



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

October 30, 2019



Houston Waterworks Team



Construction Progress – EWP 1/3 & 6 Site Development

- **Completing EWP1 Punchlist items: Grouting Manholes, installing temp water lines**
- **Installing Trailer City 2.0 Utilities and Temporary Construction Water Line**
- **Installed and setup HWT Management and Safety Trailers**



Installing temp const. water for North Plant



Trailer City 2.0 – Laid and fusion welded 8-in HDPE Water Pipe



Trailer City 2.0 – Installed backflow preventer & supports at tap




Trailer City 2.0 - Installing 6-in & 8in Water Line and Fire Hydrant



Setting up HWT Management and Safety Trailer Offices





Construction Progress – Temporary Power / Site Electrical EWP-6

- **East Site Temp Power H-12 to Central and South Directional Bore**
- **IPS Temporary Power Meter Activation to Site Trailers**
- **Site Electrical Material Staging, Duct Bank Conduit, Components**
- **Electrical Manhole Staging**



Temporary Power East Site/IPS



Site Electrical Staging





Construction Progress – EWP 4 Raw Water Corridor

- **Trench shoring installation and excavation in East Corridor**
- **Manhole Installation**
- **Welding and grouting joints**
- **Storm Drainage Installation**
- **Shoring installation at transition to tunnel**
- **Tunnel 2.0 Excavation**



Storm Drainage Headwalls



Pipe Installation at sta 128+50



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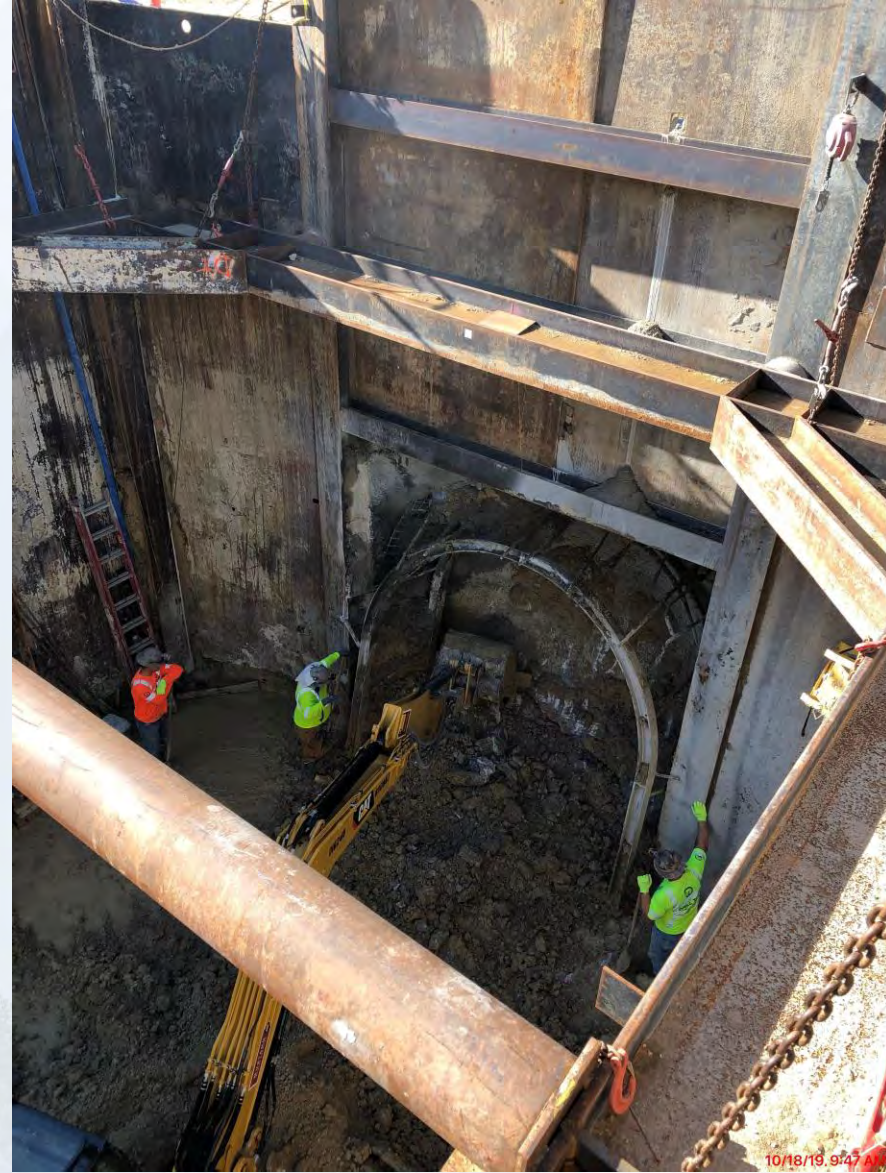


