

QUADRO DE CUBAÇÃO

TRECHO: AREAL - LISIEUX

| Estaca | Semi Distância (m) | Área de Corte (m ²) | Volume de Corte (m ³) | Área de Aterro (m ²) | Volume Aterro (m ³) | Vol. Acum. Corte (m ³) | Vol. Acum. Aterro (m ³) |
|-----------|--------------------|---------------------------------|-----------------------------------|----------------------------------|---------------------------------|------------------------------------|-------------------------------------|
| 5+0.000 | 0.00 | 0.00 | 0.00 | 0.86 | 0.00 | 0.00 | 0.00 |
| 6+0.000 | 10.00 | 0.00 | 0.00 | 0.91 | 17.64 | 0.00 | 17.64 |
| 7+0.000 | 10.00 | 0.00 | 0.00 | 3.27 | 41.81 | 0.00 | 59.45 |
| 7+18.613 | 9.31 | 0.00 | 0.00 | 4.72 | 74.41 | 0.00 | 133.86 |
| 7+19.024 | 0.21 | 0.00 | 0.00 | 4.74 | 1.95 | 0.00 | 135.80 |
| 7+19.435 | 0.21 | 0.00 | 0.00 | 4.75 | 1.95 | 0.00 | 137.76 |
| 8+0.000 | 0.28 | 0.00 | 0.00 | 4.77 | 2.69 | 0.00 | 140.44 |
| 9+0.000 | 10.00 | 0.00 | 0.00 | 5.32 | 100.93 | 0.00 | 241.37 |
| 10+0.000 | 10.00 | 0.00 | 0.00 | 5.89 | 112.12 | 0.00 | 353.49 |
| 10+1.927 | 0.96 | 0.00 | 0.00 | 5.98 | 11.44 | 0.00 | 364.93 |
| 10+3.813 | 0.94 | 0.00 | 0.00 | 6.07 | 11.35 | 0.00 | 376.28 |
| 10+5.698 | 0.94 | 0.00 | 0.00 | 6.17 | 11.53 | 0.00 | 387.81 |
| 11+0.000 | 7.15 | 0.00 | 0.00 | 8.37 | 103.98 | 0.00 | 491.79 |
| 12+0.000 | 10.00 | 0.00 | 0.00 | 8.98 | 173.52 | 0.00 | 665.31 |
| 12+16.026 | 8.01 | 0.00 | 0.00 | 8.30 | 138.43 | 0.00 | 803.74 |
| 12+17.602 | 0.79 | 0.00 | 0.00 | 8.39 | 13.20 | 0.00 | 816.94 |
| 12+19.178 | 0.79 | 0.00 | 0.00 | 8.48 | 13.39 | 0.00 | 830.33 |
| 13+0.000 | 0.41 | 0.00 | 0.00 | 8.51 | 6.98 | 0.00 | 837.31 |
| 14+0.000 | 10.00 | 0.00 | 0.00 | 6.37 | 148.81 | 0.00 | 986.11 |
| 15+0.000 | 10.00 | 0.00 | 0.00 | 4.77 | 111.48 | 0.00 | 1097.60 |
| 16+0.000 | 10.00 | 0.00 | 0.00 | 3.89 | 86.67 | 0.00 | 1184.27 |
| 16+1.295 | 0.65 | 0.00 | 0.00 | 4.09 | 5.17 | 0.00 | 1189.44 |
| 16+1.649 | 0.18 | 0.00 | 0.00 | 4.08 | 1.45 | 0.00 | 1190.88 |
| 16+2.003 | 0.18 | 0.00 | 0.00 | 3.94 | 1.42 | 0.00 | 1192.31 |
| 17+0.000 | 9.00 | 0.00 | 0.00 | 0.00 | 35.49 | 0.00 | 1227.79 |
| 31+0.000 | 140.00 | 0.00 | 0.00 | 0.15 | 21.78 | 0.00 | 1249.57 |
| 32+0.000 | 10.00 | 0.00 | 0.00 | 3.26 | 34.12 | 0.00 | 1283.69 |
