

# Waller County Road and Bridge

Maintenance • Engineering • GIS

775 Business 290 East Hempstead, Texas 77445 (979) 826-7670

# Operations Report – First Quarter FY 2025

<u>Mission Statement:</u> To provide safe and reliable infrastructure to enhance the quality of life for our citizens, businesses, and visitors through innovation, efficiency and accountability.

Submitted by: J. Ross McCall P.E., County Engineer

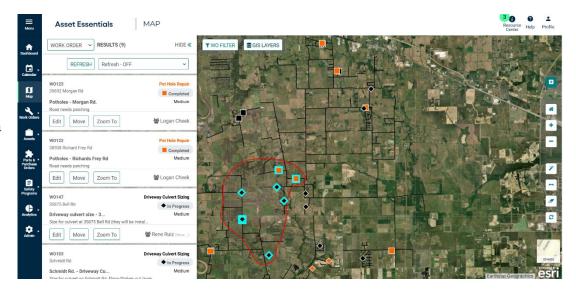
# **Maintenance**

Road base material continues to be delivered regularly. Our specified seal coat rock has become difficult to obtain due to supplier's obligations to TxDOT projects. As a result, staff has found an alternative aggregate that will meet our requirements for strength and durability and keep our projects on schedule.

Other achievements this quarter include:

- Asset Essentials Operational 3/26/25
- Received delivery of second Durapatch machine
- Updated shop air compressor and plumbing
- Prepped old fuel tanks for auction
- Added asphalt level up to Stepan Road

Right: Asset Essentials consolidates all maintenance requests into a GIS database to improve response times.



Jeff Smith Road and Menke Road were both rehabilitated this quarter. Both projects came in under the estimated budget and ahead of schedule.



Remaining roads to be repaired by the Road and Bridge Department include:

- Addie Gee Road: Grace Lane to 1.0-mile West
- Cross Pasture Road
- Springer Road
- Tompkins Road
- Avenue J: Pattison City Limits to End
- Cochran Road: FM 362 to Ray Wright Road
- Grove Park Drive
- Deerbrook Drive
- Garrett Road: Robichaux to Buller Road
  Wilpitz Road: IH 10 to Bessies Bayou
  Peachridge Road: IH 10 to Elberta Lane

Right: Replumbing of the Shop's air system was necessary to fix leaks and improve reliability. A clean and efficient shop is essential to reducing downtime and maintenance costs.



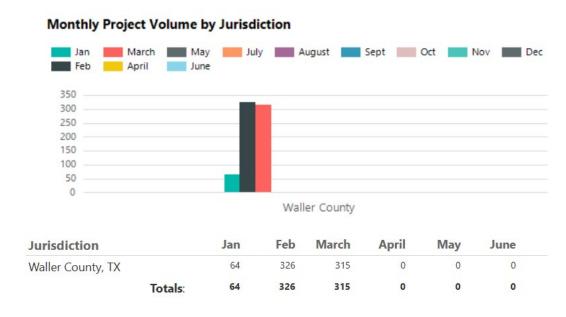
H&C has been contracted to perform preventative seal coats, while asphalt overlays will be advertised under a separate contract next quarter.

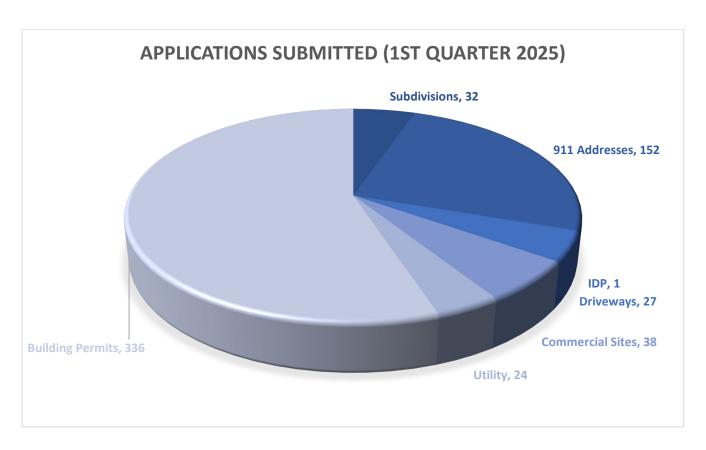
H&C (Seal Coats)	TBD (Asphalt Overlay)
Addie Gee Road: FM 1887 to 1.0 mile East	Riley Road: Newland to Walnut Ridge
Murrell Road	Magnolia Road: Murrell Road to County Line
Buller Road	Addie Gee: FM 359 to Grace Lane
Waller Gladish Road	Reids Prairie: FM 362 to Texas Oak Road
Sterling Road	Old Houston Road: Clear Creek to Grace Road
Marti Lane	Riley Road: FM 1774 to Wade Road
Kelley Road: West of SH6	Morton Road: City of Katy to 2.5 miles West
Hoff Road	Woods Road: IH-10 to Twinwood Parkway

