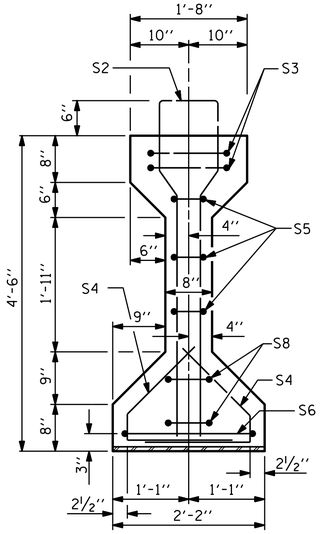
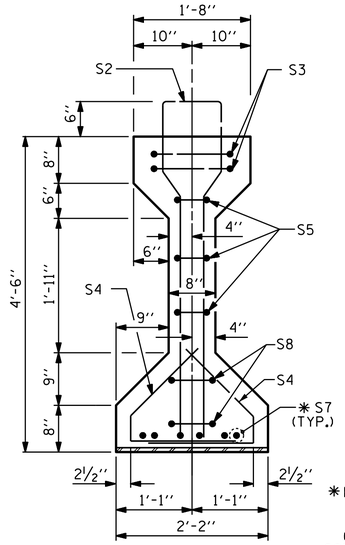
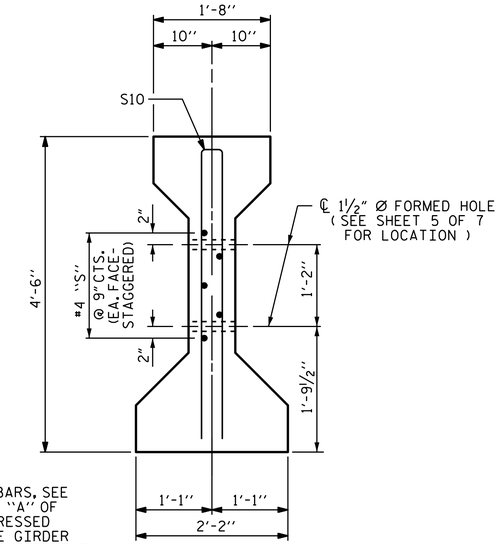


SECTION A-A



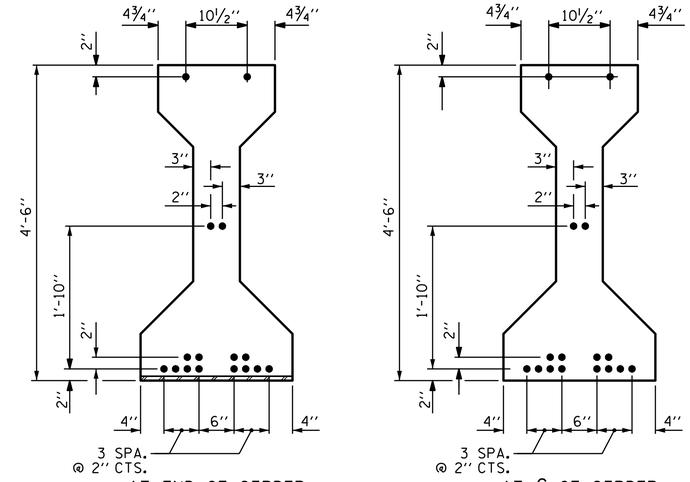
SECTION B-B

✱FOR S7 BARS, SEE DETAIL "A" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET (SHEET 5 OF 7)



SECTION C-C

(S1 BARS NOT SHOWN)



0.6" Ø LOW RELAXATION STRAND LAYOUT

16 STRANDS REQUIRED

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
S1	77	#4	1	10'-8"	549
S2	12	#6	1	10'-8"	192
S3	4	#4	2	9'-1"	24
S4	68	#4	3	3'-5"	155
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. S12	5	#4	STR	16'-10"	56

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

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT

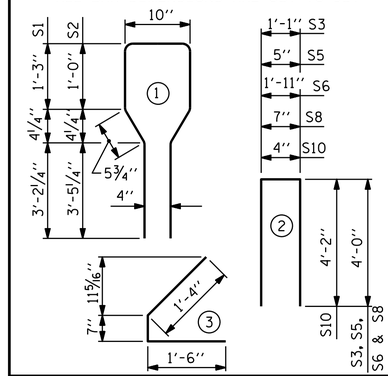
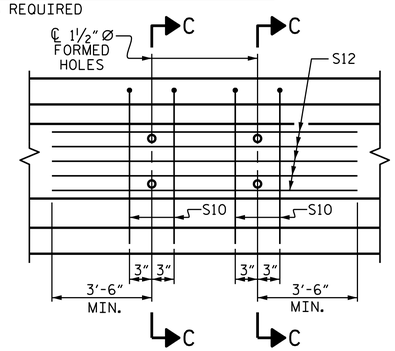


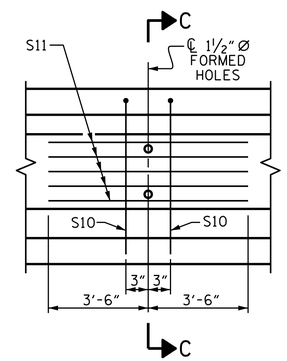
TABLE OF DIMENSIONS

GDR.	X	Y	Z
D1	1'-10 1/16"	33'-3 9/16"	66'-7 1/8"
D2	1'-8 1/4"	33'-1 3/4"	66'-3 1/2"
D3	1'-6 1/2"	33'-0"	66'-0"
D4	1'-4 13/16"	32'-10 5/16"	65'-8 5/8"
D5	1'-3 1/8"	32'-8 5/8"	65'-5 1/4"



PARTIAL ELEVATION

SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS D2, D3, & D4. FOR LOCATION OF BOLT HOLES IN GIRDERS, SEE SHEET 6 OF 7.



