



Contractor Open House

Austin Water, Engineering Services

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November 30, 2020

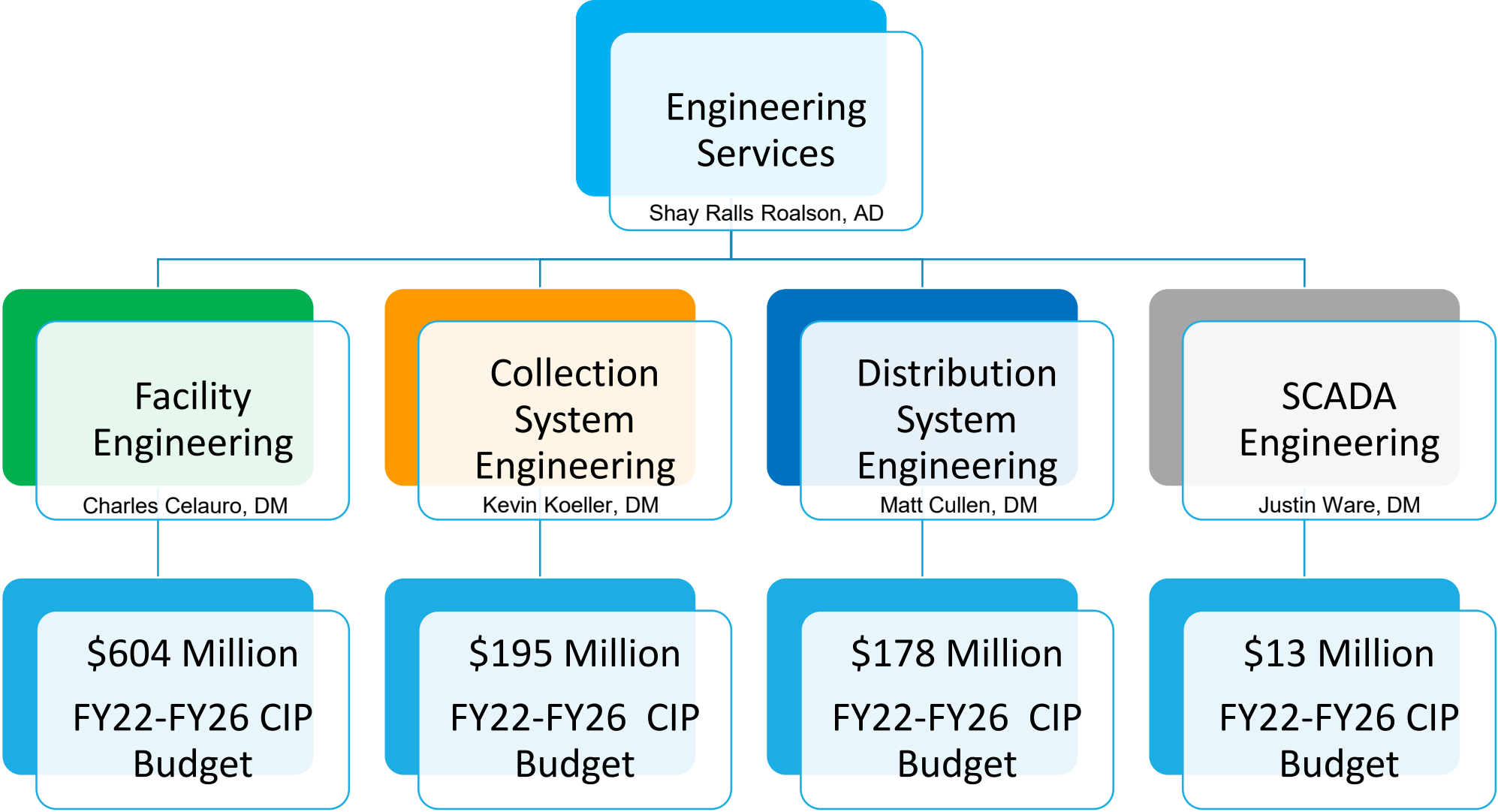
Austin Water, Engineering Services

AGENDA

1. Introduction
2. Project Bid Forecast
 - a. Facility Engineering
 - b. Collection System Engineering
 - c. Distribution System Engineering
3. Working With Austin Water
 - a. Facility Engineering, Plant Security (SP 1070)



