



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

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

May 13, 2011
Subject: **Mount Desert**
State PIN: 016718.00
Amendment No. 1

Dear Sir/Ms:

Make the following changes to the Bid Documents:

In the Bid Book (page 42), **REMOVE** the "SPECIAL PROVISION, SECTION 107 TIME", 1 page dated April 15, 2011 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 107 TIME", 1 page dated May 13, 2011.

In the Bid Book, after page 50, **ADD** the attached "SPECIAL PROVISION, SECTION 202, REMOVING EXISTING BRIDGE", 1 page dated May 6, 2011.

In the Bid Book (pages 93 thru 96), **REMOVE** the "SPECIAL PROVISION, SECTION 528, STRUCTURAL TIMBER (Glued Laminated Timber Bridge Rail)", 4 pages dated April 12, 2011 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 528, STRUCTURAL TIMBER (Glued Laminated Timber Bridge Rail)", 4 pages dated May 13, 2011.

In the Bid Book (pages 123 and 124), **REMOVE** "SPECIAL PROVISION, SECTION 641, REST AREA FACILITIES, (Relocate Kiosk)", 2 pages dated April 20, 2011 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 641, REST AREA FACILITIES, (Relocate Kiosk)", 2 pages dated April 27, 2011.

In the Plans, Sheet Number 2 of 29, **DELETE** in its entirety Note #24. Make this change in pen and ink.

The following questions have been received:

Question: The preservative treatment specified for subject project is Alkaline Chromated Arsenate-Type B (Ammoniacal Copper Zinc Arsenate for Douglas Fir). I believe these preservatives are water borne preservatives. If so, they should be applied to individual lam plys prior to gluing. We are not aware of any laminating facility that can provide that preservative treatment. Is it possible for the State of Maine to allow for the same treatment spec that was used on Bailey Island Bridge Project?



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Response: The use of Chromated Copper Arsenate (CCA) is allowed. Please refer to the new SPECIAL PROVISION SECTION 528 STRUCTURAL TIMBER (Glued Laminated Timber Bridge Rail) dated May 13, 2011.

Question: Will the parking lot to the East of the box culvert be closed during construction?

Response: The town owned parking lot located between station 14+65 left and station 16+15 left shall be closed between August 15, 2011 and 14 calendar days after the road is reopened to traffic. Please refer to the new SPECIAL PROVISION SECTION 107 TIME dated May 13, 2011.

Question: Reference Specification Section 534 Structural Concrete, if the same volume can be attained would the state entertain the idea of two box culvert in lieu of a single box culvert?

Response: A single cell box culvert per the plans shall be used. Using multiple box culverts is not an acceptable alternative.

Question: Referencing Specification Section 703 – Plain and Heavy Riprap and Section 525- Granite Masonry, is the material from the Mount Desert Quarry an acceptable source for the masonry and riprap?

Response: Materials shall be approved by the Resident in accordance with the plans and specifications after the project is awarded. Riprap used shall be in accordance with SPECIAL PROVISION SECTION 703 AGGREGATES (Plain and Heavy Riprap) dated April 14, 2011. The stone used needs to match the Jonesboro Red Color per the National Building Granite Quarries Association color classification.

Question: Referencing Specification Section 709 – Reinforcing Steel and Welded Steel Wire Fabric, the stainless steel requirements of this section are not typical and make the construction of the box culvert costly and difficult to achieve. Is typical epoxy coated steel acceptable as an alternate?

Response: Epoxy coated reinforcing steel is not an acceptable alternative.

Question: Regarding the box culvert is a three sided top with separate base slab acceptable?

Response: A separate base slab can be used, however, the culvert walls need to be adequately connected to the base slab so that the overall structure acts like a true 4 sided box culvert with a moment resisting connection at the lower corners.

Consider these changes and information prior to submitting your bid on May 18, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Bickford". The signature is fluid and cursive, with the first name being more prominent.

Scott Bickford
Contracts & Specifications Engineer

SPECIAL PROVISION

SECTION 107

TIME

(Bridge Closure, Limitation of Operations, & Supplemental Liquidated Damages)

The Contractor shall not begin work prior to August 1st, 2011.

Prior to August 15th, 2011, no lane closures are permitted and the parking lot adjacent to the project shall remain fully open. After August 15th, 2011, prior to the bridge closure, a minimum of one 11 foot lane of alternating traffic shall be maintained at all times.

The town owned parking lot located between station 14+65 left and station 16+15 left shall be closed between August 15, 2011 and 14 calendar days after the road is reopened to traffic.

The Contractor shall plan and conduct his operations in such a manner that State Route 3 in Seal Harbor is closed to traffic for a maximum of 21 consecutive Calendar Days, after which time a minimum of one 11 foot lane of alternating traffic shall be maintained at all times. This closure will be allowed between September 10th, 2011 and October 15th, 2011. All traffic control items necessary to maintain one lane of alternating traffic shall be considered incidental to related Contract items. By October 15th, 2011, the Contractor shall have at least the base pavement placed on both travel lanes.

