



**CITY OF HOUSTON**  
Houston Public Works

# DESIGN-BUILD SERVICES

# Northeast Water Purification Plant Expansion

May 18, 2022





**Site Drone Map  
May 12, 2022**







# Construction Progress – Site Electrical

- **On Going Duct bank Install at 402**
- **On Going Lindsey Electric Runing New Trailer City Temp Power**
- **On Going Installation of 401 Bus duct**
- **Shermco Testing Cabels 401PMP10101**



# Continued Duct bank Install at Facility 402





# On Going Lindsey Electric Runing New Trailer City Temp Power





# On Going Installation of 401 Bus duct





# Shermco Testing Cabels 401PMP10101



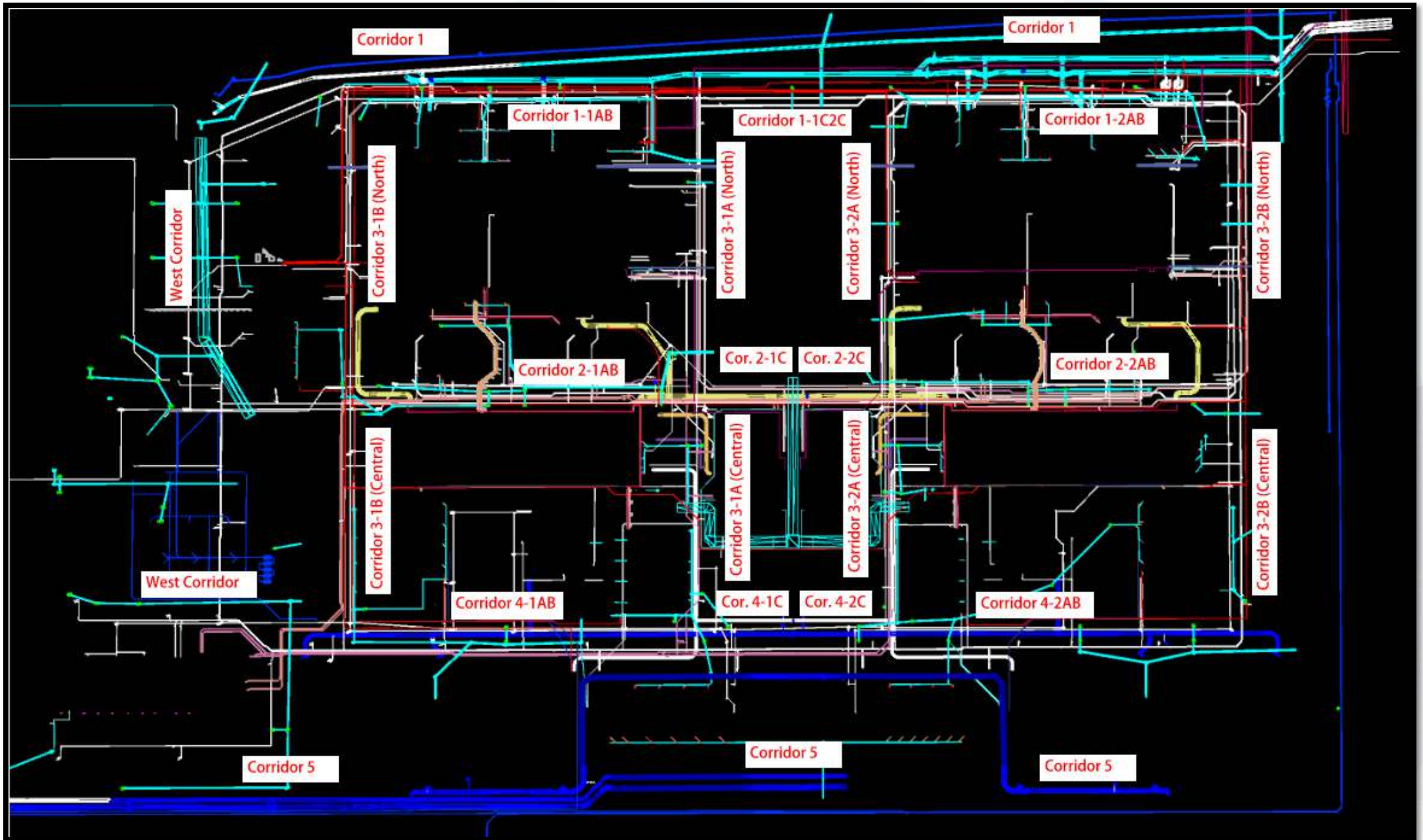




# Construction Progress – Yard Piping

- **Installing Victaulic Ring at Facility 282**
- **Continue installing tie-in to the existing 66-inch RW pipe**
- **Continue installation of Lift Station 711**
- **Continue installation of Lift Station 704**
- **Continue installation of the meter vault**





# Installing Victaulic Ring at Facility 282





# Continue installing tie-in to the existing 66-inch RW pipe



# Continue installation of Lift Station 711





# Continue installation of Lift Station 704





## Continue installation of the meter vault





# Construction Progress – Central Plant 1

## 281-FILTER MODULE 1 :

- Installation and Testing of chem piping.
- Installing Media filters

## 291-TRANSFER PUMP STATION 1:

- Process mechanical pipe installation.
- Corrective actions for 84-inch CFE line

## 311 – POST CHEMICAL FACILITY SH/CS :

- Sump Pump installation
- Offline instrument installation.

## 312 – POST CHEMICAL FACILITY FA/LAS/PEC/SB :

- Exterior Process Mechanical Piping system coating.
- Offline instrument installation.





