



CITY OF HOUSTON
Houston Public Works

DESIGN-BUILD SERVICES

Northeast Water Purification Plant Expansion

June 3, 2021





**Safety Appreciation
Luncheon for Achieving 4
Million Manhours with Zero
Lost Time Accidents**



Site Drone Map
May 28, 2021



Construction Progress – Intake Pump Station (IPS)

- Vertical Turbine Pump Installation in the IPS pump room
- Continue electrical work inside the electrical room at 142
- Translucent panels and Louvers installation at the IPS
- Overhead Door Installation at 142
- Metal roof deck installation at the Electrical Building 152

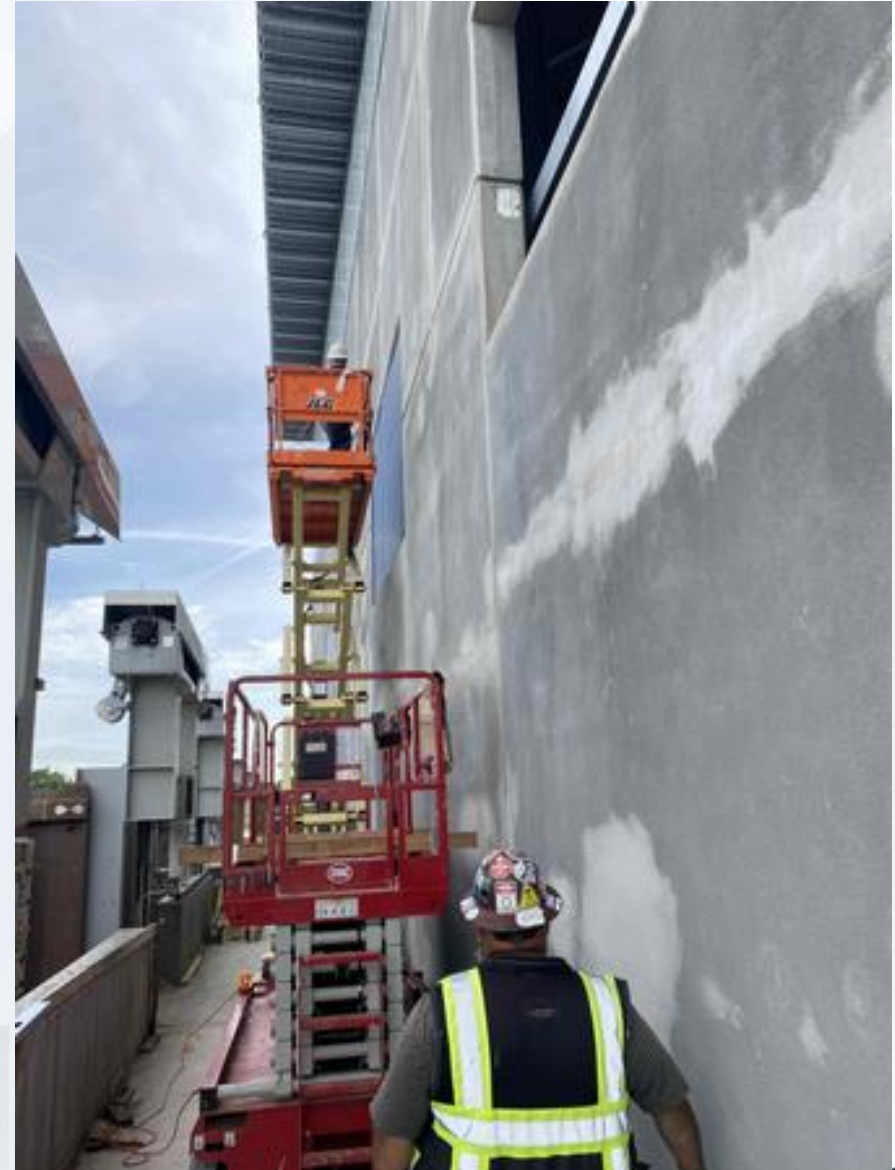
Vertical Turbine Pump Installation in the IPS pump room



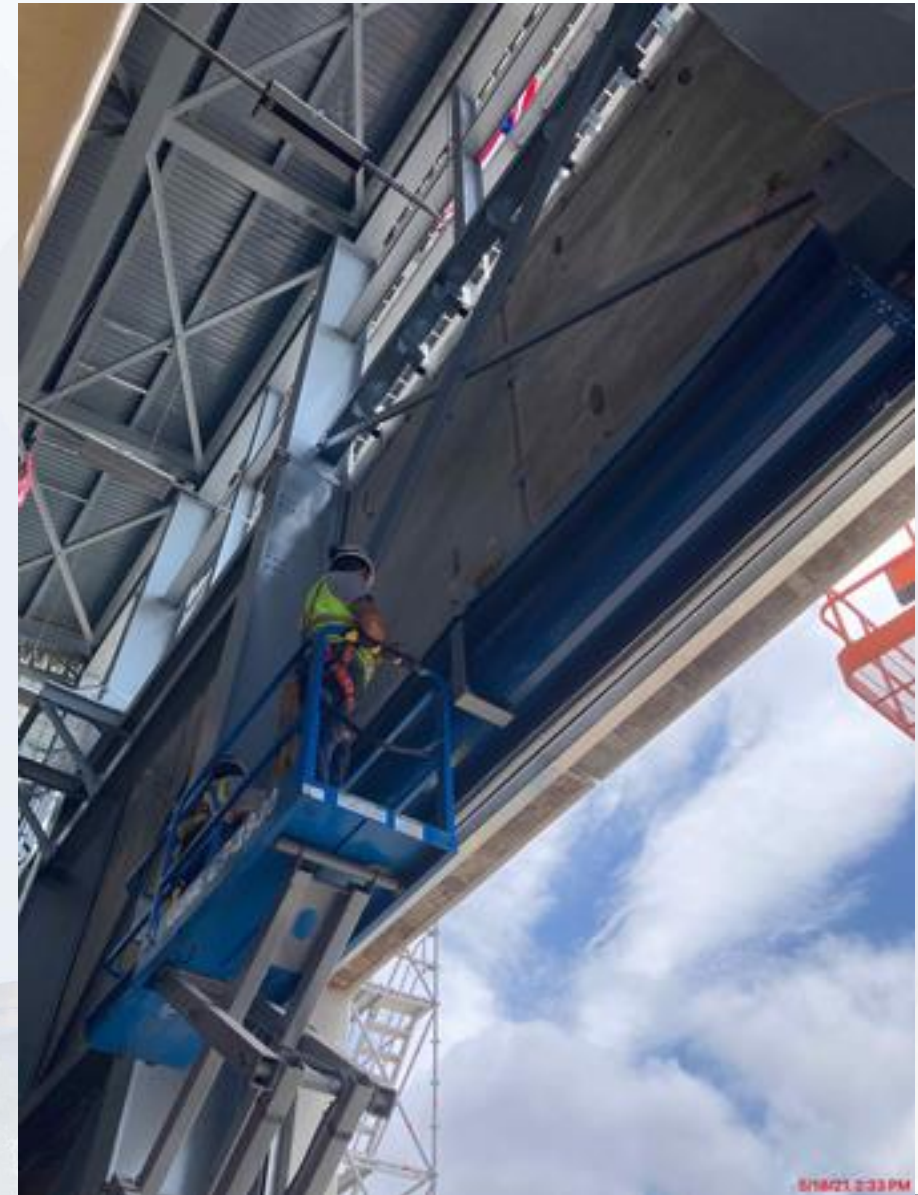
Continue electrical work inside the electrical room at 142



Translucent panels and Louvers installation at the IPS



Overhead Door Installation at 142



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Metal roof deck installation at the Electrical Building 152





