

# BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

| BRIDGE LENGTH                    |                                              | 70'-0" |         | 80'-0" |        | 90'-0" |        | 100'-0" |        | 110'-0" |        | 120'-0" |        | 130'-0" |        | 140'-0" |        | 150'-0" |        |
|----------------------------------|----------------------------------------------|--------|---------|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| MARK                             | LOCATION                                     | SHAPE  | LENGTH  | NO.    | WEIGHT | NO.    | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT |
| 8r1                              | ABUTMENT FOOTING, LONGITUDINAL               |        | 32'-10" | 7      | 614    | 7      | 614    | 7       | 614    | 7       | 614    | 7       | 614    | 7       | 614    | 7       | 614    | 7       | 614    |
| 5s1                              | ABUTMENT FOOTING, HOOPS                      |        | 11'-0"  | 28     | 321    | 25     | 287    | 25      | 287    | 28      | 321    | 28      | 321    | 31      | 356    | 31      | 356    | 26      | 298    |
| 5p2                              | PAVING SUPPORT, TRANSV.                      |        | 9'-4"   | 15     | 146    | 15     | 146    | 15      | 146    | 15      | 146    | 15      | 146    | 15      | 146    | 15      | 146    | 15      | 146    |
| 4p5                              | PAVING SUPPORT, TRANSV.                      |        | 1'-11"  | 15     | 19     | 15     | 19     | 15      | 19     | 15      | 19     | 15      | 19     | 15      | 19     | 15      | 19     | 15      | 19     |
| 5p6                              | PAVING SUPPORT, LONGIT.                      |        | 30'-2"  | 2      | 63     | 2      | 63     | 2       | 63     | 2       | 63     | 2       | 63     | 2       | 63     | 2       | 63     | 2       | 63     |
| 6+1                              | FOOTING TO SLAB DOWELS                       |        | 3'-11"  | 72     | 424    | 72     | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    |
| *5u1                             | WING, LONGITUDINAL                           |        | 6'-8"   | 12     | 83     | 12     | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     |
| #2                               | PILE SPIRAL                                  |        | 38'-6"  | 7      | 45     | 8      | 51     | 8       | 51     | 9       | 58     | 9       | 58     | 10      | 64     | 10      | 64     | 12      | 77     |
|                                  | SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70 |        | 1'-10"  | 14     | 18     | 16     | 21     | 16      | 21     | 18      | 23     | 18      | 23     | 20      | 26     | 20      | 26     | 24      | 31     |
| REINFORCING STEEL - TOTAL (LBS.) |                                              |        |         |        | 1733   |        | 1708   |         | 1708   |         | 1751   |         | 1751   |         | 1795   |         | 1795   |         | 1755   |

# BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

| BRIDGE LENGTH                    |                                              | 70'-0" |         | 80'-0" |        | 90'-0" |        | 100'-0" |        | 110'-0" |        | 120'-0" |        | 130'-0" |        | 140'-0" |        | 150'-0" |        |
|----------------------------------|----------------------------------------------|--------|---------|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| MARK                             | LOCATION                                     | SHAPE  | LENGTH  | NO.    | WEIGHT | NO.    | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT |
| 8r2                              | ABUTMENT FOOTING, LONGITUDINAL               |        | 33'-11" | 7      | 634    | 7      | 634    | 7       | 634    | 7       | 634    | 7       | 634    | 7       | 634    | 7       | 634    | 7       | 634    |
| 5s1                              | ABUTMENT FOOTING, HOOPS                      |        | 11'-0"  | 24     | 275    | 21     | 241    | 21      | 241    | 24      | 275    | 24      | 275    | 27      | 310    | 27      | 310    | 22      | 252    |
| 5s2                              | ABUTMENT FOOTING, HOOPS AT ENDS              |        | 11'-3"  | 4      | 47     | 4      | 47     | 4       | 47     | 4       | 47     | 4       | 47     | 4       | 47     | 4       | 47     | 4       | 47     |
| 5p2                              | PAVING SUPPORT, TRANSV.                      |        | 9'-4"   | 16     | 156    | 16     | 156    | 16      | 156    | 16      | 156    | 16      | 156    | 16      | 156    | 16      | 156    | 16      | 156    |
| 4p5                              | PAVING SUPPORT, TRANSV.                      |        | 1'-11"  | 16     | 20     | 16     | 20     | 16      | 20     | 16      | 20     | 16      | 20     | 16      | 20     | 16      | 20     | 16      | 20     |
| 5p6                              | PAVING SUPPORT, LONGITUDINAL                 |        | 31'-3"  | 2      | 65     | 2      | 65     | 2       | 65     | 2       | 65     | 2       | 65     | 2       | 65     | 2       | 65     | 2       | 65     |
| 6+1                              | FOOTING TO SLAB DOWELS                       |        | 3'-11"  | 72     | 424    | 72     | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    |
| *5u1                             | WING, LONGITUDINAL                           |        | 6'-8"   | 12     | 83     | 12     | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     |
| #2                               | PILE SPIRAL                                  |        | 38'-6"  | 7      | 45     | 8      | 51     | 8       | 51     | 9       | 58     | 9       | 58     | 10      | 64     | 10      | 64     | 12      | 77     |
|                                  | SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70 |        | 1'-10"  | 14     | 18     | 16     | 21     | 16      | 21     | 18      | 23     | 18      | 23     | 20      | 26     | 20      | 26     | 24      | 31     |
| REINFORCING STEEL - TOTAL (LBS.) |                                              |        |         |        | 1767   |        | 1742   |         | 1742   |         | 1785   |         | 1785   |         | 1829   |         | 1829   |         | 1789   |

# BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

| BRIDGE LENGTH                    |                                              | 70'-0" |         | 80'-0" |        | 90'-0" |        | 100'-0" |        | 110'-0" |        | 120'-0" |        | 130'-0" |        | 140'-0" |        | 150'-0" |        |
|----------------------------------|----------------------------------------------|--------|---------|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| MARK                             | LOCATION                                     | SHAPE  | LENGTH  | NO.    | WEIGHT | NO.    | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT |
| 8r2                              | ABUTMENT FOOTING, LONGITUDINAL               |        | 37'-6"  | 7      | 701    | 7      | 701    | 7       | 701    | 7       | 701    | 7       | 701    | 7       | 701    | 7       | 701    | 7       | 701    |
| 5s1                              | ABUTMENT FOOTING, HOOPS                      |        | 11'-0"  | 24     | 275    | 28     | 321    | 28      | 321    | 24      | 275    | 24      | 275    | 27      | 310    | 22      | 252    | 24      | 275    |
| 5s2                              | ABUTMENT FOOTING, HOOPS AT ENDS              |        | 11'-11" | 4      | 50     | 4      | 50     | 4       | 50     | 4       | 50     | 4       | 50     | 4       | 50     | 4       | 50     | 4       | 50     |
| 5p2                              | PAVING SUPPORT, TRANSV.                      |        | 9'-4"   | 17     | 165    | 17     | 165    | 17      | 165    | 17      | 165    | 17      | 165    | 17      | 165    | 17      | 165    | 17      | 165    |
| 4p5                              | PAVING SUPPORT, TRANSV.                      |        | 1'-11"  | 17     | 22     | 17     | 22     | 17      | 22     | 17      | 22     | 17      | 22     | 17      | 22     | 17      | 22     | 17      | 22     |
| 5p6                              | PAVING SUPPORT, LONGITUDINAL                 |        | 34'-10" | 2      | 73     | 2      | 73     | 2       | 73     | 2       | 73     | 2       | 73     | 2       | 73     | 2       | 73     | 2       | 73     |
| 6+1                              | FOOTING TO SLAB DOWELS                       |        | 3'-11"  | 72     | 424    | 72     | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    |
| *5u1                             | WING, LONGITUDINAL                           |        | 6'-8"   | 12     | 83     | 12     | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     |
| #2                               | PILE SPIRAL                                  |        | 38'-6"  | 7      | 45     | 8      | 51     | 8       | 51     | 9       | 58     | 9       | 58     | 10      | 64     | 10      | 64     | 12      | 77     |
|                                  | SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70 |        | 1'-10"  | 14     | 18     | 16     | 21     | 16      | 21     | 18      | 23     | 18      | 23     | 20      | 26     | 20      | 26     | 24      | 31     |
| REINFORCING STEEL - TOTAL (LBS.) |                                              |        |         |        | 1856   |        | 1911   |         | 1911   |         | 1874   |         | 1874   |         | 1918   |         | 1918   |         | 1878   |

# BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

| BRIDGE LENGTH                    |                                              | 70'-0" |        | 80'-0" |        | 90'-0" |        | 100'-0" |        | 110'-0" |        | 120'-0" |        | 130'-0" |        | 140'-0" |        | 150'-0" |        |
|----------------------------------|----------------------------------------------|--------|--------|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| MARK                             | LOCATION                                     | SHAPE  | LENGTH | NO.    | WEIGHT | NO.    | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT | NO.     | WEIGHT |
| 8r2                              | ABUTMENT FOOTING, LONGITUDINAL               |        | 45'-3" | 7      | 846    | 7      | 846    | 7       | 846    | 7       | 846    | 7       | 846    | 7       | 846    | 7       | 846    | 7       | 846    |
| 5s1                              | ABUTMENT FOOTING, HOOPS                      |        | 11'-0" | 40     | 459    | 36     | 413    | 36      | 413    | 40      | 459    | 33      | 379    | 33      | 379    | 39      | 448    | 39      | 448    |
| 5s2                              | ABUTMENT FOOTING, HOOPS AT ENDS              |        | 13'-6" | 4      | 56     | 4      | 56     | 4       | 56     | 4       | 56     | 4       | 56     | 4       | 56     | 4       | 56     | 4       | 56     |
| 5p2                              | PAVING SUPPORT, TRANSV.                      |        | 9'-4"  | 21     | 204    | 21     | 204    | 21      | 204    | 21      | 204    | 21      | 204    | 21      | 204    | 21      | 204    | 21      | 204    |
| 4p5                              | PAVING SUPPORT, TRANSV.                      |        | 1'-11" | 21     | 27     | 21     | 27     | 21      | 27     | 21      | 27     | 21      | 27     | 21      | 27     | 21      | 27     | 21      | 27     |
| 5p6                              | PAVING SUPPORT, LONGITUDINAL                 |        | 42'-7" | 2      | 89     | 2      | 89     | 2       | 89     | 2       | 89     | 2       | 89     | 2       | 89     | 2       | 89     | 2       | 89     |
| 6+1                              | FOOTING TO SLAB DOWELS                       |        | 3'-11" | 72     | 424    | 72     | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    | 72      | 424    |
| *5u1                             | WING, LONGITUDINAL                           |        | 6'-8"  | 12     | 83     | 12     | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     | 12      | 83     |
| #2                               | PILE SPIRAL                                  |        | 38'-6" | 9      | 58     | 10     | 64     | 10      | 64     | 11      | 71     | 11      | 71     | 12      | 77     | 12      | 77     | 14      | 90     |
|                                  | SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70 |        | 1'-10" | 18     | 23     | 20     | 26     | 20      | 26     | 22      | 28     | 22      | 28     | 24      | 31     | 24      | 31     | 28      | 36     |
| REINFORCING STEEL - TOTAL (LBS.) |                                              |        |        |        | 2269   |        | 2232   |         | 2232   |         | 2287   |         | 2287   |         | 2216   |         | 2216   |         | 2303   |

\* SEE SHEET J30-20-06 FOR SPACING

NOTE: THE PILE SPIRALS AND SPIRAL SPACERS ARE TO BE NON-COATED REINFORCING BUT MAY BE EPOXY COATED AT THE CONTRACTORS OPTION AND EXPENSE.

# ESTIMATED QUANTITIES - ONE ABUT. - 0° SKEW

| LOCATION                     |  | UNIT |  | QUANTITY |        |        |         |         |         |         |         |         |  |  |  |  |  |  |  |
|------------------------------|--|------|--|----------|--------|--------|---------|---------|---------|---------|---------|---------|--|--|--|--|--|--|--|
| BRIDGE LENGTH                |  |      |  | 70'-0"   | 80'-0" | 90'-0" | 100'-0" | 110'-0" | 120'-0" | 130'-0" | 140'-0" | 150'-0" |  |  |  |  |  |  |  |
| STRUCTURAL CONCRETE (BRIDGE) |  | C.Y. |  | 11.9     | 11.8   | 11.8   | 11.7    | 11.7    | 11.7    | 11.7    | 11.7    | 11.6    |  |  |  |  |  |  |  |
| REINFORCING STEEL            |  | LBS. |  | 1733     | 1708   | 1708   | 1751    | 1751    | 1795    | 1795    | 1755    | 1755    |  |  |  |  |  |  |  |
| WOOD PILES (TREATED)         |  | NO.  |  | 7        | 8      | 8      | 9       | 9       | 10      | 10      | 12      | 12      |  |  |  |  |  |  |  |
| PREBORE HOLES                |  | FT.  |  | -        | -      | -      | -       | -       | -       | -       | -       | -       |  |  |  |  |  |  |  |

# ESTIMATED QUANTITIES - ONE ABUT. - 15° SKEW

| LOCATION                     |  | UNIT |  | QUANTITY |        |        |         |         |         |         |         |         |  |  |  |  |  |  |  |
|------------------------------|--|------|--|----------|--------|--------|---------|---------|---------|---------|---------|---------|--|--|--|--|--|--|--|
| BRIDGE LENGTH                |  |      |  | 70'-0"   | 80'-0" | 90'-0" | 100'-0" | 110'-0" | 120'-0" | 130'-0" | 140'-0" | 150'-0" |  |  |  |  |  |  |  |
| STRUCTURAL CONCRETE (BRIDGE) |  | C.Y. |  | 12.3     | 12.2   | 12.2   | 12.2    | 12.2    | 12.2    | 12.1    | 12.1    | 12.0    |  |  |  |  |  |  |  |
| REINFORCING STEEL            |  | LBS. |  | 1767     | 1742   | 1742   | 1785    | 1785    | 1829    | 1829    | 1789    | 1789    |  |  |  |  |  |  |  |
| WOOD PILES (TREATED)         |  | NO.  |  | 7        | 8      | 8      | 9       | 9       | 10      | 10      | 12      | 12      |  |  |  |  |  |  |  |
| PREBORE HOLES                |  | FT.  |  | -        | -      | -      | -       | -       | -       | -       | -       | -       |  |  |  |  |  |  |  |

# ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

| LOCATION                       |  | UNIT | QUANTITY |       |       |        |        |        |        |        |        |  |
|--------------------------------|--|------|----------|-------|-------|--------|--------|--------|--------|--------|--------|--|
| BRIDGE LENGTH                  |  |      | 70'-0    | 80'-0 | 90'-0 | 100'-0 | 110'-0 | 120'-0 | 130'-0 | 140'-0 | 150'-0 |  |
| STRUCTURAL CONCRETE ( BRIDGE ) |  | C.Y. | 13.8     | 13.7  | 13.7  | 13.6   | 13.6   | 13.6   | 13.6   | 13.5   | 13.4   |  |
| REINFORCING STEEL              |  | LBS. | 1856     | 1911  | 1911  | 1874   | 1874   | 1918   | 1918   | 1878   | 1878   |  |
| WOOD PILES (TREATED)           |  | NO.  | 7        | 8     | 8     | 9      | 9      | 10     | 10     | 12     | 13     |  |
| PREBORE HOLES                  |  | FT.  | -        | -     | -     | -      | -      | -      | -      | 120    | 130    |  |