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Pipe Installation at sta 128+50



Tunnel 2.0 sta 134+50



Tunnel 2.0 sta 134+50



Trench Shoring and Excavation





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- **Forming/Reinforcing Upper Manifold Deck 11/12**
- **Pouring Upper Manifold Deck 11/12**
- **Reinforcing/Forming/Pouring Wall Pours**
- **Finished Installing 72" BWW**
- **West CFE/FTW Pipe Encasement and Backfill**

291-TPS:

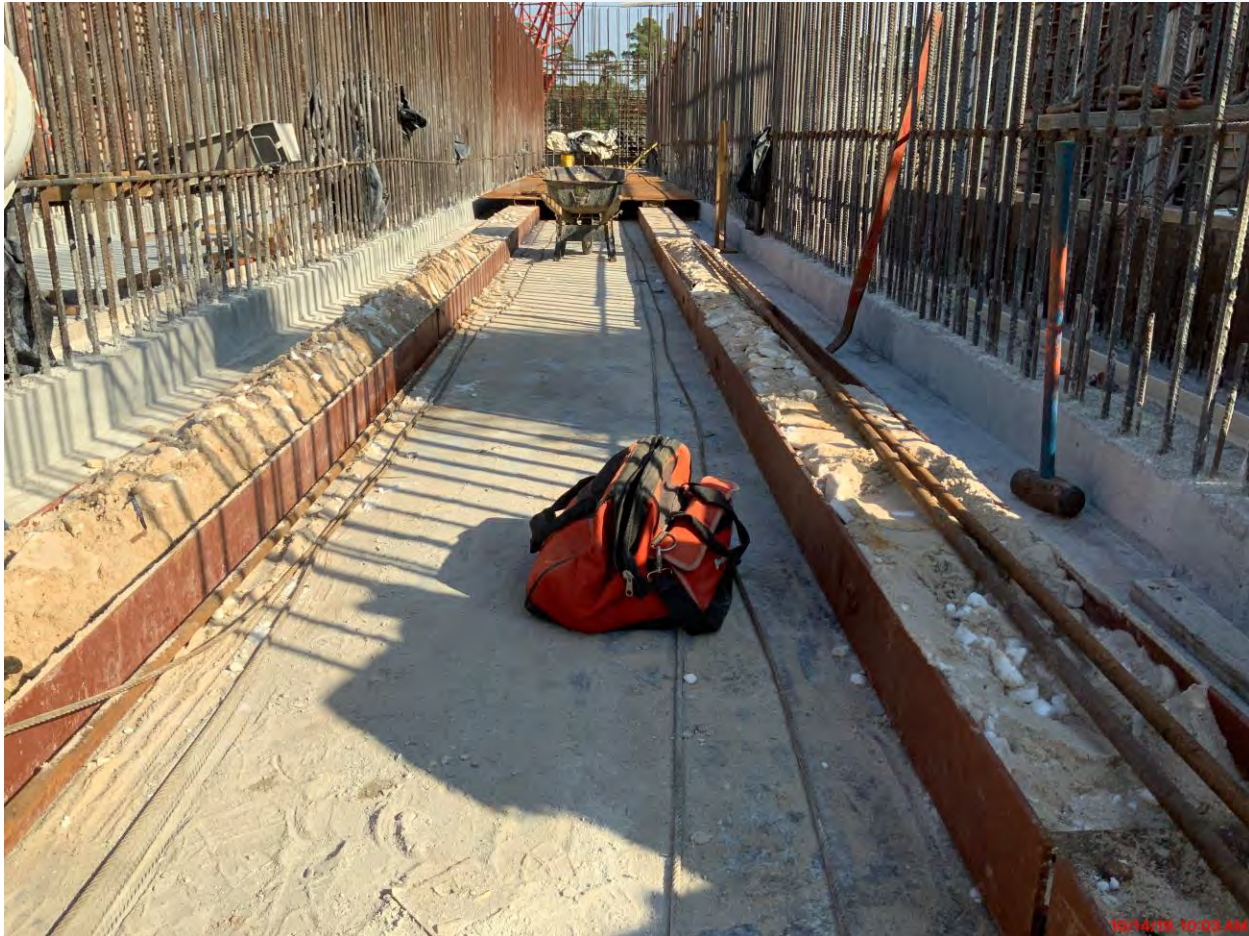
- **Shoring for Top Deck formwork at West Contact Basin**
- **Place Grout under Pump Cans**

