

GENERAL

- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- DETERMINE THE EXACT LOCATION, SIZE, MATERIAL, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
- OBTAIN AND PAY ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE OR ANY OTHER UTILITY THAT MAY EXIST ON SITE OR WITHIN THE STREETLINES MUST BE LOCATED BY ITS OWN UTILITIES AND VERIFIED PRIOR TO CONSTRUCTION.
- RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- ALL UNDERGROUND SERVICES MATERIALS AND INSTALLATIONS TO BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND CODES OF THE MUNICIPALITY.
- ALL SURFACE DRAINAGE SHALL BE SELF-CONTAINED, COLLECTED AND DISCHARGED AT A LOCATION TO BE APPROVED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- WHEREVER PIPES ARE PASSING THROUGH UNCOMPACTED FILL AREA, THE BEDDING TRENCH SHALL BE EXCAVATED TO THE UNDISTURBED GROUND LEVEL AND BACKFILLED WITH GRANULAR "A" COMPACTED TO 100% STANDARD PROCTOR DENSITY.
- THE OWNER SHALL BE RESPONSIBLE TO SUPPLY A CIVIL ENGINEERING FIRM FOR FULL TIME INSPECTION FOR ALL WORKS UNDERTAKEN WITHIN THE CITY ROAD ALLOWANCE. THE CIVIL ENGINEERING FIRM SHALL BE RESPONSIBLE FOR SUPPLYING WITHIN 48 HOURS OF REINSTATEMENT, A WRITTEN REPORT DETAILING THE WORKS WITHIN THE CITY'S ROAD ALLOWANCE. THIS REPORT SHALL CONFIRM THAT THE REINSTATEMENT HAS BEEN IN ACCORDANCE WITH THE CITY STANDARDS, SPECIFICATIONS AND BY-LAWS. FAILURE TO COMPLY SHALL MEAN SEIZURE OF SECURITIES TO COVER COSTS INCURRED BY THE CITY TO INVESTIGATE AND WHERE REQUIRED UNDERTAKE REINSTATEMENT TO THE SATISFACTION OF THE MUNICIPALITY.
- BEFORE COMMENCING CONSTRUCTION PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING (ONLY IF REQUIRED), INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND ARCHITECT AS CO-INSURED. AMOUNT OF INSURANCE TO BE SPECIFIED BY OWNERS AGENT.
- CONNECTION TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO THE CONDITION THAT EXISTED PRIOR TO CONSTRUCTION OR BETTER.
- STANDARD ROAD CUT SHALL CONFORM TO CITY OF OTTAWA STANDARD DETAIL R25.
- ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH OPSS-310.
- BOULEVARDS SHALL BE REINSTATED WITH 100mm OF TOPSOIL AND SODDED.
- INVESTIGATION REPORT FOR SUBSURFACE INFORMATION PREPARED BY THE GEOTECHNICAL CONSULTANT. INTERPRETATION OF INFORMATION IS THE RESPONSIBILITY OF THE CONTRACTOR. NO RECYCLED GEOTECHNICAL MATERIAL SHALL BE PERMITTED FOR USE ONSITE.
- REMOVE AND STOCKPILE ONSITE IN A SUITABLE LOCATION ALL TOPSOIL.
- TOPSOIL IN FILL AREA TO BE STRIPPED AND CLEAN FILL TO BE PLACED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- REFER TO ARCHITECT'S DRAWING FOR BUILDING DIMENSIONS AND LAYOUT INFORMATION. IT SHALL BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
- THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING AND SURVEY DATA SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THESE PLANS.
- THICKNESS OF GRANULAR MATERIAL AND ASPHALT LAYERS SHALL BE IN ACCORDANCE WITH CITY STANDARD ROAD CROSS SECTION.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS. ALL MEASUREMENTS UTILIZE METRIC UNITS.
- ALL DESIGNATED TREES WITHIN SITE LIMITS TO BE MAINTAINED. REFER TO LANDSCAPE ARCHITECT AND TREE PRESERVATION DRAWINGS.
- TEMPORARY SEDIMENT CONTROL (FILTER CLOTH UNDER GRATE OR COVER) TO BE IMPLEMENTED DURING CONSTRUCTION ON ALL PROPOSED ROAD CATCHBASINS, REARYARD CATCHBASINS AND CATCHBASIN MANHOLES.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INDICATE:PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANTS LOCATIONS, T/W/M ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

PARKING AREAS AND DRIVEWAYS

- MEDIUM DUTY ASPHALT PAVEMENT FOR PARKING AREAS SHALL CONSIST OF 300mm SUB-BASE TYPE 2 MATERIAL, 150mm BASE COURSE OPSS GRANULAR "A" CRUSHED STONE, 50mm WEAR COURSE ASPHALT.
- PROVIDE PARKING AND LINE PAINTING WHERE APPLICABLE.
- DEPRESSED CURB AND BARRIER CURB TO BE IN ACCORDANCE WITH CITY STANDARD SC1.2.
- SIDEWALKS TO BE MAINTAINED TO CITY STANDARDS.

