

| SPAN | | HIGHT | | REINFORCING STEEL | | | | | | | | | | | QUAN./LF | | HEADWALLS | | | | | | | | | | | | |
|-------|-------|-------|-------------|-------------------|-------------|-------------|-------------|-------------|--------------|-------------|-----------------|------|--------|--------------|--------------|-----------------------------------|---------------------------|-----------------------------|---------|---|------|-------|--------------|--------------|----------------------------|-------------------------------|-----------------------------|--------------------------------|----------|
| (FT.) | (FT.) | SIZE | SPACING C-C | BT I | | | | | | | | | LENGTH | NO. BL1 BARS | NO. BL2 BARS | REINFORCING STEEL (LBS./LONG. FT) | CONCRETE CLASS A4 (CY/LF) | REINFORCING STEEL (LBS./LF) | C | | HW I | | NO. HW2 BARS | NO. HW3 BARS | INLET CONCRETE CL. A4 (CY) | INLET REINFORCING STEEL (LBS) | OUTLET CONCRETE CL. A4 (CY) | OUTLET REINFORCING STEEL (LBS) | WINGWALL |
| | | | | a | b | c | d | e | f | g | HEADWALL LENGTH | SIZE | | | | | | | LENGTH | | | | | | | | | | |
| 3 | 3 | 4 | 12" | 2'- 8 3/4" | 0'- 4 3/4" | 1'- 6 3/8" | 0'- 6 1/4" | 0'- 4" | 14'- 11 7/8" | 1'- 5 5/8" | 15'- 10" | 60 | 20 | 57.160 | 1.306 | 152.476 | 16'- 10" | 6 | 16'- 6" | 3 | 12 | 2.215 | 137.876 | 2.184 | 99.132 | A | | | |
| 3 | 4 | 4 | 12" | 2'- 8 3/4" | 0'- 4 3/4" | 1'- 6 3/8" | 0'- 6 1/4" | 0'- 4" | 14'- 11 7/8" | 1'- 5 5/8" | 15'- 10" | 60 | 30 | 60.690 | 1.429 | 162.916 | 16'- 10" | 6 | 16'- 6" | 3 | 15 | 2.326 | 148.230 | 2.277 | 99.132 | C | | | |
| 4 | 3 | 4 | 12" | 3'- 5 1/4" | 0'- 7" | 1'- 9" | 0'- 9 3/8" | 0'- 6 1/4" | 19'- 0" | 1'- 10 1/2" | 20'- 3" | 76 | 20 | 70.520 | 1.777 | 172.071 | 20'- 10" | 6 | 20'- 6" | 3 | 12 | 2.545 | 161.908 | 2.527 | 123.164 | B | | | |
| 4 | 4 | 4 | 12" | 3'- 5 1/4" | 0'- 7" | 1'- 9" | 0'- 9 3/8" | 0'- 6 1/4" | 19'- 0" | 1'- 10 1/2" | 20'- 3" | 76 | 30 | 74.050 | 1.900 | 182.511 | 20'- 10" | 6 | 20'- 6" | 3 | 15 | 2.656 | 172.262 | 2.620 | 123.164 | D | | | |
| 4 | 5 | 4 | 12" | 3'- 5 1/8" | 0'- 7 1/4" | 1'- 8 3/4" | 0'- 9 3/4" | 0'- 6 1/2" | 19'- 0" | 1'- 10 1/4" | 20'- 4" | 76 | 40 | 77.580 | 2.052 | 193.062 | 20'- 10" | 6 | 20'- 6" | 3 | 18 | 2.757 | 182.616 | 2.703 | 123.164 | F | | | |
| 4 | 6 | 4 | 12" | 3'- 5 1/8" | 0'- 7 1/4" | 1'- 8 3/4" | 0'- 9 3/4" | 0'- 6 1/2" | 19'- 0" | 1'- 10 1/4" | 20'- 4" | 76 | 50 | 81.110 | 2.174 | 215.981 | 20'- 10" | 6 | 20'- 6" | 3 | 21 | 2.869 | 192.970 | 2.795 | 123.164 | H | | | |
