

Legend

- EXISTING VEGETATION TO REMAIN
- EXISTING VEGETATION AREA TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- TEMPORARY TREE PROTECTION FENCE REFER TO DETAIL 1/L300
- PROPOSED DECIDUOUS TREES
- PROPOSED CONIFEROUS TREES
- PROPOSED SHRUB
- PROPOSED PLANTING BED
- T/S 1 150mm TOPSOIL AND SEED MIXTURE TYPE 1
- T/S 2 150mm TOPSOIL AND SEED MIXTURE TYPE 2
- PROPOSED WELL LOCATION
- PROPOSED BOLLARDS
- CONCRETE PAD
- ASPHALT AREA
- RIPRAP
- BUILDING ENTRANCE

APPROVED  REFUSED

THIS  DAY OF  20

**ADAM BROWN, MANAGER**  
DEVELOPMENT REVIEW RURAL  
PLANNING, INFRASTRUCTURE AND ECONOMIC  
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Notes

SURVEY: BY ANNIS O'SULLIVAN VOLLEBEKK LTD.  
LEGAL DESCRIPTION: PART OF LOT 6, CONCESSION 2, GEOGRAPHIC TOWNSHIP OF HUNTLEY, PART 1 ON 4R-11656 SAVE & EXCEPT PARTS 1-10 ON 4R-17391, SAVE AND EXCEPT PART 1-4 ON 4R-17194, CITY OF OTTAWA.

Revision	By	Appd.	YYYY.MM.DD
2	REVISED SITE PLAN	ILL	ILL 18.12.20
1	ISSUED FOR CITY APPROVAL	LZ	ILL 18.09.19

File Name:	160410099-D8	_JP	18.06.05
		Dwn.	Chkd.
		Dsgn.	Y1.MM.DD

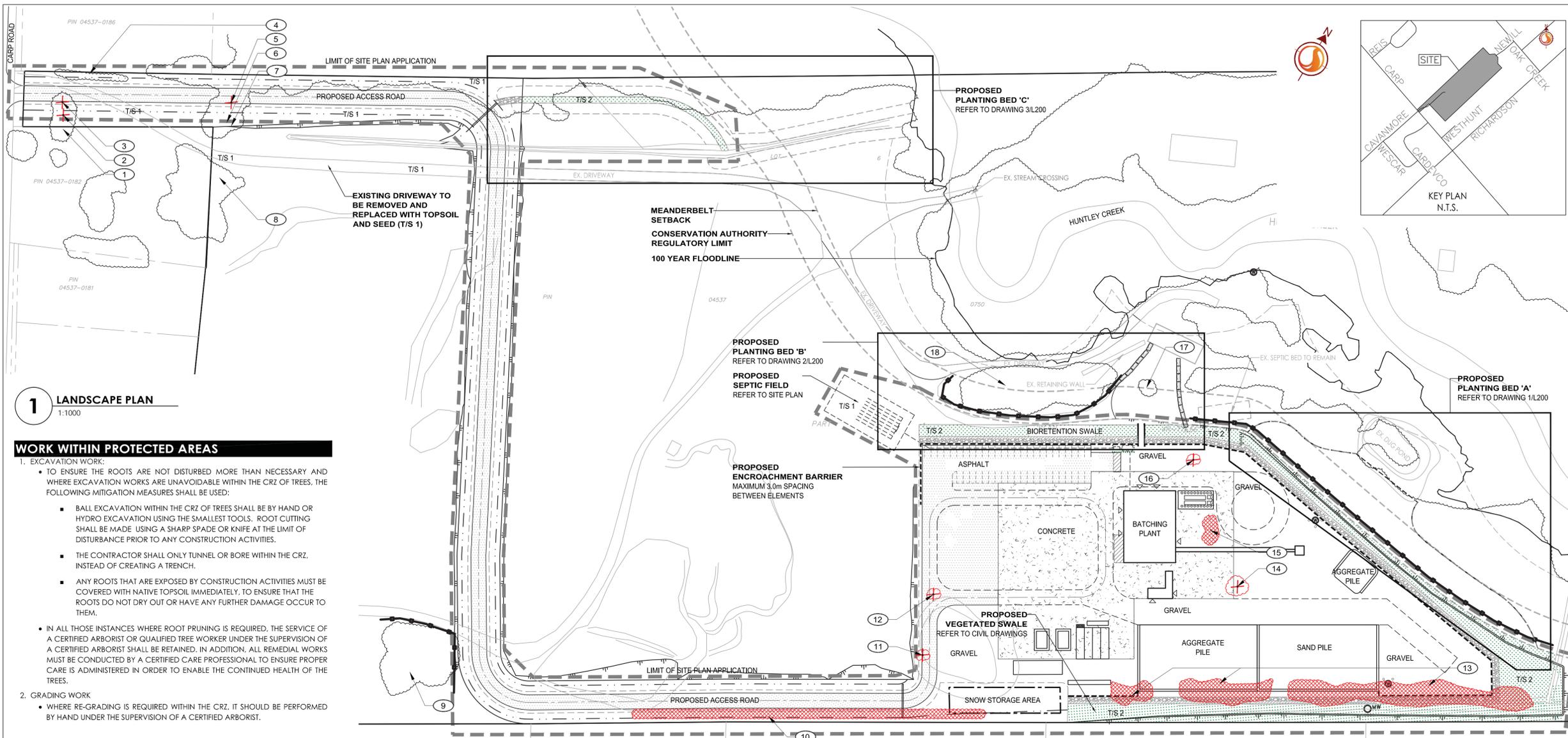
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Client/Project  
**THOMAS CAVANAGH CONSTRUCTION LIMITED**  
9094 CAVANAGH ROAD  
2596 CARP ROAD  
CONCRETE BATCHING PLANT  
OTTAWA, ONTARIO

