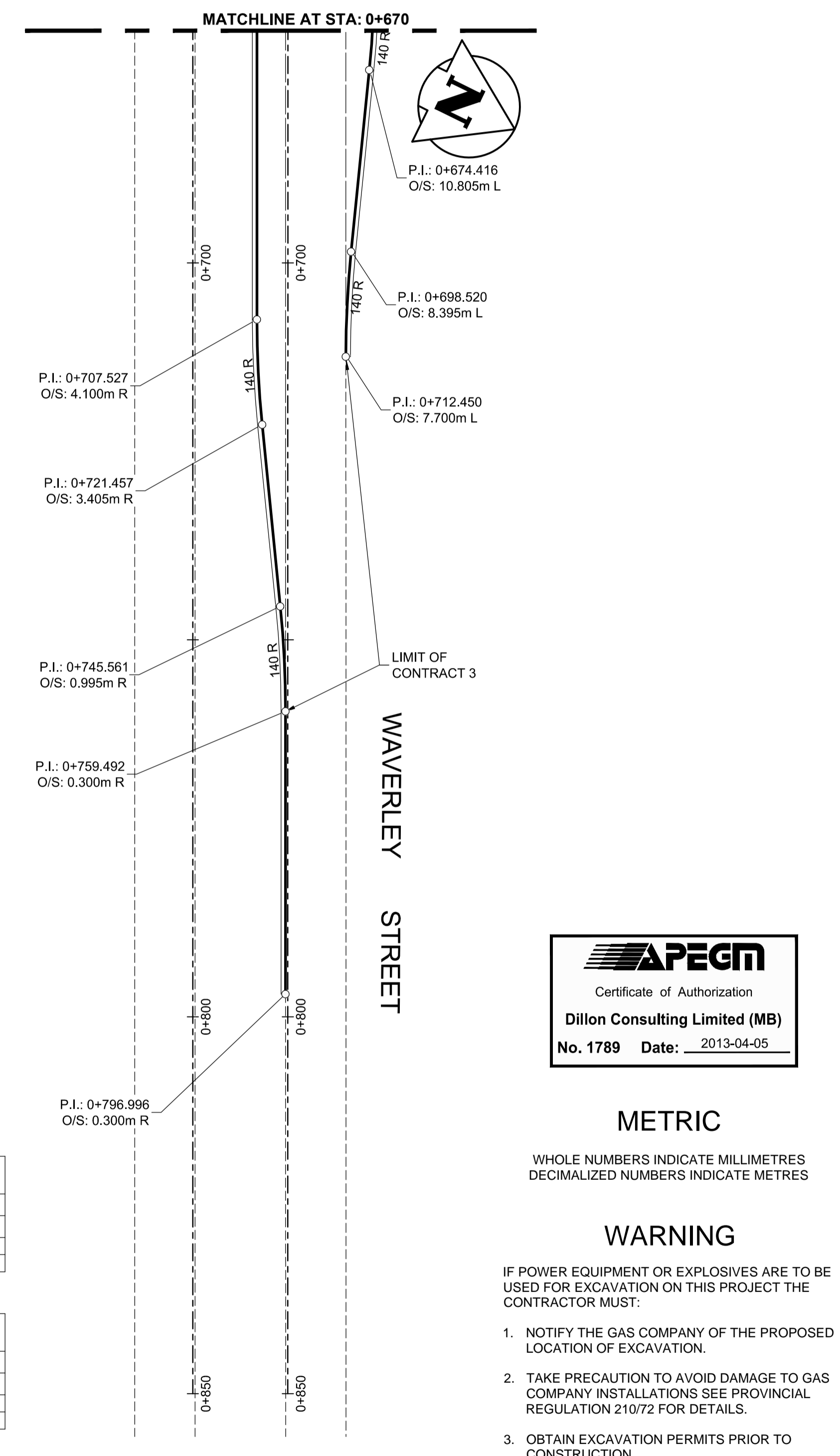
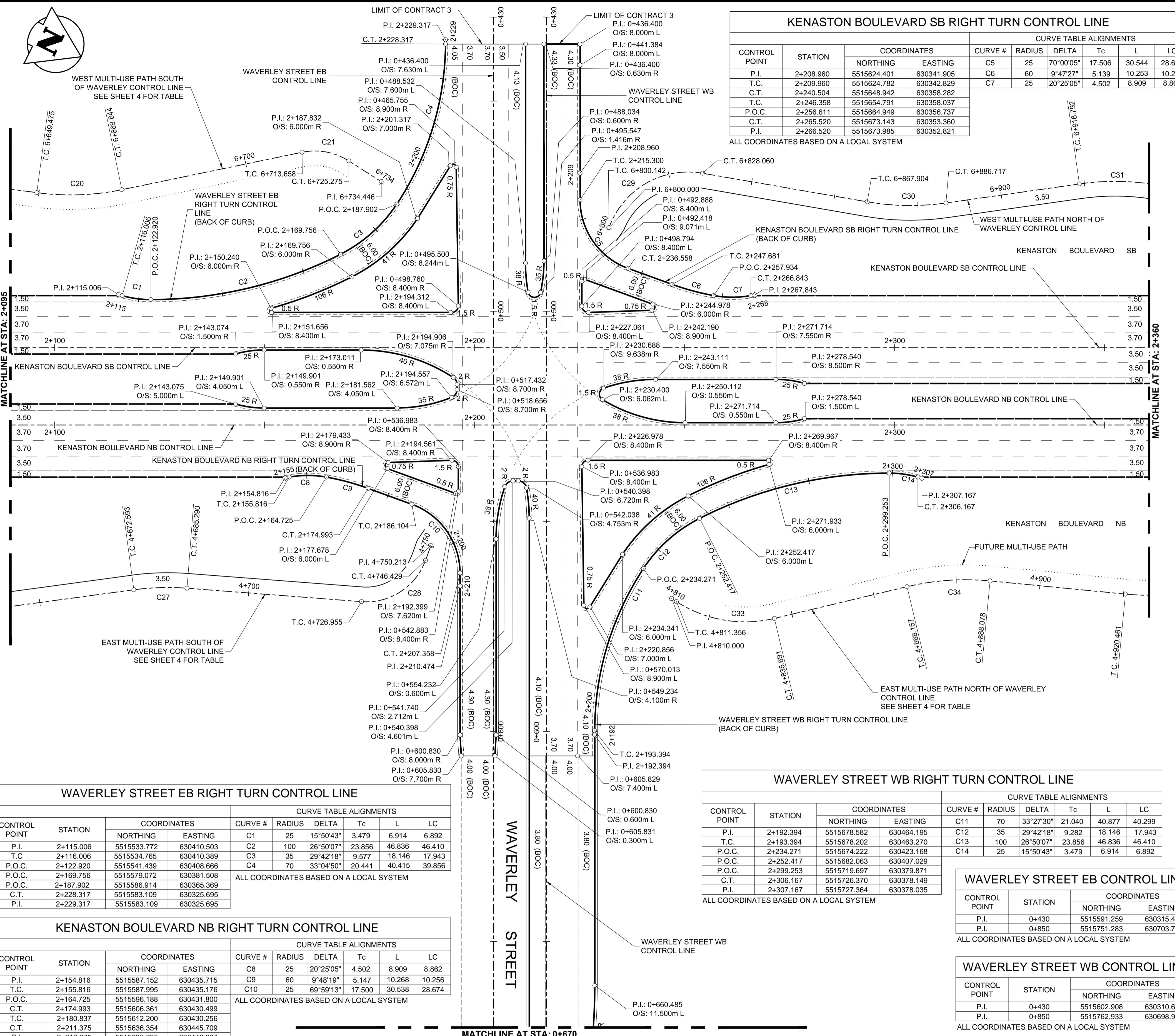


