

**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

**BERTIE**

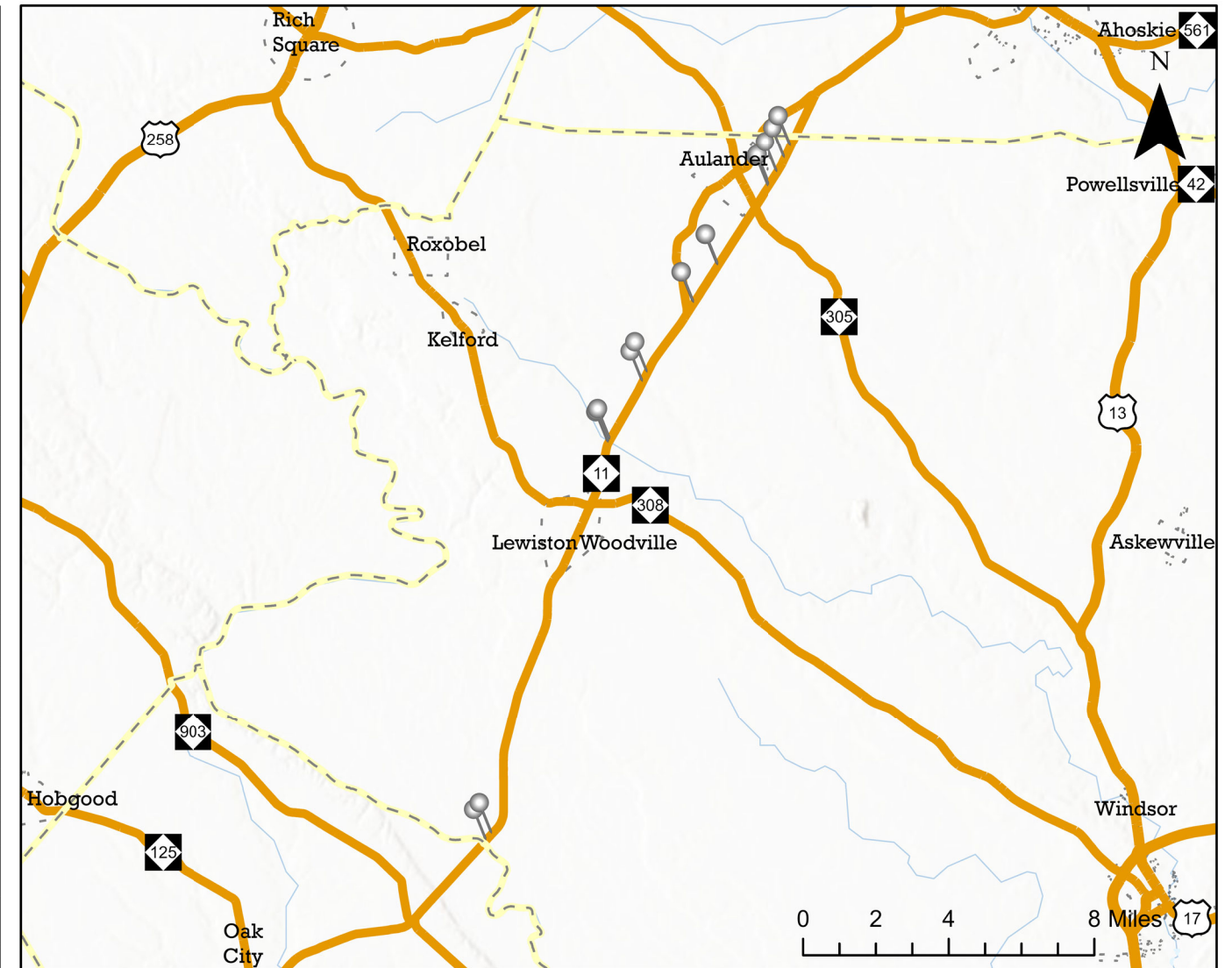
STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	81003	1
STATE PROJECT NUMBER		DESCRIPTION
81003		P.E., CONST

