

City of Hutto SE Loop Wastewater Interceptor: Curved Microtunneling for Deep Interceptors



January 27 – 28, 2026

Henry B. Gonzalez Convention Center, San Antonio, Texas



Project Team

Patricia Davis, P.E., CIP Manager, City of Hutto

Ryan Owen, P.E., Vice President, STV Inc.

Garrett Brittain, Division Manager, McKee

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Agenda

- Project Background
- Design & Project Challenges
- Funding & Project Schedule
- Construction & Results

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Project Background

- 1,400-Acre megasite Industrial Park
- Corridor & Samsung MC plant
- 29.0 MGD PWWF (14 stubouts/8"-24")
- 19,700 LF FRP Pipe (42", 48", 54" Dia.)
- 39 MHs Polymer Concrete (6'-10' Dia.)

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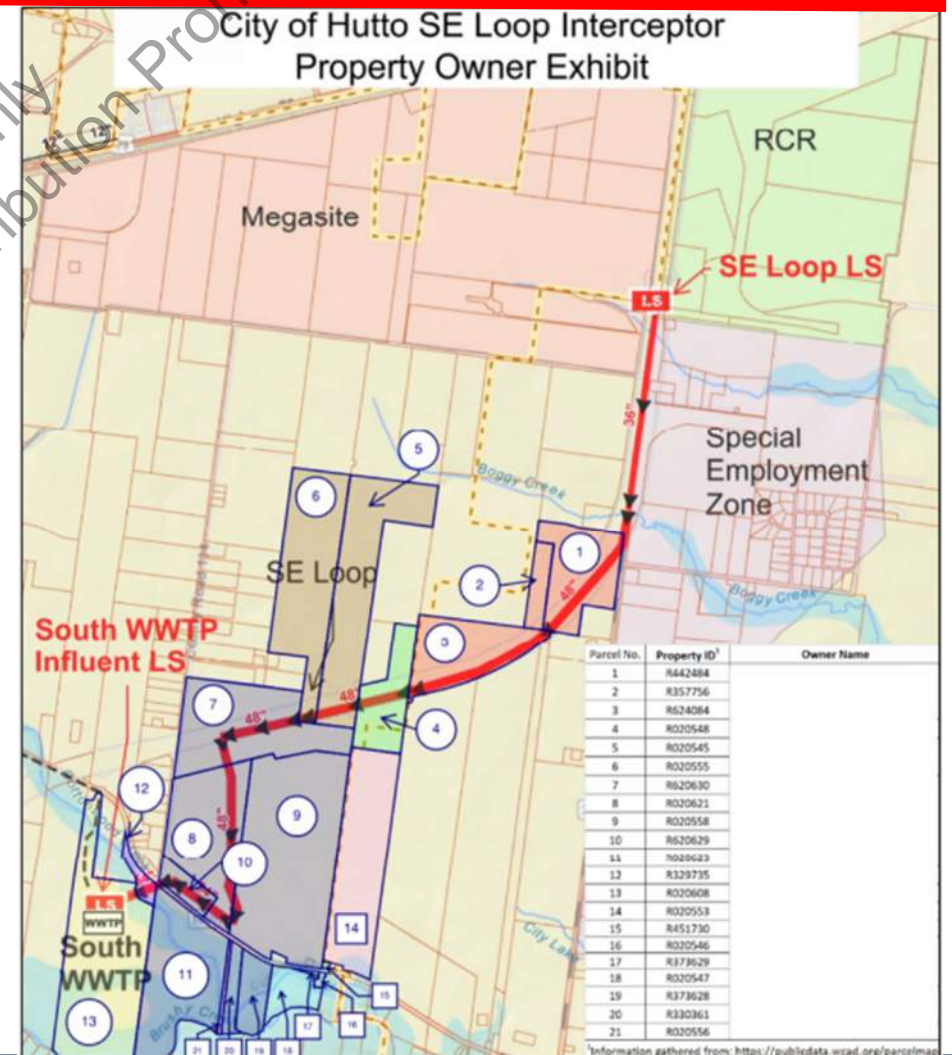
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Design & Challenges

