



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

November 10, 2022

Regulatory Division

Action ID: SAW-2013-01833 (STIP Nos. I-4400/I-4700)

Mr. Michael Turchy
Environmental Coordination and Permitting Group Manager
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Turchy:

I refer to your permit modification request of October 18, 2022, to modify impacts to waters of the U.S. at two previously permitted sites (Sites 30 and 31) in the I-4700 portion of the I-4400/I-4700 project.

As background, STIP I-4400 and STIP I-4700 are considered to be one project for permitting purposes. STIP I-4400 is 13.6 miles in length and begins at US 25 (Exit 54) near Hendersonville and extends along I-26 west to NC 280 (Exit 40). STIP I-4700 is 8.6 miles in length and extends along I-26 from NC 280 west to the I-40/I-240 interchange. The entire project corridor is 22.2 miles in length and is located on I-26 in Henderson and Buncombe Counties, North Carolina.

The U.S. Army Corps of Engineers (USACE) issued a Department of the Army Individual Permit (IP) which authorized impacts to waters of the U.S. for Phase 1 of the project (Sections I-4700 A & B) to the North Carolina Department of Transportation (NCDOT) on June 21, 2019. On September 16, 2019, the USACE issued a modification to the IP for this project to authorize impacts to waters of the U.S. for Phase 2 of the project (Sections I-4400 BB and I-4400 C). On March 25, 2021, the USACE issued a modification to change the type of catchment device used for the work over the French Broad River.

As noted in the current modification request, Site 30 is located within the bifurcated section of I-26. An existing 66" CMP conveys stream SDX from the bifurcated section under westbound I-26 to its outfall at Site 31, east of the interstate. Your

modification request concerns changes to previously authorized impacts to waters of the U.S. as follows:

Site 30 – The existing 66” RCP would be replaced with a 9’x7’ RCBC and bank stabilization would be placed at this end of the culvert. This change would result in an additional 8 lf of permanent impact/loss (culvert) and 25 lf of permanent impact (bank stabilization) at Site 30. This change would also result in a reduction of previously authorized temporary impacts.

Site 31 –The new RCBC would be replaced, as described above, and there would be a new channel change (with embedded rip rap) at this end of the culvert. This change would result in a reduction of 30 lf of previously authorized permanent impact/loss (culvert) but would require 20 lf of new impact/loss from the channel change. The overall temporary impact amount would not change.

No additionally compensatory mitigation would be required because these changes would result in a reduction of 2 lf of permanent impact/loss of waters.

The permit modification request was reviewed by the U.S. Fish and Wildlife Service, the N.C. Division of Water Resources (NCDWR), and the N.C. Wildlife Resources Commission. No objections were raised. NCDWR issued a Modified 401 Water Quality Certification on November 3, 2022 (enclosed).

The USACE has also reviewed NCDOT’s modification request and has no objections. As such, special condition number 2 of the I-4400/I-4700 permit has been revised to reflect the modified plan sheets (enclosed).

If you have any questions, please contact Lori Beckwith, Regulatory Project Manager, Asheville Regulatory Field Office, at loretta.a.beckwith@usace.army.mil or at 828-271-7980, ext. 4223.

Sincerely,

Monte Matthews
WRDA Branch Chief
Wilmington District

Enclosures

Copies furnished by email with enclosures:

USFWS, Holland Youngman
USEPA, Amanetta Sommerville
NCDWR, Kevin Mitchell
NCWRC, Dave McHenry
NCDOT, Bill Barrett
NCDOT, Roger Bryan
NCDOT, Luke Middleton
NCDOT, Michael Patton
NCDOT, Kevin Barnett

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

WORK LIMITS/NOTIFICATION

1) The entire 22.2 mile project is identified as STIP I-4400/I-4700. This permit only authorizes work on Sections I-4700 A, I-4700 B, I-4400 C, and I-4400 BB of STIP I-4400/I-4700; also known as “Phase 1” and “Phase 2” for permitting purposes. Construction on the remaining sections (i.e., I-4400 BA, and I-4400 A) of the I-4400/I-4700 project shall not commence until: (a) final design for those sections/phases has been completed and submitted to the U.S. Army Corps of Engineers (Corps); (b) the Permittee has minimized impacts to waters and wetlands to the maximum extent practicable for those sections/phases and the Corps concurs with this assessment through standard Merger 4B and 4C meetings; (c) any modification(s) to the plans for those sections/phases have been approved by the Corps in writing; and (d) a final compensatory mitigation plan for those sections/phases has been submitted by the Permittee and approved by the Corps.

2) All work authorized by this permit shall be performed in strict compliance with the attached permit plans titled:

- “Wetland and Surface Water Impacts Permit, I-4700”, permit drawing sheets 1-97 (Phase 1), as revised by permit drawing sheets 2, 2A, 59, 60-62 of 97, revised on October 13, 2022, and sheet 63 of 97, revised on October 26, 2022.
- “Wetland and Surface Water Impacts Permit, I-4400 C”, sheets 1-43 (Phase 2)
- “Wetland and Surface Water Impacts Permit, I-4400 BB,” permit drawing sheets 1-83, dated August 6, 2019 (Phase 2).

The plans referenced above are now part of this permit. The Permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the US Army Corps of Engineers prior to any active construction in waters or wetlands.

3) The permittee shall ensure that the project is implemented in strict accordance with all commitments in the attached document titled, “I-26 Widening, STIP Project Nos. I-4400 & I-4700 Project Commitments”, dated ~~June 19, 2019~~ March 17, 2021 (Version 5.6). This document is 38 pages long and was created to

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

compile project commitments that NCDOT has agreed to in a number of other documents, to include commitments from the following:

- Combined Final Environmental Impact Statement (EIS), Final Section 4(f) Evaluation, and Record of Decision (ROD) (March 2019)
- Biological Assessment (September 2018)
- Biological Opinion (BO) (February 2019)
- I-26 Bridge Over the French Broad River Construction and Demolition (~~November 2018~~ March 17, 2021)
- River Safety Plan (~~September 2018~~ March 17, 2021)
- Strategic Communication Plan for the Construction of the I-26 Bridge over the French Broad River (September 2018)
- Section 106 Memorandum of Agreement (July 2018)

4) Unauthorized Dredge or Fill: Except as authorized by this permit or any U.S. Army Corps of Engineers approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and waste activities connected with this project.

5) Maintain Flows and Circulation Patterns of Waters: Except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters and/or wetlands.

6) Permit Distribution: The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, drawings and attachments shall be available at the project site during the construction and maintenance of this project.

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

7) Pre-Construction Meeting: The Permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the U.S. Army Corps of Engineers, Asheville Regulatory

Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The Permittee shall provide the Corps, Asheville Regulatory Field Office, NCDOT Project Manager, with a copy of the final permit plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The Permittee shall schedule the preconstruction meeting for a time frame when the Corps and NCDWR Project Managers can attend. The Permittee shall invite the Corps and NCDWR Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting. The thirty (30) day requirement can be waived with the concurrence of the Corps.

8) Notification of Construction Commencement and Completion: The Permittee shall notify the U.S. Army Corps of Engineers in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

9) Reporting Address: All reports, documentation, and correspondence required by the conditions of this permit shall be submitted to the following: U.S. Army Corps of Engineers, Wilmington District Asheville Regulatory Field Office, Attn: Lori Beckwith, 151 Patton Ave., Room 208, Asheville, NC 28801-5006, or loretta.a.beckwith@usace.army.mil . The Permittee shall reference the following permit number, SAW-2013-01883, on all submittals.

10) Reporting Violations: Violation of these permit conditions or violation of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act shall be reported to the Corps in writing and by telephone at: 828-271-7980, ext. 4223, within 24 hours of the Permittee's discovery of the violation.

11) Permit Revocation: The Permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

RELATED LAWS

12) Clean Fill: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, construction debris, metal and plastic products, and concrete block with exposed reinforcement bars. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source.

13) Water Contamination: All mechanized equipment shall be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the Permittee shall immediately report it to the N.C. Division of Water Resources at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act shall be followed.

14) Federally Listed Species/Biological Opinion: This Department of the Army permit does not authorize you to take a federally listed species, in particular the Appalachian elktoe (*Alasmidonta raveneliana*) or the gray bat (*Myotis grisescens*). In order to legally take a federally listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The U.S. Fish and Wildlife Service issued a BO for this project titled, "I-26 Widening from US 25 Near Hendersonville to I-40/I-240 South of Asheville, Henderson and Buncombe Counties, North Carolina", on February 22, 2019. This BO contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO; the terms and conditions of the BO are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of this BO, where a take of the federally listed species occurs, would

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

constitute an unauthorized take, and it would also constitute non-compliance with your permit. The U.S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

15) Endangered Species Act: The Permittee shall implement all necessary measures to ensure the authorized activity does not kill, injure, capture, harass, or otherwise harm any federally listed threatened or endangered species. While accomplishing the authorized work, if the Permittee discovers or observes an injured or dead threatened or endangered species, the U.S. Army Corps of Engineers, Wilmington District, Asheville Regulatory Field Office, Attn: Lori Beckwith at 828-271-7980, ext. 4223, or loretta.a.beckwith@usace.army.mil will be immediately notified.

16) NCDOT shall abide by all stipulations identified in the attached Memorandum of Agreement titled, "MEMORANDUM OF AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, the NATIONAL PARK SERVICE, the NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, and the NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE PURSUANT TO 36 CFR 800.6 regarding the REPLACEMENT OF BRIDGE 205 CARRYING THE BLUE RIDGE PARKWAY OVER INTERSTATE 26 BUNCOMBE COUNTY, NORTH CAROLINA NCDOT TIP ID I-4700b", dated May 30, 2018 (last signature). This MOA is incorporated herein by reference.

AQUATIC LIFE/CULVERTS

17) Prohibitions on Concrete: The Permittee shall take measures necessary to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with any water in or entering into waters of the United States. Water inside coffer dams or casings that has been in contact with concrete shall only be returned to waters of the United States when it no longer poses a threat to aquatic organisms (concrete is set and cured).

18) Unless otherwise requested in the application and depicted on the approved permit plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert shall be placed at a depth below the natural stream bottom to provide for passage during drought or low flow

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

conditions. Culverts shall be designed and constructed in a manner that minimizes destabilization and head cutting.

19) Measures shall be included in the construction/installation of culverts that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

20) Aquatic Life Movement: Unless otherwise requested in the application and depicted on the approved permit plans, no activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. All discharges of dredged or fill material within waters of the United States shall be designed and constructed to maintain low flows to sustain the movement of aquatic species.

21) The Permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or stream bank erosion. The Permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the U.S. Army Corps of Engineers.

22) Culverts placed within wetlands must be installed in a manner that does not restrict the flows and circulation patterns of waters of the United States. Culverts placed across wetland fills purely for the purposes of equalizing surface water shall not be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

SEDIMENT AND EROSION CONTROL

23) As noted on pages 34-38 of the attached document titled, "I-26 Widening, STIP Project Nos. I-4400 & I-4700 Project Commitments", ~~June 19, 2019~~ March 17, 2021 (Version ~~5~~ 6), the permittee shall ensure that (1) the site specific sediment and erosion control measures, and (2) sediment and control measures for all other portions of the 22.2 mile corridor, are strictly implemented and maintained. This document is 38 pages long and was created to compile project commitments that NCDOT has agreed to in a number of other documents, to include commitments from the following:

- Combined Final Environmental Impact Statement (EIS), Final Section 4(f) Evaluation, and Record of Decision (ROD) (March 2019)
- Biological Assessment (September 2018)
- Biological Opinion (BO) (February 2019)
- I-26 Bridge Over the French Broad River Construction and Demolition (~~November 2018~~ March 17, 2021)
- River Safety Plan (~~September 2018~~ March 17, 2021)
- Strategic Communication Plan for the Construction of the I-26 Bridge over the French Broad River (September 2018)
- Section 106 Memorandum of Agreement (July 2018)

24) During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

25) No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit. This includes, but is not limited to, sediment control fences and other barriers intended to catch sediment losses.

