

VERSA™ SERIES

Single-Radius



Nominal Bridge Unit Length:
 VS8-VS30: 8'-0"
 VS36T-VS54T: 6'-0"

VS8

SPAN	CLEAR RISE	WATERWAY AREA (SF)
6'	1' - 4 1/4"	6
7'	2' - 0 3/4"	11
8'	4' - 0"	25
8'	5' - 0"	33
8'	6' - 0"	41
8'	7' - 0"	49
8'	8' - 0"	57
8'	9' - 0"	65
8'	10' - 0"	73
8'	11' - 0"	81

VS10

SPAN	CLEAR RISE	WATERWAY AREA (SF)
7'	1' - 5 1/8"	7
8'	2' - 0"	12
9'	2' - 9 7/8"	19
10'	5' - 0"	39
10'	6' - 0"	49
10'	7' - 0"	59
10'	8' - 0"	69
10'	9' - 0"	79
10'	10' - 0"	89
10'	11' - 0"	99

VS12

SPAN	CLEAR RISE	WATERWAY AREA (SF)
8'	1' - 6 3/8"	9
9'	2' - 0 3/8"	13
10'	2' - 8 1/4"	19
11'	3' - 7 1/4"	29
12'	6' - 0"	57
12'	7' - 0"	69
12'	8' - 0"	81
12'	9' - 0"	93
12'	10' - 0"	105
12'	11' - 0"	117

VS16

SPAN	CLEAR RISE	WATERWAY AREA (SF)
10'	1' - 9"	13
11'	2' - 2 1/4"	17
12'	2' - 8 1/2"	23
13'	3' - 4"	31
14'	4' - 1 1/2"	42
15'	5' - 2 5/8"	57
16'	8' - 0"	101
16'	9' - 0"	117
16'	10' - 0"	133
16'	11' - 0"	149

VS20

SPAN	CLEAR RISE	WATERWAY AREA (SF)
14'	2' - 10 1/4"	28
15'	3' - 4 5/8"	36
16'	4' - 0"	45
17'	4' - 8 3/4"	57
18'	5' - 7 3/4"	73
19'	6' - 10 1/2"	96
20'	10' - 0"	157
20'	11' - 0"	177
20'	12' - 0"	197
20'	13' - 0"	217

VS24

SPAN	CLEAR RISE	WATERWAY AREA (SF)
18'	4' - 0 3/4"	51
19'	4' - 8"	63
20'	5' - 4 3/8"	76
21'	6' - 2 1/4"	93
22'	7' - 2 1/2"	115
23'	8' - 6 7/8"	146
24'	12' - 0"	226
24'	13' - 0"	250
24'	14' - 0"	274
24'	15' - 0"	298

VS30

SPAN	CLEAR RISE	WATERWAY AREA (SF)
24'	6' - 0"	101
25'	6' - 8 1/2"	119
26'	7' - 6 1/4"	139
27'	8' - 5 1/2"	164
28'	9' - 7 3/8"	196
29'	11' - 1 7/8"	240
30'	15' - 0"	353
30'	16' - 0"	383
30'	17' - 0"	413
30'	18' - 0"	443

VS36T

SPAN	CLEAR RISE	WATERWAY AREA (SF)
30'	8' - 0 5/8"	171
31'	8' - 10 1/8"	195
32'	9' - 9"	224
33'	10' - 9 5/8"	258
34'	12' - 1"	301
35'	13' - 9 1/2"	359
36'	18' - 0"	509
36'	19' - 0"	545
36'	20' - 0"	581
36'	21' - 0"	617

VS42T

SPAN	CLEAR RISE	WATERWAY AREA (SF)
36'	10' - 2 1/4"	260
37'	11' - 0 3/4"	292
38'	12' - 0 5/8"	330
39'	13' - 2 1/2"	374
40'	14' - 7 1/8"	429
41'	16' - 5 3/8"	504
42'	21' - 0"	693
42'	22' - 0"	735
42'	23' - 0"	777
42'	24' - 0"	819

