



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

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

July 30, 2009
Subject: **Deer Isle & Sedgwick**
Federal Project No: BR-1669(600)S
State Pin No: 016696.00
Amendment No. 5

Dear Sir/Ms:

Make the following changes to the Bid Documents:

In the Bid Book (page 1), "NOTICE TO CONTRACTORS", **CHANGE** the bid opening date from August 5, 2009 (changed in Amendment #4) to read **August 19, 2009**. Make this change in pen and ink.

In the Bid Book (pages 5 through 7), **REMOVE** the "SCHEDULE OF ITEMS" (replaced in amendment #1) 3 pages dated 090626 and **REPLACE** with the attached new "SCHEDULE OF ITEMS" 3 pages dated 090729.

In the Bid Book, "SPECIAL PROVISION, SECTION 504, STRUCTURAL STEEL" **ADD** the following to the end of the subsection 504.16 on page 56 in pen and ink:
"The Contractor may request to fabricate and construct the pylon jackets and pylon base forms with additional horizontal and/or vertical construction joints than those shown on the plans. The Contractor shall submit this request to the Resident in writing for approval. This request shall contain the following information at a minimum: reasons for the requested change; details showing the location of the proposed construction joints; and the details of splicing these joints. If the splicing detail is different than the methods shown on the design plans, the submission must also contain design calculations, prepared and sealed by a professional engineer registered in the State of Maine, and in the employ of the Contractor."

In the Bid Book, after page 61, **INSERT** the attached "SPECIAL PROVISION, SECTION 511, COFFERDAMS", 2 pages dated July 29, 2009.

In the Bid Book, "SPECIAL PROVISION, SECTION 531, PYLON REPAIR AND SCC CONCRETE FILL", (replaced in amendment #2) make the following **CHANGES** in pen and ink as indicated:

Subsection 531.01 Description: In the second paragraph, between "Section 504 – STRUCTURAL STEEL" and "Section 518 – STRUCTURAL CONCRETE REPAIR", **INSERT** "**Section 511 – COFFERDAMS,**".



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Subsection 531.07 Jobsite Conditions: In Item 1.a, **REMOVE** “or the water temperature is below 40 degrees F.” and **INSERT** “or the water temperature is below 40 degrees F (if the concrete is being placed underwater).”

Subsection 531.08 Testing of Self Consolidating Concrete (SCC): In **Qualification**, **REMOVE** “For each sample/mix design tests shall be conducted according to Section 531.07 Testing of this specification” and **INSERT** “For each sample/mix design tests shall be conducted as described under the Testing paragraph of this subsection.”

Subsection 531.11 Execution: In **Surface Preparation**, Item 2, **REMOVE** “Use hydro-demolition methods below the waterline and use light chipping hammers to prepare surface above the water line.” and **INSERT** “Use hydro-demolition methods below the waterline and use light chipping hammers to prepare surface above the water line or within the cofferdam.”

In the Bid Book, “SPECIAL PROVISION, SECTION 532, UNDERWATER PYLON BASE REPAIRS” (replaced in amendment #2), make the following **CHANGES** in pen and ink as indicated:

Subsection 532.01 Description: In the second paragraph, between “Section 504 – STRUCTURAL STEEL” and “Section 518 – STRUCTURAL CONCRETE REPAIR”, **INSERT** “Section 511 – COFFERDAMS.”

Subsection 532.09 Execution: In **Surface Preparation**, Item 2, **REMOVE** “use hydro-demolition methods to prepare the surface.”, and **INSERT** “Use hydro-demolition methods below the waterline and use light chipping hammers to prepare the surface within the cofferdam.”

Subsection 532.09 Execution: In **Protection**, **REMOVE** “The Contractor shall protect SCC and patching grout from defects of any nature during construction operation.”, and **INSERT** “The Contractor shall protect SCC from defects of any nature during construction operation.”

In the Plans, Make the following **CHANGES** in pen and ink as indicated:

Sheet No. 1 of 16, Materials: **REMOVE** “Concrete ... Self Consolidating Concrete” and **INSERT** “Concrete ... Class LP (Self Consolidating Concrete)”.

