainage

Considerations

- Right of Way
- Trees
- Master Plans
- Construction Fatigue
- Budget



Project Options

- Intersection Operation
 - *Traffic Signal*
 - *Roundabout*
- Roadway
 - *Reconstruct Existing*
 - *2 Lane*
 - *3 Lane*
- Drainage
 - *Open Bar Ditch*
 - *Enclosed Storm Drainage*
- Sidewalks
 - *One Side/Both Sides*
 - *5' or 10' Widths*

➤ **No Option Stands Alone...**



PUBLIC COMMENTS



Public Comment Solicitation

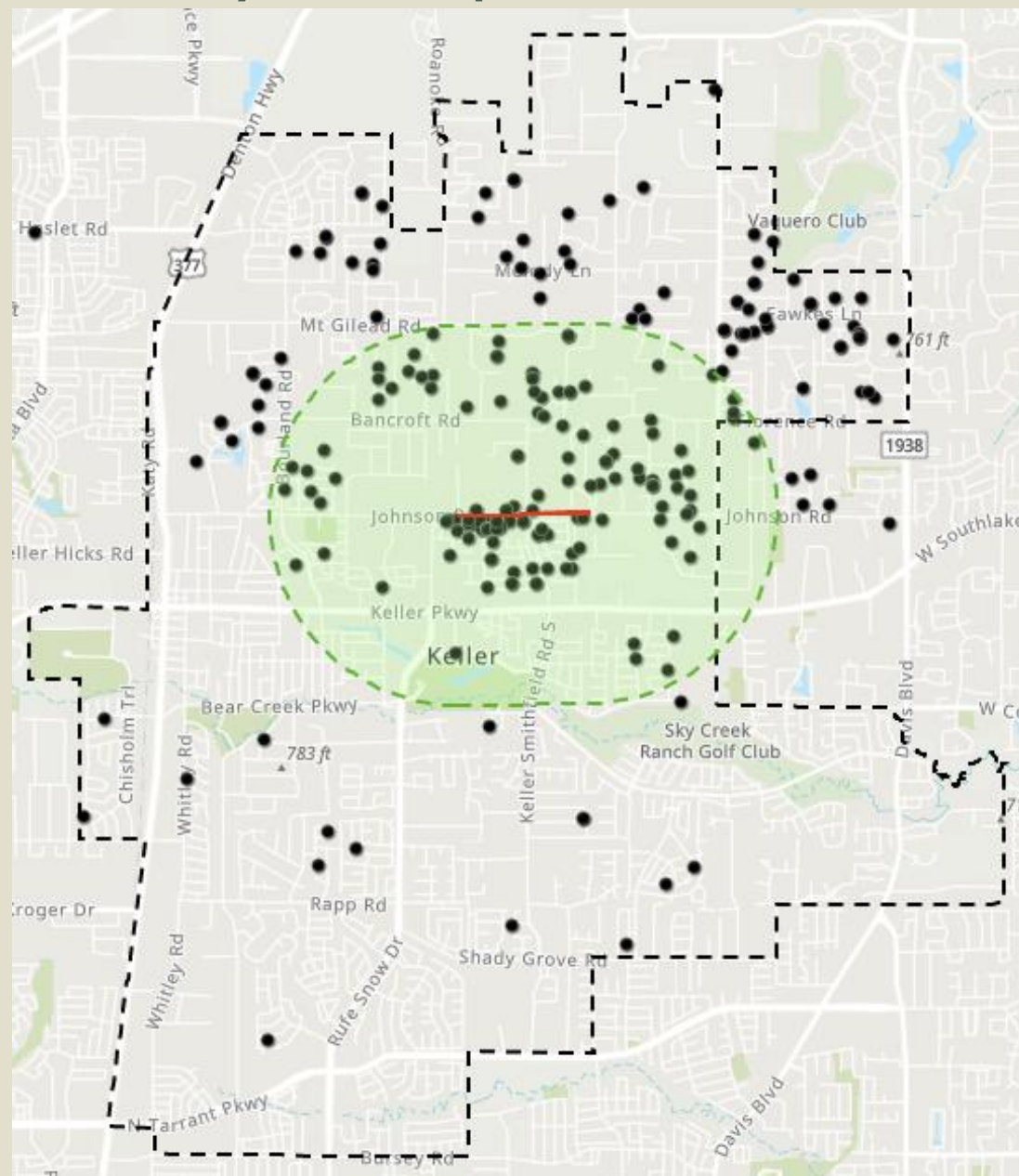
- **Public Input Meeting on Aug. 22**
- **Additional Comments Collected Over 6 Weeks**
 - *August 22 to October 4*
- **Direct Emails**
 - *20+*
- **Neighborhood Group Submission**
 - *66 residents*
- **City Website**
 - *233 residents*

