STATE	PROJECT NUMBER	SHEET No.	TOTAL SHEETS
GA.			

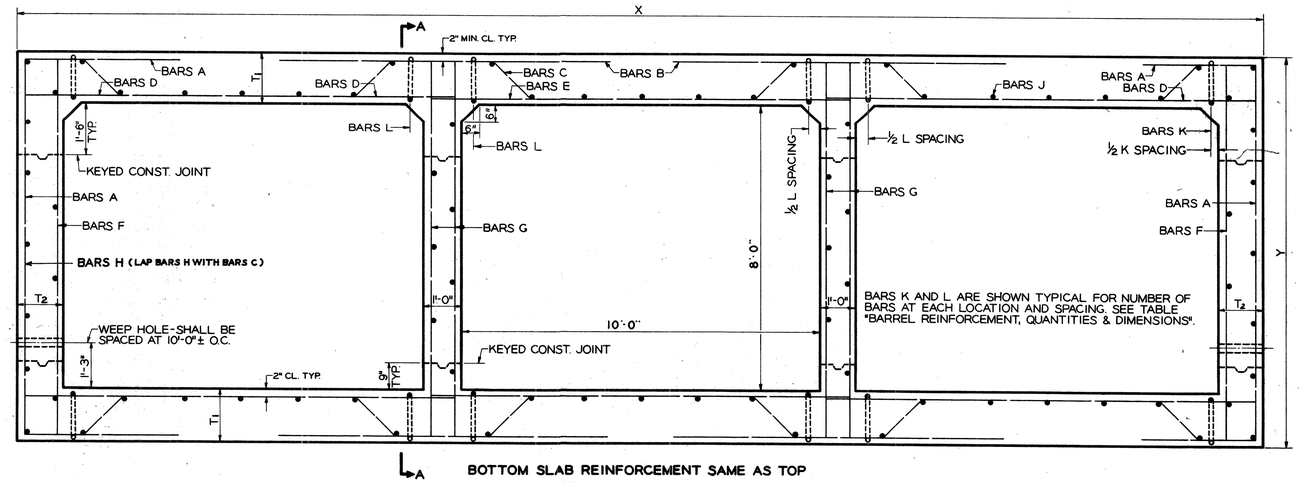
TRIPLE 10' X 8' BOX CULVERT
BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS

DESIGN	1	2	3	4	5
BAR A	410 AT 12"	520 AT 12"	530 AT 12"	2-640 BETWEEN	2-752 BETWEEN
BAR B	2-610 BETWEEN	2-720 BETWEEN	2-830 BETWEEN	2-840 BETWEEN	2-1050 BETWEEN
BAR C	510 AT 12"	620 AT 12"	630 AT 12"	740 AT 12"	750 AT 12"
BAR D	611 AT 12"	721 AT 12"	2-632 BETWEEN	2-641 BETWEEN	2-753 BETWEEN
BAR E	411 AT 12"	411 AT 12"	411 AT 12"	411 AT 12"	411 AT 12"
BAR F	412 AT 12"	420 AT 12"	430 AT 12"	440 AT 12"	450 AT 12"
BAR G	412 AT 12"	420 AT 12"	430 AT 12"	440 AT 12"	450 AT 12"
BAR H	511 AT 12"	621 AT 12"	631 AT 12"	741 AT 12"	751 AT 12"
BAR J	78-413	78-413	78-413	78-413	78-413
BAR K	NONE	NONE	NONE	1-441 AT 11"	2-451 AT 7¾"
BAR L	NONE	1-421 AT 12"	4-431 AT 7½"	6-441 AT 5"	7-451 AT 4"
X	33'-4½"	33'-7"	33'-10"	34'-1"	34'-3½"
Y	9'-8"	10'-1"	10'-5"	10'-8½"	11'-0"
T_1	10"	1'-0½"	1'-2½"	1'-4½"	1'-6"
T_2	8½"	9½"	11"	1'-0½"	1'-1¾"
CU. YD. CONCRETE PER FT.	3.09	3.68	4.19	4.66	5.11
LBS. BAR REINF. STEEL PER FT.	368	510	639	844	1140
MAX. HEIGHT OF FILL OVER TOP	TO 10'	TO 20'	TO 30'	TO 40'	TO 50'

