



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

January 13, 2021





Cyber Shock 5261

Summer Creek High School



Cyber Shock Robotics
@5261CyberShock

...

Christmas came early for SCHS FRC Robotics team. Thank you to our new sponsor and the guys from Houston Waterworks for delivering our brand new tool box. 🙏👏😊



1:50 PM · 12/17/20 · [Twitter for iPhone](#)



Summer Creek HS Cyber Shock Robotics Team Sponsored by HWT

Site Drone Map January 7, 2021





Construction Progress – Intake Pump Station (IPS)

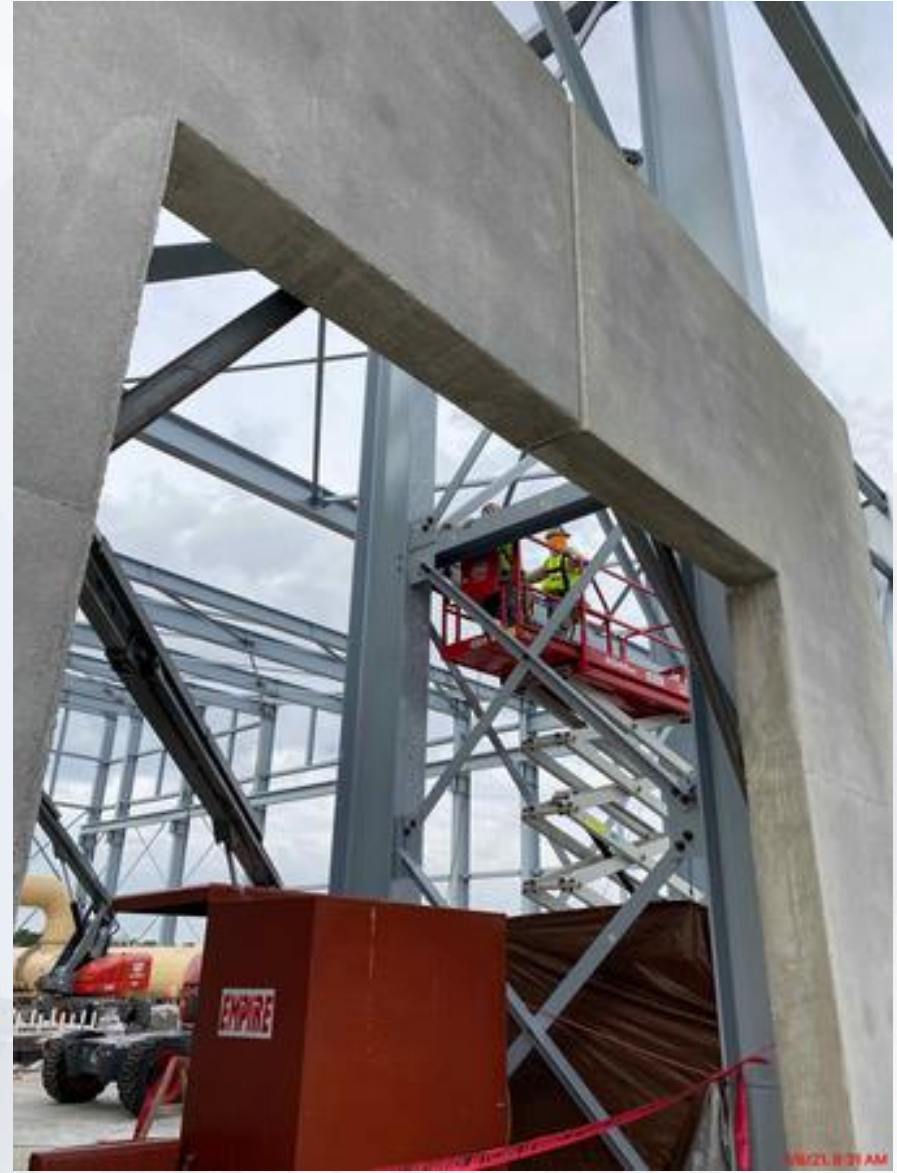
- Continue erecting structural steel members
- Installing precast concrete panels on the South East sides
- Pouring concrete for Building 152 stem walls
- Installing grounding cables on the 108" bridge pipe



Continue erecting structural steel members



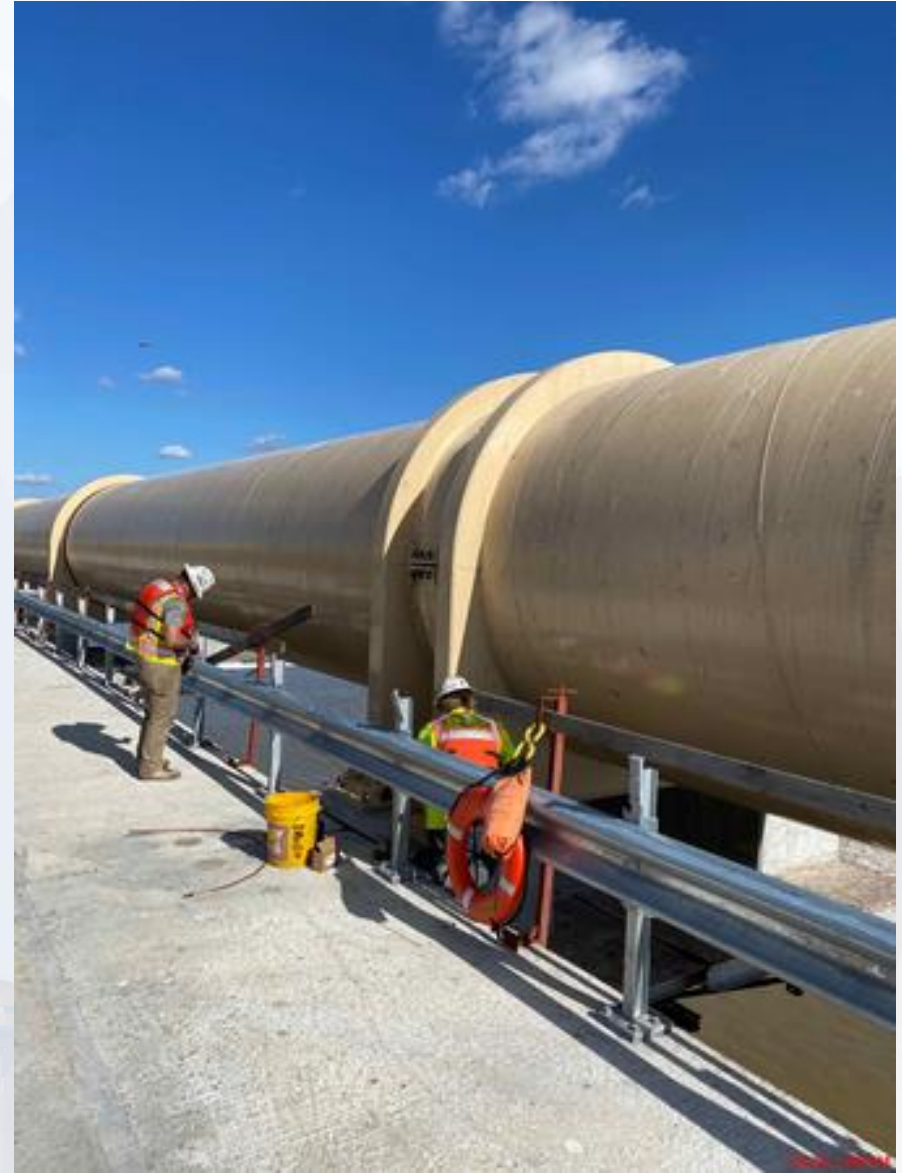
Installing precast concrete panels on the South East sides



Pouring concrete for Building 152 stem walls



Installing grounding cables on the 108" bridge pipe



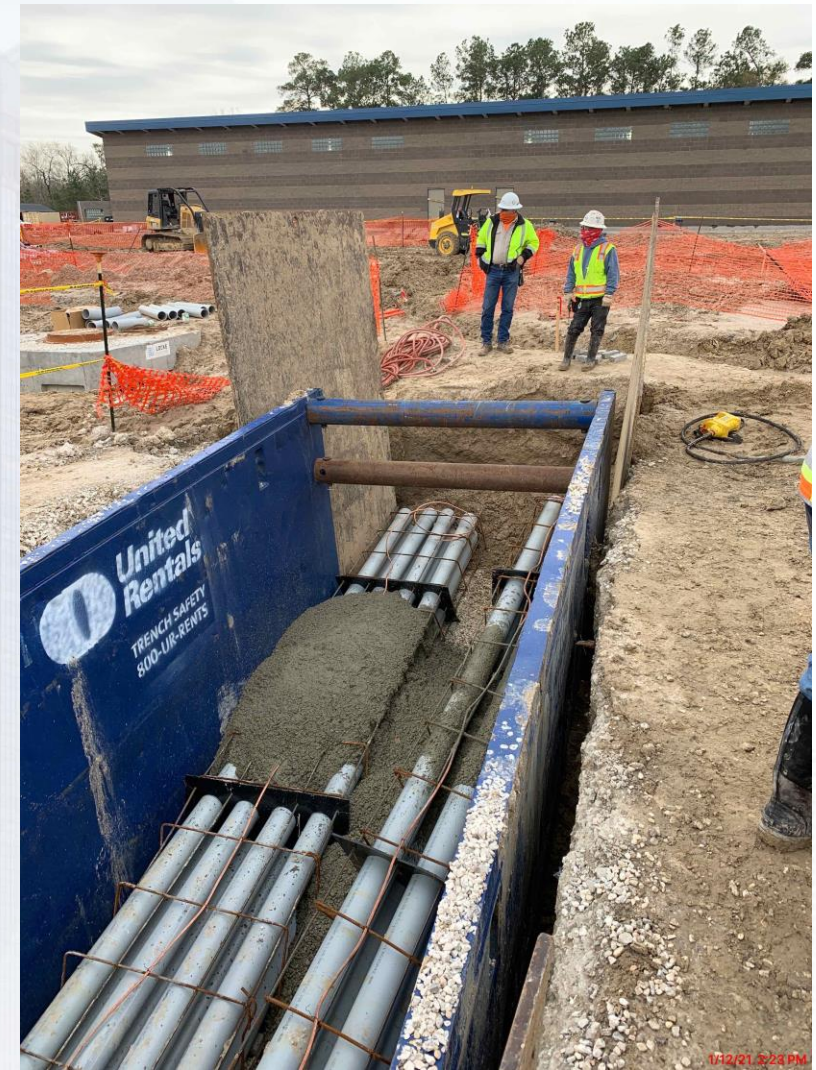
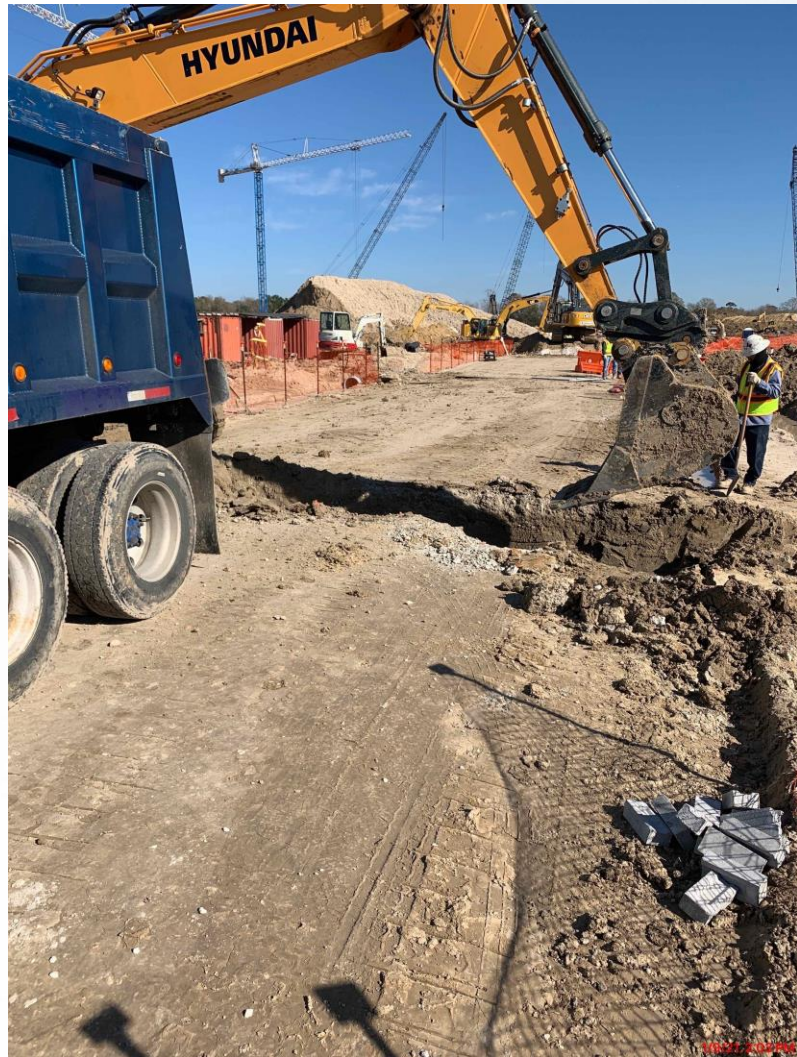


