



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

April 21, 2021



Houston Waterworks Team





Site Drone Map April 7, 2021



Construction Progress – Intake Pump Station (IPS)

- Building 142 electrical room dry-in and HVAC duct installation
- Installation of equipment pad inside the electrical room
- Roof installation at the IPS
- CMU block installation at the electrical building 152
- Ductbank installation and encasement West of building 152



Installing backing rod for the precast wall panels at the IPS



Installation of equipment pad inside the electrical room



Roof installation at the IPS



CMU block installation at the electrical building 152



Ductbank installation and encasement West of building 152





Construction Progress – Site Electrical

- North Fiber Duct Bank Run
- 520 and 152 Cable Pull
- 271 Duct Bank Stub Ups



North Fiber Duct Bank Run



520 and 152 Cable Pull



271 Duct Bank Stub Ups

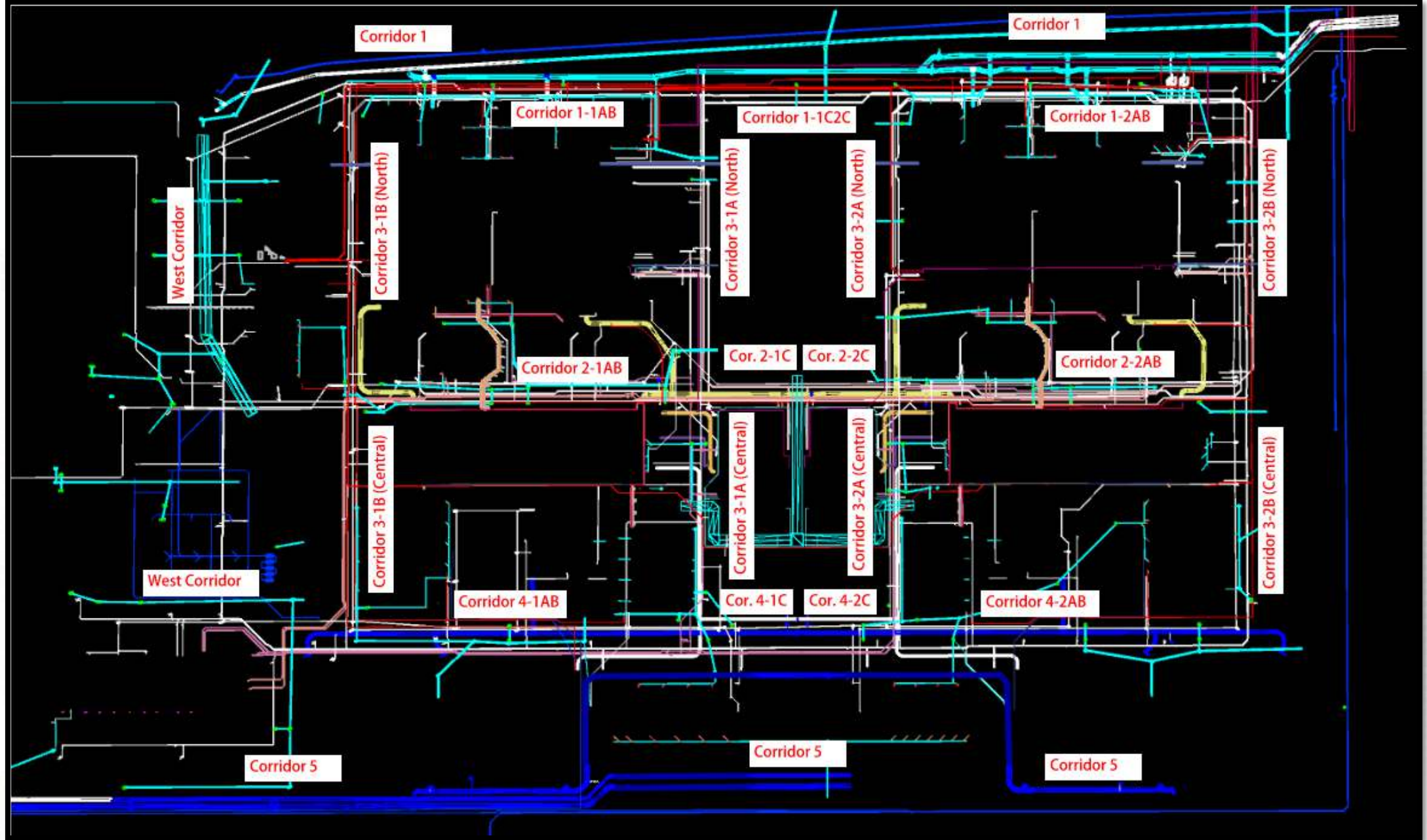




Construction Progress – Yard Piping

- **Installing 24” Storm RCP and manholes in Corridors 3-1B & 1-1AB**
- **Installing 2-2” SPD lines in Corridor 3-1B North**
- **Installing 12” PW line in Corridor 3-1B North**
- **Installing 4” PW lateral line in Corridor 1-1AB (North Plant)**
- **Installing 6” PW lateral line in Corridor 2-1AB**
- **Installing the flex coupling and 6” blow-off line on the 96” OZW line in Corridor 2-1C**
- **Laying the 84” & 120” FW distribution lines in Corridor 5**
- **Laying the 84” FW line going North in Corridor 5**
- **Bolting, torquing, and wrapping the 120” BFV on FW header in Corridor 5 – Phase 2**





Installing 24" Storm RCP and manholes in Corridors 3-1B & 1-1AB



Installing 2-2" SPD lines in Corridor 3-1B North



Installing 12" PW line in Corridor 3-1B North



Installing 4" PW lateral line in Corridor 1-1AB (North Plant)



Installing 6" PW lateral line in Corridor 2-1AB



Installing 12-14" TSL lines in Corridor 2-1C



Installing the flex coupling and 6" blow-off line on the 96" OZW line in Corridor 2-1C



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



Laying the 84" FW line going North in Corridor 5



Bolting, torquing, and wrapping the 120" BFV on FW header in Corridor 5 – Phase 2





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Installing/Pull -Testing Under-drain Block Anchors
- Air Scour Blower Delivery
- Installing Gallery Piping/Plug Valve
- Installing Cable Tray & Support

291-TRANSFER PUMP STATION 1:

- Install Roofing Joists and steel Deck Roof
- Install Mechanical Building
- Install 42" Bellows
- Install UG Conduits West of TPS

292-TRANSFER PUMP STATION 2:

- Wall Section C1 Concrete Pour
- Main Wall Sections Reinforcement
- 60" Suction Pipes Installation

311-POST CHEMICAL FACILITY 1 SH/CS :

- Installing SH Tanks Insulation.
- CMU Placement for Chemical Bldgs.
- Installing Joist System

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

- CMU Placement for Chem Bldgs.
- Concrete Pour Equipment Pads.

