

SECTION 01020

SUMMARY OF WORK

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and the General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this section.

1.02 PROJECT IDENTIFICATION

- A. The project consists of upgrades to the Township of Hampton wastewater treatment plant. The work is shown on the Contract Documents prepared by KLH Engineers, Inc.

PART 2: PRODUCTS

- A. Not used.

PART 3: EXECUTION

3.01 SCOPE OF WORK

- A. All work shall be performed in accordance with the requirements of the Contract Documents. All materials and equipment furnished shall conform to the descriptions and requirements and all work shall be constructed complete in order to provide the OWNER with an operable installation which is ready for service.
- B. Work under Contract No. 2021-01 includes work shown on the Drawings and described in these Technical Specifications in: Division 1, Summary of Work; Division 2, Site Work; Division 3, Concrete; Division 4, Masonry; Division 5, Metals; Division 6, Woods and Plastics; Division 7, Thermal and Moisture Protection; Division 8, Doors and Windows; Division 9, Finishes. Division 10, Specialties; Division 11, Equipment; Division 12, Furnishings; Division 13, Special Construction; Division 14 Conveying Systems, and Division 15, Mechanical, This CONTRACTOR is designated as the "coordinating contractor" and is responsible for construction management, overall scheduling, expediting, site supervision and all other duties

required to maintain orderly construction in accordance with the requirements of the Drawings and Specifications.

- C. Work under Contract No. 2021-02 shall include all work shown on the drawings and defined in Contract Specifications, Division 1, Summary of Work, and Division 16, Electrical.
- D. Each CONTRACTOR shall consult the requirements of all Divisions and all contract drawings in determining the scope.
- E. Each CONTRACTOR shall make his own arrangements concerning requirements for field offices; utilities; tool, equipment, and material storage; and toilet facilities.

3.02 GENERAL CONSTRUCTION CONTRACT NO. 2021-01

- A. This Contract includes site, mechanical, and structural work and other activities traditionally recognized as general construction. It also includes construction management, administrative and coordination responsibilities. The work under this Contract includes but is not limited to the following:
 - 1. E&S controls as required to meet all State and local regulation.
 - 2. Excavation dewatering as required to complete the proposed work.
 - 3. Existing tank dewatering, solids removal/disposal and cleaning as required to complete the proposed work.
 - 4. All required State and local permits for site work, building construction and all other related work.
 - 5. Maintenance of flow through the existing treatment processes, at all times, until the proposed processes have been started up and accepted. At no time can untreated sewage be discharged.
 - 6. Flow by-passing, including use of pumps and ancillary equipment, as required to complete the proposed work while maintaining flow through the existing plant.
 - 7. Proper disposal of all excavated material, scrap material (only materials that Owner chooses not

- to keep), and potentially hazardous material.
8. Site demolition including structures, pavement, underground utilities, tanks, equipment, and all other items described in the Drawings and Specifications including associated items that may not be specifically defined but whose demolition is required to complete the contract work.
 9. Rerouting and reconstruction of interceptor sewers.
 10. Construction of new Headworks Facility.
 11. Construction of new four (4) basin Sequencing Batch Reactor.
 12. Construction of new Ultraviolet (UV) disinfection facility.
 13. Construction of new Aerobic Digesters, utilizing existing primary clarifiers.
 14. Conversion of existing Primary Clarifier Building to house Aerobic Digester equipment.
 15. Construction of new Dewatering Facility.
 16. Construction of new Office/Garage building.
 17. Construction of storage pavilion.
 18. All site/process piping described in the Drawings and Specifications including associated items that may not be specifically defined but are required for the processes to properly function.
 19. Pine Creek modifications as detailed on the drawings, in the specifications and listed in the associated permits.
 20. Construction of site retaining wall along Pine Creek.
 21. Complete site restoration as detailed on the drawings and in the specifications.
 22. Coordination with Owner to allow for all existing processes to maintain fully functional operation while the Contract work is completed.
 23. Equipment startup, Owner training, and initial operation until acceptance by Owner. Owner acceptance will occur only after a minimum of thirty (30) consecutive days of operation without issue and all process testing requirements have been met, as described in Division 11.
 24. Storm water controls, site grading, and restoration as required to meet the requirements of the Contract Documents and all State and local requirements.