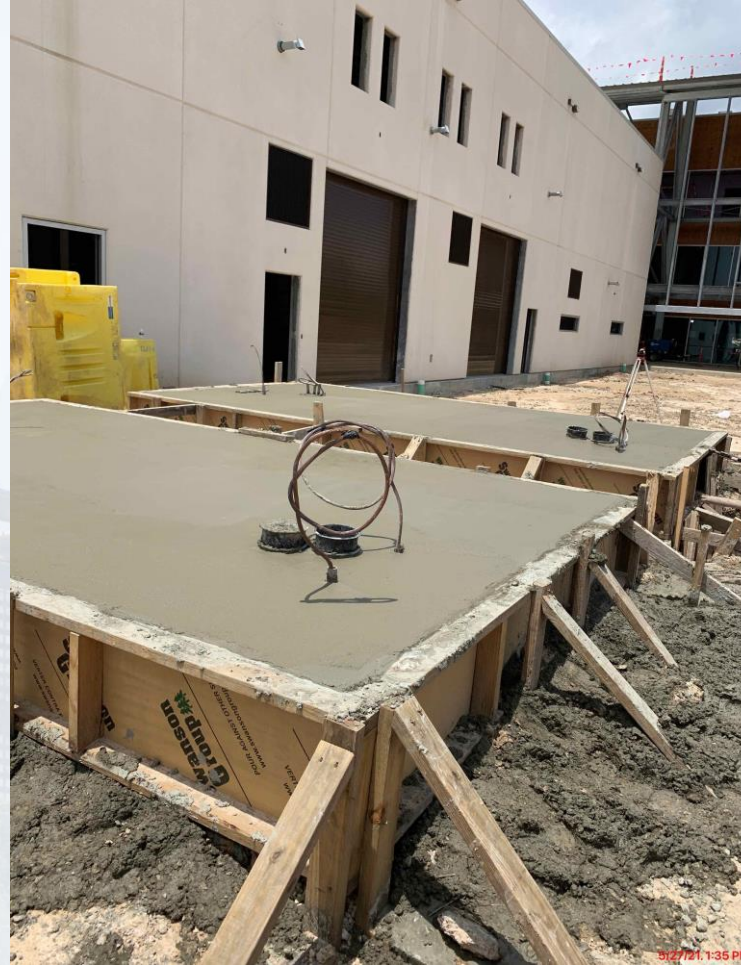
Construction Progress – Site Electrical

- PFCC Concrete Pads
- Admin Building Transformer Pads
- Bus Duct Wall Opening at Facility 111

PFCC Concrete Pads



Admin Building Transformer Pads



Bus Duct Wall Opening at Facility 111

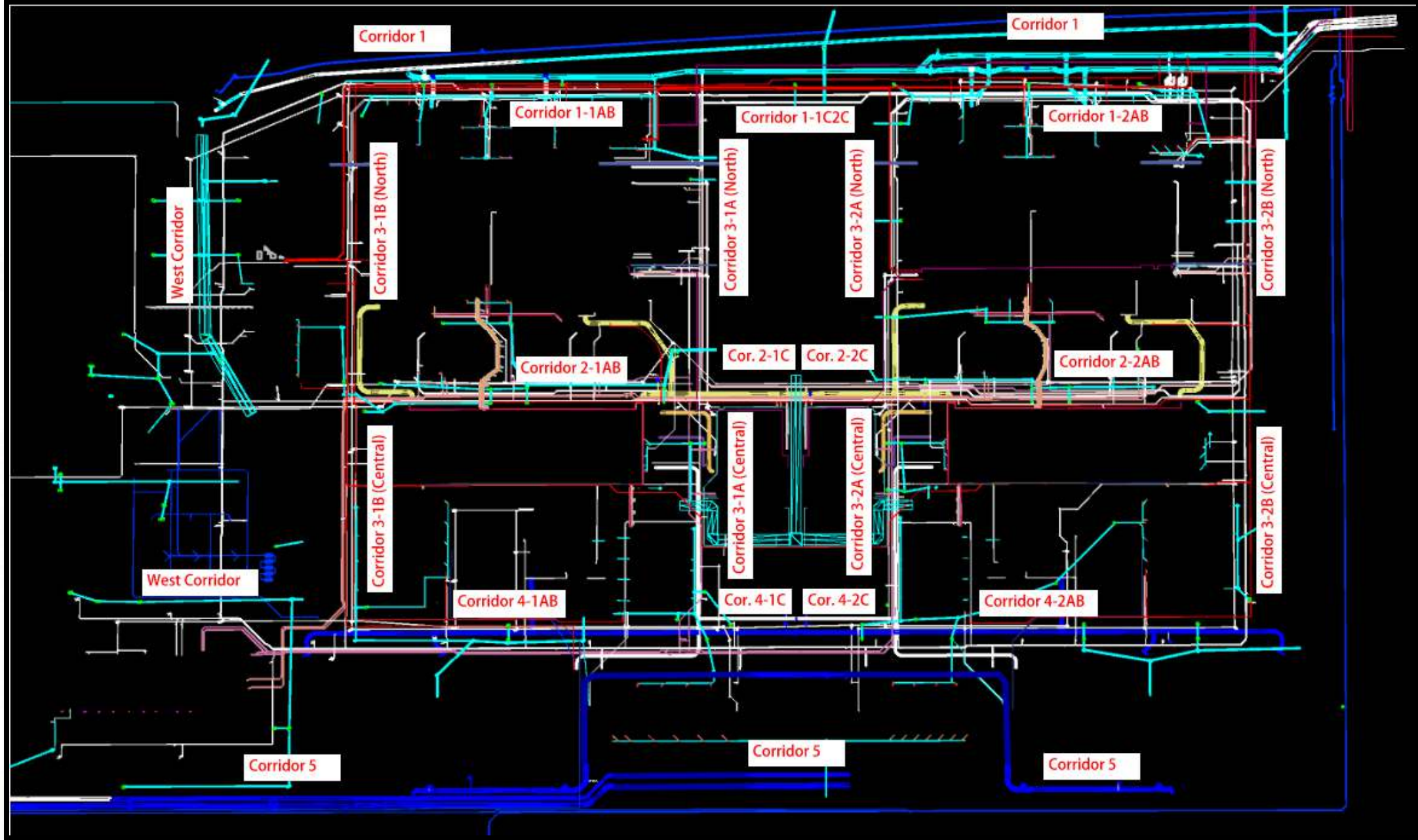




Construction Progress – Yard Piping

- Realigned the 108” Wye and welded the buttstrap on the RW line in Corridor 1
- Installing the 36” CRCY lines in Corridor 1-2AB
- Installing 72” RW to Fac. 222 in Corridor 1-1AB
- Setting 8’x4’ Storm Box Culverts in West Corridor
- Backfilling the 84” & 120” BFVs on the FW distribution lines in Corridor 5
- Setting 78” BFVs on FW header in Corridor 5 – Phase 2
- Installing the 120” FW header piping in Corridor 5 – Phase 2





