

IREE PLANTING IN MARINE CLAY SOII

THE LANDSCAPE CONSIDERATIONS CONTAINED WITHIN SEC. 6.8 OF PATERSON GROUP'S GEOTECHNICAL INVESTIGATION, DATED 24 JULY 2020 HAVE BEEN IMPLEMENTEI

- 1. THIS LANDSCAPE PLAN CONFORMS WITH THE TREE-TO-FOUNDATION SETBACK. SOIL VOLUME, AND SURFACE-GRADING REQUIREMENTS OUTLINED IN THE CITY OF OTTAWA GUIDELINES FOR TREE PLANTING IN SENSITIVE MARINE CLAY SOILS (2017), BASED ON THE FINDINGS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT.
- 2. ADDITIONAL REQUIREMENTS OUTLINED IN THE CITY OF OTTAWA'S GUIDELINES FOR TREE PLANTING IN SENSITIVE MARINE CLAY SOILS (2017), INCLUDING USF DEPTH, FOUNDATION WALL REINFORCEMENT, AND SUBDIVISION GRADING, SHOULD BE CONFIRMED BY THE
- 3. THE CONTRACTOR SHOULD REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PLANTING TREES.
- 4. <u>CITY OF OTTAWA: GUIDELINES FOR TREE PLANTING IN SENSITIVE MARINE CLAY SOILS (2017):</u> THE FOLLOWING GUIDELINES ARE PRIMARILY FOCUSED ON SMALL AND MEDIUM SIZE STREET TREES. HOWEVER, LARGE TREES (MATURE HEIGHT OVER 14M) CAN STILL BE PLANTED IN AREAS OF SMC SOILS PROVIDED A TREE TO FOUNDATION SETBACK EQUAL TO THE FULL MATURE HEIGHT OF THE TREE CAN BE PROVIDED (E.G. IN A PARK OR OTHER GREEN SPACE). FOR STREET TREES IN THE ROAD RIGHT-OF-WAY WHERE SMC SOILS HAVE BEEN IDENTIFIED, THE TREE TO FOUNDATION SETBACKS MAY BE REDUCED TO 4.5M FOR SMALL (MATURE TREE HEIGHT UP TO 7.5M) AND MEDIUM SIZE TREES (MATURE TREE HEIGHT 7.5M-14M) PROVIDED ALL OF THE FOLLOWING SIX CONDITIONS ARE MET:
- THE MODIFIED PLASTICITY INDEX OF THE SOIL BETWEEN THE UNDERSIDE OF FOOTING (USF) AND A DEPTH OF 3.5M GENERALLY DOES NOT EXCEED 40%. THIS CORRESPONDS TO SOILS WITH LOW/MEDIUM POTENTIAL FOR SOIL VOLUME CHANGE. CLAY SOILS THAT EXCEED THE 40% PLASTICITY INDEX ARE CONSIDERED TO HAVE HIGH POTENTIAL FOR SOIL VOLUME CHANGE. FOR THESE WORST-CASE SOILS, THE SETBACKS AND TREE PLANTING RESTRICTIONS REMAIN UNCHANGED FROM THE 2005 CLAY SOILS POLICY (TREE SETBACK MUST EQUAL THE MATURE HEIGHT OF THE TREE - I.E. 7.5M SETBACK FOR SMALL TREES).
- THE USF IS 2.1 M OR GREATER BELOW THE LOWEST FINISHED GRADE. NOTE: THIS FOOTING LEVEL MUST BE SATISFIED FOR FOOTINGS WITHIN 10M OF THE TREE, AS MEASURED FROM THE CENTRE OF THE TREE TRUNK, AND VERIFIED BY MEANS OF THE GRADING PLAN AS INDICATED IN THE PROCEDURAL CHANGES BELOW.
- A SMALL SIZE TREE MUST BE PROVIDED WITH A MINIMUM OF 25M3 OF AVAILABLE SOIL VOLUME, AS DETERMINED BY A LANDSCAPE ARCHITECT. A MEDIUM SIZE TREE MUST BE PROVIDED WITH A MINIMUM OF 30M3 OF AVAILABLE SOIL VOLUME, AS DETERMINED BY A LANDSCAPE ARCHITECT. THE DEVELOPER WILL ENSURE THE SOIL IS GENERALLY UNCOMPACTED WHEN BACKFILLING IN STREET TREE PLANTING LOCATIONS.
- THE SOIL VOLUME CALCULATION MUST BE BASED ON A DEPTH OF 1.5M BELOW FINISHED GRADE (E.G. 5M LENGTH X 4M WIDTH AT SURFACE X 1.5M DEPTH = 30M3). IT MAY INCLUDE LANDS IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, BUT MUST SUBTRACT THE VOLUME OF SHALLOW UTILITY TRENCHES (I.E. VOLUME OF SHALLOW UTILITY TRENCHES CANNOT COUNT TOWARDS MINIMUM SOIL VOLUME).
- THE TREE SPECIES MUST BE SMALL TO MEDIUM SIZE, AS CONFIRMED BY A LANDSCAPE ARCHITECT IN THE LANDSCAPE PLAN. • THE FOUNDATION WALLS ARE TO BE REINFORCED AT LEAST NOMINALLY (MINIMUM OF TWO UPPER AND TWO LOWER 15M BARS IN THE FOUNDATION WALL) TO PROVIDE DUCTILITY AS
- DESCRIBED IN THE GEOTECHNICAL REPORT. GRADING SURROUNDING THE TREE MUST PROMOTE DRAINING TO THE TREE ROOT ZONE (IN SUCH A MANNER AS NOT TO BE DETRIMENTAL TO THE TREE), AS NOTED ON THE SUBDIVISION