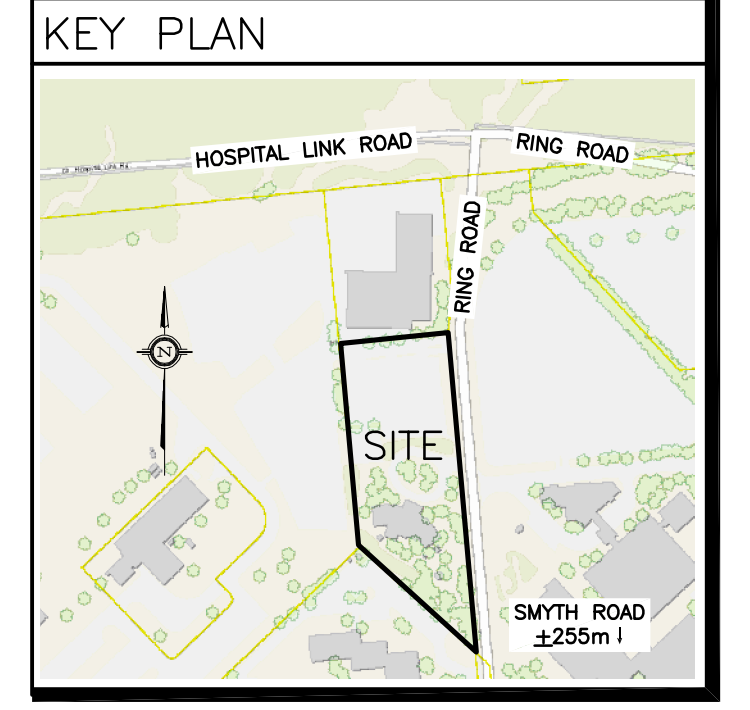


LEGEND

- FFL FINISHED FLOOR ELEVATION
- TOF TOP OF FOUNDATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- C.R.Z CRITICAL ROOT ZONE
- CB CATCH-BASIN
- MH STORM MANHOLE
- CB/MH CATCH-BASIN/MANHOLE
- MH SANITARY MANHOLE
- VC VALVE CHAMBER
- SB SUBDRAINS IN CB
- SB SUBDRAINS IN CB/MH
- FH FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- CS CURB STOP & STANDPOST
- VB VALVE & VALVE BOX
- ⊕ WATER METER
- ⊖ REMOTE WATER METER
- SAN SANITARY SEWER
- ST SANITARY SEWER
- WS/WM WATER SERVICE/WATERMAIN
- OBV OVERTOP OF PIPE
- SPL SPRINGLINE OF PIPE
- INV INVERT OF PIPE



CROSSINGS TABLE

REF	DETAILS	CLEARANCE
1	250 ST INV 75.88 375 ST TOP 74.62	1260mm
2	250 ST INV 75.88 150 SAN TOP 74.46	1420mm
3	375 ST INV 75.79 150 SAN TOP 74.44	1350mm
4	375 ST INV 75.87 150 WM TOP ±75.37	±500mm
5	375 ST INV 75.91 200 WM TOP ±75.37	±540mm

REFER TO NOTES & DETAILS ON DRAWINGS C-5 & C-6

WATER SERVICE PROFILE TABLE

MATERIAL: 150mm PVC PRESSURE CLASS 150 DR18

STATION	DESCRIPTION	GRADE ELEVATION	TOP OF PIPE	DEPTH OF COVER	NOTES
A+00.0	CONNECT TO EXISTING 150 WM	77.65	±75.48	±2.17	-
A+03.0	-	77.68	75.46	2.22	CROSSING 150 SAN TOP 74.72 WM U/S 75.31 - 590mm CLEARANCE (MIN. 250mm REQ'D)
A+04.6	-	77.70	75.45	2.25	ENTRY INTO BUILDING

MATERIAL: 150mm PVC PRESSURE CLASS 150 DR18

STATION	DESCRIPTION	GRADE ELEVATION	TOP OF PIPE	DEPTH OF COVER	NOTES
B+00.0	150mm x 150mm TEE (TO FIRE HYDRANT) TO CITY OF OTTAWA STANDARDS	77.39	±75.42	±1.97	START OF 50mm THICK INSULATION AS PER CITY OF OTTAWA DRAWING No. W22
B+01.0	150mm VALVE & VALVE BOX TO CITY OF OTTAWA STANDARDS	77.39	75.40	1.99	-
B+07.8	-	77.47	75.26	2.21	BOTTOM OF CURB
B+09.3	FIRE HYDRANT TO CITY OF OTTAWA STANDARDS	77.50	75.23	2.27	-

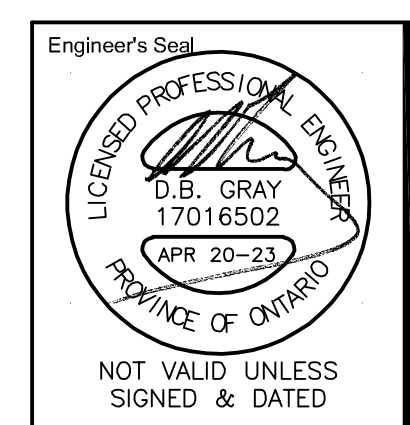
50mm THICK INSULATION AS PER CITY OF OTTAWA DRAWING No. W22 FROM B+00.0 TO B+09.3

No.	DATE	REVISION
7	APR 20-23	RE-ISSUED FOR APPROVAL
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2	NOV 23-22	ISSUED FOR COORDINATION
1	OCT 20-22	PRELIMINARY

D. B. GRAY ENGINEERING INC.
 Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain
 700 Long Point Circle 613-425-8044
 Ottawa, Ontario d.gray@dbgrayengineering.com

Project
RONALD McDONALD HOUSE ADDITION
 407 SMYTH RD,
 OTTAWA, ONTARIO

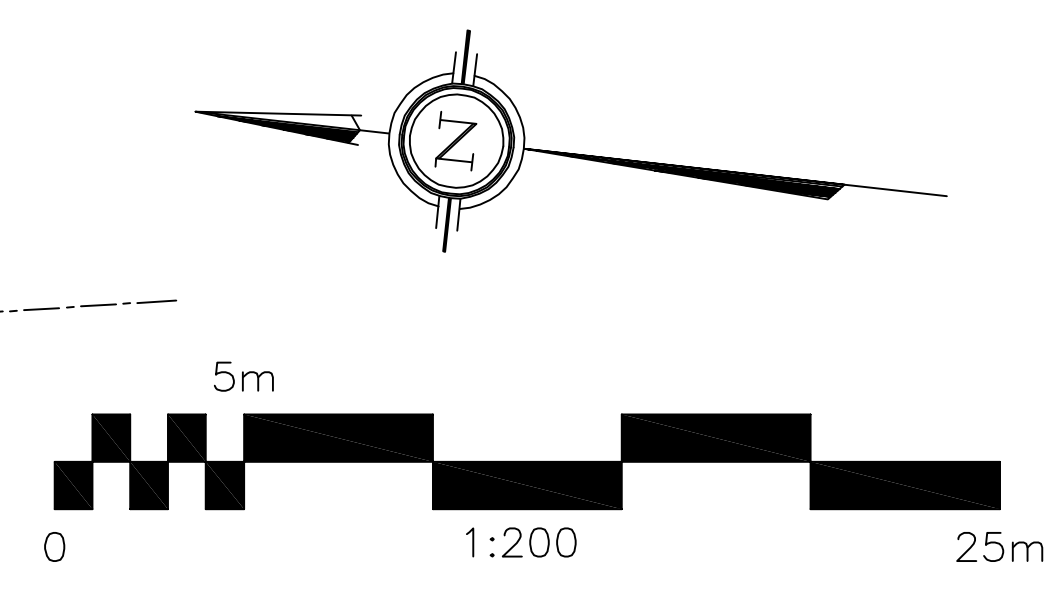
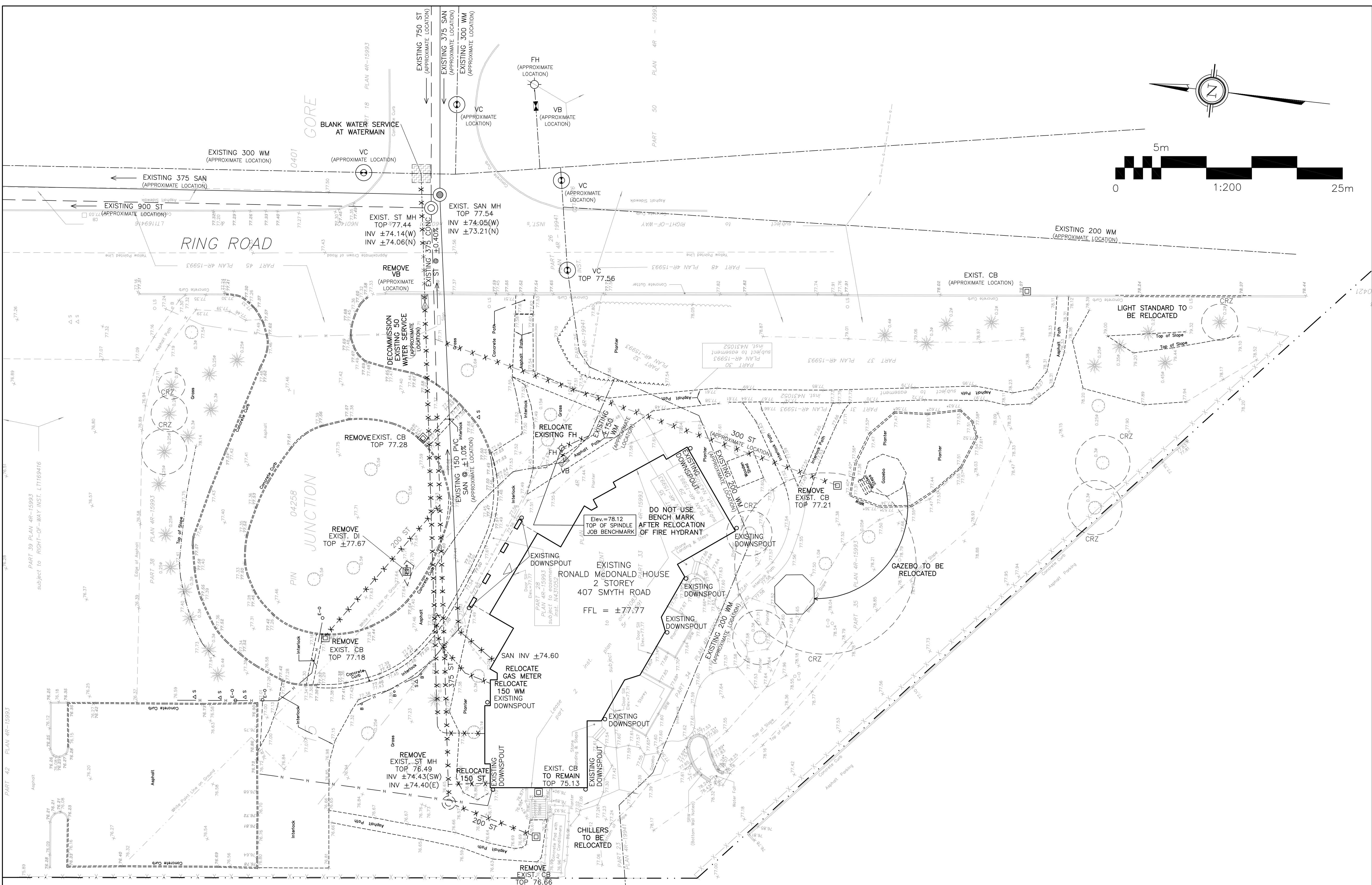
Drawing Title
SITE SERVICING PLAN