# CENTRAL PLANT- PHASE 1 OVERALL



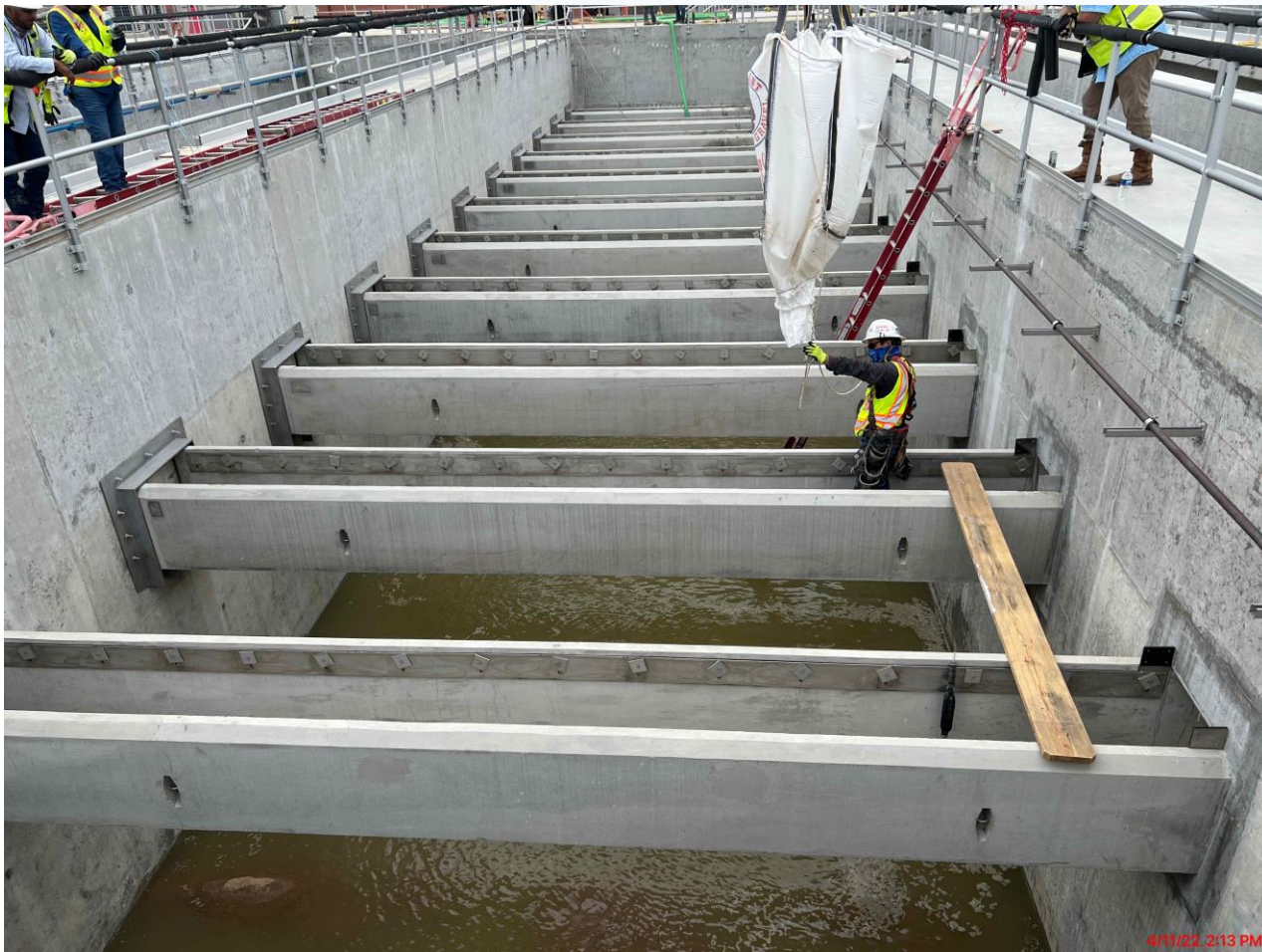


# 281 FILTER MODULE- Chemical Piping Installation Testing





# 281 FILTER MODULE- Filter Media (Sand) installation





# 281 FILTER MODULE- Filter Media (Sand) Backwashing





# 291-TPS – Aerial View (02/09/2022)





# 291-TPS – Process Mechanical pipe installation





# 291-TPS – Corrective action 84-inch M11.





# 311 – Aerial view –02/09/2022





# 311 –Chemical Process Mechanical Pipe coating





# 311 –CRC application at Truck Fill stations





# 312 - Overall view 02/09/22



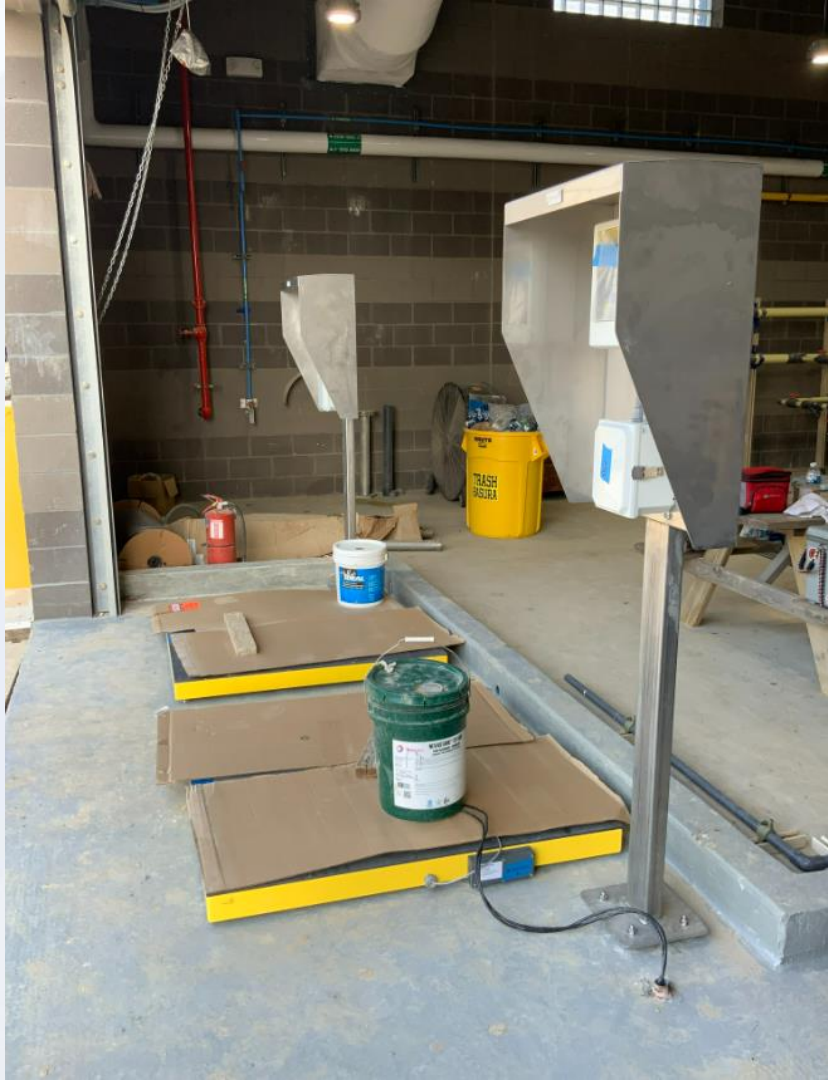


# 312 – Exterior process mechanical installation





# 312 – Off-line instrument installation.







# Construction Progress – Central Plant 2

## ● 282 -FILTER MODULE 2:

- Filter underdrain anchor block installation.
- 24-BWA Pipe installation
- Filters Leak test.

