

Meeting Notes

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| Subject | Peirce Island WWTF Upgrade – Monthly Public Construction Meeting |
| Date | January 17, 2018 |
| Time | 11:00 AM |
| Location | Portsmouth, NH |

A public meeting was held at 11:00 AM on January 17, 2018 in Conference Room A at Portsmouth City Hall for the subject project. A record of the discussion follows:

Terry Desmarais, City Engineer, gave an introduction to the meeting and outlined the topics of discussion, including work completed since the last meeting, work to be completed in the coming month, work anticipated in the next six months, construction cost to date, summary of Consent Decree milestones, events and recreation, and public input.

The members of the Project Team in attendance introduced themselves, and included:

- Terry Desmarais, City Engineer
- Jon Pearson, AECOM Project Manager
- Robert Dahlinghaus, AECOM Resident Representative
- Andy Brodeur, Methuen Construction, Project Manager

Terry noted that to obtain additional information regarding the project, there is a project website that can be accessed through www.cityofportsmouth.com/publicworks/wastewater/peirce-island-wastewater-facility/peirce-island-wastewater-facility-upgrade-project. The website is updated weekly with news and recreational information and contains a link to a reporting form that can be used to provide feedback or notify the City of any issues associated with the project.

Jon discussed work that has been completed this month. He noted areas where work is ongoing at the site, including:

- Headworks Building
- Yard Piping / Utility Service
- Grit Building
- Gravity Thickener No. 2
- New Solids Building
- Electrical Facilities
- Biological Aerated Filter (BAF) Building

Jon reviewed photos of construction progress, including:

- Headworks Building – Interior: HVAC, plumbing, electrical, and mechanical process work is in progress and work to install the manual jib crane in the screen room has been completed.

- Grit Building – Interior: work to construct the concrete masonry unit (CMU) partition walls is in progress and the walls partitioning the new ferric chloride room have been completed. Selective demolition of equipment and piping is in progress and the existing grit pumps and grit classifier have been removed.
- Underground Piping and Utility Services – Underground yard piping beneath the Solids Building is in progress as well as underground piping and ductbank work around the site. The excavation, installation, and concrete encasement of the 36” force main that runs underneath the Solids Building is in progress.
- BAF Building – Reinforcing, formwork, and concrete placement for the elevated slabs, columns, above ground walls, and cell walls is in progress. Installation of the precast nozzle decks is in progress.
- Electrical Facilities – The new electrical service has been energized, including the underground system, transformer, and switchgear. Startup and testing procedures for the switchgear are in progress. Work to install the communication system between the Electrical Building and the WWTF SCADA system is in progress.
- Gravity Thickener No. 2 / Temporary Sludge Pumps – The majority of the work to install the dome cover for Gravity Thickener No. 2 has been completed.

Andy discussed work anticipated for the coming month, including:

- Continue interior work in the Headworks Building, including doors, windows, mechanical, HVAC, plumbing, and electrical work.
- Continue selective demolition and modifications (structural, mechanical process, HVAC, plumbing, and electrical) in the Grit Building, including installing the new Motor Control Center.
- Continue reinforcing, formwork, and concrete placement for the BAF Building elevated slabs, columns, and walls.
- Continue installation of utilities under the new Solids Building.
- Continue installation of slide gates in the Primary Effluent Distribution Box.
- Begin reinforcing, formwork, and concrete placement for the Solids Building foundation.
- Continue interior work at the new Electrical Building, including HVAC and lighting.
- Startup and testing of the stand-by generator.
- Transfer power to the new underground electrical distribution system.
- Remove the existing temporary overhead electrical system and temporary switchgear.
- Continue underground piping installation near the Grit Building.

Andy then discussed the work anticipated through January and into June 2018, including:

- Headworks Building – Complete all work in and around the Headworks Building, including but not limited to, exterior envelope work, exterior mechanical work on the roof, and installation of process piping and equipment, odor control piping and equipment, HVAC, and plumbing. Begin to directed wastewater flow from the Mechanic Street and New Castle Pump Stations to the Headworks Building. Complete testing, training, and turnover activities so that the building can be put into service and turned over to the City.
- Grit Building – Interior: Continue selective architectural, structural and mechanical process modifications, complete installation of new ferric chloride chemical system, continue installation of interior mechanical process equipment and piping, electrical control equipment,

including the Motor Control Center, and the fire alarm equipment and wiring. Exterior: complete work on the new roof and yard piping associated with the building.