| 33+0.000 | 10.00 | 0.00 | 0.00 | 6.70 | 99.64 | 0.00 | 1383.33 |
| 34+0.000 | 10.00 | 0.00 | 0.00 | 8.59 | 152.95 | 0.00 | 1536.28 |
| 34+12.575 | 6.29 | 0.00 | 0.00 | 6.68 | 95.99 | 0.00 | 1632.26 |
| 34+14.153 | 0.79 | 0.00 | 0.00 | 6.31 | 10.43 | 0.00 | 1642.69 |
| 34+15.732 | 0.79 | 0.00 | 0.00 | 6.54 | 10.33 | 0.00 | 1653.03 |
| 35+0.000 | 2.13 | 0.00 | 0.00 | 7.08 | 29.06 | 0.00 | 1682.09 |
| 36+0.000 | 10.00 | 0.00 | 0.00 | 7.82 | 149.00 | 0.00 | 1831.08 |
| 37+0.000 | 10.00 | 0.00 | 0.00 | 3.59 | 114.11 | 0.00 | 1945.19 |
| 37+15.523 | 7.76 | 0.00 | 0.00 | 0.70 | 33.30 | 0.00 | 1978.49 |
| 37+17.044 | 0.76 | 0.00 | 0.00 | 0.55 | 0.96 | 0.00 | 1979.44 |
| 37+18.566 | 0.76 | 0.00 | 0.00 | 0.47 | 0.78 | 0.00 | 1980.22 |
| 38+0.000 | 0.72 | 0.00 | 0.00 | 0.39 | 0.61 | 0.00 | 1980.84 |
| 75+0.000 | 370.00 | 0.00 | 0.00 | 0.00 | 144.95 | 0.00 | 2125.78 |
| 75+2.126 | 1.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2125.78 |
| 75+6.529 | 2.20 | 0.00 | 0.00 | 0.01 | 0.03 | 0.00 | 2125.81 |
| 75+10.932 | 2.20 | 0.00 | 0.00 | 0.99 | 2.21 | 0.00 | 2128.02 |
| 76+0.000 | 4.53 | 0.00 | 0.00 | 3.55 | 20.56 | 0.00 | 2148.58 |
| 77+0.000 | 10.00 | 0.00 | 0.00 | 10.60 | 141.47 | 0.00 | 2290.04 |
| 78+0.000 | 10.00 | 0.00 | 0.00 | 7.61 | 182.15 | 0.00 | 2472.19 |
| 78+15.423 | 7.71 | 0.00 | 0.00 | 4.17 | 90.90 | 0.00 | 2563.09 |
| 79+0.000 | 2.29 | 0.00 | 0.00 | 2.27 | 14.73 | 0.00 | 2577.82 |
| 79+1.721 | 0.86 | 0.00 | 0.00 | 1.63 | 3.34 | 0.00 | 2581.16 |
| 79+8.019 | 3.15 | 0.00 | 0.00 | 0.05 | 5.24 | 0.00 | 2586.40 |
| 80+0.000 | 5.99 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 2586.73 |
| 80+6.518 | 3.26 | 0.00 | 0.00 | 1.06 | 3.45 | 0.00 | 2590.18 |
| 80+12.086 | 2.78 | 0.00 | 0.00 | 2.56 | 9.98 | 0.00 | 2600.16 |
| 80+17.654 | 2.78 | 0.00 | 0.00 | 3.54 | 16.98 | 0.00 | 2617.14 |
| 81+0.000 | 1.17 | 0.00 | 0.00 | 3.97 | 8.80 | 0.00 | 2625.94 |
| 82+0.000 | 10.00 | 0.00 | 0.00 | 8.25 | 122.18 | 0.00 | 2748.12 |
| 82+18.032 | 9.02 | 0.00 | 0.00 | 8.76 | 153.36 | 0.00 | 2901.49 |
| 83+0.000 | 0.98 | 0.00 | 0.00 | 8.27 | 16.77 | 0.00 | 2918.26 |
| 83+3.166 | 1.58 | 0.00 | 0.00 | 7.51 | 24.99 | 0.00 | 2943.25 |

QUADRO DE CUBAÇÃO

TRECHO: AREAL - LISIEUX

