LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
7 8 9 10 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 66 67 68 69 70 71 72 73

ACC:

BOX DATA

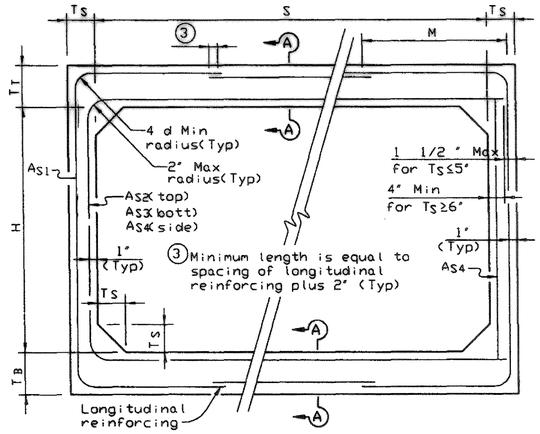
SECTION DIMENSIONS					Fill Height	M (Min)	REINFORCING (in^2/ft) ②								① Lift Weight (Tons)	Governing ASTM Standard
S (ft)	H (ft)	T_T (in)	T_B (in)	T_S (in)	(ft)	(in)	A_{S1}	A_{S2}	A_{S3}	A_{S4}	A_{S7}	A_{S8}	A_{S5}	A_{S6}		
10	5	10	10	10	< 2	-	0.34	0.48	0.29	0.24	0.24	0.24	0.24	0.24	17.5	C 850
10	5	10	10	10	2	41	0.38	0.43	0.31	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	3	38	0.30	0.32	0.27	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	4	35	0.29	0.30	0.28	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	5	34	0.31	0.30	0.30	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	6	33	0.33	0.32	0.33	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	8	33	0.35	0.35	0.36	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	10	33	0.40	0.40	0.41	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	12	33	0.45	0.45	0.46	0.24	-	-	-	-	17.5	C 789
10	5	10	10	10	14	33	0.50	0.50	0.51	0.24	-	-	-	-	17.5	C 789
10	6	10	10	10	< 2	-	0.32	0.50	0.32	0.24	0.24	0.24	0.24	0.24	18.5	C 850
10	6	10	10	10	2	41	0.35	0.46	0.34	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	3	37	0.29	0.35	0.30	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	4	34	0.27	0.32	0.30	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	5	33	0.29	0.33	0.33	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	6	33	0.31	0.34	0.36	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	8	33	0.33	0.37	0.39	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	10	32	0.37	0.42	0.44	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	12	32	0.41	0.48	0.50	0.24	-	-	-	-	18.5	C 789
10	6	10	10	10	14	32	0.46	0.53	0.55	0.24	-	-	-	-	18.5	C 789
10	7	10	10	10	< 2	-	0.31	0.52	0.35	0.24	0.24	0.24	0.24	0.24	19.5	C 850
10	7	10	10	10	2	42	0.32	0.49	0.36	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	3	38	0.27	0.37	0.32	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	4	35	0.26	0.34	0.32	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	5	34	0.27	0.35	0.35	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	6	34	0.29	0.36	0.38	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	8	33	0.31	0.39	0.42	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	10	33	0.34	0.45	0.47	0.24	-	-	-	-	19.5	C 789
10	7	10	10	10	12	32	0.38	0.50	0.52	0.24	-	-	-	-	19.5	C 789
10	8	10	10	10	< 2	-	0.29	0.54	0.38	0.24	0.26	0.24	0.24	0.24	20.5	C 850
10	8	10	10	10	2	45	0.31	0.52	0.39	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	3	40	0.26	0.39	0.34	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	4	37	0.25	0.36	0.35	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	5	36	0.26	0.37	0.38	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	6	35	0.27	0.38	0.41	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	8	34	0.29	0.41	0.44	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	10	33	0.32	0.47	0.50	0.24	-	-	-	-	20.5	C 789
10	8	10	10	10	12	33	0.36	0.52	0.55	0.24	-	-	-	-	20.5	C 789
10	9	10	10	10	< 2	-	0.27	0.55	0.40	0.24	0.28	0.26	0.24	0.24	21.5	C 850
10	9	10	10	10	2	51	0.29	0.54	0.42	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	3	44	0.24	0.41	0.37	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	4	40	0.24	0.37	0.37	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	5	38	0.25	0.38	0.40	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	6	37	0.26	0.40	0.43	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	8	36	0.28	0.43	0.46	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	10	35	0.31	0.48	0.52	0.24	-	-	-	-	21.5	C 789
10	9	10	10	10	12	34	0.34	0.54	0.58	0.24	-	-	-	-	21.5	C 789
10	10	10	10	10	< 2	-	0.27	0.57	0.43	0.27	0.32	0.31	0.24	0.24	22.5	C 850
10	10	10	10	10	2	75	0.29	0.56	0.44	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	3	50	0.24	0.43	0.39	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	4	45	0.24	0.39	0.39	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	5	42	0.24	0.40	0.42	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	6	40	0.25	0.41	0.45	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	8	38	0.27	0.44	0.48	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	10	37	0.30	0.50	0.54	0.24	-	-	-	-	22.5	C 789
10	10	10	10	10	SPL	36	0.88	0.88	0.88	0.88	-	-	-	-	22.5	C 789 ⑤