Neighborhood Group Respondents








29 outside immediate area

Online Survey Responses



 Responses within 1 Mile

Public Question Summary

1. Please provide your address:					
			Total Respondents	233	
2. In considering the street options and their pros/cons for Johnson Road between Hallelujah Trail and Rhonda Road, which would you prefer?					
			Response Total	Response Percent	Points Avg
Reconstruct Existing 2-Lane		84%	123	53%	n/a n/a
Construct 2-Lane with Wider Lanes			73	31%	n/a n/a
Construct 3-Lane (including a center turn lane)			36	16%	n/a n/a
Total Respondents			232	100%	
			(skipped this question)		1
3. In considering the drainage options and their pros/cons for this project, which would you prefer?					
			Response Total	Response Percent	Points Avg
Open Bar Ditches (larger than existing)			75	33%	n/a n/a
Enclosed Drainage with Curb & Gutter			149	67%	n/a n/a
Total Respondents			224	100%	
			(skipped this question)		9

Public Question Summary

4. In considering the pedestrian mobility options for this project, which would you prefer?					
		Response Total	Response Percent	Points	Avg
5-Foot Sidewalks on Both Sides	<div></div>	25	11%	n/a	n/a
5-Foot Sidewalk on North Side Only	<div></div>	13	6%	n/a	n/a
5-Foot Sidewalk on South Side Only	<div></div>	57	25%	n/a	n/a
5-Foot Sidewalk on North Side and 10-Foot Trail on South Side (per trail master plan)	<div></div>	59	26%	n/a	n/a
No Sidewalks or Trail	<div></div>	72	32%	n/a	n/a
Total Respondents		226	100%		
(skipped this question)			7		
5. Please share any other comments or concerns you have about the Johnson Road Improvements Project.					
Total Respondents				179	
(skipped this question)				54	
6. If you'd like for a member of staff to follow up with you on the questions or concerns you included in the item above, please provide your name, phone number and email address:					
Total Respondents				52	

Public Comment Summary

■ Items of Alignment

- *Preserve the Trees*
- *Preserve Rural/Country Feel*
- *2 Lanes*
- *Buried Stormwater System / No Bar Ditch*
- *Pedestrian Safety*

Public Comment Summary

■ No Clear Consensus

- *Number of Sidewalks*
- *Side of Street for Sidewalk*
- *Sidewalk Widths*

Public Comment Summary

■ Other Project Related Items Noted

- *Streetlights*
- *Sanitary Sewer*
- *Drainage Creek Capacity*
- *Pedestrian Connections to Existing Network*
- *Expand Project East of Rhonda*

RECOMMENDATION



Project Goals

- Intersection Operation
- Utility Coordination
- Vehicular Safety
- Pedestrian Safety
- Drainage

