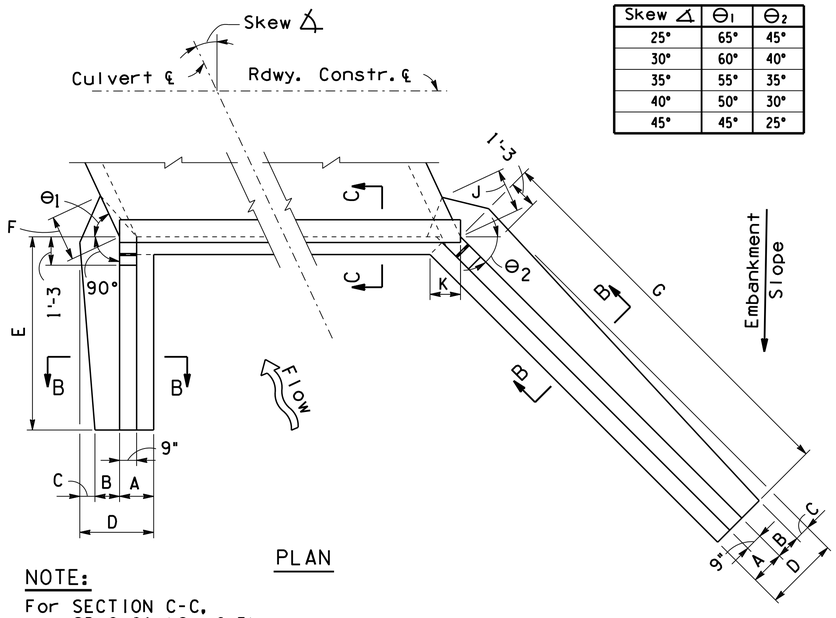
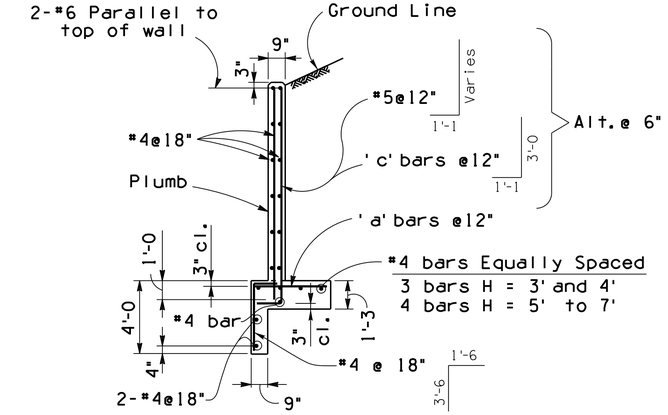
Skew ∠	Θ1	Θ2
25°	65°	45°
30°	60°	40°
35°	55°	35°
40°	50°	30°
45°	45°	25°



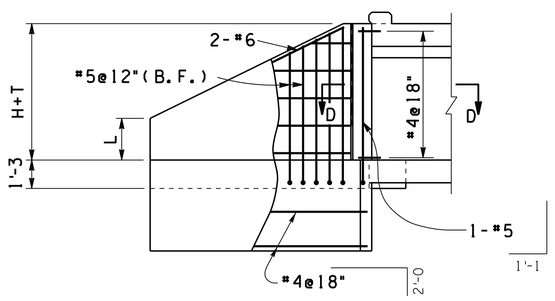
PLAN

NOTE:

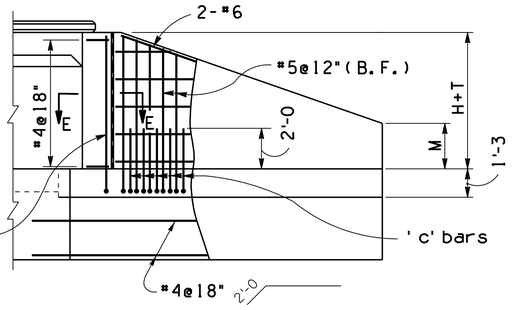
For SECTION C-C, see SD 6.01 (2 of 5).



