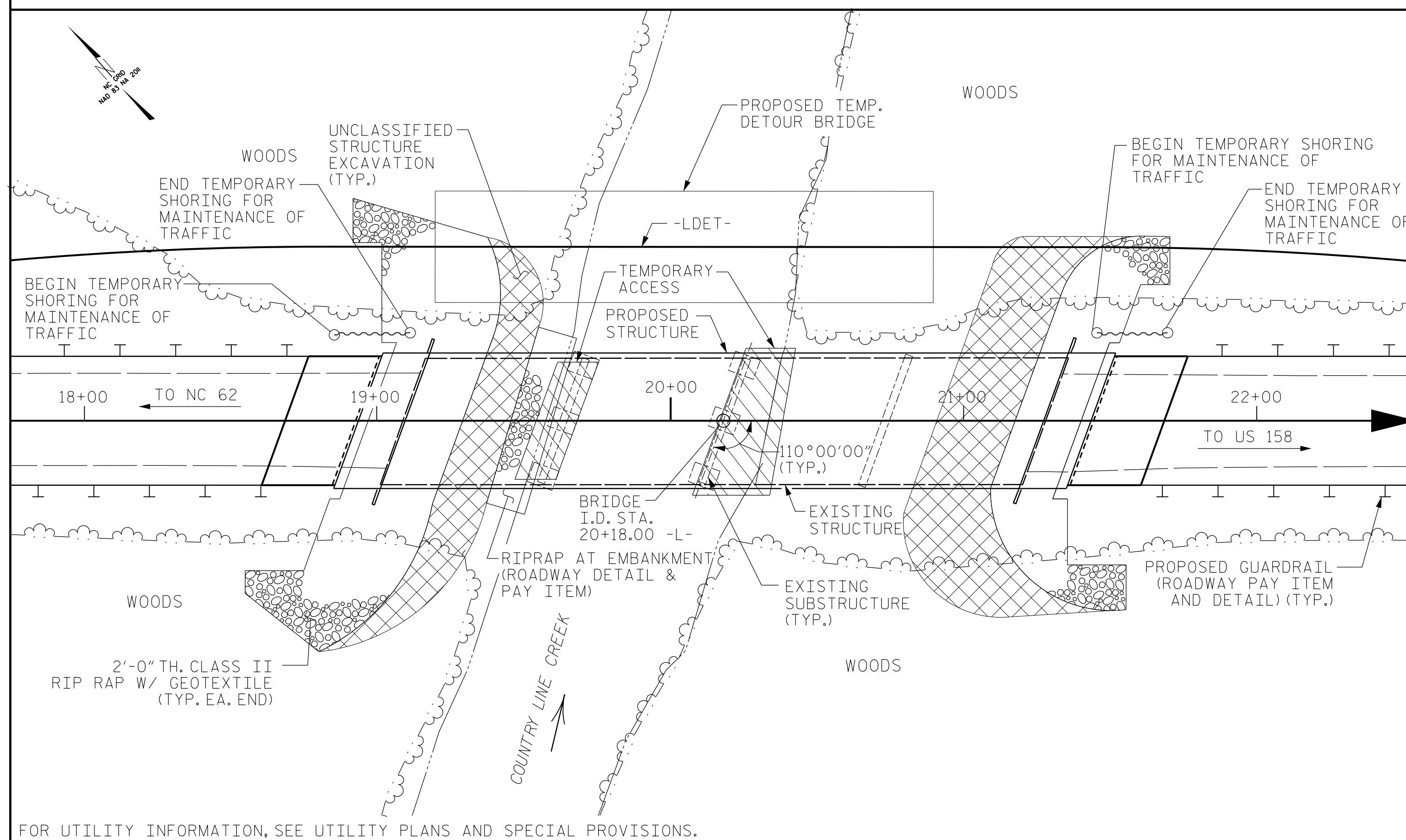


BM #2 - RAILROAD SPIKE IN 16" OAK, 246.26' RIGHT OF STA. 25+64.88 -L-, EL. 418.82



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

NOTES

- ASSUMED LIVE LOAD= HL-93 OR ALTERNATE LOADING.
- THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 20+18.00 -L-.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE AT STATION 20+18.00 -L-."
- THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.
- THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 65 FT. LEFT OF -L- AND 80 FT. RIGHT OF -L- AT END BENT 1 AND 65 FT. LEFT OF -L- AND 70 FT. RIGHT OF -L- AT END BENT 2 AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.
- TEMPORARY SHORING WILL BE REQUIRED IN THE AREAS INDICATED IN THE PLAN VIEW.
- FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.
- THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT, MAINTAIN AND AFTERWARDS REMOVE A TEMPORARY STRUCTURE AT STATION 17+10.00 -LDET- FOR USE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE. FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE, SEE SPECIAL PROVISIONS.
- THE BRIDGE RAILS ON THE TEMPORARY STRUCTURE SHALL BE DESIGNED FOR THE AASHTO LRFD TEST LEVEL 3 (TL-3) CRASH TEST CRITERIA. FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE, SEE SPECIAL PROVISIONS.
- THE EXISTING STRUCTURE CONSISTS OF FOUR SPANS (55', 55', 55' & 55') WITH A CLEAR ROADWAY WIDTH OF 43'-4" WITH A REINFORCED CONCRETE DECK ON STEEL I-BEAMS. THE SUBSTRUCTURE CONSISTS OF CONCRETE ABUTMENTS ON STEEL PILES, CONCRETE CAP AND COLUMNS AT BENTS 1 & 2, AND CONCRETE CAP ON STEEL PILES AT BENT 3. THE EXISTING STRUCTURE LOCATED AT THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETIORATE DURING CONSTRUCTION OF THE DETOUR BRIDGE, A LOAD LIMIT MAY BE POSTED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.
- THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. THE INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
- REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18 - EVALUATING SCOUR AT BRIDGES".
- THE SCOUR CRITICAL ELEVATION FOR BENT #1 IS ELEVATION 396.4. THE SCOUR CRITICAL ELEVATION FOR BENT #2 IS ELEVATION 411.0. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
- FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

