

JANUARY 19, 2018

MOSES WHEELER BRIDGE BREAKOUT PROJECT
FEDERAL AID PROJECT NO. 0951(371)
STATE PROJECT NO. 138-249
TOWNS OF STRATFORD & MILFORD

ADDENDUM NO. 1

This Addendum addresses the following questions and answers contained on the “CT DOT QUESTIONS AND ANSWERS WEBSITE FOR ADVERTISED CONSTRUCTION PROJECTS”:

Question and Answer Nos. 5, 11, 12, 14, 17, 32, 44 and 48.

SPECIAL PROVISIONS

REVISED SPECIAL PROVISIONS

The following Special Provisions are hereby deleted in their entirety and replaced with the attached like-named Special Provisions:

- **ITEM NO. 0100426A – WATER TRANSPORTATION FOR RESCUE OPERATIONS**
- **ITEM NO. 0506001A – CONCRETE FOR STEPS AND COPINGS**
- **ITEM NO. 0601330A – PRECAST CONCRETE SLAB**
- **ITEM NO. 0701110A – FLOATING DOCK SYSTEM**
- **ITEM NO. 0913027A – REMOVE AND RELOCATE CHAIN LINK FENCE**
- **ITEM NO. 0913805A – RELOCATE GATE**
- **ITEM NO. 0948013A – TIDAL WETLAND CREATION**

DELETED SPECIAL PROVISIONS

The following Special Provisions are hereby deleted in their entirety:

- **NOTICE TO CONTRACTOR – TIDAL WETLANDS MITIGATION SITES**
- **ITEM NO. 0204151A – HANDLING WATER**

CONTRACT ITEMS

DELETED CONTRACT ITEM

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ORIGINAL QUANTITY</u>	<u>REVISED QUANTITY</u>
0204151A	HANDLING WATER	LS	0

REVISED CONTRACT ITEMS

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ORIGINAL QUANTITY</u>	<u>REVISED QUANTITY</u>
0100426A	WATER TRANSPORTATION FOR RESCUE OPERATIONS	1 DAY	180 DAY
0506001A	CONCRETE FOR STEPS AND COPING	1 CU. M	3 CU. M

The Bid Proposal Form has been revised to reflect these changes.

The Detailed Estimate Sheets do not reflect these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.

ITEM #0100426A – WATER TRANSPORTATION FOR RESCUE OPERATIONS

Description: The Contractor shall furnish, maintain and operate one or more water rescue operation boat(s) for Contract work over or adjacent to water. The boat shall patrol in the vicinity of each above-water work location and be available for water rescue operations. These water safety measures will be required to protect all Contractor and Department staff. The Contractor shall also obtain all necessary permits and licenses for the boat and its operators.

Construction Methods: Work under this item shall be performed in accordance with OSHA Article 29 CFR 1926.106 and the following requirements:

1. Boat(s) shall be a minimum of twenty (20) feet in length with a stable, flat-bottom and shall be designed specifically for emergency life-rescuing operation.
2. Boat(s) shall be equipped with oars and a motor with power within the minimum and maximum horsepower requirements indicated by the manufacturer of the boat(s) provided.
3. Each boat shall be equipped with required safety equipment: life vests, protective clothing, life line, anchor, emergency first aid kit, oxygen equipment and backboard.
4. A communication system, such as a walkie-talkie, shall be used to inform the boat operator(s) of an emergency and to inform the operator(s) where the boat is needed. The operator(s) and at least one worker at each work location over water shall be equipped with a communication device.
5. The operator(s) must possess the following current certifications issued by the American Red Cross or equivalent certifications approved by the Engineer:
 - Adult First Aid including CPR training
 - Life Guard Training or Water Rescue Operations
6. Boat(s) shall remain in the water when workers are above water and must be capable of being quickly launched to respond to an emergency within three (3) to four (4) minutes.
7. There must be at least two (2) rescue operators available on-board each boat when work is being performed over or adjacent to water.
8. Each boat shall be operable and available at all times when work is being performed over or adjacent to water. In the event of a breakdown, above-water work must be discontinued until a boat is repaired or a replacement boat is on Site and in the water.
9. The number of boats required must be determined based on the following:
 - The number of work locations where there is a danger of falling into water
 - The distance to each of those locations
 - Water temperature, currents, dams, rapids and other hazards
 - Appropriate response times for rescue

Method of Measurement: This work will be measured for payment by the number of calendar days that the boat is used on safety patrol.

