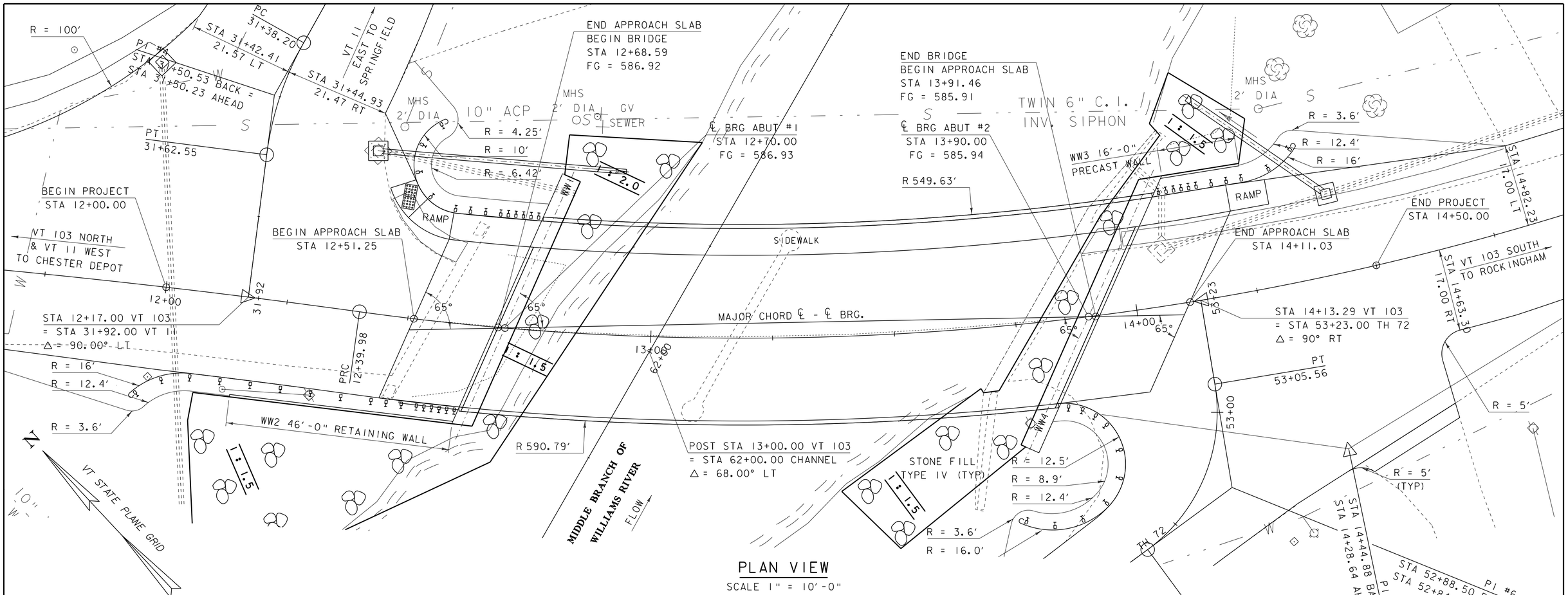
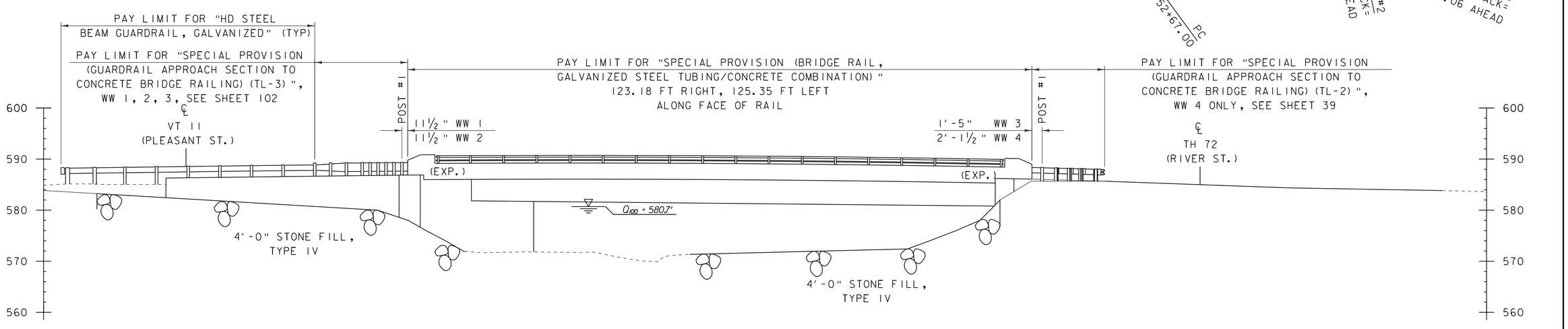


PLAN VIEW

SCALE 1" = 10'-0"

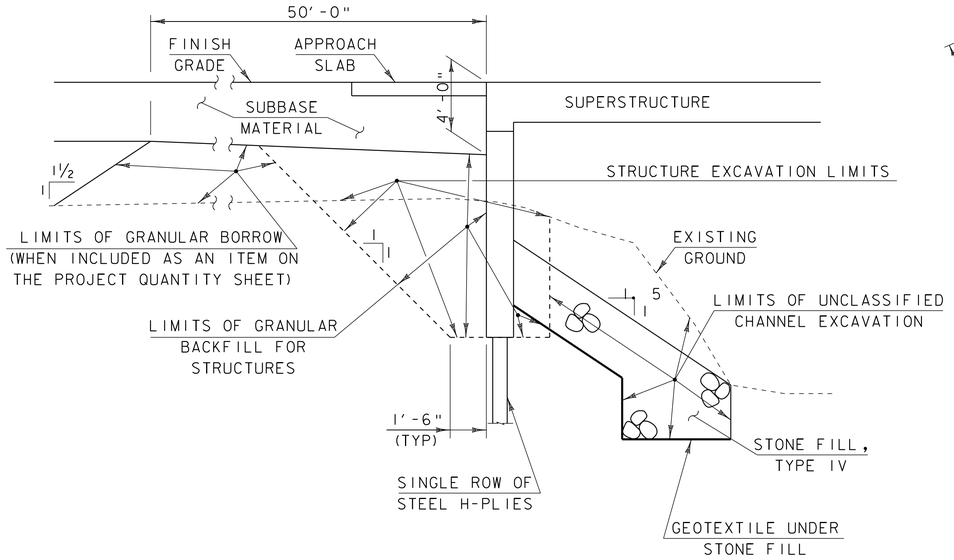


ELEVATION AT UPSTREAM FASCIA

SCALE 1" = 10'-0"

SCALE 1" = 10'-0"
10 0 10

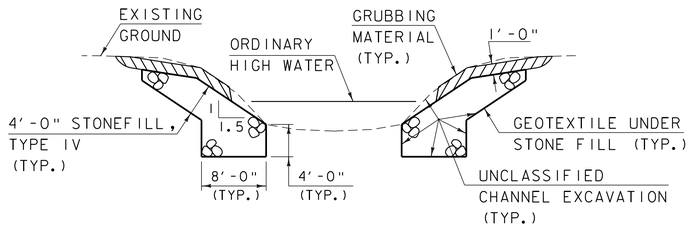
PROJECT NAME: CHESTER	
PROJECT NUMBER: BRF 025-1(37)	
FILE NAME: s95b168pe.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: H.I.SALLS
BRIDGE 9 PLAN AND ELEVATION	SHEET 78 OF 124



TYPICAL ABUTMENT SECTION

NOT TO SCALE

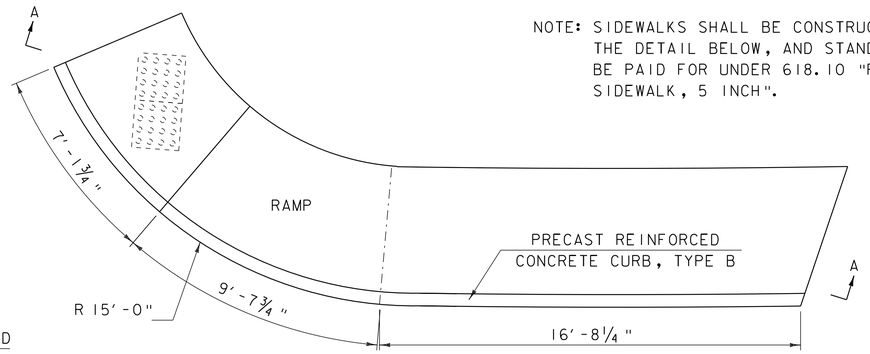
1. ACTUAL EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY THE EXCAVATION BETWEEN THE LIMITS SHOWN WILL BE PAID FOR UNDER THE ITEM 204.25 "STRUCTURE EXCAVATION".



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

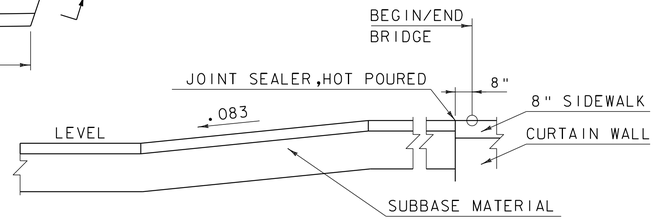
NOTE: GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



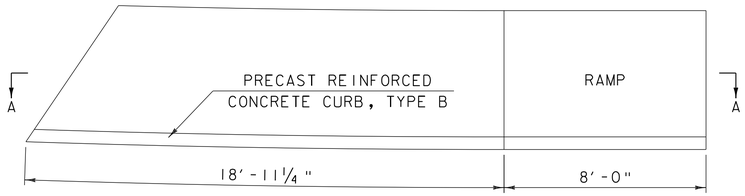
SIDEWALK PLAN

(STA 12+42.99 LT - 12+76.61 LT)

NOTE: SIDEWALKS SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL BELOW, AND STANDARD C-3A. SIDEWALKS SHALL BE PAID FOR UNDER 618.10 "PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH".

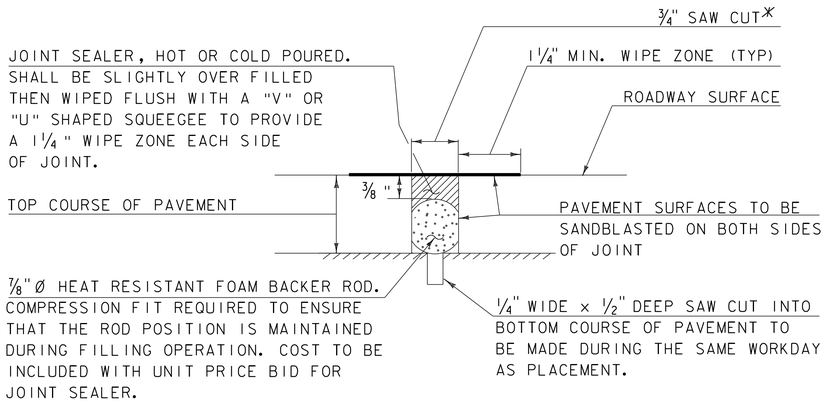


SECTION "A-A"



SIDEWALK PLAN

(STA 14+02.21 LT - 14+30.78 LT)

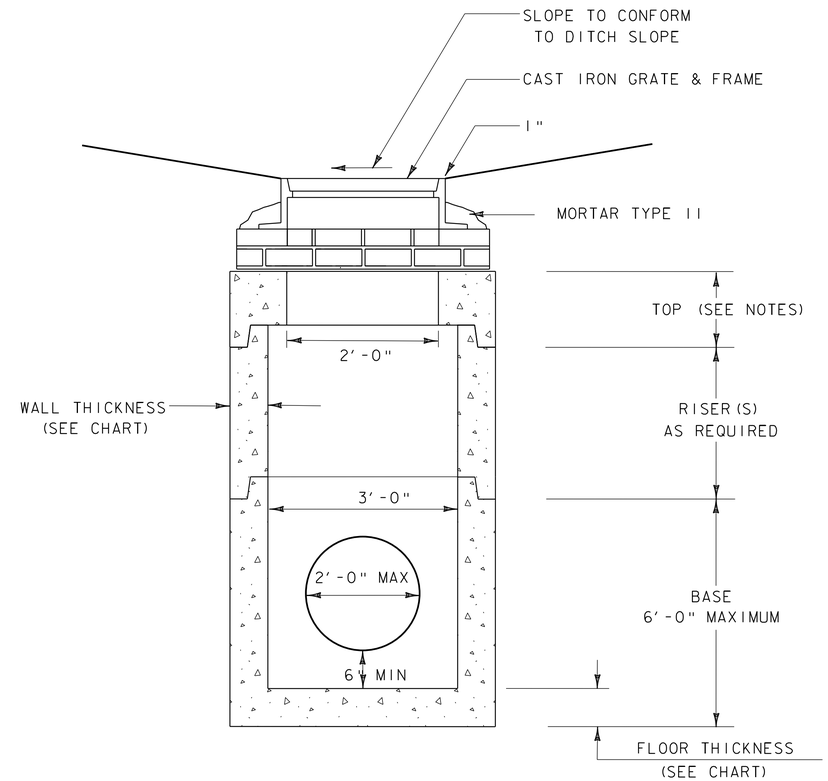


SAWED PAVEMENT JOINT DETAIL

(NOT TO SCALE)

*JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.

PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)
FILE NAME: 95bl68\s95bl68typ.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: R.S.YOUNG
BRIDGE 9 MISCELLANEOUS DETAIL SHEET	SHEET 79 OF 124



PRECAST DROP INLET IN DITCH

N.T.S.

NOTES

1. ALL PRECAST CONCRETE DROP INLETS AND CATCH BASINS SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH SUBSECTION 705.04.

2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL INVERT ELEVATIONS, PIPE SIZES AND LOCATIONS SHOWN PRIOR TO ORDERING THE PRECAST COMPONENTS.

3. SEE STANDARD D-16 FOR CAST IRON FRAME AND GRATE DETAILS.

4. THE TOP SECTIONS MAY BE EITHER THE FLAT TOPS AS SHOWN OR CONE SECTIONS. IF CONE SECTIONS ARE USED THEY MAY EITHER BE CONCENTRIC OR ECCENTRIC. PIPES ARE NOT TO ENTER CONE SECTIONS.

5. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN ANGLE OF 11 DEGREES CENTERED IN THE WIDTH OF THE JOINT. ALL SECTIONS SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT.

6. ALL SECTIONS WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 1'-0" OF OUTSIDE SURFACE BETWEEN HOLES. NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES. HOLES SHALL BE NO CLOSER THAN 3" TO A JOINT.

