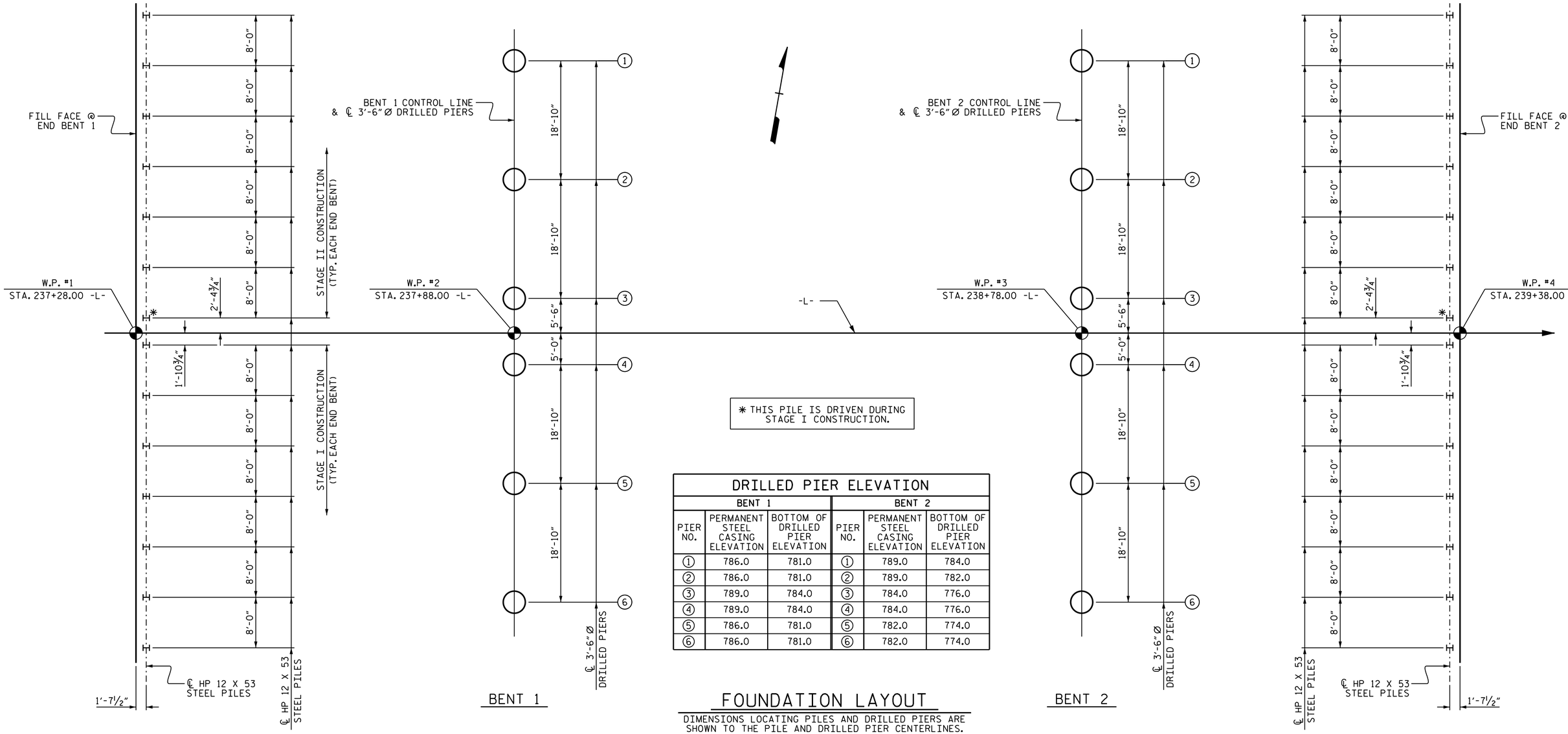

✱ THIS PILE IS DRIVEN DURING STAGE I CONSTRUCTION.

DRILLED PIER ELEVATION

BENT 1			BENT 2		
PIER NO.	PERMANENT STEEL CASING ELEVATION	BOTTOM OF DRILLED PIER ELEVATION	PIER NO.	PERMANENT STEEL CASING ELEVATION	BOTTOM OF DRILLED PIER ELEVATION
1	786.0	781.0	1	789.0	784.0
2	786.0	781.0	2	789.0	782.0
3	789.0	784.0	3	784.0	776.0
4	789.0	784.0	4	784.0	776.0
5	786.0	781.0	5	782.0	774.0
6	786.0	781.0	6	782.0	774.0

FOUNDATION LAYOUT

DIMENSIONS LOCATING PILES AND DRILLED PIERS ARE SHOWN TO THE PILE AND DRILLED PIER CENTERLINES.