Considerations

- Right of Way
- Trees
- Master Plans
- Construction Fatigue
- Budget



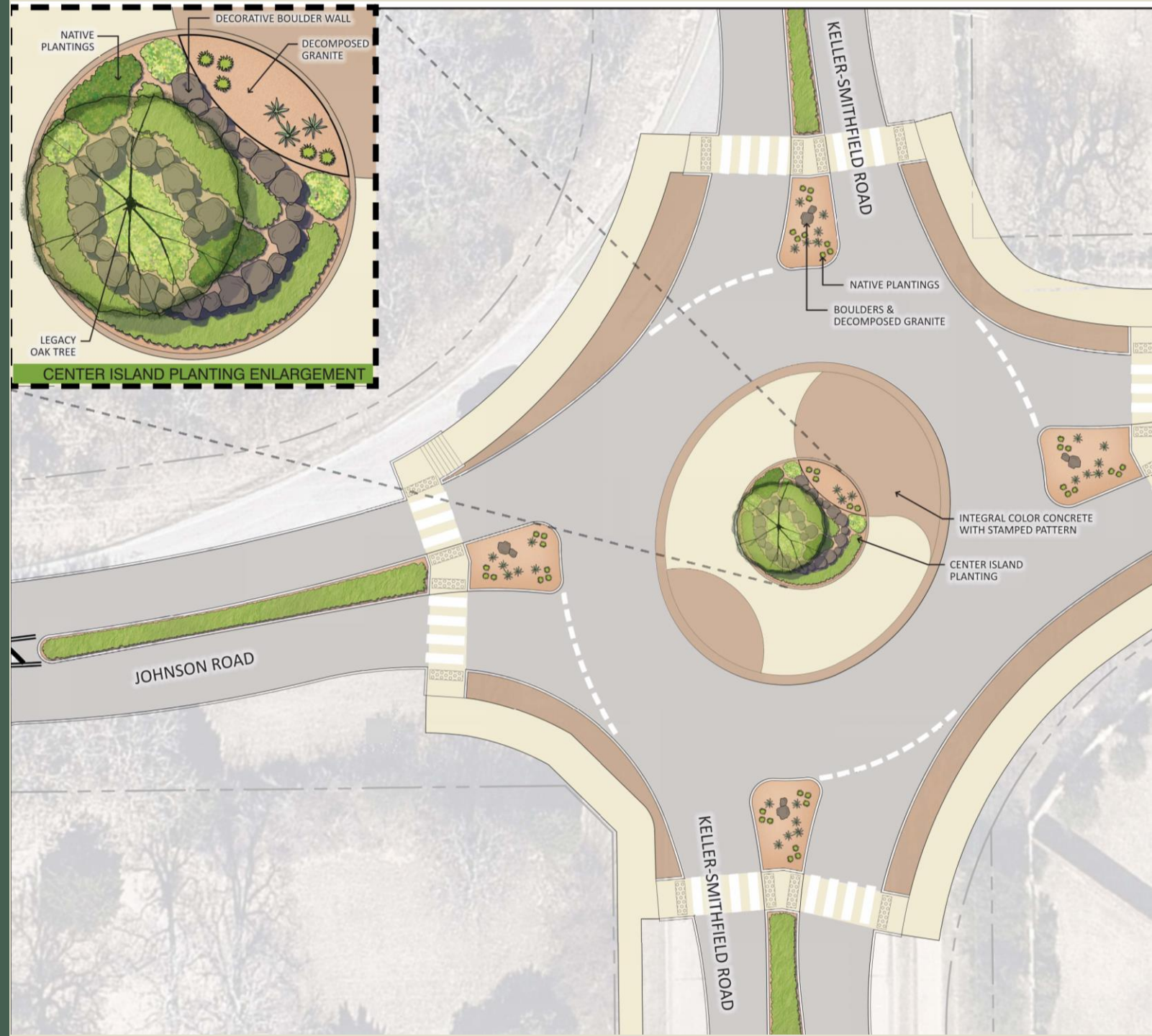
Roadway Recommendation

- Intersection Operation
 - Traffic Signal
 - Roundabout
- Roadway
 - Reconstruct Existing
 - 2 Lane
 - 3 Lane
- Drainage
 - Open Bar Ditch
 - Enclosed Storm Drainage



