| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| GA. | EDF-017-3(39) | 119 | 194 |

# APRON QUANTITIES FOR CONCRETE BOX CULVERTS

| S | H | SINGLE - 90° W (FT.) | SINGLE - 90° CU. YDS. CONC. | SINGLE - 90° LBS STEEL | SINGLE - 75° W (FT.) | SINGLE - 75° CU. YDS. CONC. | SINGLE - 75° LBS. STEEL | SINGLE - 60° W (FT.) | SINGLE - 60° CU. YDS. CONC. | SINGLE - 60° LBS. STEEL | SINGLE - 45° W (FT.) | SINGLE - 45° CU. YDS CONC. | SINGLE - 45° LBS STEEL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4' | 4 | 13.183 | 1.70 | 138 | 14.468 | 1.91 | 155 | 16.469 | 2.28 | 183 | 23.238 | 3.17 | 249 |
| | 5 | 15.000 | 2.23 | 173 | 16.458 | 2.49 | 193 | 19.025 | 2.96 | 228 | 25.958 | 3.97 | 300 |
| | 6 | 16.733 | 2.57 | 202 | 18.318 | 2.86 | 226 | 21.091 | 3.47 | 271 | 29.387 | 4.72 | 364 |
| 5' | 4 | 14.183 | 1.89 | 152 | 15.502 | 2.11 | 169 | 17.616 | 2.52 | 200 | 24.648 | 3.46 | 271 |
| | 5 | 15.983 | 2.34 | 185 | 17.407 | 2.62 | 207 | 20.171 | 3.19 | 249 | 28.002 | 4.31 | 333 |
| | 6 | 17.733 | 2.80 | 219 | 19.353 | 3.12 | 244 | 22.236 | 3.77 | 293 | 30.798 | 5.08 | 390 |
| 6' | 4 | 15.183 | 2.09 | 166 | 16.537 | 2.32 | 184 | 18.763 | 2.77 | 218 | 26.060 | 3.76 | 292 |
| | 5 | 16.883 | 2.55 | 200 | 18.521 | 2.84 | 223 | 21.318 | 3.46 | 269 | 29.414 | [illegible] | 357 |
| | 6 | 18.783 | 3.05 | 236 | 20.388 | 3.37 | 262 | 23.382 | 4.08 | 315 | 32.209 | 5.44 | 416 |
| 7' | 4 | 17.933 | 2.75 | 215 | 18.173 | 2.69 | 211 | 21.285 | 5.36 | 261 | 29.037 | 4.44 | 341 |
| | 5 | 19.733 | 3.28 | 253 | 20.158 | 3.25 | 253 | 23.447 | 4.03 | 310 | 31.943 | 5.30 | 405 |
| | 6 | 21.533 | 3.84 | 295 | 21.845 | 3.75 | 289 | 25.414 | 4.63 | 355 | 34.627 | 6.07 | 463 |
| | 7 | 23.333 | 4.44 | 335 | 24.551 | 4.64 | 355 | 26.559 | 5.73 | 436 | 39.099 | 7.55 | 572 |
| 8' | 4 | 18.933 | 2.87 | 230 | 19.450 | 2.96 | 231 | 22.431 | 3.62 | 280 | 31.463 | 4.96 | 379 |
| | 5 | 20.733 | 3.51 | 270 | 21.374 | 3.54 | 273 | 24.987 | 4.41 | 338 | 33.802 | 5.74 | 437 |
| | 6 | 22.533 | 4.10 | 314 | 23.299 | 4.16 | 319 | 27.149 | 5.17 | 394 | 36.709 | 6.71 | 509 |
| | 7 | 24.333 | 4.72 | 360 | 25.830 | 5.00 | 381 | 30.101 | 6.19 | 470 | 40.959 | 8.08 | 610 |
| | 8 | 26.133 | 5.39 | 409 | 27.752 | 5.72 | 434 | 32.262 | 7.07 | 535 | 43.865 | 9.21 | 693 |
| 9' | 4 | 20.533 | 3.36 | 259 | 20.904 | 3.31 | 256 | 24.170 | 4.08 | 314 | 32.978 | 5.39 | 411 |
| | 5 | 22.333 | 3.95 | 302 | 22.409 | 3.78 | 290 | 26.133 | 4.70 | 359 | 35.214 | 6.08 | 462 |
| | 6 | 24.133 | 4.57 | 348 | 24.514 | 4.47 | 342 | 28.296 | 5.49 | 417 | 38.568 | 7.20 | 544 |
| | 7 | 25.933 | 5.23 | 396 | 27.048 | 5.34 | 406 | 31.246 | 6.55 | 496 | 42.819 | 8.62 | 649 |
| | 8 | 27.733 | 5.93 | 448 | 28.970 | 6.09 | 461 | 33.407 | 7.46 | 562 | 45.724 | 9.79 | 735 |
| | 9 | 28.933 | 6.42 | 484 | 31.516 | 7.06 | 532 | 36.737 | 8.73 | 656 | 48.818 | 11.01 | 824 |
| | 10 | 31.033 | 7.32 | 550 | 33.435 | 7.91 | 595 | 39.297 | 9.89 | 742 | 51.724 | 12.32 | 921 |
| 10' | 4 | 22.133 | 3.78 | 290 | 22.542 | 3.73 | 287 | 25.976 | 4.59 | 350 | 34.468 | 5.83 | 442 |
| | 5 | 23.933 | 4.40 | 335 | 24.349 | 4.35 | 332 | 28.141 | 5.37 | 408 | 37.868 | 6.97 | 526 |
| | 6 | 25.733 | 5.06 | 383 | 26.272 | 4.99 | 380 | 30.101 | 6.08 | 460 | 40.502 | 7.83 | 590 |
| | 7 | 26.933 | 5.52 | 417 | 28.805 | 5.92 | 448 | 33.047 | 7.20 | 543 | 44.750 | 9.32 | 700 |
| | 8 | 28.733 | 6.24 | 470 | 30.606 | 6.67 | 503 | 35.603 | 8.27 | 622 | 47.657 | 10.54 | 789 |
| | 9 | 30.533 | 7.01 | 526 | 32.172 | 7.15 | 538 | 37.176 | 8.99 | 674 | 50.340 | 11.61 | 868 |
| | 10 | 32.333 | 7.81 | 565 | 34.108 | 8.11 | 609 | 39.145 | 9.86 | 738 | 53.024 | 12.73 | 950 |
| | 11 | 34.133 | 8.65 | 647 | 35.906 | 8.98 | 673 | 41.703 | 11.10 | 829 | 55.93 | 14.14 | 1053 |
| | 12 | 35.933 | 8.54 | 712 | 37.707 | 9.88 | 739 | 45.865 | 12.25 | 914 | 58.837 | 15.61 | 1161 |

