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

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

October 26, 2022
Subject: Southport Bridge Rehabilitation
State WIN: 021751.01
Location: **Southport & Boothbay Harbor**
Amendment No. 2

Dear Sir/Ms.:

Please make the following changes to the Bid Documents:

ADD the attached **SPECIAL PROVISION SECTION 105 GENERAL SCOPE OF WORK** (Movable Bridge Project Coordinator) dated October 26, 2022, Three pages total

The following questions have been received:

Question: Our understanding from the CID meetings was that the department was going to require a MBPC (Movable Bridge Project Coordinator) to facilitate movable bridge construction activities. Is this position not required by the department? Please include the specification and a bid item for the MBPC.

Response: Special Provision 105 General Scope of Work (Movable Bridge Project Coordinator) has been added to the Contract book with this bid amendment. It describes the requirements for a movable bridge project coordinator for this project as well as their responsibilities.

Question: Please provide the desired nominal mounting height for the mast arm mounted luminaires.

Response: The desirable nominal mounting height for the luminaires at the mast arm poles is 40 feet above the high point of pavement

Question: Special Provision paragraph 880.3.7 indicates balance blocks shall confirm to existing balance block dimensions, weight, and material. There does not appear to be any information in contract drawings or reference drawings on balance blocks or how they are intended to be secured to pocket grating (SP para 880.3.8 and Drawing 31). Please provide balance block details.

Response: The existing balance block dimensions were not accessible nor was information available at the time of Plan preparation. They are encased by a steel plate welded to the top and bottom flange of the existing stringers. Paragraph 880.3.7 of Special Provision 880 Balance Block specifies that a total of 6,000 pounds of steel balance blocks, each weighing at least 35 pounds and not more than 50 pounds, be furnished as part of the contract requirements. The proposed grating for the new balance blocks will be boxed in on 3 sides by structural steel (2 stringers and an end floor beam). The contractor is to use these blocks to balance the swing span at the end of construction as specified. Any blocks not used are to become the property of and delivered to the Department. The Contractor is to submit shop drawings for steel blocks meeting these criteria for review. It is expected that the size of the steel blocks will be coordinated such that a row will only provide an inch or two of clearance across the width of the pocket created by the new grating installed between the stringers. Additionally, place blocks away from lead edge of the grating for balance block (edge closest to center pivot) as much as practical. As such the blocks should not need to be secured. The balance blocks shall be steel and either galvanized or metalized and payment for the coating shall be considered incidental to the balance block pay item.

Question: Please provide dimensions, weights, materials, and coating of the existing balance blocks to be to be duplicated.

Response: Please see response to question #3 above.

Question: Note 8/Drawing 31 indicates to "...after installation of deck panel...apply 10mils DFT of Zinc Rich Paint and compatible topcoat sealer to the top of the top flanges of all stringers and floor beams and down the edge of the top flange".

Q1: Surface prep for zinc may only hold for a limited timeframe so by the time grid deck is installed prep may be expired. Also, applying "through" bearing bars of grid deck will be difficult and may not be recommended. Can zinc application be done prior to installing grid deck followed by prep and touch up at welds?

R1: Yes, zinc application may be done prior to grid deck installation, if contractor properly touches up welded area.

Q2: Please specify what is acceptable for a "topcoat sealer"?

R2: Topcoat sealer shall be as recommended by paint supplier and submitted to the Department for review and approval.

Q3: At floor beams where concrete infill is required, at thinner film thickness may be recommended like what is noted in standard spec 506.12. Is a thinner zinc film required or acceptable for concrete contact surfaces?

R3: In the areas noted for concrete infill over the top flanges the contractor may submit a thinner film requirement to the Department for review and approval.

Q4: Where studs are required on floor beams, is it acceptable to coat flange first then remove localized coating at studs' locations prior to stud welding? Also please confirm the stud weld will not require touch up coating.

R4: It is acceptable to coat the floor beam flange first and then remove coating at localized stud locations prior to stud welding. The stud weld will not require touch up; removal of the ceramic weld confinement ring will be required.

Question: Note number 1 on sheet 15 of 48 states that "All Connection plates, angles and hardware shall be incidental to pile fabrication, delivery, and installation items. Timber connection hardware shall be incidental to timber items." Will structural steel beams that are part of the new fender system also be incidental to the pile fabrication, delivery, and installation items?

