Addendum No. 2: Dated November 18, 2022 to bidding documents for the Marshall Heights Water Tank Improvements for the Town of Orange, Virginia, WW Associates Project No. 221040.01.

From: WW Associates, Inc.

To: All Bidding Document Holders of Record

This addendum forms a part of the bidding documents and modifies the drawing and specifications dated August 31, 2022. Acknowledge receipt of this addendum in the space provided on the bid form. Failure to do so may subject the bidder to disqualification.

SPECIFICATIONS

Section 01500 – Supplementary Conditions

Paragraph 7: Add the following paragraph:

"7. Physical Conditions: Explorations and Reports. Add the following to Article 4, Paragraph 4.02.A.

"Subsurface exploration by Soils Engineer, ECS Mid-Atlantic, LLC, Charlottesville, Virginia, has been performed, and the soil report, dated June 2, 2022, is appended to this project manual for convenient reference only and will not be part of the contract documents.

Soil reports were obtained by WW Associates, Inc. in design and are available for the Contractor's information, but are not a warranty of subsurface conditions. The Contractor shall be responsible for his own interpretation for construction purposes.

Prior to bidding, the Contractor may make subsurface investigations."

Section 02463 – Augered Cast-in-Place Piles

Paragraph 1.7.2: Revise "Dynamic Pile" to read "Static Compressive Pile Load."

Paragraph 1.8.2: Add the following at the end of the paragraph:

"…The Owner's Geotechnical Engineer (ECS Mid-Atlantic, LLC) shall be engaged as the testing agency to furnish testing and inspection services at the Contractor's expense. Contact representative for ECS Mid-Atlantic, LLC is as follows:

1.8.2.1 Representative: Thomas J. DeGaetano, P.E.
Telephone: (434) 218-7002

E-mail Address: tdegaetano@ecslimited.com"

Paragraph 1.9: Delete this paragraph in its entirety and replace with the following:

"1.9 Compressive Pile Load Tests – Static Test Method

1.9.1 General: Static compressive pile load tests shall be in accordance with ASTM D1143 and the Virginia Construction Code - 2018. The load tests at locations shown on the Contract Drawings shall be made on test piles placed to the tip elevation and/or driving resistance used for establishing lengths of piles, unless otherwise directed by the Engineer. Loading, testing and recording of data shall be under the direct supervision of the Owner's Geotechnical Engineer, engaged by the Contractor.

1.9.2 Testing Apparatus: The proposed testing apparatus and structures to be used in making the pile load tests shall be designed by a Professional Engineer, currently registered in the Commonwealth of Virginia, engaged by the Contractor. The Contractor shall submit working drawings to the Engineer for approval. Approval by the Engineer shall not relieve the Contractor of his complete responsibility for the adequacy of the pile load test setup.

1.9.2.1 Load tests shall be performed by a method that will maintain constant concentric load under increasing settlement.

1.9.2.2 Settlement observations shall be made by means of dial extensometers. A minimum of three (3) extensometers shall be used. The extensometers shall provide readings to the nearest 0.001 inch. In addition, settlement observations shall be taken using an engineer's level reading to 0.001 feet properly referenced to a well-established benchmark.

1.9.3 Load Tests

1.9.3.1 The Contractor shall install test piles of the same size and materials as the permanent piles. Test piles shall be installed with the same equipment and in the same manner as the permanent piles.

1.9.3.2 Notify Engineer at least 48 hours in advance of performing tests.

1.9.3.3 In cases where test piles will develop resistance during testing by non-bearing materials to be excavated, the test pile shall be cased off in that material(s).

1.9.3.4 Permanent piles may be used as reaction piles.

1.9.3.5 Number of test piles required: Two (2).

1.9.4 The Contractor shall provide all equipment, instruments, personnel, accessories and appurtenances required for the tests. The Contractor shall place reaction piles and beams, as required, to transmit load into the test pile. Calibrated pressure gauges shall be used to determine the actual load

placed on the test pile. Calibrations shall have been made within three (3) months of load testing.

1.9.4.1 The Contractor shall prepare complete detailed shop Drawings showing how the test will be performed, how the reaction piles will be placed, and how the jacking beams will be anchored to the test piles and the reaction piles.

1.9.4.2 The Contractor's shop drawings shall include date and calibration curves on all instruments and accessories used in the tests.

1.9.4.3 The entire test setup and test procedure shall be subject to the approval of the Engineer.

1.9.4.4 A table of pile loads and test pressures for each test shall be submitted.

1.9.4.5 A foundation stability analysis where dead weights are used for test reactions shall be submitted.

1.9.5 Test loads shall be applied by direct weight or by means of a hydraulic jack. The loading platform or box shall be carefully constructed to provide a concentric load on the pile.

1.9.5.1 If direct weight is employed, the loading increments shall be applied without impact or jar. The weight of the loading platform or box shall be obtained prior to the test, and this weight shall be considered as the first increment of load.

1.9.5.2 If a hydraulic jack is employed, equipment for maintaining each increment of desired load constant under increasing settlement shall be provided. The gauge and the jack shall be calibrated as a unit and have a rated capacity to achieve twice the maximum test pile load.

1.9.6 The test load shall be twice the proposed working load of the pile. The standard loading procedure of ASTM D1143 shall be used except as follows: the test load shall be applied in 7 increments at a load of 50 percent, 75 percent, 100 percent, 125 percent, 150 percent, 175 percent, and 200 percent of the proposed working load.

1.9.6.1 After the proposed working load has been applied, and for each increment thereafter, the test load shall remain in place until there is no measurable settlement (0.001 inches) in a 2-hour period.

1.9.6.2 The total test load shall remain in place until settlement does not exceed 0.001 foot in 48 hours.

1.9.6.3 The total test load shall be removed in decrements not exceeding 25 percent of the total test load at not less than 1 hour intervals.

1.9.6.4 The rebound shall be recorded after each decrement is removed, and the final rebound shall be recorded 24 hours after the entire test load has been removed.

1.9.7 Under each load increment, settlement observations shall be made and recorded at ½-minute, 1 minute, 4 minutes, and each 4 minutes thereafter after application of load increment, except in the instance of the total load where, after the 4-minute reading, the time interval shall be successively doubled until the final settlement limitation is reached and the load is removed.

1.9.8 The maximum allowable pile load shall be such that 50 percent of the applied load shall not cause a net settlement of the pile of more than 0.01 inch per ton of total applied load or shall be 50 percent of the applied load which causes a gross settlement of 1 inch, whichever is less.

1.9.9 Test Pile-Drilling Records: Prepare drilling records for each test pile, compiled and attested to by a qualified professional engineer. Include same data as required for drilling records of permanent piles.

1.9.10 Test piles that comply with requirements, including location tolerances, may be used on the project."

Paragraph 3.7.3.1: Revise to read as follows:

"3.7.3.1 Compressive pile load tests using the static test method shall be performed and reported in accordance with ASTM D1143 during initial installation of two test piles."

DRAWINGS

Drawing C-11 – Water Tank, New Work-Plan & Section

Add the following as Electrical Note No. 5:

"5. The Contractor is advised that all motors and controllers that are indicated on these drawings and specifications shall be provided with electrical power breakers, power wiring, conduit, control wiring and conduit, regardless whether indicated on the drawings, or not in accordance with the National Electric Code."

End of Addendum No. 2