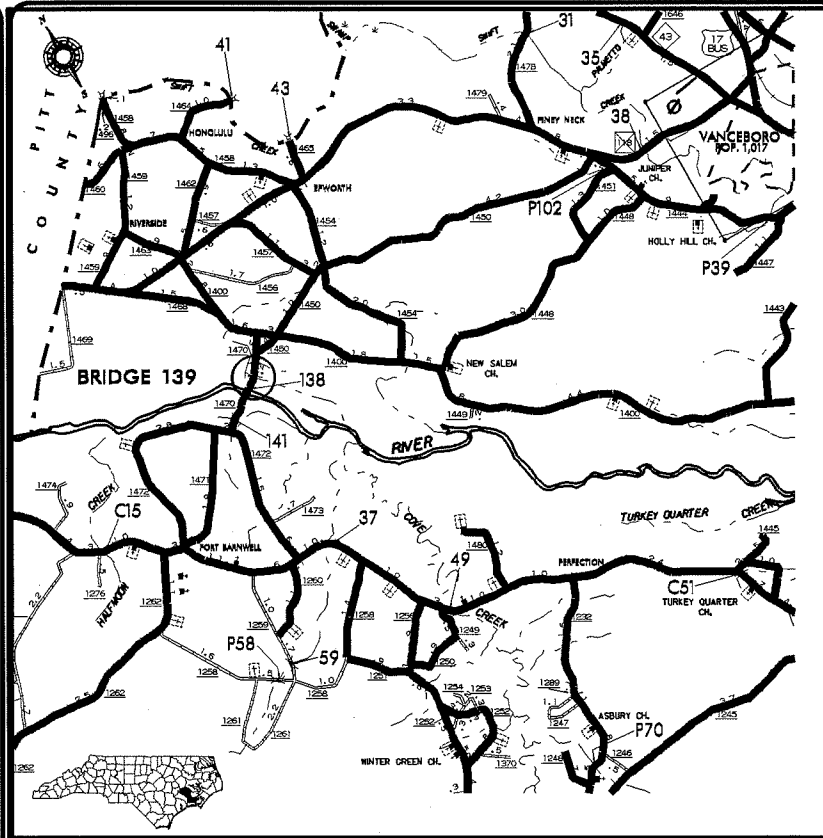


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

CRAVEN COUNTY

LOCATION: BRIDGE # 139 CRAVEN CO., ON SR1470 ACROSS NEUSE RIVER OVER FLOW
TYPE OF WORK: BRIDGE PRESERVATION: JACKETING OF STEEL PILES

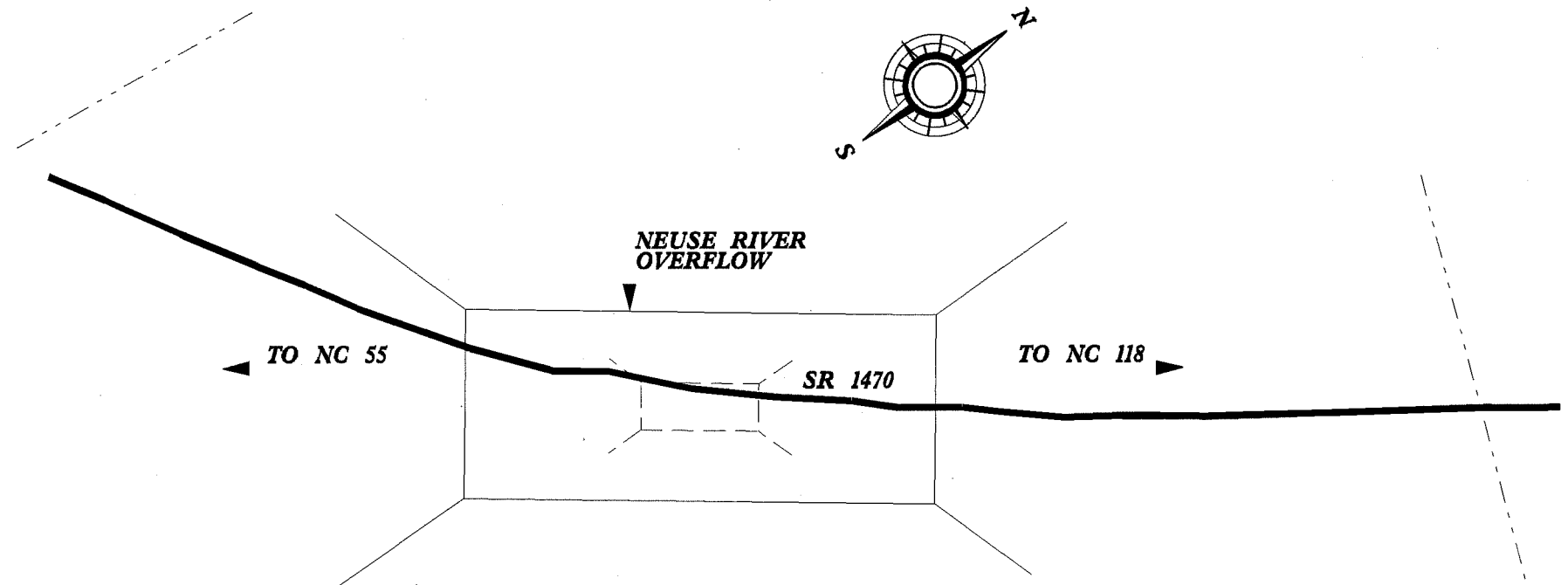
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.P.15	1	8
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.2.P.15		P.E.	
17BP.2.P.15		CONST.	



VICINITY MAP

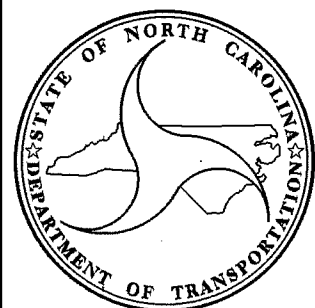
INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEETS	1
STRUCTURE SHEETS	S-1 THRU S-7



PROJECT: 17BP.2.P.15

CONTRACT:



DESIGN DATA

139 ADT 2009 = 1700

PROJECT LENGTH

BRIDGE CRAVEN #139 = .034 MILE

PREPARED IN THE OFFICE OF:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
 STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
 1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

RICK NELSON, P.E.

