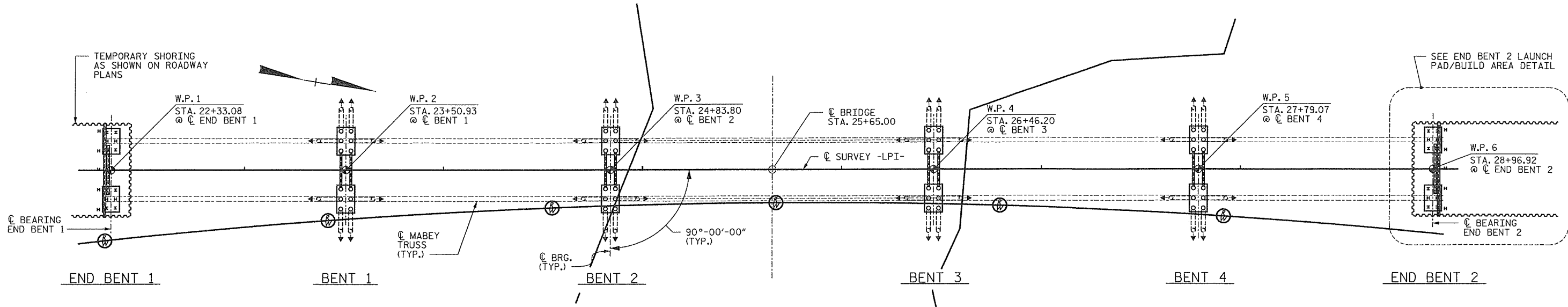


SECTION ALONG C -LPI-



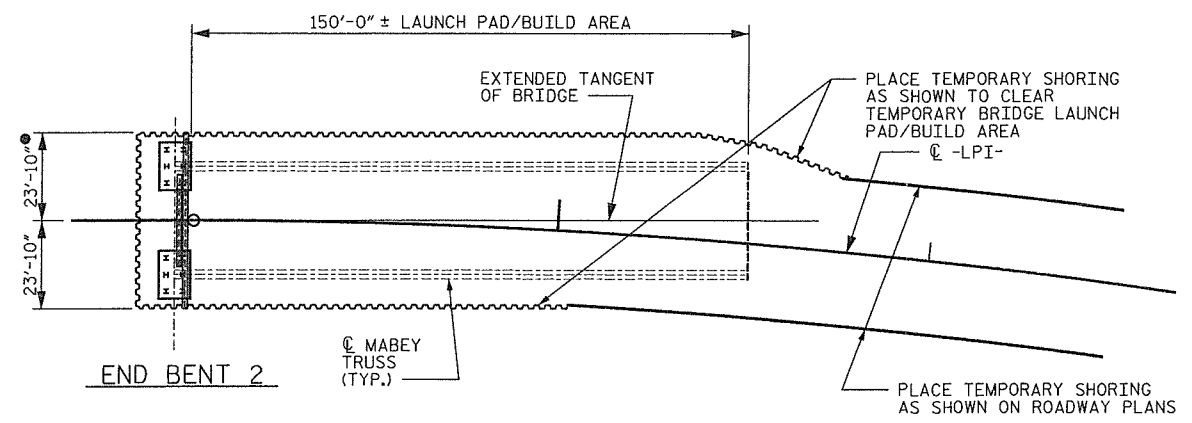
PLAN VIEW

(MABEY TRUSS SHOWN FOR INFORMATION ONLY)

LEGEND

- & I VERTICAL
- → BATTER 1/2:12

● THE SHORING LIMITS SHOWN ARE MEASURED PERPENDICULAR TO THE C OF THE BRIDGE. ONCE PAST THE BRIDGE THE SHORING SHALL CONTINUE TO BE MEASURED PERPENDICULAR TO AN EXTENDED TANGENT OF THE BRIDGE UNTIL THE TEMPORARY BRIDGE LAUNCH PAD CAN BE CLEARED.



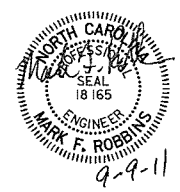
END BENT 2 LAUNCH PAD/BUILD AREA DETAIL

NOTE: ALL COMPONENTS SHALL BE PROTECTED FROM CORROSION BY GALVANIZATION AND OR AS DIRECTED BY THE ENGINEER.

NOTE: SUPERSTRUCTURE SHOWN FOR INFORMATION ONLY. SEE MABEY BRIDGE PLANS FOR ADDITIONAL INFORMATION.

PROJECT NO. 13201.1028011
 DARE COUNTY
 STATION: 25+65.00 -LPI-

SHEET 1 OF 3
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 TEMPORARY BRIDGE
 ON NC-12 OVER PEA
 ISLAND BREACH



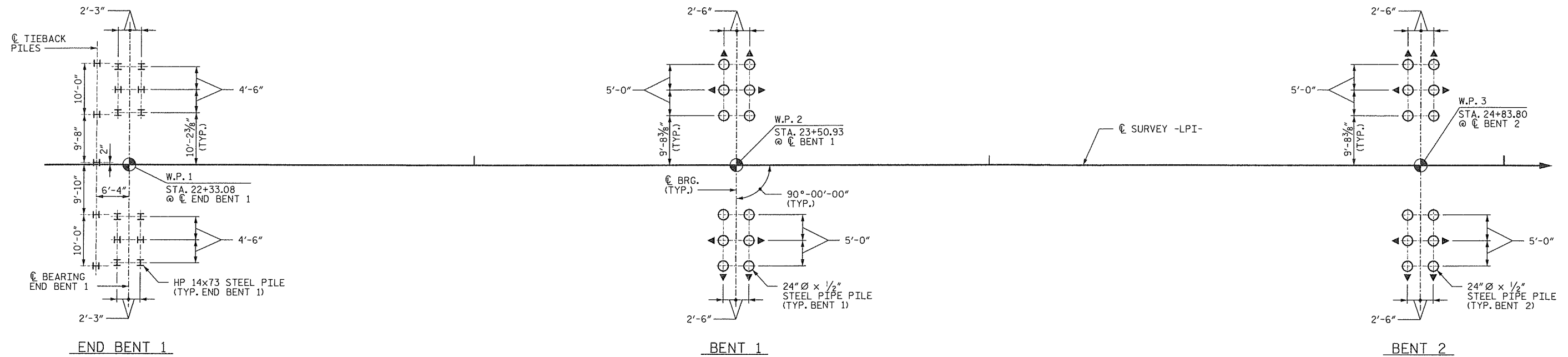
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	1
1			3			TOTAL SHEETS
2			4			11

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 CHECKED BY : TJT DATE : 9-11

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FOUNDATION LAYOUT

(DIMENSIONS TO PILES ARE TO \O AT BOTTOM OF FOOTING/CAP)

NOTES:

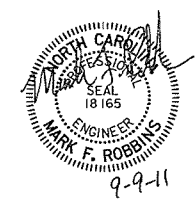
1. FOOTING/CAP PILES AT END BENTS 1 & 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 50 TONS PER PILE. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 84 TONS PER PILE. THE ESTIMATED PILE LENGTH IS 50 FEET.
2. TIEBACK PILES AT END BENT 1 ARE DESIGNED FOR A FACTORED HORIZONTAL FORCE OF 7 KIPS. PILES SHALL BE DRIVEN A MINIMUM OF 30 FEET BELOW ELEVATION 8.5.
3. END BENT PILES AND TIEBACK PILES SHALL BE HP 14x73 PILES AND BE GALVANIZED PER THE NCDOT STANDARD SPECIFICATIONS. PILES SHALL BE AASHTO M270 GRADE 50.
4. FOOTING/CAP PILES AT BENTS 1-4 ARE DESIGNED FOR A FACTORED RESISTANCE OF 120 TONS PER PILE. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 300 TONS PER PILE. THE ESTIMATED PILE LENGTH IS 65 FEET.
5. INSTALL PILES AT BENTS 1-4 TO A TIP ELEVATION NO HIGHER THAN -50.0 FEET.
6. BENT PILES SHALL BE 24" \O PIPE PILES WITH 1/2" WALL THICKNESS AND BE GALVANIZED PER THE NCDOT STANDARD SPECIFICATIONS. PILES SHALL BE ASTM A252 GRADE 3(MOD) ($f_y = 50$ ksi) OR APPROVED EQUIVALENT.
7. TESTING THE FIRST PRODUCTION PILE, PER PILE TYPE, WITH THE PILE DRIVING ANALYZER (PDA) DURING DRIVING IS REQUIRED.
8. THE STRUCTURE HAS BEEN DESIGNED FOR A SCOUR ELEVATION OF -22 FEET.

