



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

June 17, 2020

Houston Waterworks Team



Drone Site Map: June 5, 2020





Construction Progress – Intake Pump Station (IPS)

- Delivery of the 108" pipe
- Concrete pour at the flow meter pedestals



Delivery of the 108" pipe



Concrete pour at the flow meter pedestals





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



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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

- **Begin to Strip Formwork from Building Walls**
- **Laying Down and Compacting Select Fill for Substation Building**
- **Installed Embedded Foundations for Switchgear Steel Channel Supports**

Begin to Strip Formwork from Building Walls



Laying Down and Compacting Select Fill for Substation Building



Installed Embedded Foundations for Switchgear Steel Channel Supports

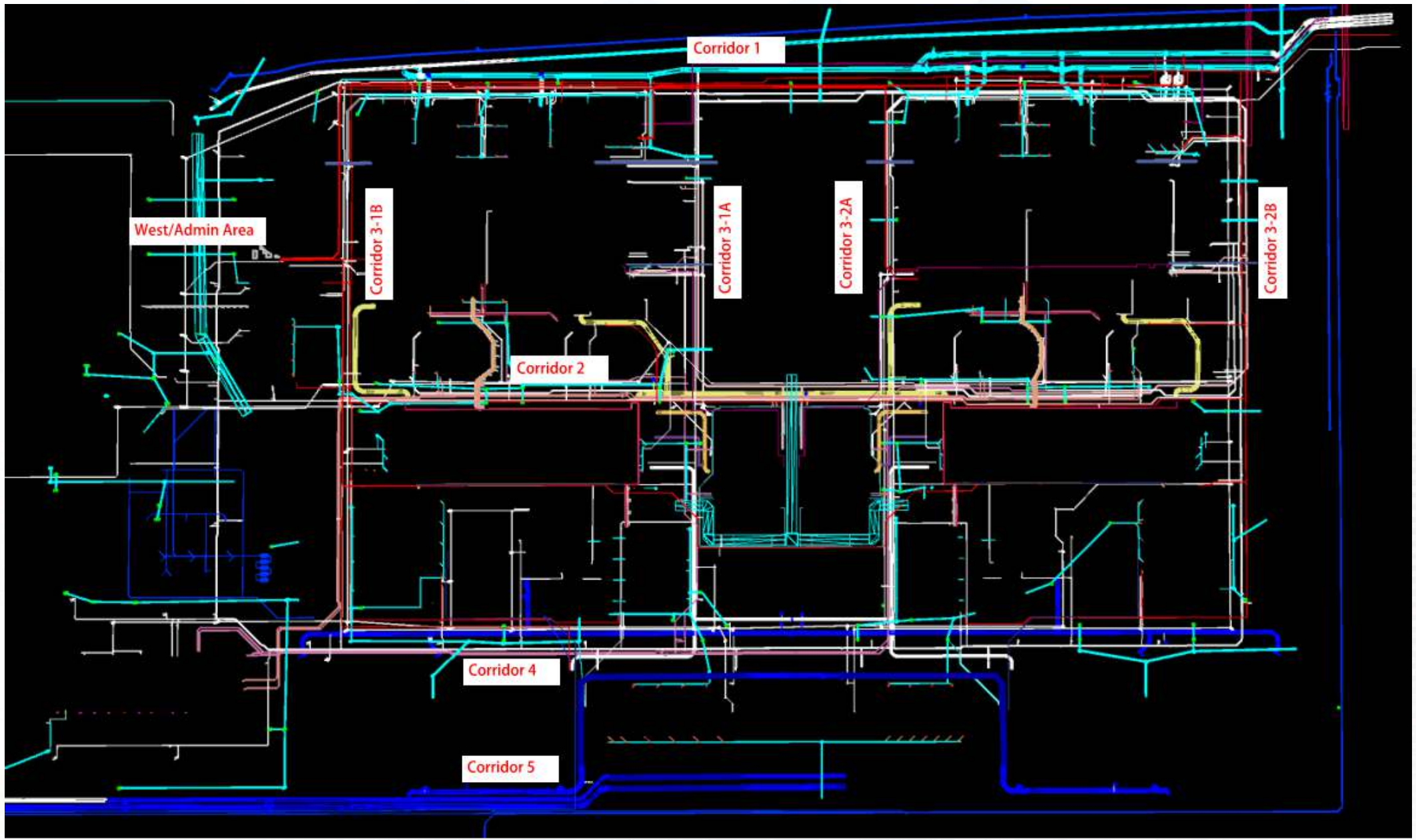




Construction Progress – Yard Piping

- Installing and welding dual 108” and 78” RW steel pipe in Corridor 1 and 78” BFV’s
- Installing 36” CRCY pipe in Corridor 1
- Installing 42” FTW in Corridor 3-1A to Filter Module 1
- Installing 72” BWW in Corridor 3-1A to Filter Module 1
- Installing 12” PW with 6” tees in Corridor 3-1A
- Installing 16” CEN line in Corridor 3-1A
- Installing 16” CEN lines in Corridor 4 and started hydro-pressure testing
- Installing and welding 60” BWS steel pipe in Corridor 4 & 3
- Installing 12” PDR and 10” SSG in Corridor 4
- Installing 20” TSL line crossing Road 1 in Corridor 4
- Installing 96” FW 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

