

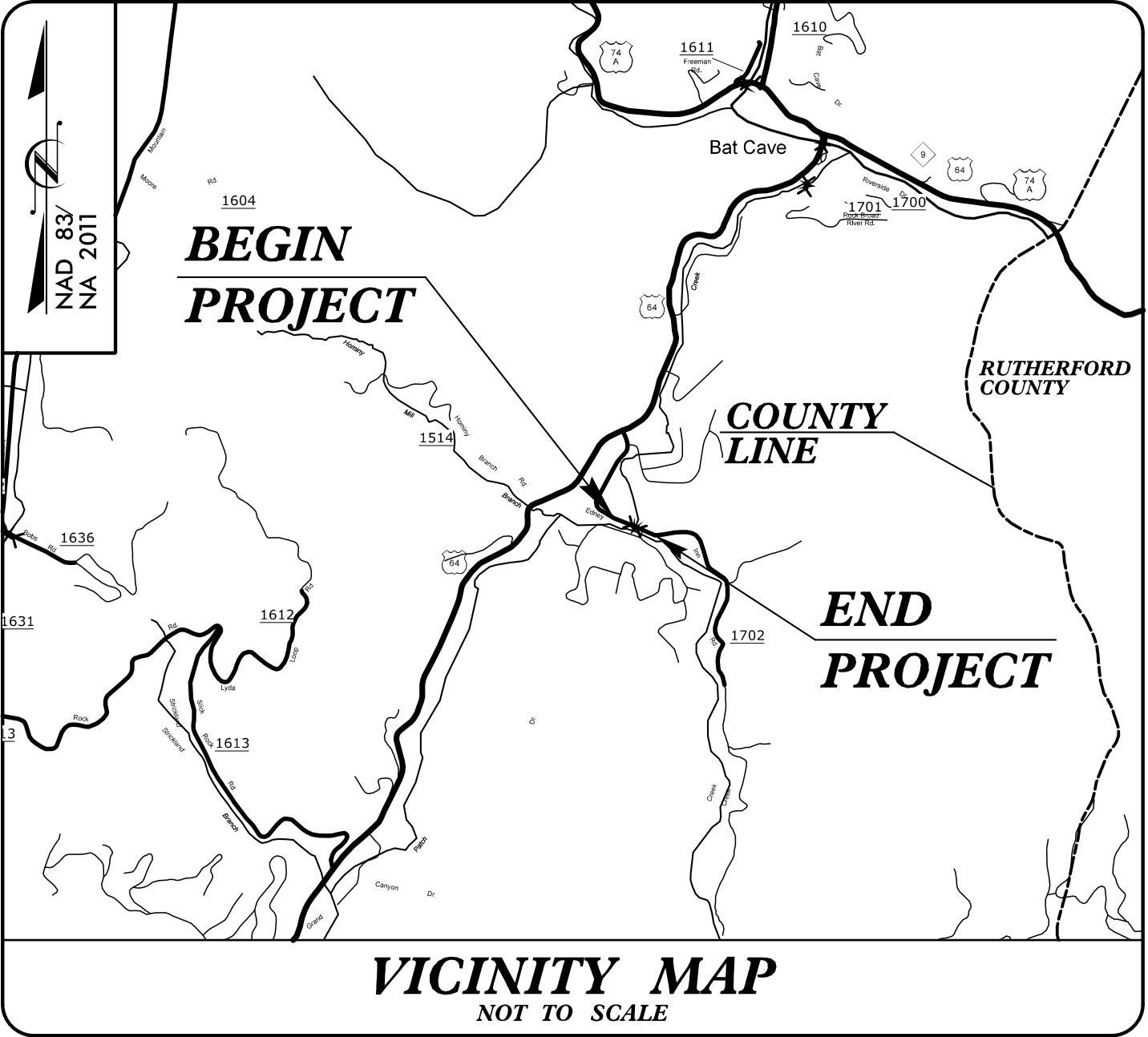
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with their signature on that page.**

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PROJECT: DF18314.2045330

CONTRACT: DN01164



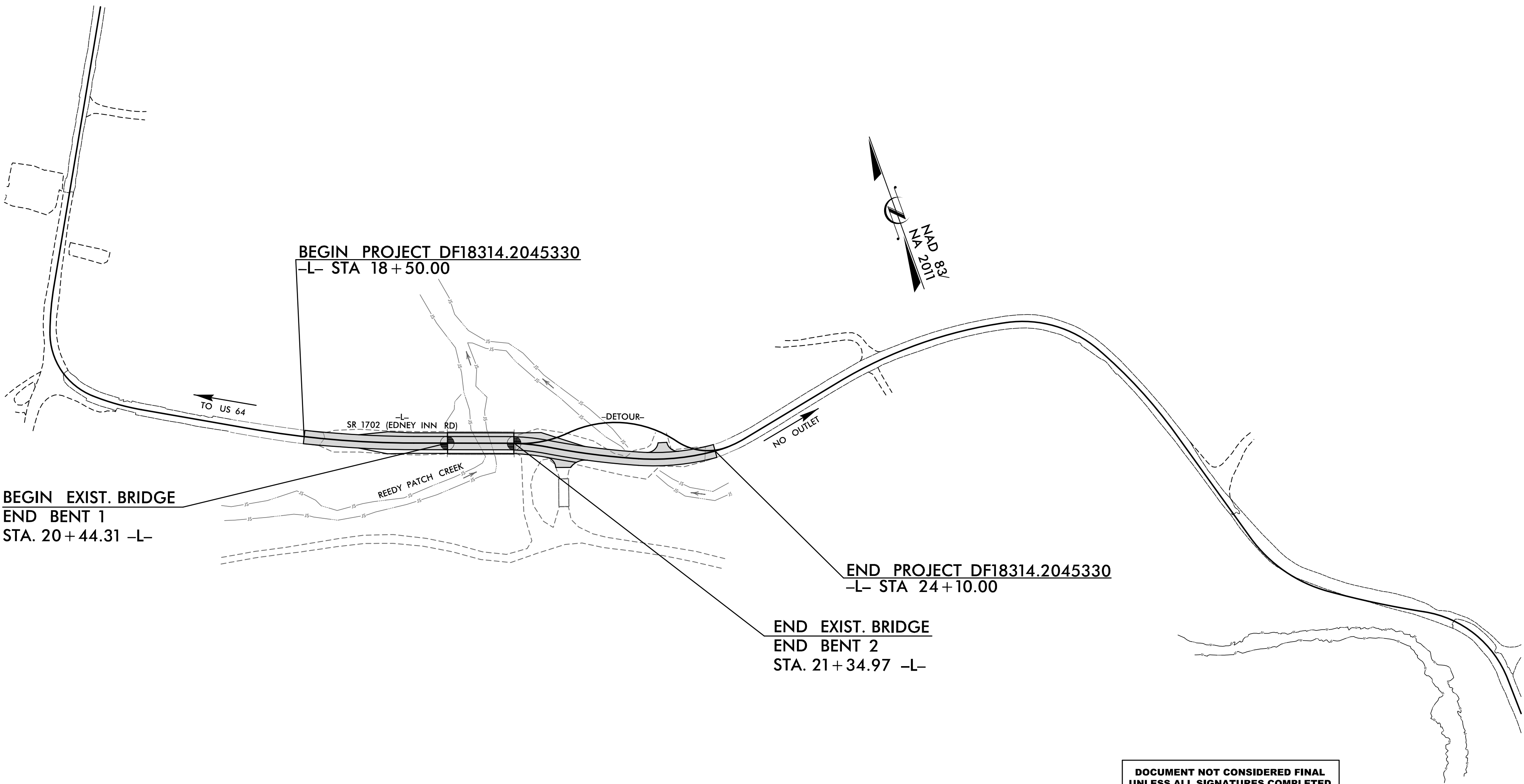
VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HENDERSON COUNTY

LOCATION: BRIDGE #440197 OVER REEDY PATCH CREEK
ON SR 1702 (EDNEY INN ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE



STRUCTURE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

DESIGN DATA

ADT 2026 = 250
ADT 2046 = 350
T = 6%
V = 40 MPH

FUNC CLASS =
LOCAL RURAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT DF18314.2045330 = 0.106 MILES

LENGTH OF EXISTING STRUCTURE
PROJECT DF18314.2045330 =0.017 MILES

TOTAL LENGTH OF PROJECT DF18314.2045330 = 0.106 MILES



Prepared In the Office of:
HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St.
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

2024 STANDARD SPECIFICATIONS

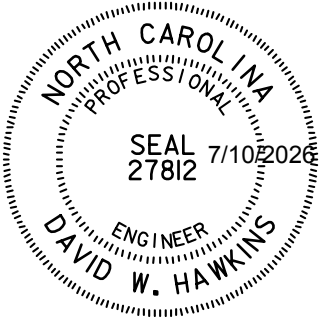
RIGHT OF WAY DATE:
FEBRUARY 25, 2026
PROJECT DESIGN ENGINEER
LETTING DATE:
SEPTEMBER 8, 2026