Construction Progress – Site Electrical

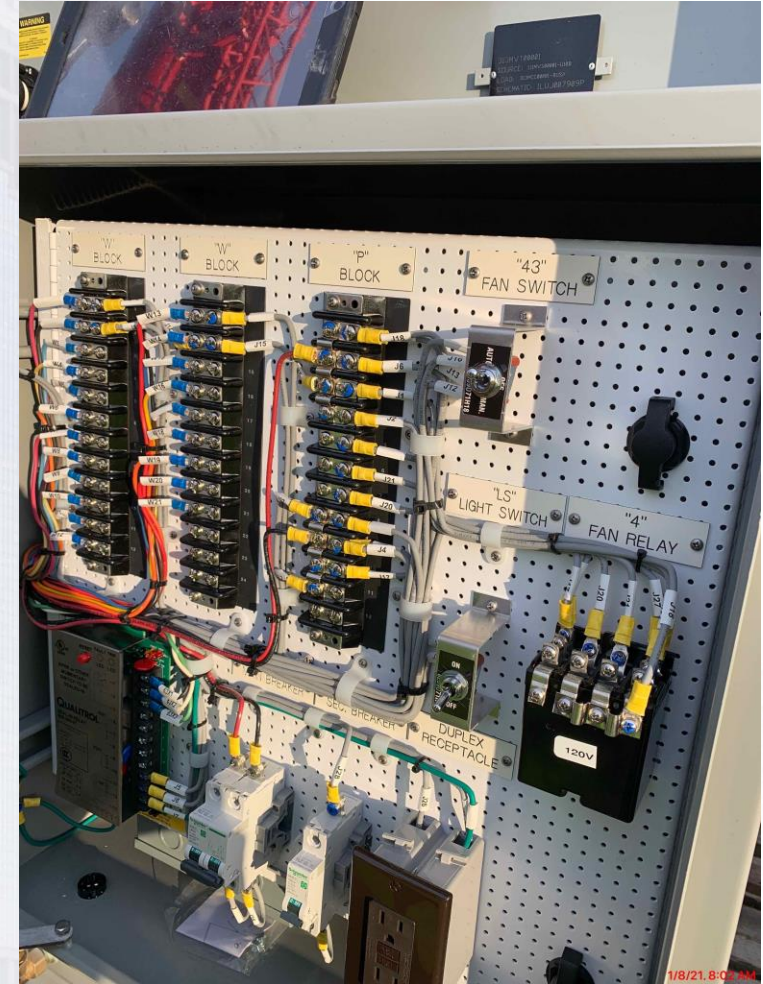
- Duct Bank Installation Crossing South Road (North of Facility 111)
- Arrival of 313 Transformers
- Wire Pulling at MMH152-5 & Stress Cones inside Facility 111



Duct Bank Installation Crossing South Road (North of Facility 111)



Arrival of 313 Transformers



Wire Pulling at MMH152-5 & Stress Cones inside Facility 111

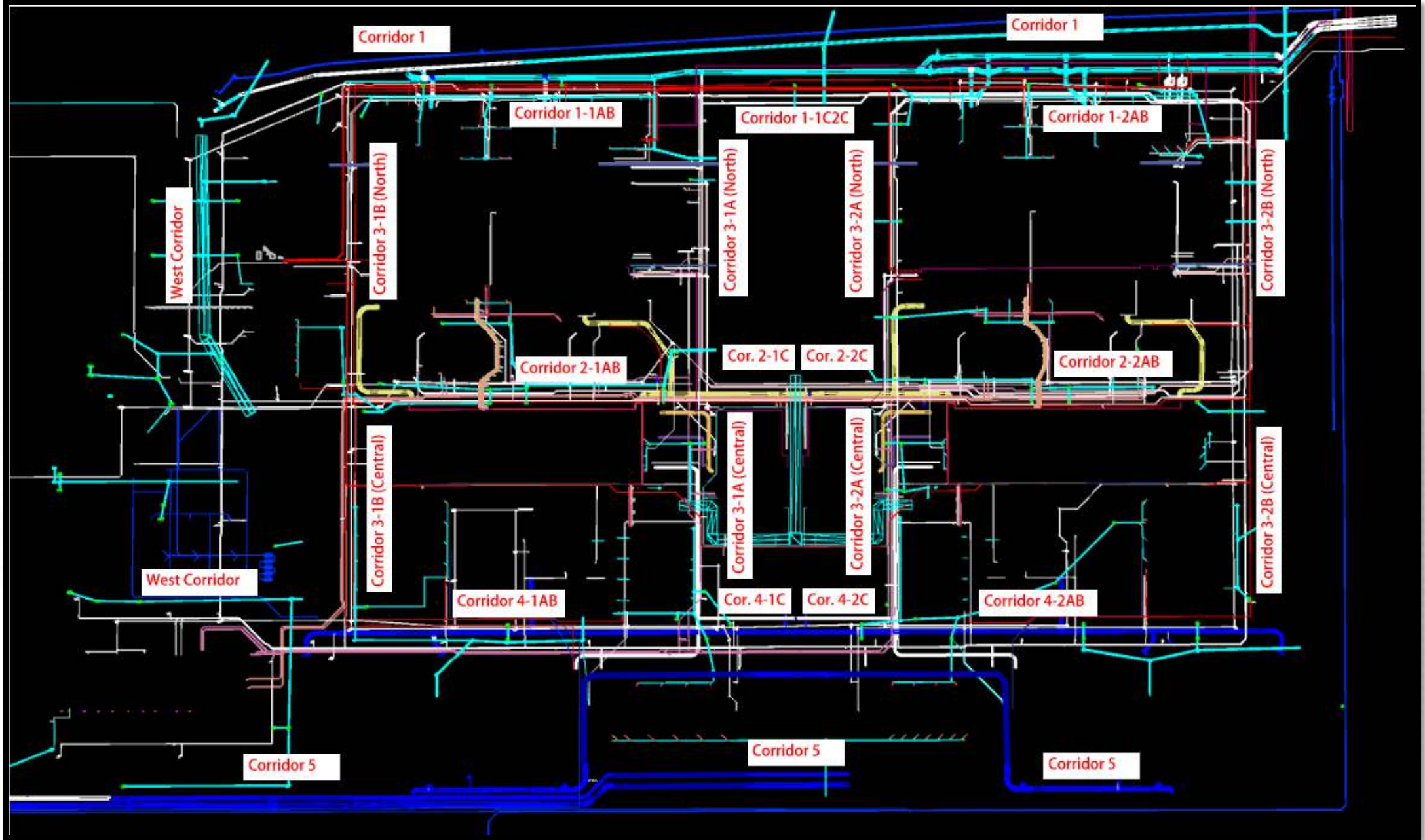




Construction Progress – Yard Piping

- **Installing 24” DEC piping in Corridor 2-1AB**
- **Installing 16” USL and CEN lines in Corridor 2-1AB**
- **Installing 6” PW line in Corridor 2-1AB**
- **Installing 72” BWW piping in Corridor 3-1A Central**
- **Welding 96” Victaulic Ring on OZW pipe in Corridor 2-1AB**
- **Installing 10” SSG and 10” PDR piping and manholes in Corridor 3-1B and 2-1AB**
- **Laying 84” & 120” FW distribution lines in Corridor 5**
- **Laying 102” FW steel pipe, and set valve and tee in Corridor 5**
- **Laying 96” FW steel pipe in Corridor 4 – Phase 2**
- **Laying 84” FW steel pipe bends in Corridor 4 to GST3 – Phase 2**





