

NOTES

THE DRILLED PIERS AT BENT NO. 1 AND NO. 6 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 15 TSF.

THE DRILLED PIERS AT BENT NO. 2, NO. 3, NO. 4 AND NO. 5 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 30 TSF.

THE REQUIRED TIP BEARING CAPACITY AT ALL BENTS SHALL BE VERIFIED.

DRILLED PIERS FOR BENT NO. 1 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 452 TONS EACH AT THE TOP OF THE COLUMN.

DRILLED PIERS FOR BENT NO. 2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 464 TONS EACH AT THE TOP OF THE COLUMN.

DRILLED PIERS FOR BENT NO. 3 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 482 TONS EACH AT THE TOP OF THE COLUMN.

DRILLED PIERS FOR BENT NO. 4 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 482 TONS EACH AT THE TOP OF THE COLUMN.

DRILLED PIERS FOR BENT NO. 5 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 507 TONS EACH AT THE TOP OF THE COLUMN.

DRILLED PIERS FOR BENT NO. 6 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 457 TONS EACH AT THE TOP OF THE COLUMN.

PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENT NO. 2 AND THE CASING SHALL NOT EXTEND BELOW ELEVATION 855 WITHOUT THE ENGINEER'S PERMISSION.

PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENT NO. 3 AND THE CASING SHALL NOT EXTEND BELOW ELEVATION 855 WITHOUT THE ENGINEER'S PERMISSION.

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

FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

SPT TESTING IS REQUIRED TO DETERMINE THE TIP BEARING CAPACITY AT ALL BENTS.

SLURRY CONSTRUCTION SHALL NOT BE USED FOR THIS PROJECT.

SID INSPECTIONS ARE REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT ALL BENTS.

CSL TUBES ARE REQUIRED FOR ALL DRILLED PIERS AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT ALL BENTS. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

PILES FOR END BENT NO. 1 AND END BENT NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 60 TONS EACH.

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

DRILLED PIERS AT THE BENTS LISTED SHALL EXTEND TO AN ELEVATION NO HIGHER THAN THAT LISTED FOR THE BENT, AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

BENT	DRILLED PIER			
	1	2	3	4
1	838	838	838	838
2	840	840	838	838
3	844	844	844	844
4	844	844	844	844
5	848	848	852	854
6	852	852	852	852

THE SCOUR CRITICAL ELEVATION FOR ALL BENTS ARE TABULATED BELOW. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SCOUR ELEV (FT)	BENT					
	1	2	3	4	5	6
	870.0	855.0	853.0	871.0	875.0	893.0

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

THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS IS BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT 1 FT. BELOW THE GROUND LINE.

THE EXISTING STRUCTURE CONSISTING OF TWELVE SPANS (1 @ 57.5', 7 @ 70', 1 @ 48', 1 @ 42.5', 1 @ 75' AND 1 @ 53') OF 36" I-BEAMS (FOUR LINES @ 8'-0" CENTERS); REINFORCED CONCRETE DECK WITH A 28'-0" CLEAR ROADWAY ON REINFORCED CONCRETE CAP AND PILE END BENTS AND REINFORCED CONCRETE POST AND BEAM INTERIOR BENTS ON PILE FOOTINGS 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 FURTHER DETERIORATE, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

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 SPECIFICATIONS.

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.

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

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLE OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR 8" SLOPE PROTECTION, SEE SPECIAL PROVISIONS.

FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

FOR REINFORCED CONCRETE DECK SLAB (SAND LIGHTWEIGHT CONCRETE), SEE SPECIAL PROVISIONS.

FOR SAND LIGHTWEIGHT CONCRETE, SEE SPECIAL PROVISIONS.

FOR FABRICATED METAL STAY-IN-PLACE FORMS, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE, SEE SPECIAL PROVISIONS.

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.

FOR FALSEWORK AND FORMS OVER OR ADJACENT TO TRAFFIC, 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.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 41 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE MEASURED AND PAID FOR AS UNCLASSIFIED STRUCTURE EXCAVATION.

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 (SAND LIGHTWEIGHT CONCRETE).

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

ALL FALSEWORK AND FORMS FOR THE CAST-IN-PLACE DECK SLAB CONTINUOUS UNIT SHALL REMAIN IN PLACE UNTIL THE ENTIRE UNIT IS CAST AND CURED.