NOTES

FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

DRILLED PIERS AT BENTS 1 AND 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 525 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 75 TSF.

PERMANENT STEEL CASINGS ARE REQUIRED FOR DRILLED PIERS AT BENT 1. DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATIONS SHOWN IN "DRILLED PIER ELEVATION" TABLE, WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

PERMANENT STEEL CASINGS ARE REQUIRED FOR DRILLED PIERS AT BENT 2. DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATIONS SHOWN IN "DRILLED PIER ELEVATION" TABLE, WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

INSTALL PERMANENT STEEL CASINGS AT BENTS 1 AND 2 BY VIBRATING, SCREWING OR DRIVING PERMANENT CASINGS BEFORE EXCAVATING OR DISTURBING ANY MATERIAL BELOW ELEVATION 792.1 FT. AND 791.5 FT., RESPECTIVELY.

INSTALL DRILLED PIERS AT BENT 1 THAT EXTEND TO AN ELEVATION NO HIGHER THAN THE ELEVATIONS SHOWN IN "DRILLED PIER ELEVATION" TABLE, AND WITH THE REQUIRED TIP RESISTANCE.

INSTALL DRILLED PIERS AT BENT 2 THAT EXTEND TO AN ELEVATION NO HIGHER THAN THE ELEVATIONS SHOWN IN "DRILLED PIER ELEVATION" TABLE, AND WITH THE REQUIRED TIP RESISTANCE.

THE SCOUR CRITICAL ELEVATIONS FOR BENTS 1 AND 2 IS 788 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SID INSPECTIONS MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTIONS. FOR SID INSPECTIONS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR CSL TESTING. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

DO NOT USE A DOWN HOLE OR DROP HAMMER IN CONSTRUCTING DRILLED PIERS AT BENTS 1 AND 2.

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENTS 1 AND 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 100 TONS PER PILE.

DRIVE PILES AT END BENTS 1 AND 2 TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.

FOR CONTROL OF VIBRATIONS SPECIAL PROVISIONS, SEE GEOTECHNICAL SPECIAL PROVISIONS.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENTS 1 AND 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILE EXCAVATION IS REQUIRED TO INSTALL PILES AT END BENTS 1 AND 2. EXCAVATE HOLES AT PILE LOCATIONS TO ELEVATION 791 FT. FOR END BENT 1 AND ELEVATION 790 FT. (LEFT) AND 789 FT. (RIGHT) FOR END BENT 2. FOR PILE EXCAVATION, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

CONCRETE OR GROUT IS REQUIRED TO FILL HOLES FOR PILE EXCAVATION UP TO AN ELEVATION FIVE FEET BELOW THE BOTTOM OF CAP ELEVATIONS AT END BENTS 1 AND 2. USE SELECT GRANULAR MATERIAL IN ACCORDANCE WITH SECTION 265-2 OF THE STANDARD SPECIFICATIONS TO FILL THE REMAINING TOP FIVE FEET OF THE EXCAVATION. SELECT GRANULAR MATERIAL IS INCIDENTAL TO THE CONTRACT PRICE FOR PILE EXCAVATION.

NORTH CAROLINA PROFESSIONAL SEAL 16301 ENGINEER TING HSIUNG FANG

DocuSigned by: Ting H. Fang E72088400977435...

12/3/2014

PROJECT NO. U-3615B
GUILFORD COUNTY
STATION: 238+33.00 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON SR 1820 OVER WEST FORK DEEP RIVER & OAK HOLLOW LAKE BETWEEN SR 1818 & SR 1834

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			91

STR. #1

ASSEMBLED BY : P.K. NEWTON DATE : 8/24/12
CHECKED BY : T.H. FANG DATE : 8/24/12
DESIGN ENGINEER OF RECORD: E.I. OMILE DATE : 1/7/14

03-DEC-2014 11:03
K:\TIPProjects-U\U3615b\Structures\Plans\str1\FinalPlans\u3615b_sd_FL.dgn
ttfang