J. MATTHEW PICKENS, PE
PROJECT ENGINEER

DAVID W. HAWKINS, PE
STRUCTURES ENGINEER

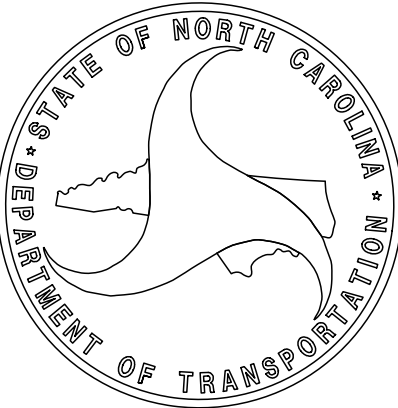
JARED BOND, PE
NCDOT CONTACT

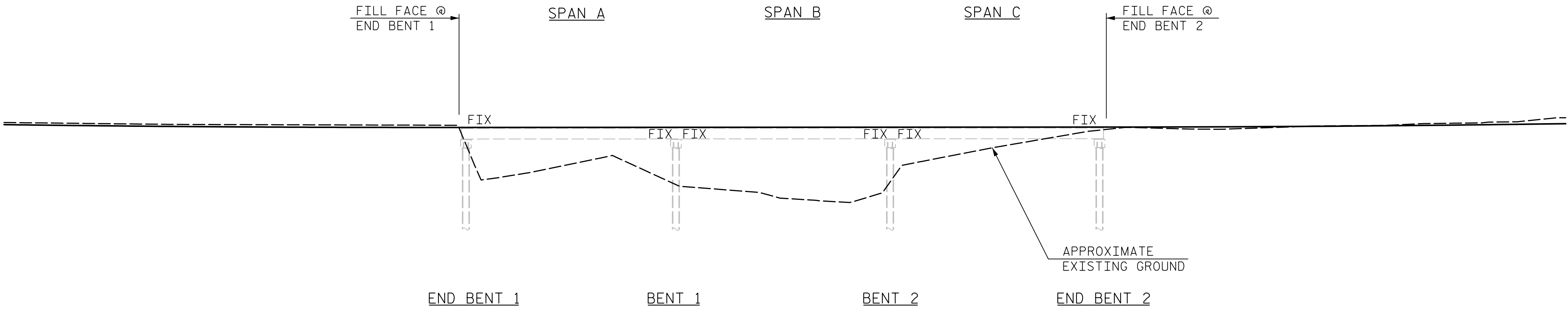
STRUCTURES ENGINEER



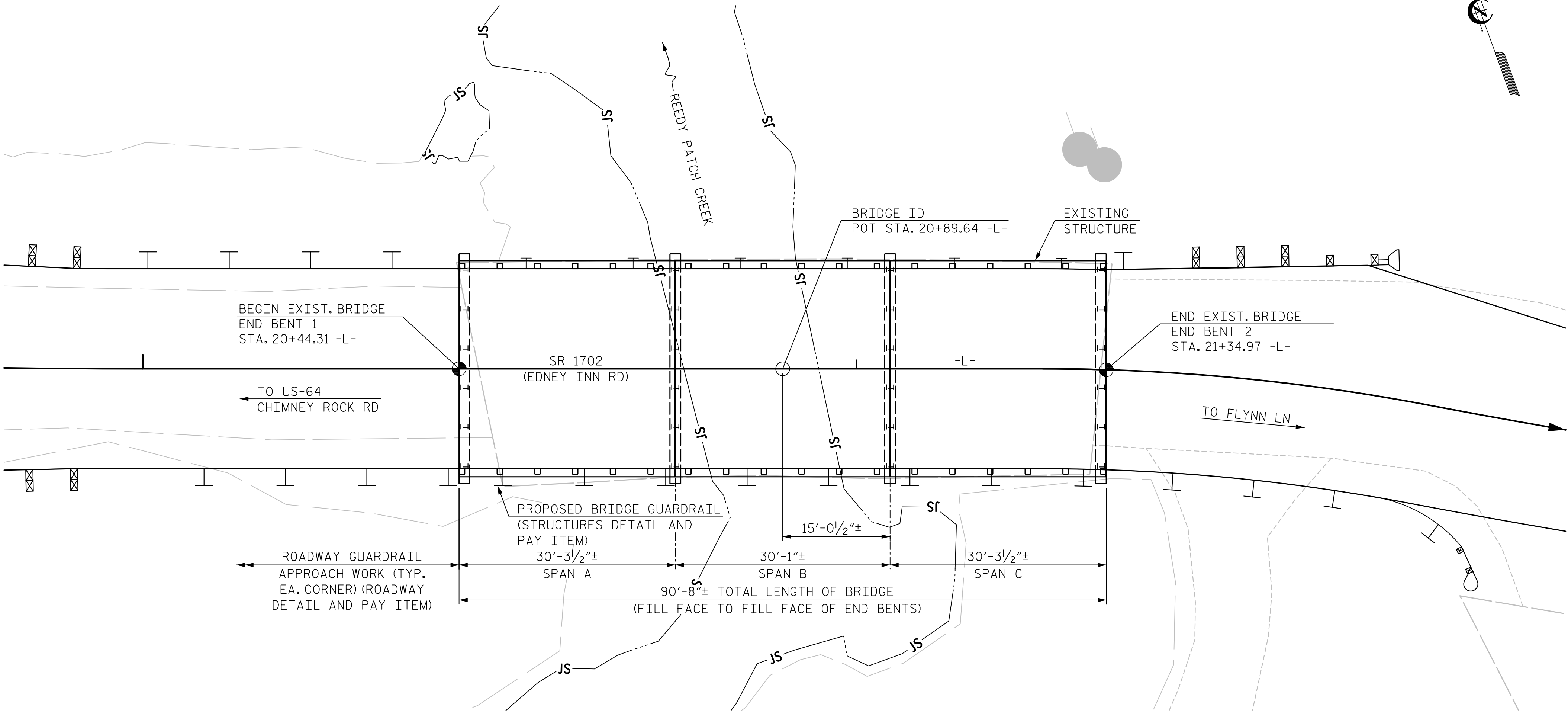
Signed by:
David W. Hawkins
JARED15248B55487
SIGNATURE:

P.E.





SECTION ALONG C BRIDGE



PLAN

NOTES:
GENERAL DRAWING INFORMATION IS TAKEN FROM 06/20/2024 INSPECTION REPORT, SITE VISIT, AND STANDARD PLANS.

BRIDGE ORIENTATION CONFORMS TO THE ROUTINE INSPECTION.

SCOPE OF WORK:
INSTALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH TRAFFIC CONTROL PLANS.

REMOVE EXISTING GUARDRAIL ON THE SOUTH SIDE OF BRIDGE. TAKE CARE NOT TO DAMAGE EXISTING CORED SLAB.

REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING CORED SLABS FOR CONCRETE REPAIRS.

PROPERLY PREPARE SPALLED AREAS IN EXISTING CORED SLABS AND PERFORM CONCRETE REPAIRS.

PROPERLY PREPARE AND INSTALL NEW BRIDGE GUARDRAIL ALONG FULL LENGTH OF SOUTH SIDE OF BRIDGE.

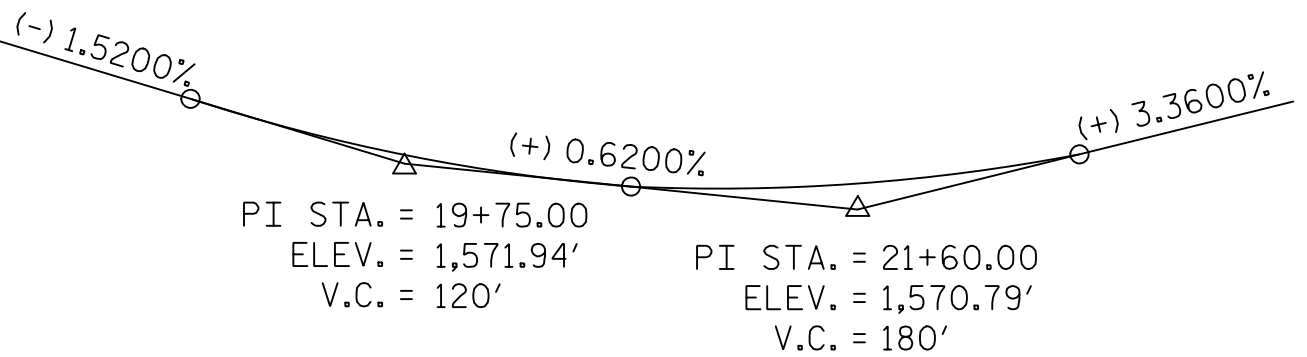
REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING BENT AREAS FOR CONCRETE REPAIRS.

PROPERLY PREPARE SPALLED AREAS IN EXISTING BENT AND PERFORM CONCRETE REPAIRS.

I HEREBY CERTIFY THAT THIS STRUCTURE
WAS REHABILITATED ACCORDING TO THESE
PLANS OR AS NOTED HEREIN.

RESIDENT ENGINEER

DATE



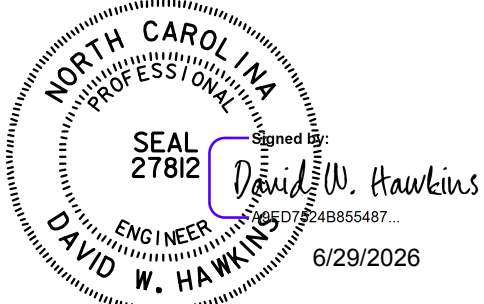
GRADE DATA -L-

PI STA. = 21+84.72
Δ = 9°-34'-10.9"(RT)
D = 5°-43'-46.5"
L = 167.02'
T = 83.71'
R = 1,000.00'