Drawn: D.B.G.
 Hor. Scale: 1:200
 Vert. Scale:
 Date: OCT 30-20
 Job No.: 19111
 Drawing No.:
C-1
 of 8

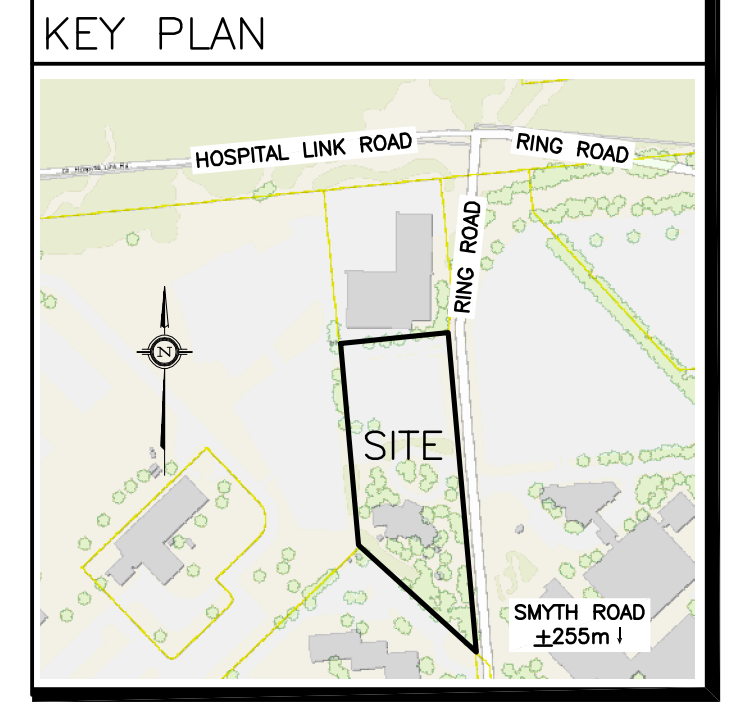
APPROVED
 By Lily Xu at 2:59 pm, Jun 15, 2023

LILY XU, MCIP, RPP
 MANAGER, DEVELOPMENT REVIEW SOUTH
 PLANNING, INFRASTRUCTURE & ECONOMIC
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



LEGEND

- FFL FINISHED FLOOR ELEVATION
- TOF TOP OF FOUNDATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- C.R.Z. CRITICAL ROSTE ZONE
- CB CATCH-BASIN
- MH STORM MANHOLE
- CB/MH CATCH-BASIN/MANHOLE
- MH SANITARY MANHOLE
- VC VALVE CHAMBER
- VC SANUBRINS IN CB
- FH FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- CS CURB STOP & STANDPOST
- VB VALVE & VALVE BOX
- WM WATER METER
- RMW REMOTE WATER METER
- SAN SANITARY SEWER
- ST STORM SEWER
- WS/WW WATER SERVICE/WATERMAIN
- OBV OVERT OF PIPE
- SPL SPRINGLINE OF PIPE
- INV INVERT OF PIPE

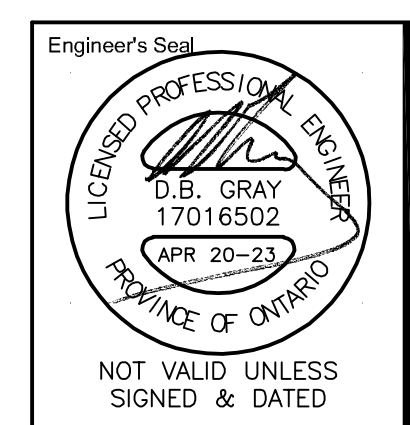


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D. B. GRAY ENGINEERING INC.
 Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain
 700 Long Point Circle 613-425-8044
 Ottawa, Ontario d.gray@dbgrayengineering.com

Project
RONALD McDONALD HOUSE ADDITION
 407 SMYTH RD,
 OTTAWA, ONTARIO

Drawing Title
EXISTING CONDITIONS, REMOVALS & DECOMMISSIONING



Drawn D.B.G.
 Hor. Scale 1:200
 Vert. Scale
 Date OCT 30-20
 Job No. 19111

Drawing No.
C-2
 of 8

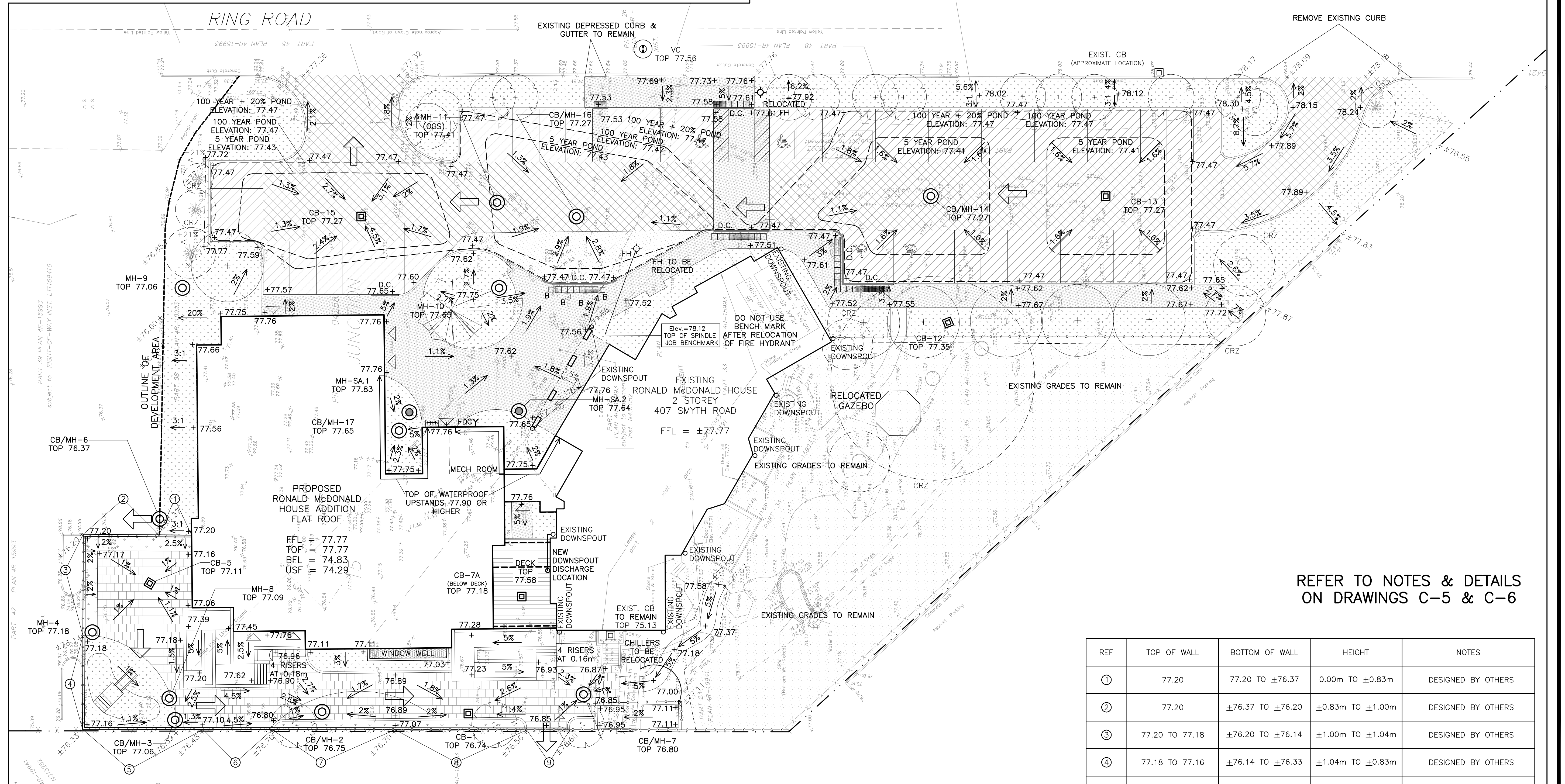
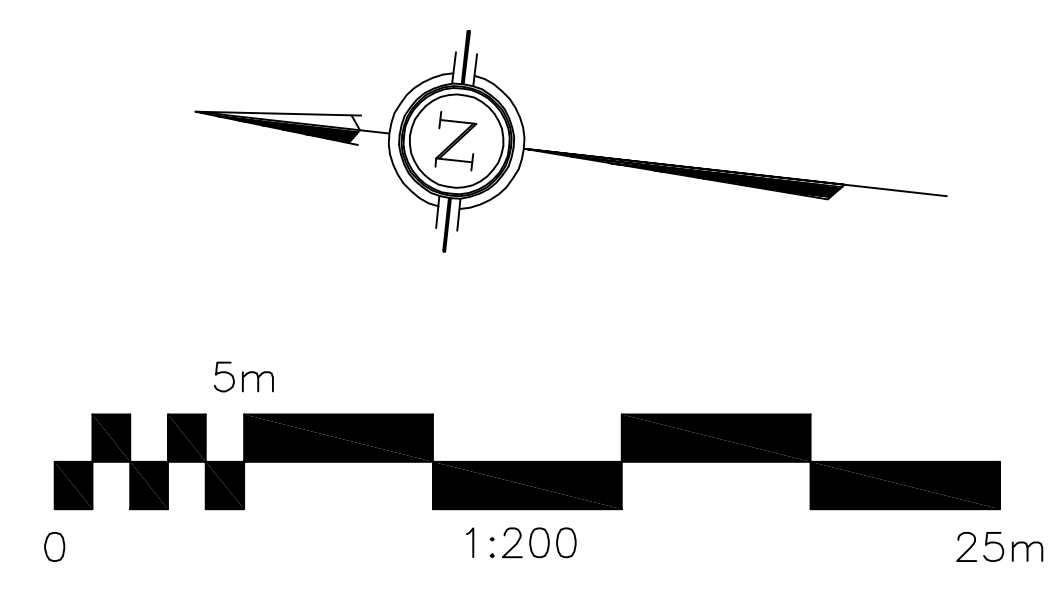
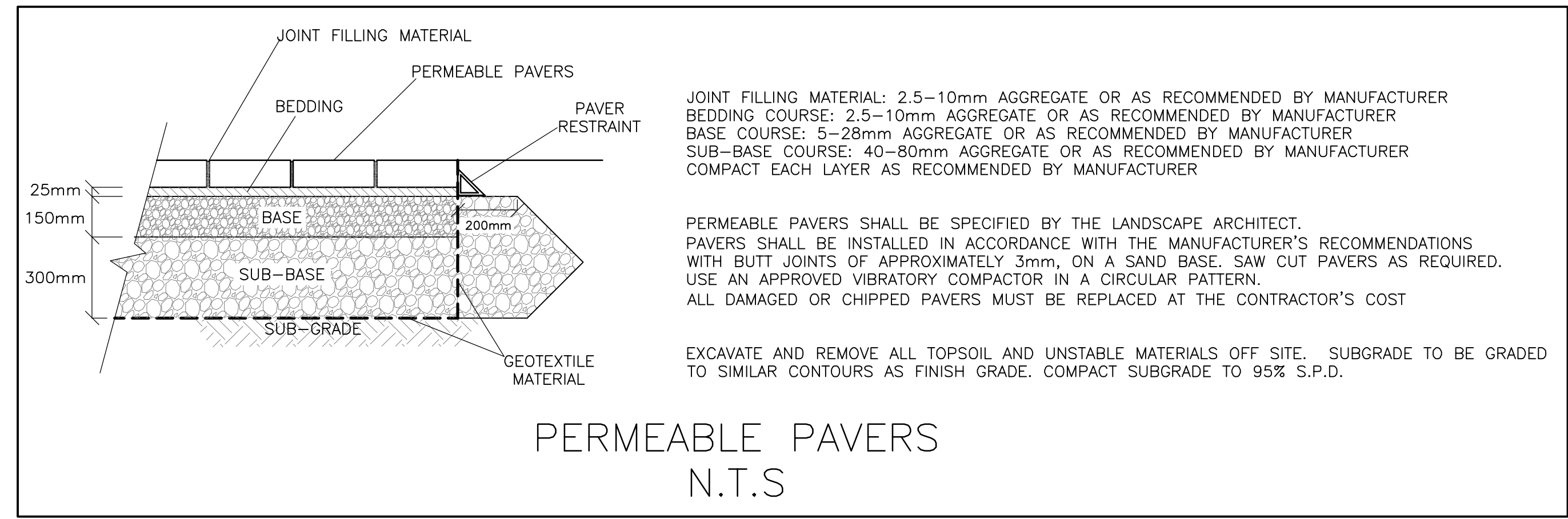
NOT VALID UNLESS SIGNED & DATED
 #18909

Lily Xu
LILY XU, MCIP, RPP
 MANAGER, DEVELOPMENT REVIEW SOUTH
 PLANNING, INFRASTRUCTURE & ECONOMIC
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
 By Lily Xu at 2:58 pm, Jun 15, 2023

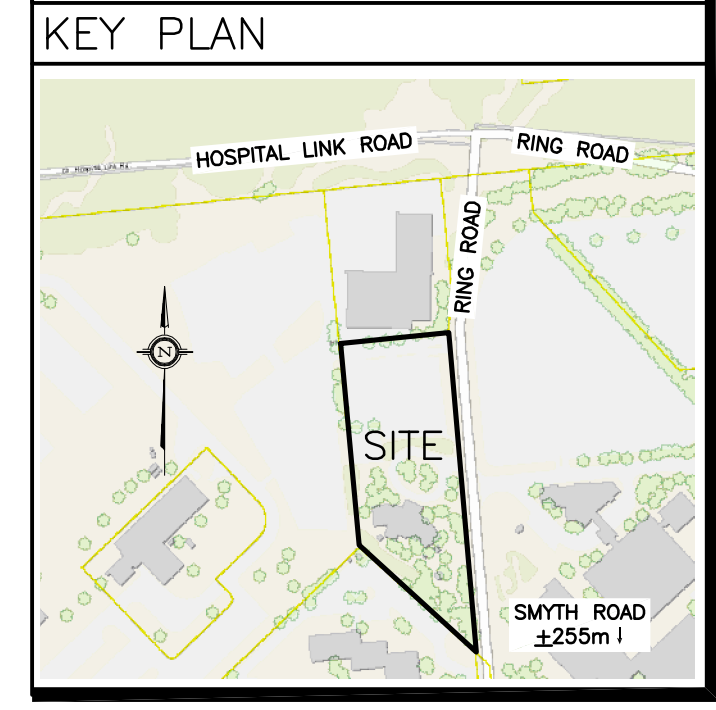
REFER TO NOTES & DETAILS
 ON DRAWINGS C-5 & C-6

D07-12-22-0176



LEGEND

- FFL FINISHED FLOOR ELEVATION
- TOP TOP OF FOUNDATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- CRZ CRITICAL ROOT ZONE
- CB CATCH-BASIN
- MH STORM MANHOLE
- CB/MH CATCH-BASIN/MANHOLE
- MH SANITARY MANHOLE
- VC VALVE CHAMBER
- FH FIRE HYDRANT
- FDC FIRE DEPARTMENT CONNECTION
- EXISTING GRADE ELEVATION
- PROPOSED GRADE ELEVATION
- EXISTING SLOPE OF GRADE
- PROPOSED SLOPE OF GRADE
- EMERGENCY OVERLAND FLOW
- T.O.S TOP OF SLOPE
- B.O.S BOTTOM OF SLOPE
- CENTERLINE OF SWALE
- 150mm BARRIER CURB
- D.C DEPRESSIONED CURB
- LIGHT-DUTY PAVEMENT
- HEAVY-DUTY PAVEMENT
- PERMEABLE PAVERS
- CONCRETE
- LANDSCAPE



No.	DATE	REVISION
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		REVISION

REFER TO NOTES & DETAILS ON DRAWINGS C-5 & C-6

REF	TOP OF WALL	BOTTOM OF WALL	HEIGHT	NOTES
①	77.20	77.20 TO ±76.37	0.00m TO ±0.83m	DESIGNED BY OTHERS
②	77.20	±76.37 TO ±76.20	±0.83m TO ±1.00m	DESIGNED BY OTHERS
③	77.20 TO 77.18	±76.20 TO ±76.14	±1.00m TO ±1.04m	DESIGNED BY OTHERS
④	77.18 TO 77.16	±76.14 TO ±76.33	±1.04m TO ±0.83m	DESIGNED BY OTHERS
⑤	77.16 TO 77.10	±76.33 TO ±76.48	±0.83m TO ±0.62m	DESIGNED BY OTHERS
⑥	77.10 TO 76.95	±76.48 TO ±76.70	±0.62m TO ±0.25m	DESIGNED BY OTHERS
⑦	76.95 TO 77.07	±76.70	±0.25m TO ±0.37m	DESIGNED BY OTHERS
⑧	77.07 TO 77.00	±76.70 TO ±76.56	±0.37m TO ±0.44m	DESIGNED BY OTHERS
⑨	76.85	±76.56 TO ±76.60	±0.29m TO ±0.25m	DESIGNED BY OTHERS

D. B. GRAY ENGINEERING INC.
 Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Mechanical
 700 Long Point Circle 613-425-8044
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Project
RONALD McDONALD HOUSE ADDITION
 407 SMYTH RD,
 OTTAWA, ONTARIO

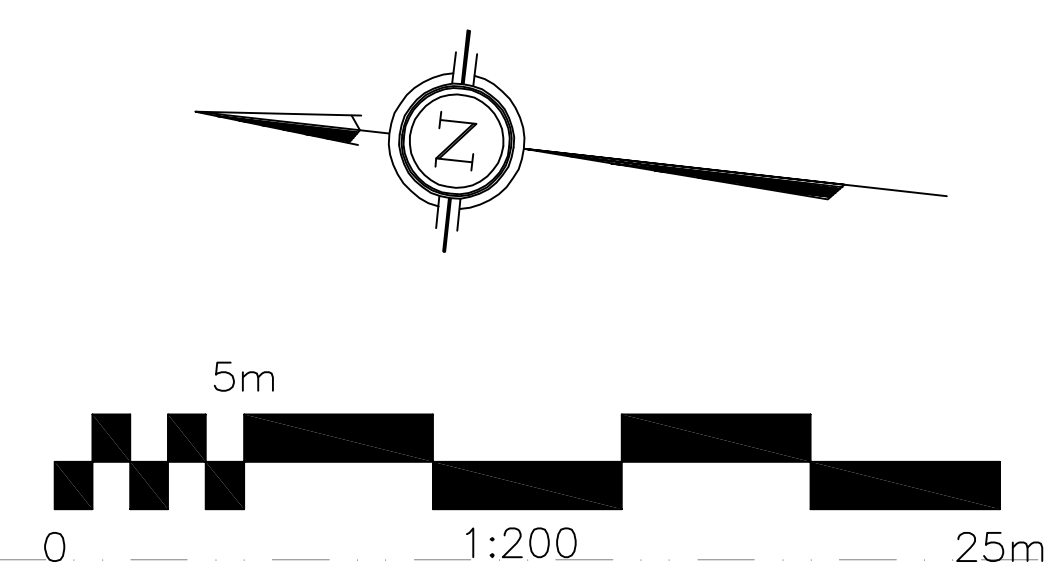
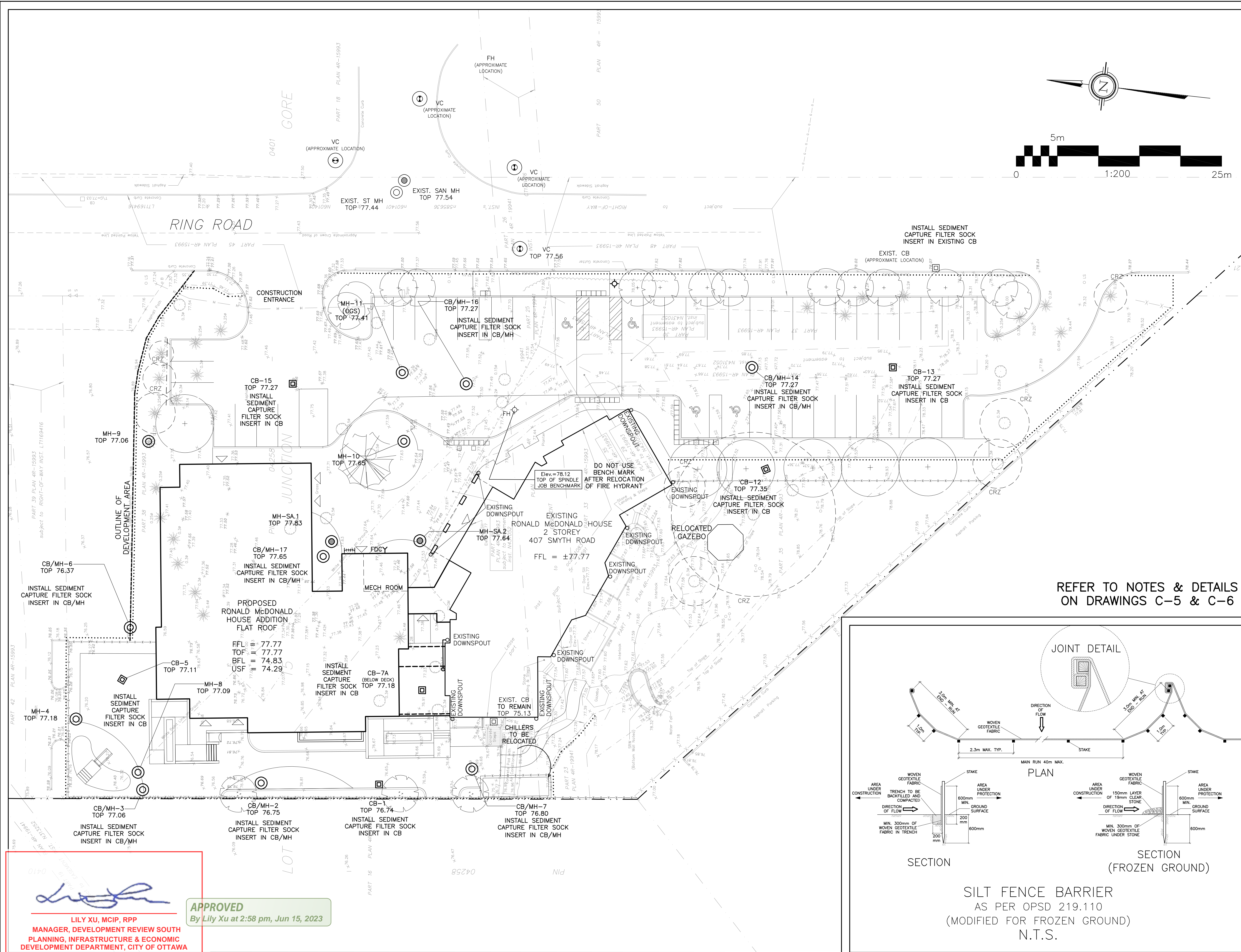
Drawing Title
GRADING PLAN

Engineer's Seal

 Drawn: D.B.G
 Hor. Scale: 1:200
 Vert. Scale: 1:200
 Date: OCT 20-22
 Job No.: 19111
 Drawing No.: **C-3**
 of 8
 NOT VALID UNLESS SIGNED & DATED

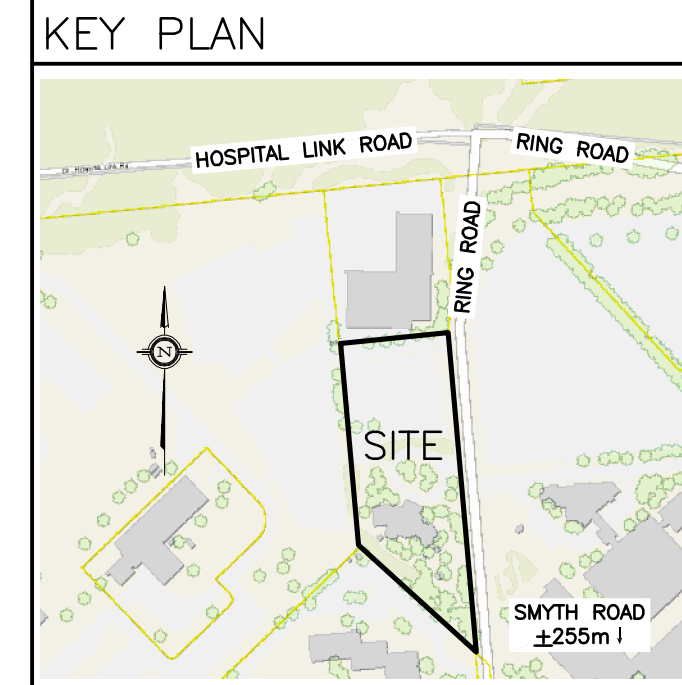
APPROVED
 By Lily Xu at 2:58 pm, Jun 15, 2023

LILY XU, MCIP, RPP
 MANAGER, DEVELOPMENT REVIEW SOUTH
 PLANNING, INFRASTRUCTURE & ECONOMIC
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



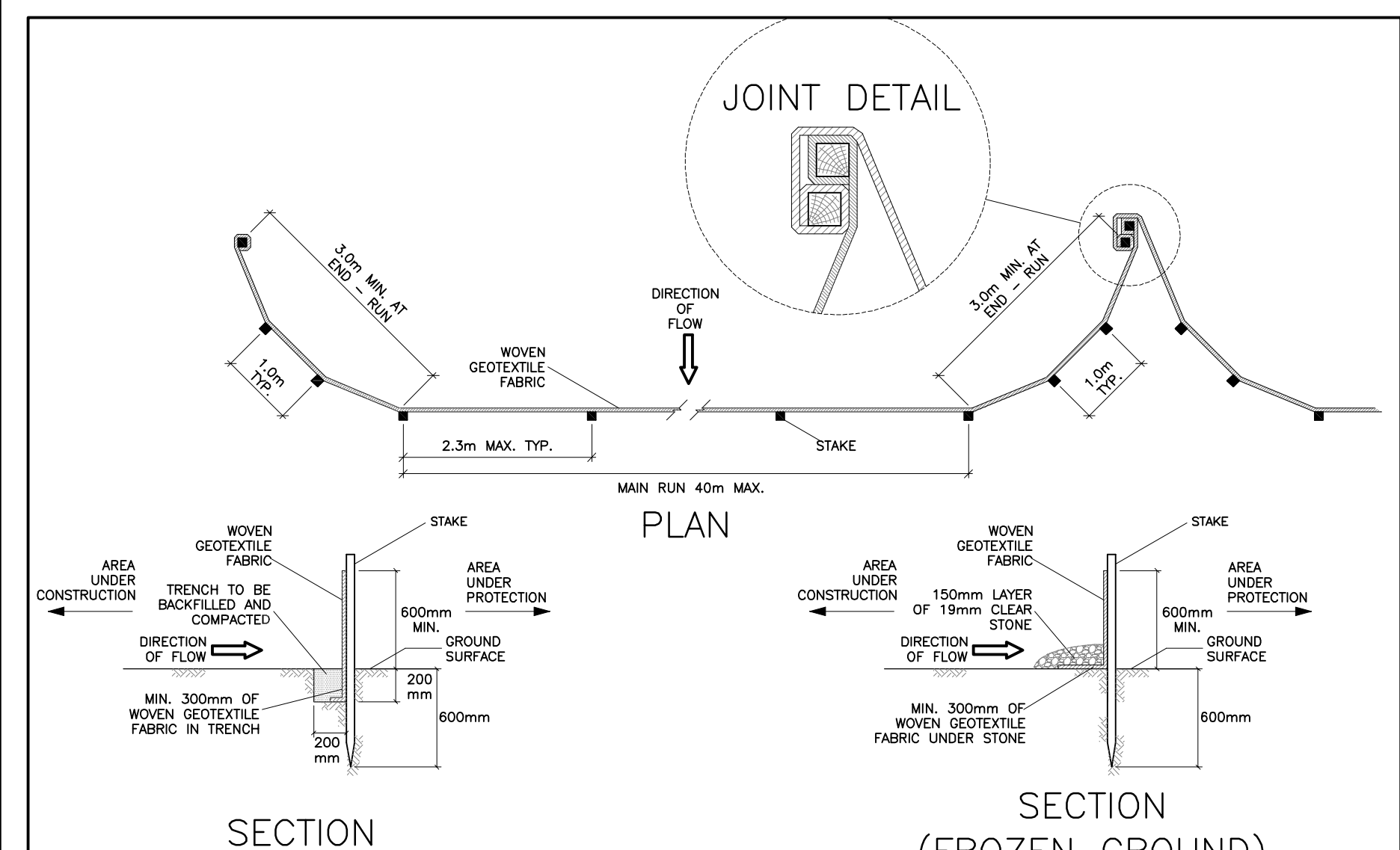
LEGEND

- FFL FINISHED FLOOR ELEVATION
- TOP TOP OF FOUNDATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- - - CRZ CRITICAL ROOT ZONE
- CB CATCH-BASIN
- MH STORM MANHOLE
- CB/MH CATCH-BASIN/MANHOLE
- MH SANITARY MANHOLE
- VC VALVE CHAMBER
- FH FIRE HYDRANT
- SILT FENCE BARRIER



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REFER TO NOTES & DETAILS ON DRAWINGS C-5 & C-6



SILT FENCE BARRIER
AS PER OPSP 219.110
(MODIFIED FOR FROZEN GROUND)
N.T.S.

Lily Xu
APPROVED
By Lily Xu at 2:58 pm, Jun 15, 2023

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

D. B. GRAY ENGINEERING INC.
Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain
700 Long Point Circle 613-425-8044
Ottawa, Ontario d.gray@dbgrayengineering.com

Project
RONALD McDONALD HOUSE ADDITION
407 SMYTH RD,
OTTAWA, ONTARIO

Drawing Title
EROSION & SEDIMENT CONTROL PLAN

Engineer's Seal
D.B. GRAY
17016502
APR 20-23
PROVINCE OF ONTARIO

Drawn: D.B.G.
Hor. Scale: 1:200
Vert. Scale:
Date: OCT 20-22
Job No.: 19111

Drawing No.
C-4
of 8

CATCH BASIN & MANHOLE SCHEDULE

(SUBMIT SHOP DRAWINGS OF ALL CATCH BASINS & MANHOLES TO ENGINEER FOR APPROVAL)

REF	TOP	SIZE	TYPE	INVERT AT INLET	INVERT AT OUTLET	NOTES
STORM SEWER						
CB-1	76.74	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	74.82	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB/MH-2	76.75	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	74.76(S)	74.76(N)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010
CB/MH-3	77.06	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	74.70(S)	74.70(NE)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010
MH-4	77.18	1200mm	PRECAST CONCRETE MANHOLE	74.65(SW)	74.65(SE)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24.1 OR OPSD 401.010
CB-5	77.11	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	74.63	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB/MH-6	76.37	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	74.59(NW)	74.59(S)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010 INSTALL ICD IN OUTLET PIPE
CB-7A	77.18	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	75.04	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB/MH-7	76.80	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	74.97(S)	74.87(N)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010
MH-8	77.09	1200mm	PRECAST CONCRETE MANHOLE	74.70(S)	74.64(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24.1 OR OPSD 401.010
MH-9	77.06	1200mm	PRECAST CONCRETE MANHOLE	74.50(W)	74.44(S)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24.1 OR OPSD 401.010
MH-10	77.65	1200mm	PRECAST CONCRETE MANHOLE	74.22(N)	74.27(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24.1 OR OPSD 401.010
MH-11	77.41	CDS PMSU2015-4	PRECAST CONCRETE MANHOLE	75.78(S) 74.24(W)	±74.23(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS EXCEPT WITH A DEEP SUMP AS REQUIRED BY CDS
CB-12	76.35	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	76.59	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB-13	77.27	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	76.13	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB/MH-14	77.27	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	76.06(S)	76.06(N)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010 INSTALL ICD IN OUTLET PIPE
CB-15	77.27	600mm x 600mm	PRECAST CONCRETE CATCH-BASIN	-	75.94	TO OPSD 705.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S19
CB/MH-16	77.27	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	75.85(N)	75.85(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010 INSTALL ICD IN OUTLET PIPE
CB/MH-7	77.65	1200mm	PRECAST CONCRETE CATCH-BASIN/MANHOLE	74.80(W)	74.79(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S28.1 OR OPSD 401.010
SANITARY SEWER						
MH-SA.1	77.83	1200mm	PRECAST CONCRETE MANHOLE	74.72(W)	74.66(S)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24 OR OPSD 401.010
MH-SA.2	77.64	1200mm	PRECAST CONCRETE MANHOLE	74.55(N) 74.50(W)	±74.49(E)	TO OPSD 701.010 & CITY OF OTTAWA STANDARDS - FRAME & COVER TO CITY OF OTTAWA DRAWING No. S25 & S24 OR OPSD 401.010

1. GENERAL

1.1 USE BAR SCALE TO CONFIRM ACTUAL PLOT SCALE. EXISTING AND NEW ELEVATIONS AND INVERTS SHOWN ARE GEODETIC AND ARE IN METERS. ALL PIPE DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

1.2 UNLESS OTHERWISE STATED "ENGINEER" REFERS TO D. B. GRAY ENGINEERING INC.

1.3 EXISTING ELEVATIONS AND LOCATIONS, INVERTS AND SIZES OF EXISTING SERVICES & UTILITIES ARE NOT NECESSARILY SHOWN ON PLAN AND THOSE SHOWN ARE DERIVED FROM AVAILABLE INFORMATION AND MUST BE CONFIRMED ON SITE BEFORE COMMENCING CONSTRUCTION. REPORT ANY DIFFERENCES TO ENGINEER. UNDERGROUND LOCATES (INCLUDING ONTARIO ONE CALL: 1-800-400-2255) SHALL BE CONDUCTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION.

1.4 SITE BOUNDARIES AND EXISTING GRADES AND OTHER FEATURES DERIVED FROM TOPOGRAPHIC SURVEY PREPARED BY ANNIS O'SULLIVAN, VOLLEBERG LTD JOB No. 2100-20.

1.5 EXISTING AND NEW GRADE ELEVATIONS AND INVERT ELEVATIONS ON THE SURVEY PLAN AND THESE DRAWINGS ARE IN METERS AND ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM. IT IS THE RESPONSIBILITY OF THE USER OF THE SURVEY PLAN AND THESE DRAWINGS TO VERIFY THAT THE JOINT MARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREE WITH THE INFORMATION SHOWN ON SURVEY PLAN AND THESE DRAWINGS.

1.6 REFER TO ARCHITECTURAL AND LANDSCAPE SITE PLANS FOR EXACT LOCATIONS OF BUILDINGS, PAVED AREAS, SIDEWALKS, PLANTERS ETC. LAYOUTS AND LOCATIONS OF EXISTING SERVICES & UTILITIES ARE NOT NECESSARILY SHOWN ON PLAN AND THOSE SHOWN ARE DERIVED FROM AVAILABLE INFORMATION AND MUST BE CONFIRMED ON SITE BEFORE COMMENCING CONSTRUCTION. REPORT ANY DIFFERENCES TO ENGINEER. UNDERGROUND LOCATES (INCLUDING ONTARIO ONE CALL: 1-800-400-2255) SHALL BE CONDUCTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION.

1.7 PREPARATION INCLUDING BUILDING SUB-GRADE PREPARATION AND PAVEMENT SUB-GRADE PREPARATION AND CONSTRUCTION OF THE PAVEMENT STRUCTURE AND EXCAVATION AND BACKFILLING, INCLUDING COMPACTION OF MATERIALS, SHALL CONFORM TO THE GEOTECHNICAL INVESTIGATION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

1.8 DRAWINGS ARE TO BE READ IN CONJUNCTION WITH SERVING-BRIEF & STORM WATER MANAGEMENT REPORT No. 20069 PREPARED BY D. B. GRAY ENGINEERING INC.

1.9 REINSTATE ADJACENT PROPERTIES TO PRE-CONSTRUCTION CONDITIONS.

1.10 ALL RELEVANT WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT CITY STANDARDS AND SPECIFICATIONS.

1.11 ONTARIO PROVINCIAL STANDARDS WILL APPLY WHERE CITY STANDARDS ARE AVAILABLE.

1.12 ALL PROPOSED RETAINING WALLS SHALL BE SETBACK A MINIMUM 0.15m FROM PROPERTY LINE. ALL PROPOSED RETAINING WALLS GREATER THAN 1.0m IN HEIGHT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO. ALL RETAINING WALLS OVER 0.6 m REQUIRE A GUARD RAIL (SEE ARCHITECTURAL).