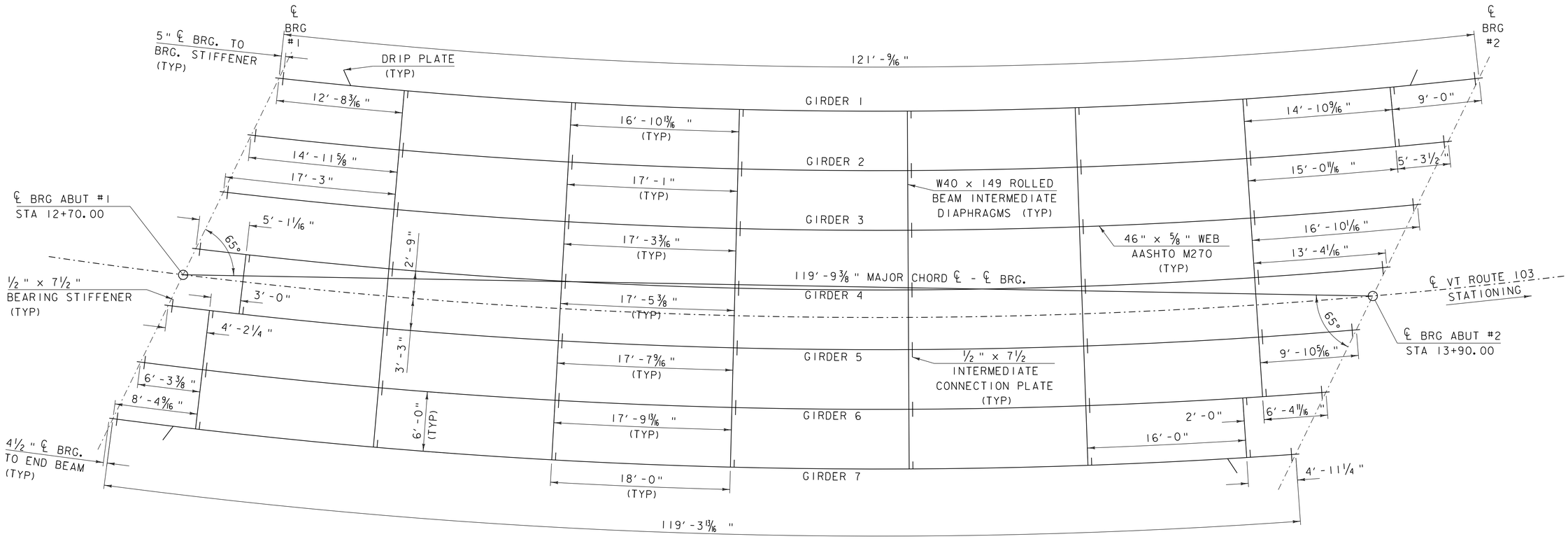
SIZING CHART

DIAMETER	WALL THICKNESS	FLOOR THICKNESS
4'-0" OR SMALLER	5¼"	6"
5'-0"	6"	8"
6'-0"	7"	8"
7'-0"	8"	10"
8'-0"	9¼"	10"

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

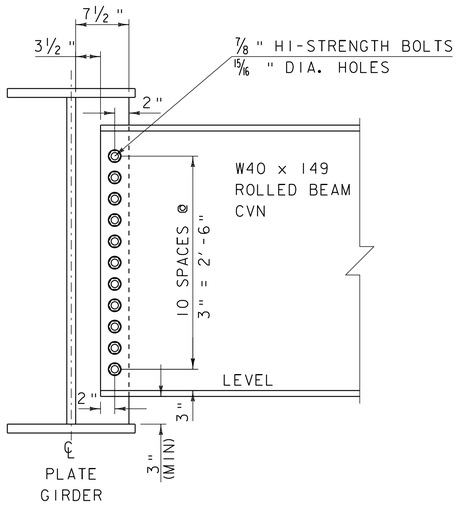
FILE NAME: 95b168\s95b168utility.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
PRECAST DROP INLET DETAILS

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG



FRAMING PLAN

SCALE ³⁄₁₆" = 1'-0"



NOTE: GIRDER 1 HAS A MAXIMUM SWEEP DISTANCE OF 3'-3¾"
GIRDER 2 HAS A MAXIMUM SWEEP DISTANCE OF 3'-3⅛"
GIRDER 3 HAS A MAXIMUM SWEEP DISTANCE OF 3'-2½"
GIRDER 4 HAS A MAXIMUM SWEEP DISTANCE OF 3'-1¹⁵⁄₁₆"
GIRDER 5 HAS A MAXIMUM SWEEP DISTANCE OF 3'-1⅜"
GIRDER 6 HAS A MAXIMUM SWEEP DISTANCE OF 3'-0¹³⁄₁₆"
GIRDER 7 HAS A MAXIMUM SWEEP DISTANCE OF 3'-0¼"
FIELD SPLICING OF NEW STEEL CURVED GIRDERS WILL NOT BE ALLOWED

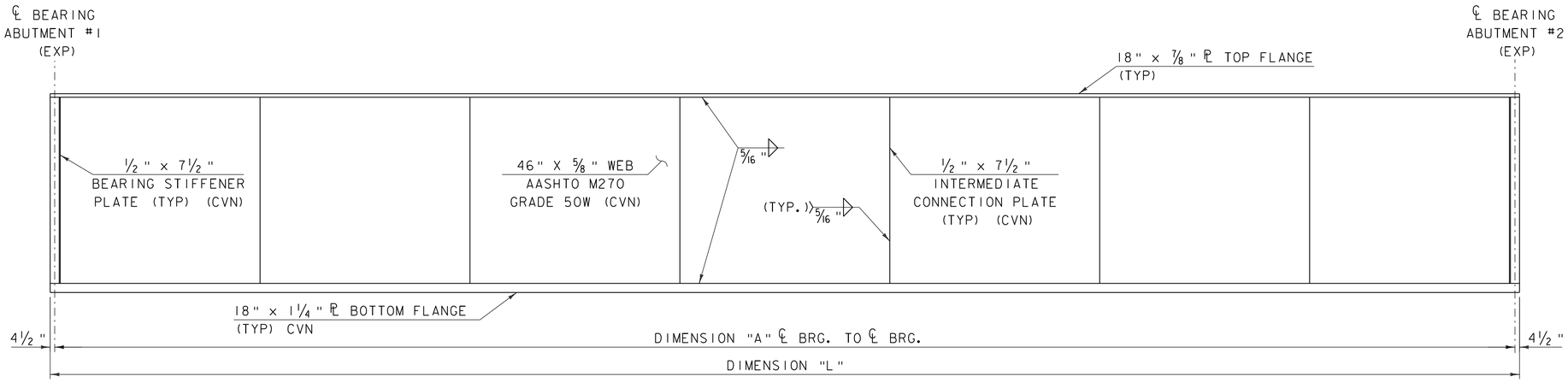
NOTE: CONTRACTOR MAY SUBMIT AN EQUIVALENT PLATE DIAPHRAGMS INSTEAD OF THE ROLLED BEAM

INTERMEDIATE DIAPHRAGM DETAIL

N.T.S.

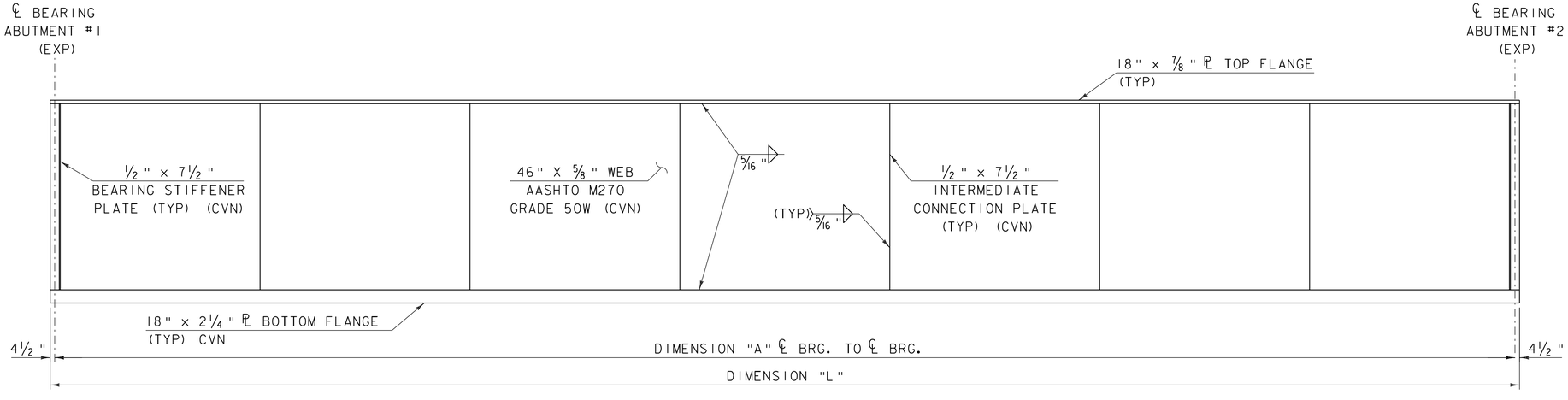
SCALE ³⁄₁₆" = 1'-0"
1 0 2 4 6 8

PROJECT NAME: CHESTER	
PROJECT NUMBER: BRF 025-1(37)	
FILE NAME: Structures\s95b168sup.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: E.R.CHARBONNEAU	CHECKED BY: R.S.YOUNG
BRIDGE 9 FRAMING PLAN	SHEET 81 OF 124



GIRDERS #1, 2, 3, & 4 ELEVATION

VERTICAL SCALE : 3/4" = 1'-0"
HORIZINTAL SCALE : 3/16" = 1'-0"



GIRDERS #5, 6, & 7 ELEVATION

VERTICAL SCALE : 3/4" = 1'-0"
HORIZINTAL SCALE : 3/16" = 1'-0"

GIRDER NUMBER	"A"	"L"	RADIUS
1	121.05'	121.80'	552.21'
2	120.73'	121.48'	558.21'
3	120.42'	121.17'	564.21'
4	120.13'	120.88'	570.21'
5	119.85'	120.60'	576.21'
6	119.58'	120.33'	582.21'
7	119.31'	120.06'	588.21'

1. DIMENSIONS SHOWN ARE ALONG THE ARC OF THE ℄ OF THE GIRDER.

2. BEARING STIFFENERS SHALL BE PLUMB AND PERPENDICULAR TO THE WEB IN THEIR FINAL POSITION.

3. SHEAR STUDS SHALL BE PLACED AT BLOCKOUT LOCATIONS AFTER DECK PANEL INSTALLATION. SHEAR STUDS SHALL BE SPACED AT 18 INCHES IN THE CLOSURE POUR AREA.

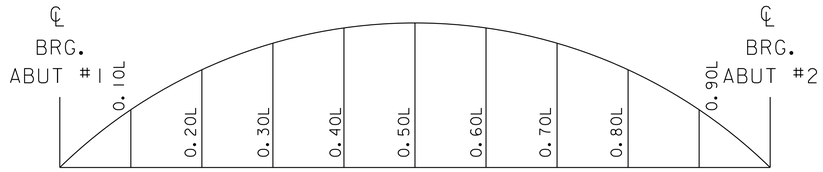
SCALE 3/4" = 1'-0"
1 0 1 2

SCALE 3/16" = 1'-0"
1 0 2 4 6 8

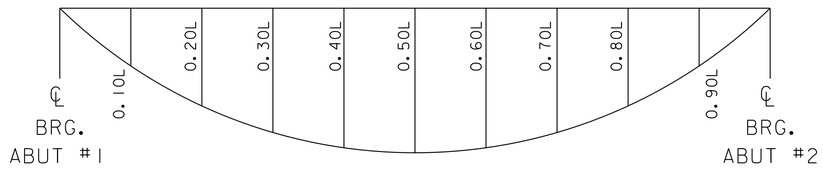
PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: Structures\s95b168sup.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: E.R.CHARBONNEAU
BRIDGE 9 GIRDER DETAILS

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 82 OF 124



CAMBER DIAGRAM
SEE TABLES BELOW



DEAD LOAD DEFLECTION DIAGRAM
SEE TABLES BELOW

GIRDER 1	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 7/16 "	0 7/8 "	1 3/16 "	1 3/8 "	1 7/16 "	1 7/16 "	1 1/4 "	0 7/8 "	0 1/2 "
SLAB & SUPER DEFLECTION	1 1/4 "	2 5/16 "	3 3/16 "	3 3/4 "	3 15/16 "	3 3/4 "	3 3/16 "	2 3/8 "	1 1/4 "
TOTAL DEFLECTION	1 11/16 "	3 3/16 "	4 3/8 "	5 1/8 "	5 3/8 "	5 3/16 "	4 7/16 "	3 1/4 "	1 3/4 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 7/16 "	6 1/4 "	8 7/16 "	9 3/4 "	10 3/16 "	9 13/16 "	8 1/2 "	6 5/16 "	3 1/2 "

GIRDER 2	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 1/2 "	0 15/16 "	1 1/4 "	1 1/2 "	1 9/16 "	1 3/8 "	1 1/4 "	0 15/16 "	0 1/2 "
SLAB & SUPER DEFLECTION	1 5/16 "	2 7/16 "	3 5/16 "	3 7/8 "	4 "	3 15/16 "	3 5/16 "	2 3/8 "	1 1/4 "
TOTAL DEFLECTION	1 13/16 "	3 3/8 "	4 9/16 "	5 3/8 "	5 9/16 "	5 5/16 "	4 9/16 "	3 5/16 "	1 3/4 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 9/16 "	6 7/16 "	8 5/8 "	10 "	10 3/8 "	9 15/16 "	8 5/8 "	6 3/8 "	3 1/2 "

GIRDER 3	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 9/16 "	1 "	1 3/8 "	1 5/8 "	1 11/16 "	1 9/16 "	1 5/16 "	1 "	0 1/2 "
SLAB & SUPER DEFLECTION	1 3/8 "	2 9/16 "	3 7/16 "	4 "	4 1/8 "	3 15/16 "	3 3/8 "	2 3/8 "	1 5/16 "
TOTAL DEFLECTION	1 15/16 "	3 9/16 "	4 13/16 "	5 5/8 "	5 13/16 "	5 1/2 "	4 11/16 "	3 3/8 "	1 13/16 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 11/16 "	6 5/8 "	8 7/8 "	10 1/4 "	10 5/8 "	10 1/8 "	8 3/4 "	6 7/16 "	3 9/16 "

GIRDER 4	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 5/8 "	1 1/8 "	1 1/2 "	1 3/4 "	1 13/16 "	1 11/16 "	1 7/16 "	1 1/16 "	0 9/16 "
SLAB & SUPER DEFLECTION	1 3/8 "	2 5/8 "	3 3/16 "	4 1/8 "	4 5/16 "	4 1/16 "	3 7/16 "	2 7/16 "	1 1/4 "
TOTAL DEFLECTION	2 "	3 3/4 "	5 1/16 "	5 7/8 "	6 1/8 "	5 3/4 "	4 7/8 "	3 1/2 "	1 13/16 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 3/4 "	6 13/16 "	9 1/8 "	10 1/2 "	10 15/16 "	10 3/8 "	8 15/16 "	6 9/16 "	3 9/16 "

GIRDER 5	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 5/8 "	1 3/16 "	1 5/8 "	1 7/8 "	1 15/16 "	1 13/16 "	1 9/16 "	1 1/8 "	0 9/16 "
SLAB & SUPER DEFLECTION	1 1/2 "	2 11/16 "	3 11/16 "	4 1/4 "	4 1/2 "	4 1/4 "	3 9/16 "	2 9/16 "	1 3/8 "
TOTAL DEFLECTION	2 1/8 "	3 7/8 "	5 5/16 "	6 1/8 "	6 7/16 "	6 1/16 "	5 1/8 "	3 11/16 "	1 15/16 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 7/8 "	6 15/16 "	9 3/8 "	10 3/4 "	11 1/4 "	10 11/16 "	9 3/16 "	6 3/4 "	3 11/16 "

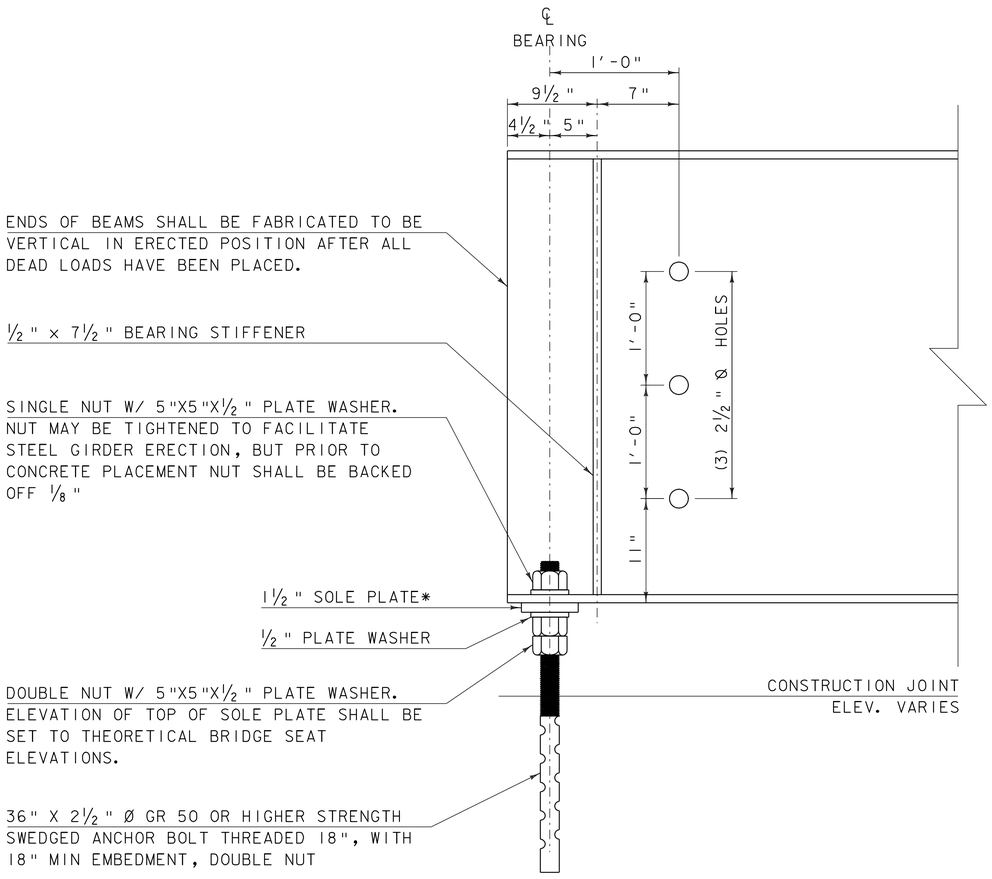
GIRDER 6	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 11/16 "	1 1/4 "	1 3/4 "	2 "	2 1/8 "	2 "	1 11/16 "	1 3/16 "	0 5/8 "
SLAB & SUPER DEFLECTION	1 1/2 "	2 13/16 "	3 13/16 "	4 1/2 "	4 5/8 "	4 7/16 "	3 3/4 "	2 3/4 "	1 7/16 "
TOTAL DEFLECTION	2 3/16 "	4 1/16 "	5 9/16 "	6 1/2 "	6 3/4 "	6 7/16 "	5 7/16 "	3 15/16 "	2 1/16 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	3 15/16 "	7 1/8 "	9 5/8 "	11 1/8 "	11 9/16 "	11 1/16 "	9 1/2 "	7 "	3 13/16 "