PER & Alignment Study

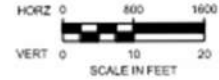
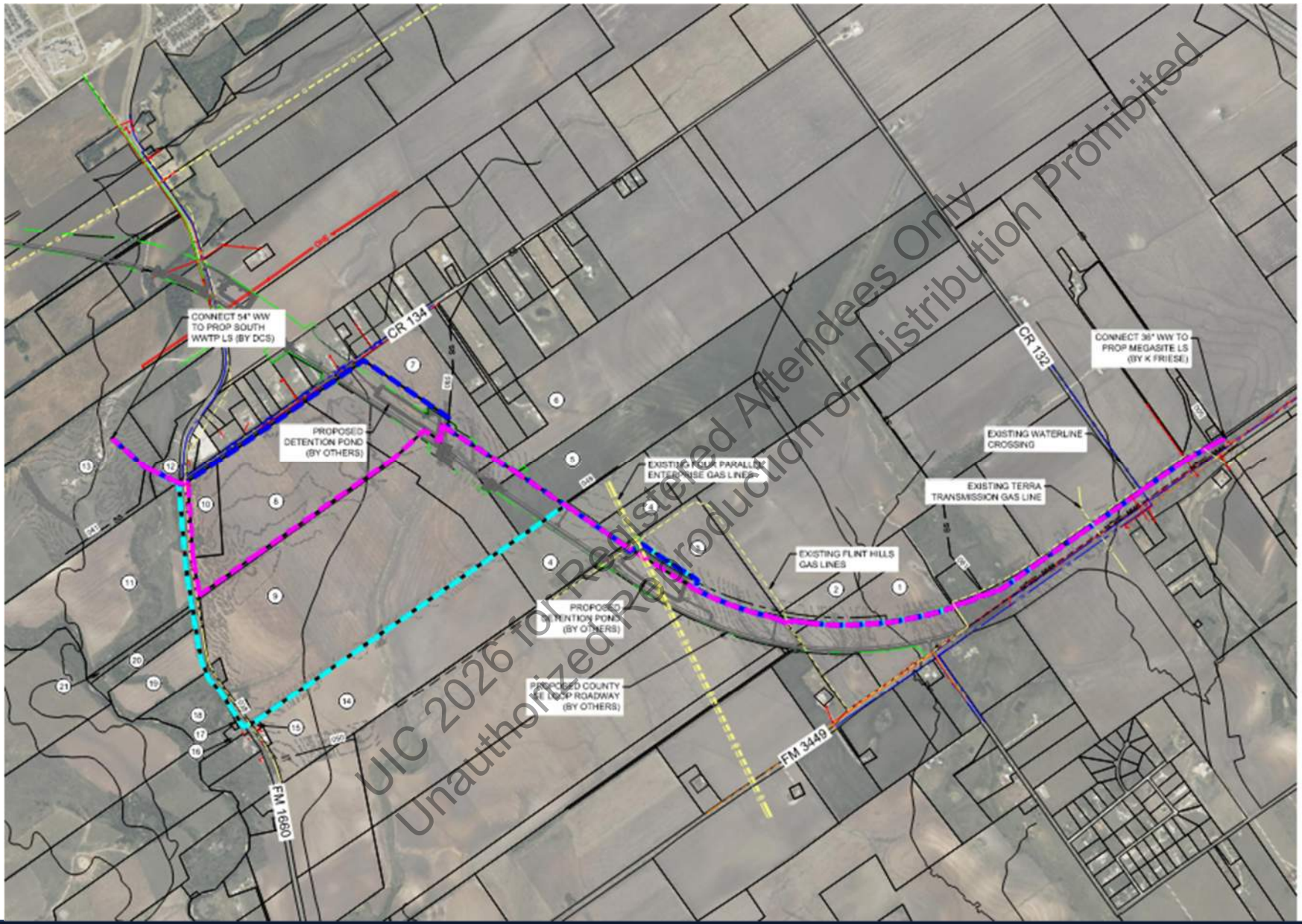
- Three Alignment Options
- Construction Methods
- Materials of Construction
- Project Cost & Schedule
- South WWTP/Lift Station
- Weighted Matrix Scoring



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- LEGEND**
- ALIGNMENT ALTERNATIVE 1
 - ALIGNMENT ALTERNATIVE 2
 - ALIGNMENT ALTERNATIVE 3
 - - - PROPOSED R.O.W.