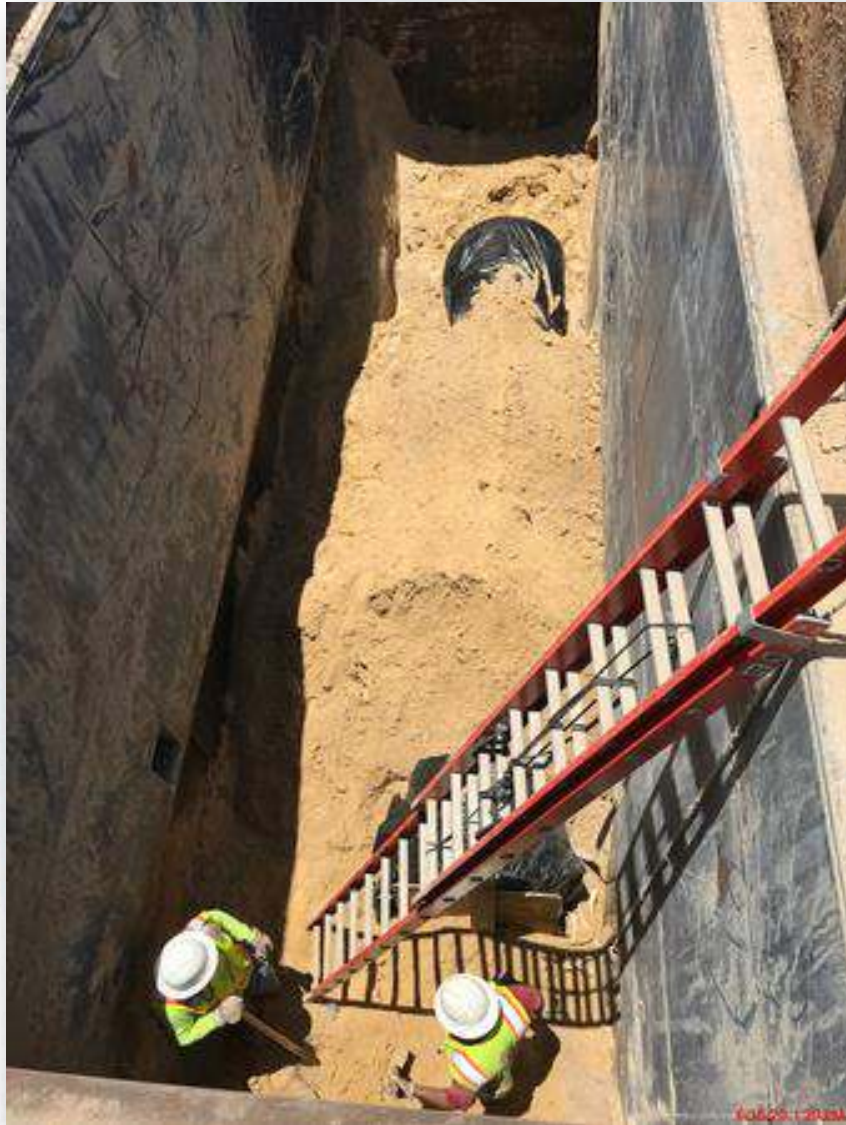




Installing 78" RW steel pipe and BFV's in Corridor 1



Installing 36" CRCY pipe in Corridor 1



Installing 42" FTW in Corridor 3-1A to Filter Module 1



Installing 72" BWW in Corridor 3-1A to Filter Module 1



Installing 12" PW with 6" tees in Corridor 3-1A



Installing 16" CEN line in Corridor 3-1A



Installing 16" CEN lines in Corridor 4 and started hydro-pressure testing



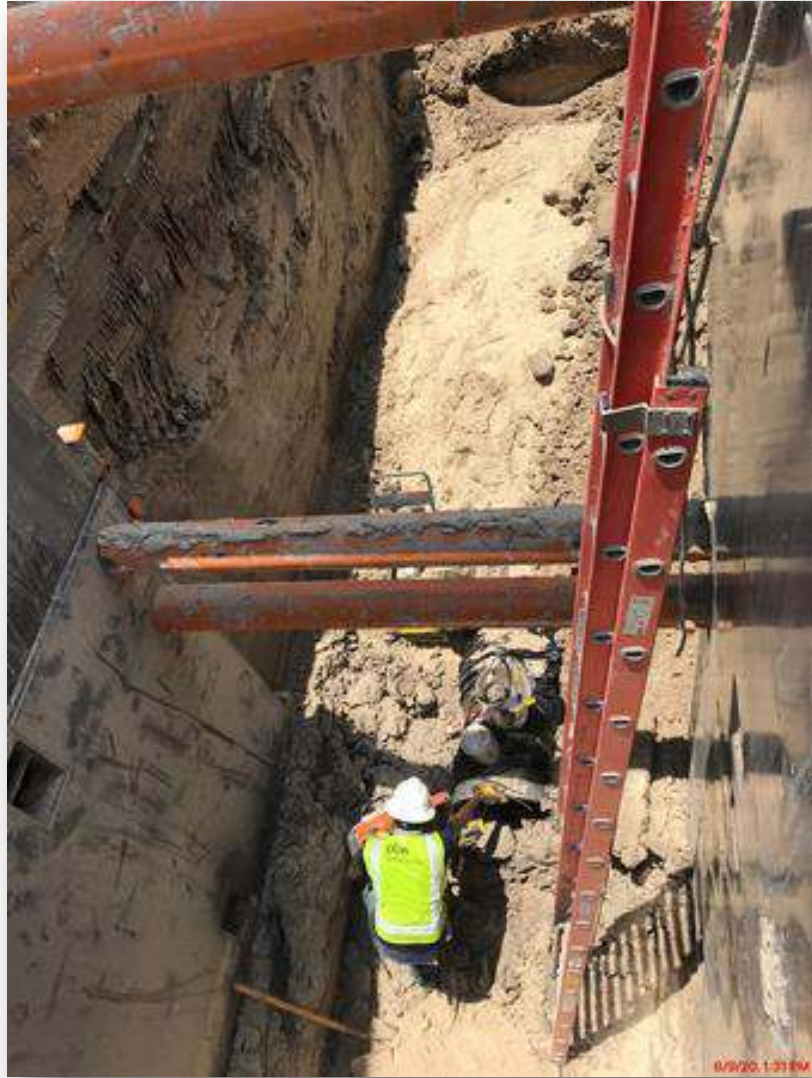
Installing 60" BWS in Corridor 4 & 3-1A to Filter Module 1



Installing 12" PDR and 10" SSG in Corridor 4



Installing 20" TSL line crossing Road 1 in Corridor 4



Installing 96" FW steel pipe in Corridor 4



Installing 120" FW BFV supports north of HSPS 1



