



# Williamson Creek Interceptor

## Parks and Recreation Board

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Austin Water

Monday, November 25, 2024



# Project Overview

- The Williamson Creek Wastewater Interceptor project consists of over 18,800 linear feet of 72-inch diameter gravity wastewater interceptor installed using a two-pass tunneling method.
- Project drivers:
  - increase capacity
  - replace aging infrastructure
  - reduce the potential for future sanitary sewer overflows to protect the environment

## LEGEND

- Existing Wastewater Interceptor
- Existing 72" Interceptor (will be rehabilitated through Cured In-Place-Pipe)
- New Wastewater Tunnel Alignment (about 40-60 feet underground)
- Construction Access Areas
- Construction Workspace Areas
- Construction Workspace: Cured In-Place-Pipe
- Shaft for Cutover Connections
- Shaft for Connecting Existing Collection System to Tunnel



# Challenges with the Current Interceptor



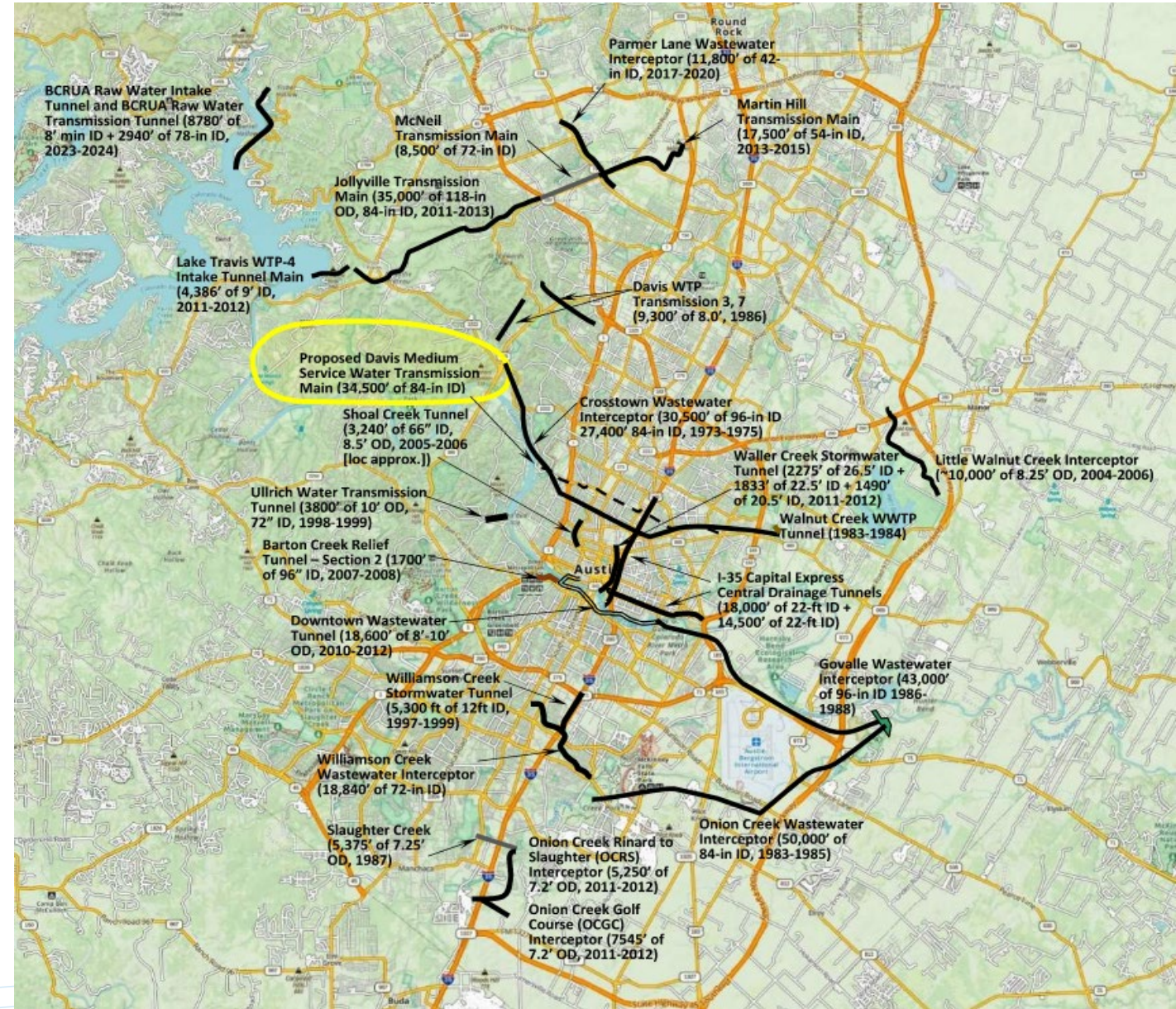
- ◆ Size, age, and condition of the existing pipelines make the system susceptible to sewer overflows, particularly during rain events
- ◆ No existing odor control along interceptor