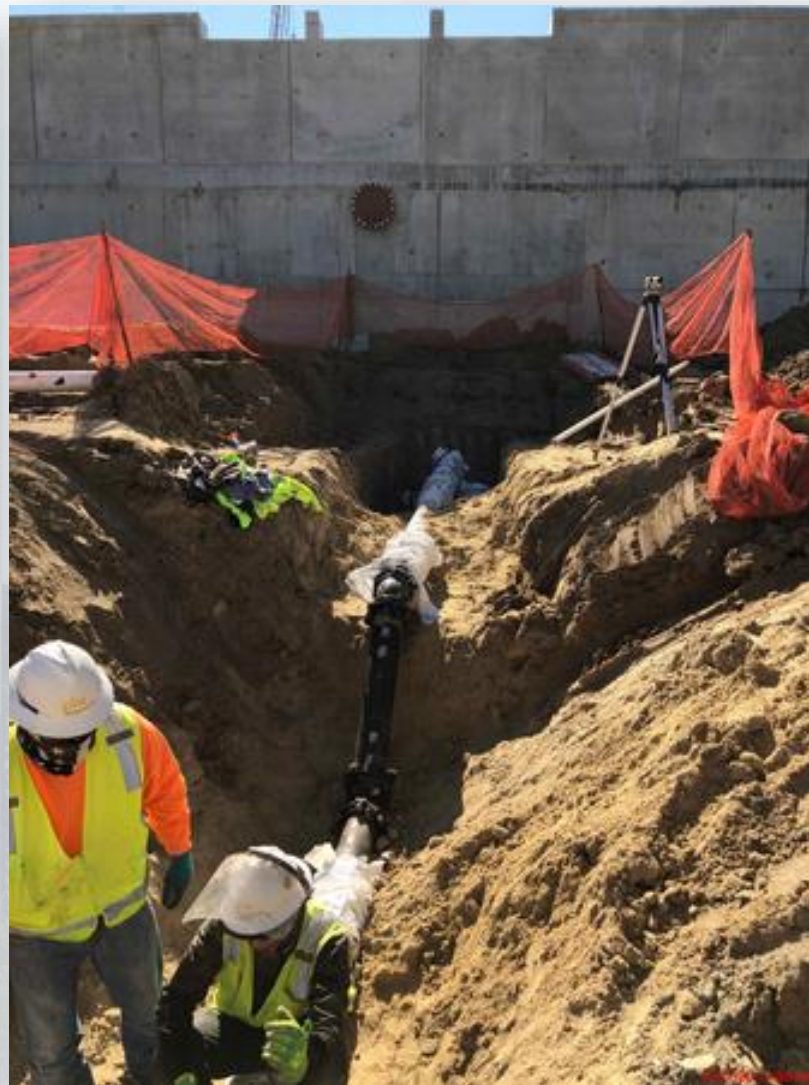
Installing 24" DEC piping in Corridor 2-1AB



Installing 16" USL and CEN lines in Corridor 2-1AB



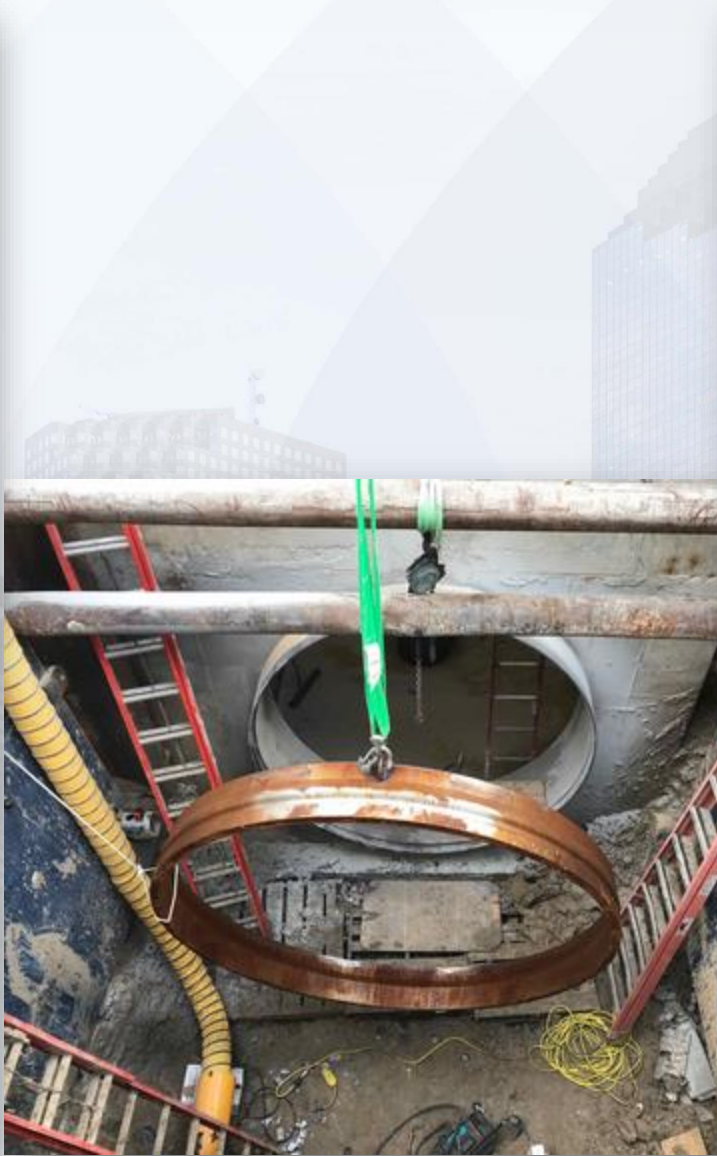
Installing 6" PW line in Corridor 2-1AB



Installing 72" BWW piping in Corridor 3-1A Central



Welding 96" Victaulic Ring on OZW pipe in Corridor 2-1AB



Installing 10" SSG, 10" PDR, and manholes in Corridors 3-1B and 2-1AB



Laying 108" & 102" FW steel pipe, and setting valve and tee in Corridor 5



Aerial view of setting the 108x102" Tee



Laying 84" & 120" FW distribution lines in Corridor 5



Laying 96" FW steel pipe in Corridor 4 – Phase 2



Laying 84" FW steel pipe bends in Corridor 4 to GST3 – Phase 2





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Trough Installation & Grouting
- West Side Masonry.
- Setting Gallery Pipe supports.
- Setting BWA Pipe risers.
- Structural Steel & Staircase

291-TRANSFER PUMP STATION 1:

- Complete VTPs' Installation
- Backfill East and West of the Building

292-TRANSFER PUMP STATION 2:

- Pour Pump Cans' 2nd Encasement Pit
- Main Wall Sections A4 and A6 Reinforcement

311-POST CHEMICAL FACILITY 1 SH/CS :

- FRP –Reinforce rebar installation at Pump Building
- Fabrication of SST CS Tanks.
- FRP –Equipment Pads layout

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

- FRP –Post Chem Building SOG
- FRP – Containment Area SOG B1 & B2

282 -FILTER MODULE 2:

- Reinforcing/Forming Walls
- Pouring Walls
- Reinforce/Pour Filter Slab 13
- Backfilling for Filter Slab 14/15
- Reinforcing Filter 14 Slab