GIRDER 7	.10L	.20L	.30L	.40L	.50L	.60L	.70L	.80L	.90L
STEEL DEFLECTION	0 11/16 "	1 5/16 "	1 13/16 "	2 1/8 "	2 1/4 "	2 3/16 "	1 7/8 "	1 3/8 "	0 3/4 "
SLAB & SUPER DEFLECTION	1 9/16 "	2 15/16 "	4 "	4 11/16 "	4 7/8 "	4 5/8 "	3 15/16 "	2 7/8 "	1 9/16 "
TOTAL DEFLECTION	2 1/4 "	4 1/4 "	5 13/16 "	6 13/16 "	7 1/8 "	6 13/16 "	5 13/16 "	4 1/4 "	2 5/16 "
RESIDUAL CAMBER	1 3/4 "	3 1/16 "	4 1/16 "	4 5/8 "	4 13/16 "	4 5/8 "	4 1/16 "	3 1/16 "	1 3/4 "
TOTAL CAMBER	4 "	7 5/16 "	9 7/8 "	11 7/16 "	11 15/16 "	11 7/16 "	9 7/8 "	7 5/16 "	4 1/16 "

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: Structures\s95bl68sup.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: E.R.CHARBONNEAU
BRIDGE 9 CAMBER AND DEFLECTION DETAILS

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 83 OF 124



ELEVATION VIEW END OF STEEL MEMBER AT ABUTMENT

SCALE 1 ½" = 1'-0

NOTES:

1. THE SOLE PLATES, ANCHOR BOLTS, WASHERS AND NUTS SHALL BE PAID FOR UNDER ITEM 531.14, "BEARING DEVICE ASSEMBLY, INTEGRAL ABUTMENT" AND SHALL CONFORM TO SECTION 531.
2. ANCHOR BOLTS SHALL BE 2½" DIAMETER, TYPE 1 BOLTS MEETING ASTM A449. NUTS SHALL MEET AASHTO M291. THE CONTRACTOR SHALL ENSURE THAT THE ANCHOR BOLTS ARE INSTALLED IN A PLUMB POSITION. ONE EXTRA ANCHOR BOLT SHALL BE SUPPLIED FOR TESTING PURPOSES.
3. ALL STEEL IN BEARING DEVICE ASSEMBLY SHALL BE AASHTO M270M/M270 GR 36 UNLESS OTHERWISE NOTED.
4. SUBSTITUTIONS FOR BEARING DEVICE ASSEMBLY COMPONENT MATERIALS AND SIZES SHALL BE DETAILED ON THE FABRICATION DRAWINGS. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT MANAGER PRIOR TO FABRICATION AS PER SUBSECTION 506.04.

THEORETICAL TOP OF SOLE PLATE ELEVATIONS		
ABUTMENT #1	ABUTMENT #2	
581.50	580.17	GIRDER 1
581.61	580.39	GIRDER 2
581.72	580.59	GIRDER 3
581.83	580.80	GIRDER 4
581.86	580.92	GIRDER 5
581.97	581.11	GIRDER 6
582.07	581.30	GIRDER 7

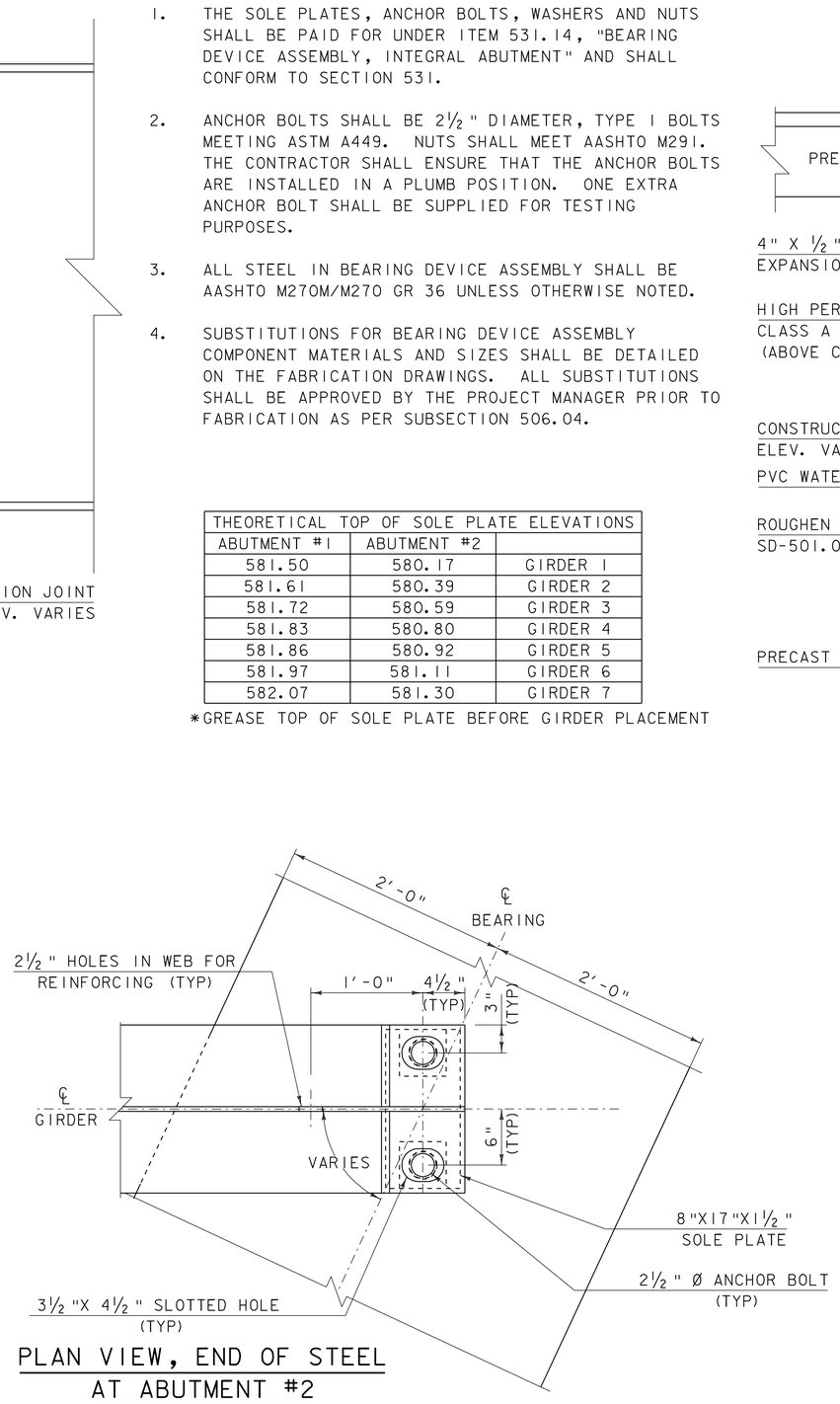
*GREASE TOP OF SOLE PLATE BEFORE GIRDER PLACEMENT

1½" SOLE PLATE DETAIL

SCALE 1 ½" = 1'-0

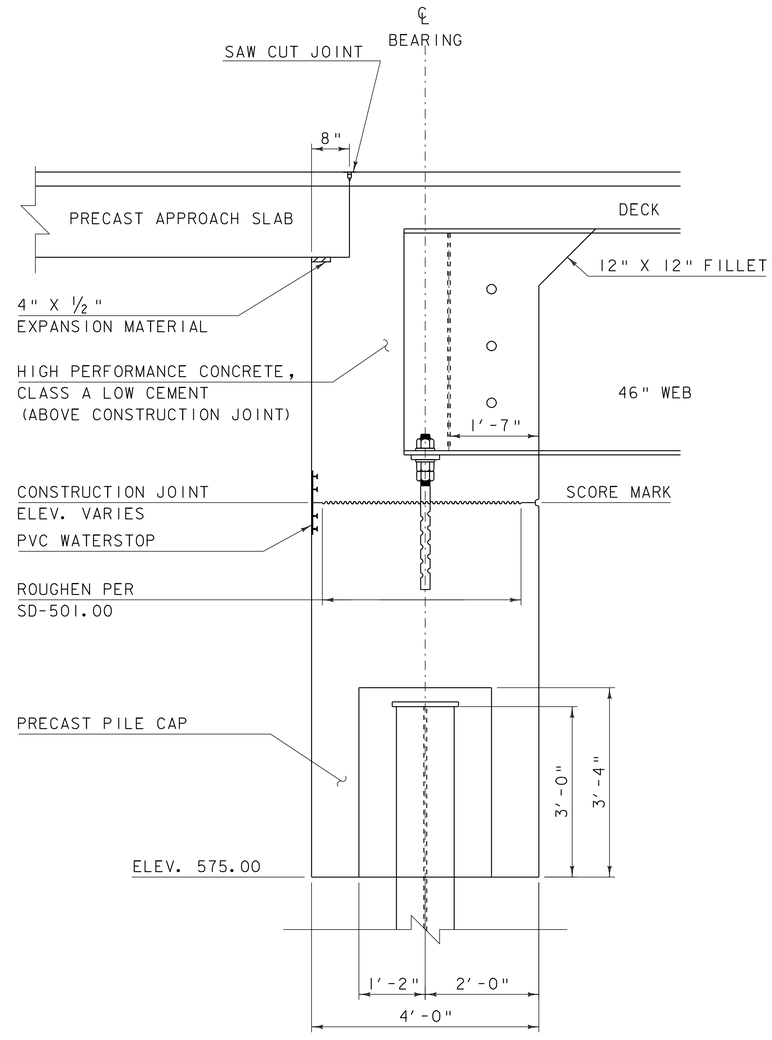
½" PLATE WASHER DETAIL

SCALE 1 ½" = 1'-0



PLAN VIEW, END OF STEEL AT ABUTMENT #2

REVERSE GIRDER FOR ABUTMENT #1
SCALE 1½" = 1'-0



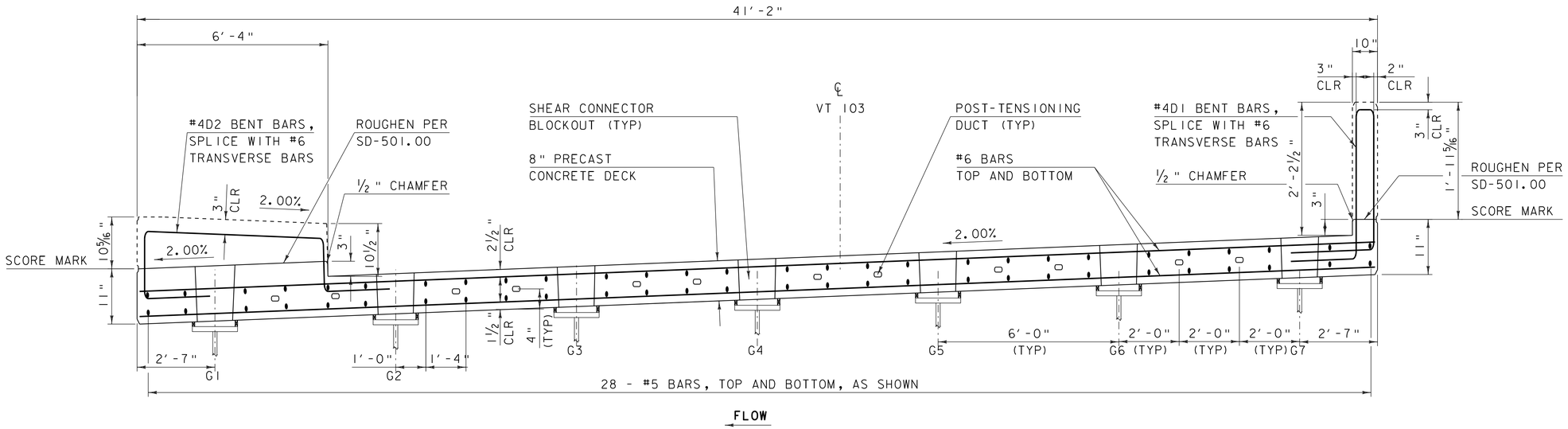
BRIDGE END DETAIL AND ABUTMENT TYPICAL SECTION

SCALE ¾" = 1'-0

SCALE ¾"- 1'-0
0 2

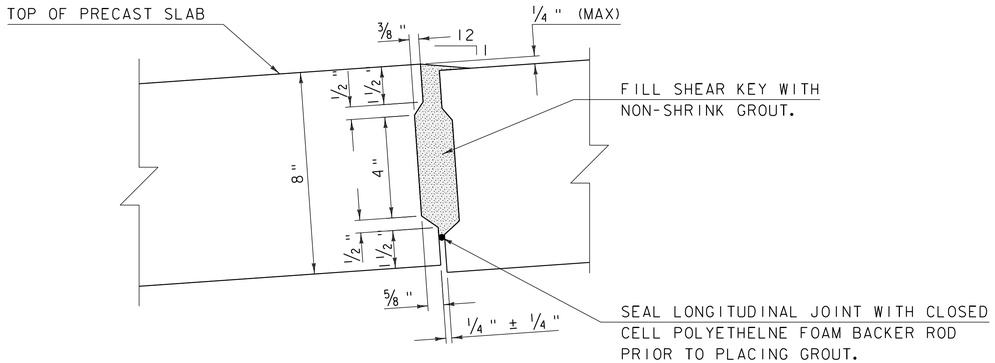
SCALE 1½"- 1'-0
9 6 3 0

PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)
FILE NAME: 95b168\s95b168sub.dgn	PLOT DATE: 21-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: R.S.YOUNG
BRIDGE 9 BEARING DETAILS	SHEET 84 OF 124



PRECAST SLAB TYPICAL SECTION

HORIZONTAL SCALE : 1/2" = 1'-0"
VERTICAL SCALE : 1/4" = 1'-0"



TRANSVERSE SHEAR KEY DETAILS

N. T. S.

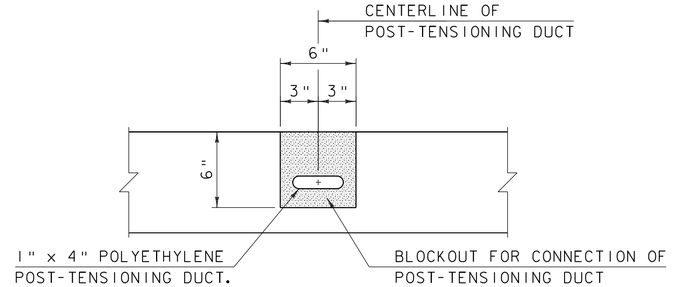
1: THE SLAB SHALL BE PLACED AT THE NOMINAL SPACING SHOWN ON THE PLANS WITH A 1/4" WIDE GAP BETWEEN THE SLABS. THE WIDTH OF THIS GAP CAN VARY DUE TO TOLERANCES OF THE SLABS.

2: GROUT FOR SHEAR KEYS SHALL BE RODDED OR VIBRATED TO ENSURE THAT ALL VOIDS IN THE SHEAR KEYS ARE FILLED.

3: POST-TENSIONING DUCT SHOWN IS FOR 3 - 1/2" DIA. PRESTRESSING STRANDS. ALTERNATE DUCTS MAY BE USED. THE CONNECTION OF THE DUCT SHALL BE WATERTIGHT.

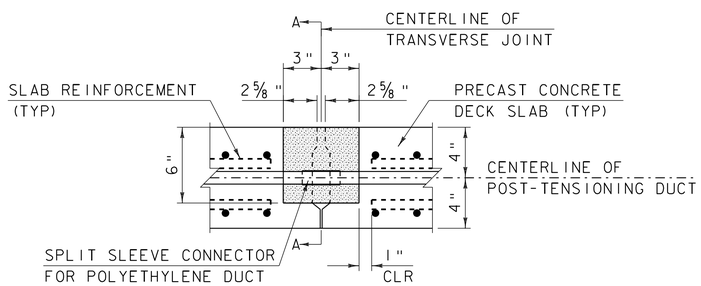
4: FILL BLOCKOUT WITH NON-SHRINK GROUT SIMULTANEOUSLY WITH THE TRANSVERSE SHEAR KEYS.

5: FORM SHEAR KEY ALONG INTERFACE OF PRECAST SLABS AND CLOSURE POUR.