Title  
**OVERALL LANDSCAPE PLAN**

Project No.	Scale
160410099	0 10 30 50m 1:1000
Drawing No.	Sheet
	Revision



**1 LANDSCAPE PLAN**  
1:1000

**WORK WITHIN PROTECTED AREAS**

- EXCAVATION WORK:
  - TO ENSURE THE ROOTS ARE NOT DISTURBED MORE THAN NECESSARY AND WHERE EXCAVATION WORKS ARE UNAVOIDABLE WITHIN THE CRZ OF TREES, THE FOLLOWING MITIGATION MEASURES SHALL BE USED:
    - BALL EXCAVATION WITHIN THE CRZ OF TREES SHALL BE BY HAND OR HYDRO EXCAVATION USING THE SMALLEST TOOLS. ROOT CUTTING SHALL BE MADE USING A SHARP SPADE OR KNIFE AT THE LIMIT OF DISTURBANCE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
    - THE CONTRACTOR SHALL ONLY TUNNEL OR BORE WITHIN THE CRZ, INSTEAD OF CREATING A TRENCH.
    - ANY ROOTS THAT ARE EXPOSED BY CONSTRUCTION ACTIVITIES MUST BE COVERED WITH NATIVE TOPSOIL IMMEDIATELY, TO ENSURE THAT THE ROOTS DO NOT DRY OUT OR HAVE ANY FURTHER DAMAGE OCCUR TO THEM.
  - IN ALL THOSE INSTANCES WHERE ROOT PRUNING IS REQUIRED, THE SERVICE OF A CERTIFIED ARBORIST OR QUALIFIED TREE WORKER UNDER THE SUPERVISION OF A CERTIFIED ARBORIST SHALL BE RETAINED. IN ADDITION, ALL REMEDIAL WORKS MUST BE CONDUCTED BY A CERTIFIED CARE PROFESSIONAL TO ENSURE PROPER CARE IS ADMINISTERED IN ORDER TO ENABLE THE CONTINUED HEALTH OF THE TREES.
- GRADING WORK
  - WHERE RE-GRADING IS REQUIRED WITHIN THE CRZ, IT SHOULD BE PERFORMED BY HAND UNDER THE SUPERVISION OF A CERTIFIED ARBORIST.