# Major Project Components



- Excavation of 18,800 LF of tunnel, ranging from 20 to 90 ft below grade, entirely outside of the Erosion Hazard Zone
- Installation of 18,600 LF of 72-inch and 200 LF of 84-inch corrosion resistant fiberglass pipe with grouted annulus
- 6 Operations and Maintenance (O&M) Shafts
- 10 connection shafts to allow for connections of the existing collection system to the tunnel
- 1 downstream connection shaft on the existing 84-inch Williamson Creek Tunnel near the intersection of William Cannon Dr & S Pleasant Valley Rd



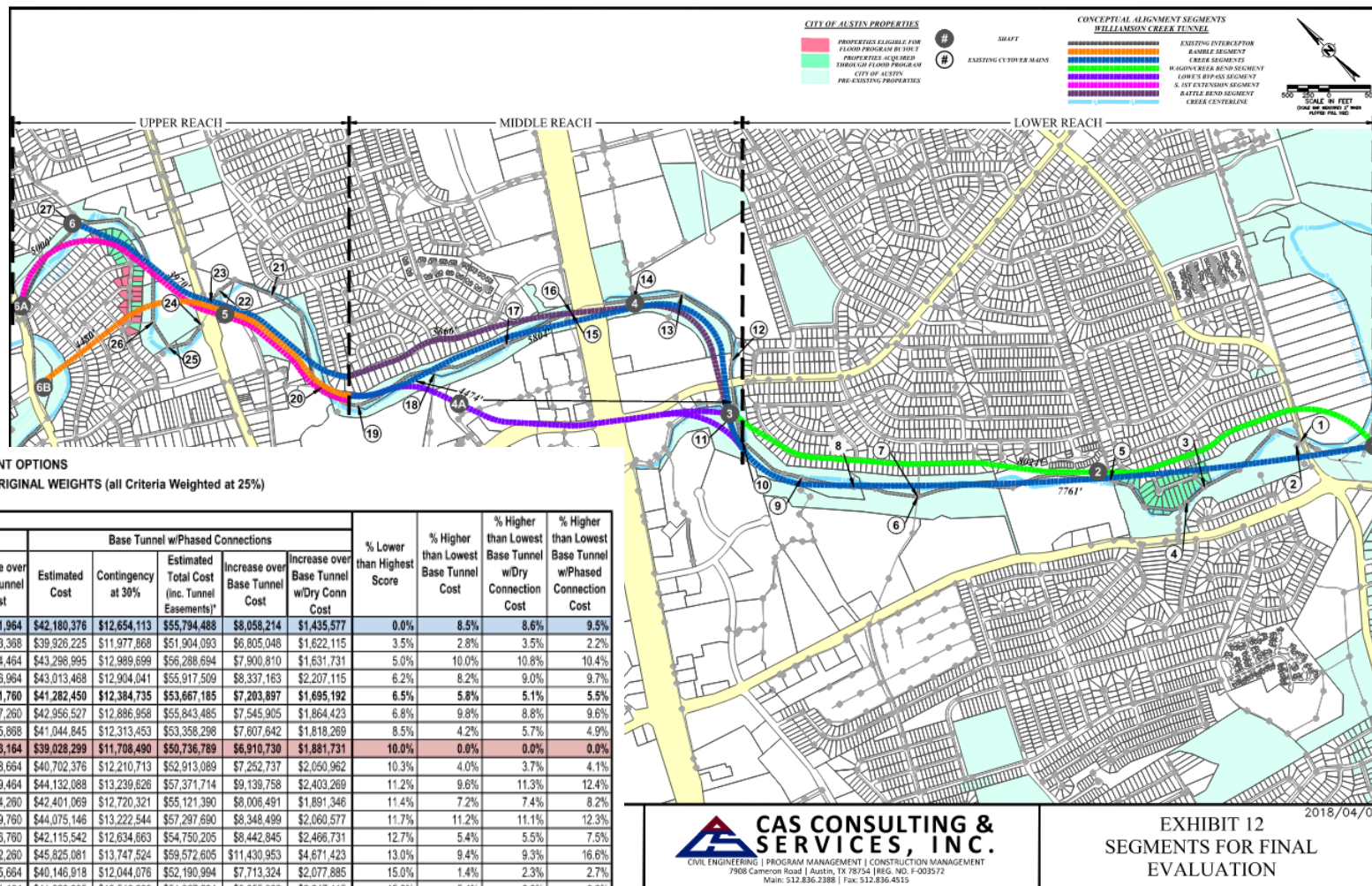
## Additional Project Components

- ◆ Installation of 22 local pipeline reconnections via open cut (5,400 LF of 8" to 48") and jack and bore (2,500 LF of 12" to 54") construction methods
- ◆ Removal and abandonment of existing wastewater pipelines and manholes in the creek
- ◆ New biological odor control facility and associated rain gardens designed for future trailhead parking lot
- ◆ Cured-in-Place (CIPP) pipeline rehabilitation of 2,700 LF of existing 36" diameter concrete pipe
- ◆ Extensive environmental site restoration (native seeding, tree plantings, etc.)



# Routing Requirements

- 18 different alignments evaluated via scoring matrix
- 22 environmental constraints considered



- Ramble Segment (Upper Reach)
- South 1st Street Extension Segment (Upper Reach)
- Creek Segment (All Reaches)
- Lowes Bypass Segment (Middle Reach)
- Battle Bend (Middle Reach)
- Wagon/Creek Bend Segment (Lower Reach)
- Full Alignment Option with Highest Score
- Full Alignment Option with Lowest Base Tunnel or Base Tunnel w/Cutters Estimated Cost
- 7, 1.92, etc** Bold Text Indicates Alignment Option for Further Post-Screening/Scoring Discussion

\* Note: Only Base Tunnel project easement requirements researched/calculated for the PER. No Cutover Main connections included.