LEGEND

\O & **I** VERTICAL

\O \blacktriangleright BATTER 1/2:12

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 DARE _____ COUNTY
 STATION: 25+65.00 -LPI-
 SHEET 2 OF 3



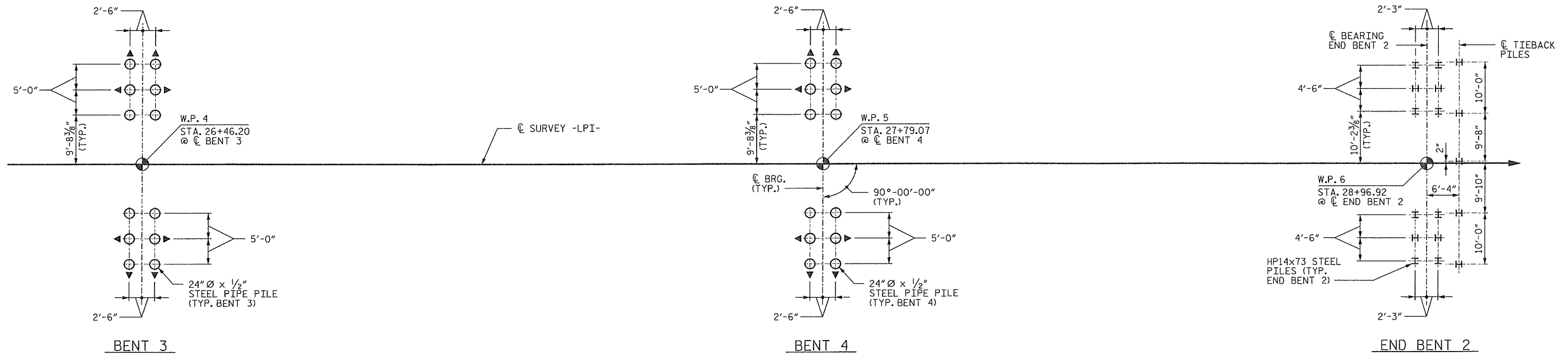
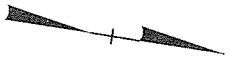
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 DEPARTMENT OF TRANSPORTATION
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 GENERAL DRAWING
 TEMPORARY BRIDGE ON
 NO-12 OVER PEA
 ISLAND BREACH

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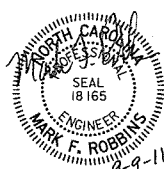
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FOUNDATION LAYOUT
 (DIMENSIONS TO PILES ARE TO \odot AT BOTTOM OF FOOTING/CAP)

NOTES:
 1. SEE SHEET 2 OF 3 FOR NOTES.

LEGEND	
\odot & I	VERTICAL
\odot \blacktriangleright	BATTER 1/2:12



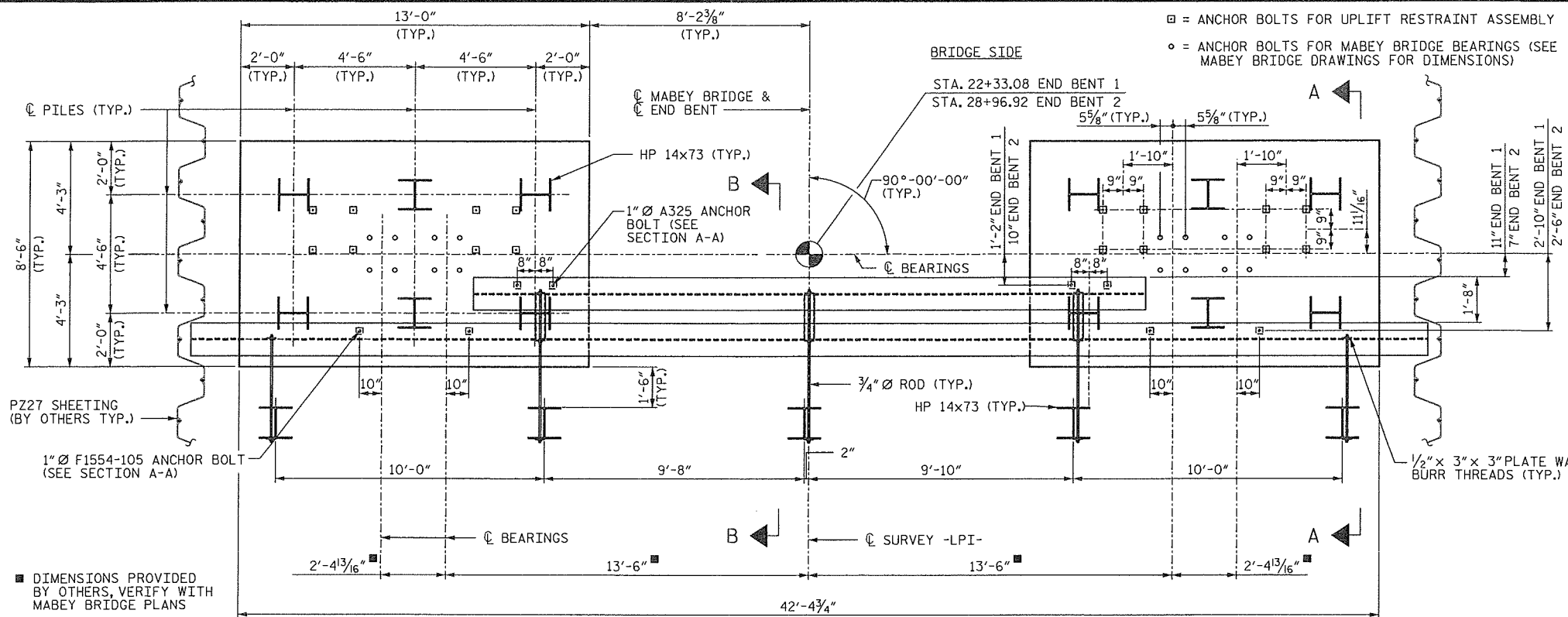
PROJECT NO. 13201.1028011
 DARE _____ COUNTY
 STATION: 25+65.00 -LPI-
 SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
TEMPORARY BRIDGE ON
NC-12 OVER PEA
ISLAND BREACH

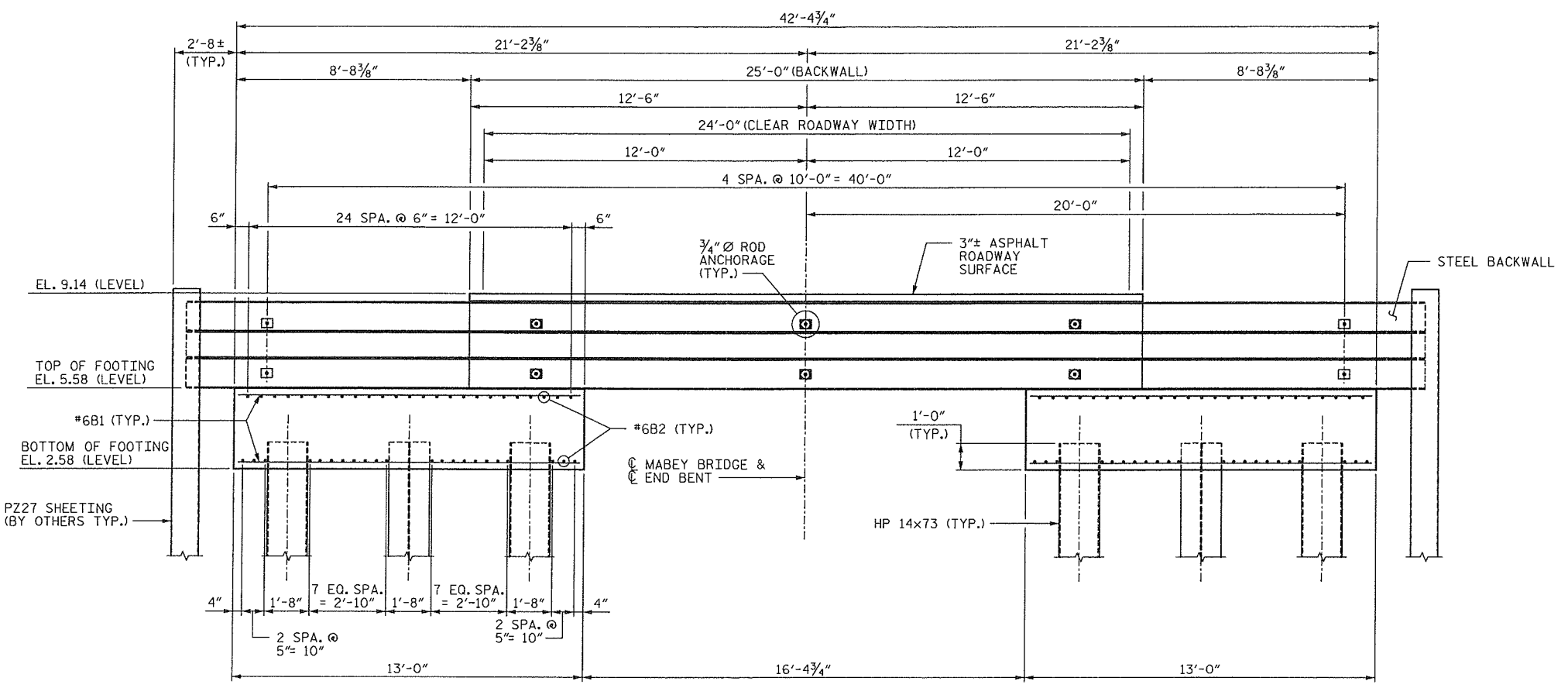
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CHECKED BY :	TJT	DATE :	9-11

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1			3			TOTAL SHEETS
2			4			11

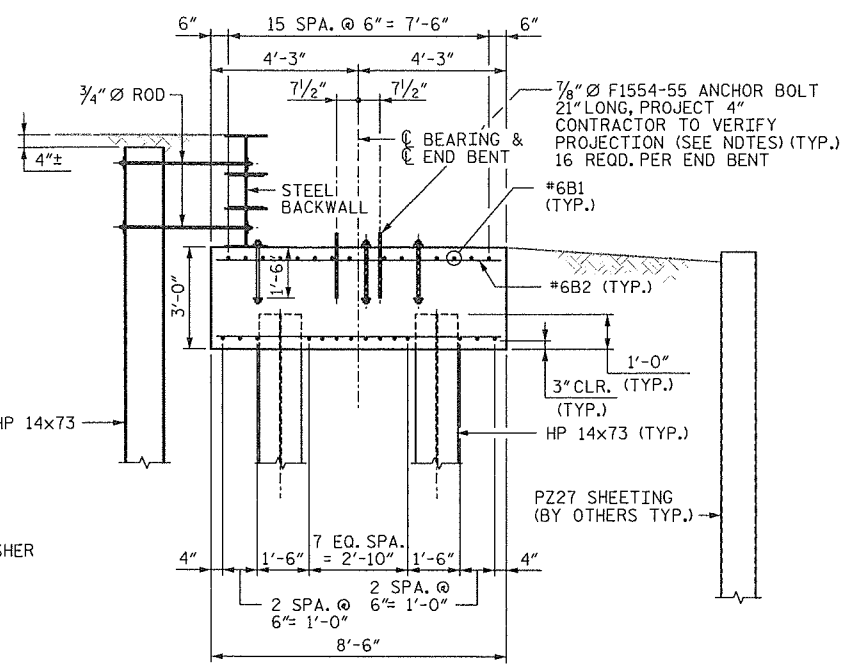


NOTE: BEARING PLATES NOT SHOWN, SEE MABEY BRIDGE PLANS. VERIFY ANCHOR BOLT SPACING WITH MABEY PLANS.

