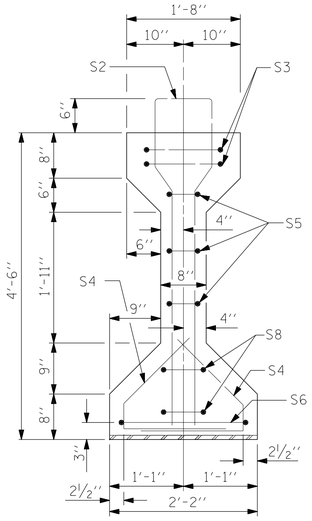
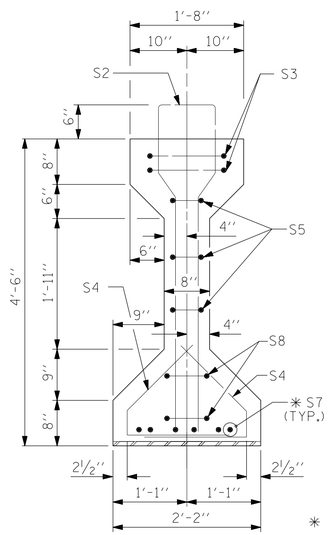
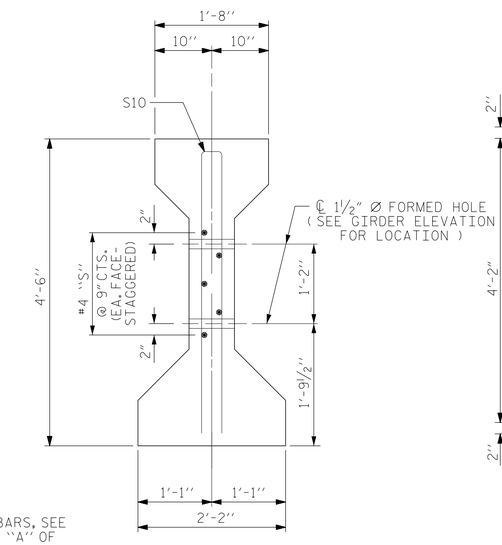


SECTION A-A



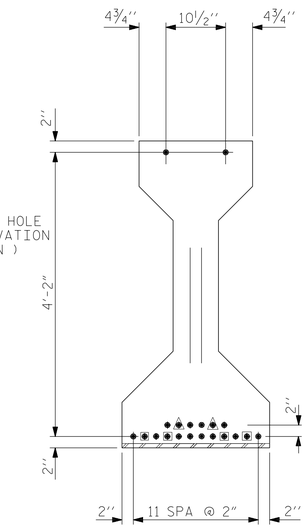
SECTION B-B

* FOR S7 BARS, SEE DETAIL "A" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET

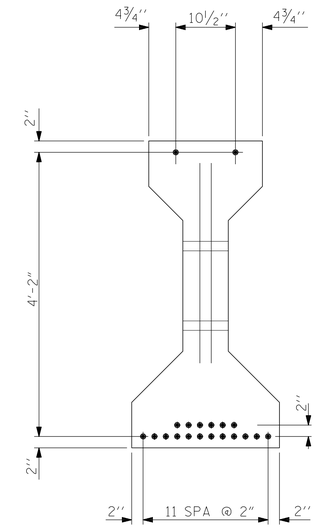


SECTION C-C

(S1 BARS NOT SHOWN)



AT END OF GIRDER



AT ℄ OF GIRDER

0.6" Ø LOW RELAXATION STRAND LAYOUT

0.6" Ø L.R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950

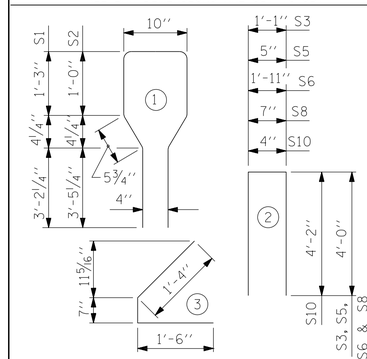
REINFORCING STEEL FOR ONE GIRDER

	BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
C1, C2	S1	68	#5	1	10'-8"	757
C3, C4	S1	66	#5	1	10'-8"	734
	S2	12	#6	1	10'-8"	192
	S3	4	#4	2	9'-1"	24
C1, C2	S4	84	#4	3	3'-5"	192
C3, C4	S4	80	#4	3	3'-5"	183
	S5	6	#4	2	8'-5"	34
	S6	1	#4	2	9'-11"	7
	* S7	6	#5	STR	3'-8"	23
	S8	4	#4	2	8'-7"	23
	S9	1	#3	STR	1'-10"	1
EXTERIOR GDR.	S10	2	#5	2	8'-8"	18
INTERIOR GDR.	S10	4	#5	2	8'-8"	36
EXTERIOR GDR.	S11	5	#4	STR	7'-0"	23
INTERIOR GDR.	S11	10	#4	STR	7'-0"	47

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

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL LB.	5500 PSI CONCRETE C.Y.	0.6" Ø L.R. STRANDS No.
C1	1294	14.8	20
C2	1331	14.7	20
C3	1304	14.6	20
C4	1262	14.6	20

