

Pinus strobus

Acer negundo

Rhus typhina

Malus spp

11 Acer negundo

Malus spp

15 Ulmus americana

Fraxinus americana

EXISTING VEGETATION SCHEDULE

### TREE ASSESSMENT CONDUCTED: SEPTEMBER 12 & 18, 2018 PLANT BOTANICAL NAME COMMON NAME HEALTH/ (cm) CONDITION REMARKS

2	Picea glauca	White Spruce	80	Poor	Main leader / trunk is broken approximately 7.0m from ground ; TO BE REMOVED
3	Larix laricina	Tamarack	35	Good	Will be impacted by new entrance; TO BE REMOVED
4	Acer negundo	Manitoba Maple	15	Good	Multistem part of a grouping with understorey; Will be impacted by new entrance; TO BE REMOVED
5	Salix nigra	Black Willow	70	Good	Will be impacted by new entrance; TO BE REMOVED
6	Salix nigra	Black Willow	2x60	Good	Multistem will be impacted by new entrance; TO BE REMOVED
7	Salix nigra	Black Willow	60	Good	Will be impacted by new entrance; TO BE REMOVED
	Betula papyrifera	White Birch			
	Populus tremuloides	Trembling Aspen	_		

2590 Carp Rd; TO BE PROTECTED

Salix Spp Willow Salix nigra Black Willow Acer negundo Manitoba Maple Thuja occidentalis Eastern White Cedar 15-30 Good to Fair Grouping; TO BE PROTECTED American Elm Ulmus americana

10-15

Fraxinus americana White Ash Populus tremuloides Trembling Aspen American Elm Ulmus americana Manitoba Maple 10 Acer negundo

Apple

Apple

American Elm

White Ash

Manitoba Maple

Manitoba Maple

Staghorn Sumac

Good to Poor Hedgerow; Presence of Emerald Ash Borer (EAB); TREES INSIDE PROPERTY LINE TO BE REMOVED

Will be impacted by the new plant; TO BE REMOVED

Will be impacted by new access road and plant area; TO BE REMOVED

Will be impacted by new access road and plant area; TO BE REMOVED 12 Populus deltoides Eastern Cottonwood 20 Picea glauca White Spruce Hedgerow, Will be impacted by the new plant; TO BE REMOVED Picea pungens Colorado Spruce Will be impacted by the new plant; TO BE REMOVED 14 Quercus macrocarpa Bur Oak 60 Good

Good

10-35 Good to Fair Grouping; TO BE PROTECTED

Manitoba Maple Acer negundo Multistem (2 stems); One stem is poor to dead with major limb damage and one stem is in fair 16 Tilia americana American Basswood condition; Will be impacted by the construction of the new plant; TO BE REMOVED Good Growing inside an island/ Round about in the drive way; TO BE PROTECTED 17 Quercus alba White Oak Tilia americana American Basswood Thuja occidentali

Manitoba Maple 10-45 Good to Poor Growing; Presence of Emerald Ash Borer (EAB); TO BE PROTECTED 18 Acer negundo Fraxinus sp. Ulmus americana American Elm

# TREE PRESERVATION NOTES

WRITTEN APPROVAL

2.LOCATION OF EXISTING TREES IS FOR REFERENCE ONLY AND SHALL BE CONFIRMED BY AN ARBORIST AND SURVEYOR.

AUGUST 15 OF ANY YEAR TO PROTECT BREEDING PLAN. RATORY BIRDS, AS WELL AS AT RISK BAT SPECIES. SHALL ITRACTOR IS REQUIRED TO CONDUCT A NESTING SURVEY TIFY AND ENSURE NO NESTING ACTIVITIES ARE PRESENT. REMOVAL WILL BE ALLOWED WITHIN FIVE (5) DAYS OF IDUCTING THE SURVEY.

4. CONTRACTOR SHALL ENSURE THE PROTECTION OF MATURE EQUIPMENT MUST NOT BE DIRECTED TOWARDS ANY TREE'S TREES IDENTIFIED TO BE RETAINED. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE CRITICAL ROOT ZONE (CRZ) OF 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.

5. DURING EXCAVATION EQUIPMENT MUST BE MAINTAINED WITHIN THE CONFINES OF THE WORK AREA SO AS NOT TO PLACE ANY MATERIAL OR EQUIPMENT WITHIN THE CRITICAL ROOT ZONE (CRZ) OF ANY TREE TO BE RETAINED.