2. EROSION AND SEDIMENT CONTROL PLAN

2.1 THE EROSION AND SEDIMENT CONTROL PLAN IS A LIVING DOCUMENT AND SHALL BE REVISED IN THE EVENT THE SPECIFIED CONTROL MEASURES ARE NOT SUFFICIENT. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATER COURSE DURING CONSTRUCTION ACTIVITIES. THIS INCLUDES LIMITING THE AMOUNT OF EXPOSED SOIL USING SEDIMENT CAPTURE FILTER SOCKS IN CATCH BASINS AND MANHOLES AND INSTALLING SILT FENCES AND OTHER EFFECTIVE SEDIMENT TRAPS. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. SPECIFICALLY THE CONTRACTOR SHALL INSTALL THE FOLLOWING CONTROL MEASURES AND CONTROL MEASURES:

2.2 PRIOR TO COMMENCEMENT OF CONSTRUCTION AT ALL MUNICIPAL CATCH BASINS ADJACENT TO THE SITE AND AT ANY MANHOLES OR CATCH BASINS THAT WILL RECEIVE DISCHARGE FROM DE-WATERING OPERATIONS AND ALL NEW CATCH BASINS AS THEY ARE INSTALLED: INSTALL SEDIMENT CAPTURE FILTER SOCK INSERTS (TERRAZO GEOTECHNICALS INC SILT SACK OR APPROVED EQUAL). INSPECT AT THE END OF EACH DAY AND AFTER EACH RAINFALL. REMOVE SEDIMENT AS RECOMMENDED BY THE MANUFACTURER. IMMEDIATELY REPAIR OR REPLACE ANY DAMAGED FILTER SOCK INSERTS. DO NOT REMOVE UNTIL CONSTRUCTION IS COMPLETE.

2.3 INSTALL A SILT FENCE BARRIERS AROUND SEDIMENT OR SOIL PRIOR TO COMMENCEMENT OF CONSTRUCTION INSTALL A SILT FENCE BARRIERS AS SHOWN ON PLANS. INSPECT ALL SILT FENCES AT THE END OF EACH DAY AND AFTER EACH RAINFALL. REMOVE SEDIMENT DEPOSITS WHEN THE LEVEL OF DEPOSITS REACHES ONE THIRD THE HEIGHT OF THE FENCE. IMMEDIATELY REPAIR OR REPLACE ANY DAMAGED SECTIONS OF FENCE. DO NOT REMOVE ANY SILT FENCES IN ANY PHASE UNTIL CONSTRUCTION IS COMPLETE.

2.4 ANY MATERIAL DEPOSITED ON A PUBLIC ROAD SHALL BE REMOVED BY SWEEPING AND SHOVELING OR VACUUMING AND DISPOSING SEDIMENT IN A CONTROLLED AREA. DO NOT SWEEP OR DISPOSE OF MATERIALS ON PUBLIC ROAD OR SIDEWALKS.

2.5 CONSTRUCTION IS CONSIDERED COMPLETE WHEN THE FOLLOWING CONDITIONS HAVE BEEN MET:

- ALL STRUCTURES HAVE BEEN BUILT.
- ALL HARD SURFACES HAVE BEEN CONSTRUCTED.
- ALL PROPOSED GRASSED AREAS ARE EITHER SODDED OR HAVE A FULL COVERAGE OF WELL ESTABLISHED TURF AND HAVE HAD A MINIMUM OF ONE FULL GROWING SEASON (MAY 15TH TO SEPTEMBER 15TH).
- THERE ARE NO AREAS OF EXPOSED EARTH.
- ALL STOCKPILED MATERIALS HAVE BEEN REMOVED.

2.6 REMOVE EROSION AND SEDIMENT CONTROL MEASURES WHEN CONSTRUCTION IS COMPLETE.

3. GRADING & DRAINAGE

3.1 NEW GRADES TO MATCH EXISTING AT PROPERTY LINE. NO EXCESS DRAINAGE WILL BE DIRECTED TOWARDS THE ADJACENT PROPERTIES DURING AND AFTER CONSTRUCTION. THERE WILL BE NO ALTERATION TO EXISTING GRADE AND DRAINAGE PATTERNS ON PROPERTY LINE.

3.2 ALL AREAS SHALL BE GRADED TO ENSURE ADEQUATE DRAINAGE AWAY FROM BUILDINGS TO CATCH BASINS, SWALES, DITCHES AND OTHER APPROVED DISPOSAL AREAS. GRADING SHALL BE GRADUAL BETWEEN FINISHED SPOT ELEVATIONS SHOWN ON DRAWINGS TO PREVENT PONDING OTHER THAN PONDING REQUIRED FOR WATER MANAGEMENT AND DETERMINE ITS EXACT LOCATION AND GEODETIC TOP OF GRADE.

3.3 WHETHER RESULT OF POOR WORKMANSHIP OR DAMAGE: DEFECTIVE GRADING SHALL BE CORRECTED. PROMPTLY MAKE GOOD OTHER CONTRACTOR'S WORK DAMAGED BY SUCH CORRECTIONS.

3.4 GEOTEXTILE FABRIC TO OPS 1860 (NON-WOVEN SYNTHETIC FIBRE FABRIC SHALL BE USED IN SILT FENCE BARRIERS (GEOSYNTHETIC HD10S OR APPROVED EQUAL). NON-WOVEN SYNTHETIC FIBRE FABRIC SHALL BE USED FOR MATERIAL SEPARATION. PRIOR TO INSTALLATION SUBMIT SHOP DRAWING TO ENGINEER FOR APPROVAL. GEOTEXTILE FABRIC SHALL BE FREE OF TEARS AND RESISTANT TO DEGRADATION BY ULTRA VIOLET AND HEAT EXPOSURE. PLACE GEOTEXTILE FABRIC BY UNIFORM LAYERS AND DETERMINE ITS EXACT LOCATION AND GEODETIC TOP OF GRADE. OVERLAP EACH SUCCESSIVE STRIP OF GEOTEXTILE 600mm OVER PREVIOUSLY Laid STRIP IN DIRECTION OF FLOW. ALTERNATIVELY THE FABRIC MAY BE LAPPED A MINIMUM OF 600mm AND PINNED TOGETHER. PROTECT INSTALLED GEOTEXTILE MATERIAL FROM DISPLACEMENT, DAMAGE OR DEGRADATION BEFORE, DURING AND AFTER PLACEMENT OF MATERIAL LAYERS AFTER INSTALLATION. COVER WITH OVERLYING LAYER WITHIN 4 HOURS OF PLACEMENT. DURING DELIVERY AND STORAGE, PROTECT GEOTEXTILES FROM DIRECT SUNLIGHT, ULTRAVIOLET RAYS, EXCESSIVE HEAT, MUD, DIRT, DUST, DEBRIS AND OTHER PRODUCTS. VEHICULAR TRAFFIC NOT PERMITTED DIRECTLY ON GEOTEXTILE. AVOID PUNCTURING GEOTEXTILE. REPLACE DAMAGED OR DEGRADED GEOTEXTILE.

4. SITE SERVICES

4.1 EXISTING WATER SERVICE CONNECTIONS TO BE DECOMMISSIONED SHALL BE BLANKED AT THE WATERMAIN. EXISTING SEWER SERVICE CONNECTIONS SHALL BE DECOMMISSIONED AS PER CITY OF OTTAWA STANDARDS AND CITY DRAWING S11.4.

4.2 THE DEPTH OF THE EXISTING 100mm WATERMAIN IS UNKNOWN BUT IS ESTIMATED TO BE 2.1m. PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ANY SERVICE CONNECTIONS CAREFULLY LOCATE THE EXISTING 100mm WATERMAIN AND DETERMINE ITS EXACT LOCATION AND GEODETIC TOP OF GRADE. ELEVATION AND REPORT FINDINGS TO THE ENGINEER. SAW CUT THE ASPHALT, AS REQUIRED AND REMOVE THE EXISTING ASPHALT USING A MECHANICAL EXCAVATOR. ALL OTHER EXCAVATION SHALL BE BY HAND OR BY HYDROVAC EXCAVATOR. REMOVE ALL UNSUABLE MATERIALS OFF SITE.

