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

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

November 16, 2010
Subject: **Mexico Dixfield**
Federal Project No's: BR-A562(000)E &
STP-1514(300)X
State Pin No's: 015620.00 & 015143.00
Amendment No. 3

Dear Sir/Ms:

Make the following change to the Bid Documents:

In the Bid Book (pages 132 thru 136), **REMOVE** "SPECIAL PROVISION, SECTION 510, SPECIAL DETOURS" 5 pages dated June 2010 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 510, SPECIAL DETOURS" 8 pages dated November 16, 2010.

The following questions have been received:

Question: Will the MDOT make the Maybe bridge superstructure they own available for use by the Contractor on this project?

Response: Yes, the Department's Mabey bridge superstructure may be used by the Contractor in accordance with the attached Special Provision.

Question: What type of steel reinforcing (Black, Epoxy, MMFX, H.D Galvanized) is required in S.I.P. panel option?

Response: Corrosion resistant reinforcing is not required for the optional precast concrete deck panels. Disregard the answer given in Amendment #2.

Consider this change and information prior to submitting your bid on November 17, 2010.

Sincerely,

Scott Bickford
Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 510
SPECIAL DETOURS

Section 510, Special Detours, of the Standard Specifications is replaced in its entirety with the following:

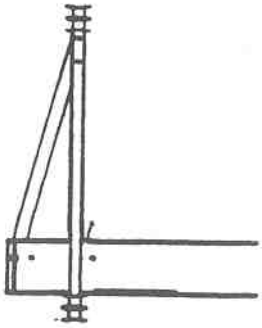
510.01 Description This work shall consist of the design, construction, and removal of temporary structures and approaches required for the satisfactory maintenance of vehicular and pedestrian traffic. The superstructure for the vehicular part the special detour structure shall be supplied by the Department, which consists of a 140' span single lane standard width Mabey Compact 200 Bailey Bridge System. The Mabey bridge has a total width of 16.5'. The Contractor shall be responsible for maintaining the special detour once construction is completed

Easements or right-of-way for the Special Detour will be furnished by the Department and will be shown on the Contract Plans. If the Contractor proposes an alternative location for the Special Detour, and the alternative location is approved by Department, that easement may only be acquired by the Department. All additional costs associated with the acquisition, including but not limited to obtaining easements, environmental mitigation, restoration and Department time, shall be borne by the Contractor.

MATERIALS

510.02 Materials Materials used for the Special Detour structure and approaches shall conform to the detailed plans and specifications submitted by the Contractor.

510.021 Superstructure. The Department shall provide components of the Mabey Compact 200 Bailey Bridge owned by the Department for a 140' span single lane standard width Mabey Compact 200 Bailey Bridge for vehicular traffic. The components provided by the Department shall include rollers to assist with launching the Mabey Bridge. The truss configuration for the Mabey truss is a single single reinforced heavy (See diagram below showing one side of a Mabey).



Components are provided in an "as is" condition with no guarantee by the Department of the quantity or quality. The Mabey bridge components shall be obtained from the MaineDOT yard in New Limerick. The Contractor shall be responsible for loading and unloading the Mabey bridge components. The Contractor shall contact Jeff Naum in the MaineDOT Augusta office at 207-624-5389 office phone (207-446-1235 cell phone) a minimum of one week in advance of the date of intended pickup of the components and a minimum of two weeks prior to date of return. Bridge components are supplied by the Department to be used only for this project. The Contractor shall supply Loctite or a similar thread lock product approved by the Resident to use with installation of the all deck screws.

Mabey Bridge & Shore, Inc. shall send MaineDOT a completed design of the Mabey superstructure. The Department shall have the Mabey Bridge design documents scanned and emailed to the Contractor as soon as possible.

Any additional Mabey Bridge Structure parts required for the erection, maintenance and disassembly of the structure shall be ordered from Mabey Bridge & Shore, Inc. by the Contractor. No payment to the Contractor for any additional Mabey Bridge Structure parts ordered will be made; additional parts are the Contractor's responsibility. Any equipment required for the erection, maintenance and disassembly shall be provided by the Contractor.

The Mabey Bridge supplied by the Department does not include a rub rail. The Contractor shall provide a rub rail on both sides of both Mabey bridges. The rub rail shall be W beam guardrail or another rail approved by the Resident. The rub rail shall be bolted to the Mabey truss in a method approved by the Resident. No cutting, drilling or welding of the Mabey Bridge Structure Components supplied by the Department will be allowed. The rub rail, clamps and miscellaneous hardware shall become property of the Department upon removal of the bridge. The rub rail and associated hardware shall be delivered to the MaineDOT maintenance yard in New Limerick along with the Department supplied Mabey bridge.

510.022 Substructure. All materials for the substructure shall be provided by the Contractor. All materials shall be in good condition and last the duration of the project.

510.023 Approaches. The end treatments shall be securely attached to the rub rail on the Mabey bridges.

510.03 Vehicular and Pedestrian Traffic Not Separated The Special Detour shall be located as shown on the plans or as directed by the Resident.

