



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

March 18, 2021

U.S. Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Loretta Beckwith, NCDOT Regulatory Coordinator

Subject: **Amended Request for Modification to the Section 404 Individual Permit** for the permitted I-4700A&B sections of the proposed I-26 Widening project in Buncombe County; Division 13; WBS No. 34232.1.6

Reference: USACE Individual Permit Action ID: SAW-2013-01833, dated June 21, 2019
USACE Individual Permit Modification Request, dated March 20, 2021,
NCDWR Project No. 20181645 (Mod. 2), 401 WQC, dated June 19, 2019

Dear Ms. Beckwith:

The purpose of this letter is to request a modification to the United States Corps of Engineers (USACE) Section 404 Individual Permit, and the North Carolina Division of Water Resources (NCDWR) Water Quality Certification, for the above-referenced project.

This Request for Modification replaces the previous March 10, 2021 Request for Modification as it has since been revised and provides additional information to address agency concerns.

The proposed modification changes the type of catchment device for the I-26 Bridge over the French Broad River from a "rigid, non-drooping" catchment system to a "netting containment system".

During the analysis of potential catchment/containment systems for the French Broad River, several aspects of the rigid non-drooping system that pose a hazard to river users were discovered. The initial construction of a rigid system with plywood and structural lumber over the river has the high potential for materials to be accidentally dropped onto river users. Demolition of a rigid system poses similar issues, especially after the bridge deck is complete and access is limited.

Another aspect of the rigid system is the likelihood that objects or materials dropped onto a rigid system would bounce and potentially exit the containment on either side of the platform thereby falling into the river below. The proposed netting containment system poses no debris loss potential during installation or removal. The system is continuous and attached by cables, then tensioned in position. In addition, since there is some flexibility of the net, any materials dropped will be cushioned and retained by the catchment.

In addition to being safer to install and remove from the bridge structure, the system has been tested to capture a 350-pound weight dropped from a distance of 50 feet (17,500 ft-lbs). This capacity exceeds any items that will be used during bridge deck construction over the French Broad River. The net debris catchment system also has a 3/16-inch fine mesh liner reinforced with 4-inch corded rope that will prevent any small debris from falling on river users. The mesh size will capture all potential construction items and tools that will be used on the project, including hammers, drills, deck pans, reinforcing steel bars, and screws/nails. Nets are treated with Envirocoat for resistance to ultra-violet light and abrasion.

The netting containment system meets the requirements of ANSI A10.11, ASTM F2375, and OSHA 1926.105d, 1926.502. The system has been sealed by an engineer and based on their data, NCDOT has concluded that the net debris containment system will protect river users from falling debris and meets or exceeds the protection that would have been provided by a rigid platform system.

The netting containment system will be inspected immediately after installation by a competent person, and at least once a week thereafter. At a minimum, inspections will also occur after any impacted load, repairs, or alterations to the system. Inspection procedures and frequency/schedule are contained within the document entitled *Horizontal Perimeter Netting Installation Guide (Guide)*, pages 19-20 (pdf pages 20-21). Along with the Design drawings, this *Guide* is included within Attachment 1, entitled *I-4400 I-4700 Attachment 1 - Bridge Safety Netting*, which was provided by Division 13.

The netting containment system will not trap any bats or birds. As depicted on the Design drawings (pdf pages 2 and 3 of Attachment 1), the catchment system is attached by cables that run the length of the overhang on both sides of the bridge. Therefore, no gaps will be present on the edges of the system. However, the catchment system will be open to the construction area between the girders above the netting and the pier caps on each side of the span over the river. Any bats/birds entering the catchment system from the ends or from above will have the same means of egress.

As found referenced in the 404 Permit (Special Condition No. 3), NCDOT prepared a report encompassing the various aspects and impacts related to the proposed construction and demolition of the I-26 bridges over the French Broad River. This report, *I-26 Bridge Over the French Broad River, Proposed Construction and Demolition (revised March 2021)*, along with the *River Safety Plan for the Construction of the I-26 Bridge over the French Broad River (RSP) (revised March 2021)*, and the *I-26 Widening, STIP Project Nos. I-4400 & I-4700 Consolidated Project Commitments version March 17, 2021*, have been updated to include this new netting containment system language and are included as part of this modification request. Additionally, Attachment 1, *I-4700 Buncombe Co. NC Bridge Safety Netting* documents contain supporting information for the new netting containment system that was requested by the Corps. All updated documents can be accessed on the NCDOT permit application website: <https://xfer.services.ncdot.gov/pdea/PermApps/I-4400%20and%20I-4700%20Additional%20Elements/>

NCDOT requests that 404 Permit Special Condition No. 3 be revised to address the modification to the new netting containment system.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Bill Barrett at wabarrett@ncdot.gov or (919) 707-6103. A copy of this application and distribution list will also be posted on the NCDOT website at: <https://xfer.services.ncdot.gov/pdea/PermApps/>.

Sincerely,

A handwritten signature in black ink that reads "Michael L. Harris". The signature is written in a cursive style with a long, sweeping underline.

for Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

cc:
NCDOT Permit Application Standard Distribution List.

This document has been
replaced by the
March 18, 2021 request.



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March 10, 2021

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Reference: USACE Individual Permit Action ID: SAW-2013-01833, dated June 21, 2019
NCDWR Project No. 20181645 (Mod. 2), 401 WQC, dated June 19, 2019

Dear Ms. Beckwith:

The purpose of this letter is to request a modification to the United States Corps of Engineers (USACE) Section 404 Individual Permit, and to provide a courtesy copy to the North Carolina Division of Water Resources (NCDWR), for the above-referenced project.

The proposed modification changes the type of catchment device for the I-26 Bridge over the French Broad River from a "rigid, non-drooping" catchment system to a debris containment system with netting.

This change accomplishes the same intent as the previous catchment system, with the additional benefit of reduced risk of dropping components (e.g., plywood and structural lumber) that may be used in the assembly and removal of a rigid, non-drooping catchment system, as well as the ability to re-use the catchment system.

As found referenced in the 404 Permit (Special Condition No. 3), NCDOT prepared a report encompassing the various aspects and impacts related to the proposed construction and demolition of the I-26 bridges over the French Broad River. This report, *I-26 Bridge Over the French Broad River, Proposed Construction and Demolition (revised March 2021)*, as well as the *River Safety Plan for the Construction of the I-26 Bridge over the French Broad River (RSP) (revised March 2021)*, have been updated to include this new catchment system and are included as part of this modification request. A *Net Example System* document has also been included. Additionally, the *I-26 Widening, STIP Project Nos. I-4400 & I-4700 Project Commitments* (Version 6, March 5, 2021) has been updated to include this modification to the catchment system. All updated documents can be accessed on the NCDOT permit application website:

<https://xfer.services.ncdot.gov/pdea/PermApps/I-4400%20and%20I-4700%20Additional%20Elements/>

Mailing Address:
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Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

NCDOT requests that 404 Permit Special Condition No. 3 be revised to address the modification to the catchment system.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Bill Barrett at wabarrett@ncdot.gov or (919) 707-6103. A copy of this application and distribution list will also be posted on the NCDOT website at: <https://xfer.services.ncdot.gov/pdea/PermApps/>.

Sincerely,



 Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

cc:
NCDOT Permit Application Standard Distribution List