314 – POST CHEMICAL FACILITY 4 SH/CS :

- Installation of Underground Conduits Containment.
- F/R/P Building Footings.

282 -FILTER MODULE 2:

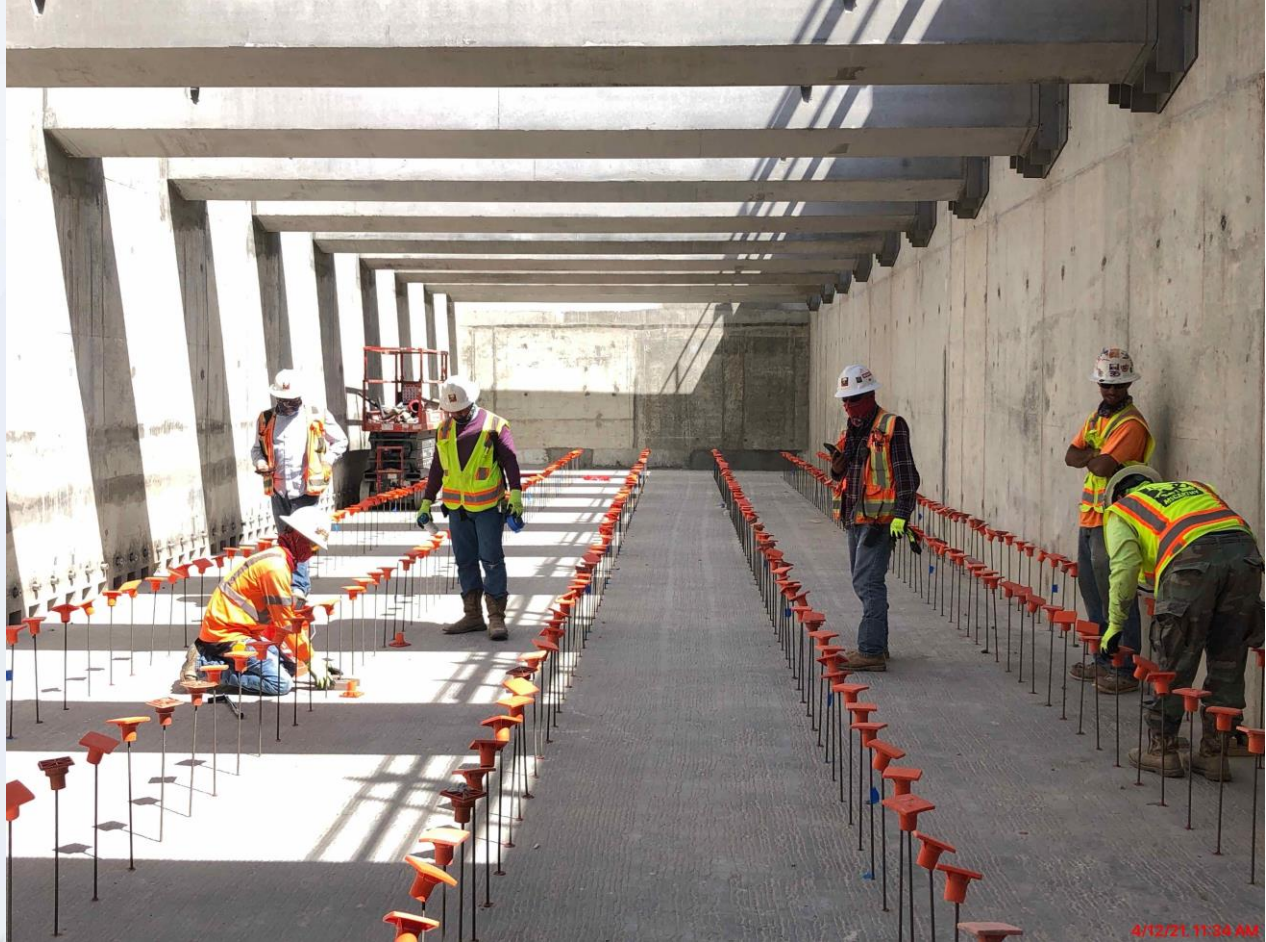
- Reinforcing /Pouring Interior Tall Walls.
- Forming/Reinforcing/Pouring Lower/Upper Manifold Decks



CENTRAL PLANT- 1st PHASE OVERALL



281-FILTER MODULE- Installing/Pull -Testing Under-drain Block Anchors



281-FILTER MODULE- Air Scour Blower Delivery



281-FILTER MODULE – Installing Gallery Piping/Plug Valve



281-FILTER MODULE – Installing Cable Tray & Supports



291-TPS – Aerial View (03/23/2021)



291-TPS – Install Roofing Joists and Steel Deck Roofing



291-TPS – Install Mechanical Building



291-TPS – Install 42" Bellows



291-TPS – Install UG Conduits West of TPS



311 – Aerial view –03/23/2021



311 – SH Tank – Installation of Insulation.



311 – CMU Placement for Chemical Bldgs.



311 – Installing Joist System



4/12/21, 11:42 AM



312 - Overall view 03/23/21



312 –Building – CMU Installation



314 – Installation of Underground Conduits



Houston Waterworks Team

- 314 – F/R/P Building Footings.



Houston waterworks team

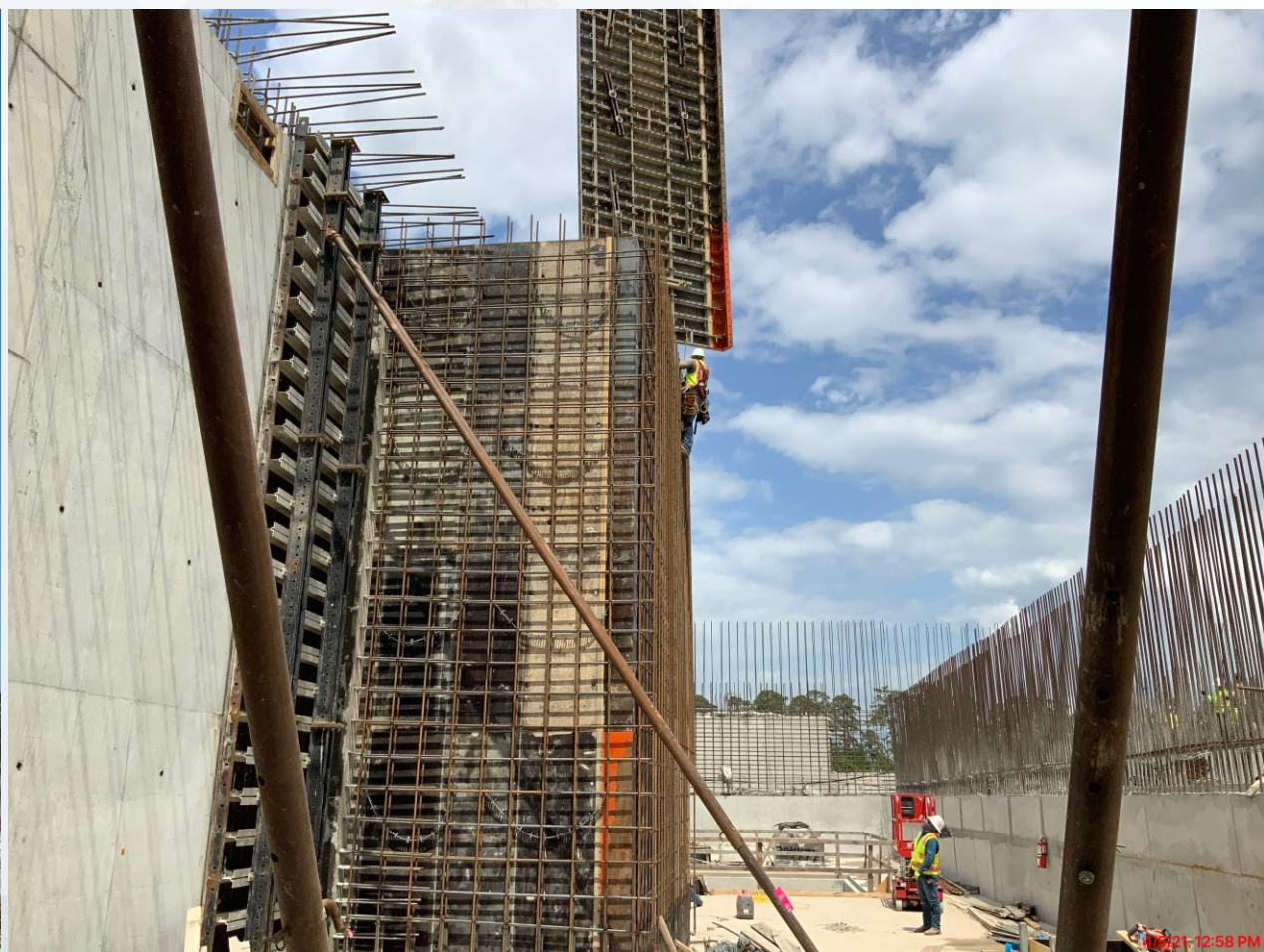
282-FILTER MODULE 2- Forming/Reinforcing Exterior Tall Walls



282-FILTER MODULE 2- Pouring Lower/Upper Manifold Decks



282-FILTER MODULE 2- Reinforcing/Pouring Exterior Tall Walls



292-TPS – Aerial View (03-23-2021)