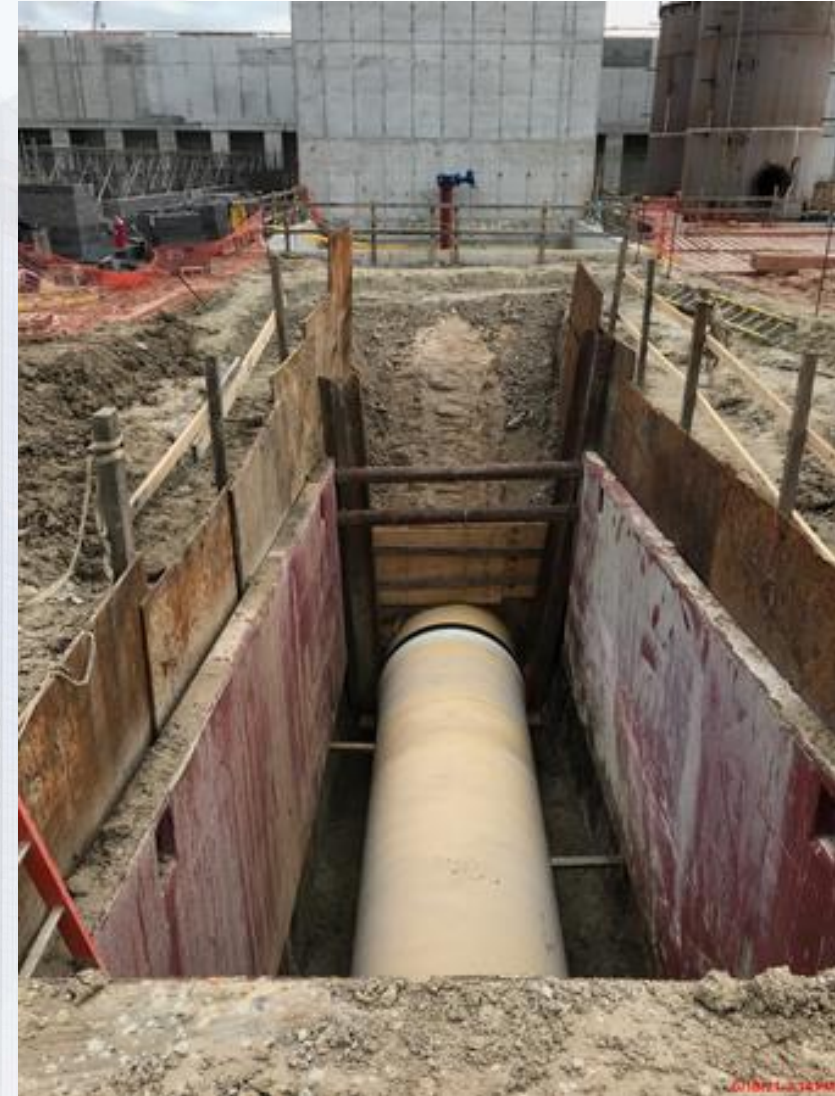
Realigned the 108" Wye and welded the buttstrap on the RW line in Corridor 1



Installing the 36" CRCY lines in Corridor 1-2AB



Installing 72" RW pipe to Fac. 222 in Corridor 1-1AB



Setting 8'x4' Storm Box Culverts in West Corridor



Backfilling the 84" & 120" BFVs on the FW distribution lines in Corridor 5



Setting 78" BFVs on FW header in Corridor 5 – Phase 2



Installing the 120" FW header piping in Corridor 5 – Phase 2





Construction Progress – Central Plant

281-FILTER MODULE 1 :

- Installing UD Blocks-Filter 11
- MEP work in Gallery
- Installing Cable Tray & Supports

291-TRANSFER PUMP STATION 1:

- Mechanical Building Piping and Form up Pumps Pedestals
- Install Electrical Room Cable Trays
- Install Roofing TPO
- Install T-Supports on Top Deck

292-TRANSFER PUMP STATION 2:

- Pour Baffle Walls BW2, BW5, and East Wet Well Columns
- Form Up and set Rebar for West Wet Well Columns

311-POST CHEMICAL FACILITY 1 SH/CS :

- CMU Clean and Quality repairs.
- Installing Deck and Ledger System.
- Started installation of Top Roof deck system.

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

- CMU Placement for Chem Bldgs.
- Backfill East area of containment.

314 – POST CHEMICAL FACILITY 4 SH/CS :

- F/R/P Building Footings and Stem Walls.
- F/R/P Sump SOG and Walls
- Backfill interior Chem Building

282 -FILTER MODULE 2:

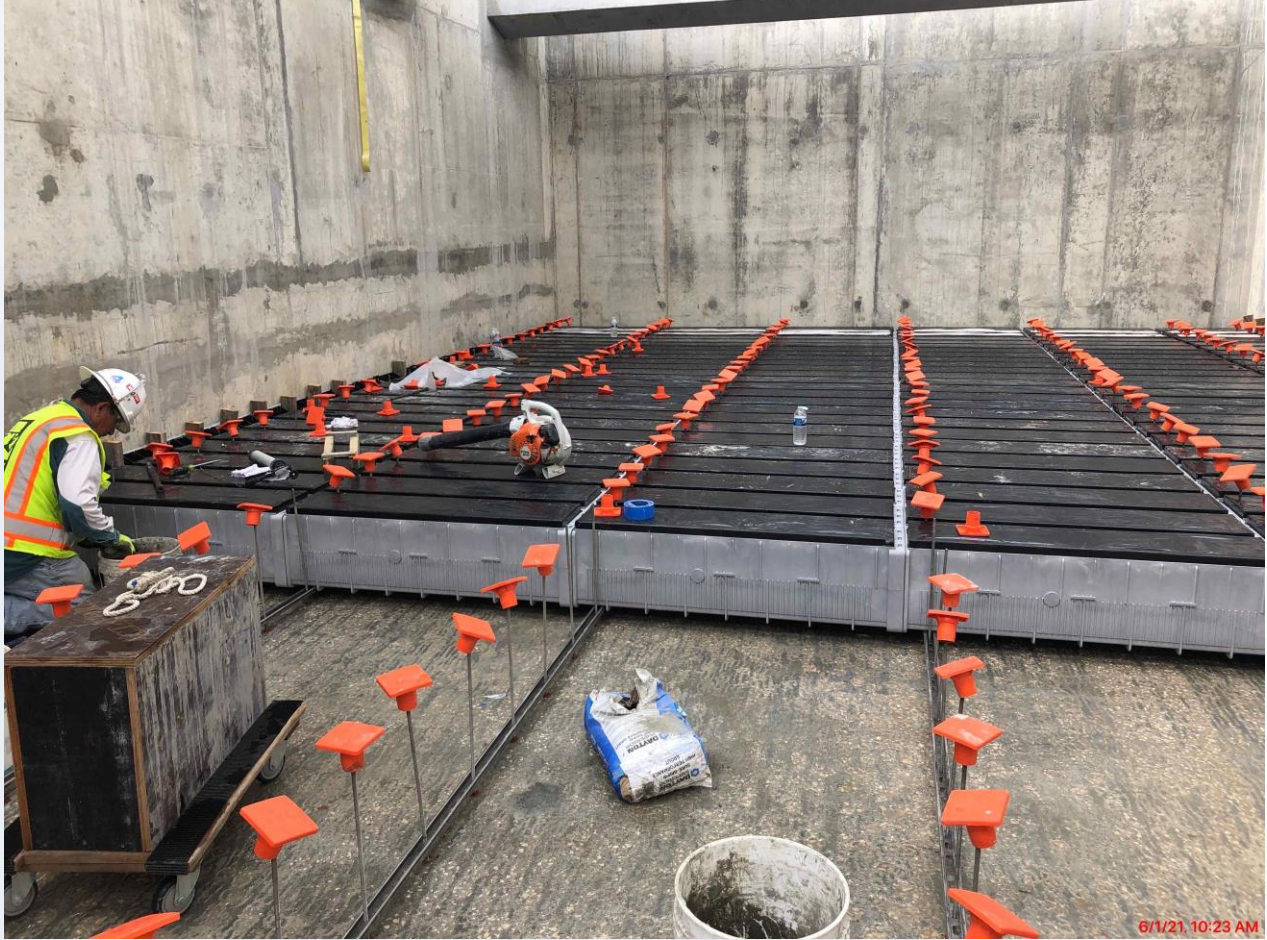
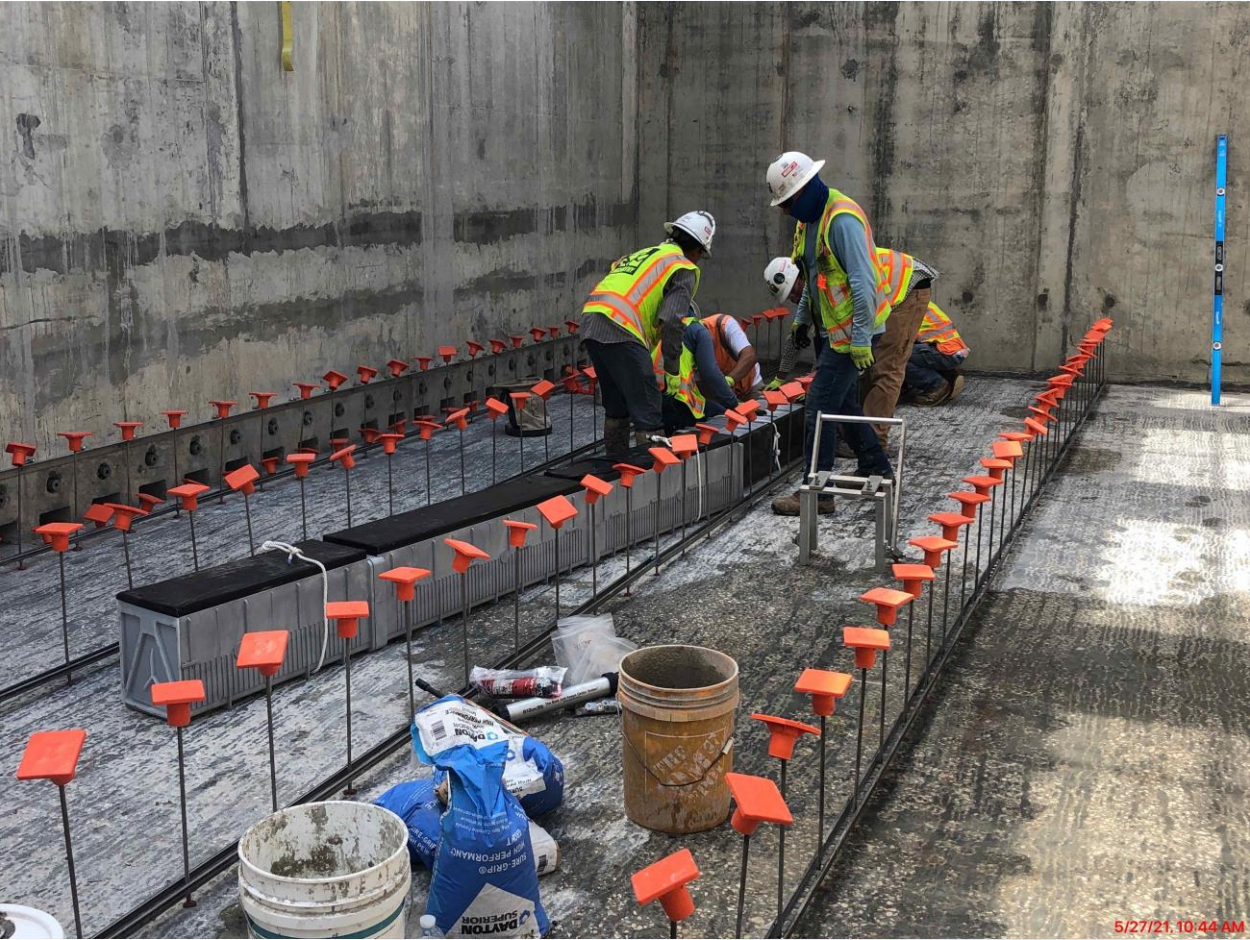
- Reinforcing /Forming Tall Walls.

- Pouring Tall Walls. **Houston Waterworks Team**

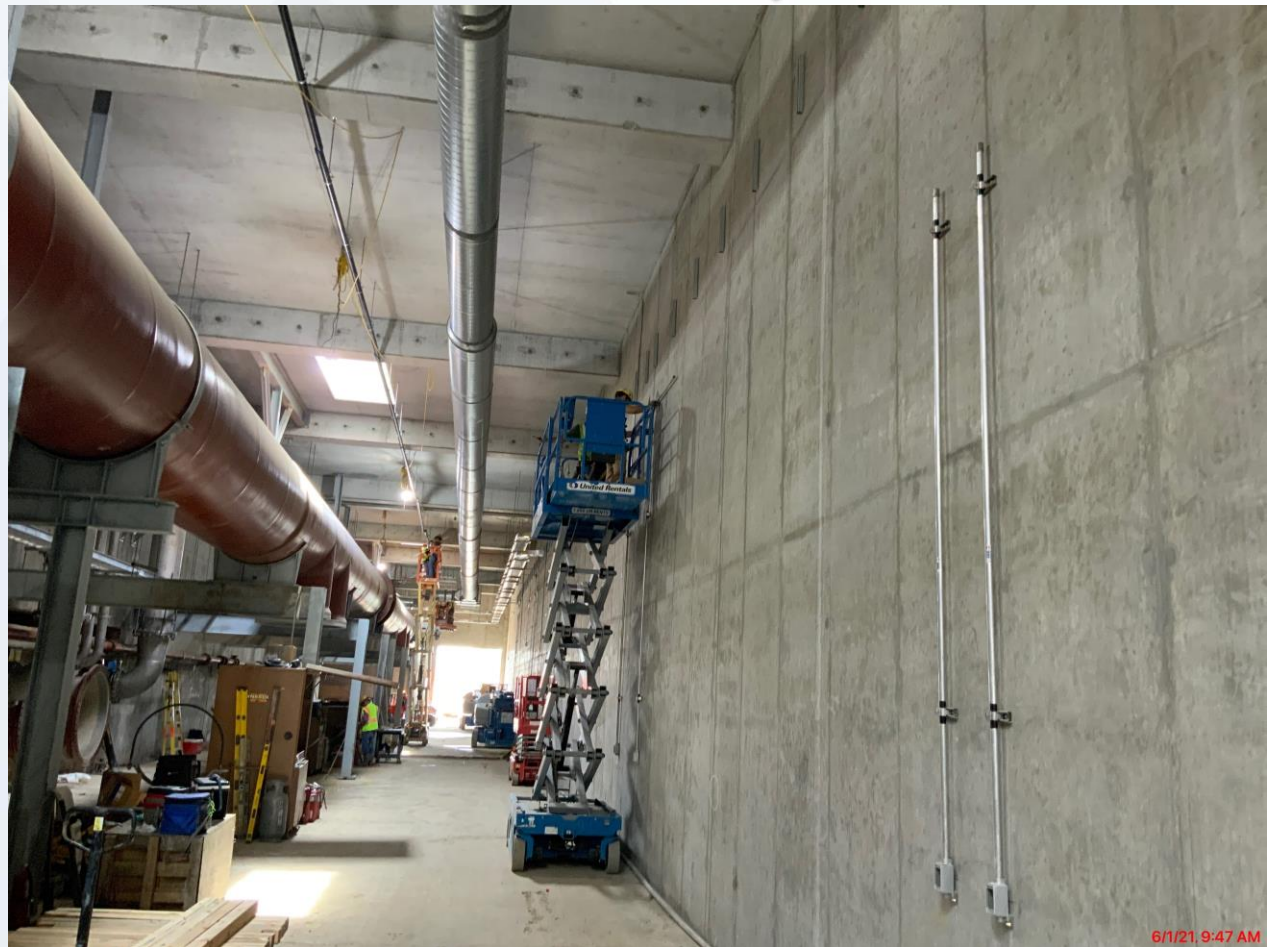
CENTRAL PLANT- 1st PHASE OVERALL



281-FILTER MODULE- Installing UD Blocks- Filter 11



281-FILTER MODULE- MEP work in Gallery



281-FILTER MODULE – Installing 36" CFE/FTW Valves



291-TPS – Aerial View (06/02/2021)