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

26) The Permittee shall remove all sediment and erosion control measures placed in waters and/or wetlands, and shall restore natural grades on those areas, prior to project completion.

BORROW AND WASTE

27) To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent waters and wetlands, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used as a borrow and/or waste site(s) associated with this project and provide this information to the U.S. Army Corps of Engineers, along with the following:

- a) Borrow Sites: When any portion of an aquatic resource(s) (i.e., a stream, river, wetland, pond, seep, and/or spring) is located within the boundaries of the proposed borrow site(s), or within a distance of 400 feet from the nearest boundary of the proposed borrow site(s), the Permittee shall provide the U.S. Army Corps of Engineers with appropriate maps indicating: the locations of the proposed borrow site(s); boundaries of the proposed borrow site(s), and; delineation(s) of all aquatic resources (as described above) within the site, and out to 400 feet from the boundary of the site, as soon as such information is available.

- b) Waste Sites: When any portion of an aquatic resource(s) (i.e., a stream, river, wetland, pond, seep, and/or spring) is located within the boundaries of the proposed waste site(s), the Permittee shall provide the U.S. Army Corps of Engineers with appropriate maps indicating: the locations of the proposed waste site(s); boundaries of the proposed waste site(s), and; delineation(s) of all aquatic resources (as described above) within the site, as soon as such information is available.

For those areas proposed as waste sites that have any aquatic resources within the boundaries, or borrow sites that have any aquatic resources within the boundary or out to 400 feet beyond the boundaries, the Permittee shall not approve those borrow and/or waste sites until the U.S. Army Corps of Engineers issues written confirmation that an area does or does not contain potentially jurisdictional resources. All delineations of aquatic sites on borrow and/or waste sites shall be verified by the U.S. Army Corps of Engineers and shown on the

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

approved reclamation plans. The Permittee shall ensure that all borrow and/or waste sites comply with Special Condition #4 of this permit. Additionally, the Permittee shall produce and maintain documentation of all borrow and waste sites associated with this project. When aquatic resources are located within

these designated areas, this documentation will include data regarding soils, vegetation, hydrology, delineation(s) of aquatic sites, and any jurisdictional determinations made by the Corps to clearly demonstrate compliance with Special Condition #4. All information will be available to the U.S. Army Corps of Engineers upon request. The Permittee shall require its contractors to complete and execute reclamation plans for each borrow and/or waste site and provide written documentation that the reclamation plans have been implemented and all work is completed to the Permittee. For areas with aquatic resources that the Corps has determined are potentially jurisdictional (or jurisdictional), this documentation will be provided to the U.S. Army Corps of Engineers within 30 days of the completion of the reclamation work. The permittee shall ensure that (1) waste material placed in a project-related waste site(s) does not migrate into an aquatic resource, even if that resource is located outside the boundaries of the waste site, and (2) that any project-related activities in borrow sites does not adversely impact any off-site waters, to include dewatering (due to project-related excavation/borrow activities in the borrow site) of those off-site waters.

NAVIGATION/SECTION 10 WATERS (FRENCH BROAD RIVER)

28) This permit does not authorize the interference with any proposed Federal project, and the Permittee will not be entitled to compensation for damage or injury to the authorized structure or work which may be caused from future operations undertaken by the United States in the public interest. Except as authorized by this permit, or any approved modification to this permit, no attempt will be made by the Permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work. Except as authorized by this permit, or any approved modification to this permit, the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

29) The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be

SPECIAL CONDITIONS
Revised ~~March 25, 2021~~ November 10, 2022
ACTION ID. SAW-2013-01883
NC DEPARTMENT OF TRANSPORTATION
I-26 WIDENING, HENDERSON AND BUNCOMBE COUNTIES
STIP NO. 1-4400/I-4700

required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal, relocation, or alteration.

30) The Permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former conditions. If the Permittee fails to comply with this direction, the Secretary or his representative may restore the waterway, by contract or otherwise, and recover the cost from the Permittee.

COMPENSATORY MITIGATION

31) In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

32) The permittee shall ensure that the Division Environmental Officer (DEO), or a representative delegated by the DEO, observes all in-water work (i.e., work at or below the ordinary high water mark) on Allen Branch at Sites 5 and 7 on the I-4400 BB Section of this project.



NORTH CAROLINA
Environmental Quality

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

November 3, 2022

Mr. Michael Turchy
Environmental Coordination and Permitting Group Leader
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed improvements to I-26 from NC 225 (US 25 Connector) in Henderson County to I-40 in Buncombe County, Federal Aid Project Nos. NHF-26-1(62)23 / I(MNHF)-026-1(86)9, TIP I-4400/4700.
NCDWR Project No. 20181645 v3

Dear Mr. Turchy:

Attached hereto is a modification of Certification No. 004185 issued to The North Carolina Department of Transportation (NCDOT) dated June 19, 2019, and subsequently modified on September 4, 2019, and November 3, 2022. This Certification replaces the Certification issued on October 31, 2022.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

DocuSigned by:

Amy Chapman

Richard E. Rogers, Jr., Director
Division of Water Resources

Attachments

Electronic copy only distribution:

Lori Beckwith, US Army Corps of Engineers, Asheville Field Office
Roger Bryan, Division 13 Environmental Officer
Bill Barret, NC Department of Transportation
Carla Dagnino, NC Department of Transportation
Amanetta Somerville, US Environmental Protection Agency
Holland Youngman, US Fish and Wildlife Service
Dave McHenry, NC Wildlife Resources Commission
File Copy



**Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act
with ADDITIONAL CONDITIONS**

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact an additional 23 linear feet of jurisdictional streams in Buncombe County. The project shall be constructed pursuant to the modification dated received October 18, 2022. The authorized impacts are as described below:

Stream Impacts in the French Broad River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear feet)	Stream Impacts Requiring Mitigation (linear ft)
Original approved impacts at Site 30 and 31	0	0	135	80	215	0
New additional impacts with this approval at Site 30 and 31	0	0	23	-20	3	0
TOTAL:	0	0	158	60	218	0

Total Stream Impact for (Site/Modification): 23 linear feet of permanent and -20 linear feet of temporary.

The application provides adequate assurance that the discharge of fill material into the waters of the French Broad River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your modified application dated received October 18, 2022. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated June 19, 2019 and September 4, 2019 still apply except where superseded by this certification. Should your project change, you are required to notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed 0.1 acre or 300 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (c) (2) and (4). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state, or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge, and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Certification:

1. This modification is applicable only to the additional proposed activities. All of the authorized activities and conditions of certification associated with the original Water Quality Certification dated June 19, 2019 and subsequent modification dated September 4, 2019 still apply except where superseded by this certification.



Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the Office of Administrative Hearings. You must file the petition with the Office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the Office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Bill F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This the 3rd day of November 2022

DIVISION OF WATER RESOURCES

DocuSigned by:
Amy Chapman

9C9886312DCD474...
Richard E. Rogers, Jr., Director

WQC No. 004185



ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

NCDWR Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

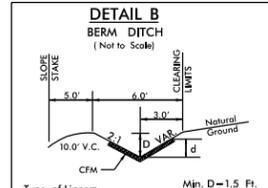


DRAINAGE DITCH DETAILS

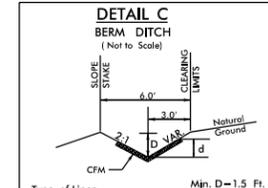
REVISED 10/13/2022

1-4700	2D-2
RW SHEET NO.	
HYDRAULICS ENGINEER	

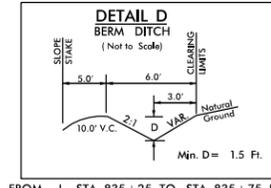
PERMIT DRAWING SHEET 2 OF 97



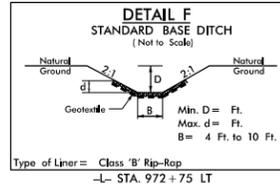
FROM -L STA. 832+50 TO STA. 835+25 RT
 FROM -L STA. 835+75 TO STA. 838+30 RT
 FROM -WBL STA. 889+14 TO STA. 891+50 RT
 FROM -WBL STA. 896+25 TO STA. 901+50 RT
 FROM -WBL STA. 924+00 TO STA. 931+25 RT
 FROM -WBL STA. 989+00 TO STA. 991+25 RT
 FROM -WBL STA. 994+35 TO STA. 994+95 RT
 FROM -WBL STA. 996+00 TO -Y15RPC- STA. 10+60 RT



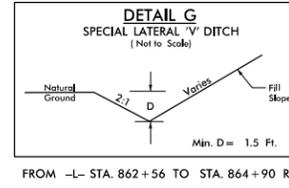
FROM -L STA. 1063+50 TO STA. 1066+75 RT



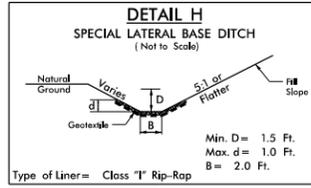
FROM -L STA. 835+25 TO STA. 835+75 RT
 FROM -WBL STA. 891+50 TO STA. 896+25 RT
 FROM -WBL STA. 905+05 TO STA. 911+00 RT
 FROM -WBL STA. 932+50 TO STA. 936+47 RT
 FROM -WBL STA. 991+25 TO STA. 994+35 RT
 FROM -WBL STA. 994+95 TO STA. 996+00 RT
 FROM -WBL STA. 918+00 TO STA. 921+50 RT
 FROM -WBL STA. 1108+25 TO STA. 1110+50 RT
 FROM -EBL STA. 1114+51 TO STA. 1119+00 LT
 FROM -L STA. 1217+75 TO STA. 1230+57.72 LT



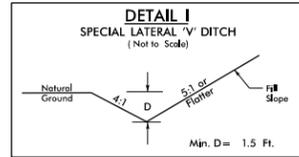
FROM -L STA. 972+75 LT



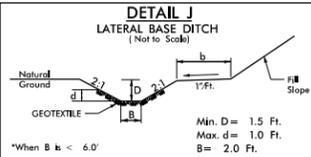
FROM -L STA. 862+56 TO STA. 864+90 RT



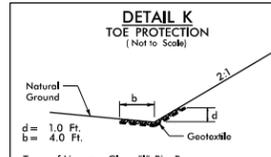
FROM -L STA. 873+50 TO STA. 874+25 RT
 FROM -Y15RPC- STA. 10+00 TO STA. 11+95 RT