Roundabout Selection

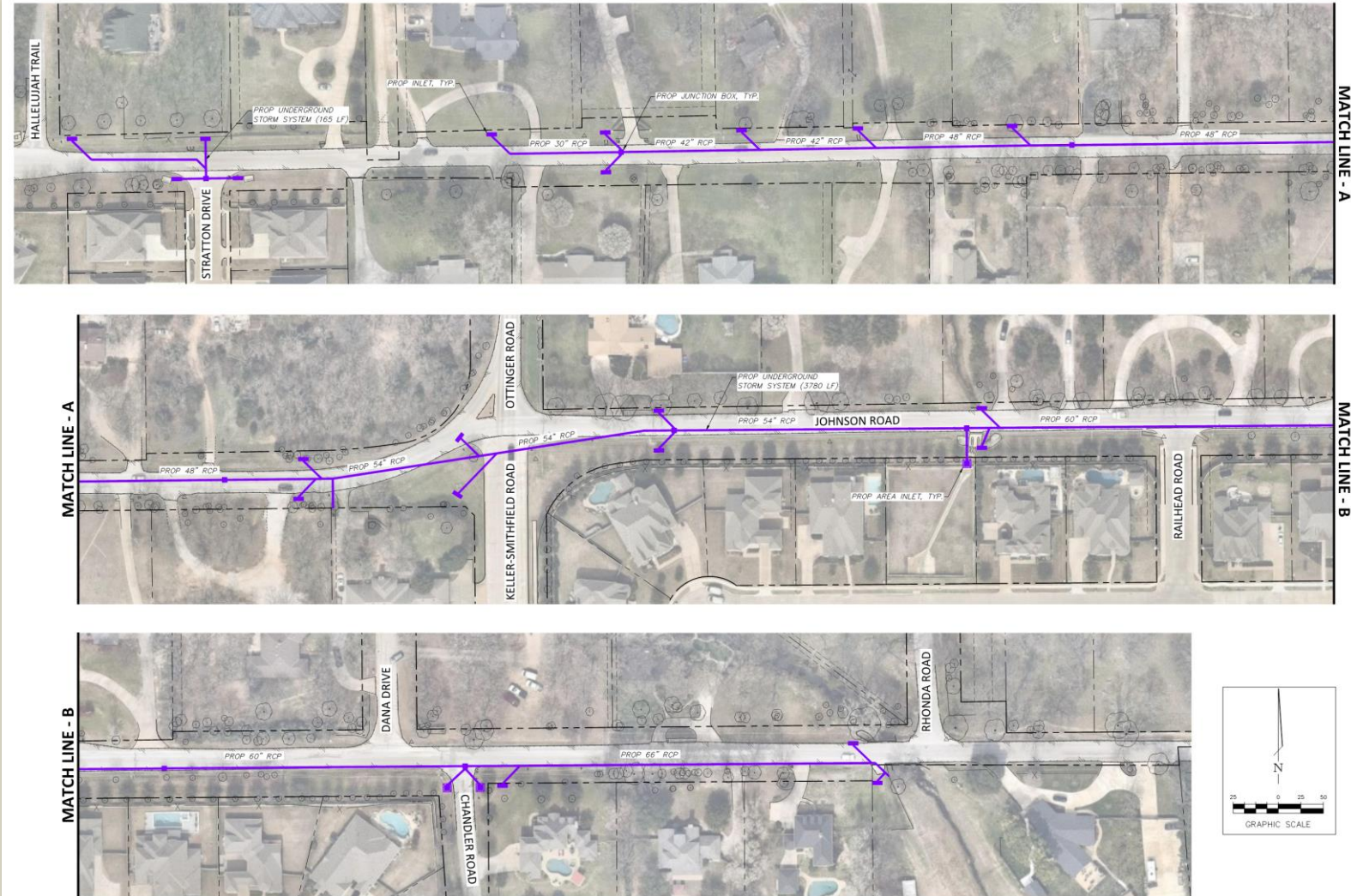
- Intersection Control Evaluation was performed
 - All Way Stop (LOS F)
 - Signalized (LOS D)
 - Mini Roundabout (LOS C)
 - Single-Lane Roundabout (LOS A)
- Single-Lane Roundabout
 - Optimal solution
 - Safety benefits
 - Fits within existing ROW
 - Enhancement opportunity



