

ENGLISHLRFDDESIGNEDSINGLECULVERTSFWH.DGN - FWH 45-2-21 S1 - THIS SHEET ISSUED 02-2021.

Dimension Table

S x H	16' x 14'	16' x 13'	16' x 12'	16' x 11'	16' x 10'	16' x 9'	16' x 8'	16' x 7'	16' x 6'	16' x 5'	16' x 4'	14' x 14'	14' x 13'	14' x 12'	14' x 11'	14' x 10'	14' x 9'	14' x 8'	14' x 7'	14' x 6'	14' x 5'	14' x 4'	12' x 12'	12' x 11'	12' x 10'	12' x 9'	12' x 8'	12' x 7'	12' x 6'	12' x 5'	12' x 4'	S x H
A	43'-0	40'-0	37'-0	34'-0	31'-0	28'-0	25'-0	22'-0	19'-0	16'-0	13'-0	43'-0	40'-0	37'-0	34'-0	31'-0	28'-0	25'-0	22'-0	19'-0	16'-0	13'-0	37'-0	34'-0	31'-0	28'-0	25'-0	22'-0	19'-0	16'-0	13'-0	A
B	14'-4	13'-4	12'-4	11'-4	10'-4	9'-4	8'-4	7'-4	6'-4	5'-4	4'-4	14'-4	13'-4	12'-4	11'-4	10'-4	9'-4	8'-4	7'-4	6'-4	5'-4	4'-4	12'-4	11'-4	10'-4	9'-4	8'-4	7'-4	6'-4	5'-4	4'-4	B
C	28'-8	26'-8	24'-8	22'-8	20'-8	18'-8	16'-8	14'-8	12'-8	10'-8	8'-8	28'-8	26'-8	24'-8	22'-8	20'-8	18'-8	16'-8	14'-8	12'-8	10'-8	8'-8	24'-8	22'-8	20'-8	18'-8	16'-8	14'-8	12'-8	10'-8	8'-8	C
CI	40'-6½	37'-8½	34'-10½	32'-0½	29'-2½	26'-4½	23'-6½	20'-8½	17'-11	15'-1	12'-3¼	40'-6½	37'-8½	34'-10½	32'-0½	29'-2½	26'-4½	23'-6½	20'-8½	17'-11	15'-1	12'-3¼	34'-10½	32'-0½	29'-2½	26'-4½	23'-6½	20'-8½	17'-11	15'-1	12'-3¼	CI
DL	20'-3¼	18'-10¼	17'-5¼	16'-0¼	14'-7¼	13'-2¼	11'-9¼	10'-4¼	8'-11¼	7'-6¼	6'-1¼	20'-3¼	18'-10¼	17'-5¼	16'-0¼	14'-7¼	13'-2¼	11'-9¼	10'-4¼	8'-11¼	7'-6¼	6'-1¼	17'-5¼	16'-0¼	14'-7¼	13'-2¼	11'-9¼	10'-4¼	8'-11¼	7'-6¼	6'-1¼	DL
DS	12'-2	11'-3½	10'-5½	9'-7½	8'-9½	7'-11	7'-0	6'-2½	5'-4½	4'-6½	3'-8½	12'-2	11'-3½	10'-5½	9'-7½	8'-9½	7'-11	7'-0	6'-2½	5'-4½	4'-6½	3'-8½	10'-5½	9'-7½	8'-9½	7'-11	7'-0	6'-2½	5'-4½	4'-6½	3'-8½	DS
D1	71'-8	66'-8	61'-8	56'-8	51'-8	46'-8	41'-8	36'-8	31'-8	26'-8	21'-8	71'-8	66'-8	61'-8	56'-8	51'-8	46'-8	41'-8	36'-8	31'-8	26'-8	21'-8	61'-8	56'-8	51'-8	46'-8	41'-8	36'-8	31'-8	26'-8	21'-8	D1
D2	25'-9½	24'-0	22'-2½	20'-4½	18'-7½	16'-9½	15'-0	13'-2½	11'-4½	9'-7½	7'-9½	25'-9½	24'-0	22'-2½	20'-4½	18'-7½	16'-9½	15'-0	13'-2½	11'-4½	9'-7½	7'-9½	22'-2½	20'-4½	18'-7½	16'-9½	15'-0	13'-2½	11'-4½	9'-7½	7'-9½	D2
E	48'-5¼	46'-2	43'-10¼	41'-7¼	39'-4½	37'-1¾	34'-10¼	32'-7¼	30'-4	28'-0¾	25'-9¾	48'-5¼	46'-2	43'-10¼	41'-7¼	39'-4½	37'-1¾	34'-10¼	32'-7¼	30'-4	28'-0¾	25'-9¾	39'-4½	37'-1¾	34'-10¼	32'-7¼	30'-4	28'-0¾	25'-9¾	25'-9¾	21'-9¾	E