**CITY OF AUSTIN PROPERTIES**

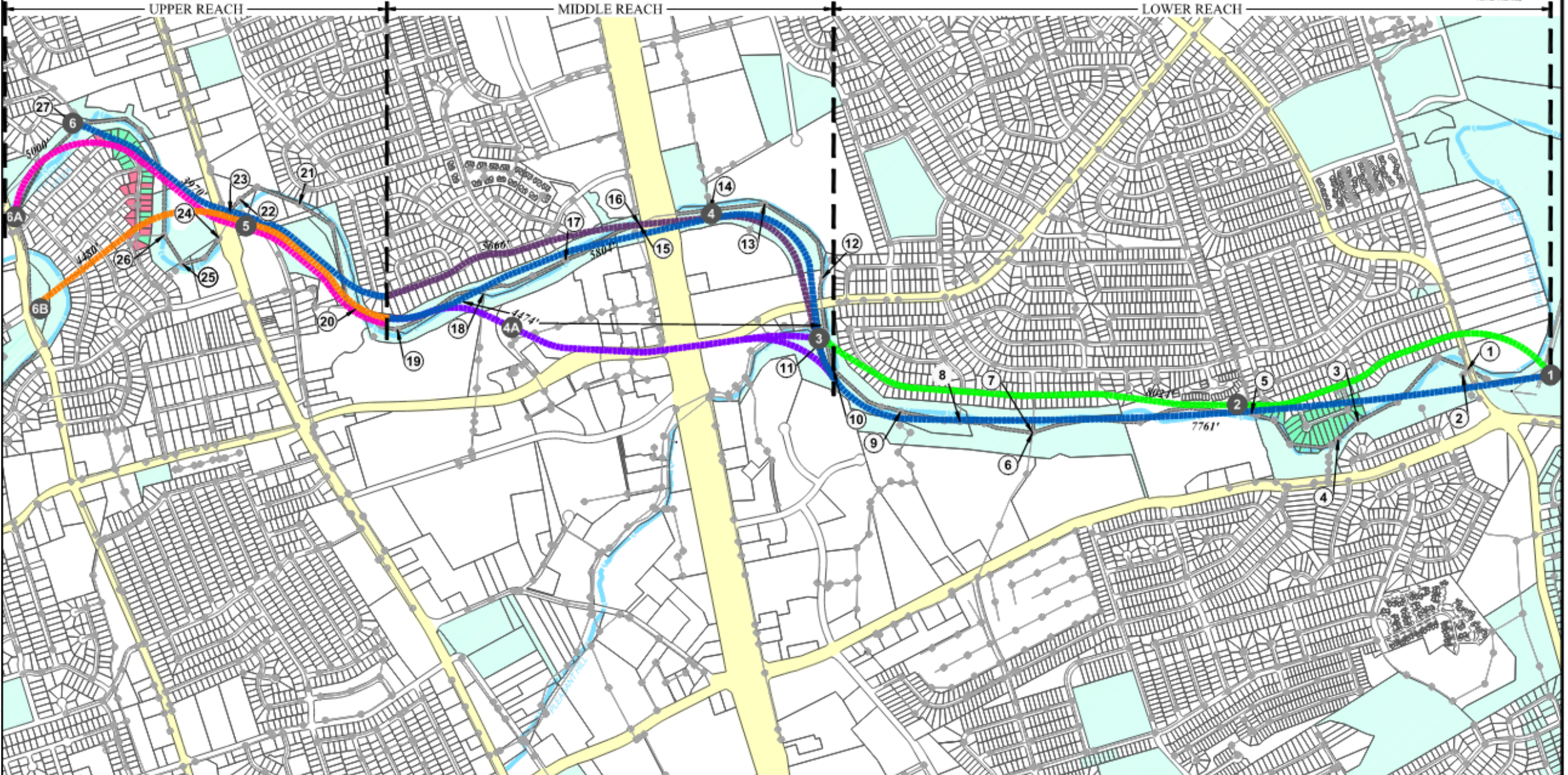
- PROPERTIES ELIGIBLE FOR FLOOD PROGRAM BY 2017
- PROPERTIES ACQUIRED THROUGH FLOOD PROGRAM
- CITY OF AUSTIN PRE-EXISTING PROPERTIES



- SHAFT
- EXISTING CUTOVER MAINS

**CONCEPTUAL ALIGNMENT SEGMENTS  
 WILLIAMSON CREEK TUNNEL**

- EXISTING INTERCEPTOR
- RAMBLE SEGMENT
- CREEK SEGMENTS
- WAGONCREEK REND SEGMENT
- LOWE'S BYPASS SEGMENT
- S. 1ST EXTENSION SEGMENT
- KATLE REND SEGMENT
- CREEK CENTERLINE