Enclosed Drainage Control

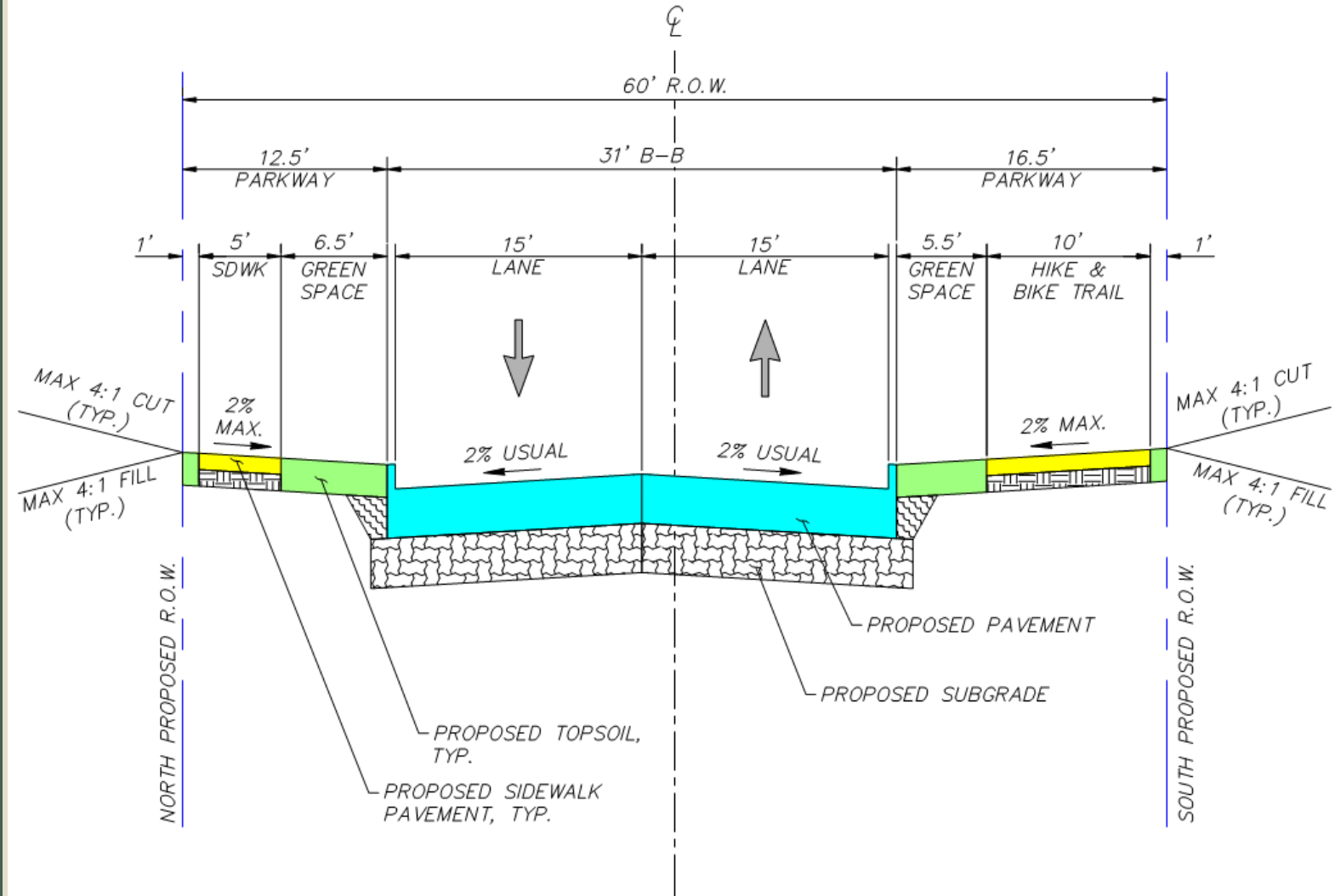
Recommendation:

- Install underground storm system to outfall near Rhonda Rd
- Common solution to multiple issues
- Avoids easement acquisition
- Keeps storm water within road ROW
- *Potential Budget Impact*



