



ADDENDUM No. 5

TO: Prospective Bidders
FROM: Donna Johnson, Contracts Administrator
DATE: August 11, 2022
PROJECT: I-85 North Bridge
Project No.: 512-15-003
Bid Number: HC2020-2040

The following items are being issued herein for modification and clarification to the Bid Requirements for the project referenced above. All Bidders shall acknowledge this Addendum within their submittal.

MODIFICATIONS

PROJECT MANUAL

- 1) On page 00 01 00-7, delete the **LIST OF PLANS** in its entirety and replace with the following:

INDEX OF SHEETS	
Title Sheet	1
General Notes & Details.....	2 - 2U
Typical Sections & Summary Sheets.....	3 - 3K
Plan Sheets	4-14
Roadway Profile Sheets	15-28
Retaining Wall Profiles	29
Traffic Control Plans	TCP-1 - TCP-32
Pavement Marking Plans	PM-1 - PM-5
Signing Plans	SIGN-1 - SIGN-10
ITS Plans	ITS-1 - ITS-3
Erosion Control Plans	EC-1 - EC-27
Utility Construction Plans	UC-1 - UC-16
Utility by Others Plans	UBO-1 - UBO-13
Bridge Plans	B-1 - B-73
Aesthetic Structure Plans	S-1 - S-6
Electrical Plans	E-1 - E-6
Cross Sections	X-1 - X-36
Signal Plans	SG-1 - SG-2
TOTAL SHEETS <u>296</u>	

- 2) On page 00 75 00-49, delete **SP-17, LETTERING AND CROWN LOGO WITH BACKLIGHTING** in its entirety and replace with the following:

SP-17, LETTERING AND CROWN LOGO WITH BACKLIGHTING

1.0 DESCRIPTION

The work covered in this special provision consists of all labor, materials, and equipment required to install the "CHARLOTTE" Lettering and City of Charlotte Crown Logos, both with backlighting, as shown on Sheet B-



2A in the plans. The lettering and crown logos will be attached to the exterior of the I-85 bridge structure in both directions. The letters and crown logo shall conform to the current version of the Charlotte Visual Style Guide, which can be obtained by the City’s Corporate Communications Department at 704-336-2395. The letters shall be styled in font Proxima Nova Bold.

2.0 MATERIALS AND CONSTRUCTION METHODS

All construction covered in this special provision shall be in accordance NCDOT Standard Specifications, the manufacturers’ specifications, and the plans. The backlighting shall adhere to the notes within sheet B-2A. **The material of the letters and logo shall be cast aluminum.**

3.0 SUBMITTALS

The Contractor shall provide options for the letters and the Crown Logo for the City’s selection and submit shop drawings providing the details of the lettering and logos and backlighting for the City’s approval prior to installation.

4.0 MEASUREMENT AND PAYMENT

“Lettering and Crown Logo with Backlighting” will be paid at a lump sum price. The price and payment will be full compensation for all work associated with designing, coordinating through the City’s final selection of the lettering and logos to be implemented, furnishing, and installing the lettering, crown logo, and backlighting.

Payment will be made under:

LETTERING AND CROWN LOGO WITH BACKLIGHTING LS

- 3) On page 00 75 00-66, delete **SP-27, STORMWATER CONTROL MEASURES** in its entirety and *replace* with the following:

SP-27, STORMWATER CONTROL MEASURES

1.0 DESCRIPTION

The work covered by this special provision applies to the stormwater control measures (SCMs).

2.0 PERFORMANCE

SCMs are required in order for this project to comply with the City of Charlotte’s Post Construction Stormwater Ordinance.

The SCMs shall be sized in accordance to the design provided on the Contract Documents. No deviation from the design shown on the plans, including but not limited to, material, footprint, location, or configuration, shall be permitted without the prior approval of the Engineer. To request a deviation, a submittal shall be made in writing to the Engineer, including the following information:

- The proposed deviation(s) and the justification(s) for it/them
- Design calculations (hydraulic, structural, geotechnical, etc., as appropriate)
- Hydraulic modeling and reporting demonstrating compliance with required SCM performance
- Engineering drawings

Deviations to the design provided on the Contract Documents shall comply with The City of Charlotte Post Construction Stormwater Ordinance (dated 7/2016). SCM performance shall adhere to the stormwater quality and volume and peak control requirements of the Ordinance for the applicable watershed district, land use, and density. The design shall adhere to standards referenced in the Charlotte-Mecklenburg BMP Design Manual (dated 7/2013). The submittal shall be sealed by a professional engineer(s) licensed in the State of North Carolina.

