

CALCULATIONS

I-22 SUBBASE UNDER PAVED BERM (CONT.)

Freeway Westbound	Sta. 100+00 to Sta. 114+34.43 = 1434.43 x 11.5 ÷ 54 = 305 Cu.Yds.
" "	Sta. 114+34.43 to Sta. 116+28 = 193.57 x 8.5 ÷ 54 = 30 Cu.Yds.
" "	Sta. 114+34.43 to Sta. 116+28 = 193.57 x 3.0 ÷ 54 = 11 Cu.Yds.
" "	Sta. 117+72.50 to Sta. 120+58 = 285.50 x 3.0 ÷ 54 = 16 Cu.Yds.
" "	Sta. 117+72.50 to Sta. 121+44.37 = 365.42 x 8.5 ÷ 54 = 57 Cu.Yds.
" "	Sta. 122+59 to Sta. 125+83.68 = 323.52 x 8.5 ÷ 54 = 51 Cu.Yds.
" "	Sta. 127+97.32 to Sta. 129+13.72 = 116.40 x 8.5 ÷ 54 = 18 Cu.Yds.
" "	Sta. 120+58 to Sta. 129+13.72 = 855.72 x 3.0 ÷ 54 = 48 Cu.Yds.
" "	Sta. 130+79.28 to Sta. 134+80 = 406.21 x 8.5 ÷ 54 = 64 Cu.Yds.
" "	Sta. 134+80 to Sta. 139+03 = 423 x 8.5 ÷ 54 = 67 Cu.Yds.
" "	Sta. 139+03 to Sta. 146+16.64 = 722.83 x 8.5 ÷ 54 = 114 Cu.Yds.
" "	Sta. 146+16.64 to Sta. 155+41.40 = 924.76 x 8.5 ÷ 54 = 146 Cu.Yds.
" "	Sta. 130+79.28 to Sta. 155+41.40 = 2462.12 x 3.0 ÷ 54 = 137 Cu.Yds.
" "	Sta. 156+72.91 to Sta. 176+53.79 = 1980.88 x 8.5 ÷ 54 = 312 Cu.Yds.
" "	Sta. 176+53.79 to Sta. 179+53.79 = 300.80 x 8.5 ÷ 54 = 47 Cu.Yds.
" "	Sta. 185+77.33 to Sta. 195+14.24 = 936.91 x 8.5 ÷ 54 = 147 Cu.Yds.
" "	Sta. 156+72.91 to Sta. 195+14.24 = 3841.33 x 3.0 ÷ 54 = 214 Cu.Yds.
" "	Sta. 196+79.26 to Sta. 209+11 = 1231.74 x 8.5 ÷ 54 = 194 Cu.Yds.
" "	Sta. 209+11 to Sta. 211+42.10 = 231.10 x 8.5 ÷ 54 = 36 Cu.Yds.
" "	Sta. 216+96.49 to Sta. 234+69.16 = 1772.67 x 8.5 ÷ 54 = 280 Cu.Yds.
" "	Sta. 196+79.26 to Sta. 234+69.16 = 3739.90 x 3.0 ÷ 54 = 211 Cu.Yds.
" "	Sta. 236+17.60 to Sta. 291+88.11 = 5570.51 x 11.5 ÷ 54 = 1186 Cu.Yds.
" "	Sta. 293+25.53 to Sta. 299+21.74 = 596.21 x 11.5 ÷ 54 = 127 Cu.Yds.
" "	Sta. 300+80 to Sta. 304+02.76 = 320.11 x 8.5 ÷ 54 = 50 Cu.Yds.
" "	Sta. 299+21.74 to Sta. 306+20 = 698.26 x 3.0 ÷ 54 = 39 Cu.Yds.
" "	Sta. 306+20 to Sta. 310+54.21 = 434.21 x 11.5 ÷ 54 = 92 Cu.Yds.
" "	Sta. 312+82.19 to Sta. 314+42.20 = 160.01 x 8.5 ÷ 54 = 25 Cu.Yds.
" "	Sta. 315+54 to Sta. 317+90.42 = 236.42 x 8.5 ÷ 54 = 37 Cu.Yds.
" "	Sta. 320+04.06 to Sta. 323+03.35 = 299.29 x 8.5 ÷ 54 = 47 Cu.Yds.
" "	Sta. 323+03.35 to Sta. 335+05.71 = 1202.36 x 8.5 ÷ 54 = 189 Cu.Yds.
" "	Sta. 312+82.19 to Sta. 335+05.71 = 2223.52 x 3.0 ÷ 54 = 124 Cu.Yds.
(Slab Bridge)	Sta. 260+10.49 to Sta. 260+39.51 = -29.02 x 11.5 ÷ 54 = -62 Cu.Yds.
Ramp Constants	8' Berm: $[1.25 \times \frac{1}{12} + \frac{0.5(31.7)}{12}] \div 27 = \frac{3.01}{27}$ 3' Berm $\frac{3.25 \times \frac{1}{12} \times \frac{1}{2}}{27} = \frac{1.04}{27}$
Ramp No. 1	Sta. 2+25.60 to Sta. 6+19.86 = 394.26 x 4.6 ÷ 27 = 67 Cu.Yds.
" " "	Sta. 5+33.94 to Sta. 11+97.45 = 663.51 x 4.6 ÷ 27 = 113 Cu.Yds.*
Ramp No. 2	Sta. 2+00 to Sta. 5+33.94 = 347.27 x 1.6 ÷ 27 = 21 Cu.Yds.
" " "	Sta. 2+00 to Sta. 5+33.94 = 317.10 x 3.0 ÷ 27 = 35 Cu.Yds.
" " "	Sta. 5+33.94 to Sta. 11+97.45 = 663.51 x 4.6 ÷ 27 = 113 Cu.Yds.*
Ramp No. 3	Sta. 1+08.28 to Sta. 10+28.59 = 920.21 x 3.0 ÷ 27 = 102 Cu.Yds.
" " "	Sta. 3+00 to Sta. 10+28.59 = 728.59 x 1.6 ÷ 27 = 43 Cu.Yds.
Ramp No. 4	Sta. 4+34.98 to Sta. 7+65.64 = 330.66 x 4.6 ÷ 27 = 56 Cu.Yds.
Ramp No. 5	Sta. 4+89.36 to Sta. 16+04.81 = 1115.45 x 1.6 ÷ 27 = 66 Cu.Yds.
" " "	Sta. 4+89.36 to Sta. 15+91.49 = 1102.13 x 3.0 ÷ 27 = 122 Cu.Yds.
Ramp No. 6	Sta. 5+55.10 to Sta. 7+23.03 = 167.93 x 4.6 ÷ 27 = 29 Cu.Yds.
" " "	Sta. 7+23.03 to Sta. 11+78.59 = 454.42 x 1.6 ÷ 27 = 27 Cu.Yds.
" " "	Sta. 7+23.03 to Sta. 11+78.59 = 456.99 x 3.0 ÷ 27 = 51 Cu.Yds.
" " "	Sta. 11+78.59 to Sta. 19+65.09 = 786.50 x 4.6 ÷ 27 = 134 Cu.Yds.
Ramp No. 7	Sta. 6+84.65 to Sta. 19+00 = 1215.35 x 4.6 ÷ 27 = 207 Cu.Yds.

I-22 Subtotal 8' 5,545 Cu.Yds.

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Ramp No. 8	Sta. 6+94.82 to Sta. 12+19.22 = 524.40 x 4.6 ÷ 27 = 89 Cu.Yds.
" " "	Sta. 12+19.22 to Sta. 15+63.82 = 343.74 x 1.6 ÷ 27 = 20 Cu.Yds.
" " "	Sta. 12+19.22 to Sta. 15+63.82 = 345.68 x 3.0 ÷ 27 = 38 Cu.Yds.
" " "	Sta. 15+63.82 to Sta. 18+07.06 = 243.24 x 4.6 ÷ 27 = 41 Cu.Yds.
Ramp No. 9	Sta. 2+98.89 to Sta. 4+56.97 = 154.04 x 3.0 ÷ 27 = 17 Cu.Yds.
" " "	Sta. 4+56.97 to Sta. 7+59.44 = 302.47 x 4.6 ÷ 27 = 52 Cu.Yds.
Ramp No. 10	Sta. 2+07.69 to Sta. 3+96.34 = 202.13 x 1.6 ÷ 27 = 12 Cu.Yds.
" " "	Sta. 2+07.69 to Sta. 3+96.34 = 171.63 x 3.0 ÷ 27 = 19 Cu.Yds.
" " "	Sta. 3+96.34 to Sta. 5+37.94 = 141.60 x 4.6 ÷ 27 = 24 Cu.Yds.
Ramp No. 11	Sta. 2+00 to Sta. 3+94.30 = 206.44 x 1.6 ÷ 27 = 12 Cu.Yds.
" " "	Sta. 2+00 to Sta. 3+94.30 = 175.29 x 3.0 ÷ 27 = 19 Cu.Yds.
" " "	Sta. 0+00 to Sta. 1+74.72 = 174.72 x 4.6 ÷ 27 = 30 Cu.Yds.
" " "	Sta. 1+74.72 to Sta. 5+31.24 = 356.52 x 4.6 ÷ 27 = 61 Cu.Yds.
Ramp No. 12	Sta. 2+00 to Sta. 4+70.52 = 270.52 x 4.6 ÷ 27 = 46 Cu.Yds.
" " "	Sta. 10+22.58 to Sta. 10+86.99 = 64.41 x 4.6 ÷ 27 = 11 Cu.Yds.
" " "	Sta. 0+00 to Sta. 1+74.72 = 174.72 x 4.6 ÷ 27 = 30 Cu.Yds.
" " "	Sta. 1+74.72 to Sta. 5+31.24 = 356.52 x 4.6 ÷ 27 = 61 Cu.Yds.
Ramp No. 13	Sta. 2+13.80 to Sta. 3+15.42 = 101.62 x 3.0 ÷ 27 = 11 Cu.Yds.
" " "	Sta. 3+15.42 to Sta. 7+26.86 = 411.44 x 4.6 ÷ 27 = 70 Cu.Yds.
Ramp No. 14	Sta. 2+00 to Sta. 3+62.49 = 174.10 x 1.6 ÷ 27 = 10 Cu.Yds.
" " "	Sta. 2+00 to Sta. 3+62.49 = 147.83 x 3.0 ÷ 27 = 16 Cu.Yds.
" " "	Sta. 3+62.49 to Sta. 5+75.00 = 201.00 x 3.0 ÷ 27 = 22 Cu.Yds.
Ramp No. 15	Sta. 3+56.35 to Sta. 3+78.62 = 22.27 x 3.0 ÷ 27 = 2 Cu.Yds.
" " "	Sta. 3+56.35 to Sta. 3+78.62 = 22.27 x 1.6 ÷ 27 = 1 Cu.Yds.
" " "	Sta. 3+78.62 to Sta. 5+34.35 = 153.41 x 1.6 ÷ 27 = 9 Cu.Yds.
" " "	Sta. 3+78.62 to Sta. 5+34.35 = 158.66 x 3.0 ÷ 27 = 17 Cu.Yds.
" " "	Sta. 5+34.35 to Sta. 13+32.52 = 798.17 x 4.6 ÷ 27 = 136 Cu.Yds.
Lloyd Rd. Connection	Sta. 0+00 to Sta. 3+41.96 = 341.96 x 6.0 ÷ 27 = 76 Cu.Yds.
" " "	Sta. 3+41.96 to Sta. 3+91.96 = 50 x 3.0 ÷ 27 = 6 Cu.Yds.
" " "	Sta. 0+00 to Sta. 6+21 = 621 x 3.2 ÷ 27 = 74 Cu.Yds.
Marginal Road No. 2	Sta. 0+61.90 to Sta. 2+50 = 188.10 x 3.25 x .5 ÷ 27 = 11 Cu.Yds.
" " "	Sta. 2+50 to Sta. 18+19 = 1569.00 x 10 x .5 ÷ 27 = 291 Cu.Yds.
" " "	Sta. 18+19 to Sta. 23+42 = 523.00 x 3.25 x .5 ÷ 27 = 31 Cu.Yds.
" " "	Sta. 23+42 to Sta. 39+29.72 = 1587.72 x 10 x .5 ÷ 27 = 294 Cu.Yds.
Marginal Road No. 3	Sta. 0+97.60 to Sta. 9+02 = 804.40 x 10 x .5 ÷ 27 = 149 Cu.Yds.
" " "	Sta. 9+02 to Sta. 11+98 = 296.00 x 3.25 x .5 ÷ 27 = 18 Cu.Yds.
" " "	Sta. 11+98 to Sta. 45+33 = 3335.00 x 10 x .5 ÷ 27 = 618 Cu.Yds.
" " "	Sta. 45+33 to Sta. 47+68 = 235.00 x 3.25 x .5 ÷ 27 = 14 Cu.Yds.
" " "	Sta. 47+68 to Sta. 56+19.95 = 851.95 x 10 x .5 ÷ 27 = 158 Cu.Yds.
Slab Bridge Marg. Rd. No. 3	Sta. 24+23.49 to Sta. 25+02.51 = -79.02 x 10 x .5 ÷ 27 = -15 Cu.Yds.

I-22 Subtotal C' = 2601 Cu.Yds.