



TOWN COUNCIL – AGENDA REQUEST FORM

THIS FORM WILL BECOME PART OF THE BACKGROUND INFORMATION USED BY THE COUNCIL AND PUBLIC

Please submit Agenda Request Form, including back up information, 8 days prior to the requested meeting date. **Public Hearing requests must be submitted 20 days prior to requested meeting date to meet publication deadlines** (exceptions may be authorized by the Town Manager, Chairman/Vice Chair).

MEETING INFORMATION

Date Submitted: August 12, 2020

Date of Meeting: August 27, 2020

Submitted by: Dawn Tuomala

Department: DPW Admin

Time Required: 15 minutes

Speakers: Dawn Tuomala

Background Info. Supplied: Yes: No:

CATEGORY OF BUSINESS (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Appointment:	<input type="checkbox"/>	Recognition/Resignation/Retirement:	<input type="checkbox"/>
Public Hearing:	<input type="checkbox"/>	Old Business:	<input type="checkbox"/>
New Business:	<input checked="" type="checkbox"/>	Consent Agenda:	<input type="checkbox"/>
Nonpublic:	<input type="checkbox"/>	Other:	<input type="checkbox"/>

TITLE OF ITEM

Bedford Road Bridge - Balancing Change Order

DESCRIPTION OF ITEM

Request to expend from Highway Infrastructure Capital Reserve Fund to cover costs of change order #1 for the Bedford Road Bridge Project.

REFERENCE (IF KNOWN)

RSA:	Warrant Article:	_____
Charter Article:	Town Meeting:	_____
Other:	N/A	

EQUIPMENT REQUIRED (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Projector:	<input type="checkbox"/>	Grant Requirements:	<input type="checkbox"/>
Easel:	<input type="checkbox"/>	Joint Meeting:	<input type="checkbox"/>
Special Seating:	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Laptop:	<input type="checkbox"/>	None:	<input type="checkbox"/>

CONTACT INFORMATION

Name:	Dawn Tuomala	Address:	_____
Phone Number:	424-5137	Email Address:	dtuomala@merrimacknh.gov

APPROVAL

Town Manager:	Yes <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Chair/Vice Chair:	Yes <input checked="" type="checkbox"/> No: <input type="checkbox"/>
---------------	--	-------------------	--

Hold for Meeting Date: _____



TOWN OF MERRIMACK INTER-DEPARTMENT COMMUNICATION

DATE: August 12, 2020
AT (OFFICE): Department of Public Works

FROM: Dawn B. Tuomala, PE, LLS, CWS
Deputy Director/Town Engineer

To: Eileen Cabanel, Town Manager

SUBJECT: **Bedford Road Bridge
Balancing Change Order**

The request is to expend funds from the Highway Infrastructure Capital Reserve fund to cover the costs of change order #1 for the Bedford Road Bridge Project. The request was made due to changes in the scope of work. The increase in scope included items for changes in the temporary Aerial Utility Bridge, Flowable Fill, Granular Backfill, Flaggers, Alternations and Additions as Needed and a Time Expansion (see attached documentation).

The State Bridge Aid Program requires that NH Department of Transportation approve the changes prior to authorization from the Town. Due to the Covid-19, verbal approvals were granted by the NHDOT however the final written approval was not granted until July 16, 2020 (see attached).

The final change order is for \$120,000 increase with the Town portion being \$24,000 (the State Aid Bridge is a reimbursement program so the State will reimburse the Town \$96,000).

Should you have any questions please let me know,

Dawn

CC: Kyle Fox; Director
File



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

July 16, 2020

Dawn Tuomala
Deputy DPW Director/Town Engineer
Town of Merrimack
6 Baboosic Lake Road
Merrimack, NH 03054

RE: MERRIMACK, #15841
Bedford Road over Baboosic Brook – Br. #113/159
CHANGE ORDER #1 APPROVAL

Dear Ms. Tuomala:

The NH Department of Transportation (NHDOT) has reviewed Change Order #1 - Balancing Change Order for the subject project, as discussed with Jim Bouchard of Quantum Construction Consultants, and finds it to be satisfactory. This change order increases the contract for winter conditions, temporary utility bridge, flaggers, granular backfill, and precast concrete barriers. As discussed this change order estimate is conservative and a final balancing change order will likely show a decrease in actual quantities.