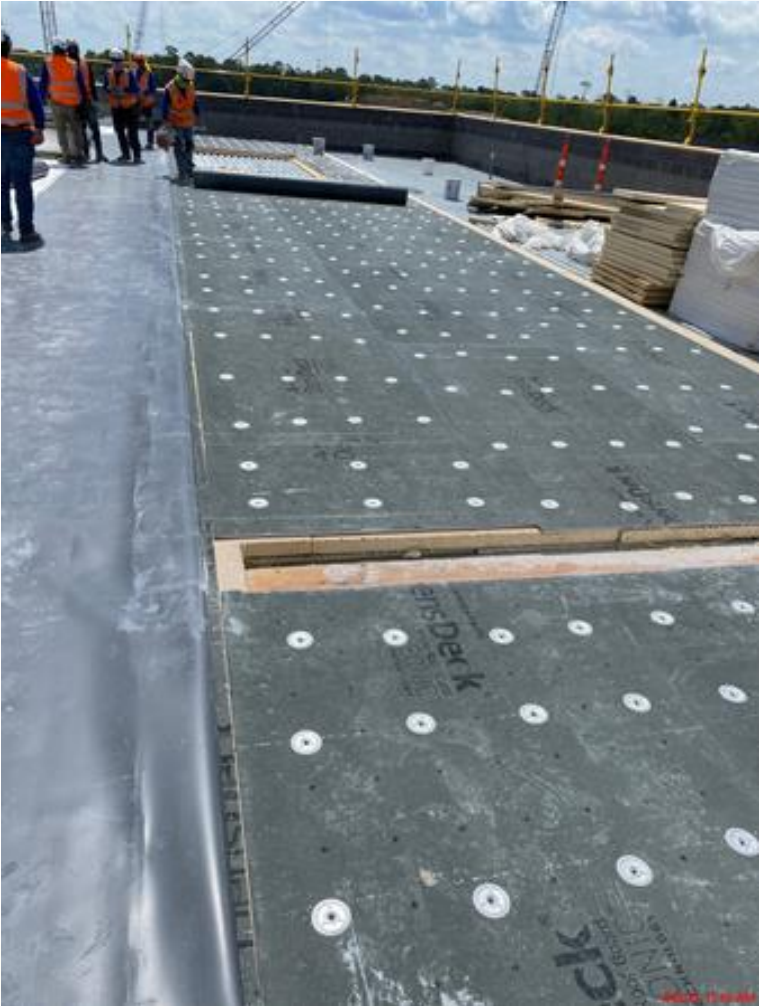
291-TPS – Mechanical Building Piping and Form up Pumps Pedestals



291-TPS – Install Electrical Room Cable Trays



291-TPS – Install Roofing TPO



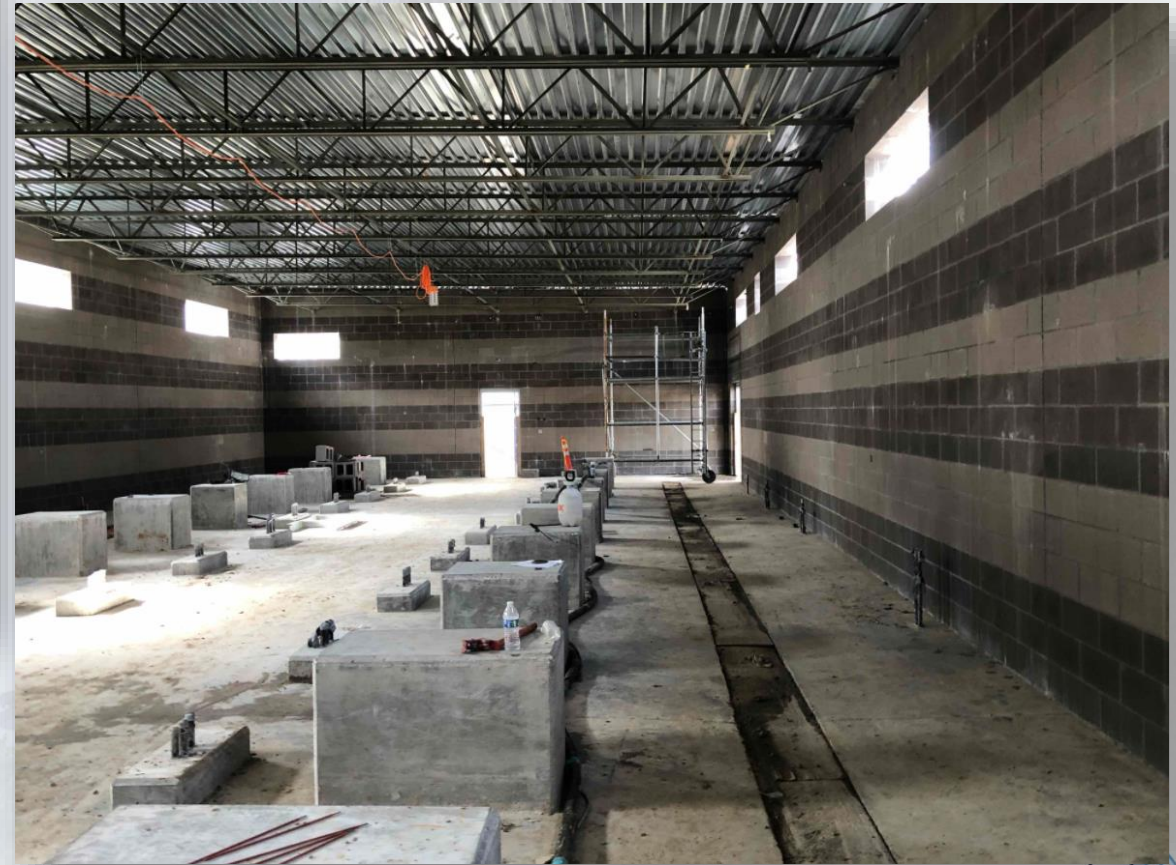
291-TPS – Install T-Supports on Top Deck



311 – Aerial view –06/02/2021



311 – CMU Clean up and Quality repairs.



311 – Install ledger and Deck System



311 – Starting TPO Roof system



311 – F/R/P Truck fill station slabs and Mountable Curbs



312 - Overall view 06/02/21



312 –Building – CMU Installation



312 – Backfilling Containment Area



CENTRAL PLANT- 2nd Phase Overall



314 – Backfilling interior Chem Building



314 – F/R/P Building Footings and stem walls.



314 – F/R/P Sump SOG and Walls.