Austin Water, Engineering Services



Engineering Services, Facility Engineering

<u>SPID</u>	<u>PROJECT</u>	<u>ESTIMATED SCHEDULE</u>	<u>ESTIMATED COST</u>
2015.017	Davis WTP RWHEEI High Service Pump Station Area Improvements	Advertised	\$5 Million
2015.102	Davis WTP Polymer Feed System	Advertised	\$3 Million
6683.038	Handcox WTP Polymer Feed System	Advertised	\$2 Million
2015.061	Davis WTP Recycle Pump Station Discharge Solid Grit Removal & Oil Storage	Q1 2022	\$2 Million
2015.062	Davis WTP Filter Media Tank Improvements	Q1 2022	\$0.5 Million
2015.069	Davis WTP RWHEEI Low Service Pump Station Area Improvements	Q1 2022	\$2 Million
5335.075	Ullrich WTP Process Drain & Support Systems Improvements	Q1 2022	\$9 Million
3023.066	Walnut Creek Wastewater Treatment Plant Gas Scrubber Systems Renewal	Q1 2022	\$3 Million
8207.013	Large Facilities IDIQ	Q1 2022	\$12 Million
3168.057	Rock Harbour Lift Station Improvements	Q2 2022	\$5 Million
7265.004	Wildhorse WWTP Expansion	Q3 2022	\$40 Million
3333.017	SAR Train A & B Improvements	Q3 2022	\$90 Million
3168.076	South Area Lift Station Improvements: Barton Creek Plaza	Q3 2023	\$4 Million
3168.078	Northwest Area Lift Station Improvements: Great Hills Lift Station	Q1 2023	\$5 Million
5335.008	Ullrich WTP On-site Generation of Chlorine and Ammonium Sulfate Conversion	Q3 2023	\$20 Million
3168.085	Northwest Area Lift Station Improvements: Boulder Lane Lift Station	Q3 2023	\$4 Million
3168.123	South Area Lift Station Improvements: Springfield Lift Station Abandonment	Q3 2023	\$3 Million
12480.002	Longhorn Dam Improvements	Q2 2023	\$3 Million
3023.059	Walnut Creek Wastewater Treatment Plant Influent Lift Station	Q1 2024	\$10 Million
3023.019	Walnut Creek Wastewater Treatment Plant Headworks #1 Improvements	Q1 2024	\$35 Million
3164.072	Hornsby Bend Process Ammonia Removal System	Q1 2024	\$10 Million
3023.046	Walnut Creek WWTP Expansion to 100 Million Gallons Per Day	Q2 2024	\$330 Million
3023.036	Walnut Creek Primary Clarifier and Flow Equalization Basin Rehab - CMR	Q1 2022	\$26 Million

NOTE: Schedule is subject to change pending funding and permitting



Engineering Services, Collection System Engineering Distribution System Engineering

<u>SPID</u>	<u>PROJECT</u>	<u>ESTIMATED SCHEDULE</u>	<u>ESTIMATED COST</u>
5267.025	Onion Creek Reclaimed Water Main Phase 1	Q4 2021	\$7 Million
757.057	Motheral Drive Site Improvements	Q1 2022	\$1 Million
6935.033	Johnny Morris/Hwy 290 Area Water Line Extensions	Q1 2022	\$2 Million
6943.031	Williamson Creek Wastewater Interceptor	Q2 2022	\$55 Million
5267.042	Oltorf Street Reclaimed Water Main Phase 2	Q3 2022	\$8 Million
5267.041	Oltorf Street Reclaimed Water Main Phase 1	Q3 2022	\$6 Million
7487.002	Braker Lane from Samsung Blvd to Dawes Place (48-inch Waterline)	Q3 2022	\$2 Million
6935.045	Northwest A & B Zone Boundary Projects	Q1 2023	\$2 Million
6935.083	Starline Drive and Lawndale Drive Pressure Zone Conversion	Q1 2023	\$1 Million
4769.011	Upper Harris Branch Wastewater Improvements	2024	\$30 Million