E1	68'-5½	65'-3½	62'-1½	58'-10¾	55'-8¾	52'-5¾	49'-3¾	46'-1¾	42'-10¾	39'-8¾	36'-5¾	68'-5½	65'-3½	62'-1½	58'-10¾	55'-8¾	52'-5¾	49'-3¾	46'-1¾	42'-10¾	39'-8¾	36'-5¾	33'-8¾	30'-5¾	27'-2¾	24'-0¾	20'-5¾	17'-2¾	13'-8¾	10'-5¾	7'-2¾	E1
FL	20'-7½	19'-2½	17'-9½	16'-4½	14'-11½	13'-6½	12'-1½	10'-8½	9'-3½	7'-10½	6'-5½	20'-7½	19'-2½	17'-9½	16'-4½	14'-11½	13'-6½	12'-1½	10'-8½	9'-3½	7'-10½	6'-5½	17'-9½	16'-4½	14'-11½	13'-6½	12'-1½	10'-8½	9'-3½	7'-10½	6'-5½	FL
F5	12'-6	11'-7½	10'-9	9'-11¼	9'-1¼	8'-3	7'-4¼	6'-6½	5'-8½	4'-10½	4'-0½	12'-6	11'-7½	10'-9	9'-11¼	9'-1¼	8'-3	7'-4¼	6'-6½	5'-8½	4'-10½	4'-0½	10'-9	9'-11¼	9'-1¼	8'-3	7'-4¼	6'-6½	5'-8½	4'-10½	4'-0½	F5
F1	43'-5½	40'-5½	37'-5½	34'-5½	31'-5½	28'-5½	25'-5½	22'-5½	19'-5½	16'-5½	13'-5½	43'-5½	40'-5½	37'-5½	34'-5½	31'-5½	28'-5½	25'-5½	22'-5½	19'-5½	16'-5½	13'-5½	37'-5½	34'-5½	31'-5½	28'-5½	25'-5½	22'-5½	19'-5½	16'-5½	13'-5½	F1
F2	3'-4	3'-1½	2'-11¼	2'-8¼	2'-6¼	2'-4	2'-1¾	1'-11¼	1'-8¼	1'-6¼	1'-4	3'-4	3'-1½	2'-11¼	2'-8¼	2'-6¼	2'-4	2'-1¾	1'-11¼	1'-8¼	1'-6¼	1'-4	2'-11¼	2'-8¼	2'-6¼	2'-4	2'-1¾	1'-11¼	1'-8¼	1'-6¼	1'-4	F2
G	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	15'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	13'-4	G
G1	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	21'-8½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	18'-10½	G1
G2	22'-10½	22'-10½	22'-10½	22'-10½	22'-10½	22'-10½	22'-10½	22'-10½	22'-10	22'-9	22'-9	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	20'-0	19'-11½	19'-11½	17'-2½	17'-2½	17'-2½	17'-2½	17'-2½	17'-2½	17'-1½	G2
G3	45'-9¼	42'-7¾	39'-5¾	36'-3¾	33'-1¾	29'-11¼	26'-9¾	23'-7¾	20'-5¾	17'-3¾	14'-1¾	45'-9¼	42'-7¾	39'-5¾	36'-3¾	33'-1¾	29'-11¼	26'-9¾	23'-7¾	20'-5¾	17'-3¾	14'-1¾	39'-5¾	36'-3¾	33'-1¾	29'-11¼	26'-9¾	23'-7¾	20'-5¾	17'-3¾	14'-1¾	G3
G4	46'-3¼	42'-11¼	39'-9¼	36'-3	32'-8¾	29'-6¾	26'-4¾	22'-10½	19'-8¾	16'-6¾	13'-4¾	46'-3¼	42'-11¼	39'-9¼	36'-3	32'-8¾	29'-6¾	26'-4¾	22'-10½	19'-8¾	16'-6¾	13'-4¾	39'-9¼	36'-3	32'-8¾	29'-6¾	26'-4¾	22'-10½	19'-8¾	16'-6¾	13'-4¾	G4
G5	14'-8¾	13'-8¾	12'-8¾	11'-7¾	10'-7¾	9'-7¾	8'-7¾	7'-7	6'-6¾	5'-6¾	4'-6¾	14'-8¾	13'-8¾	12'-8¾	11'-7¾	10'-7¾	9'-7¾	8'-7¾	7'-7	6'-6¾	5'-6¾	4'-6¾	12'-8¾	11'-7¾	10'-7¾	9'-7¾	8'-7¾	7'-7	6'-6¾	5'-6¾	4'-6¾	G5
