



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

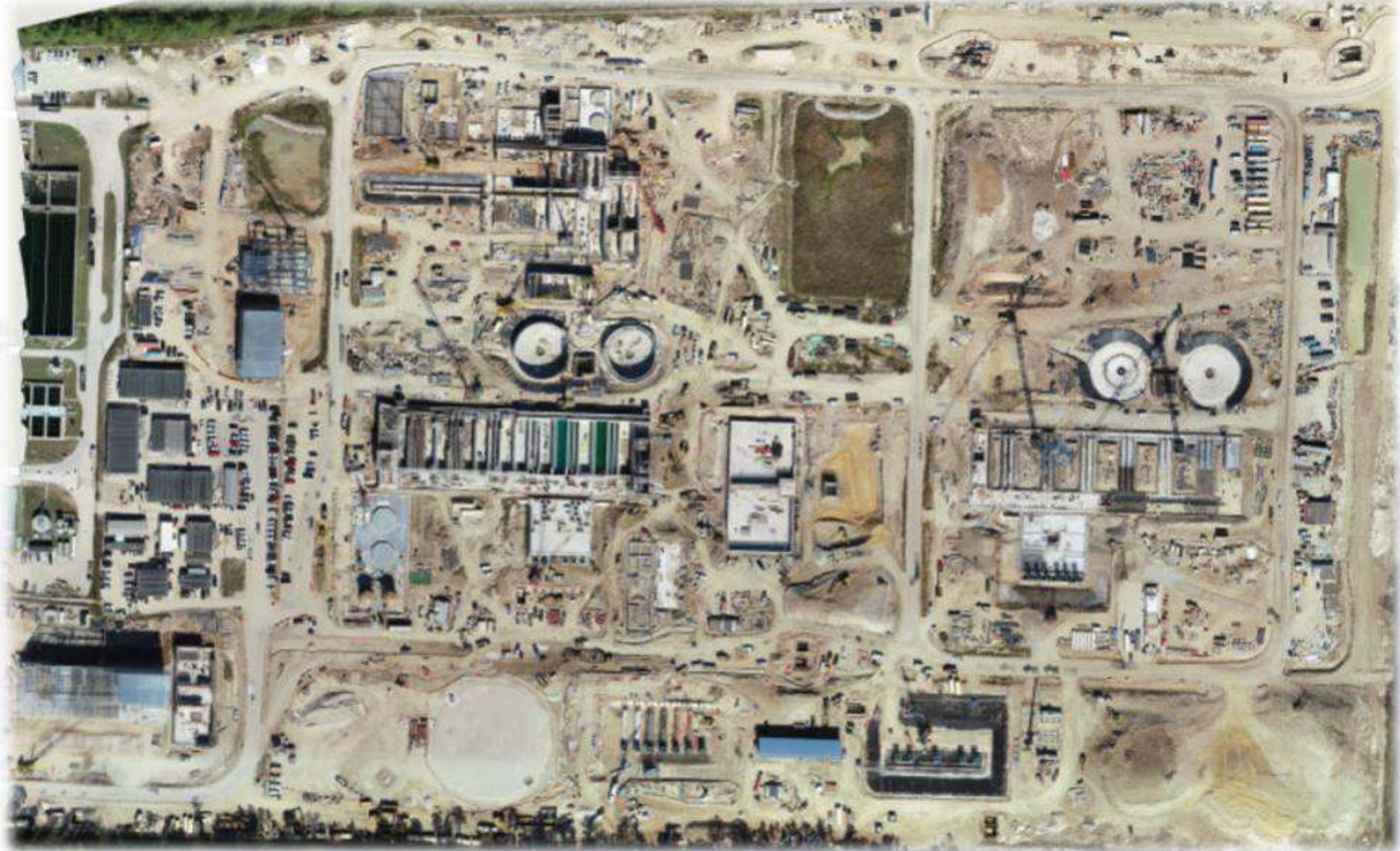
Northeast Water Purification Plant Expansion

November 18, 2020



Houston Waterworks Team





Site Drone Map November 6, 2020



Construction Progress – Intake Pump Station (IPS)

- Continue erecting structural steel members
- Installing the pedal stools for the turn at the abutment
- Backfilling the abutment with crushed stone
- Continue backfilling the underground pipe with CLSM