| 5 | 3 | 4 | 10" | 4'- 1 7/8" | 0'- 9" | 1'- 11 3/4" | 1'- 1/4" | 0'- 8 1/4" | 23'- 0" | 2'- 3 3/4" | 24'- 9" | 92 | 20 | 83.880 | 2.321 | 223.017 | 24'- 10" | 6 | 24'- 6" | 3 | 12 | 2.814 | 185.940 | 2.809 | 147.196 | B | | | |
| 5 | 4 | 4 | 10" | 4'- 1 7/8" | 0'- 9" | 1'- 11 3/4" | 1'- 1/4" | 0'- 8 1/4" | 23'- 0" | 2'- 3 3/4" | 24'- 9" | 92 | 30 | 87.410 | 2.443 | 233.724 | 24'- 10" | 6 | 24'- 6" | 3 | 15 | 2.925 | 196.294 | 2.902 | 147.196 | D | | | |
| 5 | 5 | 4 | 10" | 4'- 1 7/8" | 0'- 9" | 1'- 11 3/4" | 1'- 1/4" | 0'- 8 1/4" | 23'- 0" | 2'- 3 3/4" | 24'- 9" | 92 | 40 | 90.940 | 2.566 | 244.431 | 24'- 10" | 6 | 24'- 6" | 3 | 18 | 3.036 | 206.648 | 2.995 | 147.196 | F | | | |
| 5 | 6 | 4 | 10" | 4'- 1 7/8" | 0'- 9" | 1'- 11 3/4" | 1'- 1/4" | 0'- 8 1/4" | 23'- 0" | 2'- 3 3/4" | 24'- 9" | 92 | 50 | 94.470 | 2.689 | 255.138 | 24'- 10" | 6 | 24'- 6" | 3 | 21 | 3.148 | 217.002 | 3.088 | 147.196 | H | | | |
| 5 | 7 | 4 | 10" | 4'- 1 7/8" | 0'- 9" | 1'- 11 3/4" | 1'- 1/4" | 0'- 8 1/4" | 23'- 0" | 2'- 3 3/4" | 24'- 9" | 92 | 60 | 98.000 | 2.810 | 287.246 | 24'- 10" | 6 | 24'- 6" | 3 | 24 | 3.259 | 227.356 | 3.180 | 147.196 | J | | | |
| 6 | 4 | 4 | 9" | 4'- 10 1/8" | 0'- 11 3/4" | 2'- 1 3/4" | 1'- 4 1/8" | 0'- 11" | 27'- 0" | 2'- 8 1/4" | 29'- 3" | 108 | 30 | 100.770 | 3.210 | 311.566 | 28'- 10" | 6 | 28'- 6" | 3 | 15 | 3.114 | 220.326 | 3.105 | 171.228 | E | | | |
| 6 | 5 | 4 | 9" | 4'- 10 1/8" | 0'- 11 3/4" | 2'- 1 3/4" | 1'- 4 1/8" | 0'- 11" | 27'- 0" | 2'- 8 1/4" | 29'- 3" | 108 | 40 | 104.300 | 3.333 | 322.452 | 28'- 10" | 6 | 28'- 6" | 3 | 18 | 3.226 | 230.680 | 3.198 | 171.228 | G | | | |
| 6 | 6 | 4 | 9" | 4'- 10 3/8" | 0'- 11 1/4" | 2'- 2 1/4" | 1'- 3 3/8" | 0'- 10 1/2" | 27'- 0" | 2'- 8 3/4" | 29'- 2" | 108 | 50 | 107.830 | 3.371 | 332.298 | 28'- 10" | 6 | 28'- 6" | 3 | 21 | 3.351 | 241.034 | 3.304 | 171.228 | H | | | |
| 6 | 7 | 4 | 9" | 4'- 10 3/8" | 0'- 11 1/4" | 2'- 2 1/4" | 1'- 3 3/8" | 0'- 10 1/2" | 27'- 0" | 2'- 8 3/4" | 29'- 2" | 108 | 60 | 111.360 | 3.492 | 362.212 | 28'- 10" | 6 | 28'- 6" | 3 | 24 | 3.462 | 251.388 | 3.397 | 171.228 | J | | | |
| 6 | 8 | 4 | 9" | 4'- 10 3/8" | 0'- 11 1/4" | 2'- 2 1/4" | 1'- 3 3/8" | 0'- 10 1/2" | 27'- 0" | 2'- 8 3/4" | 29'- 2" | 108 | 70 | 114.890 | 3.614 | 385.859 | 28'- 10" | 6 | 28'- 6" | 3 | 27 | 3.574 | 261.742 | 3.490 | 171.228 | L | | | |
| 7 | 4 | 5 | 9" | 5'- 7" | 1'- 1 3/8" | 2'- 5 1/8" | 1'- 6 1/4" | 1'- 1/2" | 31'- 1 1/8" | 3'- 1 1/8" | 33'- 6" | 124 | 30 | 114.130 | 3.871 | 387.079 | 32'- 10" | 6 | 32'- 6" | 3 | 15 | 3.314 | 244.358 | 3.318 | 195.260 | E | | | |