SECTION B-B



SHORT WING ELEVATION



LONG WING ELEVATION

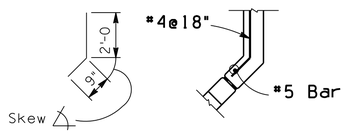
2 : 1 Slope	Skew ∠	25°					30°					35°					40°					45°				
	Height H	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'
Dimensions	A	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6
	B	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3
	C	6"	9"	1'-3	1'-8	2'-1	7"	10"	1'-3	1'-9	2'-2	7"	11"	1'-4	1'-10	2'-3	8"	11"	1'-5	1'-10	2'-4	8"	1'-0	1'-6	1'-11	2'-5
	D	2'-9	3'-3	3'-10	4'-4	4'-10	2'-10	3'-4	3'-10	4'-5	4'-11	2'-10	3'-5	3'-11	4'-6	5'-0	2'-11	3'-5	4'-0	4'-6	5'-1	2'-11	3'-6	4'-1	4'-7	5'-2
	E	6'-0	7'-6	8'-6	10'-0	11'-6	5'-6	7'-0	8'-0	9'-6	11'-0	5'-6	6'-6	8'-0	9'-0	10'-6	5'-0	6'-6	7'-6	8'-6	10'-0	5'-0	6'-0	7'-0	8'-6	9'-6
	F	1'-4	2'-0	2'-9	3'-5	4'-1	1'-6	2'-2	2'-11	3'-8	4'-4	1'-7	2'-4	3'-1	3'-10	4'-7	1'-8	2'-5	3'-3	3'-11	4'-9	1'-8	2'-6	3'-4	4'-1	4'-10
	G	8'-0	10'-0	11'-6	13'-6	15'-6	8'-6	10'-6	12'-6	14'-6	16'-6	9'-0	11'-0	13'-6	15'-6	17'-6	10'-0	12'-0	14'-6	17'-0	19'-6	10'-6	13'-6	16'-0	18'-6	21'-0
	J	1'-3	1'-11	2'-8	3'-4	4'-0	1'-5	2'-0	2'-8	3'-5	4'-1	1'-5	2'-2	2'-9	3'-6	4'-2	1'-6	2'-2	2'-11	3'-6	4'-3	1'-6	2'-3	3'-0	3'-8	4'-5
	K	1'-4½	1'-4½	1'-4½	1'-4½	1'-4½	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-6½	1'-6½	1'-6½	1'-6½	1'-6½	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-11¼	1'-11¼	1'-11¼	1'-11¼	1'-11¼
	L	1'-1	1'-4	1'-10	2'-1	2'-4	1'-4	1'-7	2'-1	2'-4	2'-7	1'-4	1'-10	2'-1	2'-7	2'-10	1'-7	1'-10	2'-4	2'-10	3'-1	1'-7	2'-1	2'-7	2'-10	3'-4
	M	1'-3	1'-6	2'-0	2'-3	2'-7	1'-4	1'-8	2'-1	2'-5	2'-9	1'-6	1'-11	2'-2	2'-7	3'-1	1'-7	2'-1	2'-5	2'-10	3'-2	1'-10	2'-3	2'-8	3'-2	3'-8

4 : 1 Slope	Skew ∠	25°					30°					35°					40°					45°				
	Height H	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'
Dimensions	A	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6
	B	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-3	9"	1'-0	1'-1	1'-2	1'-4	9"	1'-0	1'-1	1'-3	1'-7
	C	4"	7"	1'-0	1'-5	1'-10	4"	7"	1'-0	1'-5	1'-10	4"	7"	1'-0	1'-5	1'-10	4"	7"	1'-0	1'-5	1'-9	4"	7"	1'-0	1'-5	1'-7
	D	2'-7	3'-1	3'-7	4'-1	4'-7	2'-7	3'-1	3'-7	4'-1	4'-7	2'-7	3'-1	3'-7	4'-1	4'-7	2'-7	3'-1	3'-7	4'-1	4'-7	2'-7	3'-1	3'-7	4'-2	4'-8
	E	9'-0	11'-0	13'-6	15'-6	17'-6	8'-6	10'-6	12'-6	14'-6	16'-6	7'-6	9'-6	11'-6	13'-6	15'-0	7'-0	9'-0	10'-6	12'-6	14'-0	7'-0	8'-6	10'-0	12'-0	13'-6
	F	1'-2	1'-10	2'-5	3'-1	3'-9	1'-2	1'-10	2'-6	3'-3	3'-11	1'-2	1'-11	2'-7	3'-3	4'-0	1'-3	1'-11	2'-7	3'-4	4'-0	1'-3	1'-11	2'-8	3'-6	4'-2
	G	12'-0	14'-6	17'-6	20'-6	23'-6	12'-6	15'-6	18'-6	21'-6	24'-6	13'-0	16'-0	19'-6	22'-6	25'-6	14'-0	17'-0	20'-6	24'-0	27'-6	15'-0	18'-6	22'-0	25'-6	29'-0
	J	1'-1	1'-9	2'-4	3'-0	3'-8	1'-1	1'-9	2'-4	3'-0	3'-8	1'-1	1'-9	2'-4	3'-0	3'-8	1'-1	1'-9	2'-4	3'-0	3'-8	1'-1	1'-9	2'-4	3'-1	3'-9
	K	1'-4½	1'-4½	1'-4½	1'-4½	1'-4½	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-6½	1'-6½	1'-6½	1'-6½	1'-6½	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-11¼	1'-11¼	1'-11¼	1'-11¼	1'-11¼
	L	1'-10	2'-4	2'-8	3'-2	3'-8	1'-11	2'-5	2'-11	3'-5	3'-11	2'-2	2'-8	3'-2	3'-8	4'-4	2'-4	2'-10	3'-5	3'-11	4'-7	2'-4	2'-11	3'-7	4'-1	4'-8
	M	1'-11	2'-6	3'-0	3'-5	3'-11	2'-1	2'-7	3'-1	3'-7	4'-2	2'-2	2'-9	3'-3	3'-10	4'-5	2'-4	2'-11	3'-6	4'-1	4'-8	2'-6	3'-1	3'-9	4'-4	5'-0

