



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

June 5, 2020

Houston Waterworks Team



Drone Site Map: May 28, 2020





Construction Progress – Influent Pump Station (IPS)

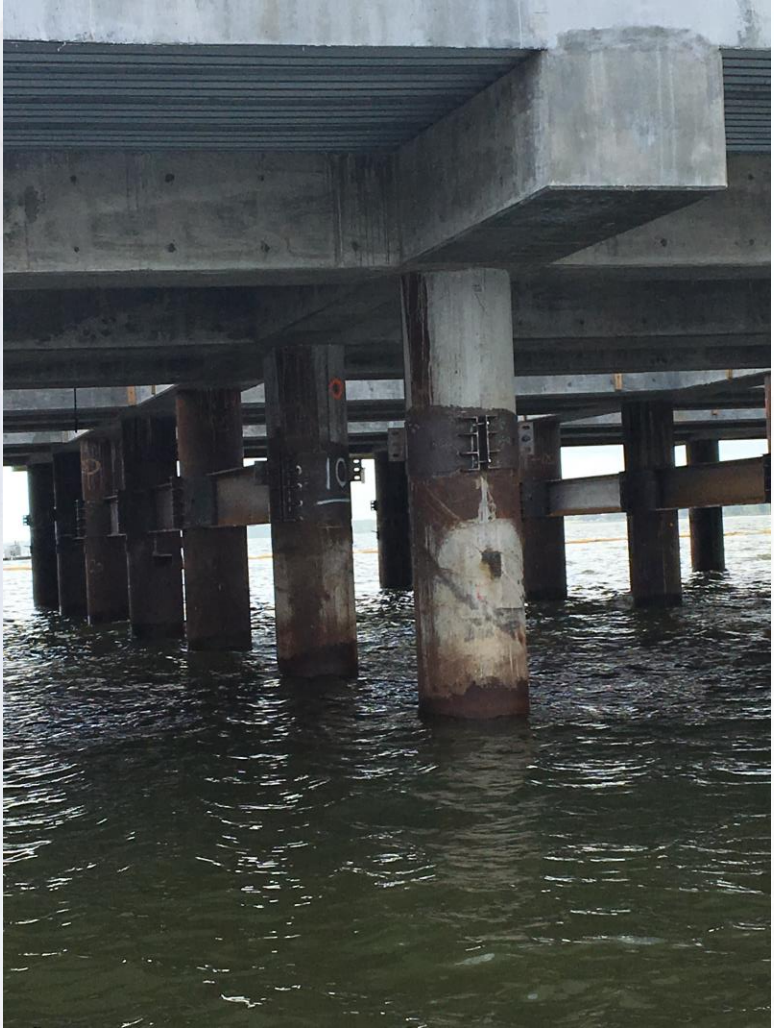
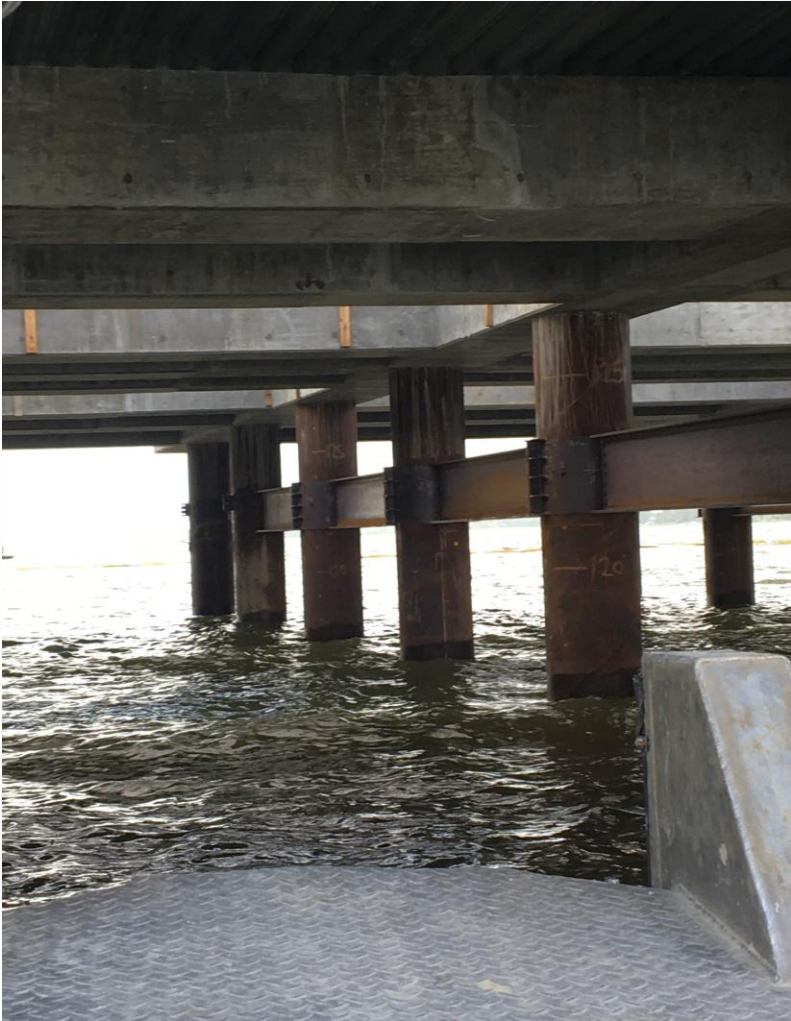
- IPS Completed Deck
- Permanent Underdeck Steel and Friction Collars



