

NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS,  
WATERMANS, 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.

#### OWNER INFORMATION

HABITAT FOR HUMANITY GREATER OTTAWA  
768 BELFAST ROAD  
OTTAWA, ON K1G 0Z7  
PHONE: 613-749-9950

| No. | REVISION                      | DATE        | BY  |
|-----|-------------------------------|-------------|-----|
| 2.  | REVISED PER CITY COMMENTS     | 20 DEC 2019 | GJM |
| 1.  | ISSUED FOR SITE PLAN APPROVAL | 08 NOV 2019 | GJM |

#### SCALE

AS SHOWN

#### DESIGN

LGB

CHECKED

JAG

DRAWN

RG

CHECKED

LGB

APPROVED

GJM

#### FOR REVIEW ONLY



**NOVATECH**

Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643  
Facsimile (613) 254-5867  
Website www.novatech-eng.com

LOCATION  
CITY OF OTTAWA  
455 WANAKI ROAD (BLOCK 29)

DRAWING NAME

DETAILS SHEET

PROJECT No.

119066-00

REV

REV # 2

DRAWING No.

119066-DET

#17982

#### OPTION 1 On-Site Soil Amendment - Default Ratio 3:1 All Building Types

##### Materials

- Amend existing site topsoil using 3:1 ratio by volume (3 parts existing topsoil, 1 part amendment material)
- Amendment Material: organic matter primarily leaf, yard and bark waste compost of 20-30% by dry weight as determined by Loss-on-Ignition (LOI) and a pH of 6.0 to 8.0
- No uncomposted manure or other organic materials, sphagnum peat or organic amendments that contain sphagnum peat

##### Placement and Amendments

- Remove existing topsoil and preserve on-site.
- Rip native subsoil (decompaction) using the teeth of an excavator or bobcat bucket or equivalent to a depth of 100-200mm. Rip using a perpendicular pattern (See Detail No.1) ensuring full site coverage. No ripping within tree protection areas (See Detail No.2) or within 3m of building foundations (See Detail No.3).
- Amend existing site topsoil to meet post construction soil amendment requirements using 3:1 ratio by volume (topsoil: amendment material).
- Two (2) methods for amending the existing soils in place are acceptable:
  - Method No.1 - Layer and Incorporate (Detail No.4)
  - Method No.2 - Mechanical or Bucket Mix

- Apply 100mm of existing site topsoil followed by 50mm of amendment material and incorporate/mix amended material.
- Lightly roll or smooth using the back of the machinery bucket.
- Repeat i. and ii.
- Adjust layer quantities to ensure a settled amended topsoil depth of 300mm and compliance with site grading. Placement should account for 10% settlement.

- Successively add, mix and pile one (1) unit of amendment material with three (3) units of existing site topsoil.
- Thoroughly mix.
- Repeat i. and ii to ensure thorough mixing until required volume is achieved.
- Place 150mm of amended topsoil, lightly roll or smooth using the back of the machinery bucket.
- Repeat iv.
- Adjust layer quantities to ensure a settled amended topsoil depth of 300mm and compliance with site grading.

Amended topsoil should be wetted after application, allowed to settle for a minimum of one (1) week and grades adjusted as required prior to installation of turf.

##### Documentation Requirements

As part of verification, the owners shall produce delivery tickets, receipts and specifications detailing the delivery address, quantities and product description and sources for verification by City inspectors. Delivery address is to be listed and must correspond to the property/site being inspected. Site without proper documentation may be subject to additional verification procedures including laboratory testing at the expense of the owner. The owner's engineer shall provide a duly notarized letter with all supporting documentation certifying the proper installation and placement of amended soil.

##### Consultant Verification/Inspection

Verification may occur after the minimum one (1) week settlement period. Verification is suggested prior to turf placement. Non-compliant sites shall be rectified at the expense of the owner.

