

5/10/2016  
400\_185\_B4929\_SMU\_FIB78\_10.dgn

SPANS Q, S, T, V AND W						
0.6" Ø L. R. GRADE 270 STRANDS						
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS				
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)	(LBS. PER STRAND)			
0.217	58,600	43,950				
REINFORCING STEEL FOR ONE GIRDER						
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
S1	182	5	1	7'-10"	1487	
S2	120	5	1	7'-2"	897	
GDR. 1	S3	37	5	1	7'-9"	299
GDR. 2	S3	38	5	1	7'-9"	307
GDR. 3	S3	39	5	1	7'-9"	315
GDR. 4	S3	40	5	1	7'-9"	323
GDR. 5	S3	41	5	1	7'-9"	331
GDR. 1	S4	258	3	3	4'-4"	420
GDR. 2	S4	260	3	3	4'-4"	424
GDR. 3	S4	262	3	3	4'-4"	427
GDR. 4	S4	264	3	3	4'-4"	430
GDR. 5	S4	266	3	3	4'-4"	433
	S5	46	3	2	3'-3"	56
	S6	24	5	STR	6'-0"	150
	* S7	10	5	STR	4'-0"	42
GDR. 1	S8	163	4	STR	3'-8"	399
GDR. 2	S8	164	4	STR	3'-8"	402
GDR. 3	S8	165	4	STR	3'-8"	404
GDR. 4	S8	167	4	STR	3'-8"	409
GDR. 5	S8	168	4	STR	3'-8"	411
	S9	16	4	STR	8'-0"	86
	S10	16	4	4	6'-8"	71
	S11	8	6	STR	28'-0"	336
	S12	14	5	5	12'-8"	185
QUANTITIES FOR ONE GIRDER						
GIRDER	REINFORCING STEEL	10,000 PSI CONCRETE	0.6" Ø L.R. STRANDS			
	LB.	C.Y.	NO.			
GDR. 1	4428	41.4	75			
GDR. 2	4443	41.7	75			
GDR. 3	4456	42.1	75			
GDR. 4	4472	42.4	75			
GDR. 5	4485	42.8	75			
GIRDERS REQUIRED						
	NUMBER	LENGTH	TOTAL LENGTH			
	25	VARIABLES	3717.76'			

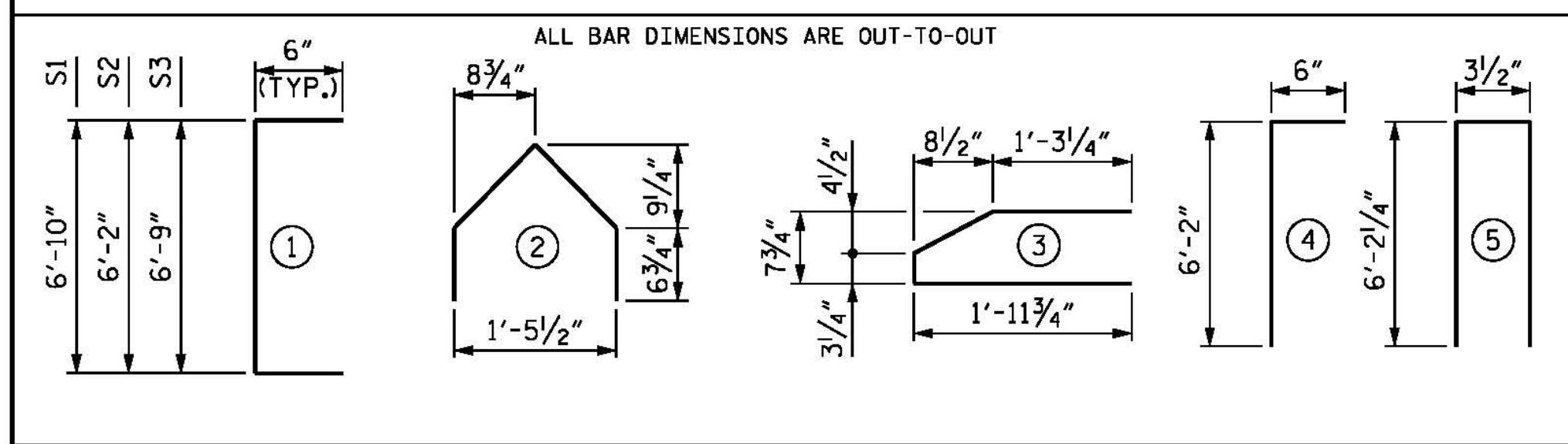
SPANS R AND U						
0.6" Ø L. R. GRADE 270 STRANDS						
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS				
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)	(LBS. PER STRAND)			
0.217	58,600	43,950				
REINFORCING STEEL FOR ONE GIRDER						
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
S1	182	5	1	7'-10"	1487	
S2	120	5	1	7'-2"	897	
GDR. 1	S3	37	5	1	7'-9"	299
GDR. 2	S3	38	5	1	7'-9"	307
GDR. 3	S3	39	5	1	7'-9"	315
GDR. 4	S3	40	5	1	7'-9"	323
GDR. 5	S3	41	5	1	7'-9"	331
GDR. 1	S4	258	3	3	4'-4"	420
GDR. 2	S4	260	3	3	4'-4"	424
GDR. 3	S4	262	3	3	4'-4"	427
GDR. 4	S4	264	3	3	4'-4"	430
GDR. 5	S4	266	3	3	4'-4"	433
	S5	46	3	2	3'-3"	56
	S6	24	5	STR	6'-0"	150
	* S7	20	5	STR	4'-0"	83
GDR. 1	S8	163	4	STR	3'-8"	399
GDR. 2	S8	164	4	STR	3'-8"	402
GDR. 3	S8	165	4	STR	3'-8"	404
GDR. 4	S8	167	4	STR	3'-8"	409
GDR. 5	S8	168	4	STR	3'-8"	411
	S9	16	4	STR	8'-0"	86
	S10	16	4	4	6'-8"	71
	S11	8	6	STR	28'-0"	336
	S12	14	5	5	12'-8"	185
QUANTITIES FOR ONE GIRDER						
GIRDER	REINFORCING STEEL	10,000 PSI CONCRETE	0.6" Ø L.R. STRANDS			
	LB.	C.Y.	NO.			
GDR. 1	4469	41.4	75			
GDR. 2	4484	41.7	75			
GDR. 3	4497	42.1	75			
GDR. 4	4513	42.4	75			
GDR. 5	4526	42.8	75			
GIRDERS REQUIRED						
	NUMBER	LENGTH	TOTAL LENGTH			
	10	VARIABLES	1487.10'			

