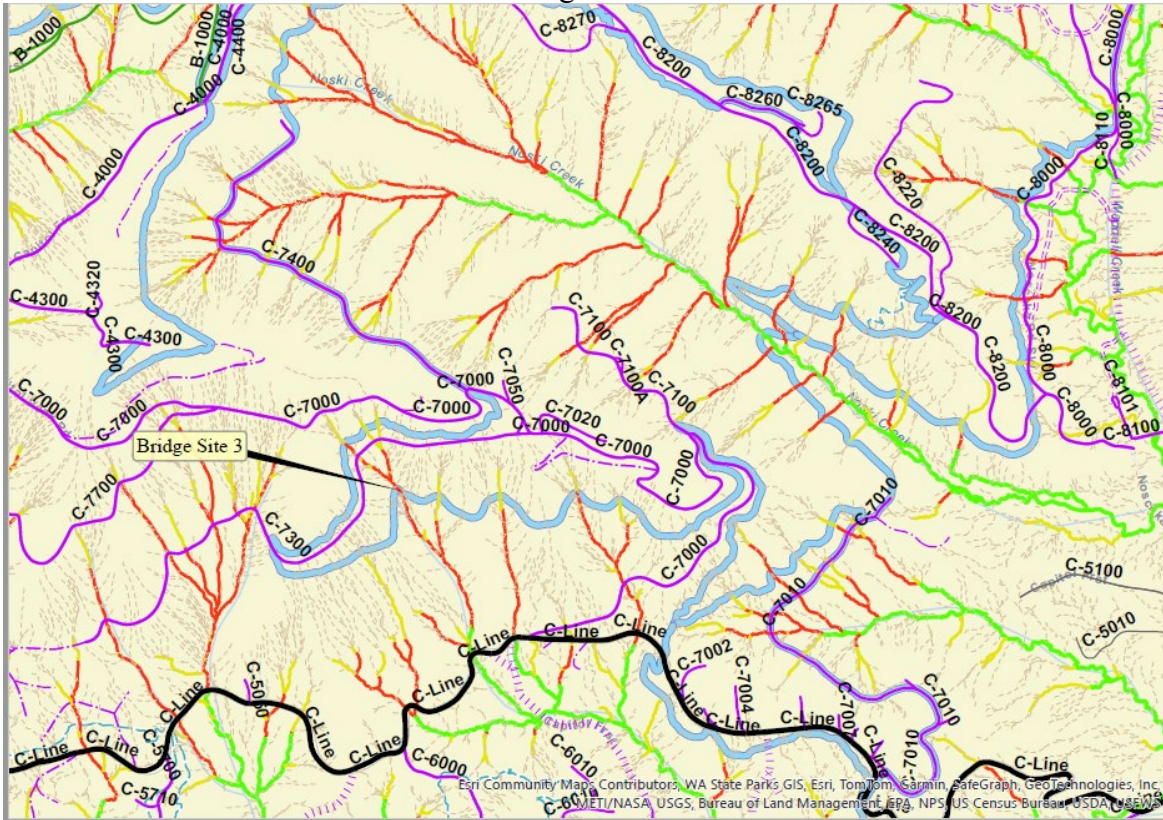


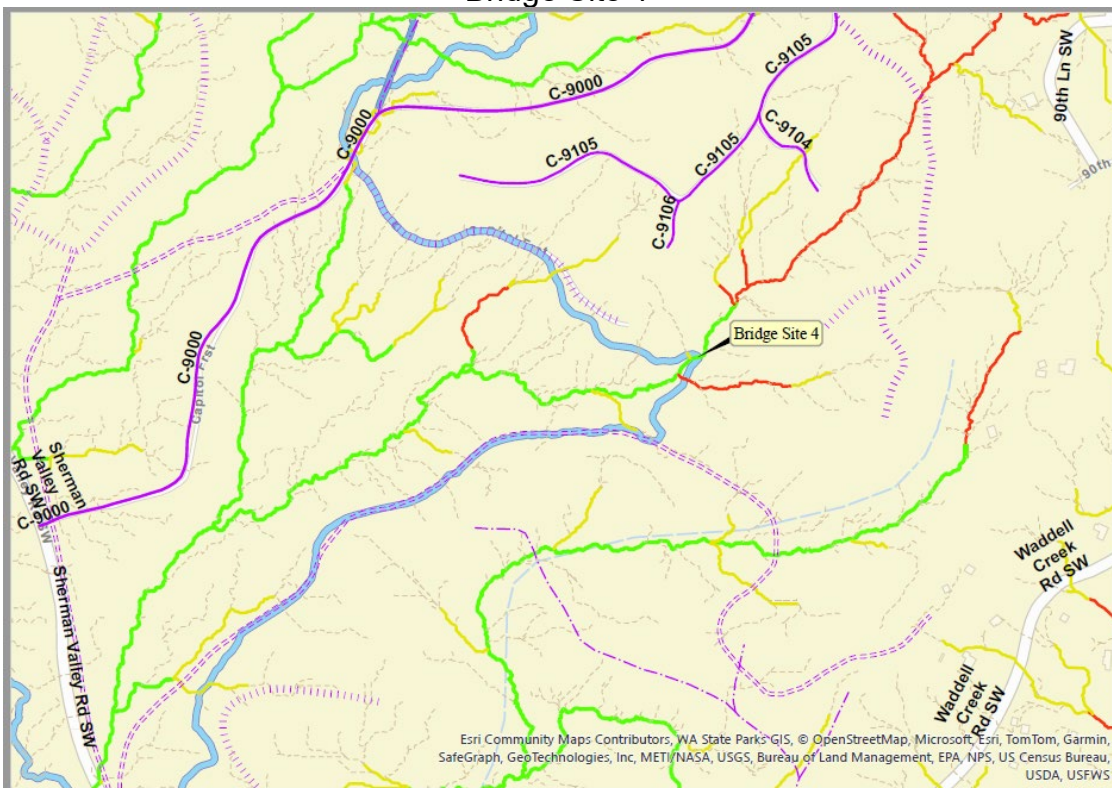
Capitol Forest ORV Bridge Replacement Site Map



