

GENERAL

- All works to be installed in accordance with current Town of Gananoque Guidelines, Ontario building codes and, Ontario Provincial Standard Specifications and Drawings unless specified otherwise.
- The Contractor shall acquire all permits as required for all works within the Municipal Right of Way.
- Contractor is to confirm all property lines with a licensed Surveyor prior to construction.
- Prior to construction, the Contractor shall verify all dimensions, sewer inverts and utility locates and identify possible conflicts.
- Prior to commencing any work within the to municipal right-of-way, the contractor shall apply for a road occupancy permit from
- The Contractor shall provide all traffic control measure in accordance with the Ontario Traffic Manual Book 7 as amended.
- In the event that human remains are encountered during construction, the Contractor shall immediately contact the Ministry of Citizenship, Culture and Recreation shall be notified immediately and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Commercial Relations (416) 326 8392, shall be notified immediately.
- In the event that buried archaeological remains be found on the property during construction activities, the Ministry of Citizenship, Culture and Recreation shall be notified immediately.

GRADING

- Finished surfaces shall be at a minimum grade of 2% unless otherwise noted.
- Positive drainage away from the building shall be achieved.
- 150mm of granular 'A' shall be supplied and installed under all steps, decks, and porches unless otherwise specified.
- Side slopes shall be a maximum slope of 3:1 unless otherwise noted.
- All existing elevations and grades are to be verified by the contractor prior to grading
- Utilities are to be located prior to construction
- All ground surfaces shall be graded to prevent ponding and without low areas except where approved swale or catchbasin outlets are provided.
- Maximum hard surface grades are to be 5.0% unless otherwise noted.
- Staked straw bale filters and flow checks to be installed as per OPSS 219.100 and OPSD 219.180 around catchbasins and sewer inlets.
- During construction, siltation control methods should be used around the lot perimeter in order to prevent erosion or siltation on adjacent properties.
- Conflicts between the architectural drawings and grading shall be brought to the attention of the contract administrator.
- The contractor is responsible for reviewing proposed grades with conflicts regarding the proposed structures.
- Sub-grade shall be graded at a minimum of 2%, until a lower ditch is encountered or the existing surface drains away from the sloped sub-grade.
- Grades are to match the adjacent properties unless otherwise noted.
- All driveway curbing within 0.6m of a city sidewalk is to be depressed to the elevation of the sidewalk.