## ● 292-TRANSFER PUMP STATION 2:

- CMU block Installation
- 84-inch interior valve installation.

## ● 313 – POST CHEMICAL FACILITY 3 FA/LAS/PEC/SB :

- CMU Block installation.
- Structural steel installation.
- F/R/P Equipment Pads

## ● 314 – POST CHEMICAL FACILITY 4 SH/CS :

- Above ground Plumbing installation
- F/R/P Sidewalks.





# CENTRAL PLANT- Phase 2





# 313 - Overall view 02/09/22





# 313 – CMU block installation continues



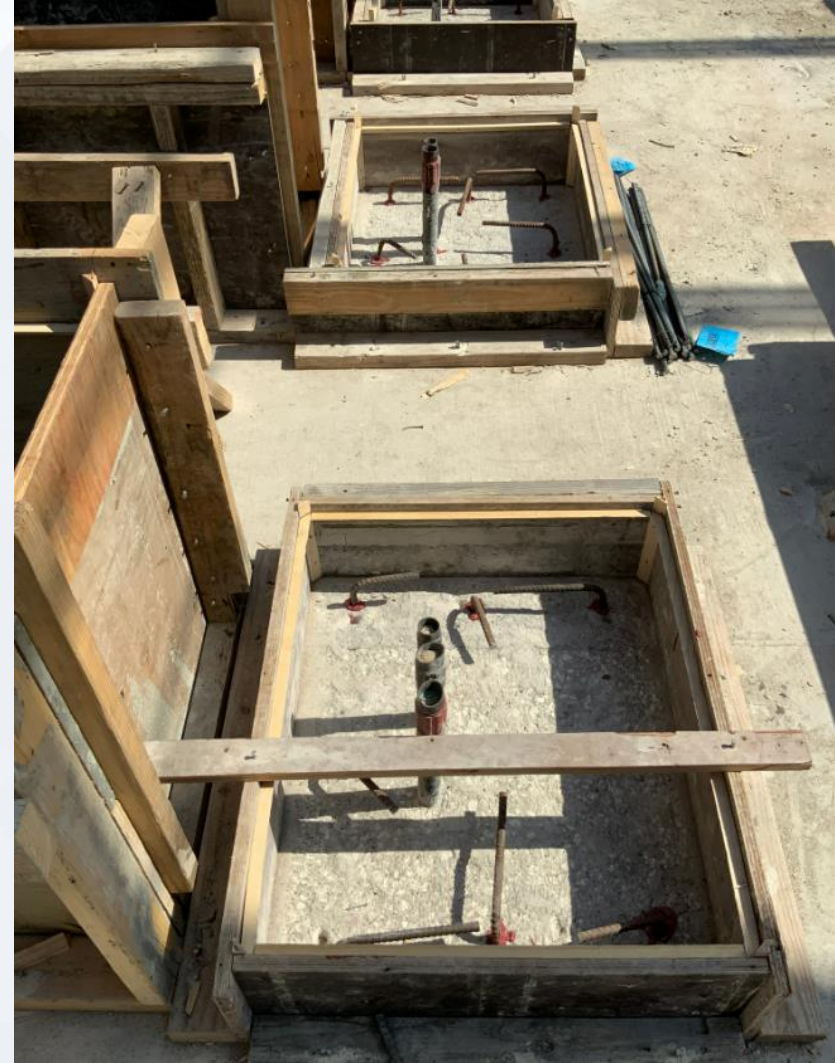