The Special Detour, including the temporary structure and approaches, shall be designed and sealed by a Professional Engineer, licensed in accordance with the laws of the State of Maine. The Mabey bridge superstructure shall be designed with assistance of the manufacture or their designated representative, Mabey Bridge & Shore, Inc., 6770 Dorsey Road., Baltimore MD 21227 (Phone 410-379-2880, fax 410-379-2801). The Contractor shall submit the design computations and detailed plans of the temporary structure and approaches that will serve as the temporary detour to the Resident prior to beginning construction of the Special Detour.

If the Department requires changes to Special Detour plans or computations, based on Contract requirements, then the Contractor shall implement the changes at no additional cost to the Department.

The Department shall have no obligation to review or comment on any design, construction, maintenance or removal of Special Detours. No review or comment by the Department, or any lack of review or comment by the Department, shall relieve the Contractor of its responsibility to properly design, construct, maintain in good condition, and remove Temporary Detours in accordance with the Contract, or to shift any responsibility to the Department. The Contractor shall be responsible for all damages resulting from the failure of temporary structures or approaches.

The Special Detour shall not be opened to vehicular or pedestrian traffic until the Professional Engineer who designed the special detour inspects the temporary structure and provides the Department with a signed and sealed document certifying that the structure was built in accordance with the previously submitted sealed plans and design details of the structure and approaches.

510.031 Structure Design Temporary structures shall be designed in accordance with the AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002, or the current edition of AASHTO LRFD Bridge Design Specifications, except as noted herein, to meet live load requirements of HS20, for ASD and LFD, or HL-93, for LRFD designs

a. Deflections Primary structural members shall be designed so that deflection due to live load plus impact shall not exceed 1/300 of the span.

b. Fatigue Stresses Fatigue stresses for steel need not be considered if the steel is judged by the Contractor's Professional Engineer to be in sound structural condition.

c. Bridge Railing Loads Bridge railing shall be designed in accordance with AASHTO Standard Specifications, 17th Edition, 2002 or the current edition of AASHTO LRFD Bridge Specifications, except that the Standard Specification design load "P" specified as 10 kips may be decreased to 5 kips. However, allowable design stresses for material used in bridge rails and posts shall not be increased above those allowed by AASHTO Standard Specifications.

e. Foundations Temporary foundations, embankment foundations and earth retaining structures shall be designed in accordance with the AASHTO Standard Specifications, 17th Edition, or the current edition of the AASHTO LRFD Bridge Design Specifications and AASHTO LFRD Bridge Construction Specifications, except as noted herein. The Contractor is responsible for determining the ultimate load carrying capacity of the foundation materials and foundation elements for the Special Detour. The determination of the ultimate load carrying capacity may require characterization of the subsurface conditions by the Contractor by means of subsurface investigation.

The applied loads on foundations shall consider both dead and live loads and all other applicable loads and forces. The Contractor is responsible for choosing an applicable factor of safety for foundations on soil and rock and an appropriate design load group. The factor of safety and maximum applied load, or LRFD factored applied loads and factored geotechnical resistances, used for each foundation design shall be clearly stated on the submitted calculations.

510.032 Geometric and Approach Design The geometric design of the Special Detour, except as otherwise shown on the plans or as noted herein, shall be designed in accordance with the current AASHTO Specification "A Policy on Geometric Design of Highways and Streets".

a. Horizontal Alignment Horizontal alignment shall be as shown on the Plans or as directed by the Resident.

b. Vertical Alignment Grades shall not exceed 8.33% and any change in grade shall accommodate all legal highway vehicle components or attached loads.

c. Approach Road Guardrail The Special Detour approaches shall have guardrail where side slopes are steeper than three horizontal to one vertical. Approach guardrail shall be attached to the bridge rub rail in a manner that develops the approach guardrail

in tension. Approach guardrail shall consist of temporary concrete barrier with attached W-beam guardrail rub rail or an approved equal, unless other rail or barriers are specified.

The termination of approach guardrail and the end treatment of the rail shall be in accordance with the current AASHTO Roadside Design Guide.

d. Approach Embankments Approach embankments shall be constructed from suitable earth material, as shown in the Contractor's plans submitted to the Resident. The earth material shall have sufficient strength under the placement method specified in the Contractor's plans to maintain stability throughout the duration of the Special Detour.

e. Approach Road Base Drainage The approach road base structure shall consist of a 1 foot thick layer, minimum, of aggregate subbase course gravel, Type D or E. This layer shall be designed to support legal loads during the use of the detour. Drainage shall be designed to drain the approach area. If suitable, the existing gravel base may remain in place as determined by the Resident.

f. Approach Road Surface If suitable, the existing gravel surface may remain in place as determined by the Resident.

g. Design Speed The design speed of the Special Detour shall be not less than the construction area posted speed limit, or the advisory speed limit, as applicable, unless otherwise indicated in the Contract.