| S | H | DOUBLE - 90° W (FT.) | DOUBLE - 90° CU. YDS CONC. | DOUBLE - 90° LBS. STEEL | DOUBLE - 75° W (FT.) | DOUBLE - 75° CU. YDS. CONC. | DOUBLE - 75° LBS. STEEL | DOUBLE - 60° W (FT.) | DOUBLE - 60° CU. YDS. CONC. | DOUBLE - 60° LBS STEEL | DOUBLE - 45° W (FT.) | DOUBLE - 45° CU. YDS CONC. | DOUBLE - 45° LBS STEEL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4' | 4 | 17.800 | 2.59 | 202 | 19.297 | 2.67 | 223 | 21.828 | 3.42 | 264 | 29.85 | 4.67 | 351 |
| | 5 | 19.60 | 3.16 | 243 | 21.28 | 3.51 | 270 | 24.38 | 4.26 | 327 | 33.25 | 5.45 | 408 |
| | 6 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 5' | 4 | 19.800 | 2.97 | 230 | 21.366 | 3.28 | 253 | 24.129 | 3.91 | 299 | 32.649 | 5.13 | 390 |
| | 5 | 21.600 | 3.54 | 271 | 23.352 | 3.92 | 300 | 26.678 | 4.75 | 362 | 36.003 | 6.19 | 468 |
| | 6 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 6' | 4 | 21.800 | 3.35 | 257 | 23.436 | 3.69 | 282 | 26.431 | 4.40 | 335 | 35.474 | 5.72 | 433 |
| | 5 | 23.683 | 3.98 | 303 | 25.508 | 4.40 | 334 | 29.074 | 5.33 | 404 | 38.945 | 6.88 | 518 |
| | 6 | 25.483 | 4.63 | 351 | 27.373 | 5.07 | 384 | 31.134 | 6.13 | 462 | 41.740 | 7.88 | 592 |
| 7' | 4 | 25.766 | 4.43 | 335 | 26.280 | 4.36 | 331 | 30.281 | 5.39 | 407 | 40.097 | 6.86 | 516 |
| | 5 | 27.566 | 5.13 | 387 | 28.266 | 5.11 | 386 | 32.447 | 6.29 | 473 | 43.006 | 7.99 | 598 |
| | 6 | 29.366 | 5.87 | 441 | 29.950 | 5.76 | 434 | 34.403 | 7.08 | 531 | 45.686 | 8.98 | 672 |
| | 7 | 31.166 | 6.64 | 498 | 32.658 | 6.91 | 518 | 37.547 | 8.51 | 636 | 50.158 | 10.64 | 808 |
| 8' | 4 | 27.766 | 4.86 | 366 | 28.590 | 4.86 | 367 | 32.583 | 5.91 | 445 | 43.366 | 7.60 | 569 |
| | 5 | 29.566 | 5.60 | 420 | 30.516 | 5.65 | 425 | 35.131 | 7.00 | 524 | 46.275 | 8.80 | 657 |
| | 6 | 31.366 | 6.38 | 478 | 32.442 | 6.48 | 486 | 37.297 | 8.01 | 598 | 49.185 | 10.07 | 750 |
| | 7 | 33.166 | 7.21 | 538 | 34.970 | 7.58 | 567 | 40.232 | 9.36 | 698 | 53.428 | 11.82 | 879 |
| | 8 | 35.133 | 8.12 | 605 | 37.067 | 8.56 | 639 | 42.589 | 10.56 | 785 | 56.575 | 13.32 | 989 |
| 9' | 4 | 30.366 | 5.54 | 416 | 31.082 | 5.49 | 412 | 35.481 | 6.72 | 503 | 46.865 | 8.56 | 638 |
| | 5 | 32.166 | 6.34 | 474 | 32.586 | 6.13 | 459 | 37.432 | 7.58 | 566 | 49.101 | 9.49 | 707 |
| | 6 | 33.966 | 7.18 | 536 | 34.692 | 7.07 | 529 | 39.598 | 8.65 | 645 | 52.455 | 10.97 | 815 |
| | 7 | 35.766 | 8.06 | 600 | 37.221 | 8.23 | 614 | 42.531 | 10.07 | 749 | 56.698 | 12.81 | 950 |
| | 8 | 37.733 | 9.04 | 671 | 39.318 | 9.27 | 690 | 44.888 | 11.33 | 841 | 59.843 | 14.39 | 1066 |
| | 9 | 38.933 | 9.68 | 718 | 41.856 | 10.52 | 781 | 48.182 | 12.99 | 963 | 62.934 | 15.94 | 1179 |
| | 10 | 41.033 | 10.84 | 803 | 43.777 | 11.60 | 861 | 50.737 | 14.48 | 1072 | 65.843 | 17.58 | 1299 |
| 10' | 4 | 32.966 | 6.26 | 468 | 33.756 | 6.21 | 465 | 38.445 | 7.59 | 566 | 49.778 | 9.38 | 697 |
| | 5 | 34.766 | 7.12 | 531 | 35.564 | 7.07 | 529 | 40.612 | 8.69 | 647 | 53.178 | 10.92 | 810 |
| | 6 | 36.566 | 8.02 | 596 | 37.485 | 7.95 | 592 | 42.56 | 9.66 | 718 | 55.804 | 12.18 | 866 |
| | 7 | 37.766 | 8.64 | 642 | 40.013 | 9.19 | 683 | 45.489 | 11.18 | 829 | 60.047 | 14.03 | 1038 |
| | 8 | 39.733 | 9.66 | 716 | 41.990 | 10.24 | 760 | 48.231 | 12.68 | 938 | 63.193 | 15.69 | 1159 |
| | 9 | 41.533 | 10.67 | 789 | 43.555 | 11.09 | 822 | 49.803 | 13.61 | 1007 | 65.873 | 17.06 | 1260 |
| | 10 | 43.333 | 11.72 | 866 | 45.485 | 12.13 | 898 | 51.761 | 14.75 | 1090 | 68.554 | 18.49 | 1364 |
| | 11 | 45.133 | 12.80 | 945 | 47.287 | 13.25 | 980 | 54.314 | 16.35 | 1207 | 71.463 | 20.26 | 1494 |
| | 12 | 46.933 | 13.93 | 1028 | 49.090 | 14.40 | 1064 | 56.478 | 17.83 | 1315 | 74.372 | 22.11 | 1628 |