**EXISTING VEGETATION SCHEDULE**  
TREE ASSESSMENT CONDUCTED: SEPTEMBER 12 & 18, 2018

PLANT ID	BOTANICAL NAME	COMMON NAME	DBH (cm)	HEALTH/CONDITION	REMARKS
1	<i>Pinus strobus</i>	White Pine	55	Good	2590 Carp Rd. TO BE PROTECTED
2	<i>Picea glauca</i>	White Spruce	80	Poor	Main leader / trunk is broken approximately 7.0m from ground - TO BE REMOVED
3	<i>Larix laricina</i>	Tamarack	35	Good	Will be impacted by new entrance: TO BE REMOVED
4	<i>Acer negundo</i>	Manitoba Maple	15	Good	Multistem part of a grouping with understorey. Will be impacted by new entrance: TO BE REMOVED
5	<i>Salix nigra</i>	Black Willow	70	Good	Will be impacted by new entrance: TO BE REMOVED
6	<i>Salix nigra</i>	Black Willow	2x60	Good	Multistem - TO BE PROTECTED
7	<i>Salix nigra</i>	Black Willow	60	Good	TO BE PROTECTED
	<i>Betula papyrifera</i>	White Birch			
	<i>Populus tremuloides</i>	Trembling Aspen			
8	<i>Acer negundo</i>	Manitoba Maple	10-35	Good to Fair	Grouping: TO BE PROTECTED
	<i>Rhus typhina</i>	Staghorn Sumac			
	<i>Salix spp</i>	Willow			
	<i>Salix nigra</i>	Black Willow			
	<i>Acer negundo</i>	Manitoba Maple			
9	<i>Thuja occidentalis</i>	Eastern White Cedar	15-30	Good to Fair	Grouping: TO BE PROTECTED
	<i>Ulmus americana</i>	American Elm			
	<i>Fraxinus americana</i>	White Ash			
	<i>Populus tremuloides</i>	Trembling Aspen			
	<i>Ulmus americana</i>	American Elm			
10	<i>Acer negundo</i>	Manitoba Maple	10-15; 50(elms)	Good to Poor	Hedge-row: Presence of Emerald Ash Borer (EAB). TREES INSIDE PROPERTY LINE TO BE REMOVED
	<i>Malus spp</i>	Apple			
	<i>Fraxinus americana</i>	White Ash			
11	<i>Acer negundo</i>	Manitoba Maple	25	Good	Will be impacted by new access road and plant area: TO BE REMOVED
12	<i>Populus deltoides</i>	Eastern Cottonwood	20	Good	Will be impacted by new access road and plant area: TO BE REMOVED
13	<i>Picea glauca</i>	White Spruce	20-25	Good	Hedge-row. Will be impacted by the new plant: TO BE REMOVED
	<i>Picea pungens</i>	Colorado Spruce			
14	<i>Quercus macrocarpa</i>	Bur Oak	60	Good	Will be impacted by the new plant: TO BE REMOVED
	<i>Malus spp</i>	Apple			
15	<i>Ulmus americana</i>	American Elm	10-15	Good	Will be impacted by the new plant: TO BE REMOVED
	<i>Acer negundo</i>	Manitoba Maple			
16	<i>Tilia americana</i>	American Basswood	60	Fair to Poor	Multistem (2 stems): One stem is poor to dead with major limb damage and one stem is in fair condition. Will be impacted by the construction of the new plant: TO BE REMOVED
17	<i>Quercus alba</i>	White Oak	25	Good	Growing inside an island/Round about in the drive way: TO BE PROTECTED
	<i>Tilia americana</i>	American Basswood			
	<i>Thuja occidentalis</i>	Northern White-cedar			
18	<i>Acer negundo</i>	Manitoba Maple	10-45	Good to Poor	Growing: Presence of Emerald Ash Borer (EAB): TO BE PROTECTED
	<i>Fraxinus sp.</i>	Ash			
	<i>Ulmus americana</i>	American Elm			