# 313 – Structural Steel Installation.





## 313 – Concrete equipment pads installation.



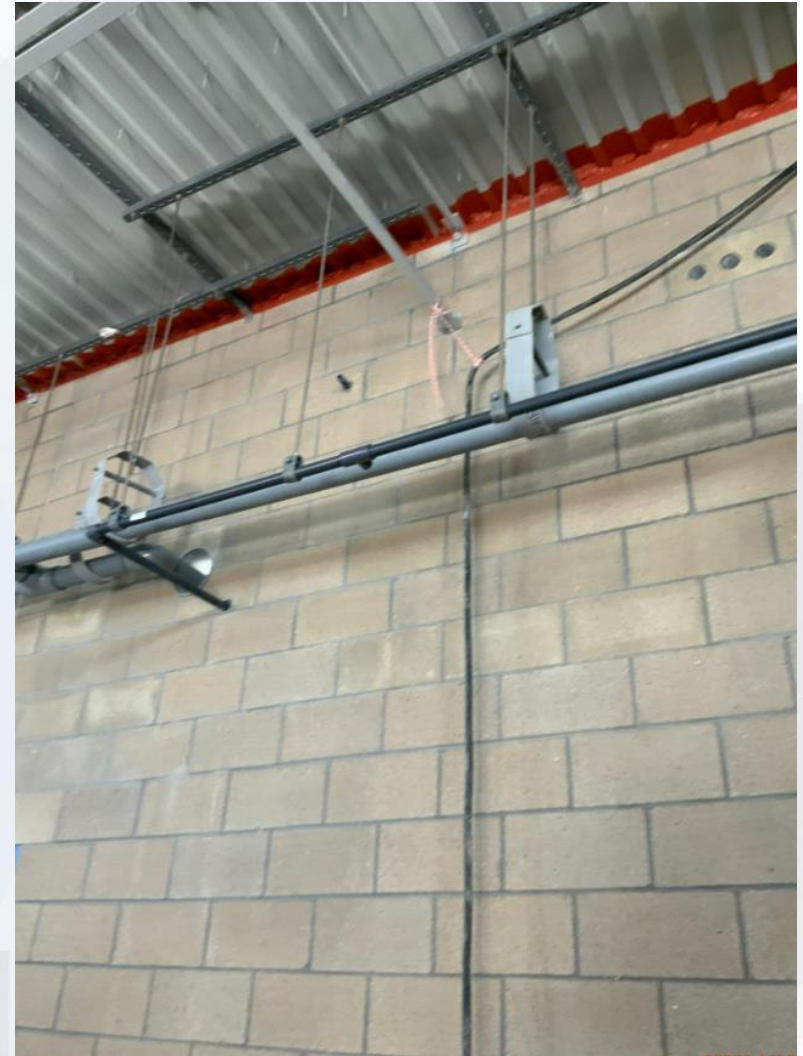


# 314- Aerial view 02/09/22



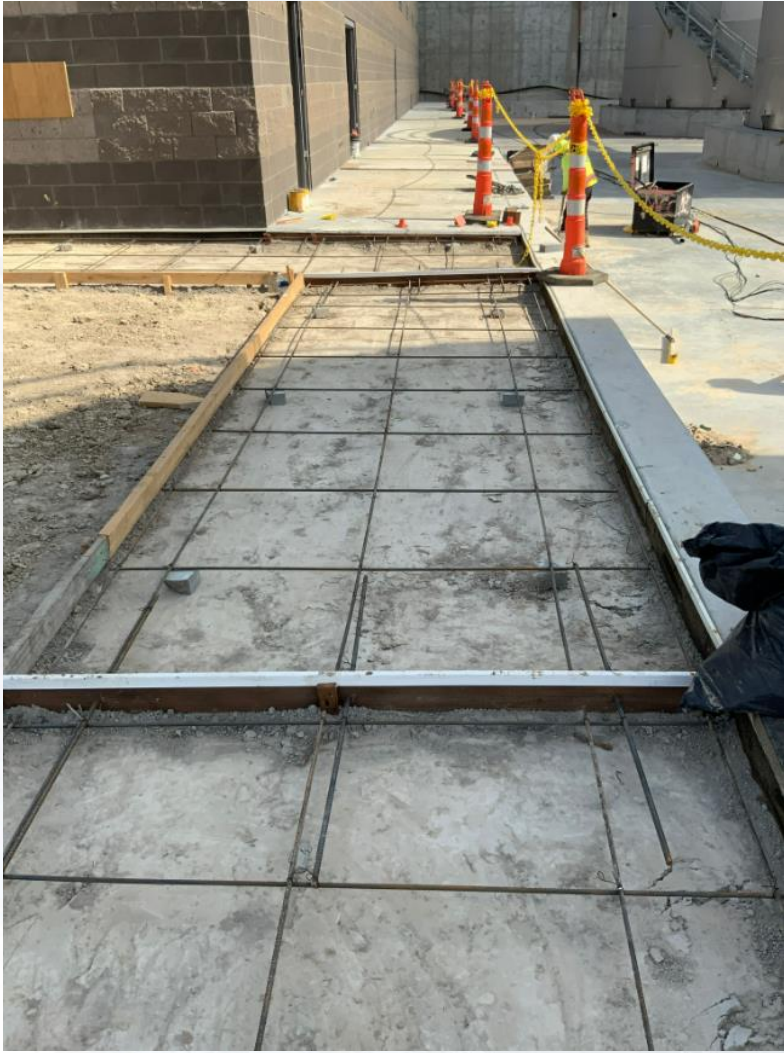


# 314 – Above ground plumbing lines installation.





# 314 – F/R/P Sidewalks



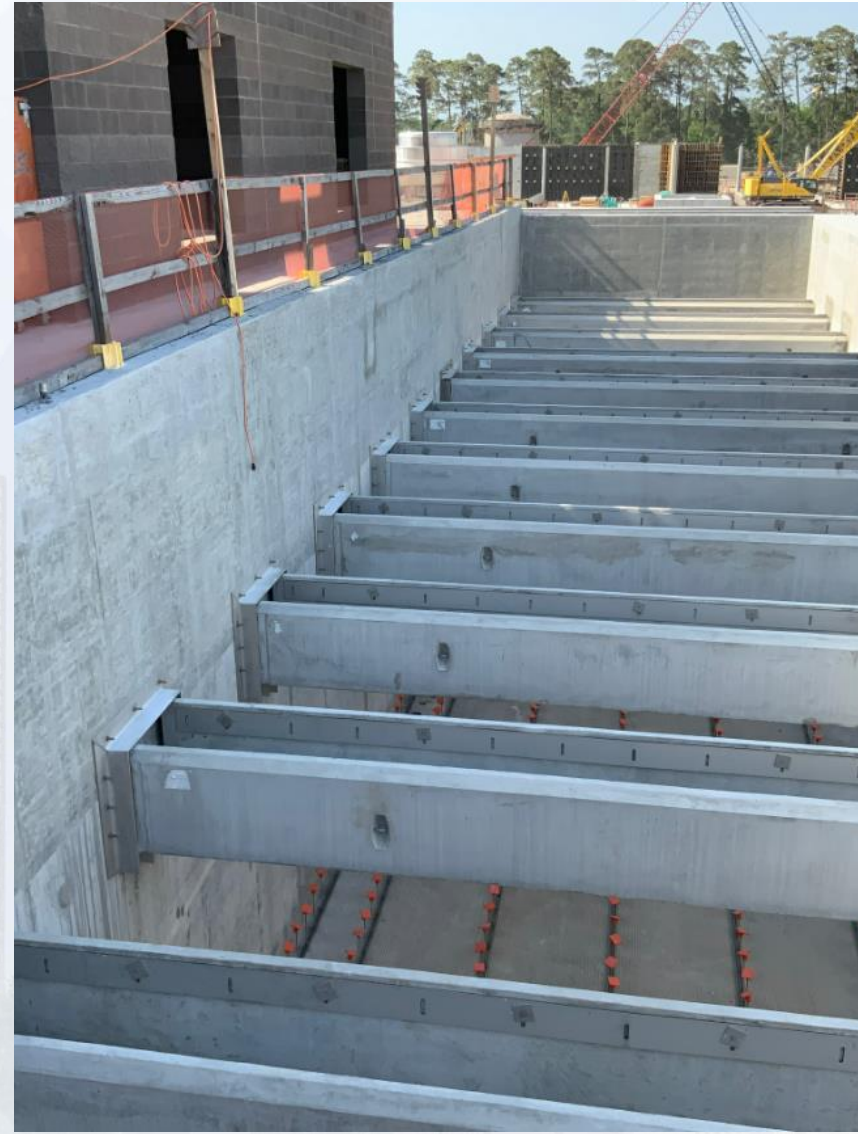
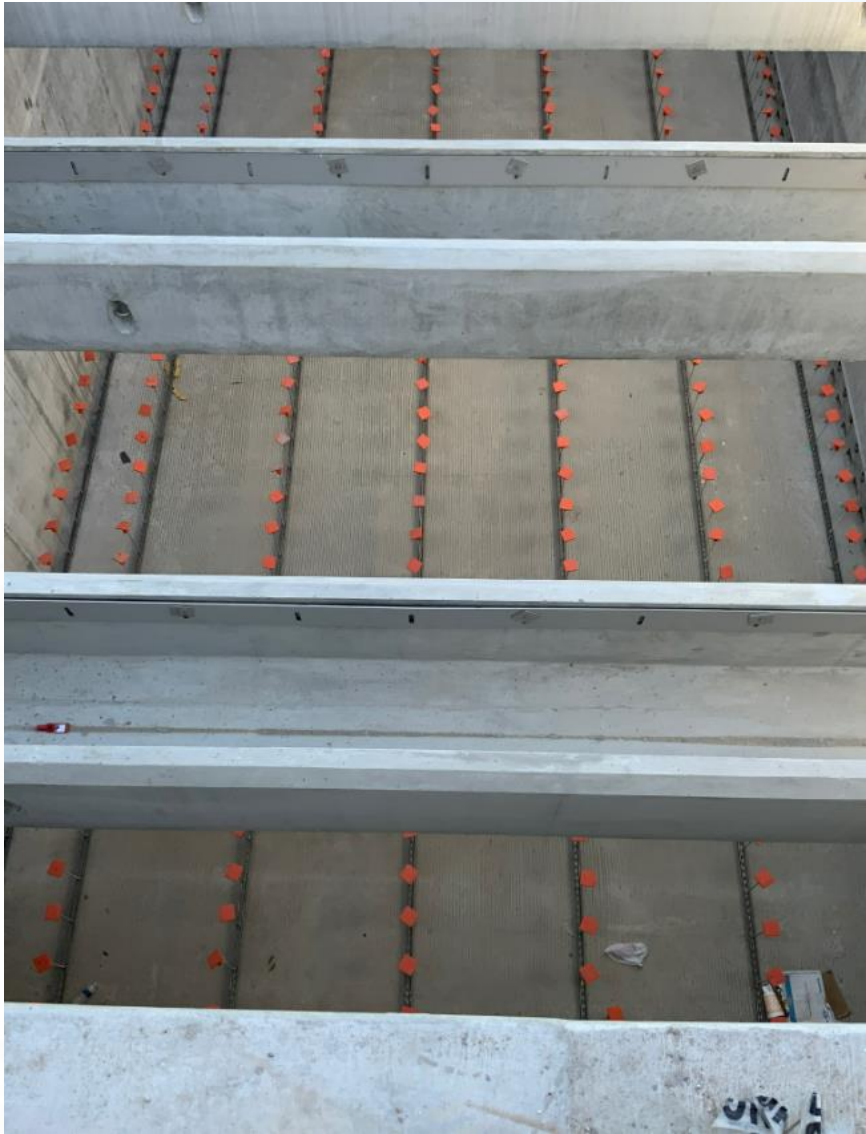