| S | H | TRIPLE - 90° W (FT.) | TRIPLE - 90° CU. YDS CONC. | TRIPLE - 90° LBS STEEL | TRIPLE - 75° W (FT.) | TRIPLE - 75° CU. YDS CONC. | TRIPLE - 75° LBS. STEEL | TRIPLE - 60° W (FT.) | TRIPLE - 60° CU. YDS. CONC. | TRIPLE - 60° LBS STEEL | TRIPLE - 45° W (FT) | TRIPLE - 45° CU. YDS CONC. | TRIPLE - 45° LBS. STEEL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4' | 4 | 22.466 | 3.48 | 266 | 24.125 | 3.83 | 292 | 27.198 | 4.56 | 346 | 36.415 | 5.92 | 447 |
| | 5 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | 6 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 5' | 4 | 25.466 | 4.06 | 308 | 27.230 | 4.44 | 337 | 30.654 | 5.29 | 399 | 40.654 | 6.80 | 510 |
| | 5 | 27.266 | 4.75 | 358 | 29.216 | 5.22 | 394 | 33.198 | 6.32 | 475 | 44.007 | 8.06 | 603 |
| | 6 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 6' | 4 | 28.466 | 4.63 | 349 | 30.336 | 5.06 | 381 | 34.111 | 6.02 | 451 | 44.893 | 7.69 | 574 |
| | 5 | 30.433 | 5.43 | 407 | 32.495 | 5.95 | 446 | 36.846 | 7.20 | 538 | 48.483 | 9.11 | 679 |
| | 6 | 32.233 | 6.23 | 466 | 34.360 | 6.77 | 506 | 38.903 | 8.17 | 609 | 51.277 | 10.33 | 767 |
| 7' | 4 | 33.600 | 6.11 | 456 | 34.388 | 6.03 | 451 | 39.301 | 7.43 | 554 | 51.165 | 9.29 | 690 |
| | 5 | 35.400 | 6.98 | 520 | 36.374 | 6.97 | 520 | 41.468 | 8.55 | 636 | 54.076 | 10.68 | 792 |
| | 6 | 37.200 | 7.89 | 586 | 38.058 | 7.77 | 579 | 43.416 | 9.54 | 708 | 56.754 | 11.89 | 881 |
| | 7 | 39.000 | 8.84 | 656 | 40.765 | 9.18 | 682 | 46.558 | 11.29 | 836 | 61.225 | 14.13 | 1045 |
| 8' | 4 | 36.600 | 6.75 | 502 | 37.733 | 6.76 | 504 | 42.758 | 8.21 | 610 | 55.847 | 10.37 | 768 |
| | 5 | 38.400 | 7.69 | 571 | 39.659 | 7.76 | 577 | 45.301 | 9.58 | 717 | 58.758 | 11.86 | 877 |
| | 6 | 40.200 | 8.67 | 642 | 41.586 | 8.80 | 653 | 47.468 | 10.85 | 803 | 61.669 | 13.43 | 991 |
| | 7 | 42.000 | 9.69 | 716 | 41.111 | 9.98 | 740 | 50.392 | 12.52 | 925 | 65.907 | 15.56 | 1148 |
| | 8 | 44.133 | 10.85 | 801 | 46.382 | 11.41 | 843 | 52.942 | 14.04 | 1036 | 69.288 | 17.44 | 1284 |
| 9' | 4 | 40.200 | 7.72 | 572 | 41.261 | 7.66 | 569 | 46.814 | 9.36 | 693 | 60.762 | 11.73 | 866 |
| | 5 | 42.000 | 8.74 | 647 | 42.765 | 8.48 | 628 | 48.757 | 10.46 | 773 | 62.998 | 12.90 | 952 |
| | 6 | 43.800 | 9.80 | 724 | 44.870 | 9.67 | 715 | 50.925 | 11.82 | 872 | 66.351 | 14.74 | 1086 |
| | 7 | 45.600 | 10.90 | 804 | 47.397 | 11.12 | 822 | 53.846 | 13.60 | 1003 | 70.589 | 17.01 | 1252 |
| | 8 | 47.733 | 12.14 | 895 | 49.668 | 12.45 | 918 | 56.396 | 15.21 | 1120 | 73.970 | 18.99 | 1397 |
| | 9 | 48.933 | 12.93 | 952 | 52.201 | 13.98 | 1030 | 59.666 | 17.25 | 1269 | 77.060 | 20.86 | 1533 |
| | 10 | 51.033 | 14.35 | 1055 | 54.124 | 15.30 | 1127 | 62.217 | 19.07 | 1402 | 79.970 | 22.84 | 1678 |
| 10' | 4 | 43.800 | 8.75 | 646 | 44.970 | 8.69 | 643 | 50.935 | 10.60 | 782 | 65.094 | 12.92 | 951 |
| | 5 | 45.600 | 9.84 | 726 | 46.779 | 9.79 | 723 | 53.102 | 12.02 | 885 | 68.494 | 14.88 | 1094 |
| | 6 | 47.400 | 10.98 | 809 | 48.698 | 10.91 | 805 | 55.043 | 13.25 | 975 | 71.121 | 16.31 | 1199 |
| | 7 | 48.600 | 11.76 | 866 | 51.225 | 12.47 | 919 | 57.961 | 15.16 | 1115 | 75.356 | 18.73 | 1377 |
| | 8 | 50.733 | 13.07 | 961 | 53.376 | 13.82 | 1017 | 60.889 | 17.08 | 1255 | 78.738 | 20.84 | 1530 |
| | 9 | 52.533 | 14.33 | 1053 | 54.940 | 14.87 | 1094 | 62.460 | 18.24 | 1340 | 81.415 | 22.52 | 1652 |
| | 10 | 54.333 | 15.62 | 1147 | 56.867 | 16.15 | 1188 | 64.411 | 19.65 | 1443 | 84.094 | 24.24 | 1778 |
| | 11 | 56.133 | 16.95 | 1244 | 58.671 | 17.52 | 1287 | 66.959 | 21.61 | 1585 | 87.004 | 26.38 | 1934 |
| | 12 | 57.933 | 18.33 | 1344 | 60.476 | 18.92 | 1389 | 69.125 | 23.40 | 1716 | 89.915 | 28.60 | 2095 |