282-FILTER MODULE 2- Reinforcing/Forming Tall Walls



282-FILTER MODULE 2- Pouring Tall Walls



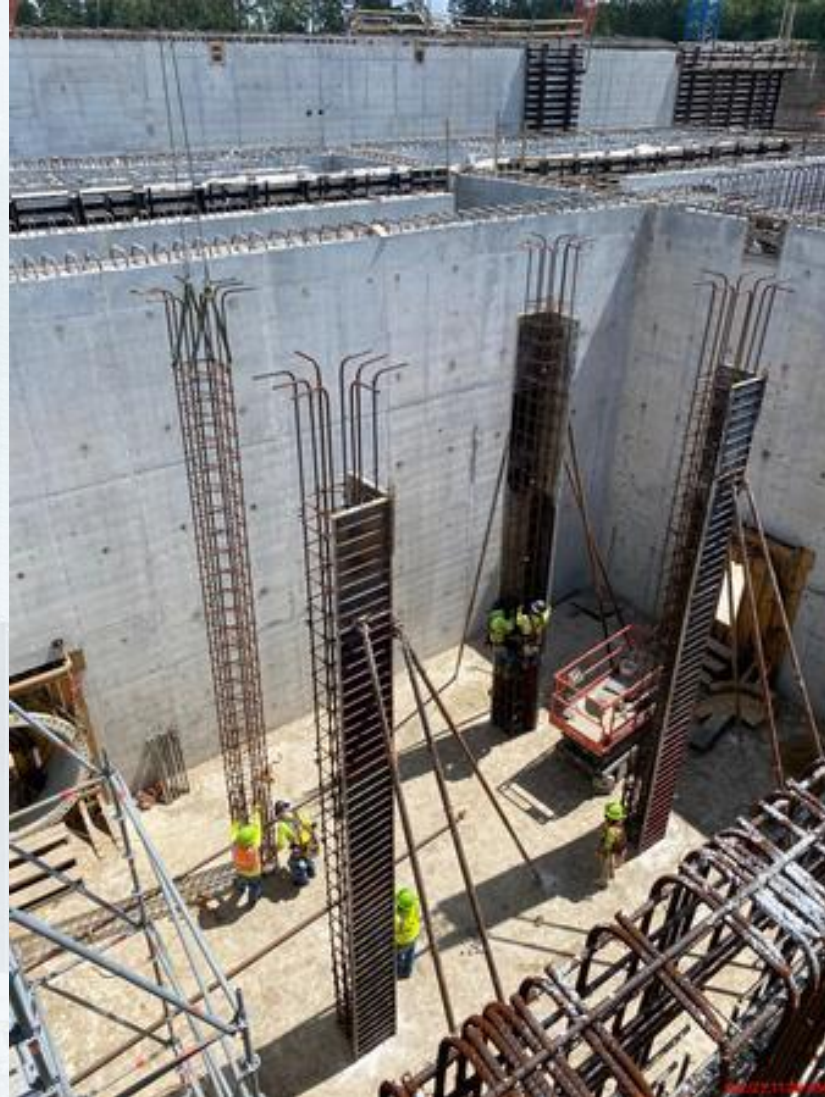
292-TPS – Aerial View (06-02-2021)



292-TPS – Pour Baffle Walls BW2, BW5, and Columns at East Wet Well



292-TPS – Forming and reinforcing West Wet Well Columns





Construction Progress – LREQ Basins Facilities 601/602

- **601 – Installation of handrails on east of basin**
- **601 – Adding water to basin 3 for leak test**
- **601 – Volumetric/Leak Test for basin 3**
- **602 – Continue rebar installation for south walls**

601 – Installation of handrails on east of basin



601 – Adding water to basin 3 for leak test



601 – Volumetric/Leak Test for basin 3



602 – Continue rebar installation for south walls





Construction Progress – North Plant

201-Chlorine Dioxide Facility 1:

- Area-B Mudslab

213-Pretreatment Chemical Facility 3:

- LS Tank-1 Painting

214-Pretreatment Chemical Facility 4:

- CMU Walls

241-Flocculation & Sedimentation Train 1:

- Slab 36 Rebar

242-Flocculation & Sedimentation Train 2:

- Sedimentation Basin 3 – Knife walls and West Exterior Wall

252-Ozone Contactor 1:

- Roof-ESL F/R/P

501-Gravity Thickener Complex 1:

- TSSB Walls Formwork

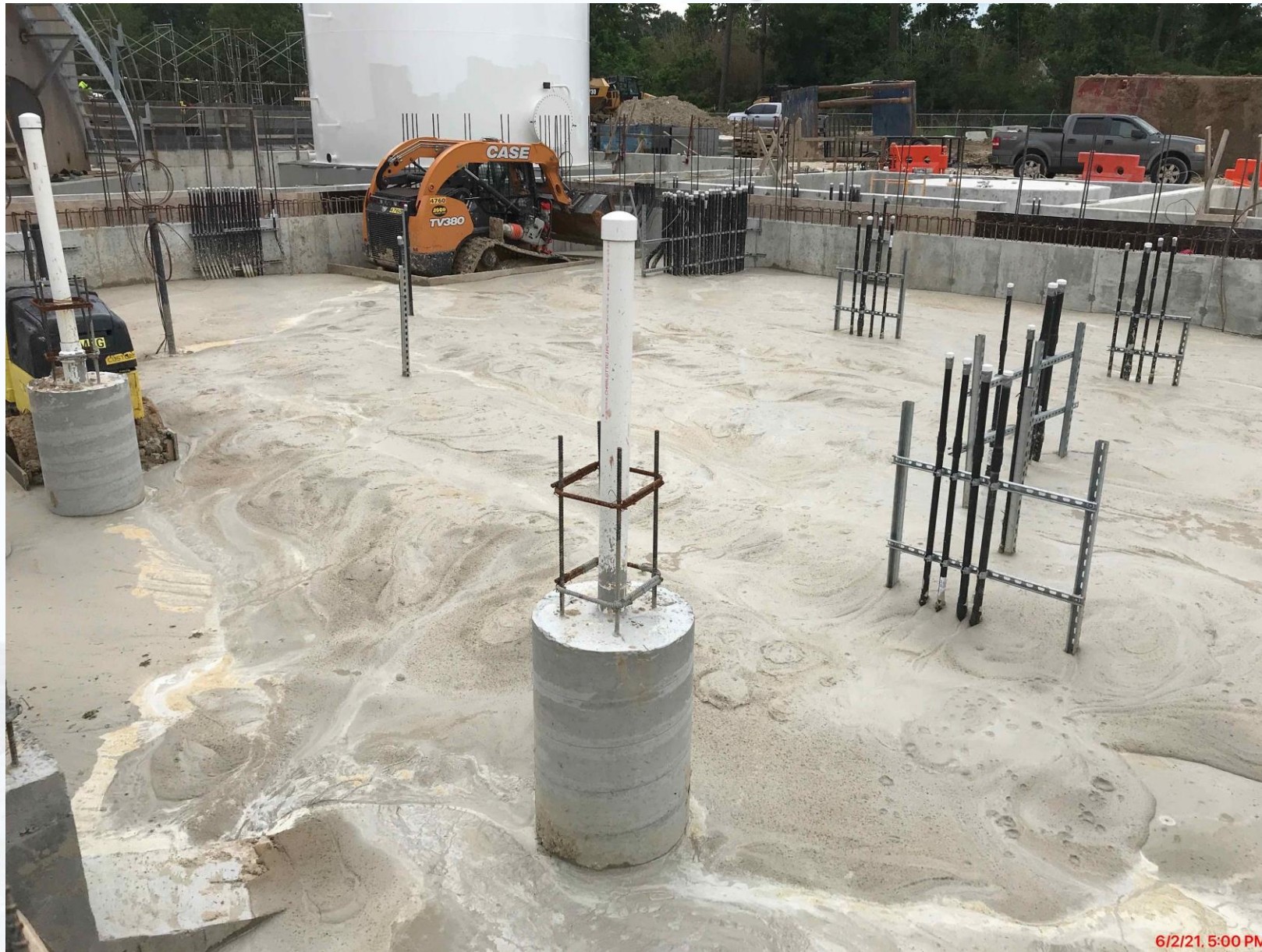
504-Gravity Thickener Complex 4:

- Gravity Thickener 8 – Weir Walls and Slabs

611-Liquid Residuals Clarifier Facility 1:

- Handrail Installation

201-Chlorine Dioxide Facility 1: Area-B Mudslab



6/2/21, 5:00 PM
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213-Pretreatment Chemical Facility 3: LS Tank-1 Painting



214-Pretreatment Chemical Facility 4: CMU Walls



6/2/21, 4:55 PM

241-Flocculation & Sedimentation Train 1: SL-36 Rebar



242-Flocculation & Sedimentation Train 2: Sedimentation Basin 3 – Knife Walls and Exterior Wall Rebar



252-Ozone Contactor 2: Roof-ESL F/R/P



6/2/21, 5:03 PM

501-Gravity Thickener Complex 1: TSSB Walls Formwork



504-Gravity Thickener Complex 4: Gravity Thickener 8 Weir Walls and Slabs F/R/P



6/2/21, 4:28 PM

611-Liquid Residuals Clarifier Facility 1: Handrail Installation



8/2/21 8:01 PM



Construction Progress – South Plant

- 361 - Continued shoring erection.
- 361 – Shotcrete joints.
- 401 – Delivery and installation of 3 of the 6 vertical turbine pumps.
- 401 – Clean and patch pump can interiors.
- 401 – Mill pump can top flanges.
- 401 – Delivered structural steel.
- 401 – Commenced steel erection.
- 401 – Below slab plumbing and encasements (electrical room).
- 401 – Continued electrical room foundation concrete.
- 402 – Continued installation of 78” buried pipe.
- 520 - Commenced TPO roofing upper level.
- 520 - Cleaning CMU at the electrical, mechanical, and other rooms.
- 520 - Continued installation of joint sealants for precast wall panels.
- 520 - Continue fire piping and plumbing.
- 520 – Continue process pipe installation.
- 520 – Continue electrical conduit installation.
- 520 - Continue mechanical coatings.
- 510 – Commenced water tightness testing of basins & slide gates.



GST 361 & 362 AERIAL VIEW



GST 361

GST 362

GROUND STORAGE TANK 361



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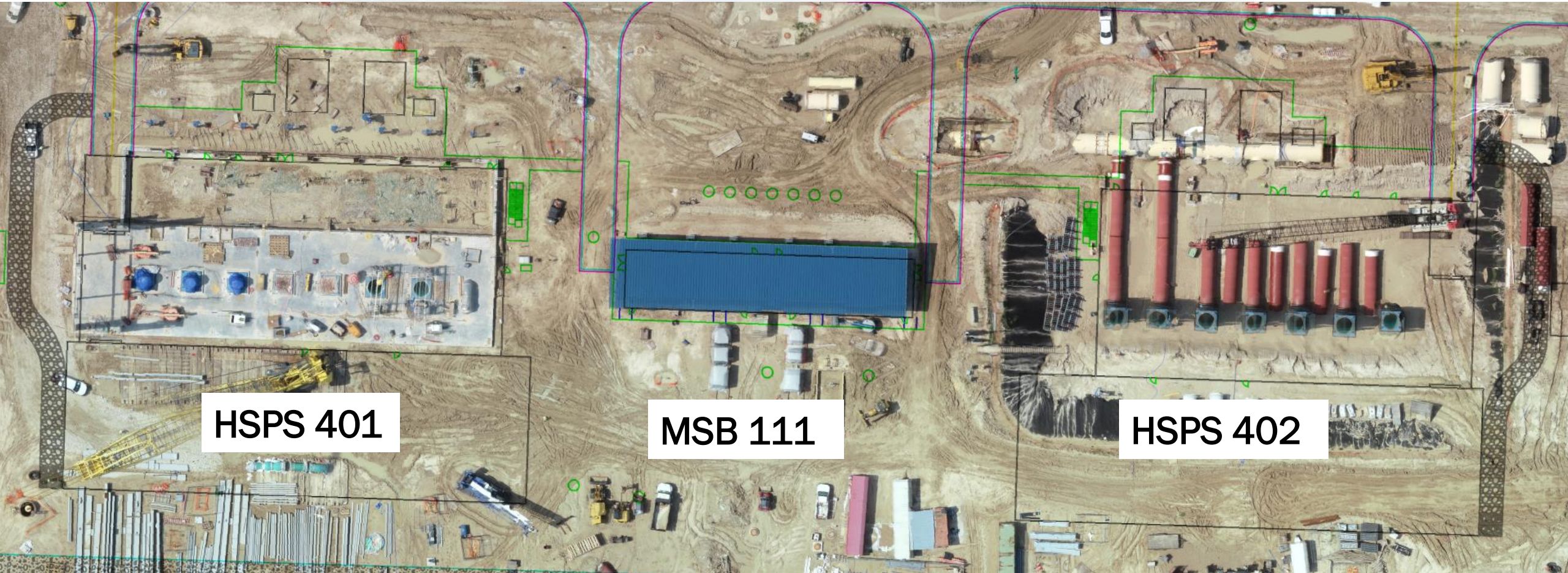
361 – Continued shoring erection