**TYPE OF WORK: REPLACE NON-COMPLIANT GUARDRAIL, END UNITS, AND ANCHORS**

**WBS NO: 81003**

**CONTRACT: DA00608**

From MP	To MP	Latitude	Longitude	Guardrail Pay Length (LF)	End Units (TL-3)	Bridge Anchors (Type III - MOD)	25' Clear Span Sections	Remarks	Obstruction
0.086	0.245	36.01469	-77.21420	825.0	0	2	0		
0.086	0.245	36.01469	-77.21420	825.0	0	2	0		
0.278	0.344	36.01681	-77.21199	300.0	1	1	0		
0.279	0.344	36.01683	-77.21196	300.0	1	1	0		
9.465	9.526	36.14247	-77.16573	250.0	1	1	0		
9.498	9.526	36.14290	-77.16545	87.5	1	1	0		
9.547	9.566	36.14352	-77.16501	87.5	1	1	0		
9.545	9.598	36.14349	-77.16502	250.0	1	1	0		
11.099	11.138	36.16196	-77.15208	100.0	2	0	0	Double Lap/Double Post to span RCP as needed	72" RCP
11.100	11.142	36.16196	-77.15208	112.5	2	0	0	Double Lap/Double Post to span RCP as needed	72" RCP
11.240	11.359	36.16494	-77.15023	525.0	2	0	0	Double Lap/Double Post to span RCP as needed	72" RCP - Various locations
11.240	11.361	36.16494	-77.15023	537.5	2	0	0	Double Lap/Double Post to span RCP as needed	72" RCP - Various locations
13.095	13.134	36.18728	-77.13184	100.0	2	0	0	Double Lap/Double Post to span RCP as needed	54" RCP
13.099	13.137	36.18736	-77.13177	100.0	2	0	0	Double Lap/Double Post to span RCP as needed	54" RCP
14.080	14.128	36.19930	-77.12227	150.0	2	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
14.095	14.132	36.19949	-77.12213	150.0	1	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
16.151	16.235	36.22451	-77.10209	350.0	2	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
16.195	16.232	36.22505	-77.10166	100.0	2	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
16.534	16.554	36.22918	-77.09838	12.5	2	0	0		
16.560	16.580	36.22954	-77.09817	12.5	2	0	0	New Installation at RXR	
16.899	16.999	36.23373	-77.09542	425.0	2	0	0		
17.186	17.226	36.23759	-77.09302	100.0	2	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
17.190	17.229	36.23764	-77.09299	150.0	1	0	1	Cut existing base plate anchor posts 6" min. below grade and backfill	Reinforced Concrete Box Culvert
<b>TOTALS:</b>				<b>5850</b>	<b>34</b>	<b>10</b>	<b>6</b>		



Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
113 AIRPORT DR., EDENTON, NC 27932

**B. N. BRASWELL, PE**  
DIV. PROJ. DEVELOPMENT ENGINEER

**M. S. WINSLOW**  
DIVISION CONTRACT ENGINEER

**J. S. ABEL, JR.**  
DIVISION PROJECT TEAM LEAD

**D. H. STALLINGS**  
DIVISION DESIGN ENGINEER



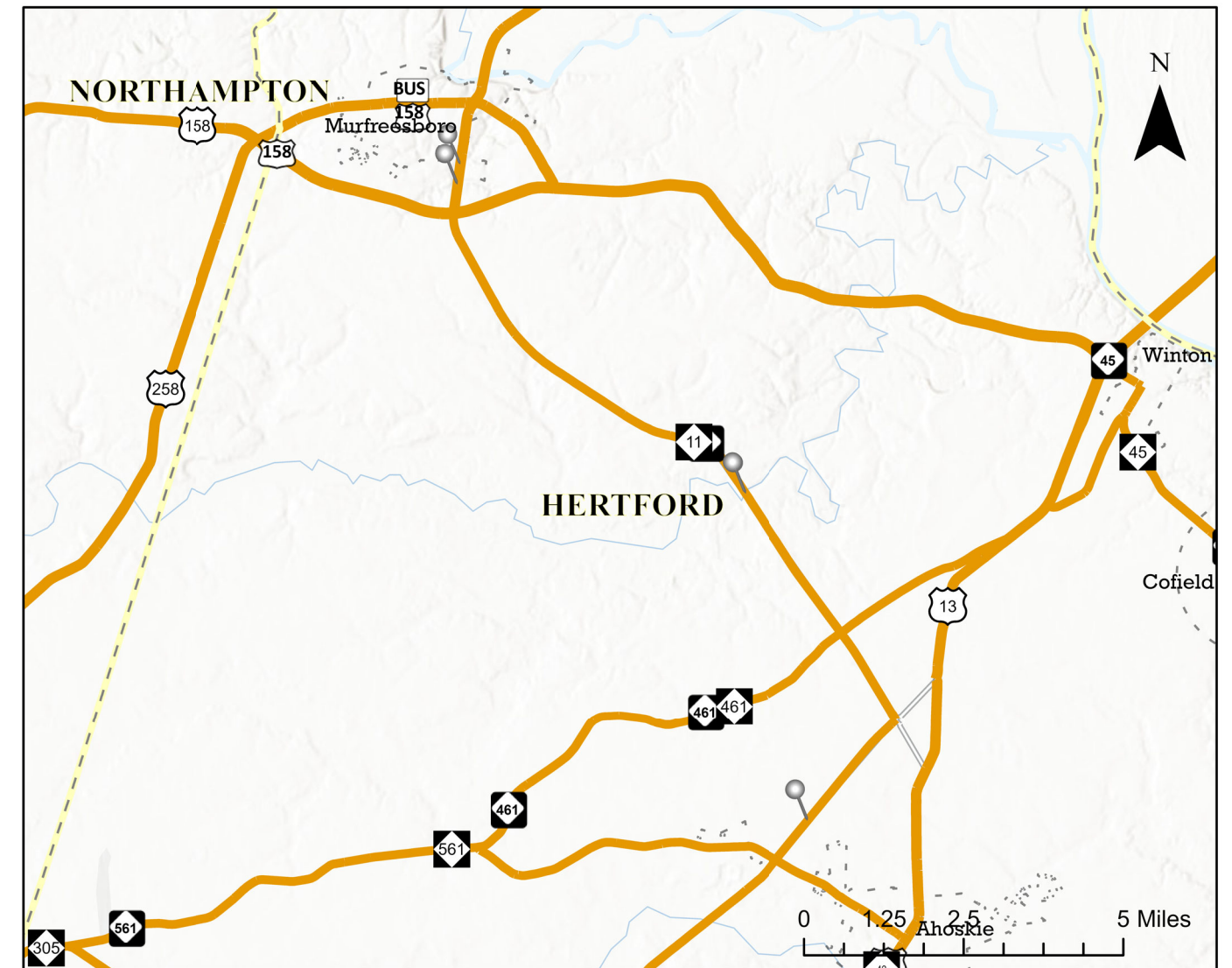
**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