CURVE DATA -L-

PROJECT NO. DF1834.2045330
HENDERSON COUNTY
STATION: POT 20+89.64 -L-

SHEET 1 OF 2
REHABILITATION OF
BRIDGE NO. 440197

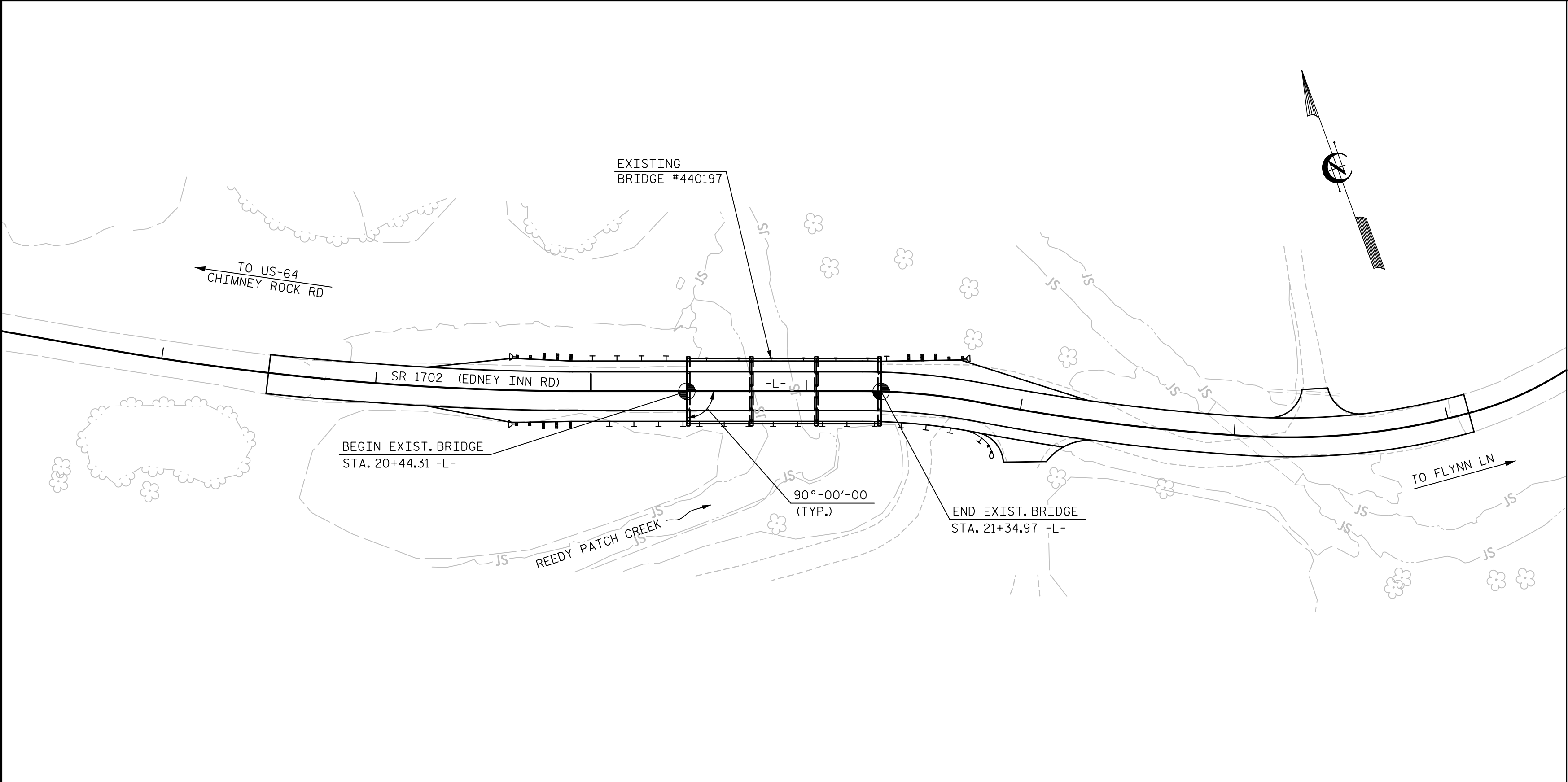


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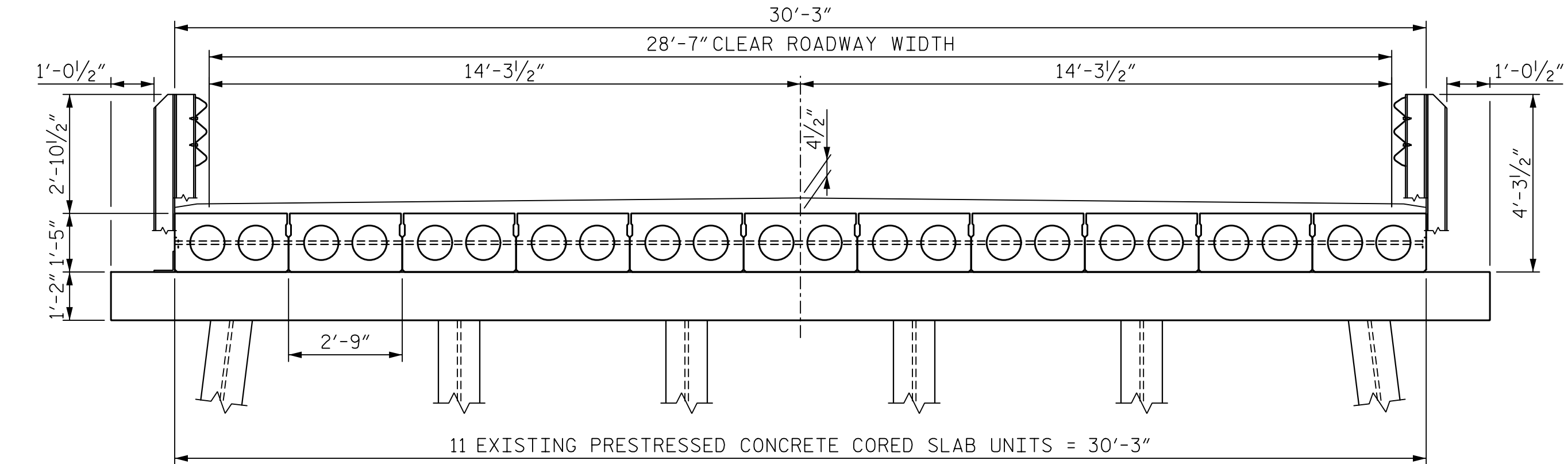
HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609			
DRAWN BY <u>M. WRIGHT</u>	DATE <u>12/25</u>	DWG. NO. 1	
CHECKED BY <u>N. HART</u>	DATE <u>05/26</u>		
ENGINEER OF RECORD <u>D. HAWKINS</u>	DATE <u>05/26</u>		

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING FOR
BRIDGE ON SR 1702
OVER REEDY PATCH CREEK
BETWEEN US-64 AND
DIAMOND FALLS PRESERVE

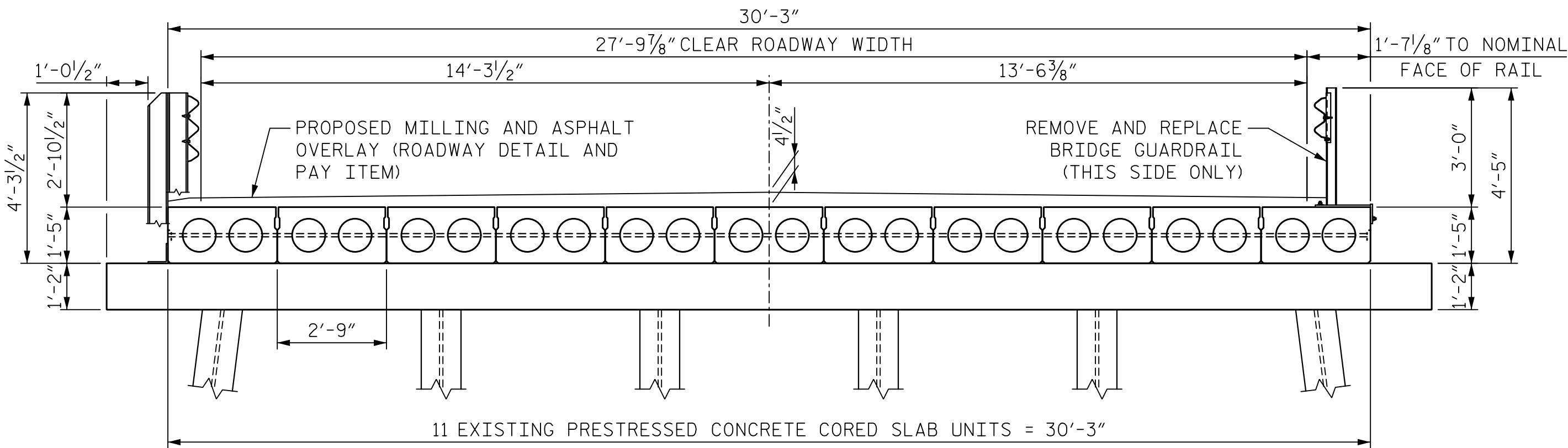
REVISIONS						SHEET NO. S1-1
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 7
2			4			



BRIDGE 440197 LOCATION SKETCH



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

NOTES:

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

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.

FOR BRIDGE GUARDRAIL, SEE SPECIAL PROVISIONS.

ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGE AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

CERTIFIED MILL REPORTS ARE REQUIRED FOR RAILS AND POSTS. SHOP INSPECTION IS NOT REQUIRED.

TO ENSURE FUTURE IDENTIFICATION OF THE FABRICATOR, A PERMANENT IDENTIFYING MARK SHALL BE PLACED ON EACH POST. THE METHOD OF MARKING AND LOCATION SHALL BE SUCH THAT IT DOES NOT DETRACT FROM THE APPEARANCE OF THE POST, BUT REMAINS VISIBLE AFTER RAIL PLACEMENT.

THE CONTRACTOR SHALL USE ADHESIVELY ANCHORED DOWELS. LEVEL TWO FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE DOWEL IS 12 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SECTION 420-13 OF THE STANDARD SPECIFICATIONS.

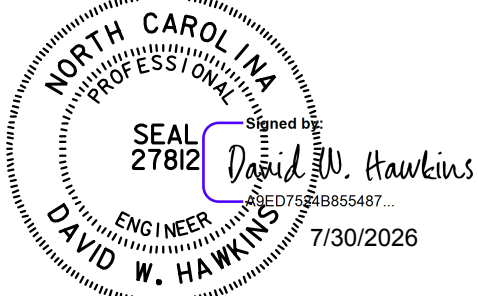
THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR RAILING, BASE PLATES AND HARDWARE TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

ALL RAILING POST, PLATES AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

BRIDGE COORDINATES		
BRIDGE NO.	LATITUDE	LONGITUDE
440197	35°-26-14.5"	82°-17'-41.27"

TOTAL BILL OF MATERIAL			
BRIDGE NO. 440197	REMOVAL OF EXISTING BRIDGE GUARDRAIL	BRIDGE GUARDRAIL	CONCRETE REPAIRS
	LUMP SUM	LIN. FT.	CU. FT.
TOTAL	LUMP SUM	90.67	6.5

NOTE: REMOVAL OF EXISTING BRIDGE GUARDRAIL PAY ITEM INCLUDES REMOVAL OF EXISTING BRIDGE RAILING AND ASPHALT WEARING SURFACE WITHIN LIMITS OF PROPOSED RAILING AND AS SHOWN ON PLANS.