Continue erecting structural steel members



Installing the pedal stools for the turn at the abutment




Backfilling the abutment with crushed stone



Continue backfilling the underground pipe with CLSM



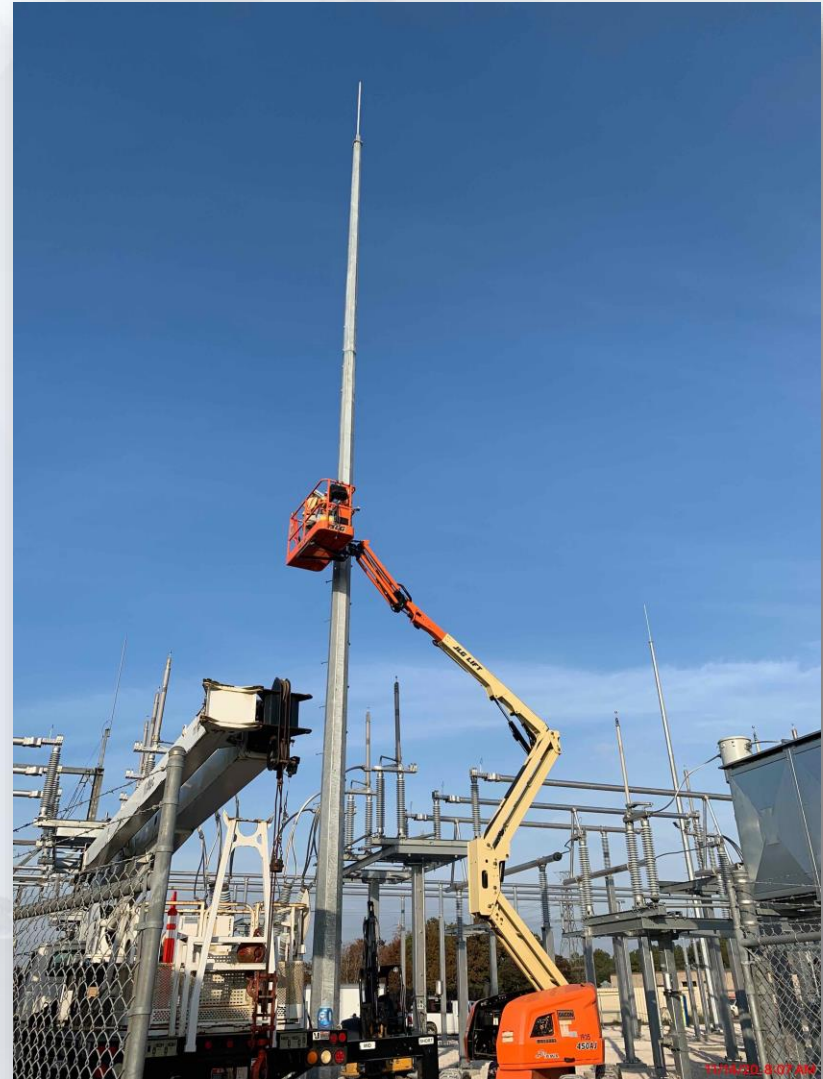


Construction Progress – Substation Facility 102

- **Static Mast Installation**
- **Continue installing rock in the Substation Yard**
- **Installation/Welding of Busduct, Switches, and Jumpers**
- **Building 102 Final Coating on Foundation**



Static Mast Installation



Continue placing rock in the Substation yard



Installation/Welding of Busduct, Switches, and Jumpers



Building 102 Final Coating on Foundation



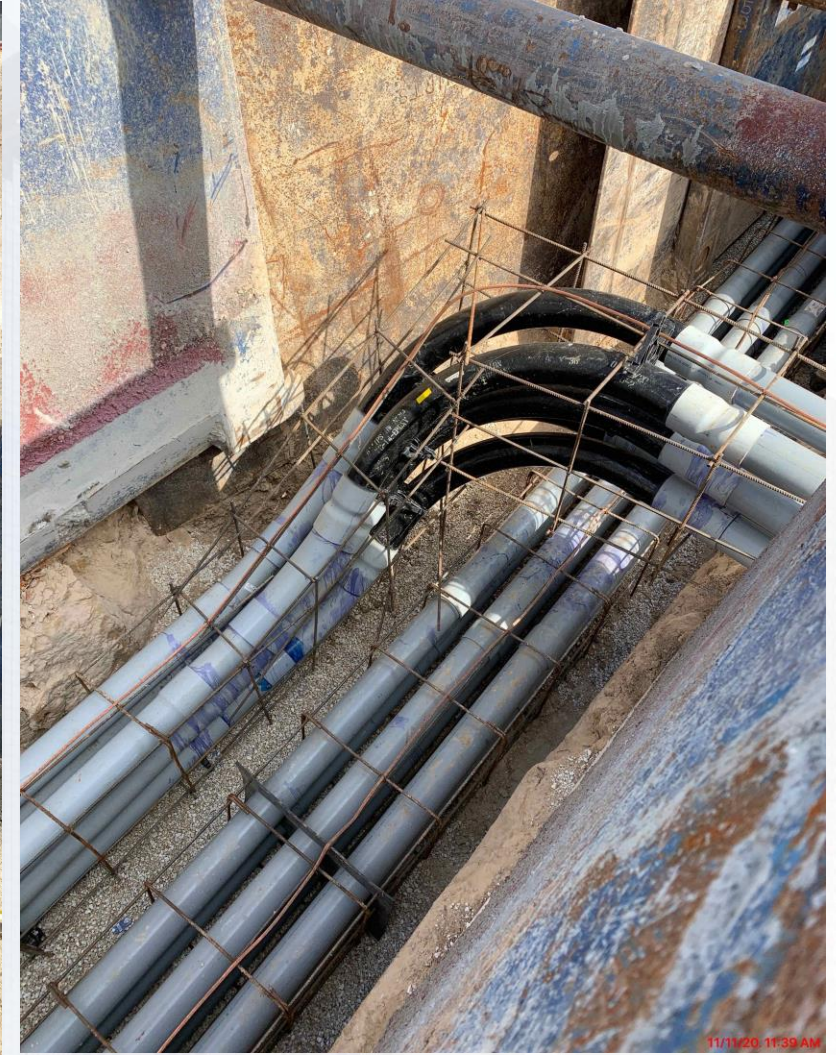
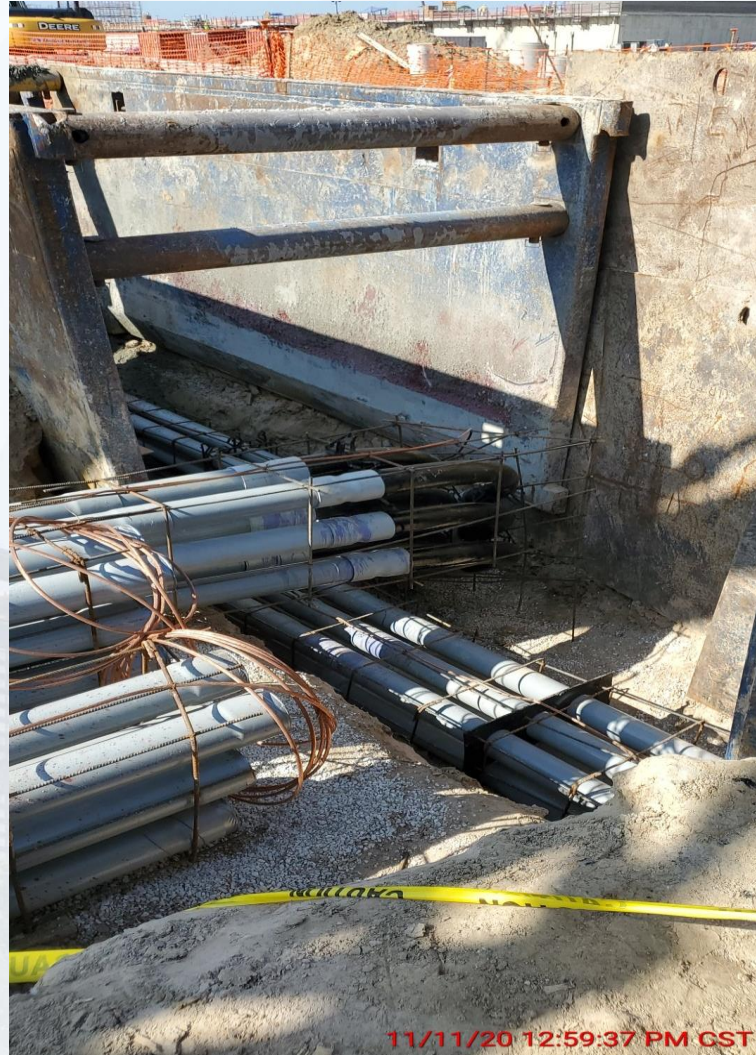
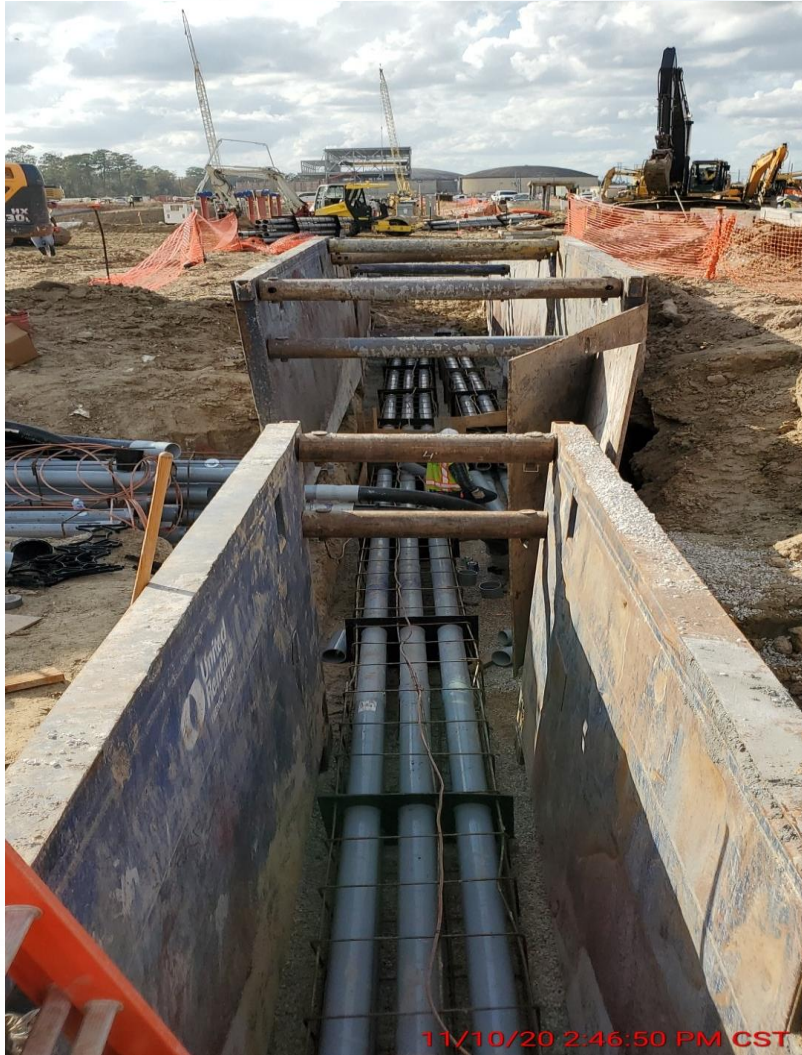


Construction Progress – Site Electrical

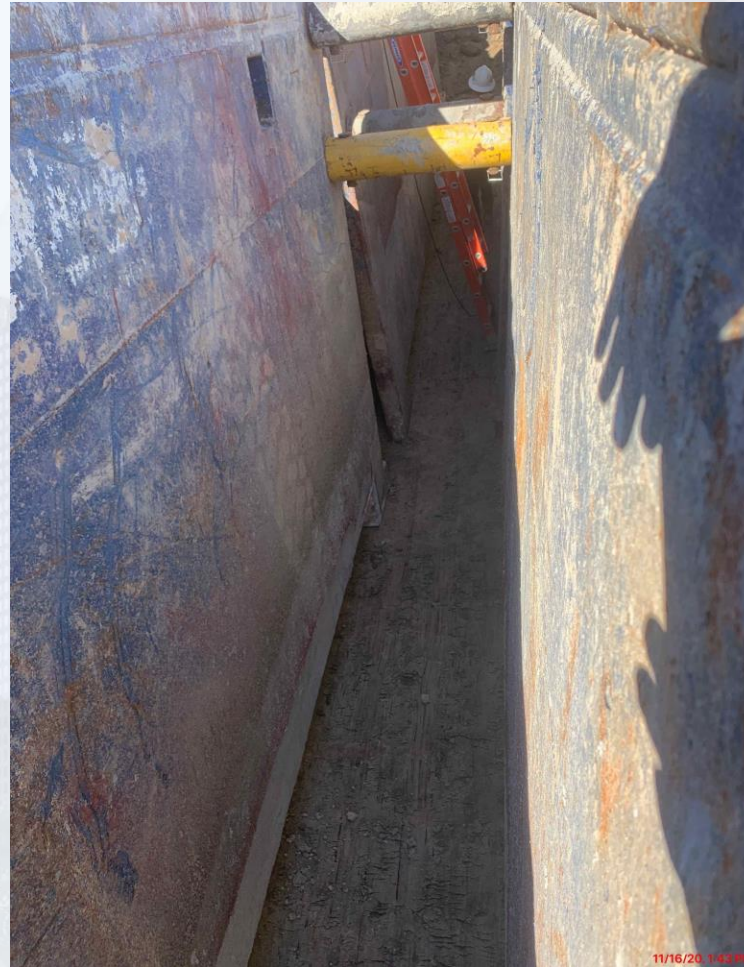
- MDB 401 Installation
- Fiber Duct Bank 291 Installation
- Duct Bank Encasement North of Facility 111



MDB 401 Installation



Fiber Duct Bank 291 Installation



Duct Bank Installation North of Facility 111

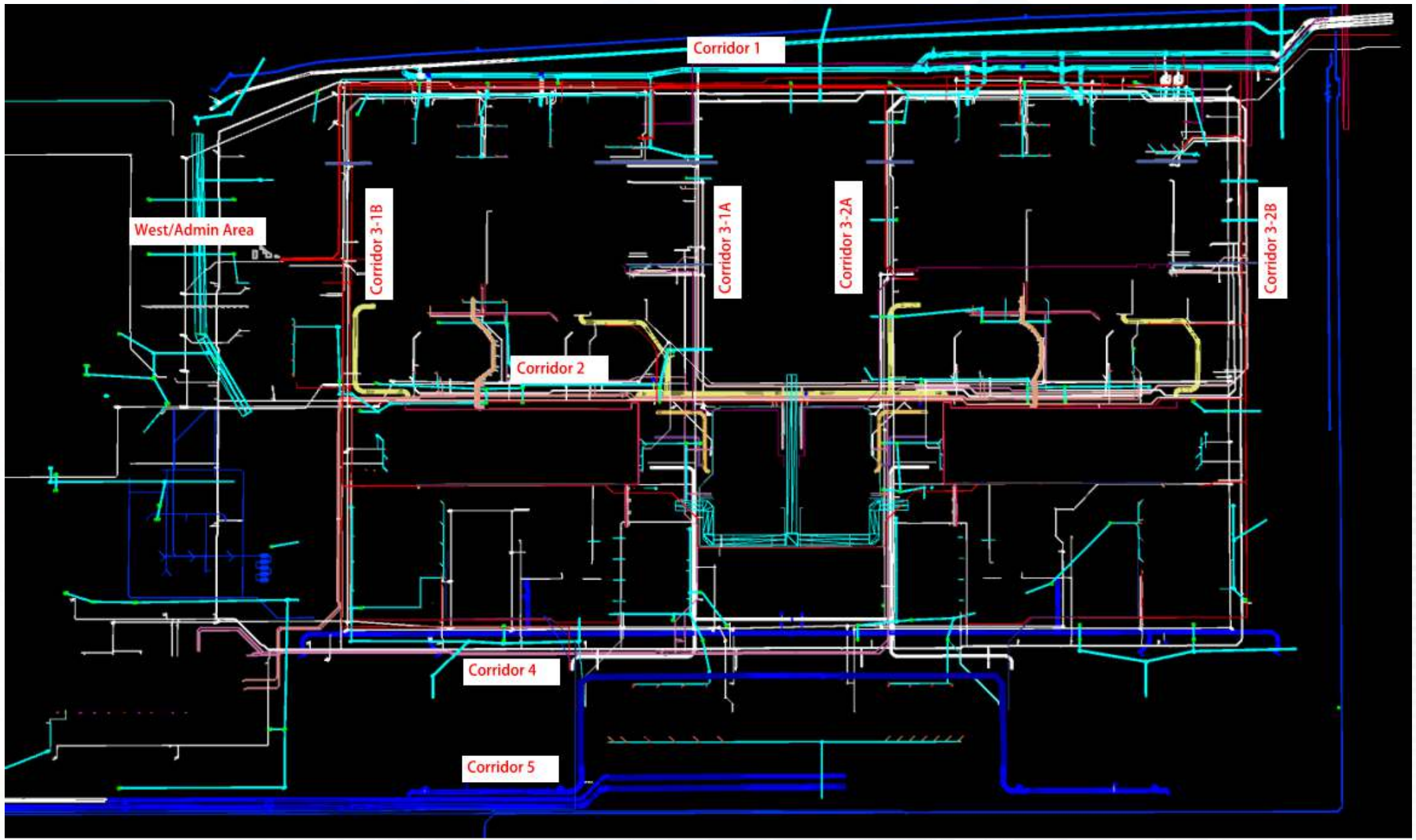




Construction Progress – Yard Piping

- **Installing 42” Stm. RCP in Corridor 3-1A North**
- **Installing 96” OZW Steel pipe in Corridor 2-1C**
- **Installing 6” PW pipe in Corridor 3-1A Central**
- **Installing a 72” BWW line in Corridor 3-1A Central**
- **Installing the 16” CEN lines in Corridor 3-1A Central**
- **Placing 8’x4’ Storm box culverts in Corridor 3-1A Central**
- **Installing 2-20” TSL pipe in Corridor 3-1B Central**
- **Restoring South Road 2/Cor 4 – Cutting, placing CTB, and compacting**
- **Installing the 120” & 108” FW Steel pipe by GST 362 in Corridor 5**





Installing 42" Stm. RCP in Corridor 3-1A North



Laying 96" OZW Steel pipe in Corridor 2-1C



Installing 6" PW pipe in Corridor 3-1A Central



Installing the 72" BWW line in Corridor 3-1A Central



Installing the 16" CEN lines in Corridor 3-1A Central



Placing 8'x4' Stm. box culverts in Corridor 3-1A Central



Installing 2-20" TSL pipelines in Corridor 3-1B Central



Restoring South Road 2 in Corridor 4 – Cutting road, placing CTB, and compacting



Fitting and welding butt strap on 120" FW pipe in Corridor 5



Installing 120" and 108" FW Steel pipe by GST 362 in Corridor 5





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Forming/Reinforcing/Pouring Walls.
- West Side Masonry.
- Reinforcing/Pouring Last Top Deck.
- Reinforcing/Pouring Walkways.
- Drilling anchors & Setting Gallery Pipe supports.

291-TRANSFER PUMP STATION 1:

- Watertightness Testing & Crack Repair Injection
- Install UG Piping and FRP Encasement

292-TRANSFER PUMP STATION 2:

- FRP Main Slab Sections A1, A6, and C6
- Main Slab Section C1 Reinforcement

311-POST CHEMICAL FACILITY 1 SH/CS :

- Pour Seal Slab at Pump Building
- FRP –Reinforce rebar installation at Pump Building
- Fabrication of SST CS Tanks.

312 – POST CHEMICAL FACILITY 2 FA/LAS/PEC/SB

- Backfilling Building stem walls
- Stem Walls and SOG RFP – Building Area
- RFP –Reinforce rebar installation at Containment Sump Areas

282 -FILTER MODULE 2:

- Forming/Reinforcing Base Slabs.
- Pouring Base Slabs 10/12/14.
- Reinforcing/Pouring Walls.