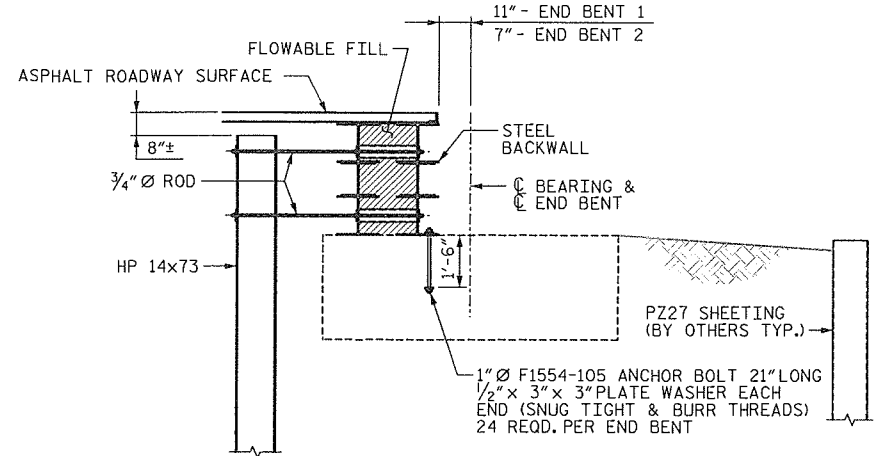


ELEVATION
(REINFORCING SHOWN IS TYPICAL)
(SEE PILE ANCHORAGE DETAIL FOR ADDITIONAL REINFORCEMENT)

□ = ANCHOR BOLTS FOR UPLIFT RESTRAINT ASSEMBLY
○ = ANCHOR BOLTS FOR MABEY BRIDGE BEARINGS (SEE MABEY BRIDGE DRAWINGS FOR DIMENSIONS)



SECTION A-A
(SEE PILE ANCHORAGE DETAIL FOR ADDITIONAL REINFORCEMENT)

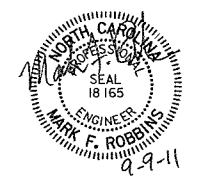


SECTION B-B

PROJECT NO. 13201.1028011
DARE COUNTY
STATION: 25+65.00 -LPI-

SHEET 1 OF 3
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENTS

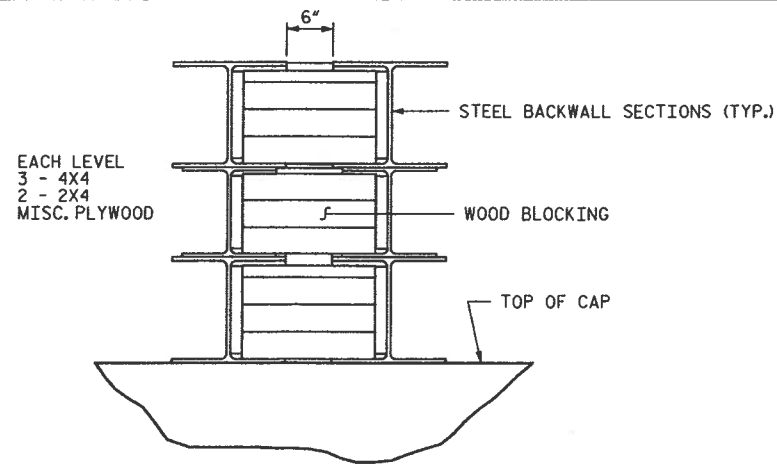


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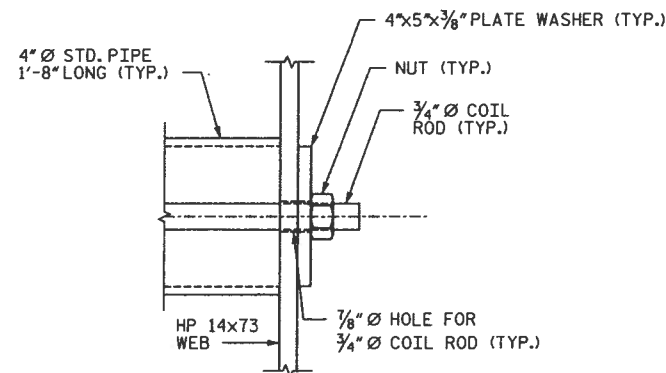
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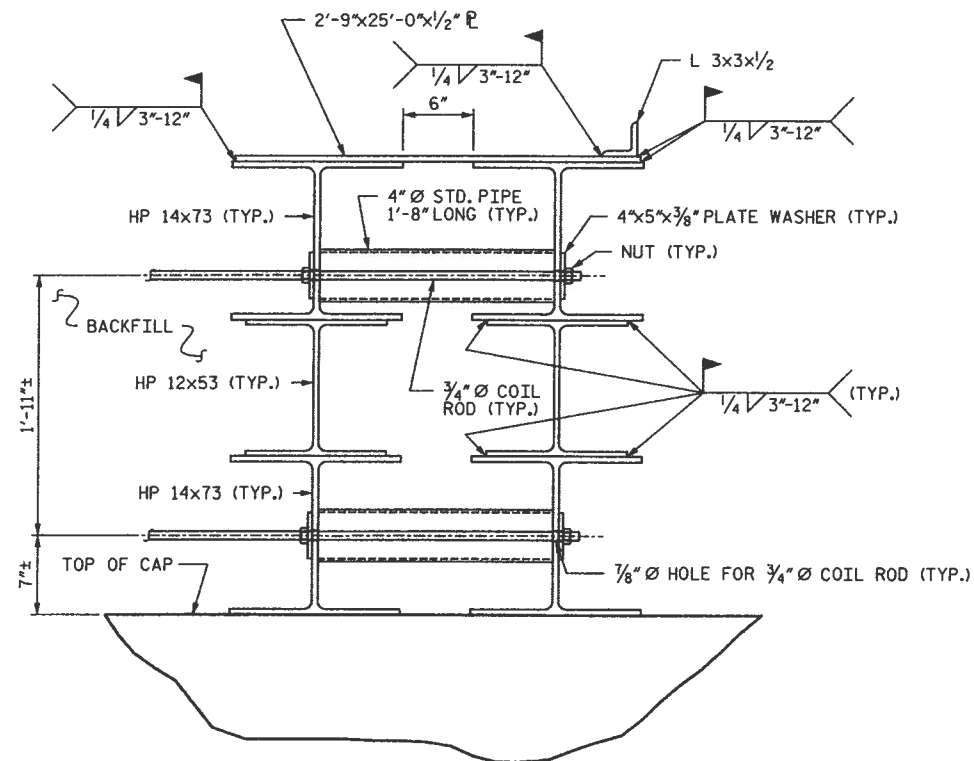
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CHECKED BY: JTG DATE: 9-11



END BLOCKING DETAIL
(WOOD BLOCKING TO CONTAIN FLOWABLE FILL)

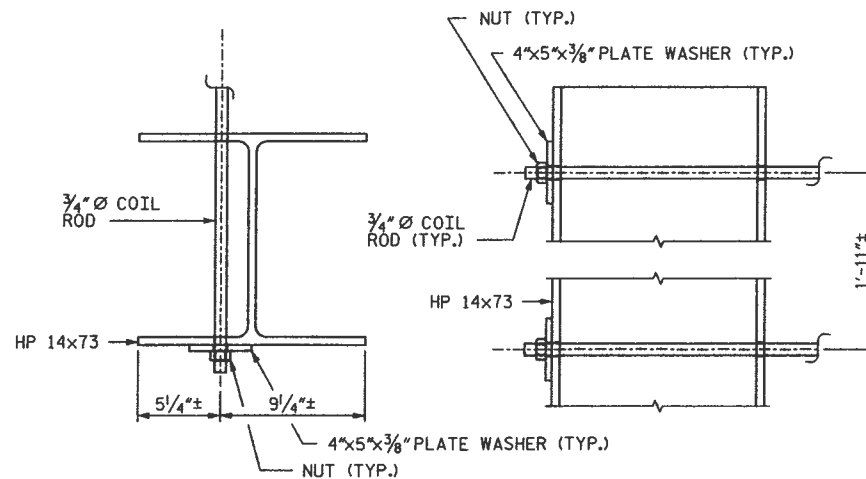


DETAIL A



STEEL BACKWALL DETAIL

(FRONT HP SECTIONS ARE ONLY IN MIDDLE 25'-0" OF BACKWALL)
(SEE ASPHALT RETAINING ANGLE DETAIL FOR ADDITIONAL DETAILS)



PLAN

SIDE VIEW

COIL ROD CONNECTION DETAIL

CONSTRUCTION SEQUENCE:

1. DRIVE PILES TO REQUIRED TONNAGE, SEE GENERAL DRAWING SHEET 2 OF 3.
2. CONSTRUCT CAST-IN-PLACE FOOTING PER PLANS.
3. PLACE STEEL BACKWALL ON FOOTINGS WITHOUT TOP PLATE ATTACHED.
4. BLOCK END OF BACKWALL AND FILL VOID WITH FLOWABLE FILL.
5. CONNECT 3/4" Ø COIL RODS TO TIEBACK PILES.
6. PLACE AND WELD TOP PLATE AND L 3X3X1/2" ON BACKWALL.
7. FILL BEHIND BACKWALL.
8. PAVE 3"± ASPHALT ROADWAY SURFACE.