WATERMANS

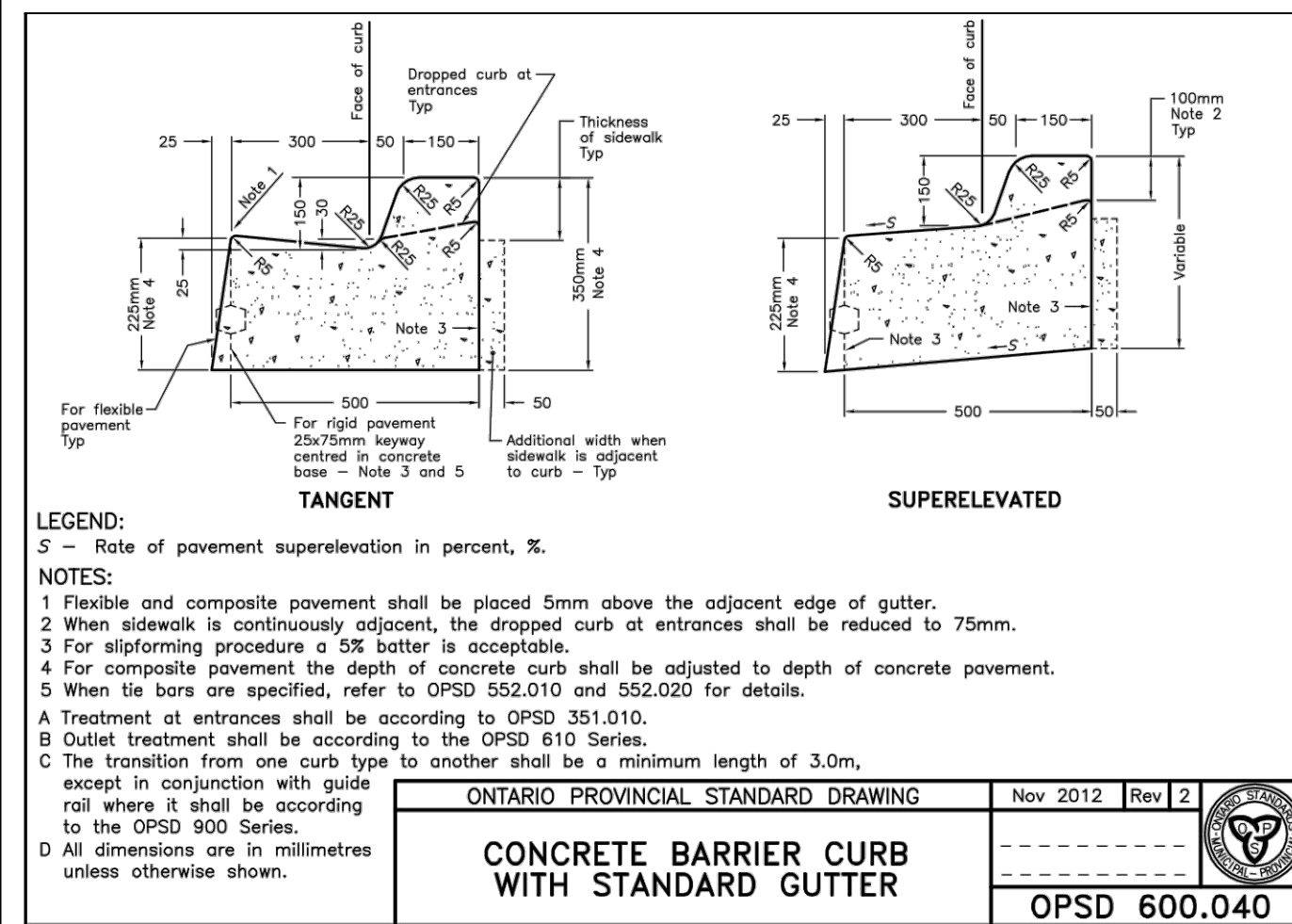
- Water services shall be PEX cross linked pressure (polyethylene pipe must be labeled CAN/CSA-B1371) and a minimum working pressure of 160PSI @ 23°C and must be installed according to the Ontario Plumbing Code and Town of Gananoque Standards. Minimum pipe size is 25mm O.D.
- Main stops shall be the same size as the service pipe and shall be AWWA tapered thread inlet and a compression joint outlet, 3000 psi ball style valve. Main stops shall be Mueller Canada B25008N, Ford Meter FB1000-NL or Cambridge Brass 202 series or Ford B44 series. Self-draining (stop and drain) type curb & main stops are not permitted. All PEX water services shall be installed in accordance with Townships W-16 standard and include a concrete support and electrical grounding tailing nuts on both sides for the connection of the tracer wire. All material shall be AWWA C800 and NSF 61 compliant.
- Pipe bedding and cover shall conform to OPSD 802 series. Bedding and cover shall be Granular 'A'.
- The minimum depth of cover measured from the top of a main or a service connection gooseneck shall not be less than 1.8m.