Basis of Payment: Payment for this item shall be made at the contract unit price per day for "Water Transportation for Rescue Operations" which is the actual number of days the boat is used on safety patrol. The price shall also include all labor, equipment, materials, maintenance, fuel, repairs, storage and services incidental thereto.

Pay Item

Water Transportation for Rescue Operations

Pay Unit

day

ITEM #0506001A – CONCRETE FOR STEPS AND COPINGS

Work under this item shall be in accordance with the requirements of Section 5.06 amended as follows:

Description: This item shall consist of installing a state-furnished concrete endwall stored on-Site.

Materials: The concrete endwall for the proposed 750mm culvert was manufactured by United Concrete on 2-8-2016 and is stored on-Site in the Town Stratford under Bridge No. 00135, Interstate 95 over the Housatonic River.

Method of Measurement: This item will be measured for payment by the number of cubic meters of precast concrete endwalls installed and accepted at the location shown on the plans or as directed by the Engineer.

Basis of Payment: This work will be paid at the Contract unit price per cubic meter of precast concrete endwall under “Concrete Steps and Copings” complete in place, which price shall include all equipment, tools, and labor incidental thereto.

Pay Item	Pay Unit
Concrete Steps and Copings	cu.m

ITEM #0601330A - PRECAST CONCRETE SLAB

ITEM #0701110A – FLOATING DOCK SYSTEM

Description: The following items describe the work to install a Boat Launch Ramp with state furnished material at the location as shown on the Contract Plans.

1. Precast Concrete Slab – This item will consist of installing the precast concrete slabs in the location and to the dimensions and details as shown on the Contract Plans and in accordance with these specifications.
2. Floating Dock System – This item will include the installation of a complete floating dock system, including three (3) pile dolphins, guidance piles, accessories and connections at the location as shown on the Contract Plans and in accordance with these specifications.

Materials:

1. The following state furnished materials for the precast concrete slab and floating dock system are stored at the Moses Wheeler Milford Project site.
 - a. 8 each of 2.44m (8') x 7.62m (25') Floating Dock Components
 - b. 132 Precast Concrete Slabs
 - c. 8 each of 2.44m (8') Piano Hinge Connections
 - d. 8 each of HD Piling hoop design with 4 rollers
 - e. 216 each Accu-Dock 100mm (4") HD Bump Strip
 - f. 30 each of S-Style Aluminum Cleats
 - g. 13 each of Timber Piles, 300mm diameter
 - h. 2 each 3-Pile Dolphin Cluster, 300mm Diameter

The hardware for the precast concrete slab components are stored at ConnDOT Construction District 3, 140 Pond Lilly Ave., New Haven, CT. Contact Mr. Steven Hebert at 203-389-3154

2. Reinforcing steel – epoxy coated shall conform to the requirements of Article M.06.01.

Construction Methods: After removal of the temporary trestle bridge and the existing boat ramp structure, the precast concrete ramp structure shall be installed as shown on the plans.

Pile driving methods for guidance piles and dolphins shall be in accordance with Article 7.02.03, except as modified or specified herein:

1. The timber piles for guidance piles and dolphins as furnished by the State and stored at the site were procured under Project 138-221. The timber piles shall be driven 5m minimum into the underlying sand layer. The location of the sand layer will be determined by the change in blow count. The actual top of sand stratum elevation may vary. The contractor shall review the geotechnical information from Project 138-221. It is the Contractor's responsibility to make a determination whether the state furnished piles are of sufficient length to obtain the required penetration depth into the sand layers without splicing of the timber piles as per the requirements of the drawings and specifications.

In the event the state furnished piles are of insufficient length, the Contractor shall purchase piles of sufficient length without the need of splicing. The Contractor shall subsequently dispose of the state furnished piles of insufficient length.

