

DOUBLE 9'-0" X 4'-0" BOX CULVERT								
BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS								
DESIGN	1	2	3	4	5	6	7	8
BAR A	513A @ 12"	433A @ 6"	702A @ 12"	516A @ 6"	520A @ 6"			
BAR B	466 @ 6"	556 @ 6"	625 @ 6"	725 @ 6"	721 @ 6"			
BAR C	480 @ 6"	481 @ 6"	570 @ 6"	642 @ 6"	643 @ 6"			
BAR E	420 @ 12"	421 @ 12"	422 @ 12"	424 @ 12"	425 @ 12"			
BAR F	420 @ 12"	421 @ 12"	422 @ 12"	424 @ 12"	425 @ 12"			
BAR G IN 2 SLABS	64 - 401	64 - 401	64 - 401	64 - 401	64 - 401			
BAR H IN 3 WALLS	18 - 402	18 - 402	18 - 402	18 - 402	18 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-429B @ 11½"			
BAR J IN INT. CORNER	0	0	3-425B @ 10¼"	4-428B @ 10¾"	5-431B @ 10"			
T ₁	14"	15"	16"	17"	18"			
T ₂	15"	16"	17"	18"	19"			
T ₃	14"	15"	16"	17"	18"			
X	21'-4"	21'-6"	21'-8"	21'-10"	22'-0"			
Y	6'-5"	6'-7"	6'-9"	6'-11"	7'-1"			
YD³ CLASS AA CONCRETE/FT	2.422	2.594	2.769	2.945	3.123			
LB BAR REINF STEEL/FT	190.9	217.8	311.1	389.6	416.4			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	8.7	8.9	9.0	9.2	9.4			
LB BAR REINF STEEL	1219	1218	1218	1217	1217			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	9.1	9.2	9.4	9.6	9.7			
LB BAR REINF STEEL	1523	1525	1527	1528	1530			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	10.1	10.3	10.5	10.7	10.9			
LB BAR REINF STEEL	1616	1618	1620	1623	1625			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	12.5	12.7	12.9	13.1	13.4			
LB BAR REINF STEEL	1838	1842	1846	1849	1853			

DOUBLE 9'-0" X 5'-0" BOX CULVERT								
BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS								
DESIGN	1	2	3	4	5	6	7	8
BAR A	523A @ 12"	444A @ 6"	448A @ 6"	527A @ 6"	530A @ 6"			
BAR B	466 @ 6"	555 @ 6"	630 @ 6"	725 @ 6"	805 @ 6"			
BAR C	480 @ 6"	742 @ 12"	570 @ 6"	642 @ 6"	643 @ 6"			
BAR E	428 @ 12"	429 @ 12"	431 @ 12"	432 @ 12"	434 @ 12"			
BAR F	428 @ 12"	429 @ 12"	431 @ 12"	432 @ 12"	434 @ 12"			
BAR G IN 2 SLABS	64 - 401	64 - 401	64 - 401	64 - 401	64 - 401			
BAR H IN 3 WALLS	20 - 402	20 - 402	20 - 402	20 - 402	20 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-429B @ 11¼"			
BAR J IN INT. CORNER	0	0	3-425B @ 10¼"	4-428B @ 10¾"	5-432B @ 9¼"			
T ₁	14"	15"	16"	17"	18"			
T ₂	15"	16"	17"	18"	19"			
T ₃	14"	15"	16"	17"	18"			
X	21'-4"	21'-6"	21'-8"	21'-10"	22'-0"			
Y	7'-5"	7'-7"	7'-9"	7'-11"	8'-1"			
YD³ CLASS AA CONCRETE/FT	2.545	2.724	2.904	3.087	3.272			
LB BAR REINF STEEL/FT	198.7	256.9	301.8	402.0	458.0			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	9.0	9.1	9.3	9.5	9.7			
LB BAR REINF STEEL	1243	1242	1242	1241	1241			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	9.3	9.5	9.7	9.9	10.0			
LB BAR REINF STEEL	1548	1549	1551	1553	1555			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	10.4	10.6	10.8	11.0	11.2			
LB BAR REINF STEEL	1641	1643	1645	1648	1650			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	12.8	13.1	13.3	13.5	13.8			
LB BAR REINF STEEL	1864	1867	1871	1875	1879			

DOUBLE 9'-0" X 6'-0" BOX CULVERT								
BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS								
DESIGN	1	2	3	4	5	6	7	8
BAR A	531A @ 12"	457A @ 6"	459A @ 6"	539A @ 6"	541A @ 6"			
BAR B	464 @ 6"	554 @ 6"	629 @ 6"	723 @ 6"	805 @ 6"			
BAR C	480 @ 6"	742 @ 12"	570 @ 6"	642 @ 6"	643 @ 6"			
BAR E	437 @ 12"	438 @ 12"	440 @ 12"	441 @ 12"	442 @ 12"			
BAR F	437 @ 12"	438 @ 12"	440 @ 12"	441 @ 12"	442 @ 12"			
BAR G IN 2 SLABS	64 - 401	64 - 401	64 - 401	64 - 401	64 - 401			
BAR H IN 3 WALLS	26 - 402	26 - 402	26 - 402	26 - 402	26 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-429B @ 11¼"			
BAR J IN INT. CORNER	0	0	3-425B @ 10¼"	4-426B @ 10¾"	5-432B @ 9"			
T ₁	14"	15"	16"	17"	18"			
T ₂	15"	16"	17"	18"	19"			
T ₃	14"	15"	16"	17"	18"			
X	21'-4"	21'-6"	21'-8"	21'-10"	22'-0"			
Y	8'-5"	8'-7"	8'-9"	8'-11"	9'-1"			
YD³ CLASS AA CONCRETE/FT	2.669	2.853	3.040	3.229	3.420			
LB BAR REINF STEEL/FT	208.7	268.7	313.3	415.7	473.0			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	9.2	9.4	9.6	9.8	10.0			
LB BAR REINF STEEL	1293	1292	1292	1291	1291			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	9.6	9.8	10.0	10.2	10.3			
LB BAR REINF STEEL	1599	1601	1603	1604	1606			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	10.7	10.9	11.1	11.3	11.5			
LB BAR REINF STEEL	1693	1695	1698	1700	1703			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD³ CLASS AA CONCRETE	13.2	13.4	13.7	13.9	14.2			
LB BAR REINF STEEL	1918	1922	1926	1929	1933			

		DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
		REVISION	STANDARD REINFORCED CONCRETE DOUBLE BOX CULVERT 9'X4', 9'X5' AND 9'X6' NO SCALE SEPTEMBER 2017	
	BY	DES. YSK. DRW. FGS. TRA. _____ CHK. JWB.	(SUBMITTED) <i>B. A. Ste...</i> STATE DESIGN POLICY ENGINEER (APPROVED) <i>Margaret B. Pivelo</i> CHIEF ENGINEER	NUMBER 2402 SHEET 2-J OF 3