### KENASTON BOULEVARD SB RIGHT TURN CONTROL LINE

| CONTROL POINT | STATION   | COORDINATES |            | CURVE TABLE ALIGNMENTS |        |           |        |        |        |
|---------------|-----------|-------------|------------|------------------------|--------|-----------|--------|--------|--------|
|               |           | NORTHING    | EASTING    | CURVE #                | RADIUS | DELTA     | Tc     | L      | LC     |
| P.I.          | 2+208.960 | 5515624.401 | 630341.905 | C5                     | 25     | 70°00'05" | 17.506 | 30.544 | 28.679 |
| T.C.          | 2+209.960 | 5515624.782 | 630342.829 | C6                     | 60     | 9°47'27"  | 5.139  | 10.253 | 10.241 |
| C.T.          | 2+240.504 | 5515648.942 | 630358.282 | C7                     | 25     | 20°25'05" | 4.502  | 8.909  | 8.862  |
| P.O.C.        | 2+246.358 | 5515654.791 | 630358.037 |                        |        |           |        |        |        |
| P.O.C.        | 2+256.611 | 5515664.949 | 630356.737 |                        |        |           |        |        |        |
| C.T.          | 2+265.520 | 5515673.143 | 630353.360 |                        |        |           |        |        |        |
| P.I.          | 2+266.520 | 5515673.985 | 630352.821 |                        |        |           |        |        |        |

