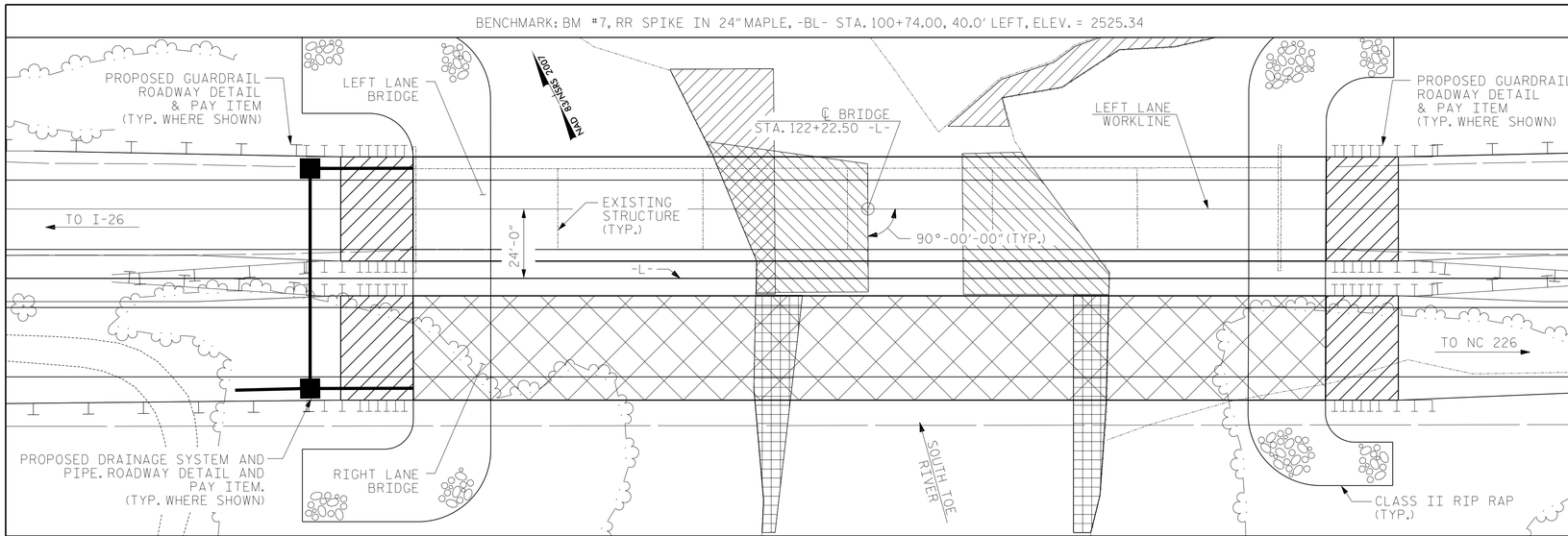

LOCATION SKETCH

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS

TEMPORARY WORKPAD CONSTRUCTION SEQUENCE AND NOTES

PHASE 1 TEMPORARY WORKPAD IS FOR CONSTRUCTION OF PROPOSED RIGHT LANE SUBSTRUCTURE. WORKPAD MAY NOT BE IN PLACE MORE THAN FOURTEEN (14) MONTHS.

PHASE 2 TEMPORARY WORKPAD IS FOR THE REMOVAL OF EXISTING SUBSTRUCTURE. BOTH WORKPADS MAY NOT BE IN PLACE AT THE SAME TIME AND AT LEAST HALF OF THE CHANNEL SHALL ALWAYS REMAIN OPEN. THIS PHASE WILL BE LIMITED TO TWO (2) MONTHS.

PHASE 3 TEMPORARY WORKPAD IS FOR CONSTRUCTION OF PROPOSED LEFT LANE SUBSTRUCTURE. WORKPAD MAY NOT BE IN PLACE MORE THAN SIXTEEN (16) MONTHS.

PHASED WORKPAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL PERMITS.

