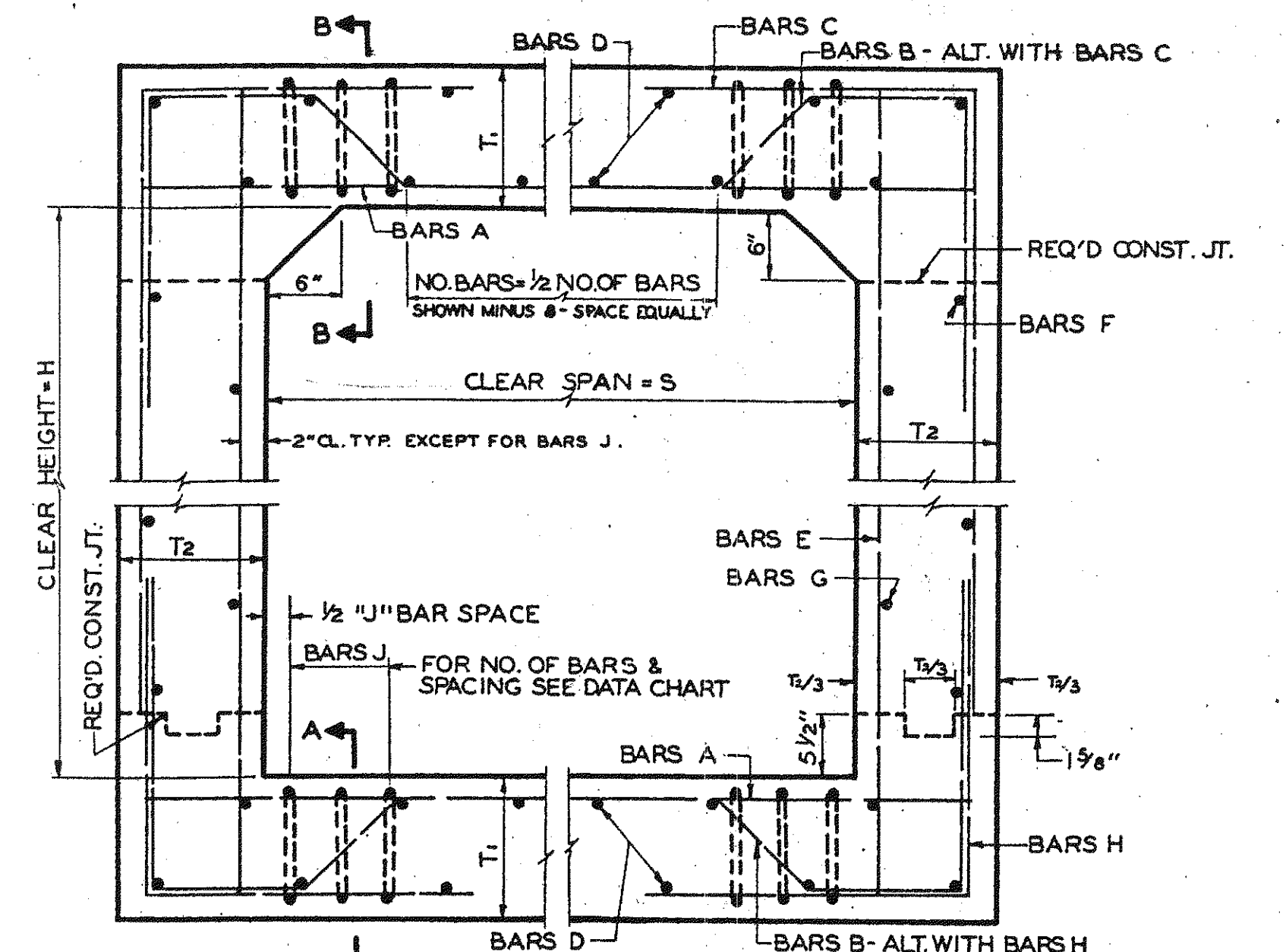


NOTE: THE DESIGN OF CULVERT SHALL BE DETERMINED BY THE MAXIMUM HEIGHT OF FILL WITH ONLY A SINGLE DESIGN BEING USED FOR THE ENTIRE INSTALLATION.

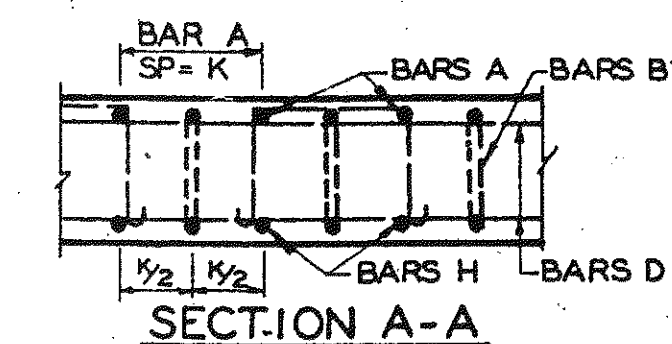
DATA CHART									
DESIGN	5-5-10	5-5-20	5-5-30	5-5-40	5-5-50	5-5-60	5-5-70	5-5-80	
CLEAR SPANS "S"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	
CLEAR HEIGHT "H"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	
T1	7"	7"	9"	10"	11"	12"	13"	13"	
T2	9"	9"	9"	9"	10"	10"	11"	12"	
BARS "A"	501 AT 13"	501 AT 13"	601 AT 13"	601 AT 13"	603 AT 12"	701 AT 13"	702 AT 12"	703 AT 13"	
BARS "B"	401 AT 13"	502 AT 13"	505 AT 13"	602 AT 13"	604 AT 12"	605 AT 13"	606 AT 12"	704 AT 13"	
BARS "C"	402 AT 13"	503 AT 13"	506 AT 13"	508 AT 13"	510 AT 12"	512 AT 13"	514 AT 12"	516 AT 13"	
NO BARS "D" IN 2 SLABS	22	22	22	22	22	22	22	22	
BARS "E"	403 AT 13"	403 AT 13"	405 AT 13"	406 AT 13"	407 AT 12"	408 AT 13"	409 AT 12"	409 AT 13"	
NO BARS "F" IN 2 WALLS	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	
NO BARS "G" IN 2 WALLS	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	
BARS "H"	404 AT 13"	504 AT 13"	507 AT 13"	509 AT 13"	511 AT 12"	513 AT 13"	515 AT 12"	517 AT 13"	
NO BARS "J" PER CORNER	0	0	0	1 AT 6"	1 AT 6"	1 AT 6"	2 AT 5"	3 AT 3 1/2"	
CU YDS CONCRETE PER FT.	0.568	0.568	0.648	0.688	0.771	0.812	0.897	0.941	
LBS REINF STEEL PER FT.	69.53	84.35	90.95	105.39	114.60	115.51	130.58	144.96	
DESIGN	5-5-90	5-5-100	5-5-110	5-5-120	5-5-130	5-5-140	5-5-150	5-5-160	
CLEAR SPAN "S"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	
CLEAR HEIGHT "H"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	
T1	14"	14"	15"	16"	16"	17"	17"	18"	
T2	14"	15"	17"	18"	20"	21"	23"	25"	
BARS "A"	705 AT 13"	707 AT 12"	709 AT 12"	711 AT 12"	713 AT 12"	715 AT 12"	717 AT 12"	719 AT 12"	
BARS "B"	706 AT 13"	708 AT 12"	710 AT 12"	712 AT 12"	714 AT 12"	716 AT 12"	718 AT 12"	720 AT 12"	
BARS "C"	518 AT 13"	520 AT 12"	522 AT 12"	524 AT 12"	526 AT 12"	528 AT 12"	530 AT 12"	532 AT 12"	
NO BARS "D" IN 2 SLABS	22	22	22	22	22	22	22	22	
NO BARS "E"	410 AT 13"	410 AT 12"	411 AT 12"	412 AT 12"	412 AT 12"	413 AT 12"	413 AT 12"	414 AT 12"	
NO BARS "F" IN 2 WALLS	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	8 AT 14"	
NO BARS "G" IN 2 WALLS	6 AT 14"	5 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	6 AT 14"	
BARS "H"	519 AT 13"	521 AT 12"	523 AT 12"	525 AT 12"	527 AT 12"	529 AT 12"	531 AT 12"	533 AT 12"	
NO BARS "J" PER CORNER	3 AT 3"	3 AT 3"	3 AT 2 3/4"	0	0	0	0	0	
CU YDS CONCRETE PER FT.	1.075	1.120	1.259	1.355	1.450	1.549	1.646	1.799	
LBS REINF STEEL PER FT.	149.91	161.80	167.14	153.82	156.89	160.20	163.62	168.28	

NOTE: BARS "A" THAT ARE SHOWN AS TWO SHALL BE EQUALLY SPACED BETWEEN BARS "B" TOP AND BOTTOM SLABS.

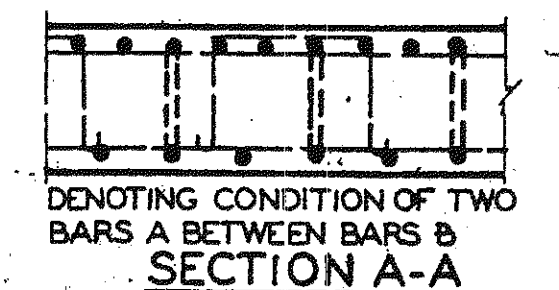
FED. ROAD DIV. No.	STATE	FED. AID PROJ. No.	STATE AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
3	GA.					



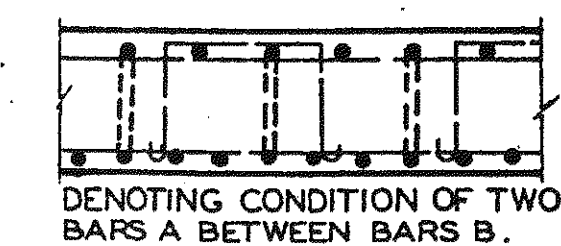
TYPICAL BARREL SECTION - ALL DESIGNS



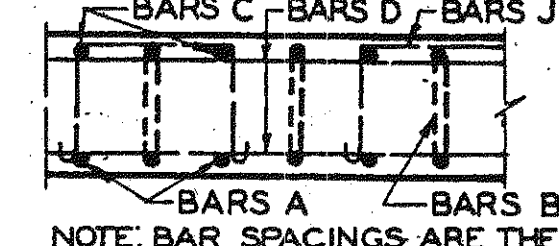
SECTION A-A



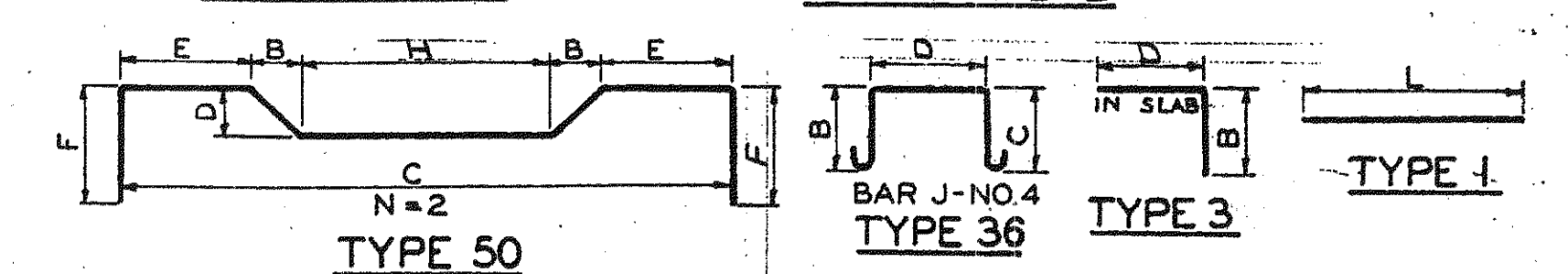
SECTION A-A



SECTION B-B



SECTION B-B



BAR TYPES

BAR "A": $L = S + 2T_2 - 4"$
 BAR "B": $B \& D = T_1 - 4"$; $C = S + 2T_2 - 4"$; $A = C - 2E - 2B$; $G = F$
 BAR "C": $B = H + T_1 - 7 1/2"$
 BAR "E": $L = H + 2T_1 - 4"$
 BAR "H": $B = T_1 + 3 1/2" + 16.67d$. NOTE: d = DIAMETER OF BAR "H". A = DIM. A OF BAR "C".
 BAR "J": $D = SPACING OF BAR "C" + 1" + DIAMETER OF BAR "C"$; $B \& C = T_1 - 3"$.
 NOTE: SEE DATA CHART FOR DIMENSIONS OF BAR DETAILS NOT INDICATED ABOVE.

REINFORCEMENT DETAILS

BOX CULVERT REQUIREMENTS:
 MINIMUM FILL HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 2 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 CONTINUOUS 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.

STATE HIGHWAY DEPARTMENT OF GEORGIA
 BRIDGE DEPARTMENT

SPECIAL DESIGN BOX CULVERTS
 5 x 5

NO SCALE

JULY, 1982

BRIDGE SHEET 1 OF 2	DESIGNED RJS RHC	TRACED RHC	REVIEWED HJL
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