G6	16'-5½	15'-2½	14'-2½	13'-0½	11'-10½	10'-10½	9'-10½	8'-8½	7'-8½	6'-8½	5'-8½	16'-5½	15'-2½	14'-2½	13'-0½	11'-10½	10'-10½	9'-10½	8'-8½	7'-8½	6'-8½	5'-8½	14'-2½	13'-0½	11'-10½	10'-10½	9'-10½	8'-8½	7'-8½	6'-8½	5'-8½	G6
G7	--	1½	1½	6½	10½	10½	10½	1'-2½	1'-2½	1'-2½	1'-2½	--	1½	1½	6½	10½	10½	10½	1'-2½	1'-2½	1'-2½	1'-2½	1½	6½	10½	10½	10½	1'-2½	1'-2½	1'-2½	1'-2½	G7
G8	4	6½	6½	7½	8½	8½	8½	9½	9½	9½	9½	4	6½	6½	7½	8½	8½	8½	9½	9½	9½	9½	6½	7½	8½	8½	8½	8½	8½	8½	8½	G8
PL	83'-6¾	77'-9	71'-11	66'-1	60'-3	54'-5¾	48'-7¾	42'-9¾	36'-11¾	31'-1¾	25'-3¾	83'-6¾	77'-9	71'-11	66'-1	60'-3	54'-5¾	48'-7¾	42'-9¾	36'-11¾	31'-1¾	25'-3¾	71'-11	66'-1	60'-3	54'-5¾	48'-7¾	42'-9¾	36'-11¾	31'-1¾	25'-3¾	PL
PS	50'-1¼	46'-7¾	43'-1¾	39'-7¾	36'-1¾	32'-7¾	29'-1¾	25'-7¾	22'-1¾	18'-7¾	15'-1¾	50'-1¼	46'-7¾	43'-1¾	39'-7¾	36'-1¾	32'-7¾	29'-1¾	25'-7¾	22'-1¾	18'-7¾	15'-1¾	43'-1¾	39'-7¾	36'-1¾	32'-7¾	29'-1¾	25'-7¾	22'-1¾	18'-7¾	15'-1¾	PS
RL	84'-9¾	78'-10¾	72'-11¾	67'-0¾	61'-1¾	55'-2¾	49'-3¾	43'-4¾	37'-5¾	31'-6¾	25'-7¾	84'-9¾	78'-10¾	72'-11¾	67'-0¾	61'-1¾	55'-2¾	49'-3¾	43'-4¾	37'-5¾	31'-6¾	25'-7¾	72'-11¾	67'-0¾	61'-1¾	55'-2¾	49'-3¾	43'-4¾	37'-5¾	31'-6¾	25'-7¾	RL
RS	52'-1½	48'-6¾	44'-10¾	41'-2¾	37'-7¾	33'-11¾	30'-3¾	26'-8¾	23'-0¾	19'-4¾	15'-9¾	52'-1½	48'-6¾	44'-10¾	41'-2¾	37'-7¾	33'-11¾	30'-3¾	26'-8¾	23'-0¾	19'-4¾	15'-9¾	44'-10¾	41'-2¾	37'-7¾	33'-11¾	30'-3¾	26'-8¾	23'-0¾	19'-4¾	15'-9¾	RS
S1	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	22'-7¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	19'-9¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	16'-11¾	S1
T	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	1'-2	T
U	1'-2	1'-0	1'-0	11	10	10	10	9	9	9	9	1'-2	1'-0	1'-0	11	10	10	10	9	9	9	1'-0	11	10	10	10	9	9	9	9	9	U
W	5'-6	5'-3	5'-0	4'-9	4'-6	4'-3	4'-0	3'-9	3'-6	3'-6	3'-6	5'-6	5'-3	5'-0	4'-9	4'-6	4'-3	4'-0	3'-9	3'-6	3'-6	3'-6	5'-0	4'-9	4'-6	4'-3	4'-0	3'-9	3'-6	3'-6	3'-6	W

Notes:  
 1. See Sheet FWH G2-21 for General Notes, Specifications, and Design Stresses.  
 2. See Sheet FWH 45-1-21 and sheets FWH 45-3-21 thru 45-6-21 for location of certain dimensions tabulated.  
 3. Dimensions are in feet and inches unless otherwise noted.

LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER		
		Standard Design - Single Reinforced Concrete Box Culverts	
		Flared Wing Headwalls	
		February, 2021	
		Dimension Table 45° Skew	FWH 45-2-21 Sheet 1 of 2