The following table illustrates the anticipated project costs, including this increase.

PHASE	\$
PE	\$476,776.00
ROW	\$5,000.00
Construction Engineering	\$346,658.00
Base Bid	\$3,510,605.00
CO#1	\$120,000.00
TOTAL	\$4,459,039.00

Please feel free to contact us if you have any questions.

Sincerely,

C.R. Willeke

C.R. Willeke, PE
Municipal Highways Engineer
Bureau of Planning and Community Assistance
Telephone: (603) 271-6472

CRW/dmp
Enclosures

cc (via email):Dawn Tuomala, R Hudson, NHDOT (pdf), Ron Kleiner, NHDOT (pdf), Jim Bouchard, QCC (pdf)



QUANTUM CONSTRUCTION CONSULTANTS, LLC

27 LOCKE ROAD, CONCORD, NH 03301 WWW.QUANTUM-CC.COM TEL: (603) 224-0859

**Bridge Replacement Project
Bedford Road Over Baboosic Brook
NHDOT Project No. 15841
NHDOT Bridge No. 113/159
Merrimack, New Hampshire**

CHANGE ORDER SUMMARY

July 27, 2020

<u>Description</u>	<u>Add/ Deduct</u>	<u>Eligible</u>	<u>Ineligible</u>	<u>Add/ Deduct</u>	<u>Total</u>
Original Estimated Contract Price		\$3,510,605.00	\$0.00		\$3,510,605.00
Change Order #1	(+)	\$120,000.00	\$0.00	(+)	\$120,000.00
Total of C.O.'s	(+)	\$120,000.00	-	(+)	\$120,000.00
TOTAL Estimated Contract Price		\$3,630,605.00			



QUANTUM CONSTRUCTION CONSULTANTS, LLC

27 LOCKE ROAD, CONCORD, NH 03301 WWW.QUANTUM-CC.COM TEL: (603) 224-0859

Change Order No. One Interim Balancing Change Order

**Bridge Replacement Project
Bedford Road Over Baboosic Brook
NHDOT Project No. 15841
NHDOT Bridge No. 113/159
Merrimack, New Hampshire**

SUMMARY OF CHANGE ORDER NO. 1 ITEMS

Item No. 1 – Change Directive #1 – Temporary Aerial Utility Bridge

- A. Change in scope involved an amendment to Pay Item 670.0451 CONSTRUCT AND REMOVE DIVERSION.
- B. The addition of the temporary aerial utility bridge became necessary during temporary utility relocation. When utility poles and lines were temporarily relocated, the aerial utility lines no longer had a bridge structure underneath them as they spanned the waterway. In order to prevent any delays for obtaining a PUC permit, QCC and EDS came to the conclusion that a temporary “bridge” structure alongside the temporary detour bridge would serve as an extension of the temporary detour bridge and provide an adequate waterway crossing for utility lines.
- C. The temporary bridge was constructed using the same deck grating that the temporary detour bridge was utilizing. This deck grating was then supported by H pile bearings.
- D. On June, 26, 2019, QCC issued Construction Change Directive #1 to construct the temporary aerial utility bridge. EDS provided a full cost breakdown for installing the temporary bridge prior to authorization. Backup for this work is attached in CCD #1.

Item No. 2 – Change Directive #2 – Flowable Fill

- A. Change in scope involved a decrease for Pay Item 202.43 REMOVAL OF EXISTING ASBESTOS CEMENT PIPE, 0-24” DIAM.
- B. The change in work was predicated on time and cost savings associated with the removal of existing watermain piping. It was identified that filling a majority of the watermain with flowable fill would save approximately \$19,000 as opposed to full removal as shown on the project drawings.

- C. Additionally, the use of flowable fill in place of total removal was determined to be a method to recapture schedule lost by temporary aerial utility relocation.
- D. On June, 26, 2019, QCC issued Construction Change Directive #2 to fill the existing watermain with flowable fill. WBCC provided a full cost breakdown of the work and cost savings. This documentation is attached in CCD #2.