GRADING

- CONTACT MUNICIPALITY FOR ROUGH GRADING INSPECTION PRIOR TO PLACEMENT OF TOPSOIL OR TOPSOIL AND SOD
- THE OWNER SHALL CONTACT THE CITY ENGINEER FOR INSPECTION OF THE ROUGH GRADING OF PARKING LOTS, ROADWAYS AND LANDSCAPED AREAS. ALL DEFICIENCIES NOTED SHALL BE RECTIFIED TO THE CITY'S SATISFACTION PRIOR TO PLACEMENT OF ANY ASPHALT OR TOPSOIL AND SOD.
- FINISH LOT GRADING WILL NOT ADVERSELY AFFECT DRAINAGE PATTERNS OF ADJACENT LANDS.
- ALL GRADES TO BE WITHIN 33% MAX. (3:1) SLOPE AT PROPERTY LINE AND WITHIN THE SITE.
- MATCH EXISTING ELEVATIONS AT ALL PROPERTY LINES. ENSURE POSITIVE DRAINAGE WHETHER INDICATED OR NOT.
- WHERE EXISTING GRADE IS FOUND TO BE MORE THAN 300mm BELOW THE PROPOSED GRADES INDICATED ON THIS GRADING PLAN, CONTACT ENGINEER IMMEDIATELY.
- SWALES LESS THAN 1.5% SHALL HAVE A 250mm SUBDRAIN AS PER CITY OF OTTAWA STANDARD S29, S30 AND S31.

WATERMAINS

- CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. WATERMAIN TO BE PVC DR 18. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY CONTRACTOR. CONNECTION TO EXISTING WATERMAIN BY CITY OF OTTAWA. NO WORK TO COMMENCE UNLESS A MUNICIPAL WATER WORKS INSPECTOR IS ON SITE.
- WATERMAIN MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.25m OVER AND 0.50m UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING AS PER OTTAWA STANDARD DETAIL W 25 AND W25.2
- WATERMAINS AND/OR WATER SERVICE ARE TO HAVE A MINIMUM COVER OF 2.4m WITH A MINIMUM HORIZONTAL SPACING OF 2.0m FROM THEMSELVES AND OTHER UTILITIES, AS PER THE GREATER OF CITY OF OTTAWA STANDARD DETAIL W38, R20 AND PIBS 7064E.
- CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS W39, 40, 41, 42.
- PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL W23.
- WATERMAINS TO BE INSTALLED TO GRADE AS SHOWN. COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK WHERE REQUESTED BY THE INSPECTOR.
- IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
- WATERMAIN TRENCHING AND BEDDING TO CONFORM TO CITY OF OTTAWA STANDARD DETAIL W17.
- VALVES AND VALVE BOXES TO CONFORM WITH CITY OF OTTAWA STANDARD DETAIL W24.
- FIRE HYDRANT C/W GATE VALVE AND BOX SHALL CONFORM TO CITY OF OTTAWA STANDARD DETAIL W19.
- CONCRETE THRUST BLOCKS TO CONFORM TO OTTAWA STANDARD DETAIL W25.3 AND W25.4.
- ALL WATERMAIN SERVICE INSTALLATIONS AT SEWER CROSSINGS PER CITY OF OTTAWA STANDARD DETAIL W38.

CLAY SEALS :

- INSTALL CLAY SEALS AS PER MODIFIED S8 ON DRAWING 118224-MD-D1.
- CLAY SEALS SHOULD BE AT LEAST 1.5m LONG AND SHALL EXTEND FROM TRENCH WALL TO TRENCH WALL. SEALS SHOULD EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUB-BEDDING AND COVER MATERIAL.
- CLAY SEALS SHALL CONSIST OF RELATIVELY DRY AND COMPATIBLE BROWN SILTY CLAY PLACED IN MAXIMUM 225mm THICK LOOSE LAYERS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS SPMD0.
- REFER TO PROFILE DRAWINGS FOR LOCATION OF SEEPAGE BARRIERS.

TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING NOTES:

- NO HORIZONTAL BENDS IN RIGHT-OF-WAY UNLESS OTHERWISE APPROVED BY THE CITY. MAXIMUM OF TWO 22.5° HORIZONTAL BENDS FOR SANITARY AND STORM SERVICES.
- 1% MINIMUM SANITARY AND STORM SERVICE GRADIENT WITH 2% PREFERRED.
- STORM SERVICE LATERAL SHALL BE LOCATED TO THE LEFT OF SANITARY SERVICE LATERAL WHEN LOOKING AT THE STRUCTURE FROM THE STREET. SERVICE SIZES IN CONFORMANCE WITH S11.
- SEE S6 FOR PIPE FOUNDATION, EMBEDMENT AND FINAL BACKFILL REQUIREMENTS.
- MULTIPLE TAPS WITH SADDLES IN PVC WATERMAIN SHALL BE STAGGERED AND MINIMUM 600mm APART.
- ELEVATION OF SERVICES VARIABLE DEPENDING ON GRADIENT AND/OR DEPTH OF COVER.
- ALL DIMENSIONS ARE IN MILLIMETRES.
- GRADE AND/OR FILL BEHIND PROPOSED CURB AND BETWEEN BUILDINGS AND CURBS, WHERE REQUIRED TO PROVIDE POSITIVE DRAINAGE.
- TRANSFORMER PEDESTALS AND FIRE HYDRANTS (WHERE APPLICABLE) TO BE INSTALLED AT END OF TOWNHOUSE BLOCKS.
- REFER TO R.O.W. CROSS SECTIONS FOR UTILITY LOCATIONS.
- SEE W27 FOR ADDITIONAL WATER SERVICING SCENARIOS.

PAVEMENT STRUCTURE - LOCAL ROADWAYS

40mm HL-3 or SUPERPAVE 12.5
50mm HL-8 or SUPERPAVE 19.0
150mm GRANULAR "A" CRUSHED STONE
400mm GRANULAR "B" TYPE II

DRIVEWAY STRUCTURE

50mm HL-3 or SUPERPAVE 12.5
150mm GRANULAR "A" CRUSHED STONE
300mm GRANULAR "B" TYPE II

TOPOGRAPHIC INFORMATION :

TOPOGRAPHIC INFORMATION PROVIDED BY:
NOVATECH - VARIOUS TOPO SURVEYS COMPLETED IN 2020
CITY OF OTTAWA 1:1000 MAPPING DATA (SHEET No. 382035C; 382034A; 382035D; 382034B; 382034D; 382034C)

LEGAL INFORMATION:

DRAFT M-PLAN PROVIDED BY: J.D. BARNES
REFERENCE No.: 23-10-047-00 (THE COMMONS PH-2)
DATED: NOVEMBER 29, 2023

EROSION AND SEDIMENT CONTROL NOTES:

- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
- THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS AND DURING ALL PHASES OF THE SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL, SUCH AS BUT NOT LIMITED TO INSTALLING INLET PROTECTION MEASURES ACROSS MH & CBS, AND INSTALLING AND MAINTAINING LIGHT DUTY SILT FENCE BARRIERS AND STRAW BALE CHECK DAMS AS REQUIRED.
- CONDITIONS OF THE SILT FENCE AND STRAW BALE DAMS TO BE INSPECTED REGULARLY AND REPLACED OR REPAIRED AS INSTRUCTED BY THE ENGINEER.
- THE CONTRACTOR SHALL ENSURE THAT ROADS ARE KEPT CLEAN AT ALL TIMES USING SUCH PRACTICES AS WASHING DOWN TRUCK TIRES, ROAD SWEEPING AND FLUSHING ETC.
- THE CONTRACTOR ACKNOWLEDGES THAT SURFACE EROSION AND SEDIMENT RUNOFF RESULTING FROM THEIR CONSTRUCTION OPERATIONS WILL HAVE A DETRIMENTAL IMPACT TO ANY DOWNSTREAM WATERCOURSE OR SEWER, AND THAT ALL CONSTRUCTION OPERATIONS THAT MAY IMPACT UPON WATER QUALITY SHALL BE CARRIED OUT IN A MANNER THAT STRICTLY MEETS THE REQUIREMENTS OF ALL APPLICABLE LEGISLATION AND REGULATIONS.
- AS SUCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THEIR OPERATIONS, AND SUPPLYING AND INSTALLING ANY APPROPRIATE CONTROL MEASURES, SO AS TO PREVENT SEDIMENT LOADS RUNOFF FROM ENTERING ANY SEWER OR WATERCOURSE WITHIN DOWNSTREAM OF THE WORKING AREA.