3.03 ELECTRICAL CONSTRUCTION CONTRACT NO. 2021-02

- A. Work under Contract No. 2021-02 shall include all work shown on the drawings and defined in Contract Specifications, Division 1, Summary of Work, and Division 16, Electrical.
- B. Contract No. 2021-02 includes temporary electric as required to complete work under Contract Nos. 2020-01 and 2021-02 and defined under 3.05 below and on the drawings and in the specifications.

3.04 SEQUENCING OF CONSTRUCTION

- A. The CONTRACTORS shall schedule and coordinate construction activities and at no time during construction shall the CONTRACTORS bypass process flows from the treatment train. The coordinating Contractor (Contract No. 2021-01) shall be responsible for construction management and coordination of sequencing of construction. The work shall be generally sequenced as follows:
 - 1. Install E&S Controls
 - 2. Install temporary power supply to existing plant
 - 3. Install temporary water supply to existing plant
 - 4. Install temporary gas supply to existing plant
 - 5. Construct stormwater facilities as required
 - 6. Submit excavation and dewatering plan for Engineer's review
 - 7. Construct SBR
 - 8. Construct Headworks
 - 9. Construct UV Building
 - 10. Construct effluent channel to Pine Creek
 - 11. Begin construction of the northern section of the retaining wall along the SBR and Headworks.
 - 12. Fill to proposed grade in the northern portion of the site
 - 13. Install new, permanent electrical service into the Headworks building to supply power to the newly constructed areas.
 - 14. Install new temporary power to back feed the existing control building and service equipment to keep the WWTP operations running. See below, Section 3.05.
 - 15. Construct a Temporary WAS line to existing digesters from the SBR sludge pumps.

16. Install site piping from existing interceptors to Headworks building.
17. Put new headworks, SBR, and UV system into operation.
18. Dewater existing primary clarifiers, demolish internal structures, and perform concrete repairs as required.
19. Demolish and remove existing equipment from inside the existing primary clarifier pump station building.
20. Demolish ABF tower and Chlorine Contact Tanks
21. Construct new Aerobic Digester Tanks within the existing primary clarifiers
22. Install digester sludge pumps, blowers, and digester mixing system.
23. Construct Dewatering building
24. Complete site intra-site piping from Digesters to Dewatering drain lines to headworks
25. Put the new digesters and centrifuge dewatering into service.
26. Demolish existing secondary clarifiers and existing dewatering building.
27. Construct the new office & garage building.
28. Demolish existing operations building.
29. Demolish temporary power supply.
30. Demolish and fill existing aeration, digester, and clarifier tanks.
31. Complete construction of site retaining wall.
32. Complete remaining site work and fill to proposed grade.
33. Complete remaining paving and site restoration.

3.05 TEMPORARY ELECTRICAL

- A. Electrical contractor (Contract No. 2021-02) is responsible for installation and maintenance of all required temporary electric. Required temporary electric includes temporary power for proposed General and Electrical contract work and maintenance of existing process equipment.
- B. Owner shall pay utility company usage cost.
- C. Electrical contractor shall be responsible for all cost associated with temporary generator(s), including fuel cost, as required to complete the contract work.

- D. Initial temporary power shall be installed as per Duquesne Light Co. drawings as included on electrical drawings EC6 and EC7. Upon completion, energizing permanent utility power, and startup of the SBR, Headworks, and UV Disinfection areas of the plant, the Contractor shall have included Duct Bank DB07 and Electric Manhole EMH01 as part of the early construction work. Contractor shall install a 1200A service from MCC-200 (located in Headworks Building Electrical Room) to the Existing Main Service Panel (located in the Operations Building Basement). Three sets of cables (4-1/C 600kCmil per set) shall be installed through conduits 01-034, 01-040, and 01-047. Remove all previously installed Utility temporary power and poles as new source of temporary power is installed and energized. Prior to project completion and after remainder of plant is brought online, Contractor shall remove the three sets of temporary cables and reset 1200A breaker to 500A setting. Breaker shall then be labeled as Spare.
1. For clarifications on temporary power, Contractor shall consult with Engineer prior to Bidding.

End of Section