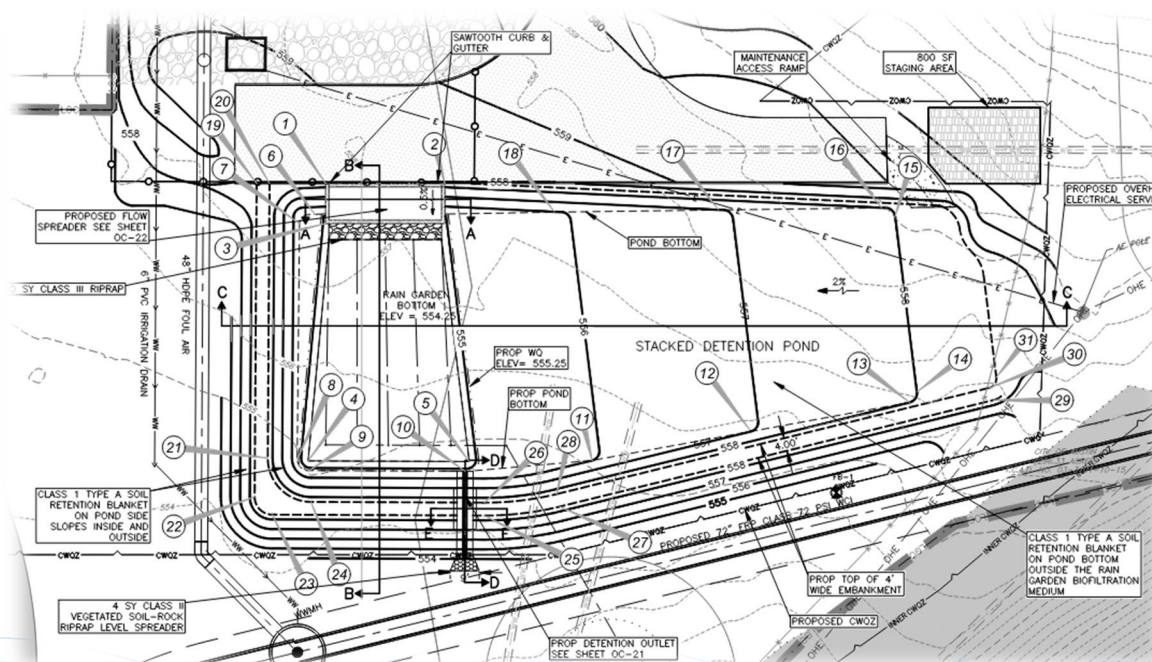
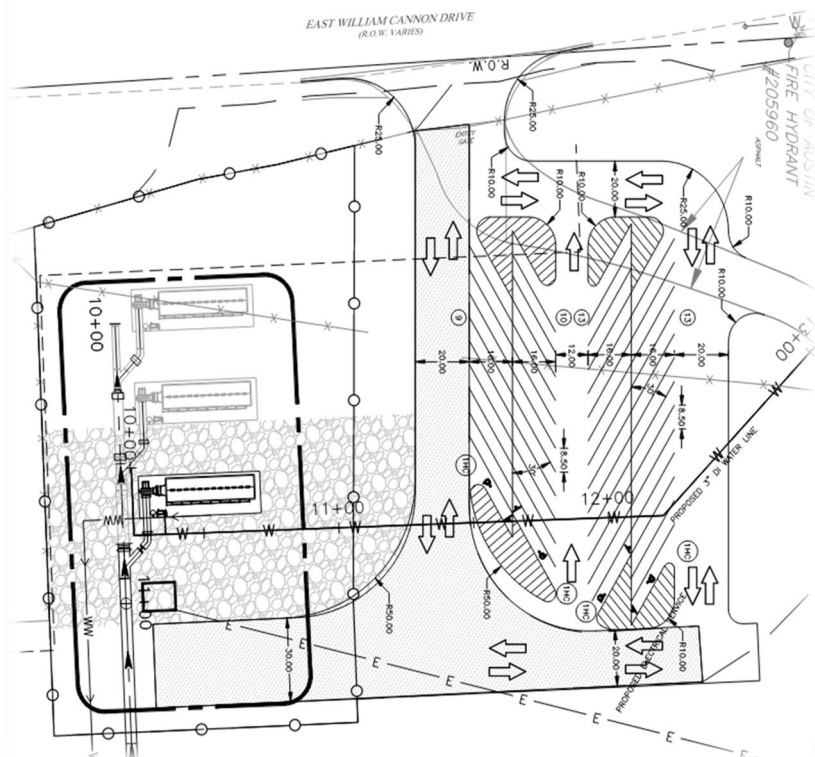
# Creek Restoration – WPD Partner

- ◆ Project received Environmental Commission approval on September 18, 2024
- ◆ Exposed manholes and encased pipe in creek to be abandoned and removed
- ◆ Locations individually evaluated for least environmental impact and most creek stabilization