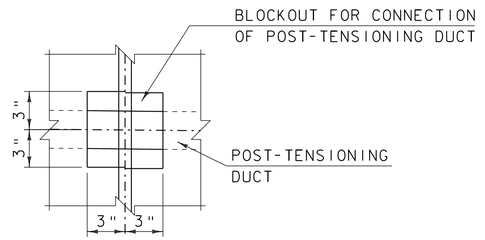
SECTION "A-A"

N. T. S.



TYPICAL SECTION-TRAVERSE DECK JOINT AT POST-TENSIONING DUCT

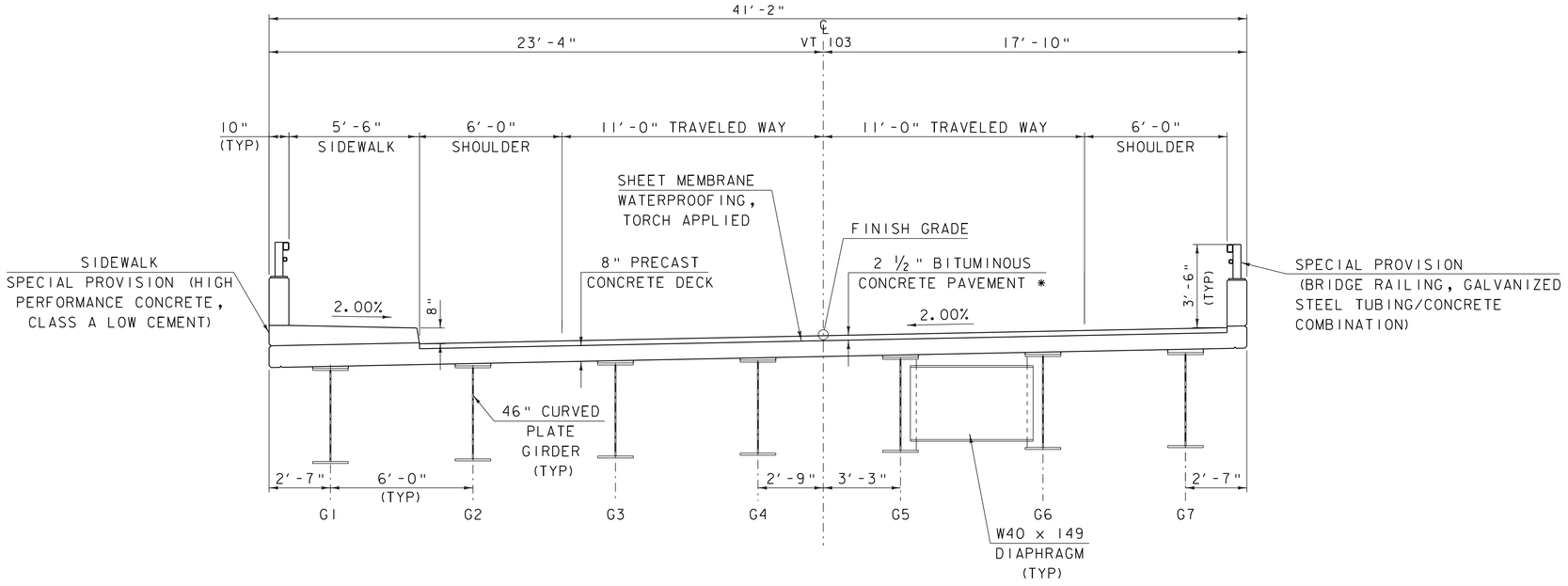
N. T. S.



PLAN - BLOCKOUT FOR POST-TENSIONING DUCT

N. T. S.

PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)
FILE NAME: Structures\s95bl68sup.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: E.R.CHARBONNEAU	CHECKED BY: R.S.YOUNG
BR9 PRECAST DECK REINFORCING TYP. SEC.	SHEET 85 OF 124

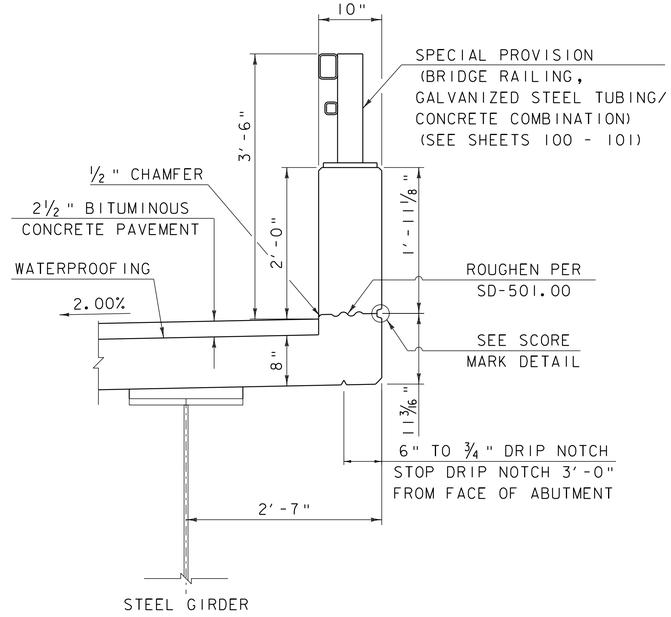


TYPICAL BRIDGE SECTION

SCALE 1" = 3'-0"

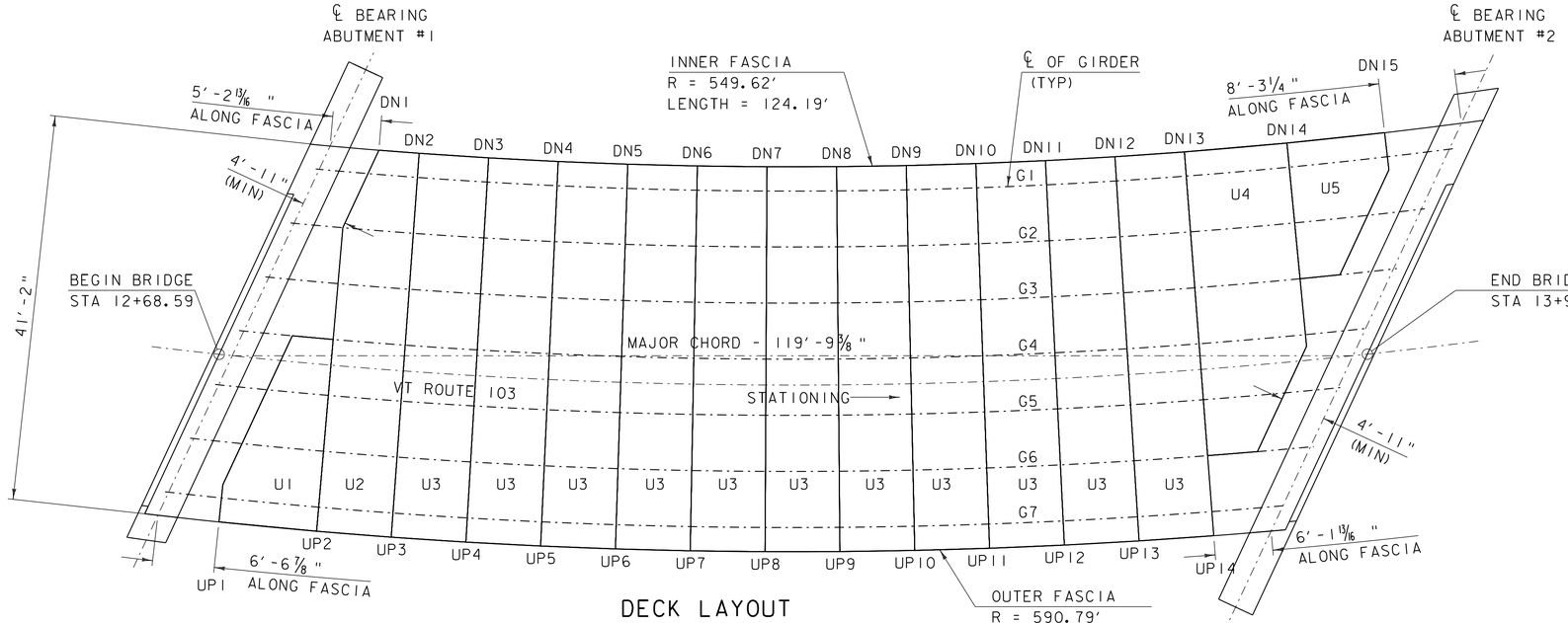
* 1¼" TYPE IV OVER 1¼" TYPE IV

NOTE: ALL TRANSVERSE DIMENSIONS ARE RADIAL



TYPICAL RAIL W/O SIDEWALK

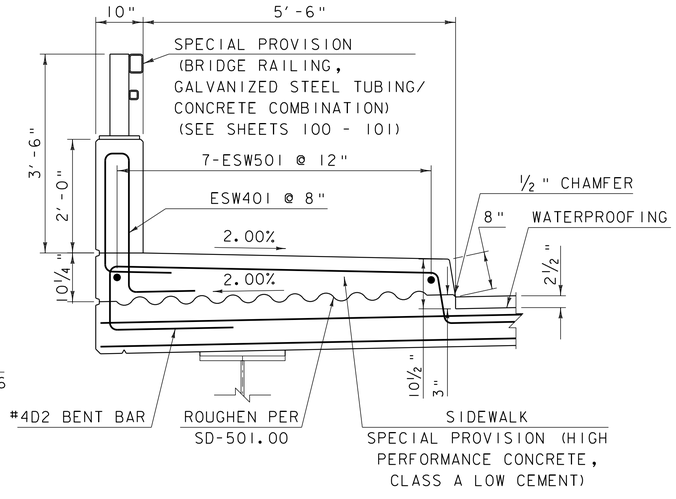
N.T.S.



DECK LAYOUT

SCALE ⅛" = 1'-0"

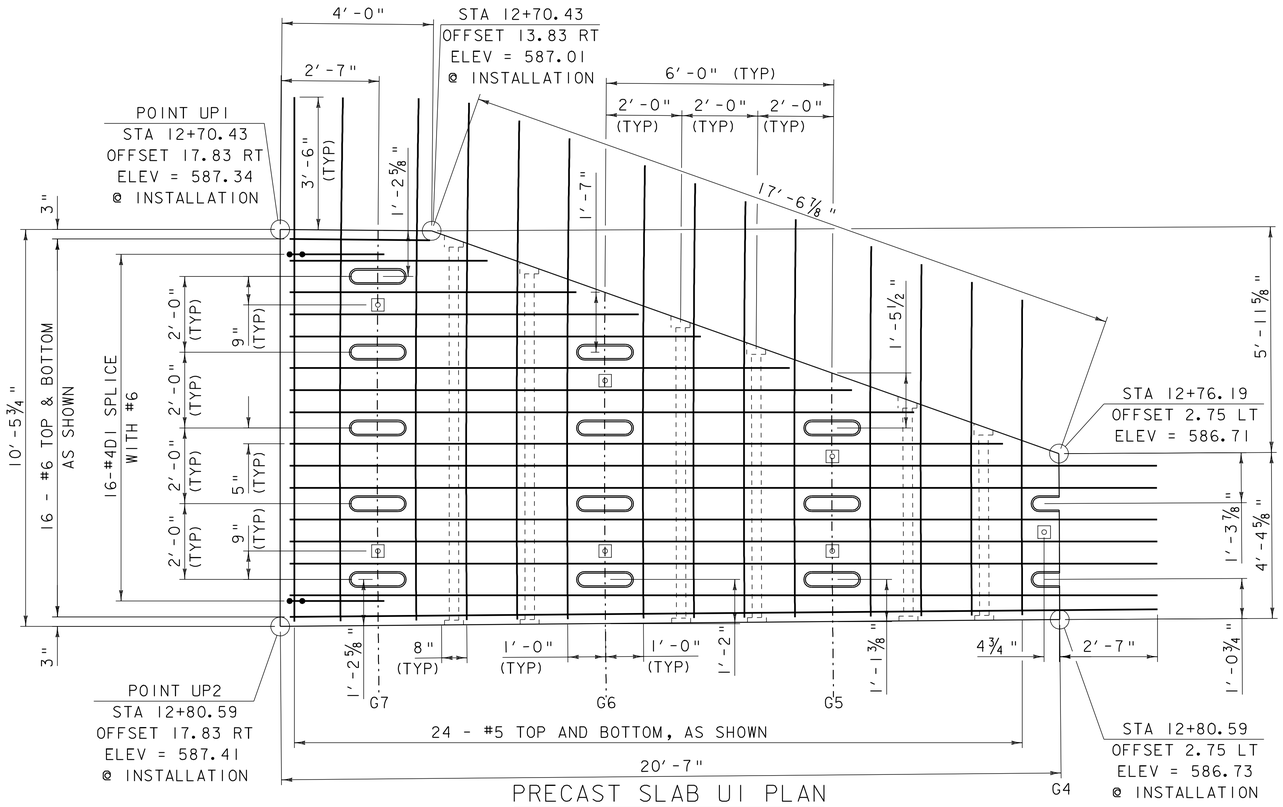
1 0 2 4 6 8



TYPICAL RAIL WITH SIDEWALK

N.T.S.

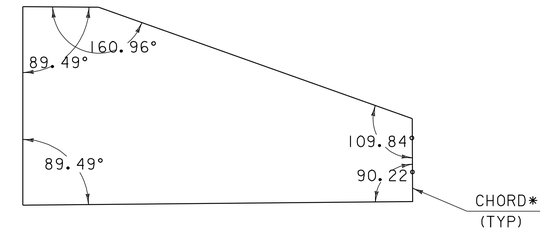
PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)
FILE NAME: Structures\s95b168sup.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: E.R.CHARBONNEAU	CHECKED BY: R.S.YOUNG
BRIDGE 9 DECK LAYOUT DETAILS	SHEET 86 OF 124



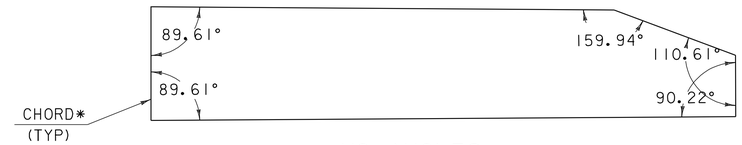
PRECAST SLAB U1 PLAN

SCALE ½" = 1′-0"

FLOW

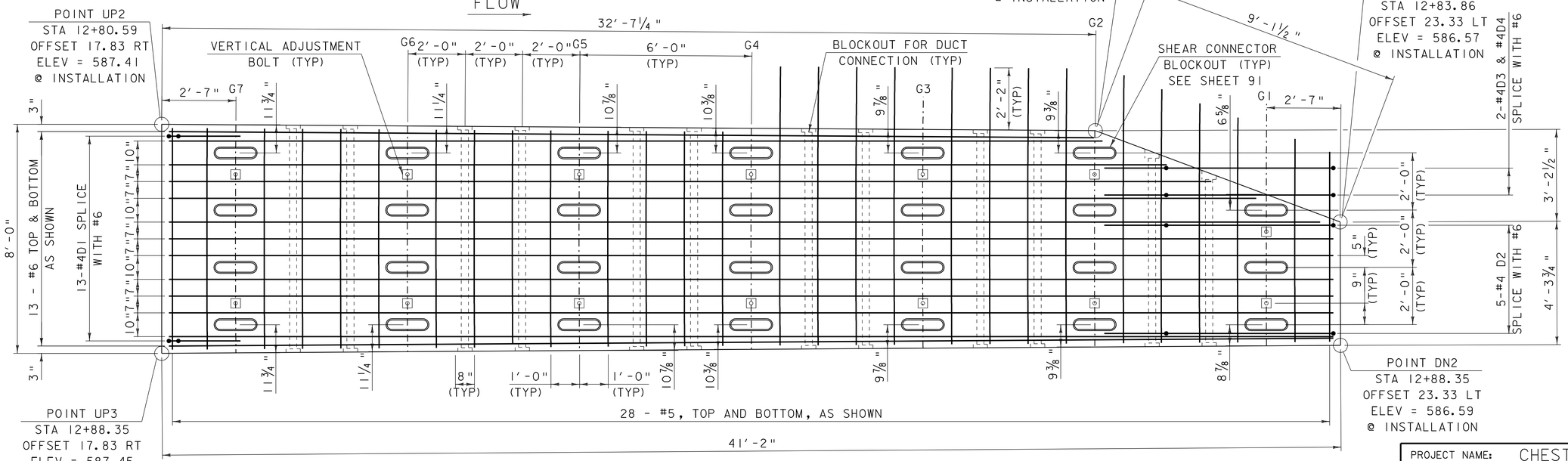


U1 ANGLES



U2 ANGLES

* ANGLES ARE IN REFERENCE TO THE CHORD BETWEEN POINTS OF CURVATURE AT THE CORNERS. THE SLAB FASCIAS SHALL BE FORMED RADIAL.