# 282-FILTER MODULE 2 - Pipe installation





## 282-Underdrain anchors installation





# 282- Leak Test installation





## 292-TPS – Aerial View (02-09-2022)



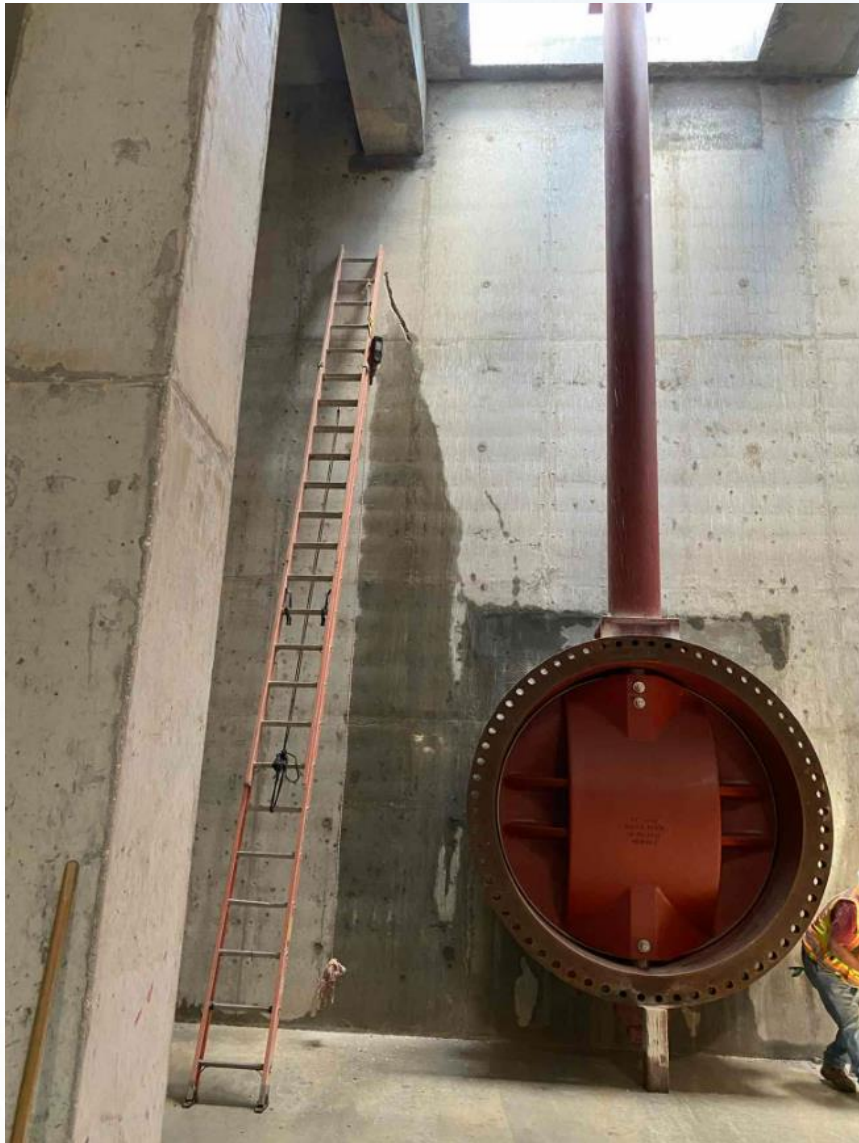


## 292-TPS – CMU Block installation.





# 292-TPS – Interior 84-inch BFV installation







# Construction Progress – LREQ Basins Facilities 601/602

- **601 – SECO Install Duct Bank – Ongoing**
- **602 – Handrail and weir plates installation**