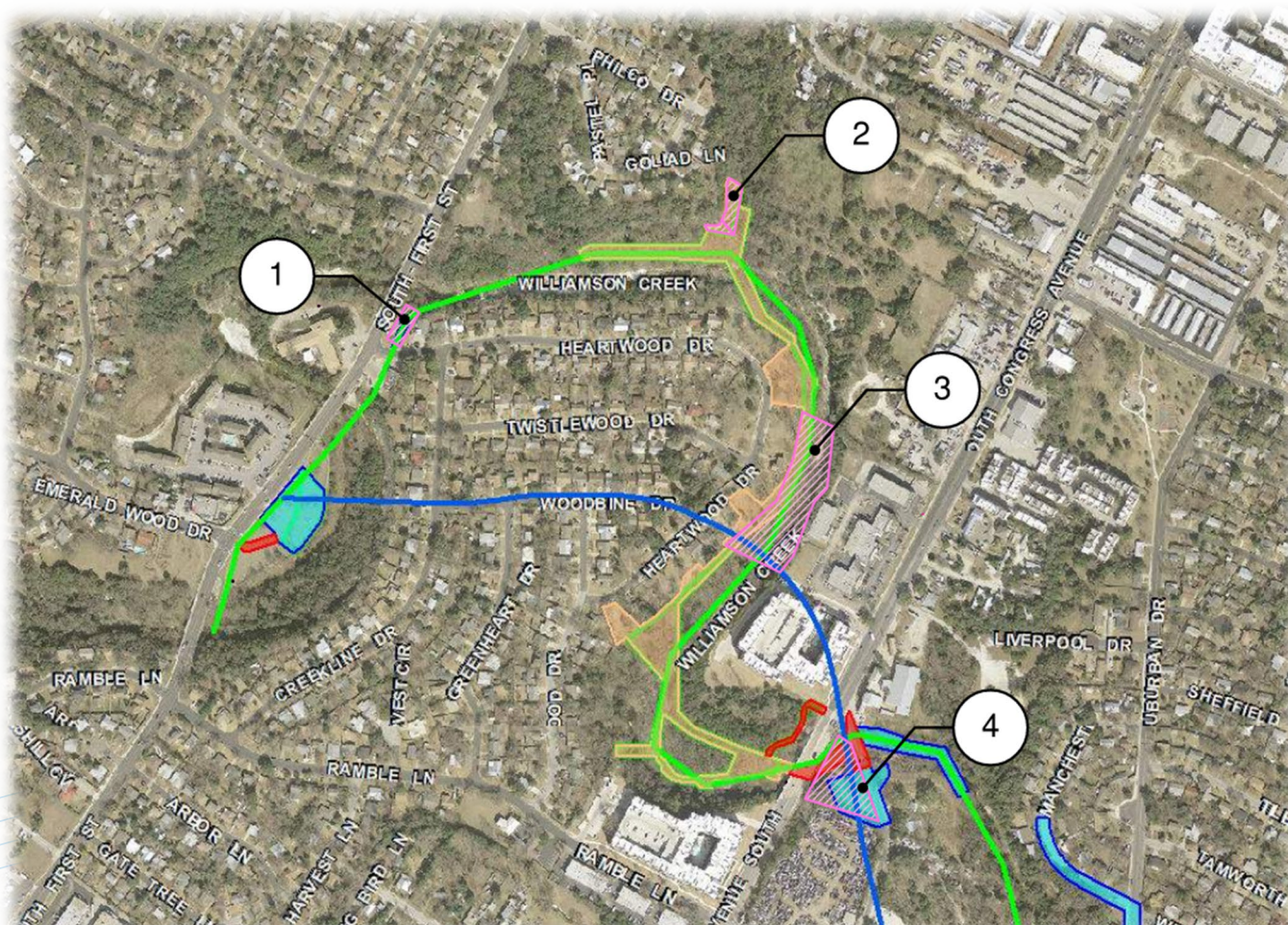
# Odor Control and Trailhead Access – PARD Partner

- Odor control facility to reduce odors
- Oversized rain gardens for future trailhead parking and access
- Concrete paved access instead of gravel



