## SITE GRADING NOTES

- MATCH EXISTING GRADES UNLESS SHOWN OTHERWISE.
- PROPERTY LINE SHALL BE MARKED (OR STAKED-OUT) BY AN ONTARIO LAND SURVEYOR AT ALL LOCATIONS WHERE NEW PLANT IS WITHIN 0.50m FROM THE PROPERTY LINE.
- . CONTRACTOR SHALL ENSURE BARRIER FREE ACCESSIBILITY PEDESTRIAN SURFACE INCLUDING PEDESTRIAN ACCESS TO ALL BUILDINGS AND STREET CROSSINGS MUST BE PROVIDED AND MAINTAINED IN A GOOD STATE OF REPAIR TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR THROUGH OR BY THE CONSTRUCTION SITE AT ALL TIMES.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT GRADING AROUND HYDRANTS, TRANSFORMERS, AND UTILITY PEDESTALS, ETC., MEET CURRENT CITY OF OTTAWA, HYDRO AND UTILITY COMPANY REQUIREMENTS.
- ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
- . CONTRACTOR TO ADJUST EXISTING SEWER, WATER AND UTILITY STRUCTURES WHERE DISTURBED TO FINAL GRADE WHERE REQUIRED.
- GRADING IN GRASSED AREAS WILL BE AS PER CITY OF OTTAWA STANDARDS.
- . CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE ENGINEER, THE CITY OF OTTAWA AND THE OWNERS.
- REINSTATEMENT NOTES
- 2. CONTRACTOR IS TO MINIMIZE DISTURBANCE TO ADJACENT GROUNDS AND IS TO REDUCE THE ACTUAL LIMITS OF REMOVALS AND REINSTATEMENT WHEREVER POSSIBLE, AND SHALL MAKE THEIR OWN JUDGMENT AND ACCOUNT FOR ALL MATERIAL AND LABOUR REQUIRED FOR ADEQUATELY REINSTATING THE AREAS TO PRE-CONSTRUCTION CONDITIONS OR BETTER, AND BEAR THE COST OF THE SAME. NO ADDITIONAL PAYMENT WILL BE MADE FOR REINSTATEMENT WORK NOT SHOWN ON THE CONTRACT DRAWING AS A DIRECT RESULT FROM CONSTRUCTION OR OTHER CONSTRUCTION RELATED ACTIVITIES.
- 0. CONTRACTOR TO REINSTATE DISTURBED AREAS TO PRE-CONSTRUCTION CONDITION OR BETTER MATCHING EXISTING GROUND COVERS INCLUDING, BUT NOT LIMITED TO, GRASS, GRAVEL, MULCH, GARDEN BEDS, RIVER STONE, ETC. REINSTATEMENT IN EXISTING GRASSED AREAS TO INCLUDE MINIMUM 150mm IMPORTED TOPSOIL AND HYDRAULIC SEED. ALL WORK TO INCLUDE A ONE-YEAR WARRANTY FROM DATE OF FINAL ACCEPTANCE. PROVIDE WATERING OF ALL GRASS AREAS AS REQUIRED FOR PROPER ESTABLISHMENT, AND REGULAR MOWING UNTIL FINAL ACCEPTANCE -MINIMUM TWO CUTS.
- 1. ALL SITE APPURTENANCES INCLUDING, BUT NOT LIMITED TO, SIGNAGE, BOLLARDS, FENCING, GATES & CONTROLS, SHRUBBERY/TREES/PLANTS, LIGHT POLES, OTHER EQUIPMENT, ETC. ARE TO BE PROTECTED UNLESS OTHERWISE NOTED.