PRECAST SLAB U2 PLAN

SCALE ½" = 1′-0"

FLOW

SCALE ½" = 1′-0"

1 0 1 2

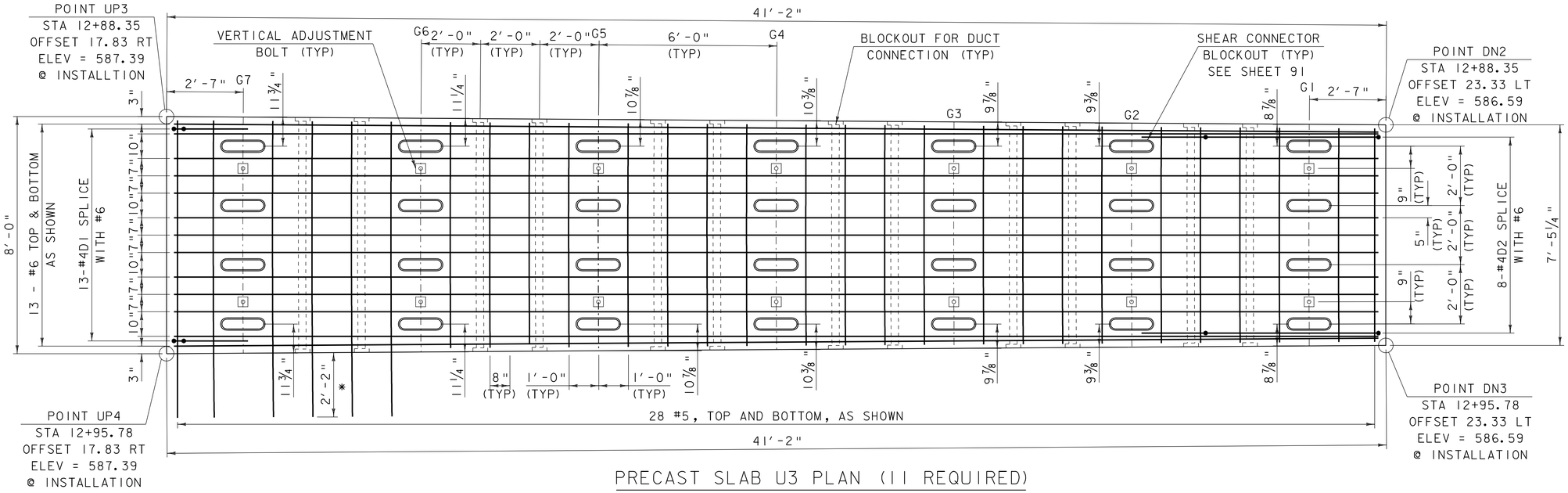
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: 95bl68\s95bl68deckpanels.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: H.I.SALLS
BRIDGE 9 PRECAST DECK SLAB DETAILS 1

PLOT DATE: 21-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 87 OF 124



PRECAST SLAB U3 PLAN (11 REQUIRED)

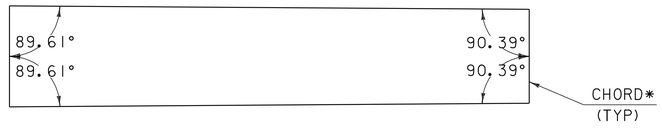
* REQUIRED FOR 1 UNIT ONLY
PLACE ADJACENT TO U4
(POINT UP14)

SCALE ½" = 1'-0"

FLOW →

UPSTREAM FASCIA POINTS					
POINT	STATION	OFFSET (FT RT)	SLAB FINAL ELEV.	SDL DEFLECTION	SLAB ELEV. @INSTALLATION
UP3	12+88.35	17.83'	587.39'	11/16 "	587.45'
UP4	12+96.11	17.83'	587.39'	7/8 "	587.46'
UP5	13+03.87	17.83'	587.38'	1 "	587.46'
UP6	13+11.63	17.83'	587.35'	1 1/16 "	587.44'
UP7	13+19.38	17.83'	587.31'	1 1/8 "	587.40'
UP8	13+27.14	17.83'	587.26'	1 1/8 "	587.35'
UP9	13+34.90	17.83'	587.20'	1 1/8 "	587.29'
UP10	13+42.66	17.83'	587.12'	1 "	587.20'
UP11	13+50.42	17.83'	587.02'	7/8 "	587.09'
UP12	13+58.18	17.83'	586.92'	3/4 "	586.98'
UP13	13+65.94	17.83'	586.80'	9/16 "	586.84'
UP14	13+73.70	17.83'	586.66'	5/16 "	586.68'

DOWNSTREAM FASCIA POINTS					
POINT	STATION	OFFSET (LT)	SLAB FINAL ELEV.	SDL DEFLECTION	SLAB ELEV. @INSTALLATION
DN2	12+88.35	23.33'	586.57'	5/16 "	586.59'
DN3	12+96.11	23.33'	586.57'	7/16 "	586.60'
DN4	13+03.87	23.33'	586.56'	5/8 "	586.61'
DN5	13+11.63	23.33'	586.53'	3/4 "	586.59'
DN6	13+19.38	23.33'	586.49'	13/16 "	586.55'
DN7	13+27.14	23.33'	586.44'	7/8 "	586.51'
DN8	13+34.90	23.33'	586.38'	7/8 "	586.45'
DN9	13+42.66	23.33'	586.30'	7/8 "	586.37'
DN10	13+50.42	23.33'	586.20'	7/8 "	586.27'
DN11	13+58.18	23.33'	586.10'	13/16 "	586.16'
DN12	13+65.94	23.33'	585.98'	3/4 "	586.04'
DN13	13+73.70	23.33'	585.84'	5/8 "	585.89'



U3 ANGLES

* ANGLES ARE IN REFERENCE TO THE CHORD BETWEEN POINTS OF CURVATURE AT THE CORNERS. THE SLAB FASCIAS SHALL BE FORMED RADIAL.

NOTES
1: SLAB ELEVATIONS WERE CALCULATED AT THE UPSTREAM (UP) AND DOWNSTREAM (DN) SCORE MARK ELEVATIONS. SEE SHEET 85.

2: SLAB ELEVATION AT INSTALLATION ASSUMES THAT ALL DECK SLABS ARE IN PLACE.

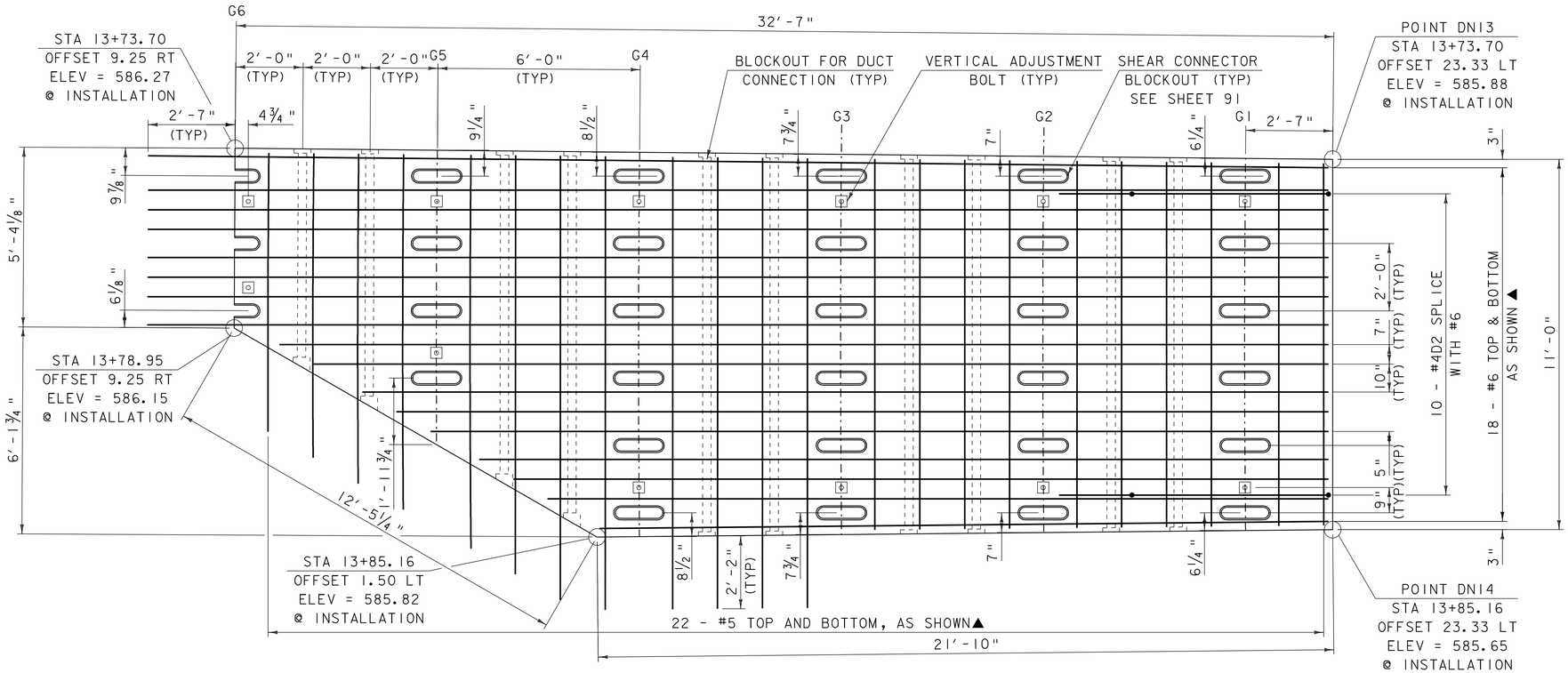
NOTE:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

SCALE ½" = 1'-0"
1 0 1 2

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: 95b168\s95b168deckpanels.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: H.I.SALLS
BRIDGE 9 PRECAST DECK SLAB DETAILS 2

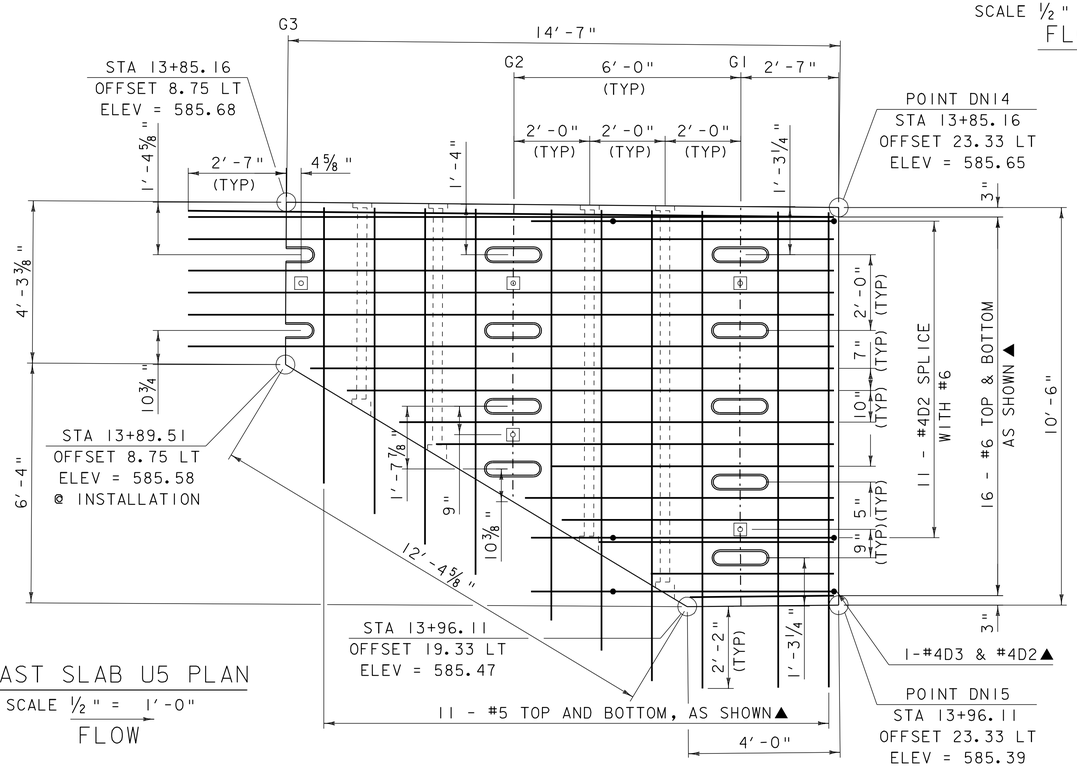
PLOT DATE: 21-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 88 OF 124



PRECAST SLAB U4 PLAN

SCALE ½" = 1′-0"

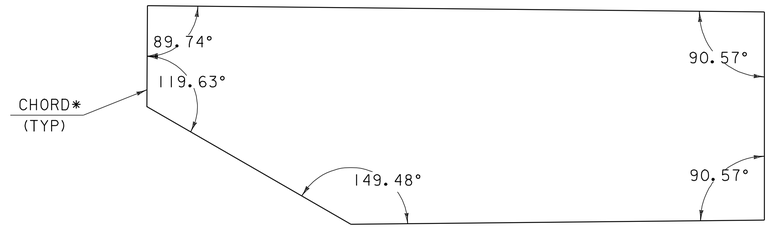
FLOW →



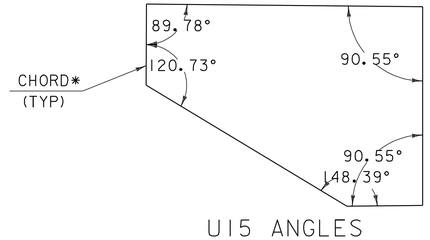
PRECAST SLAB U5 PLAN

SCALE ½" = 1′-0"

FLOW →



U14 ANGLES



U15 ANGLES

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

* ANGLES ARE IN REFERENCE TO THE CHORD BETWEEN POINTS OF CURVATURE AT THE CORNERS. THE SLAB FASCIAS SHALL BE FORMED RADIAL.

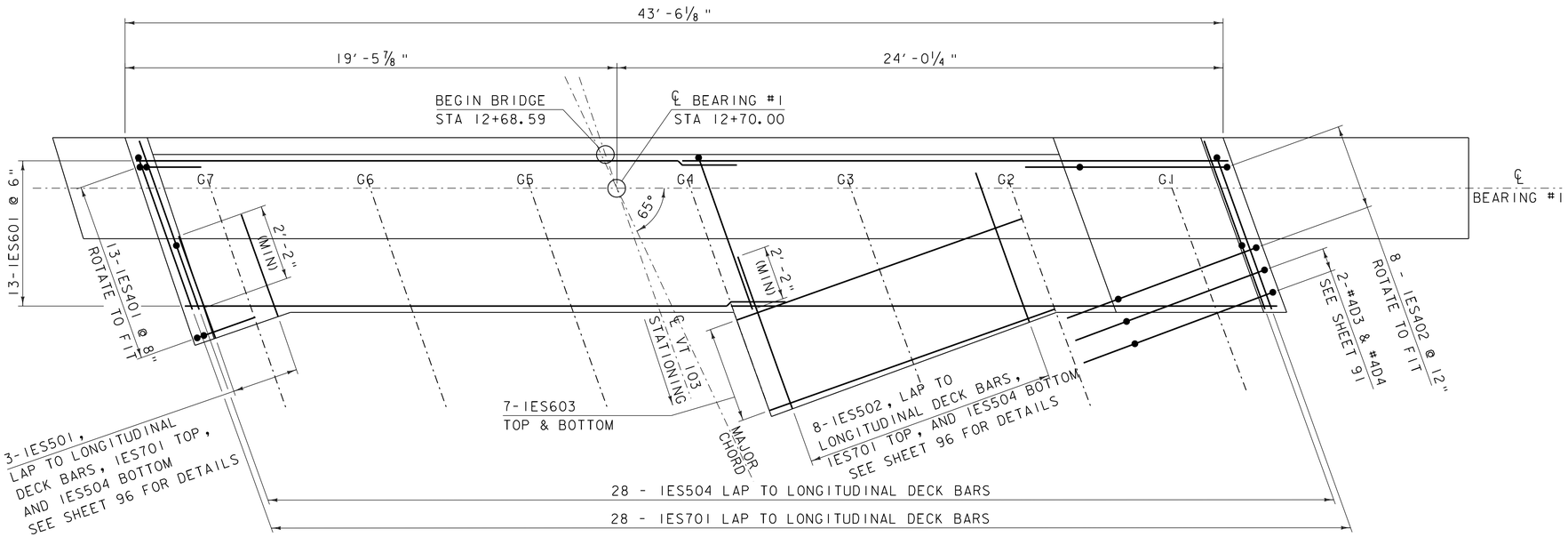
SCALE ½" = 1′-0"