| 7 | 6 | 5 | 9" | 5'- 6 7/8" | 1'- 1 5/8" | 2'- 4 7/8" | 1'- 6 5/8" | 1'- 3/4" | 31'- 1 1/8" | 3'- 1 5/8" | 33'- 7" | 124 | 50 | 121.190 | 4.162 | 440.183 | 32'- 10" | 6 | 32'- 6" | 3 | 21 | 3.517 | 265.066 | 3.484 | 195.260 | I | | | |
| 7 | 8 | 4 | 9" | 5'- 6 7/8" | 1'- 1 1/2" | 2'- 4 7/8" | 1'- 6 5/8" | 1'- 3/4" | 31'- 1 1/8" | 3'- 1 5/8" | 33'- 8" | 124 | 70 | 128.250 | 4.407 | 465.344 | 32'- 10" | 6 | 32'- 6" | 3 | 27 | 3.740 | 285.774 | 3.669 | 195.260 | M | | | |
| 7 | 10 | 4 | 9" | 5'- 7 3/4" | 1'- 1 3/4" | 2'- 4 5/8" | 1'- 6 7/8" | 1'- 1" | 31'- 2 1/8" | 3'- 1 3/8" | 33'- 10" | 124 | 90 | 135.310 | 4.778 | 516.944 | 32'- 10" | 6 | 32'- 6" | 3 | 33 | 3.865 | 306.482 | 3.756 | 195.260 | Q | | | |
| 8 | 4 | 5 | 9" | 6'- 3 1/4" | 1'- 3 3/8" | 2'- 7 3/8" | 1'- 9 3/8" | 1'- 3" | 34'- 11 7/8" | 3'- 6 5/8" | 38'- 1" | 140 | 30 | 127.490 | 4.821 | 506.214 | 36'- 10" | 6 | 36'- 6" | 3 | 15 | 3.387 | 268.390 | 3.404 | 219.292 | E | | | |
| 8 | 6 | 5 | 9" | 6'- 3 1/4" | 1'- 3 3/8" | 2'- 7 3/8" | 1'- 9 3/8" | 1'- 3" | 34'- 11 7/8" | 3'- 6 5/8" | 38'- 1" | 140 | 50 | 134.550 | 5.066 | 530.661 | 36'- 10" | 6 | 36'- 6" | 3 | 21 | 3.609 | 289.098 | 3.589 | 219.292 | I | | | |
| 8 | 8 | 5 | 8" | 6'- 3 1/4" | 1'- 3 7/8" | 2'- 7 3/8" | 1'- 9 3/8" | 1'- 3" | 34'- 11 7/8" | 3'- 6 5/8" | 38'- 1" | 140 | 70 | 141.610 | 5.309 | 584.209 | 36'- 10" | 6 | 36'- 6" | 3 | 27 | 3.832 | 309.806 | 3.775 | 219.292 | M | | | |
| 8 | 10 | 5 | 8" | 6'- 4 1/4" | 1'- 3 7/8" | 2'- 7 3/8" | 1'- 9 3/8" | 1'- 3" | 35'- 1 7/8" | 3'- 6 5/8" | 38'- 3" | 140 | 90 | 148.670 | 5.632 | 649.467 | 36'- 10" | 6 | 36'- 6" | 3 | 33 | 3.974 | 330.514 | 3.878 | 219.292 | Q | | | |
| 9 | 4 | 6 | 9" | 6'- 11 3/4" | 1'- 6 1/4" | 2'- 10" | 2'- 1 1/8" | 1'- 5 1/4" | 39'- 0" | 3'- 11 1/2" | 42'- 6" | 156 | 30 | 140.850 | 5.831 | 658.465 | 40'- 10" | 6 | 40'- 6" | 3 | 15 | 3.442 | 292.422 | 3.472 | 243.324 | F | | | |
| 9 | 6 | 5 | 9" | 6'- 11 3/4" | 1'- 6 1/8" | 2'- 10" | 2'- 1" | 1'- 5 1/4" | 39'- 0" | 3'- 11 1/2" | 42'- 6" | 156 | 50 | 147.910 | 6.080 | 631.585 | 40'- 10" | 6 | 40'- 6" | 3 | 21 | 3.665 | 313.130 | 3.658 | 243.324 | J | | | |
| 9 | 8 | 5 | 9" | 6'- 11 3/4" | 1'- 6 1/8" | 2'- 10" | 2'- 1" | 1'- 5 1/4" | 39'- 0" | 3'- 11 1/2" | 42'- 6" | 156 | 70 | 154.970 | 6.322 | 691.631 | 40'- 10" | 6 | 40'- 6" | 3 | 27 | 3.887 | 333.838 | 3.843 | 243.324 | N | | | |
| 9 | 10 | 5 | 9" | 7'- 3 1/4" | 1'- 6 1/8" | 2'- 10" | 2'- 1" | 1'- 5 1/4" | 39'- 2" | 3'- 11 1/2" | 42'- 8" | 156 | 90 | 162.030 | 6.648 | 760.570 | 40'- 10" | 6 | 40'- 6" | 3 | 33 | 4.027 | 354.546 | 3.945 | 243.324 | R | | | |