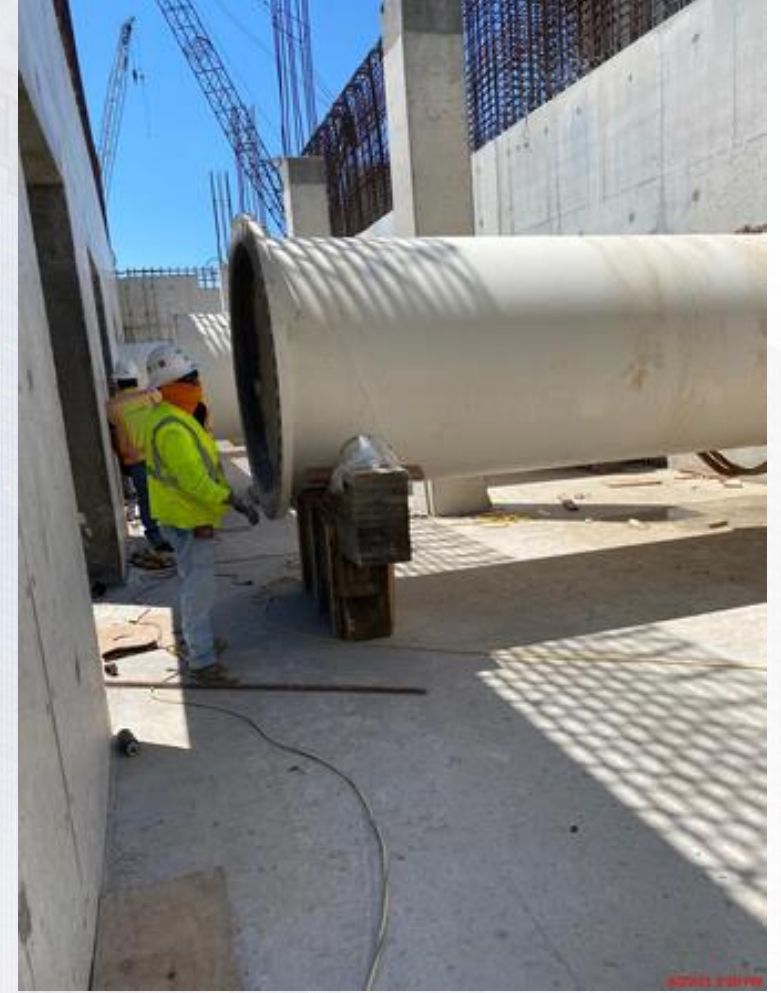
292-TPS – Pour Wall Section C1



292-TPS – Main Wall Sections Reinforcement



292-TPS – Install 60" Suction Pipes



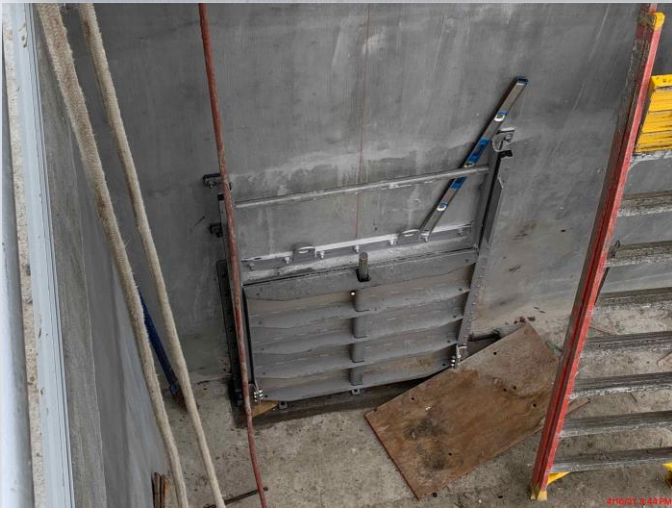


Construction Progress – LREQ Basins Facilities 601/602

- **601 – Installation of Slide gates for Pump Station North and South**
- **601 – Install 16" CEN and 24" DEC Pipe Wall Pieces**
- **602 – Rebar Installation for walls P1, P2 and P3**
- **602 – Rebar Installation for walls P4, P6 and P8**



601 – Installation of Slide gates for Pump Station North and South



601 – Install 16" CEN and 24" DEC Pipe Wall Pieces



602 – Rebar Installation for walls P1, P2 and P3



602 – Rebar Installation for walls P4, P6 and P8





Construction Progress – North Plant

201-Chlorine Dioxide Facility 1:

- Area-B ClO₂ Tank Pads & Containment

211-Pretreatment Chemical Facility 1:

- Primary Coagulant Tanks Welding

221-Rapid Mix Train 1:

- Walls F/R/P

222-Rapid Mix Train 2:

- Valve and Flowmeter Install

242-Flocculation & Sedimentation Train 2:

- DW-6 F/R/P
- Elevated Deck F/R/P

261-Ozone Generation Facility 1:

- SOG-4 & OZ Generator-PSU Pads

272-Pretreatment Service Bldg 2

- SL-1 F/R/P

503-Gravity Thickener Complex 3:

- TSSB Elevated Slab F/R/P

504-Gravity Thickener Complex 4:

- Weir Walls and Slabs
- USDS & Flow Meter Vault F/R/P

611-Liquid Residuals Clarifier Facility 1:

- EL-S-7 F/R/P

801-Basin Drain Pump Station 1

- Caisson Fourth Lift F/R/P

201-Chlorine Dioxide Facility 1: Area-B ClO2 Tank Pads & Containment



211-Pretreatment Chemical Facility 1: Primary Coagulant Tanks Welding



221-Rapid Mix Train 1: Walls F/R/P



222-Rapid Mix Train 2: Valve and Flowmeter Install Prep



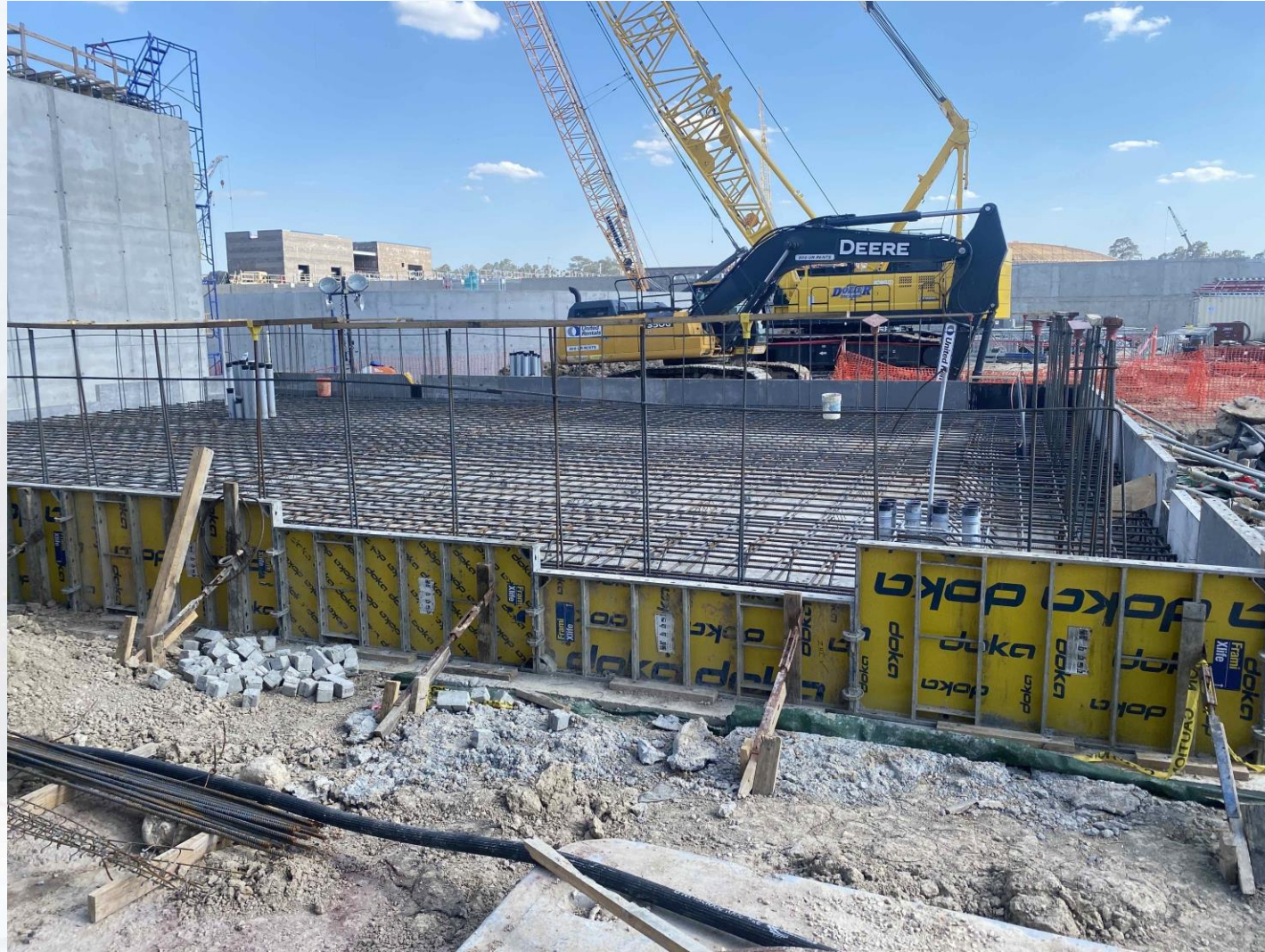
242-FlocSed Train 2: DW-6 F/R/P and Elevated Deck F/R/P



261-Ozone Generation Facility 1: SOG-4 & OZ Generator-PSU Pads



272-Pretreatment Service Bldg 2: SL-1 F/R/P



503-Gravity Thickener Complex 3: TSSB Elevated Slab F/R/P



504-Gravity Thickener Complex 4: Weir Walls and Slabs; USDS & Flow Meter

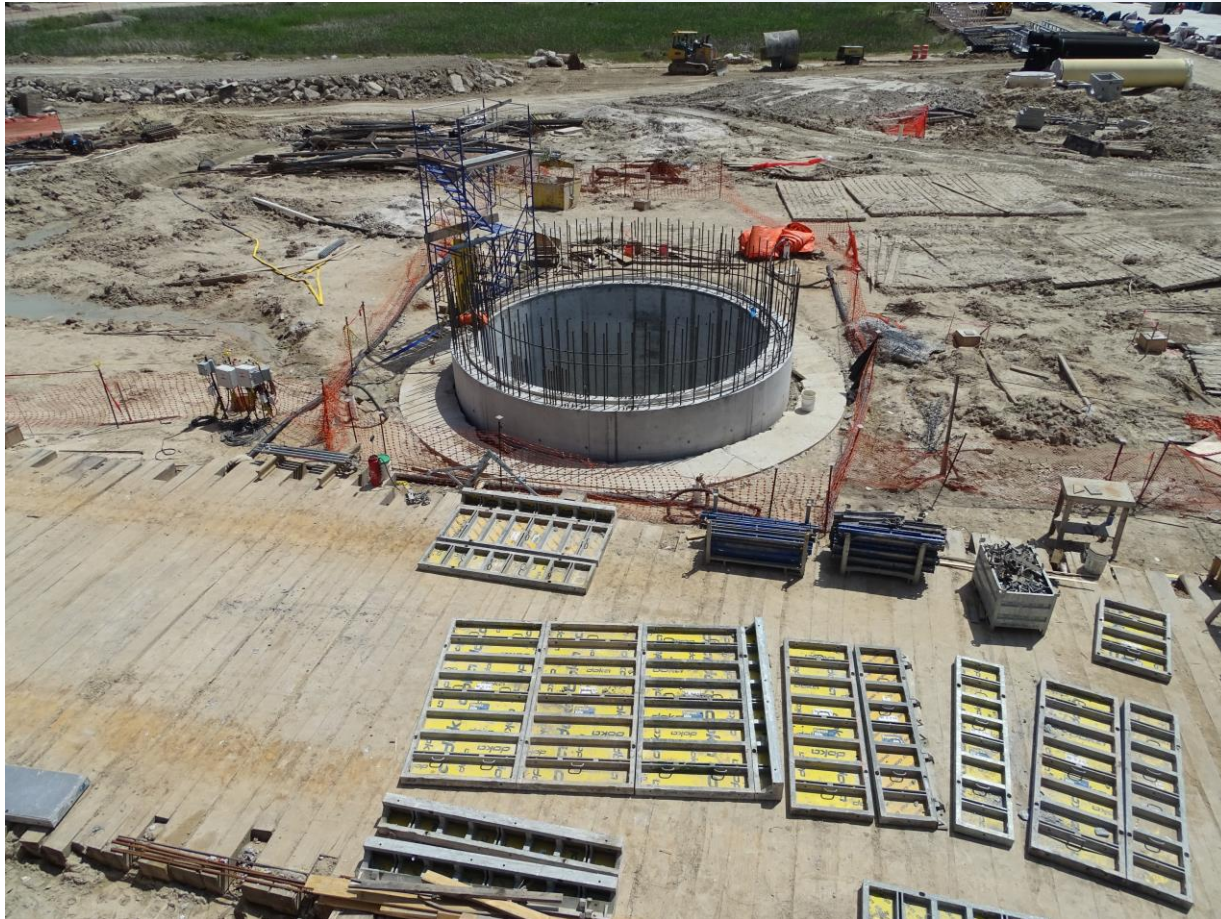
Vault F/R/P



611-Liquid Residuals Clarifier Facility 1: EL-S-7 F/R/P



801-Basin Drain Pump Station 1: Caisson Fourth Lift F/R/P





Construction Progress – South Plant

- Commenced installation of shoring at GST 361.
- Continued rebar installation at the GST 362 dome.
- Commenced concrete slab pours at the pump room at HSPS 401.
- Continued forming footers for the electrical room at Fac 401.
- Continued installing under slab electrical & plumbing utilities at Fac 401.
- Installation of the 78" pipe at Fac 402.
- Only punch list items remain for Fac 111.
- Installation of fire piping on the 3rd floor at Fac 520 is near completion.
- Continued installation of PVC PPW at the 2nd floor at Fac 520.
- Continued installation of HVAC at 1st, 2nd & 3rd floor at Fac 520.
- Continued installing CMU at the 3rd floor at Fac 520.
- Continued installation of cold metal framing at Fac 520
- Continued installation of interior process piping at Fac 520.
- Completed installation of structural steel at Fac 510.
- Commenced ductile iron process piping at facility 510 & 520.
- Continued electrical raceway at fac 510.



