

Shawn McWilliams Project Engineer, Regional Conveyance



Planned 2024 Construction Contracts



WWTP Plant Construction

Project	Est. Budget	Bid Timeframe
Contract 1799: Solids Thickening and Dewatering Improvements	\$38,000,000	Q2 2024









- Scope will include replacement of 7 existing Dewatering Centrifuges located on a mezzanine level within the Dewatering Building
- The new Dewatering Centrifuges are being prepurchased by ALCOSAN due to long lead times





- Scope will include constructing an extension of the mezzanine level and furnishing up to 6 new Gravity Belt Thickeners atop the new mezzanine level extension
- Scope will include structural modifications to the Dewatering Building due to the additional loads from the new equipment





 Scope will also include replacement of ancillary items associated with the dewatering operation that are reaching the end of their useful life, including Primary Sludge Pumps (shown above) and Waste Activated Sludge (WAS) Pumps



Conveyance System Construction Projects

Project	Est. Budget	Bid Timeframe
Contract 1746: Melanchton Pump Station Replacement	\$1,800,000	Q1/2024
Contract 1794: Sewer Improvements Contract 2024	\$1,500,000	Q2/2024
Contract 1793: Site Demolition Contract #2 (ORT)	\$1,500,000	Q3/2024
Contract 1763: Access Shafts at A-40 and M-49	\$5,500,000	Q3-4/2024
Contract 1764: O-15/O-16 New Structure & Access Manhole	\$3,000,000	Q3-4/2024
Contract 1770: Various Improvements to the Ella and Corliss Pump Stations (adding O-07 Shaft Improvements)	\$5,000,000	Q4/2024



Conveyance System Construction and Projects

Project	Est. Budget	Bid Timeframe
Contract 1797: Ohio River Tunnel (ORT) Project	\$750,000,000	Q3-4/2024



Courtesy of NEORSD & WadeTrim/McMillen Jacobs Associates; Portland Bureau of Environmental Services, OR; Seattle Public Utilities, WA



Contract 1746: Melanchton Pump Station Replacement



- Demolish existing ejector station within fenced (red) area
- Create permanent fenced/gated entrance, requires clearing & grubbing, site work(yellow)
- Install new package submersible pump station, including controls and emergency generator w/ transfer switch and shelter
- NOTE: Work is within railroad zone of influence, requiring flagging and approved support of excavation
- Project Est. Budget: \$1,800,000



Contract 1746: Melanchton Pump Station Replacement











Contract 1794: Sewer Improvements Contract

- Planned site and structure improvements at eight different sites
- Contract will also be used to address emergency and undefined work
- Contingent item quantities are available for IDIQ work as needed
- Project Est. Budget: \$1,500,000



Contract 1794: Sewer Improvements Contract











Contract 1793: Site Demolition Contract #2

- Demolish existing buildings (YELLOW HASHED)
- Terminate existing utilities
- Clear areas containing shrub, tree and other materials (ORANGE AREA)
- Place concrete pads in preparation for new electrical transformers (RED)
 - Several locations not at the pictured site
- NOTE: Tall warehouse building is being maintained and not included in the work
- Project Est. Budget: \$1,500,000



Contract 1793: Site Demolition Contract #2





Contract 1763: Access Shafts at A-40 & M-49

A-40 Area*



M-49 Area



*Barge-based work anticipated due to location along river and next to railroad tracks



Contract 1763: Access Shafts at A-40 & M-49

A-40



- Install new access shaft manhole onto existing deep tunnel interceptor
- 10-ft inside diameter finished precast concrete manhole
- Support of excavation will require measures both soil and rock
- Approximate excavation depth is 60-ft
- Retaining wall construction required on high side (R.R. up hill); soldier beam and lagging shown
- Doghouse construction shown at base over existing 48-in diameter sewer
- Barge-based work due to location near Highland Park Lock & Dam



Contract 1763: Access Shafts at A-40 & M-49

M-49



- Install new access shaft manhole onto existing deep tunnel interceptor
- 10-ft inside diameter finished precast concrete manhole
- Support of excavation will require measures both soil and rock
- Approximate excavation depth is 70-ft
- Doghouse construction shown at base over existing 24-in diameter sewer
- Project Est. Budget: \$5,500,000



Contract 1764: O-15/O-16 New Structure & Access Manhole



- Replace and reroute existing 24" interceptor with 30" RCP
- Relocate diversion structure upstream and create new outfall
- Install new connection to existing regulator structure and modify structure for new flow patterns



Contract 1764: O-15/O-16 New Structure & Access Manhole



- Install new access shaft manhole onto existing deep tunnel interceptor
- 6-ft inside diameter finished precast concrete shaft manhole
- Support of excavation will require measures for both soil and rock
- Approximate excavation depth is 27-ft
- Doghouse construction shown at base over existing 30-in diameter sewer
- Project Est. Budget: \$3,000,000





Ella Street Pump Station



Corliss Pump Station*

*Barge-based work anticipated due to location along river and next to railroad tracks



Ella Street Pump Station



- Replacement of 10" submersible sewage pumps, internal piping and force main replacement to new manhole on property
- Installation of new meter pit with mag meter
- Replacement of approx. 225 LF of 18" gravity sewer and three manholes
- Replacement of bar screen system with added washer compactor