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DRAWN BY M. WRIGHT	DATE 12/25	DWG. NO. 2	
CHECKED BY N. HART	DATE 05/26		
ENGINEER OF RECORD D. HAWKINS	DATE 05/26		

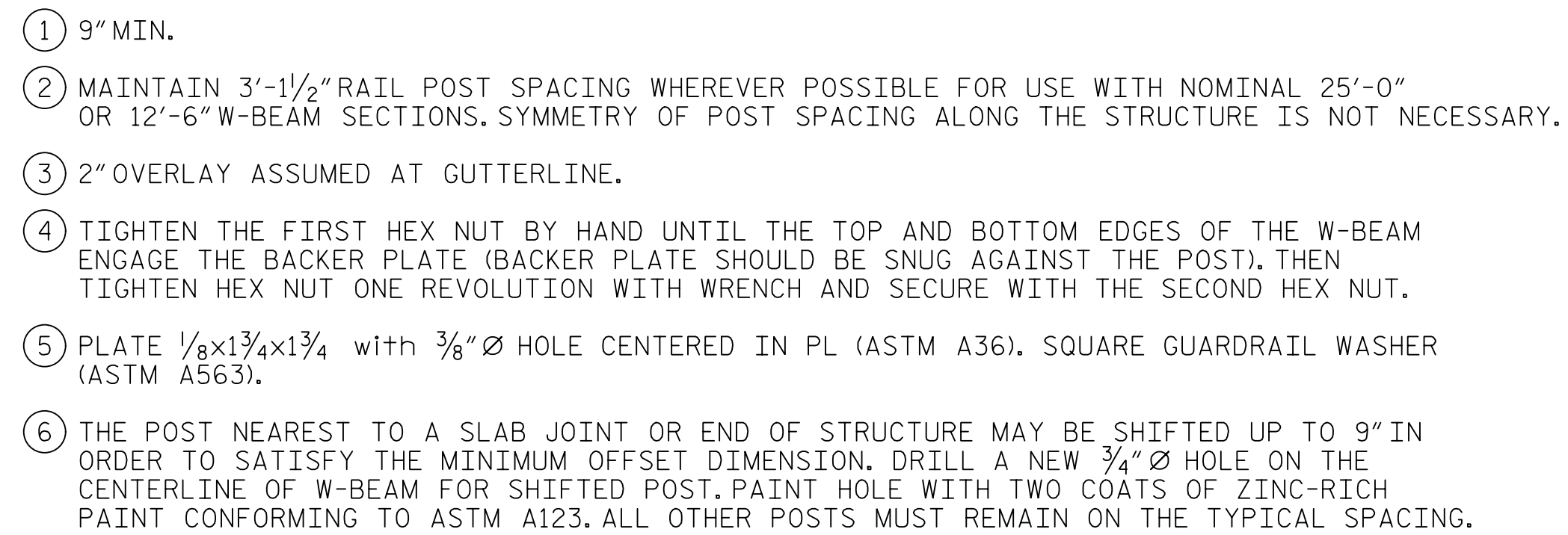
PROJECT NO. DF1834.2045330
HENDERSON COUNTY
STATION: POT 20+89.64 -L-

SHEET 2 OF 2

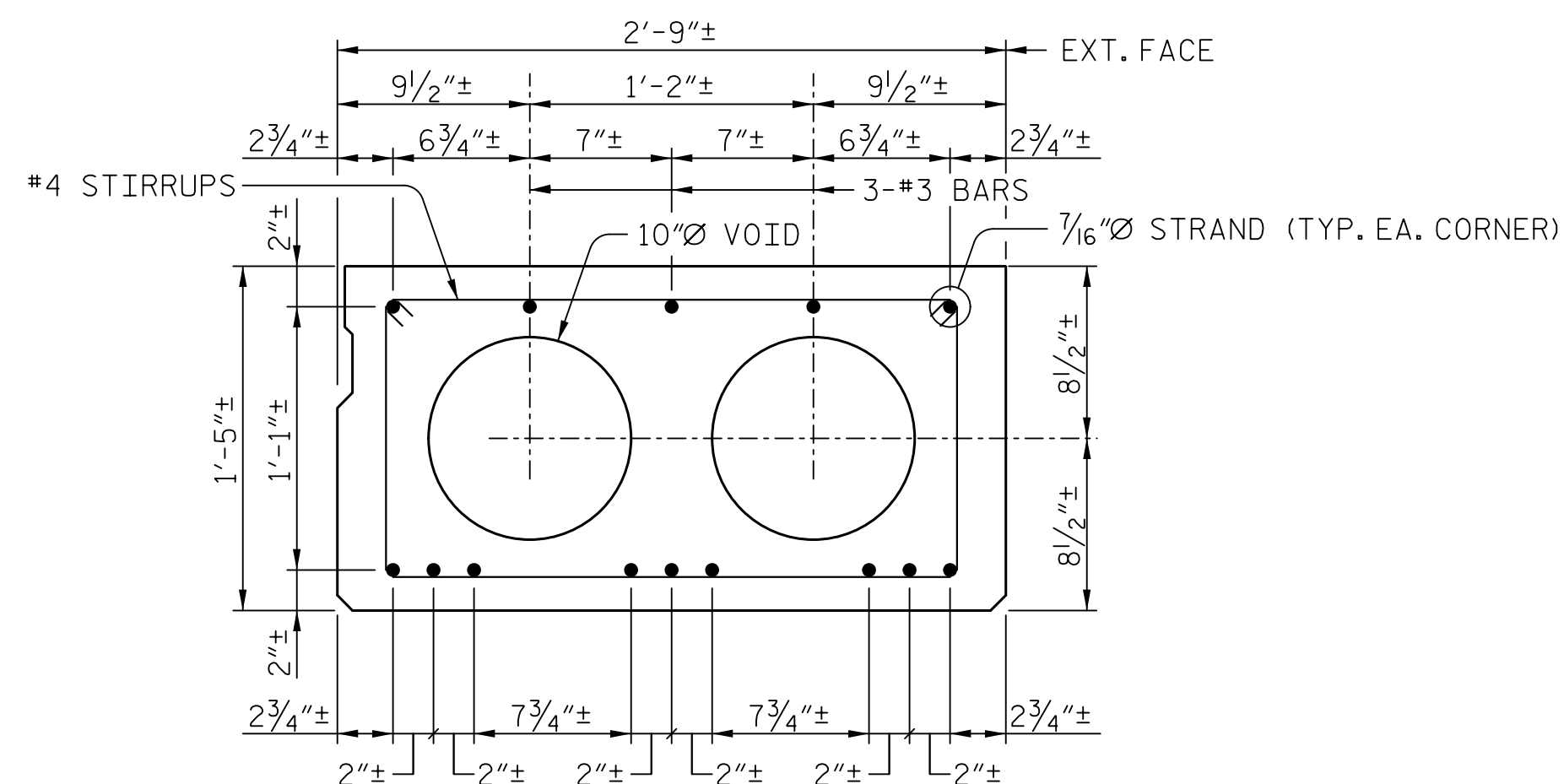
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING FOR
BRIDGE ON SR 1702
OVER REEDY PATCH CREEK
BETWEEN US-64 AND
DIAMOND FALLS PRESERVE

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-2
1			3			TOTAL SHEETS
2			4			7



SHOWING WITHOUT OVERLAY



NOTE: EXISTING CONCRETE STRENGTH IS 5,000 PSI±.

PROJECT NO. DF1834.2045330
HENDERSON COUNTY
 STATION: POT 20+89.64 -L-

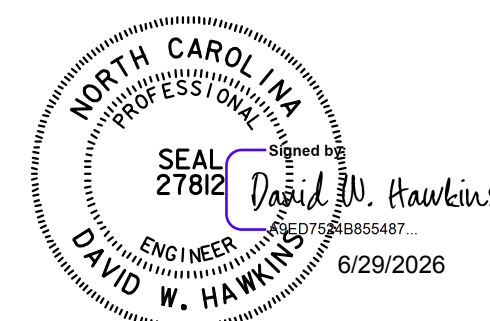
SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BRIDGE GUARDRAIL