PARCEL INFORMATION		
PARCEL NO.	PROPERTY ID	OWNER NAME
1	R442484	
2	R357756	
3	R624064	
4	R020548	
5	R020545	
6	R020505	
7	R620630	
8	R020621	
9	R020558	
10	R620629	
11	R020623	
12	R329735	
13	R020608	
14	R020553	
15	R451730	
16	R020546	
17	R373629	
18	R020547	
19	R373628	
20	R330361	
21	R020556	

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Design & Challenges

- GBR and GDR provided
- Construction limitations
 - Pipe locations & alignment (TCEQ variance)
 - ROW & easement constraints
 - Franchise utilities & encroachments

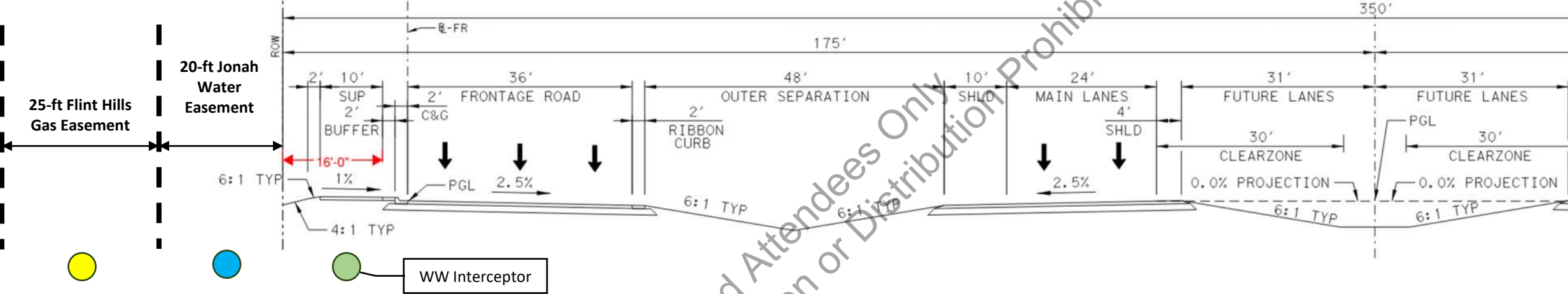
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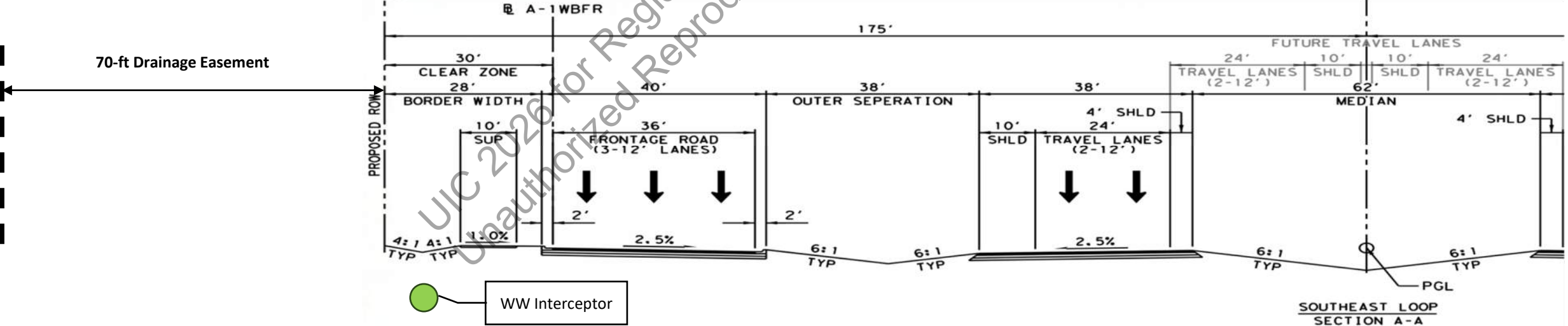
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FM3349 – Trenchless Method within ROW