After the installation of the guidance piles, the dock system structure shall be installed as shown on the plans and in accordance with the manufactures recommendations.

The methods of construction for the dolphin system shall meet the requirements of Division II, Sections 16 & 17 of the latest AASHTO Standard Specifications for Highway Bridges including Interim Specifications.

All holes in the timber for bolts shall be drilled and counter sunk in accordance with Section 16, Division II of latest AASHTO Standard Specifications for Highway Bridges, including Interim Specifications. Field measurements of the cast-in inserts shall be taken to ensure fabrication and proper installation fit-up of the timber components prior to any fabrication or construction of the fender system.

Should the Contractor elect to install the precast concrete slab, floating dock system and dolphin system, and guidance piles in the "dry," the Contractor's method of operation shall first be submitted to the Engineer for approval. Any additional costs associated with working in the "dry" shall be borne by the Contractor.

For underwater work the Contractor shall submit resumes of the diving personnel to be employed. All diving personnel shall have had at least three years of diving experience.

Method of Measurement: The various quantities of materials will be measured for payment under the materials listed below:

1. Precast Concrete Slab will not be measured for payment.
2. Floating Dock System, including the three (3) Pile Dolphins and Guidance Piles, will not be measured for payment.

3. Furnishing replacement piles and disposing of existing state furnished piles shall be measured for payment as provided for under Article 1.09.04-Extra and Cost-Plus Work as directed by the Engineer.

Basis of Payment:

1. Precast Concrete Slab – This work will be paid for at the Contract Lump Sum price for “Precast Concrete Slab” complete and in place, which price will include all materials, equipment, tools and labor incidental thereto. The precast concrete slabs and hardware have been purchased by the State.
2. Floating Dock System – This work will be paid for at the Contract Lump Sum price for “Floating Dock System” complete in place, which price shall include all materials, equipment, tools and labor incidental thereto. The floating dock system, the three-pile dolphins, guidance piles and hardware have been purchased by the State.
3. Work for furnishing replacement piles and disposing of existing state furnished piles will be paid for under Article 1.09.04-Extra and Cost-Plus Work.

Pay Item	Pay Unit
Precast Concrete Slab	l.s.
Floating Dock System	l.s.

ITEM #0913027A – REMOVE AND RELOCATE CHAIN LINK FENCE
ITEM #0913805A – RELOCATE GATE

Work under this item shall conform to the requirements of Section 9.13, supplemented and amended as follows:

Article 9.13.01 Description: – *Add the following:*

Work under this item shall also consist of removing existing fence and gates, storing fencing and gates during construction as needed, and reinstalling the fence and gates after construction in the area is complete, where indicated on the plans or as ordered by the Engineer.

Article 9.13.02 Materials: – *Add the following:*

If new fencing material is required, it shall be approved by the Engineer.

Article 9.13.03 Construction Methods: – *Add the following:*

Fencing and gates shall be removed in a workmanlike manner, stored during construction as needed, and reset at the original location or relocated to the location shown on the plans upon completion of the work in the affected area.

Existing post foundations shall be removed and new foundations of similar size poured at the locations of reset or relocated posts.

If the Engineer determines that the existing fence cannot be properly removed and set due to the existing condition of the fence and the impacts of removing and resetting, or if the fence is damaged or stolen when it is either being removed or stored, the Engineer may order the Contractor to install new fence.

Article 9.13.04 Method of Measurement: – *Add the following:*

Removing and resetting or relocating fence will be measured for payment by the number of linear meters of fence removed, reset, or relocated, complete and accepted, measured from outside to outside of terminal posts.

Removing and resetting or relocating gates will be measured for payment by the number of gates removed, reset, or relocated.

Article 9.13.05 Basis of Payment: – *Add the following:*

The work to remove and reset fence or to remove and relocate fence will be paid at the contract unit price per linear foot for "Remove and Relocate Chain Link Fence" complete in place, which price shall include removal, storage, resetting or relocating the fence including placement of new

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concrete foundations, and all material, equipment, tools and labor incidental thereto.