2012 STANDARD SPECIFICATIONS

LETTING DATE:
 OCTOBER 31, 2012



9/22/2012
DANIEL MULLER, P.E.
 PROJECT DESIGN ENGINEER

NOTES:

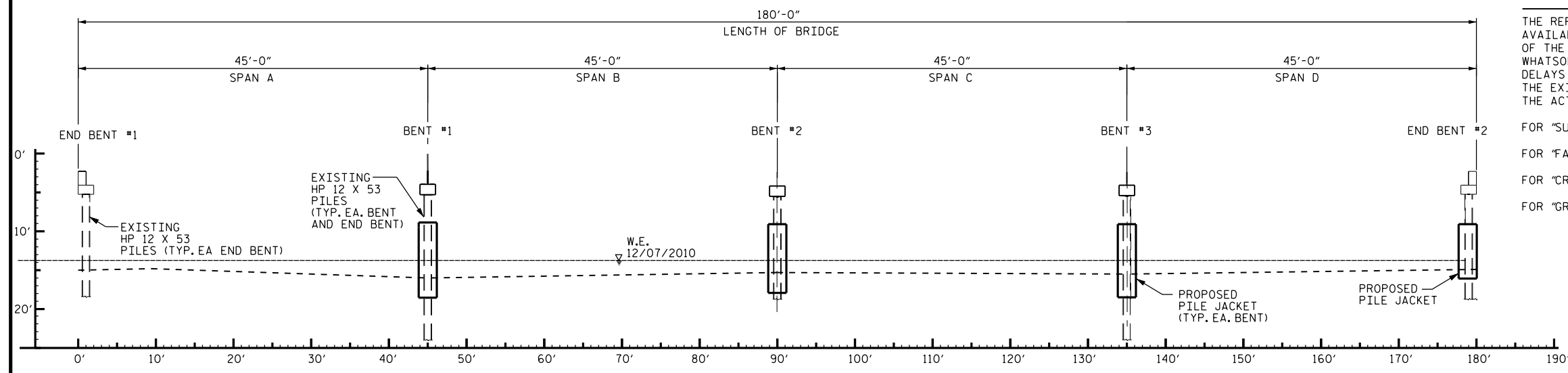
THE REPAIRS SHOWN ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

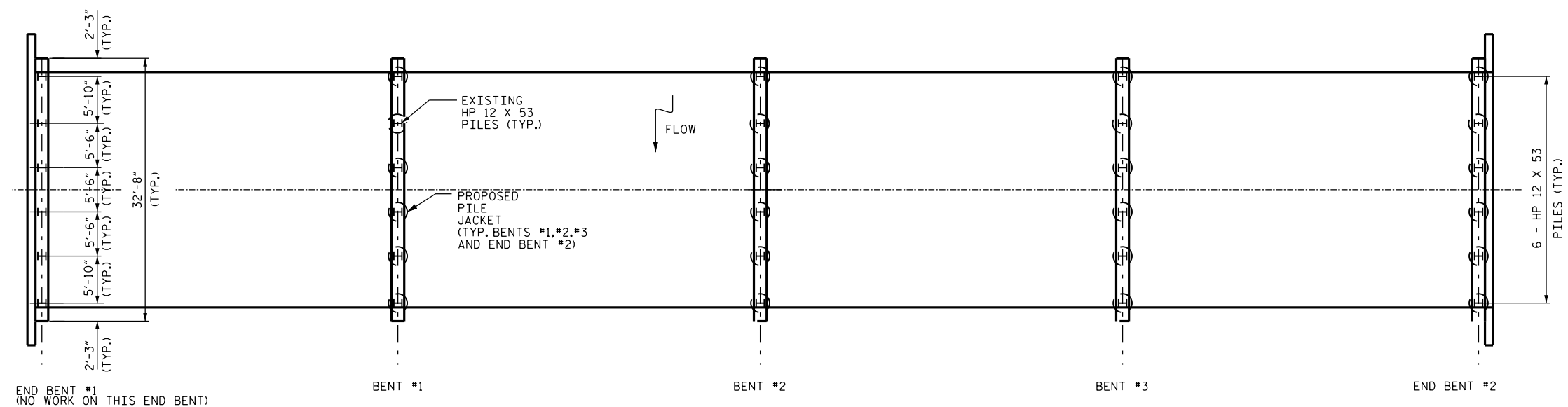
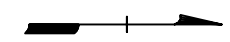
FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.



ELEVATION

TOP OF GUARDRAIL ASSUMED TO BE ELEVATION 0'.



PLAN VIEW

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO.: 139

TOTAL BILL OF MATERIAL		
	MOBILIZATION	PILE JACKET
BRIDGE	LUMP SUM	LF
NO. 139	LUMP SUM	144.0 (±)
TOTAL	LUMP SUM	144.0 (±)

DRAWN BY : S. T. SANDOR DATE : 08/12
 CHECKED BY : P. SPROUSE DATE : 09/12

21-SEP-2012 14:50
 S:\PRG\POC\Squad C\Preservation\Projects\17BP.2.P.15\Craven 139\CRAVEN139_SD.GD.dgn
 dmuller

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

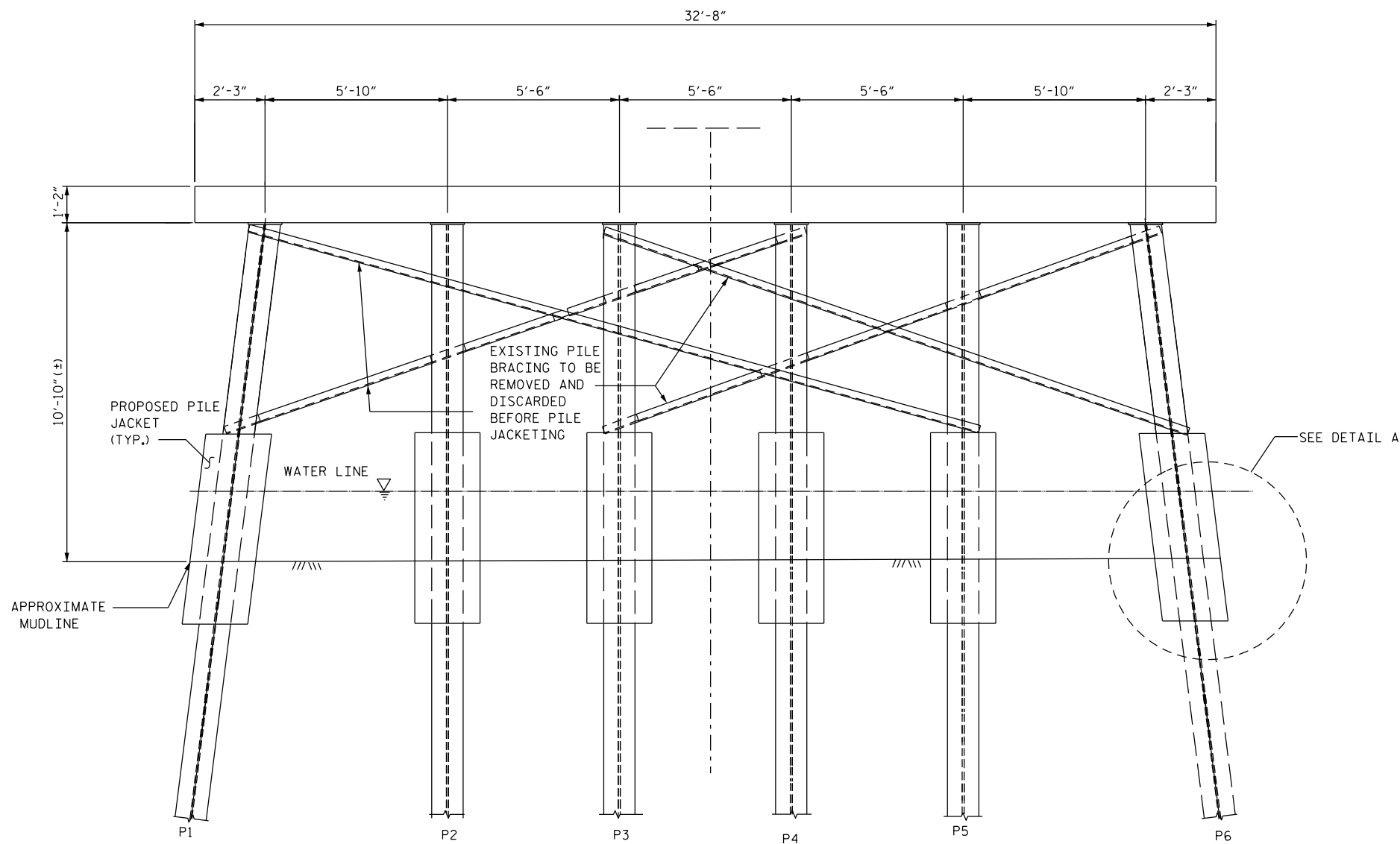
**PLAN & ELEVATION OF
 BRIDGE #139**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			8