GIRDERS REQUIRED

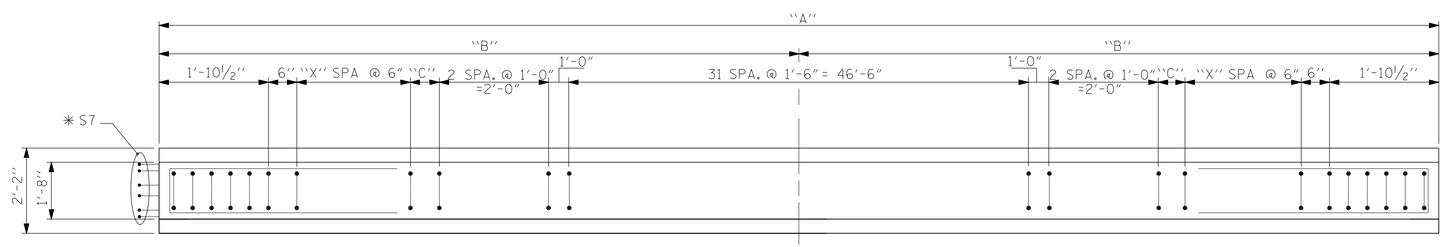
NUMBER	LENGTH	TOTAL LENGTH
1	73'-1⅞"	73'-1⅞"
1	72'-8"	72'-8"
1	72'-2¼"	72'-2¼"
1	71'-8¾"	71'-8¾"
SPAN C TOTAL		289'-8⅞"

DEBONDING LEGEND

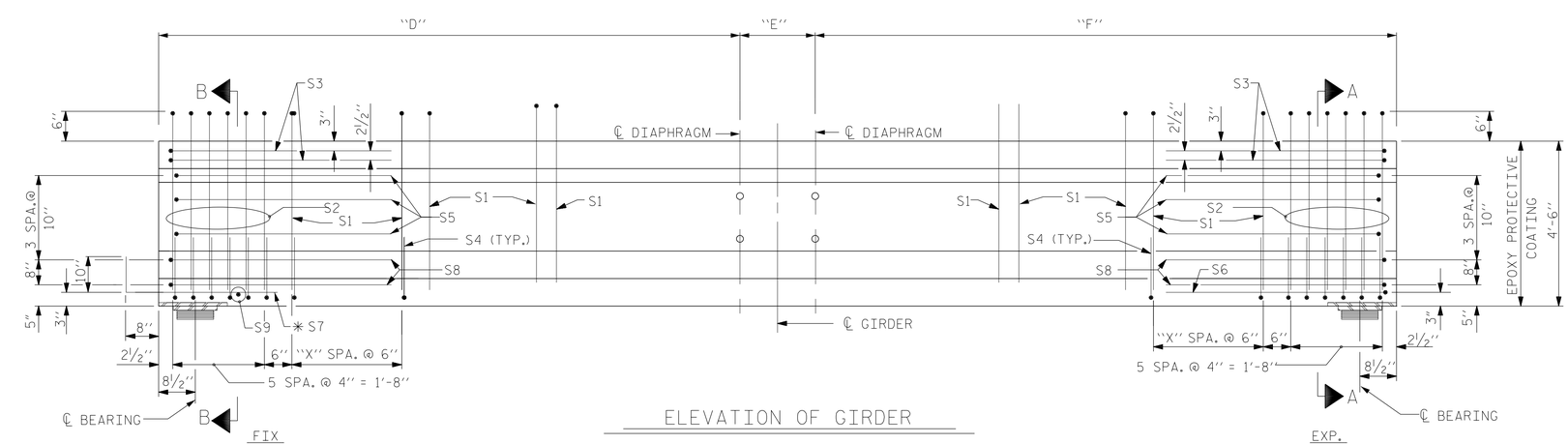
- ● FULLY BONDED STRANDS
- □ STRANDS DEBONDED FOR 8'-0" FROM GIRDER END
- △ STRANDS DEBONDED FOR 2'-0" FROM GIRDER END

DIMENSIONS

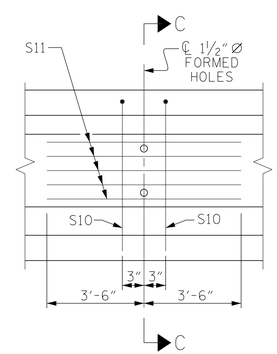
BEAM	C1	C2	C3	C4
"A"	73'-1⅞"	72'-8"	72'-2¼"	71'-8¾"
"B"	36'-6 15/16"	36'-4"	36'-1⅛"	35'-10⅜"
"C"	11 7/16"	8½"	11⅝"	8⅞"
"D"	42'-8 5/16"	30'-2⅝"	30'-0¾"	29'-10⅞"
"E"	0	12'-1¾"	11'-11 15/16"	0
"F"	30'-5 9/16"	30'-3⅝"	30'-1 9/16"	41'-9⅞"
"X"	14	14	13	13



PLAN OF GIRDER



ELEVATION OF GIRDER



PARTIAL ELEVATION

PROJECT NO. I-0914BA

VANCE COUNTY

STATION: 21+34.80-Y5SBL-POC

SHEET 3 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

AASHTO TYPE IV
PRESTRESSED CONCRETE GIRDER
SPAN "C"

NORTH CAROLINA PROFESSIONAL SEAL 11725 ENGINEER DAVID R. RUGGLES

DocuSigned by: David Ruggles C462768DF432422... 11/14/2014

DWG. 16 OF 40

STEWART
Firm License No. C-1051
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Suite 400
Raleigh, NC 27601
T 919.380.8750
www.stewartinc.com

REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

SHEET NO. S-101

TOTAL SHEETS 177

DRAWN BY: H.ASSFOURA DATE: 07/14
CHECKED BY: P.JACOB DATE: 08/14
DESIGN ENGINEER OF RECORD: D.RUGGLES DATE: 08/14

11/14/2014 I-914BA SITE 3
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USER:jloftus