Intake Pump Station Completed Deck



Permanent Underdeck Steel and Friction Collars





Construction Progress – Site Electrical

- Admin Building Fiber Optic FDB101 to FMH 101-2 Duct Bank Installation
- Existing Plant - Excavate/Repair MDB 111A/B, FDB101 at 36" Storm Drain
- Existing Plant - Hydro Excavate & Excavate West to East (Zone 2)



Admin Building Fiber Optic to FMH 101-2 Duct Bank Installation



Admin Building Fiber Optic to FMH 101-2 Duct Bank Installation




Existing Plant - Excavate/Repair MDB 111A/B, FDB101 at 36" Storm Drain



Existing Plant - Hydro Excavate & Excavate West to East (Zone 2)





Construction Progress – Substation Facility 102

- **Concrete Placement for Mud Mat at the Substation Building Foundation**
- **Installation of Rebar and Formwork for Substation Building**
- **Concrete Pour for the Substation Building Walls**



Concrete Placement for Mud Mat at the Substation Building Foundation



Installation of Rebar and Formwork for Substation Building



Concrete Pour for the Substation Building Walls

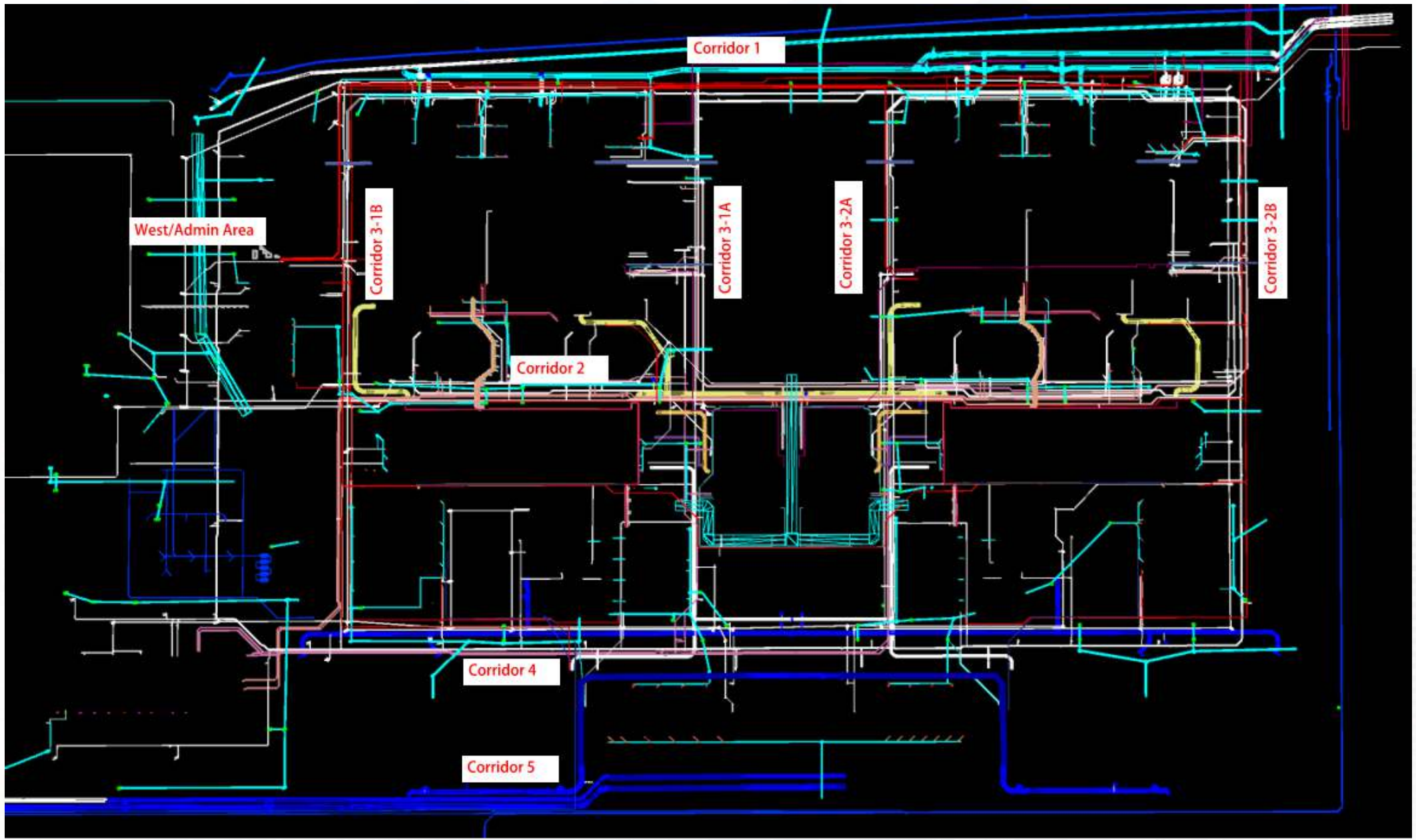




Construction Progress – Yard Piping

- **Installing and welding both runs of 108” & 78” RW steel pipe in Corridor 1**
- **Set two 78” BFV’s on RW line**
- **Installing 6” SSG and MH215 in Corridor 1**
- **Installing 8” SSG and set MH128 in Corridor 4 by Dewatering Bldg.**
- **Installing 24” PW ductile iron pipe in Corridor 4 by Dewatering Bldg.**
- **Installing and welding 60” BWS steel pipe in Corridor 4**
- **Installing and welding 120” FW steel pipe in Corridor 5 and by HSPS**
- **Installing and welding 84” FW steel pipe in Corridor 5**
- **Receival of HWT Procured Victaulic Couplings and US Bellows**