LEGEND:

- PHASE 1 TEMPORARY WORKPAD
- PHASE 2 TEMPORARY WORKPAD
- PHASE 3 TEMPORARY WORKPAD

HYDRAULIC DATA

DESIGN DISCHARGE	= 26,655 CFS
FREQUENCY OF DESIGN FLOOD	= 50 YRS
DESIGN HIGH WATER ELEVATION	= 2,470.3
DRAINAGE AREA	= 60 SQ. MI.
BASE DISCHARGE (Q100)	= 33,395 CFS
BASE HIGH WATER ELEVATION	= 2,473.53

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 39,830 CFS
FREQUENCY OF OVERTOPPING FLOOD	= 100+ YRS
OVERTOPPING FLOOD ELEVATION	= 2,474.7

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	CONSTRUCTION, MAINTENANCE & REMOVAL OF TEMP. ACCESS	4'-6" Ø DRILLED PIER IN SOIL	4'-6" Ø DRILLED PIER NOT IN SOIL	PERMANENT STEEL CASING FOR 4'-6" DIA. DRILLED PIER	SID INSPECTIONS	SPT TESTING	CSL TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	GROOVING BRIDGE FLOORS	REINFORCED CONCRETE DECK SLAB	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	74" MODIFIED PRESTRESSED CONCRETE GIRDERS		HP 12 X 53 STEEL PILES		CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	STRUCTURE DRAINAGE SYSTEM
	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EA.	EA.	EA.	LUMP SUM	CU. YDS.	SQ. FT.	SQ. FT.	LUMP SUM	LBS.	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE											11937	12364				12	1246.00			626.67				
END BENT 1										19.2				3471				7	263		115	128		
BENT 1			31	38	23.9					55.8				20698	3109									
BENT 2			53	37	34.9					54.4				22594	3610									
END BENT 2										19.2				3471				7	245		51	57		
TOTAL	LUMP SUM	LUMP SUM	84	75	58.8	4	4	2	LUMP SUM	148.6	11937	12364	LUMP SUM	50234	6719	12	1246.00	14	508	626.67	166	185	LUMP SUM	LUMP SUM

NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH 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.

PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC-18 EVALUATING SCOUR AT BRIDGES."

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON DRAWING NO. 001 SHALL BE EXCAVATED FOR A DISTANCE OF 66 FT, LEFT, @ END BENT 1 AND 58 FT, LEFT, @ END BENT 2 OF THE LEFT LANE WORK LINE 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.

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 THE MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE."

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 SUBSTITUION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.

THE EXISTING STRUCTURE CONSISTING OF 6 SPANS OF 50'-0" ON A REINFORCED CONCRETE DECK ON 4 LINES OF 36" I-BEAMS ON REINFORCED CONCRETE CAPS AND PILES AT THE END BENTS AND REINFORECED CONCRETE POST AND BEAM AT THE INTERIOR BENTS WITH A 28.0 FT CLEAR ROADWAY AND LOCATED AT THE PROPOSED SITE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE REDUCED 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. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTAION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN OF THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICAIONS.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

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.

AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE WORKPAD, THE CLASS II RIP RAP USED IN THE WORKPAD MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR "CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS."

FOR PLACING LOAD ON STRUCTURAL MEMBERS, SEE SPECIAL PROVISIONS.

FOR 74" MODIFIED PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

FOR TEMPORARY WORKPAD, SEE SPECIAL PROVISION FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STA. 122+22.50 -L-.

THE LUMP SUM PAY ITEM FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS ALSO INCLUDES THE PORTION OF THE TEMPORARY WORKPAD DETAILED IN THE LOCATION SKETCH.

PROJECT NO. R-2519B
YANCEY/MITCHELL COUNTY
STATION: 122+22.50 -L-

SHEET 3 OF 3

NORTH CAROLINA PROFESSIONAL SEAL 18442 ENGINEER RICHARD LEON BOLLINGER, JR.

Digitally signed by Richard L Bollinger
Date: 2014.08.26 14:49:37 -04'00'

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE ON US 19E OVER THE SOUTH TOE RIVER BETWEEN I-26 AND NC 226

LEFT LANE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-57
1			3			TOTAL SHEETS
2			4			194

DWG. No. 003

DRAWN BY :	SMK, JML, MKO	DATE :	11/2012
CHECKED BY :	JMR	DATE :	08/2013
DESIGN ENGINEER OF RECORD :	JMR	DATE :	08/2013