0 1 2

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

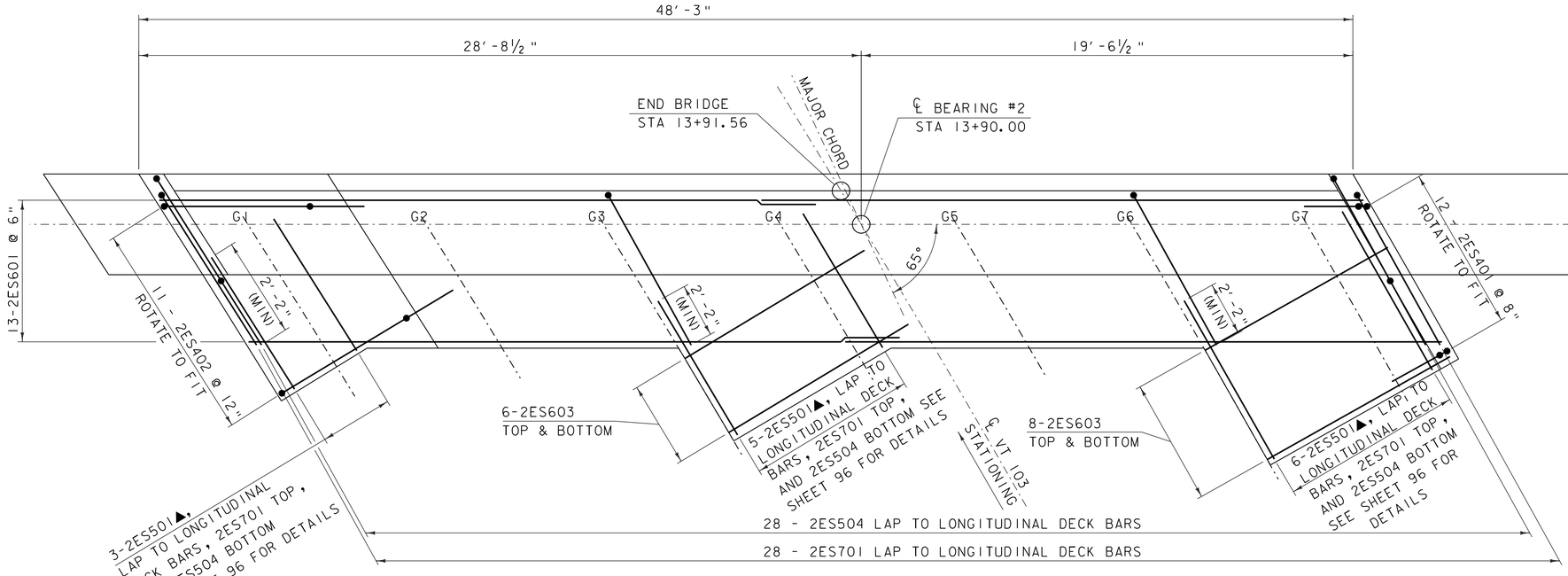
FILE NAME: 95bl68\s95bl68deckpanels.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: H.I.SALLS
BRIDGE 9 PRECAST DECK SLAB DETAILS 3

PLOT DATE: 21-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 89 OF 124



ABUTMENT #1 CLOSURE POUR REINFORCING

SCALE ⅜" = 1′-0"
NOTE: REBAR IN PRECAST SLABS NOT SHOWN



ABUTMENT #2 CLOSURE POUR REINFORCING

SCALE ⅜" = 1′-0"
NOTE: REBAR IN PRECAST SLABS NOT SHOWN

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

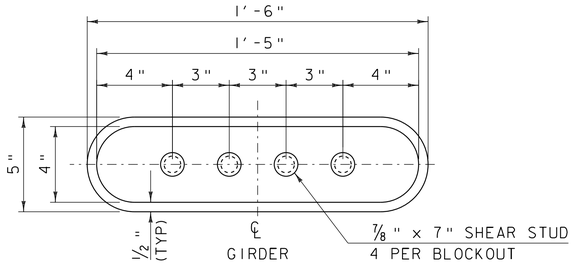
SCALE ⅜" = 1′-0"
0 1 2 3 4

SCALE ¾" = 1′-0"
0 1 2

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: 95b168\s95b168sub.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
BRIDGE 9 CLOSURE POUR DETAILS

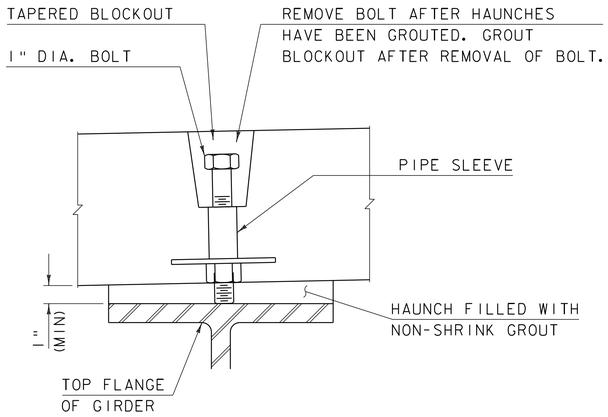
PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG



NOTE: ALTERNATE BLOCKOUTS MAY BE USED AS LONG AS THE NUMBER OF SHEAR STUDS PER GIRDER PER SLAB REMAINS THE SAME

SHEAR CONNECTOR BLOCKOUT DETAIL

SCALE 3" = 1'-0"



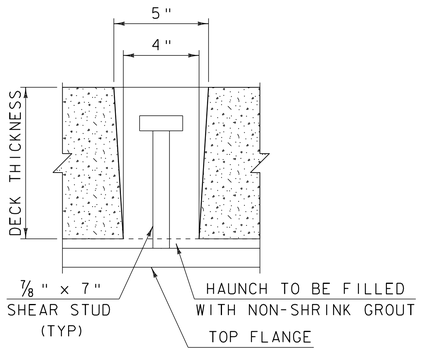
VERTICAL ADJUSTMENT DETAIL

SCALE 3" = 1'-0"

NOTES:

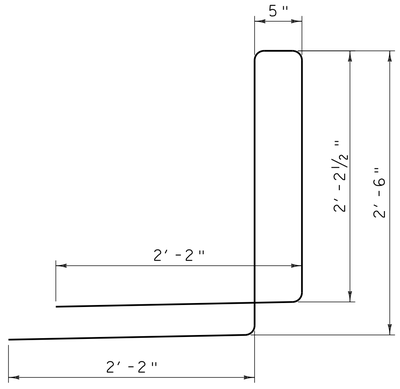
THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE LEVELING DEVICE BASED ON THE WEIGHT OF THE SLABS AND THE NUMBER OF DEVICES.

ALTERNATE DEVICES MAY BE SUBSTITUTED WITH APPROVAL FROM THE PROJECT MANAGER.



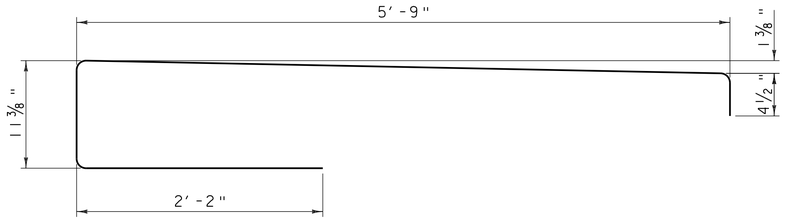
SHEAR CONNECTOR BLOCKOUT SECTION

SCALE 3" = 1'-0"



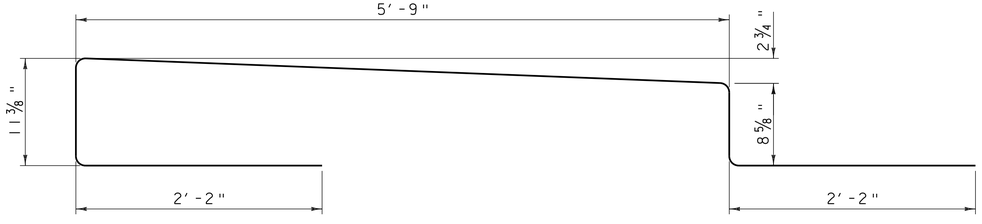
BAR #4D1

(172 - REQUIRED)
SCALE 6" = 1'-0"



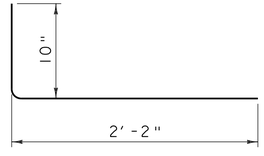
BAR #4D4

(2 - REQUIRED)
SCALE 6" = 1'-0"



BAR #4D2

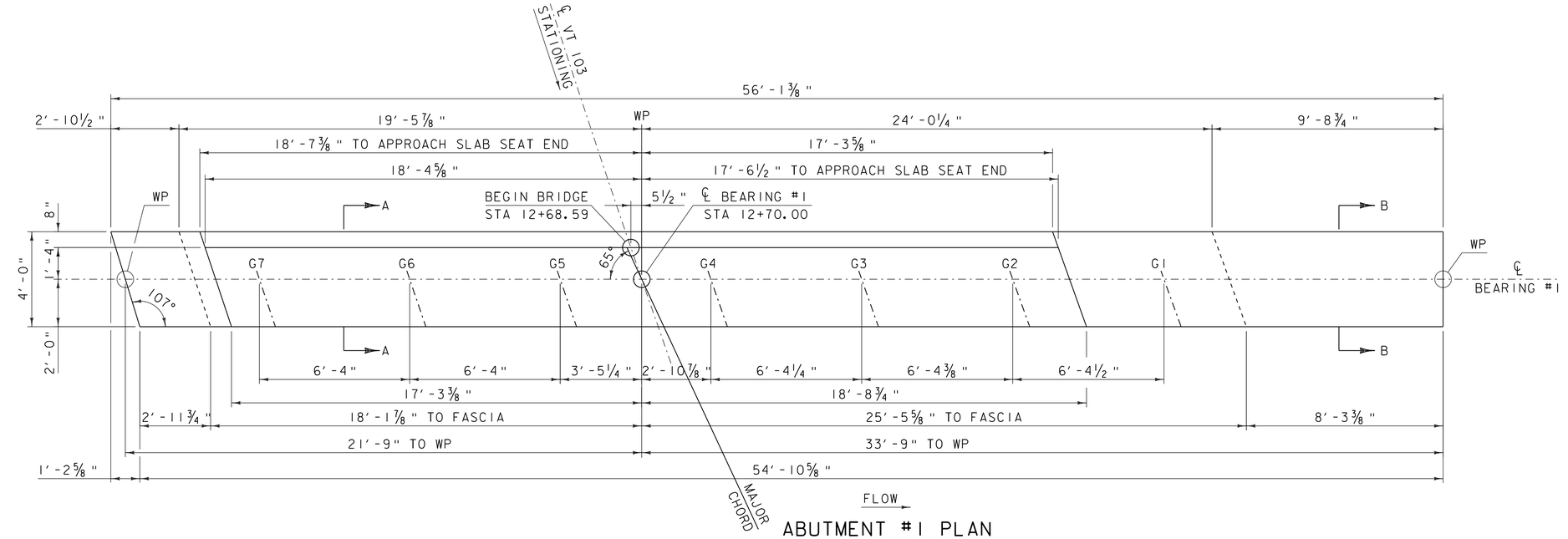
(114 - REQUIRED)
SCALE 6" = 1'-0"



BAR #4D3

(2 - REQUIRED)
SCALE 6" = 1'-0"

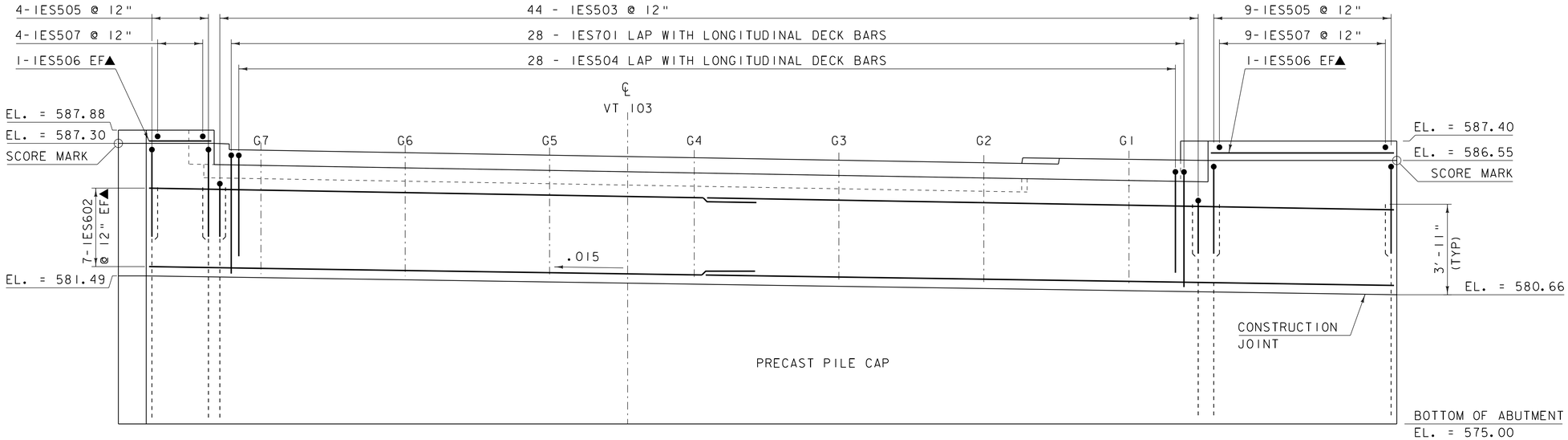
PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)
FILE NAME: 95bl68\s95bl68deckpanels.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: H.I.SALLS	CHECKED BY: R.S.YOUNG
BR9 PRECAST DECK MISCELLANEOUS DETAILS	SHEET 91 OF 124



ABUTMENT #1 PLAN

SCALE ⅜" = 1′-0"

SEE SHEET 96 FOR SECTIONS "A-A" & "B-B"



ABUTMENT #1 ELEVATION

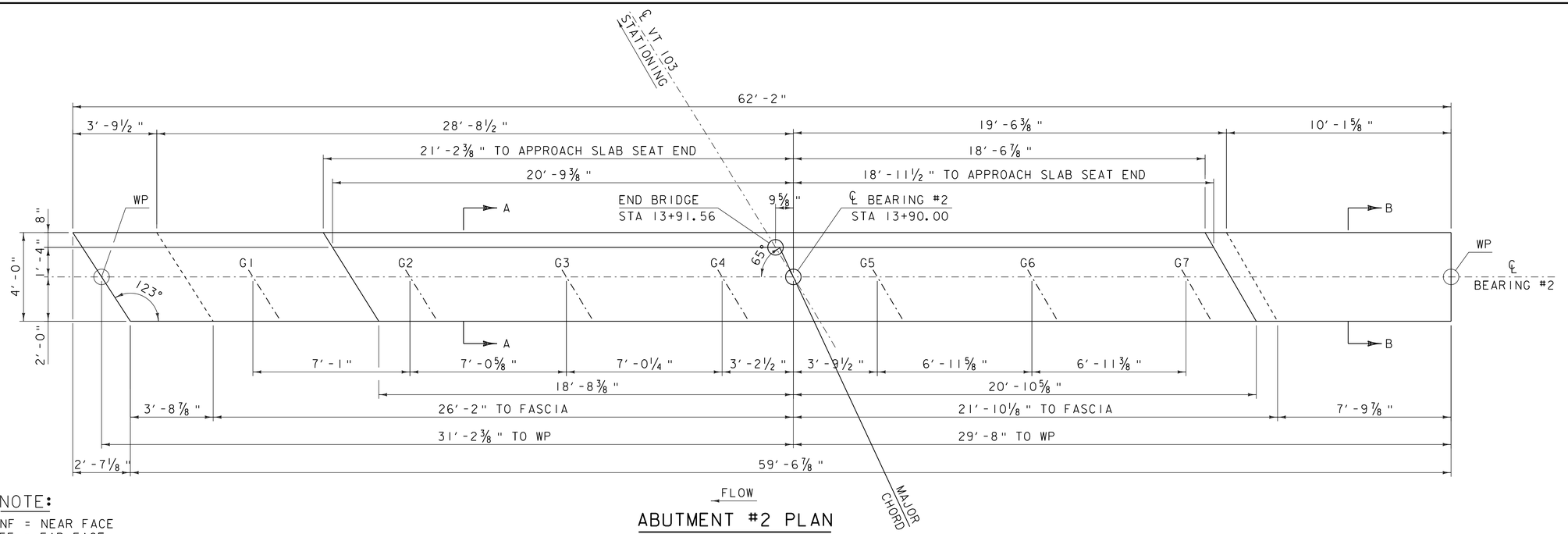
SCALE ⅜" = 1′-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

SCALE ⅜" = 1′-0"
1 0 1 2 3 4

PROJECT NAME: CHESTER	
PROJECT NUMBER: BRF 025-1(37)	
FILE NAME: 95b168\s95b168sub.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: R.S.YOUNG
BRIDGE 9 ABUTMENT 1 DETAILS	SHEET 92 OF 124