GST 361 & 362 AERIAL VIEW

March 29, 2021



GST 361

GST 362



GROUND STORAGE TANK 361



Commenced installation of shoring at GST 361

GROUND STORAGE TANK 362



Continued rebar installation at GST 362 dome

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW

March 29, 2021



HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



Commenced concrete slab pours at the pump room at HSPS 401

HIGH SERVICE PUMP STATION 401



Commenced forming footers for the electrical room at Fac 401

Continued installing under slab electrical & plumbing utilities at Fac 401

HIGH SERVICE PUMP STATION 402



Installation of the 78" pipe at Fac 402

MAIN SWITCHGEAR BUILDING 111



Only punch list items remain for Fac 111

DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW

March 29, 2021



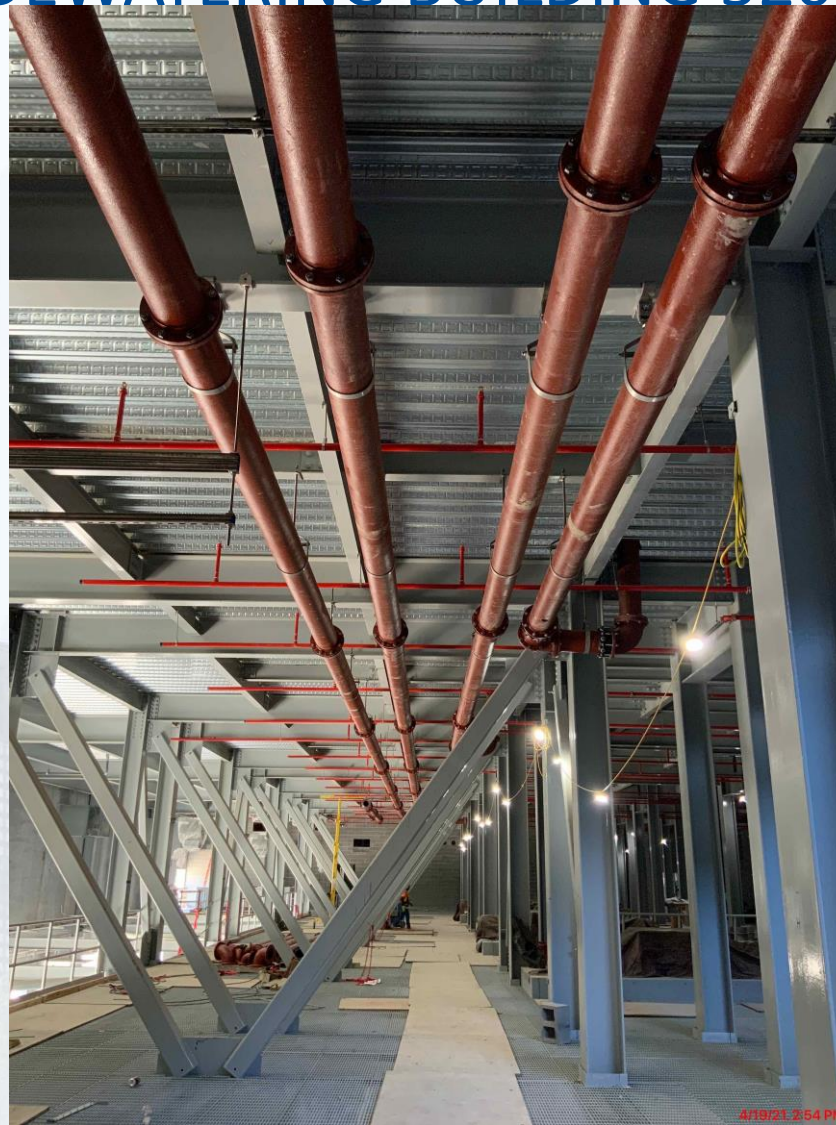
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510