Sheet No. 2 of 16, Estimated Quantities: **ADD** the following Items:

Item No. 511.07 – Cofferdam - Pier 4 - LS

Item No. 511.07 – Cofferdam - Pier 5 - LS

General Notes: **ADD** the following Note:

“20. The pier rehabilitation work below the waterline is to be performed either underwater using divers and underwater construction techniques, or, in the dry through the installation and dewatering of cofferdams. Bidders who elect to perform this pier rehabilitation work underwater using divers and underwater construction techniques (e.g. without cofferdams) shall enter a bid of \$0 for the following pay items:

511.07 Cofferdam – Pier 4

511.07 Cofferdam – Pier 5”

Suggested Sequence of Construction: **ADD** the following text after the first paragraph: **“The Contractor may perform the work in the dry by installing cofferdams at each pier, or through underwater construction techniques. If cofferdams are used, they shall be removed upon completion and acceptance of the work, as described in Special Provision Section 511-Cofferdams.”**

Sheet No. 7 of 16, Suggested Sequence of Construction – Pylons:

Note 1, **REMOVE** the words “and dive crew.” from the sentence.

Note 3, in the first sentence, **REMOVE** the words “and perform an underwater and topside survey of the exposed concrete surface” and **INSERT** **“and perform a survey of the exposed concrete surfaces”**

Note 3, in the third sentence, **REMOVE** the text “the resident who will verify the marked areas by conducting his own underwater survey” and **INSERT** **“the resident who will verify the marked areas by conducting his own survey of the exposed concrete surfaces.”**

Note 6, **ADD** the following sentence at the end of the note: **“Concrete demolition in the dry shall be performed using chipping hammers with a maximum weight of 35 pounds and only chisel point bits will be allowed.”**

Suggested Sequence of Construction – Pylon Base:

Note 1, **REMOVE** the words “and dive crew.” from the sentence.

Note 3, fourth sentence, **REMOVE** the text “Perform an underwater survey of the exposed concrete surface” and **INSERT** **“Perform a survey of the exposed concrete surfaces”**

Note 3, fifth sentence, **REMOVE** the text “the resident who will verify the marked areas by conducting his own underwater survey” and **INSERT** **“the resident who will verify the marked areas by conducting his own survey of the exposed concrete surfaces”**

Note 6, **ADD** the following sentence at the end of the note: “**Concrete demolition in the dry shall be performed using chipping hammers with a maximum weight of 35 pounds and only chisel point bits will be allowed.**”

Sheet No. 10 of 16, Notes: **ADD** Note 5: “**If the work is performed in the dry using cofferdams, bolted splice connections between pylon jacket sections may be replaced with welded connections, as described in the Special Provisions.**”

Sheet No. 11 of 16, Notes: **CHANGE** Note 3 to read “**Concrete placed underwater shall be placed in maximum lifts of 15'-6". Concrete placed in the dry shall be placed in maximum lifts of 10'-0".**”

ADD Note 5: “**If the work is performed in the dry using cofferdams, bolted splice connections between pylon jacket sections may be replaced with welded connections, as described in the Special Provisions.**”

Sheet 13 of 16, Section A-A: **ADD** the following Note to this Section “**If cofferdam construction is used, the Contractor may brace the pylon base forms using the cofferdams in place of the wales and mechanical concrete anchor bolts shown. The Contractor shall be required to submit his proposed method of bracing to the Resident for approval.**”

Consider these changes and information prior to submitting your bid on **August 19**, 2009.

Sincerely,



Scott Bickford
Contracts & Specifications Engineer

SCHEDULE OF ITEMS

CONTRACT ID: 016696.00

PROJECT(S): BR-1669(600)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	202.172 PYLON CASING DEMOLITION	LUMP	LUMP			
0020	202.173 PYLON DEMOLITION BELOW ELEVATION +8.0	1200.000 CF				
0030	202.174 PYLON BASE CASING DEMOLITION	LUMP	LUMP			
0040	202.175 PYLON BASE DEMOLITION	2750.000 CF				
0050	202.178 SILT REMOVAL	LUMP	LUMP			
0060	503.14 EPOXY COATED REINFORCING STEEL, FABRICATED AND DELIVERED	20000.000 LB				
0070	503.15 EPOXY COATED REINFORCING STEEL PLACING	20000.000 LB				
0080	503.17 MECHANICAL WELDED SPLICE	500.000 EA				
0090	504.70 STRUCTURAL STEEL FABRICATED AND DELIVERED PYLON BASE FORMS	LUMP	LUMP			