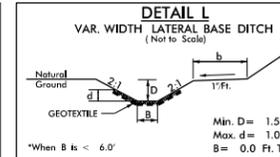
FROM -L STA. 874+75 TO STA. 875+25 RT



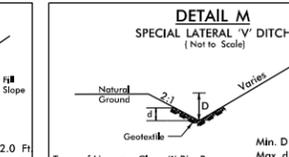
FROM -L STA. 874+75 TO STA. 876+75 LT



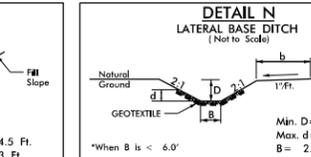
FROM -L STA. 881+50 TO STA. 883+70 RT
 FROM -WBL STA. 883+70 TO STA. 885+00 RT
 FROM -WBL STA. 885+00 TO STA. 886+00 RT



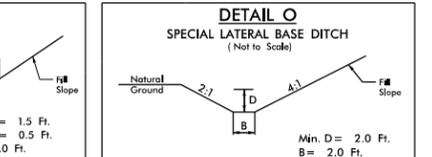
FROM -WBL STA. 942+75 TO STA. 943+75 RT



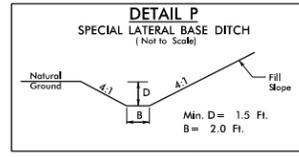
FROM -Y13RPB- STA. 11+25 TO STA. 19+20 LT



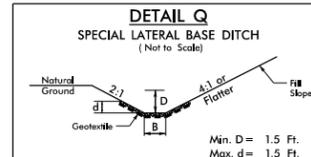
FROM -WBL STA. 887+50 TO STA. 889+25 RT



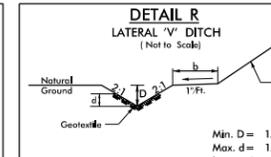
FROM -EBL STA. 884+00 TO STA. 885+00 LT



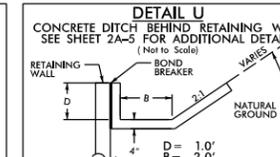
FROM -WBL STA. 902+00 TO STA. 905+25 RT



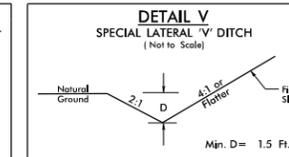
FROM -WBL STA. 901+25 TO STA. 902+00 RT



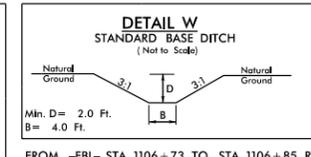
FROM -WBL STA. 951+50 TO STA. 953+75 RT



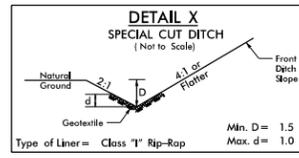
FROM -WBL STA. 918+25 TO STA. 923+75 RT
 FROM -WBL STA. 976+00 TO STA. 980+00 RT
 FROM -L STA. 1070+60 TO STA. 1078+00 LT
 FROM -L STA. 1069+00 TO STA. 1079+00 RT
 FROM -EBL STA. 1081+00 TO STA. 1084+50 LT
 FROM -EBL STA. 1086+00 TO STA. 1093+00 LT
 FROM -WBL STA. 1079+00 TO STA. 1081+00 RT
 FROM -WBL STA. 1093+89 TO STA. 1100+50 RT
 FROM -L STA. 1140+75 TO STA. 1146+58 LT
 FROM -L STA. 1148+06 TO STA. 1161+65 LT
 FROM -L STA. 1184+00 TO STA. 1194+92 LT



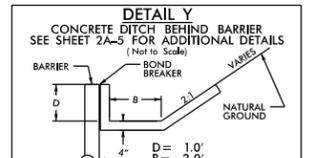
FROM -EBL STA. 912+11 TO STA. 914+10 LT
 FROM -WBL STA. 923+75 TO STA. 924+00 RT
 FROM -WBL STA. 924+00 TO STA. 924+25 RT



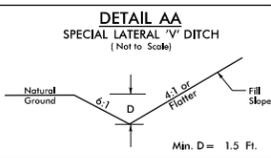
FROM -EBL STA. 1106+73 TO STA. 1106+85 RT



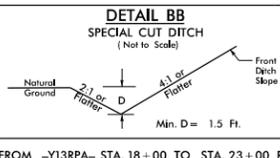
FROM -L STA. 937+00 TO STA. 937+40 RT



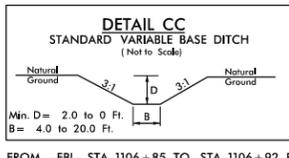
FROM -WBL STA. 943+75 TO STA. 950+00 RT
 FROM -WBL STA. 960+00 TO STA. 976+00 RT



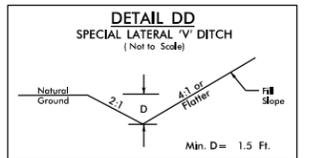
FROM -WBL STA. 937+40 TO STA. 938+50 RT



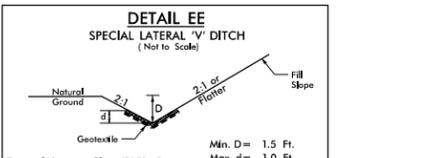
FROM -Y13RPA- STA. 18+00 TO STA. 23+00 RT
 FROM -WBL STA. 937+75 TO STA. 942+75 RT



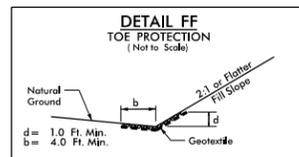
FROM -EBL STA. 1106+85 TO STA. 1106+92 RT



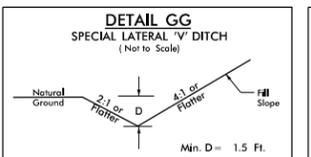
FROM -WBL STA. 950+00 TO STA. 951+50 RT



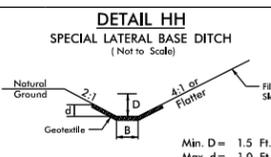
FROM -WBL STA. 1081+00 TO STA. 1081+50, RT



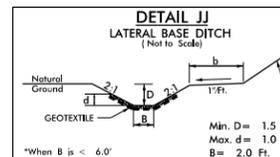
FROM -L STA. 862+69 TO STA. 866+30 LT
 FROM -L STA. 866+40 TO STA. 866+68 LT
 FROM -WBL STA. 956+00 TO STA. 959+50 RT



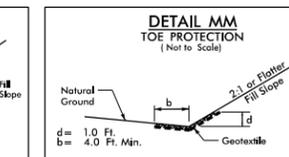
FROM -WBL STA. 924+25 TO STA. 924+75 RT
 FROM -WBL STA. 988+00 TO STA. 992+00 RT



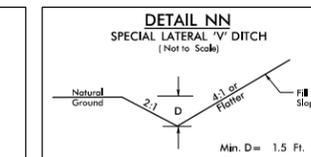
FROM -Y15RPC- STA. 10+00 TO STA. 11+95 RT



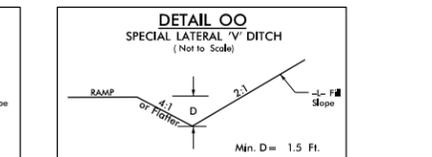
FROM -WBL STA. 983+75 TO STA. 986+00 RT
 FROM -L STA. 1046+75 TO STA. 1049+00 RT
 FROM -L STA. 1060+26 TO STA. 1063+50 RT



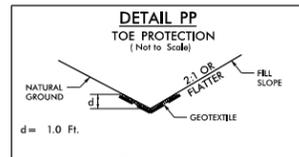
FROM -Y15RPC- STA. 11+95 TO STA. 15+85 RT
 FROM -L STA. 997+00 TO STA. 997+56 LT



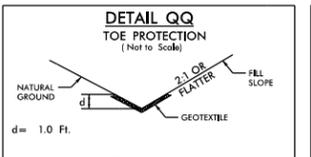
FROM -Y15RPB- STA. 1004+22 TO STA. 1005+65 LT



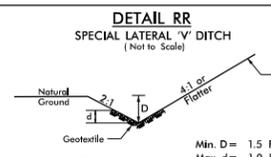
FROM -Y15RPB- STA. 15+45 TO STA. 17+00 RT
 FROM -Y15RPC- STA. 15+55 TO STA. 18+00 LT
 FROM -Y15RPD- STA. 14+15 TO STA. 17+38 RT
 FROM -Y15RPA- STA. 15+40 TO STA. 21+06 LT
 FROM -Y15RPD- STA. 17+38 TO STA. 17+47 RT



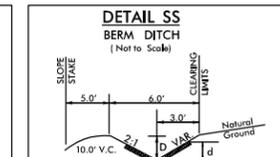
FROM -L STA. 1027+50 TO STA. 1031+50 RT



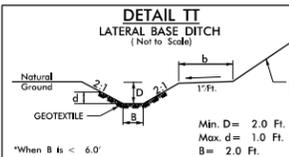
FROM -L STA. 1026+50 TO STA. 1027+50 RT



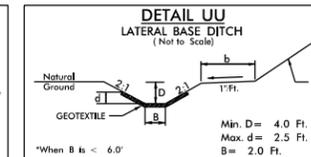
FROM STA. 1042+25 TO STA. 1043+50 RT



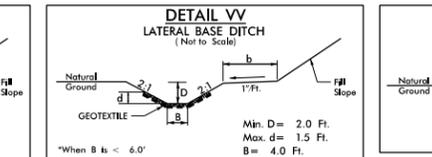
FROM -L STA. 1038+25 TO STA. 1042+25 RT
 FROM -L STA. 1043+10 TO STA. 1046+75 RT
 FROM -L STA. 1063+50 TO STA. 1066+75 RT
 FROM -EBL STA. 1106+65 TO STA. 1109+13.21 LT
 FROM -EBL STA. 1109+13.21 TO STA. 1114+50 LT
 FROM -EBL STA. 1119+01 TO STA. 1125+75 LT
 FROM -WBL STA. 1110+50 TO STA. 1114+25 RT



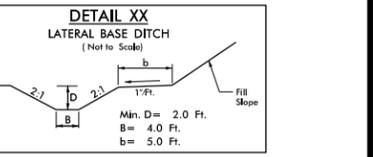
FROM -EBL STA. 885+00 TO STA. 886+55 LT



FROM -EBL STA. 886+55 TO STA. 888+50 LT



FROM -L STA. 1055+50 TO STA. 1058+50 LT



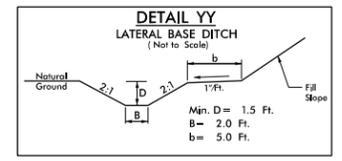
FROM -L STA. 1058+50 TO STA. 1061+50, LT

DRAINAGE DITCH DETAILS

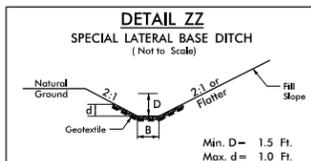
REVISED 10/13/2022

RW SHEET NO. HYDRAULICS ENGINEER

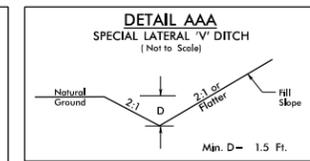
PERMIT DRAWING SHEET 2A OF 97



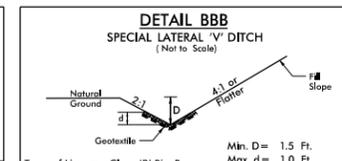
DETAIL YY
LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
B = 2.0 Ft.
b = 5.0 Ft.
FROM -WBL- STA. 911+00 TO STA. 913+75 RT.
FROM -WBL- STA. 914+40 TO STA. 918+25 RT.
FROM -L- STA. 1051+50 TO STA. 1060+25 RT.
FROM -WBL- STA. 1118+75 TO STA. 1120+00 LT.