GROUND STORAGE TANK 361



361 – Shotcrete joints

HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



HSPS 401

MSB 111

HSPS 402

HIGH SERVICE PUMP STATION 401



401 – Delivery and installation of 3 of the 6 vertical turbine pumps

HIGH SERVICE PUMP STATION 401



401 – Commenced steel erection

HIGH SERVICE PUMP STATION 402



402 – Continued installation of 78" buried pipe

DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW

March 29, 2021



DEWATERING BUILDING 520

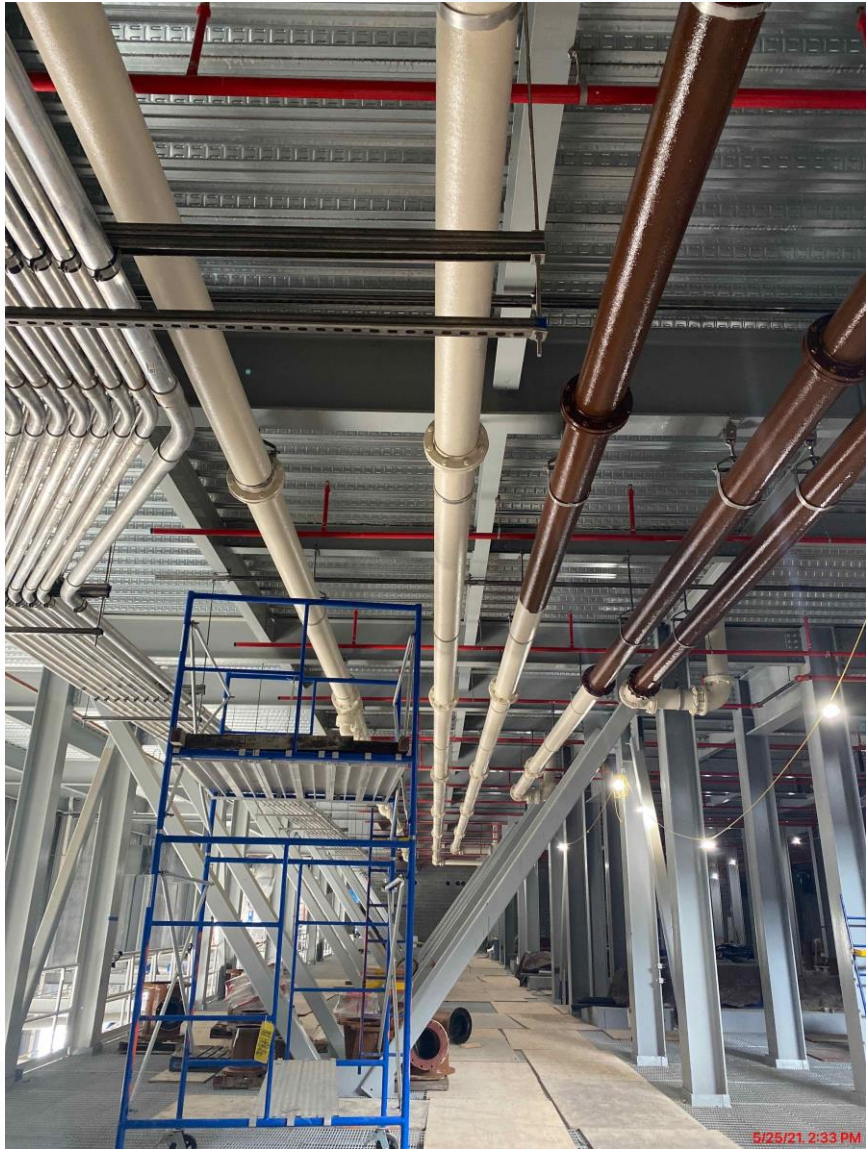


520 - Commenced TPO roofing upper level

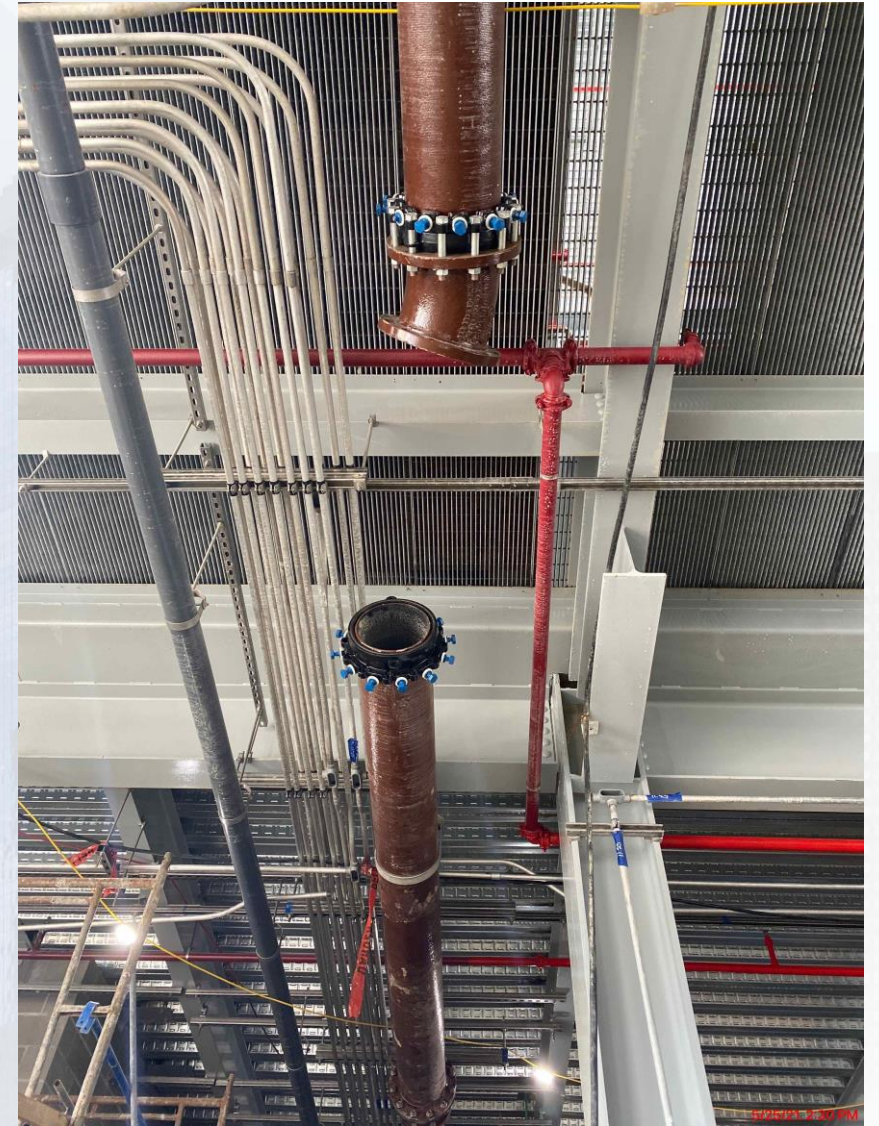


520 - Cleaning CMU at the electrical, mechanical, and other rooms

DEWATERING BUILDING 520



520 - Continue fire piping and plumbing



520 – Continue process pipe installation

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Sludge Equalization Tank 510



510 – Commenced water tightness testing of basins & slide gates



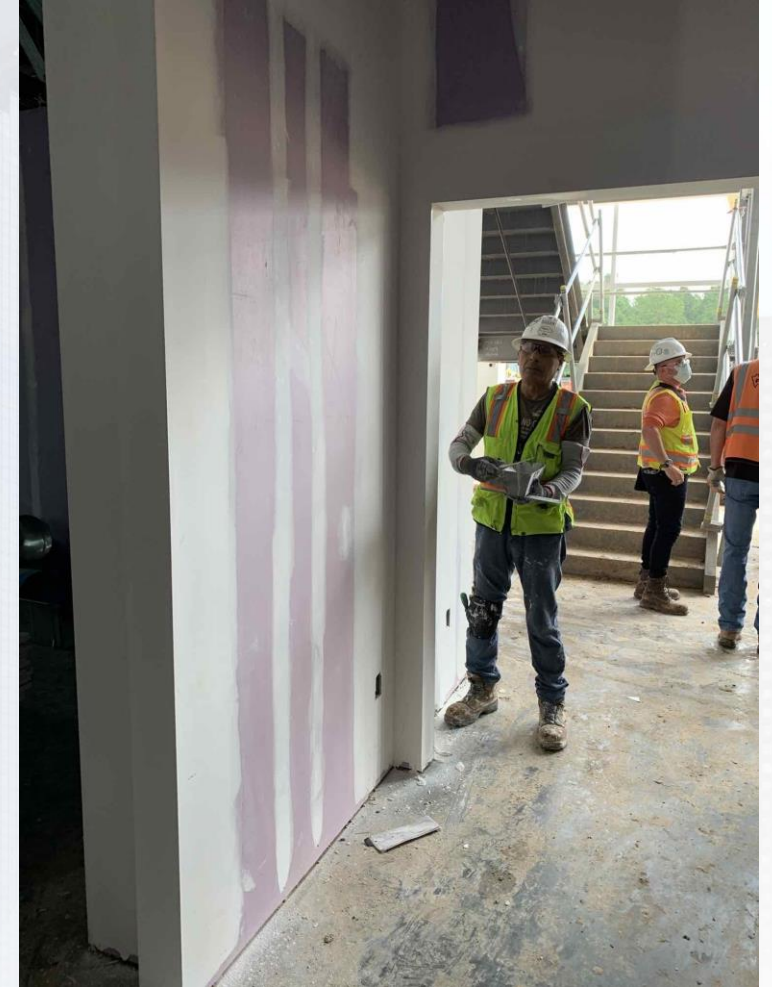
Construction Progress – Administration & Maintenance Building

- Install AB Storefront Glazing
- Float and Finish Gypsum Walls
- Install Electrical Panels/Equipment
- Install Window Frames

Installation of Storefront Glazing



Float and Finish Gypsum Walls



Installation of Electrical Panels/Equipment



Installation of Window Frames