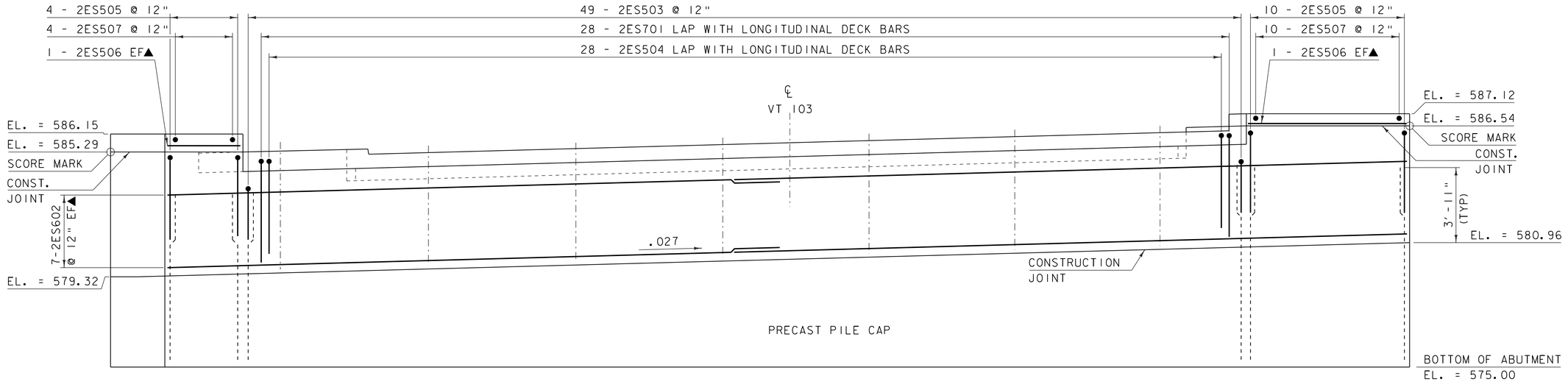
ABUTMENT #2 PLAN

SCALE ⅜" = 1′-0"

SEE SHEET 96 FOR SECTIONS "A-A" & "B-B"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



ABUTMENT #2 ELEVATION

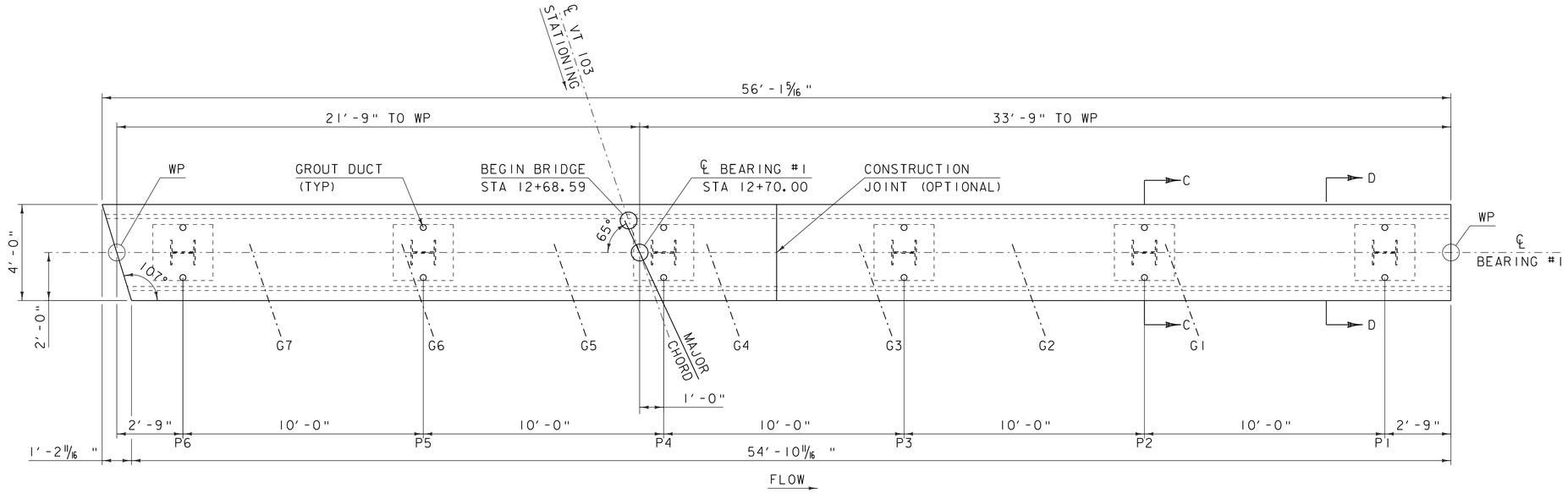
SCALE ⅜" = 1′-0"

SCALE ⅜" = 1′-0"
1 0 1 2 3 4

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

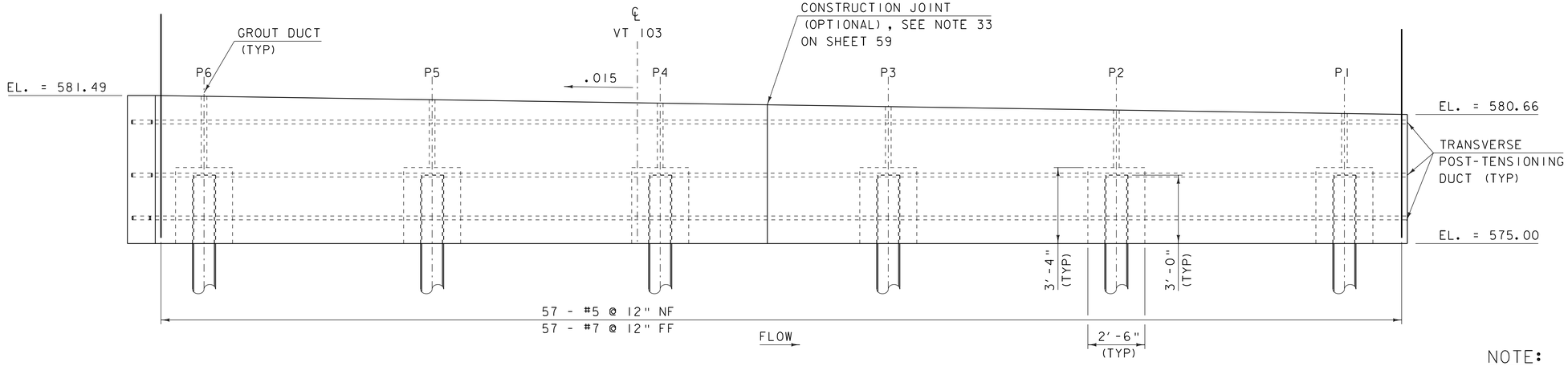
FILE NAME: 95b168\s95b168sub.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
BRIDGE 9 ABUTMENT 2 DETAILS

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 93 OF 124



ABUTMENT #1 PILE CAP PLAN

SCALE 3/8" = 1′-0"



ABUTMENT #1 PILE CAP ELEVATION

SCALE 3/8" = 1′-0"

NOTES:

1. ONCE PILES HAVE BEEN CUT TO THEIR FINAL ELEVATIONS, 1" x 14" x 14" STEEL PLATES SHALL BE WELDED TO THE TOP OF THE PILES. PAYMENT FOR THE PLATES SHALL BE INCIDENTAL TO ITEM 505.265 "STEEL PILING FOR INTEGRAL ABUTMENTS, HP 12 X 84"
2. PILE CAVITY GROUT (FILL AND VENT) DUCTS SHALL BE CORRUGATED.
3. SEE GENERAL NOTES FOR ADDITIONAL FABRICATION, CONSTRUCTION, AND SEQUENCE NOTES.
4. SEE SHEET 96 FOR SECTIONS "C-C" & "D-D"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2′-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

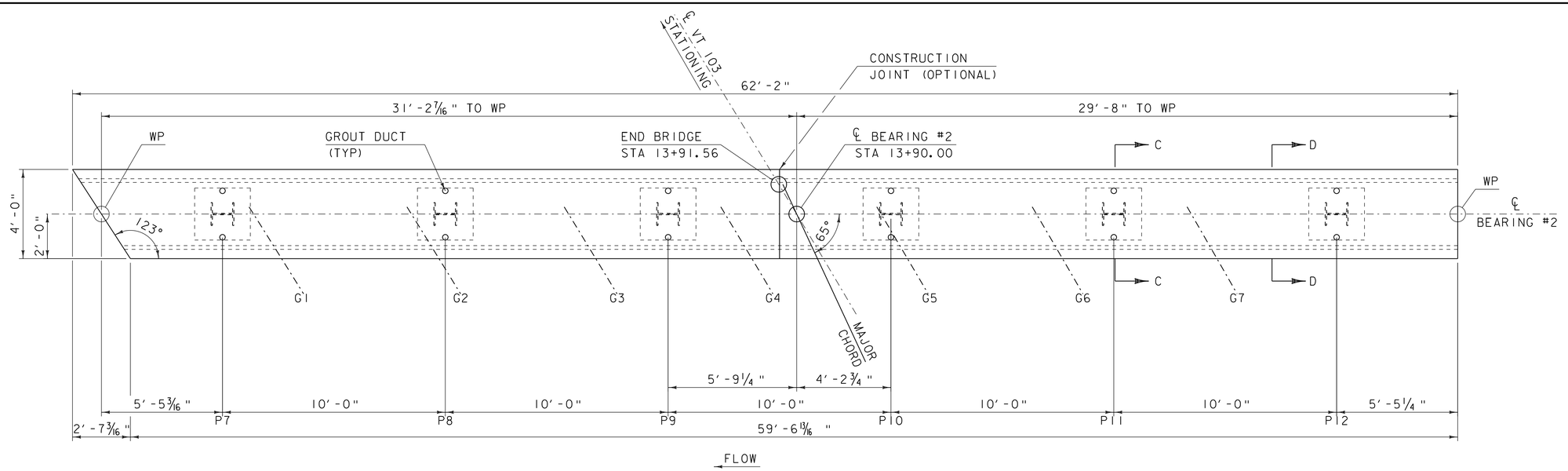
SCALE 3/8" = 1′-0"
1 0 1 2 3 4

SCALE 3/4" = 1′-0"
1 0 1 2

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

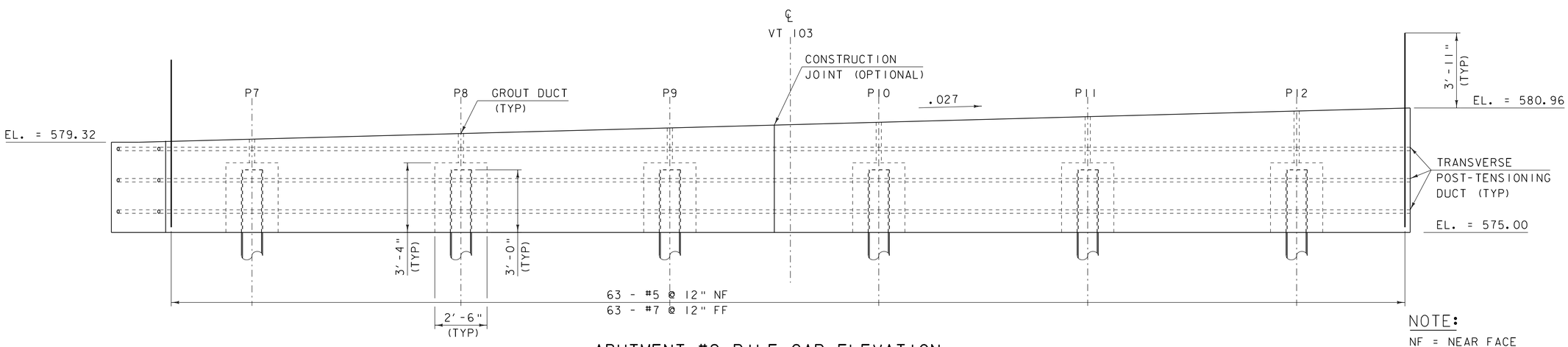
FILE NAME: 95b168\s95b168sub.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
BRIDGE 9 ABUTMENT 1 PRECAST PILE CAP

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 94 OF 124



ABUTMENT #2 PILE CAP PLAN

SCALE 3/8" = 1'-0"



ABUTMENT #2 PILE CAP ELEVATION

SCALE 3/8" = 1'-0"

NOTES:

1. ONCE PILES HAVE BEEN CUT TO THEIR FINAL ELEVATIONS, 1" x 14" x 14" STEEL PLATES SHALL BE WELDED TO THE TOP OF THE PILES. PAYMENT FOR THE PLATES SHALL BE INCIDENTAL TO ITEM 505.265 "STEEL PILING FOR INTEGRAL ABUTMENTS, HP 12 X 84"
2. PILE CAVITY GROUT (FILL AND VENT) DUCTS SHALL BE CORRUGATED.
3. SEE GENERAL NOTES FOR ADDITIONAL FABRICATION, CONSTRUCTION, AND SEQUENCE NOTES.
4. SEE SHEET 96 FOR SECTIONS "C-C" & "D-D"

NOTE:

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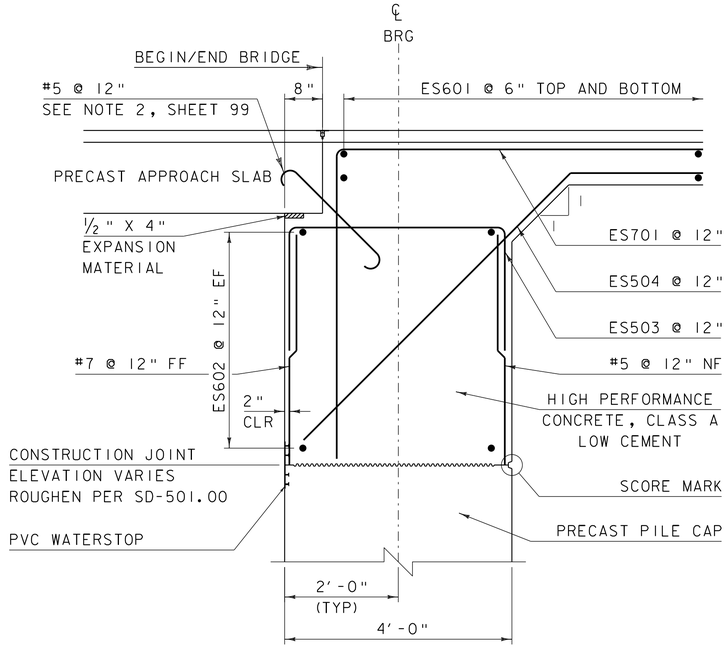
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

SCALE 3/8" = 1'-0"
1 0 1 2 3 4

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

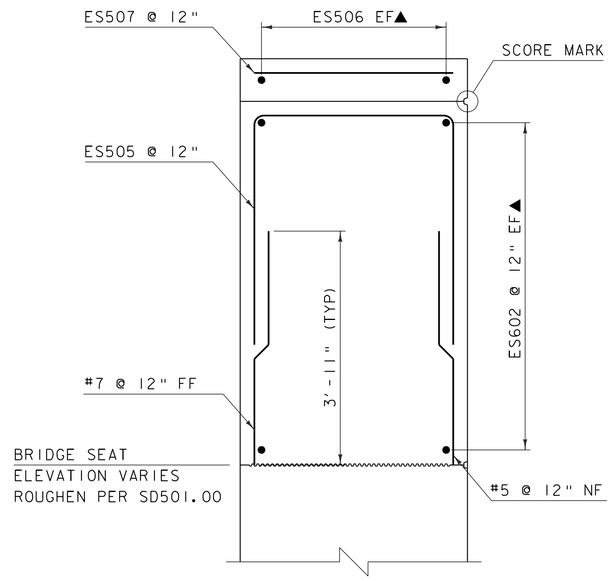
FILE NAME: 95b168\s95b168sub.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
BRIDGE 9 ABUTMENT 2 PRECAST PILE CAP

PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: R.S.YOUNG
SHEET 95 OF 124



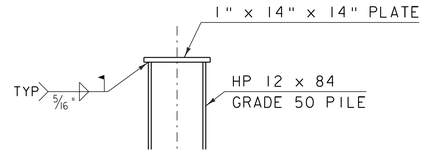
CURTAIN WALL SECTION "A-A"

SCALE ¾" = 1'-0"
SEE SHEETS 92 - 93



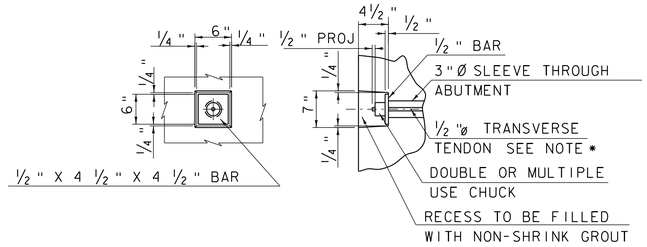
CURTAIN WALL SECTION "B-B"

SCALE ¾" = 1'-0"
SEE SHEETS 92 - 93



PILE PLATES (TYP)