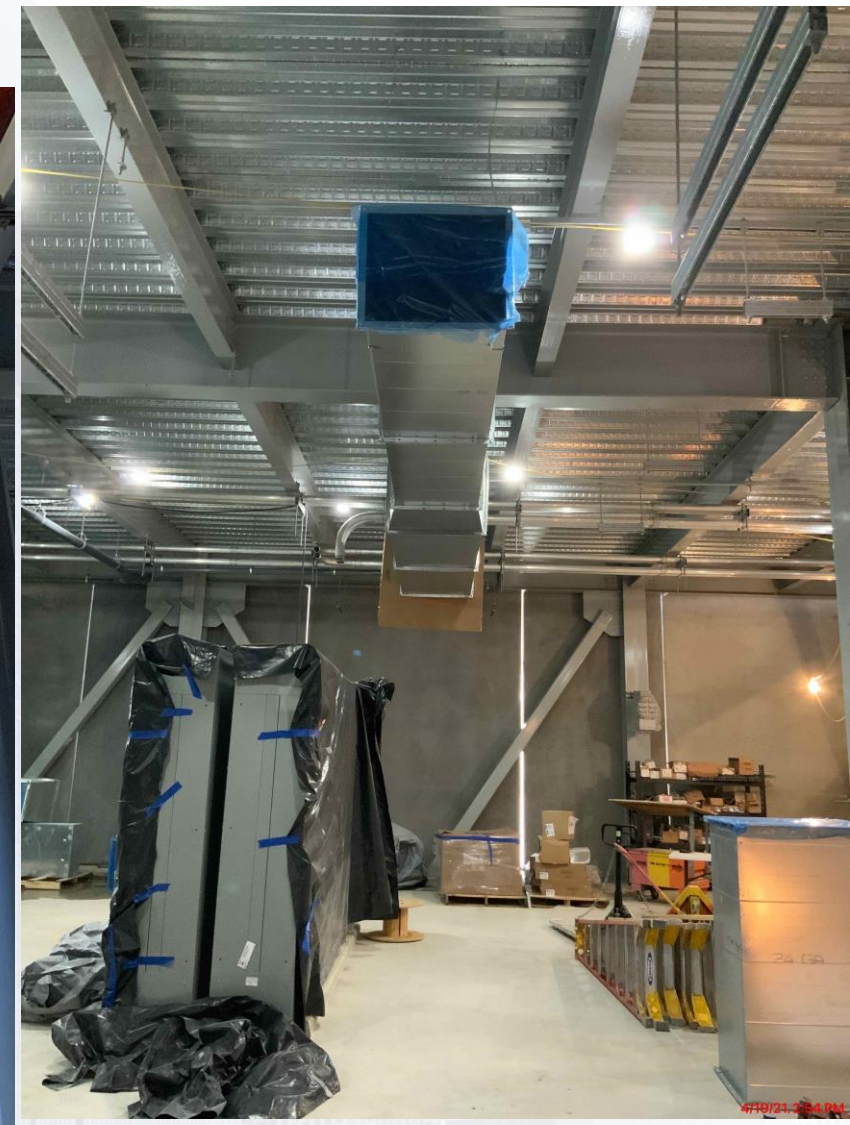


Installation of fire piping on the 3rd floor at Fac 520 is near completion

DEWATERING BUILDING 520



Continued installation of PVC PPW at the 2nd floor at Fac 520



Continued installation of HVAC at the 1st, 2nd & 3rd floor at Fac 520

DEWATERING BUILDING 520

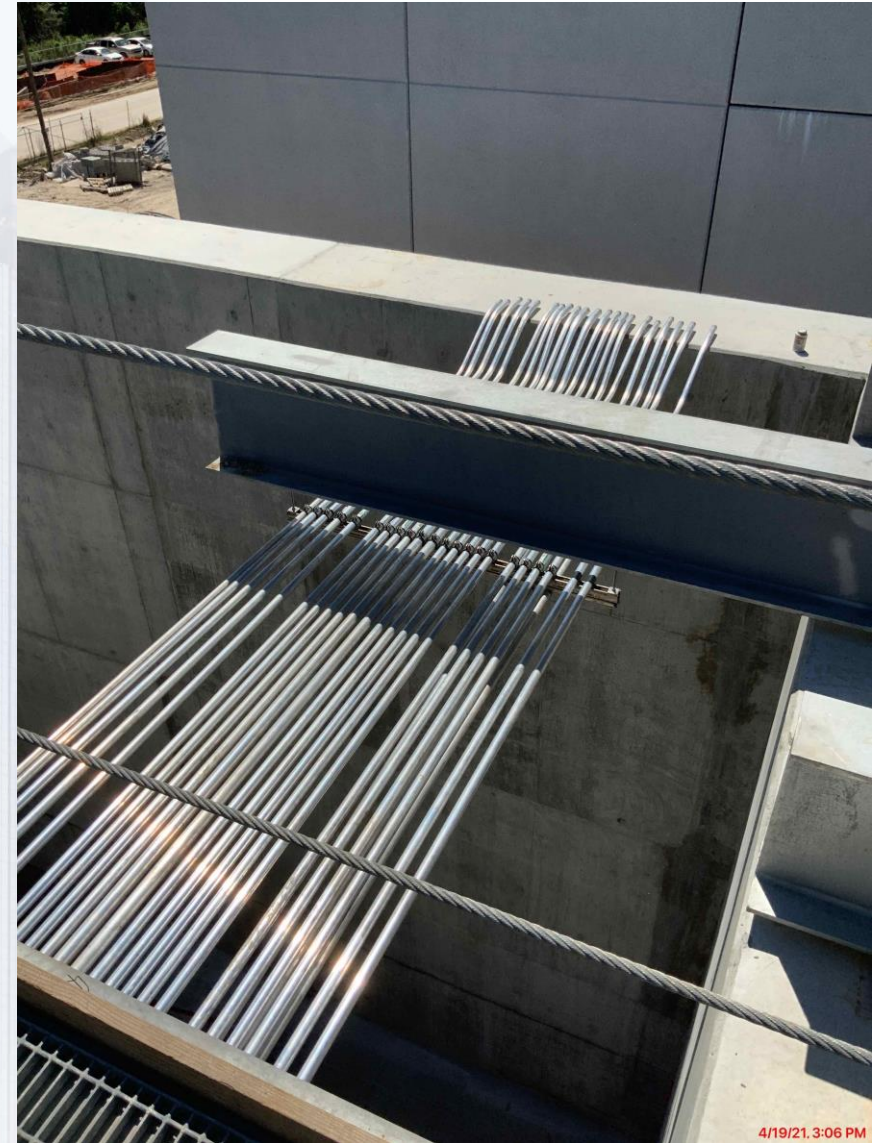


Continued installing CMU at the 3rd floor at Fac 520



Continued installation of cold metal framing at Fac 520

Sludge Equalization Tank 510



Completed installation of structural steel at Fac 510



Construction Progress – Administration & Maintenance Building

- Installed HVAC Equipment
- Installed Roof Rigid Installation and TPO for AB Roof
- Installed Overhead Electrical Conduit
- Installed CFMF for Gypsum Walls
- Installed Gypsum Walls



