

| ROUTE 117 CL |                            |                         |   |  |  |  |                |
|--------------|----------------------------|-------------------------|---|--|--|--|----------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                          | PI<br>OR/OU<br>A                                   | END<br>STATION<br>FIN                              | Δ              |
| TANGENT 1    | 10.871                     |                         | 69° 27' 57.43"  | STA: 0+000.000<br>E: 2613082.302<br>N: 7530769.194 |  | STA: 0+010.871<br>E: 2613082.302<br>N: 7530773.007 |                |
| CURVE 1      | 163.576                    | 6000.0                  | 70° 14' 49.09"  | STA: 0+010.871<br>E: 2613092.483<br>N: 7530773.007 | A: 2613169.079<br>E: 2613092.483<br>N: 7530801.697 | STA: 0+174.447<br>E: 2613246.428<br>N: 7530828.289 | 1° 33' 43.3"   |
| TANGENT 2    | 77.206                     |                         | 71° 01' 40.75"  | STA: 0+174.447<br>E: 2613246.428<br>N: 7530828.289 |  | STA: 0+251.653<br>E: 2613246.428<br>N: 7530853.389 |                |
| SPIRAL 1     | 45.000                     |                         |   |  | A: 222.991   |  |                |
| CURVE 2      | 115.984                    | 1105.0                  | 75° 12' 05.75"  | STA: 0+296.653<br>E: 2613382.094<br>N: 7530867.729 | A: 2613416.978<br>E: 2613382.094<br>N: 7530867.729 | STA: 0+412.637<br>E: 2613474.179<br>N: 7530897.340 | 6° 00' 50.1"   |
| SPIRAL 2     | 45.000                     |                         |   |  | A: 222.991   |  |                |
| TANGENT 3    | 84.294                     |                         | 79° 22' 30.74"  | STA: 0+457.637<br>E: 2613518.349<br>N: 7530905.937 |  | STA: 0+541.931<br>E: 2613518.349<br>N: 7530921.479 |                |
| SPIRAL 3     | 50.000                     |                         |   |  | A: 163.936   |  |                |
| CURVE 3      | 1342.629                   | 537.5                   | 5° 09' 01.11"   | STA: 0+591.931<br>E: 2613650.187<br>N: 7530931.457 | A: 2615496.462<br>E: 2613650.187<br>N: 7531277.017 | STA: 1+934.560<br>E: 2613741.734<br>N: 7531947.144 | 143° 07' 11.8" |
| SPIRAL 4     | 50.000                     |                         |   |  | A: 163.936   |  |                |
| TANGENT 4    | 60.365                     |                         | 290° 55' 31.48"   | STA: 1+984.560<br>E: 2613695.318<br>N: 7531965.722 |  | STA: 2+044.924<br>E: 2613695.318<br>N: 7531967.281 |                |
| SPIRAL 5     | 50.000                     |                         |   |  | A: 158.114   |  |                |
| CURVE 4      | 408.702                    | 500.0                   | 317° 12' 25.57"   | STA: 2+094.924<br>E: 2613592.542<br>N: 7532005.913 | A: 2613384.858<br>E: 2613592.542<br>N: 7532084.433 | STA: 2+503.628<br>E: 2613322.558<br>N: 7532297.544 | 46° 50' 01.7"  |
| SPIRAL 6     | 50.000                     |                         |   |  | A: 158.114   |  |                |
| TANGENT 5    | 152.889                    |                         | 343° 29' 19.66"   | STA: 2+553.626<br>E: 2613307.550<br>N: 7532345.234 |  | STA: 2+706.516<br>E: 2613307.550<br>N: 7532491.819 |                |
| SPIRAL 7     | 50.000                     |                         |   |  | A: 147.733   |  |                |
| CURVE 5      | 275.179                    | 436.5                   | 322° 08' 49.29"   | STA: 2+756.516<br>E: 2613248.978<br>N: 7532538.470 | A: 2613208.497<br>E: 2613248.978<br>N: 7532753.167 | STA: 3+031.695<br>E: 2613082.900<br>N: 7532753.167 | 36° 07' 13.6"  |
| SPIRAL 8     | 50.000                     |                         |   |  | A: 147.733   |  |                |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                 |           |            |                          |
|--|-----------------|-----------|------------|--------------------------|
| CURVE 2  | RADIUS = 1105.0 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE       | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 0+207.25   | -0.030          | 36.835    | -0.030     | NORMAL CROWN             |