### WEST MULTI-USE PATH NORTH OF WAVERLEY CONTROL LINE

| CONTROL POINT | STATION   | COORDINATES |            | CURVE TABLE ALIGNMENTS |        |           |         |        |        |
|---------------|-----------|-------------|------------|------------------------|--------|-----------|---------|--------|--------|
|               |           | NORTHING    | EASTING    | CURVE #                | RADIUS | DELTA     | Tc      | L      | LC     |
| P.I.          | 6+800     | 5515635.755 | 630351.376 | C30                    | 20     | 79°58'38" | 16.7752 | 27.917 | 25.705 |
| T.C.          | 6+800.142 | 5515635.749 | 630351.233 | C31                    | 60     | 17°57'56" | 9.4846  | 18.814 | 18.737 |
| C.T.          | 6+828.060 | 5515651.379 | 630330.826 | C32                    | 60     | 18°53'01" | 9.9779  | 19.775 | 19.685 |
| T.C.          | 6+867.904 | 5515690.269 | 630322.159 |                        |        |           |         |        |        |
| C.T.          | 6+886.717 | 5515707.696 | 630315.277 |                        |        |           |         |        |        |
| T.C.          | 6+918.792 | 5515735.325 | 630298.984 |                        |        |           |         |        |        |
| C.T.          | 6+938.567 | 5515753.692 | 630291.901 |                        |        |           |         |        |        |
| T.C.          | 6+978.650 | 5515792.950 | 630283.810 |                        |        |           |         |        |        |
| C.T.          | 6+989.910 | 5515803.700 | 630280.519 |                        |        |           |         |        |        |
| P.I.          | 7+498.085 | 5516273.539 | 630086.887 |                        |        |           |         |        |        |



### WAVERLEY STREET EB RIGHT TURN CONTROL LINE

| CONTROL POINT | STATION   | COORDINATES |            | CURVE TABLE ALIGNMENTS |        |           |        |        |        |
|---------------|-----------|-------------|------------|------------------------|--------|-----------|--------|--------|--------|
|               |           | NORTHING    | EASTING    | CURVE #                | RADIUS | DELTA     | Tc     | L      | LC     |
| P.I.          | 2+115.006 | 5515533.772 | 630410.503 | C1                     | 25     | 15°50'43" | 3.479  | 6.914  | 6.892  |
| T.C.          | 2+116.006 | 5515534.765 | 630410.389 | C2                     | 100    | 26°50'07" | 23.856 | 46.836 | 46.410 |
| P.O.C.        | 2+122.920 | 5515541.439 | 630408.666 | C3                     | 35     | 29°42'18" | 9.577  | 18.146 | 17.943 |
| P.O.C.        | 2+169.756 | 5515579.072 | 630381.508 | C4                     | 70     | 33°04'50" | 20.441 | 40.415 | 39.856 |
| C.T.          | 2+187.902 | 5515586.914 | 630365.369 |                        |        |           |        |        |        |
| P.I.          | 2+228.317 | 5515583.109 | 630325.695 |                        |        |           |        |        |        |
| P.I.          | 2+229.317 | 5515583.109 | 630325.695 |                        |        |           |        |        |        |

### KENASTON BOULEVARD NB RIGHT TURN CONTROL LINE

| CONTROL POINT | STATION   | COORDINATES |            | CURVE TABLE ALIGNMENTS |        |           |        |        |        |
|---------------|-----------|-------------|------------|------------------------|--------|-----------|--------|--------|--------|
|               |           | NORTHING    | EASTING    | CURVE #                | RADIUS | DELTA     | Tc     | L      | LC     |
| P.I.          | 2+154.816 | 5515587.152 | 630435.715 | C8                     | 25     | 15°50'43" | 3.479  | 6.914  | 6.892  |
| T.C.          | 2+155.816 | 5515587.995 | 630435.176 | C9                     | 60     | 9°48'19"  | 5.147  | 10.268 | 10.256 |
| P.O.C.        | 2+164.725 | 5515596.188 | 630431.800 | C10                    | 25     | 69°59'13" | 17.500 | 30.538 | 28.674 |
| C.T.          | 2+174.993 | 5515606.361 | 630430.499 |                        |        |           |        |        |        |
| T.C.          | 2+180.837 | 5515612.200 | 630430.256 |                        |        |           |        |        |        |
| C.T.          | 2+211.375 | 5515636.354 | 630445.709 |                        |        |           |        |        |        |
| P.I.          | 2+212.375 | 5515636.735 | 630446.634 |                        |        |           |        |        |        |