The work to remove and reset a gate or remove and relocate gate will be paid at the contract unit price each for "Relocate Gate", complete in place, which price shall include removal, storage, resetting the gate including placement of new concrete foundations, and all material, equipment, tools and labor incidental thereto.

The cost of furnishing and installing a new fence or gate in the event the existing fence or gate cannot be properly removed and set due to the existing condition of the fence or gate and the impacts of removing and resetting, or if the fence or gate is damaged or stolen prior to being reset shall be paid for under Article 1.09.04-Extra and Cost-Plus Work as directed by the Engineer.

Pay Item	Pay Unit
Remove and Relocate Chain Link Fence	m
Relocate Gate	ea.

ITEM #0948013A – TIDAL WETLAND CREATION

Description:

The work shall consist of the construction of a Tidal Creation, Tidal Restoration or Tidal Enhancement area (“mitigation area”) at the site(s) identified on the Tidal Wetland Mitigation Plans. The work generally consists of excavating, backfilling, and preparing appropriate site grades under the direction of an Environmental Inspector from the Connecticut Department of Transportation’s Office of Environmental Planning (OEP).

Materials:

Planting Soil : Natural or manmade planting substrate or topsoil may be used, which shall consist of soils containing *no less than* 75% sand by weight and an organic content no less than 10% and no more than 15%. The soil must be analyzed by USDA-approved methodology for organic matter by loss-on-ignition of oven-dried samples dried at 105 degrees centigrade. The mineral fraction must be analyzed to determine weight percentage of sand, as determined after passing a 2-millimeter (mm) sieve. Sand particles are defined to be between 0.05 and 2.0 mm in diameter. The topsoil must be free of seeds and roots of invasive species and inspected and approved by the Connecticut Department of Transportation Office of Environmental Planning (CT DOT OEP) prior to its application.

Planting soil not furnished by the Contractor shall be native soil material from areas free of invasive species stripped from permitted earth excavation areas within the project limits if it meets the criteria described above and the Certified Material test results are approved by OEP. If these soils do not meet the criteria, additional make-up material from off-site areas may be substituted or mixed with the on-site project material provided the resultant soil composition meets the applicable criteria. Clean leaf compost is the preferred soil amendment to achieve the organic content criteria. If other soil amendments are more readily available than clean leaf compost they can be used to meet the requirement for organic content.

The soils must be analyzed by USDA-approved methodology for organic matter by loss-on-ignition of oven-dried samples dried at 105 degrees centigrade. The mineral fraction must be analyzed to determine weight percentage of sand, as determined after passing a 2-millimeter (mm) sieve. Sand particles are defined to be between 0.05 and 2.0 mm in diameter. Certified Materials Test results are to be submitted to OEP for approval. The soils must be free of seeds and roots of invasive species and inspected and approved by OEP prior to their application.

If soil must be supplemented with organic material, the following sources are acceptable but must meet the specification of planting soil described above:

- a) **Native Wetland Soil:** The top layer of native wetland soil excavated from within the project limits or from another permitted wetland source. The bottom of this layer shall be defined as the depth at which the soil color and texture changes, indicating the beginning

of the subsoil. Each source must be inspected in place at least 6 months prior to excavation and determined by OEP to be free from seeds and roots of invasive species.

b) Compost: Compost shall meet the requirements of **Subarticle M.13.06 – Compost.**

c) Peat: Peat shall meet the requirements of **Subarticle M.13.07 – 13 – Peat.** Peat material excavated from the project site may be substituted for commercially packaged peat, at the discretion of the Engineer, if the on-site peat meets all the requirements of the specification.

Backfill: Backfill used in the Tidal Wetland Mitigation Area shall be native or manmade material. Backfill shall consist of soils meeting the textural classification of silt loam and consist of greater than 50% silt; the percentage of clay is typically less than 25%. The soils must be analyzed by USDA-approved methodology. The mineral fraction must be analyzed to determine the particle gradation to meet the above textural requirement. Certified Materials Test results are to be submitted to OEP for approval. The soils must be free of seeds and roots of invasive species and inspected and approved by OEP prior to their use and application.

Construction Methods:

An Environmental Inspector from OEP will be on-site to monitor construction of the Tidal Wetland Mitigation Area(s) to ensure compliance with the Tidal Wetland Mitigation Plans.

The Contractor shall submit a construction schedule and an outline of construction methodologies for the required earthwork of the tidal wetland creation site according to the general construction sequence and requirements outlined below to OEP for approval. No work associated with the Wetland Mitigation Area(s) shall commence until OEP approval is granted. OEP shall have 30 days from the date the submission is received from District Construction to review and approve the submission. The Contractor must schedule wetland creation activities to begin as soon as access allows. There shall be no inactive period of longer than 10 days between the beginning of the excavation of the mitigation site and the time which final grades are reached. When applicable, and when conditions warrant, excavation and final grading shall be completed during and near times of low tide only unless the work area is contained and isolated from tidal action. The excavation, final grading, seeding and planting shall be scheduled so that planting will occur within an approved planting season. Upon completion of final grades, the site shall be exposed to tidal flushing for a minimum of 7 days and a maximum of 14 days to allow for settlement of the planting soil and to evaluate final grades. At the end of the first 7 days, the site conditions will be evaluated by an Environmental Inspector from OEP. Adjustments to final grades or additional placement of planting soil may be made at this time. Planting of rootstock is to immediately follow the maximum 14 day period.

During the performance of this work, a CT DOT Environmental Inspector from OEP will be available to visit the site to direct the construction activities involved in constructing the wetland creation sites. The Contractor shall arrange through the engineer at least 10 days prior to the commencement of these activities to ensure that the Environmental Inspector is available. OEP reserves the option to adjust the mitigation site Final Grading and Planting Plans to ensure

mitigation site success. During Planting, a qualified wetland professional (or OEP Environmental Inspector) may relocate up to 50% of the plants in each community type if as-built conditions would pose and unreasonable threat to the survival of plantings installed according to the planting plan. The plantings shall be relocated to locations with suitable hydrology and soils and where appropriate structural context with other plantings can be maintained.

- (a) Upon the review and approval of the Contractors Mitigation Plan submittal, meet with OEP Environmental Inspector in the field prior to on-site mobilization for the wetland mitigation work.
- (b) Identify temporary stockpile and staging locations.
- (c) Verify and delineate established Limit of Disturbance in the field. Prior to excavation or placing of planting soil or backfill, set reference stakes for site-specific tidal data at the mitigation site in order to establish appropriate elevations for final grading as directed by OEP staff. (CJL, HTL, MHW, MLW and other jurisdictional limits as may be required by permit)
 - 1. Obtain (survey) elevation of existing tidal vegetation and stake in field as directed by OEP.
- (d) Install temporary sedimentation and erosion control measures.
- (e) Remove nuisance vegetation and all invasive plant species in accordance with Item #0952051A – CONTROL AND REMOVAL OF INVASIVE VEGETATION.
- (f) Existing access roads/travel paths shall be utilized to access to the proposed Tidal Wetland Mitigation Areas. No additional impacts may occur to the existing tidal wetland vegetation other than already depicted on the plans as a result of access. Existing access roads /travel paths are to be maintained and repaired throughout the duration of the project.
- (g) Excavate mitigation site to a depth of at least 3 feet (0.9m) below proposed finished grade, following sequence and methods noted on the Grading Plan and as directed by an Environmental Inspector from OEP. Where Phragmites is present, excavation shall be to a sufficient depth to remove all roots of Phragmites and will be directed by OEP.
- (h) If, during over excavation, wood debris, rubbish, or other bulky debris are encountered, the materials shall be removed and backfill placed in the resulting excavation to meet subgrade. Materials shall be removed from the wetland mitigation areas and transported to an approved upland facility. Disposal of such materials will be paid for under Item #0101135A – DISPOSAL OF DEBRIS.

- (i) Backfill, as defined in the Materials section above, shall be placed in over excavated areas to meet the proposed sub-grade as required.
- (j) Place tested and approved Planting soil over approved subgrade to a minimum depth of 12 inches in the locations and to the final grades shown on the Mitigation plan and in a manner consistent with specification of the Mitigation Plan and as directed by an Environmental Inspector from OEP. Planting soil shall be placed in a manner to avoid compaction of soil.
- (k) Following placement of planting soil, re-establish site-specific tidal data (CJL, HTL, MWW, MLW) at the mitigation site and stake in the field in order to establish appropriate elevations for tidal wetland plantings.
- (l) Areas beyond the limits of tidal influence are to be seeded in accordance with the seeding schedule of the 816. Prior to seeding, the seed tag shall be supplied to OEP for review and approval. Substitutions must be approved by OEP. Initiate and complete seeding consistent with specification of the Mitigation Plan.
- (m) Upon placement of planting soil and approval of the site by OEP, the site shall be exposed to tidal flux for a minimum of 7 days and a maximum of 14 days. At 7 days, OEP will inspect the site and adjustments to final grade or planting soil depths may be made. An additional 7 days of exposure to tidal fluctuation may be recommended by OEP at this time and further adjustments to grade may be made.
- (n) OEP shall inspect and approve the mitigation site at the conclusion of the 14 day tidal exposure prior to planting.
- (o) Following 14 days of exposure to tidal cycles, planting of rootstock is to commence in accordance with the mitigation site planting plan. During the performance of this work, a CT DOT Environmental Inspector from OEP will be available to visit the site to direct the planting within the wetland mitigation site(s). The Contractor shall arrange through the engineer at least 10 days prior to the commencement of these activities to ensure that the Environmental Inspector is available. Any proposed plant substitutions must be approved in advance by OEP.
- (p) Upon stabilization of the site remove temporary sedimentation and erosion control measures. Temporary devices and structures to control erosion and sedimentation in and around the Tidal Wetland Mitigation Area shall be disassembled and properly disposed of. Sediment collected by these devices shall be removed and placed upland in a manner that prevents its erosion and transport to a waterway or wetland, in accordance with Section 1.10, including Best Management Practices.
- (q) Restore stockpiling and staging site(s) back to their original condition.

- (r) Upon site completion clear the mitigation site of any exposed debris, rubbish, garbage, and other manmade litter.
- (s) Provide certified post construction as-built plans of the mitigation sites to OEP as defined by the Army Corps of Engineers and/or Office of Long Island Sound Programs (OLISP) permit requirements.
- (t) Install Wetland Creation signs as directed by OEP.

Method of Measurement:

Tidal Wetland Creation will be measured for payment by the number of square meters of Tidal Wetland Mitigation Area re-graded, covered with planting soil and backfill and accepted.

Basis of Payment:

The work will be paid for at the contract unit price per square meter for “Tidal Wetland Creation” within the Tidal Wetland Mitigation Area(s), complete in place, including all materials, equipment, maintenance, tools, labor, and work incidental thereto.

The price shall also include: survey and staking of reference elevations and work associated with maintaining the field stakes for the duration of construction to the point of acceptance of the site by OEP; forming subgrade within the Tidal Wetland Mitigation Areas; testing, mixing, and providing backfill and planting soil; placing backfill and planting soil; restoring stockpiling and staging site(s) ; removing and disposing of debris, garbage and litter that may have been generated during construction; and forming subgrade and planting soil within the Wetland Mitigation Areas.

The price shall also include maintaining and repairing existing access roads/travel paths to the Tidal Wetland Mitigation Areas.

The cost of installing and removing sedimentation and erosion controls, including Sedimentation Control Systems and Anti-tracking Pad shall be paid for under their respective contract items.

The cost of all excavation will be paid under the contract item, "Earth Excavation".

The cost of all plantings and seeding will be paid for under their respective contract items.

The cost of disposal of wood debris, rubbish, or other bulky debris encountered during excavation of the site shall be paid for under Item #0101135A – DISPOSAL OF DEBRIS.

The cost of installing wetland creation signs (51-1920) will be paid for under Item #1208928 - SIGN FACE - SHEET ALUMINUM (TYPE III REFLECTIVE SHEETING).

The cost of removing invasive species shall be paid for under the contract Item #0952051A
CONTROL AND REMOVAL OF INVASIVE VEGETATION.

Pay Item	Pay Unit
Tidal Wetland Creation	sq.m