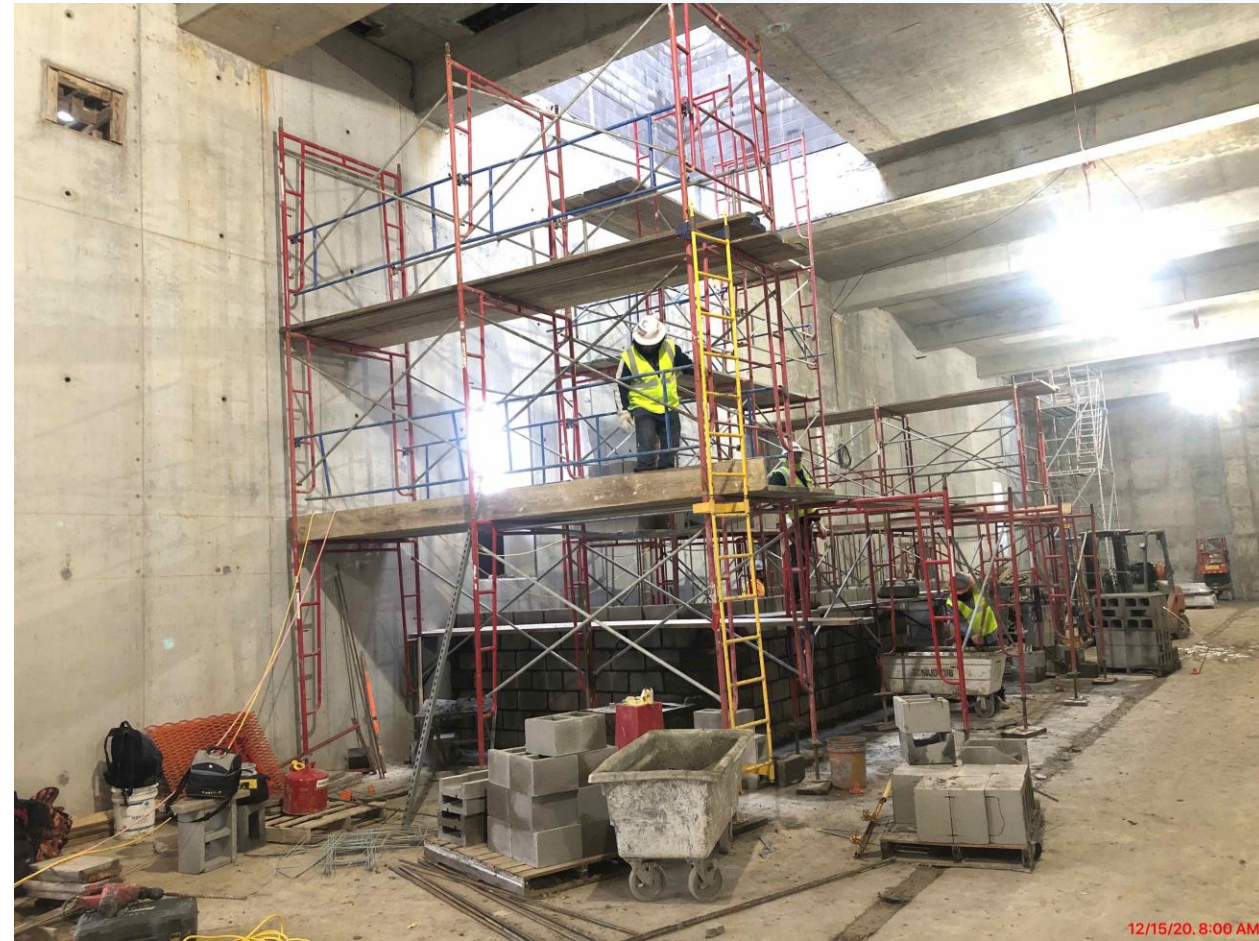
Central Plant - Phase 1



281-FILTER MODULE – Aerials



281-FILTER MODULE-West Side Masonry



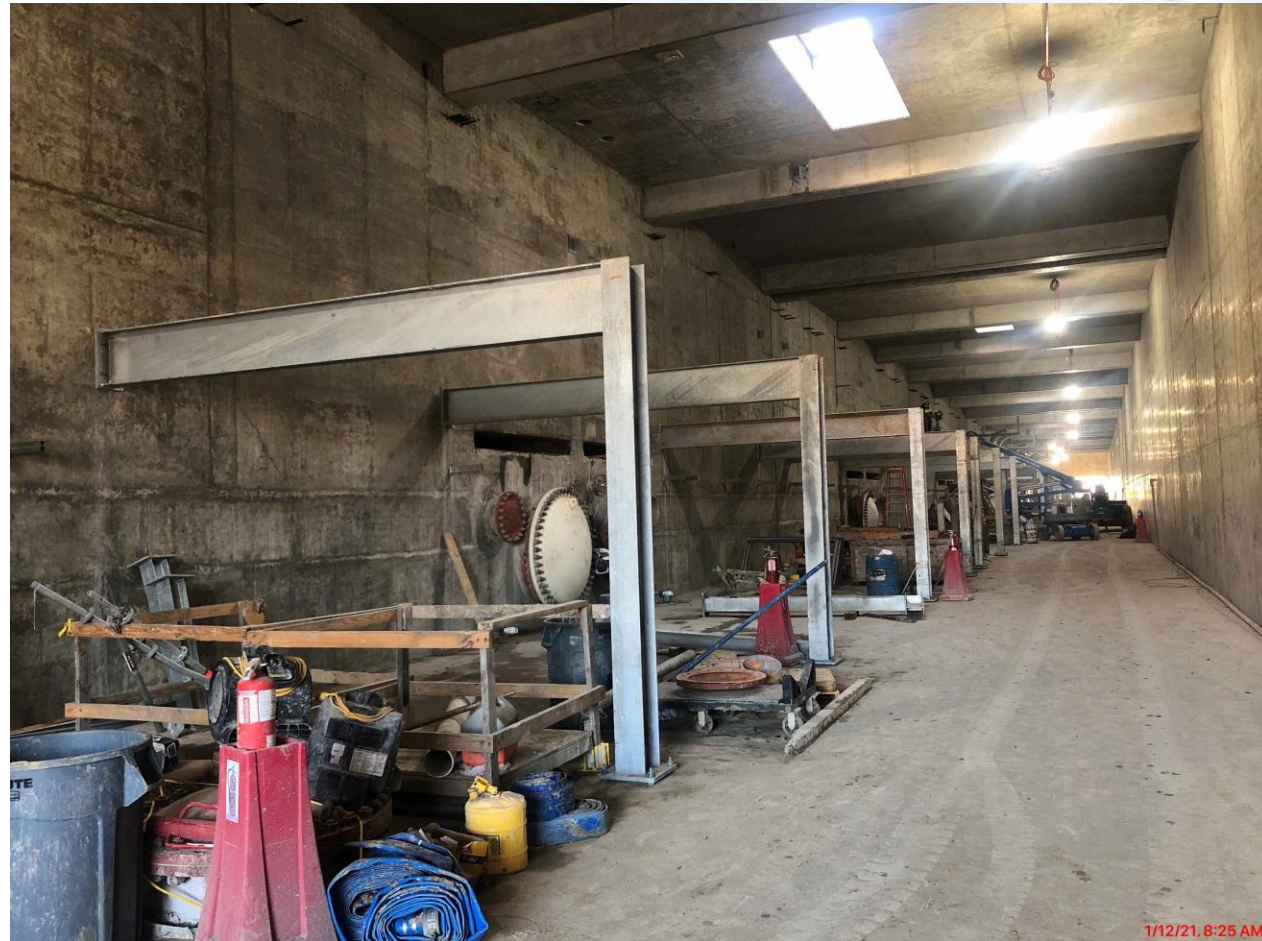
281-FILTER MODULE- Setting Filter Troughs (Filter 7,9-12)



281-FILTER MODULE- Grouting Filter Troughs (Filter 12)



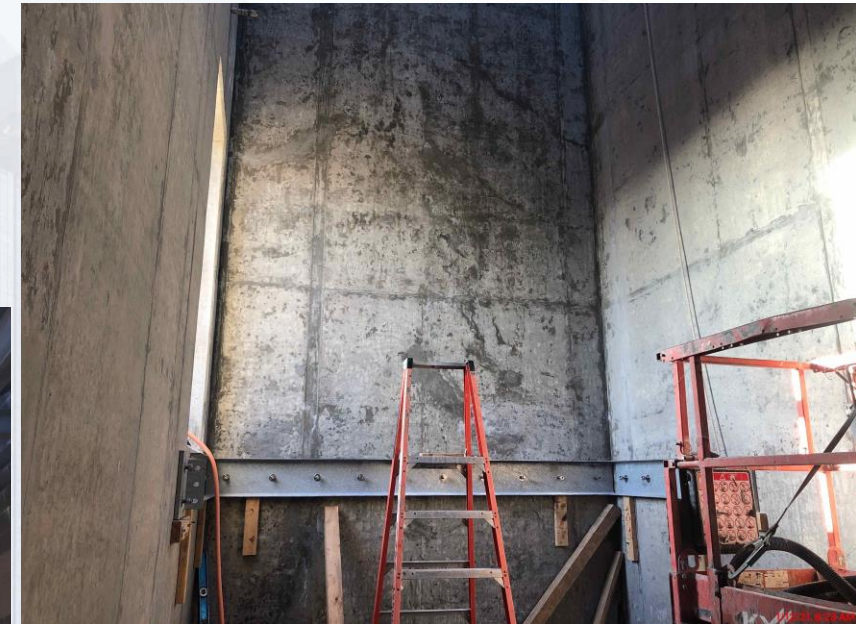
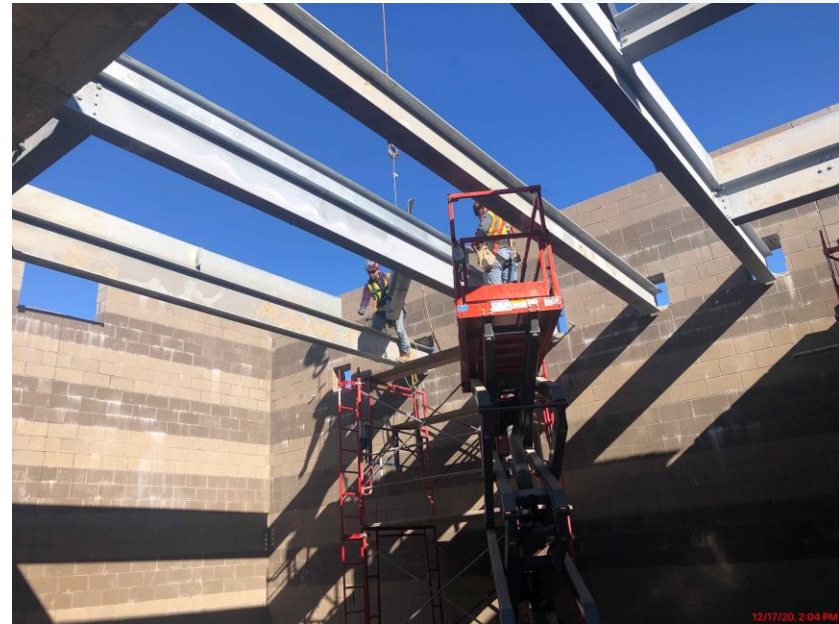
281-FILTER MODULE – Setting Pipe supports in Gallery(West Side)



281-FILTER MODULE – Setting BWA Pipe Risers



281-FILTER MODULE – Structural Steel & East Stairway



291-TPS – Aerial View (01/04/2021)



291-TPS – Setting Vertical Turbine Pumps



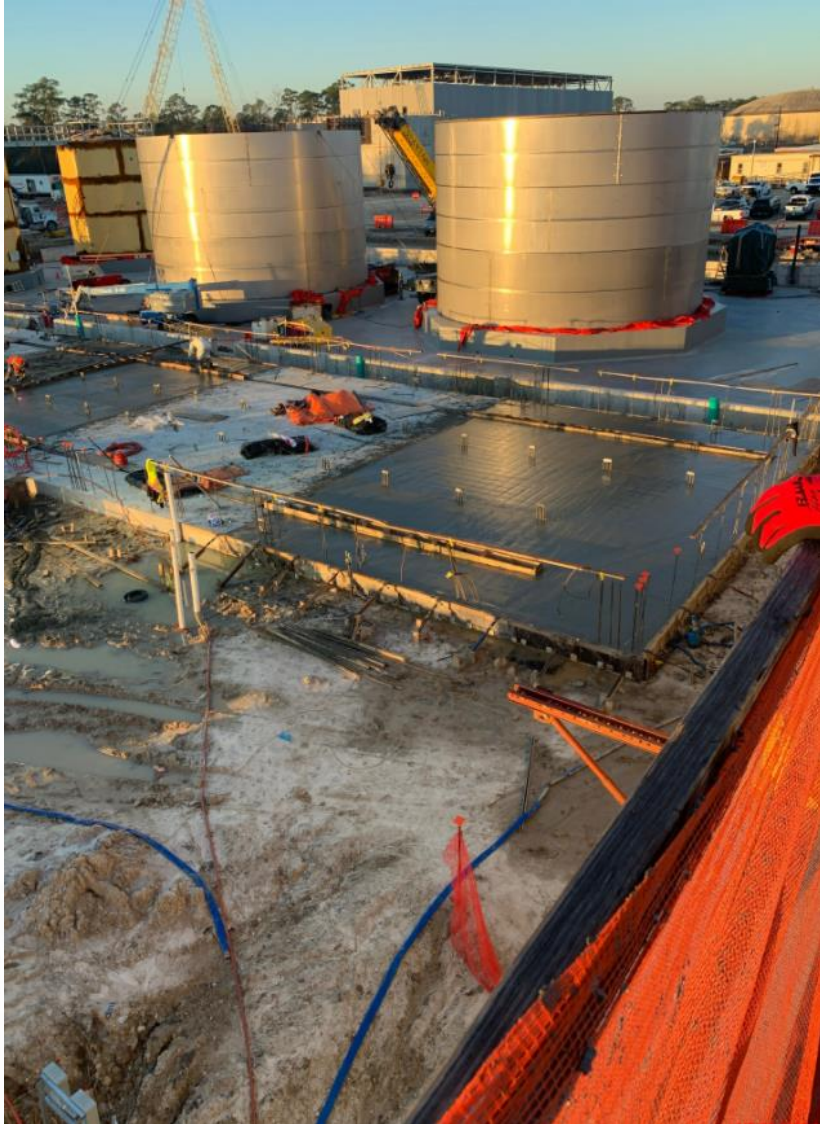
291-TPS – Backfill East and West of the Building



311 – FRP SOG Pump Building: C1, C3, C5.