RAIL SECTION

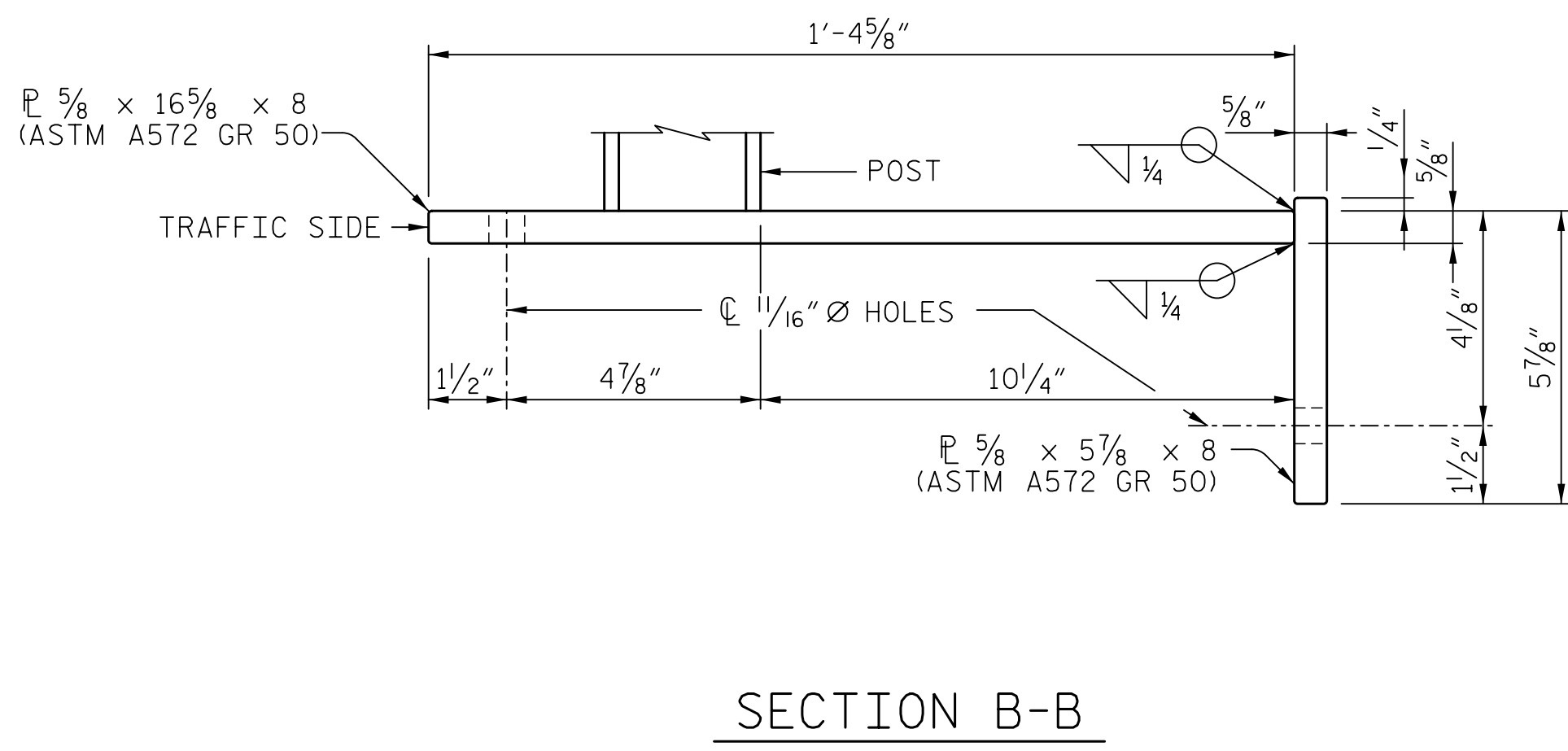
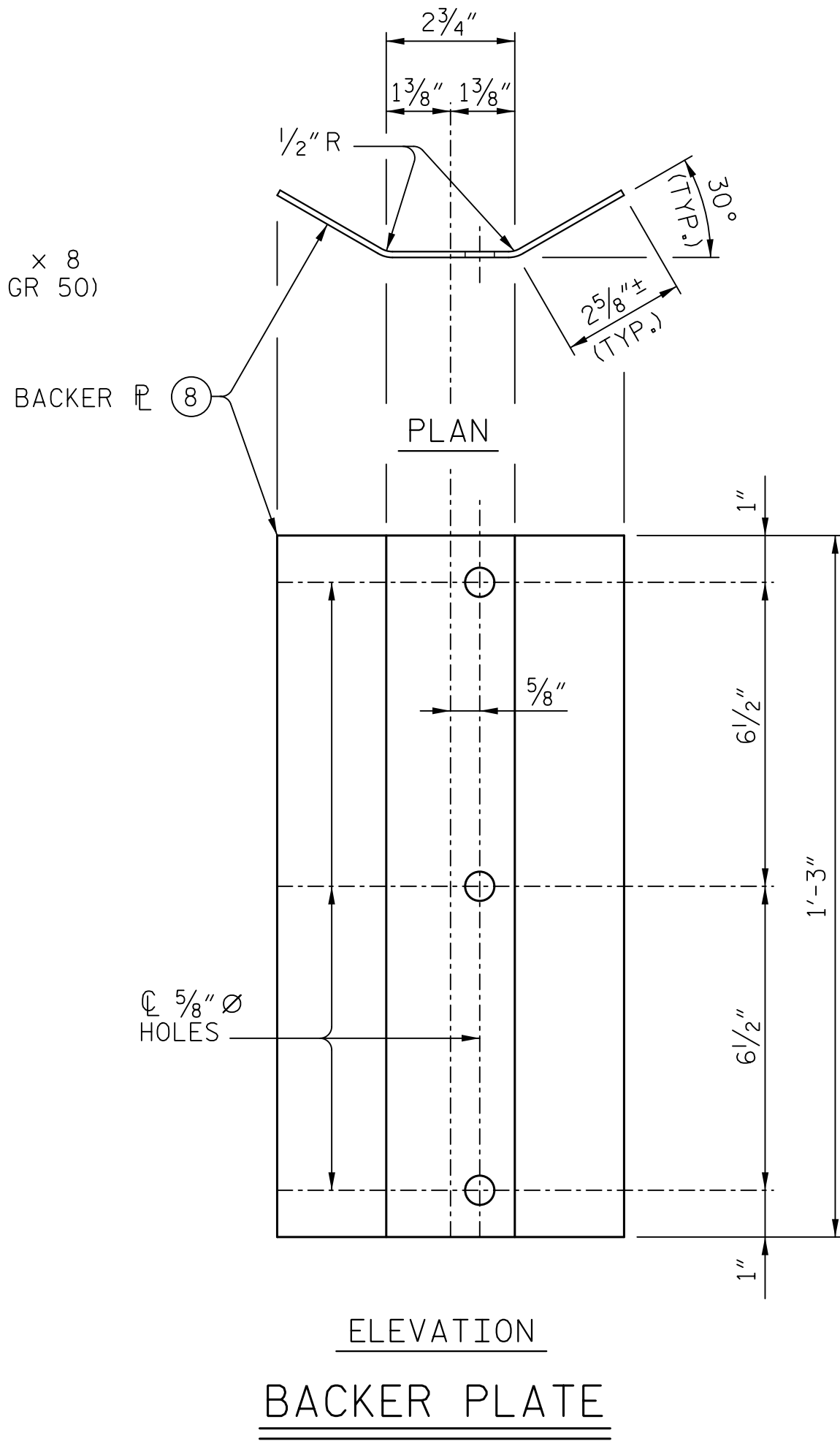
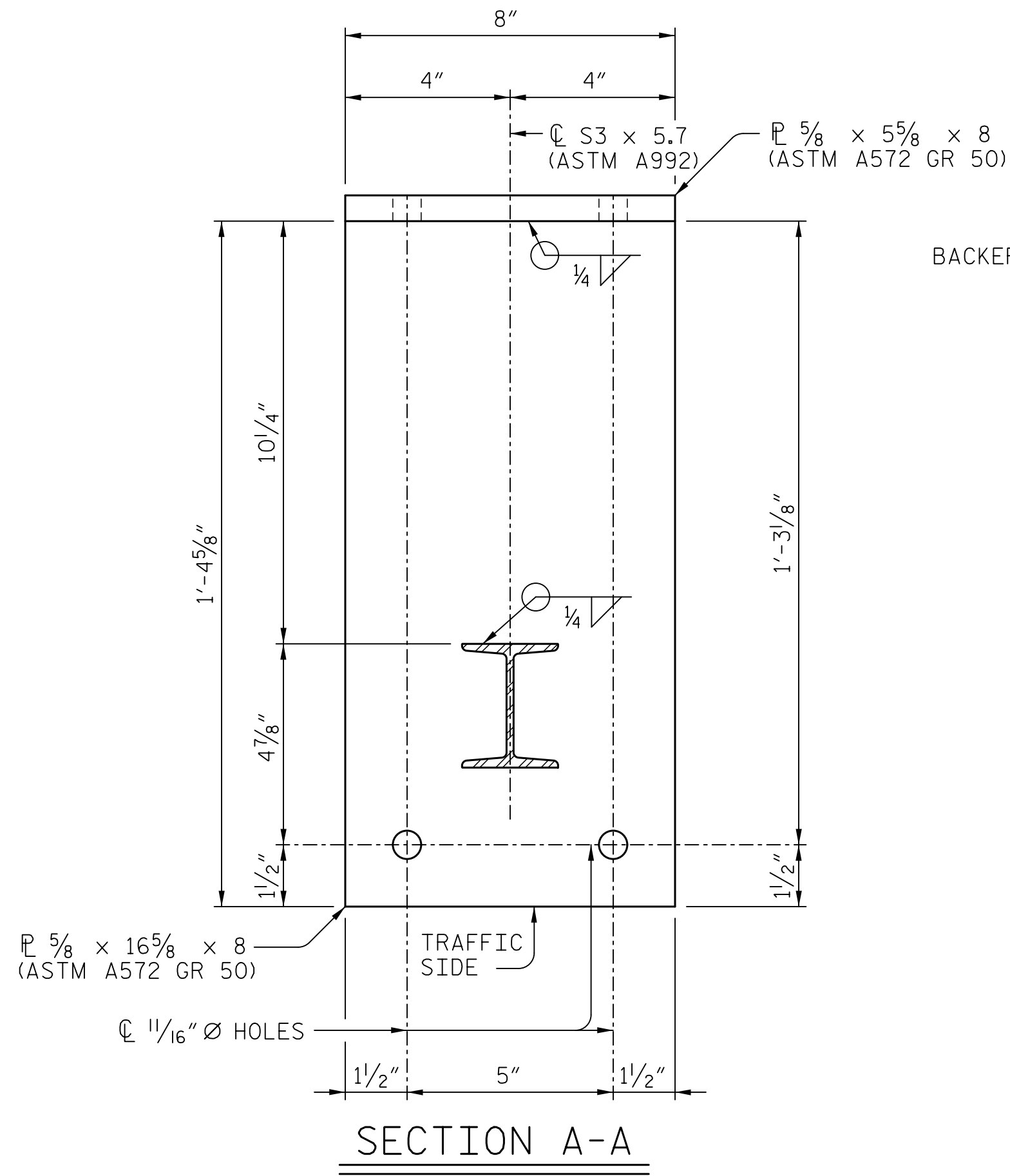
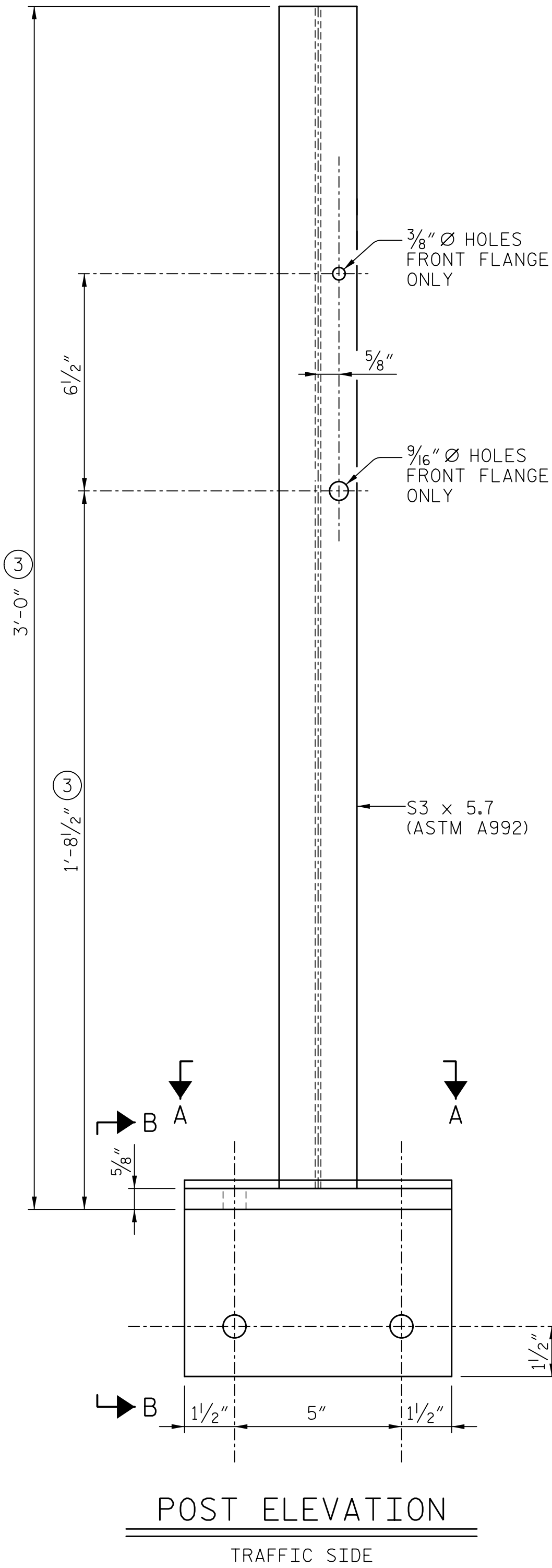
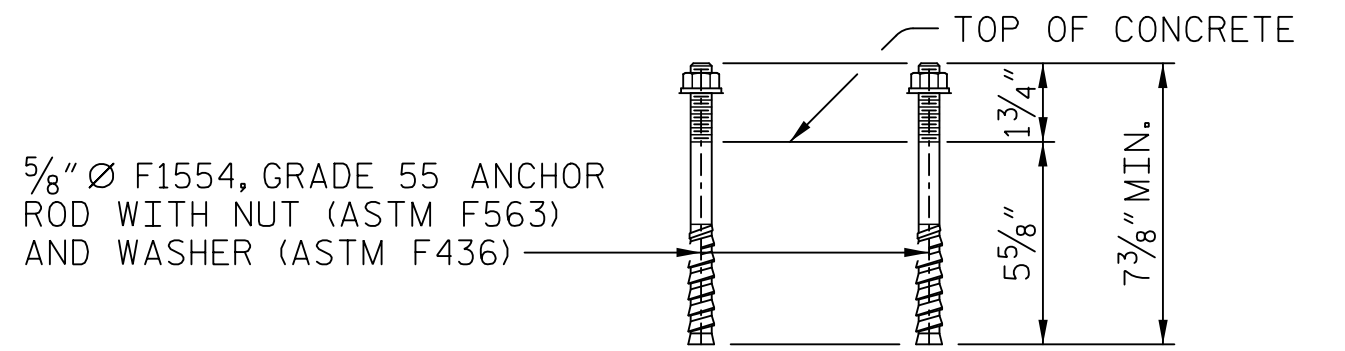
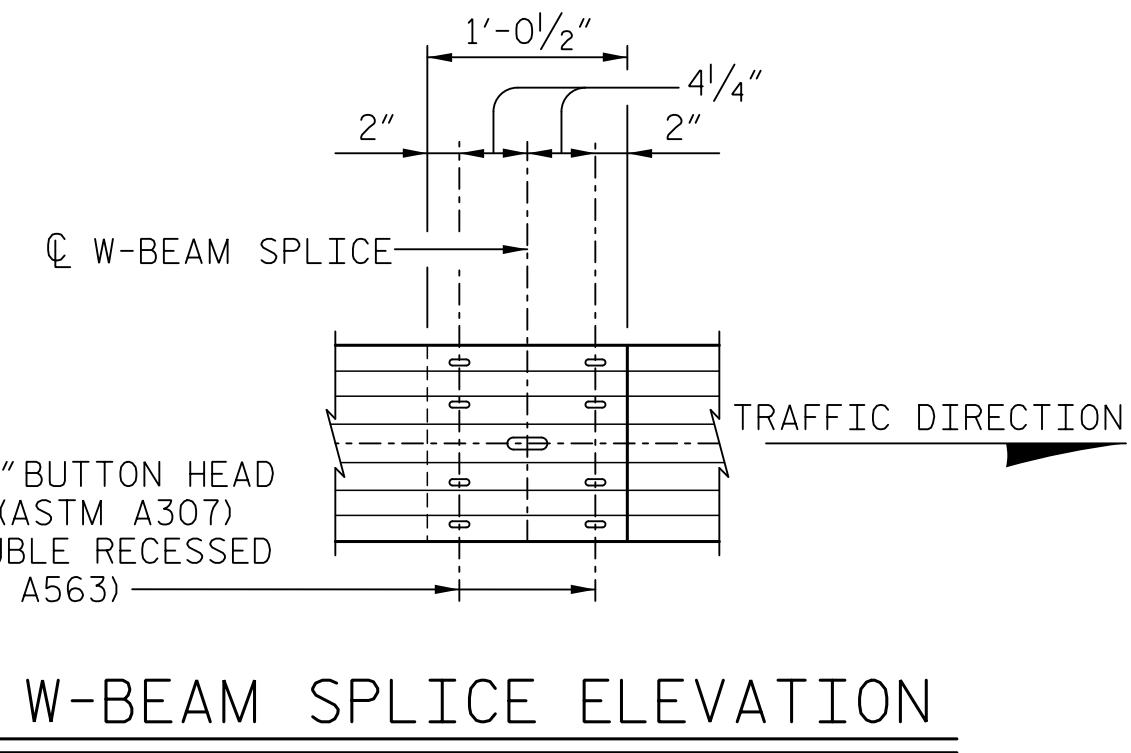
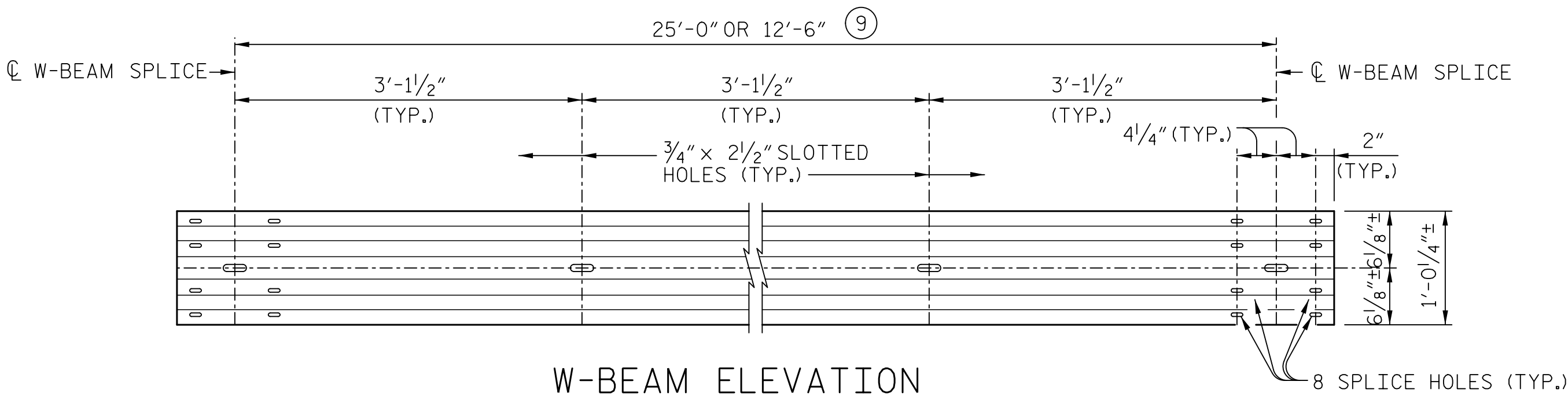
SHOWING WITHOUT OVERLAY