NOTE: Schedule is subject to change pending funding and permitting



Engineering Services, Facility Engineering

Davis WTP RW & HEEI HSPS Improvements



- ◆ **Purpose:**
 - ❖ Install hydraulic and energy efficiency improvements at the High Service Pump Station
- ◆ **Project Scope:**
 - ❖ This project includes Rapid Mix efficiency at low flows with jet blowers, replacing raw water piping, high service pump monitoring system, Surge Vault Improvements, rehabilitation of Recycle Tank #1 overflow.
- ◆ **Estimate Construction Cost:** \$5 Million
- ◆ **Estimated Advertise Date:** Advertised. Bid Date - December 2, 2021

Davis and Handcox WTP Polymer Feed System



- ◆ **Purpose:**
 - ❖ Install a polymer feed system at Davis and Handcox WTPs to enhance coagulation during high influent turbidity.
- ◆ **Project Scope:**
 - ❖ This project will install a liquid polymer feed system consisting of a polymer storage tank, metering feed pumps and associated piping to dose polymer into each sedimentation basin.
- ◆ **Estimate Construction Cost:** \$5 Million
- ◆ **Estimated Advertise Date:** Advertised. Bid Date - December 9, 2021



Engineering Services, Facility Engineering

Davis WTP RW & HEEI LSPS Improvements



- ◆ **Purpose:**
 - ❖ Install hydraulic and energy efficiency improvements at the Low Service Pump Station
- ◆ **Project Scope:**
 - ❖ This project includes basket vortex suppressors on the pump bowls for six two-stage vertical turbine pumps, addition of a stiffening beam between the existing concrete floor beams underneath the LSPS No. 2 pad.
- ◆ **Estimate Construction Cost:** \$2 Million
- ◆ **Estimated Advertise Date:** Q1 2022

Ullrich WTP Process Drain & Support Systems



- ◆ **Purpose:**
 - ❖ Improvements Sludge Cross-over Vault, Clarifier Flushing system, .
- ◆ **Project Scope:**
 - ❖ Improvements to multiple process areas at Ullrich Water Treatment Plant, including automation improvements of the Sludge Cross-over Vault (Spaghetti Bowl), upsize entire clarifier flushing system, solids handling drain improvements, rehabilitation of plant instrument air loop, centrifuge high pressure wash (commercial hot water) system..
- ◆ **Estimate Construction Cost:** \$9 Million
- ◆ **Estimated Advertise Date:** Q1 2022



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Large Facility Indefinite Delivery / Indefinite Quantity (IDIQ)

◆ Purpose:

- ❖ Indefinite Delivery/Indefinite Quantity contracts provide for an indefinite quantity of services for a fixed time of 1 –Year with two 1-Year time extension. IDIQ is commonly used when precise quantities of supplies or services, above a specified minimum, cannot be determined. As each project is defined, a specific work assignment will be assigned to the contractor who will complete the scope of work for the unit prices included in the contract. Work deadlines will be established for each work assignment.

◆ Project Scope:

- ❖ No Emergency Requirements
- ❖ Possible construction sites include Wastewater Treatment Plants, Water Treatment Plants, Lift Stations, Water Pump Stations, Water Reservoirs.
- ❖ Possible construction activities include demolition, below ground and above ground piping, check valves, isolation valves, slide and sluice gates submersible pumps, centrifugal pumps, displacement pumps, mixers, headworks, clarifiers, chemical feed, air scrubbers, odor control units, air piping, process air blowers, cloth disk filters, electrical conduits, instrumentation and controls, RTU (Remote Telemetry Unit), and PLC (Programmable Logic Controller).

◆ Estimate Construction Contract : \$4 Million to \$12 Million

◆ Estimated Advertise Date: Q1 2022



Engineering Services, Facility Engineering

Rock Harbour Lift Station Improvements



- ◆ **Purpose:**
 - ❖ Replace Lift Station with increase design capacity to meet future flows.
- ◆ **Project Scope:**
 - ❖ Improvements include odor control, new wet well to accommodate 4 submersible pumps, new electrical enclosure, electrical power upgrades, I&C improvements, new valve vault, valves and sensors, on-site generator, paving, fencing, and influent bar screen.
- ◆ **Estimate Construction Cost:** \$5 Million
- ◆ **Estimated Advertise Date:** Q2 2022