SPECIFIC MEASURES SHALL BE INSTALLED AT THE SPECIFIED LOCATIONS AND IN ACCORDANCE WITH THE REQUIREMENTS OF OPSS 805 WHERE APPROPRIATE, OR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- WHERE, IN THE OPINION OF THE CONTRACT ADMINISTRATOR OR ANY REGULATORY AGENCY, THE INSTALLED CONTROL MEASURES FAIL TO PERFORM ADEQUATELY, THE CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL OR ALTERNATIVE MEASURES AS DIRECTED BY THE CONTRACT ADMINISTRATOR OR THE REGULATORY AGENCY. AS SUCH, THE CONTRACTOR SHALL HAVE ADDITIONAL CONTROL MATERIALS ON SITE AT ALL TIMES WHICH ARE EASILY ACCESSIBLE AND MAY BE IMPLEMENTED BY THEM AT A MOMENT'S NOTICE.
- THE CONTRACTOR SHALL ENSURE THAT ALL WORKERS, INCLUDING SUB-CONTRACTORS, IN THE WORKING AREA ARE AWARE OF THE IMPORTANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES AND INFORMED OF THE CONSEQUENCES OF THE FAILURE TO COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AGENCIES AND THE SPECIFICATIONS DETAILED HEREIN.
- THE CONTRACTOR SHALL PERIODICALLY, OR WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR, CLEAN OUT ACCUMULATED SEDIMENT DEPOSITS AS REQUIRED AT THE SEDIMENT CONTROL DEVICES, INCLUDING THOSE DEPOSITS THAT MAY ORIGINATE FROM OUTSIDE THE CONSTRUCTION AREA. ACCUMULATED SEDIMENT SHALL BE REMOVED IN SUCH A MANNER THAT PREVENTS THE DEPOSITION OF THIS MATERIAL INTO ANY SEWER OR WATERCOURSE AND AVOIDS DAMAGE TO THE CONTROL MEASURE. THE SEDIMENT SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL, AS SPECIFIED ELSEWHERE IN THE CONTRACT.

SEWERS

- ALL SEWER MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS.
- ALL CATCHBASIN MANHOLES AND MANHOLES SHALL BE PRECAST AND CONFORM TO OPSD 701.01, 701.011 AND 701.012
- ALL DOUBLE CATCHBASIN MANHOLES SHALL BE PRECAST AND CONFORM TO OPSD 705.02.
- ALL CATCHBASINS SHALL BE PRECAST AND CONFORM TO OPSD 705.01.
- ALL CATCHBASIN MANHOLES AND CATCHBASINS TO HAVE A MINIMUM 0.6m SUMP AND TOP AS PER CITY UNLESS NOTED OTHERWISE. STORM MANHOLES TO HAVE A SUMP OF 300mm FOR 825mm AND SMALLER AND BENCHING FOR PIPES 900mm AND GREATER.
- THE CATCHBASIN FRAME AND GRATE SHALL CONFORM TO CITY OF OTTAWA STANDARDS.
- ALL CATCHBASINS CONSTRUCTED IN FILL AREAS TO BE SUPPORTED ON 14 MPa CONCRETE TO SOLID GROUND.
- REARYARD CATCHBASINS SHALL BE IN ACCORDANCE WITH MUNICIPALITY STANDARD DETAILS.
- ALL ROAD CATCHBASINS SHALL INCLUDE 6.0m OF 150mmØ PERFORATED SUBDRAIN C/W FILTER CLOTH.
- STORM SEWER SHALL BE CONCRETE 650 WITH TYPE "B" BEDDING OR PVC PIPE SDR 35 THROUGHOUT EXCEPT AT RISERS, UNLESS OTHERWISE NOTED, AS PER OPSD.
- ALL PROPOSED FOUNDATION DRAINS SHALL BE CONNECTED TO STORM SEWER IF AVAILABLE, OR PUMPED TO SURFACE IF STORM SEWER NOT AVAILABLE.
- MANHOLE BENCHING SHALL FOLLOW MUNICIPALITY STANDARD DETAIL.
- SEWER TRENCHING AND BEDDING SHALL BE AS PER CLASS "B" BEDDING CITY OF OTTAWA STANDARD DRAWING S13, UNLESS NOTED OTHERWISE.