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	NC License No. C-1554 4000 Center of North Hills Street, Suite 500, Raleigh, N.C. 27601		
DRAWN BY	D. HORTON	DATE	01/26
CHECKED BY	N. HART	DATE	05/26
ENGINEER OF RECORD	D. HAWKINS	DATE	05/26
DWG. NO.			3

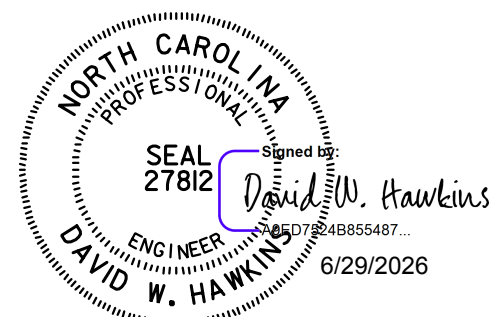
9	REVISIONS						SHEET NO.
	NO.	BY	DATE	NO.	BY	DATE	S1-3
	1			3			TOTAL SHEETS
	2			4			7



- (3) 2" OVERLAY ASSUMED AT GUTTERLINE
- (7) THE CONTRACTOR SHALL USE ADHESIVELY ANCHORED ROD. LEVEL TWO FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE ANCHOR ROD IS 12 KIPS.
- (8) BACKER PL 1/8" x 8 x 1'-3" (ASTM A36).
- (9) AT THE NOMINAL END OF THE BRIDGE RAIL FOR PAYMENT, ONE 9'-4 1/2" OR 6'-3" W-BEAM SECTION IS PERMITTED IN ORDER TO ACHIEVE THE REQUIRED W-BEAM SPLICE LOCATION.
- (10) CONTRACTOR SHALL LOCATE EXISTING STRAND AND REINFORCING STEEL WITH PACHOMETER OR OTHER MEANS PRIOR TO FABRICATING POST BASE PLATE AND DRILLING FOR ADHESIVE ANCHOR INSTALLATION.

PROJECT NO. DF1834.2045330
HENDERSON COUNTY
STATION: POT 20+89.64 -L-

SHEET 2 OF 2



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DRAWN BY <u>D. HORTON</u>	DATE <u>01/26</u>	DWG. NO. 4	
CHECKED BY <u>N. HART</u>	DATE <u>05/26</u>		
ENGINEER OF RECORD <u>D. HAWKINS</u>	DATE <u>05/26</u>		

REVISIONS						SHEET NO. S1-4
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 7
2			4			

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

FOR REPAIR DETAILS, SEE "TYPICAL CONCRETE REPAIR DETAILS" SHEET.