281-FILTER MODULE-Forming/Reinforcing/Pouring West Filter Walls



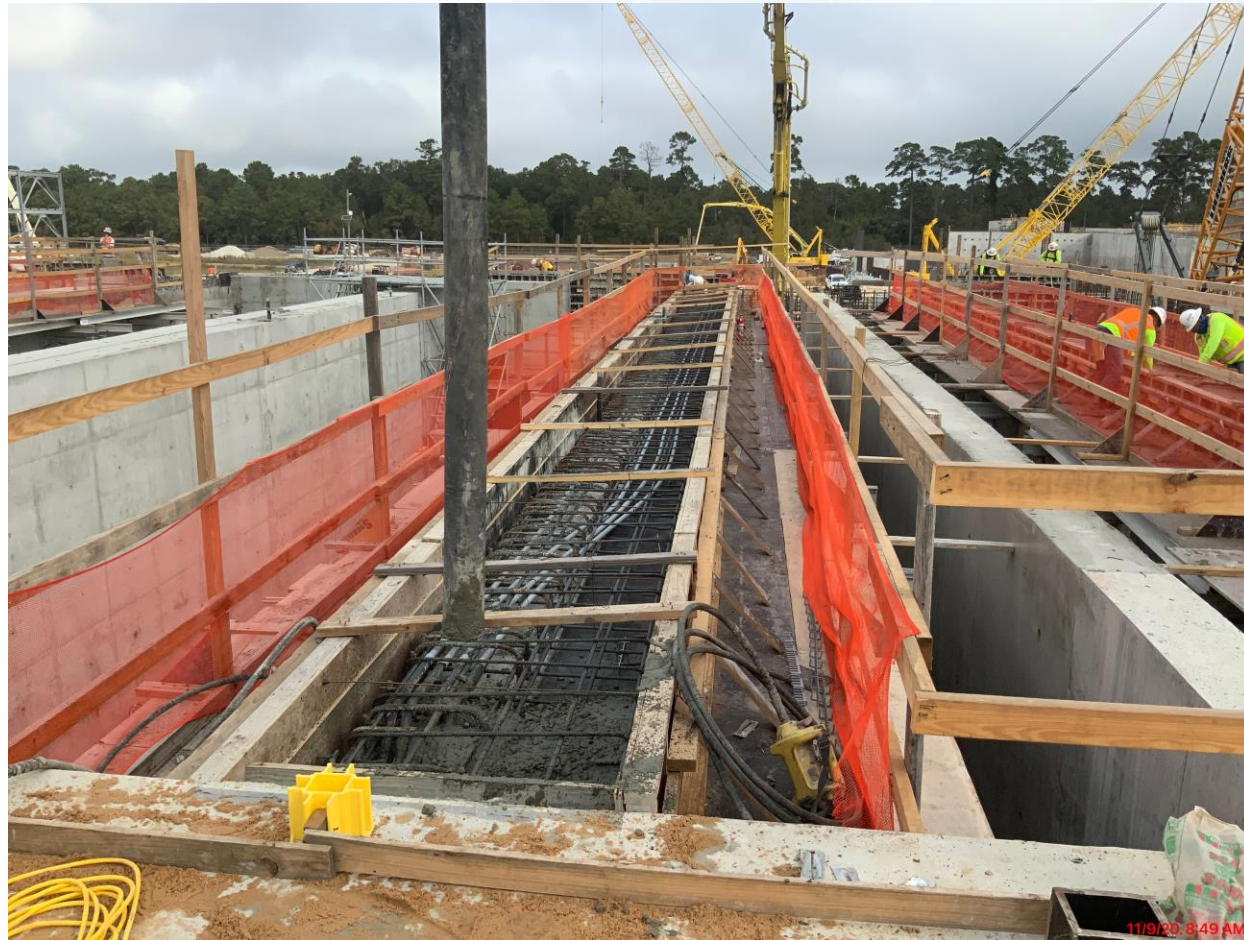
281-FILTER MODULE – West Side Masonry



281-FILTER MODULE- Reinforcing/Pouring Last Top Deck



281-FILTER MODULE- Reinforcing/Pouring Walkways



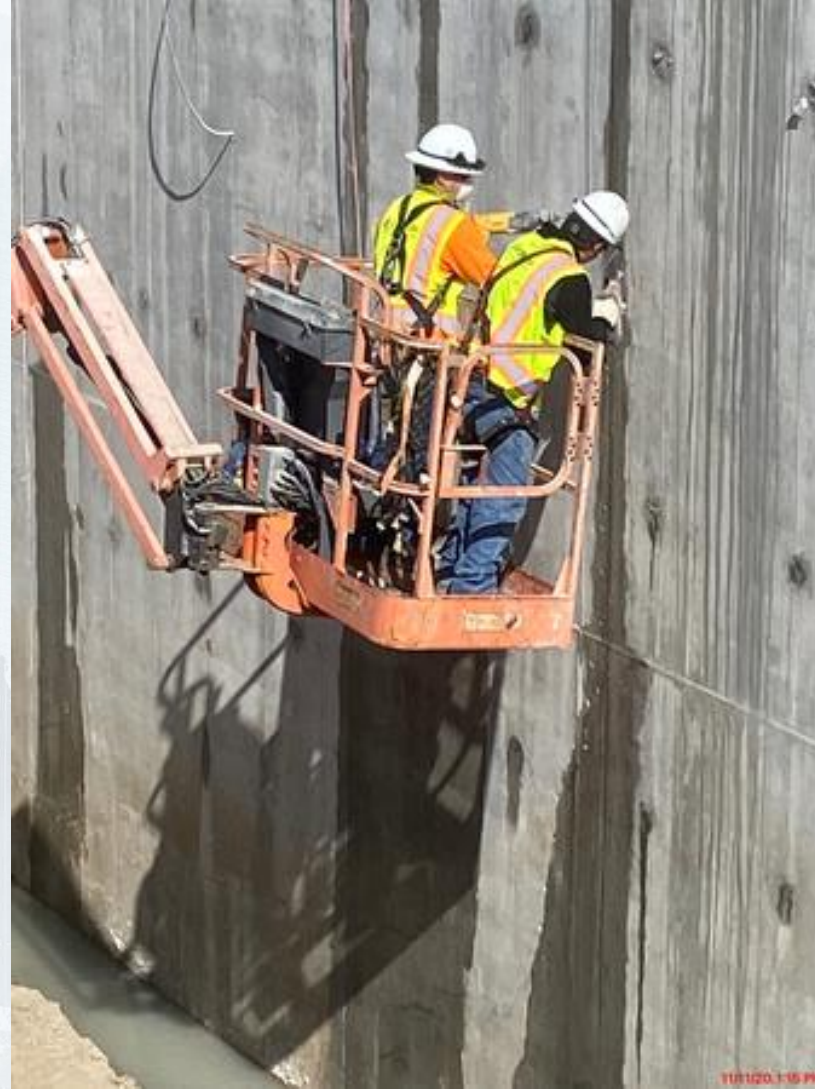
281-FILTER MODULE – Laying out /Setting Pipe supports in Gallery