# 601 – SECO Duct Bank Installation





# 601 – SECO Duct Bank Installation





## 602 – Handrail and weir plates installation







# Construction Progress – North Plant

- **201-Chlorine Dioxide Facility 1:**
  - Continued Mechanical Work/ Downspouts South of Building
- **212-Pretreatment Chemical Facility 1:**
  - Continued CMU Block Installation/ Chemical Tanks Placement
- **213-Pretreatment Chemical Facility 3:**
  - Continued Mechanical Work / HVAC Installation
- **214-Pretreatment Chemical Facility 4:**
  - Continued Mechanical Work in Pump Room/ Truck Fill Station ongoing
- **222-Rapid Mix Train 2**
  - Ongoing Pipe Coating
- **241-Flocculation & Sedimentation Train 1: Chain & Flight Equipment Install / Steel ongoing installation**
- **242-Flocculation & Sedimentation Train 2:**
  - Trough Opening Grout ongoing / FBDC Conduit installation
- **252-Ozone Contactor 2:**
  - Installation of Diffusers / Continued pipe installation
- **261-Ozone Generation Facility 1:**
  - Ongoing Mechanical install / Pipe connections of Vaporizers
- **218-Pretreatment Chemical Facility 8:**
  - Continued rebar/concrete placement for walls / Leak Testing Containment Area
- **243-Flocculation & Sedimentation Train 3:**
  - Continued Walls for Basin 5
- **244-Flocculation & Sedimentation Train 4:**
  - Concrete Placement for Slab and formwork on Wall 7
- **501-Gravity Sludge Thickener Complex 1:**
  - Concrete placement for SL-2 / Slab 4 & 5





# 201-Chlorine Dioxide Facility 1: Continued Mechanical Work/ Downspouts South of Building





# 212-Pretreatment Chemical Facility 2: Continued CMU Block Installation/ Chemical Tanks Placement





## 213-Pretreatment Chemical Facility 3: Continued Mechanical Work / HVAC Installation





# 214-Pretreatment Chemical Facility 4: Continued Mechanical Work in Pump Room/ Truck Fill Station ongoing





## 222-Rapid Mix Train 2: Ongoing Pipe Coating





# 241-Flocculation & Sedimentation Train 1: Chain & Flight Equipment Install / Steel ongoing installation





# 242-Flocculation & Sedimentation Train 2: Trough Opening Grout ongoing / FBDC Conduit installation





## 252-Ozone Contactor 2: Installation of Diffusers / Continued pipe installation





# 261-Ozone Generation Facility 1: Ongoing Mechanical install / Pipe connections of Vaporizers





# 215 Pretreatment Chemical Facility 5: Continued Tank Welds and install





# 218 Pretreatment Chemical Facility 8: Continued rebar/concrete placement for walls / Leak Testing Containment Area





# 243-Flocculation & Sedimentation Train 3: Continued Walls for Basin 5



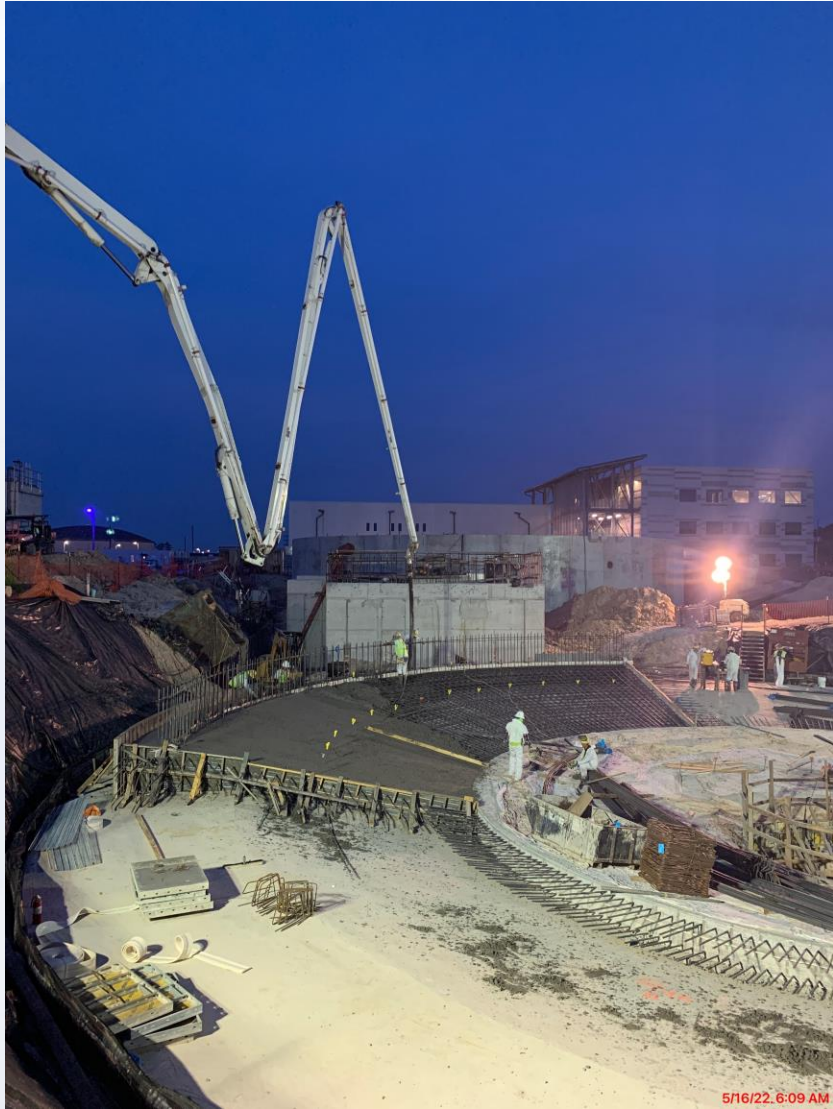


# 244-Flocculation & Sedimentation Train 4: Concrete Placement for Slab and formwork on Wall 7





# 501-Gravity Sludge Thickener Complex 1: GT2 – Concrete placement for SL-2 / Slab 4 & 5







# Construction Progress – South Plant

## 361 & 362:

- Watertightness testing at GST 362.