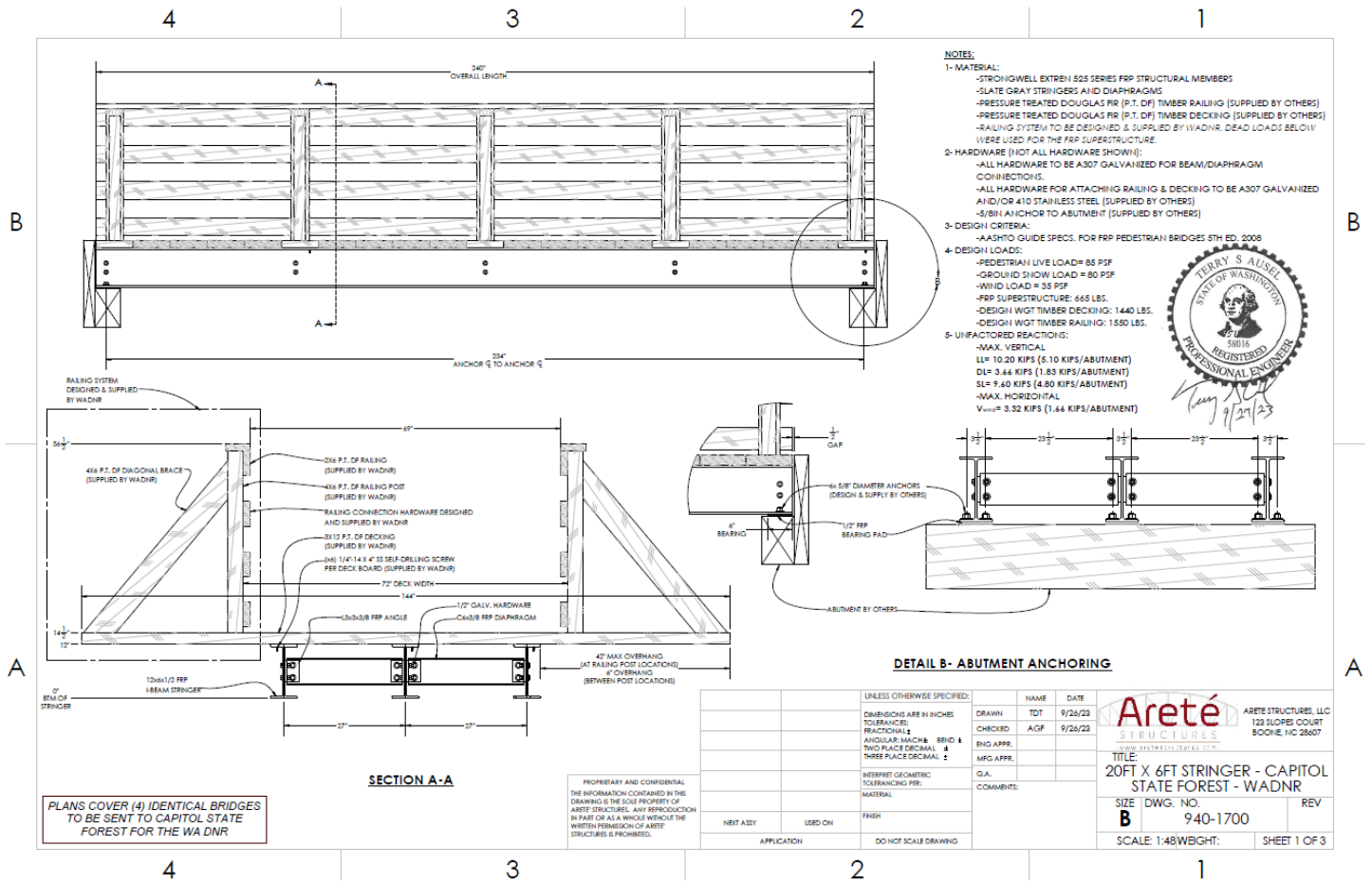
Bridge Site 3



Bridge Site 4

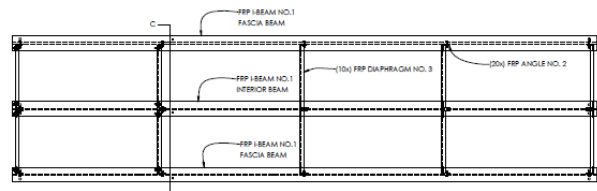


20 Foot Bridge Structure Plans



ITEM NO.	DESCRIPTION	QTY.	Arete P/N
1	20ft x 6ft FRP Stringer Bridge	1	830-0075
2	1/2" x 2" Galvanized Hex Head Bolt, A307	40	91887
3	1/2" x 3" x 1/2" Galvanized Hex Head Bolt, A307	10	91889
4	1/2" Flat Washer, Galvanized USS	140	33784
5	1/2" Split Lock Washer, Galvanized	70	33784
6	1/2" x 13 Hex Nut, Grade A, Galvanized	70	34709
8	4" Stringer Bearing Plate-4in	4	800-0194
9	Flat Head Self Drilling Screws-410 Stainless Steel, 1/4" x 4" long	124	0175913
10	5/8" Hardware - For Abutment Connection (supplied by WADNR)	12	
11	3x12 P.T. 51P Timber Decking Board - 12ft long (supplied by WADNR)	5	
12	3x12 P.T. 51P Timber Decking Board - 4ft long (supplied by WADNR)	16	
13	4in P.T. 51P Vertical Railing Post (supplied by WADNR)	10	
14	2in x 6in P.T. 51P Railing Member (supplied by WADNR)	10	
15	4in x 6in P.T. 51P Diagonal Side Brace (supplied by WADNR)	10	
16	Misc. Hardware for Railing Connections (supplied by WADNR)		