Note: ASTM C850 design shall be used for all direct traffic culverts.

① For Box Length = 8'-0"

② A_{S1} thru A_{S4}, A_{S7} and A_{S8} are minimum required areas of reinforcement per linear foot of box length. A_{S6} and A_{S5} are minimum required areas of reinforcement per linear foot of box width.

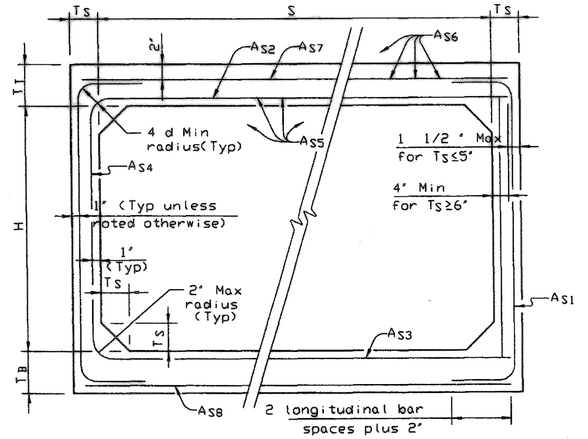
⑤ These designs were created by Reedcon, Inc. and are not shown in the ASTM Specifications.



C789 CORNER OPTION "A"

C789 CORNER OPTION "B"

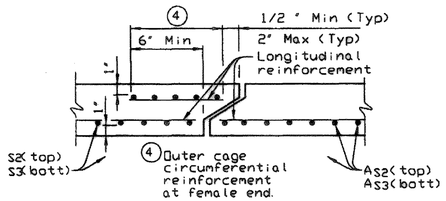
ASTM C789 STANDARD



C850 CORNER OPTION "A"

C850 CORNER OPTION "B"

ASTM C850 STANDARD



SECTION A-A

(TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:

Designs shown conform to ASTM C789 or ASTM C850. Refer to ASTM C789 or ASTM C850 for information or details not shown.

For ASTM C789 designs, all reinforcing steel shall have a minimum specified yield stress of 65 ksi.

For ASTM C850 designs, all reinforcing steel shall have a minimum specified yield stress of 60 ksi.

All concrete shall be Class "H" Concrete with a minimum 28 day compressive strength of 6,000 psi.

See SCP-MD standard sheet for miscellaneous details and notes not shown.

Designed for HS20 loading and to the maximum fill height shown.

In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structures".

HS20 LOADING

REVISED TO CONFORM TO CONSTRUCTION RECORDS BY PAC DATE 10/31/05

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STAN REED, P.E. 33685, ON 5/29/02

STATE OF TEXAS · STAN REED · 33685 · LICENSED PROFESSIONAL ENGINEER

PRECAST OPTION

Texas Department of Transportation
Bridge Division

SINGLE BOX CULVERTS PRECAST 10'-0" SPAN

SCP-10 (MOD)

FILE: scp10ste.dgn	DN: GAF	CK: LMW	DW: BWH	CK: LDS
©TxDOT September 2000	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS				S4
	COUNTY		CONTROL SECT	JOB HIGHWAY