

ADDENDUM #2
CENTENNIAL BRIDGE REHABILITATION
November 5, 2020

The following Addenda items shall be applied to the *Construction Contract Documents and Specifications* for the CENTENNIAL BRIDGE REHABILITATION 2020.

Questions Received:

Q1: The Asphalt Paving quantity of 86 tons seems to reflect a 2” overlay of the ends and the new bridge deck but the drawings do not show new asphalt on the new bridge deck. I assume with the thin bond overlay that you are not putting a 2” asphalt mat on the new bridge itself? This is correct.

A: The asphalt is only on the approaches. The bridge will have a bare deck with a thin bonded epoxy overlay. The limits of asphalt are from the milling limits to the back of the concrete turndown on the bridge. The quantity in the bid schedule is incorrect. The quantity (in square yards) on Sheet 6 of the plans is correct. Based on PWM 3.37, measurement shall be actual tons evidenced by certified weight tickets. So, your unit price (in tons) should be based on your anticipated quantity.

Q2: Is there a requirement for bridge paver placement of the bridge deck concrete or can it be placed and finished by hand?

A: The bridge deck shall be placed with a mechanical finishing machine. See CDOT Standard Spec. Section 601.15.

Q3: There are several bird nests currently present on the underside of the bridge on the girders. Are there any requirements or conditions for working with the nests and birds? Do we need to have a Wildlife Biologist assess and remove the nests?

A: A wildlife biologist reviewed the nests and the site as part of the 404 acquisition process. Work performed within the dates specified in the 404 will allow disturbance to the nests.

Q4: 4. Is the 18 CY of Embankment Material intended to be an imported and CDOT Classified material (such as a Class 1 Structural Backfill per CDOT 703.08) or is it material generated from the Muck Excavation on site?

A: Shouldering material should be imported and in accordance with CDOT Standard Spec. Section 203.

Q5: Do all of the girders and diaphragms get re-painted or is it only there areas with corrosion?

A: All steel within 7 feet of the substructure units gets re-painted.

Q6: Can you provide a Paint Specification for the field painted steel in lieu of deferring to “manufacturer’s specification”?

A: *Refer to the notes on Sheet 17 and the manufacturer’s Specifications for the product you plan to use. The minimum surface preparation shall be in accordance with SSPC-SP2 or SSPC-SP3.*

Q7: Is there any structural steel repair work included in the base bid or is all of this work to be performed under the F/A (Bid Item 53)?

A: *The cover plate detail as shown on page 17 is to be covered by the Force Account. All other structural steel work such as nelson studs shall be in the base bid.*

Q8: Can the voids (flutes) in the metal deck form be filled with concrete, or do we really need to fill with polystyrene or covered with steel sheet as noted on sheet 17?

A: *Filling the flutes with concrete is not accepted. The flutes shall be filled with styrofoam or covered with a steel sheet.*

Q9: Has the structural engineer given consideration to demolition methods and recommendations for what the structure will handle as the old deck is removed?

A: *Demolition is a means and method that is up to the contractor. Any questions in regards to the means and methods and how they affect the structure before and during demolition may be issued as an RFI and will be answered by the EOR.*

Q10: What is the anticipated flow of rifle creek during the winter months?

A: *According to the Rifle Creek Watershed Assessment performed by the Middle Colorado Watershed Council, Rifle Creek flows between 5 and 9 cfs.*

Q11: I need a spec for the decking on this bridge please?

A: *Permanent metal decking shall be in accordance with CDOT Standard Specification Section 601.10. (see next page).*

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601.10 Permanent Steel Bridge Deck Forms.

- (a) *General.* Permanent steel bridge deck forms for concrete deck slab may be used as an alternate to removable forms pursuant to this specification and when specified on the plans. Permanent steel bridge deck forms shall not be used in the cantilever portions of the deck slab.
- (b) *Materials.* Permanent steel bridge deck forms and supports shall be fabricated from steel conforming to ASTM A653 (Grades A through E) having a galvanized coating designation of Z600 (G165) according to ASTM A653.
- (c) *Design.* The following criteria shall govern the design of permanent steel bridge deck forms:
1. The steel forms shall be designed on the basis of dead load of form, reinforcement and plastic concrete plus 50 pounds per square foot for construction loads. The unit working stress in the steel sheet shall be not more than 0.725 of the specified minimum yield strength of the material furnished, but not to exceed 36,000 pounds per square inch.

If permanent steel bridge deck forms are used, the depth of slab shown on the plans shall be provided above the forms. The weight of additional concrete to fill form flutes and the steel form dead load shall not exceed a total of five pounds per square foot from edge to edge of flanges in each bay and from front face to front face of abutments.
 2. Deflection under the mass of the forms, the plastic concrete and reinforcement shall not exceed $\frac{1}{180}$ of the form span or $\frac{1}{2}$ inch whichever is less, but in no case shall the design loading be less than 120 psf total.

The permissible form camber shall be based on the actual dead load condition. Camber shall not be used to compensate for deflection in excess of the foregoing limits.
 3. The design span of the form sheets shall be the clear span of the form plus 2 inches measured parallel to the form flutes.
 4. Physical design properties shall be computed in accordance with requirements of the American Iron and Steel Institute Specification for the Design of Cold Formed Steel Structural Members, latest published edition.
 5. All reinforcing steel shall have a minimum concrete cover of 1 inch.
 6. Permanent steel bridge deck form shall not be used in panels where longitudinal deck construction joints are located between stringers.
 7. Permanent steel bridge deck forms and their accessories shall not be attached by welding to steel girders or other structural steel bridge elements or reinforcing steel. Welding, including arc strikes or grounding, on any structural steel element is prohibited. Blemishes, when found, shall be removed in accordance with AWS D1.5 Section 3.10. Determination that a blemish exists will be made by the Engineer and the repair shall be at the Contractor's expense.
 8. The Contractor shall submit two sets of the fabricator's shop and erection drawings to the Engineer. The drawings shall be designed and sealed by the Contractor's Engineer. The drawings will not be approved or returned to the Contractor. The drawings shall indicate the grade of steel, the physical and section properties of all permanent steel bridge deck form sheets, and attachment details.

Additional Information:

Additional or revised items included on the City website (Contractor to download):

- CENTENNIAL BRIDGE REHABILITATION -Addendum #2.pdf

As a reminder, the Bid submittal deadline is 2:00pm Friday November 6, 2020. Questions will be received up to 24-hours before bid opening. Please continue to submit all questions via email to cspaulding@rifleco.org.