| 0+251.65   | 0.000           | 36.790    | -0.030     | LEVEL CROWN              |
| 0+283.84   | 0.030           | 36.747    | -0.030     | REVERSE CROWN            |
| 0+296.65   | 0.032           | 36.744    | -0.032     | BEGIN FULL SUPER         |
| 0+412.64   | 0.032           | 37.916    | -0.032     | END FULL SUPER           |
| 0+415.45   | 0.030           | 37.868    | -0.030     | REVERSE CROWN            |
| 0+457.64   | 0.000           | 36.971    | -0.030     | LEVEL CROWN              |
| 0+497.93   | -0.028          | 35.902    | -0.030     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 3  | RADIUS = 537.5 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 0+501.64   | -0.030         | 35.820    | -0.028     | NORMAL CROWN             |
| 0+541.93   | -0.030         | 35.275    | 0.000      | LEVEL CROWN              |
| 0+574.54   | -0.030         | 35.238    | 0.030      | REVERSE CROWN            |
| 0+591.93   | -0.046         | 35.242    | 0.046      | BEGIN FULL SUPER         |
| 1+934.56   | -0.046         | 31.964    | 0.046      | END FULL SUPER           |
| 1+951.95   | -0.030         | 31.954    | 0.030      | REVERSE CROWN            |
| 1+984.56   | -0.030         | 31.935    | 0.000      | LEVEL CROWN              |
| 2+000.92   | -0.030         | 31.925    | -0.011     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 4  | RADIUS = 500.0 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 2+028.56   | -0.011         | 31.909    | -0.030     | NORMAL CROWN             |
| 2+044.92   | 0.000          | 31.900    | -0.030     | LEVEL CROWN              |
| 2+077.53   | 0.030          | 31.881    | -0.030     | REVERSE CROWN            |
| 2+094.92   | 0.046          | 31.855    | -0.046     | BEGIN FULL SUPER         |
| 2+503.63   | 0.046          | 28.059    | -0.046     | END FULL SUPER           |
| 2+521.02   | 0.030          | 27.868    | -0.030     | REVERSE CROWN            |
| 2+553.63   | 0.000          | 27.380    | -0.030     | LEVEL CROWN              |
| 2+598.03   | -0.030         | 26.444    | -0.030     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 5  | RADIUS = 436.5 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 2+622.12   | -0.030         | 24.549    | -0.030     | NORMAL CROWN             |
| 2+706.52   | -0.030         | 23.076    | 0.000      | LEVEL CROWN              |
| 2+735.93   | -0.030         | 22.101    | 0.030      | REVERSE CROWN            |
| 2+756.52   | -0.051         | 21.482    | 0.051      | BEGIN FULL SUPER         |
| 3+031.69   | -0.051         | 19.528    | 0.051      | END FULL SUPER           |
| 3+052.28   | -0.030         | 19.277    | 0.030      | REVERSE CROWN            |
| 3+056.29   | -0.030         | 19.222    | 0.026      | LEVEL CROWN              |
| 3+081.69   | -0.012         | 18.838    | 0.000      | NORMAL CROWN             |

| ROUTE 117 CL |                            |                         |   |  |  |  |               |
|--------------|----------------------------|-------------------------|---|--|--|--|---------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                          | PI<br>OR/OU<br>A                                   | END<br>STATION<br>FIN                              | Δ             |
| TANGENT 6    | 18.598                     |                         | 300° 48' 18.93"   | STA: 3+081.695<br>E: 2613040.458<br>N: 7532779.585 |  | STA: 3+100.293<br>E: 2613040.458<br>N: 7532789.109 |               |
| SPIRAL 9     | 50.000                     |                         |   |  | A: 147.479   |  |               |
| CURVE 6      | 300.888                    | 435.0                   | 323° 54' 49.51"   | STA: 3+150.293<br>E: 2612982.042<br>N: 7532815.529 | A: 2612843.494<br>E: 2612982.042<br>N: 7533053.868 | STA: 3+451.181<br>E: 2612809.321<br>N: 7533053.868 | 39° 37' 52.6" |
| SPIRAL 10    | 50.000                     |                         |   |  | A: 147.479   |  |               |
| TANGENT 7    | 262.922                    |                         | 347° 01' 20.10"   | STA: 3+501.181<br>E: 2612796.173<br>N: 7533102.360 |  | STA: 3+764.103<br>E: 2612796.173<br>N: 753358.566  |               |