SE Loop – Trenchless within ROW

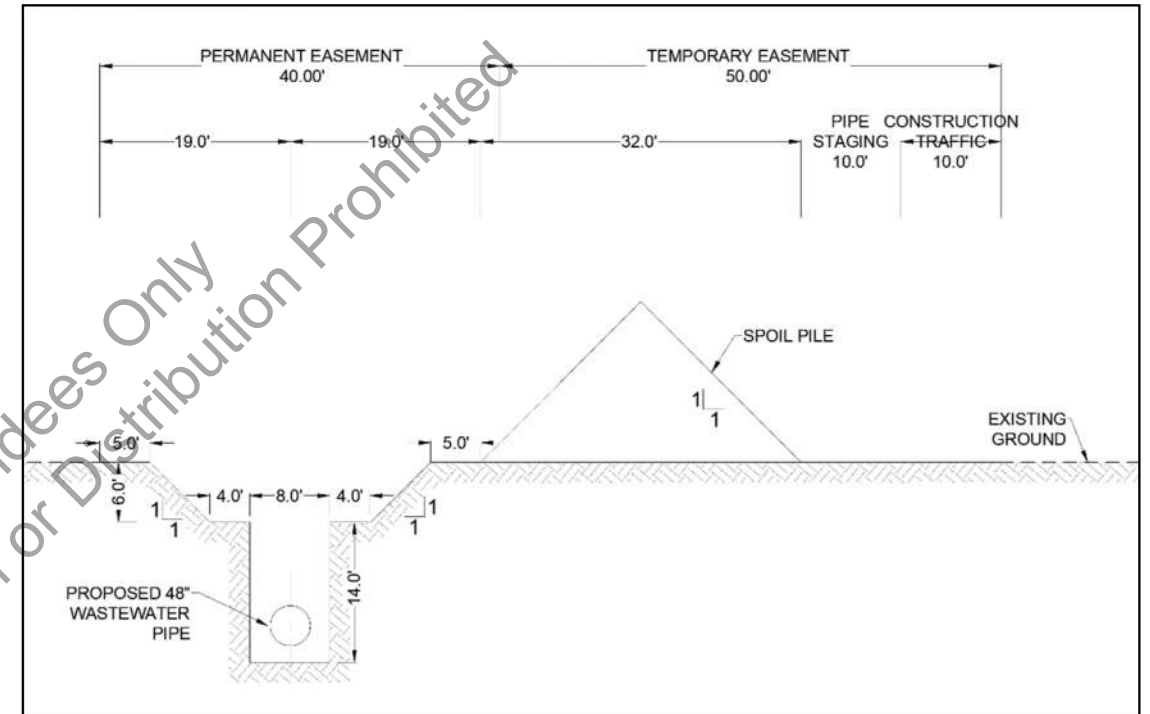