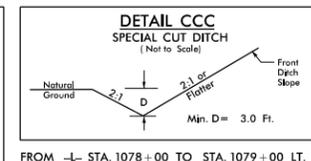
DETAIL ZZ
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1066+76 TO STA. 1067+75 RT.



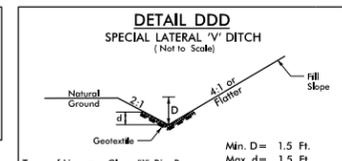
DETAIL AAA
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
FROM -L- STA. 1066+00 TO STA. 1066+75 RT.
FROM -WBL- STA. 1081+00 TO STA. 1081+50 RT.



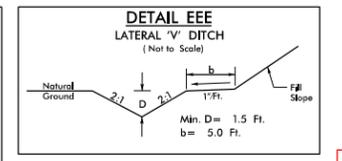
DETAIL BBB
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1067+75 TO STA. 1069+00 RT.



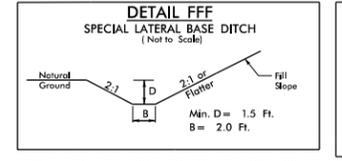
DETAIL CCC
SPECIAL CUT DITCH
(Not to Scale)
Min. D = 3.0 Ft.
FROM -L- STA. 1078+00 TO STA. 1079+00 LT.
FROM -EBL- STA. 1079+00 TO STA. 1080+75 LT.



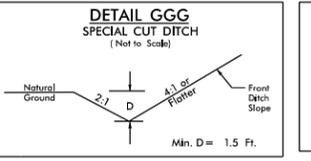
DETAIL DDD
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1183+00 TO STA. 1183+50 RT.



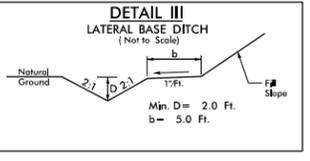
DETAIL EEE
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
b = 5.0 Ft.
FROM -WBL- STA. 1081+50 TO STA. 1082+50 RT.



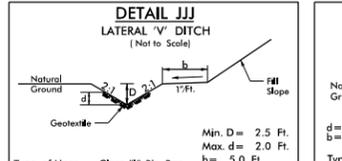
DETAIL FFF
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
B = 2.0 Ft.
FROM -EBL- STA. 1084+50 TO STA. 1086+00 LT.
FROM -WBL- STA. 1119+00 TO STA. 1120+50 LT.
FROM -L- STA. 832+00 TO STA. 834+93 LT.
FROM -L- STA. 1159+02 TO STA. 1161+00 LT.
FROM -L- STA. 1176+00 TO STA. 1184+00 LT.



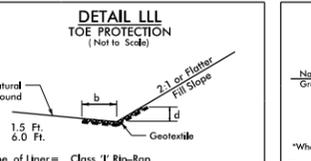
DETAIL GGG
SPECIAL CUT DITCH
(Not to Scale)
Min. D = 1.5 Ft.
FROM -WBL- STA. 1085+50 TO STA. 1088+50 LT.



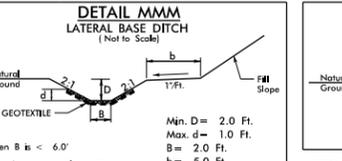
DETAIL III
LATERAL BASE DITCH
(Not to Scale)
Min. D = 2.0 Ft.
b = 5.0 Ft.
FROM STA. 1082+00 TO STA. 1085+00 RT.



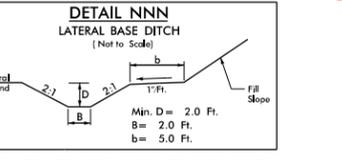
DETAIL JJJ
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 2.5 Ft.
Max. d = 2.0 Ft.
b = 5.0 Ft.
Type of Liner = Class 'I' Rip-Rap
FROM -WBL- STA. 1082+50 TO STA. 1085+30 RT.



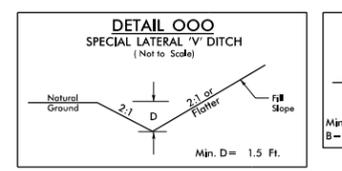
DETAIL LLL
TOE PROTECTION
(Not to Scale)
d = 1.5 Ft.
b = 6.0 Ft.
Type of Liner = Class 'I' Rip-Rap
FROM -EBL- STA. 1093+00 TO STA. 1096+25 LT.
FROM -WBL- STA. 1091+50 TO STA. 1093+89 RT.
FROM -WBL- STA. 1103+50 TO STA. 1104+30 RT.
FROM -WBL- STA. 1118+00 TO STA. 1121+00 RT.



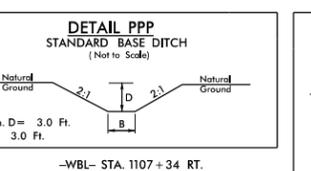
DETAIL MMM
LATERAL BASE DITCH
(Not to Scale)
Min. D = 2.0 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.
b = 5.0 Ft.
Type of Liner = Class 'I' Rip-Rap
FROM -EBL- STA. 1105+51 TO STA. 1106+65 LT.



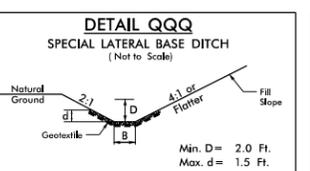
DETAIL NNN
LATERAL BASE DITCH
(Not to Scale)
Min. D = 2.0 Ft.
B = 2.0 Ft.
b = 5.0 Ft.
FROM -EBL- STA. 1103+80 TO STA. 1105+50 LT.
FROM -EBL- STA. 1127+50 TO STA. 1131+00 LT.



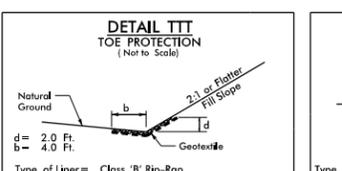
DETAIL OOO
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
FROM -WBL- STA. 1107+25 TO STA. 1108+25 RT.
FROM -WBL- STA. 1115+50 TO STA. 1116+00 RT.
FROM -EBL- STA. 1122+00 TO STA. 1124+50 LT.
FROM -WBL- STA. 1125+00 TO STA. 1127+50 LT.



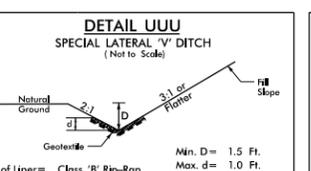
DETAIL PPP
STANDARD BASE DITCH
(Not to Scale)
Min. D = 3.0 Ft.
B = 3.0 Ft.
FROM -WBL- STA. 1107+34 RT.



DETAIL QQQ
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D = 2.0 Ft.
Max. d = 1.5 Ft.
B = 4.0 Ft.
Type of Liner = Class 'I' Rip-Rap
FROM -WBL- STA. 1114+00 TO STA. 1115+50 RT.

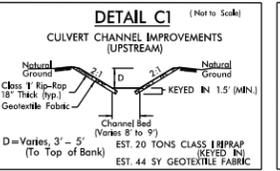


DETAIL TTT
TOE PROTECTION
(Not to Scale)
d = 2.0 Ft.
b = 6.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -EBL- STA. 1131+01 TO STA. 1132+40 LT.
FROM -L- STA. 1133+00 TO STA. 1140+00 LT.
FROM -L- STA. 1146+58 TO STA. 1148+06 LT.

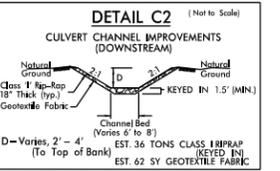


DETAIL UUU
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -EBL- STA. 1124+50 TO STA. 1125+00 RT.

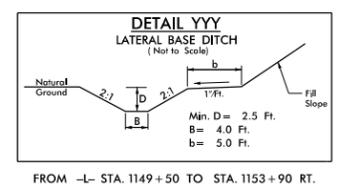
BANK STABILIZATION



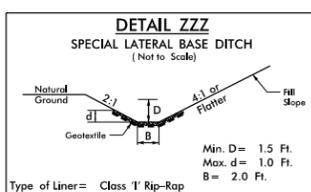
DETAIL C1
CULVERT CHANNEL IMPROVEMENTS
(UPSTREAM)
(Not to Scale)
Class 'I' Rip-Rap
18" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
KEYED IN 1.5' (MIN.)
EST. 20 TONS CLASS I RIPRAP
(KEYED IN)
EST. 44 SY GEOTEXTILE FABRIC



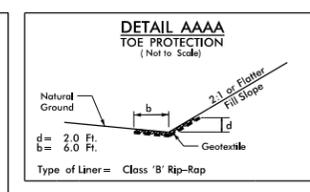
DETAIL C2
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM)
(Not to Scale)
Class 'I' Rip-Rap
18" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
KEYED IN 1.5' (MIN.)
EST. 36 TONS CLASS I RIPRAP
(KEYED IN)
EST. 62 SY GEOTEXTILE FABRIC



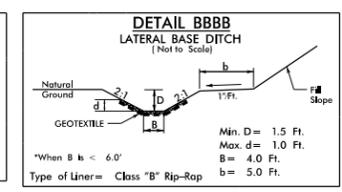
DETAIL YYY
LATERAL BASE DITCH
(Not to Scale)
Min. D = 2.5 Ft.
B = 4.0 Ft.
b = 5.0 Ft.
FROM -L- STA. 1149+50 TO STA. 1153+90 RT.



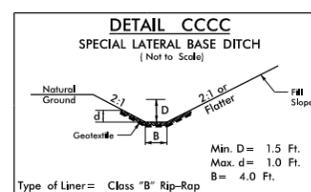
DETAIL ZZZ
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.
Type of Liner = Class 'I' Rip-Rap
FROM -L- STA. 1175+00 TO STA. 1176+00 LT.



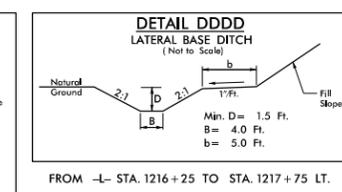
DETAIL AAAA
TOE PROTECTION
(Not to Scale)
d = 2.0 Ft.
b = 6.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1198+00 TO STA. 1205+25 LT.
FROM -L- STA. 1213+50 TO STA. 1216+15 LT.



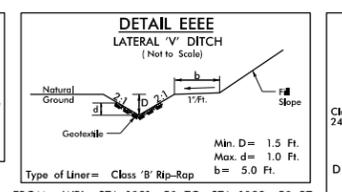
DETAIL BBBB
LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
B = 4.0 Ft.
b = 5.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1205+30 TO STA. 1207+00 LT.



DETAIL CCCC
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
B = 4.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -L- STA. 1207+00 TO STA. 1209+50 LT.

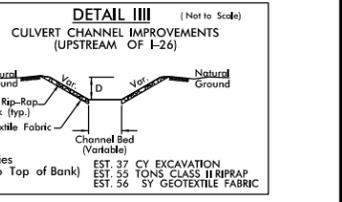


DETAIL DDDD
LATERAL BASE DITCH
(Not to Scale)
Min. D = 1.5 Ft.
B = 4.0 Ft.
b = 5.0 Ft.
FROM -L- STA. 1216+25 TO STA. 1217+75 LT.