**HERTFORD**

STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	81003	2
STATE PROJECT NUMBER		DESCRIPTION
81003		P.E., CONST

**TYPE OF WORK: REPLACE NON-COMPLIANT GUARDRAIL, END UNITS, AND ANCHORS**

From MP	To MP	Latitude	Longitude	Guardrail Pay Length (LF)	End Units (TL-3)	Bridge Anchors (Type III - MOD)	25' Clear Span Sections
<b>NC11</b>							
6.811	6.888	36.31141	-77.01177	300.0	2	0	0
6.820	6.895	36.31150	-77.01168	300.0	2	0	0
11.914		36.37112	-77.02588	437.5	2	2	0
11.952		36.37127	-77.02607	437.5	2	2	0
<b>NC11/US258</b>							
2.836	2.905	36.42742	-77.09117	262.5	2	0	0
2.846	2.906	36.42755	-77.09114	212.5	2	0	0
3.091	3.166	36.43109	-77.09055	287.5	2	0	0
3.091	3.166	36.43109	-77.09055	287.5	2	0	0
<b>TOTALS:</b>				<b>2525.0</b>	<b>16</b>	<b>4</b>	<b>0</b>



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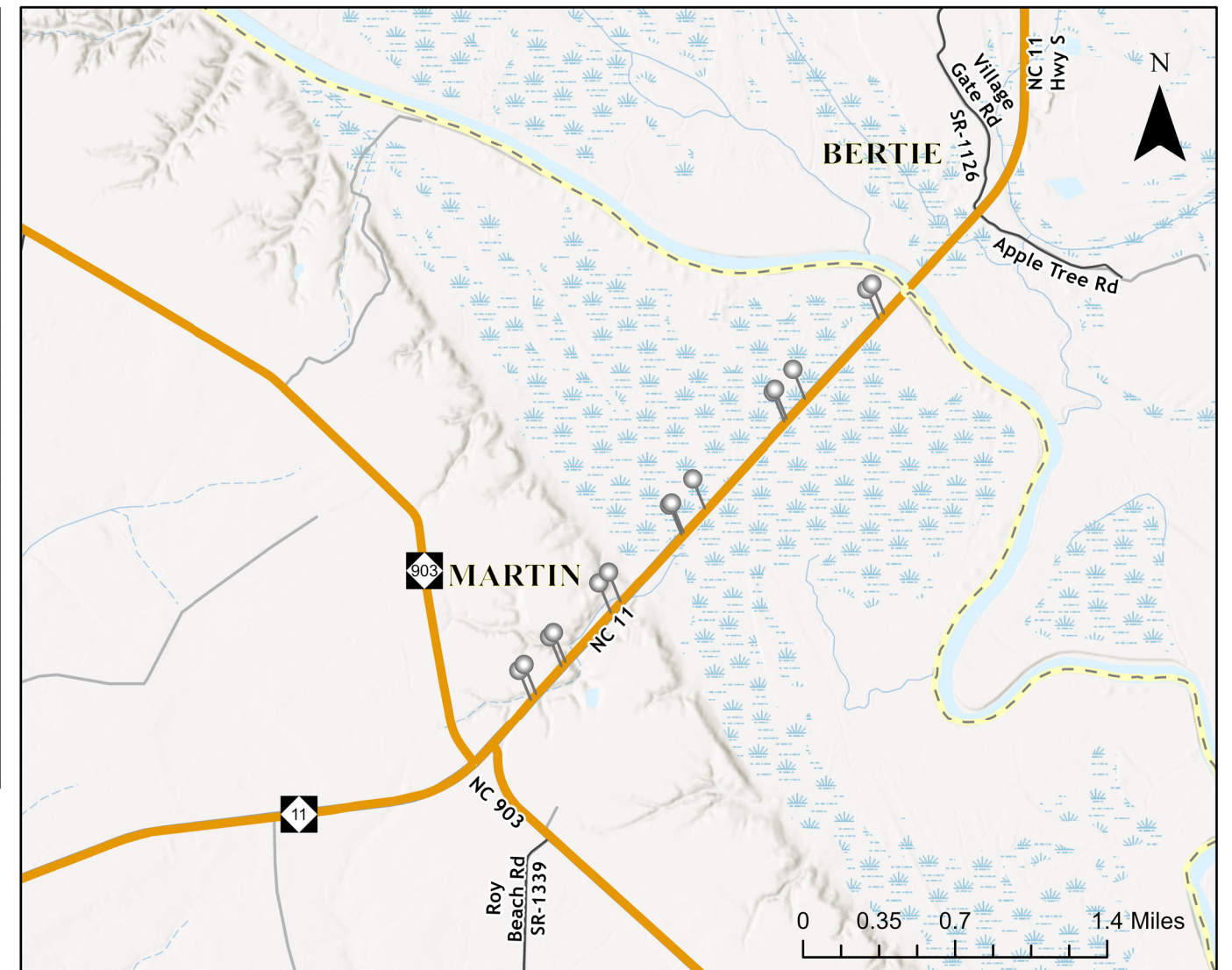
**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