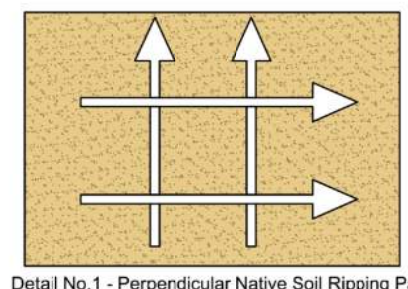
At random, the Developer's consultant shall dig at least one (1) test hole to verify amended topsoil depth and uncompacted soil depths.

- Amended topsoil layer shall be easily dug using only the inspector's weight or cored without other mechanical assistance.
- The amended topsoil layer shall be darker in color than the unamended- ripped subsoil and particles of organic matter should be easily visible.
- Measured amended topsoil depths shall be deemed to be in conformance based on the following:

- Using a common garden spade, the measured depth of amended topsoil shall be equal to the required 300mm depth (±25mm)
- Using a small diameter coring unit, the measured core depth of amended topsoil shall be equal to the required 300mm depth (±50mm)

Soil Amendment Requirements for Wateridge Village Phase 1B  
- For Development Requiring a Building Permit Only

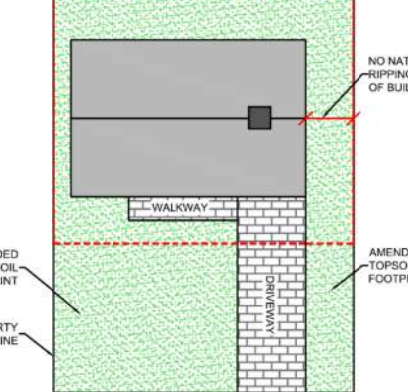
City of Ottawa  
October 22, 2019



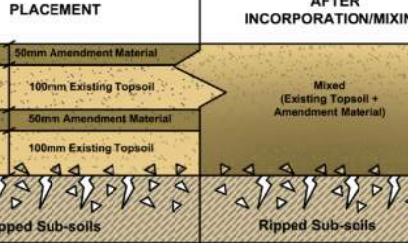
Detail No. 1 - Perpendicular Native Soil Ripping Pattern



Detail No. 2 - No Native Soil Ripping within Tree Protection Areas or Amendment



Detail No. 3 - No native soil ripping within 3.0m of Building Foundation (Amendment Only)



Detail No. 4 Amendment Method No. 1

#### OPTION 2 On-Site Soil Amendment Import and Replace Topsoil with Amendment Material All Building Types and Parks

##### Materials

- Amendment material shall be obtained from a Compost Quality Assurance (CQA) licensed and OMDO/ CCME approved facility and shall comply with the Category "A" compost designation. The amendment material must contain:
  - Organic matter primarily leaf, yard and bark waste compost of 8-15% by dry weight as determined by Loss-on-Ignition (LOI) and a pH of 6.0 to 8.0.
  - No uncomposted manure or other organic materials, sphagnum peat or organic amendments that contain sphagnum peat.

##### Placement and Amendments

- Remove existing topsoil and dispose off-site in accordance with OPSS 206 and OPSS 180, O. Reg. 153/06, the Environmental Protection Act or municipal by-laws and policies, whichever supersedes.
- Rip native subsoil (decompaction) using the teeth of an excavator or bobcat bucket or equivalent to a native subsoil at depth of 100-200mm. Rip using a perpendicular pattern (See Detail No.1) ensuring full site coverage. No ripping within tree protection areas (See Detail No.2) or within 3m of building foundations (See Detail No.3).
- Import pre-mixed amended topsoil (300mm depth of coverage required).
- Place imported pre-mixed amended topsoil in 150mm lifts, lightly roll or smooth using machinery bucket and repeat. Adjust layer quantities to ensure a settled amended topsoil depth of 300mm and compliance with site grading. (See Detail No.4).

Amended topsoil should be wetted after application, allowed to settle for a minimum of one (1) week and grades adjusted as required prior to installation of turf.