| SPIRAL 11    | 62.500                     |                         |   |  | A: 135.785   |  |               |
| CURVE 7      | 266.983                    | 295.0                   | 19° 01' 07.71"  | STA: 3+826.603<br>E: 2612725.256<br>N: 7533419.896 | A: 2612888.643<br>E: 2613368.946<br>N: 7533583.778 | STA: 4+093.585<br>E: 2612809.321<br>N: 7533583.778 | 51° 51' 15.0" |
| SPIRAL 12    | 62.500                     |                         |   |  | A: 135.785   |  |               |
| TANGENT 8    | 401.604                    |                         | 51° 00' 55.31"  | STA: 4+156.085<br>E: 2612856.462<br>N: 7533704.768 |  | STA: 4+557.689<br>E: 2612856.462<br>N: 7533957.422 |               |
| CURVE 8      | 422.153                    | 3500.0                  | 47° 33' 35.97"  | STA: 4+557.689<br>E: 2613168.834<br>N: 7533957.422 | A: 2613332.906<br>E: 2613479.988<br>N: 7534090.374 | STA: 4+979.843<br>E: 2613479.988<br>N: 7534242.126 | 6° 54' 38.7"  |
| TANGENT 9    | 112.056                    |                         | 44° 06' 16.63"  | STA: 4+979.843<br>E: 2613479.988<br>N: 7534242.126 |  | STA: 5+091.898<br>E: 2613479.988<br>N: 7534322.560 |               |
| SPIRAL 13    | 50.000                     |                         |   |  | A: 139.284   |  |               |
| CURVE 9      | 109.673                    | 388.0                   | 55° 53' 38.49"  | STA: 5+141.898<br>E: 2613592.530<br>N: 7534357.731 | A: 2613631.773<br>E: 2613498.730<br>N: 7534419.023 | STA: 5+251.571<br>E: 2613498.730<br>N: 7534419.023 | 16° 11' 43.2" |
| SPIRAL 14    | 50.000                     |                         |   |  | A: 139.284   |  |               |
| TANGENT 10   | 55.841                     |                         | 67° 41' 00.35"  | STA: 5+301.571<br>E: 2613729.866<br>N: 7534438.994 |  | STA: 5+357.412<br>E: 2613729.866<br>N: 7534460.198 |               |
| SPIRAL 15    | 45.000                     |                         |   |  | A: 212.873   |  |               |
| CURVE 10     | 572.154                    | 1007.0                  | 50° 07' 34.21"  | STA: 5+402.412<br>E: 2614097.112<br>N: 7534477.595 | A: 2614097.112<br>E: 2614256.246<br>N: 7534630.488 | STA: 5+974.566<br>E: 2614256.246<br>N: 7534630.488 | 32° 33' 14.9" |
| SPIRAL 16    | 45.000                     |                         |   |  | A: 212.873   |  |               |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 6  | RADIUS = 435.0 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 3+100.29   | 0.000          | 18.568    | -0.013     | NORMAL CROWN             |
| 3+125.69   | 0.026          | 18.283    | -0.030     | LEVEL CROWN              |
| 3+129.70   | 0.030          | 18.246    | -0.030     | REVERSE CROWN            |
| 3+150.29   | 0.051          | 18.096    | -0.051     | BEGIN FULL SUPER         |
| 3+451.18   | 0.051          | 16.547    | -0.051     | END FULL SUPER           |
| 3+471.77   | 0.030          | 15.864    | -0.030     | REVERSE CROWN            |
| 3+501.18   | 0.000          | 14.615    | -0.030     | LEVEL CROWN              |
| 3+545.58   | -0.030         | 12.119    | -0.030     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 7  | RADIUS = 295.0 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 3+719.70   | -0.030         | 4.816     | -0.030     | NORMAL CROWN             |
| 3+764.10   | 0.000          | 4.735     | -0.030     | LEVEL CROWN              |
| 3+795.35   | 0.030          | 4.753     | -0.030     | REVERSE CROWN            |
| 3+826.60   | 0.060          | 5.115     | -0.060     | BEGIN FULL SUPER         |
| 4+093.59   | 0.060          | 14.595    | -0.060     | END FULL SUPER           |
| 4+124.84   | 0.030          | 15.165    | -0.030     | REVERSE CROWN            |
| 4+156.09   | 0.000          | 15.563    | -0.030     | LEVEL CROWN              |
| 4+200.49   | -0.030         | 15.834    | -0.030     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 9  | RADIUS = 388.0 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 5+047.50   | -0.030         | 7.916     | -0.030     | NORMAL CROWN             |
