

TOTAL BILL OF MATERIAL													
	CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS	REMOVAL OF EXISTING STRUCTURE	3'-6" DIA. DRILLED PIERS IN SOIL	3'-6" DIA. DRILLED PIERS NOT IN SOIL	PERMANENT STEEL CASING FOR 3'-6" DIA. DRILLED PIER	CROSSHOLE SONIC LOGGING	CSL TUBES	UNCLASSIFIED STRUCTURE EXCAVATION	CONSTRUCTION OF SUPERSTRUCTURE	CONSTRUCTION OF SUBSTRUCTURE	HP 12 X 53 STEEL PILES		PLAIN RIP RAP CLASS II (2'-0" THICK)
	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	C.Y.	LUMP SUM	LUMP SUM	NO.	LIN. FT.	TONS
SUPERSTRUCTURE	LUMP SUM								LUMP SUM				
END BENT NO. 1								395		LUMP SUM	7	147	465
BENT NO. 1			6.0	12.0		1	92			LUMP SUM			
BENT NO. 2			19.0	14.0	20.0		152			LUMP SUM			
END BENT NO. 2								1125		LUMP SUM	8	248	455
TOTAL	LUMP SUM	LUMP SUM	25.0	26.0	20.0	1	244	1520	LUMP SUM	LUMP SUM	15	395	920

NOTES

THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", NOVEMBER, 1995.

THE EXISTING PAVEMENT WITHIN THE AREA OF THE END BENT PILES SHALL BE REMOVED AND THE ROADBED SCARIFIED TO A MINIMUM DEPTH OF 2'-0".

WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 AND NO. 2 IS 263 FEET AND 253 FEET RESPECTIVELY. THE SCOUR CRITICAL ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.

PILES FOR END BENT NO. 1 AND NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

THE EXISTING STRUCTURE CONSISTING OF 1 SPAN @ 17'-10", 4 SPANS @ 17'-0", 1 SPAN @ 17'-10" RC FLOOR, CONCRETE DECK ON TIMBER JOISTS, 24'-0" CLEAR ROADWAY, SUBSTRUCTURE: TIMBER CAP ON TIMBER PILES, AND LOCATED AT THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED BELOW THE LEGAL LOAD LIMIT.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

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 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.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF APPROX. 50 FEET EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AS UNCLASSIFIED STRUCTURE EXCAVATION.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

THE DRILLED PIERS AT BENT NO. 1 AND NO. 2 SHALL BE DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 20 TONS PER SQ. FT AND SHALL BE VERIFIED.

THE DRILLED PIERS AT BENT NO. 1 AND NO. 2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 215 TONS EACH AT THE TOP OF COLUMN.

THE DRILLED PIERS AT BENT NO. 1 SHALL EXTEND NO HIGHER THAN 254 FEET LEFT AND 256 FEET RIGHT AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

THE DRILLED PIERS AT BENT NO. 2 SHALL EXTEND NO HIGHER THAN 247 FEET LEFT AND 246 FEET RIGHT AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

NO PERMANENT STEEL CASING WILL BE REQUIRED FOR DRILLED PIERS AT BENT NO. 1.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 2. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 253 FEET WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.

FOR PERMANENT STEEL CASING, SEE SPECIAL PROVISION FOR DRILLED PIERS.

SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT NO. 1 AND NO. 2.

SLURRY CONSTRUCTION SHALL NOT BE USED FOR THIS PROJECT.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT BENT NO. 1 AND NO. 2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

SID INSPECTIONS ARE NOT REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT BENT NO. 1 AND NO. 2.

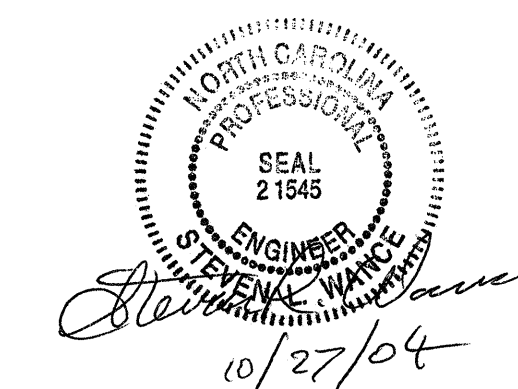
AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 17+05.00 -L-.

FOR CONSTRUCTION OF SUPERSTRUCTURE, SEE SPECIAL PROVISIONS.