Wild Horse WWTP 2.25 MGD Expansion



- ◆ **Purpose:**
 - ❖ Expand existing WWTP from 0.75 MGD to 2.25 MGD with biological nutrient removal
- ◆ **Project Scope:**
 - ❖ Modify existing Influent Lift Station, Headworks, Aeration Basins, Secondary Clarifier, Cloth Filters, UV Disinfection, Chemical Feed, NPW Facility, Sludge Thickening, Electrical Power Feed, Instrumentation and Controls, Electrical Enclosure, Site Paving and Drainage
- ◆ **Estimate Construction Cost:** \$40 Million
- ◆ **Estimated Advertise Date:** Q3 2022



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South Austin Regional (SAR) WWTP Trains A & B Improvements



- ◆ **Purpose:**
 - ❖ The assets in Train A and B are beyond their useful life and need to be replaced to provide reliable and sustainable treatment process.
- ◆ **Project Scope:**
 - ❖ Remove and Replace Primary Clarifier, Secondary Clarifier, Chlorine Contact Clarifier, Primary Sludge Pumps, new Scum Receiving Station and Pumps, Electrical Enclosure, Instrumentation and Controls
- ◆ **Estimate Construction Cost:** \$90 Million
- ◆ **Estimated Advertise Date:** Q3 2022

Great Hills Lift Station Improvements



- ◆ **Purpose:**
 - ❖ Replace Lift Station with increase design capacity to meet future flows.
- ◆ **Project Scope:**
 - ❖ Improvements include odor control, new wet well to accommodate submersible pumps, new electrical enclosure, electrical power upgrades, I&C improvements, new valve vault, valves and sensors, on-site generator, paving, and fencing.
- ◆ **Estimate Construction Cost:** \$5 Million
- ◆ **Estimated Advertise Date:** Q1 2023



Engineering Services, Facility Engineering

Ullrich WTP On-site Generation of Chlorine and Ammonium Sulfate



- ◆ **Purpose:**
 - ❖ Convert the existing disinfection process from chlorine and ammonia gas to liquid sodium hypochlorite (NaOCl) and liquid ammonia sulfate (LAS)
- ◆ **Project Scope:**
 - ❖ Convert existing Chlorine Gas Disinfection Building to On-Site Generation of Chlorine and Ammonia Sulfate.
- ◆ **Estimate Construction Cost:** \$20 Million
- ◆ **Estimated Advertise Date:** Q3 2023

Boulder Lane Lift Station Improvements



- ◆ **Purpose:**
 - ❖ Replace Lift Station with increase design capacity to meet future flows.
- ◆ **Project Scope:**
 - ❖ Improvements include odor control, new wet well to accommodate submersible pumps, new electrical enclosure, electrical power upgrades, I&C improvements, new valve vault, valves and sensors, on-site generator, paving, and fencing.
- ◆ **Estimate Construction Cost:** \$4 Million
- ◆ **Estimated Advertise Date:** Q3 2023



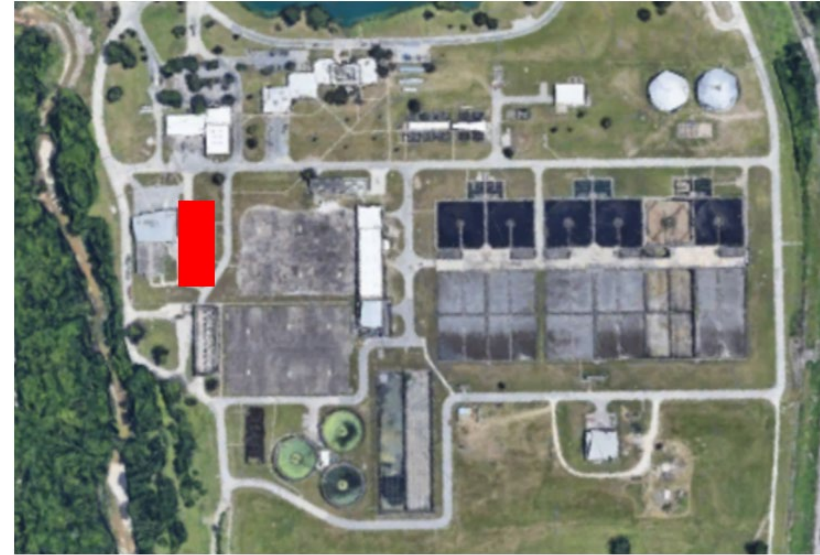
Engineering Services, Facility Engineering