**TREE PRESERVATION NOTES**

- NO VEGETATION SHALL BE REMOVED WITHOUT MUNICIPAL WRITTEN APPROVAL.
- LOCATION OF EXISTING TREES IS FOR REFERENCE ONLY AND SHALL BE CONFIRMED BY AN ARBORIST AND SURVEYOR.
- NO VEGETATION REMOVAL SHALL OCCUR BETWEEN APRIL 1 AND AUGUST 15 OF ANY YEAR TO PROTECT BREEDING MIGRATORY BIRDS, AS WELL AS AT RISK BAT SPECIES. SHALL TREE REMOVAL DURING THIS PERIOD BY UNAVOIDABLE, THE CONTRACTOR IS REQUIRED TO CONDUCT A NESTING SURVEY BY A REGISTERED PROFESSIONAL AVIAN BIOLOGIST TO IDENTIFY AND ENSURE NO NESTING ACTIVITIES ARE PRESENT. TREE REMOVAL WILL BE ALLOWED WITHIN FIVE (5) DAYS OF CONDUCTING THE SURVEY.
- CONTRACTOR SHALL ENSURE THE PROTECTION OF MATURE TREES IDENTIFIED TO BE RETAINED. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE CRITICAL ROOT ZONE (CRZ) OF TREES WHERE THE CRZ IS ESTABLISHED AS BEING 10 CENTIMETRES FROM THE TRUNK OF A TREE FOR EVERY CENTIMETRE OF TRUNK DIAMETER AT BREAST HEIGHT (DBH). THE CRZ IS CALCULATED AS DBH X 10 CM. TREE PROTECTION FENCING SHALL BE INSTALLED AS SPECIFIED.
- DURING EXCAVATION EQUIPMENT MUST BE MAINTAINED WITHIN THE CONFINES OF THE WORK AREA SO AS NOT TO DISRUPT ANY TURF OR TREE ROOTS UNNECESSARILY. DO NOT PLACE ANY MATERIAL OR EQUIPMENT WITHIN THE CRITICAL ROOT ZONE (CRZ) OF ANY TREE TO BE RETAINED.
- CONTRACTOR SHALL ENSURE THAT NO FILL WILL BE ALLOWED TO OCCUR ON THE SURFACE ABOVE THE CRITICAL ROOT ZONE (CRZ) OF TREES.
- ALL EXCAVATED MATERIAL, INCLUDING IMPORTED MATERIAL, MUST BE REMOVED IMMEDIATELY AND NOT PLACED ON GRASS OR NEAR TREES IN ORDER TO PREVENT ROOT DAMAGE, ACCIDENTAL HITTING OF ADJACENT TREES, AND TURF DAMAGE OUTSIDE OF WORK AREA.
- CONTRACTOR SHALL MINIMIZE SOIL COMPACTION BY KEEPING OPERATION OF MACHINERY AND EQUIPMENT CONFINED TO DESIGNATED WORK AREA.
- CONTRACTOR SHALL KEEP A SPILL KIT ON SITE.
- CONTRACTOR SHALL DEVELOP AN EMERGENCY RESPONSE PLAN.
- CONTRACTOR SHALL AVOID SOIL CONTAMINATION AND FUTURE LIABILITY BY CONFINING THE OILING AND REFUELING OF MACHINERY AND EQUIPMENT TO DESIGNATED STAGING AREA.
- NO FUEL IS TO BE STORED WITHIN THE CRITICAL ROOT ZONE (CRZ) OF ANY TREE AND EXHAUST FUMES FROM ALL EQUIPMENT MUST NOT BE DIRECTED TOWARDS ANY TREE'S CANOPY.
- CONTRACTOR SHALL PREVENT ANY DAMAGE TO THE ROOT SYSTEM, TRUNK OR BRANCHES OF ANY TREES TO BE RETAINED ON SITE AND ON ADJACENT PROPERTIES.
- STORAGE OF EQUIPMENT AND VEHICLES WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES IS STRICTLY PROHIBITED.
- WHERE LIMBS OR PORTIONS OF TREES ARE REMOVED TO ACCOMMODATE CONSTRUCTION WORK, THEY WILL BE REMOVED CAREFULLY IN ACCORDANCE WITH ACCEPTED ARBORICULTURAL PRACTICES.
- WHERE NECESSARY, THE TREES WILL BE GIVEN AN OVERALL PRUNING TO RESTORE THEIR APPEARANCE. NOT MORE THAN ONE THIRD OF THE TOTAL BRANCHING SHALL BE REMOVED DURING A SINGLE OPERATION. THE SERVICES OF A CERTIFIED ARBORIST SHALL BE RETAINED FOR THIS TASK.

**LANDSCAPE PLAN NOTES**

- REFER TO ENGINEERING DRAWINGS FOR PROPOSED GRADING.
- REFER TO ENGINEERING DRAWINGS FOR PROPOSED BIORETENTION DESIGN AND DETAILS.
- CONTRACTOR TO LOCATE AND STAKE ALL UTILITIES PRIOR TO ANY WORK ON THE SITE. DO NOT PLANT DIRECTLY ABOVE UNDERGROUND UTILITIES. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR DIRECTION.
- MAINTAIN A MINIMUM DISTANCE OF 2.0m FROM ALL UNDERGROUND UTILITIES.
- NO TREES SHALL BE PLANTED UNDER OVERHEAD WIRES.
- THE LANDSCAPE ARCHITECT MAY ADJUST THE LOCATION OF PLANTING PRIOR TO PLANTING TO MINIMIZE CONFLICTS WITH UTILITIES, DRIVEWAYS AND INTERSECTION VISIBILITY.
- CONTRACTOR SHALL SUPPLY ALL MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE WORK SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR DIRECTION.
- DO NOT MAKE SUBSTITUTIONS OF MATERIALS, PRODUCTS OR QUANTITIES WITHOUT PRIOR WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR TO MAKE GOOD TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT ANY AREAS DAMAGED BY THE WORK.
- UPON THE COMPLETION OF WORK EACH DAY, REMOVE ALL DEBRIS, GARBAGE AND SURPLUS MATERIALS FROM THE SITE. KEEP THE SITE CLEAN AND USEABLE AT ALL TIMES.
- ALL WORKMANSHIP AND MATERIALS (INCLUDING PLANTS) TO BE GUARANTEED FOR ONE FULL YEAR FOLLOWING FINAL ACCEPTANCE OF THE PROJECT.
- THE CONTRACTOR SHALL REMOVE ALL T-BAR AND WOODEN TREE STAKES PRIOR TO ASSUMPTION BY THE OWNER.
- AT THE TIME OF INSPECTION FOR ACCEPTANCE ALL TREE PITS SHALL BE CULTIVATED, FREE OR WEEDS, LEAVES, BROKEN BRANCHES AND DEBRIS.

**SEEDING SCHEDULE**

- SEED MIXTURE TYPE 1: IN AREAS ADJACENT TO THE PROPOSED ACCESS ROAD, OVER THE SEPTIC FIELD, AND IN ALL DISTURBED AREAS INCLUDING THOSE OUTSIDE THE PROPERTY.
  - SEED MIXTURE: "LOW MAINTENANCE ECO-LAWN" MIXTURE #8340 BY OSC SEEDS OR APPROVED EQUIVALENT.
  - APPLICATION RATE: AS PER SUPPLIER'S RECOMMENDATIONS.
  - APPLICATION TYPE: HYDRAULIC MULCH
  - TOPSOIL: MINIMUM 150mm DEEP. SOIL TEXTURE BASED ON THE CANADIAN SYSTEM OF SOIL CLASSIFICATION TO CONSIST OF:
    - CLAY: 14-20%
    - SILT: 0-35%
    - SAND: 45-70%
    - ORGANIC MATERIAL: 4-10%
    - pH: 6-8
  - REFERENCE SPECIFICATION: OPSS 804.
- SEED MIXTURE TYPE 2: IN ALL VEGETATED SWALES AND BIORETENTION GREEN FACILITIES.
  - SEED MIXTURE:
    - 30% *Elymus virginicus* / Virginia Wild Rye
    - 25% *Carex vulpinoidea* / Fox Sedge
    - 15% *Carex bebbii* / Bebb's Sedge
    - 10% *Muhlenbergia mexicana* / Knol-root Grass
    - 10% *Scirpus cyperinus* / Woolgrass
    - 10% *Panicum virgatum* / Switchgrass
  - APPLICATION RATE: 35 kg / HECTARE
  - APPLICATION TYPE: HYDRAULIC MULCH AS DEFINED BY OPSS 804.
  - TOPSOIL: MIXTURE AND DEPTH AS INDICATED ON ENGINEERING DRAWINGS.

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