FOR CONSTRUCTION OF SUBSTRUCTURE, SEE SPECIAL PROVISIONS.

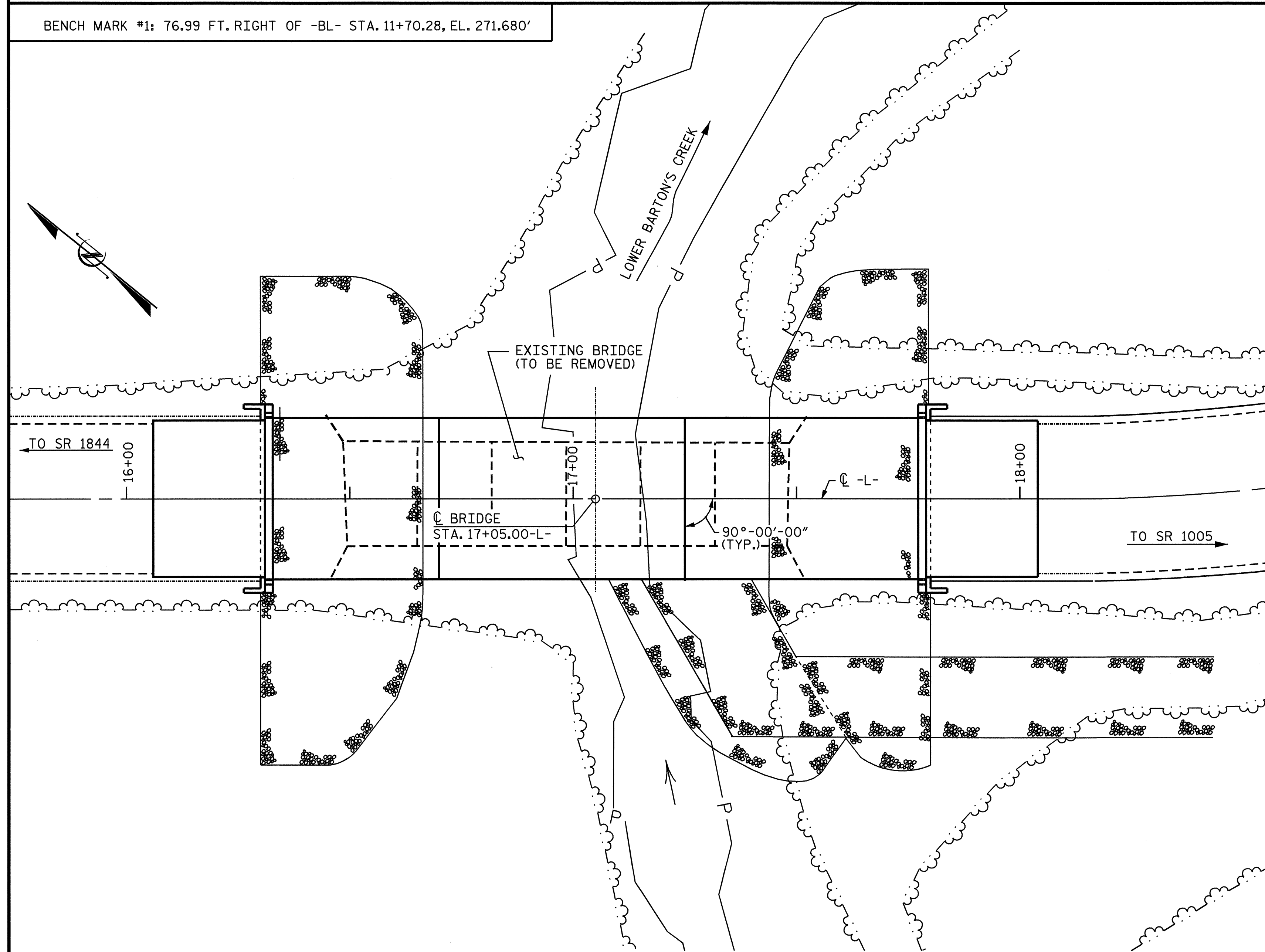
PROJECT NO. B-3704
WAKE COUNTY
 STATION: 17+05.00 -L-

SHEET 3 OF 3



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON SR 1834
 OVER LOWER
 BARTON'S CREEK BETWEEN
 SR 1844 AND SR 1005

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			23



LOCATION SKETCH
 FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

DRAWN BY: N.Q. TRAN DATE: 6-2-04
 CHECKED BY: SWANcPE DATE: 8-04