



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

November 13, 2019



Houston Waterworks Team

Drone Site Map: Nov 1, 2019





Construction Progress – EWP 1/3 & 6 Site Development

- **Completing EWP1 Punchlist items**
- **Site Crew managing soils and sand stockpiles**
- **Installing Trailer City 2.0 Utilities and Temporary Construction Water Line**
- **Installed north temporary fence**
- **Relocating fiber optic cable**



Trailer City 2.0: Nov 1, 2019



Trailer City 2.0 – Installing 6in Water Meter



Trailer City 2.0 – Laying 6in Trunk Water Line



Trailer City 2.0 – Installing 8in Water Line and Fire Hydrant




Installing temporary north fence



Installing conduit to relocate fiber optic cable





Construction Progress – Temporary Power / Site Electrical EWP-6

- **East Site Temp Power H-12 Main Service, Central and South Service**
- **Site Electrical Material Staging, Duct Bank Conduit Pre-Fab**
- **Electrical Manhole Staging & Survey**



Temporary Power East Site- TP-12,Central



Site Electrical Duct Bank Pre-Fab





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 and at sta 142+50**
- **Tunnel 2.0 Excavation**



Shoring Installation at sta 142+50



11/11/19, 9:44 AM

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Tunnel 2.0 sta 134+50



Tunnel 2.0 sta 134+50



Trench Shoring and Excavation-East Corridor



FUN 09 5:41 PM

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Construction Progress – Central Plant

281-FILTER MODULE 1 :

- **Forming Base Slab B1B/B2B**
- **Reinforcing/Forming/Pouring Wall Pours**
- **Backfilling 72" BWW**

291-TPS:

- **Top Deck Formwork over Contact Basins**
- **Placing First Lift of Encasement at Pump Cans**
- **Delivering Top Deck Pipe Sleeves**

282 -FILTER MODULE 2:

- **GW Dewatering system Installation**



281-FILTER MODULE- Forming Base Slabs B1B, B2B



281-FILTER MODULE- Reinforcing/Forming/Pouring Walls



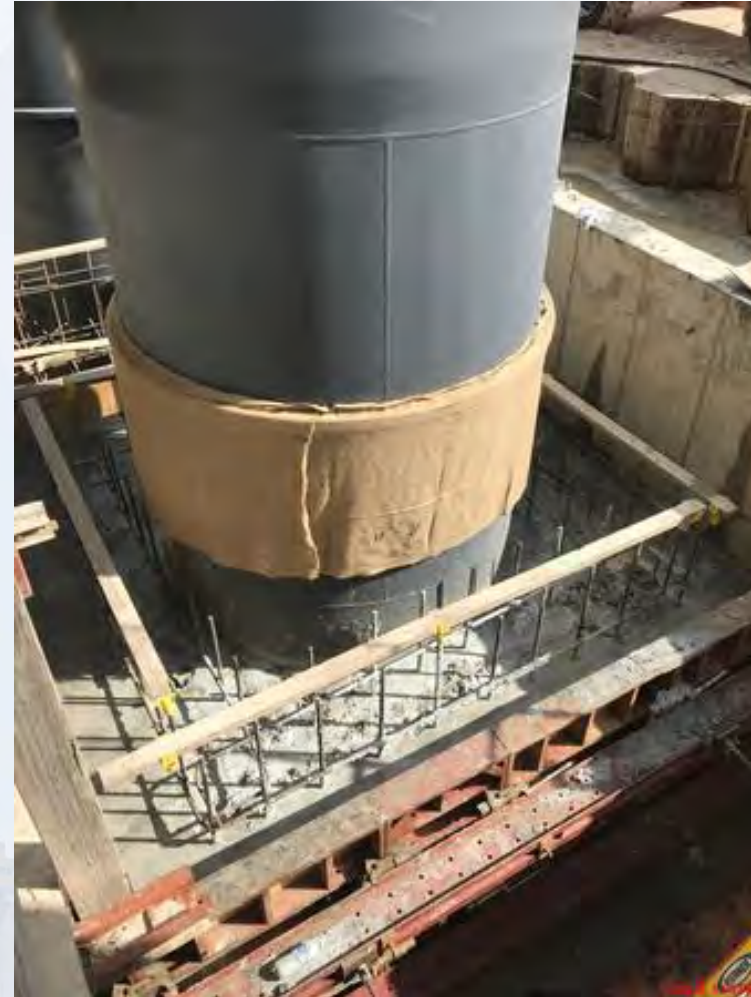
281-FILTER MODULE- Backfilling 72" BWW



TPS – Top Deck Formwork over Contact Basins



TPS – Placing 1st lift of Encasement at Pump Cans



TPS – Delivery of Top Deck Pipe Sleeves



282-FILTER MODULE 2- GW Dewatering Installation



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Construction Progress – EWP 6 North Plant