282 -FILTER MODULE 2:

- **Mass Excavation & GW Dewatering system Installation**



281-FILTER MODULE- Forming/Reinforcing Upper Manifold Deck 11/12



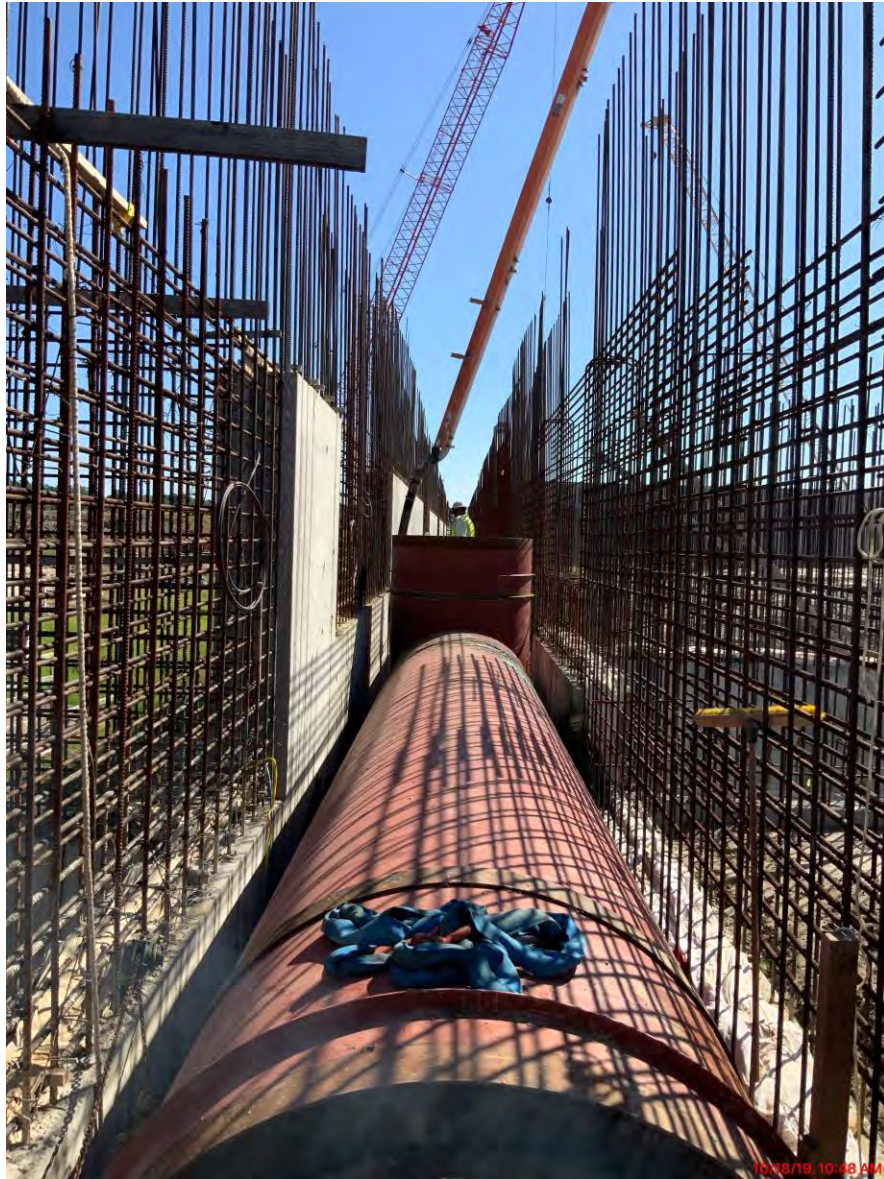
281-FILTER MODULE- Pouring Upper Manifold Deck 11/12