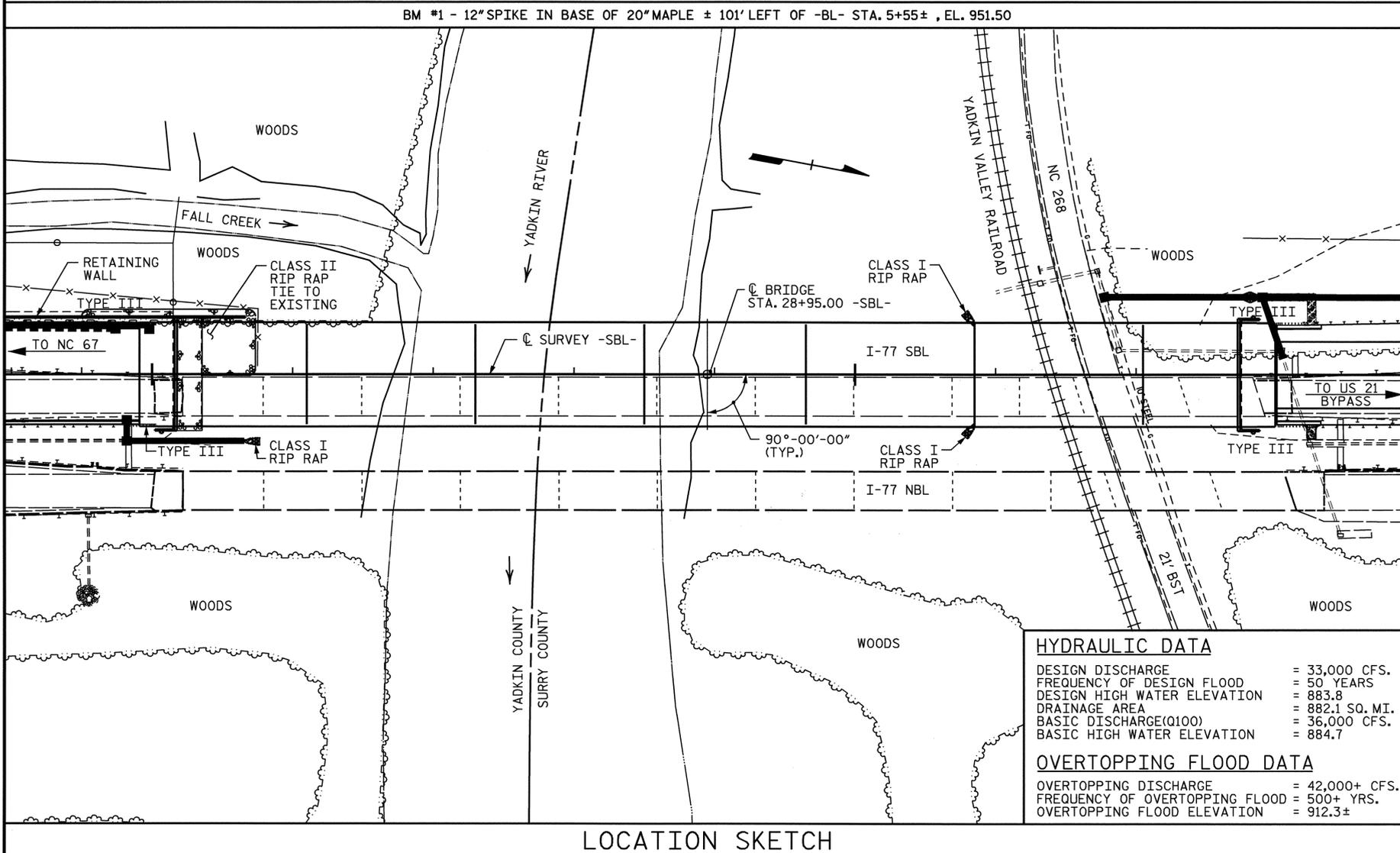
INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE AT STATION 28+95.00 -SBL-."

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

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 28+95.00 -SBL-.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.



LOCATION SKETCH

PROJECT NO. I-4025A
YADKIN-SURRY COUNTY
 STATION: 28+95.00 -SBL-

SHEET 4 OF 5

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE OVER
 YADKIN RIVER ON
 I-77 SBL BETWEEN
 NC 67 & US 21 BYPASS

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	
1			3	5-4 TOTAL SHEETS 72
2			4	



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