Installing 120" FW steel pipe in Corridor 5



Installing 84" FW steel pipe in Corridor 5





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Forming/Reinforcing Walls.
- Pouring Walls.
- Pouring Lower Manifold Decks 1/2
- Forming Upper Manifold Decks 1/2
- Leak-testing Filters 8,10,12

291-TRANSFER PUMP STATION 1:

- Form up 36" Block-outs at Air Gap
- Form Up Pump Can Encasement Upper Level

311-POST CHEMICAL FACILITY 1 SH/CS :

- Underground Conduit Installation –Building Area
- Installation of Rebar for SOG A3 & A4
- Mud Slab pour North Area.

282 -FILTER MODULE 2:

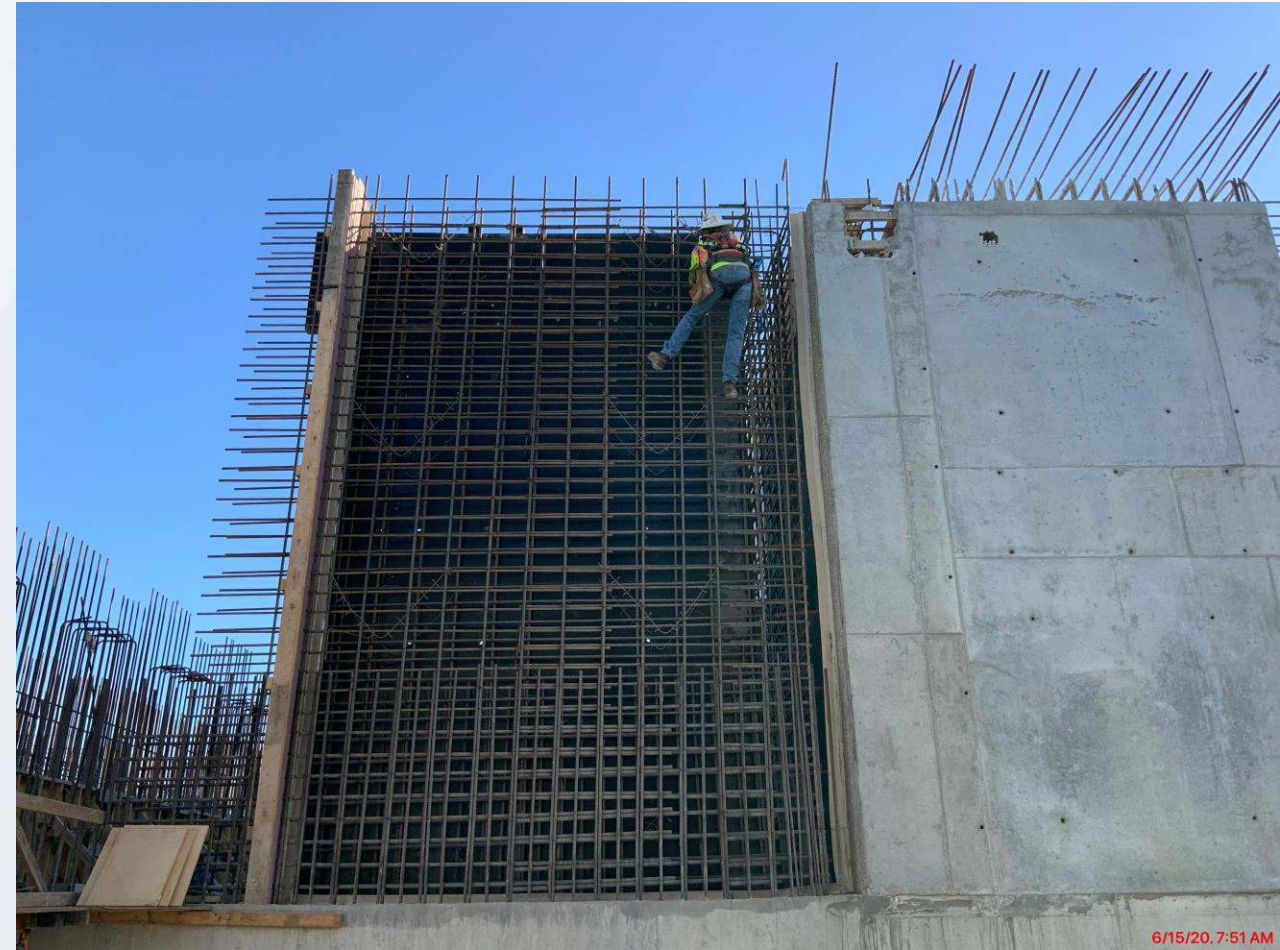
- Reinforcing/Forming Under-slab CFE/FTW Piping (East)
- Pouring Lift 1- Under-slab CFE/FTW Piping (East & West) .