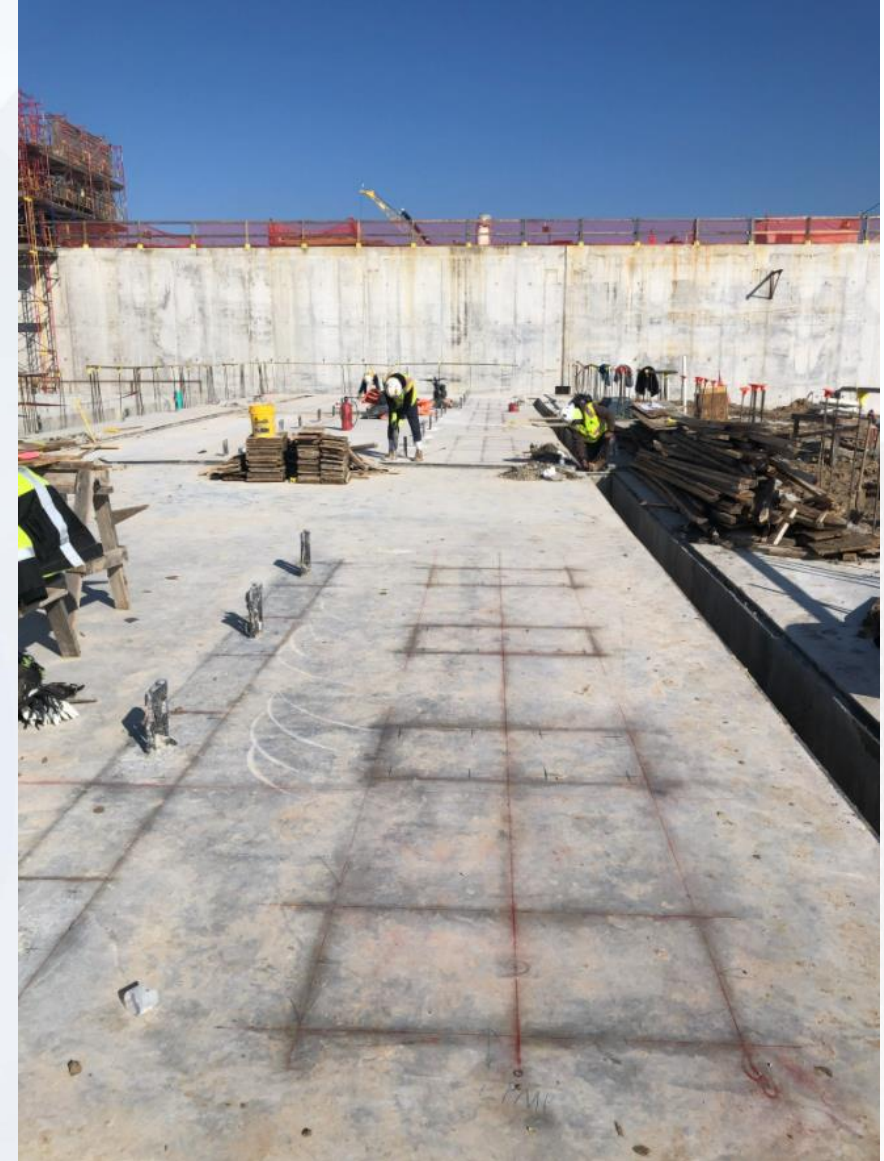
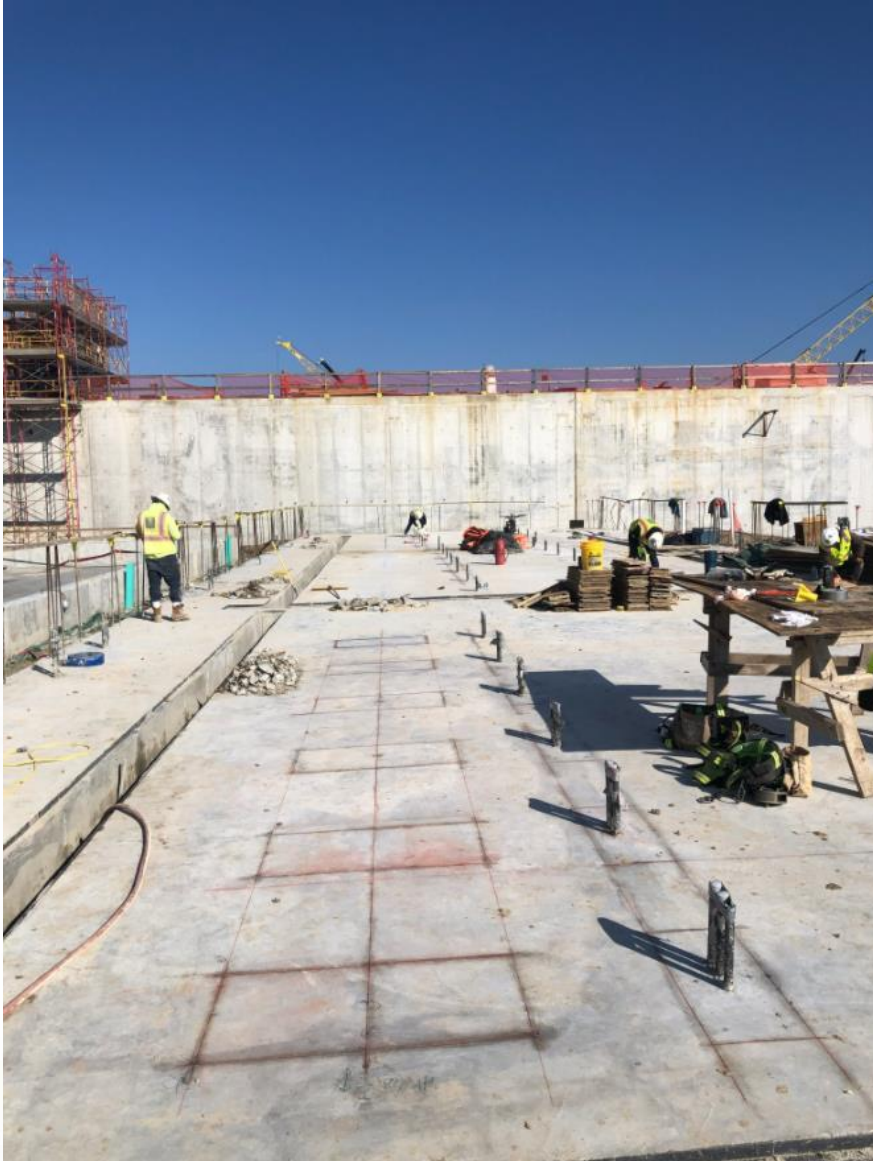
311 – FRP SOG Pump Building: C1, C3, C5.



