



# Presentation

## CTP Electrical Distribution System Upgrade Project

Presenter:

- Max Drathman, P.E., Project Manager, [mdrathman@cityoftacoma.org](mailto:mdrathman@cityoftacoma.org)



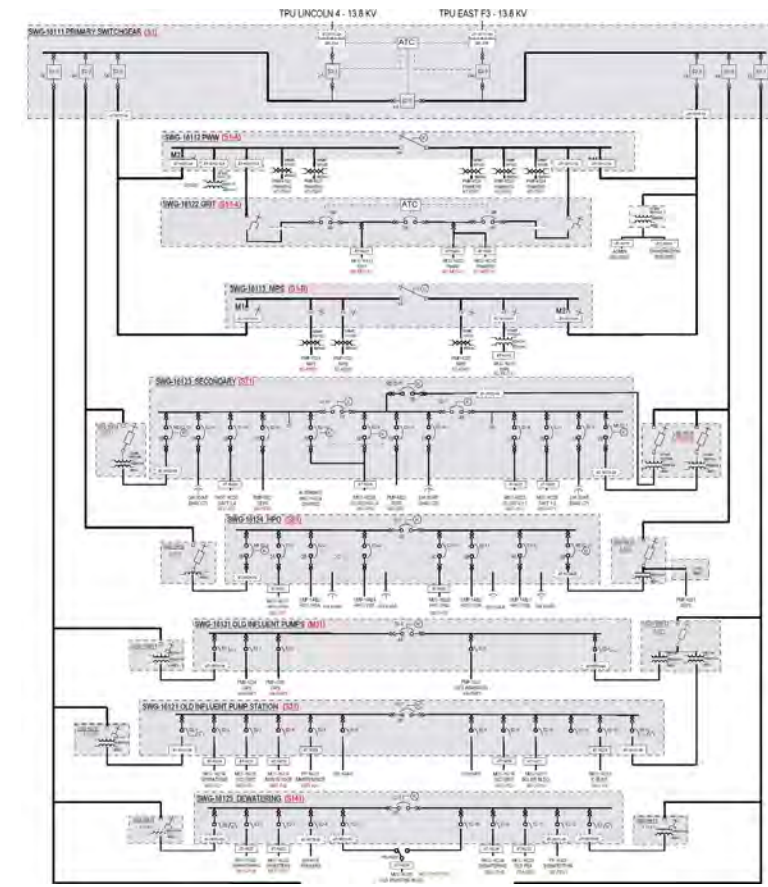


# CTP Electrical Upgrade

What issues is the project addressing?

Safety | Reliability | Redundancy | Shutdowns

Eliminate “one too many” distribution





# CTP Electrical Upgrade



## Design

Provide electrical redundancy with new switchgear powering independent “A” and “B” sides of the distribution system with new MV cabling and new/reused duct banks

### Design Considerations

- New building location
- Future site use
- New utility alignments
- Safety
- Eliminating single points of failure
- Underground vs Overhead power

### Coordination

- TPU Power
- Union Pacific Railroad
- Public Works
- United States Army Corps of Engineers
- United States Environmental Protection Agency
- WA State Department of Ecology
- CTP Operations

# CTP Electrical Upgrade



## Funding

- 60% Design cost projections (\$31M) exceeded the project budget (\$17M)
- Pursued low-interest loans from EPA and WA Ecology to fund the project
  - \$20M from EPA WIFIA (30 years at 1.2%) – Design and Construction
  - \$3M from Ecology SRF (20 years at 1.2%) – Design Costs
  - \$14M from Ecology SRF (30 years at 1.6%) – Construction Costs
- Current estimate is \$34M total project cost



# CTP Electrical Upgrade

## Construction

- Public bidding from March to May 2020.
  - 5 bids were received
  - Awarded to second lowest bid due to participation in City's SBE (now EIC) Program
  - Prospect Construction, Inc. from Puyallup, WA
- Construction started in August 2020





# CTP Electrical Upgrade

## Completed Work

- New electrical building
- Switchgear installation and energization
- North side duct bank, cable, & paving
- B-Side electrical cutovers
- 30" wastewater force main reroute
- 48" effluent extension

## Remaining Work

- South side duct bank, cable, & paving
- A-Side electrical cutovers
- Perimeter fencing
- Site landscaping, paving, and restoration
- *August 2022 Substantial Completion*





