

0.6" Ø CFRP STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.179	60,749	42,524

CFRP STIRRUP FOR ONE GIRDER

SPAN G

BAR	NUMBER	TYPE	LENGTH	LIN. FT.	
S1	92	1	4'-0"	368'-0"	
S2	46	2	3'-5"	157'-2"	
S4	22	STR	6'-0"	132'-0"	
G1	S5	105	STR	3'-8"	385'-0"
G2	S5	109	STR	3'-8"	399'-8"
G3	S5	111	STR	3'-8"	407'-0"
G4	S5	113	STR	3'-8"	414'-4"
G5	S5	117	STR	3'-8"	429'-0"
	S12	26	3	8'-2"	212'-4"
	S17	106	3	8'-9"	927'-6"
G1	S19	78	4	7'-10"	611'-0"
G2	S19	86	4	7'-10"	673'-8"
G3	S19	90	4	7'-10"	705'-0"
G4	S19	94	4	7'-10"	736'-4"
G5	S19	102	4	7'-10"	799'-0"
G1	B1	40	STR	3'-6"	140'-0"
G1	B2	6	STR	22'-0"	132'-0"

QUANTITIES FOR ONE GIRDER

	TOTAL CFRP STIRRUP LENGTH	0.6" Ø CFRP STRANDS
	LIN. FT.	No.
G1	3065.00'	30
G2	2870.33'	30
G3	2909.00'	30
G4	2947.67'	30
G5	3025.00'	30

GIRDERS REQUIRED

SPAN	NUMBER	LENGTH	TOTAL LENGTH
G	5	VARIES	491.09'

0.6" Ø CFRP STRANDS		
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0.179	60,749	42,524

CFRP STIRRUP FOR ONE GIRDER

SPAN I

BAR	NUMBER	TYPE	LENGTH	LIN. FT.	
S1	92	1	4'-0"	368'-0"	
S2	46	2	3'-5"	157'-2"	
S4	22	STR	6'-0"	132'-0"	
I1	S5	117	STR	3'-8"	429'-0"
I2	S5	115	STR	3'-8"	421'-8"
I3	S5	113	STR	3'-8"	414'-4"
I4	S5	111	STR	3'-8"	407'-0"
I5	S5	109	STR	3'-8"	399'-8"
	S12	26	3	8'-2"	212'-4"
	S17	106	3	8'-9"	927'-6"
I1	S19	102	4	7'-10"	799'-0"
I2	S19	98	4	7'-10"	767'-8"
I3	S19	94	4	7'-10"	736'-4"
I4	S19	90	4	7'-10"	705'-0"
I5	S19	86	4	7'-10"	673'-8"

QUANTITIES FOR ONE GIRDER

	TOTAL CFRP STIRRUP LENGTH	0.6" Ø CFRP STRANDS
	LIN. FT.	No.
I1	3025.00'	30
I2	2986.33'	30
I3	2947.67'	30
I4	2909.00'	30
I5	2870.33'	30

GIRDERS REQUIRED

SPAN	NUMBER	LENGTH	TOTAL LENGTH
I	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

CFRP STIRRUP FOR ONE GIRDER

SPAN H

BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	144	1	4'-0"	576'-0"
S2	72	2	3'-5"	246'-0"
S4	22	STR	6'-0"	132'-0"
S5	198	STR	3'-8"	726'-0"
S12	76	3	8'-2"	620'-8"
S17	156	3	8'-9"	1365'-0"
S18	164	4	7'-10"	1284'-8"