| Estaca | Semi Distância (m) | Área de Corte (m²) | Volume de Corte (m³) | Área de Aterro (m²) | Volume Aterro (m³) | Vol. Acum. Corte (m³) | Vol. Acum. Aterro (m³) |
|------------|--------------------|--------------------|----------------------|---------------------|--------------------|-----------------------|------------------------|
| 268+0.000 | 7.64 | 0.00 | 0.00 | 0.61 | 4.65 | 0.00 | 5783.90 |
| 269+0.000 | 10.00 | 0.00 | 0.00 | 5.61 | 62.19 | 0.00 | 5846.09 |
| 270+0.000 | 10.00 | 0.00 | 0.00 | 8.36 | 139.75 | 0.00 | 5985.84 |
| 270+9.171 | 4.59 | 0.00 | 0.00 | 9.42 | 81.53 | 0.00 | 6067.36 |
| 270+12.328 | 1.58 | 0.00 | 0.00 | 9.43 | 29.71 | 0.00 | 6097.08 |
| 270+15.485 | 1.58 | 0.00 | 0.00 | 8.62 | 28.38 | 0.00 | 6125.45 |
| 271+0.000 | 2.26 | 0.00 | 0.00 | 7.66 | 36.77 | 0.00 | 6162.22 |
| 272+0.000 | 10.00 | 0.00 | 0.00 | 4.65 | 123.16 | 0.00 | 6285.38 |
| 273+0.000 | 10.00 | 0.00 | 0.00 | 2.48 | 71.28 | 0.00 | 6356.66 |
| 273+16.427 | 8.21 | 0.00 | 0.00 | 3.45 | 48.68 | 0.00 | 6405.34 |
| 273+19.780 | 1.68 | 0.00 | 0.00 | 3.58 | 11.78 | 0.00 | 6417.12 |
| 274+0.000 | 0.11 | 0.00 | 0.00 | 3.57 | 0.78 | 0.00 | 6417.91 |
| 274+3.134 | 1.57 | 0.00 | 0.00 | 3.49 | 11.06 | 0.00 | 6428.97 |
| 275+0.000 | 8.43 | 0.00 | 0.00 | 3.06 | 55.26 | 0.00 | 6484.22 |
| 276+0.000 | 10.00 | 0.00 | 0.00 | 2.66 | 57.21 | 0.00 | 6541.44 |
| 277+0.000 | 10.00 | 0.00 | 0.00 | 1.95 | 46.06 | 0.00 | 6587.49 |
| 277+14.216 | 7.11 | 0.00 | 0.00 | 1.53 | 24.73 | 0.00 | 6612.23 |
| 277+16.282 | 1.03 | 0.00 | 0.00 | 1.54 | 3.17 | 0.00 | 6615.40 |
| 277+18.349 | 1.03 | 0.00 | 0.00 | 1.54 | 3.18 | 0.00 | 6618.58 |
| 278+0.000 | 0.83 | 0.00 | 0.00 | 1.54 | 2.54 | 0.00 | 6621.12 |
| 279+0.000 | 10.00 | 0.00 | 0.00 | 0.89 | 24.37 | 0.00 | 6645.50 |
| 596+0.000 | 3170.00 | 0.00 | 0.00 | 0.92 | 5744.92 | 0.00 | 12390.41 |
| 597+0.000 | 10.00 | 0.00 | 0.00 | 1.69 | 26.11 | 0.00 | 12416.53 |
| 598+0.000 | 10.00 | 0.00 | 0.00 | 5.51 | 71.99 | 0.00 | 12488.52 |
| 598+16.903 | 8.45 | 0.00 | 0.00 | 8.97 | 122.31 | 0.00 | 12610.82 |
| 598+19.183 | 1.14 | 0.00 | 0.00 | 8.97 | 20.22 | 0.00 | 12631.05 |
| 599+0.000 | 0.41 | 0.00 | 0.00 | 8.94 | 7.26 | 0.00 | 12638.30 |
| 599+1.463 | 0.73 | 0.00 | 0.00 | 8.91 | 12.97 | 0.00 | 12651.28 |
| 600+0.000 | 9.27 | 0.00 | 0.00 | 7.29 | 150.17 | 0.00 | 12801.45 |
| 600+10.014 | 5.01 | 0.00 | 0.00 | 6.32 | 68.18 | 0.00 | 12869.63 |
| 600+13.461 | 1.72 | 0.00 | 0.00 | 5.99 | 21.24 | 0.00 | 12890.87 |
| 600+16.908 | 1.72 | 0.00 | 0.00 | 5.66 | 20.09 | 0.00 | 12910.96 |
| 601+0.000 | 1.55 | 0.00 | 0.00 | 5.37 | 17.07 | 0.00 | 12928.03 |
| 602+0.000 | 10.00 | 0.00 | 0.00 | 3.63 | 90.00 | 0.00 | 13018.03 |
| 603+0.000 | 10.00 | 0.00 | 0.00 | 1.35 | 49.72 | 0.00 | 13067.75 |
| 604+0.000 | 10.00 | 0.00 | 0.00 | 0.06 | 14.07 | 0.00 | 13081.82 |
| 606+0.000 | 20.00 | 0.00 | 0.00 | 0.21 | 5.47 | 0.00 | 13087.29 |
| 606+6.827 | 3.41 | 0.00 | 0.00 | 0.71 | 3.13 | 0.00 | 13090.42 |
| 606+10.864 | 2.02 | 0.00 | 0.00 | 1.00 | 3.46 | 0.00 | 13093.88 |
| 606+14.902 | 2.02 | 0.00 | 0.00 | 1.28 | 4.63 | 0.00 | 13098.50 |
| 607+0.000 | 2.55 | 0.00 | 0.00 | 1.62 | 7.39 | 0.00 | 13105.90 |
| 608+0.000 | 10.00 | 0.00 | 0.00 | 4.85 | 64.64 | 0.00 | 13170.53 |
| 609+0.000 | 10.00 | 0.00 | 0.00 | 6.40 | 112.51 | 0.00 | 13283.04 |
| 610+0.000 | 10.00 | 0.00 | 0.00 | 5.21 | 116.10 | 0.00 | 13399.14 |
| 611+0.000 | 10.00 | 0.00 | 0.00 | 6.38 | 115.89 | 0.00 | 13515.03 |
| 611+10.167 | 5.08 | 0.00 | 0.00 | 6.13 | 63.64 | 0.00 | 13578.67 |
| 611+11.768 | 0.80 | 0.00 | 0.00 | 6.08 | 9.78 | 0.00 | 13588.45 |
| 611+13.368 | 0.80 | 0.00 | 0.00 | 6.00 | 9.67 | 0.00 | 13598.12 |
| 612+0.000 | 3.32 | 0.00 | 0.00 | 5.66 | 38.66 | 0.00 | 13636.78 |
| 613+0.000 | 10.00 | 0.00 | 0.00 | 3.48 | 91.40 | 0.00 | 13728.18 |
| 614+0.000 | 10.00 | 0.00 | 0.00 | 1.54 | 50.23 | 0.00 | 13778.42 |
| 614+0.709 | 0.35 | 0.00 | 0.00 | 1.54 | 1.09 | 0.00 | 13779.51 |
| 614+2.817 | 1.05 | 0.00 | 0.00 | 1.37 | 2.98 | 0.00 | 13782.49 |
| 614+4.926 | 1.05 | 0.00 | 0.00 | 1.23 | 2.65 | 0.00 | 13785.13 |
| 615+0.000 | 7.54 | 0.00 | 0.00 | 0.87 | 15.84 | 0.00 | 13800.97 |
| 616+0.000 | 10.00 | 0.00 | 0.00 | 0.66 | 15.27 | 0.00 | 13816.25 |
| 617+0.000 | 10.00 | 0.00 | 0.00 | 0.32 | 9.85 | 0.00 | 13826.09 |
| 693+0.000 | 760.00 | 0.00 | 0.00 | 0.19 | 390.26 | 0.00 | 14216.35 |
| 694+0.000 | 10.00 | 0.00 | 0.00 | 1.00 | 11.88 | 0.00 | 14228.24 |

QUADRO DE CUBAÇÃO