# CTP Electrical Upgrade

## 30" Wastewater Force Main Reroute





# CTP Electrical Upgrade

## 48" Effluent Extension

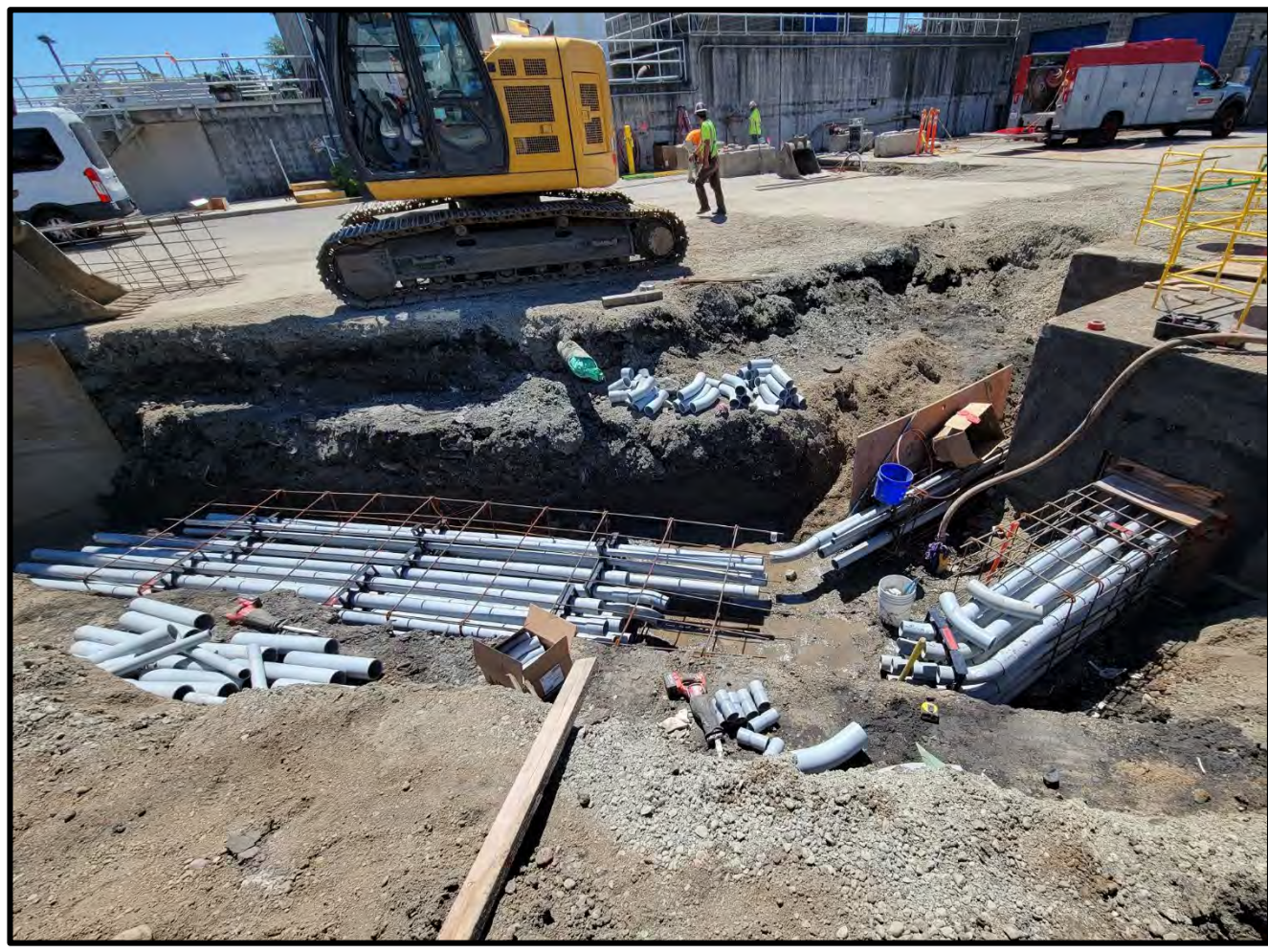
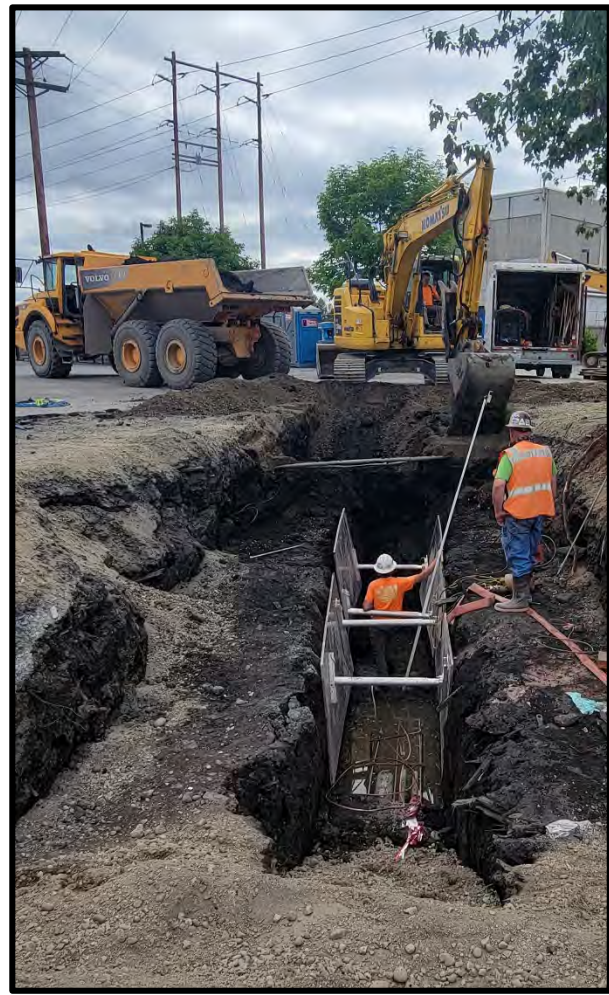