SEWERS

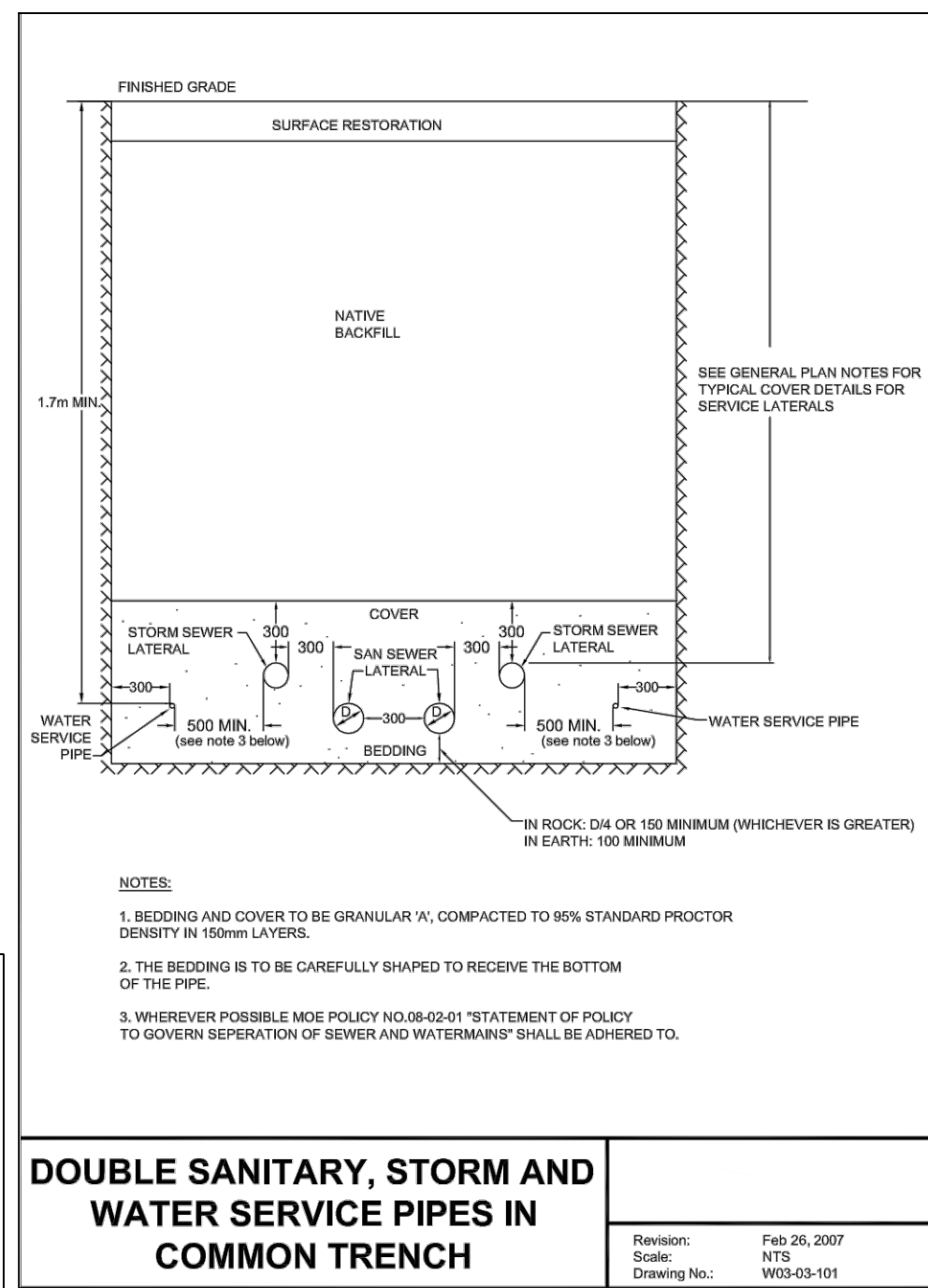
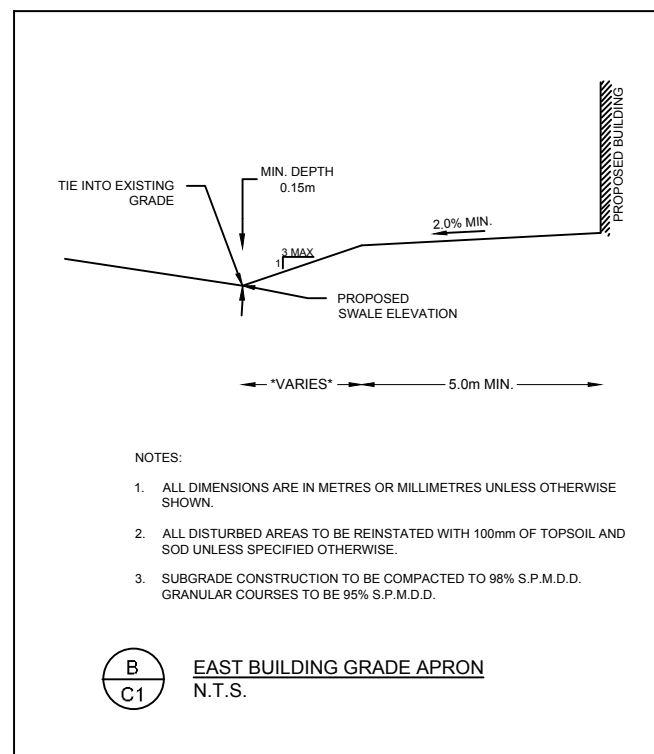
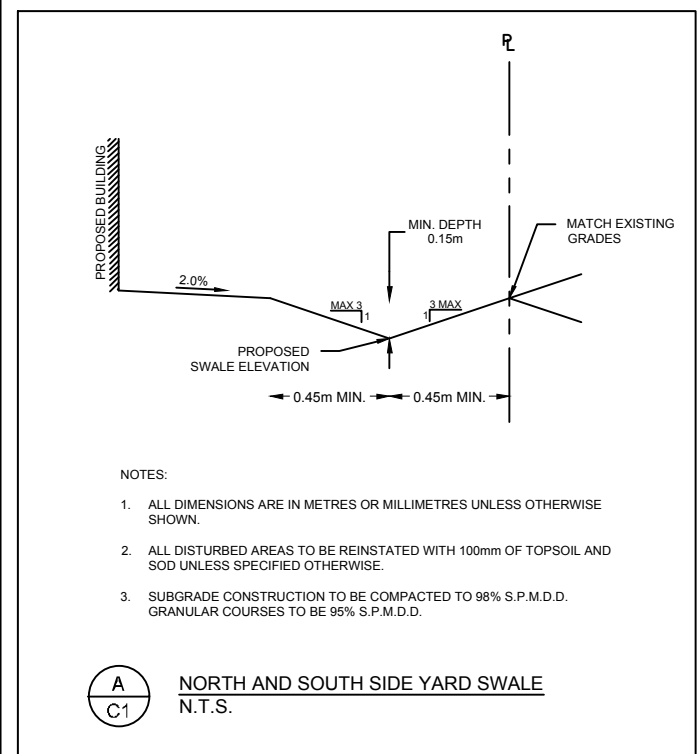
- Existing pipe inverts are approximate and must be confirmed by The Contractor in the field.
- Bedding for rigid pipe shall be Class B bedding material according to OPSD 802.031 compacted to minimum 98% of maximum dry density.
- Water and sewer services and foundation drains may be laid in the same trench subject to the provisions of Ontario Building Code.
- Sanitary laterals shall be PVC, CSA certified and conform to OPSS. Laterals are to be sized to meet the Ontario Building Code as amended and shall be minimum 125mm PVC DR 28. The colour shall be green pipe - ASTM D-3034.
- Minimum of 2% gradient from the building line to the main sewer with only long radius bends as required.
- Back water valve shall be installed on the sanitary laterals to the satisfaction of Town of Gananoque and Ontario Building Code.
- Where a clearance between pipe or conduit crossings of 300mm or less cannot be avoided, there shall be concrete encasement or non-shrink backfill of the crossing extending one metre in each direction of each pipe.
- Sanitary laterals to have a minimum 1.5m of cover at the property line. If the minimum cover cannot be achieved, then the cover shall be as much as can be achieved.
- Sanitary laterals are to extend 1.5 metres beyond the property line. The bell end is to remain on the last piece of pipe leading up to the property line and shall be 4m in length.
- Sanitary main connection to be competed with manufactured sweep and wye. If sanitary asbestos pipe is found, sanitary connection to be completed under the discretion of the Town of Gananoque.

