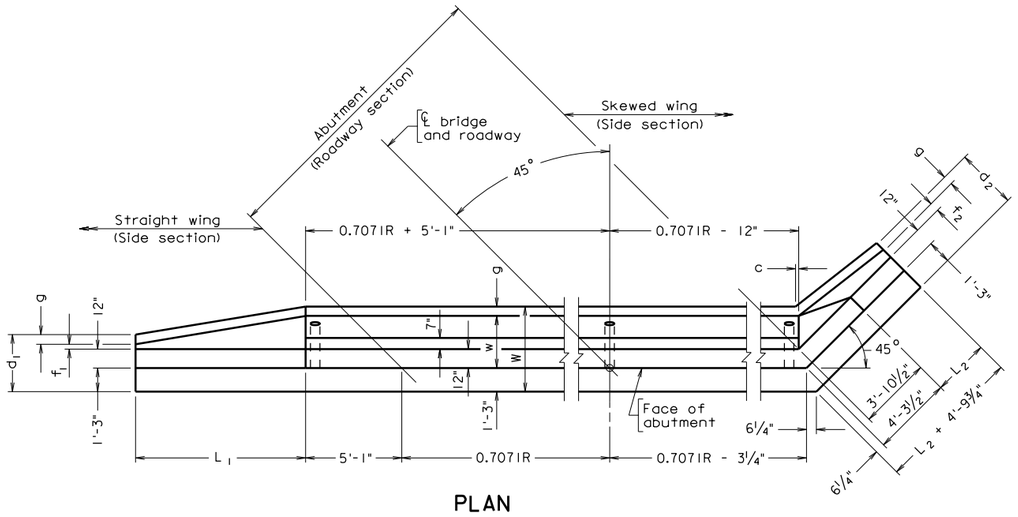
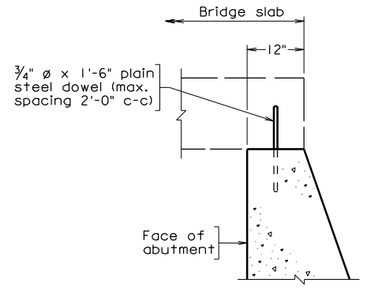
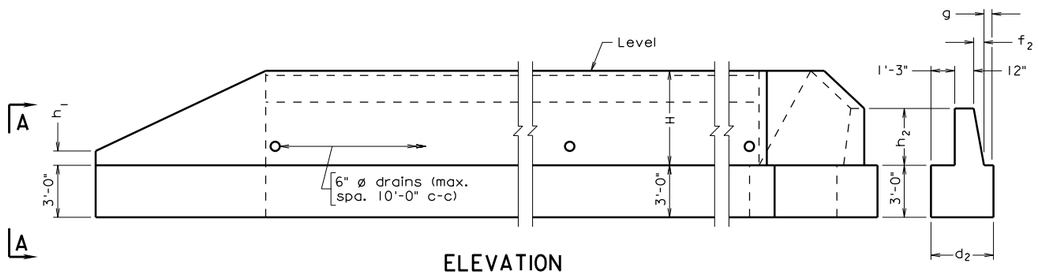
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—				



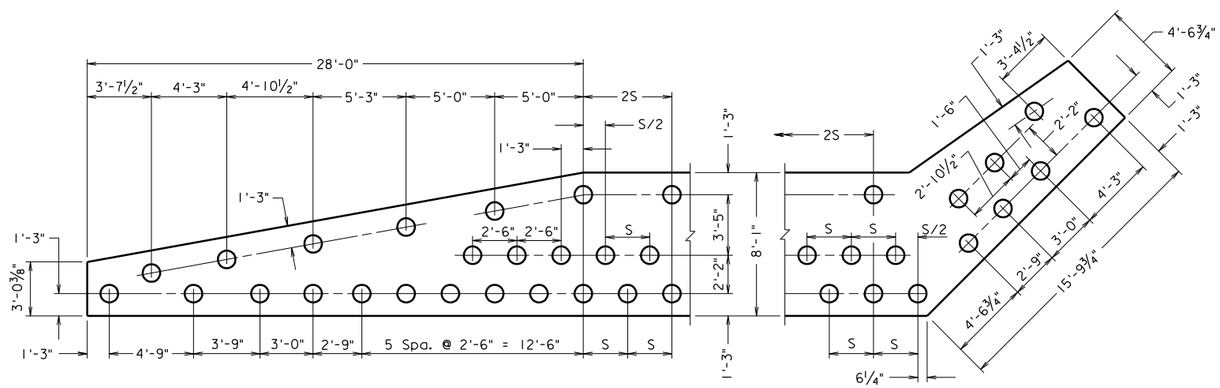
PLAN



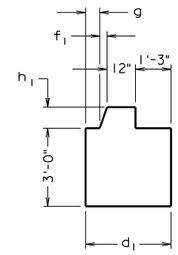
TYPICAL BRIDGE SEATS



ELEVATION
Piles omitted for clarity

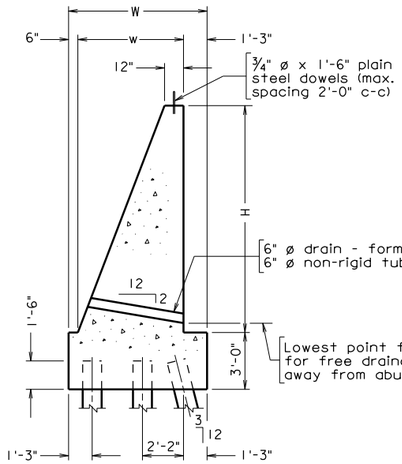


PILE PLAN



VIEW A-A

DIMENSION DATA
H =
L_1 =
L_2 =
R =
W =
f_1 =
f_2 =
h_1 =
h_2 =
w =
c =
d_1 =
d_2 =
g =



TYPICAL SECTION ON ℄

csapl1545.dgn

CS-APL15-45 06-14-2010

Sealed and Signed by:
Julius F.J. Volgyi Jr.
Lic. No. 010487
On the date of
June 14, 2010

A copy of the original sealed and signed standard drawing is on file in the Central Office.