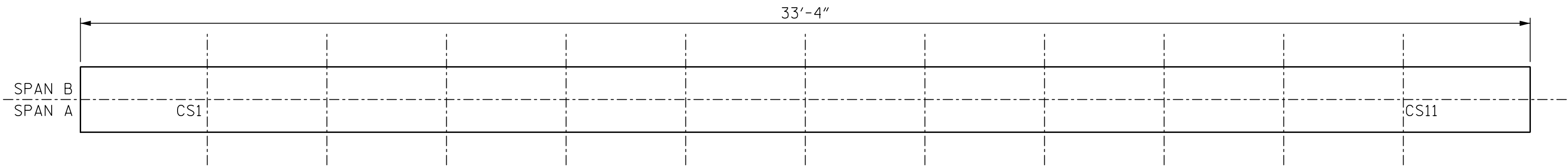
REPAIR KEY



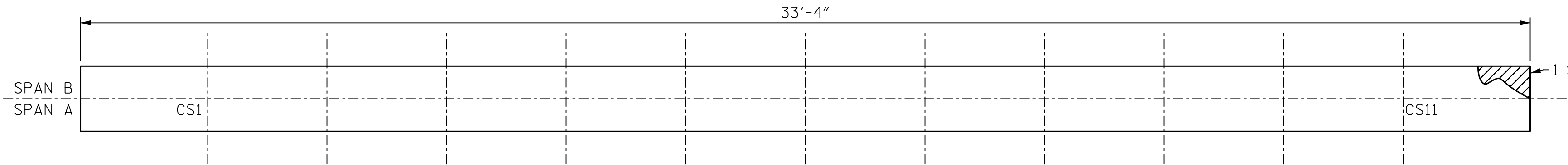
STATION: POT 20+89.64 -L-



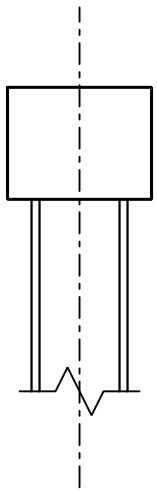
HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609				REVISIONS						SHEET NO. S1-5			
DRAWN BY <u>D. HORTON</u>		DATE <u>02/26</u>		DWG. NO. 5		NO.		BY		DATE		TOTAL SHEETS 7	
CHECKED BY <u>N. HART</u>		DATE <u>05/26</u>				1		3					
ENGINEER OF RECORD <u>D. HAWKINS</u>		DATE <u>05/26</u>				2		4					



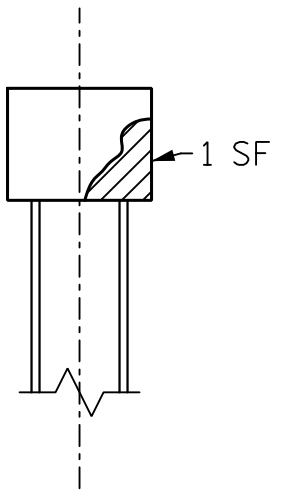
PLAN
(TOP OF CAP)



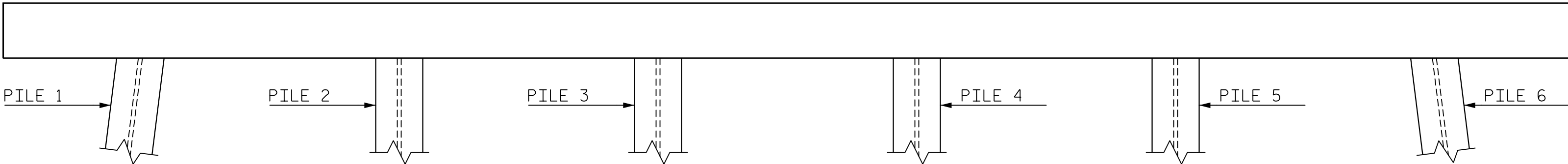
PLAN
(BOTTOM OF CAP)



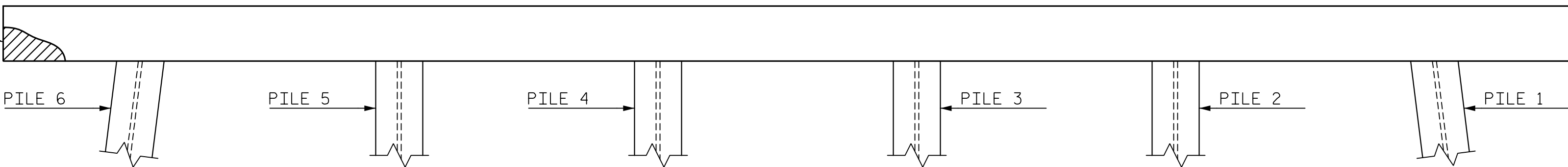
NORTH FACE



SOUTH FACE



WEST FACE ELEVATION



EAST FACE ELEVATION

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

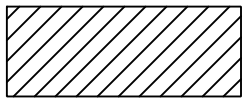
CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FOR REPAIR DETAILS, SEE "TYPICAL CONCRETE REPAIR DETAILS" SHEET.

AS-BUILT REPAIR QUANTITY TABLE				
BRIDGE	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SQ. FT.	VOLUME CU. FT.	AREA SQ. FT.	VOLUME CU. FT.
BENT 1 CAP	1.0	0.5		

REPAIR KEY

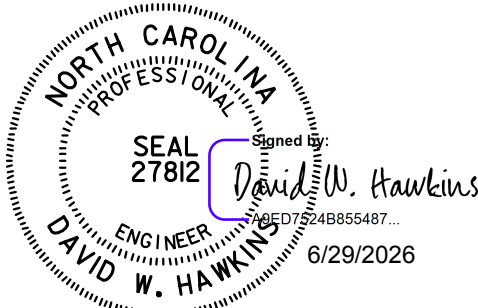


CONCRETE REPAIR AREA

PROJECT NO. DF1834.2045330

HENDERSON COUNTY

STATION: POT 20+89.64 -L-



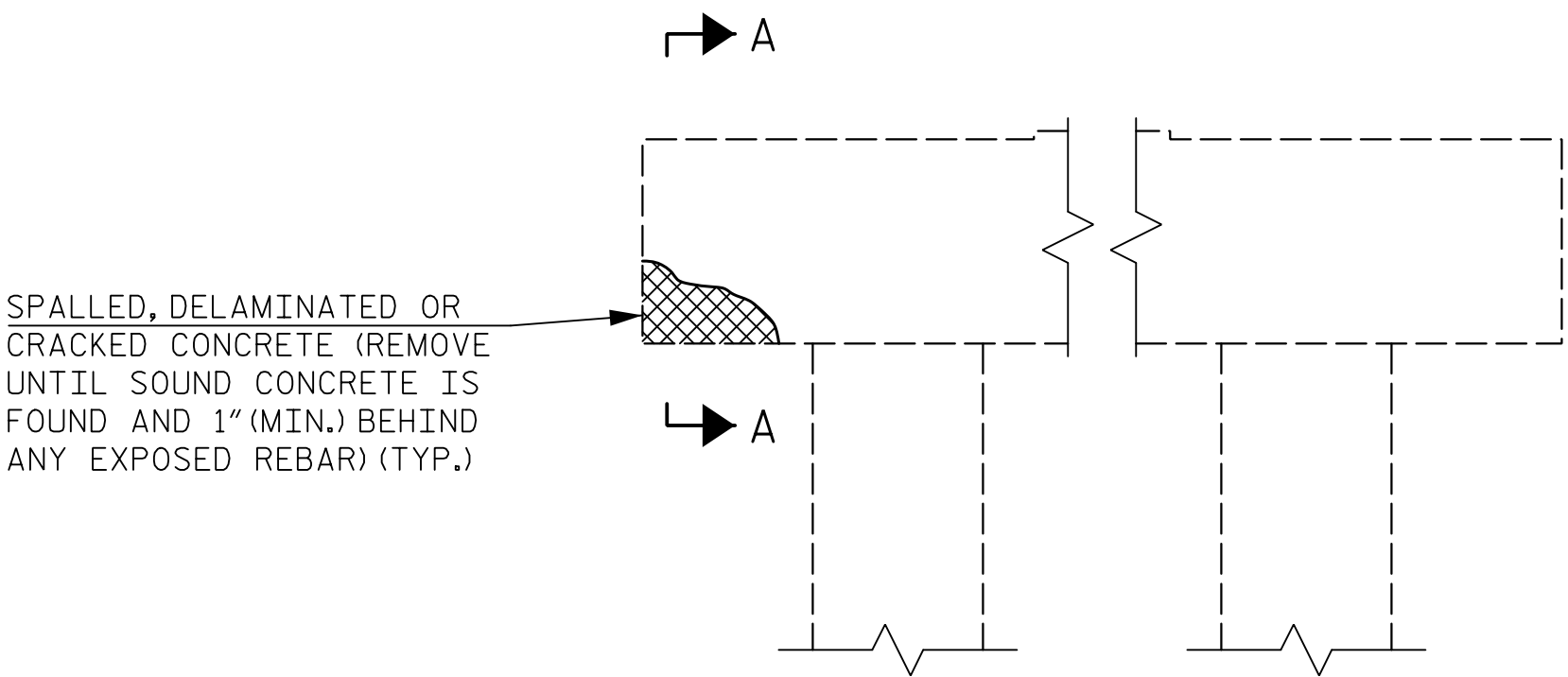
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DRAWN BY <u>D. HORTON</u>	DATE <u>05/26</u>	DWG. NO. <u>6</u>	
CHECKED BY <u>N. HART</u>	DATE <u>05/26</u>		
ENGINEER OF RECORD <u>D. HAWKINS</u>	DATE <u>05/26</u>		

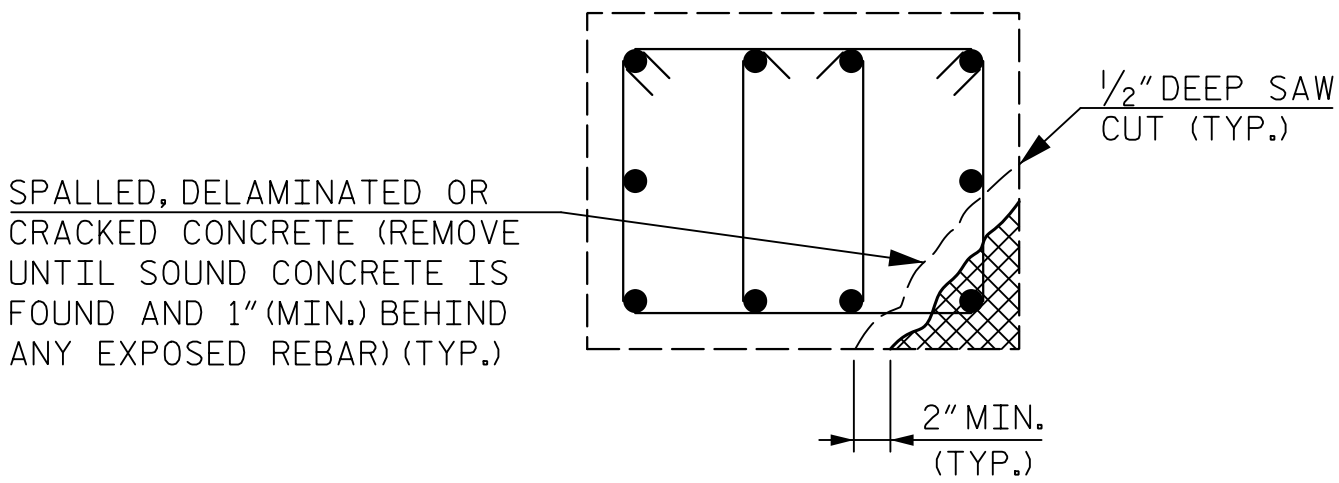
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 1 SUBSTRUCTURE
CONCRETE REPAIR LOCATIONS