311 - Fabrication of SST CS Tanks



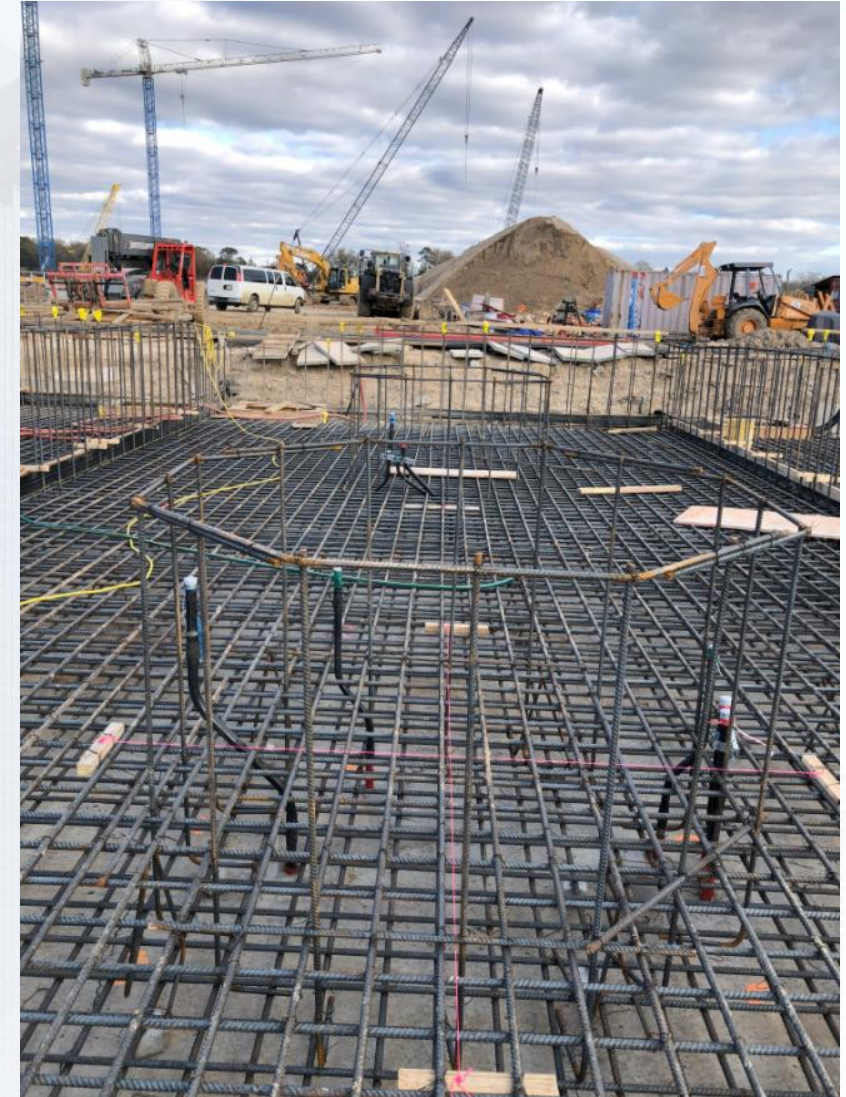
FRP –Equipment Pads layout



311 – Aerial view – 01/04/2020



312 - FRP SOG Containment Area: B2



312 - FRP SOG Containment Area: B1



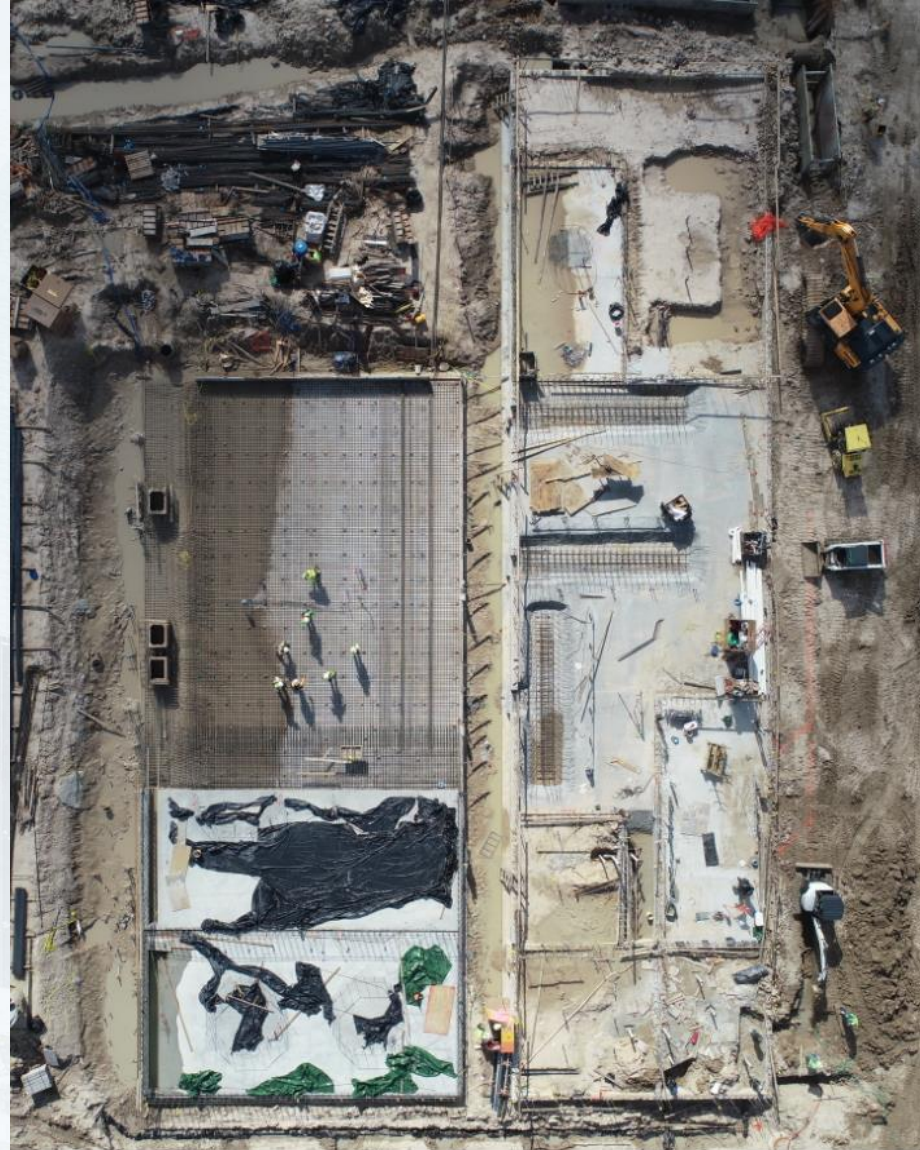
312 - FRP SOG Containment Area: B1



312 - FRP SOG Containment Area: B1



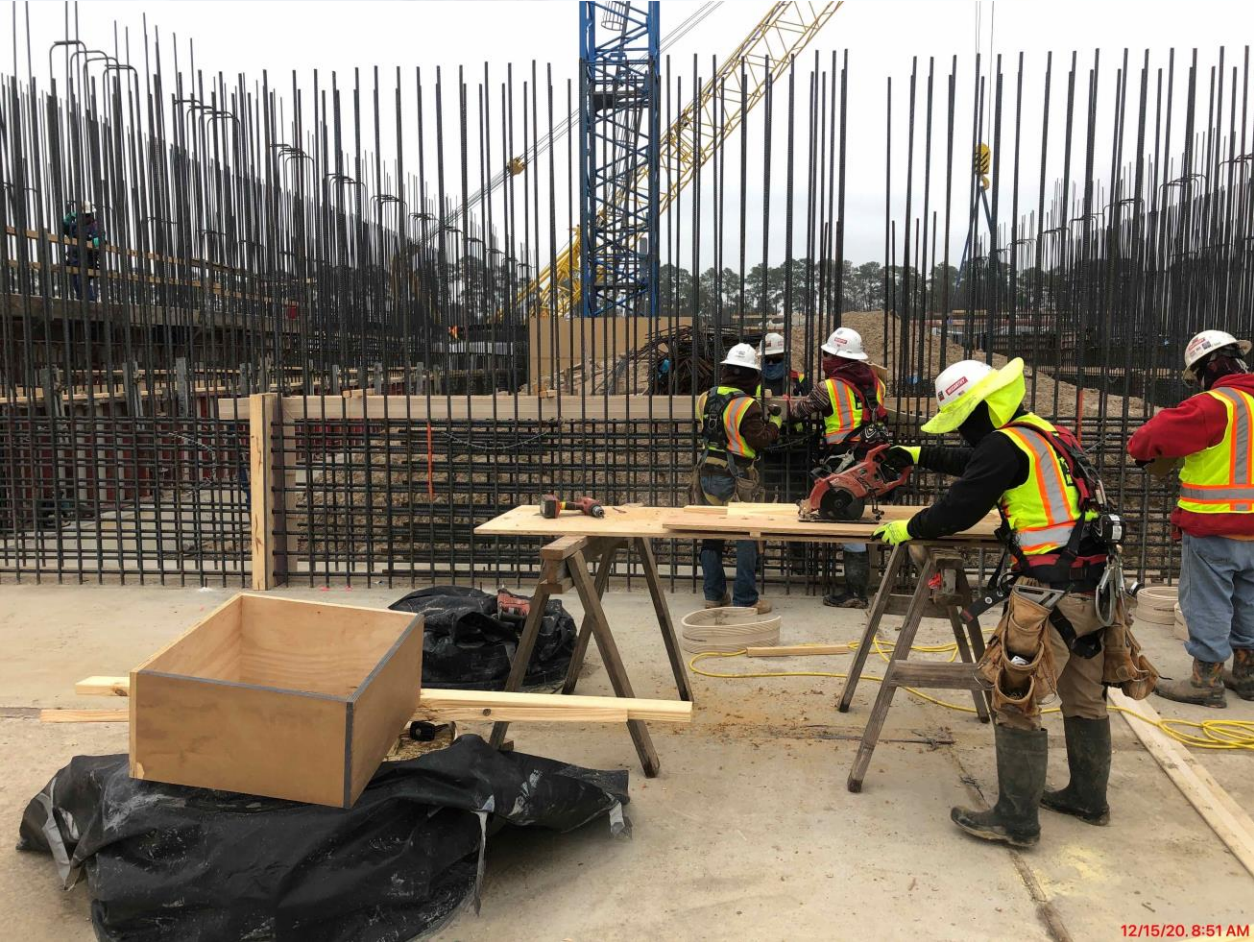
312 - Overall view 12/01/2020



Central Plant - Phase 2



282-FILTER MODULE 2- Reinforcing/Forming Walls



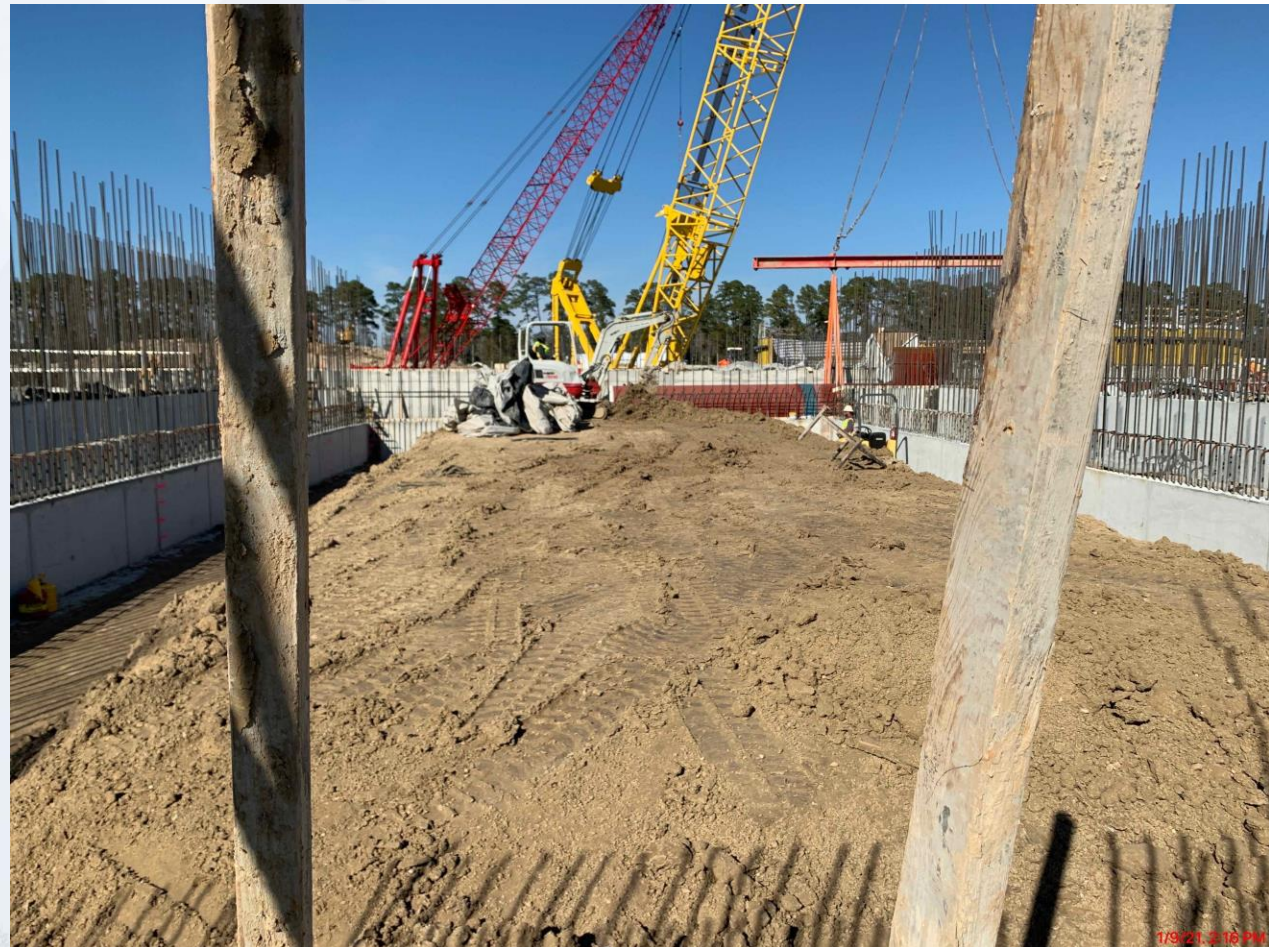
282-FILTER MODULE 2- Pouring Walls



282-FILTER MODULE 2- Filter 13 Slab Rebar/Pour



282-FILTER MODULE 2- Backfilling Filter 14/15



282-FILTER MODULE 2- Filter 14 Slab Rebar



282-FILTER MODULE 2- 72" BWW Placement



292-TPS – Pour Pump Cans' 2nd Encasement Pit



292-TPS – Main Wall Sections A4 and A6 Reinforcement





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Interior walls finish of basin**
- **602 – Concrete Pour North Seal Slab**
- **602 – Installation of Formwork Main Base Slab (1) and (2)**
- **602 – Rebar Installation Main Base Slab (1)**