The Engineer shall have the sole discretion to approve or reject a deviation, and his/her decision shall be final. Submittal of a deviation request with proper supporting data does not guarantee that the deviation request will be approved.

Manholes and access doors ("Accesses") shall be provided to allow full entry into and visual inspection of the complete system, at a minimum as to allow full maintenance of the system. Cleanouts or inspection ports are not acceptable access points for maintenance and inspection nor are any other alternatives which do not allow for full entry.

3.0 CONSTRUCTION METHODS AND MATERIALS

Work shall be in accordance with Section 414 *Box Culvert Excavation* and Section 1077 *Precast Concrete Units* of the NCDOT Standard Specifications. There will be an exception made to the articles of each referenced section for the measurement and payment.

Install foundation condition material or bedding stone per manufacturer's recommendations or shop drawings.

Use precast concrete construction.

Concrete for the structure shall be Class AA, as per the NCDOT Standard Specification Section 1000 except that the minimum compressive strength at 28 days shall be 4,500 psi. Fill concrete indicated on the plans shall be class A or B as described in Section 1000 *Portland Cement Concrete Production and Delivery* of the NCDOT Standard Specifications.

Accesses shall have riser structures originating from the SCM to the Accesses. They shall be located adjacent to the inside of a SCM wall to provide continual, unimpeded access from the surface through the riser to the invert of the SCM. The risers shall project vertically from the SCM to the surface such that accesses are located completely within, or completely separate from, a sidewalk, cycle track, or multi-use path. Accesses located in a sidewalk or multi-use path shall be compliant with the Public Right-of-Way Accessibility Guidelines (PROWAG) for slip resistance and stability and shall be flush with the finished surface of the sidewalk or multi-use path. Accesses located in a bike lane, multi-use path, or cycle track shall not pose a hazard to bicyclists. Hazards include, but are not limited to, entrapment of wheels, significant reduction in tire friction, impediments to pedaling, sharp and/or vertical protrusions, and conditions that could reasonably cause a bicyclist to lose control. The Engineer shall have the authority to determine compliance with these provisions and his/her determination shall be final. Accesses shall be oriented to adhere to these requirements.

Manholes shall be a minimum dimension of 24 inches in diameter and access doors shall be a minimum dimensions of 3 feet wide by 5 feet long to provide adequate inspection and maintenance without restrictions and obstructions to entry into interior of the SCM. Access doors shall be of metal material for use in outdoor applications, compliant with PROWAG, and safe for pedestrians and bicyclists as described previously.

Given the location and underground construction of the SCMs, they shall meet HS-20 loading requirements with a minimum of 12-inches of cover to bottom of flexible pavement.



A 12-gauge solid (not stranded), continuous, jacketed copper locator wire, shall be installed around the perimeter of the SCM such that completed construction can be located by standard electronic methods. The copper locator wire shall originate in the upstream access manhole of the SCM (i.e. access manhole located above sediment chamber) as a 5/8-inch copper ground rod cast or inserted through a drill hole in the access riser wall. The rod shall be installed through the riser wall 1-inch below the top step in the centerline of the step and not protrude past the inside edge of the step. The copper locator wire shall be connected to the ground rod with ground rod clamp with stainless steel screws. All exposed metal shall be wrapped with rubber electrical splicing tape. The copper locator wire shall be passed through a 1/2-inch PVC conduit attached vertically to the riser from the ground rod to the top of the cover of the SCM. The copper locator wire shall then be placed around the perimeter of the SCM approximately 6 inches from the exterior edge. The copper locator wire shall be laid flat and securely affixed to the cover of the SCM at 10-foot intervals. The copper locator wire shall terminate within 1 foot before looping back on itself.

4.0 SUBMITTALS

For SCMs, the Contractor shall submit the manufacturer’s certification and shop drawings for the SCMs and those products to be used in the installation.