Should State Route 3 in Seal Harbor remain closed to traffic beyond 21 consecutive Calendar Days, or the closure extend beyond October 15th, 2011, the Contractor shall be assessed supplemental liquidated damages at the rate of One Thousand Dollars (\$1000.00) per day for each day that the roadway remains closed to traffic. This assessment of supplemental liquidated damages will be in addition to the liquidated damages specified in Section 107 of the Standard Specifications.

The Contractor shall coordinate the Bridge Closure Notification in accordance with Standard Specification 104.4.10.

Once the Contractor commences work on this project, the work shall be continuous through completion unless the work stoppage is allowed by the Resident.

SPECIAL PROVISION
SECTION 202
(REMOVING EXISTING BRIDGE)

202.03 Removing Existing Superstructure, Structural Concrete, Railings, Curbs, Sidewalks and Bridges Change the second paragraph from: “Removing existing bridge shall be to the limits shown on the plans.” to “Removing existing bridge shall be to the limits shown on the plans and as indicated herein.

The existing bridge shall be removed to an elevation of approximately (-4.5) feet. Existing timber pile below this elevation shall remain.”

SPECIAL PROVISION
SECTION 528
STRUCTURAL TIMBER
(Glued Laminated Timber Bridge Rail)

Description This work shall consist of detailing, fabricating, treating, delivering, assembling, and erecting the structural glued laminated timber (glulam) rail system over the bridge structure.

The rail system shall consist of rail posts, traffic rails, pedestrian rails, splice plates, and all necessary hardware.

Materials The materials required for timber construction shall conform to the following requirements:

(a) Structural Timber

1. Manufacture, grading, and quality control of structural glued laminated timber shall be in accordance with AASHTO M168 Wood Products and AWPA (American Institute of Timber Construction) Voluntary Product Standard PS 56.
2. Adhesives shall be for wet-use conforming to ASTM D 2559.
3. Glued laminated timber shall be manufactured from either Southern Pine or coastal Douglas Fir, with allowable design values equal to or exceeding the following:

$$E = 1,800,000 \text{ psi}$$

$$F_c \text{ perpendicular to grain} = 650 \text{ psi}$$

$$F_{by} = 2400 \text{ psi}$$

$$F_v \text{ parallel to wide face} = 260 \text{ psi}$$

$$F_v \text{ perpendicular to wide face} = 300 \text{ psi}$$

4. Material shall be sound and free from any decay. Materials which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned, or too small shall not be used.
5. All lumber shall have a moisture content between 16 and 19% (oven dry basis) after preservative treatment and prior to fabrication and assembly. Moisture content is to be confirmed in accordance with AWPA A6, using a minimum sample size of 40 cores per lot of lumber taken at random throughout the lot. The length of each core sample shall be one-half the thickness of the section. The cored lumber shall be discarded and shall not be used in the manufacture of the superstructure.

6. All lumber and timber shall be graded, approved, and stamped or tagged by a lumber grader, certified by an agency that has been approved by the Board of Review of the American Lumber Standards Committee.

(b) Treatment

1. All Timber shall be treated in accordance with AASHTO M 133-86 (1990) Preservatives and Pressure Treatment Process for Timber.
2. The rail system shall be treated with Chromated Copper Arsenate – Type B (Ammoniacal Copper Zinc Arsenate for Douglas Fir) conforming to AWPA Standard P5 to a minimum retention of 0.40 PCF in accordance with AWPA Standard C14.
3. All glulam to be treated with preservative in accordance with AWPA Standard C28 for glulam. All members shall be free of excess preservative and solvent at the conclusion of the treating process.
4. As specified in section M4 of the AWPA standards, all lumber and timber members shall be dimensioned, cut, machined and drilled to the maximum extent prior to preservative treatment.
5. Field cuts shall be limited to holes and trimming rail pieces to the correct length. Any field drilling, field cutting or abrasions shall be site flooded with copper naphthenate preservative or treated in accordance with AWPA Standard M4 or the damaged components shall be replaced if required by the inspector.
6. Holes remaining after removal of nails and spikes used to attach temporary forms or bracing to treated material shall be filled by plugging holes with plugs treated with the same preservative as the material.
7. Any damaged members are subject to rejection by the Resident.
8. Field treatment of materials with CCA shall be done in such a manner to prevent any CCA from entering the surface waters. CCA shall not be applied over water unless absolutely necessary, in which case a tarp or other containment system shall be provided to catch the drips. Spraying will not be allowed.

(c) Hardware

1. Except as modified herein, all steel required to assemble the rail system, including posts, splice plates, and all hardware, shall conform to Standard Specification Section 504 – Structural Steel and shall be hot dip galvanized.
2. Bolts shall be as specified in the Plans.

Drawings The Contractor shall prepare shop detail, erection, and any other necessary working drawings in accordance with the requirements of Subsection 105.7 Working Drawings.

Rail pieces shall be attached to a minimum of 2 rail posts.

Rejections Rejected material and workmanship shall be replaced promptly or corrected by the Contractor. Acceptance of any material or finished members by the Resident will not preclude their subsequent rejection, if found defective at a later date.