NOTES:

1. FOR ADDITIONAL NOTES, SEE GENERAL DRAWING SHEET 2 OF 3.
2. SUPERSTRUCTURE LOADS PROVIDED BY OTHERS:
(END BENT EACH FOOTING)

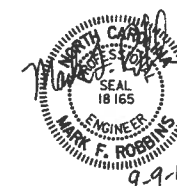
DEAD LOAD	LIVE LOAD
65 k	135 k
3. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2006.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH CURRENT AWS SPECIFICATIONS.
5. ALL STRUCTURAL STEEL SHALL BE IN GOOD CONDITION AND MEET THE REQUIREMENTS OF AASHTO M270 GRADE 50 AND SHALL BE GALVANIZED PER THE STANDARD SPECIFICATIONS.
6. ALL CONCRETE SHALL BE CLASS AA.
7. ALL REINFORCING STEEL SHALL BE GRADE 60.
8. END BENT 1 IS THE FEMALE END OF THE MABEY BRIDGE AND END BENT 2 IS THE MALE END OF THE MABEY BRIDGE.
9. REINFORCING STEEL MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS AND HP PILES.
10. FOR MABEY BRIDGE ANCHOR BOLT DIMENSIONS, DETAILS AND NOTES, SEE MABEY BRIDGE DRAWINGS.
11. ALL ELEVATIONS SHOWN IN FEET UNLESS NOTED OTHERWISE.
12. 3/4" Ø COIL ROD SHALL BE DAYTON SUPERIOR B-12 ROD WITH A SAFE WORKING LOAD IN TENSION OF 18,000 LBS OR APPROVED EQUAL.
13. PLATE WASHER SHALL BE DAYTON SUPERIOR B11 FLAT WASHER WITH A SAFE WORKING LOAD OF 14,000 LBS OR APPROVED EQUAL.
14. NUT SHALL BE DAYTON SUPERIOR B13 STANDARD COIL NUT WITH A SAFE WORKING LOAD OF 9,000 LBS IN TENSION OR APPROVED EQUAL.
15. CONTRACTOR SHALL COORDINATE SHEETING WITH END BENT LOCATION AND BACKWALL SUCH THAT NO CONFLICT OCCURS.
16. BACKFILL BEHIND BACKWALL SHALL NOT OCCUR UNTIL FLOWABLE FILL HAS SET AND TIE BACKS ARE CONNECTED TO HP 14x73 TIEBACK PILES.
17. IF FUTURE STORM EVENTS REQUIRE THE NEED FOR ADDITIONAL SPANS, THE ENGINEER SHALL BE CONTACTED PRIOR TO ANY FUTURE EXTENSION OF THIS BRIDGE. THE ADDITIONAL SPAN ADJACENT TO THE END BENTS SHALL NOT EXCEED THE LENGTH OF THE CURRENT SPAN SUPPORTED BY THE END BENT.
18. CONTRACTOR MAY USE GROUT CANS (PER MABEY PLANS) TO INSTALL MABEY BEARING ANCHOR BOLTS. GROUT CANS SHALL NOT BE USED ON BRIDGE RESTRAINT SYSTEM ANCHOR BOLTS.

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SHEET 2 OF 3

STATE OF NORTH CAROLINA
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RALEIGH

END BENTS



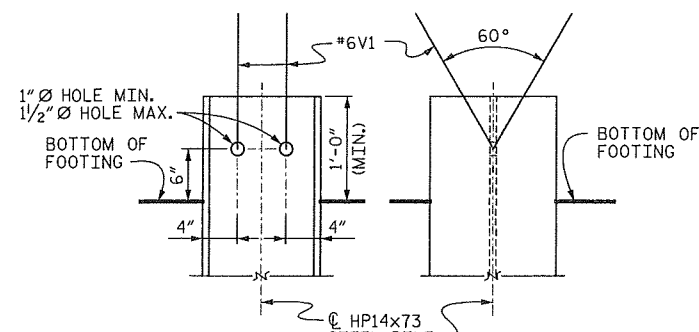
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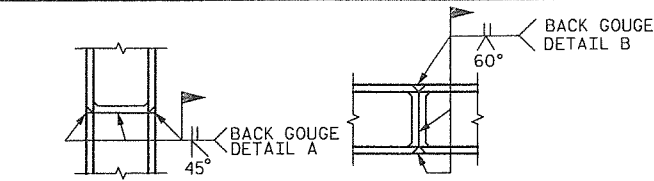
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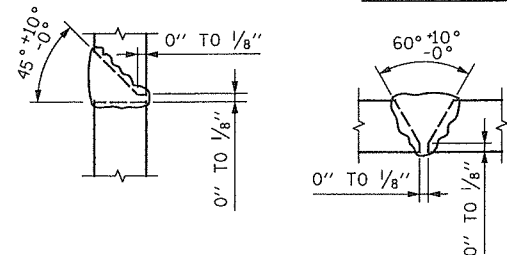


PILE ANCHORAGE DETAIL

HOLES SHALL BE DRILLED.
 REINFORCING BARS SHALL BE TIED OR WEDGED TIGHTLY
 AGAINST THE TOP OF THE HOLE



PILE VERTICAL PILE HORIZONTAL OR VERTICAL

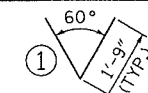


DETAIL A DETAIL B

POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



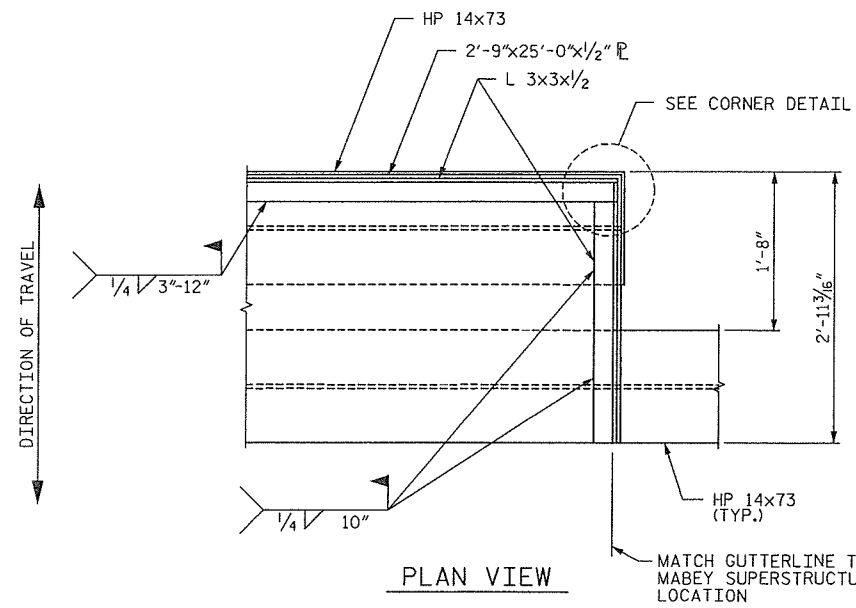
ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL - ONE END BENT

MARK	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	60	#6	STR	12'-8"	1142
B2	94	#6	STR	8'-2"	1153
V1	24	#6	1	3'-6"	126

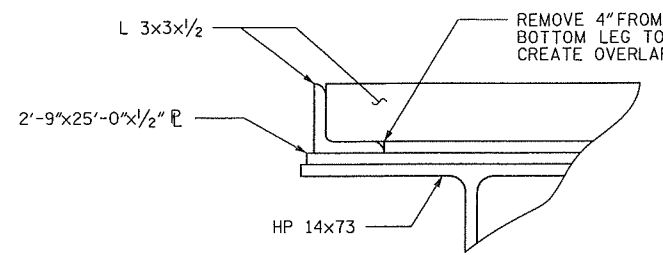
QUANTITIES - ONE END BENT

		LBS.		
REINFORCING STEEL				2,421
CLASS AA CONCRETE				
POUR 1 (2 FOOTINGS)		CU. YDS.		24.6
BACKWALL STEEL	HP12x53 STEEL PILES	NO.		2
		LIN. FT.		73
BEARING PILES	HP14x73 STEEL PILES	NO.		4
		LIN. FT.		146
BACKWALL ANCHORAGE	HP14x73 STEEL PILES	NO.		12
		LIN. FT.		600
BACKWALL ANCHORAGE	HP14x73 STEEL PILES	NO.		5
		LIN. FT.		150