When a designed structure is not provided in the contract documents, the Contractor shall be responsible for the design of the structure which are subject to review, comments, and approval. Submit two sets of detailed plans for review. Include all details in the submittal, including the size and spacing of the required reinforcement necessary to build the structure. A North Carolina Registered Professional Engineer shall seal the submittal, which includes plans and design calculations. **The submittal must show the proposed openings (top and sides) and reinforcing for pipe connections, structure openings, and precast holes for steps, if necessary.**

All submittals shall be made a minimum of two weeks prior to construction or placing an order for materials for review by the Engineer.

5.0 MEASUREMENT AND PAYMENT

There will be no measurement for SCMs.

The payment for all work covered by this special provision will be made at the contract unit price per lump sum for each SCM. Such payment will be full compensation for all elements of work required to construct the SCMs in accordance with the specifications including, but is not limited to furnishing labor, materials, excavation, **shoring**, foundation conditioning material and fabric; hauling; disposal of materials; placing suitable backfill material to the existing ground line prior to the excavation for the SCM, transporting and placing concrete, precast units, mortar, grout, reinforcing steel, hardware, castings and miscellaneous metal; fabrication, welding, and galvanizing to construct cast in place concrete or precast concrete walls, risers and SCMs, with all necessary steps, manhole rings and covers, access doors, underdrains, cleanouts, sand, gravel, filter fabric, skimmer and piping, copper tracer wire and other incidental hardware and materials.

Payment will be made under:

STORM WATER CONTROL MEASURE ALS
STORM WATER CONTROL MEASURE BLS
STORM WATER CONTROL MEASURE CLS
STORM WATER CONTROL MEASURE DLS

- 4) On page 00 75 00-73, *delete* **SP-35, HANDRAILS** in its entirety and *replace* with the following:



SP-35, HANDRAILS

1.0 DESCRIPTION

Work covered in this special provision consists of furnishing, installing, and painting metal handrails at locations shown on the plans and as designated by the Engineer, and providing and installing associated grounding systems for handrails.

2.0 MATERIALS AND METHODS

The handrail assembly shall comply with Detail for Handrail on Sheet 2C and meet Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements.

The handrails shall be iron, low carbon pipe or galvanized at 1-1/2" diameter. Installation of handrail requires rail to be bolted to the concrete or affixed per manufactures specifications. Provide three (3) coats of all-weather black enamel paint on handrails in the presence of the Engineer. The final coat shall be painted once all other work in the area is complete. **The final product must be free of defects, such as dings, scratches, and bends.**

Any field welding shall conform to manufacturer's requirements and recommendations.

3.0 MEASUREMENT

The quantity of Handrail to be paid for will be the actual number of linear feet of handrail, measured along the top bar of the rail, which has been installed and accepted.

4.0 PAYMENT

Handrail will be paid for at the contract unit price per linear foot for "Handrails". Such payment will be full compensation for all work covered by this special provision, including but not limited to fabricating, furnishing, delivering, and installing the handrail; furnishing paint and painting the handrail; and furnishing and installing grounding system.

Payment will be made under:

HANDRAILS.....LF

DRAWINGS

- 5) On the DRAWINGS, *replace* each drawing sheet indicated below with the *revised* drawing sheets and *add new* plan sheets included as part of this Addendum No. 5:

SHEET NO	DRAWING TITLE	
1	Cover Sheet	Revised
B-2A	I-85 North Bridge Aesthetic Plan and Elevation	Revised
SG-1	Signal Plan sheet	New
SG-2	Signal Plan sheet	New

*Drawings will be issued to the plan Holders by **Duncan-Parnell**.*

QUESTIONS & ANSWERS

1. I don't see any plans for work on the traffic signal items. Please advise.

Answer: *Traffic Signal Plans have been added to DRAWINGS with this addendum.*

2. SP-17 Lettering and Crown Logo – What material are those letters made of? Who is the recommended manufacturer? The number 704-336-2396 provided in special provisions for the additional information is disconnected.