601 – Finishing interior walls of basin



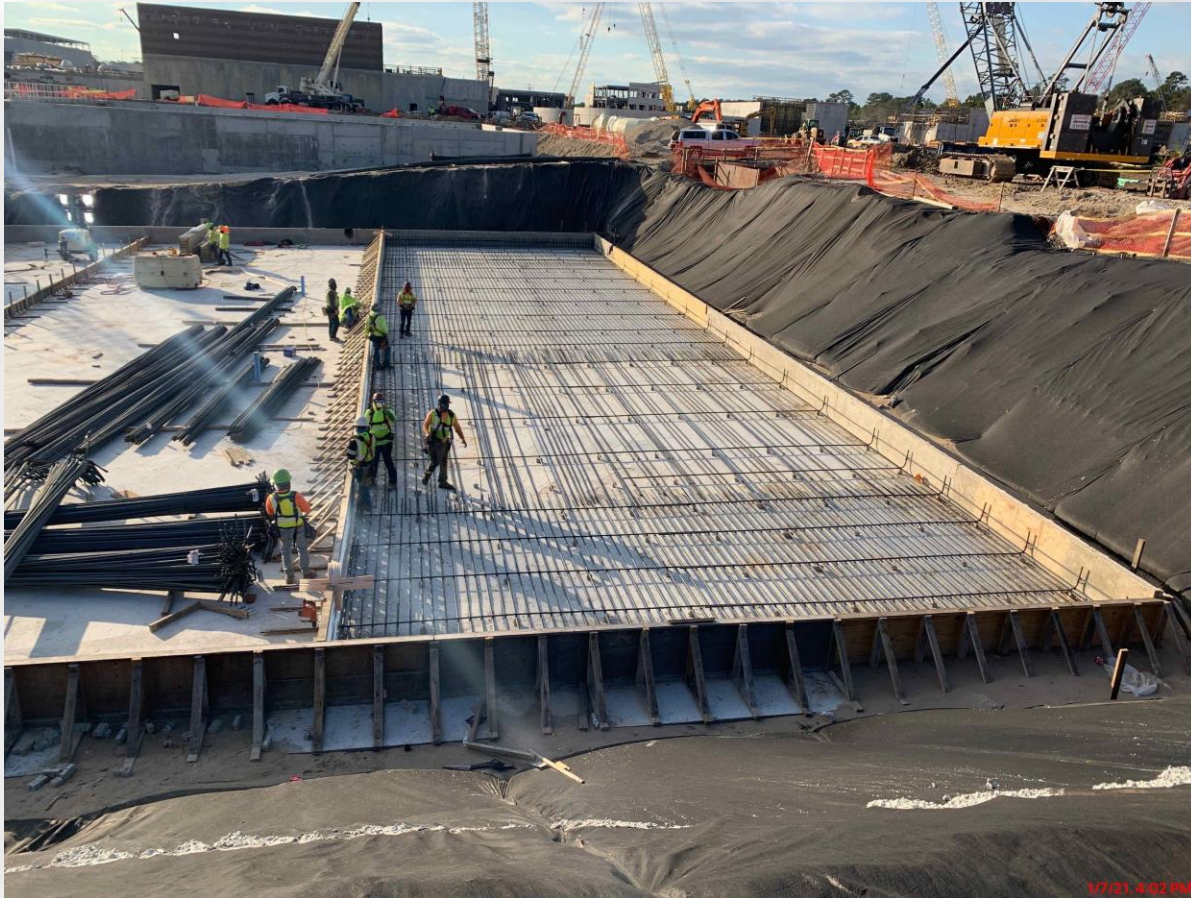
602 – Concrete Pour North Seal Slab



602 – Installation of Formwork Main Base Slab (1) and (2)



602 – Rebar Installation Main Base Slab (1)





Construction Progress – North Plant

211-Pretreatment Chemical Facility 1:

- Area-A Mud Mat

212-Pretreatment Chemical Facility 2:

- Columns For ESL

214-Pretreatment Chemical Facility 4:

- PC Tank-1 Top Installation

222-Rapid Mix Train 2:

- Elevated Slab/Beam RM ESL-4

251-Ozone Contractor Train 1:

- Outlet Box F/R/P

261-Ozone Generation Facility 1:

- Backfill Of Excavation

241-Flocculation & Sedimentation Train 1:

- Slab On Grade F/R/P

242-Flocculation & Sedimentation Train 2:

- Second Lift F/R/P Of FDBC Wall-7

503-Gravity Thickener Complex 3:

- Thickened Sludge Service Building
Walls-1&3 F/R/P

504-Gravity Thickener Complex 4:

- GT-7 Wall-1 F/R/P

611-Liquid Residuals Clarifier Facility 1:

- DBC Wall-1A F/R/P

801-Basin Drain Pump Station 1:

- Caisson First Lift



211-Pretreatment Chemical Facility 1: Area-A Mud Mat



212-Pretreatment Chemical Facility 2: Columns For ESL



214-Pretreatment Chemical Facility 4: PC Tank-1 Top Installation



1/6/21, 2:38 PM

Houston Waterworks Team



222-Rapid Mix Train 2: Elevated Slab/Beam RM ESL-4



12/21/20, 2:19 PM

241-Flocculation & Sedimentation Train 1: Slab On Grade F/R/P



242-Flocculation & Sedimentation Train 2: Second Lift F/R/P Of FDBC Wall-7



1/8/21 2:58 PM

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251-Ozone Contractor Train 1: Outlet Box F/R/P



1/7/21, 2:13 PM

Houston Waterworks Team



261-Ozone Generation Facility 1: Backfill Of Excavation



1/8/21, 2:51 PM

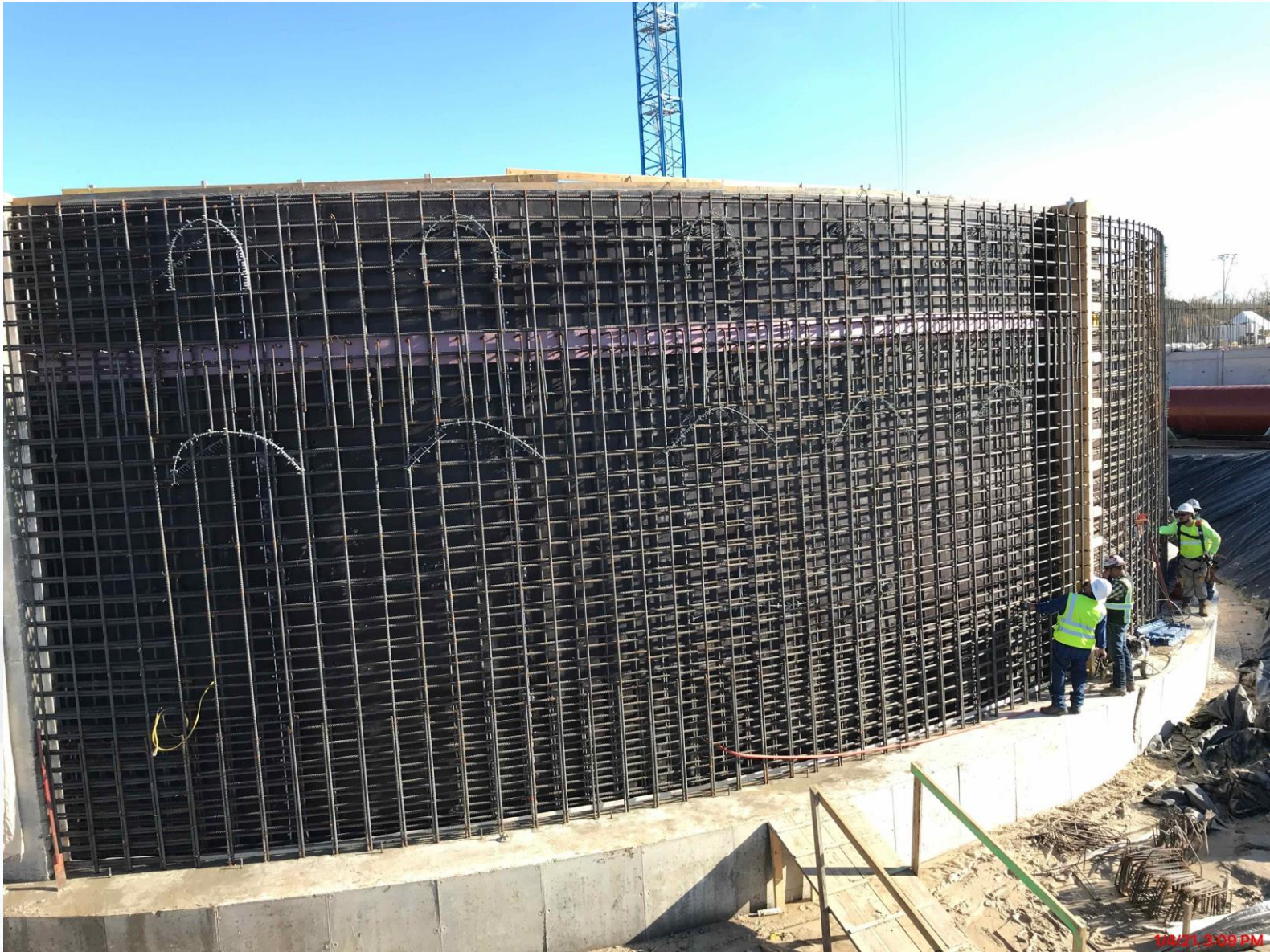
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503-Gravity Thickener Complex 3: Thickened Sludge Service Building Walls-1&3 F/R/P