TOTAL BILL OF MATERIAL

	CONSTRUCTION MAINTENANCE & REMOVAL OF TEMPORARY STRUCTURE AT STA. 17+10 -LDET-	CONSTRUCTION MAINTENANCE & REMOVAL OF TEMPORARY ACCESS AT STA. 20+18 -L-	REMOVAL OF EXISTING STRUCTURE AT STA. 20+18 -L-	ASBESTOS ASSESSMENT	4'-0" Ø DRILLED PIERS IN SOIL	4'-0" Ø DRILLED PIERS NOT IN SOIL	PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIER	CSL TESTING	UNCLASSIFIED STRUCTURE EXCAVATION AT STA. 20+18 -L-	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS AT STA. 20+18 -L-	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL
	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LUMP SUM	SO. FT.	SO. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.
SUPERSTRUCTURE										11,729	12,146				
END BENT 1												42.4		6,219	
BENT 1					38.3	36.9	39.0	3				57.0		14,694	3,658
BENT 2					84.5	56.5	9.0	3				49.1		16,953	4,693
END BENT 2												42.0		6,089	
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	122.8	93.4	48.0	6	LUMP SUM	11,729	12,146	190.5	LUMP SUM	43,955	8,351

TOTAL BILL OF MATERIAL

	54" PRESTRESSED CONCRETE GIRDERS	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	HP 12 X 53 STEEL PILES	STEEL PILE POINTS	DYNAMIC PILE TESTING	CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS		
	NO.	LIN. FT.	EACH	NO.	LIN. FT.	EACH	EACH	LIN. FT.	TONS	SO. YDS.	LUMP SUM
SUPERSTRUCTURE	15	1232.5						496.46			LUMP SUM
END BENT 1			9	9	210	9			847	896	
BENT 1											
BENT 2											
END BENT 2			9	9	450				547	579	
TOTAL	15	1232.5	18	18	660	9	1	496.46	1,394	1,475	LUMP SUM

HYDRAULIC DATA

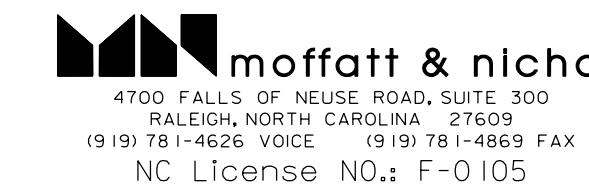
DESIGN DISCHARGE 10500 CFS
 FREQUENCY OF DESIGN FLOOD 50 YR.
 DESIGN HIGHWATER ELEV. 422.8 FT.
 DRAINAGE AREA 101 SQ. MI.
 BASE DRAINAGE (Q100) 12000 CFS
 BASE HIGHWATER ELEV. 423.5 FT.

OVERTOPPING FLOOD DATA

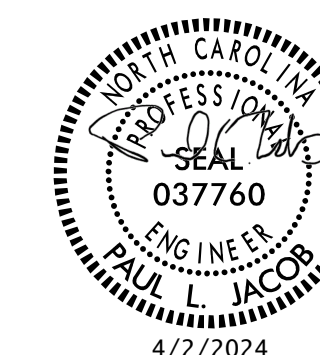
OVERTOPPING DISCHARGE 26000 CFS
 FREQUENCY OF OVERTOPPING FLOOD 500+ YR.
 *OVERTOPPING FLOOD ELEV. 427.4 FT.

* OCCURS AT STA. 26+50 -L-

DRAWN BY : J. WEIGER DATE : 6-2023
 CHECKED BY : J. LOFTUS DATE : 8-2023
 DESIGN ENGINEER OF RECORD : J. LOFTUS DATE : 3-2024



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT NO. BR-0069

CASWELL COUNTY

STATION: 20+18.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE OVER
 COUNTRY LINE CREEK
 ON US 158/NC 86
 BETWEEN NC 62 & US 158

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			38

3/26/2024 04:18:01 109\BR-0069\Structure\01-CADD\02-FinalDrawings\01-007_BR0069_SMLLS04_004_160001.dgn jofTus