Administration and Maintenance Building



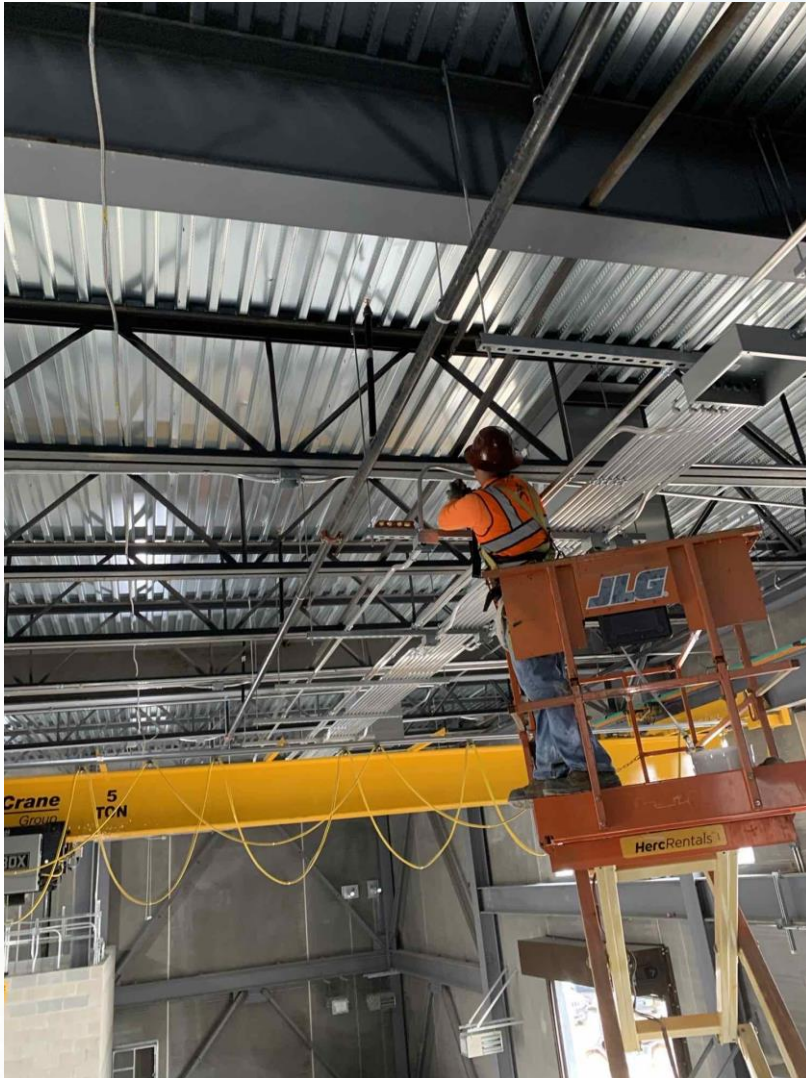
Installation of HVAC Equipment



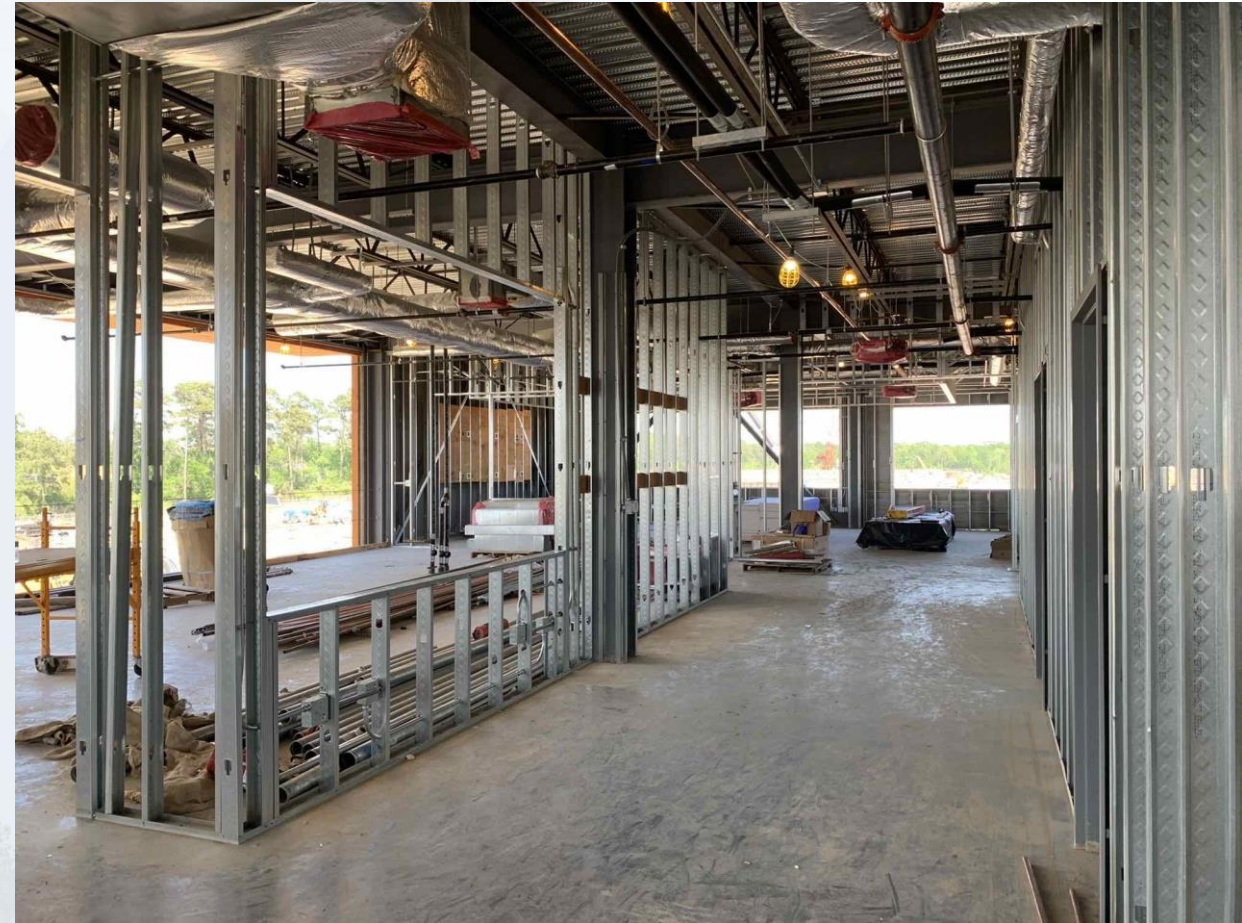
Installation of Roof Rigid Installation and TPO



Installation of OH Conduit



Installation of CFMF for Gypsum Walls



Installation of Gypsum Walls