291-TPS – Top View 11/2/2020



291-TPS – Watertightness Testing & Crack Repair Injection



291-TPS – Install UG piping and FRP Encasement



311-Post Treatment Chemical Facility 1 - Overall view 11/02/2020



311 – Seal Slab at Building pump room



311 – FRP Building pump room



311 : Fabrication of SST CS Tanks



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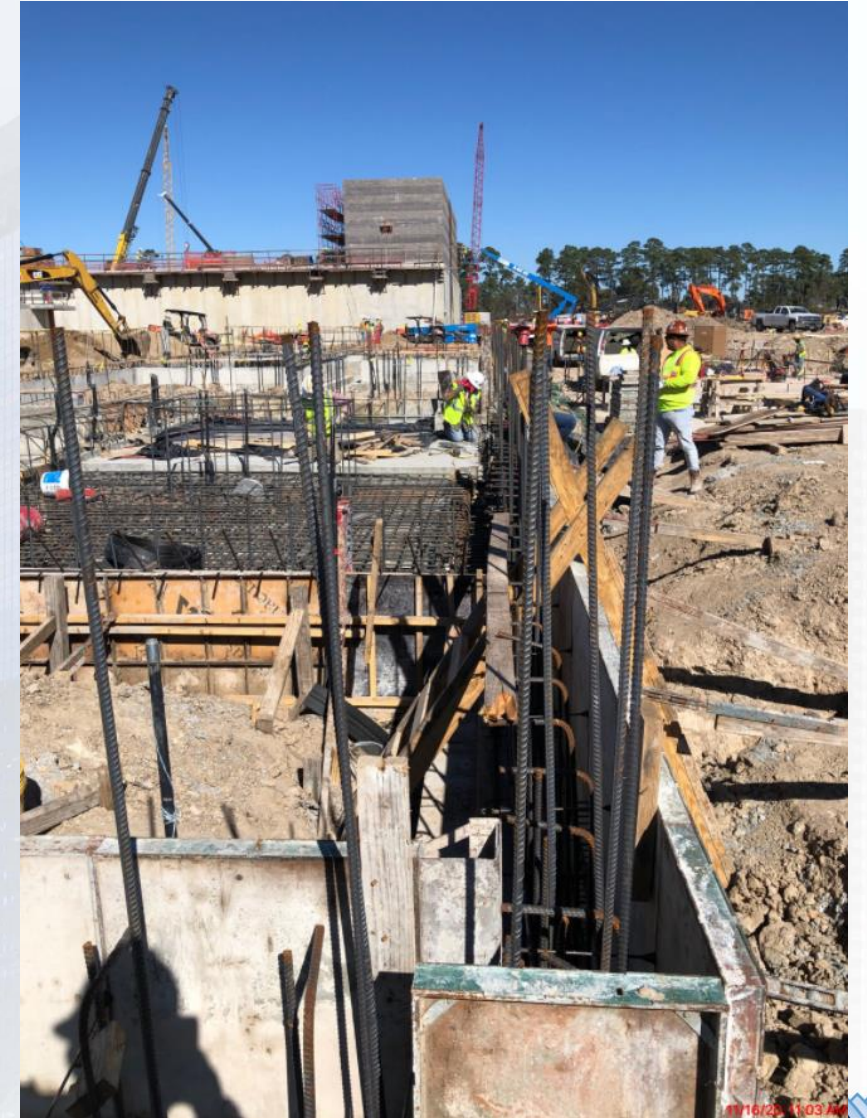
311 : Fabrication of SST CS Tanks



312-Backfilling Building Stem walls



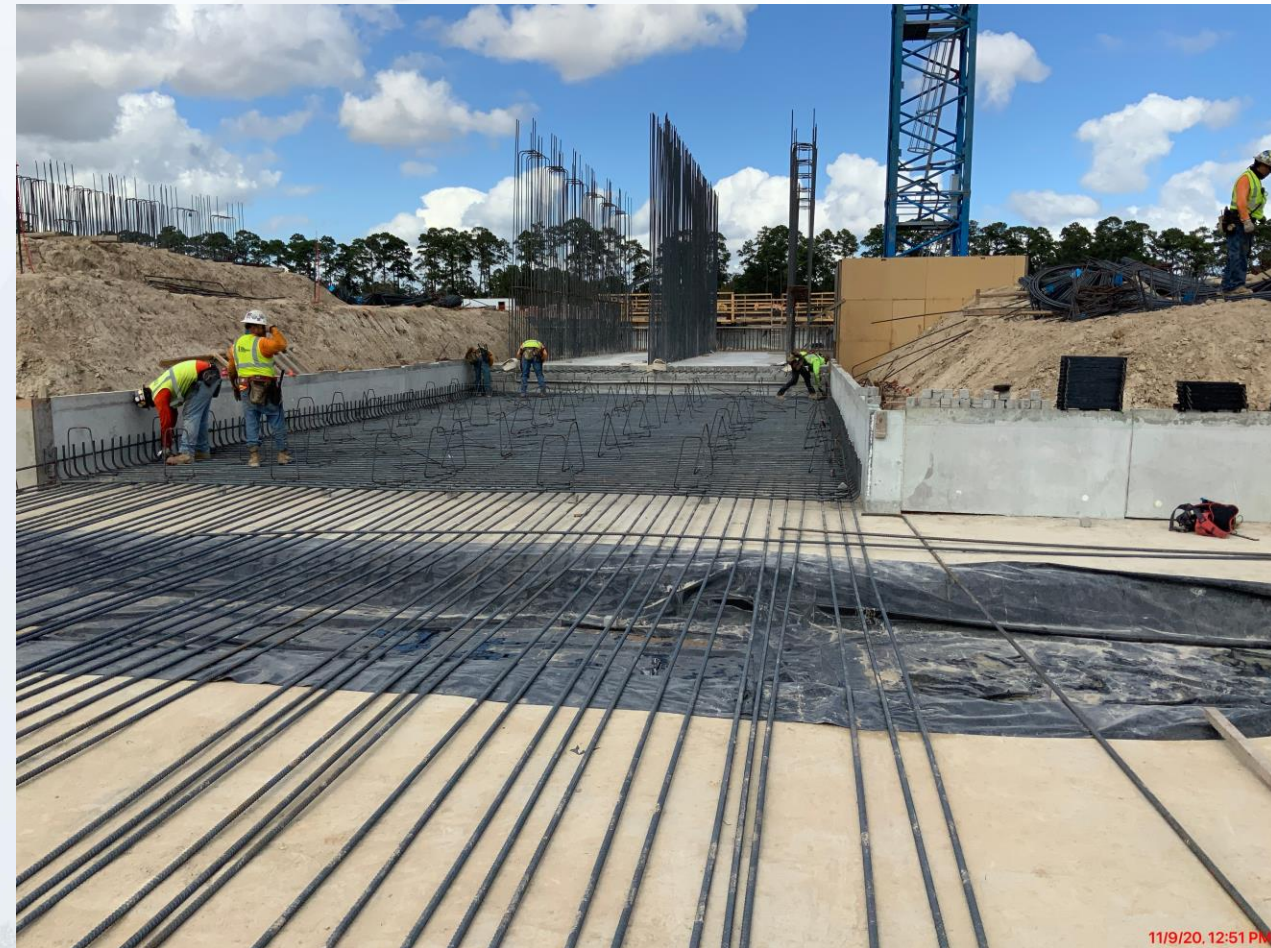
312 - Stem Wall and SOG-RFP



312 Containment Sump Area –RFP



282-FILTER MODULE 2- Reinforcing Base Slabs



282-FILTER MODULE 2- Pouring Base Slabs 10,12,14



282-FILTER MODULE 2- Start Reinforcing/Pouring Walls



292-TPS – FRP Main Slab Sections A1, A6, and C6



292-TPS – Main Slab Section C1 Reinforcement





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Continue grouting walls of basin**
- **602 – Continue excavation**