| 5+091.90   | 0.000          | 8.279     | -0.030     | LEVEL CROWN              |
| 5+119.68   | 0.030          | 8.858     | -0.030     | REVERSE CROWN            |
| 5+141.90   | 0.054          | 9.516     | -0.054     | BEGIN FULL SUPER         |
| 5+251.57   | 0.054          | 12.825    | -0.054     | END FULL SUPER           |
| 5+273.79   | 0.030          | 13.270    | -0.030     | REVERSE CROWN            |
| 5+301.57   | 0.000          | 13.693    | -0.030     | LEVEL CROWN              |
| 5+312.41   | -0.007         | 13.818    | -0.030     | NORMAL CROWN             |

| SUPERELEVATION DEVELOPMENT / DÉVELOPPEMENT DU SUPERÉLEVATION |                |           |            |                          |
|--|----------------|-----------|------------|--------------------------|
| CURVE 10   | RADIUS = 436.5 |           |            | E <sub>max</sub> = 0.060 |
| STATION  | LEFT LANE      | CL. ELEV. | RIGHT LANE | DESCRIPTION              |
| 5+346.57   | -0.030         | 14.062    | -0.030     | NORMAL CROWN             |
| 5+357.41   | -0.030         | 14.093    | 0.000      | LEVEL CROWN              |
| 5+399.60   | -0.030         | 14.101    | 0.030      | REVERSE CROWN            |
| 5+402.41   | -0.030         | 14.101    | 0.032      | BEGIN FULL SUPER         |
| 5+974.57   | -0.030         | 14.103    | 0.032      | END FULL SUPER           |
| 5+977.38   | -0.030         | 14.103    | 0.030      | REVERSE CROWN            |
| 6+019.57   | -0.030         | 14.103    | 0.000      | LEVEL CROWN              |
| 6+063.97   | -0.030         | 14.103    | -0.030     | NORMAL CROWN             |

| ROUTE 117 CL |                            |                         |   |  |  |  |               |
|--------------|----------------------------|-------------------------|---|--|--|--|---------------|
| SEGMENT      | LENGTH/<br>LONGUEUR<br>(m) | RADIUS/<br>RAYON<br>(m) | TANGENT OR CHORD<br>AZIMUTH/AZIMUT<br>TANGENTE OU CORDE | BEGIN<br>STATION<br>DÉBUT                          | PI<br>OR/OU<br>A                                   | END<br>STATION<br>FIN                              | Δ             |
| TANGENT 11   | 516.680                    |                         | 32° 34' 08.08"  | STA: 6+019.566<br>E: 2614280.751<br>N: 7534877.230 |  | STA: 6+536.246<br>E: 2614280.751<br>N: 7535312.659 |               |
| SPIRAL 17    | 50.000                     |                         |   |  | A: 150.000   |  |               |
| CURVE 11     | 32.129                     | 450.0                   | 27° 20' 25.60"  | STA: 6+586.246<br>E: 2614589.014<br>N: 7535355.282 | A: 2614594.522<br>E: 2614589.014<br>N: 7535368.446 | STA: 6+618.375<br>E: 2614589.757<br>N: 7535383.815 | 4° 05' 26.6"  |
| SPIRAL 18    | 50.000                     |                         |   |  | A: 150.000   |  |               |
| TANGENT 12   | 55.302                     |                         | 22° 06' 43.12"  | STA: 6+668.375<br>E: 2614619.440<br>N: 7535429.775 |  | STA: 6+723.677<br>E: 2614619.440<br>N: 7535481.010 |               |
| SPIRAL 19    | 62.500                     |                         |   |  | A: 125.000   |  |               |
| CURVE 12     | 150.901                    | 250.0                   | 46° 33' 57.18"  | STA: 6+786.177<br>E: 2614665.156<br>N: 7535537.843 | A: 2614694.919<br>E: 2614665.156<br>N: 7535615.547 | STA: 6+937.077<br>E: 2614774.079<br>N: 7535680.232 | 34° 35' 01.9" |
| SPIRAL 20    | 62.500                     |                         |   |  | A: 125.000   |  |               |
| TANGENT 13   | 507.911                    |                         | 71° 01' 11.24"  | STA: 6+999.577<br>E: 2614832.242<br>N: 7535662.778 |  | STA: 7+507.488<br>E: 2614832.242<br>N: 7535827.972 |               |
| SPIRAL 21    | 45.000                     |                         |   |  | A: 264.102   |  |               |
| CURVE 13     | 101.438                    | 1550.0                  | 68° 18' 47.67"  | STA: 7+552.488<br>E: 2615355.021<br>N: 7535842.514 | A: 2615403.108<br>E: 2615355.021<br>N: 7535859.122 | STA: 7+653.927<br>E: 2615449.262<br>N: 7535880.232 | 3° 44' 58.    |