



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

November 29, 2018
Subject: Barbers Island Bridge
Rehabilitation
State WIN: 022607.00
Location: **Boothbay**
Amendment No. 2

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

In the Bid Book:

REMOVE pages 56 – 58, SPECIAL PROVISION - SECTION 105 – General Scope of Work – (Environmental Requirements), 3 pages, dated 10/19/18, and **REPLACE** with the attached, revised SPECIAL PROVISION - SECTION 105 – General Scope of Work – (Environmental Requirements), 3 pages, dated 11/27/18.

In the Plan Set:

On SHEET NUMBER 22 OF 132, FOOTING & SEAL PLAN, under PIER NOTES, **CHANGE** No. 7 to read: “7. At a minimum, bedrock which protrudes above a horizontal plane 12 inches below the proposed bottom of footing elevation shall be removed. Payment for bedrock removal will be made under Item No. 206.11, Structural Rock Excavation – Piers.” Make this change in pen and ink.

The intent of the note is to remove enough bedrock so as not to impact the masonry dimensions of the pier. Ultimately, the Resident and Engineer will determine the amount of bedrock to be removed based on the bedrock survey referenced in note 4.

On SHEET NUMBER 84 OF 132, END SUPPORT CASTER DETAILS, Detail EC6, in the upper left-hand corner, **CHANGE** “Provide hole for ¼” anchor bolts. 6 locations.”, to read “Provide hole for ¼” anchor bolts. 4 locations.” Make this change in pen and ink.

On SHEET NUMBER 46 OF 132, SECTIONS AND DETAILS MIDDLE (2 OF 2), SECTION B-B, **CHANGE** “15/16” diameter Bolt Holes (Typ.)” to read “Sub drill holes in the shop to allow for final reaming of the 7/8” diameter turned bolts in the field (Typ.)”



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The following questions have been received:

Question: Sheet No. 78 of 132 - Section B Notes "Machine underside of pivot girder. See Structural Drawings for details" - Structural drawings do not note anywhere machining requirements. Please provide details.

Response: The underside of the pivot girder shall be machined over the area which mates with the top pivot casting to provide a planar mounting surface. 250 micro-inch surface finish is acceptable.

Question: Structural drawings do not show any machining of any surfaces required for attachment of any mechanical equipment. Please advise with any details if there are any areas which we will need to machine any structural steel surfaces.

Response: The mounting pedestal for the balance wheel is called out as mill to bear on Sheet 46. No other surfaces require machining other than the pivot girder.

Question: Please specify the type and grade of steel required for the balance blocks

Response: Balance blocks shall be ASTM A36, Grade 36.

Question: Please specify the type and grade of steel required for the counterweight plates.

Response: Counterweight plates shall be ASTM A36, Grade 36.

Question: Sheet 46 section B-B calls for 15/16" diameter holes for the balance wheel clevis connection. Sheet 77 calls for the clevis to be drilled for a 7/8" diameter turned bolt. Specification Section 860.7.5 paragraph 2 calls for all holes for turned bolts to be sub-drilled in the shop and reamed during assembly with their mating parts. Please clarify the shop-drilled hole diameter for the balance wheel bolster at its balance wheel clevis connection.

Response: The 15/16" hole callout is incorrect. Sub drill holes in the shop to allow for final reaming of the 7/8" turned bolts in the field.

Question: Please provide section E-E on Sheet 35 for Panel Point U10.

Response: Section E-E is shown on Sheet 33.

Question: Please provide section A-A on Sheet 34 for Panel Point U8.

Response: Section A-A is shown on Sheet 31.

Question: Specification section 880 Bridge Balancing, discusses longitudinal and transverse balancing of the bridge. Regarding longitudinal balancing, it discusses adding counterweight to either Floor beam 1A or 8A as needed to balance the bridge. However, Sheet 37 of the contract drawings states the studs on the top of the wide flange and the bolt holes in the web for

counterweight support framing are for Floor beam 1A only. In addition, Sheet 42 states that the counterweight support framing is for Floor beam 1A only. Please clarify.

Response: The Bridge Balance specification provides a suggested procedure for determining the longitudinal and transverse balance of the bridge. The suggested procedure indicates that weight be placed on the deck in-line with the end floor beam (FB1A/FB8A) as part of the balancing procedure; these weights are intended as temporary weights. Provisions for permanent ballast adjustment are only provided at FB1A.

Question: The structural drawings do not appear to show attachment locations or details for any transverse balance counterweight. Please clarify.

Response: See Sheet 43, Section E-E and Section F-F. The counterweight plates are placed on two angles, and then held in place by a channel on either side. The amount of counterweight in each bay is varied to provide transverse balance.

Question: Please confirm the U10 Interior Truss Connection Plate is similar to the Outside Truss Connection Plate detailed on Sheet 35 of the bid drawings.

Response: Yes, the U10 inside truss connection plate is similar to the U10 outside connection plate.

Question: Please provide the coating requirement for the 3-bar Bridge Rail.

Response: The bridge rail coating requirements are per Standard Detail 507(14), Note 8.