NC006

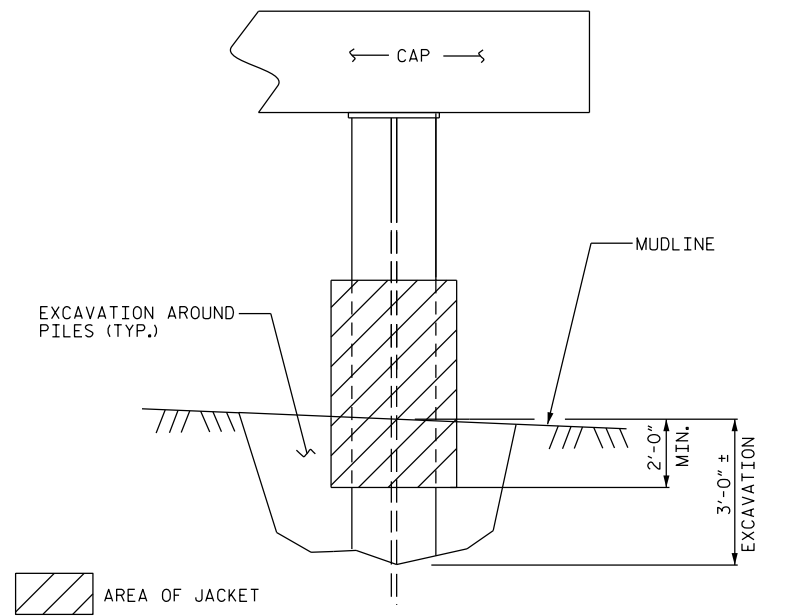
NOTES

- EXISTING PILES ARE HP 12 X 53 STEEL PILES.
- JACKET PILES TO A MINIMUM OF 2'-0" BELOW THE MUD LINE.
- JACKET PILES TO A MINIMUM OF 1'-0" ABOVE THE DAMAGED AREA.
- FOR "PILE JACKET", SEE SPECIAL PROVISIONS.
- PILE JACKET LENGTHS ARE MINIMUM 4'-0". LIMITS SHALL BE FIELD VERIFIED.
- FOR PILE JACKET DETAILS SEE SHEETS S-6 & S-7.
- REPAIR OF BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER.

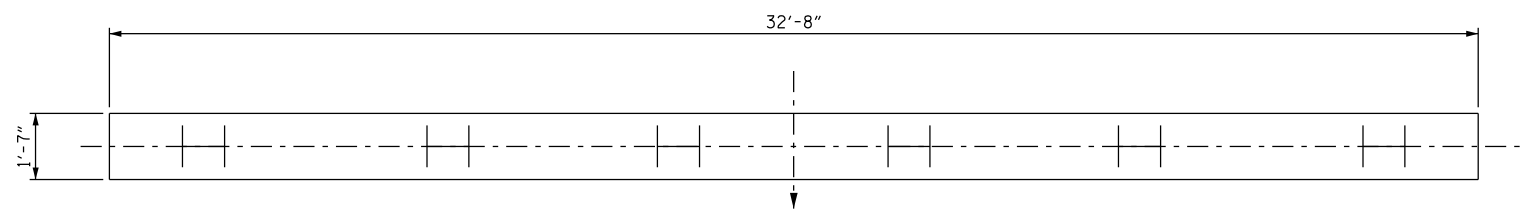


ELEVATION VIEW
BENT NO. 1

EXCAVATE 3'-0" (±) DEEP AROUND EXISTING PILES. CLEAN EXPOSED PILE BELOW EXISTING MUDLINE. AFTER CLEANING AND TREATING THE HP PILES, BACKFILL EXCAVATED AREA AROUND EACH PILE. SEE DETAIL A.



DETAIL A



PLAN VIEW
BENT NO. 1

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO.: 139

BENT	PILE
#1	P1*
#1	P2*
#1	P3*
#1	P4*
#1	P5*
#1	P6*

*PILE JACKET LENGTHS VARY BETWEEN 6'-6" (±) AND 7'-6" (±) LENGTHS AND REPAIR LIMITS SHALL BE FIELD VERIFIED.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 PILE JACKET
 REPAIR
 (BENT 1)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			8

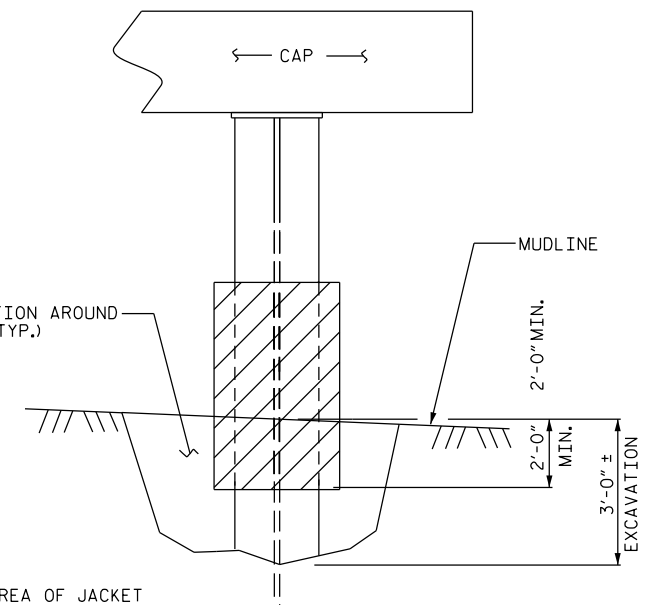
DRAWN BY : S. T. SANDOR DATE : 07/2012
 CHECKED BY : P. SPROUSE DATE : 08/2012