504-Gravity Thickener Complex 4: GT-7 Wall-1 F/R/P

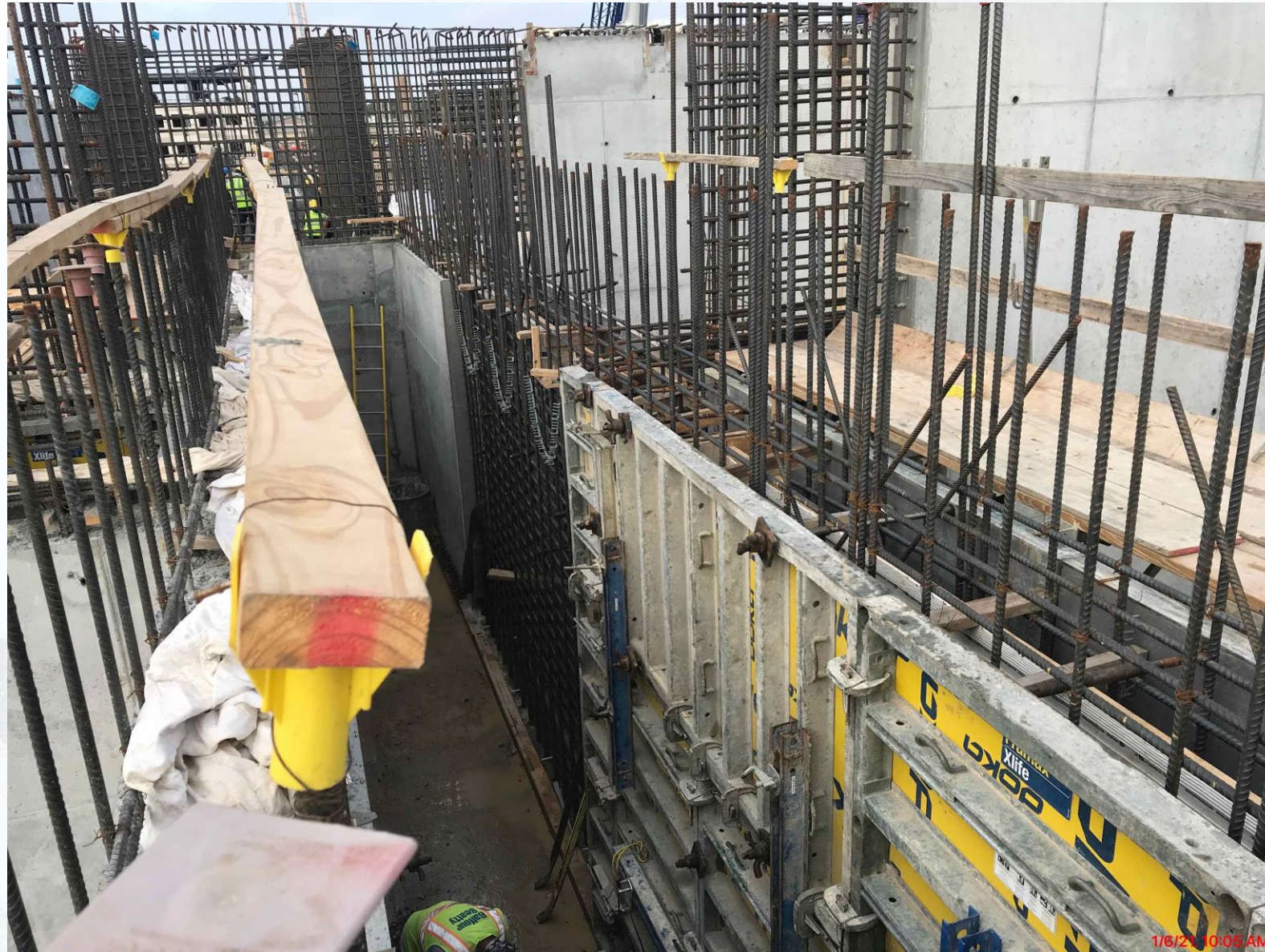


04/21 3:39 PM

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611-Liquid Residuals Clarifier Facility 1: DBC Wall-1A F/R/P



801-Basin Drain Pump Station 1: Caisson First Lift



11/21 3:34 PM

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Construction Progress – South Plant

- Commenced precast concrete casting beds at GST 362.
- Completed concrete tank floor at GST 362.
- PLW (Boyer) Continued backfilling the 78-inch inlet pipe encasement and pump cans at Fac 401.
- Under slab electrical at Fac 401 begins.
- Rebar installation at Fac 402 for pump can encasement continues.
- Install steel closure pieces at Fac 111 roof framing.
- Completed condensing pad pour at Fac 111.
- Installation of masonry 1st (Polymer storage), and 2nd (Electrical room/Polymer aging room).
- Installation of fire sprinkler piping at Fac 520.
- Completed precast panel installation at Fac 520.
- Commenced ductwork rough-in at Fac 520.
- Installation of concrete walls and columns at Sludge Equalization Tank 510.



GST 361 & 362 AERIAL VIEW

January 7, 2021



GST 361

GST 362

Completed concrete tank floor at GST 362



Commenced precast concrete casting beds at GST 362



HSPS 401, MSB 111, HSPS 402 AERIAL VIEW

January 7, 2021



HSPS 401

MSB 111

HSPS 402

Continued backfilling the 78-inch inlet pipe encasement/pump cans and started under slab electrical at Fac 401



Rebar installation at Fac 402 for pump can encasement continues



1/11/21 8:18 AM



1/11/21 8:18 AM



Install steel closure pieces at Fac 111 roof framing and completed condensing pad pour



DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW

January 7, 2021



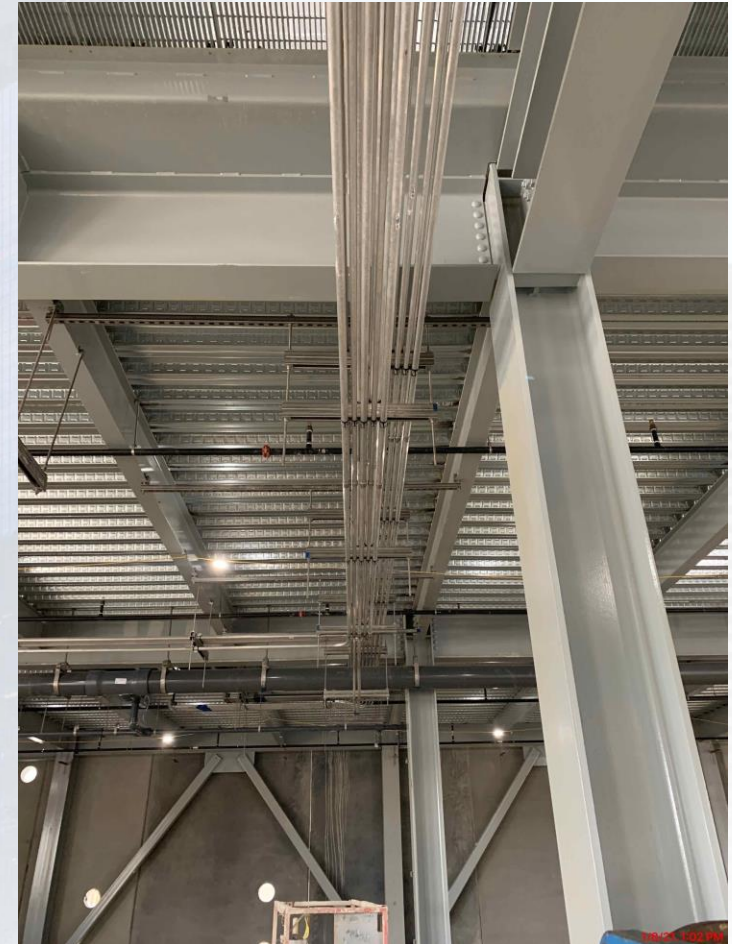
520

510

Completed precast panel installation at Fac 520



Installation of masonry 1st (Polymer storage), and 2nd (Electrical room/Polymer aging room) and installation of electrical & plumbing rough-in at the 1st floor at Fac 520



Commenced ductwork rough-in at Fac 520



1/4/21, 8:25 AM

Installation of concrete walls and columns at Sludge Equalization Tank 510



1/4/21 8:26 AM



Construction Progress – Administration Building

- Installation of Precast Panels
- Installation of CFMF for Walls
- Installation of Plumbing Piping



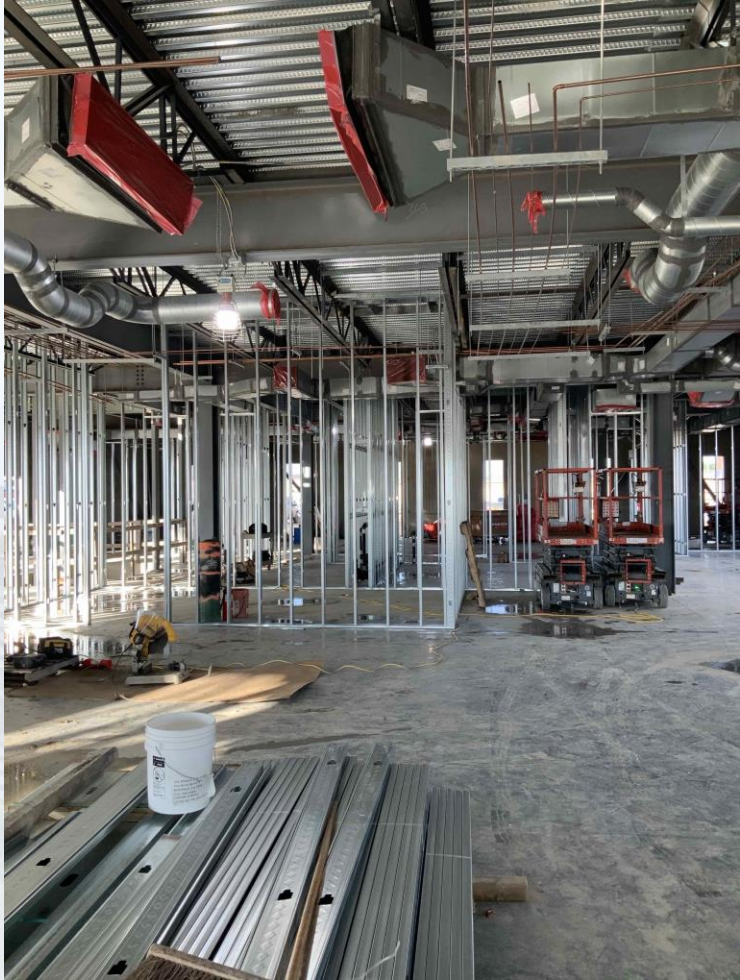
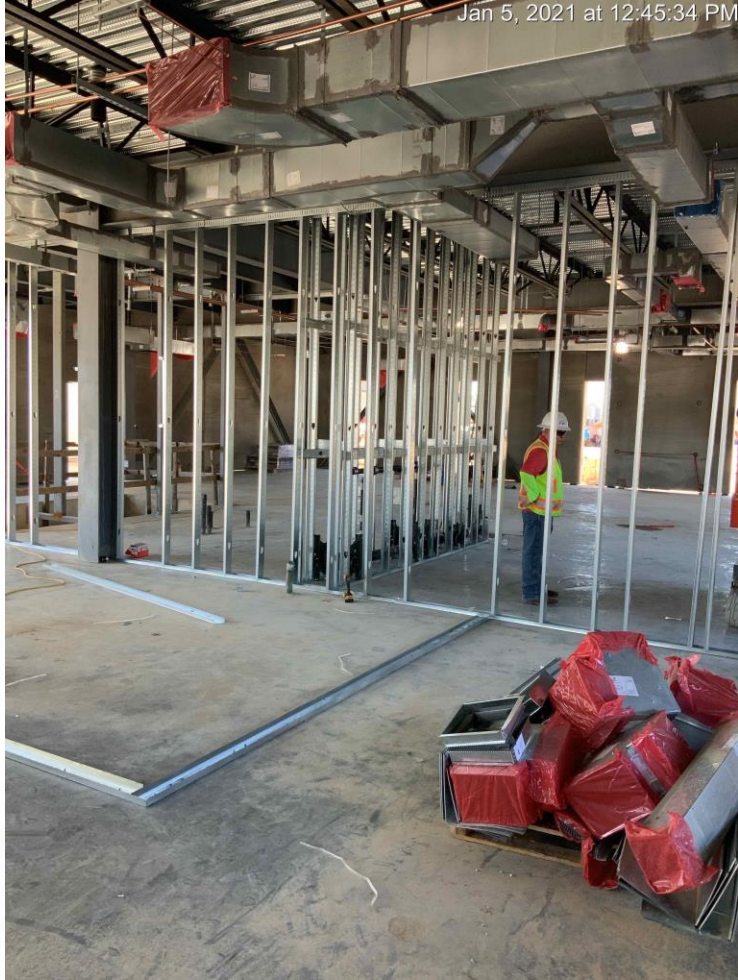
Installation of Precast Panels



Installation of Precast Panels



Installation of CFMF for Walls



Installation of Plumbing Piping