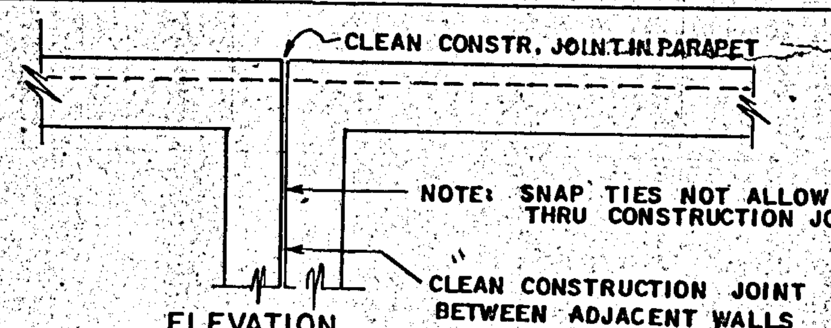
NOTE: THE QUANTITIES SHOWN ABOVE ARE FOR OUTLET END APRONS WITH BAFFLES. IF APRONS ARE NEEDED AT INLETS (NOT USUAL), REDUCE THE ABOVE QUANTITIES FOR NO BAFFLES AS FOLLOWS:
CONCRETE: REDUCE QUANTITY BY W x 0.0092 CU.YDS/FT.
STEEL: REDUCE QUANTITY BY W x 0.334 LBS/LIN.FT.

## GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD; CURRENT EDITION, AND SUPLEMENTS THERETO.
2. CONCRETE APRONS AND BAFFLES ARE REQUIRED AT ALL OUTLETS OF ALL BOX CULVERT DRAINS. APRON IS NOT TO BE OMITTED AT OUTLETS UNLESS THE ENGINEER DETERMINES THAT BED ROCK WILL PREVENT EROSION AND MAKE THE APRON DIFFICULT TO CONSTRUCT. APRONS (WITHOUT BAFFLES) ARE USED AT INLETS ONLY IF PLANS SPECIFY.
3. DETAILS HERESHOWN APPLY TO BOTH STANDARD AND SPECIAL DESIGN BOX CULVERTS, UNLESS OTHERWISE NOTED.
4. WHERE CONCRETE APRONS ARE REQUIRED, THE TOEWALL OF THE BOX CULVERT MAY BE REDUCED AS SHOWN IN SECTION B-B OR MAY BE AS SHOWN ON APPLICABLE STANDARDS FOR THE BOX CULVERTS. WHERE APRON IS NOT REQUIRED, DO NOT USE TOEWALL AS SHOWN IN SECTION B-B, BUT SEE BOX CULVERT STANDARD TOEWALL.
5. ALL CONCRETE SHALL BE CLASS A CONCRETE.

S = CLEAR SPAN OF BOX CULVERT (in Ft.)
H = CLEAR HEIGHT (RISE) OF BOX CULVERT (in Ft.)

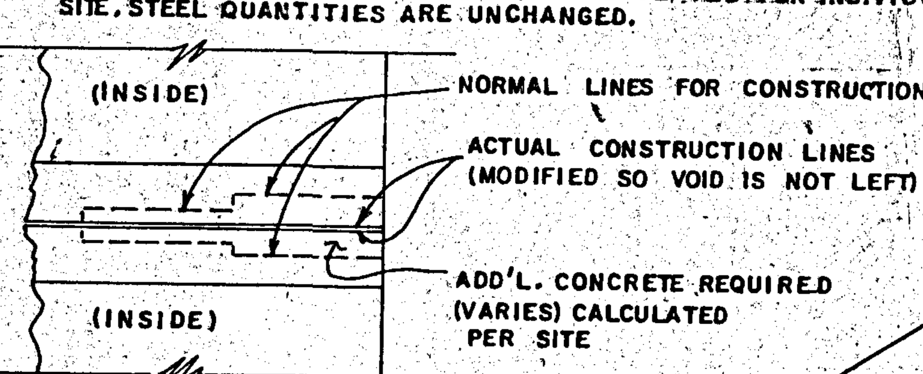
*NOTE:*
*SEE SEPARATE STANDARD DETAILS AND/OR SPECIAL DESIGNS AS APPLICABLE FOR DETAILS OF BOX CULVERTS, WINGWALLS, PARAPETS, ETC.*



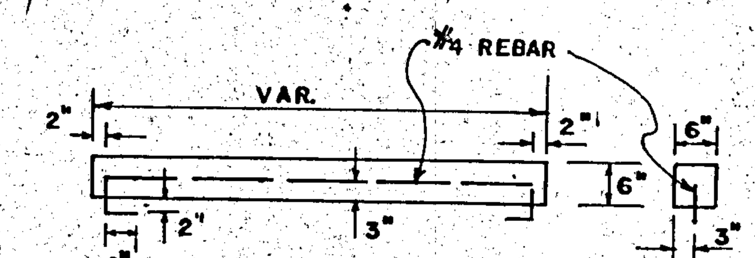

ELEVATION

## ADJACENT BOX CULVERT JOINT DETAIL

NOTE: (FOR DETAIL BELOW)
WHERE THE NORMAL OUTSIDE WALLS OF ADJACENT BOX CULVERTS ARE ABUTTING AND THE WALL THICKNESSES NORMALLY VARIES DUE TO INCREASING FILL HEIGHTS, THE MAXIMUM WALL THICKNESS (FOR THE HIGHEST FILL) IS TO BE MAINTAINED FOR THE ABUTTING WALLS FOR THE FULL LENGTH OF THE CULVERT WITH A CLEAN CONSTRUCTION JOINT BETWEEN THE TWO WALLS AS SHOWN. REINFORCING STEEL IS TO REMAIN THE SAME AS NORMAL WITH DIMENSIONS MEASURED FROM INSIDE OF CULVERT WALL. QUANTITY OF CONCRETE IS INCREASED DUE TO THIS CONSTRUCTION AND IS TO BE CALCULATED FOR INDIVIDUAL SITE. STEEL QUANTITIES ARE UNCHANGED.