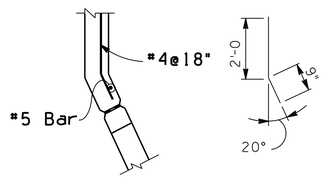
6 : 1 Slope	Skew ∠	25°					30°					35°					40°					45°				
	Height H	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'	3'	4'	5'	6'	7'
Dimensions	A	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6	1'-6
	B	9"	1'-0	1'-1	1'-2	1'-4	9"	1'-0	1'-1	1'-2	1'-6	9"	1'-0	1'-1	1'-3	1'-7	9"	1'-0	1'-1	1'-4	1'-8	9"	1'-0	1'-2	1'-6	1'-10
	C	3"	6"	11"	1'-4	1'-8	3"	6"	11"	1'-4	1'-6	3"	6"	11"	1'-3	1'-5	3"	6"	11"	1'-2	1'-4	3"	6"	10"	1'-0	1'-2
	D	2'-6	3'-0	3'-6	4'-0	4'-6	2'-6	3'-0	3'-6	4'-0	4'-6	2'-6	3'-0	3'-6	4'-0	4'-6	2'-6	3'-0	3'-6	4'-0	4'-6	2'-6	3'-0	3'-6	4'-0	4'-6
	E	11'-0	13'-6	16'-0	19'-0	21'-6	10'-0	12'-6	14'-6	17'-0	19'-6	9'-0	11'-6	13'-6	15'-6	18'-0	8'-6	10'-6	12'-6	14'-6	16'-6	8'-0	10'-0	12'-0	13'-6	15'-6
	F	1'-0	1'-8	2'-4	3'-0	3'-8	1'-1	1'-9	2'-5	3'-1	3'-9	1'-1	1'-9	2'-6	3'-2	3'-10	1'-1	1'-10	2'-6	3'-3	3'-11	1'-1	1'-10	2'-6	3'-3	3'-11
	G	14'-0	17'-6	21'-0	24'-6	28'-0	14'-6	18'-6	22'-0	25'-6	29'-0	15'-6	19'-0	23'-0	26'-6	30'-6	16'-0	20'-0	24'-0	28'-0	32'-0	17'-0	21'-0	25'-0	29'-6	33'-6
	J	1'-0	1'-7	2'-3	2'-11	3'-6	1'-0	1'-7	2'-3	2'-11	3'-6	1'-0	1'-7	2'-3	2'-11	3'-6	1'-0	1'-7	2'-3	2'-11	3'-6	1'-0	1'-7	2'-3	2'-11	3'-6
	K	1'-4½	1'-4½	1'-4½	1'-4½	1'-4½	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-5¼	1'-6½	1'-6½	1'-6½	1'-6½	1'-6½	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-8⅜	1'-11¼	1'-11¼	1'-11¼	1'-11¼	1'-11¼
	L	2'-3	2'-10	3'-5	3'-11	4'-6	2'-5	3'-0	3'-8	4'-3	4'-10	2'-7	3'-2	3'-10	4'-6	5'-1	2'-8	3'-4	4'-0	4'-8	5'-4	2'-9	3'-5	4'-1	4'-10	5'-6
	M	2'-5	3'-0	3'-7	4'-2	4'-9	2'-6	3'-1	3'-8	4'-4	4'-11	2'-7	3'-3	3'-10	4'-6	5'-2	2'-9	3'-5	4'-1	4'-9	5'-5	2'-10	3'-7	4'-4	5'-0	5'-8

' c ' Bars Long Wingwall			
H = 7'	Skew ∠	2 : 1 Slope	4 : 1 Slope
	25°	3 - #5	3 - #5
	30°	3 - #5	3 - #5
	35°	4 - #5	4 - #5
	40°	4 - #5	4 - #5
	45°	5 - #5	4 - #5

' a ' Bars		
Height H	Short Wing	Long Wing
3'	#4	#4
4'	#4	#4
5'	#4	#4
6'	#4	#5
7'	#4	#6



SECTION D-D



SECTION E-E

NOTE:

For General Notes, Dimensions, and additional Details, see SD 6.01 (2 of 5). For Headwall Quantities see SD 6.09 (1 to 3).

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original Issue	S.U.H.	2-12
2	Added 3'-4' height for existing box extensions only	D.B.B.	5-15
3			
4			

DESIGN APPROVED

APPROVED FOR DISTRIBUTION

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
BRIDGE GROUP STRUCTURE DETAIL

REINFORCED CONCRETE BOX CULVERTS
INLET WINGS - SKEW 25° to 45°
CULVERT HEIGHT 3' to 7'

ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
			SD 6.08 (7 of 8)
LOCATION			SHEET NO. OF