SITE WORKS

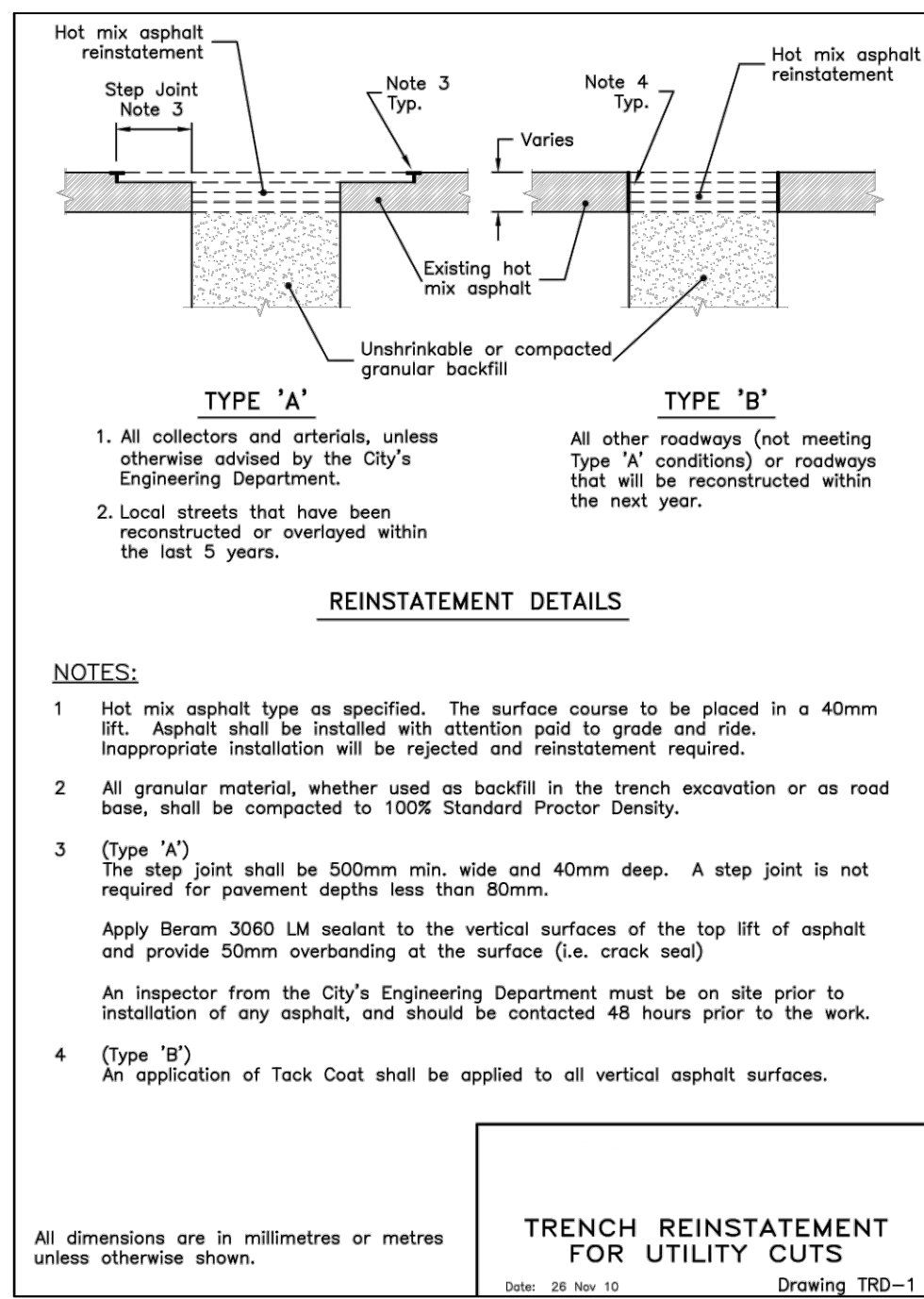
- Road cuts to be reinstated as per TRD-1.
- Where in earth subgrade granular depths provide 3% crossfall on subgrade.
- Existing pavement thickness to be matched.
- Hot mix, hot laid asphalt concrete as per OPSS 1150.
- Mix designs shall contain a minimum of 5.4% asphalt cement with a performance grade of PH58-28 and 3.5% air voids.
Parking lot cross sections shall be:
Light Duty (Driveway)
50mm HL4
150mm Granular 'A'
250mm Granular 'B'
- Concrete shall be Class C2, 32 Mpa 28 day strength, 19mm coarse aggregate nominal maximum size, 6.0% to 8.0% air content. Normal portland cement type as per OPSS 1301.
- Concrete materials and production as per OPSS 350, 351, 352, 353, 1301, 1302 and 1350.
- Boulevards and grass areas to be finished with 100mm of topsoil and nursery sod.