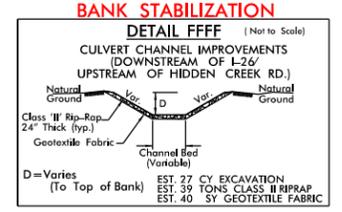


DETAIL EEEE
LATERAL 'V' DITCH
(Not to Scale)
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
b = 5.0 Ft.
Type of Liner = Class 'B' Rip-Rap
FROM -WBL- STA. 1081+50 TO STA. 1082+50 RT.

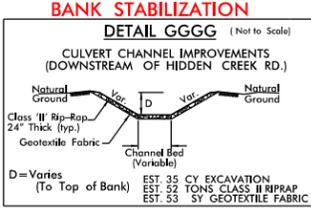
BANK STABILIZATION



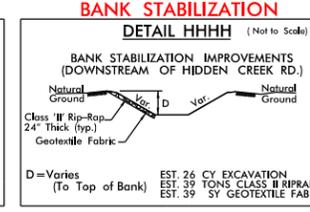
DETAIL IIII
CULVERT CHANNEL IMPROVEMENTS
(UPSTREAM OF I-26)
(Not to Scale)
Class 'I' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 37 CY EXCAVATION
EST. 35 TONS CLASS II RIPRAP
EST. 56 SY GEOTEXTILE FABRIC



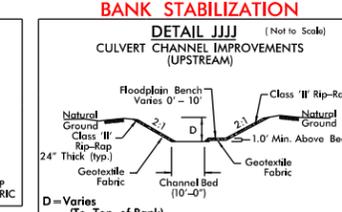
DETAIL FFFF
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM OF I-26)
(UPSTREAM OF HIDDEN CREEK RD.)
(Not to Scale)
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 27 CY EXCAVATION
EST. 39 TONS CLASS II RIPRAP
EST. 40 SY GEOTEXTILE FABRIC



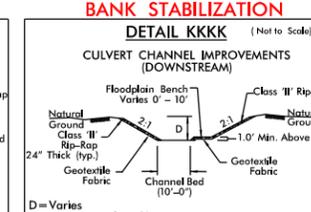
DETAIL GGGG
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM OF HIDDEN CREEK RD.)
(Not to Scale)
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 35 CY EXCAVATION
EST. 52 TONS CLASS II RIPRAP
EST. 53 SY GEOTEXTILE FABRIC



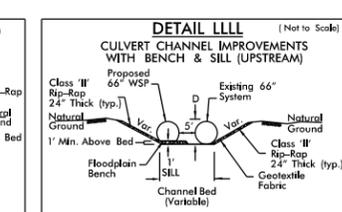
DETAIL HHHH
BANK STABILIZATION IMPROVEMENTS
(DOWNSTREAM OF HIDDEN CREEK RD.)
(Not to Scale)
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 26 CY EXCAVATION
EST. 39 TONS CLASS II RIPRAP
EST. 39 SY GEOTEXTILE FABRIC



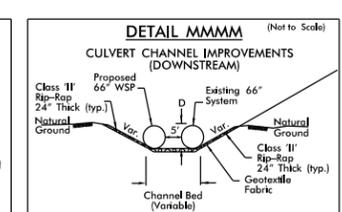
DETAIL JJJJ
CULVERT CHANNEL IMPROVEMENTS
(UPSTREAM)
(Not to Scale)
Floodplain Bench
Varies 0' - 10'
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (10'-0")
D=Varies (To Top of Bank)
EST. 98 CY EXCAVATION
EST. 146 TONS CLASS II RIPRAP
EST. 147 SY GEOTEXTILE FABRIC



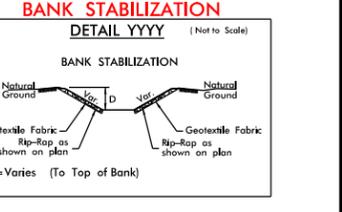
DETAIL KKKK
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM)
(Not to Scale)
Floodplain Bench
Varies 0' - 10'
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (10'-0")
D=Varies (To Top of Bank)
EST. 201 CY EXCAVATION
EST. 299 TONS CLASS II RIPRAP
EST. 302 SY GEOTEXTILE FABRIC



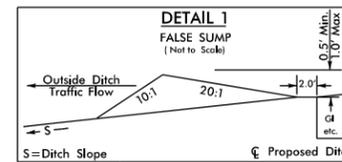
DETAIL LLLL
CULVERT CHANNEL IMPROVEMENTS
WITH BENCH & SILL (UPSTREAM)
(Not to Scale)
Proposed 66" WSP
Existing 66" System
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 68 CY EXCAVATION
EST. 100 TONS CLASS II RIPRAP
EST. 101 SY GEOTEXTILE FABRIC



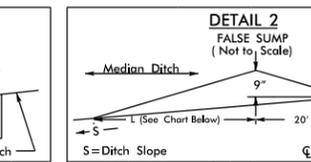
DETAIL MMMM
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM)
(Not to Scale)
Proposed 66" WSP
Existing 66" System
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
EST. 55 CY EXCAVATION
EST. 82 TONS CLASS II RIPRAP
EST. 83 SY GEOTEXTILE FABRIC



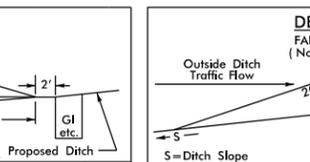
DETAIL YYYYY
BANK STABILIZATION
(Not to Scale)
Geotextile Fabric
Rip-Rap as shown on plan
D=Varies (To Top of Bank)



DETAIL 1
FALSE SUMP
(Not to Scale)
0.5' Min. to 1.0' Max.
Outside Ditch Traffic Flow
S=Ditch Slope
FROM -L- STA. 849+02 LT.
FROM -WBL- STA. 931+10 RT.
FROM -WBL- STA. 994+51 RT.
FROM -WBL- STA. 996+06 RT.
FROM -Y13RDP- STA. 18+61 LT.
FROM -WBL- 1097+15 LT.

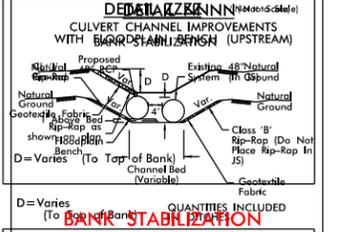


DETAIL 2
FALSE SUMP
(Not to Scale)
Median Ditch
S=Ditch Slope
FROM -EBL- STA. 902+53 RT.
FROM -EBL- STA. 940+30 RT.
FROM -EBL- STA. 905+22 RT.
FROM -EBL- STA. 907+54 RT.
FROM -EBL- STA. 909+71 RT.
FROM -EBL- STA. 911+56 RT.
FROM -EBL- STA. 912+68 RT.
FROM -EBL- STA. 916+83 RT.
FROM -EBL- STA. 923+67 RT.
FROM -EBL- STA. 931+86 RT.

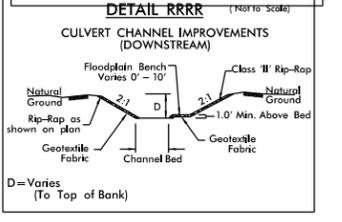


DETAIL 3
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
S=Ditch Slope
FROM -Y13RPP- STA. 10+07 RT.
FROM -L- STA. 850+34 RT.
FROM -L- STA. 854+53 RT.
FROM -WBL- STA. 895+60 RT.
FROM -EBL- STA. 911+57 LT.
FROM -EBL- STA. 914+55 LT.
FROM -EBL- STA. 916+85 LT.
FROM -L- STA. 1037+28 RT.
FROM STA. 1082+00 TO STA. 1085+00 RT.
FROM -EBL- STA. 1109+15 LT.
FROM -EBL- STA. 1113+15 LT.
FROM -EBL- STA. 1114+70 LT.
FROM -EBL- STA. 1119+22 LT.

BANK STABILIZATION

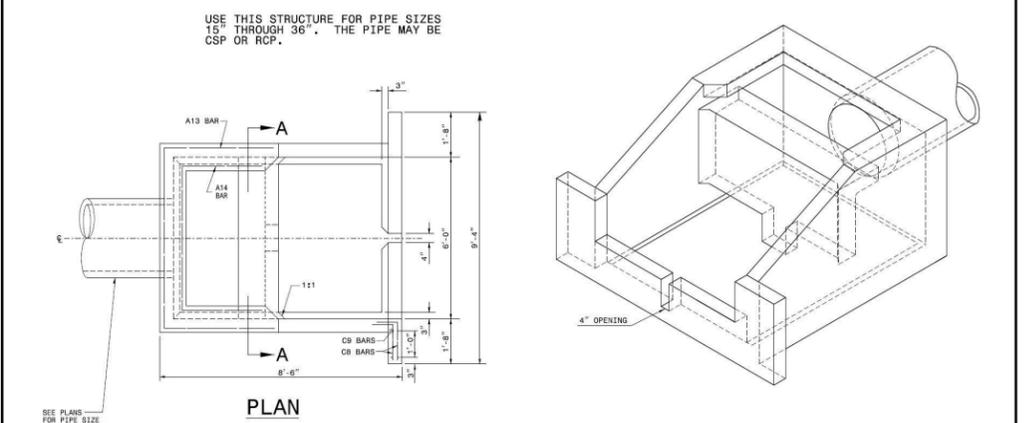


DETAIL RRNN
CULVERT CHANNEL IMPROVEMENTS
WITH BENCH
(Not to Scale)
Proposed 48" WSP
Existing 48" System
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)
QUANTITIES INCLUDED
EST. 146 CY EXCAVATION
EST. 147 SY GEOTEXTILE FABRIC



DETAIL RRRR
CULVERT CHANNEL IMPROVEMENTS
(DOWNSTREAM)
(Not to Scale)
Floodplain Bench
Varies 0' - 10'
Class 'II' Rip-Rap
24" Thick (typ.)
Geotextile Fabric
Channel Bed (Variable)
D=Varies (To Top of Bank)