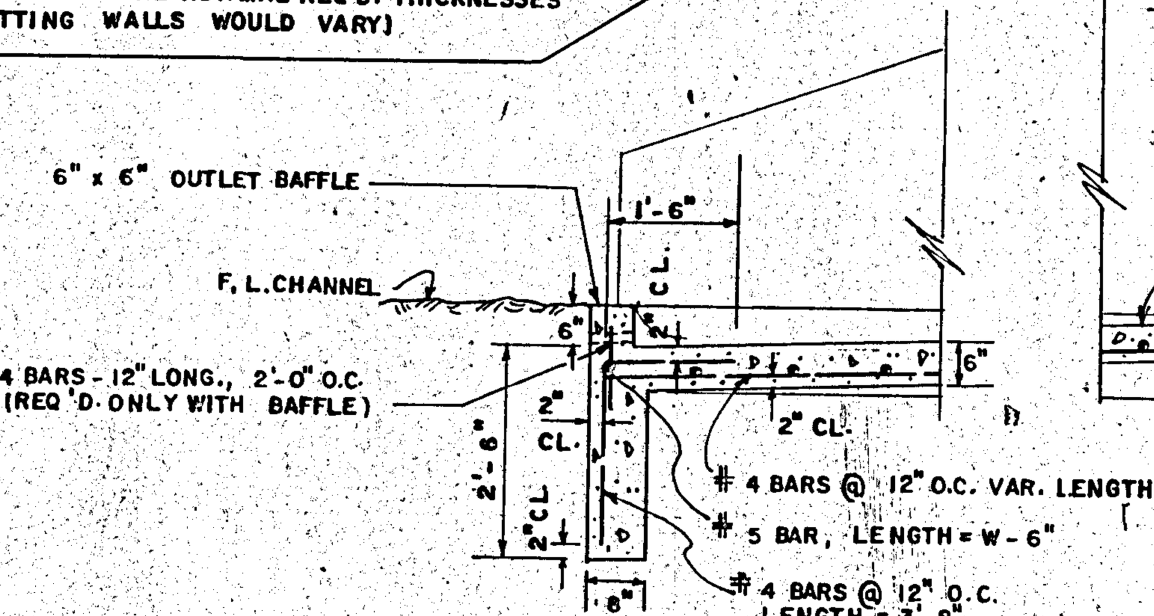

ABUTTING JOINT — TYPICAL PLAN VIEW
(APPLICABLE WHERE NORMAL REQ'D. THICKNESSES OF ABUTTING WALLS WOULD VARY)



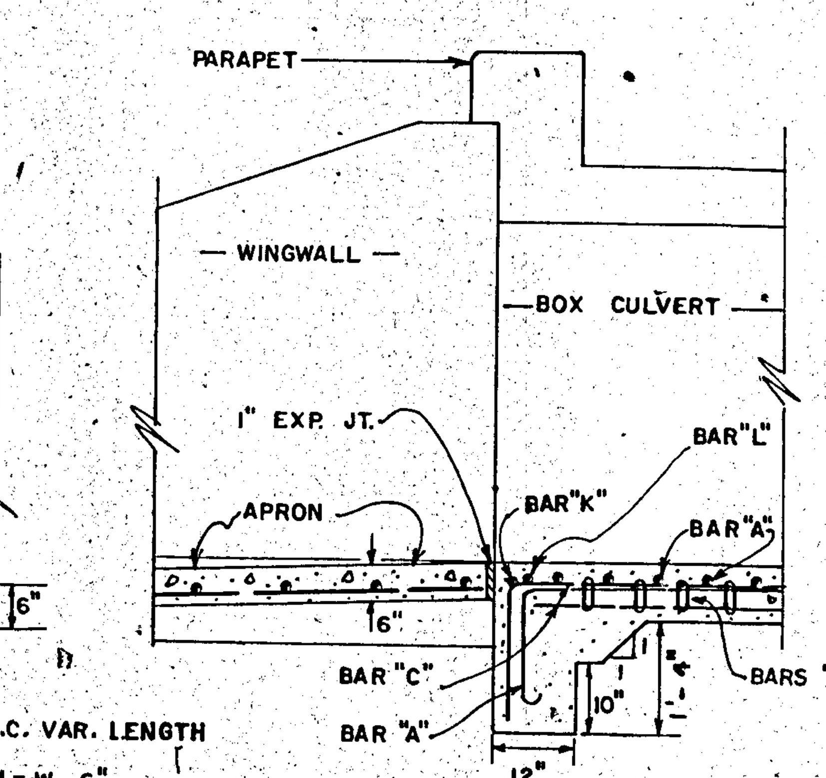

BAFFLE DETAIL

NOTE:
BAFFLES SHALL BE CONSTRUCTED FROM CLASS "A" CONCRETE AND MAY BE PRECAST OR POURED IN PLACE.

BAFFLES WILL BE USED ON APRONS AT OUTLETS OF PIPES AND BOX CULVERTS AND IN PAVED DITCHES OR ELSEWHERE AT LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