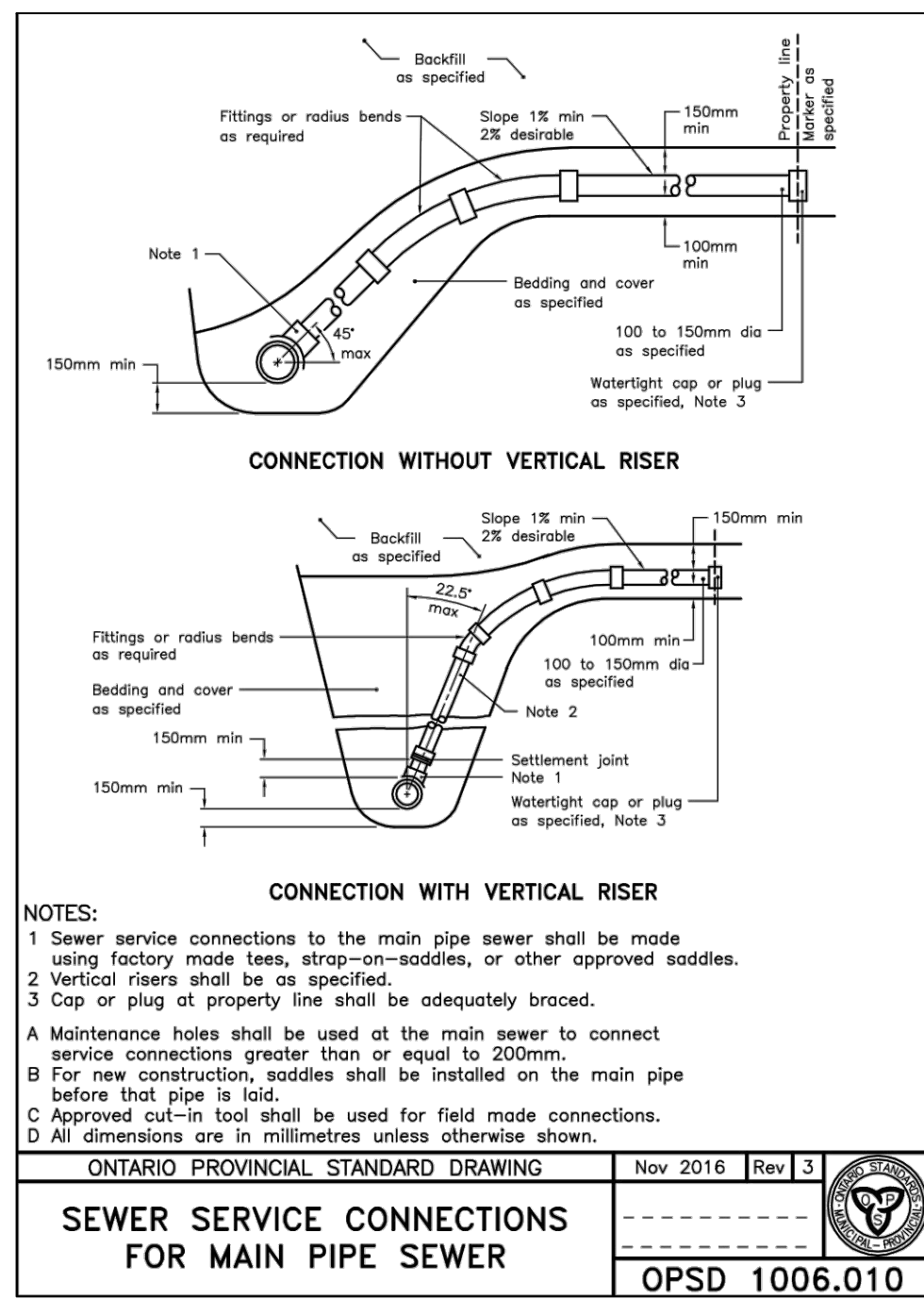
ONTARIO PROVINCIAL STANDARD DRAWING Nov 2012 Rev 2
CONCRETE BARRIER CURB WITH STANDARD GUTTER
 OPSD 600.040