HARDWARE & FIELD ASSM'Y

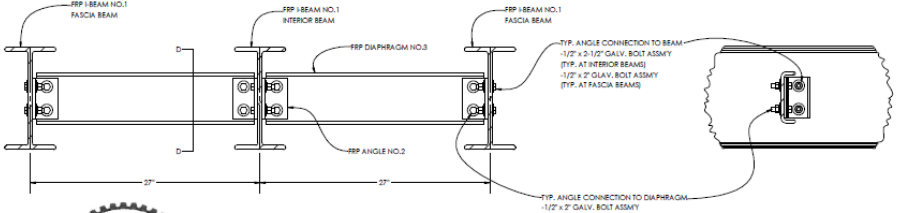


FRAMING PLAN

- NOTES:**
1. OBSERVE COMMON SAFETY PRECAUTIONS.
 2. AVOID EXCESSIVE PRESSURE WHEN SAWING, DRILLING, ROUTING, ETC. TOO MUCH FORCE WILL RAPIDLY DULL TOOLS AND CREATE EXCESSIVE HEAT THAT CAN SCORCH THE FIBERGLASS.
 3. DO NOT GENERATE EXCESSIVE HEAT WHEN DRILLING OR CUTTING. EXCESSIVE HEAT SOFTENS THE BONDING RESIN IN THE FIBERGLASS RESULTING IN A RAGGED RATHER THAN CLEAN CUT EDGE.
 4. SUPPORT THE FIBERGLASS MATERIAL RIGIDLY DURING CUTTING OPERATIONS. SHIFTING MAY CAUSE CHIPPING AT THE CUT EDGE. PROPER SUPPORT WILL ALSO PREVENT WARPING.
 5. THE FABRICATOR AND CONTRACTOR SHALL EXERCISE PRECAUTIONS NECESSARY TO PROTECT THE FIBERGLASS FROM STRUCTURAL DAMAGES FROM A BITE TO PREVENT BREAKAGE, NICKS, COUGERS, ETC. DURING FABRICATION, HANDLING AND INSTALLATION.
 6. STRUCTURAL SHAPES SHALL BE FABRICATED AND ASSEMBLED AS INDICATED ON THE DESIGN DRAWINGS AND IN ACCORDANCE WITH STRONGWELLS EXTREN FIBERGLASS & REPAIR MANUAL.
 7. ALL FRP MATERIAL TO BE STRONGWELLS EXTREN 525 SERIES.

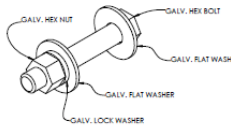
- PROCEDURE 1:**
1. TEMPORARY SCAFFOLDING MAY BE REQUIRED TO SUPPORT BRIDGE DURING ASSEMBLY.
 2. LAYOUT STRINGERS AS SHOWN IN PLAN VIEW (FRP MEMBERS ARE LABELED WITH NUMBER SHOWN ON PLANS).
 3. ATTACH DIAPHRAGMS AS SHOWN IN DETAILS.
 4. SECURE BEAMS AT ABUTMENT ENDS.

- PROCEDURE 2:**
5. INSTALL DECKING & RAILING (SUPPLIED BY WADNR)
 6. ATTACH DECKING AS SHOWN ON SHEET 3. (RAILING CONNECTION DESIGN & HARDWARE SUPPLIED BY WADNR)



SECTION C-C

SECTION D-D



TYP. BOLT ASSM'Y



PLANS COVER (4) IDENTICAL BRIDGES TO BE SENT TO CAPITOL STATE FOREST FOR THE WADNR

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CHECKED	AGF		9/24/23
ENG APPR.			
MFG APPR.			
C.A.			
COMMENTS:			
APPLICATION	USED ON		

ARETE STRUCTURES ARETE STRUCTURES, LLC
123 SLOPE COURT
BOONE, NC 28607

ARETE
STRUCTURES

TITLE:
20FT X 6FT STRINGER-CAPITOL STATE FOREST-WADNR

SIZE: DWG. NO. **940-1700** REV

SCALE: 1:64 WEIGHT: SHEET 2 OF 3