601 – Continue grouting walls of basin



602 – Continue excavation





Construction Progress – North Plant

211-Pretreatment Chemical Facility 1:

- Slab-1 and Slab-2 F/R/P

214-Pretreatment Chemical Facility 4:

- Installation of Primary Coagulant Steel Tank

222-Rapid Mix Train 2:

- Elevated Slab(s) F/R/P

241-FlocSed Train 1:

- 12" USL Encasement

242-FlocSed Train 2:

- Structural Concrete Work

252-Ozone Contractor Train 2:

- Baffle Wall-1 F/R/P

503-Gravity Thickener Complex 3:

- Service Building Excavation

504-Gravity Thickener Complex 4:

- Gravity Thickener #8 Slab-2 F/R/P

611-Liquid Residuals Clarifier Facility 1

- PS-EW-1 F/R/P
- WDW-3 F/R/P



Facility 211 – Slab-1 and Slab-2 F/R/P



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Facility 214 – Installation of Primary Coagulant Steel Tank



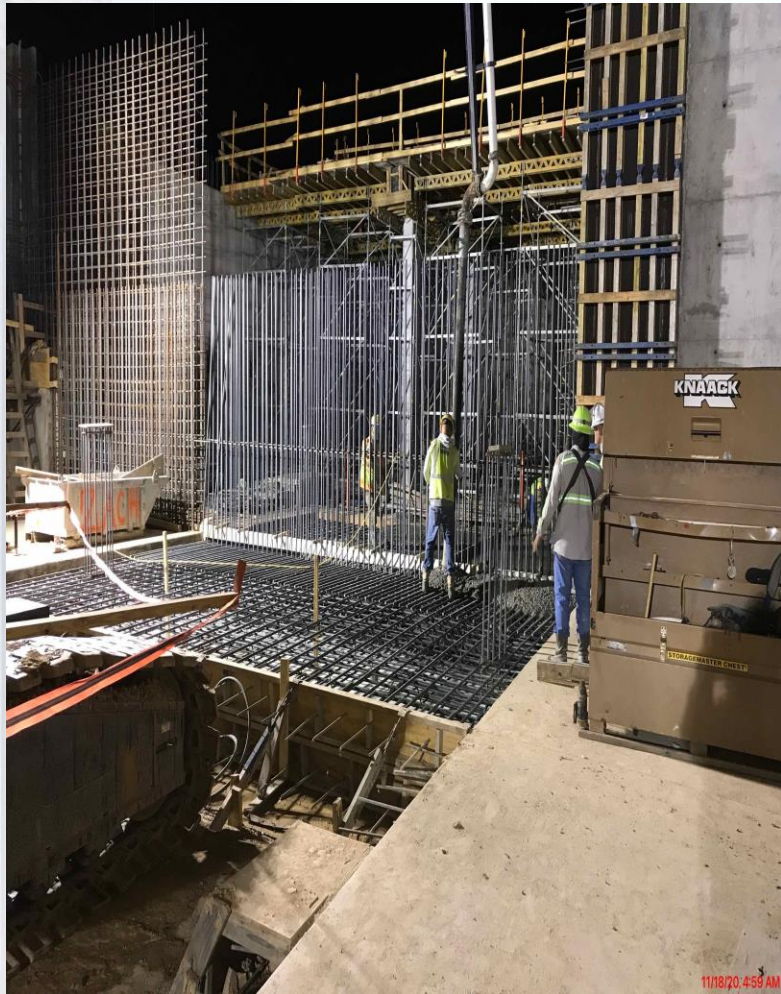
Facility 222 – RM-ESL-3 & RM-ESL-4 F/R/P



Facility 241 – Cross Collector Leak Test & 12" USL Encasement



Facility 242 – CWC Walls, Knife Walls/EL-SL Supports, SL-19 Placement, Elevated Deck F/R/P