Response: The structural steel beams that are part of the new fender system shall be paid for under the Structural Steel Items 504.70 and 504.71.

Question: Note 11/Drawing 2 indicates "all new structural steel, excluding fender system, shall be field painted with 10mils DFT of Zinc Rich Paint and compatible topcoat sealer". Please confirm that this correct or if new shop fabricated steel should receive a shop applied coating. If shop applied coating is acceptable, is it to be with the "10mils DFT of Zinc Rich Paint and compatible topcoat sealer" or with NEPCOAT List A or B system instead.

Response: The contractor may elect have new shop fabricated steel furnished with shop applied coating in accordance with the MaineDot Standard Specifications, and connections shall be masked, and field painted accordingly. All painting of new structural steel shall be paid for under the field painting item number 506.1775. The shop applied coating shall be 10mils DFT of Zinc Rich Paint with a compatible topcoat sealer.

Question: Has the additional dead load deflection of the swing span truss been accounted for in the design replacing the existing grid deck with the new 5-3/16" grid deck?

Response: All additional dead load has been accounted for in the analysis of the truss dead load deflections and pertinent details.

Question: Please confirm scope of painting is only in areas noted on plans or as clarified in RFI questions and NOT the entire bridge.

Response: The scope of painting is only in areas noted on plans or as clarified in RFI questions.

Question: Please confirm coating requirement of new steel is as follows: Painted - portal braces, cross-frame struts, jack support steel, replacement bridge rail sections, proposed new stringers, and end stop assembly Galvanized - wooden sidewalk edge angle, new steel curb, and fender handrail Uncoated - Temporary steel barrier at stage line and temporary stringers

Response: This list is mostly complete regarding new steel that requires coatings. The proposed W8x21 beam for the Control House Platform, specified on sheet 40, shall also be painted. Note that all respective connection hardware coatings shall match new steel as listed. Also refer to Special Provision paragraph 860.7.11 for coating requirements of machinery.

Question: On Drawings 33 (Typ Sec Spans 1 and 2) and 36 (Steel Modification Plan Span 3) a note indicates removal of upper lateral bracing is allowed as required to form new CIP deck. The note on Drawing 33 also indicates that cross brace upper struts are to remain.

Q1: Do the lateral braces need to be replaced if removed? If so, due to proximity to underside of deck, please provide required detail for connections of re-installed brace.

Q2: Can upper lateral cross brace struts that are to remain be cast into the CIP deck, with or without use of a bond breaker on horizontal angle leg?

Response: Upper or Top Lateral Bracing refers to the diagonal members in plain view. These members do not need to be replaced if removed to assist with forming the deck. The upper cross brace struts refer to the upper horizontal members of the cross frames as seen in section view. These may be cast into the deck at the abutments or as necessary within the cross-slope transition areas indicated on Sheet 33, and a bond breaker is not required. All other cross brace struts shall not be cast into the CIP deck.

Question: Sheet M3 of the bid set shows the brake wheel centerline 2'-10" from the centerline of the Pinion shaft for the spiral bevel-helical speed reducer. This matches the information from the 1992 reference drawings. Sheet M7 of the bid set shows a new motor coupling 29-5/8" inches from the centerline of the pinion shaft of the speed reducer. No motor coupling is shown on this location in the existing reference drawings. Will the contractor be required to modify the existing input shafts for the Spiral Bevel-Helical Speed Reducers to install the new motor couplings in this location?

Response: Sheet M3 correctly shows the distance from the centerline of the existing brake wheel at 2'-10" from centerline of existing pinion. The existing brake wheel is mounted on a floating shaft that connects the existing reducer input shaft to the existing span drive motor output shaft. The existing brake wheel is NOT mounted on the reducer input shaft. In the new machinery arrangement shown on M7, the span drive motor is coupled directly to the reducer input shaft and the brake wheel is mounted on the rear shaft extension of the span drive motor. M8 shows the existing reducer input shaft detail as obtained from the reducer manufacturer. These dimensions have not been confirmed as the shaft and key seat were not accessible for direct measurement. Note 5 on M8 calls for the contractor to verify the existing reducer input shaft dimensions and to provide the fits specified for mounting of the new motor coupling.

Question: The contract plan set does not provide a right of way plan. Please provide.

Response: Right-of-Way plan sheets have been added with Amendment #1.