*****SYSTEM*****
 *****DCN*****
 *****USER*****

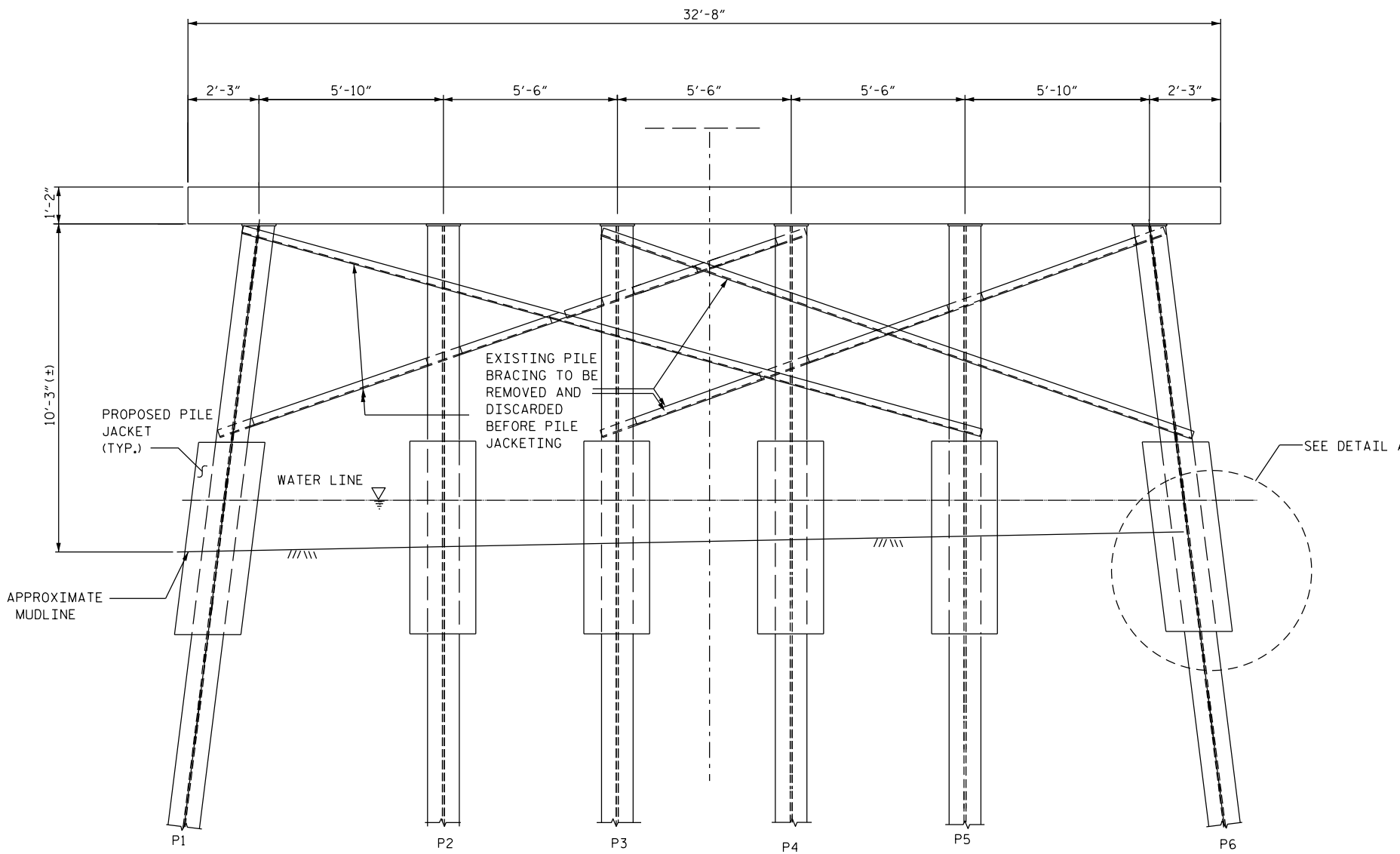
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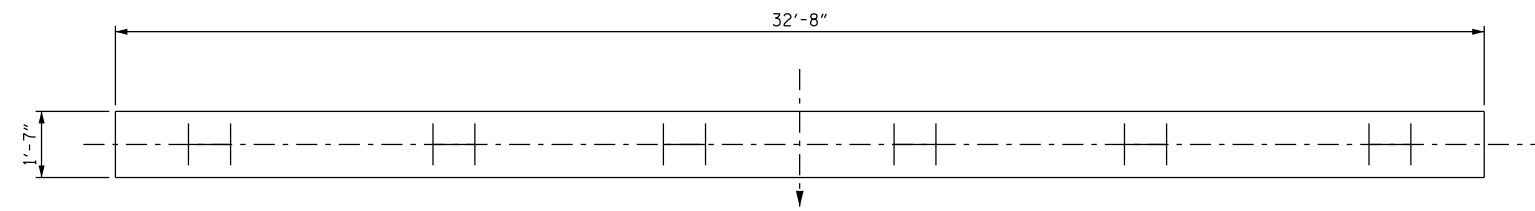
EXCAVATE 3'-0" (±) DEEP AROUND EXISTING PILES. CLEAN EXPOSED PILE BELOW EXISTING MUDLINE. AFTER CLEANING AND TREATING THE HP PILES, BACKFILL EXCAVATED AREA AROUND EACH PILE. SEE DETAIL A.



DETAIL A



ELEVATION VIEW
BENT NO. 2



PLAN VIEW
BENT NO. 2

BENT	PILE
#2	P1*
#2	P2*
#2	P3*
#2	P4*
#2	P5*
#2	P6*

*PILE JACKET LENGTHS VARY BETWEEN 6'-0" (±) AND 7'-6" (±) LENGTHS AND REPAIR LIMITS SHALL BE FIELD VERIFIED.

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO.: 139

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 PILE JACKET
 REPAIR
 (BENT 2)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			8