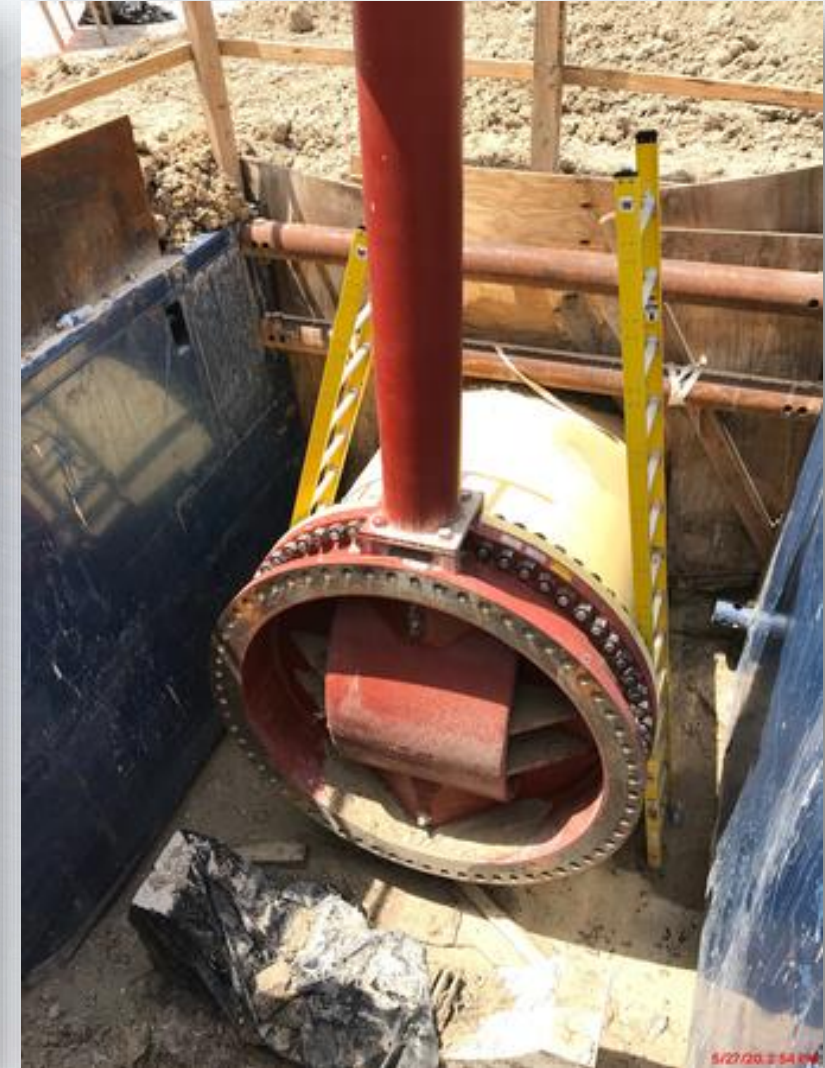




Installing dual 108" & 78" RW steel pipe in Corridor 1



Set two 78" BFV's on RW line in Corridor 1



Installing 6" SSG and set MH215 in Corridor 1



Installing 8" SSG and MH128 in Corridor 4 by Dewatering Bldg