### WAVERLEY STREET WB RIGHT TURN CONTROL LINE

| CONTROL POINT | STATION   | COORDINATES |            | CURVE TABLE ALIGNMENTS |        |           |        |        |        |
|---------------|-----------|-------------|------------|------------------------|--------|-----------|--------|--------|--------|
|               |           | NORTHING    | EASTING    | CURVE #                | RADIUS | DELTA     | Tc     | L      | LC     |
| P.I.          | 2+192.394 | 5515678.582 | 630464.195 | C11                    | 70     | 33°27'30" | 21.040 | 40.877 | 40.299 |
| T.C.          | 2+193.394 | 5515678.202 | 630463.270 | C12                    | 35     | 29°42'18" | 9.282  | 18.146 | 17.943 |
| P.O.C.        | 2+234.271 | 5515674.222 | 630423.168 | C13                    | 100    | 26°50'07" | 23.856 | 46.836 | 46.410 |
| P.O.C.        | 2+252.417 | 5515682.063 | 630407.029 |                        |        |           |        |        |        |
| C.T.          | 2+299.253 | 5515719.697 | 630379.871 |                        |        |           |        |        |        |
| P.I.          | 2+306.167 | 5515726.370 | 630378.149 |                        |        |           |        |        |        |
| P.I.          | 2+307.167 | 5515727.364 | 630378.035 |                        |        |           |        |        |        |

### WAVERLEY STREET EB CONTROL LINE

| CONTROL POINT | STATION | COORDINATES |            |
|---------------|---------|-------------|------------|
|               |         | NORTHING    | EASTING    |
| P.I.          | 0+430   | 5515591.259 | 630315.415 |
| P.I.          | 0+850   | 5515751.283 | 630703.735 |

### WAVERLEY STREET WB CONTROL LINE

| CONTROL POINT | STATION | COORDINATES |            |
|---------------|---------|-------------|------------|
|               |         | NORTHING    | EASTING    |
| P.I.          | 0+430   | 5515602.908 | 630310.614 |
| P.I.          | 0+850   | 5515762.933 | 630698.934 |



**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**WARNING**  
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:  
1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.  
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.  
3. OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.

| 150 W.M. | WATERMAIN           | 150 W.M. | M.T.S.            | M.T.S. | 150 mm W.M. | WATERMAIN           | 150 mm W.M. |
|----------|---------------------|----------|-------------------|--------|-------------|---------------------|-------------|
|          | HYDRANT VALVE       |          | CONCRETE ASPHALT  |        |             | HYDRANT VALVE       |             |
|          | LAND DRAINAGE SEWER |          | CONCRETE PLANING  |        |             | LAND DRAINAGE SEWER |             |
|          | WASTE WATER SEWER   |          | CONCRETE SIDEWALK |        |             | WASTE WATER SEWER   |             |
|          | MANHOLE             |          | PAVING STONES     |        |             | MANHOLE             |             |
|          | CATCH BASIN         |          | PROPERTY LINE     |        |             | CATCH BASIN         |             |
|          | CURB INLET          |          | SURVEY BAR        |        |             | CURB INLET          |             |
|          | TEST HOLES          |          | CURB RAMP         |        |             | TEST HOLES          |             |
|          | CULVERT             |          | DITCH             |        |             | CULVERT             |             |
|          | GAS                 |          | SWALE             |        |             | GAS                 |             |
|          | EXISTING            |          | LEGEND-PLAN       |        |             | EXISTING            |             |
|          | PROPOSED            |          | LEGEND-PLAN       |        |             | PROPOSED            |             |
|          | EXISTING            |          | LEGEND-PROFILE    |        |             | EXISTING            |             |
|          | PROPOSED            |          | LEGEND-PROFILE    |        |             | PROPOSED            |             |

| UNDERGROUND STRUCTURES  |      | B.M. 654008 N: 5515764.610 E: 633359.697 |          | DESIGNED BY MRD |                  | DESIGN TEAM               |  |
|---|------|--|----------|-----------------|------------------|---------------------------|--|
| SUP. U/G STRUCTURES COMMITTEE   | DATE |  |          | DRAWN BY PMW    |                  |                           |  |
|   |      |  |          | CHECKED BY DBW  |                  |                           |  |
|   |      |  |          | APPROVED BY DPK |                  |                           |  |
| NOTE:<br>LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION. |      | 1 ISSUED FOR TENDER                      | 13-04-05 | MRD             | HOR. SCALE 1:250 | RELEASED FOR CONSTRUCTION |  |
|   |      | 0 ISSUED FOR 90% REVIEW                  | 13-02-22 | MRD             | VERTICAL         |                           |  |
| NO. REVISIONS   | DATE | BY                                       | DATE     | DATE            | 2013-04-05       |                           |  |

|  |   |   |  |
|--|---|---|--|
| <br><b>DILLON CONSULTING</b>                 |   | <b>THE CITY OF WINNIPEG</b><br>PUBLIC WORKS DEPARTMENT  | CITY DRAWING NUMBER<br><b>P-3344-3</b> |
|  | CONSULTANT PROJECT NUMBER<br><b>12-6606</b> |   | SHEET <b>3</b> OF <b>23</b>            |
| HORIZONTAL GEOMETRY<br>WAVERLEY INTERSECTION |   | WWARP PART 3 - CONTRACT 3<br>STA: 1+450 TO STA: 2+922.4 |  |

G:\CAD\126606\Contract\Control\_3\Current\Control\_Line\_Geometry.dwg