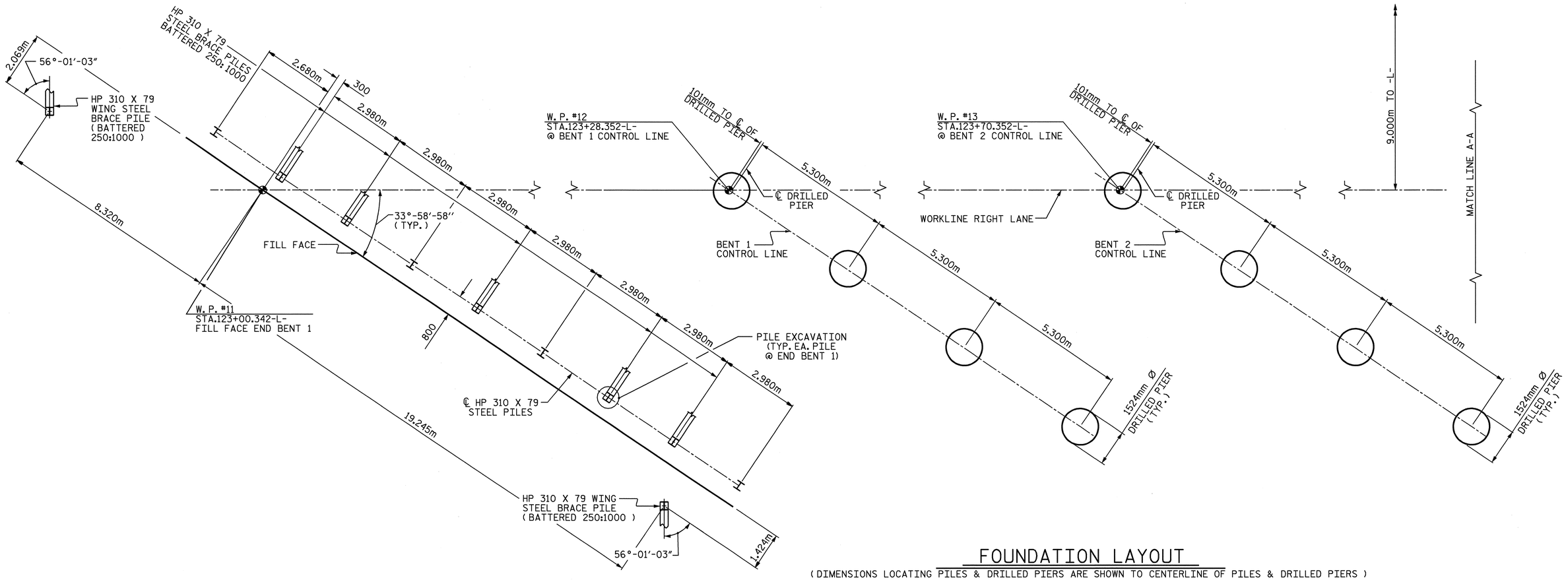

FOUNDATION LAYOUT

(DIMENSIONS LOCATING PILES & DRILLED PIERS ARE SHOWN TO CENTERLINE OF PILES & DRILLED PIERS)

NOTES

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

ALL ELEVATIONS ARE IN METERS.

ASSUMED LIVE LOAD = MS 18 OR ALTERNATE LOADING.

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

FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.

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

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 345W AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-7 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.

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.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 360,000 kg OF REINFORCING STEEL, ONE 760mm SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 360,000 kg OF REINFORCING STEEL, TWO 760mm SAMPLES 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.

A TEMPORARY RAILROAD GRADE CROSSING WILL BE ALLOWED AND THE RAILROAD'S COST IS INCLUDED IN THE RAILROAD FORCE ACCOUNT. THE LOCATION OF THE CROSSING SHALL BE APPROVED BY THE RAILROAD. SEE RAILROAD SPECIAL PROVISIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 10.000m EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THE ESTIMATED QUANTITY IS LESS THAN 500 CU. YDS. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

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

THE SCOUR CRITICAL ELEVATION FOR BENT 3 IS 212.500. THIS ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

THE DRILLED PIERS AT BENTS 1, 2 AND 3 HAVE BEEN DESIGNED FOR SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 1660 kPA.

THE REQUIRED TIP BEARING CAPACITY AT BENTS 1, 2 AND 3 SHALL BE VERIFIED.

SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENTS 1 AND 2.

SPT TESTING IS REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT 3. SEE DRILLED PIERS SPECIAL PROVISION.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT BENT 1, BENT 2, AND BENT 3. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

DRILLED PIERS AT BENT 1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 215.000 (LEFT) AND 213.500 (RIGHT) AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

DRILLED PIERS AT BENT 2 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 209.500 AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

DRILLED PIERS AT BENT 3 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 211.500 (LEFT) AND 207.500 (RIGHT) AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

THE DRILLED PIERS FOR BENTS 1, 2 AND 3 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 2350 kN, 2550 kN AND 2900 kN RESPECTIVELY EACH AT THE TOP OF THE COLUMN.

FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

SEE SHEET 4 OF 5 FOR ADDITIONAL NOTES.

NORTH CAROLINA PROFESSIONAL SEAL 20211 ENGINEER THOMAS G. PAYNE

Thomas G. Payne 9/24/04

PROJECT NO. R-2206B

LINCOLN COUNTY

STATION: 123+38.105 -L-
14+35.584 -Y8-

SHEET 3 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE ON
NC 16 BYPASS NORTHBOUND
OVER CSX RAILROAD
& FORNEY CREEK
BETWEEN NC 73 & SR 1380
(RIGHT LANE)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-46
1			3			TOTAL SHEETS
2			4			86

STR. #2

DRAWN BY : W.R. BRILEY DATE : 4-17-01
CHECKED BY : E.G. ALLEN DATE : 6-11-01

28-SEP-2004 16:33
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klayne