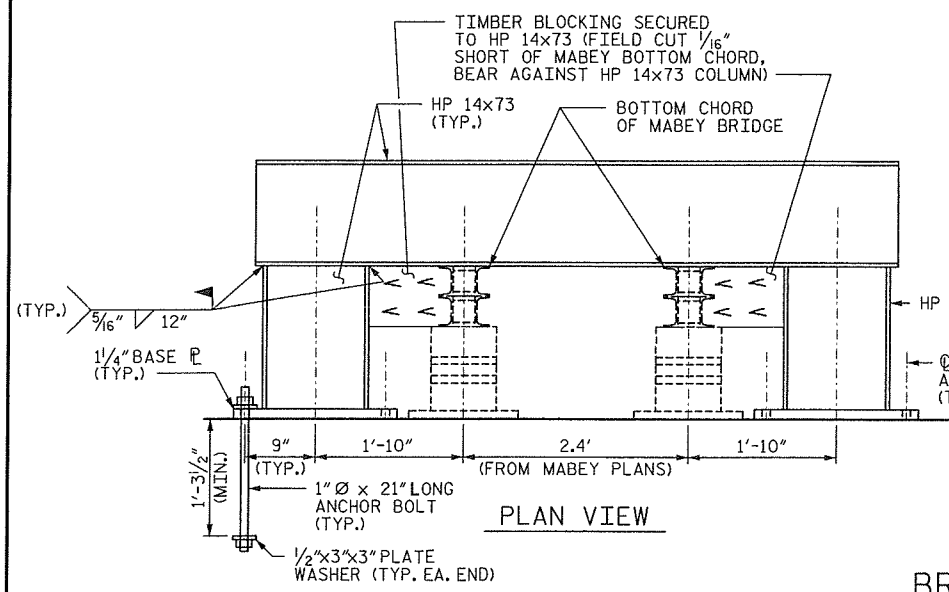


PLAN VIEW

ASPHALT RETAINING ANGLE



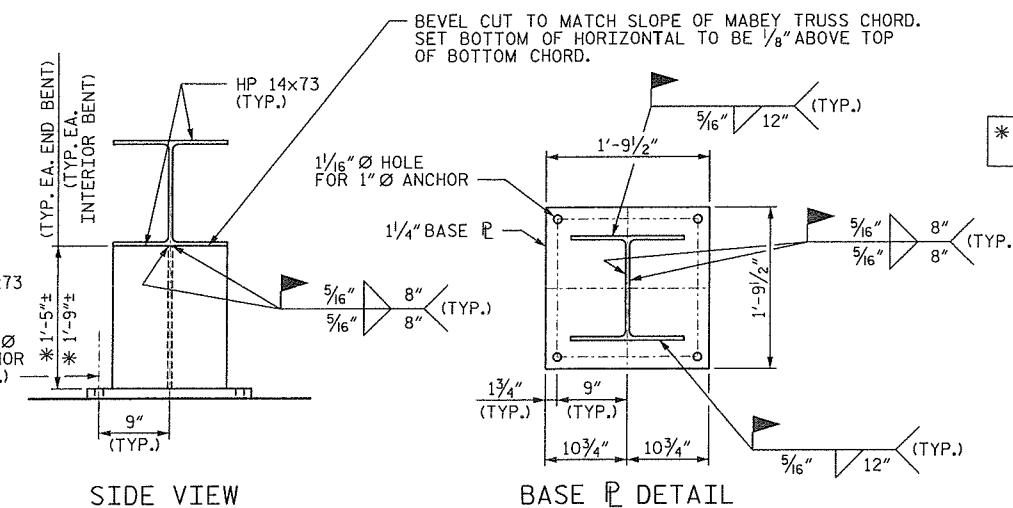
CORNER DETAIL



PLAN VIEW

BRIDGE RESTRAINT SYSTEM

(TYPICAL AT ALL END BENT AND BENT LOCATIONS.)
 (FOR PLACEMENT ALONG THE FOOTING, SEE PLAN VIEW OF BENT OR END BENT)



SIDE VIEW

BASE PLATE DETAIL

* VERIFY DIMENSIONS WITH MABEY BRIDGE PLANS

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 SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

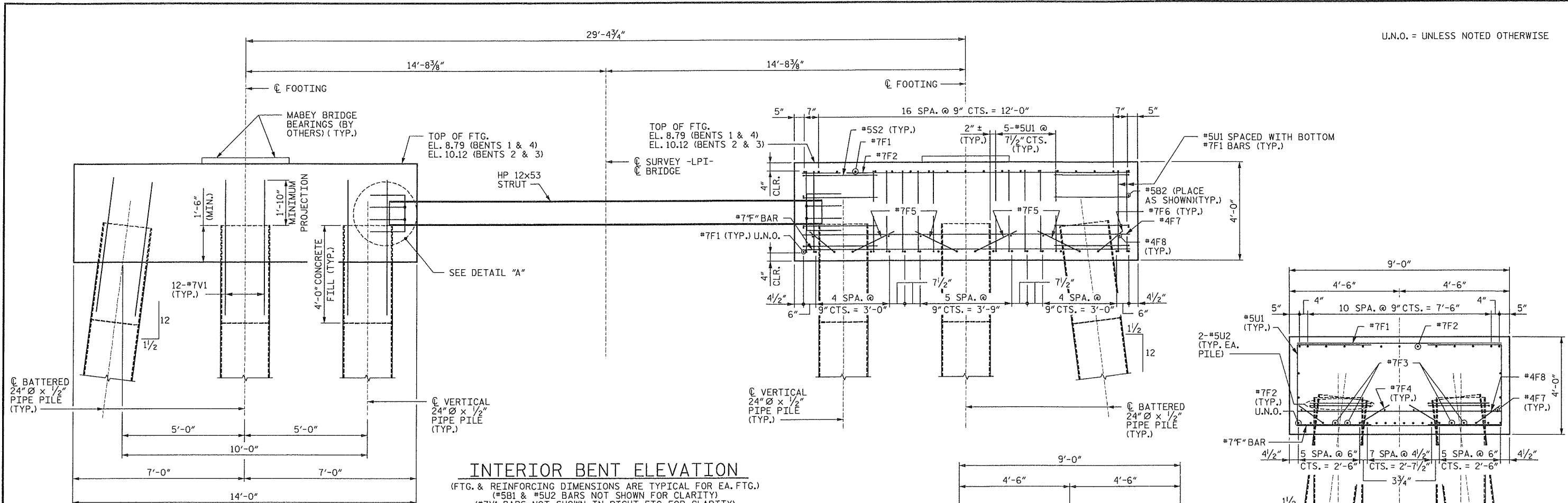
END BENTS



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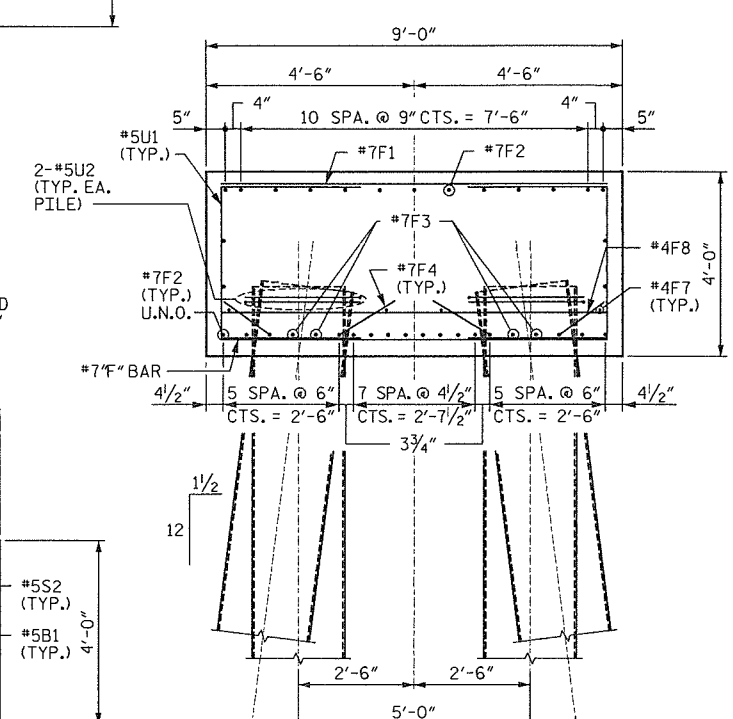
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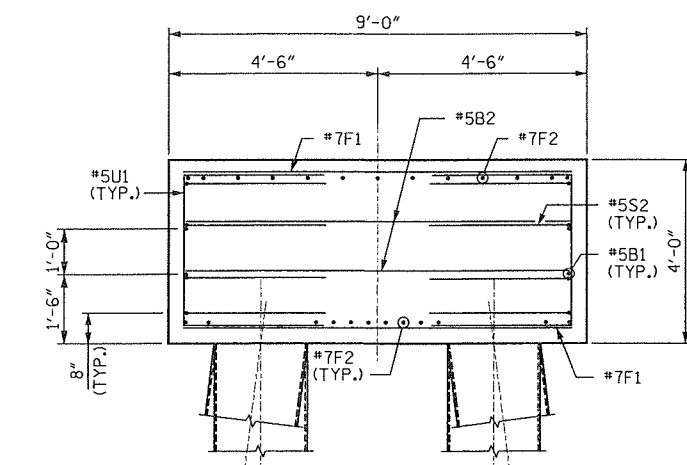
INTERIOR BENT ELEVATION

(FTG. & REINFORCING DIMENSIONS ARE TYPICAL FOR EA. FTG.)
 (#5B1 & #5U2 BARS NOT SHOWN FOR CLARITY)
 (#7V1 BARS NOT SHOWN IN RIGHT FTG. FOR CLARITY)
 (REINFORCING NOT SHOWN IN LEFT FTG. FOR CLARITY)
 (SEE "ANCHOR BOLT LAYOUT" ON INTERIOR BENT DETAILS SHEET 3 OF 4 & 4 OF 4 FOR ANCHOR BOLT LOCATIONS)