Installing 24" PW pipe in Corridor 4 by Dewatering Bldg



Installing 60" BWS in Corridor 4 to Filter Module 1



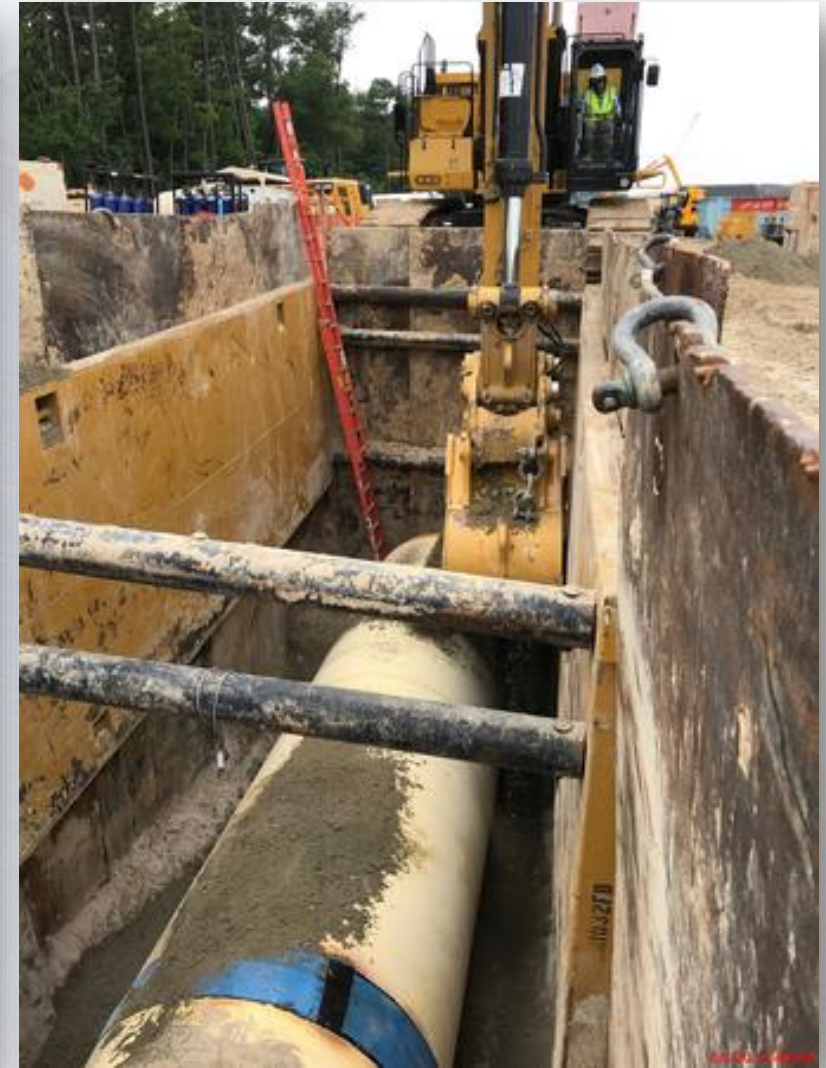
Installing 120" FW steel pipe and tees north of HSPS 1