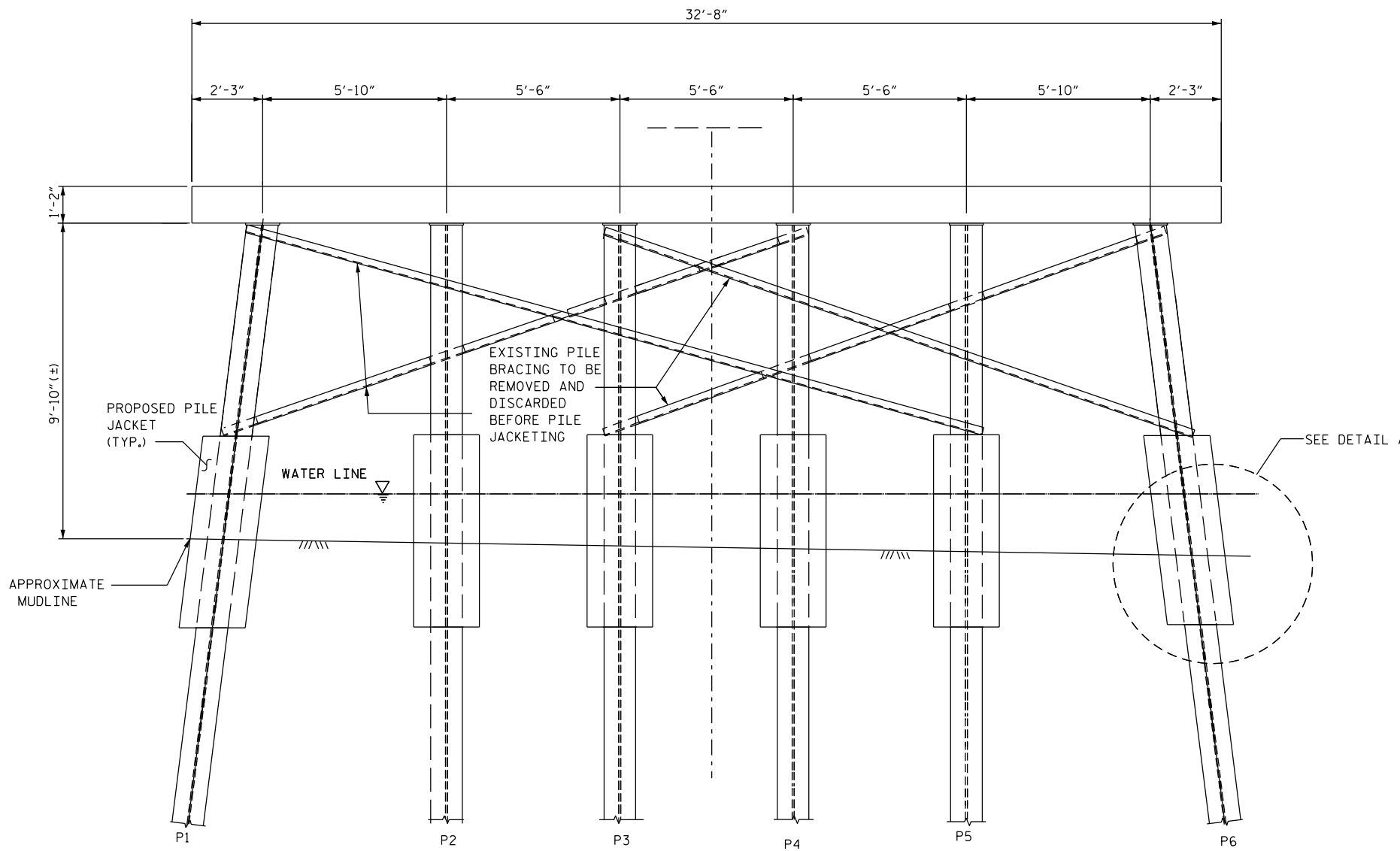
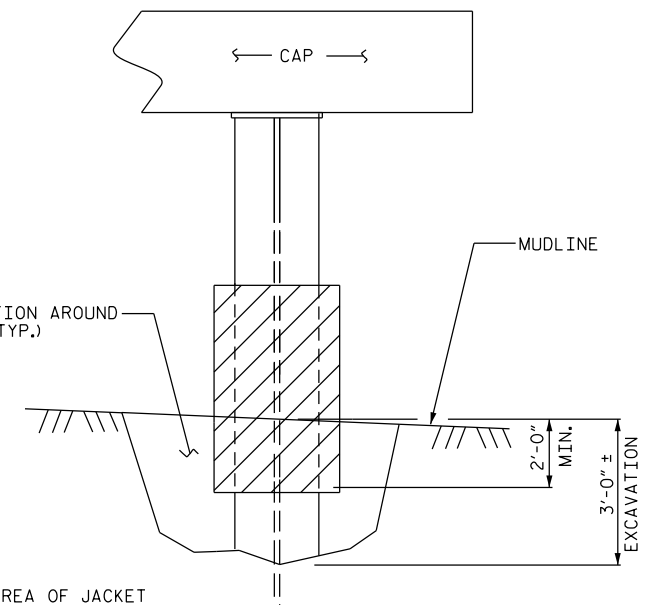
DRAWN BY : S. T. SANDOR DATE : 08/2012
 CHECKED BY : P. SPROUSE DATE : 09/2012

*****SYSTEM*****
 *****DCN*****
 *****USERNAME*****

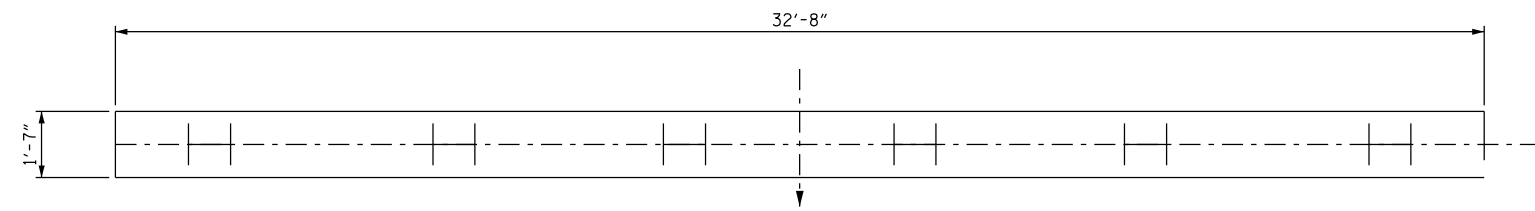
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ELEVATION VIEW
BENT NO. 3



PLAN VIEW
BENT NO. 3

BENT	PILE
#3	P1*
#3	P2*
#3	P3*
#3	P4*
#3	P5*
#3	P6*

*PILE JACKET LENGTHS VARY BETWEEN 6'-0" (±) AND 7'-6" (±) LENGTHS AND REPAIR LIMITS SHALL BE FIELD VERIFIED.

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO.: 139

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 PILE JACKET
 REPAIR
 (BENT 3)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			8

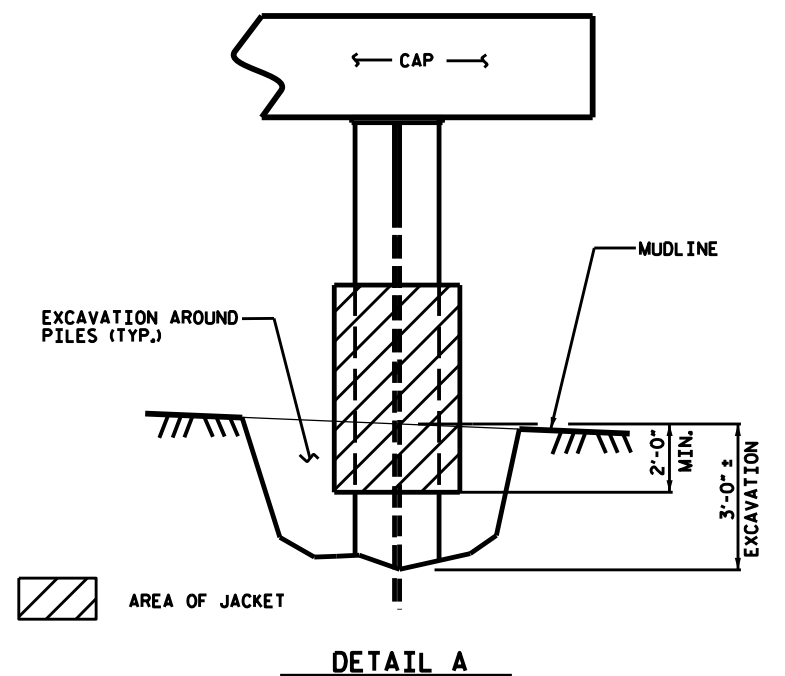
DRAWN BY : S. T. SANDOR DATE : 08/2012
 CHECKED BY : P. SPROUSE DATE : 09/2012

*****SYSTEM*****
 *****DCN*****
 *****USERNAME*****

NOTES

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DETAIL A

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO. 139

PILE JACKET LOCATIONS

END BENT	PILE
2	P1
2	P2
2	P3
2	P4
2	P5
2	P6

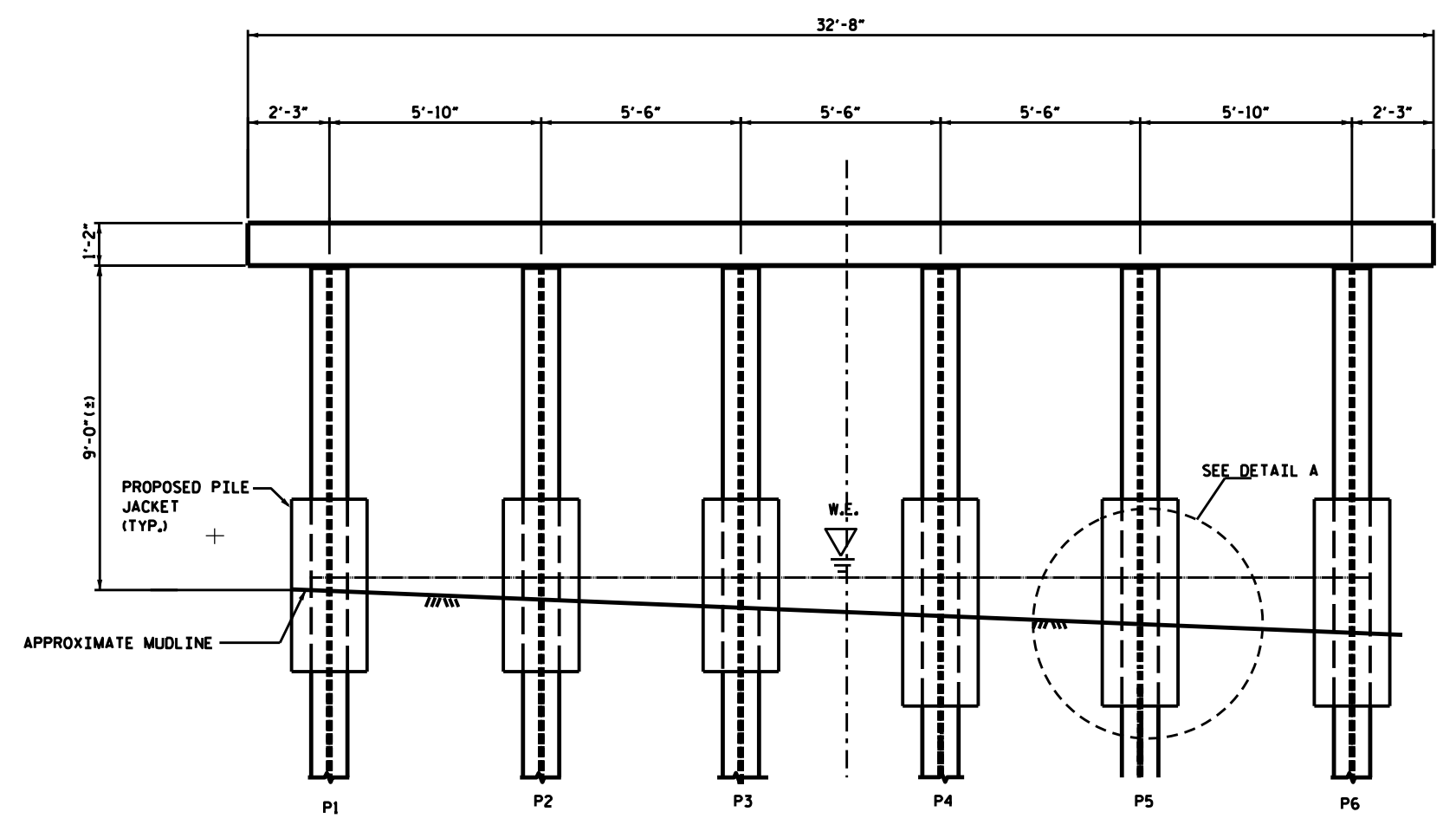
*PILE JACKET LENGTHS VARY BETWEEN 5'-6" (±) AND 7'-6" (±) LENGTHS AND REPAIR LIMITS SHALL BE FIELD VERIFIED.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

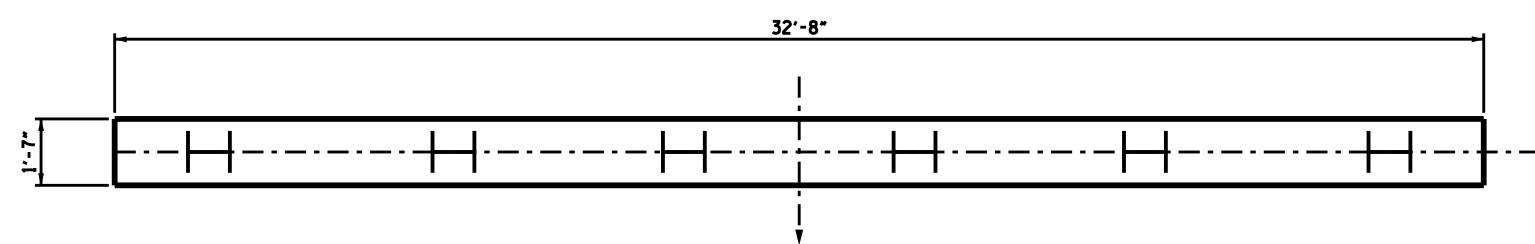
**SUBSTRUCTURE
 PILE JACKET
 REPAIR**

(END BENT #2)

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-5
1			3			TOTAL SHEETS
2			4			8