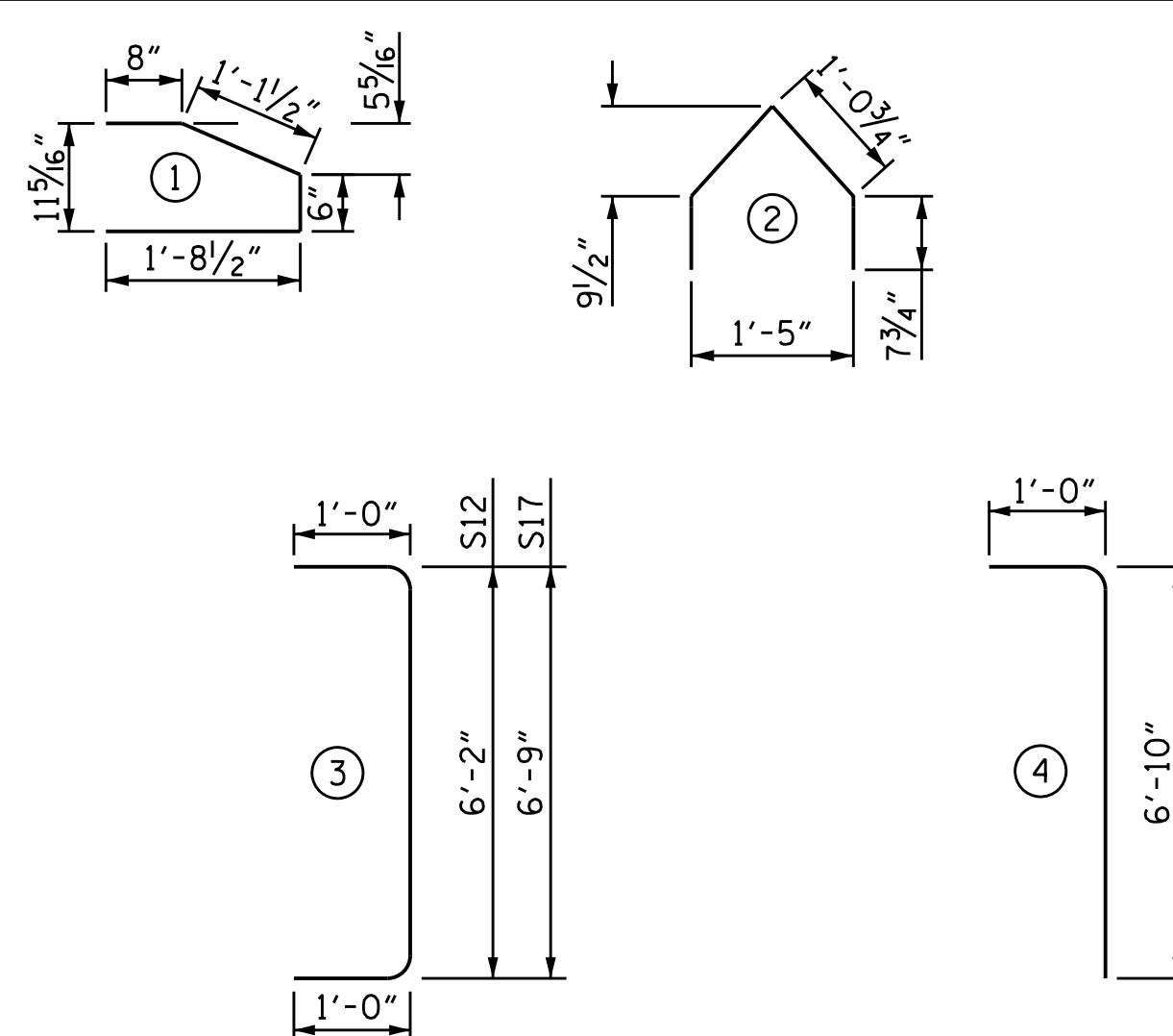
QUANTITIES FOR ONE GIRDER

TOTAL CFRP STIRRUP LENGTH	0.6" Ø CFRP STRANDS	8,500 PSI CONCRETE
LIN. FT.	No.	C.Y.
4950.33	64	46.4

GIRDERS REQUIRED

SPAN	NUMBER	LENGTH	TOTAL LENGTH
H	5	163'-10 ³ / ₈ "	819.32'

BAR TYPES

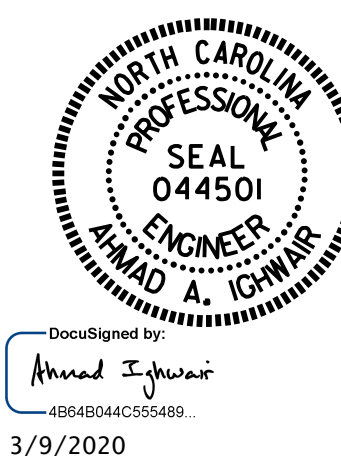


ALL STIRRUPS ARE 0.63 INCH DIAMETER STRANDS
ALL STRAND DIMENSIONS ARE OUT-TO-OUT

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

SHEET 17 OF 17

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
78" CFRP F.I.B.
PRESTRESSED CONCRETE GIRDER
(CFRP STIRRUP OPTION)



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

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-077
1			3			TOTAL SHEETS
2			4			194