Answer: *Cast Aluminum shall be the material of the letters. No specific manufacturer is recommended. The Contractor shall propose a specific manufacturer and submit shop drawings for review and approval. The correct phone number is 704-336-2395, and the plans and project manual have been updated to reflect that with this addendum.*

3. In what bid item is the temporary shoring for the storm control measures included?

Answer: *The cost for shoring associated with the storm control measures is included in that pay item. There will be no separate measurement or payment for it. SP-27 has been updated with this addendum.*

4. There doesn't seem to be any mention of access to the area between the Doby Creek and I-85. There is considerable borrow that is associated with the western abutment of the Doby Creek bridge as well as the Duke Access. There is also considerable materials need for the construction and backfill of the MSE wall abutment for the I-85 structure. A) Will the contractor be allowed to use the existing utility easement access and the bridge currently in place south of the proposed alignment? B) Will the contractor be allowed to do something at project crossing location? C) Are there any permits that outline what is allowable in and around the creek?

Answer: *How the Contractor accesses the area between Doby Creek and I-85 is up to them and their own means and methods. The Erosion Control plans show all area that is covered by the project Erosion Control permit. The Contractor would have to get their own Erosion Control permit for any access route outside of the limit of disturbance shown on the plans. The City cannot grant permission of use of the existing utility access easement or concrete bridge over Doby Creek. This existing concrete bridge is not owned or maintained by the City and the project did not acquire an easement from the property owner to access that bridge.*

5. SP-35, Handrails. The specification calls for "... three (3) coats of all-weather black enamel paint on handrails in the presence of the Engineer. The final coat shall be painted once all other work in the area is complete." Can the first two coats of paint be shop applied?

Answer: *This is the Contractor's option. The following statement has been added to SP-35 with this addendum: "The final product must be free of defects, such as dings, scratches, and bends."*

6. After a recent site visit, there is a very low data/telecom line at approximate 24+50. Plan page UBO-3 indicates it belongs to spectrum and century link. Will this line be relocated?

Answer: *Per the plans (UBO-3), there is an existing Duke Energy OH Power Line in this location that is to be removed and to be replaced with a Duke Energy & Spectrum & Century Link Joint OH Line. See SP-88.*

7. Are any specifications available for the geocells that are mentioned on plan page 2D?

Answer: The specifications for the geocells referenced on Sheet 2D can be found in SP-10 of the Project Manual.

8. Can you verify the profile elevations in the provided geotechnical report are correct? For example the bridge elevations on page 15 seems about 40' higher than the plans. The difference in elevation makes it hard to estimate the piling and drilled shafts lengths.?

Answer: Yes, the scale and elevations for the profile on page 15 are incorrect. A revised Profile Sheet 15 of 32 for the Geotechnical Report has been posted on the General Services website: [General Services Bids and Contracts \(charlottenc.gov\)](http://charlottenc.gov)

9. Will the existing temporary bridge which crosses Doby Creek stay in place for the duration of our scope of work? If so, will we be able to use it?

Answer: The City cannot grant permission of use of the existing concrete bridge over Doby Creek. This existing concrete bridge is not owned or maintained by the City and the project did not acquire an easement from the property owner to access that bridge. The Contractor would need to get their own permit for any access route that is not covered within the limits of the Erosion Control plans.

10. Are all of the areas that are in between the back of curb and sidewalk / multi-use path considered to be planting strips?

Answer: Yes, except where truck aprons are present (see plans).

11. For the existing duct bank which is located at approx. STA. 21+25 of Y1, is this structure traffic rated? Is there a specific type of fill that is required to backfill around this structure?

Answer: These recently constructed manholes for the Joint Duct Bank project have an AASHTO Live Load Rating of H-20 and are designed for use in vehicular and non-vehicular traffic areas. No special backfill is required around this structure, although the area should be backfilled by the Joint Duct Bank Contractor by the time construction of this project begins. These two manholes in question do not fall within the limits of the proposed roadway or truck apron as shown on sheet UBO-1.

12. I cannot confirm that HSS 24x0.688 exists. The Steel Tube Institute does not list anything over HSS 20 in their technical brochure and I cannot find it listed on the websites of any tube suppliers. Please advise.

Answer: HSS 24x0.688 is a 24" schedule 40 pipe.