# CTP Electrical Upgrade

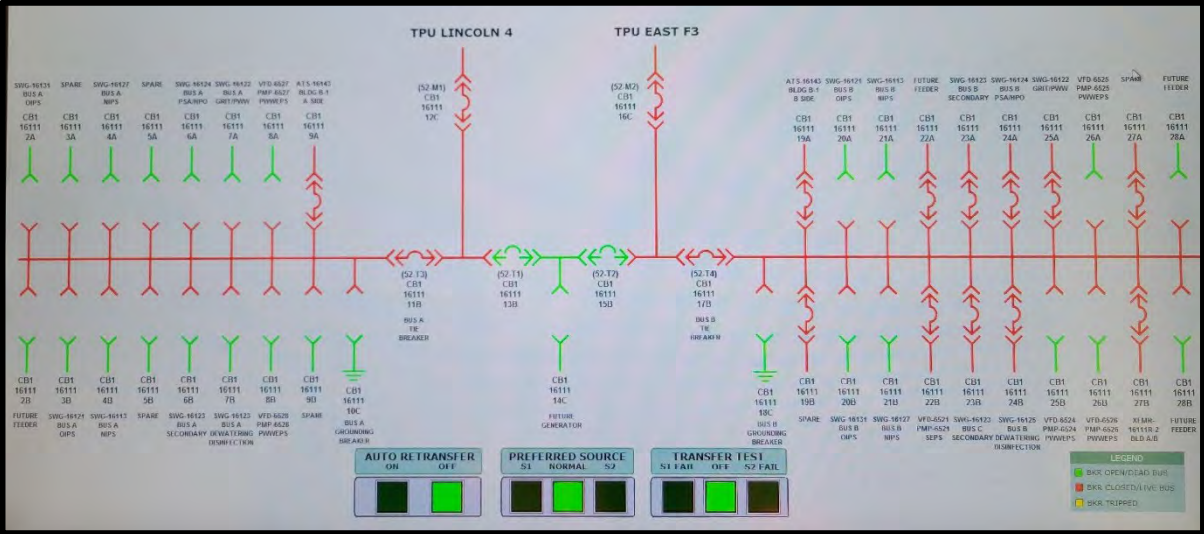
## Duct Bank Excavation and Construction





# CTP Electrical Upgrade

## Electrical Building and Switchgear





# Environmental Services Commission

City of Tacoma | Environmental Services Department

**Environmental Services Commission**

**Next Meeting: Thursday, April 7, 2022**