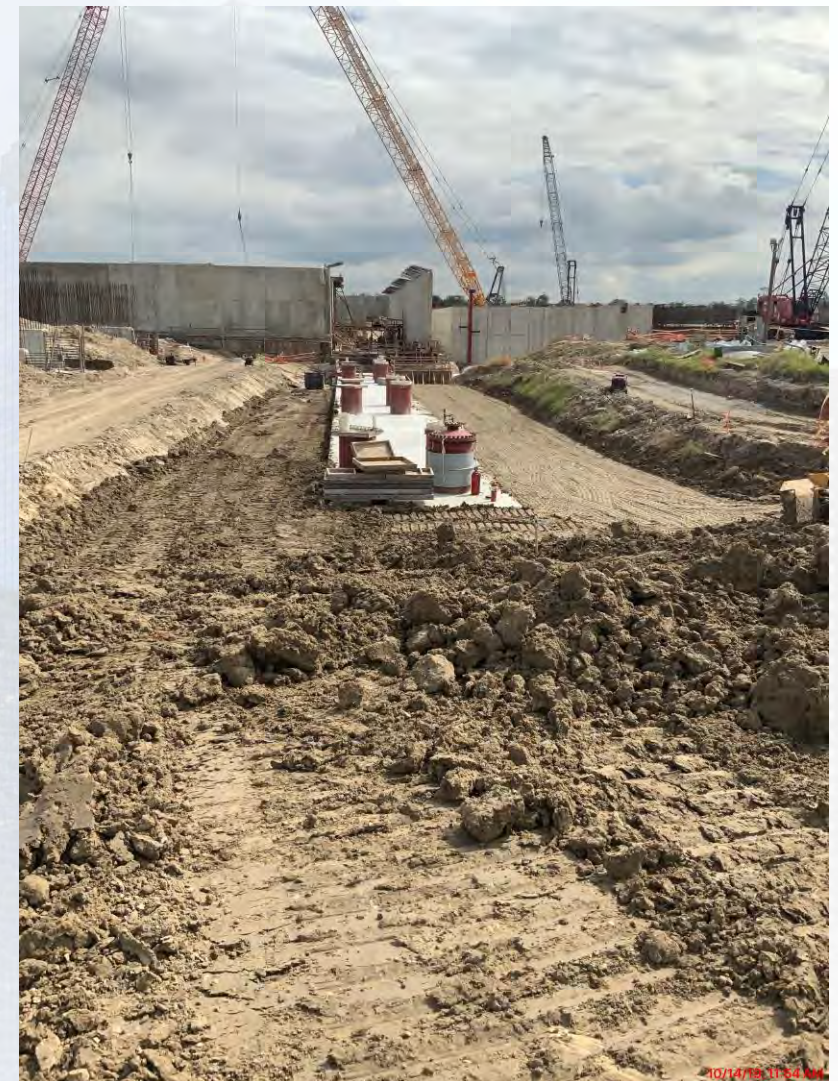
281-FILTER MODULE- Reinforcing/Forming/Pouring Walls