13. Sheet B-73, concrete parapet with moment slab detail, the height of the concrete parapet is indicated to be 3'-4" what is identical to the height of parapet on the bridge. However, if there is going to be a sidewalk along the moment slab section that is almost 11" thick, then the overall parapet height should be 4" - 2 .5". Could you verify this with an engineer?

Answer: Except for locations of arch pedestals or end posts, the distance from top of sidewalk to top of parapet (parapet reveal) is 3'-4" on the bridge, approach slabs, and moment slabs. The sidewalk on moment slab shall

be cast flush with top of moment slab. This will result in a varying thickness of concrete sidewalk in the areas where it is on top of the moment slab, but the parapet will remain 3'-4" in these locations.

14. The according to NOTE: B and C/S-2" Splices are to develop full axial, shear, and moment capacities of the section". As directed by Addendum #3 "The number and locations of splices are deferred to the fabricator and erector". The aesthetic steel arches have been partially designed by the city; however the fabricator is ultimately responsible for the final engineering and design based on the splice requirements noted above. Multiple fabricators have express concerns and cost effective limitations with incorporating a partial design and ultimately taking responsibly for the final shared engineering and design. These concerns and limitations have lead these AISC fabricators to not bid this project. Can the fabricator fully design and engineer the arches themselves meeting the aesthetic and finish requirements only and provide for a more cost effective design solution?

Answer: *The aesthetic steel arches have been fully designed and detailed. The omission of prescribed splice locations is intended to provide the contractor flexibility with fabrication and erection. The extent of additional design required for the arch is subject to the means and methods of the contractor and need only apply to determined splice locations, such that splices meet or exceed the section properties of the design and detailed arch members.*

15. The inside width of the Stormwater Control Measure C is specified as 16' per the table on Sheet 2E. The width appears to be less as illustrated on Sheet 5. Please clarify.

Answer: *The 16' width listed in the table on Sheet 2E is correct.*

16. This question is regarding bid item 48. The total quantity is 261 cy, including the concrete for the sidewalk on both bridges – over I-85 and over Doby Creek. However, only the concrete on the cored slabs for Doby Creek should be paid for in this bid item. The quantity on the I-85 bridge is incidental to the reinforced deck area according to the NCDOT specs. It means, in my opinion, the total quantity of this bid items should be 129.6 cy

Answer: *The quantity of Class AA concrete (bid item 48) is only incidental to the reinforced deck area when required by the plans. Our plans do not make this note. Therefore, the quantity of 261 CY is correct as previously shown.*

17. Would the owner allow a solid threaded bar similar to a DSI or Williams Form to replace the .6" strands that are currently specified to post tension the Doby creek bridge?

Answer: *No. Traverse post tensioning of the cored slab units shall be done in accordance with the standard specifications.*

18. Are any waiting/surcharge periods required at the bridge headers?

Answer: *Waiting/surcharge periods are not required at the bridge headers.*

19. Are cans required to be installed around any H piles in order to eliminate down drag?

Answer: *Pile cans are not required to be installed around the H-piles in order to eliminate down drag.*

20. Please clarify which pay item is to pay for the 4" thick concrete barrier separating the vehicular traffic from the bicycle traffic on both bridges.

Answer: *This is paid for with pay item 115 (4" Monolithic Concrete Barrier) as defined in SP-33.*

21. During the design phase did the city reach out to fabricators interested in quoting the Aesthetic Arches? If so, can the city provide those fabricators contact information.

Answer: *We cannot provide a list of suppliers.*

22. Item 84, Milling Asphalt Pavement, quantity seems significantly inflated (nearly double what is shown on the plans). Is this item reserved to be used anywhere else on the project? Please clarify.

Answer: *Beyond milling that is shown on the Roadway Plans, this quantity also accounts for the milling of the southbound shoulder of I-85, as noted in Phase 2 Step 1 under Area 1 (I-85) of the Construction Phasing notes on Sheet TCP-3.*

23. Where is item 89, Asphalt Plant Mix, Pavement Repair, intended to be used on this project? The few pipe runs that cross existing pavement that is not to be widened or reconstructed only equals a fraction of this quantity. Please clarify.

Answer: *This quantity accounts for pavement repair for the construction of proposed water lines and proposed storm drains, as well as the removal of existing water lines or storm drains that are called out for removal.*

END OF ADDENDUM NO. 5