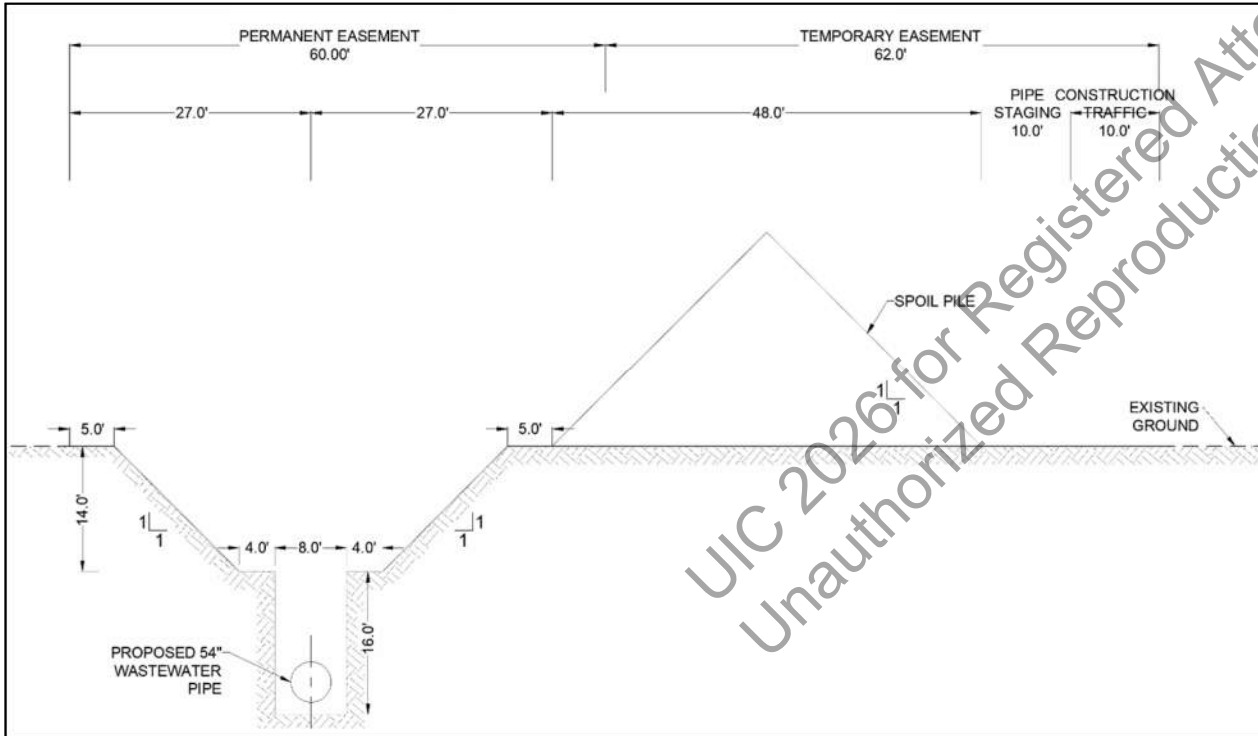