Question: It appears that once the exodermic deck has been installed the access to service the machinery will be limited to the access platform at the pier. While this may provide access for lubrication, it appears access to change our mechanical components for future maintenance will require cutting an opening in the exodermic deck. Please clarify whether or not this is the intent of the design.

Response: Yes, this is the intent of the design.

Question: It appears that once the exodermic deck has been installed access to maintain and adjust the counterweights plates would potentially require cutting an opening in the deck. Additionally, it appears the balance blocks will only be accessible for future maintenance from the water using work floats or barges and false-work. Please clarify whether or not this is the intent of the design.

Response: Yes, this is the intent of the design. The balance blocks will be accessible from the Pier 1 Access Platform for maintenance and fine tune balancing.

Question: Sheet 84 detail EC6 for the end clevis shows four anchor bolt holes in the End Caster Clevis, however the note calls for six. Please clarify.

Response: Provide 4 anchor bolt holes as shown in the detail. The note callout indicating 6 is erroneous and should indicate 4.

Question: Please provide Anchor Bolt Embedment Requirements for the End Lift and End Seat Machinery Supports.

Response: Provide 12" embedment depth. Note that for piece EL5 "End Seat Support" there are also two 1" diameter anchor bolts with 12" embedment depth under the actuator centerline (between stiffener pairs, one anchor bolt each side of the vertical 1" plate). The twenty 1" diameter anchor bolts are included with the End Lift Assembly (12 for the End Seats and 8 for the End Jacks).

Question: Looking through the bid documents and latest version of the Maine DOT standard specification we haven't found what type of metallization wire was required for the thermal spray coating on the project.

Response: Any wire that meets both the requirements of SSPC-CS 23.00 Current Edition and the requirements for a Class B slip coefficient is allowable.

Question: On drawing sheet 42, steel plate counterweight is shown but called for "detailed by others". Can we get clarification about what bid item those will fall under and if more details will be provided before the bid date?

Response: The counterweight steel fabrication, delivery, and detailing work shall be paid for under pay item 880.114 – Counterweight – Steel Staff Gauges. Sheet 43 provides a table of the weights for bidding purposes. The counterweight plate length and width can be determined from Sections E-E and F-F on Sheet 43. The thickness and number of counterweight plates is at the discretion of the Contractor for what is available and meets the needs for counterweight loading in each bay. No additional details will be provided.

Question: Please clarify the number of submarine cables required on the project. Drawings are conflicting showing either 1 or 2. If 2, please clarify if a 3rd "spare" conduit is needed in the center pier.

Response: There are two submarine cables; one submarine cable in each conduit. One for use, and the other is a spare.

Question: Note #5 on plan sheet 22 grants the Department 7 calendar days to modify the plans if the bedrock elevations vary. The 7 cal. days seems excessive for an accelerated bridge construction project. Please consider reducing the allowed time to modify the plans.

Response: No change to the timeframe will be made.

Question: The pier notes on sheet 22 indicate that only bedrock above a horizontal plane 12" below the bottom of pier footing has to be removed. Is this correct?

Response: See above changes.

Question: Note 7 in SP Section 105 states the fender shall be installed within a cofferdam. The fender system elevation drawing on plan sheet 28 shows the fender rub rail projects 6" beyond the seal limits. Please clarify?

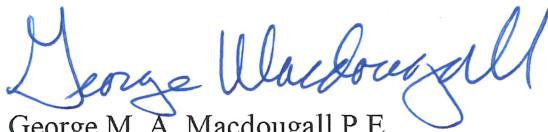
Response: See attached revised SPECIAL PROVISION - SECTION 105 – General Scope of Work – (Environmental Requirements).

Question: Does the Department have any plans and/or dive report of the existing center pier (pier #2)?

Response: There was an underwater dive performed on 9/30/14. The PDF of the Inspection Report, which includes the dive report will be posted to the MaineDOT web site, under the heading "Inspection Report". All available plans are on the bid portal.

Consider these changes and information prior to submitting your bid on **December 5, 2018**.

Sincerely,



George M. A. Macdougall P.E.
Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 105
General Scope of Work
(Environmental Requirements)

In-Water work consists of any activity conducted below the normal high water mark of a river, stream, brook, lake, pond or “Coastal Wetland” areas that are subject to tidal action during the highest tide level for the year which an activity is proposed as identified in the tide tables published by the National Ocean Service.

<http://www.oceanservice.noaa.gov/> For the full definition of “Coastal Wetlands”, please refer to 38 MRSA 480-B(2)