Installing 120" FW steel pipe in Corridor 5



Installing 84" FW steel pipe in Corridor 5



Receipt of HWT Procured Victaulic Couplings and US Bellows





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Forming/Reinforcing/Pouring Walls.
- Pouring Upper Manifold Decks 5/6
- Reinforcing Lower Manifold Decks 1/2

291-TRANSFER PUMP STATION 1:

- FRP Air Gap 12" Wall Sections
- 42" FW Pipe Delivery

311-POST CHEMICAL FACILITY 1 SH/CS :

- Underground Conduit Installation –Building Area
- Installation of Rebar for SOG A3 & A4
- Seal Slab slope Pour –Sump area .

282 -FILTER MODULE 2:

- Form/Pour/Strip SDPS(East) Walls.
- Forming/Reinforcing Under-slab CFE/FTW Piping(West) .

292-TRANSFER PUMP STATION 2:

- Pump Can Area Excavation



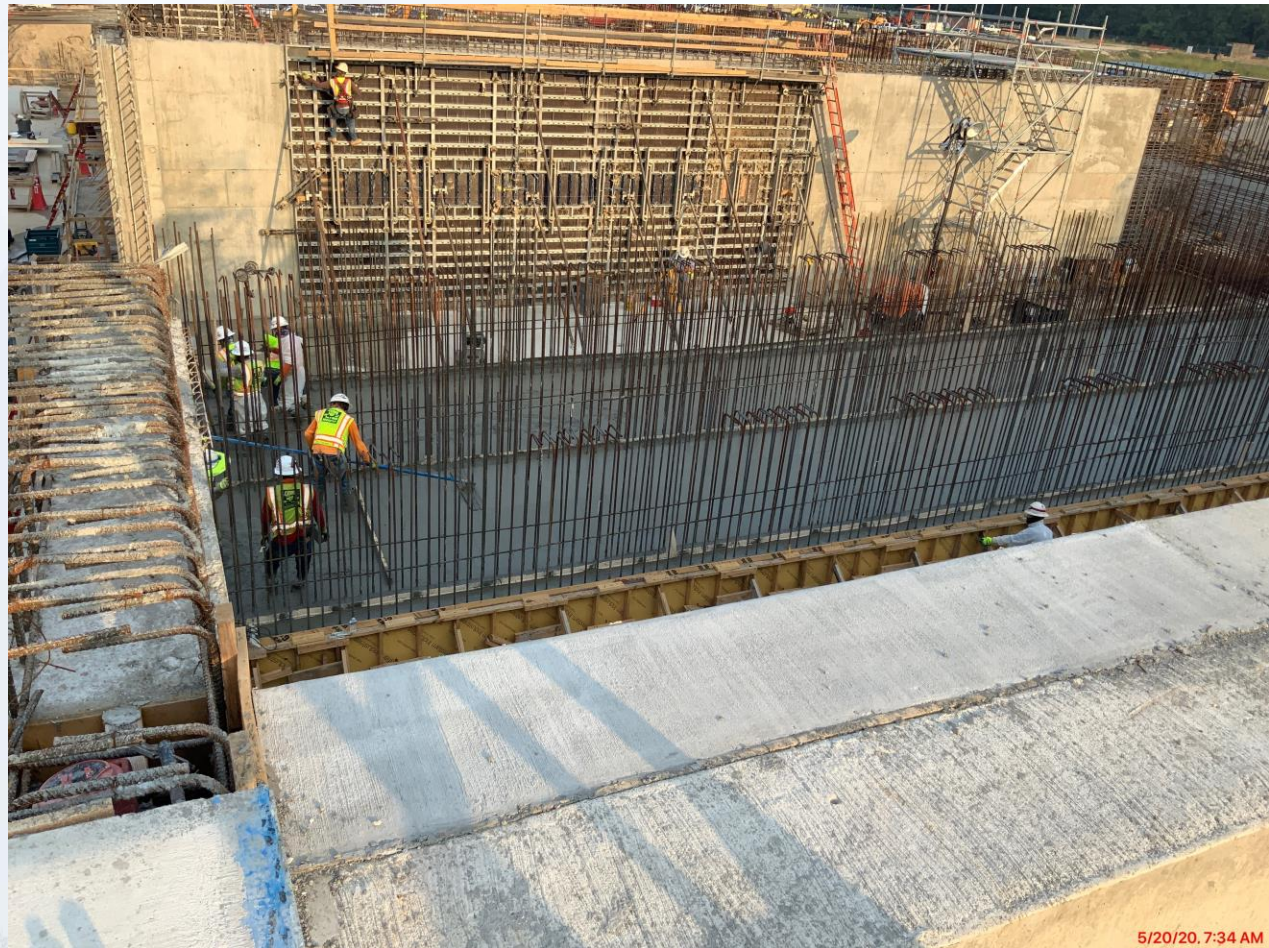
281-FILTER MODULE-Reinforcing/Forming/Pouring Walls