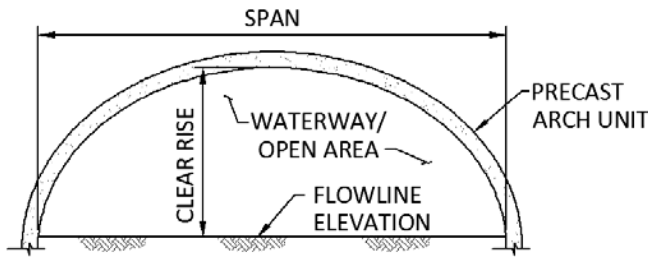
VS48T

SPAN	CLEAR RISE	WATERWAY AREA (SF)
42'	12' - 4 5/8"	371
43'	13' - 4"	411
44'	14' - 4 7/8"	458
45'	15' - 7 3/4"	513
46'	17' - 1 3/4"	581
47'	19' - 1 1/2"	673
48'	24' - 0"	905
48'	25' - 0"	953
48'	26' - 0"	1001
48'	27' - 0"	1049

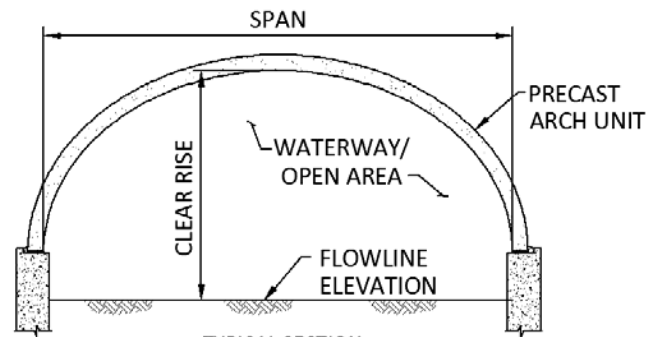
VS54T

SPAN	CLEAR RISE	WATERWAY AREA (SF)
48'	14' - 7 5/8"	502
49'	15' - 7 7/8"	552
50'	16' - 9 5/8"	609
51'	18' - 1 1/2"	676
52'	19' - 8 5/8"	758
53'	21' - 9 7/8"	868
54'	27' - 0"	1145
54'	28' - 0"	1199
54'	29' - 0"	1253
54'	30' - 0"	1307

SHADED AREAS DENOTE TWIN-LEAF INSTALLATION

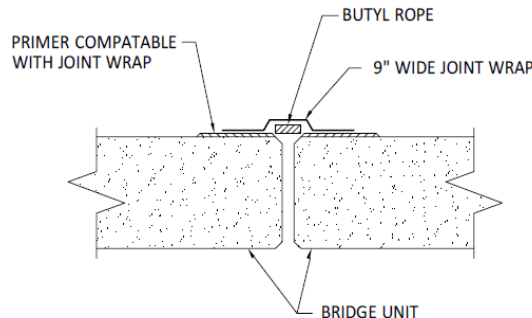


TYPICAL SECTION



TYPICAL SECTION WITH STEM WALL

NOTE:
 Joint is considered "soil-tight".
 Additional protection is recommended if a water-tight joint is required.