CONSTRUCTION REQUIREMENTS

510.06 Special Detour Construction The Special Detour, including temporary structures and approaches, shall be constructed in accordance with the plans submitted by the Contractor. Barricades, warning signs, and other traffic control devices shall be provided in accordance with the Contract and the approved Traffic Control Plan.

The temporary structure's deck and floor members shall be fastened or anchored so that all contact surfaces with adjacent supporting members bear continuously. If timber plank decking is used, it shall be secured into timber nailer strips with screw-type nails, or securely fastened by an alternate method that will prevent the decking from loosening. Immediate corrective action shall be taken by the Contractor to remedy any condition in the structure that results in objectionable or distractive noise levels, or results in the decking becoming loose, when subject to traffic loads.

Screw-type nails will not be required to anchor timber plank decking for pedestrian traffic use.

The temporary structure travel surface shall be constructed with an acceptably smooth condition, as determined by the Resident. Immediate corrective action shall be taken by the Contractor to remedy objectionable roughness of the Special Detour riding surface.

Provisions shall be made for a skid resistant wearing surface throughout the period of time the temporary structure is open to public travel for vehicular and pedestrian traffic.

Geotextile shall be placed on top of the existing stone abutments and wingwalls to separate it from the overlying granular material. The geotextile shall be carefully placed to prevent tearing or puncture, and shall extend 3' beyond the granular material that is to be placed above.

All slopes above the high water elevation shall be loamed and seeded or covered in erosion control mix. Temporary silt fence shall be installed at or as near to the toe of granular embankment as is practicable, and maintained for the duration of the special detour.

The Contractor shall use Loctite or a similar thread lock product approved by the Resident with the installation of the all deck screws in the Mabey Bridge.

The Contractor shall have a representative from the manufacturer of the Mabey Bridge Structure present during the erection and dismantling of the Mabey Bridge. The representative from Mabey Bridge shall be paid for by the Department.

A representative from the MaineDOT's Bridge Maintenance Unit shall be present during the assembly, erection and dismantling of the Mabey Bridge.

A joint inspection and inventory of the Mabey Bridge Structure Components shall be made by representatives of the Department and the Contractor at the time of pickup and return to the MaineDOT yard to reconcile the final count. The Contractor shall be responsible for all lost, damaged or destroyed bridge components, including pins, rings and any other related parts. All lost or damaged items shall be replaced by the Contractor within one month of the date of return to the MaineDOT yard. All replacement parts shall be purchased from Mabey Bridge & Shore, Inc.

No cutting, drilling or welding of the Mabey Bridge Structure Components will be allowed. Paving on top of the deck panels will not be allowed without prior approval by MaineDOT Bridge Maintenance Section.

The Department shall provide, for the Contractor's use, all parts that are used for assembly and installation of the Mabey Bridge Structure that are owned and stored by the Department at the New Limerick Maintenance Yard, that are not in use elsewhere. The

Contractor is responsible for transporting these parts from the New Limerick Maintenance Yard to the job site

Erosion control shall be accomplished in accordance with Section 656 - Temporary Soil Erosion and Water Pollution Control.

510.07 Removal of Detour. The following is added to this subsection:

The Special Detour shall be removed in its entirety and shall be accomplished without discharging or depositing any material, beyond that already in the water, into the river.

Rehabilitation and stabilization of the area that was cleared for the temporary detour shall be accomplished as directed.

The Contractor shall schedule the dismantling of the Mabey Bridge Structure and the prompt return of all components as soon as possible after the Mabey Bridge Structure is no longer required.

The Contractor shall remove and disassemble the Mabey Bridge Structure. The complete bridge will be cleaned by high pressure water spray. Any areas of damaged galvanized coating will be cleaned and repaired by the Contractor in accordance with Mabey Bridge Specification requirements. After disassembly, pins and pin holes shall be lubricated and the Mabey Bridge Structure shall be placed on pallets and securely bound to the pallets, ready for shipping. The size of the pallets shall be such that no damage will occur to the pallets or the materials stored on them. Parts too large to fit on pallets shall be transported as directed. The Contractor shall provide wooden boxes with covers for loose, small parts. All parts shall be sorted by part type. All pallets and wooden boxes shall be labeled with a list of parts included and an inventory master list with all parts listed shall be provided to the Resident. The Contractor shall transport the Mabey Bridge components to the Department's storage yard in New Limerick. The Contractor shall place the disassembled Mabey Bridge Structure in designated areas at the storage yard, as directed.

When the Project has been opened to traffic, the temporary structure and approaches shall be removed to, or below, the streambed, finish ground line or original ground line, as applicable. The approaches shall be obliterated and the disturbed areas shall be stabilized to original, or better than original, conditions. The provisions of Section 104 - General Rights and Responsibilities, shall apply.

Basis of Payment: The accepted quantity of Mabey Compact 200 Bailey Bridge System shall be paid for at the contract unit price, such payment being full compensation for all labor, materials, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Unit
510.12	Special Detour, 12 Foot Roadway Width Vehicular and Pedestrian Traffic Separated	LS