Facility 252 – Baffle Wall-1 F/R/P



Facility 503 – Service Building Excavation

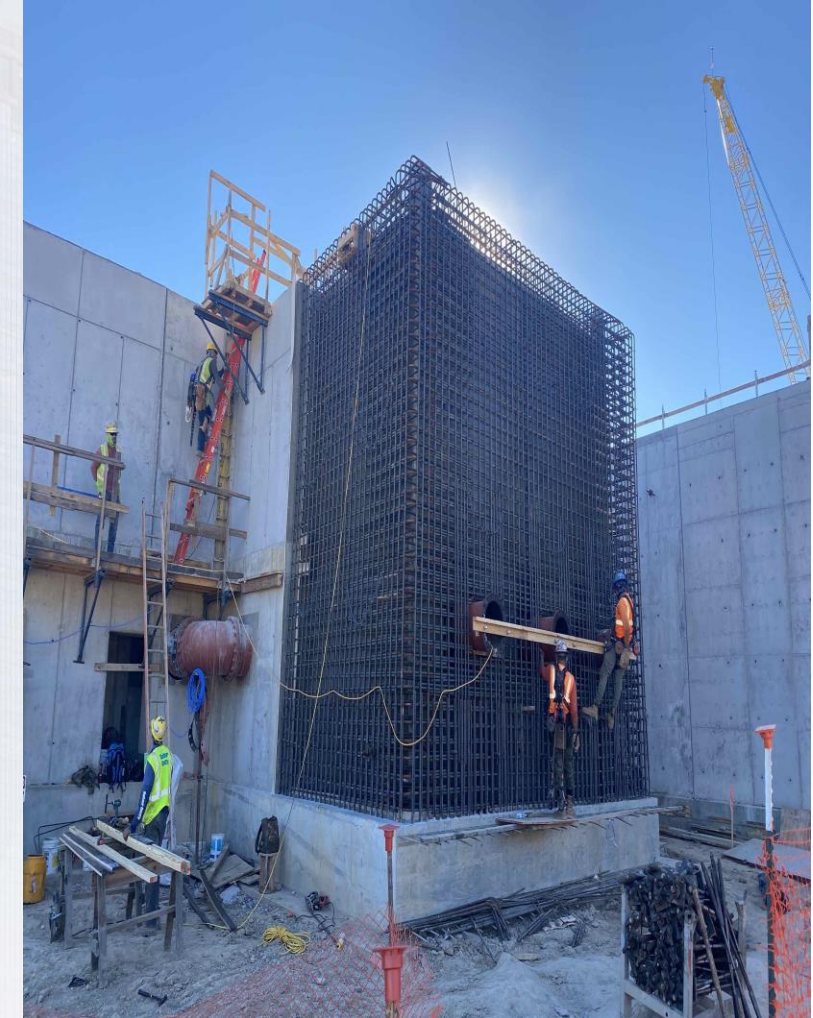


Facility 504 – Gravity Thickener #8 Slab-2 F/R/P



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Facility 611 – WDW-1, EEW-7, PS-EW-1 F/R/P





Construction Progress – South Plant

- **Load transfer platform installation at GST 362 awaits final lift.**
- **MEP installation at MSB 111.**
- **Backfilling 78" inlet pipes, hydro-testing, and encasement of pump cans at HSPS 401.**
- **Setting and leveling pump cans at HSPS 402.**
- **Steel roof installation continues, and concrete slab pour at 3rd floor is complete at the Dewatering Building 520**
- **Installation of pre-cast panels at the Dewatering Building 520.**
- **MEP installation at first floor of Dewatering Building 520.**
- **Installation of concrete walls and columns at Sludge Equalization Tank 510.**



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

Load transfer platform installation at GST 362 awaits final lift



11/16/20 10:52 AM



11/16/20 10:51 AM

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



HSPS 401

MSB 111

HSPS 402

MEP installation at MSB 111



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Backfilling 78" inlet pipes, hydro-testing, and encasement of pump cans at HSPS 401



Setting and leveling pump cans at HSPS 402



DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW



520

510

Dewatering Building 520



Steel roof installation continues, and concrete slab pour at 3rd floor is complete at the Dewatering Building 520



11/16/20 10:37 AM

Installation of pre-cast panels at the Dewatering Building 520



MEP installation at the first floor of the Dewatering Building 520



Installation of concrete walls and columns at Sludge Equalization Tank 510





Construction Progress – Administration Building

- Placed Roof SOMD at MB
- Installed Trench Drain at BW
- Placed SOG at BW
- Layout and Installation of CMU Wall at MB
- Installation of LV 1 Ductwork at AB/MB
- Placed LV 2 Decking at AB
- Assembled Standing Seam Structural Steel

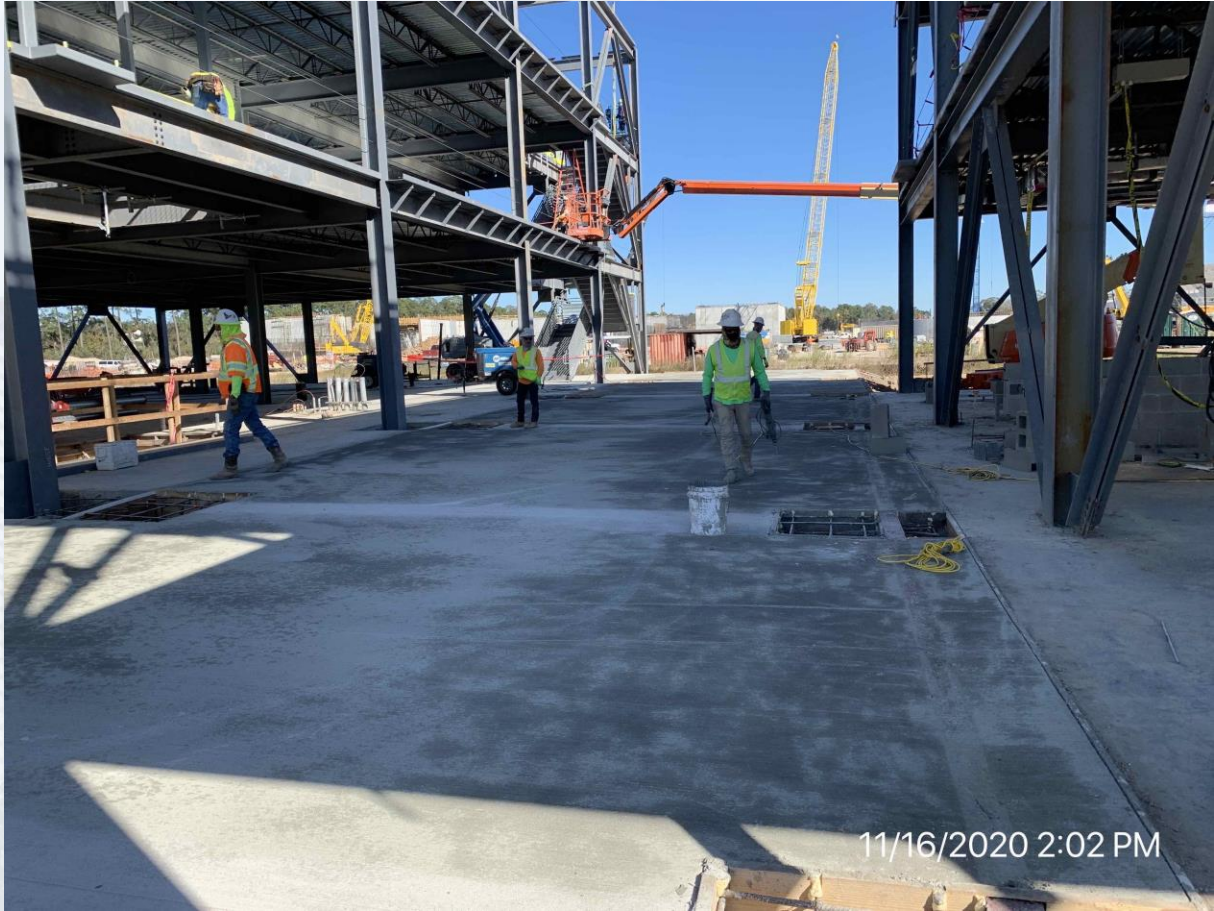
Placement of SOMD at MB



Installation of Trench Drain at BW



Placement of SOG at BW



Layout and Installation of CMU Wall at MB



Installation of LV1 Ductwork at AB/MB



Placement of LV2 Decking at AB



Assembly of Stand Seam Roof Steel