4.3 WATER MAINS SHALL BE INSTALLED AS PER CITY OF OTTAWA DWG. No. W1.

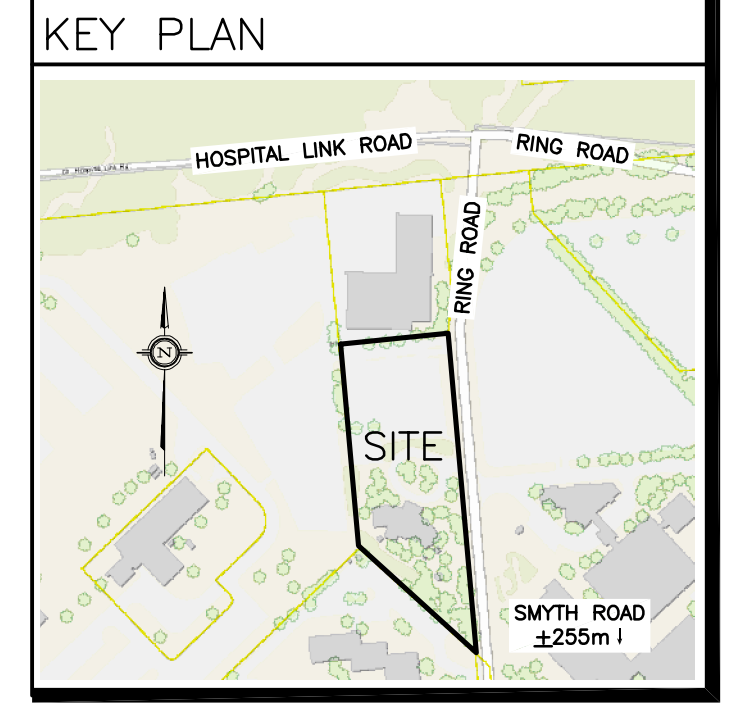
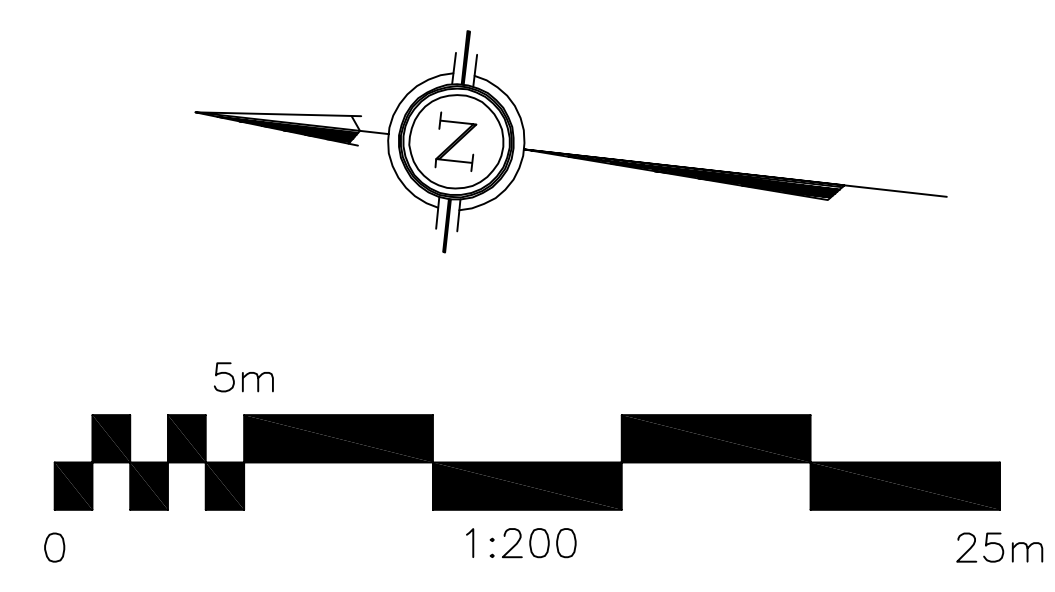
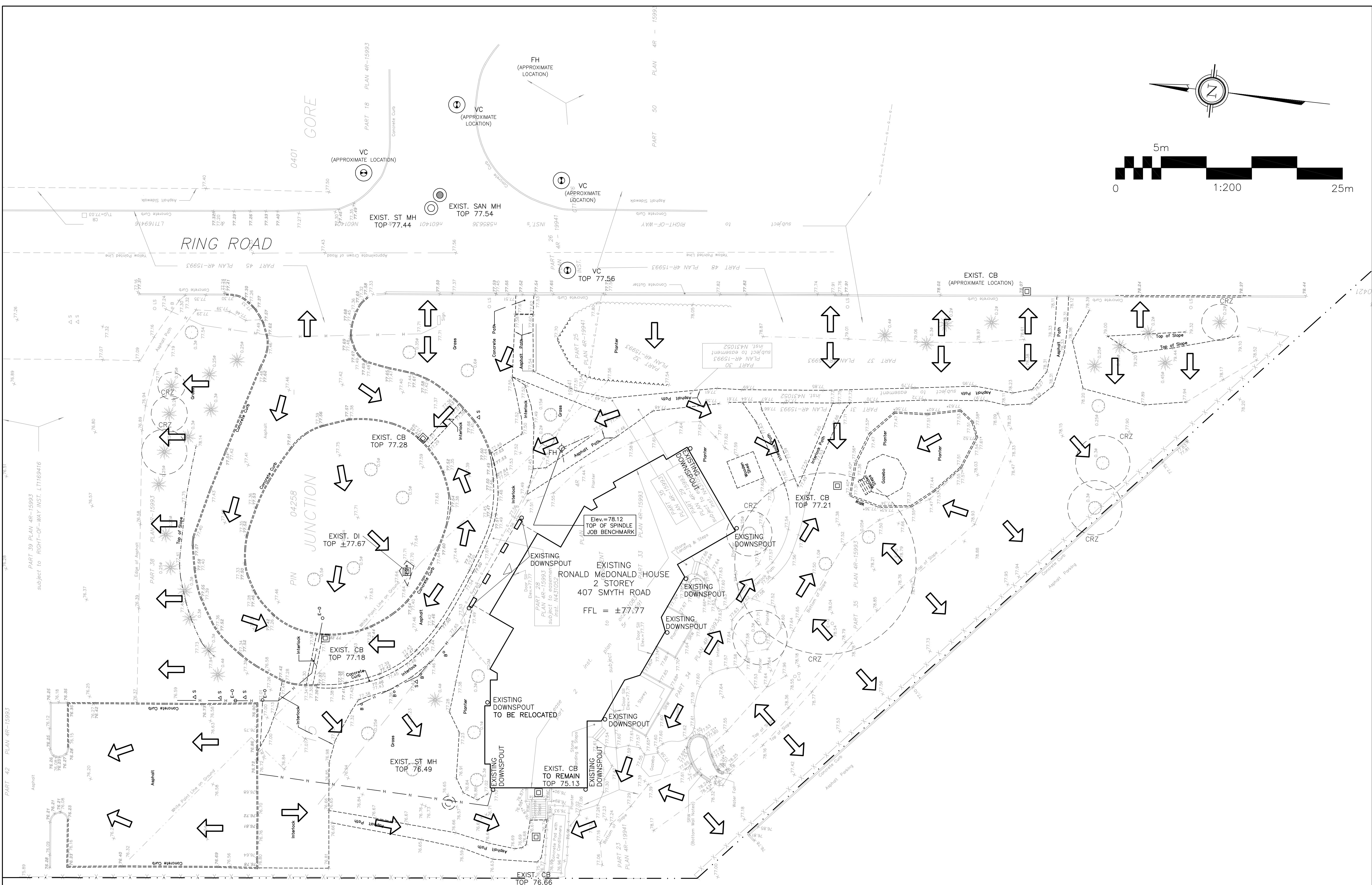
4.4 ALL WATER SERVICE MATERIALS AND CONSTRUCTION METHODS TO CITY OF OTTAWA STANDARDS AND ONTARIO PROVINCIAL STANDARDS SPECIFICATIONS (OPSS & OPSD). WATERMAIN AND WATER SERVICE MATERIALS SHALL BE PVC PRESSURE CLASS 150 DR18. PROVIDE THRUST BLOCKS AS PER CITY OF OTTAWA DWG. No. W25.3 & W25.4 AT ALL VALVES, TEES, CAPS, BENDS, REDUCERS AND HYDRANTS OR OTHER FITTINGS WHERE CHANGES OCCUR IN PIPE DIAMETER OR DIRECTION. RESTRAINING AS PER AS PER CITY OF OTTAWA DWG. No. W25.5 & W25.6 ALL CONNECTIONS, RESTRAINT RODS AND VALVE BOLTS TO BE STAINLESS STEEL. CATHODIC PROTECTION & ANODE INSTALLATION AS PER CITY OF OTTAWA DWG. No. W40, W42, W44 & W47.

4.5 PROVIDE A MINIMUM 2.4 m COVER OVER WATER SERVICE CONNECTION AND WATERMAIN. WHERE THE MINIMUM COVER IS NOT POSSIBLE CHANGE TO CITY OF OTTAWA DWG. No. W23.

4.6 WHERE LESS THAN 2.4 m CLEARANCE FROM AN OPEN STRUCTURE (EG. MANHOLES & CATCH BASINS) PLACE INSULATION AROUND WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DWG. No. W23.

4.7 WATER SERVICE CONNECTIONS AND WATERMAIN INSTALLED PARALLEL TO A SEWER SHALL BE LAID WITH A MINIMUM 2.5m BARREL TO BARREL HORIZONTAL SEPARATION FROM SEWERS AND SEWER MANHOLES.

4.8 THE WATERMAIN AND WATER SERVICE CONNECTIONS SHALL CROSS ABOVE THE SEWER AS PER CITY OF OTTAWA DRAWING No. W25.2: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.3: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.4: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.5: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.6: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.7: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN 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DRAWING No. W25.95: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.96: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.97: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.98: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.99: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.100: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.101: PROVIDE A MINIMUM 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WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.114: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.115: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.116: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.117: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.118: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.119: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.120: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.121: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.122: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.123: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.124: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.125: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.126: PROVIDE A MINIMUM 500mm BARREL TO BARREL VERTICAL SEPARATION AND INSULATE THE WATERMAIN AND WATER SERVICE CONNECTIONS AS PER CITY OF OTTAWA DRAWING No. W25.127: PROVIDE A MINIMUM 50

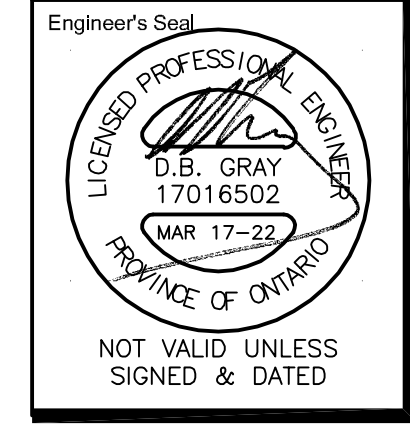


No.	DATE	REVISION
4	MAR 17-23	RE-ISSUED FOR APPROVAL
3	FEB 17-23	PROGRESS SET
2	DEC 16-22	ISSUED FOR APPROVAL
1	NOV 25-22	ISSUED FOR CLIENT REVIEW

D. B. GRAY ENGINEERING INC.
 Stormwater Management - Grading & Drainage - Storm & Sanitary Sewers - Watermain
 700 Long Point Circle 613-425-8044
 Ottawa, Ontario d.gray@dbgrayengineering.com

Project
**RONALD McDONALD HOUSE
 ADDITION**
 407 SMYTH RD,
 OTTAWA, ONTARIO

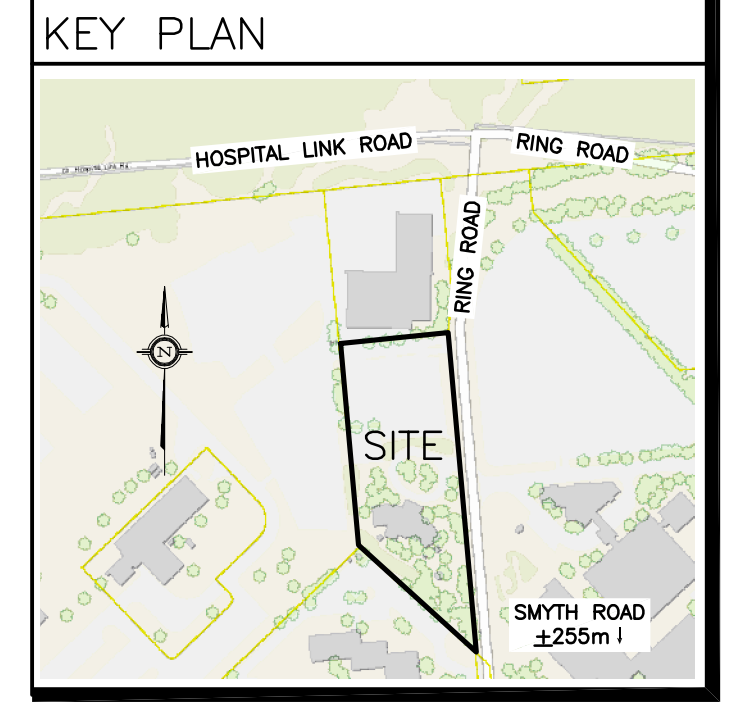
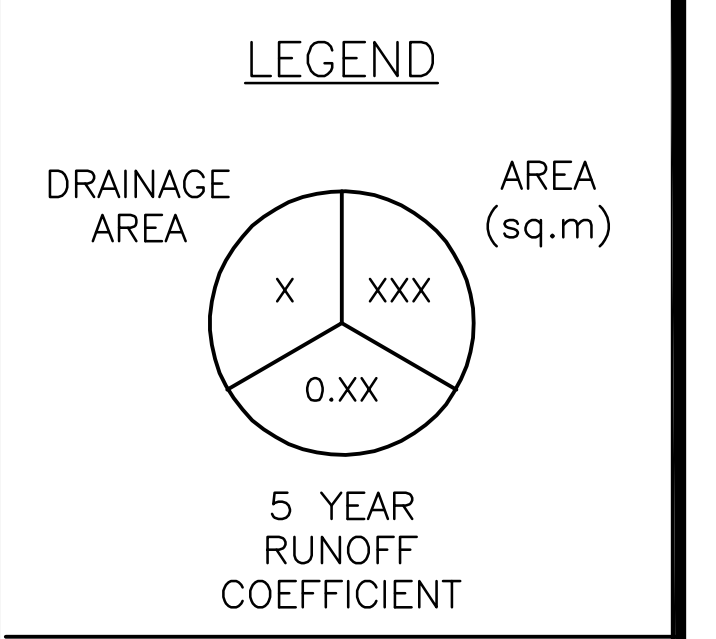
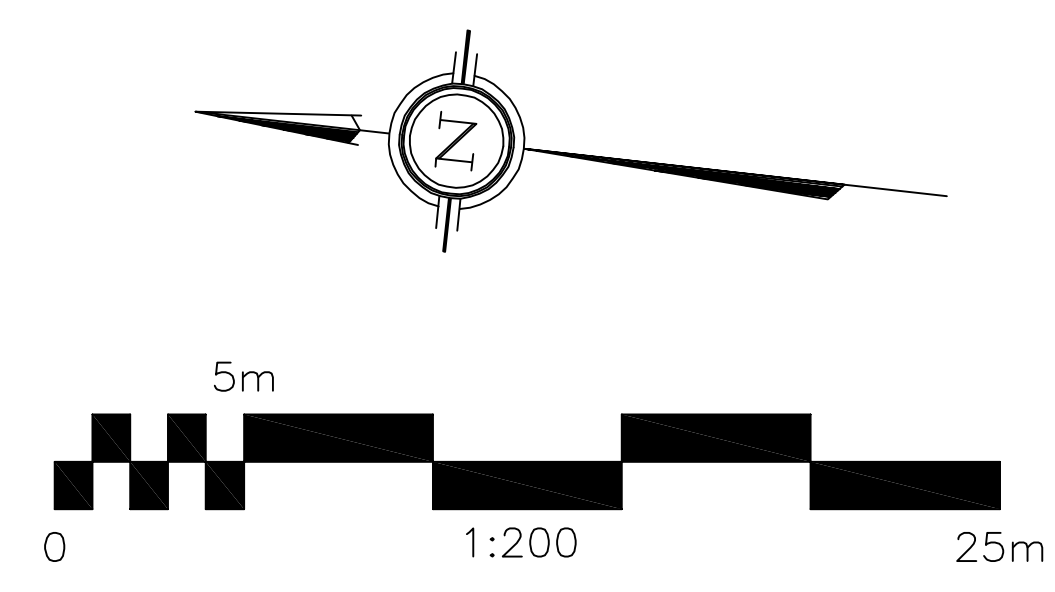
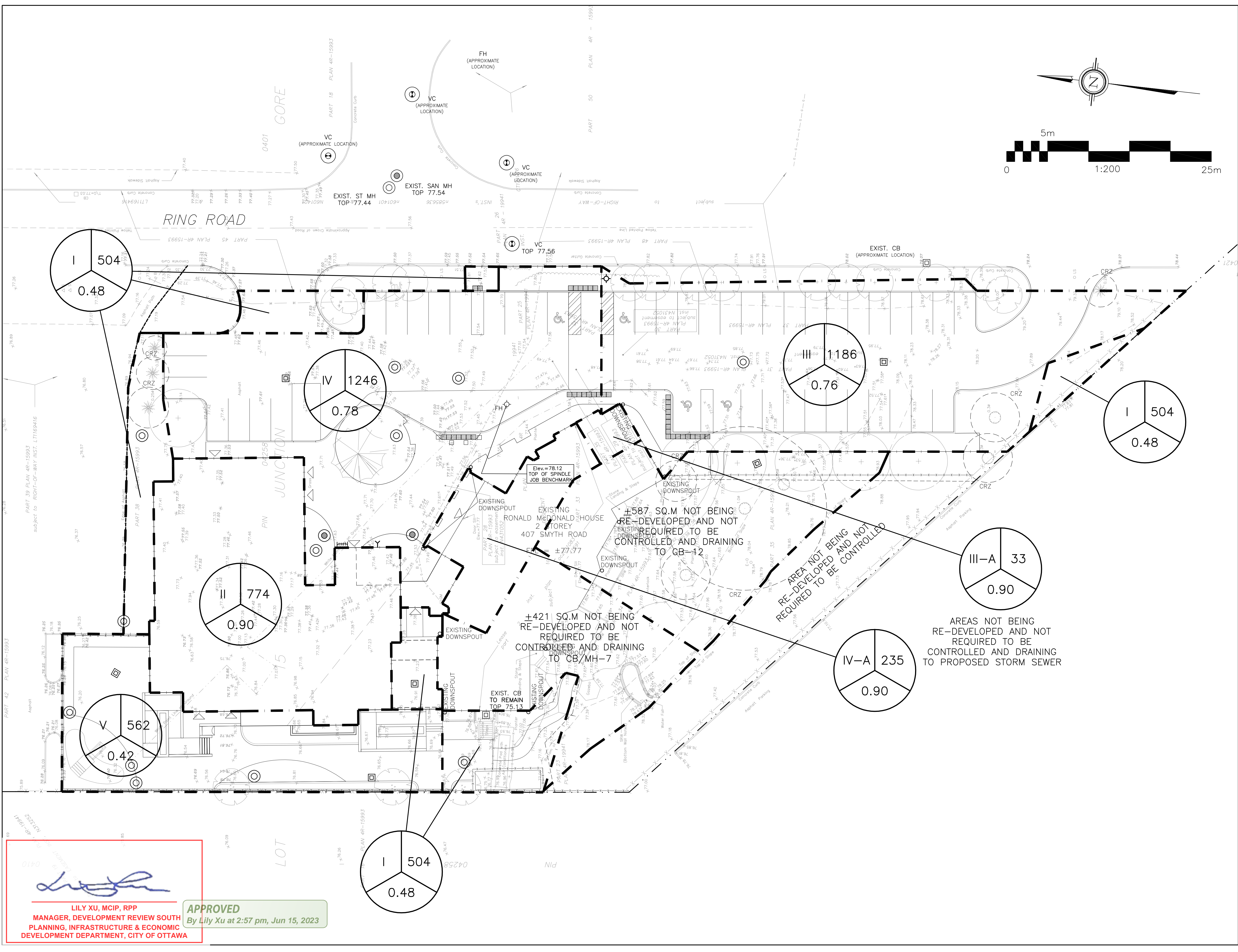
Drawing Title
**PRE-DEVELOPMENT
 DRAINAGE PLAN**



Drawn: D.B.G.
 Hor. Scale: 1:200
 Vert. Scale:
 Date: NOV 25-22
 Job No.: 19111
 Drawing No.:
**C-7
 of 8**

Lily Xu
LILY XU, MCIP, RPP
 MANAGER, DEVELOPMENT REVIEW SOUTH
 PLANNING, INFRASTRUCTURE & ECONOMIC
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
 By Lily Xu at 2:57 pm, Jun 15, 2023



No.	DATE	REVISION
5	APR 20-23	RE-ISSUED FOR APPROVAL
4	MAR 17-23	RE-ISSUED FOR APPROVAL
3	FEB 17-23	PROGRESS SET
2	DEC 16-22	ISSUED FOR APPROVAL
1	NOV 25-22	ISSUED FOR CLIENT REVIEW

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Project
RONALD McDONALD HOUSE ADDITION
 407 SMYTH RD,
 OTTAWA, ONTARIO

Drawing Title
POST-DEVELOPMENT DRAINAGE PLAN

Engineer's Seal

 NOT VALID UNLESS SIGNED & DATED

Drawn: D.B.G.
 Hor. Scale: 1:200
 Vert. Scale:
 Date: NOV 25-22
 Job No.: 19111
 Drawing No.:
C-8 of 8

LILY XU, MCIP, RPP
 MANAGER, DEVELOPMENT REVIEW SOUTH
 PLANNING, INFRASTRUCTURE & ECONOMIC
 DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
 By Lily Xu at 2:57 pm, Jun 15, 2023