Item No. 3 – Pay Item 209.1 Granular Backfill

- A. Change in scope involved adding Pay Item 209.1 GRANULAR BACKFILL.
- B. The addition of Item 209.1 was predicated on the presence of unsuitable materials within drainage structure excavations. It was found that large amounts of clay were present for drainage installation which was deemed unsuitable material and removed and replaced per section 206 of the NHDOT Standard Specifications for Road and Bridge Construction. The clay was replaced with crushed stone to be paid for under Item 209.1.

Item No. 4 – Pay Item 618.7 Flaggers

- A. Change in scope involved an overage to Pay Item 618.7 FLAGGERS.
- B. The overage of Item 618.7 was predicated on the need to maintain traffic flow through the temporary detour road while WBCC trucks were entering and leaving the construction site. Flaggers were utilized at each end of the temporary detour road at a greater frequency than originally anticipated to ensure that through traffic was not disrupted by construction vehicles.
- C. Originally, 400 hours of flagging was utilized as the bid quantity. Currently, approximately 1300 hours of flagging have been utilized for construction work zone safety. It is anticipated that another 800 hours of flagging could be required while reconstruction of the Bedford Road – Pearson Road intersection is completed.
- D. EDS is providing all invoicing and hours associated with flagging for the project for documentation purposes.

Item No. 5 – Pay Item 1008.8 Alterations and Additions as Needed

- A. Change in scope involved adding Pay Item 1008.8 ALTERATIONS AND ADDITIONS AS NEEDED to the contract for extra work required.

B. Pay Item 1008.81 Winter Conditions

- a. The addition of Item 1008.81 was predicated on winter concrete work being necessary due to extensive project time delays to facilitate temporary aerial utility relocation. Utility pole and line relocation efforts created a project delay of approximately 9 weeks. In an effort to regain time and to maintain a reasonable completion schedule, EDS requested undertaking winter conditions work for the following items.
- b. EDS only requested compensation for the heating and fueling costs associated with the winter work. Labor and snow removal are not included in the winter work costs.
- c. The Town understood the need for the additional winter work in order to recapture the construction schedule.
- d. Full documentation and breakdown of heating costs associated with different aspects of work are attached.
 - i. Note: An error on EDS pay application #15 added \$413.70 to this item but will be removed on the July Pay Application #16.

C. Pay Item 1008.82 Utility Pole Protection – Concrete Barriers

- a. The addition of Item 1008.82 was predicated on the need to protect an existing aerial utility pole that was unable to be protected with guardrail until the existing pole was relocated away from the immediate roadside.
- b. CWS would not install guardrail in front of aerial utility poles unless a minimum clearance of 36-inches could be achieved from the face of guardrail to the face of the utility pole.
- c. Eversource installed a utility pole in the new proposed location with the appropriate clearance from face of guardrail but was unable to transfer aerial utility lines off of the old pole and onto the new pole until Eversource was fully mobilized on site and able to transfer all aerial utility lines.
- d. Concrete barriers were utilized to protect the utility poles from traffic.

D. Balance of Change Order #1

- a. Change in scope involved adding Change Order No. 1 in the amount of \$120,000.00.
- b. In anticipation of additional extra work associated with the ongoing permanent aerial utility relocation back to roadside, a value of \$120,000.00 was established for CO#1. Based on the attached Interim Balancing Change Order #1 spreadsheet, a balance of \$37,711.78 is available to offset project completion costs.

Item No. 6 – Time Extension

- A. Change in contract time for project completion by EDS is based on loss of construction schedule due to the temporary relocation of aerial utilities in 2019 and permanent relocation of aerial utilities during the 2020 construction season.
- B. It is estimated that approximately 9 weeks of time was lost due to aerial utility relocation in 2019. This delay lead to winter work and a short shutdown of approximately 6 weeks due to winter conditions, and delayed substantial completion.
- C. Efforts were made by EDS to help recapture schedule. These efforts include:
 - a. Use of partial-depth precast concrete deck panels
 - b. Continuous Saturday work during summer and fall months
 - c. Winter concreting work utilizing heaters and generators