SPECIAL DETAIL CONCRETE ENERGY DISSIPATOR



USE THIS STRUCTURE FOR PIPE SIZES 15" THROUGH 36". THE PIPE MAY BE CSP OR RCP.
PLAN
SEE PLANS FOR PIPE SIZE

7/19/2017

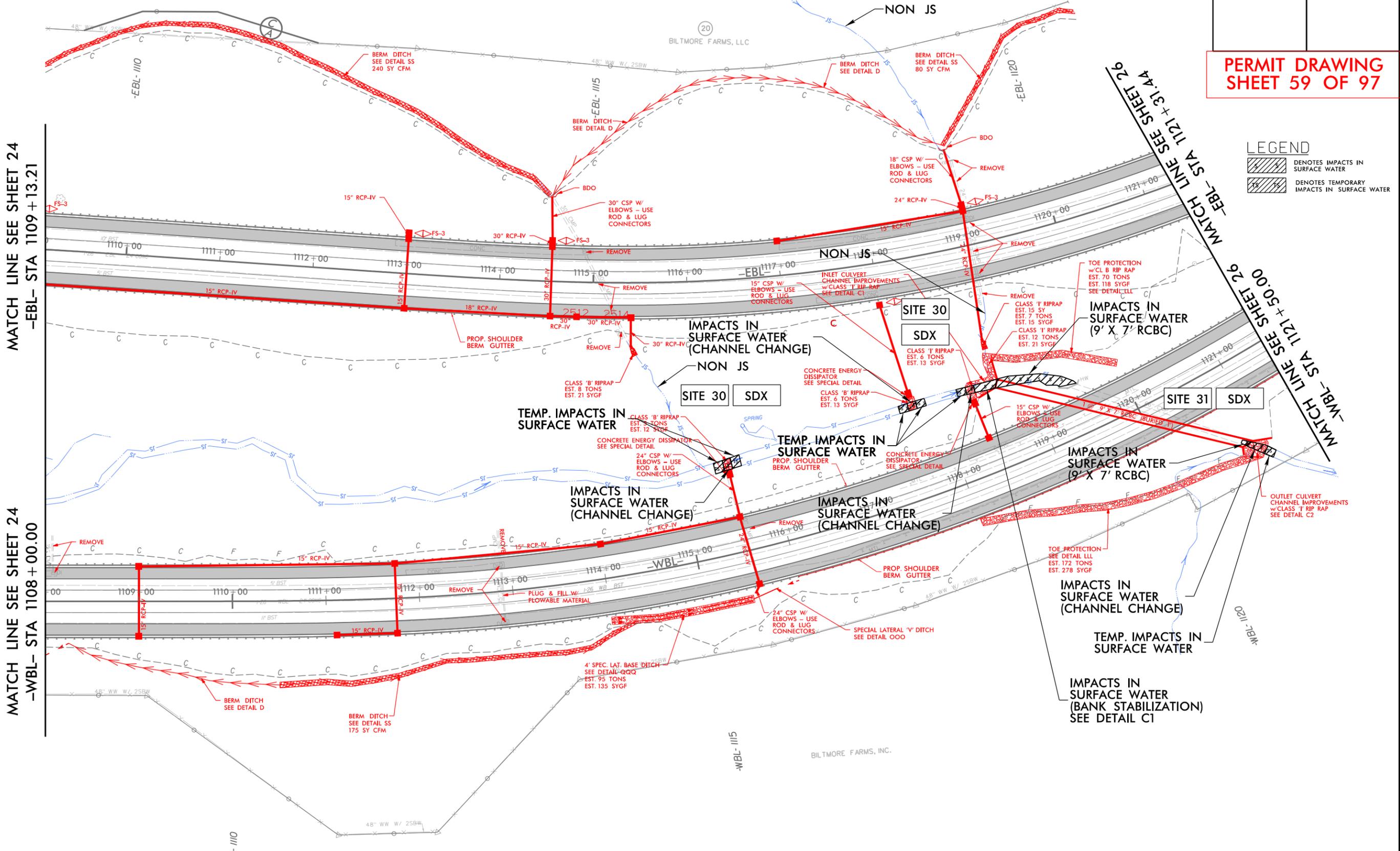
REVISED 10/13/2022



PROJECT REFERENCE NO.	SHEET NO.
1-4700	25
RW SHEET NO.	1-4700B-35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 59 OF 97

WETLAND & STREAM IMPACTS



LEGEND

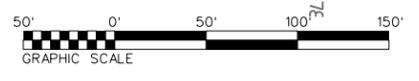
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE SEE SHEET 24
-EBL- STA 1109 + 13.21

MATCH LINE SEE SHEET 24
-WBL- STA 1108 + 00.00

MATCH LINE SEE SHEET 26
-EBL- STA 1121 + 31.44

MATCH LINE SEE SHEET 26
-WBL- STA 1121 + 50.00



FOR -WBL- & -EBL- PROFILES, SEE SHEETS 53 & 54

10/13/2022_HYD_PRL_PSH_25.dgn

7/19/2017

REVISED 10/13/2022

HNTB

PROJECT REFERENCE NO. 1-4700 SHEET NO. 25

RW SHEET NO. 1-4700B-35

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 60 OF 97



WETLAND & STREAM IMPACTS

MATCH LINE SEE SHEET 24
-EBL- STA 1109 + 13.21

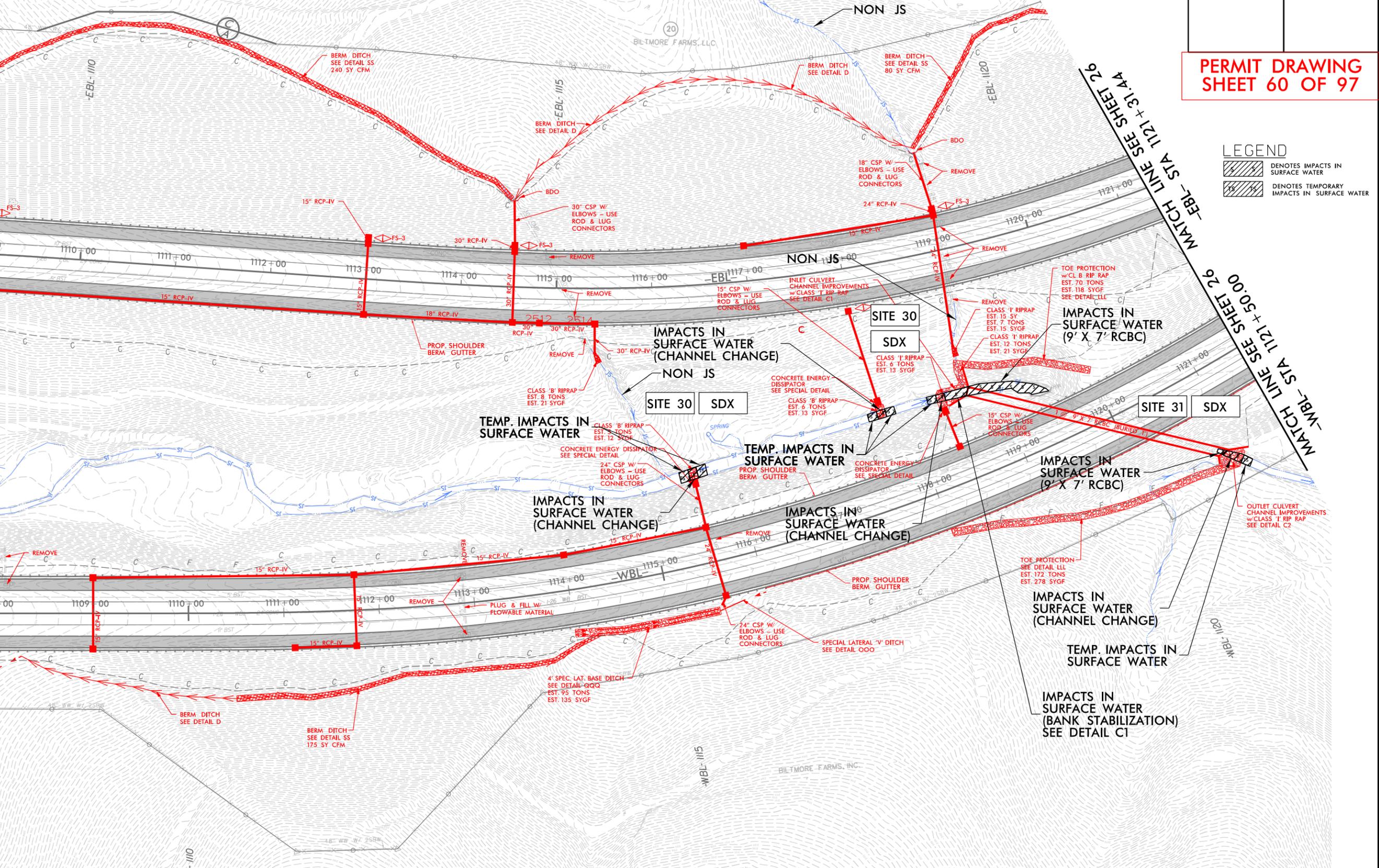
MATCH LINE SEE SHEET 24
-WBL- STA 1108 + 00.00

MATCH LINE SEE SHEET 26
-EBL- STA 1121 + 31.44

MATCH LINE SEE SHEET 26
-WBL- STA 1121 + 50.00

LEGEND

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



FOR -WBL- & -EBL- PROFILES, SEE SHEETS 53 & 54

10/13/2022-HYD_PRR_PSH_25.dgn

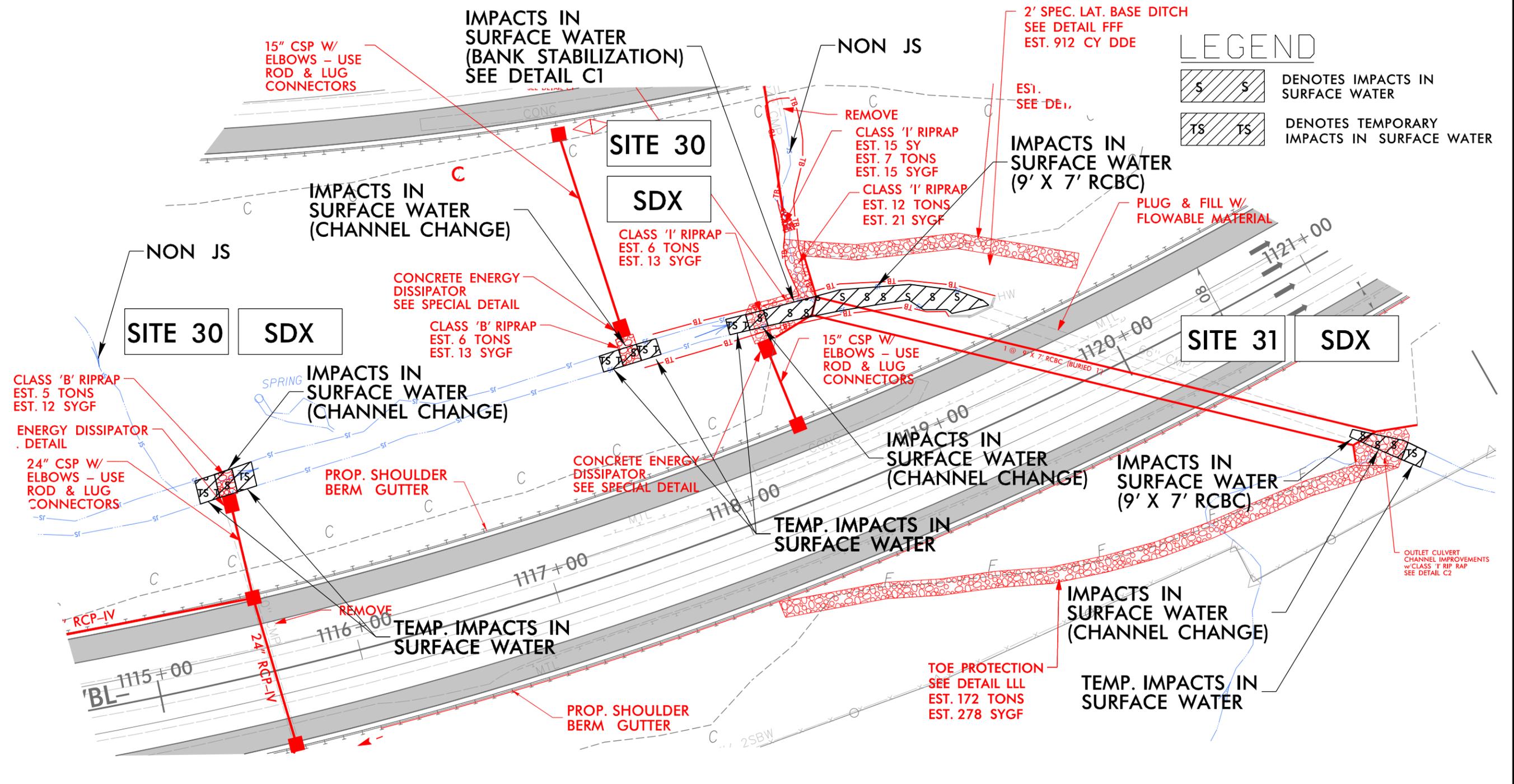
REVISED 10/13/2022

HNTB HNTB NORTH CAROLINA, P.C.
200 N. 200 EAST MAIN ST.
Raleigh, North Carolina 27609
NC License No. C-1532