281-FILTER MODULE- Pouring Upper Manifold Decks 5/6



5/20/20, 7:35 AM

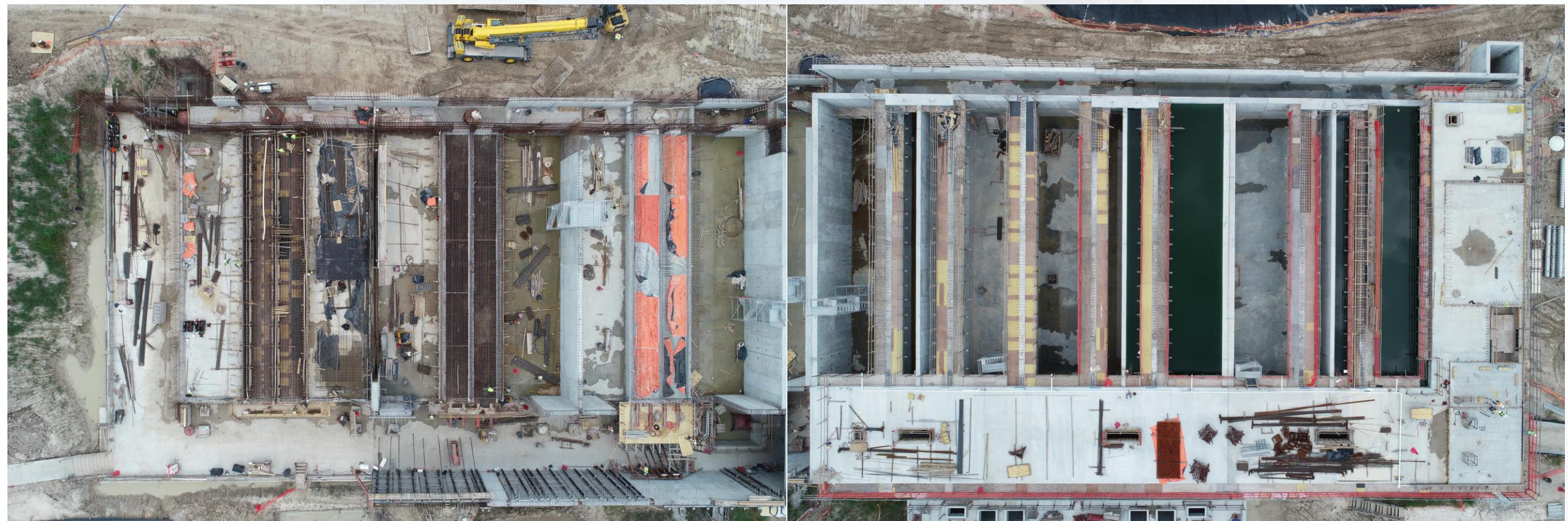


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281-FILTER MODULE- Reinforcing Lower Manifold Decks 1/2