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| Estaca | Semi Distância (m) | Área de Corte (m ²) | Volume de Corte (m ³) | Área de Aterro (m ²) | Volume Aterro (m ³) | Vol. Acum. Corte (m ³) | Vol. Acum. Aterro (m ³) |
|------------|--------------------|---------------------------------|-----------------------------------|----------------------------------|---------------------------------|------------------------------------|-------------------------------------|
| 695+0.000 | 10.00 | 0.00 | 0.00 | 3.10 | 40.99 | 0.00 | 14269.23 |
| 695+0.681 | 0.34 | 0.00 | 0.00 | 3.24 | 2.16 | 0.00 | 14271.39 |
| 695+2.189 | 0.75 | 0.00 | 0.00 | 3.56 | 5.13 | 0.00 | 14276.52 |
| 695+3.696 | 0.75 | 0.00 | 0.00 | 3.89 | 5.62 | 0.00 | 14282.14 |
| 696+0.000 | 8.15 | 0.00 | 0.00 | 7.41 | 92.08 | 0.00 | 14374.22 |
| 697+0.000 | 10.00 | 0.00 | 0.00 | 7.95 | 153.60 | 0.00 | 14527.81 |
| 698+0.000 | 10.00 | 0.00 | 0.00 | 6.05 | 140.05 | 0.00 | 14667.86 |
| 699+0.000 | 10.00 | 0.00 | 0.00 | 4.47 | 105.25 | 0.00 | 14773.12 |
| 700+0.000 | 10.00 | 0.00 | 0.00 | 3.32 | 77.94 | 0.00 | 14851.06 |
| 701+0.000 | 10.00 | 0.00 | 0.00 | 2.21 | 55.35 | 0.00 | 14906.41 |
| 701+2.464 | 1.23 | 0.00 | 0.00 | 2.08 | 5.29 | 0.00 | 14911.71 |
| 701+5.020 | 1.28 | 0.00 | 0.00 | 1.90 | 5.09 | 0.00 | 14916.80 |
| 701+7.576 | 1.28 | 0.00 | 0.00 | 1.67 | 4.56 | 0.00 | 14921.36 |
| 702+0.000 | 6.21 | 0.00 | 0.00 | 0.89 | 15.90 | 0.00 | 14937.26 |
| 741+0.000 | 390.00 | 0.00 | 0.00 | 0.25 | 443.25 | 0.00 | 15380.51 |
| 741+14.973 | 7.49 | 0.00 | 0.00 | 3.46 | 27.72 | 0.00 | 15408.23 |
| 741+17.883 | 1.46 | 0.00 | 0.00 | 4.58 | 11.70 | 0.00 | 15419.93 |
| 742+0.000 | 1.06 | 0.00 | 0.00 | 5.31 | 10.46 | 0.00 | 15430.40 |
| 742+0.794 | 0.40 | 0.00 | 0.00 | 5.54 | 4.31 | 0.00 | 15434.70 |
| 743+0.000 | 9.60 | 0.00 | 0.00 | 9.03 | 139.93 | 0.00 | 15574.64 |
| 743+17.065 | 8.53 | 0.00 | 0.00 | 9.89 | 161.47 | 0.00 | 15736.11 |
| 744+0.000 | 1.47 | 0.00 | 0.00 | 10.03 | 29.24 | 0.00 | 15765.34 |
| 744+0.458 | 0.23 | 0.00 | 0.00 | 10.05 | 4.60 | 0.00 | 15769.94 |
| 744+3.850 | 1.70 | 0.00 | 0.00 | 10.22 | 34.39 | 0.00 | 15804.33 |
| 745+0.000 | 8.08 | 0.00 | 0.00 | 4.09 | 115.50 | 0.00 | 15919.83 |
| 746+0.000 | 10.00 | 0.00 | 0.00 | 0.05 | 41.41 | 0.00 | 15961.24 |
| 909+0.000 | 1630.00 | 0.00 | 0.00 | 0.13 | 292.27 | 0.00 | 16253.51 |