Walnut Creek Wastewater Treatment Plant Influent Lift Station



- ◆ **Purpose:**
 - ❖ Replace existing Raw Water Pump Station with a New Influent Lift Station
- ◆ **Project Scope:**
 - ❖ New Wet Well, Valve Vault, Submersible Pumps, piping, valves, Electrical Enclosures, Instrumentation and Controls, Force Main
- ◆ **Estimate Construction Cost:** \$10 Million
- ◆ **Estimated Advertise Date:** Q1 2024

Walnut Creek Wastewater Treatment Plant Headworks #1 Improvements



- ◆ **Purpose:**
 - ❖ The assets in Headworks No. 1 are beyond their useful life and need to be replaced to provide reliable and sustainable treatment process.
- ◆ **Project Scope:**
 - ❖ Rehabilitate and make improvements to Headworks Building No. 1 including the screening and grit removal process, building modifications including mechanical, electrical, and structural improvements
- ◆ **Estimate Construction Cost:** \$35 Million
- ◆ **Estimated Advertise Date:** Q1 2024



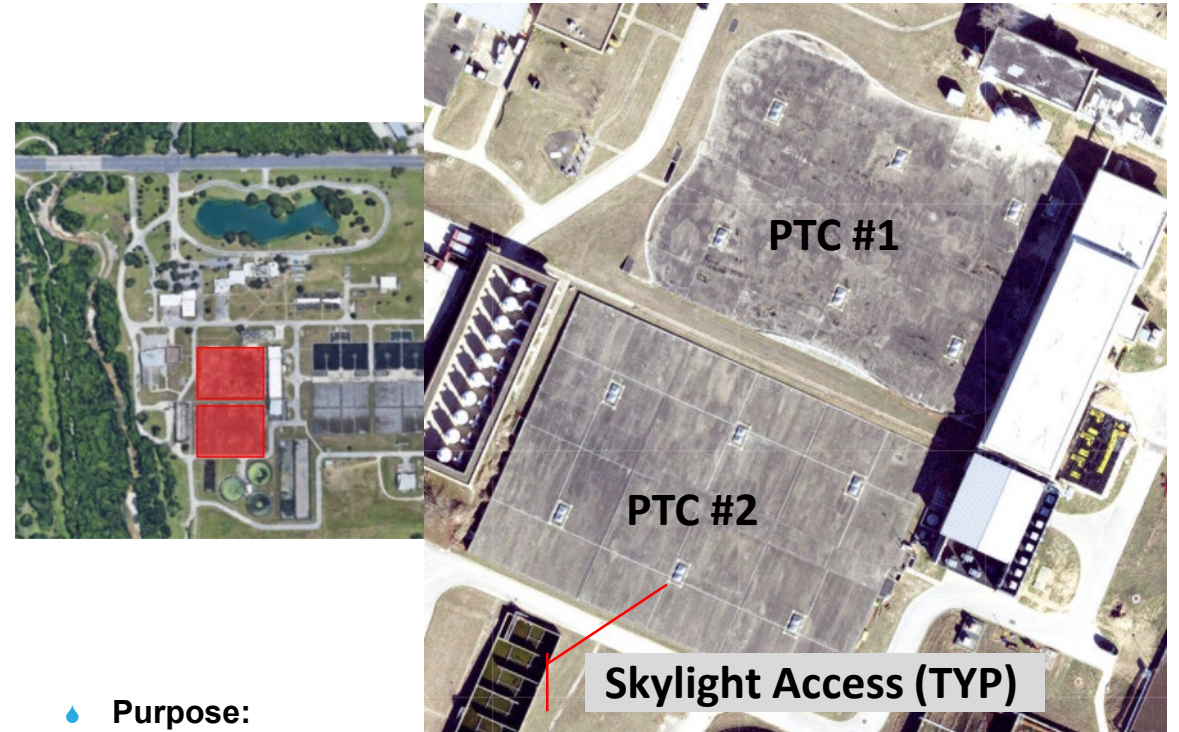
Engineering Services, Facility Engineering