Recommended Roadway Cross Section

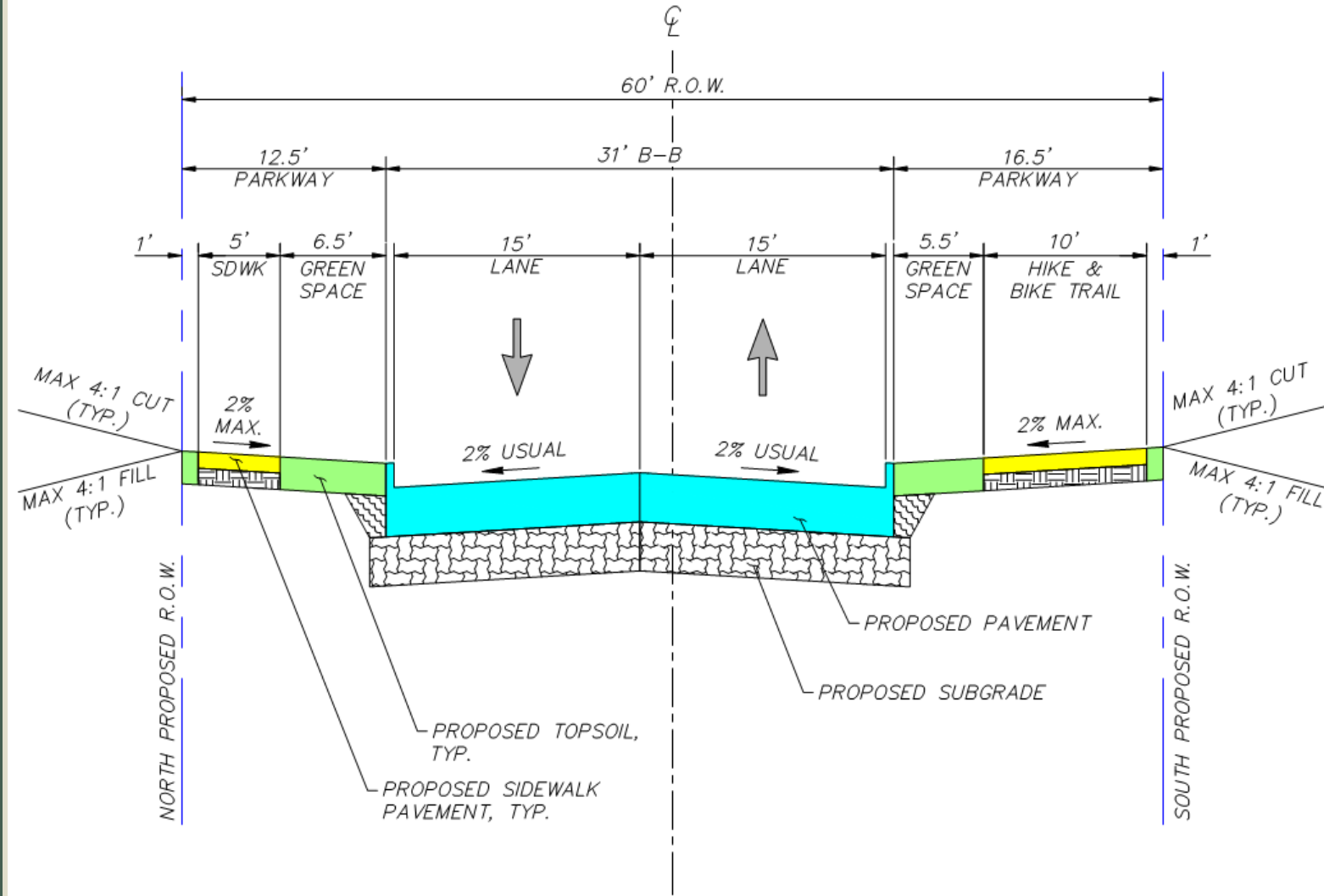
- (2) 15' Lanes
- 60' ROW
- Streetlights @ Roundabout Only



Lane Width

12' vs 15' Lanes

- Lack of Shoulder
- Drainage
- Vehicle Safety
- Shared Use



Pedestrian Recommendation

Public Comment Concerns

- *Public Safety*
- *ROW Impact*
- *Tree Impacts*

Additional Staff Considerations

- *UDC*
- *Master Plans*

Recommendation

- *Both Sides*
- *5' on the North Side*
- *10' on the South Side*
- *Creativity w/in ROW*



Public Comment Summary

■ Other Project Related Items Noted

- *Streetlights*
 - Lighting at Intersection (Roundabout) Only
- *Sanitary Sewer*
 - 2004 Policy Requirements
- *Drainage Creek Capacity*
 - To be explored in upcoming design phases
- *Pedestrian Connections to Existing Network*
 - Will connect to west
 - Poised to connect to east
- *Expand Project East of Rhonda*

Recommendation Summary

- 2-lane, 31-ft concrete curbed roadway within 60ft of ROW
- 5-ft Sidewalk on North side, 10-ft Trail on South side
- Drainage solutions
 - *Underground storm system along Johnson Road*
 - *Storm drain stub-out at 1342 Johnson Rd*
 - *Connect Newton Ranch detention pond outfall to proposed underground system on Johnson Road*
- Single-Lane Roundabout at Keller-Smithfield Road
- New water lines (8"/12" PVC)
- New street lighting @ roundabout only
- City directive for design creativity focused on ROW and tree impacts

Roadway Improvements	\$ 3,635,000
Drainage Improvements	\$ 1,526,000
Water Improvements	\$ 766,000
Total Project OPC	\$ 5,927,000

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Next Steps

- **Public Input Meeting**

- *Tentatively scheduled Monday, Nov. 18*

- **Proceed with Design** (assuming no fatal flaws discovered)

- *Property Owners will be directly contacted as design proceeds, and throughout the project*

- **Council will be Updated** at 60% & 90% before project goes to bid

QUESTIONS