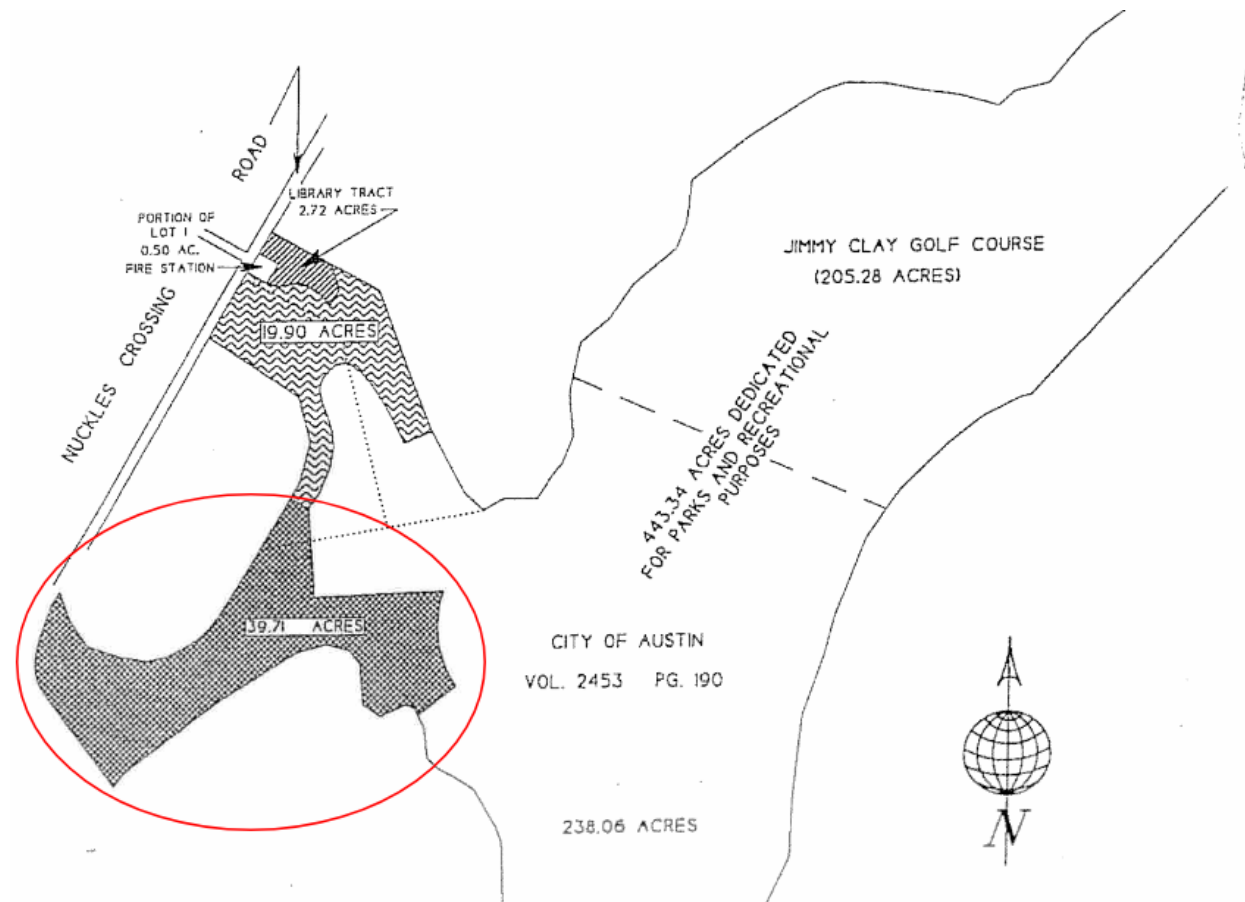
# Expanding Greenbelt and Trails Access – PARD Partner

- 3 acres of acquired properties necessary for temporary workspace areas, to be transferred to PARD after construction is completed. PARD will compensate AW for the full appraised value.



# Expanding Greenbelt and Trail Access – PARD Partner

- Transfer of up to **39.71 acres** to PARD for future trailhead and Jimmy Clay Golf Course access
- PARD will acquire the 39.71-acre property at full appraised value
- Oversized rain gardens for future trailhead parking



# Expanding Greenbelt and Trail Access – PARD Partner

- Rain gardens and driveway for future trailhead parking
- Total: **43 acres** of additional parkland for future trail access and public benefit



# Community Involvement – Neighborhood Partner



- Community Open Houses – June 2024
  - Positive feedback received
  - Comments were evaluated and incorporated into the project if possible
- Coordinated with nearby public projects (storm improvements, trails, etc.)
- Coordination with Homeless Strategy Office and Austin Police Department to address relocations of homeless groups within the creek

# WILLIAMSON CREEK WASTEWATER INTERCEPTOR

*Make a recommendation to City Council for approval of Permanent Wastewater Use (9.3 acres) and Temporary Work Area (8.9 acres), for a period not to exceed a total of 1,735 Calendar Days on parkland located at Williamson Creek Central and East Greenbelts. Total Mitigation to be paid by Austin Water is \$2,287,068.*



**THANK YOU**