Ella Street Pump Station



- Replacement of (3) motors for 42" storm pumps
- Addition of VFDs for sewage and storm pumps
- Relocation and replacement of level sensing equipment
- Work requires bypass pumping
- Replace overhead hoist and add motorized trolley functions



Corliss Pump Station



- Replacement internal discharge piping and external piping up to valve pit
- Replacement and reconfiguration of valve equipment and piping in valve pit
- Installation of a permanent bypass pumping connection to existing force main piping
- Work requires bypass pumping





Corliss Pump Station





- Replacement of existing spiral staircase with stainless steel
- Replacement of all supply fan hardware
- Balancing of the HVAC system
- Replacement of roof, including the skylight
- Site access planned by barge due to location



O-07 Access Shaft



- Roof replacement
- HVAC, lighting and safety improvements
- Balancing of the HVAC & odor system
- Interior concrete repairs
- Demolition of unused equipment
- Project Est. Budget: \$5,000,000



Ohio River Tunnel (ORT) Contract Scope

- Main Scope
 - TBM launch and retrieval shafts, access shafts and drop shafts
 - ORT main tunnel 18 ft finished diameter, 19,990 ft long, 150 ft underground
 - Chartiers Creek Tunnel river crossing 14 ft finished diameter, 4,420 ft long
 - Ella-Shingiss Connector Tunnel 7 ft finished diameter, 1,850 long
 - Saw Mill Run Tunnel river crossing 14 ft finished diameter, 1,600 ft long
 - Dewatering Tunnel to Wet Weather P.S. 8 ft finished diameter, 555 ft long
 - 6 drop shafts and associated internal structures
 - Near surface facilities regulators, conveyance sewers and outfalls
- Bid period to begin in late Q3-Q4
- Bid as one contract package; Project Est. Budget: \$750,000,000



Ohio River Tunnel (ORT) Project 60% Design





Courtesy of City of Fort Wayne, IN

Proposed Infrastructure Near Surface Facilities



Courtesy of Portland Bureau of Environmental Services. OR

Courtesy of Tideway Media and Press Center



Overall Implementation Schedule of 15 Years



Overall schedule driven by Modified Consent Decree schedule. Final completion by December 31, 2036, including commissioning. Interim deadlines drive the schedule for design and construction; **subject to change**.



Upcoming Contractor Outreach Event

- Follow-up Meeting to the August 2023 event
 - Last event participation included 300+ individuals
- Planning for Spring 2024 Date and Location TBD
- Focus of the event will be
 - Project design updates since last event
 - Participation opportunities local contractors, smallbusiness and m/w/dbe companies
 - Networking between prime contractors, subcontractors, consultants and vendors
- Information will be publicized as it develops



Additional Clean Water Plan Projects Forecast (post-2024)

- Wet Weather Pump Station Construction Beginning 6/2025
- Allegheny River Tunnel Construction Beginning Mid-2028
- Monongahela River Tunnel Construction Beginning Late-2030



Future Tunnel Program Projects





Wet Weather Pump Station

Designed to pump 120 MGD from the tunnel to the East Headworks and increase plant wet weather capacity from 480 MGD to





Wet Weather Pump Station

Single shaft and be of a single circular wet well and dry pit configuration – similar to existing Main Pump Station

- Will require support of excavation to dig a shaft 185-ft deep and 150-ft in diameter
- Will require interfacing with the ORT project
- Includes complete fit out, testing and startup of the pump station.





Check the ALCOSAN Website



WHO WEARE WHAT WE DO WORK WITH US OUR CUSTOMERS CLEAN WATER PLAN EDUCATIONAL ACTIVITIES NEWS & EVENTS

Business Opportunities

Your company is important to ALCOSAN. We understand that building your boxiness is a timeconsuming task. Not only do you have to win the work, you also have to perform the work. ALCOSAN can help you eliminate some of these hurdles and make the process easier.

How to Do Business with Us

Whether you provide professional services, construction or commercial items, there is a place for your firm, For more details, download our <u>Dome Business With Us</u> brochure. Also, see below to learn more about our Planned & Active Bids and to register to receive notice of new business opportunity listings.

Vendor Registration

If you are interested in serving as a consultant, contractor or supplier to ALCOSAN and would like to receive notifications for active procurements, please complete the following vendor registration form. Please note this does not constitute or guarantee a contract.

Register Now

Visit Page

Planned and Active Bids

View our planned projects, and our active, awarded and cancelled bids





Solicitation Process How does ALCOSAN select • www.alcosan.org

- Click WORK WITH US tab
 - Business
 Opportunities
 - Planned and Active Bids
- Vendor Registration: get added to list for notifications about future opportunities
- Forms and policies available



M/W/DBE Participation

- M/W/DBE goals: 10% -25% annually of all Contract dollars
- Has to be certified to be considered an MBE/WBE/DBE by ALCOSAN.
- ALCOSAN accepts certification from most county and state certifying agencies and other certifying organizations*.

*ALCOSAN does not accept self-certificaitons.



Questions / Comments?

Contact: Shawn McWilliams ALCOSAN Project Engineer, Regional Conveyance (412) 734-8053 shawn.mcwilliams@alcosan.org