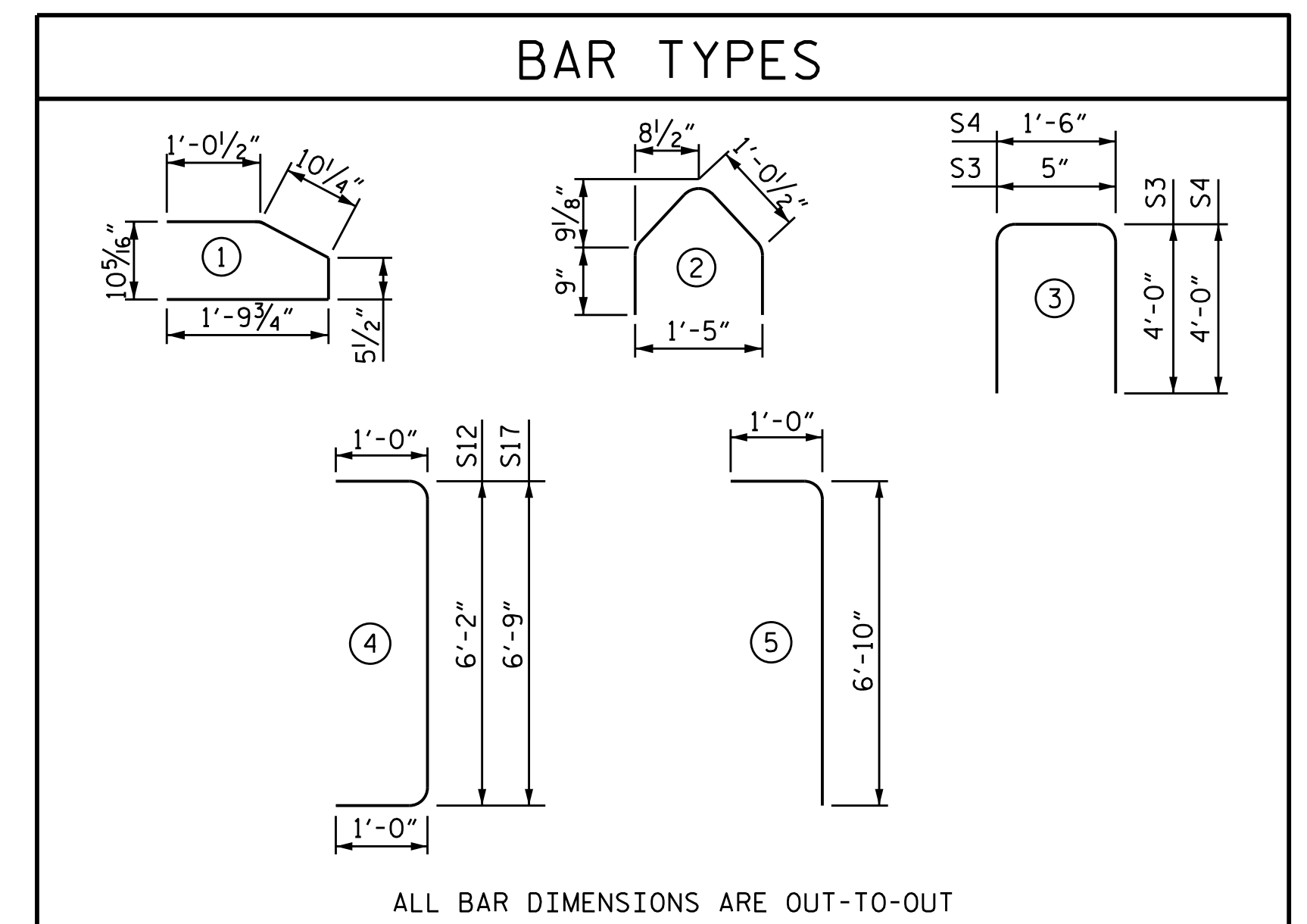


0.6" Ø CFRP STRANDS					
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)			
0.179	60,749	42,524			
GFRP BARS FOR ONE GDR					
SPAN G					
BAR	NUMBER	SIZE	TYPE	LENGTH	LIN. FT.
S1	80	#4	1	4'-2"	333'-4"
S2	40	#4	2	3'-7"	143'-4"
S3	14	#3	3	8'-5"	117'-10"
S4	2	#3	3	9'-6"	19'-0"
G1	S5	113	#4	STR	3'-8" 414'-4"
G2	S5	116	#4	STR	3'-8" 425'-4"
G3	S5	120	#4	STR	3'-8" 440'-0"
G4	S5	123	#4	STR	3'-8" 451'-0"
G5	S5	127	#4	STR	3'-8" 465'-8"
	S12	222	#5	4	8'-2" 1813'-0"
	S17	102	#5	4	8'-9" 892'-6"
G1	S18	98	#5	5	7'-10" 767'-8"
G2	S18	104	#5	5	7'-10" 814'-8"
G3	S18	112	#5	5	7'-10" 877'-4"
G4	S18	118	#5	5	7'-10" 924'-4"
G5	S18	126	#5	5	7'-10" 987'-0"
G1	B1	40	#5	STR	4'-6" 180'-0"
G1	B2	6	#5	STR	22'-0" 132'-0"
QUANTITIES FOR ONE GIRDER					
0.6" Ø CFRP STRANDS		No.	30		
GIRDER	GFRP BAR LIN. FT.				
G1	4813.00'				
G2	4559.00'				
G3	4636.33'				
G4	4694.33'				
G5	4771.67'				
GIRDERS REQUIRED					
NUMBER	LENGTH	TOTAL LENGTH			
5	VARIES	491.09'			