| 9 | 12 | 5 | 9" | 7'- 2 1/4" | 1'- 6 1/8" | 2'- 10" | 2'- 1" | 1'- 5 1/4" | 39'- 5" | 3'- 11 1/2" | 42'- 11" | 156 | 110 | 169.090 | 7.047 | 821.986 | 40'- 10" | 6 | 40'- 6" | 3 | 39 | 4.094 | 375.254 | 3.973 | 243.324 | V | | | |
| 10 | 4 | 6 | 9" | 7'- 8 3/8" | 1'- 8 1/4" | 3'- 3 1/4" | 2'- 4" | 1'- 7 1/4" | 43'- 0" | 4'- 4 3/4" | 46'- 11" | 172 | 30 | 154.210 | 6.892 | 722.373 | 44'- 10" | 6 | 44'- 6" | 3 | 15 | 3.452 | 316.454 | 3.495 | 267.356 | F | | | |
| 10 | 6 | 6 | 9" | 7'- 8 3/8" | 1'- 8 1/4" | 3'- 3 1/4" | 2'- 4" | 1'- 7 1/4" | 43'- 0" | 4'- 4 3/4" | 46'- 11" | 172 | 50 | 161.270 | 7.137 | 746.388 | 44'- 10" | 6 | 44'- 6" | 3 | 21 | 3.674 | 337.162 | 3.681 | 267.356 | J | | | |
| 10 | 8 | 6 | 9" | 7'- 8 3/8" | 1'- 8 1/4" | 3'- 3 1/4" | 2'- 4" | 1'- 7 1/4" | 43'- 0" | 4'- 4 3/4" | 46'- 11" | 172 | 70 | 168.330 | 7.380 | 801.673 | 44'- 10" | 6 | 44'- 6" | 3 | 27 | 3.897 | 357.870 | 3.866 | 267.356 | N | | | |
| 10 | 10 | 6 | 9" | 7'- 9 3/8" | 1'- 8 1/4" | 3'- 3 1/4" | 2'- 4" | 1'- 7 1/4" | 43'- 2" | 4'- 4 3/4" | 47'- 1" | 172 | 90 | 175.390 | 7.708 | 867.540 | 44'- 10" | 6 | 44'- 6" | 3 | 33 | 4.034 | 378.578 | 3.966 | 267.356 | R | | | |
| 10 | 12 | 6 | 9" | 7'- 10 7/8" | 1'- 8 1/4" | 3'- 3 1/4" | 2'- 4" | 1'- 7 1/4" | 43'- 5" | 4'- 4 3/4" | 47'- 4" | 172 | 110 | 182.450 | 8.109 | 941.583 | 44'- 10" | 6 | 44'- 6" | 3 | 39 | 4.099 | 399.286 | 3.991 | 267.356 | V | | | |
| 12 | 6 | 6 | 8" | 9'- 1 1/4" | 2'- 1" | 3'- 5 5/8" | 2'- 10 5/8" | 2'- 0" | 51'- 1 1/8" | 5'- 2 3/8" | 55'- 11" | 204 | 50 | 187.990 | 9.780 | 1,047.641 | 52'- 10" | 6 | 52'- 6" | 3 | 21 | 3.460 | 385.226 | 3.493 | 315.420 | K | | | |
| 12 | 8 | 6 | 8" | 9'- 1 1/4" | 2'- 1" | 3'- 5 5/8" | 2'- 10 5/8" | 2'- 0" | 51'- 1 1/8" | 5'- 2 3/8" | 55'- 11" | 204 | 70 | 195.050 | 10.023 | 1,094.554 | 52'- 10" | 6 | 52'- 6" | 3 | 27 | 3.682 | 405.934 | 3.678 | 315.420 | O | | | |
| 12 | 10 | 6 | 8" | 9'- 2 1/2" | 2'- 1" | 3'- 5 5/8" | 2'- 10 5/8" | 2'- 0" | 51'- 2 5/8" | 5'- 2 3/8" | 56'- 1" | 204 | 90 | 202.110 | 10.377 | 1,184.256 | 52'- 10" | 6 | 52'- 6" | 3 | 33 | 3.793 | 426.642 | 3.750 | 315.420 | S | | | |
| 12 | 12 | 6 | 8" | 9'- 3 3/4" | 2'- 1" | 3'- 5 5/8" | 2'- 10 5/8" | 2'- 0" | 51'- 5 1/8" | 5'- 2 3/8" | 56'- 4" | 204 | 110 | 209.170 | 10.769 | 1,173.047 | 52'- 10" | 6 | 52'- 6" | 3 | 39 | 3.872 | 447.350 | 3.791 | 315.420 | W | | | |

STRUCTURE AND BRIDGE DIVISION

QUADRUPLE BOX CULVERTS
40 TO 45 FT. FILLS
VIRGINIA DEPARTMENT OF TRANSPORTATION