VDOT S&B DIVISION
RICHMOND, VA
STRUCTURAL ENGINEER

Not to scale

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

ABUTMENT

Designed:	Date	Plan No.	Sheet No.
Drawn:		CS-APL15-45	
Checked:			

CAST-IN-PLACE CONCRETE SLAB SPANS

ABUTMENTS ON PILES
45 ° SKEW - FILL SLOPE 1½ : 1

NOTES TO DESIGNER:

Standard to be used when abutments are on piles.

Standard is for: 45° skew
1½ : 1 fill slope

TABLE OF DIMENSIONS AND QUANTITIES

ABUTMENT*					STRAIGHT WING				
H	w	W	Neat – CY per ft. of R	Ftg – CY per ft. of R	L_1	h_1	f_1	Neat CY	Footing CY
4'-0"	2'-4"	4'-6"	0.368R	0.707R	7'-0"	9"	3"	2.3	4.8
5'-0"	2'-9"	4'-6"	0.509R	0.707R	9'-0"	9"	3 1/8"	3.4	5.6
6'-0"	3'-2"	4'-11"	0.672R	0.773R	11'-0"	9"	3 1/4"	4.8	6.7
7'-0"	3'-7"	5'-4"	0.857R	0.838R	13'-0"	9"	3 3/8"	6.5	7.9
8'-0"	3'-11"	5'-8"	1.047R	0.891R	16'-0"	9"	3 3/8"	8.8	9.6
9'-0"	4'-4"	6'-1"	1.273R	0.956R	18'-0"	9"	3 3/8"	11.1	11.0
10'-0"	4'-9"	6'-6"	1.522R	1.021R	20'-0"	9"	3 3/8"	13.7	12.5
11'-0"	5'-2"	6'-11"	1.792R	1.087R	22'-0"	9"	3 3/8"	16.7	14.0
12'-0"	5'-7"	7'-4"	2.085R	1.152R	24'-0"	9"	3 3/8"	20.0	15.6
13'-0"	5'-11"	7'-8"	2.371R	1.205R	26'-0"	9"	3 3/8"	23.6	17.1
14'-0"	6'-4"	8'-1"	2.705R	1.270R	28'-0"	9"	3 3/8"	27.6	18.9

SKEWED WING					
H	L_2	h_2	f_2	Neat CY	Footing CY
4'-0"	2'-0"	2'-9"	5 3/8"	1.1	2.9
5'-0"	3'-0"	3'-0"	6 5/8"	1.7	3.5
6'-0"	4'-0"	3'-3"	7 7/8"	2.4	4.2
7'-0"	5'-0"	3'-9"	9 7/8"	3.3	5.0
8'-0"	6'-0"	4'-0"	10 3/4"	4.3	5.8
9'-0"	7'-0"	4'-3"	12"	5.5	6.7
10'-0"	7'-0"	5'-3"	1'-3 3/8"	6.6	7.3
11'-0"	8'-0"	5'-9"	1'-5 1/2"	8.3	8.4
12'-0"	9'-0"	6'-0"	1'-6 3/4"	10.1	9.5
13'-0"	10'-0"	6'-3"	1'-7 5/8"	12.0	10.6
14'-0"	11'-0"	6'-9"	1'-9 3/4"	14.5	11.8

*To compute concrete quantity of the abutment, multiply volume as tabulated by R. Footing quantities do not include deductions for piles.

CAST-IN-PLACE CONCRETE SLAB SPANS

ABUTMENTS ON PILES
45 ° SKEW - FILL SLOPE 1½ : 1

NOTES TO DESIGNER (cont'd):

c = 3 $^{7}/_{8}$" (H = 4'-0")
c = 2" (H = 5'-0" to 14'-0")

d_1 = 3'-2" + f_1 (H = 4'-0")
d_1 = 2'-9" + f_1 (H = 5'-0" to 14'-0")

d_2 = 3'-2" + f_2 (H = 4'-0")
d_2 = 2'-9" + f_2 (H = 5'-0" to 14'-0")

g = 11" (H = 4'-0")
g = 6" (H = 5'-0" to 14'-0")

ADD THE FOLLOWING NOTES, DIMENSIONS, DETAILS, ETC. TO STANDARD:

PROJECT/TITLE BLOCKS:

Project block and title block shall be completed in accordance with Manual of the Structure and Bridge Division, Volume V – Part 2, Chapter 4.

DIMENSION DATA:

Enter H, L_1, L_2, R, W, c, d_1, d_2, g, h_1, h_2, f_1, f_2, and w dimensions in the DIMENSION DATA table.

TYPICAL BRIDGE SEATS:

If approach slab is required, replace details with cell BSA.

SECTION ON CENTERLINE:

Typical Section based on H = 11'-0" to 14'-0" with no approach slab, replace with appropriate cell if needed.

PILE PLAN:

Based on skew angle = 45° and H = 14'-0", replace the pile plan cell with the appropriate pile plan cell if needed.