A. BEDDING SHALL BE MINIMUM 150mm OF GRANULAR "A" FOR EARTH AND 300mm OF GRANULAR "A" FOR ROCK AS PER CITY OF OTTAWA DETAIL S7, COMPACTED TO MINIMUM 95% STANDARD PROCTOR DRY DENSITY. CLEAR STONE BEDDING SHALL NOT BE PERMITTED.

B. SUB-BEDDING, IF REQUIRED, SHALL CONSIST OF 300mm OF COMPACTED GRANULAR "B", TYPE 11.

C. BACKFILL TO AT LEAST 300mm ABOVE TOP OF PIPE WITH GRANULAR "A" OR GRANULAR "B" TYPE 1.

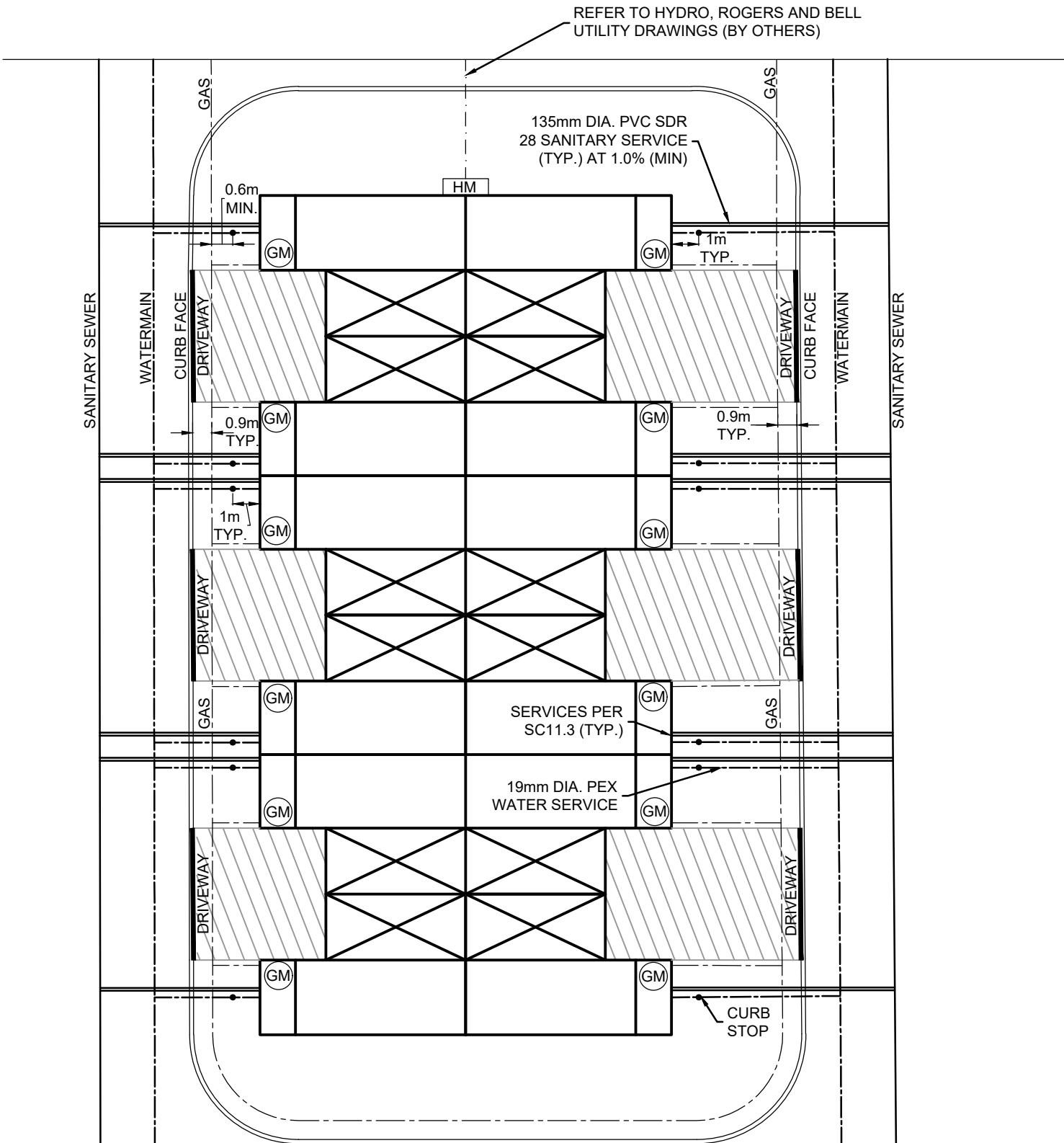
D. TO MINIMIZE DIFFERENTIAL FROST HEAVING, TRENCH BACKFILL (FROM PAVEMENT SUBGRADE TO 2 METRE BELOW FINISHED GRADE) SHALL MATCH ADJACENT SOIL CONDITIONS.
- SANITARY SEWERS AND CONNECTIONS 150mmØ AND SMALLER TO BE PVC SDR 28.
- SANITARY SEWERS AND CONNECTIONS 200mmØ AND LARGER TO BE PVC SDR 35 WITH TYPE "B" BEDDING THROUGHOUT EXCEPT AT RISERS, UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE PRECAST AND CONFORM TO OPSD 701.01. FRAME AND COVER TO CONFORM TO CITY OF OTTAWA STANDARD DETAILS S24, S24.1 AND S25.
- ALL WORKS SHALL BE PERFORMED AS APPLICABLE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SPECIFICATIONS, AND IN PARTICULAR O.P.S.S. 407 AND 410.
- ALL STORM AND SANITARY SERVICES ARE TO BE THE SIZES INDICATED AND THE MATERIAL SHALL BE PVC DR-28 @ 1.0% MINIMUM.
- PROVIDE T.V. INSPECTION REPORT FOR STORM AND SANITARY SEWERS.
- INSULATE ALL STORM AND SANITARY SEWERS THAT HAVE LESS THAN 2.0m OF COVER WITH THERMAL INSULATION AS PER CITY STANDARD DETAIL S35 INSULATION FOR SHALLOW SEWERS.
- SUPPLY AND INSTALLATION OF ALL PIPING AND APPURTENANCES AS SHOWN AND DETAILED TO PROPERTY LINE. PROVIDE TEMPORARY CAPS, AS DIRECTED BY ENGINEER.
- REFER TO DRAWING 118224-GP-ND FOR CATCH BASIN AND MANHOLE STRUCTURE INFORMATION.
- CONSTRUCT ALL SEWERS AND APPURTENANCES TO ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.