Question: Can pier concrete repair work be completed during the summer months of 2024 provided the channel and function of the swing span are not impeded?

Response: Yes, pier concrete repair work could be performed anytime provided that the work does not restrict the navigation channels and that the bridge operation is not impacted by the work.

Question: Special Provision 105 Environmental Requirements Special Conditions #6 states that "Existing timber piles will either be removed or cut approximately 1-foot below the mudline." Special Provision Section 202 Timber Fender Removal states that "The timber piles at the pier 2 fender system shall be removed in their entirety. "Is it the contractors option cut 1 foot below mudline and remove, or shall timber piles be removed in their entirety at the pier 2 fender system?

Response: Special Provision Section 202 Timber Fender Removal also states, "If a pile cannot be fully removed, then the pile shall be removed to a minimum of 1-ft below mudline." The intent is that the Contractor will attempt full removal of a pile and if the existing condition of the pile does not allow for full removal, then it may be cut below mudline. It is intended to remove as much subsurface pile material as possible to prevent interference with future construction including driving new fender piles.

Consider these changes and information prior to submitting your bid on **November 16, 2022**

Sincerely,

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

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Movable Bridge Project Coordinator)

Description

The Contractor shall provide an individual who shall be responsible for all duties defined below, and who shall be designated as the Movable Bridge Project Coordinator (MBPC).

Requirements

The MBPC shall be a licensed Professional Engineer in the State of Maine and may be an individual who is hired specifically for this position. A resume of the proposed individual's experience and written evidence of commitment to the project shall be submitted prior to award of the Contract. The MBPC shall have prior professional experience in coordinating a structural/mechanical/electrical project for at least two recent movable bridge projects. The scope of these projects shall be a major rehabilitation of structural elements and complete replacement of drive machinery and electrical control systems, each with a construction cost of at least $8 million. The proposed MBPC must be approved by the Department. Should the qualifications of the first individual proposed as the MBPC not be acceptable to the Department, then alternate candidates shall be proposed until one acceptable to the Department is approved. The Apparent Low Bidder shall provide written documentation that the proposed MBPC shall be fully committed for the duration of the Contract, as part of the qualifications for the individual. The MBPC shall not be changed without prior approval of the Department and until a successor has been approved by the Department.

The MPBC shall assure that a responsible party will be on-site during all hours of construction.
The MBPC shall have the responsibility of coordinating all construction work on the movable bridge portions of the project, from Working Drawing preparation and review through field work and final project acceptance, so that the Contractor and all Subcontractors perform work in a timely and organized manner, in order to complete the work in accordance with the approved schedule and in conformance with the Contract Documents.

The MBPC shall be responsible for coordination of all work including, but not limited to, the following pay items, as well as structural work performed on the movable bridge span:

202.27	Existing Machinery Removal and Demolition
643.01	Traffic Signals and Gates
643.60	Flashing Beacon
655.3002	Bridge Control System
860.1851	Live Load Rollers
860.1863	End Jack Assemblies
860.1864	End Jack Assemblies
860.1865	Fully Closed Stops
860.187	Miscellaneous Mechanical Repairs
860.231	Span Drive Machinery
860.30	Functional Testing
880.02	Bridge Balancing
880.031	Balance Block Steel

The coordination functions and responsibilities of the MBPC shall include, but shall not be limited to:

1. Coordination of Working Drawings as required from all Suppliers, Fabricators, and Subcontractors.

2. Exchange of necessary data related to the movable bridge portion of the project between Subcontractors.

3. Substitution of alternate brands of components, substantiation of equivalency, and coordination of all approvals to all revisions necessitated by the substitution.

4. Submittal of Working Drawings, catalog cuts, manufacturer's literature, and operating and maintenance manuals in a timely manner.

5. Certifying that all materials, construction methods, and performance of work are in conformance with the requirements of the Contract Documents.

6. Expediting deliveries and shop testing of time critical materials and equipment.

7. Coordinating all structural, mechanical, and electrical field work, including temporary channel closures, temporary supports, bracing, jacking, installations and removals.

The MBPC shall attend all meetings involving the movable bridge construction project and attended by any combination of Contractor, Subcontractor, material suppliers, and the Department. The MBPC shall be the individual to whom all questions relating to the construction of the movable bridge shall be addressed.

Method of Measurement

This work will not be measured for payment.

Basis of Payment

The cost of this work shall be incidental to the various related items in the Contract.