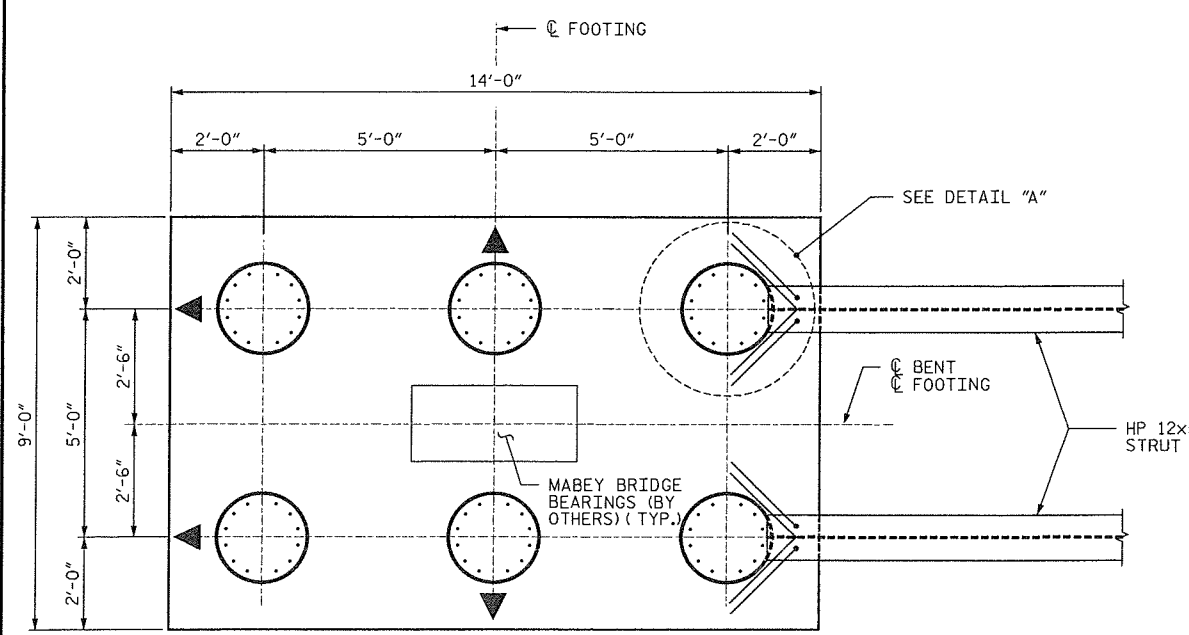
FOOTING SECTION

(*7V1, #5S2 & #5B2 BARS NOT SHOWN FOR CLARITY)



END VIEW

(*7F3 & #7F4 BARS NOT SHOWN FOR CLARITY)

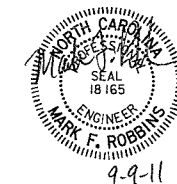


PARTIAL FOOTING PLAN
(TYP. EACH FOOTING)

▲ BATTER 1/2:12

NOTES:

1. CONCRETE FOR FOOTINGS SHALL BE CLASS AA (f'c = 4,500 PSI).
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. FOR PIPE PILE INFORMATION, SEE GENERAL DRAWING SHEET 2 OF 3.
4. REINFORCING MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS AND HP 12x53 STRUT.
5. FIELD BENT #7F4, #7F5 & #7F6 AS NECESSARY TO CLEAR PILES.
6. FOR MABEY BRIDGE ANCHOR BOLT DIMENSIONS, DETAILS AND NOTES, SEE MABEY BRIDGE DRAWINGS.
7. FOR "BRIDGE RESTRAINT SYSTEM", SEE END BENT SHEET 3 OF 3.



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SHEET 1 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

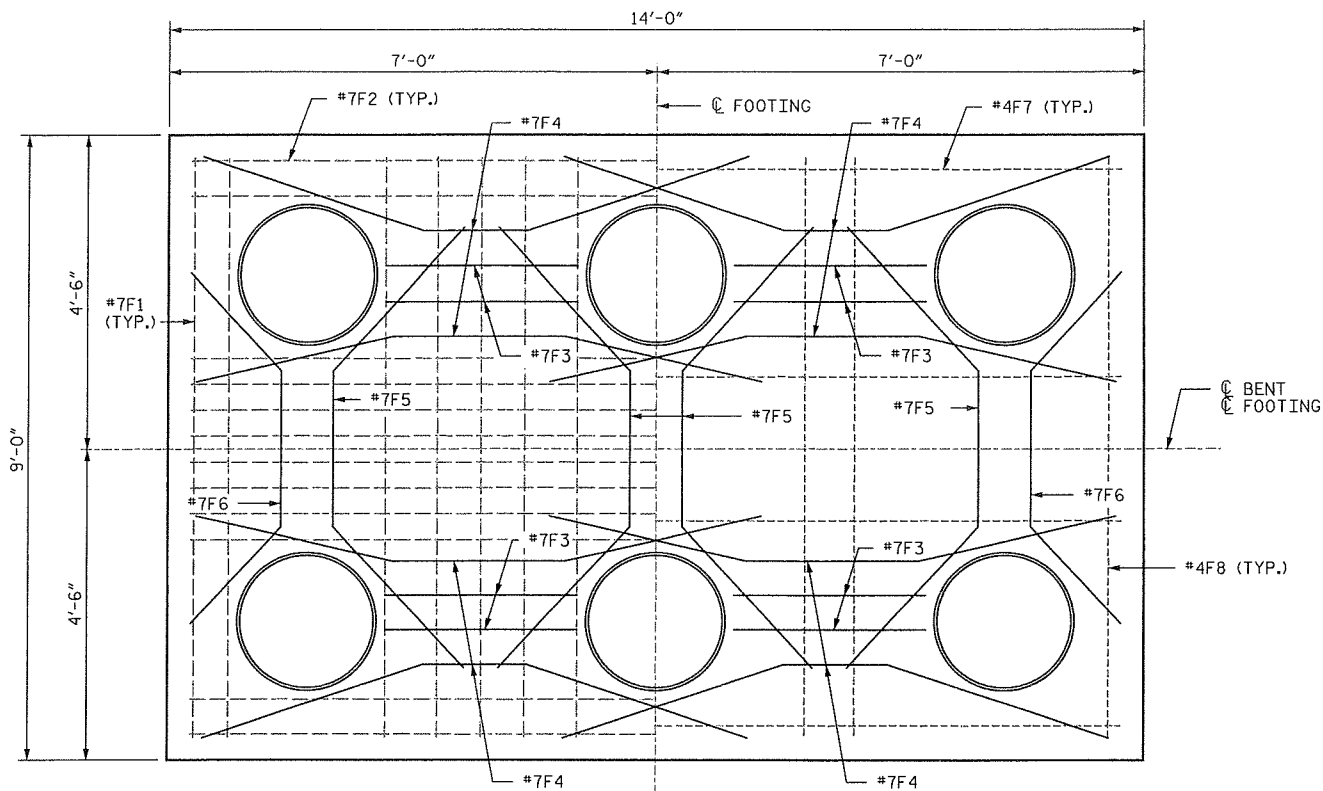
INTERIOR BENTS

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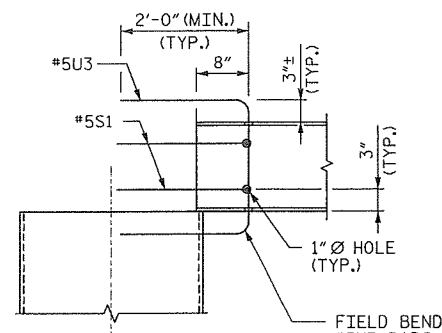
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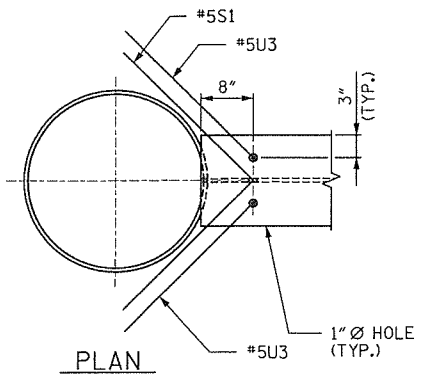
BOTTOM "F" BARS SHOWN FIELD BENT "F" SUPPORT BAR SHOWN

PARTIAL REINFORCING PLAN
 (PLAN SHOWN FOR #7F3, #7F4, #7F5 & #7F6 BAR LOCATIONS)
 (FIELD BEND #7F4, #7F5 & #7F6 AS NECESSARY TO CLEAR PILES)

LEGEND	
- - - - -	F1 OR F2 BAR
—————	F7 OR F8 BAR

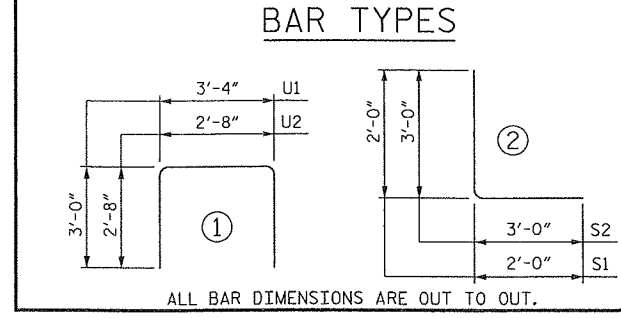


ELEVATION



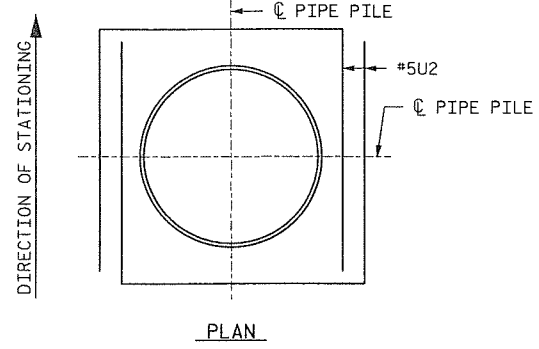
DETAIL "A"

(*7V1 BARS NOT SHOWN FOR CLARITY)

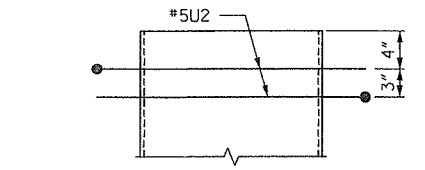


BAR TYPES

ALL BAR DIMENSIONS ARE OUT TO OUT.