BARREL SECTION BAR REINFORCEMENT DETAILS

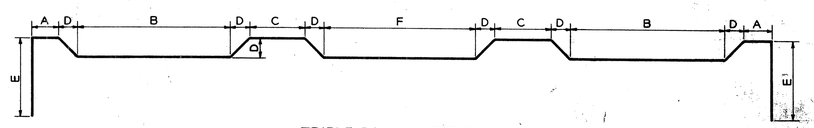
MARK	LENGTH	TYPE	A	B	C	D	E	F
410	13'-8"	8	9'-4"	2'-2"	2'-2"			
411	11'-8"	1						
412	9'-4"	1						
413	POUR - 4"	1						
420	9'-9"	1						
421	3'-8"	6	1'-2"	0'-9"	10'-9"			
430	10'-1"	1						
431	4'-0"	6	1'-2"	0'-11"	0'-11"			
440	10'-4½"	1						
441	4'-3½"	6	1'-2"	1'-0¾"	1'-0¾"			
450	10'-8"	1						
451	4'-7"	6	1'-2"	1'-2½"	1'-2½"			
510	38'-7½"	7	1'-3"	6'-7"	4'-5"	0'-6"	2'-2"	5'-6½"
511	9'-4"	1						
520	14'-5"	8	9'-9"	2'-4"	2'-4"			
530	14'-9"	8	10'-1"	2'-4"	2'-4"			
610	6'-4"	1						
611	11'-4"	1						
620	39'-9"	7	1'-1"	6'-6"	4'-3"	0'-8½"	2'-4½"	5'-4"
621	9'-9"	1						
630	40'-10"	7	1'-0½"	6'-5"	4'-1"	0'-10½"	2'-6½"	5'-2"
631	10'-1"	1						
632	11'-7"	1						
640	16'-11½"	8	10'-4½"	3'-3½"	3'-3½"			
641	11'-8½"	1						
720	7'-4½"	1						
721	11'-5½"	1						
740	41'-7½"	7	1'-0½"	6'-3¾"	3'-11½"	1'-0¼"	2'-8¼"	5'-0"
741	10'-4½"	1						
750	42'-7½"	7	1'-0"	6'-2¾"	3'-10"	1'-2"	2'-10"	4'-10"
751	10'-8"	1						
752	18'-0"	8	10'-8"	3'-8"	3'-8"			
753	11'-9¾"	1						
830	7'-9"	1						
840	9'-7"	1						
1050	10'-10"	1						

NOTE: BARS B THAT ARE SHOWN AS TWO BETWEEN BARS C SHALL BE EQUALLY SPACED BETWEEN BARS C.



BOTTOM SLAB REINFORCEMENT SAME AS TOP

BARREL SECTION

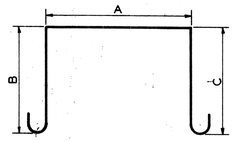


TRIPLE BOX CULVERT ONLY

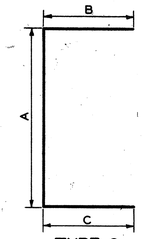
TYPE 7

STRAIGHT

TYPE 1



TYPE 6



TYPE 8

⚠ NOTE: BEND LONGITUDINAL BARS INTO WINGS AND PARAPETS SIMILAR TO STANDARDS. IF CULVERT IS SKEWED CUT TRANSVERSE STEEL AND BEND 12" INTO PARAPET OR TOE WALL AND HOOK.

NOTE:

THE DESIGN OF CULVERT SHALL BE DETERMINED BY THE MAXIMUM HEIGHT OF FILL WITH ONLY A SINGLE DESIGN BEING USED FOR THE ENTIRE INSTALLATION.

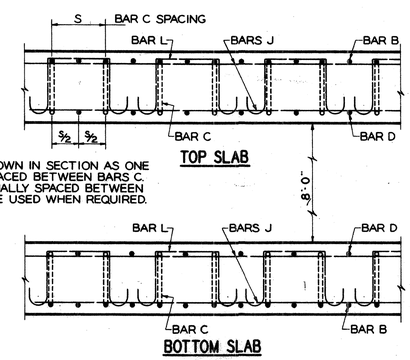
BOX CULVERT REQUIREMENTS:

MINIMUM FILL HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 12 INCHES.

MAXIMUM POUR LENGTH SHALL NOT EXCEED 30 FEET ALONG THE LENGTH OF THE CULVERT.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED IN THE BARREL, NORMAL TO THE CENTERLINE OF CULVERT, AT THE OUTSIDE SHOULDER BREAK POINTS. LONGITUDINAL BARREL REINFORCING STEEL SHALL NOT BE CONTINUOUS THROUGH THESE JOINTS, PROVIDED THAT THE JOINTS ARE MORE THAN 15 FEET FROM THE BARREL ENDS.
WHEN TRANSVERSE CONSTRUCTION JOINTS OCCUR WITHIN 15 FEET OF THE BARREL ENDS OR WITHIN THE LIMITS OF THE PAVEMENT, THE LONGITUDINAL BARREL REINFORCING SHALL THEN BE CONTINOUS THROUGH SUCH JOINTS. THE MINIMUM LENGTH OF LAP SPLICE FOR LONGITUDINAL REINFORCING SHALL BE 24 INCHES.

TRANSVERSE CONSTRUCTION JOINTS PLACED AT ANY OTHER LOCATION NOT SPECIFIED ABOVE SHALL BE FORMED WITH NO LONGITUDINAL REINFORCING STEEL PASSING THROUGH THE JOINTS.



NOTE: BARS B SHOWN IN SECTION AS ONE BAR EQUALLY SPACED BETWEEN BARS C. TWO BARS B EQUALLY SPACED BETWEEN BARS C SHALL BE USED WHEN REQUIRED.

BY	REVISIONS	DATE
R.J.S.	"AP" DIMENSION OF 410 BAR.	6-1-70
R.J.S.	ADD NOTE	7-25-74
R.J.S.	DELETE BAR, INCREASE TWO	2-28-80
R.M.H.	REV. FILL HT. REQUIREMENT	11-4-97

AP REQUIREMENT NOTE 11-14-91

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

REINFORCED CONCRETE BOX CULVERT
TRIPLE 10X8

NO SCALE

JULY 1968

DESIGNED R.J.S. TRACED G.M.B. REVIEWED F.B.
DRAWN P.D.P. CHECKED S.R.R. APPROVED

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