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Typical Section for 54-inch Pipe

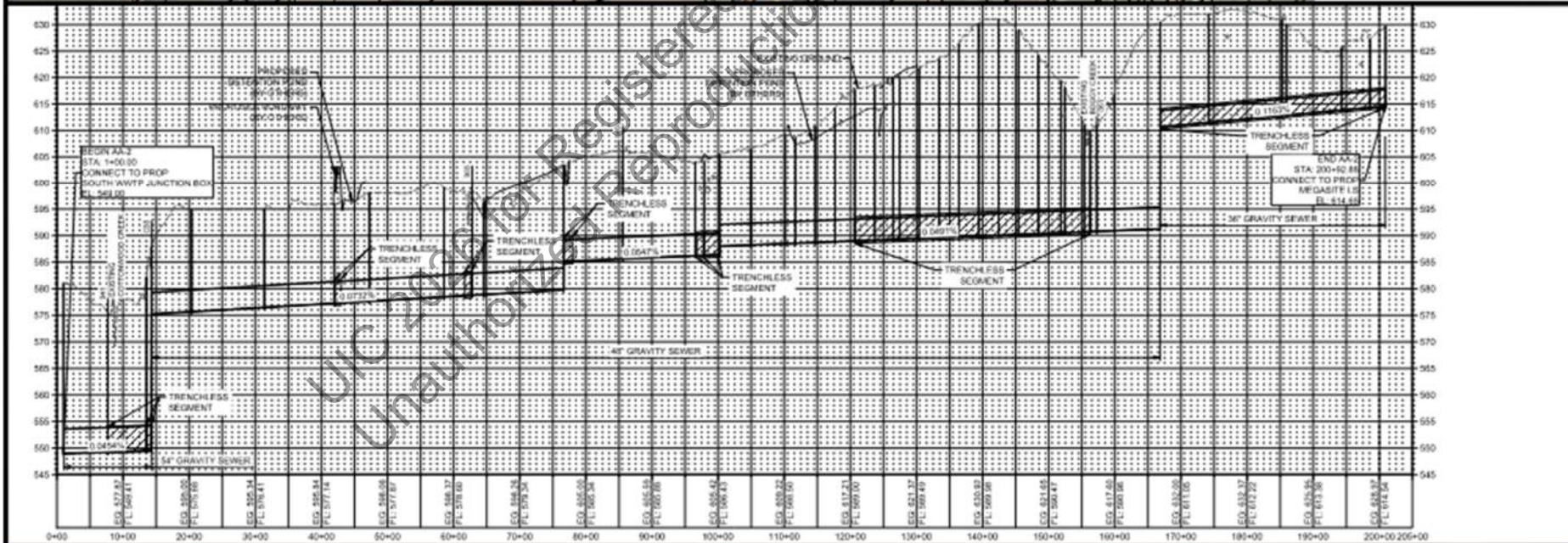
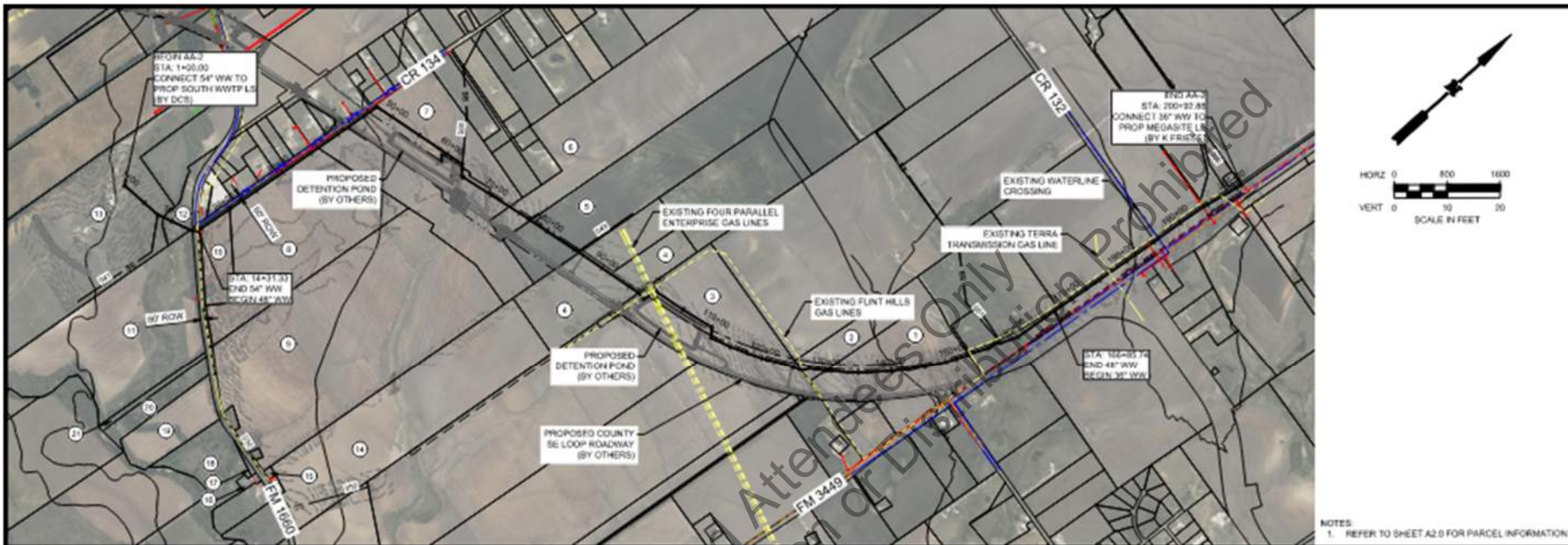