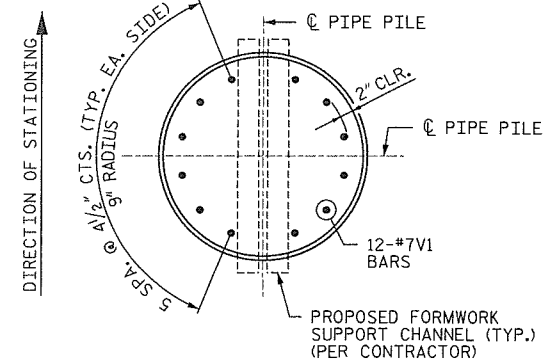


PLAN



ELEVATION

PILE REINFORCEMENT DETAIL
(TYP. ALL PILES)



TYPICAL SECTION THRU CONCRETE FILL

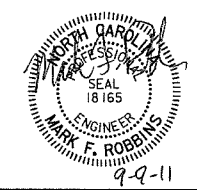
BILL OF MATERIAL						
REINF. STEEL FOR ONE BENT						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	8	#5	STR.	13'-4"	111	
B2	8	#5	STR.	8'-4"	70	
F1	66	#7	STR.	8'-4"	1,124	
F2	50	#7	STR.	13'-4"	1,363	
F3	16	#7	STR.	2'-8"	87	
F4	16	#7	STR.	8'-3"	270	
F5	8	#7	STR.	8'-5"	138	
F6	4	#7	STR.	6'-10"	56	
F7	8	#4	STR.	13'-4"	71	
F8	12	#4	STR.	8'-4"	67	
S1	8	#5	2	4'-0"	33	
S2	32	#5	2	6'-0"	200	
U1	56	#5	1	9'-4"	545	
U2	24	#5	1	8'-0"	200	
U3	8	#5	STR.	5'-6"	46	
V1	144	#7	STR.	5'-8"	1,668	
REINFORCING STEEL				LBS.	6,049	
CLASS AA CONCRETE				C.Y.	40.6	

PROJECT NO. 13201.1028011
 DARE _____ COUNTY
 STATION: 25+65.00 -LPI-

SHEET 2 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

INTERIOR BENTS



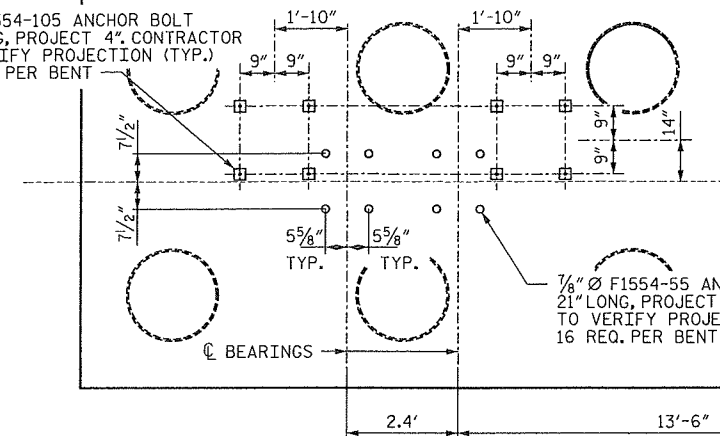
DRAWN BY: CLG DATE: 9-11
 CHECKED BY: TJT DATE: 9-11

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 1000 West Morehead St., Ste. 200
 Charlotte, NC 28208
 NC License No. F-0991

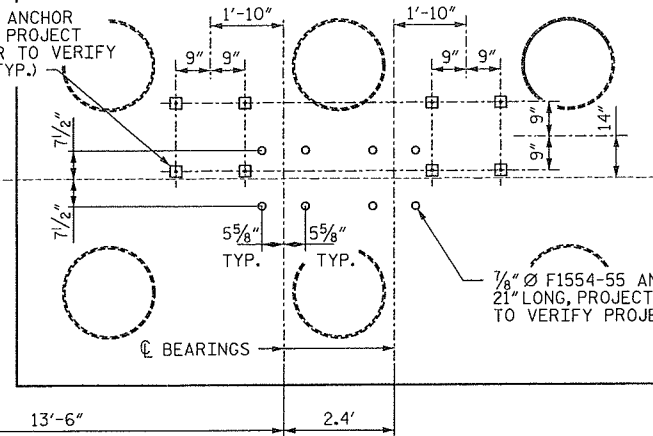
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			11

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1" Ø F1554-105 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR
TO VERIFY PROJECTION (TYP.)
16 REQ. PER BENT



1" Ø F1554-105 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR TO VERIFY
PROJECTION (TYP.)



7/8" Ø F1554-55 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR
TO VERIFY PROJECTION (TYP.)
16 REQ. PER BENT

7/8" Ø F1554-55 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR
TO VERIFY PROJECTION (TYP.)

BENT 4

☉ SURVEY -LPI-

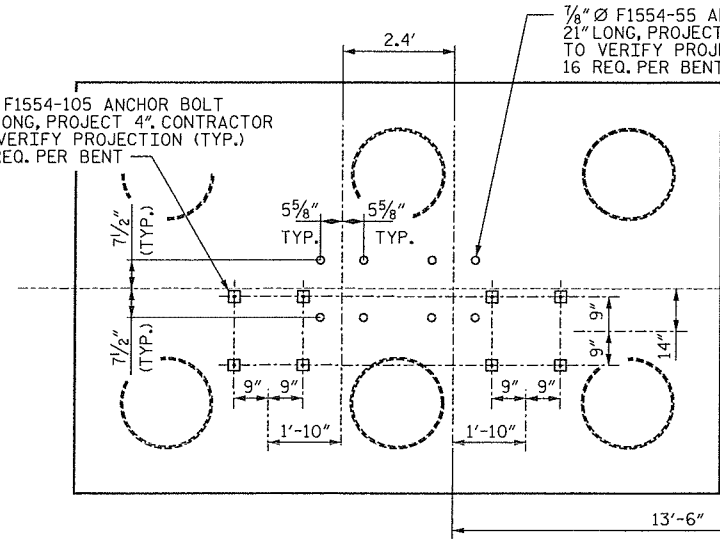
NOTE: BEARING PLATES NOT SHOWN,
SEE MABEY BRIDGE PLANS.
VERIFY ANCHOR BOLT SPACING
WITH MABEY PLANS.

- ☐ = ANCHOR BOLTS FOR UPLIFT RESTRAINT ASSEMBLY
- ☉ = ANCHOR BOLTS FOR MABEY BRIDGE BEARINGS (SEE MABEY BRIDGE DRAWINGS FOR DIMENSIONS)

NOTE: CONTRACTOR MAY USE GROUT CANS (PER MABEY PLANS) TO INSTALL MABEY BEARING ANCHOR BOLTS. GROUT CANS SHALL NOT BE USED ON BRIDGE RESTRAINT SYSTEM ANCHOR BOLTS.

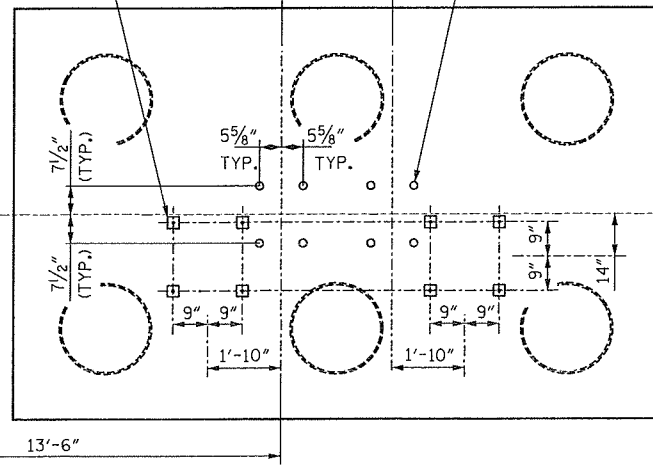
LOOKING UPSTATION

1" Ø F1554-105 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR
TO VERIFY PROJECTION (TYP.)
16 REQ. PER BENT



7/8" Ø F1554-55 ANCHOR BOLT
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16 REQ. PER BENT

1" Ø F1554-105 ANCHOR BOLT
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PROJECTION (TYP.)

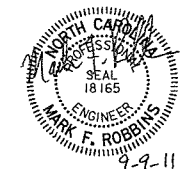


7/8" Ø F1554-55 ANCHOR BOLT
21" LONG, PROJECT 4". CONTRACTOR
TO VERIFY PROJECTION (TYP.)

BENT 1

ANCHOR BOLT LAYOUT

(SEE END BENT SHEET 3 OF 3 FOR "BRIDGE RESTRAINT SYSTEM" AND NOTES)



PROJECT NO. 13201.1028011
 DARE _____ COUNTY
 STATION: 25+65.00 -LPI-
 SHEET 3 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**INTERIOR BENTS 1 & 4
 ANCHOR BOLT LAYOUT**

DRAWN BY : CLG DATE : 9-11
 CHECKED BY : TJT DATE : 9-11

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 1000 West Morehead St., Ste. 200
 Charlotte, NC 28208
 NC License No. F-0991

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	9
1			3			TOTAL SHEETS
2			4			11

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1" Ø F1554-105 ANCHOR BOLT
 21" LONG, PROJECT 4". CONTRACTOR
 TO VERIFY PROJECTION (TYP.)
 16 REQ. PER BENT

1" Ø F1554-105 ANCHOR BOLT
 21" LONG, PROJECT 4". CONTRACTOR TO VERIFY
 PROJECTION (TYP.)