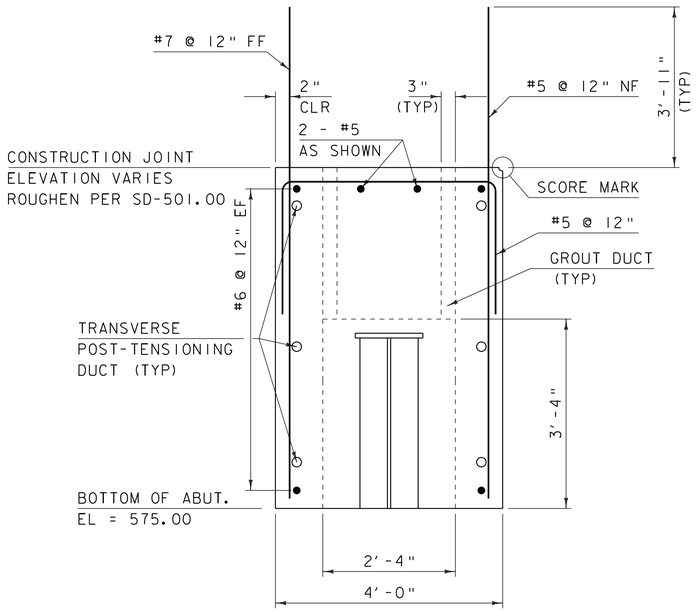
SCALE ¾" = 1'-0"



½"Ø TRANSVERSE TENDON DETAIL

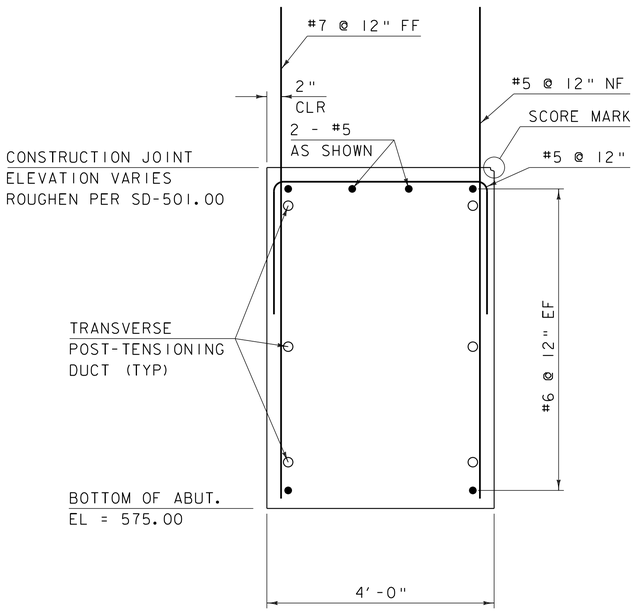
(NOT TO SCALE)

*TRANSVERSE TIES SHALL BE COVERED BY SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITER GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF STRAND, EXCEPT AT ANCHORAGE LOCATIONS.



PILE CAP SECTION "C-C"

SCALE ¾" = 1'-0"
SEE SHEETS 94 - 95



PILE CAP SECTION "D-D"

SCALE ¾" = 1'-0"
SEE SHEETS 94 - 95

NOTE:

NF = NEAR FACE
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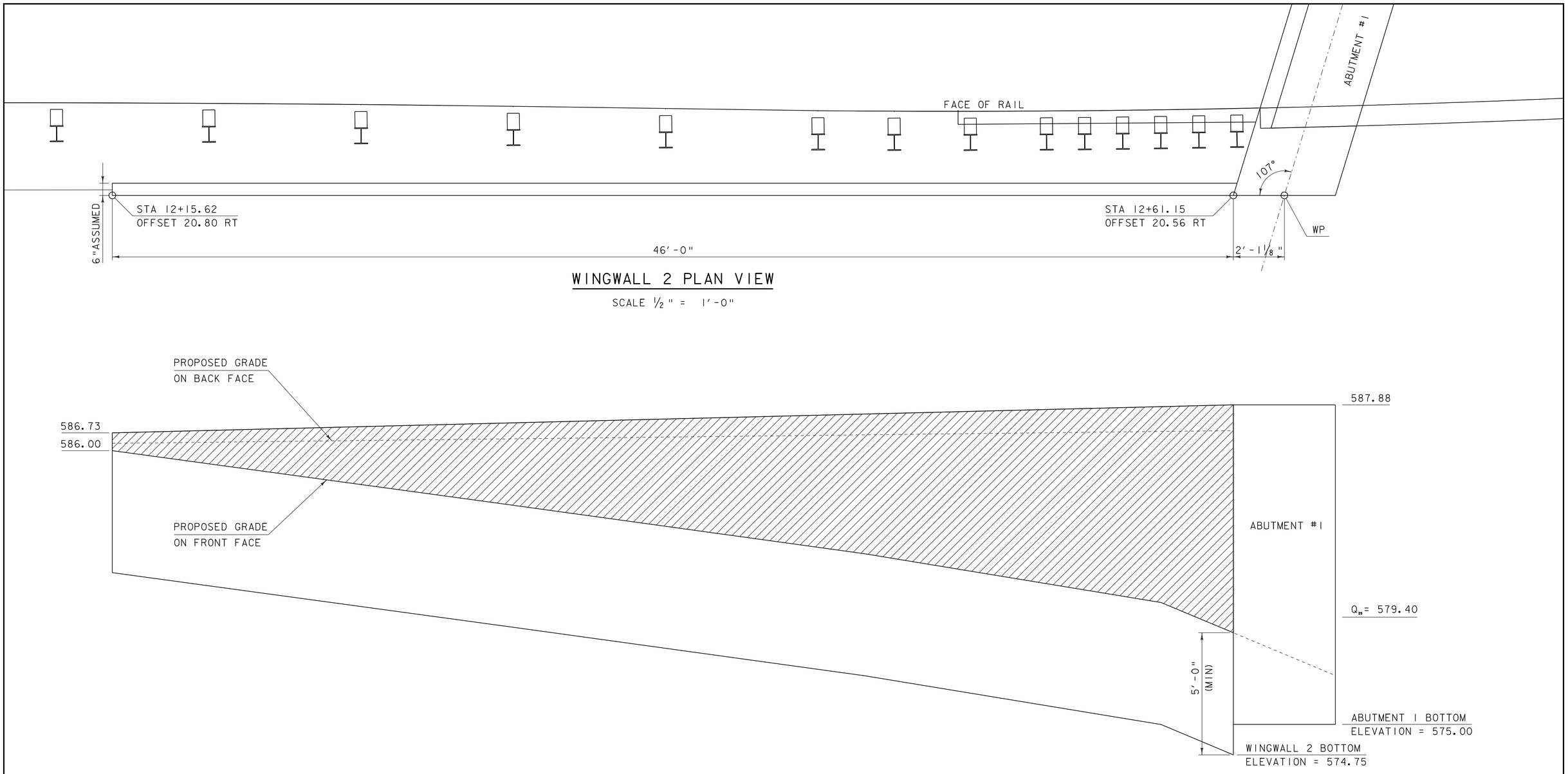
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

SCALE ¾" = 1'-0"
0 1 2

PROJECT NAME:	CHESTER
PROJECT NUMBER:	BRF 025-1(37)

FILE NAME: 95b168\s95b168sub.dgn	PLOT DATE: 20-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: R.S.YOUNG
BRIDGE 9 ABUTMENT SECTIONS	SHEET 96 OF 124



WINGWALL 2 PLAN VIEW

SCALE 1/2" = 1'-0"

PAY LIMITS OF ITEM 900.670 "SPECIAL PROVISION (RETAINING WALL)

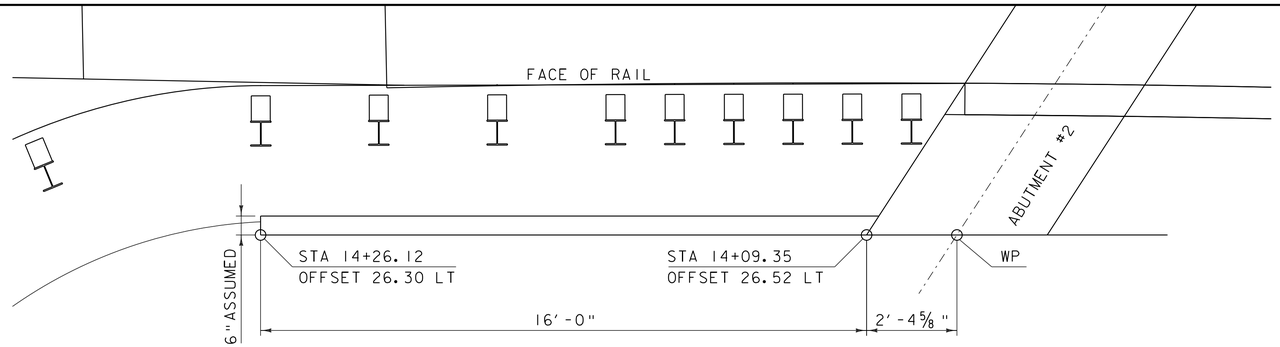
WINGWALL 2 ELEVATION VIEW

SCALE 1/2" = 1'-0"

SEE SHEET 98 FOR
ADDITIONAL INFORMATION
AND TYPICAL SECTION

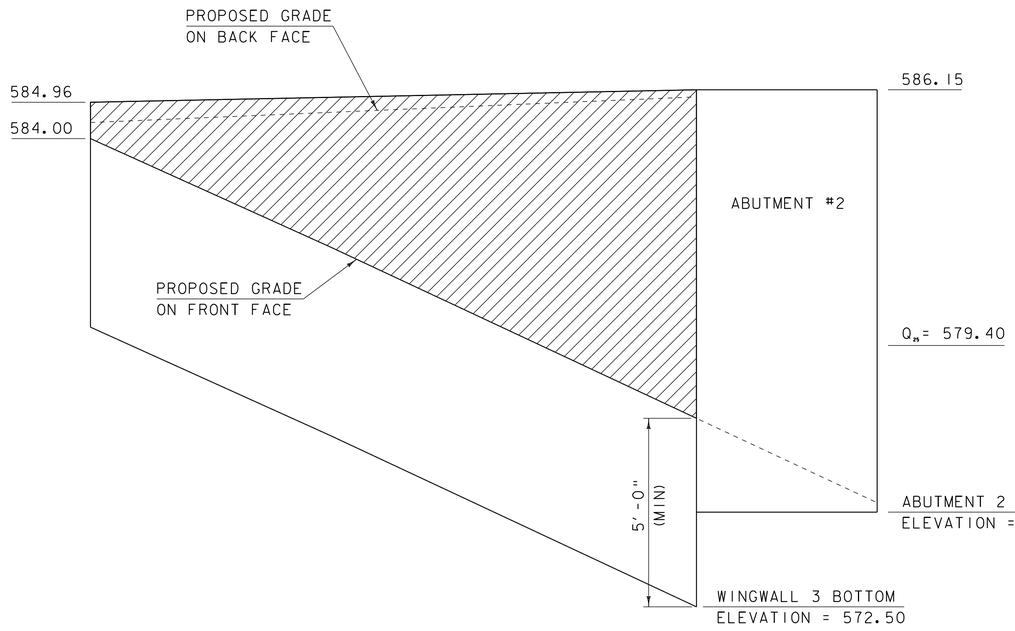
SCALE 1/2" = 1'-0"
0 1 2

PROJECT NAME: CHESTER	
PROJECT NUMBER: BRF 025-1(37)	
FILE NAME: 95b168\s95b168sub.dgn	PLOT DATE: 21-SEP-2010
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: R.S.YOUNG	CHECKED BY: E.R.CHARBONNEAU
BRIDGE 9 WINGWALL 2 DETAILS	SHEET 97 OF 124



WINGWALL 3 PLAN VIEW

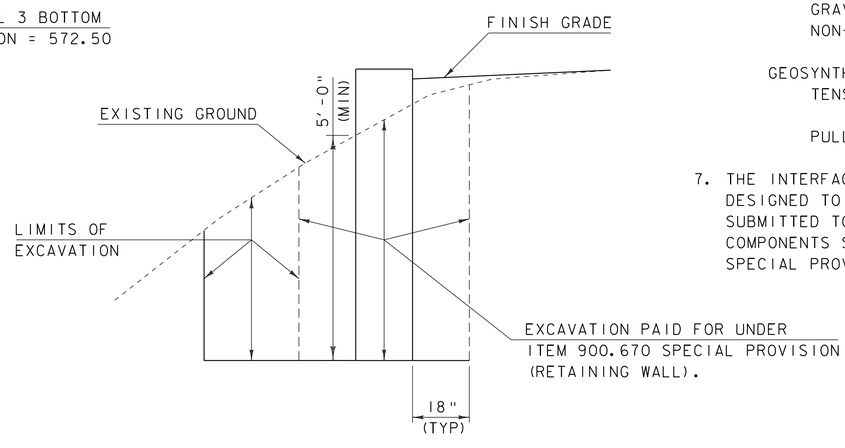
SCALE 1/2" = 1'-0"



PAY LIMITS OF ITEM 900.670 "SPECIAL PROVISION (RETAINING WALL)

WINGWALL 3 ELEVATION VIEW

SCALE 1/2" = 1'-0"



TYPICAL WINGWALL EXCAVATION DETAIL

N.T.S.

NOTES:

1. WINGWALL 2 AND WINGWALL 3 SHALL BE SELECTED FROM THE LIST OF WALLS ON THE APPROVED RETAINING WALL DOCUMENT AVAILABLE FROM VAOT MATERIALS & RESEARCH WEB SITE. THE RETAINING WALL SHALL HAVE CONCRETE FACING.

2. THE WALL SHALL BE PAID FOR UNDER ITEM 900.670 "SPECIAL PROVISION (RETAINING WALL)".

3. THE BOTTOM OF WALL SHALL BE A MINIMUM OF 5 FEET BELOW THE FINISH GRADE IN THE FRONT OF WALL.

4. THE WALL SHALL BE DESIGNED IN ACCORDANCE WITH 2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND ITS LATEST REVISIONS. THE DESIGN SHALL INCLUDE THE EFFECT OF ALL LOADS INCLUDING BUT NOT LIMITED TO LIVE LOAD, VEHICLE IMPACT ON ADJACENT GUARDRAIL AND POSTS, EARTH SURCHARGE, AND HYDROSTATIC PRESSURE.

5. THE TYPE OF WALL SELECTED SHALL BE COMPATIBLE WITH ADJACENT OBSTRUCTIONS SUCH AS DRAINAGE FEATURES AND GUARD RAIL POSTS. ANY CHANGES TO THE REINFORCING OR ANCHORING SYSTEM SHALL BE DETAILED IN THE FABRICATION DRAWINGS.

6. THE FOLLOWING SOIL PROPERTIES SHALL BE USED IN THE DESIGN OF WINGWALL 2 AND WINGWALL 3:

FOUNDATION SOIL DESIGN VALUES	
NOMINAL BEARING RESISTANCE:	8.9 KSF
FOUNDATION SOIL PARAMETERS	
UNIT WEIGHT:	120 PCF
FRICTION ANGLE:	32°
RETAINED SOIL PARAMETERS	
UNIT WEIGHT:	130 PCF
FRICTION ANGLE:	32°
REINFORCED SOIL PARAMETERS (IF APPLICABLE)	
UNIT WIEGHT:	140 PCF
FRICTION ANGLE:	34°
BEARING RESISTANCE FACTORS (STRENGTH LIMIT STATE)	
MSEW:	0.65
GRAVITY/SEMI-GRAVITY (PROPRIETARY SYSTEM):	0.55
NON-GRAVITY CANTILEVERED AND ANCHORED:	0.45
SLIDING RESISTANCE FACTORS	
MSEW:	1.0
GRAVITY/SEMI-GRAVITY (PROPRIETARY SYSTEM):	1.0
NON-GRAVITY CANTILEVERED AND ANCHORED:	0.8
GEOSYNTHETIC RESISTANCE FACTORS (IF APPLICABLE)	
TENSILE RESISTANCE OF GEOSYNTHETIC REINFORCEMENT AND CONNECTORS:	0.9
PULLOUT RESISTANCE OF TENSILE REINFORCEMENT:	0.9

7. THE INTERFACE BETWEEN THE WINGWALL AND THE ABUTMENT STEM SHALL BE DESIGNED TO ALLOW 0.5 INCHES OF MOVEMENT. A JOINT DETAIL SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL. ALL COMPONENTS SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 900.670 SPECIAL PROVISION (RETAINING WALL).

SCALE 1/2" = 1'-0"
1 0 1 2

PROJECT NAME: CHESTER
PROJECT NUMBER: BRF 025-1(37)

FILE NAME: 95b168\s95b168sub.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: R.S.YOUNG
BRIDGE 9 WINGWALL 3 DETAILS
PLOT DATE: 20-SEP-2010
DRAWN BY: D.D.BEARD
CHECKED BY: E.R.CHARBONNEAU