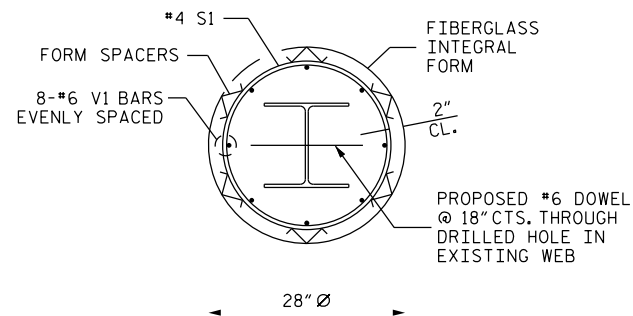
ELEVATION VIEW
 END BENT #2



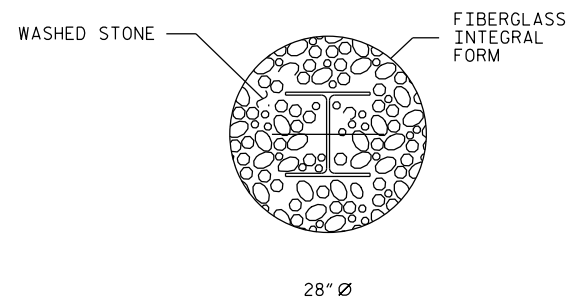
PLAN VIEW
 END BENT #2

DRAWN BY : S. T. SANDOR DATE : 08/2012
 CHECKED BY : P. SPROUSE DATE : 09/2012

*****SYSTEM*****
 *****DC*****
 *****USERNAME*****



JACKET DETAIL



BOTTOM DETAIL

JACKET NOTES:

CONCRETE AND BAR REINFORCEMENT SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE STANDARD SPECIFICATION SECTIONS.

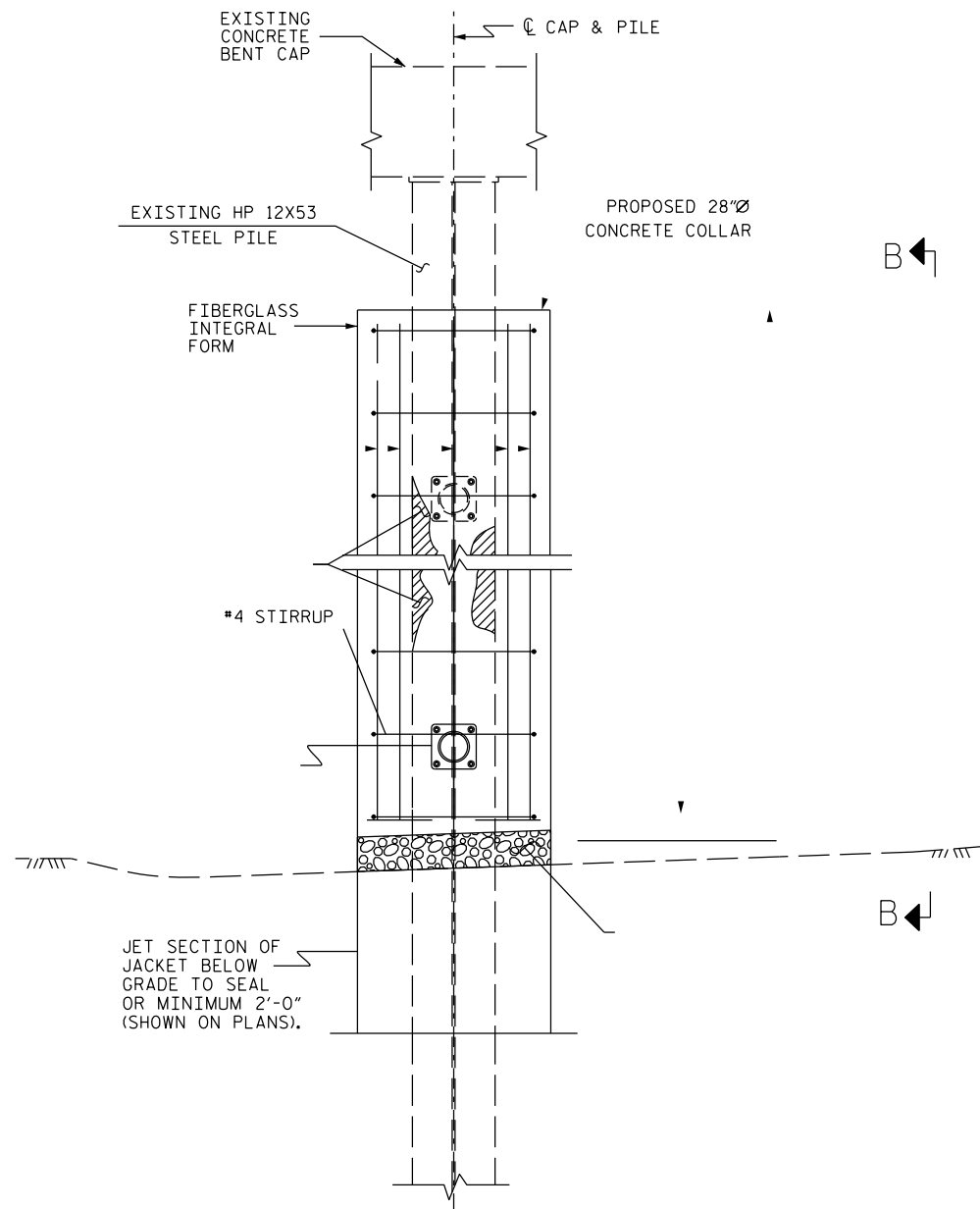
ALL REINFORCING BARS SHALL BE ASTM GRADE 60.

SURFACES OF PILES TO BE ENCASED IN CONCRETE SHALL BE CLEANED AS DESCRIBED IN SPECIAL PROVISIONS. CLEANING MUST BE DONE IMMEDIATELY BEFORE FORMS ARE INSTALLED.