- **Facility 213 Slab-on-grade formwork and rebar**
- **Facility 214 Slab-on-grade formwork and rebar**
- **Facility 222 Vault Walls formwork and rebar; pipe penetrations**
- **Facility 242 Slab-on-grade F/R/P**
- **Facility 242 Cross Collector Backfill**
- **Facility 242 Yard Piping**
- **Facility 611 Slab-on-Grade F/R/P**



Facility 213 Slab-on-grade Formwork and Rebar



Facility 214 Slab-on-grade Formwork and Rebar



Facility 222 Vault Wall Formwork and Rebar



Facility 222 78" RW Pipe Penetration



11/11/19, 8:38 AM
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Facility 242 Slab-on-grade F/R/P



Facility 242 Yard Piping and Cross Collector Backfill



Facility 242 Mud Mat Placement



11/7/20 8:49 AM

Facility 611 SOG Formwork and Rebar and C/C Backfill



Facility 611 Sedimentation Basin Slab-on-grade



10/23/19 9:14 AM



Construction Progress – EWP 6 IPS

- **Setting Casing Template to Complete Driving of 120" Casings**
- **Completes Formwork To Build Intake Structure**
- **Pouring Flow Fill for Intake Piles Preparing For Formwork**
- **Installing Permanent Bulkhead**



Pouring Concrete (CLSM) inside the Piles





Flow Fill For Intake Structure

Building the Platform (IPS)





Fixing a minor crane Issue



Construction Progress – EWP 6 Substation Facility 102

- **Delivery of 138kv Switches**
- **Haul of spoils to designated HWT stockpile area**
- **Continue Yard Foundations**



Delivery of 138kv Switches



11/6/19, 2:52 PM


11/6/19, 2:46 PM

Haul of spoils to designated HWT stockpile area



Continue Yard Foundations





Construction Progress – BOP LREQ Basins Facilities 601/602

- **Facility 601/602 Excavation Progress**
- **Completed lower recycle pump station mud slab at 601/602**
- **Formwork construction for 601 lower slab**
- **Mobilized hydraulic crane**



Facility 601/602 Excavation Progress



Completed lower recycle pump station mud slab at 601/602



Formwork construction for 601 lower slab



Mobilized hydraulic crane





Construction Progress – Yard Piping

- **Receiving and unloading ductile iron pipe deliveries**
- **Installing 24-in PW line and valves, and poured valve supports**
- **Installing 30-in RCY Line**
- **Installing 24-in PDR Line and manhole**
- **Installing 16-CEN line**



Performed internal hydro test on 24-in PW & poured supports for valves



Excavating and laying 16-in CEN & 24-in PDR lines: Nov 1



Laying, backfilling, & compacting 24-in PDR line



Excavating and laying 16-in CEN line



Excavating and laying 30-in RCY line (West-East)



Setting Manhole 112 for SSG System





Construction Progress – Administration Building

- **Brought in and compacted 8in of crushed stone**
- **Established sumps on North and South side of pad for drainage**



Brought in and compacted 8in of crushed stone



Established sumps on North and South side of pad for drainage





Construction Progress – South Plant

- **Installing 600+ Vibro Stone columns (VSC's) at GST 362**
- **Installing Overflow box in between GST 1&2**
- **Installing dewatering wells at HSPS 401&402**
- **Compaction at Main Switchgear Building**
- **Surveying and layout at Dewatering Building**

Installing 600+ Vibro Stone columns (VSC's)

Installing OFB in between GST 1&2



Installing dewatering wells at HSPS 401&402 Compaction at Main Switchgear Building



Surveying and layout at Dewatering Building