PROJECT REFERENCE NO. I-4700	SHEET NO. 25
RW SHEET NO. I-4700B-35	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

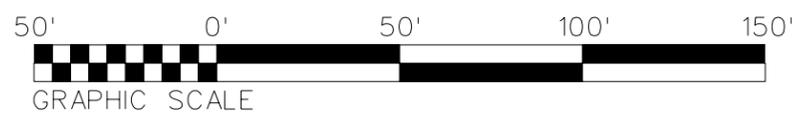


PERMIT DRAWING
SHEET 61 OF 97



LEGEND

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



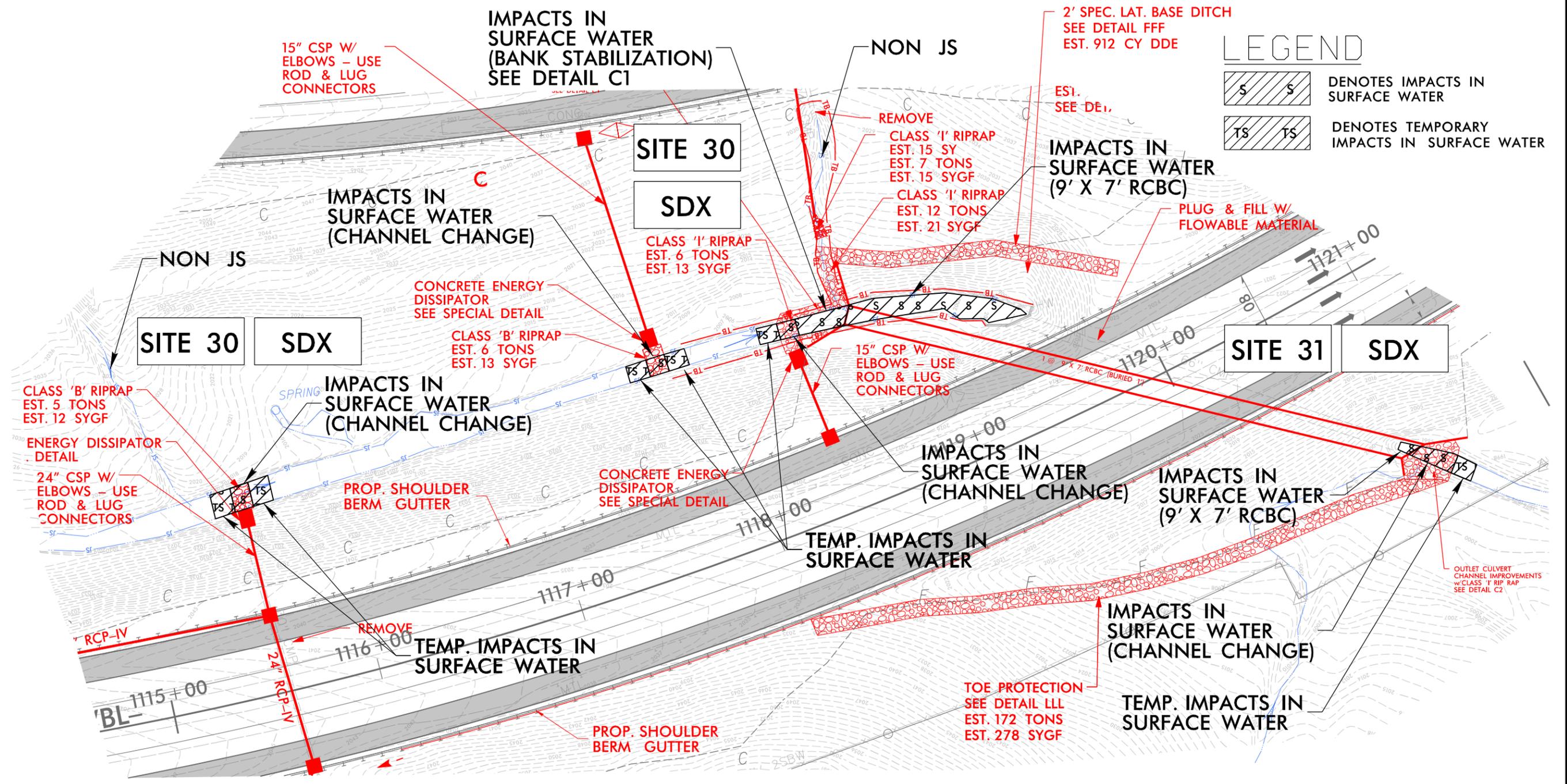
REVISED 10/13/2022

HNTB HNTB NORTH CAROLINA, P.C.
200 N. 700 WEST MAIN ST.
Raleigh, North Carolina 27609
NC License No. C-1535

PROJECT REFERENCE NO. 1-4700	SHEET NO. 25
RW SHEET NO. 1-4700B-35	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

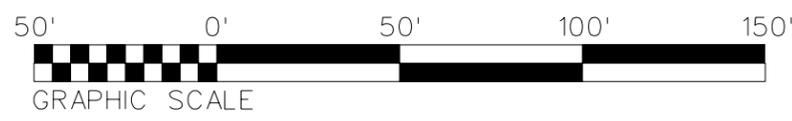


PERMIT DRAWING
SHEET 62 OF 97



LEGEND

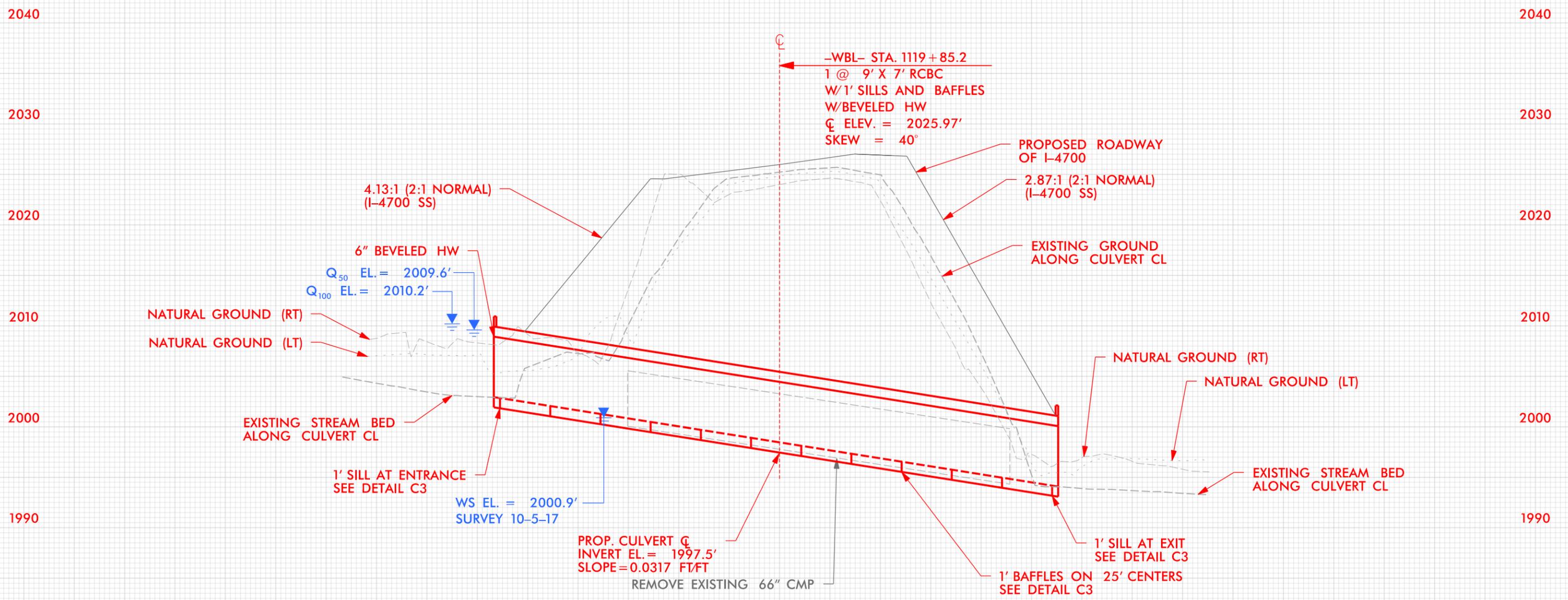
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



6/23/16

REVISED 10/13/2022

250 200 150 100 50 0 50 100 150 200 250



9/6/2022
4700B-HYD-PRM_PSH_25B-PFL.dgn
HNTB

BUNCOMBE & HENDERSON COUNTY
PROJECT: I-4700
I-26
FROM 0.3 MI EAST OF NC 280 (AIRPORT RD.)
TO 0.5 MI EAST OF NC 191 (BREVARD RD.)