SPAN X						
0.6" Ø L. R. GRADE 270 STRANDS						
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS				
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)	(LBS. PER STRAND)			
0.217	58,600	43,950				
REINFORCING STEEL FOR ONE GIRDER						
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
S1	182	5	1	7'-10"	1487	
S2	120	5	1	7'-2"	897	
GDR. 1	S3	38	5	1	7'-9"	307
GDR. 2	S3	39	5	1	7'-9"	315
GDR. 3	S3	39	5	1	7'-9"	315
GDR. 4	S3	40	5	1	7'-9"	323
GDR. 5	S3	40	5	1	7'-9"	323
GDR. 1	S4	260	3	3	4'-4"	424
GDR. 2	S4	262	3	3	4'-4"	427
GDR. 3	S4	262	3	3	4'-4"	427
GDR. 4	S4	264	3	3	4'-4"	430
GDR. 5	S4	264	3	3	4'-4"	430
	S5	46	3	2	3'-3"	56
	S6	24	5	STR	6'-0"	150
	* S7	20	5	STR	4'-0"	83
GDR. 1	S8	164	4	STR	3'-8"	402
GDR. 2	S8	165	4	STR	3'-8"	404
GDR. 3	S8	165	4	STR	3'-8"	404
GDR. 4	S8	166	4	STR	3'-8"	407
GDR. 5	S8	167	4	STR	3'-8"	409
	S9	16	4	STR	8'-0"	86
	S10	16	4	4	6'-8"	71
	S11	8	6	STR	28'-0"	336
	S12	14	5	5	12'-8"	185
QUANTITIES FOR ONE GIRDER						
GIRDER	REINFORCING STEEL	10,000 PSI CONCRETE	0.6" Ø L.R. STRANDS			
	LB.	C.Y.	NO.			
GDR. 1	4484	41.7	75			
GDR. 2	4497	41.9	75			
GDR. 3	4497	42.1	75			
GDR. 4	4511	42.4	75			
GDR. 5	4513	42.6	75			
GIRDERS REQUIRED						
	NUMBER	LENGTH	TOTAL LENGTH			
	5	VARIABLES	744.50'			

SPAN Y						
0.6" Ø L. R. GRADE 270 STRANDS						
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS				
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)	(LBS. PER STRAND)			
0.217	58,600	43,950				
REINFORCING STEEL FOR ONE GIRDER						
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
S1	182	5	1	7'-10"	1487	
S2	120	5	1	7'-2"	897	
S3	34	5	1	7'-9"	275	
S4	252	3	3	4'-4"	411	
S5	46	3	2	3'-3"	56	
S6	24	5	STR	6'-0"	150	
* S7	10	5	STR	4'-0"	42	
S8	157	4	STR	3'-8"	385	
S9	16	4	STR	8'-0"	86	
S10	16	4	4	6'-8"	71	
S11	8	6	STR	28'-0"	336	
S12	14	5	5	12'-8"	185	
QUANTITIES FOR ONE GIRDER						
GIRDER	REINFORCING STEEL	10,000 PSI CONCRETE	0.6" Ø L.R. STRANDS			
	LB.	C.Y.	NO.			
	4381	39.8	75			
GIRDERS REQUIRED						
	NUMBER	LENGTH	TOTAL LENGTH			
	5	140.76'	703.80'			

QUANTITIES FOR ONE GIRDER						
GIRDER	REINFORCING STEEL	10,000 PSI CONCRETE	0.6" Ø L.R. STRANDS			
	LB.	C.Y.	NO.			
	4428	41.4	75			
	4443	41.7	75			
	4456	42.1	75			
	4472	42.4	75			
	4485	42.8	75			
GIRDERS REQUIRED						
	NUMBER	LENGTH	TOTAL LENGTH			
	25	VARIABLES	3717.76'			

**BAR TYPES**



\* NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

PROJECT NO. B-4929  
PENDER COUNTY  
STATION: 38+13.81 -L2-

SHEET 6 OF 6

DESIGNED BY: B. LOFLIN DATE: FEB 2016  
DRAWN BY: M. HOBBS DATE: FEB 2016  
CHECKED BY: J. SHERMAN DATE: FEB 2016  
DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: MAY 2016

**PARSONS BRINCKERHOFF**  
434 FAYETTEVILLE STREET  
SUITE 1500  
RALEIGH, NC 27601  
LICENSE NO. F-0165

DocuSigned by:  
Jason R. Doughty  
00F1C86448274F7...  
5/12/16

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUPERSTRUCTURE  
**F.I.B. 78"**  
PRESTRESSED  
CONCRETE GIRDER  
(SPANS Q THROUGH Y)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-94
1			3			TOTAL SHEETS
2			4			278

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**