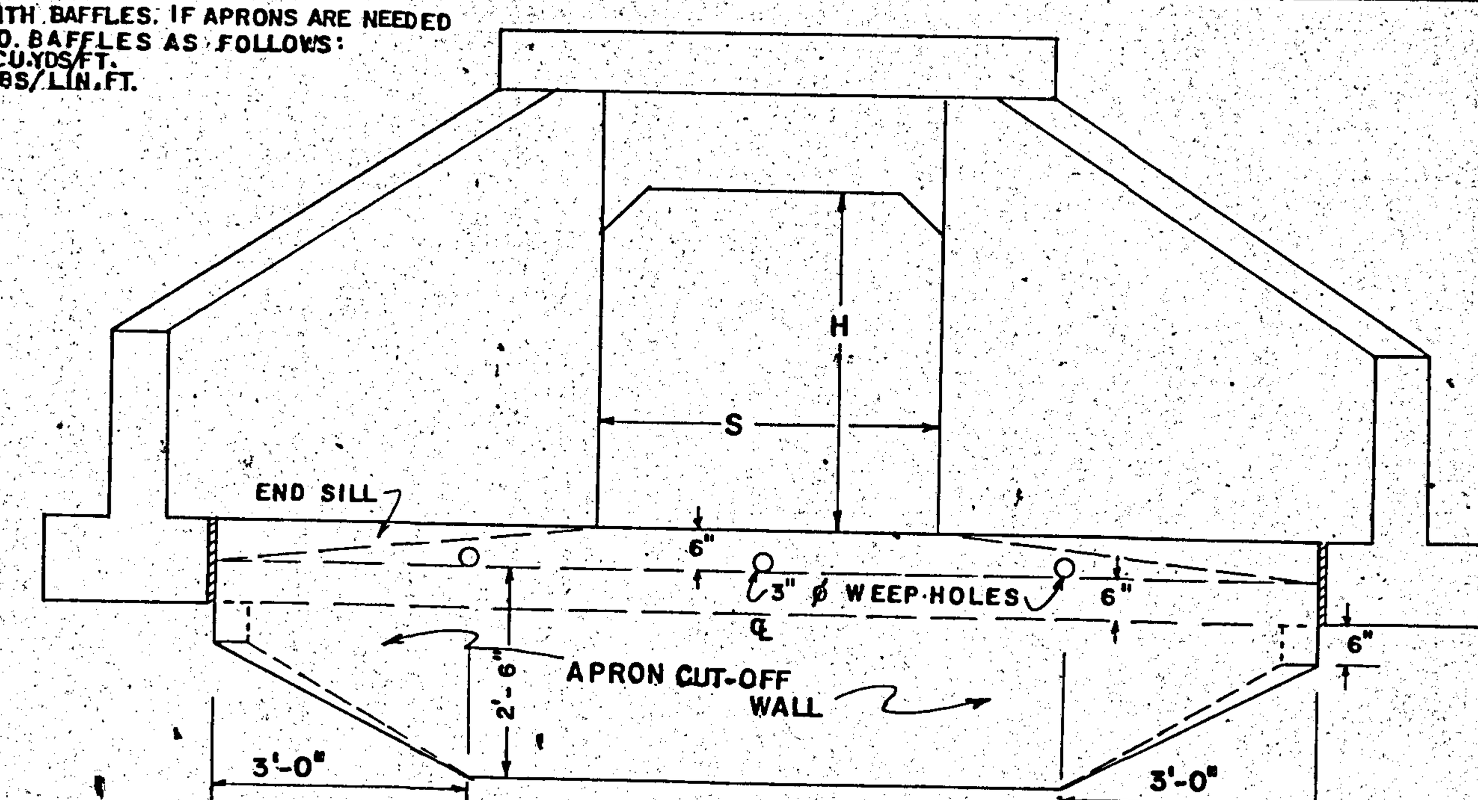



SECTION A-A

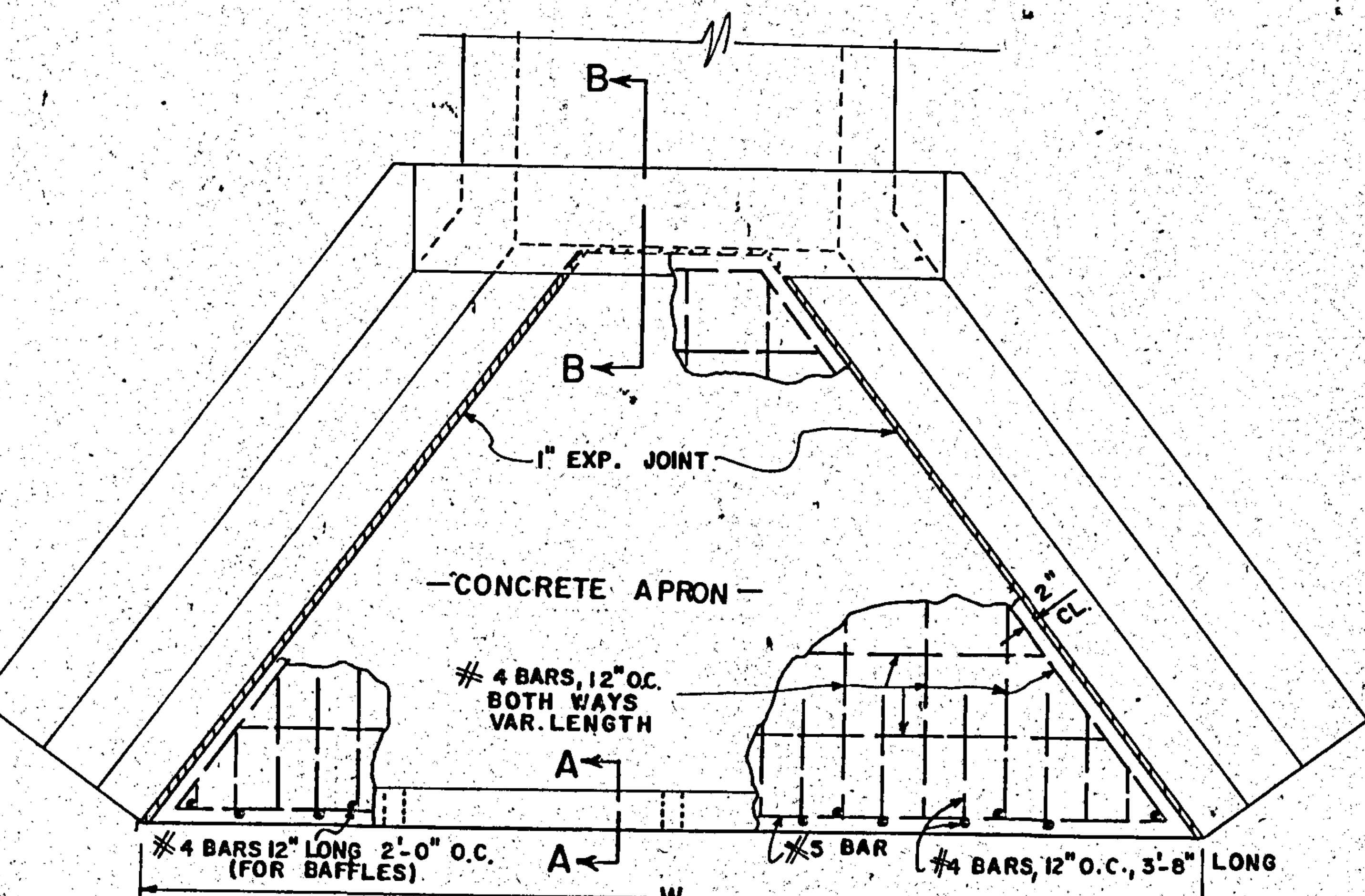



SECTION B-B (TYPICAL)
(SEE GENERAL NOTE NO. 4)

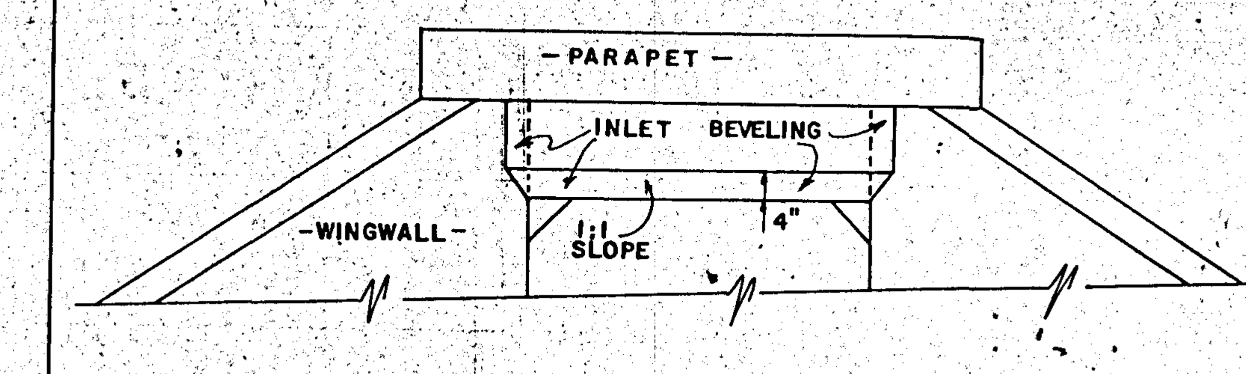
NOTE: SEE BOX CULVERT STANDARDS FOR DETAILS NOT SHOWN. K, L, & G BARS REQUIRED ONLY WHERE SPECIFIED. BAR "A" SHOWN BENT INTO CULVERT TOEWALL APPLIES TO SKEWS.



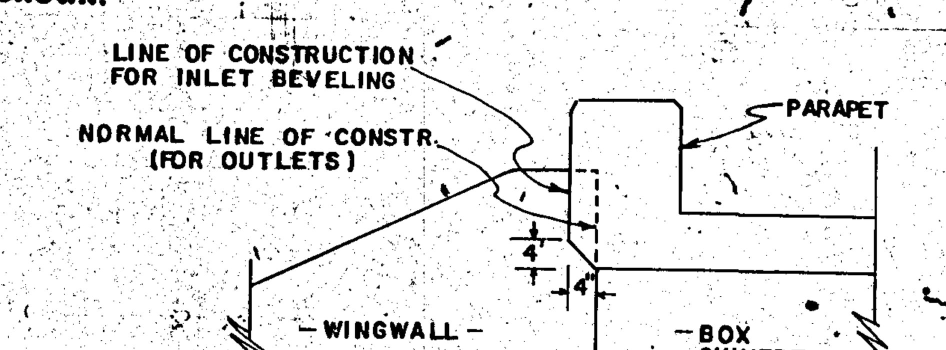

CONCRETE BOX CULVERT APRON — FRONT VIEW




PLAN VIEW OF APRON




NOTE: INLET BEVELING IS REQUIRED AT THE INLET OF ALL BOX CULVERTS EXTENDING FROM WINGWALL TO WINGWALL, AT TOP OF CULVERT AS SHOWN.




INLET BEVELING DETAIL

| | | |
|---|---|---|
| R.M.U. | ADD ABUTTING JT.-TYP. PLAN | 7-24-85 |
| RMU | ADD 4' x 5' QUANTITIES | 8-14-84 |

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

CONCRETE BOX CULVERT APRONS, BAFFLES, AND INLET BEVELING DETAIL & ADJACENT BOX CULVERTS JOINT DETAIL

NO SCALE — JULY, 1983

REV. RMU
TRA. GME
CHK. JMW
RKC

(SUBMITTED) Floyd E. Hardy
STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) Hal Rives
STATE HIGHWAY ENGINEER

NUMBER 2332

FORM EF00003