## 111, 401, & 402:

- Continued installation of insulated metal wall panels at Fac 401.
- Continued installation of louvers and exhaust fans at Fac 401.
- Continued electrical conduit and terminations in the Electrical Room at Fac 401.
- Continued installation of aboveground piping at Fac 401.
- Continued installation of FRP pipe support pedestals at Fac 401.
- Continued pulling overhead branch wire at the Analyzer Room at Fac 401.
- Continued backfilling at Fac 402.
- Continued FRP pipe encasement at Fac 402.
- Commenced building footer slab pour at Fac 402.
- Continued top of pump can encasement repairs at Fac 402.

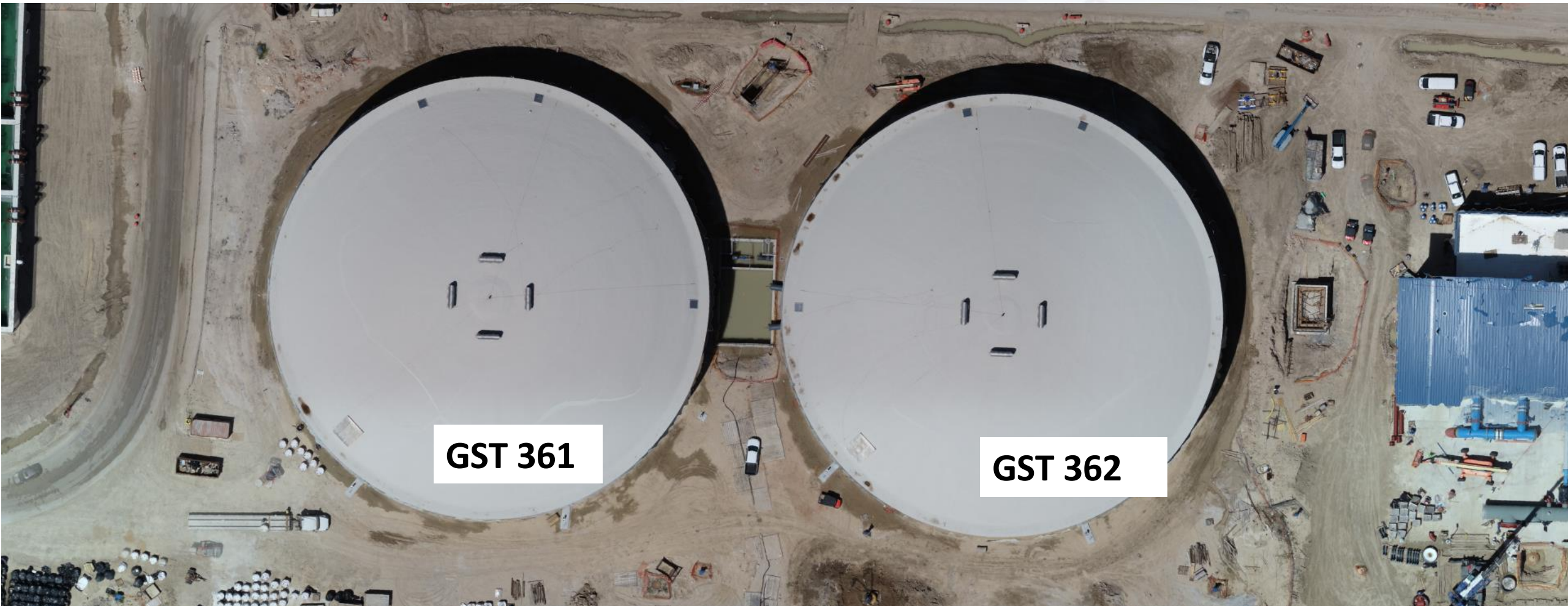
## 510 & 520:

- Continued installing plumbing, process pipe, and electrical conduit on levels 1, 2, and 3 at Fac 520.
- Continued wire pulling at Fac 520.
- Continued mechanical coatings installation at Fac 520.
- Continued fire-resistant joint system installation at Fac 520.
- Continued installing truck loading/output conveyors at Fac 520.
- Continued installing centrifuge thickened sludge pumps seal water at Fac 520.
- Continued process pipe installation at Fac 510.
- Commenced terminating power to wiring sludge mixers, LCP's, and MCS's at Fac 510.