281-FILTER MODULE- Finished Installing 72" BWW



281-FILTER MODULE- West Pipe Encasement/Backfill



281-FILTER MODULE- Phase 1 (East Half)



TPS – Shoring for Top Deck Formwork over Contact Basins



TPS – Placing Grout under Pump Cans



282-FILTER MODULE 2- Earth Work/ GW Dewatering Installation





Construction Progress – EWP 6 North Plant

- **Facility 213 Subgrade Prep and Mud Mat**
- **Facility 214 Slab-on-grade F/R/P**
- **Facility 222 Sump and Slab-on-grade F/R/P**
- **Facility 241 Stem Wall F/R/P**
- **Facility 242 Stem Wall F/R/P**
- **Facility 242 Cross Collector Wall F/R/P**
- **Facility 611 Cross Collector slab-on-grade F/R/P**
- **Facility 611 slab-on-grade subgrade preparation**



Facility 213 Subgrade and Mud Mat Prep



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Facility 214 Slab-on-grade F/R/P



Facility 222 Slab-on-grade Wall Formwork Erection



10/18/19 11:01 AM

Houston Waterworks Team



Facility 222 78 inch RW Pipe



Facility 242 Slab-on-grade F/R/P



Facility 241/2421 Stem Walls F/R/P/S



Facility 611 Cross Collector Backfill



Facility 611 Sedimentation Basin Slab-on-grade



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Construction Progress – EWP 6 IPS

- **Completion of Platform Piles**
- **Preparing To Drive 10' Pump Can Casings.**
- **Delivery of materials**



Friction collars on the piles

Building the Platform (IPS)





Transferring Concrete



bridge works





Construction Progress – EWP 6 Substation Facility 102


- **Delivery of 3 Gas Circuit Breakers**
- **Continue Yard Foundations**

Delivery of 3 Gas Circuit Breakers



Continue Yard Foundations





Construction Progress – BOP LREQ Basins Facilities 601/602

- **Facility 601/602 Excavation Progress**
- **Elevation for the recycle pump stations**
- **Mass excavation at Facility 601/602**



Facility 601/602 Excavation Progress



Elevation for the recycle pump stations



Mass excavation at Facility 601/602



Mass excavation at Facility 601/602





Construction Progress – Yard Piping

- **Receiving and unloading ductile iron pipe deliveries**
- **Installing 24-in PW line and valves**
- **Installing 30-in RCY Line**
- **Excavating and placing trench boxes for 24-in PDR Line and manhole**



Installing 24-in PW line and valves



Laying, backfilling/compacting 30-in RCY line



Excavating and placing trench boxes for 24-in PDR line & manhole





Construction Progress – Administration Building

- **Dewatering of Administration and Maintenance Building**
- **Completing Safety & PMT Office Trailer Move**
- **Aerated excavated Admin and Maintenance footprint**
- **Laid 8" Crushed Concrete**

Dewatering of Administration and Maintenance Building



Completing Safety & PMT Office Trailer Move



Aerated excavated Admin and Maintenance footprint



Laid 8" Crushed Concrete





Construction Progress – South Plant

- **Performed proof-roll in GST 1&2**
- **Installing 600+ Vibro Stone columns (VSC's) GST 362**
- **Installing dewatering wells at HSPS 401&402**

Placing, grading, and compacting subgrade for GST 361



Installing 600+ Vibro Stone columns (VSC's) GST 362



Installing dewatering wells at HSPS 401&402





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