**MARTIN**

STATE	STATE PROJECT REFERENCE NUMBER	SHEET NO.
NC	81003	3
STATE PROJECT NUMBER		DESCRIPTION
81003		P.E., CONST

**TYPE OF WORK: REPLACE NON-COMPLIANT GUARDRAIL, END UNITS, AND ANCHORS**

From MP	To MP	Latitude	Longitude	Guardrail Pay Length (LF)	End Units (TL-3)	Bridge Anchors (Type III - MOD)	25' Clear Span Sections
13.072	13.111	35.99075	-77.24135	100.0	2	0	0
13.102	13.140	35.99211	-77.23986	100.0	2	0	0
13.240	13.312	35.99361	-77.23816	275.0	2	0	0
13.261	13.408	35.99382	-77.23792	650.0	2	0	0
13.511	13.605	35.99649	-77.23490	387.5	2	0	0
13.566	13.601	35.99709	-77.23423	75.0	2	0	0
14.472	14.510	36.00679	-77.22328	150.0	1	1	0
14.485	14.509	36.00694	-77.22312	75.0	1	1	0
14.586	14.613	36.00801	-77.22190	75.0	1	1	0
14.585	14.620	36.00801	-77.22190	125.0	1	0	0
14.996	15.120	36.01237	-77.21694	600.0	1	1	0
15.015	15.120	36.01259	-77.21668	500.0	1	1	0
<b>TOTALS:</b>				<b>3112.5</b>	<b>18</b>	<b>5</b>	<b>0</b>



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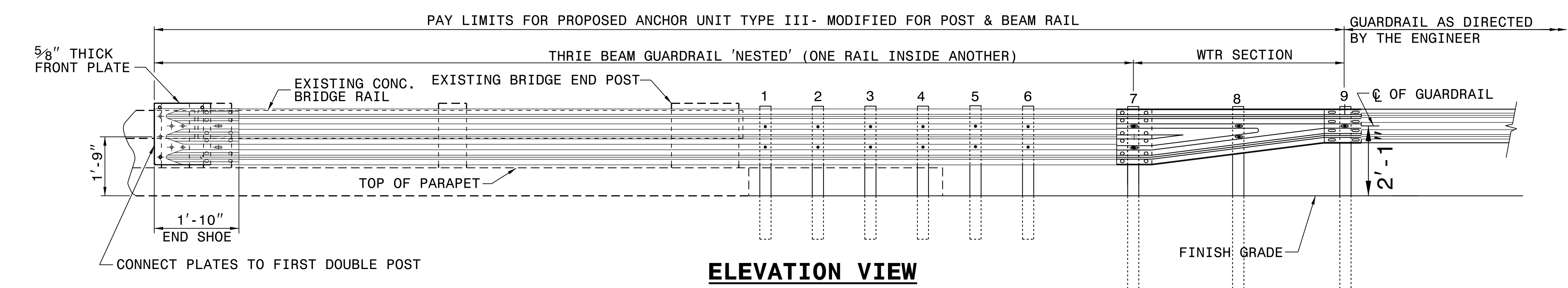
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DIVISION PROJECT TEAM LEAD