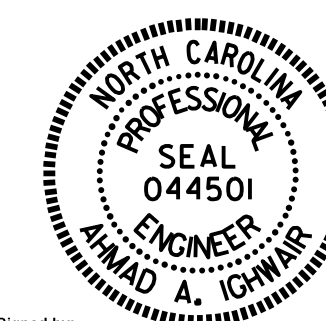
0.6" Ø CFRP STRANDS					
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)			
0.179	60,749	42,524			
GFRP BARS FOR ONE GDR					
SPAN I					
BAR	NUMBER	SIZE	TYPE	LENGTH	LIN. FT.
S1	80	#4	1	4'-2"	333'-4"
S2	40	#4	2	3'-7"	143'-4"
S3	14	#3	3	8'-5"	117'-10"
S4	2	#3	3	9'-6"	19'-0"
I1	S5	128	#4	STR	3'-8" 469'-4"
I2	S5	125	#4	STR	3'-8" 458'-4"
I3	S5	122	#4	STR	3'-8" 447'-4"
I4	S5	119	#4	STR	3'-8" 436'-4"
I5	S5	116	#4	STR	3'-8" 425'-4"
	S12	222	#5	4	8'-2" 1813'-0"
	S17	102	#5	4	8'-9" 892'-6"
I1	S18	128	#5	5	7'-10" 1002'-8"
I2	S18	122	#5	5	7'-10" 955'-8"
I3	S18	116	#5	5	7'-10" 908'-8"
I4	S18	110	#5	5	7'-10" 861'-8"
I5	S18	104	#5	5	7'-10" 814'-8"
QUANTITIES FOR ONE GIRDER					
0.6" Ø CFRP STRANDS		No.	30		
GIRDER	GFRP BAR LIN. FT.				
I1	4791.00'				
I2	4733.00'				
I3	4675.00'				
I4	4617.00'				
I5	4559.00'				
GIRDERS REQUIRED					
NUMBER	LENGTH	TOTAL LENGTH			
5	VARIES	504.77'			

0.6" Ø CFRP STRANDS					
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)			
0.179	60,749	42,524			
GFRP BARS FOR ONE GDR					
SPAN H					
BAR	NUMBER	SIZE	TYPE	LENGTH	LIN. FT.
S1	140	#4	1	4'-2"	583'-4"
S2	70	#4	2	3'-7"	250'-10"
S3	14	#3	3	8'-5"	117'-10"
S4	2	#3	3	9'-6"	19'-0"
S5	223	#4	STR	3'-8"	817'-8"
S12	420	#5	4	8'-2"	3430'-0"
S17	148	#5	4	8'-9"	1295'-0"
S18	222	#5	5	7'-10"	1739'-0"
QUANTITIES FOR ONE GIRDER					
TOTAL GFRP BARS LENGTH	0.6" Ø CFRP STRANDS		8,500 PSI CONCRETE		
LIN. FT.	No.		C.Y.		
8252.67'	64		46.4		
GIRDERS REQUIRED					
NUMBER	LENGTH	TOTAL LENGTH			
5	163'-10 <sup>3</sup> / <sub>8</sub> "	819.32'			



PROJECT NO. B-4863  
CARTERET COUNTY  
 STATION: 34+75.00 -L-

SHEET 17 OF 17



DocuSigned by:  
 Ahmad Ighwair  
 4B64B944C505489

4/19/2021

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO.	
SUPERSTRUCTURE 78" CFRP F.I.B. PRESTRESSED CONCRETE GIRDER (GFRP STIRRUP OPTION)						S1-094	
REVISIONS						TOTAL SHEETS	
NO.	BY:	DATE:	NO.	BY:	DATE:	194	
1			3				
2			4				

DRAWN BY : B.N.BARODAWALA DATE : 01-20  
 CHECKED BY : A. A. IGHWAIR DATE : 01-20  
 DESIGN ENGINEER OF RECORD: A. A. IGHWAIR DATE : 01-20

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED