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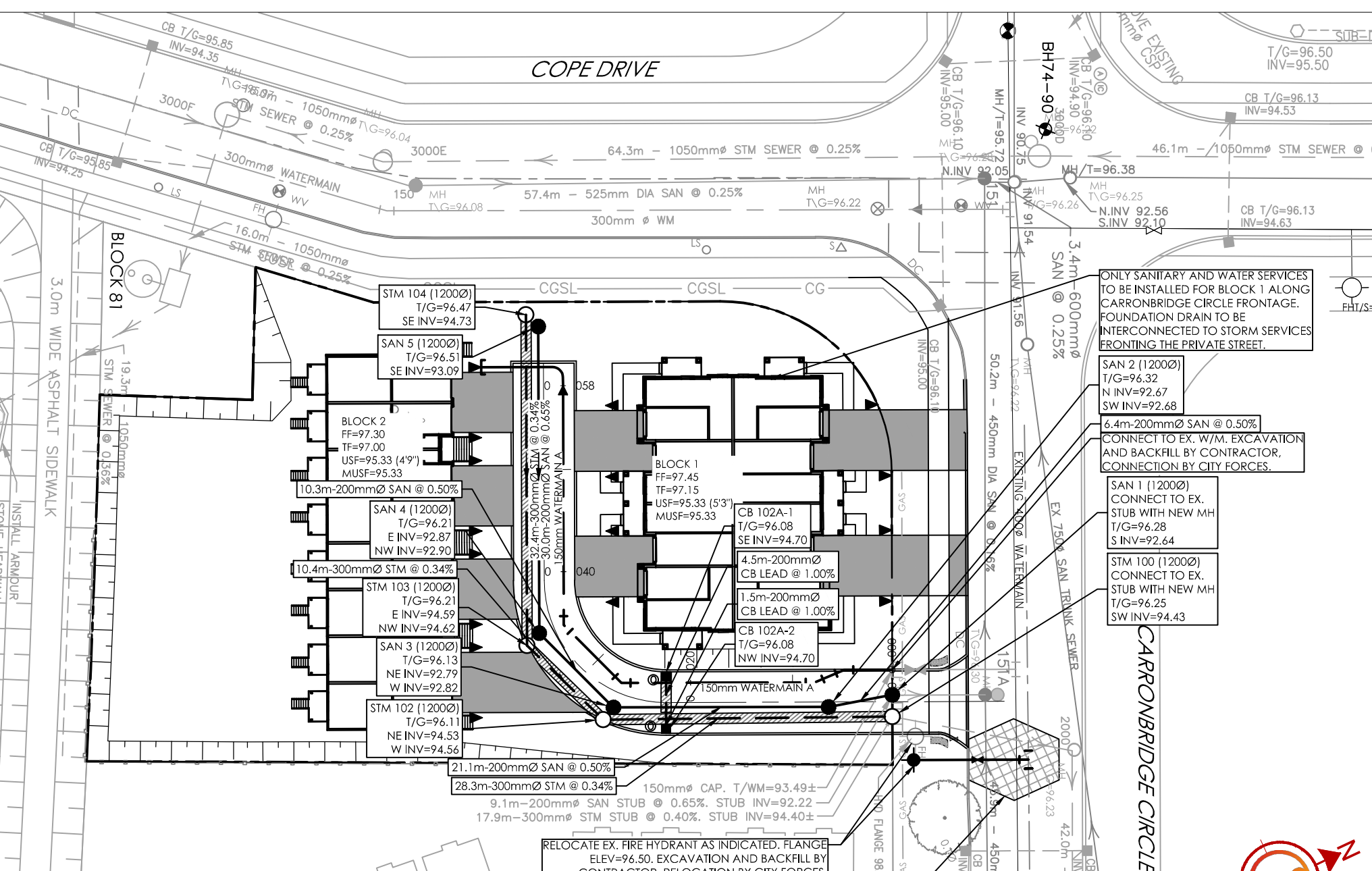
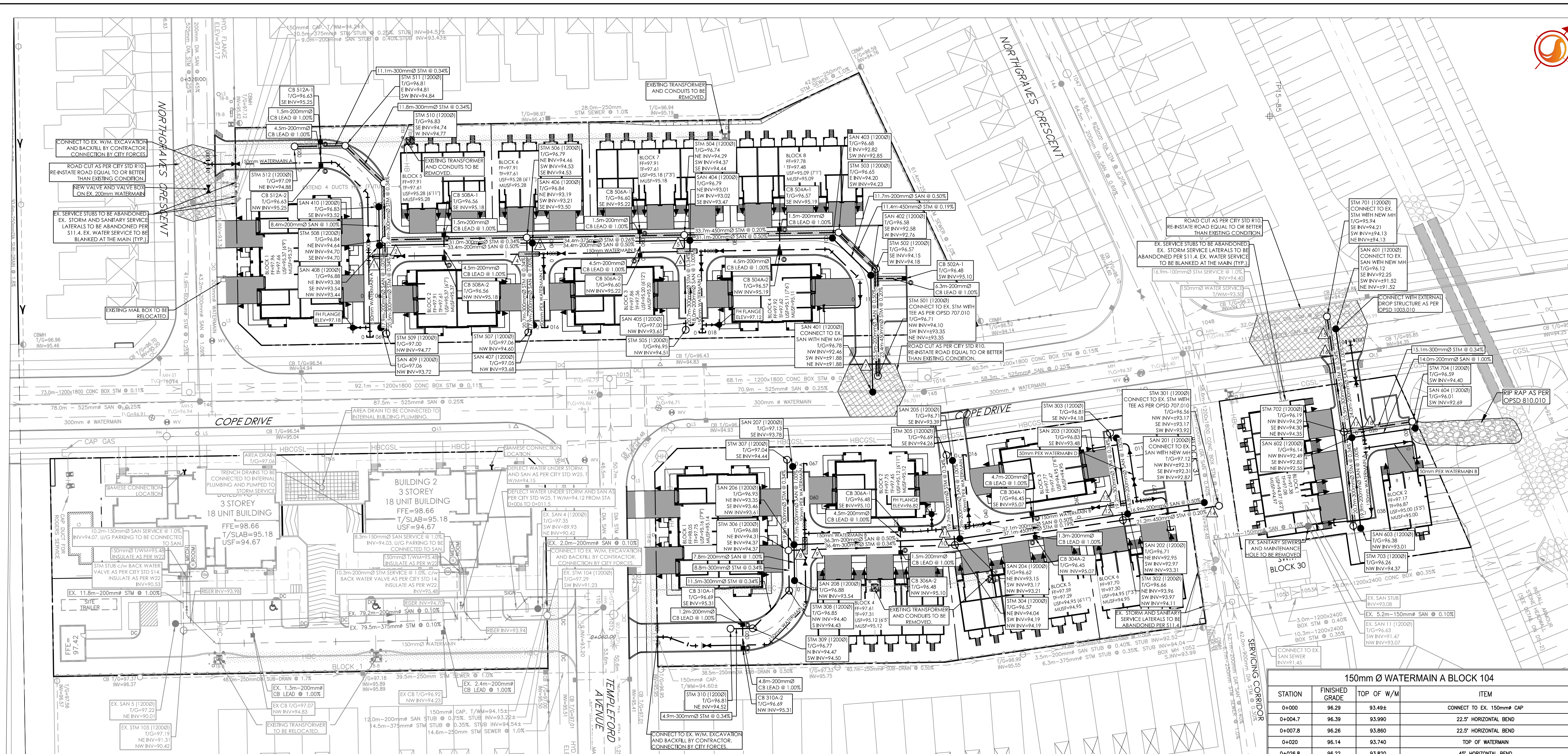
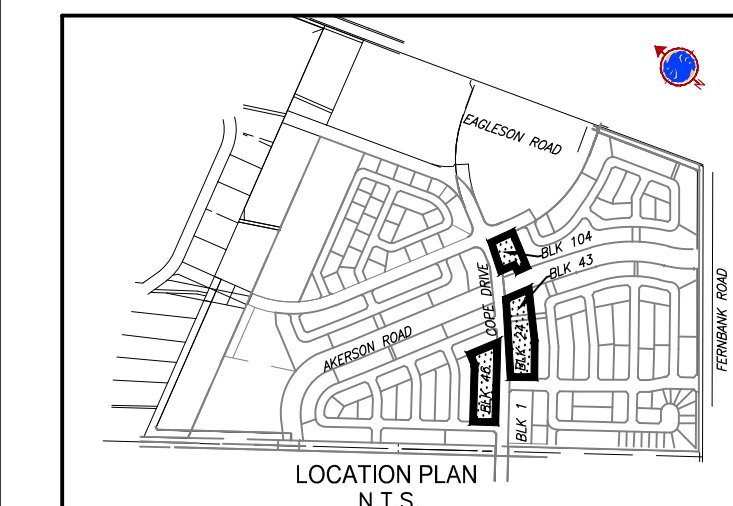
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Legend

- PROPOSED WATERMAIN
- PROPOSED VALVE AND VALVE BOX
- PROPOSED VALVE CHAMBER
- PROPOSED REDUCER
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- PROPOSED REMOTE WATER METER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- WATTS AREA DRAIN OR EQUIVALENT
- EXISTING WATERMAIN
- EXISTING VALVE AND VALVE BOX
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING CATCHBASIN MANHOLE
- EXISTING CATCHBASIN
- INSULATION AS PER CITY STANDARD W22
- WHERE MIN. 2m COVER FOR WATERMAIN
- 2.0m COVER FOR STORM SEWERS OR 2.5m FOR SANITARY SEWERS IS NOT PROVIDED

Notes

- ALL PEAT AND BLAST ROCK INFORMATION TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.
- ALL ENGINEERED FILL AND GRADE RAISES TO BE APPROVED BY GEOTECHNICAL CONSULTANT PRIOR TO PLACING OF MATERIAL.
- ALL PROPOSED BUILDINGS TO BE EQUIPPED WITH BACKWATER VALVES FOR FOUNDATION DRAINAGE.



150mm Ø WATERMAIN A BLOCK 46

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|----------------------------|
| 0+000 | 96.98 | 94.59 | CONNECT TO EX. 150mm CAP |
| 0+006.0 | 97.01 | 94.610 | 150mm VALVE AND VALVE BOX |
| 0+020 | 96.96 | 94.560 | TOP OF WATERMAIN |
| 0+027.9 | 96.73 | 94.330 | 45° HORIZONTAL BEND |
| 0+037.6 | 96.81 | 94.410 | 45° HORIZONTAL BEND |
| 0+040 | 96.79 | 94.390 | TOP OF WATERMAIN |
| 0+047.4 | 96.83 | 94.430 | 150mm VALVE AND VALVE BOX |
| 0+051.4 | 96.85 | 94.450 | 150mm x 150mm TEE |
| 0+060 | 96.81 | 94.510 | TOP OF WATERMAIN |
| 0+066.9 | 97.02 | 94.620 | FIRE HYDRANT TEE |
| 0+069.0 | 97.02 | 94.620 | 150mm CAP AND THRUST BLOCK |

150mm Ø WATERMAIN B BLOCK 46

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.85 | 94.450 | 150mm x 150mm TEE |
| 0+007.0 | 96.75 | 94.350 | 150mm VALVE AND VALVE BOX |
| 0+020 | 96.83 | 94.230 | TOP OF WATERMAIN |
| 0+038.2 | 96.82 | 94.220 | 150mm x 150mm TEE |
| 0+042.1 | 96.76 | 94.360 | 150mm VALVE AND VALVE BOX |
| 0+060 | 96.66 | 94.260 | TOP OF WATERMAIN |
| 0+072.6 | 96.76 | 94.360 | 150mm x 150mm TEE |
| 0+076.8 | 96.70 | 94.300 | 150mm VALVE AND VALVE BOX |
| 0+080 | 96.68 | 94.280 | TOP OF WATERMAIN |
| 0+100.6 | 96.70 | 94.300 | 45° HORIZONTAL BEND |
| 0+110.0 | 96.60 | 94.200 | 45° HORIZONTAL BEND |
| 0+114.4 | 96.60 | 94.200 | 150mm x 50mm REDUCER |

150mm Ø WATERMAIN C BLOCK 46

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.82 | 94.420 | 150mm x 50mm TEE |
| 0+003.4 | 96.83 | 94.430 | 50mm VALVE AND VALVE BOX |
| 0+016.1 | 97.02 | 94.620 | 50mm CAP AND THRUST BLOCK |

150mm Ø WATERMAIN D BLOCK 24

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|----------------------------|
| 0+000 | 96.76 | 94.360 | 150mm x 150mm TEE |
| 0+003.4 | 96.78 | 94.380 | 150mm VALVE AND VALVE BOX |
| 0+016.1 | 96.95 | 94.550 | FIRE HYDRANT TEE |
| 0+017.8 | 96.97 | 94.570 | 150mm CAP AND THRUST BLOCK |

50mm Ø WATERMAIN A BLOCK 46

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.82 | 94.420 | 150mm x 50mm TEE |
| 0+003.4 | 96.83 | 94.430 | 50mm VALVE AND VALVE BOX |
| 0+016.1 | 97.02 | 94.620 | 50mm CAP AND THRUST BLOCK |

50mm Ø WATERMAIN B BLOCK 46

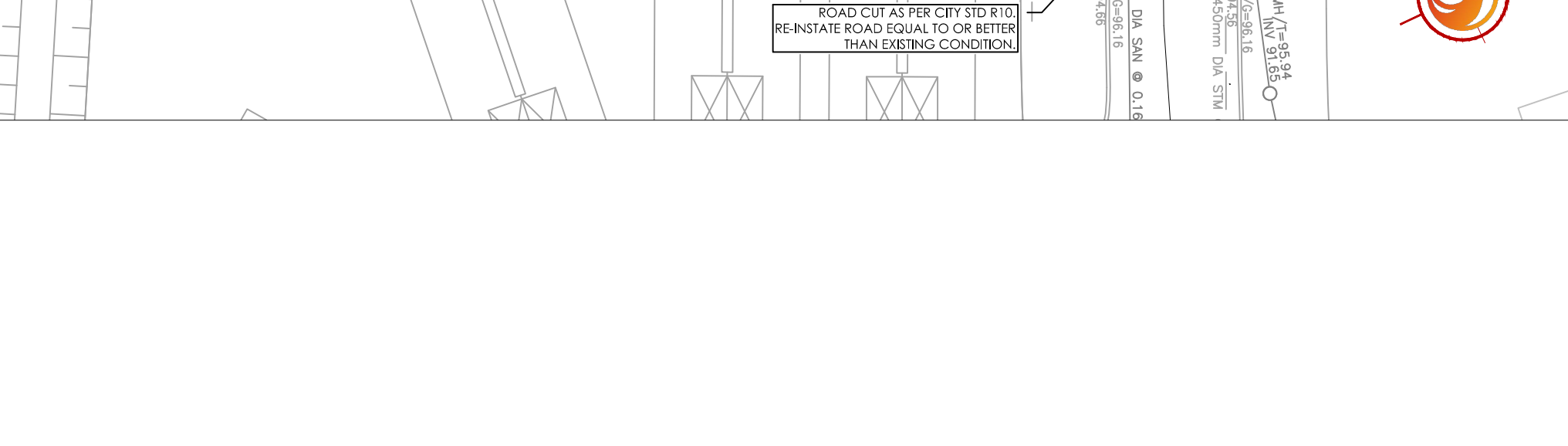
| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.80 | 94.400 | 150mm x 50mm TEE |
| 0+004.6 | 96.78 | 94.380 | 150mm VALVE AND VALVE BOX |
| 0+020 | 96.53 | 94.130 | TOP OF WATERMAIN |
| 0+024.5 | 96.53 | 94.130 | 11.25° HORIZONTAL BEND |
| 0+027.8 | 96.55 | 94.88 | FIRE HYDRANT TEE |
| 0+036.1 | 96.62 | 94.220 | 150mm VALVE AND VALVE BOX |
| 0+039.9 | 96.56 | 94.160 | 150mm VALVE AND VALVE BOX |
| 0+040 | 96.56 | 94.160 | TOP OF WATERMAIN |
| 0+060 | 96.57 | 94.170 | TOP OF WATERMAIN |
| 0+063.9 | 96.61 | 94.210 | 150mm VALVE AND VALVE BOX |
| 0+073.0 | 96.60 | 94.400 | 150mm x 50mm TEE |
| 0+077.3 | 96.65 | 94.450 | 150mm x 50mm REDUCER |

50mm Ø WATERMAIN C BLOCK 24

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.80 | 94.400 | 150mm x 50mm TEE |
| 0+002.9 | 96.83 | 94.430 | 50mm VALVE AND VALVE BOX |
| 0+015.6 | 96.87 | 94.470 | 50mm CAP AND THRUST BLOCK |

50mm Ø WATERMAIN D BLOCK 24

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|---------------------------|
| 0+000 | 96.80 | 94.400 | 150mm x 50mm TEE |
| 0+004.3 | 96.83 | 94.430 | 50mm VALVE AND VALVE BOX |
| 0+011.4 | 96.87 | 94.470 | 50mm CAP AND THRUST BLOCK |



150mm Ø WATERMAIN A BLOCK 43

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|--------------------------------|
| 0+000 | 96.07 | 89.174 | CONNECT TO EX. 300mm WATERMAIN |
| 0+008.8 | 96.21 | 93.810 | 150mm VALVE AND VALVE BOX |
| 0+020.9 | 96.11 | 93.710 | 11.25° HORIZONTAL BEND |
| 0+023.6 | 96.11 | 93.710 | 150mm x 50mm TEE |
| 0+037.6 | 96.22 | 93.820 | 150mm x 50mm REDUCER |

50mm Ø WATERMAIN B BLOCK 43

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|----------------------|
| 0+000 | 96.11 | 93.710 | 150mm x 50mm TEE |
| 0+009.3 | 96.02 | 93.620 | 150mm x 50mm REDUCER |

150mm Ø WATERMAIN A BLOCK 104

| STATION | FINISHED GRADE | TOP OF W/M | ITEM |
|---------|----------------|------------|--------------------------|
| 0+000 | 96.29 | 93.49 | CONNECT TO EX. 150mm CAP |
| 0+004.7 | 96.39 | 93.990 | 22.5° HORIZONTAL BEND |
| 0+007.8 | 96.26 | 93.860 | 22.5° HORIZONTAL BEND |
| 0+020 | 96.14 | 93.740 | TOP OF WATERMAIN |
| 0+026.8 | 96.22 | 93.820 | 45° HORIZONTAL BEND |
| 0+034.8 | 96.28 | 93.880 | 45° HORIZONTAL BEND |
| 0+040 | 96.26 | 93.860 | TOP OF WATERMAIN |
| 0+058.2 | 96.39 | 93.990 | 150mm x 50mm REDUCER |

SCHEDULE OF INLET CONTROL DEVICES

| STRUCTURE ID | DRAINAGE AREA (A) | ORIFICE SIZE/TYPE | ORIFICE INVERT (m) | 100 YEAR HEAD (m) | 100 YEAR RELEASE RATE (L/s) |
|--------------|-------------------|-------------------|--------------------|-------------------|-----------------------------|
| CB102A-1 | C102A | 102mm IPX | 94.70 | 1.51 | 23 |
| CB102A-2 | C102A | 102mm IPX | 94.70 | 1.51 | 23 |
| CB304A-1 | C304A | 95mm IPX | 95.07 | 1.53 | 22 |
| CB304A-2 | C304A | 95mm IPX | 95.07 | 1.53 | 22 |
| CB306A-1 | C306A | 85mm IPX | 95.10 | 1.51 | 17 |
| CB306A-2 | C306A | 85mm IPX | 95.10 | 1.51 | 17 |
| CB310A-1 | C310A | 85mm IPX | 95.31 | 1.47 | 16 |
| CB310A-2 | C310A | 85mm IPX | 95.31 | 1.47 | 16 |
| CB502A-1 | C502A | TEMPEST IPX | 95.10 | 1.50 | 25 |
| CB504A-1 | C504A | TEMPEST IPX | 95.19 | 1.47 | 13 |
| CB504A-2 | C504A | TEMPEST IPX | 95.19 | 1.47 | 13 |
| CB506A-1 | C506A | TEMPEST IPX | 95.22 | 1.51 | 17 |
| CB506A-2 | C506A | TEMPEST IPX | 95.22 | 1.51 | 17 |
| CB508A-1 | C508A | TEMPEST IPX | 95.18 | 1.52 | 14 |
| CB508A-2 | C508A | TEMPEST IPX | 95.18 | 1.52 | 14 |
| CB512A-1 | C512A | TEMPEST IPX | 95.25 | 1.52 | 12 |
| CB512A-2 | C512A | TEMPEST IPX | 95.25 | 1.52 | 12 |

SEWER AND WATERMAIN CROSSING TABLE

| CROSSING | STM INV | STM CBV | SAN INV | SAN CBV | WTR TOP | WTR Btm | NOTES |
|----------|---------------|---------------|---------|---------|---------|---------|-----------------------------------------|
| 1 | 94.71 | 95.01 | 93.56 | 93.76 | 95.66 | 95.510 | PERFECT WATER OVER STORM (AS PER W22.3) |
| 2 | 94.70 | 95.00 | 93.38 | 93.58 | | | |
| 3 | 94.53 | 94.83 | 93.21 | 93.41 | | | DEFECT WATER OVER STORM (AS PER W22.3) |
| 4 | 94.54 | 94.84 | 93.52 | 93.72 | 95.49 | 95.340 | DEFECT WATER OVER STORM (AS PER W22.3) |
| 5 | 94.44 | 94.74 | 93.02 | 93.22 | | | |
| 6 | 94.45 | 94.75 | 93.49 | 93.69 | 95.40 | 95.250 | DEFECT WATER OVER STORM (AS PER W22.3) |
| 7 | 93.33 (93.15) | 94.53 (94.75) | 92.47 | 92.67 | | | |
| 8 | 94.31 | 94.61 | 93.46 | 93.66 | | | DEFECT WATER OVER STORM (AS PER W22.3) |
| 9 | 94.30 | 94.60 | 93.34 | 93.54 | 95.25 | 95.100 | DEFECT WATER OVER STORM (AS PER W22.3) |
| 10 | 94.19 | 94.49 | 93.17 | 93.37 | | | DEFECT WATER OVER STORM (AS PER W22.3) |
| 11 | 94.20 | 94.50 | 93.22 | 93.42 | 95.15 | 95.000 | DEFECT WATER OVER STORM (AS PER W22.3) |
| 12 | 94.11 | 94.41 | 92.97 | 93.17 | | | |
| 13 | 94.12 | 94.42 | 93.33 | 93.53 | 95.07 | 94.920 | DEFECT WATER OVER STORM (AS PER W22.3) |
| 14 | 93.93 (93.85) | 94.30 (94.46) | 92.31 | 92.51 | | | |
| 15 | 94.22 | 94.52 | 91.52 | 92.05 | | | |
| 16 | 94.22 | 94.52 | 92.28 | 92.48 | 91.74 | 91.640 | |
| 17 | 94.35 | 94.65 | 92.49 | 92.69 | | | |
| 18 | 94.35 | 94.65 | 92.57 | 92.77 | 93.71 | 93.560 | |

Client/Project
CAVANAGH CONSTRUCTION LTD.

Trails West
Ottawa ON Canada

Title
COPE DRIVE UNITS
SITE SERVICING PLAN

Project No. 160401718
Scale 0 5 15 25m
Drawing No. Sheet Revision

SSP-1 1 of 6

Professional Engineer
R. J. BRANDRICK
10057025
June 22 2023
PROVINCE OF ONTARIO