TOWNHOUSE SERVICES REFER TO S11.3

▲ SANITARY WATER- 1-135mmØ PVC DR 28 @ 1.0% (MIN) 2.0% DESIRED
1-19mmØ (TYPE K COPPER)

△ SANITARY WATER- 2-135mmØ PVC DR 28 @ 1.0% (MIN) 2.0% DESIRED
2-19mmØ (TYPE K COPPER)

HM HYDRO / COMMUNICATIONS GANG METER
GM GAS METER



TYPICAL SERVICE CONNECTION
BACK TO BACK TOWNHOUSE (SLAB ON GRADE)
N.T.S

CRITICAL PIPE CROSSING TABLE				PROPOSED SEPARATION
①	450mmØ STM OBV=87.48		200mmØ WM INV=88.18	STM-WM=0.70m
②		200mmØ SAN OBV=87.98	250mmØ WM INV=88.48	SAN-WM=0.50m
③		200mmØ SAN OBV=88.39	200mmØ WM INV=88.89	SAN-WM=0.50m
④	300mmØ STM OBV=87.80		200mmØ WM INV=88.77	STM-WM=0.97m
⑤		200mmØ SAN OBV=88.47	250mmØ WM INV=88.97	SAN-WM=0.50m
⑥	300mmØ STM OBV=87.88		200mmØ WM INV=88.41	STM-WM=0.53m

NOTE: REQUIRED SEPARATION BETWEEN WM CROSSING BELOW SEWERS IS 0.50m
REQUIRED SEPARATION BETWEEN WM CROSSING ABOVE SEWERS IS 0.30m
REQUIRED SEPARATION BETWEEN ALL SEWERS IS 0.25m

PIPE CROSSING TABLE

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NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

SCALE		DESIGN	
		BR	
		CHECKED	MS
		DRAWN	
		BR	
		CHECKED	MS
		APPROVED	BHB
2.	REVISED PER CITY COMMENTS	AUG 15/25	MS
2.	REVISED PER CITY COMMENTS	MAR 5/25	MS
1.	ISSUED FOR CITY REVIEW	NOV 01/24	MS
No.	REVISION	DATE	BY

FOR REVIEW ONLY



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LOCATION
CITY OF OTTAWA
THE COMMONS - MEDIUM DENSITY

DRAWING NAME

NOTES AND DETAILS

PROJECT No.	118224-MD
REV	
REV #3	
DRAWING No.	118224-MD-ND