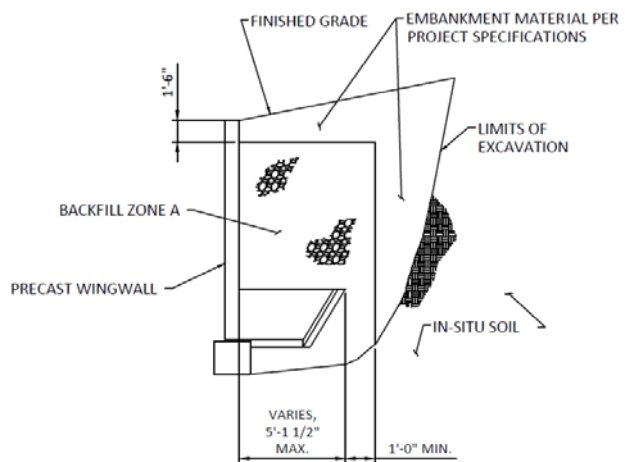
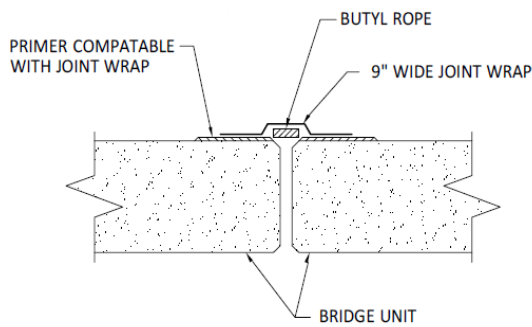
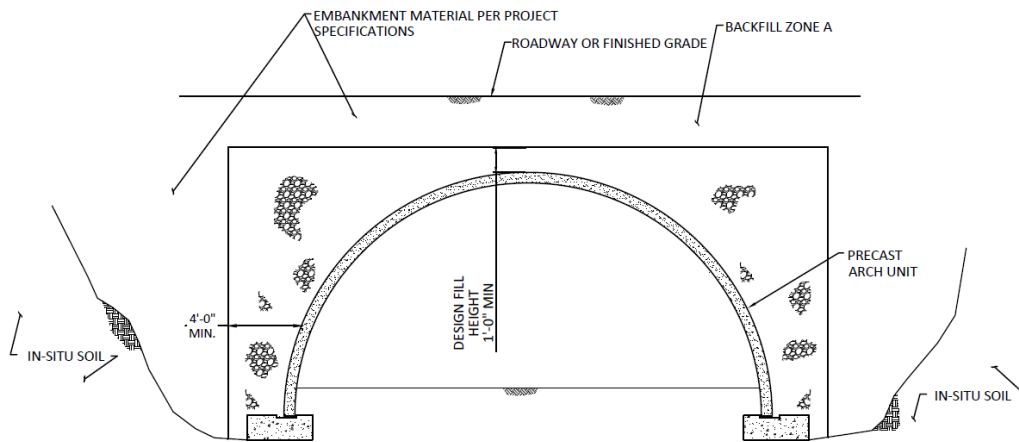
VERSA™ SERIES

Single-Radius

BACKFILL DESCRIPTION						
GROUP CLASSIFICATION	A-1a	A-1b	A-2-4	A-2-5	A3	A4
PERCENT PASSING #10	50 MAX.					
PERCENT PASSING #40	30 MAX.	50 MAX.			51 MAX.	
PERCENT PASSING #200	15 MAX.	25 MAX.	35 MAX.	35 MAX.	10 MAX.	36 MAX.
CHARACTERISTICS OF FRACTION PASSING #40, LIQUID LIMIT			40 MAX.	41 MAX.		40 MAX.
CHARACTERISTIC OF FRACTION PASSING #40, PLASTICITY INDEX	6 MAX.	9 MAX.	10 MAX.	10 MAX.		10 MAX.
DESCRIPTION OF MATERIAL	MOSTLY GRAVEL WITH SOME SANDS AND FINES	GRAVELLY SAND OR GRADED SAND	SILTY OR CLAYEY GRAVEL AND SAND	SILTY OR CLAYEY GRAVEL AND SAND	FINE SAND	LOW COMP. SILTS

Design Specifications :
AASHTO LFD & LRFD, AREMA
Manufacturing Specifications:
ASTM C1504
Manufacturing Certifications:
NPCA

ACCEPTABLE BACKFILL MATERIAL		
SPAN	FILL HEIGHT	MATERIAL IN ZONE A
< 24'-0"	< 12'-0"	A1, A2, A3, A4
< 24'-0"	≥ 12'-0"	A1, A3
≥ 24'-0"	ALL	A1, A3



NOTE:
 Joint is considered "soil-tight".
 Additional protection is recommended if a water-tight joint is required.