- I. In-Water work applies to the Back River the proposed bridge rehabilitation
 - a. In-water work below Highest Annual Tide Elevation (Elevation 6.2) is allowed from August 1 to March 15 of any year.
 - b. In-water work below Highest Annual Tide Elevation (Elevation 6.2) between March 15 and June 30 is prohibited except for removal of cofferdams and removal of temporary bridge components.
 - c. In-water work below Highest Annual Tide Elevation (elevation 6.2) between July 1 and July 31 is prohibited
- II. Work below the Highest Annual Tide Elevation (Elevation 6.2) completed in the dry may be completed anytime.
- III. Special Conditions for Pile Driving
 1. In-water piles driven by impact hammer may not exceed the following pile sizes:
 1. pipe pile: 30 inch
 2. Steel H-pile: 14-inch
 2. The contractor shall employ a soft start technique for all pile driving and pile removal. A “soft-start” means that the hammer shall be operated at reduced power for 15 seconds at a 1-minute interval. This procedure shall be repeated three times.
 3. Pile driving shall be limited to 12 hours a day during daytime hours.
 4. The contractor shall provide noise attenuation for all in-water pile driving with an impact hammer. Noise attenuation includes passive measures such as changing hammer type, reducing driving duration, reducing force settings on the hammer; and active measures. Active measures shall consist of cushions and bubble curtains.
 - a. **The contractor shall employ a bubble curtain for all in-water impact pile driving.** The bubble curtain shall meet the design specifications and performance requirements in the attached Bubble Curtain Specification. The contractor shall complete a performance test of the bubble curtain prior to any impact pile driving. The performance test shall confirm the calculated pressures and flow rates at each manifold ring.

b. Payment for noise attenuation. The contractor shall be responsible for implementing noise monitoring and noise attenuation as described above. Payment shall be made as a lump sum under Pay Item 501.237 Noise Attenuation and Underwater Noise Monitoring.

IV. Special Conditions:

1. Special Conditions of Army Corps of Engineers (ACOE) Category II permit and Maine Department of Environmental Protection Permit-by-Rule Standards apply (see permit and conditions in contract documents).
2. Special Conditions of Informal Endangered Species Act (Section 7) and Essential Fish Habitat Consultation with National Marine Fisheries Service apply (summarized in this Special Provision 105).
3. The contractor shall hold a pre-construction meeting for each project with appropriate MaineDOT Environmental Office staff, other MaineDOT staff, and the MaineDOT construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon and Sturgeon and to emphasize the importance of these measures for protecting these species and their habitat. ACOE (Jay Clement, Jay.I.clement@usace.army.mil), FHWA (Cassandra Chase, Cassandra.Chase@dot.gov) and National Marine Fisheries Service staff (Zachary Jylkka, zachary.jylkka@noaa.gov) shall be invited to attend these meetings.
4. **The contractor shall contact Eric Ham of MaineDOT Environmental Office (207-215-7356, eric.ham@maine.gov) at least two weeks prior to installation of each cofferdam.** During the closure of each cofferdam, i.e., the installation of the final sheetpile, a MaineDOT Environmental Office Biologist shall be present on site. Dewatering shall not begin until the cofferdam is cleared by the MaineDOT Biologist. The MaineDOT Biologist will visually monitor for the presence of live, wounded, or dead fish and report to NOAA. If listed species are suspected or observed in the cofferdam, all in-water activities shall cease while MaineDOT contacts NMFS.
5. Should the contractor see any ESA-listed species (Atlantic sturgeon, shortnose sturgeon, or Atlantic salmon) or have any incidental contact, the contractor shall contact NMFS (Zachary Jylkka: by email, zachary.jylkka@noaa.gov or phone (978) 282-8467 within 24 hours. If Zach is unavailable, the contractor shall contact the NMFS Section 7 Coordinator by phone (978) 281-9208 or fax 978-281-9394). The contractor shall also notify MaineDOT Environmental Office (Eric Ham 215-7356).
6. **Temporary abutments constructed below Highest Annual Tide elevation shall be constructed with containment or in the dry. Containment may consist of a turbidity, cofferdam, or other similar measure.**
7. **The contractor shall complete removal of the existing center pier and installation of the new pier (Pier 2) within a cofferdam.**

8. In-water activities that result in in-water noise greater than 150 dB RMS may not exceed **12 consecutive hours per 24 hour period. There must be 12 consecutive hours per 24-hour period with no in-water noise in excess of 150 dB RMS.**
9. All areas of temporary waterways or wetland fill shall be restored to their original contour and character upon completion of the project.
10. Disturbed areas adjacent to the waterway shall be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine.
11. The Contractor shall follow measures designed to avoid and minimize effects to streams from hazardous materials associated with construction activities. These measures include the following:
 - a. All vehicle refueling shall occur more than 100 feet from any water course.
 - b. All vehicles carrying fuel shall have specific equipment and materials needed to contain or clean up any incidental spills at the project site. Equipment and materials would include spill kits appropriately sized for specific quantities of fuel, shovels, absorbent pads, straw bales, containment structures and liners, and/or booms.
 - c. During use, all pumps and generators shall have appropriate spill containment structures and/or absorbent pads in place.
 - d. All equipment used for in-stream work shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations of these materials would be corrected before entering streams or areas that drain directly to streams or wetlands.

V. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan
2. Permitted Resource Impacts (in square feet), see ACOE permit for locations:
Coastal Wetland: 875

VI. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal high water mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".
2. Tidal exchange shall be maintained at all times.

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window. Requests for work window extensions must be submitted to the MaineDOT Environmental Office. Approval of requests for work window extensions is not guaranteed and may result in delays in construction schedule that are the sole responsibility of the contractor.