Typical Section for 48-inch Pipe

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Hutto's Growth Snapshot (2025 Data)

- 13th fastest-growing U.S. city
- +9.4% population growth
(July 2023- July 2024)
- ~42,661 population (2024)



5:5:5

Capital Improvements Program Division

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Funding & Schedule

- Critical need for City of Hutto
- Cost vs. schedule
 - Trenchless vs. easement acquisitions
 - ARPA / CWSRF / DFund / WIFIA
 - Critical deadlines (bids & construction)



Funding & Schedule

- Planning & PER Sept. 15, 2023
- Advertise for bid Sept. 26, 2024
- CSP opening Nov. 8, 2024
- NTP Dec. 20, 2024
- Subst'l completion Oct. 30, 2026

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Funding & Schedule

- Design minimized WWEs & TCEs
- 17 WWEs & TCEs
- Bid-phased construction to eliminate delays
- Last easement acquired October 2025
 - 11,450 LF required WWEs/TCEs

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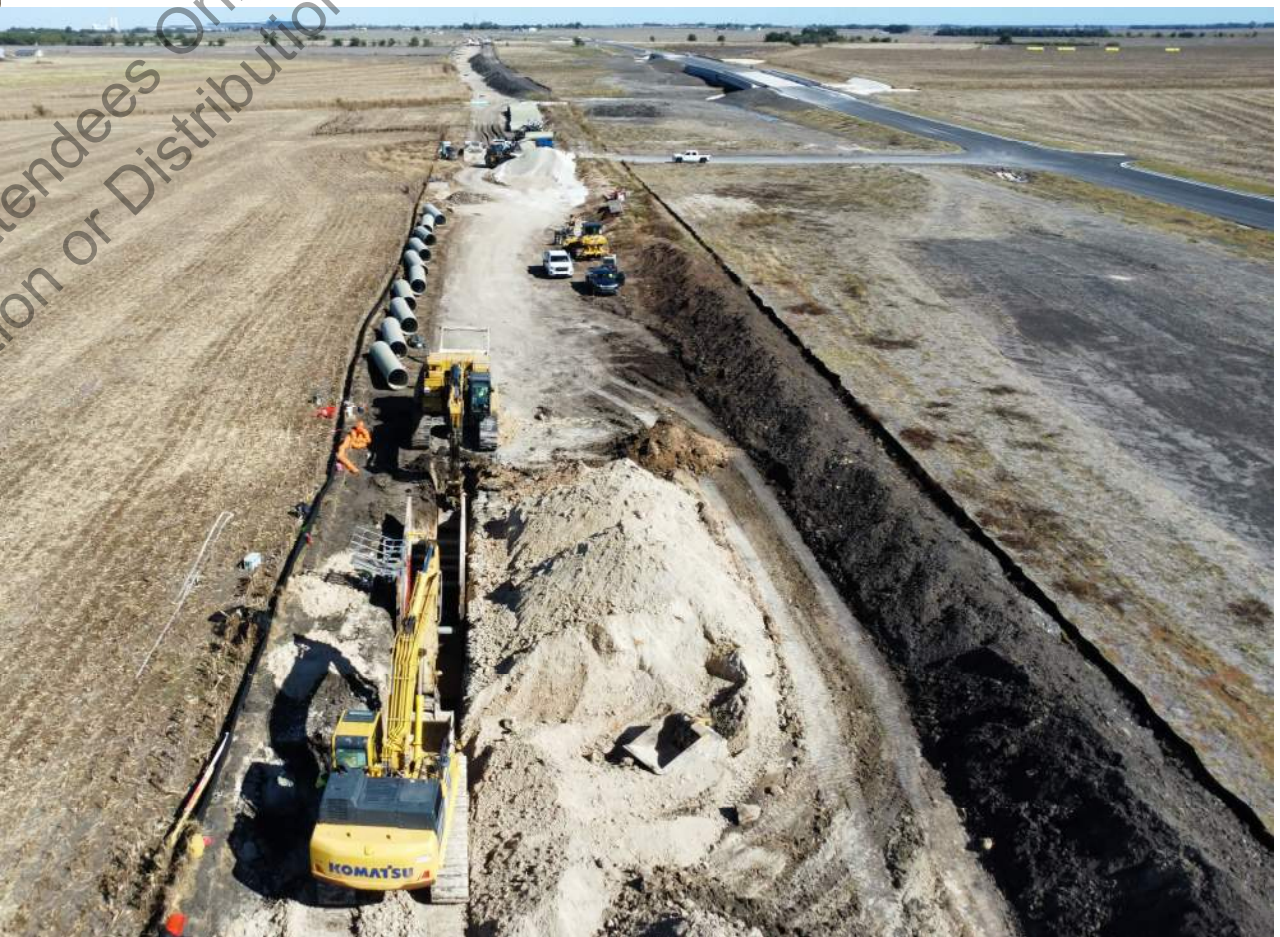
Construction & Results

- 11,900 LF Open Cut / 7,800 LF MTBM
- FRP Single Pass vs. RCP Encasement
- 4,000 LF Straightline Microtunnel
- 3,800 LF Curvilinear Microtunnel

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Construction & Results

- Construction Sequencing
 - Optimized Open-Cut and Microtunnel installation to achieve key milestones
 - Strategically phase material procurement and delivery

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Construction & Results

- Coordination with adjacent projects
 - Integration with existing, future infrastructure
 - Compatibility of schedules
 - Accurate tie-in elevations and alignment

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Construction & Results

- 16-inch HP gas line conflict
 - Excessive depth for QL-A / QL-B deviation
- Vertical Alignment Deviation
 - Unconsolidated soils / hydrostatic pressure
 - Innovative solution

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Questions?



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