PARTIAL ELEVATION

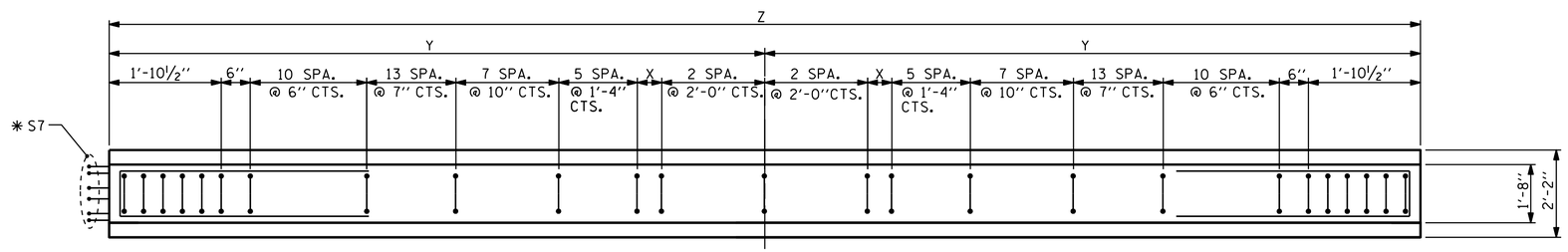
SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS D1 & D5. FOR LOCATION OF BOLT HOLES IN GIRDERS, SEE SHEET 6 OF 7.

QUANTITIES FOR ONE GIRDER

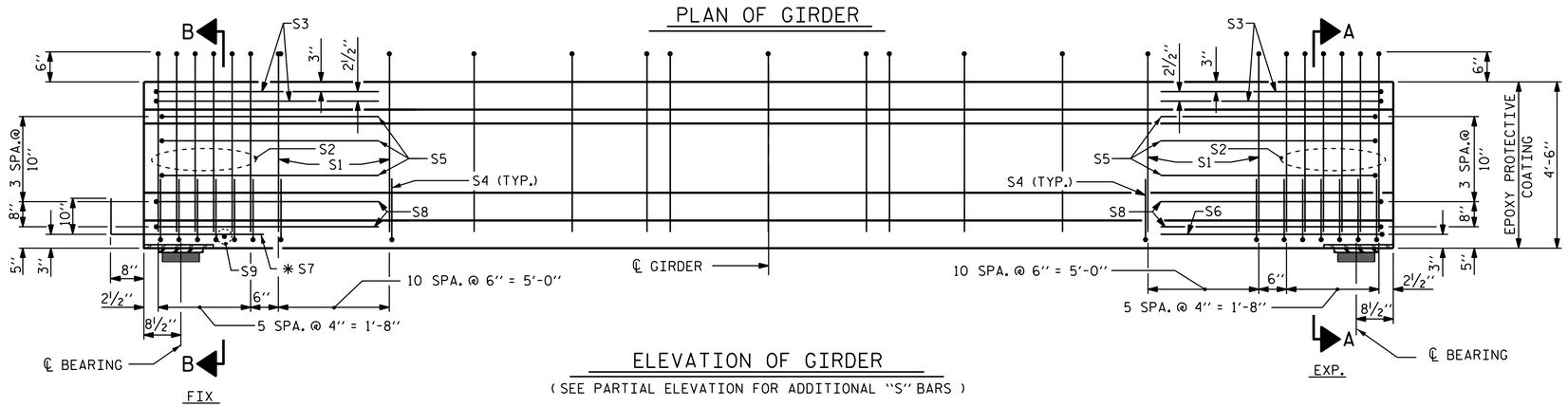
	REINFORCING STEEL LB.	5000 PSI CONCRETE C.Y.	0.6" Ø L.R. STRANDS No.
GIRDER D1	1049	13.5	16
GIRDER D2	1100	13.5	16
GIRDER D3	1100	13.4	16
GIRDER D4	1100	13.3	16
GIRDER D5	1049	13.3	16

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
5	VARIES	330-0½"



PLAN OF GIRDER



ELEVATION OF GIRDER

(SEE PARTIAL ELEVATION FOR ADDITIONAL "S" BARS)

PROJECT NO. B-3673

McDOWELL COUNTY

STATION: 29+38.00 -L-

SHEET 4 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
AASHTO TYPE IV
PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
SPAN D

NORTH CAROLINA PROFESSIONAL SEAL 17230 ENGINEER WAEL S. ARAFAT

DocuSigned by: Wael Arafat 4139C12A32AB406...

2/24/2015

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			43

ASSEMBLED BY : V.X. NGUYEN DATE : 9-18-14
CHECKED BY : D. HODGE DATE : 12-14

DRAWN BY : ELR 8/91
CHECKED BY : GRP 8/91

REV. 10/17/00R RWW/LES
REV. 5/1/06R TLA/GM
REV. 10/1/11 MAA/GM

DESIGN ENGINEER OF RECORD: J.P. McCARTHA DATE : 1-14-15

23-FEB-2015 17:38
R:\Structures\Plans\Final Plans\B-3673_SD_G*.dgn
warafat

STD. NO. PCG6 (Sht. 1)