DOUBLE SANITARY, STORM AND WATER SERVICE PIPES IN COMMON TRENCH
 Revision: Feb 26, 2007
 Scale: NTS
 Drawing No: W04-G3-101



TRENCH REINSTATEMENT FOR UTILITY CUTS
 Date: 28 Nov 12
 Drawing TRD-1



ONTARIO PROVINCIAL STANDARD DRAWING Nov 2016 Rev 3
SEWER SERVICE CONNECTIONS FOR MAIN PIPE SEWER
 OPSD 1006.010

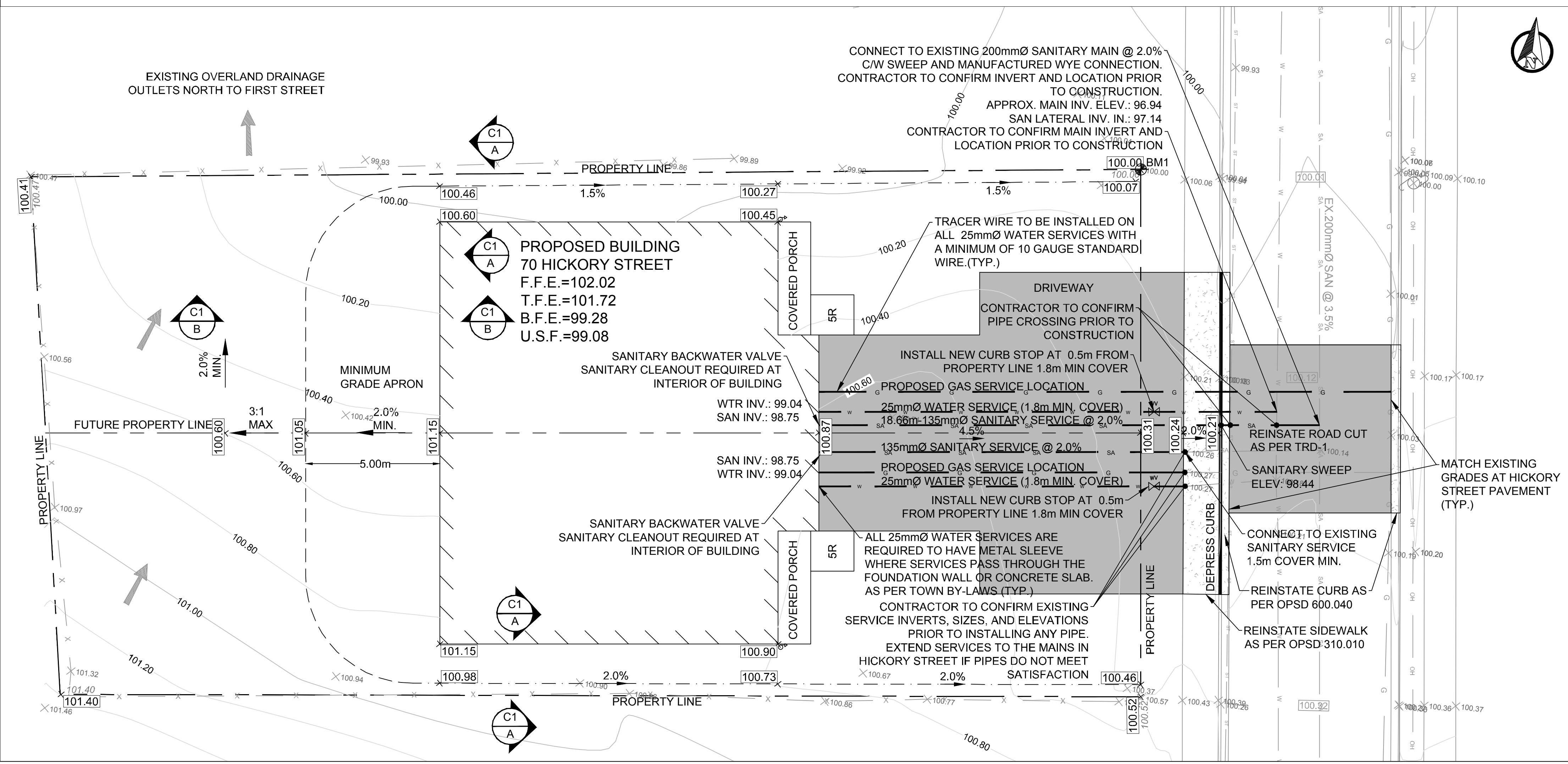
LEGEND

ASPHALT
CONCRETE
GRASS
SA - PROPOSED SANITARY
W - PROPOSED WATERMAIN
- - - - - PROPOSED SWALE
G - PROPOSED GAS
OH - PROPOSED OVHD HYDRO
SA - EXISTING SANITARY
W - EXISTING WATER
- - - - - EXISTING GAS CABLE
- - - - - EXISTING BELL CABLE
- - - - - EXISTING UNDG. HYDRO
X - X - X - EXISTING FENCE
□ □ EXISTING CB, DCB
⊙ EXISTING STORM MH, CBMH
⊙ EXISTING SANITARY MH
⊙ EXISTING HYDRANT, VALVE
⊙ EXISTING DECIDUOUS, CONIFEROUS TREE
⊕ BENCHMARK
⊙ BOREHOLE
⊙ WELL
X - X - X - EXISTING GRADE
⊙ PROPOSED GRADE
⊙ PROPOSED DOWNSPOUT

Benchmark
 ⊕ BM1 - LOCAL BENCHMARK ON STANDARD IRON BAR ON NORTH SIDE OF HICKORY STREET. ASSUMED ELEVATION: 100.00

0 2.5 5 m H=1:100

R1	AS PER AGENCY COMMENTS	NOV. 11, 2020
No.	Revision/Issue	Date



Professional Engineer
 LARRY PRINSEN
 NOVEMBER 11, 2020
 PROVINCE OF ONTARIO

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Client: **LARRY PATTERSON**

Project: **70 HICKORY STREET**

Drawing: **GRADING AND SERVICING PLAN**

Drawn by: BEAT	Checked by: DEP	Project No:
Designed by: DEP	Approved by: DEP	Drawing No:
Date: OCTOBER, 2020		
Scale: 1:100 ANSI D		