CONSTRUCTION REQUIREMENTS

General

1. Type of construction shall be as shown on plans. Workmanship and finish shall be equal to best general practice in modern timber fabrication shop.
2. Glued laminated timber furnished under this Specification shall be fabricated by an AITC Licensed Laminator with proven experience in the field of timber bridge design and construction. Fabrication must comply with the latest edition of the American National Standards for Wood Products – Structural Glued Laminated Timber, ANSI/AITC A 190.1.
3. Unless otherwise specified, all material shall be fabricated prior to treatment.
4. Bolt hole dimensions and locations within prefabricated material shall be within a tolerance of 1/16” of the details specified.

Storage and Handling

1. Timber stored on site shall be kept in orderly piles, close stacked and on supports that provide at least 12 inches of ground clearance. For outside storage, ground area in the vicinity of the material shall be cleared of grass, weeds, and rubbish. When authorized by Resident, treated material may be left uncovered.
2. Prior to assembly, fabricated material shall be stored in a manner that will prevent distortion of the members, such as warping or bending.
3. All handling of timber shall be conducted so that the timber is kept clean and free from injury. Timber shall be so handled that there is no breaking of outer fibers or penetrating of the surface with tools. No material shall be dropped, thrown or dragged on the ground.
4. Lifting equipment shall employ fabric belts or other slings which will not mar or dent the timber.

Framing

1. All framing shall be true and exact so that joints will have full and even bearing over the entire contact surface. Shimming will not be accepted.
2. Contractor shall provide false work and all tools & machinery necessary for expeditious conduct of the work.

Connections

Bolt holes shall be perpendicular to the face of the material and 1/16" larger in diameter than the bolts.

Posts

Bridge railing posts shall be installed as truly vertical as possible within the following tolerance limit: 5/16" in any direction as measured from grade to the top of the post.

Method of Measurement Each Glued Laminated Timber Bridge Rail component listed below shall be measured as Lump Sum of bridge rail erected and accepted. Measurements will be along the face in reasonable close conformity with the lines shown on the Plans.

Basis of Payment The accepted quantity of each Glued Laminated Timber Bridge Rail component listed below will be paid for at the Contract unit price per Lump Sum, completed, and accepted. Price shall be full compensation for detailing, furnishing, transporting, handling, installing/erecting, painting or treating the material as specified, all hardware, and the furnishing of all labor, materials, tools, equipment and incidentals necessary to complete the work. False work, forms, bracing, sheeting, or other timber used for erection purposes will not be paid for directly but shall be considered as included in the unit price for these items.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
528.9101 Glue - Lam Timber Bridge Rail	Lump Sum
528.9101 Glue - Lam Timber Bridge Rail - Transition	Lump Sum
528.9104 Glue - Lam Timber Bridge Rail, 4 Bar	Lump Sum

SPECIAL PROVISION
SECTION 641
REST AREA FACILITIES
(Relocate Kiosk)

Description

This work shall consist of temporarily relocating the information board with the roof on it (kiosk) from approximate station 14+58 LT to approximate station 13+47 LT. In addition, this work shall consist of providing a power line from the utility pole at approximate station 13+44 LT to the temporary location of the kiosk.

Construction

The kiosk shall be removed, temporarily relocated, and reinstalled carefully so as not to damage it. If the kiosk is damaged due to construction throughout the project duration, the kiosk shall be replaced by the Contractor at no cost to the Department. The kiosk shall be lifted by using nylon straps or a method approved by the Resident. The temporary location is at approximate station 13+47, offset approximately 27 feet left. With guidance from the Resident, the kiosk shall be put back at approximately the same location as originally located before the end of construction.

The Contractor shall coordinate with Bangor Hydro Electric Company and Acadia National Park to provide a power line for fish monitoring equipment used by Acadia National Park. The electric meter and data box for the existing fish monitoring equipment is normally attached to the kiosk at approximate station 14+58 LT. Prior to construction, the data box and electric meter will be moved by Acadia National Park. Once the kiosk is temporarily relocated by the Contractor, Acadia National Park will attach the data box and electric meter back onto the kiosk. The Contractor shall work with Bangor Hydro Electric Company to run a power line from the utility pole at approximate station 13+44 LT to the temporary location of the data box and electric meter on the kiosk. The electricity to the temporary location of the kiosk for the fish monitoring equipment will be paid for by the owner of the fish monitoring equipment (to be coordinated through Acadia National Park).

Temporarily relocating the kiosk and providing a power line to it shall be completed by August 8th, 2011.

At least two weeks prior to removing the kiosk from its temporary location and reinstalling it to its original location, the Contractor shall notify Acadia National Park so that they can remove their equipment from the kiosk.

Method of Measurement

Temporarily relocating and reinstallation of the kiosk will be measured for payment by each kiosk.

Basis of Payment

The accepted quantity will be paid for at the Contract unit price for each kiosk specified. Payment will be full compensation for removing, temporarily relocating, transporting, and reinstallation of the kiosk. In addition, payment will include work associated with providing a power line for fish monitoring equipment used by Acadia National Park as described above.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
641.891 Relocate Kiosk	EA