## STORM SEWER NOTES

- 12. ALL STORM SEWER MATERIALS AND INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE STANDARDS AND SPECIFICATIONS OF THE CITY OF OTTAWA, ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).
- 13. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.2 (LATEST AMENDMENT). ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.L (LATEST AMENDMENT). PIPE SHALL BE JOINTED WITH STD. RUBBER GASKETS AS PER CSA A257.3 (LATEST AMENDMENT).
- 14. ALL STORM SEWERS 200mm DIAMETER AND GREATER, SHALL BE PVC SDR 35, AND ALL STORM SEWERS 150mm DIAMETER OR LESS, SHALL BE PVC SDR 28 APPROVED PER C.S.A. B182.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
- 15. THE CONTRACTOR SHALL CONSTRUCT FLEXIBLE STORM SEWERS IN ACCORDANCE WITH OPSD 802.010 AND 802.013. RIGID STORM PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH OPSD 802.030. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT THE PIPES FROM HEAVY CONSTRUCTION EQUIPMENT. BEDDING AND BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 98% SPMDD.
- 16. SEWER BEDDING AS PER CITY STANDARD S6 & S7.
- 17. WITHIN THE FROST ZONE, THE BACKFILL IN THE SERVICE TRENCHES SHOULD MATCH THE SOIL ON SIDES TO MINIMIZE DIFFERENTIAL FROST HEAVING IN THE SUBGRADE
- 18. STORM MANHOLE FRAME AND COVERS SHALL BE AS PER OPSD 401.010 TYPE B. SAFETY PLATFORMS SHALL BE AS PER OPSD 404.02. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA SPECIFICATIONS AND OPSD 1003.01.
- 19. STORM SEWER MANHOLES SERVING LOCAL SEWERS LESS THAN 900mm SHALL BE CONSTRUCTED WITH A 300mm SUMP UNLESS OTHERWISE SPECIFIED. FOR STORM SEWERS 900mm AND OVER USE BENCHING IN ACCORDANCE WITH OPSD 701 .021.
- 20. CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA DETAIL S1. FRAMES AND GRATES SHALL BE AS PER CITY OF OTTAWA DETAIL S19 FOR CATCHBASINS.
- 21. CURB INLET TYPE CATCH BASIN (CICB) SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. S3. AND GRATE SHALL BE AS PER CITY OF OTTAWA STD. S22 AND S23, UNLESS OTHERWISE NOTED.
- 22. CATCHBASIN LEADS SHALL BE 200mm Ø (MIN), AT 1.0% SLOPE (MIN.) UNLESS OTHERWISE NOTED.
- 23. ALL CATCHBASINS AND CATCHBASIN MANHOLES SHALL HAVE SUMPS WITH 600mm DEPTH, UNLESS OTHERWISE NOTED.
- 24. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED. WHERE THE SPECIFIED TRENCH WIDTH IS EXCEEDED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADDITIONAL BEDDING, A DIFFERENT TYPE OF BEDDING OR A HIGHER PIPE STRENGTH AT HIS OWN EXPENSE AND SHALL ALSO BE RESPONSIBLE FOR EXTRA TEMPORARY AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WIDENED TRENCH.
- 25. THE CONTRACTOR SHALL CONDUCT CCTV INSPECTION OF ALL NEWLY INSTALLED STORM SEWERS AND EXISTING SEWERS CONNECTED TO. THE TEST SHALL BE PERFORMED IMMEDIATELY AFTER SEWERS INSTALLED.
- 26. ALL STORM STRUCTURES ARE TO BE 1200mmØ PRECAST CONCRETE AS PER OPSD 701.010, UNLESS OTHERWISE SPECIFIED.
- 27. AS PER CITY SPEC F-4104, ALL EXISTING SEWERS TO BE ABANDONED MAY BE EXCAVATED AND REMOVED WITH THE APPROVAL OF THE CONTRACT ADMINISTRATOR IN ACCORDANCE WITH OPSS MUNI 510 07 03 08 EXCEPT ALL DEBRIS SHALL BE REMOVED. THE TRENCH LEFT BY THE REMOVED PIPE SHALL BE BACKFILLED WITH MATERIALS IN ACCORDANCE WITH F-2120.
- 28. AS PER CITY SPEC F-4104, ALL SEWERS TO BE ABANDONED AND LEFT IN PLACE AS PART OF THE CONSTRUCTION SHALL HAVE THEIR OPENINGS FOR SERVICES PLUGGED. THE ENTIRE VOLUME OF THE PIPE AND ANY ATTACHED SERVICE LEADS SHALL BE COMPLETELY FILLED WITH FLOWABLE FILL FROM THE INVERT TO THE OBVERT OVER THEIR ENTIRE LENGTH.