##### Documentation Requirements

As part of verification, the owners shall produce delivery tickets, receipts and specifications detailing the delivery address, quantities and product description and sources for verification by City inspectors. Delivery address is to be listed and must correspond to the property/site being inspected. Sites without proper documentation may be subject to additional verification procedures including laboratory testing at the expense of the owner. The owner's engineer shall provide a duly notarized letter with all supporting documentation certifying the proper installation and placement of amended soil.

##### Consultant Verification/Inspection

Verification may occur after the minimum one (1) week settlement period. Verification is suggested prior to turf placement. Non-compliant sites shall be rectified at the expense of the owner.

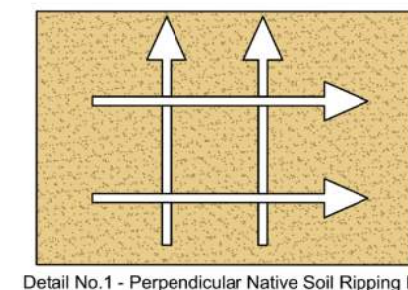
At random, the Developer's consultant shall dig at least one (1) test hole to verify amended topsoil depth and uncompacted soil depths.

- Amended topsoil layer shall be easily dug using only the inspector's weight or cored without other mechanical assistance.
- The amended topsoil layer shall be darker in color than the unamended- ripped subsoil and particles of organic matter should be easily visible.
- Measured amended topsoil depths shall be deemed to be in conformance based on the following:

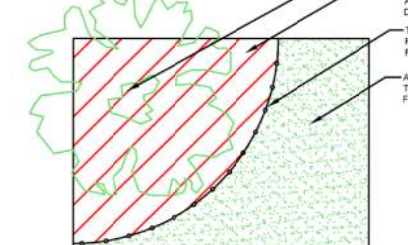
- Using a common garden spade, the measured depth of amended topsoil shall be equal to the required 300mm depth (±25mm)
- Using a small diameter coring unit, the measured core depth of amended topsoil shall be equal to the required 300mm depth (±50mm)

Soil Amendment Requirements for Wateridge Village Phase 1B  
- For Development Requiring a Building Permit Only

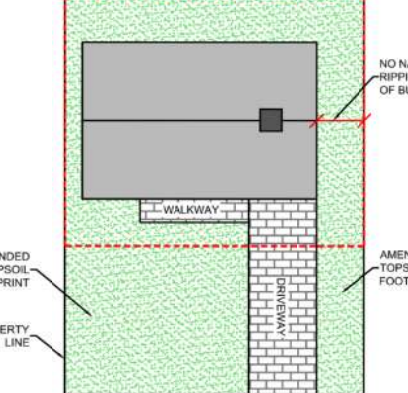
City of Ottawa  
October 22, 2019



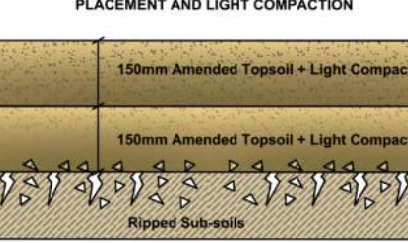
Detail No. 1 - Perpendicular Native Soil Ripping Pattern



Detail No. 2 - No Native Soil Ripping within Tree Protection Areas or Amendment



Detail No. 3 - No Native Soil Ripping within 3.0m of Building Foundation (Amendment Only)



Detail No. 4 Placement and Compaction Lifts for Amended Topsoil

#### SCALE

NOT TO SCALE

TOPSOIL AMENDMENT DETAILS

**APPROVED**

By Jenny Kluke at 2:31 pm, Jan 16, 2020

*J. Kluke*

**JENNY KLUKE**  
**PLANNER**  
**PLANNING, INFRASTRUCTURE & ECONOMIC**  
**DEVELOPMENT DEPARTMENT, CITY OF OTTAWA**