SCHEDULE OF ITEMS

CONTRACT ID: 016696.00

PROJECT(S): BR-1669(600)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	504.70 STRUCTURAL STEEL FABRICATED AND DELIVERED PYLON JACKET	LUMP	LUMP			
0110	504.71 STRUCTURAL STEEL ERECTION PYLON BASE FORMS	LUMP	LUMP			
0120	504.71 STRUCTURAL STEEL ERECTION PYLON JACKET	LUMP	LUMP			
0130	511.07 COFFERDAM: PIER 4	LUMP	LUMP			
0140	511.07 COFFERDAM: PIER 5	LUMP	LUMP			
0150	515.20 PROTECTIVE COATING FOR CONCRETE SURFACES	600.000 SY				
0160	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN.	900.000 SF				
0170	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9 IN.	250.000 SF				
0180	518.52 REPAIR OF UPWARD FACING SURFACES > 7.9 IN.	15.000 CY				
0190	518.60 REPAIR OF VERTICAL SURFACES < 7.9 IN.	3900.000 SF				

SCHEDULE OF ITEMS

CONTRACT ID: 016696.00

PROJECT(S): BR-1669(600)S

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	518.61 REPAIR OF VERTICAL SURFACES > 7.9 IN.	15.000 CY				
0210	518.70 REPAIR OF OVERHEAD SURFACES < 7.9 IN.	600.000 SF				
0220	518.71 REPAIR OF OVERHEAD SURFACES > 7.9 IN.	10.000 CY				
0230	531.21 PYLON PATCHING BELOW ELEVATION +8.0	375.000 CF				
0240	531.22 PYLON STRENGTHENING BELOW ELEVATION +8.0	2700.000 CF				
0250	532.01 PYLON BASE STRENGTHENING	5100.000 CF				
0260	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0270	659.10 MOBILIZATION	LUMP	LUMP			
0280	853.10 BOAT RESIDENT	LUMP	LUMP			
	SECTION 0001 TOTAL					
	TOTAL BID					

SPECIAL PROVISION
SECTION 511
COFFERDAMS

Section 511 - Cofferdams of the Standard Specifications is amended as follows:

511.01 Description

Add the following to the end of the subsection:

The pier rehabilitation work below the waterline is to be performed either underwater using divers and underwater construction techniques, or, in the dry through the installation and dewatering of cofferdams. Bidders who elect to perform this pier rehabilitation work underwater using divers and underwater construction techniques (e.g. without cofferdams) shall enter a bid of \$0 for the pay items under this Section.

511.03 Cofferdam Construction

Add the following to the end of the subsection:

Design shall be for an in-water cofferdam and shall take into account all forces acting on it such as water, wave, wind, ice, mooring, construction loads, buoyancy, hydrostatic pressure and any other load that may be applied.

Cofferdams shall be designed to surround the existing footing and shall have a tremie concrete plug placed between the existing footing sheet pile and the cofferdam sheet pile to seal the bottom against infiltration. The existing sheet pile shall be cleaned of corrosion and marine growth as required to ensure adequate bond between the existing sheet pile and the tremie concrete plug. The top of the cofferdam shall be set at an elevation to prevent flooding during extreme high tides and also to prevent overtopping during normal wave conditions.

The sheet pile interlocks shall be sealed or welded to prevent the infiltration of water through the interlocks.

The existing wales and tie rods on the footing sheet pile may be removed to allow the installation of the cofferdam sheets and tremie concrete plug.

The soil conditions are rocky with boulders and ledge close to and at the mudline. The Contractor shall assume that the sheets will have very little penetration at the toe and should account for very little support at the mudline.

The Contractor shall submit plans, calculations, and construction sequence for the proposed cofferdams to the resident for approval. In-water cofferdam plans shall be prepared and stamped by a Professional Engineer licensed to practice in the state of Maine, and in the employ of the

Contractor. No work shall be done until the Resident receives the plans. Cofferdams shall be designed in accordance with standard structural design practice and according to AASHTO or ACI codes for steel and concrete construction respectively.

Design of the cofferdam shall include a tremie seal of concrete the full height of the footing. Upon completion of the repairs to the pier, the cofferdam shall be removed down to the top of the footing. The remaining steel sheet pile and concrete plug shall remain in place. All other forms, templates, bracing, guides, piles or other temporary structures shall be removed completely.

The cofferdam shall not extend beyond the footprint of the existing footing more than what is required for construction of the cofferdam and tremie concrete plug.

The Contractor shall be aware of overhead restrictions due to the bridge structure that may affect the assembly of the cofferdam.

511.05 Method of Measurement

Add the following to the end of the subsection:

Concrete, other materials, labor and equipment required for the tremie concrete plug will not be measured for payment, but shall be deemed incidental to the work required for providing, installing, maintaining and removing cofferdams as described herein or as directed by the Engineer.

511.06 Basis of Payment

Add the following text to the end of this subsection:

<u>Pay Item</u>		<u>Pay Unit</u>
511.07	Cofferdam – Pier 4	LS
511.07	Cofferdam – Pier 5	LS