REVISIONS						SHEET NO. S1-6
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 7
2			4			

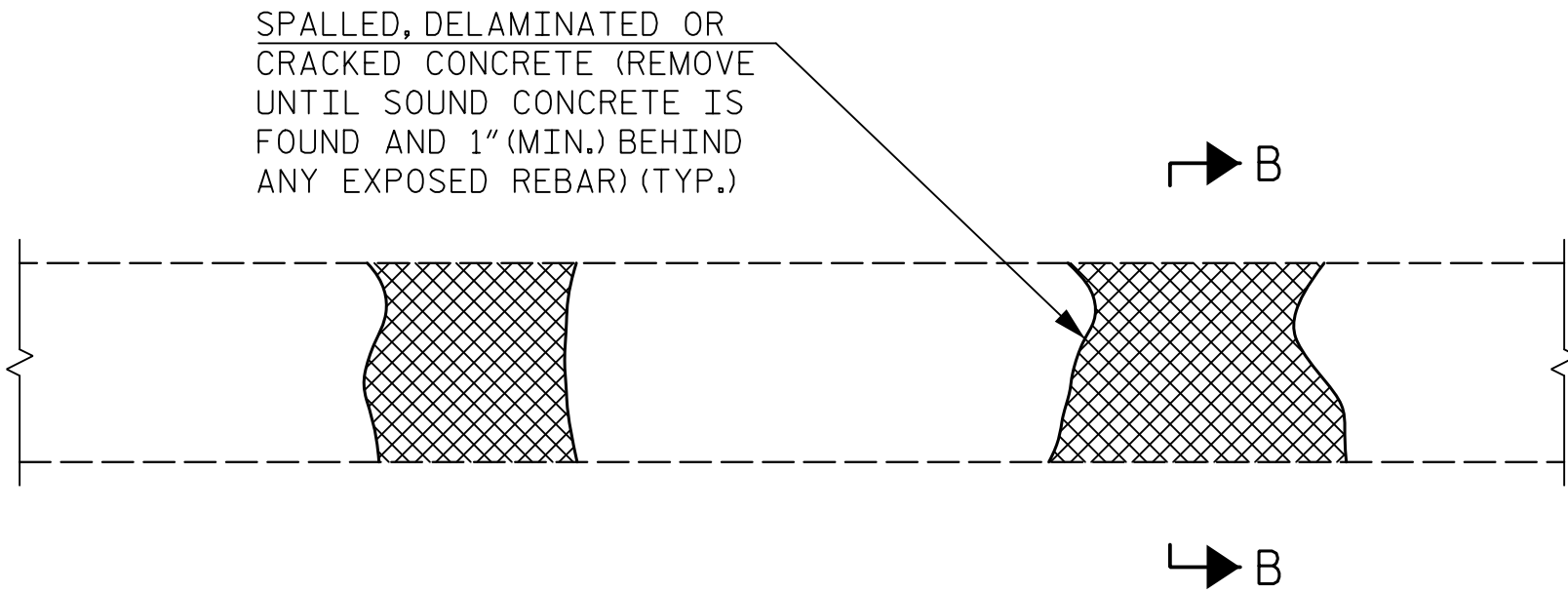


ELEVATION OF BENT

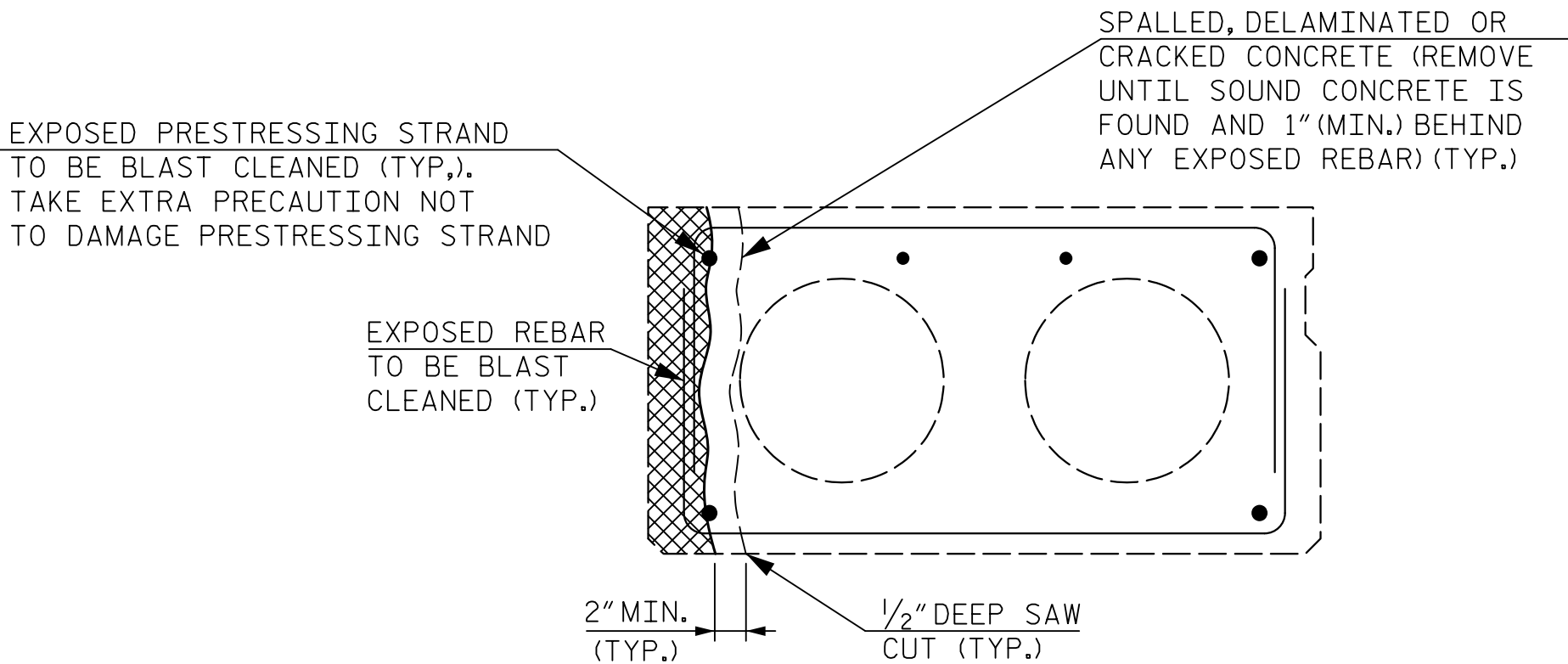


SECTION A-A

BENT CAP REPAIRS



ELEVATION OF CORED SLAB



SECTION B-B

CORED SLAB REPAIRS

NOTES:

TYPICAL BENT CAP AND CORED SLAB REPAIRS ARE SHOWN.

THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE. LEAVE ANY RESIDUE AFTER REMOVAL OR REQUIRE HARSH CHEMICALS TO REMOVE.

THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS.

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY. MINIMUM OF 1" BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT.

NO MORE THAN ONE-THIRD OF THE CAP OR CORED SLAB CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF A CAP OR CORED SLAB CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR CORED SLAB, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1 1/2" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

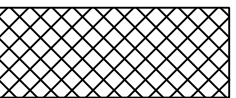
REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE PATCH SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON THIS SHEET.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SPLICE LENGTH TABLE

BAR SIZE	MIN. SPLICE LENGTH
#4	2'-5"
#5	3'-0"
#6	3'-7"
#7	4'-2"
#8	4'-9"
#9	5'-4"
#10	6'-0"
#11	6'-8"

REPAIR KEY

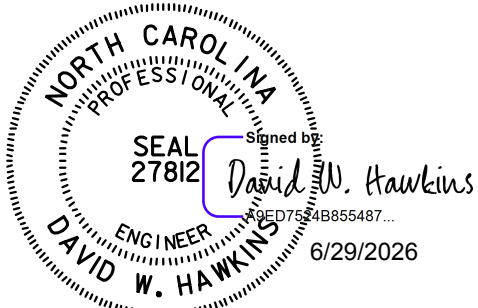


CONCRETE REPAIR AREA (FORM AND POUR)

PROJECT NO. DF1834.2045330

HENDERSON COUNTY

STATION: POT 20+89.64 -L-



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609			
DRAWN BY <u>D. HORTON</u>	DATE <u>02/26</u>	DWG. NO. <u>7</u>	
CHECKED BY <u>N. HART</u>	DATE <u>02/26</u>		
ENGINEER OF RECORD <u>D. HAWKINS</u>	DATE <u>05/26</u>		

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL CONCRETE
REPAIR DETAILS

REVISIONS						SHEET NO. S1-7
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			7

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS.....	AASHTO (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE.....	SEE AASHTO
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	---- 20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	--- 27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	---- 27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	----- 24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	SEE AASHTO
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	---- 1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2024 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED ¾" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1½" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A ¼" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A ¼" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7⁄8" Ø SHEAR STUDS FOR THE ¾" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7⁄8" Ø STUDS FOR 4 - ¾" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7⁄8" Ø STUDS ALONG THE BEAM AS SHOWN FOR ¾" Ø STUDS BASED ON THE RATIO OF 3 - 7⁄8"Ø STUDS FOR 4 - ¾" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5⁄16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1⁄16" OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.