Walnut Creek WWTP 100 MGD Expansion



- ◆ **Purpose:**
 - ❖ Expand existing WWTP from 75 MGD to 100 MGD with biological nutrient removal
- ◆ **Project Scope:**
 - ❖ Modify existing Headworks #2, Primary Clarifier, Aeration Basins, Secondary Clarifier, Cloth Filters, UV Disinfection, Chemical Feed, Fermentation Basins, I&I Facility, NPW Facility, Sludge Thickening, Electrical Power Feed, Instrumentation and Controls, Electrical Enclosure, Site Paving and Drainage
- ◆ **Estimate Construction Cost:** \$330 Million
- ◆ **Estimated Advertise Date:** Q2 2024

Walnut Creek WWTP Primary Clarifier & Flow Equalization Basin Rehab Construction Manager-at-Risk (CMR)



- ◆ **Purpose:**
 - ❖ Rehabilitate the Primary Treatment Complexes (PTC)
- ◆ **Project Scope:**
 - ❖ Remove and replace the Primary and FEB Clarifiers within the existing underground roof structures.
- ◆ **Estimate Construction Cost:** \$26 Million
- ◆ **Estimated CMR Contractor:** Q1 2022
- ◆ **Estimated Construction NTP:** Q4 2023



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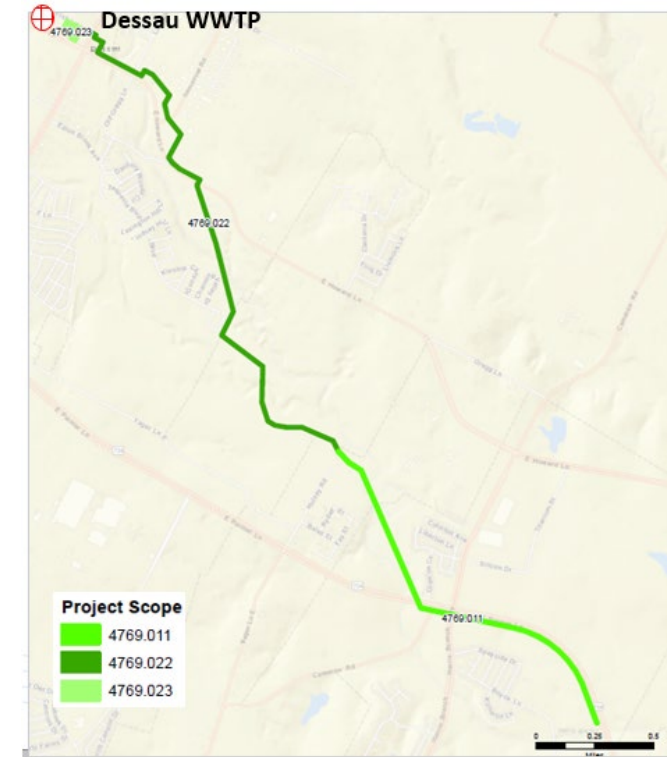
Williamson Creek Wastewater Interceptor



- ◆ **Purpose:**
 - ❖ Replace 60 year-old infrastructure in Williamson Creek to improve infrastructure stability and provide increase capacity

- ◆ **Project Scope:**
 - ❖ Install 18,000 LF of new 66-inch and 72-inch diameter gravity interceptor along/near Williamson Creek with two downstream segments to be CIPP-lined due to condition assessment
- ◆ **Estimate Construction Cost:** \$55 Million
- ◆ **Estimated Advertise Date:** Q2 2022

Upper Harris Branch Wastewater Improvements



- ◆ **Purpose:**
 - ❖ New wastewater interceptor due to increased growth in the Harris Branch wastewater basin. Interceptor will also relieve flows at the Dessau WWTP.
- ◆ **Project Scope:**
 - ❖ Install 23,000 LF of 30- and 36-inch gravity wastewater interceptor
- ◆ **Estimate Construction Cost:** \$30 Million
- ◆ **Estimated Advertise Date:** 2024



Facility Engineering, Plant Security (SP 1070)

- All on-site construction personnel are required to have a background security check - “Application for Authorization to Enter Secured Austin Water Facilities”
- All on-site construction personnel are required to wear an Austin Water issued badge
- Construction personnel are not allowed to escort non-badged personnel
- Any person’s failure to follow any of the provisions or requirements of this Procedure shall be removed from the job site and lose access privileges