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Stream Name Stream ID	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
				Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
1	UT to French Broad River / SDI	Y13RPB 11+26 to 15+64 LT	Stream relocated to Proposed Roadside ditch Due to Roadway Widening									342		
1A	UT to French Broad River / SDD	WBL 881+50 to 886+10 RT	Stream relocated to Toe Protection due to Roadway Widening									452	10	
2	UT to French Broad River / SDC	WBL 887+41 to 887+62 RT	6' x 6' RCBC Culvert Extension Due to Roadway Widening									25		
2	UT to French Broad River / SDC	WBL 887+20 to 887+45 RT	Bank Stabilization at inlet of 6' X 6' RCBC									22	10	
3	UT to French Broad River / SDC	EBL 888+63 to 889+10 LT	Channel change*1 at upstream and downstream of Existing Culvert									45		
3	UT to French Broad River / SDC	EBL 889+04 to 889+30 LT	Bank Stabilization at outlet of Existing Culvert									44	3	
4	UT to French Broad River / SDE	WBL 914+14 to 914+38 RT	66" RCP between Existing 66" RCP and 66" CMP in the WBL									55		
4	UT to French Broad River / SDE	WBL 913+64 to 913+93 RT	Bank Stabilization at inlet of 66" RCP									34	10	
5	UT to French Broad River / SDE	EBL 914+15 to 914+22 Median	66" RCP between Existing 66" CMP and 66" CMP in the Median									28		
6	UT to French Broad River / SDE	EBL 914+20 to 914+30 LT	Channel Change*1 between outlet of Existing 66" CMP and proposed 66" WSP and Existing 48" CMP									29		
7	UT to French Broad River / SDF	WBL 932+16 to 932+22 RT	Temp. Impact for Constructing Tapered Inlet with Head Wall										5	
8	UT to French Broad River / SDF	EBL 931+83 to 931+95 Median	54" CSP between two Existing 54" RCP in the Median									38		
9	UT to French Broad River / SDF	EBL 932+08 to 932+17 LT	54" RCP Extension Due to Roadway Widening and Conc.									20		
9	UT to French Broad River / SDF	EBL 932+12 to 932+23 LT	Bank Stabilization at the outlet of Proposed 54" RCP Extension									22	11	
10	WBR	WBL 936+68 to 938+29 RT	Special Cut Ditches on both side of Inlet of Proposed 24" WSP and Existing 66" RCP	0.03		0.03	0.03							
11	WBV	EBL 938+81 to 952+45 LT	RipRap Outlet Protection of Proposed 24" CSP and Existing 66" RCP	0.15		< 0.01	0.37							
12	UT to French Broad River / SFX / WBU	WBL 942+31 to 943+22 RT	30" RCP Extension Due to Roadway Widening			0.01	0.02					20	10	
13	UT to French Broad River / SDK / WBW	WBL 952+88 to 954+00 RT	66" RCP Extension Due to Roadway Widening / Fill and Excavation in wetland Due to Roadway Widening	0.07		0.02	< 0.01					40	10	
14	UT to French Broad River / SDK	EBL 952+66 to 952+77 LT	66" CSP Extension Due to Roadway Widening									14		
14	UT to French Broad River / SDK	EBL 952+72 to 952+80 LT	Channel Change*1 at downstream of 66" CSP Extension									22	7	
15	Powell Creek / SDN	WBL 983+40 to 983+73 RT	Bank Stabilization at inlet of Proposed 2@ 10' X 10' RCBC									42	10	
15	Powell Creek / SDN	WBL 983+67 to 983+80 RT	Existing 10' X10' RCBC Extension Due to Roadway Widening									12		
16	Powell Creek / SDN	EBL 984+63 to 984+90 LT	Existing 10' X10' RCBC Extension Due to Roadway Widening									16		
16	Powell Creek / SDN	EBL 984+69 to 985+07 LT	Bank Stabilization at outlet of Proposed 2@ 10' X 10' RCBC									82	13	
17	UT to French Broad River / SDU	L 1027+43 to 1027+51 RT	Existing 48" RCP Extension Due to Roadway Widening									16		
17	UT to French Broad River / SDU	L 1027+47 to 1027+ 58 RT	Bank Stabilization at inlet of 2 @ 48" RCP									10	10	
18	UT to French Broad River / SDU	L 1026+47 to 1026+68 LT	Channel Change*1 at outlet of Existing and Proposed 48" CMP and WSP									22	10	
18 A	French Broad River	L 1019+98 to 1020+50 LT	Channel Change*1 at outlet of Existing 8' X 8' Conc. Box Culvert									10	10	
19	WCH	L 1031+14 to 1035+27 LT	Fill in Wetlands Due to Roadway Widening	< 0.01			0.06							
20	UT to French Broad River / SDV	L 1042+57 to 1042+72 RT	Bank Stabilization at outlet of proposed 42" RCP due to Existing 42" CMP Extension and Proposed 42" WSP									18	10	
20	UT to French Broad River / SDV	L 1042+69 to 1042+91 RT	Existing 42" CMP Extension Due to Roadway Widening and Proposed 42" WSP									33		
21	UT to French Broad River / SDW	L 1048+84 to 1049+00 RT	Existing 60" CMP Extension with a 60" RCP Due to Roadway Widening									27		
21	UT to French Broad River / SDW	L 1048+93 to 1049+20 RT	Channel Change*1 at inlet of Proposed 60" CMP Extension with a 60" RCP									24	12	
22	WCH	L 1047+74 to 1047+84	Excavation in Wetland Due to Roadway Widening			< 0.01	0.01							
TOTALS*:				0.26		0.07	0.50					1564	151	

*Rounded totals are sum of actual impacts

NOTES:

*1: Emedding Riprap

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
10/13/2022
Buncombe & Henderson County
I-4700

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Stream Name Stream ID	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS					
				Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
23	UT to French Broad River / SDX	WBL 1082+23 to 1085+46 RT	Stream relocated to Proposed Lateral 'V' ditch due to Roadway Widening									312	10	
23	UT to French Broad River / SDX	WBL 1090+35 to 1090+65 RT	Channel change*1 at the Outlet of Proposed 30" CSP and Conc. Energy Dissipator									9	20	
23	UT to French Broad River / SDX	WBL 1091+37 to 1092+04 RT	Proposed 42" CMP Extension with a 42" RCP due to Roadway Widening									59	10	
24	UT to French Broad River / SDX	WBL 1094+12 to 1094+46 median	Channel Change*1 at Outlet of Existing 42" CMP									27	10	
24A	UT to French Broad River / SDX	EBL 1097+18 to 1097+46 median	Channel Change*1 at Outlet of Proposed 30" WSP with 30" RCP Extension									7	20	
25	UT to French Broad River / SEU	EBL 1097+19 to 1097+34 LT	Proposed 30" WSP with 30" RCP Extension									15	4	
26	UT to French Broad River / SDX	EBL 1105+45 to 1105+52 RT	Channel Change*1 at Outlet of Existing 30" CMP									7	10	
27	UT to French Broad River / SDY / WCV	WBL 1104+37 to 1104+51 RT	Existing 30" CMP with 30" RCP Extension			< 0.01						19	13	
28	UT to French Broad River / SDY	WBL 1104+88 to 1105+14 LT	Channel Change*1 at Outlet of Proposed 24" CSP and Conc. Energy Dissipator									9	18	
29	UT to French Broad River / SDX	EBL 1106+74 to 1107+07 RT	Temp. Impact for Constructing Standard Base Ditch										30	
30	UT to French Broad River / SDX	WBL 1115+40 to 1115+70 LT	Channel Change*1 at Outlet of 24" CSP and Conc. Energy Dissipator									9	20	
30	UT to French Broad River / SDX	EBL 1118+02 to 1118+30 RT	Channel Change*1 at Outlet of Proposed 15" CSP and Conc. Energy Dissipator									9	20	
30	UT to French Broad River / SDX	WBL 1118+25 to 1118+45 LT	Channel Change*1 at Outlet of 15" CSP and Conc. Energy Dissipator									9	10	
30	UT to French Broad River / SDX	WBL 1118+45 to 1118+73 LT	Bank Stabilization at Inlet of Proposed 1 @ 9' X 7' RCBC									25		
30	UT to French Broad River / SDX	WBL 1118+65 to 1119+51 LT	Proposed 1 @ 9' X 7' RCBC due to Roadway Widening									78		
31	UT to French Broad River / SDX	WBL 1120+78 to 1120+88 RT	Proposed 1 @ 9' X 7' RCBC due to Roadway Widening									8		
31	UT to French Broad River / SDX	WBL 1120+81 to 1121+06 RT	Channel Change*1 at Outlet of 1 @ 9' x 7' RCBC									20	10	
32	WCW	WBL 1123+76 to L 1137+72 RT	Fill in Wetland Due to Roadway Widening	0.37			0.30							
32	UT to French Broad River / SEQ	WBL 1131+60 to 1131+94 RT	Existing 54" CMP Extension with a 54" RCP Due to Roadway Widening									57	7	
33	UT to French Broad River / SEQ	EBL 1131+02 to 1131+11 LT	Stream relocated to Existing 54" CMP with a 54" RCP Extension									24	10	
33	UT to French Broad River / SEQ	EBL 1131+00 to 1131+12 LT	Existing 54" CMP Extension with a 54" RCP Due to Roadway Widening									30		
34	UT to French Broad River / SED	L 1138+18 to 1138+32 LT	Stream relocated to Standard Base Ditch at the Outlet of Proposed 36" RCP									30	12	
34	UT to French Broad River / SED	L 1138+29 to 1138+47 LT	Existing 36" CMP Extension with a 36" RCP Due to Roadway Widening									25		
35	WCZ	L 1138+55 to 1139+39 RT	Fill in Wetland Due to Roadway Widening	0.02										
36	UT to French Broad River / SEF	L 1147+02 to 1147+09 LT	Channel Change*1 at Outlet of Proposed 42" RCP									8	10	
36	UT to French Broad River / SEF	L 1146+98 to 1147+07 LT	Existing 42" CMP Extension with a 42" RCP Due to Roadway Widening									28		
37	UT to French Broad River / SEF	L 1148+35 to 1148+64 RT	Channel Change*1 at the Outlet of Proposed 15" CSP and Conc. Energy Dissipator									9	20	
37	UT to French Broad River / SEF	L 1149+17 to 1151+55 RT	Stream relocated to Proposed 4' Lateral Base Ditch due to Roadway Widening									356	10	
38	UT to French Broad River / SEE	L 1153+90 to 1154+10 RT	Stream relocated to Proposed 4' Lateral Base Ditch due to Roadway Widening									18	10	
38	UT to French Broad River / SEE	L 1155+35 to 1155+64 RT	Bank Stabilization at outlet of Proposed 15" CSP and Conc. Energy Dissipator									9	20	
38	UT to French Broad River / SEE	L 1156+95 to 1158+01 RT	Temp. Pipe for Access Road										106	
38	UT to French Broad River / SEE	L 1157+29 to 1157+38 RT	Channel Change*1 at Outlet of Proposed 30" CSP and Conc. Energy Dissipator									9		
39	WFG	L 1153+55 to 1153+89 LT	Fill in Wetland Due to Roadway Widening	< 0.01		< 0.01								
39	UT to French Broad River / SEE	L 1153+56 to 1153+67 LT	Proposed 24" RCP									33		
39	UT to French Broad River / SEE	L 1153+63 to 1153+77 LT	Stream relocated to Retaining Wall Gutter									22	10	
40	French Broad River	L 1161+33 to 1165+06	Bridge										245	
41	UT to French Broad River / SFG	L 1164+95 to 1171+67 RT	Temporary Pipe Due to Access Road										662	
41	UT to French Broad River / SFG	L 1172+85 to 1173+15 RT	Channel Change*1 at Outlet of Proposed 15" CSP and Conc. Energy Dissipator									9	20	
42	UT to French Broad River / SFO	L 1169+93 to 1170+02 LT	Temporary Pipe Due to Access Road										9	
43	WDZ	L 1179+54 to 1180+29 RT	Fill in Wetland Due to Roadway Widening	0.02			0.02							
44	UT to French Broad River / SFG	L 1196+58 to 1196+84 RT	Channel Change*1 at Outlet of Existing 48" CMP									15	20	
45	UT to French Broad River / SFR	L 1196+68 to 1196+73 LT	Temp. Impact for Constructing Tapered Inlet with Head Wall										5	
46	UT to French Broad River / SFQ	L 1214+30 to 1214+64 RT	Existing 42" CMP Extension with a 42" RCP Due to Roadway Widening									29		
47	UT to French Broad River / SFQ	L 1216+09 to 1216+19 LT	Existing 42" CMP Extension with a 42" RCP Due to Roadway Widening									12		
47	UT to French Broad River / SFQ	L 1216+15 to 1216+22 LT	Bank Stabilization at end of Toe Protection									9		
47	UT to French Broad River / SFQ	L 1216+18 to 1216+26 LT	Stream relocated to Proposed 4' Lateral Base Ditch due to Roadway Widening									8	13	
TOTALS*:				0.41		< 0.01	0.32					1362	1394	
TOTALS FOR I-4700:				0.67		0.07	0.82					2926	1545	

*Rounded totals are sum of actual impacts

NOTES:
Site 40: Impacts of interior bents are 400 SF
*1: Emedding Riprap

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
10/13/2022
Buncombe & Henderson County
I-4700