281-FILTER MODULE- East vs West Half



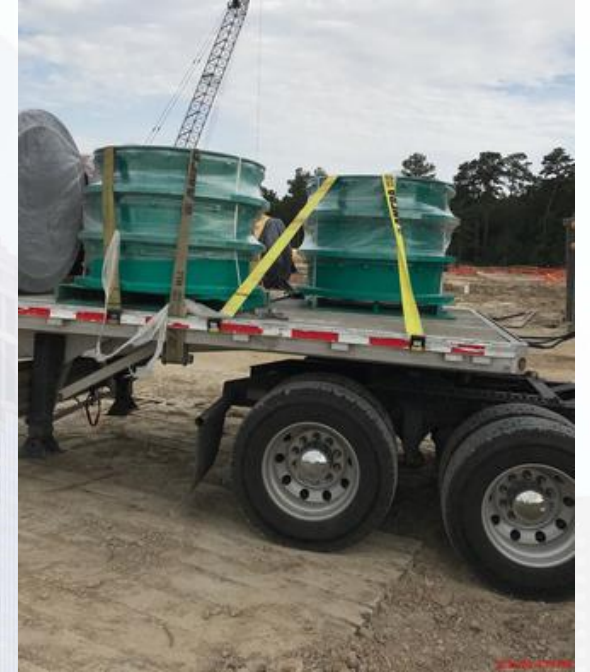
291– Top View



291– FRP Air Gap 12" Wall Sections



291-42" FW Pipes Delivery



311-PostChemical: Underground Conduit installation - Building



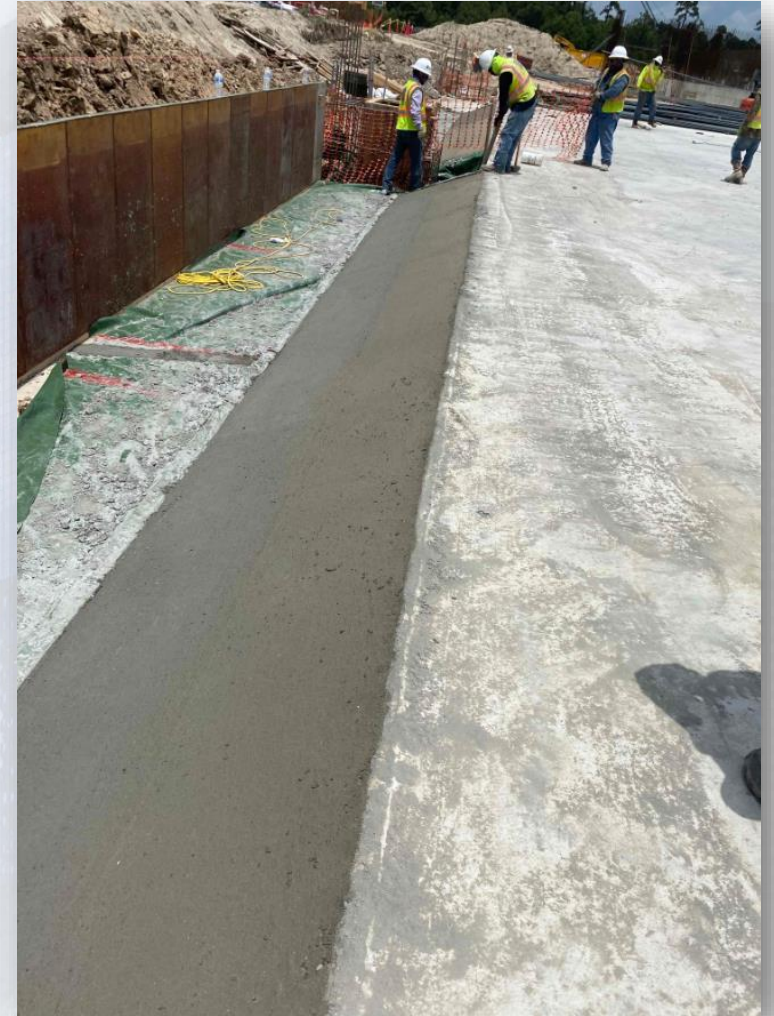
311-PostChemical: Installation of Rebar Slab A3, A4 –Tank farm