We expect preventative seal coats to begin later this Summer. For a full list of maintenance projects and expected schedules, refer to Appendix A.

# **Development Services**

Earlier this quarter, we transitioned to MGO Permitting Software to record and track plan submittals. The software implementation process has been slow and is being refined. Development statistics from the first quarter are shown below.





#### Waller County Subdivision Rules and Regulations Update

Subdivision rules and regulations are being updated to ensure Waller County is in a good position to manage future infrastructure growth. An initial round of comments has been received from selected stakeholders and comments have been addressed. A draft of the subdivision rules and regulations has been forwarded to the District Attorney's Office for legal review.

#### Houston-Galveston Area Council Light Detection and Ranging (LiDAR) Project

This project is a partnership with area counties to gather current elevation data and land use that will be used to analyze floodplain, develop drainage plans, and update watershed and hydrologic models. LiDAR data is expected to be available at the end of 2025.

Right: Accurate elevation data is necessary to plan for future drainage improvements and address drainage problems. *Images are courtesy of NV5 Geospatial monthly report.* 





#### Municipal Separate Storm Sewer System (MS4) Requirements

This program is being created to comply with The Clean Water Act. Initial conversations have been held with Brookshire-Katy Drainage District regarding a partnership. Additional staff and resources are needed to bring this project to fruition.

## **Engineering Projects**

#### Rolling Hills Drainage Project (Pape-Dawson Work Authorization #2 – Proposed)

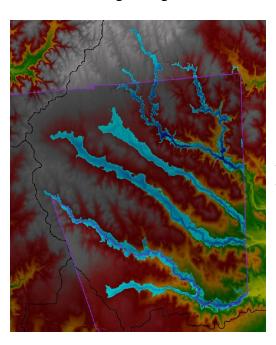
This project will obtain survey data for all ditch flowlines and culverts along county roads within Rolling Hills Subdivision, and generate bid documents and construction estimates. A lack of drainage outfalls continues to be a concern; however, roadside ditch drainage should be addressed before Road & Bridge crews begin rehabilitating pavement within the subdivision.

#### Peregrine Drive Traffic Study (Cobb, Fendley & Associates Work Authorization #2)

Traffic counts and a speed study were conducted this quarter for Peregrine Drive. Traffic calming measures are being considered with a recommendation for additional law enforcement coverage.

#### Waller County Master Drainage Plan (GLO CDBG-MIT)

This grant funded study analyzes drainage hydrology and hydraulics within Waller County. The study's results will be used to determine drainage easement needs and plan for future drainage mitigation measures.



<u>Left:</u> A well thought out drainage plan is necessary to preserve land for drainage easements and detention ponds as land gets developed. Topography and drainage flows are entered into hydrology models to generate locations of flood zones. *Image is courtesy of LJA Engineering's Waller County Master Drainage Plan monthly status update.* 

#### Brookshire Regional Detention Pond (GLO CDBG-MIT MOD)

This proposed regional detention pond is funded by the Texas General Land Office and provides flood mitigation volume near Brookshire. The pond will be maintained by the Brookshire-Katy Drainage District when complete. The design of the pond is at 30% and is in the process of environmental clearance.

#### Clemons Switch at Bessie's Creek Bridge

This bridge replacement design was initiated four years ago with the previous administration. Design services are being rescoped due to revised conditions. A revised engineering contract will be presented to Commissioner's Court once details are finalized.

#### Field Store at Spring Creek

Preliminary engineering was performed to raise the road profile over Spring Creek. The project will consist of adding box culverts to maintain stormwater conveyance, and raising the road above Spring Creek. The project is in a design queue for completion when resources are available.