- Gravity Thickener No. 2 – Continue work on permanent yard piping associated with Gravity Thickener No. 2.
- Electrical Facilities – Transfer power to the new underground electrical system, remove the existing temporary overhead electrical system, and continue to extend the electrical and communication ductbanks towards the BAF and Solids Buildings.
- Underground Piping and Utility Services – Continue installation of yard piping near the south end of the Grit Building by the Primary Clarifiers and Effluent Distribution Box that will extend towards the Solids Building and BAF Building.
- BAF Building – Continue reinforcement, formwork, and concrete placement for the elevated slabs, walls, and columns. Continue installation of process piping and equipment, installation of precast channel covers and nozzle decks, and backfilling around the building. Begin installation of CMU walls on both ends of the building for the stairways, installation of electrical and plumbing systems, and installation of yard piping.
- Solids Building – Continue yard piping and underground utilities in and around the Solids Building. Complete work for the concrete encased 36", 24", 14" and 8" pipes which run underneath the Solids Building. Begin reinforcement, formwork, and concrete placement for the foundation, walls, and columns, and begin work on interior process piping and equipment.
- Sanitary Pump Station No. 1 – Continue associated yard piping and complete installation.
- Complete installation of the 36" force main that runs from Primary Clarifier No.1 to the Effluent Distribution Box.

Jon provided an update on the project construction cost:

- Original Contract: \$72.786 million
- Change Order No. 1: \$0.367 million
- Change Order No. 2: \$0.547 million
- Change Order No. 3: \$0.093 million
- Change Order No. 4: \$0.163 million
- Total Contract: \$73.956 million

Change Order No. 4 was approved this past month and Terry noted that during the course of construction and shop drawing review, the anticipated cost of items can fluctuate either in a positive or negative way due to needs changing throughout the project. Change Order No. 4 includes but is not limited to: cost adjustments to electrical and control items associated with the influent screens and washpresses, secondary influent pumps and the backup pump control panel, Sanitary Pump Station No. 2, and secondary electrical wiring at the transformer, cost adjustments to the Four Tree Island Parking Lot, cost adjustments for the grit screws located in the Grit Chambers, cost adjustments associated with the construction of the Operations / Lab Building, cost adjustments for the odor control unit media, and imposed fees for construction route violations.

Jon provided a summary of the project milestones set by the Consent Decree:

- Execute Contract to Construction Upgrades - Date: 9/1/2016 - Status: Complete
- Submit Two Additional Millstones for EPA Review and Approval - Date: 12/1/2016 - Status: Complete

- Additional Milestone 1: Transfer of the Existing SCADA system to the New Headworks Building - Date: 11/21/2017 - Status: Complete
- Additional Milestone 2: Startup and Testing of the Secondary Influent Pump Station in the New Solids Building - Date: 5/9/2019 - Status: On Schedule
- BAF Substantial Completion - Date: 12/1/2019 - Status: On Schedule
- Achieve Compliance with NPDES Permit Limits - Date: 4/1/2020 - Status: On Schedule

Jon noted that the project team is continuing to coordinate construction with community events. Upcoming events this month include Strawberry Banke Events.

A question and answer session then occurred, and is summarized below:

Paige Trace asked the following:

Q: Can you further describe the items in Change Order No. 4, specifically the traffic violation item?

A: Terry responded that the contract documents specify a truck route that should be followed by construction related trucks when entering the WWTF. The Contractor works to inform the subcontractors of this route but there have been events where the trucks have taken alternate routes. When this occurs there is a \$500 fee imposed on the Contractor for the route violation, this causes a reduction in the project construction cost. In this case there were 3 different violations resulting in a \$1,500 reduction in the project construction cost.

Q: Have the two force mains discharging flow from the Mechanic Street Pump Station to the WWTF always been 24-inch and 18-inch pipes?

A: Terry confirmed that the two force mains have always been 24-inch and 18-inch force mains.

Q: Will the two wastewater force mains be replaced when the Peirce Island Bridge is replaced or rehabilitated and will the water main that delivers water to New Castle, NH also be replaced?

A: Terry responded that the plan for the Peirce Island Bridge has not been decided on yet. Options are to replace it or rehabilitate the bridge. If the bridge is replaced there will be a phased plan to direct raw wastewater flow from the Mechanic Street Pump Station to the WWTF and to direct flow from the water main that runs underneath the bridge as well. A portion of the water main that runs underneath the bridge and delivers water to New Castle, NH was recently replaced. The portion that was replaced was located on Peirce Island and the diameter of the pipe was increased from an 8" to 12" diameter water main. The remaining portion of the water main was not replaced. The City has been working with the Town of New Castle to develop a plan for water improvements, and a part of the improvements maybe included in the WWTF upgrade project but a plan has not been decided on yet. The Town of New Castle will need to complete improvements of their own as the City is only responsible for the water main after Shapleigh Island.

Q: In regards to Change Order No. 4, what details will be posted on the WWTF website?

A: Terry responded that the detailed sheet breaking down the items in the change order will be posted this week.

Q: Was there any flooding or water damage as a result of the most recent storm?

A: Andy responded that there was no flooding on site.

Jim Russ asked the following:

Q: For the BAF Building, has an exterior lighting plan been developed?

A: Jon responded that all the site lighting at the WWTF are night-sky compliant lights and the light will be directed towards the ground. Terry added that he did not recall a lighting plan on the exterior walls of the BAF Building. There will be lights at the stairwells indicating that there is an emergency exit / entrance and there will be lights along the walkway of the BAF Building.

The next public construction meeting will be on February 21, 2018 at 11:00 AM in Conference Room A at Portsmouth City Hall.