311-PostChemical: Tank Farm & Sump area Formwork installation



311-Post Chemical – Seal Slab slope pour.



CENTRAL PLANT – 1st PHASE



282- Forming/Pour/Strip Sanitary Drain Pump Station(East) Walls



282-FILTER MODULE 2- Reinforcing/Forming Underslab Piping (West)



292 – Pump Can Area Excavation



CENTRAL PLANT- 2nd PHASE





Construction Progress – LREQ Basins Facilities 601/602

- **Install Rebar and Forms at North Walls of 601**
- **Install Rebar on the West Walls of 601**
- **Concrete Pour for North Walls of 601 – P1 and P4**

Install Rebar and Forms at North Walls of 601



Install Rebar on the West Walls of 601



Concrete Pour for North Walls of 601 – P1 and P4





Construction Progress – North Plant

213-Pretreatment Chemical Facility 3:

- Resume Structural Concrete Work with Gralan
- U/G Electrical

214-Pretreatment Chemical Facility 4:

- Mud Mat Placement

221-Rapid Mix Train 1:

- RM-WL-2 Placement

222-Rapid Mix Train 2:

- RM-WL-3A & -4A Placement
- RM-WL-5A F/R/P

242-FlocSed Train 2

- Slab-on-Grade
- Elevated Slab Column Formwork
- Short Wall Column Stripping

252-Ozone Contractor Train 2:

- U/G PDR Piping Installation
- Prep Slab-On-Grade Subgrade

502-Gravity Thickener Complex 2

- Basin #4 Slab-On-Grade F/R/P
- Service Bldg Walls F/R/P

504-Gravity Thickener Complex 4

- Started Mass Excavation

611-Liquid Residuals Clarifier Facility

- Slab-On-Grade F/R/P



Facility 214 Subgrade Prep and Mud Mat Placement



5/21/20 3:10 PM

Houston Waterworks Team



Facility 222 WL-5A F/R/P



Facility 242 Ported Walls



5/28/20, 8:01 AM

Houston Waterworks Team



Facility 252 PDR Piping Installation



Facility 502 Service Bldg Walls F/R/P



5/19/20, 12:33 PM

Houston Waterworks Team



Facility 502 GT Basin #4 F/R/P



5/27/20 7:32 AM

Houston Waterworks Team



Facility 504 Ground Breaking



8/2/20 2:50 PM



Facility 611 SL-10 F/R/P





Construction Progress – South Plant

- **Installing the 102" pipe at GST 361**
- **Completed backfilling the 84" pipe at GST 362**
- **Site graded and installing concrete footings formwork at Facility 510**
- **SOG rebar installation of Pour #3 at Facility 520**
- **Masonry installation at Facility 111**
- **Installing concrete reinforcement for HSPS 401 pump cans**



Installing the 102" pipe at GST 361



Completed backfilling the 84" pipe at GST 362



Site graded and installing concrete footings formwork at Facility 510



SOG rebar installation of Pour #3 at Facility 520



Masonry installation at Facility 111



Installing concrete reinforcement for HSPS 401 pump cans





Construction Progress – Administration Building

- Import and Placement of Structural Fill to EL 55' for MB
- Forming and Reinforcing of Pipe Chase Pit Slab
- Continued Forming & Reinforcing Grade Beam/Footings in the AB

Import and Placement of Structural Fill to EL 55' for MB



Import and Placement of Structural Fill to EL 55' for MB



Forming and Reinforcing of Pipe Chase Pit Slab



Continued Forming & Reinforcing Grade Beam/Footings in the AB





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