#### Riley Road at Birch Creek Bridge

This two-lane bridge has been designed to allow for future widening to four-lanes without impacting traffic. The County is soliciting for construction bids with an anticipated construction start date early this Summer and completion date this Fall. Two lanes of traffic will be maintained throughout the duration of the project. Estimated construction cost = \$900,000.

#### Woods Road Realignment at US 90

The realignment of Woods Road at US 90 will improve efficiency and safety of truck turning movements across the railroad and into the Goya food property. Staff is working with both TxDOT and the railroad to improve this intersection. Waller County will be responsible for realigning Woods Road, and TxDOT will be responsible for installing a traffic signal.



Left: The realignment of Woods Road involves obtaining permission from Union Pacific Railroad, which includes an agreement and technical documents supporting the modification.

#### Morton Road at Buffalo Bayou Draw Bridge Replacement (TxDOT)

The Texas Department of Transportation will be replacing this structure under their offsystem bridge replacement program. Waller County will replace concrete box culverts at Blinka Road in lieu of a 10% match contribution. Morton Road Bridge over Buffalo Bayou Draw is expected to go to construction in 2027.

#### Morton Road (Interim): FM 2855 to City of Katy

The mobility bond project will reconstruct Morton Road into a 4-lane concrete road. It is anticipated that the construction schedule will be delayed due to multiple pipelines, utilities and right-of-way acquisition. An interim solution is being proposed to repair the pavement until the bond project can be constructed. LJA is preparing a design proposal which will be presented to Commissioners Court for consideration next month.

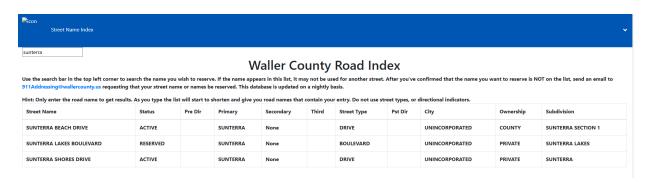
#### Clay Road: Schlipf Road to Bartlett Road

This project consists of replacing the existing asphalt road with a 2-lane concrete curb and gutter road with storm sewer, and is funded by the developer, Astro Sunterra, LP. This project will become half of the ultimate 4-lane concrete boulevard from Schlipf Road to Pitts Road being constructed under the Mobility Bond Program.

### **GIS/911 Addressing**

#### Address Standards and Master Road Index

Addressing standards were updated in March to improve efficiency and remove non-value-added processes. During public comment, it was suggested that a master road index would be helpful to ensure road names were not duplicated and reduce human error. We have researched possible solutions and visited with neighboring counties to discover Safe Software's FME program. GIS staff has used a trial version to build a Waller County Road Index. The full version is being requested at the April 30, 2025 Commissioner's Court meeting.



#### Road Maintenance Limits

Road maintenance limits continue to be unclear near city limits. Staff has been working with municipalities to clarify maintenance limits and responsibilities. We expect future interlocal agreements with partner municipalities to improve services to the citizens.



Left: The City limits of Brookshire (orange line) cross Gassner and Kellner Roads in multiple places. Citizens requesting maintenance often get confused on which jurisdiction is responsible. GIS services helps define these locations and forms the basis of an interlocal agreement between the City and the County.

#### **Financial**

The Road and Bridge Department is expected to remain within budget for FY 2025. Material escalation costs have impacted our original strategy; however, staff has made adjustments to ensure that projects remain on schedule and within budget. Equipment maintenance costs are expected to exceed the original budgeted line item; however, we plan to minimize increases by auctioning off unused equipment and reevaluating our equipment rental strategy. Appendix B details expenses and remaining FY 2025 funds by category.