292-TRANSFER PUMP STATION 2:

- Pour Pump Can Seal Slab



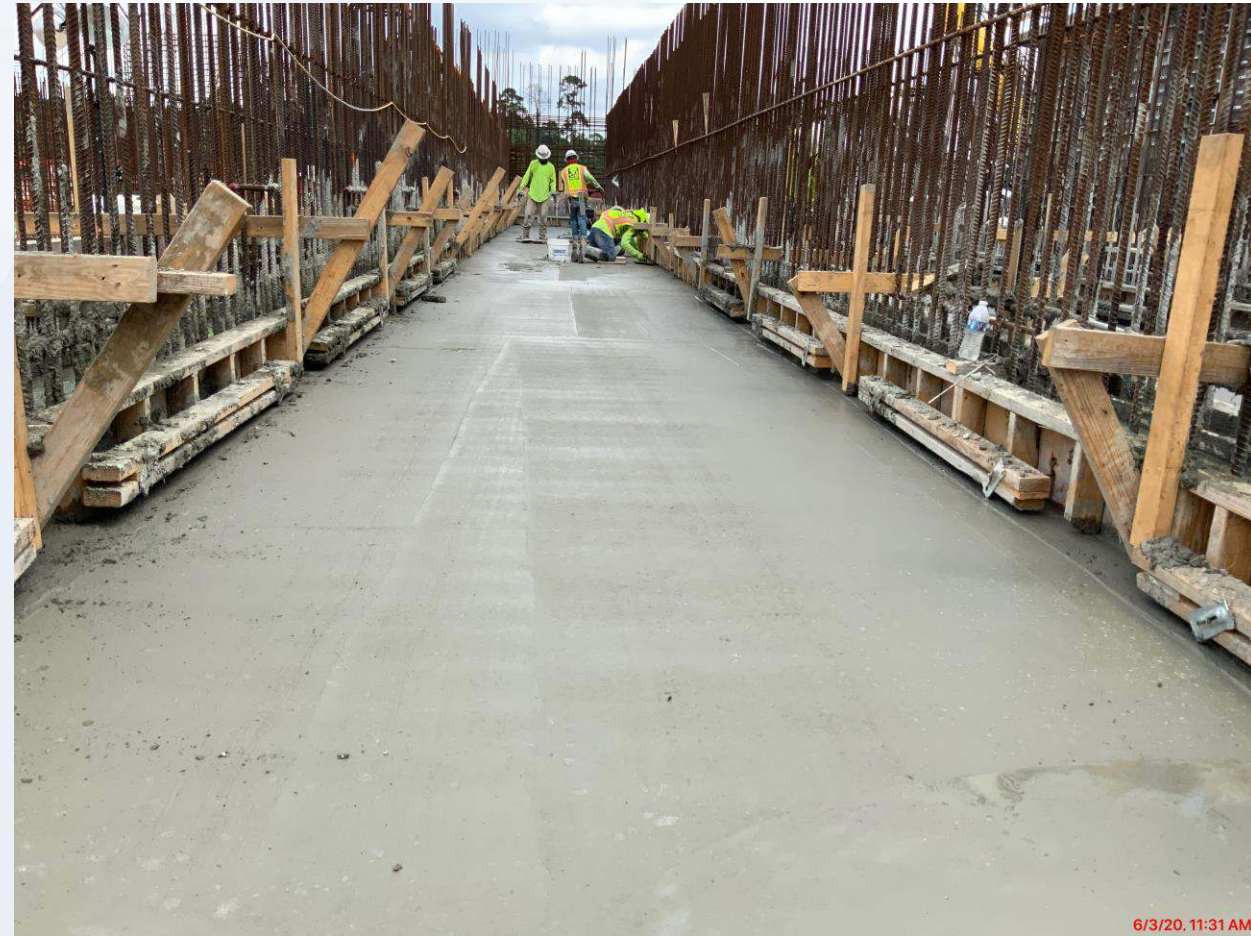
281-FILTER MODULE-Forming/Reinforcing Walls



