

AMENDMENT #003
Assignment of 1356-30030321
Trent-Severn Waterway Bobcaygeon Swing Bridge Rehabilitation
December 6, 2019

The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents

PLANS

1. Cover Page
 - 1.1. List of drawings on the cover page has been updated to reflect the addition of drawings S17 and M23 to M28. Drawings M18, M21 and M22 have been superseded.
2. Drawings S2, S5, S8, S13 and S14
 - 2.1. Drawings have been revised.
3. Drawing S17
 - 3.1. This drawing has been added in its entirety to the existing drawing set.
4. Drawings M0, M1, M2, M3, M4, M5, M6, M7, M8, M9, M10, M11, M12, M13, M14, M15, M16, M17, M19 and M20.
 - 4.1. Drawings have been revised.
5. Drawing M18
 - 5.1. Drawing has been superseded in its entirety and replaced with drawings M23, M24 and M25.
6. Drawing M21
 - 6.1. Drawing has been superseded in its entirety and replaced with drawings S17, M26 and M27.
7. Drawing M22
 - 7.1. Drawing has been superseded in its entirety and replaced with drawing S17.
8. Drawing M23, M24, M25, M26, M27 and M28.
 - 8.1. These drawings have been added in its entirety to the existing drawing set.
9. Drawing E0.1, E0.2, E1.1, E1.3, E1.10, E3.7 and E3.8.
 - 9.1. Drawings have been revised.

COMBINED PRICE FORM

1. Lump Sum
 - a. The following item numbers have been deleted
 39. Concrete Sealer on Bridge Deck
 40. Concrete Sealer on Abutments
 41. Concrete Sealer on Pivot Pier
2. Unit Price Table
 - a. The following items numbers have been added

- 9. Concrete Sealer on Bridge Deck
- 10. Concrete Sealer on Abutments
- 11. Concrete Sealer on Pivot Pier
- b. The following item number has been renamed
 - 49. Install New Hydraulic Cylinder Mounting Clevis Brackets, Pier Bracket, and Girder Clevis Mounting Plate

SPECIFICATIONS

- 1. Section 00 01 11 - List of Contents
 - a. Section 01 91 41 – Commissioning Training has been added.
- 2. Section 01 11 22 - Measurement and Payment
 - a. Section 1.9.1 the following has been deleted
 - 39. Concrete Sealer on Bridge Deck
 - 40. Concrete Sealer on Abutments
 - 41. Concrete Sealer on Pivot Pier
 - b. Section 1.9.1 the following has been renamed
 - 49. Install New Hydraulic Cylinder Mounting Clevis Brackets, Pier Bracket, and Girder Clevis Mounting Plate
 - c. Section 1.9.2 the following has been added
 - 50. Concrete Sealer on Bridge Deck
 - 51. Concrete Sealer on Abutments
 - 52. Concrete Sealer on Pivot Pier
- 3. Section 01 91 41 - Commissioning Training
 - a. Entire section has been added to the specifications.
- 4. Section 03 35 00 – Concrete Sealer – Section 1.4 Measurement and Payment shall be deleted and replaced with the following
 - 1.4 Measurement and Payment
 - 1. Work covered by this Section will be paid for under the unit price items "Concrete Sealer on Bridge Deck", "Concrete Sealer on Abutments" and

"Concrete Sealer on Pivot Pier and for the units as indicated. The tendered prices for the above items shall include all costs for labour, materials, including cleaning, protection, access and equipment necessary to finish the work of these items in accordance with the Contract Drawings and these Specifications.

Section 13 10 00 – Mechanical

- a. Section 1.2.1 of Measurement and Payment the following shall be:
 13. Install New Hydraulic Cylinder Mounting Clevis Brackets, Pier Bracket, and Girder Clevis Mounting Plate
- b. Section 2.1 Centre Pivot Bearing Arrangement shall be deleted and replaced with the following:
 1. The existing bearing arrangement will be replaced with a new assembly manufactured and supplied as specified in the Contract Drawings.
 2. Welding shall be made with E480xx electrodes in accordance with CSA W59 and shall be performed by a welder qualified under CSA W47.1. Surfaces to be welded shall be cleaned of all foreign material.
 3. Steel for bottom discs of the bearing, to be Hardened (Flame or Induction) to HRC 58 and Tempered at 150°C to 200°C to remove stresses.
 4. Material for the Pivot Assembly to be in the Hot Rolled and machined condition.
 5. Anchors shall be set in place using a grout with a minimum compressive resistance of 50MPa.
- c. Section 2.5.2 of Live Load Wheels, End Wheels, Balance Wheels, Ramps shall be deleted and replaced with the following:

Mill specification sheets are to be provided for all material used in the manufacture of the balance wheel brackets and mounting brackets.
- d. Section 3.4.4 of Centre Pivot Bearing Assembly Installation shall be deleted and replaced with the following:

Remove the protective covering and add lubrication oil as specified in Drawing M23
- e. Section 3.20.2 of End Stop Refurbishment shall be deleted and replaced with the following:

Install new bumper pads onto the existing steel end stop such that pads are in uniform contact with girder bottom flanges with high strength,

weather resistant dock bumper pads subject to department representative approval.

- f. Section 3.25.12 of Hydraulic System Startup shall be deleted and replaced with the following:

After installation of any hydraulic system, complete field testing of system functionally shall be required. This testing shall demonstrate the correct operation of all functions of the hydraulic system using the designed electrical and mechanical interfacing, i.e., hydraulic cylinders or motors permanently installed and operator control desk electrically connected to system. All modes of operation in which the system is designed for operation shall also be demonstrated. During functional testing, the Contractor shall record system pressures, flows, and operating times from the hydraulic system during all modes of operation. This data shall be submitted to the Engineer for approval prior to system acceptance. Once the Engineer accepts the system, the hydraulic system will be ready for commissioning.

5. Section 13 99 01 – Grease System

- a. Section 2.1.3.4 of Grease Lines & Fittings shall be deleted and replaced with the following:

Tube fitting and components will be stamped to identify manufacturer and material, and must be certified to produce fittings under an ASME accredited program.

- b. Section 2.1.4.1 of Grease Nipple shall be deleted and replaced with the following:

Giant button head pressure type, with built in check valve. If feasible, all lube fittings should be standardized on one size and type.

- c. Section 2.2.6 of Grease shall be deleted and replaced with the following:

Application: Plain bearing (pintle), Spherical Rod Eye, etc (see drawing set)

6. Section 13 99 05 – Lines, Fitting and Hoses

- a. Section 1.4 Design shall be deleted entirely.

- b. Section 2.1.2 of Pressure shall be deleted and replaced with the following:

Operating pressure: Max 2800 psi.

- c. Section 2.11.1 of Sizes and Requirements shall be deleted and replaced with the following:

13. From pump outlet to valve manifold: Hose: Size to be determined by contractor/as provided on hydraulic schematic

14. From valve manifold to and from cylinders: Size to be determined by contractor/as provided on hydraulic schematic
15. From manifold to tank: Size to be determined by contractor/as provided on hydraulic schematic

7. Section 26 29 10 – Motor Starters - Section 2.1 Full Voltage Non-Reversing Magnetic Starter shall be deleted and replaced with following:

2.1 Full Voltage Non-Reversing Magnetic Starter

1. Voltage: 600VAC.
2. Phases: 3.
3. Size: 20HP.
4. Combination: Yes, breaker/disconnect.
5. Breaker Size: 50A (Max), 40A (Min)
6. Manufacturer: Siemens.
7. Enclosure: CSA/NEMA Type 5/12
8. Contactor: Rated for 20HP
9. Auxiliary contacts: 2 N.O., 2 N.C.
10. Overload: Class 20, 22-25A
11. Overload contacts: 1 N.O., 1 N.C.
12. Control transformer: Yes. 120VAC, 50VA minimum, 2 primary fuses, 1 secondary fuse.
13. Selector switch: Yes. HAND-OFF-AUTO, maintained.
14. Indicator: LED - Running Status.
15. Lockable enclosure: Yes.
16. CSA approved.
17. Include a wiring and schematic diagram inside starter enclosure in visible location.
18. Identify each wire and terminal for external connection, within starter, with permanent number marking identical to diagram.

8. Section 26 99 04 – Safety Circuit Devices – Section 2.5 Safety Contactor shall be deleted and replaced with following:

2.5 Safety Contactor

1. Manufacturer: Allen Bradley.
2. Part Number: 100S-C30D14BC
3. Poles: 3.
4. Voltage: 600VAC.
5. HP Rating: 20HP.
6. Auxiliary Contacts: 1 N.O., 4 N.C.
7. Coil Voltage: 120VAC.
8. Bi-furcated contact.
9. CSA approved.