# GST 361 & 362 AERIAL VIEW



**GST 361**

**GST 362**



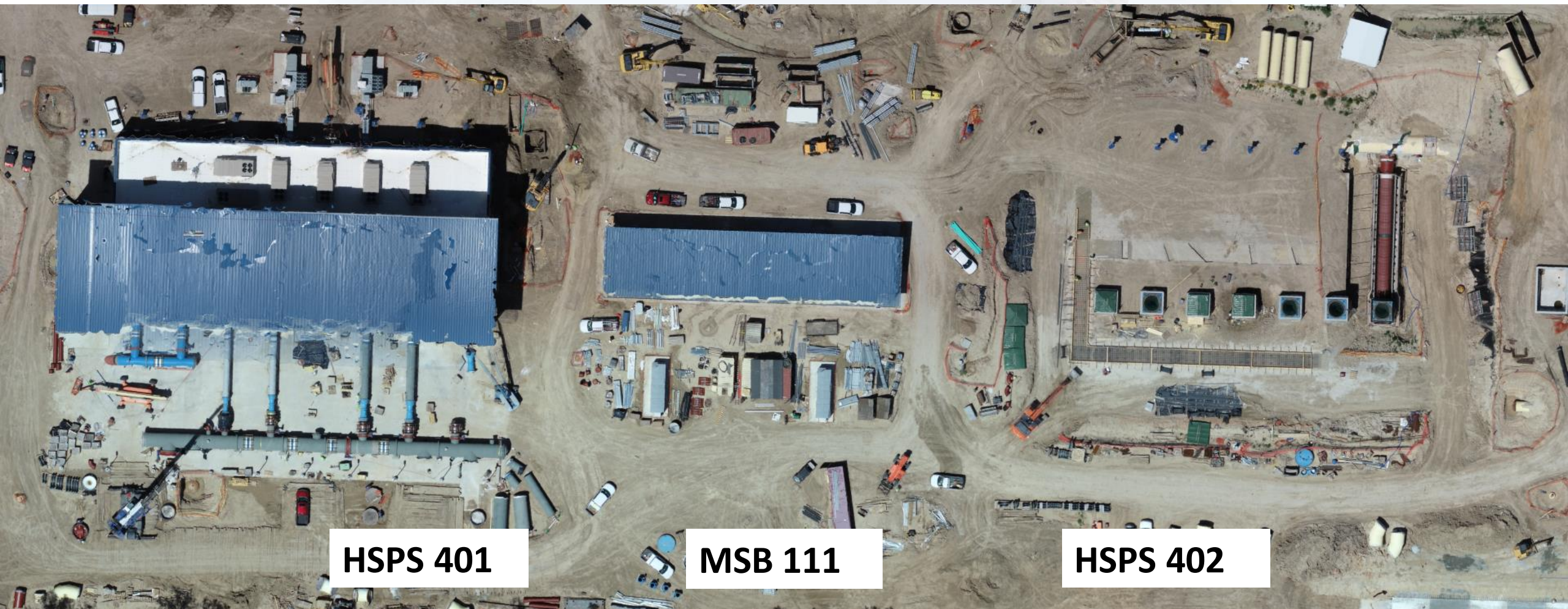
# GROUND STORAGE TANK 361



Watertightness testing at GST 362



# HSPS 401, MSB 111, HSPS 402 AERIAL VIEW



**HSPS 401**

**MSB 111**

**HSPS 402**



# HIGH SERVICE PUMP STATION 401



Continued installation of aboveground piping at Fac 401.



# HIGH SERVICE PUMP STATION 402



Continued backfilling and commenced building footer slab pour at Fac 402



# DEWATERING BUILDING 520 & THICKENED SLUDGE EQUALIZATION TANK 510 AERIAL VIEW



520

510



# DEWATERING BUILDING 520



Continued installing plumbing, process pipe, and electrical conduit on levels 1, 2, and 3 at Fac 520



# THICKENED SLUDGE & EQ BASIN 510



Continued process pipe installation at Fac 510.





# Construction Progress – Administration & Maintenance Building

- Installation of FRP Panels
- Regrading of Pond 4





# Installation of Control Room Furniture





# Regrading of Pond 4







# Construction Progress – Site Civil

- **Continue bottom slab up to STA 11+50**
- **Installing Reinforcing Steel at South Driveway of the Dewatering Building**
- **Fusing 8" Sanitary Sewer Force Main HDPE Pipe**

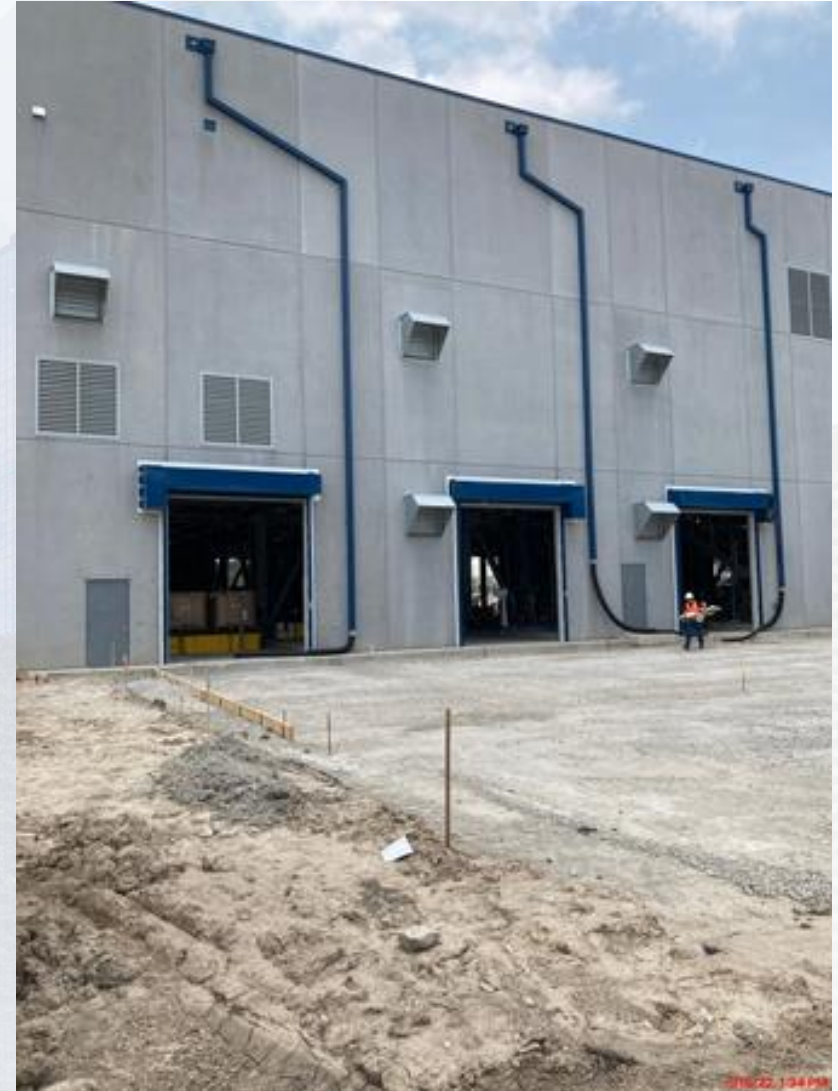


# Continue bottom slab up to STA 11+50





# Installing Reinforcing Steel at South Driveway of the Dewatering Building





# Fusing 8" Sanitary Sewer Force Main HDPE Pipe