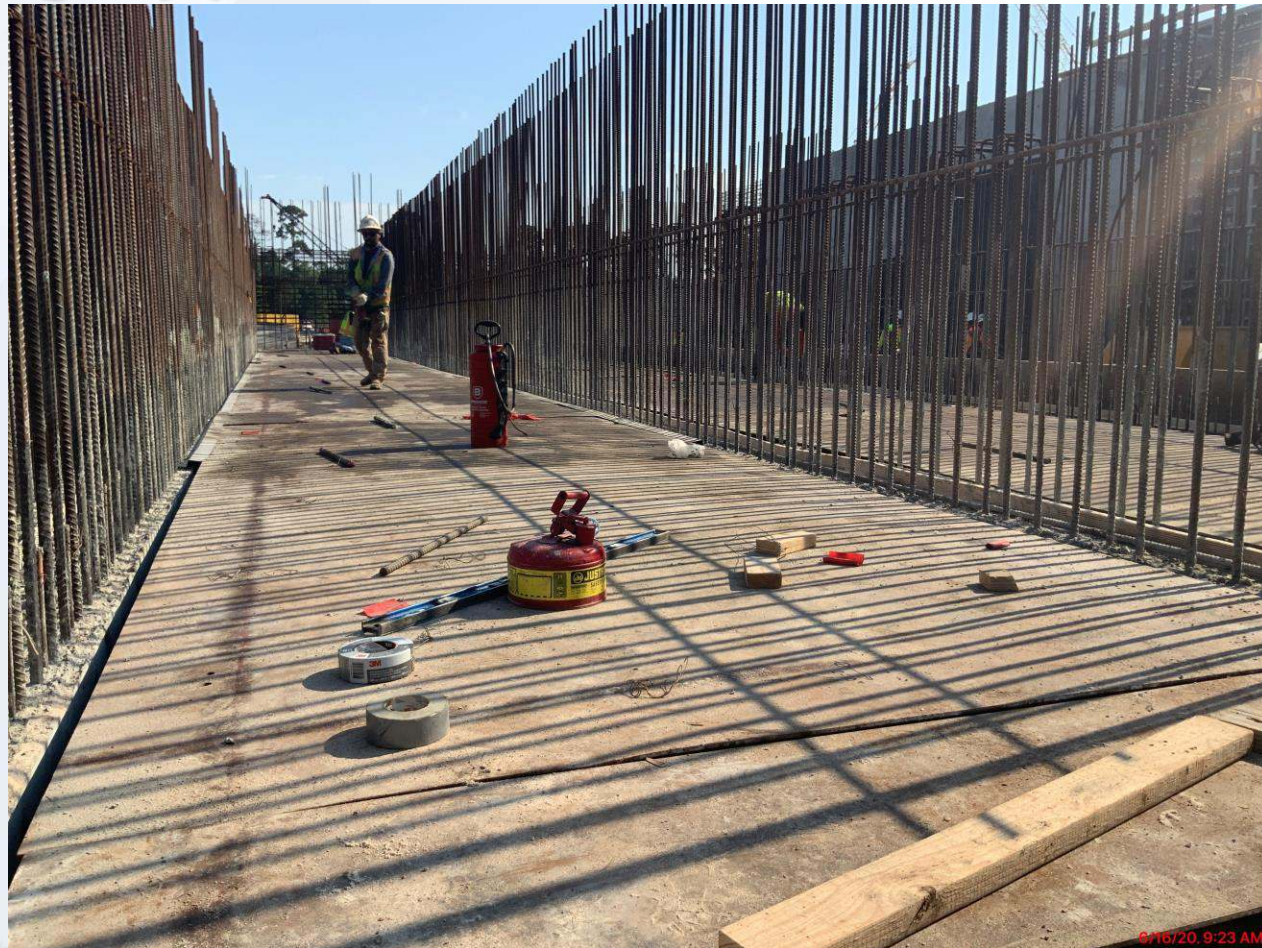
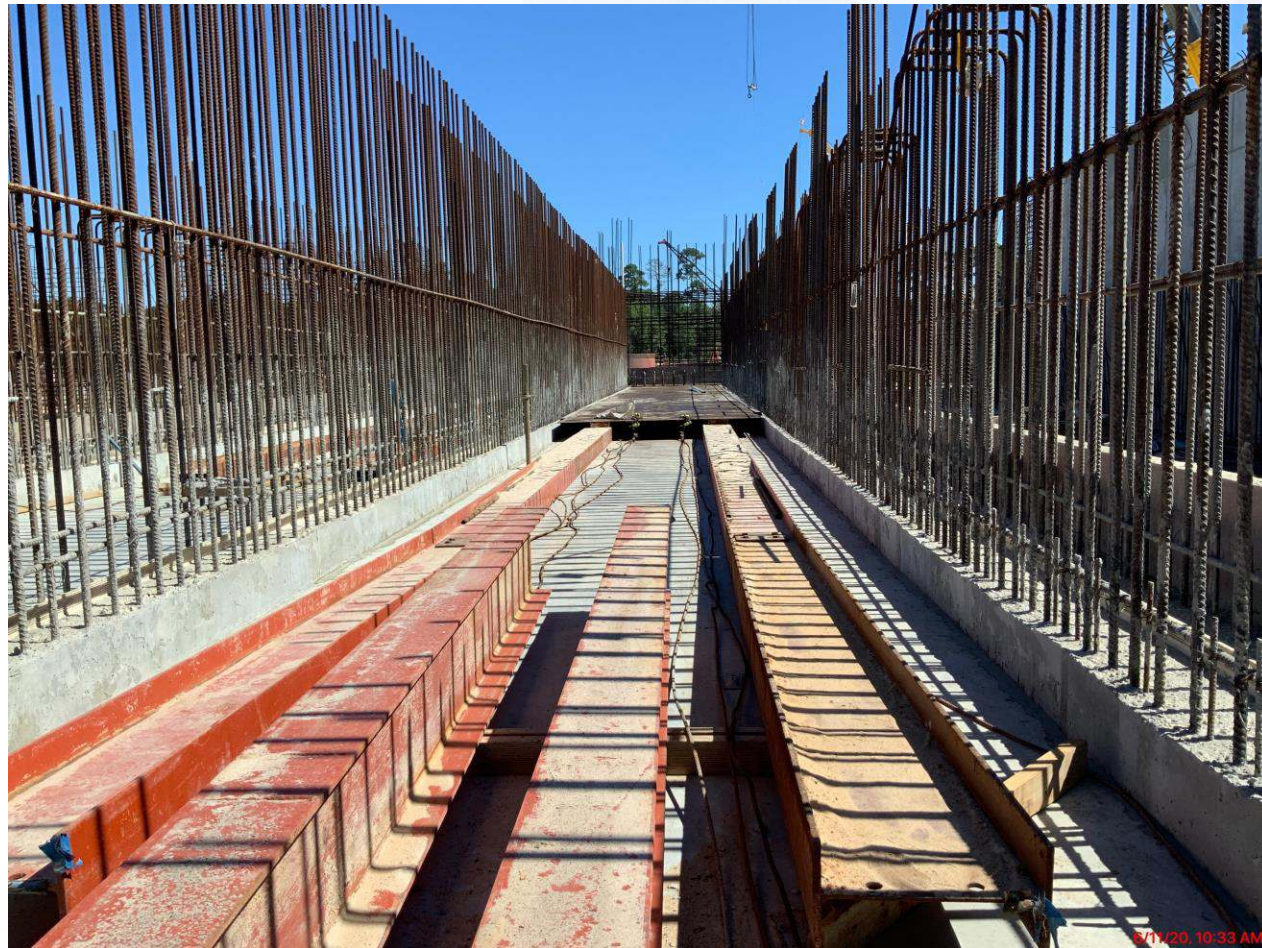
281-FILTER MODULE-Pouring Walls