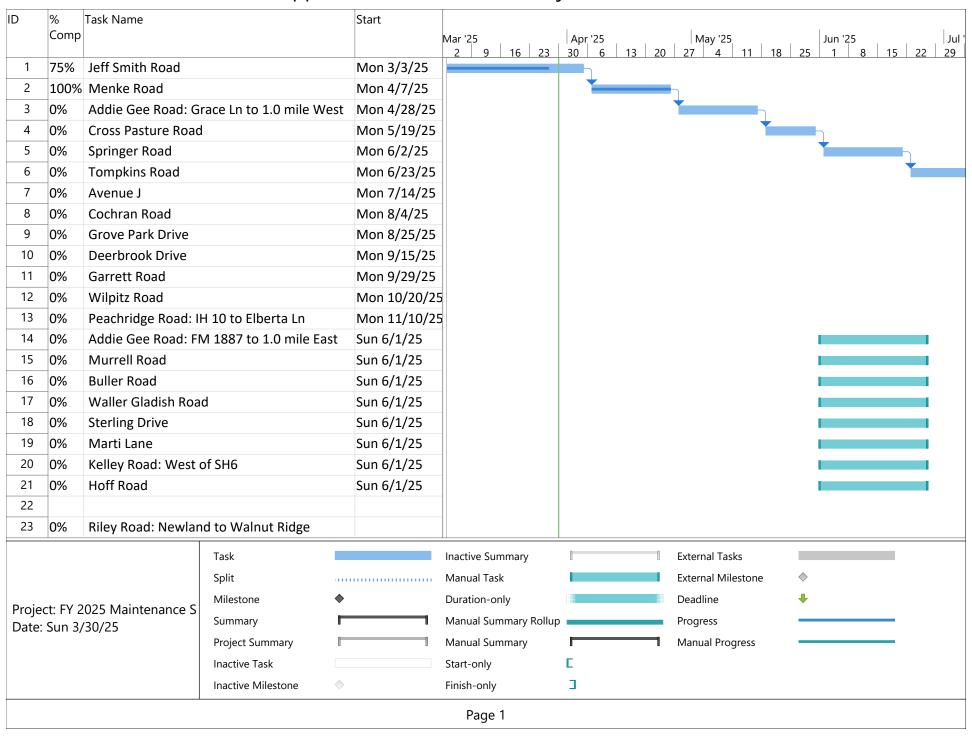
#### **Road Bond**

This quarter, LJA focused on refining road bond project scopes and provided assistance in contract negotiation with the County's design engineers. Eleven engineering design contracts were executed by Commissioners Court initiating the design phase for multiple projects. Other tasks included:

- Performed road cores to investigate existing pavement structure.
- Drafted a website to provide program updates to the public.
- Drafted plan standards and details for Mobility Program.
- Assisted in the review of ROW/Utility permits.

Next quarter, several more projects are expected to enter the design phase. A detailed description of this quarter's program management effort can be viewed in Appendix C.

# Appendix A: Maintenance Project Schedules



	Name		Start				
Comp				Mar '25 2 9 16 23	Apr '25	May '25	Jun '25     Jul       25     1       8     15       22     29
24 0% Mag	gnolia Road: Murrell R	oad to County Line		2   9   10   23	30   6   13   20	21   4   11   16	25   1   6   15   22   29
	ie Gee: FM 359 to Gra						
26 <b>0</b> % Reid	ls Prairie: FM 362 to T	exas Oak Road					
27 0% Old	Houston Road: Clear (	Creek to Grace Roa	(				
28 0% Riley	y Road: FM 1774 to W	ade Road					
29 <b>0</b> % Mor	ton Road: City of Katy	to 2.5 miles West					
30 0% Woo	ods Road: IH-10 to Tw	inwood Pkwy					
Project: FY 2025 Maintenance S Date: Sun 3/30/25	Task			Inactive Summary		External Tasks	
	Split			Manual Task		External Milestone	<b>♦</b>
	Maintenance S	tone •		Duration-only		Deadline	•
	C	nary		Manual Summary Rollup		Progress	
		ct Summary		Manual Summary		Manual Progress	
	Inactiv	ve Task		Start-only	Г		
	Inactiv	ve Milestone		Finish-only	3		
	,			Page 2			

Appendix B: Road and Bridge Expense Summary







# Appendix C: Progress Report Q1 2025

**Contract No:** PM5121-2471

Project Description: Waller County Road Bond Program GEC

Progress Reporting Period: January 1, 2025 - March 31, 2025

Project Manager: John Tyler

#### **Progress Summary:**

Developed boiler plate engineering agreement

- Met with selected engineering teams to kick-off project design assignments
- Developed scopes and fees for assigned projects
- Developed costs and obtained 2025 bond for program
- Received court approval for engineering agreement on 7 projects
- Had presentation of status of project SH 36A from TxDOT
- Held project design kickoff meetings for 2 projects