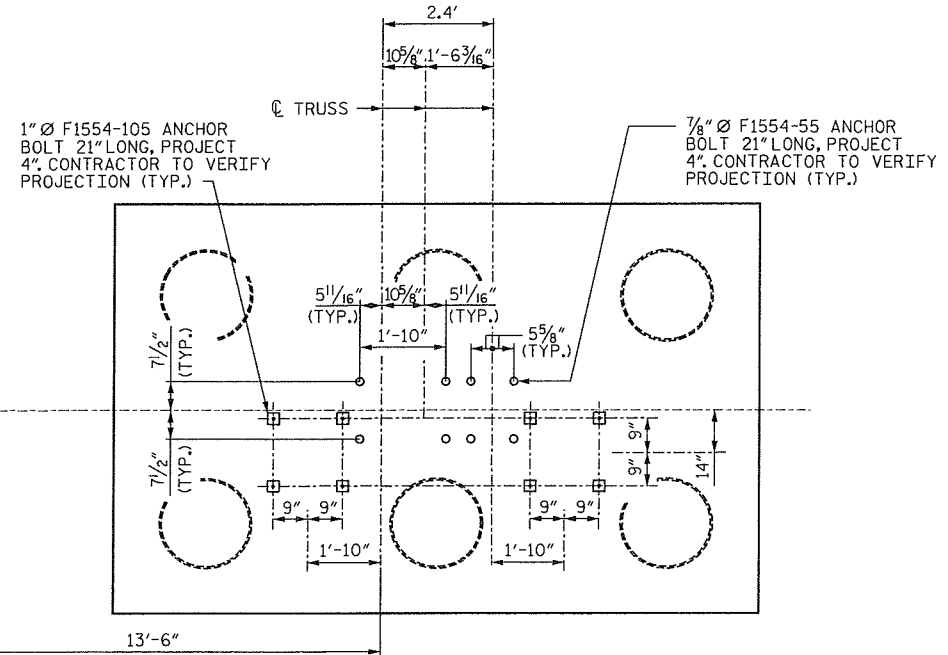
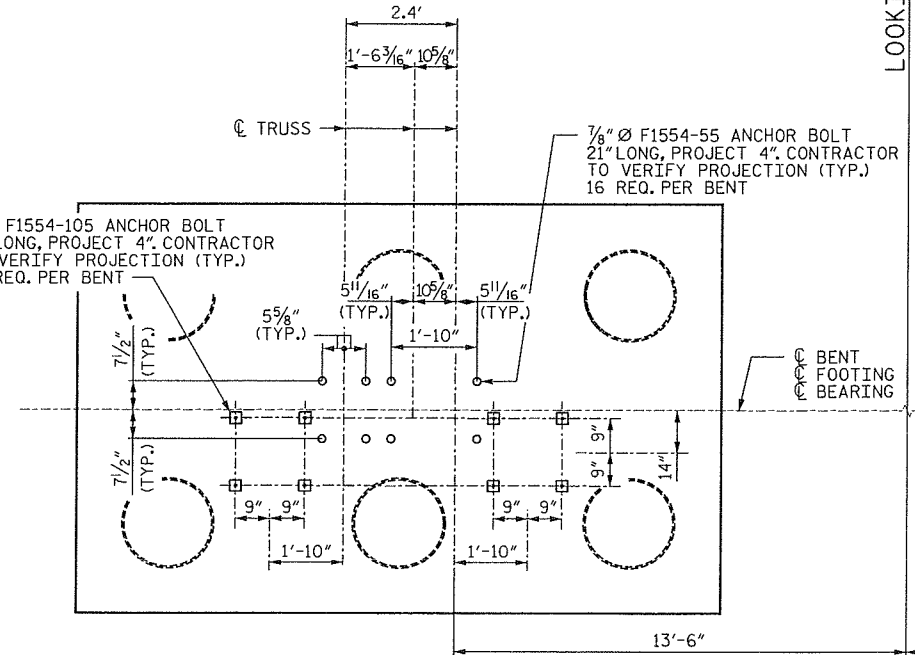
7/8" Ø F1554-55 ANCHOR BOLT
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 TO VERIFY PROJECTION (TYP.)
 16 REQ. PER BENT

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 ANCHOR BOLTS.

- = ANCHOR BOLTS FOR UPLIFT RESTRAINT ASSEMBLY
- = ANCHOR BOLTS FOR MABEY BRIDGE BEARINGS (SEE MABEY BRIDGE DRAWINGS FOR DIMENSIONS)



BENT 3

BENT 2

☉ SURVEY -LPI-

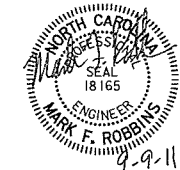
LOOKING UPSTATION

ANCHOR BOLT LAYOUT

(SEE END BENT SHEET 3 OF 3 FOR "BRIDGE RESTRAINT SYSTEM" AND NOTES)

DRAWN BY : CLG DATE : 9-11
 CHECKED BY : TJT DATE : 9-11

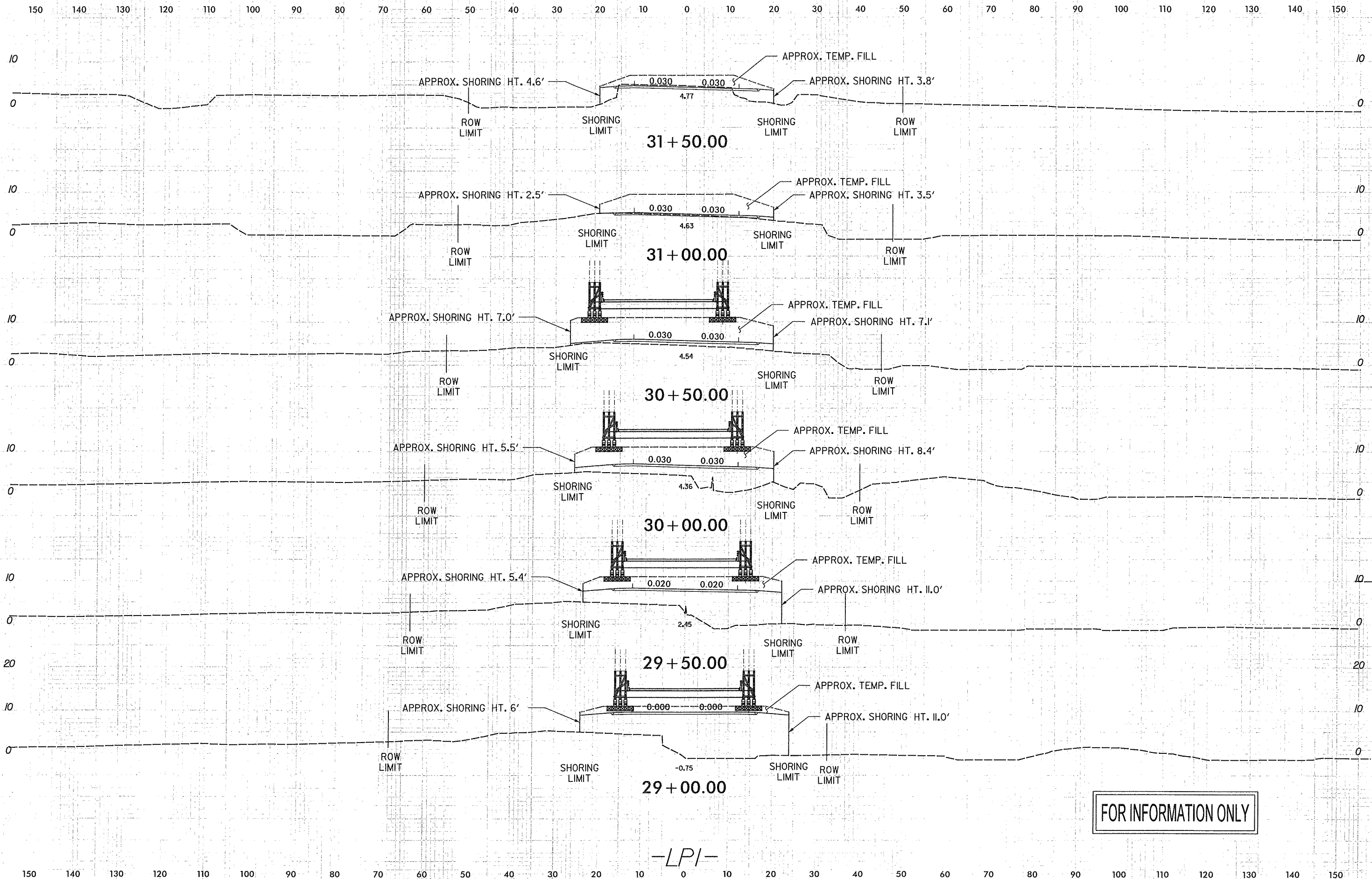
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PROJECT NO. 13201.1028011
 DARE COUNTY
 STATION: 25+65.00 -LPI-
 SHEET 4 OF 4

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
INTERIOR BENTS 2 & 3 ANCHOR BOLT LAYOUT					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. 10
					TOTAL SHEETS 11

8/23/99



FOR INFORMATION ONLY

-LPI-

9/9/2011 N:\Common\Contractors\NCDDOT NC 12 Emergency Jacking Blocking.dgn