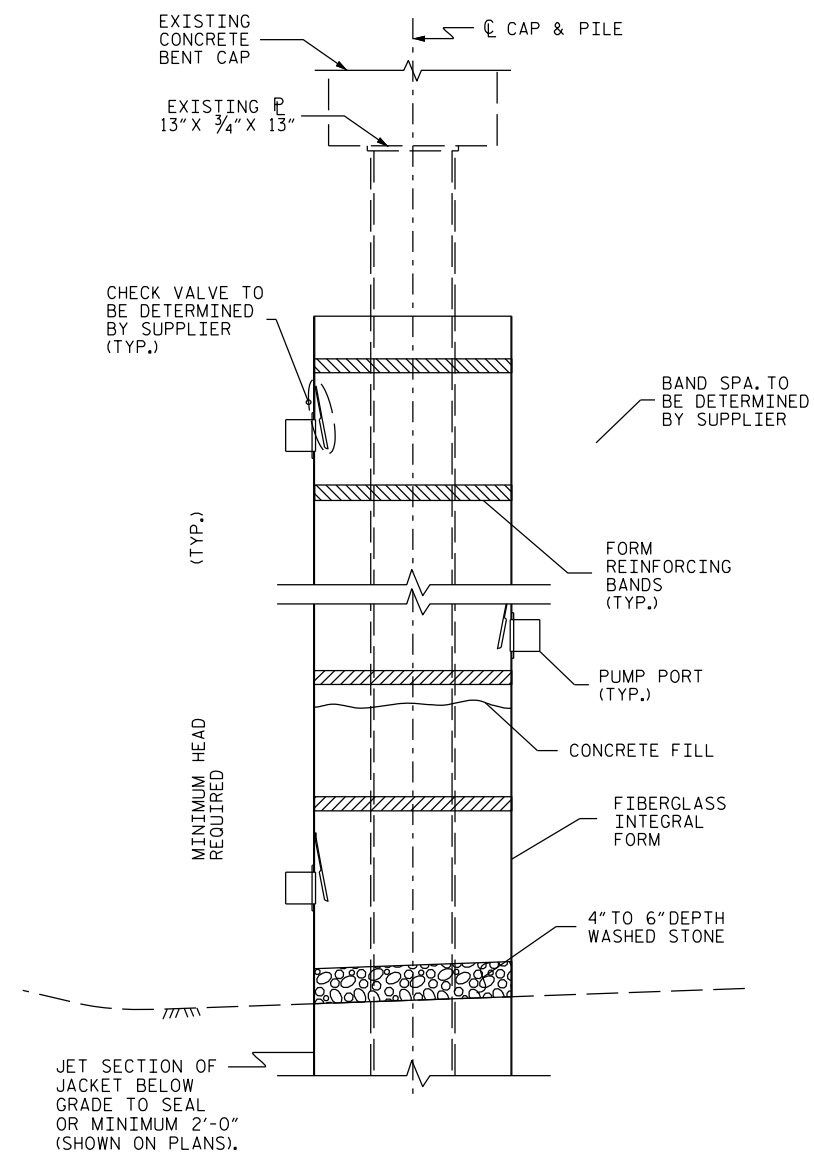
SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL SHOWING ALL FASTENING DETAILS, STANDOFFS, FORMS AND ANY OTHER DEVICES NECESSARY TO SECURE THE FORMS SO THAT CONCRETE MAY BE PLACED IN A CONTINUOUS OPERATION COMPLETELY ENCAPSULATING THE PILES.

FORMS FOR JACKET SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. BOTTOM SEAL SHALL BE MORTAR TIGHT.

CONCRETE AT THE TOP OF THE JACKET SHALL BE DOMED TO PREVENT PONDING. THE INTERFACE OF THE PILE AND THE CONCRETE AT THIS LOCATION SHALL BE SEALED WITH APPROVED SEALANT.



COLLAR ELEVATION



SECTION B-B

(BELOW GRADE REPAIR)

PROJECT NO. 17BP.2.P.15
 CRAVEN COUNTY
 BRIDGE NO.: 139

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

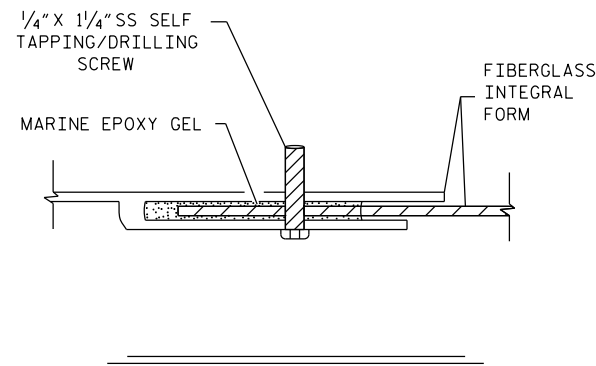
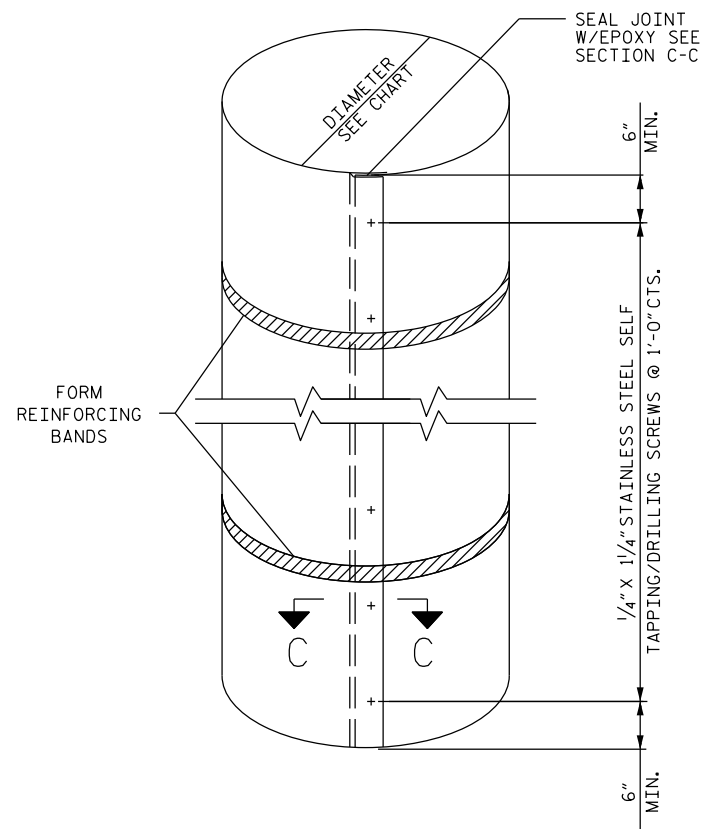
PILE JACKET
 REPAIR BELOW GRADE

DRAWN BY : S.T. SANDOR DATE : 09/2012
 CHECKED BY : P. SPROUSE DATE : 09/2012

*****SYSTEM*****
 *****DCN*****
 *****USERNAME*****

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			8

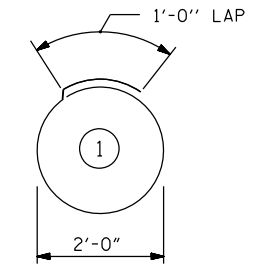
NC006



FIBERGLASS INTEGRAL FORM

REPAIR SEQUENCE

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

REINFORCING STEEL
(TYPICAL EACH BENT OR END BENT 2)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
V1	24	#6	STR	±5'-0"	180
V2	24	#6	STR	±7'-0"	252
S1	36	#4	1	7'-4"	176
S2	24	#6	STR	1'-4"	48

REINFORCING STEEL TOTAL = 656 LBS

CONCRETE

CLASS	VOLUME (CU. YDS)
A	6.03

REINFORCING STEEL AND CLASS A CONCRETE ARE PAID FOR IN THE PAY ITEM - PILE JACKETS

JACKET SIZING CHART

PILE/ COLUMN SIZE	RECOMMENDED JACKET SIZE
	ROUND
12" SQUARE	28" Ø

PROJECT NO. 17BP.2.P.15
CRAVEN COUNTY
 BRIDGE NO.: 139

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PILE JACKET
 DETAILS

DRAWN BY : S. T. SANDOR DATE : 08/2012
 CHECKED BY : P. SPROUSE DATE : 08/2012

*****SYSTEM*****
 *****DCN*****
 *****USERNAME*****

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-7
1			3			TOTAL SHEETS
2			4			8