| 910+0.000 | 10.00 | 0.00 | 0.00 | 2.90 | 30.27 | 0.00 | 16283.77 |
| 910+2.425 | 1.21 | 0.00 | 0.00 | 3.45 | 7.70 | 0.00 | 16291.48 |
| 910+5.264 | 1.42 | 0.00 | 0.00 | 4.20 | 10.72 | 0.00 | 16302.20 |
| 910+8.103 | 1.42 | 0.00 | 0.00 | 4.95 | 12.87 | 0.00 | 16315.07 |
| 911+0.000 | 5.95 | 0.00 | 0.00 | 6.86 | 70.24 | 0.00 | 16385.31 |
| 911+8.780 | 4.39 | 0.00 | 0.00 | 8.37 | 66.88 | 0.00 | 16452.20 |
| 912+0.000 | 5.61 | 0.00 | 0.00 | 8.60 | 95.88 | 0.00 | 16548.08 |
| 912+2.564 | 1.28 | 0.00 | 0.00 | 9.39 | 23.43 | 0.00 | 16571.50 |
| 912+16.347 | 6.89 | 0.00 | 0.00 | 6.79 | 112.61 | 0.00 | 16684.11 |
| 913+0.000 | 1.83 | 0.00 | 0.00 | 5.37 | 22.20 | 0.00 | 16706.31 |
| 914+0.000 | 10.00 | 0.00 | 0.00 | 0.00 | 53.66 | 0.00 | 16759.96 |
| 926+0.000 | 120.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16759.96 |
| 927+0.000 | 10.00 | 0.00 | 0.00 | 5.33 | 53.32 | 0.00 | 16813.28 |
| 928+0.000 | 10.00 | 0.00 | 0.00 | 11.27 | 165.97 | 0.00 | 16979.26 |
| 929+0.000 | 10.00 | 0.00 | 0.00 | 4.57 | 158.32 | 0.00 | 17137.57 |
| 929+11.696 | 5.85 | 0.00 | 0.00 | 2.46 | 41.10 | 0.00 | 17178.67 |
| 929+13.564 | 0.93 | 0.00 | 0.00 | 2.20 | 4.35 | 0.00 | 17183.03 |
| 929+15.432 | 0.93 | 0.00 | 0.00 | 1.94 | 3.86 | 0.00 | 17186.89 |
| 930+0.000 | 2.28 | 0.00 | 0.00 | 1.42 | 7.67 | 0.00 | 17194.56 |
| 931+0.000 | 10.00 | 0.00 | 0.00 | 0.67 | 20.91 | 0.00 | 17215.47 |
| 934+0.000 | 30.00 | 0.00 | 0.00 | 0.00 | 20.17 | 0.00 | 17235.64 |
| 934+3.885 | 1.94 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 17235.65 |
| 934+9.709 | 2.91 | 0.00 | 0.00 | 0.91 | 2.64 | 0.00 | 17238.29 |
| 935+0.000 | 5.15 | 0.00 | 0.00 | 3.42 | 22.25 | 0.00 | 17260.55 |
| 936+0.000 | 10.00 | 0.00 | 0.00 | 7.34 | 107.60 | 0.00 | 17368.14 |
| 937+0.000 | 10.00 | 0.00 | 0.00 | 8.94 | 162.82 | 0.00 | 17530.96 |
| 938+0.000 | 10.00 | 0.00 | 0.00 | 7.42 | 163.62 | 0.00 | 17694.59 |
| 938+15.567 | 7.78 | 0.00 | 0.00 | 2.61 | 78.03 | 0.00 | 17772.62 |
| 938+16.398 | 0.42 | 0.00 | 0.00 | 2.47 | 2.11 | 0.00 | 17774.73 |
| 938+17.229 | 0.42 | 0.00 | 0.00 | 2.44 | 2.04 | 0.00 | 17776.77 |
| 939+0.000 | 1.39 | 0.00 | 0.00 | 2.71 | 7.14 | 0.00 | 17783.91 |
| 940+0.000 | 10.00 | 0.00 | 0.00 | 1.41 | 41.21 | 0.00 | 17825.11 |