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DIVISION CONTRACT ENGINEER

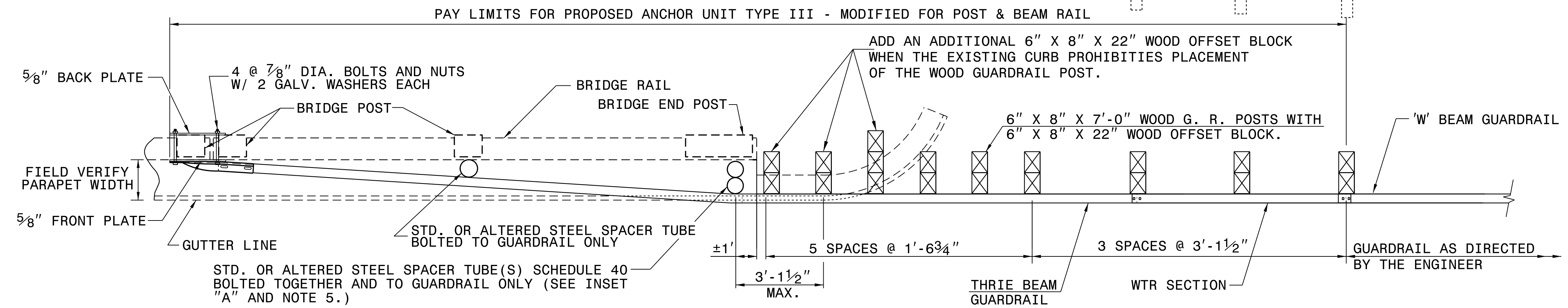
**D. H. STALLINGS**  
DIVISION DESIGN ENGINEER



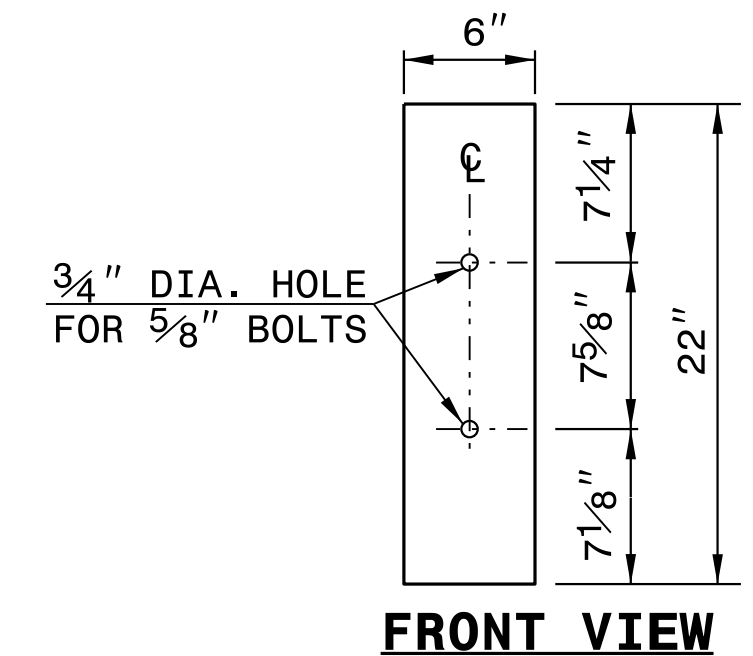




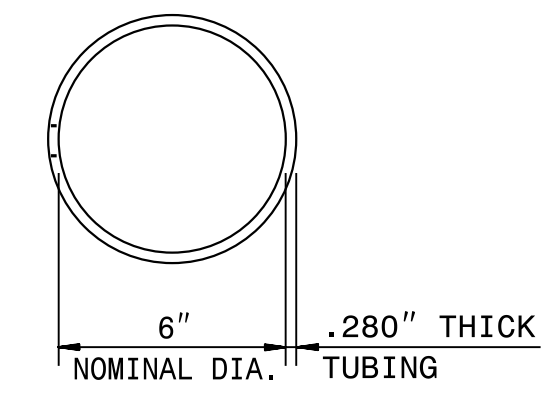
**ELEVATION VIEW**



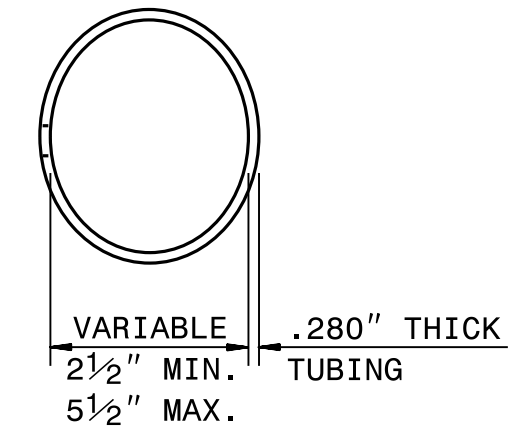
**PLAN VIEW**



**FRONT VIEW**

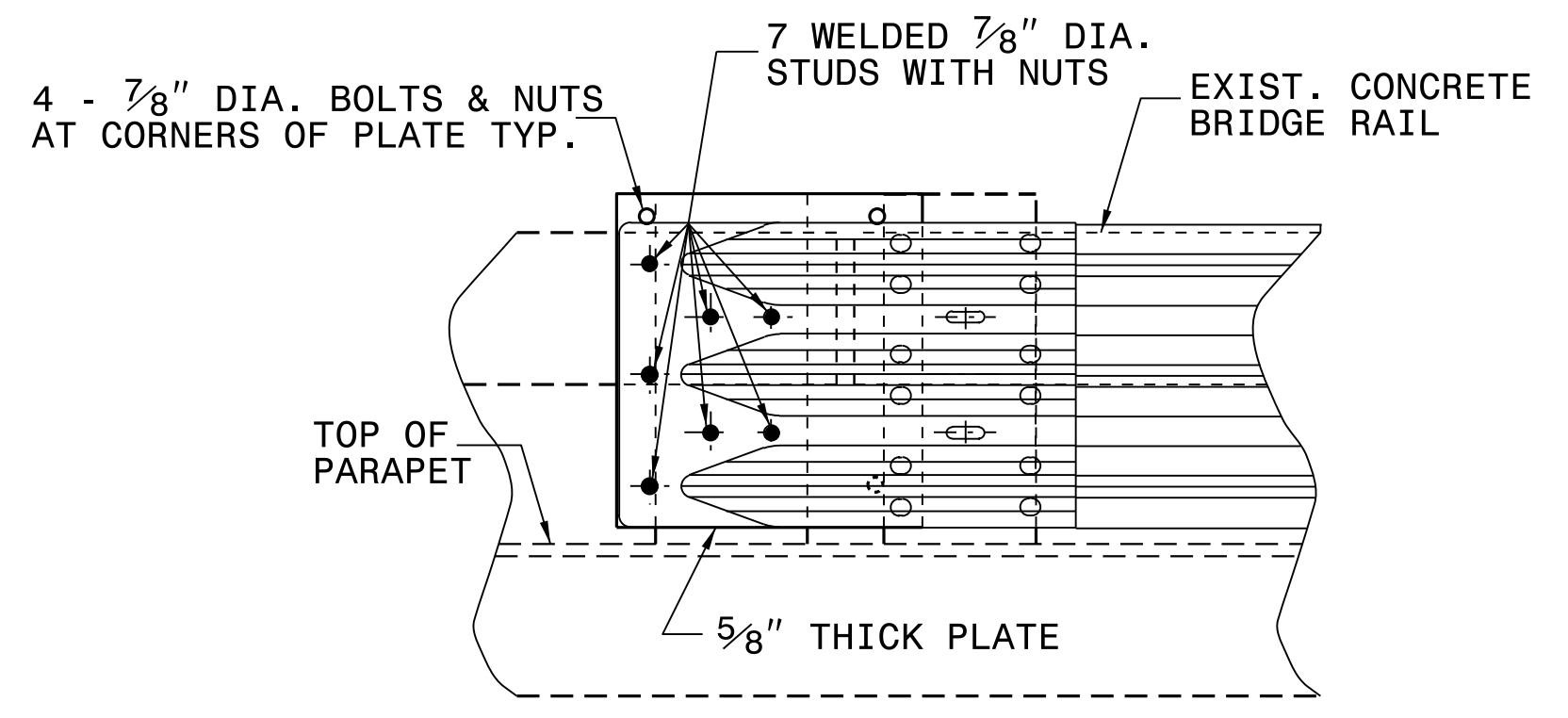


**PLAN VIEW**

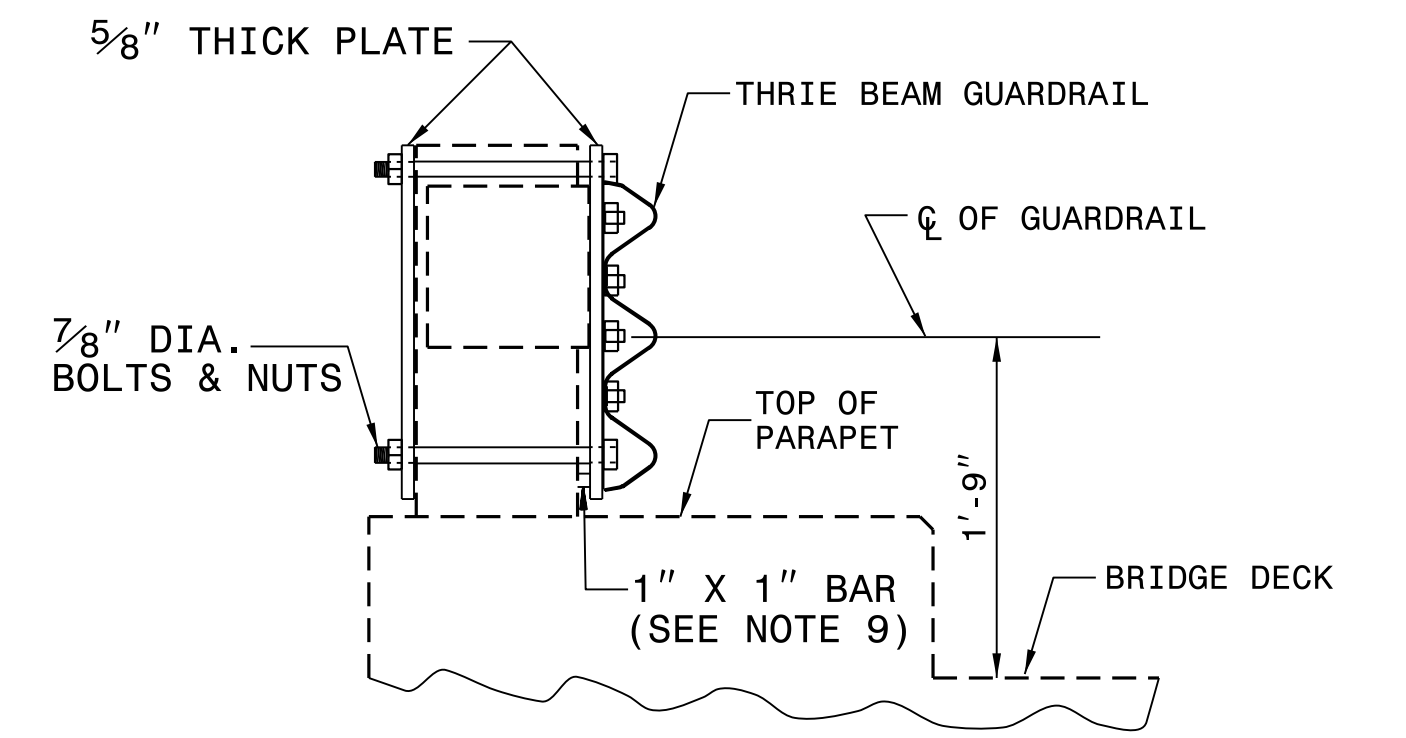


**PLAN VIEW INSET "A"**

**STEEL SPACER TUBE**



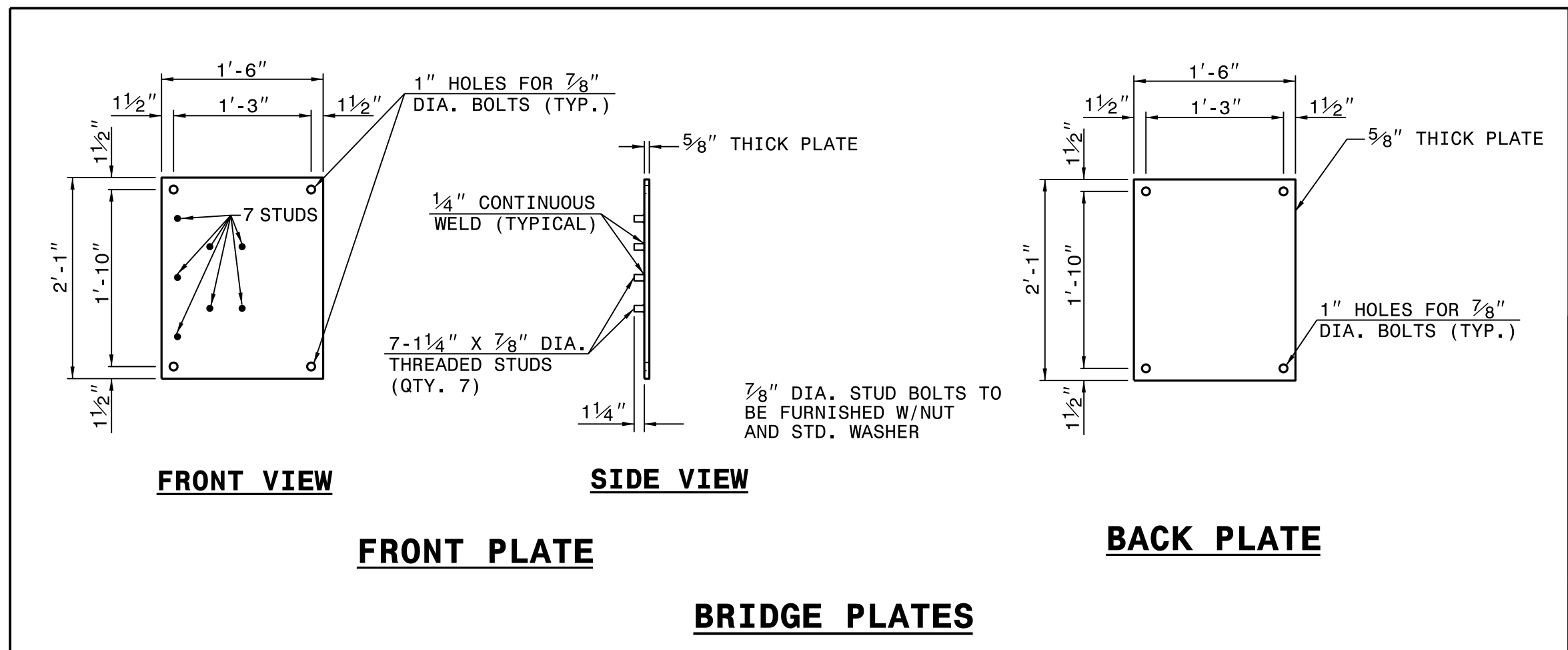
**ELEVATION VIEW**



**SECTION VIEW**

**GENERAL NOTES:**

1. USE NUTS, BOLTS, AND WASHERS CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-307 AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.
2. TAP NUTS FOR THE 7/8" DIA. STUDS AND BOLTS AFTER GALVANIZING SEE A.S.T.M. A-563.
3. USE PLATES AND TUBES CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-36 AND GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.
4. ADDITIONAL FIELD HOLES MAY BE DRILLED IN STEEL RAIL AS DIRECTED BY THE ENGINEER.
5. INSTALL FACE OF GUARDRAIL AS NEAR AS POSSIBLE TO PLUMB WITH THE PARAPET FACE AT BRIDGE END POST SPACER TUBE LOCATION BY USING STANDARD OR ALTERED SPACER TUBES OR A COMBINATION THEREOF OR AS DIRECTED BY THE ENGINEER. FOR VERY SMALL PARAPET WIDTHS, GUARDRAIL MAY BE INSTALLED AGAINST BRIDGE RAIL WITHOUT SPACER TUBES.
6. DO NOT DRILL BRIDGE RAIL IN ORDER TO INSTALL GUARDRAIL ANCHOR UNIT.
7. USE THIS DETAIL ONLY FOR BRIGES WITH POST AND BEAM TYPE RAIL.
8. ATTACH 1" X 1" BAR AND THREADED STUDS TO PLATE WITH 1/4" WELDS ALL AROUND.
9. 1" X 1" BAR MAY NOT BE NEEDED ON BRIDGE RAILS WHERE FACE OF RAIL DOES NOT PROJECT BEYOND FACE OF POST.
10. PROVIDE SHOP DRAWINGS OF THE PLATES TO THE ENGINEER FOR APPROVAL BEFORE FABRICATING THE PLATES.
11. LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
12. SEE ROADWAY STANDARD DRAWING 862.03 SHEET 3 FOR ADDITIONAL INFORMATION ON THE TYPE III ANCHOR UNIT



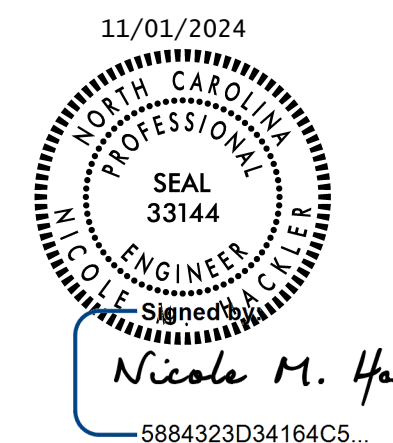
**FRONT VIEW**

**SIDE VIEW**

**FRONT PLATE**

**BACK PLATE**

**BRIDGE PLATES**



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**TYPE III MODIFIED FOR POST AND BEAM RAIL**

ORIGINAL BY: E.E. WARD DATE: 01-03  
MODIFIED BY: JS Howerton DATE: 01-18  
CHECKED BY: DATE:  
FILE SPEC.: s:details\stand\bpii original.dgn

24-JAN-2018 14:51 S:\Contracts\Special Details\stand\bp\_iii\_original.dgn J:\power\ton AT\_CSD-292595