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



281-FILTER MODULE- Forming Upper Manifold Decks 1/2



281-FILTER MODULE- Leak-testing Filters 8,10,12



291– Top View



291– Form up 36" Block-outs at Air Gap



291– Form up Pump Can Encasements Upper Level



311-PostChemical: Underground Conduit installation - Building



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



311-Post Chemical – Seal Slab Continuation Pour North Area.



282- Forming/Reinforcing Under-slab Pipe Encasement (East)



282-FILTER MODULE 2- Pouring Lift 1-Underslab Pipe Encasement (East & West)



292 – Pour Pump Can Seal Slab





Construction Progress – LREQ Basins Facilities 601/602

- **Concrete Pour for Walls of 601 – P2 and P10**
- **Install Rebar on the West and Middle Walls of 601**
- **Concrete Pour for Walls of 601 – P5 and P6**



Concrete Pour for Walls of 601 – P2 and P10



Install Rebar on the West and Middle Walls of 601



Concrete Pour for Walls of 601 – P5 and P6





Construction Progress – North Plant

213-Pretreatment Chemical Facility 3:

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

214-Pretreatment Chemical Facility 4:

- Resume Structural Concrete Work with Gralan

221-Rapid Mix Train 1:

- RM-WL-1 F/R/P
- 78 inch RW pipe Installation

222-Rapid Mix Train 2:

- ESL-1 F/R/P

242-FlocSed Train 2

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

244-FlocSed Train4

- East/West Corridor Excavation
- 8 inch RCYS Installation

252-Ozone Contractor Train 2:

- Structural Concrete Work on Mat Foundation

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 1:

- Slab-On-Grade F/R/P

612-Liquid Residuals Clarifier Facility 2:

- RCYS and PDR Excavation



Facility 214 SL-2 and SL-4 F/R/P



8/13/20 9:37 PM

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Facility 242 WEW-3 F/R/P



Facility 242 FBDC Elevated Slab F/R/P

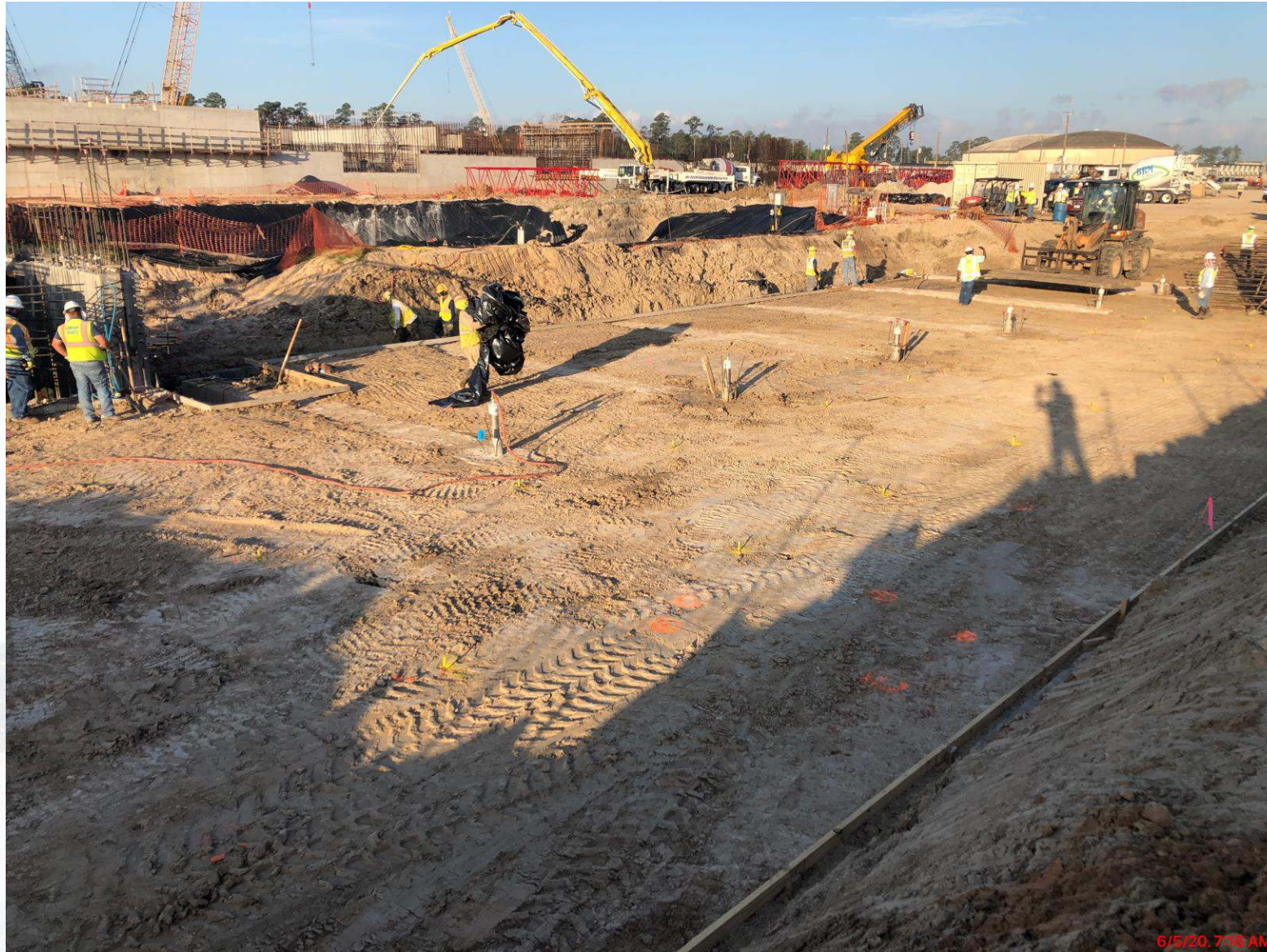


Facility 244 8 inch RCYS Piping Installation



6/11/20, 10:11 AM

Facility 252 Subgrade and Mud Mat Prep



6/5/20, 7:18 AM

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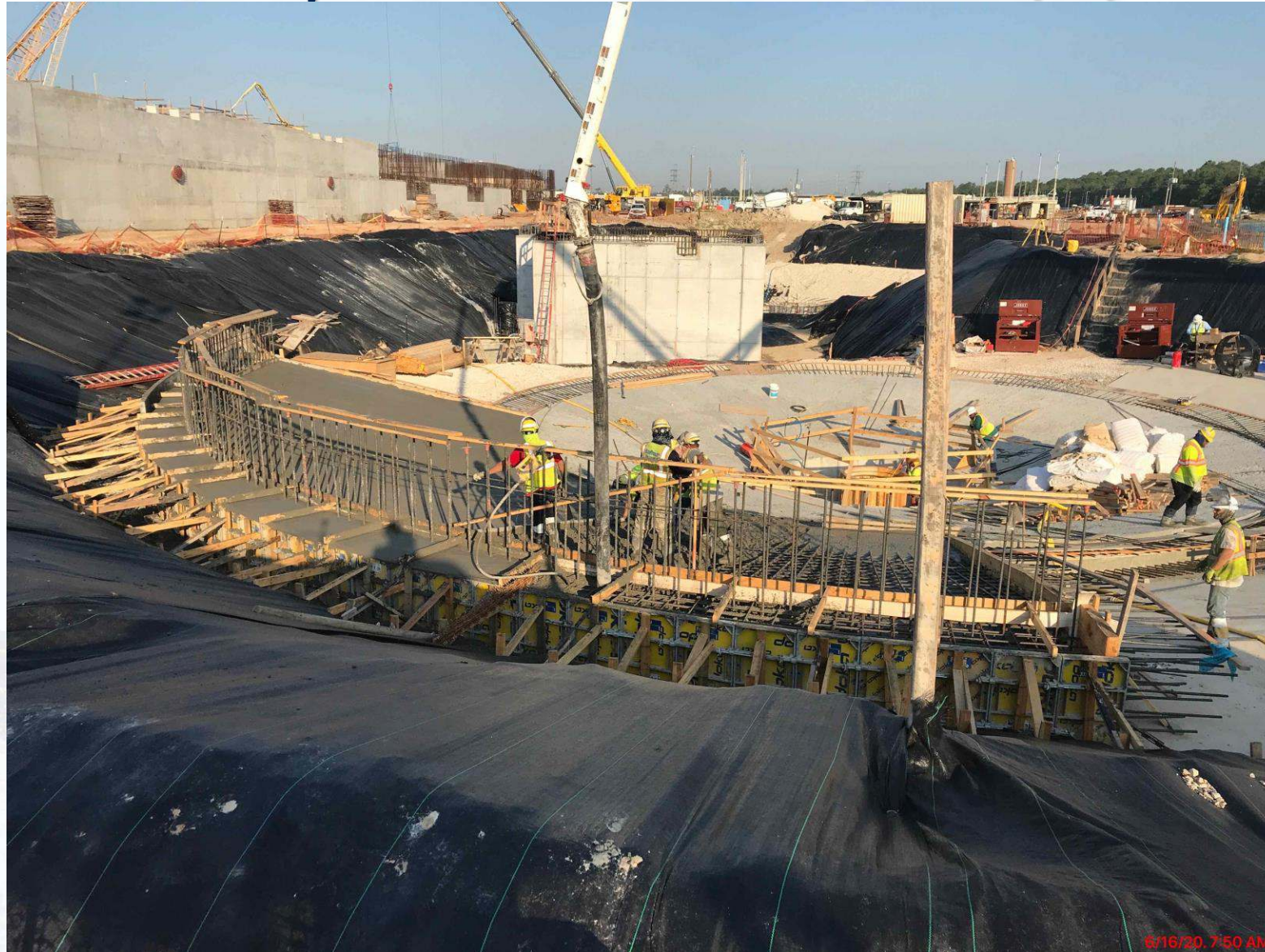
Facility 252 SL-1 and SL-3 F/R/P



Facility 502 GT Basin #4 SL-2 F/R/P



Facility 502 GT Basin #4 SL-4 F/R/P



6/16/20, 7:50 AM

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Facility 504 Service Bldg Excavation



6/12/20 4:05 PM

Facility 504 Service Bldg Subgrade Prep



6/13/20 3:54 PM

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Facility 611 WEW-1 F/R/P



Facility 611 SL-6/7 F/R/P



6/13/20, 7:52 AM

Facility 612 RCYS Piping Excavation



6/12/20 4:07 PM

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Construction Progress – South Plant

- **Installation of 102” outlet pipe at GST 361**
- **Installed/Encased 102” outlet pipe at GST 362**
- **CMU installation at Facility 111**
- **Excavation at HSPS 402**
- **Reinforcing at Facility 510**
- **Finished Concrete Slab - Structural Steel laid out for Erecting at Facility 520**



Installation of 102" outlet pipe at GST 361



Installed/Encased 102" outlet pipe at GST 362



CMU installation at Facility 111



Excavation at HSPS 402



Reinforcing at Facility 510



Finished Concrete Slab - Structural Steel laid out for Erecting at Facility 520





Construction Progress – Administration Building

- Imported and Placed Structural Fill to EL 55' for MB
- Placed Footings/Grade Beam in the AB
- Formed, Reinforced and Placed Pipe Chase
- Installed PW/FP in the AB & MB



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



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



Placement of Footings/Grade Beam in the AB



Placement of Footings/Grade Beam in the AB



Forming, Reinforcing and Placement of Pipe Chase



Installation of PW/FP in the AB & MB