6. CONTRACTOR SHALL ENSURE THAT NO FILL WILL BE ALLOWED TO OCCUR ON THE SURFACE ABOVE THE CRITICAL ROOT 16. WHERE NECESSARY, THE TREES WILL BE GIVEN AN OVERALL ZONE (CRZ) OF TREES.

7. 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.

1. NO VEGETATION SHALL BE REMOVED WITHOUT MUNICIPAL 8. CONTRACTOR SHALL MINIMIZE SOIL COMPACTION BY KEEPING OPERATION OF MACHINERY AND EQUIPMENT CONFINED TO DESIGNATED WORK AREA.

9. CONTRACTOR SHALL KEEP A SPILL KIT ON SITE.

vegetation removal shall occur between april 1 10. Contractor shall develop an emergency response

REMOVAL DURING THIS PERIOD BY UNAVOIDABLE, THE 11. CONTRACTOR SHALL AVOID SOIL CONTAMINATION AND FUTURE LIABILITY BY CONFINING THE OILING AND REFUELING REGISTERED PROFESSIONAL AVIAN BIOLOGIST TO OF MACHINERY AND EQUIPMENT TO DESIGNATED STAGING

> 12. NO FUEL IS TO BE STORED WITHIN THE CRITICAL ROOT ZONE (CRZ) OF ANY TREE AND EXHAUST FUMES FROM ALL CANOPY.

TREES WHERE THE CRZ IS ESTABLISHED AS BEING 10 13. CONTRACTOR SHALL PREVENT ANY DAMAGE TO THE ROOT SYSTEM, TRUNK OR BRANCHES OF ANY TREES TO BE RETAINED ON SITE AND ON ADJACENT PROPERTIES.

> 14. STORAGE OF EQUIPMENT AND VEHICLES WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES IS STRICTLY

DISRUPT ANY TURF OR TREE ROOTS UNNECESSARILY. DO NOT 15. WHERE LIMBS OR PORTIONS OF TREES ARE REMOVED TO ACCOMMODATE CONSTRUCTION WORK, THEY WILL BE REMOVED CAREFULLY IN ACCORDANCE WITH ACCEPTED ARBORICULTURAL PRACTICES.

> 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

1. REFER TO ENGINEERING DRAWINGS FOR PROPOSED GRADING.

2. REFER TO ENGINEERING DRAWINGS FOR PROPOSED BIORETENTION DESIGN AND DETAILS.

3. 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 10. UPON THE COMPLETION OF WORK EACH DAY, REMOVE ALL DEBRIS, ARCHITECT FOR DIRECTION.

4. MAINTAIN A MINIMUM DISTANCE OF 2.0m FROM ALL UNDERGROUND UTILITIES.

5. NO TREES SHALL BE PLANTED UNDER OVERHEAD WIRES.

6. THE LANDSCAPE ARCHITECT MAY ADJUST THE LOCATION OF PLANTING 12. THE CONTRACTOR SHALL REMOVE ALL T-BAR AND WOODEN TREE PRIOR TO PLANTING TO MINIMIZE CONFLICTS WITH UTILITIES, STAKES PRIOR TO ASSUMPTION BY THE OWNER. DRIVEWAYS AND INTERSECTION VISIBILITY.

7. CONTRACTOR SHALL SUPPLY ALL MATERIALS IN QUANTITIES BE CULTIVATED, FREE OR WEEDS, LEAVES, BROKEN BRANCHES AND SUFFICIENT TO COMPLETE WORK SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR DIRECTION.

8. DO NOT MAKE SUBSTITUTIONS OF MATERIALS, PRODUCTS OR QUANTITIES WITHOUT PRIOR WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.

9. THE CONTRACTOR TO MAKE GOOD TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT ANY AREAS DAMAGED BY THE WORK.

GARBAGE AND SURPLUS MATERIALS FROM THE SITE. KEEP THE SITE CLEAN AND USEABLE AT ALL TIMES.

11. ALL WORKMANSHIP AND MATERIALS (INCLUDING PLANTS) TO BE GUARANTEED FOR ONE FULL YEAR FOLLOWING FINAL ACCEPTANCE OF

13. AT THE TIME OF INSPECTION FOR ACCEPTANCE ALL TREE PITS SHALL

## SEEDING SCHEDULE

1. 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: - 35% Festuca rubra / Chewings Fescue

- 35% Festuca ovina / Hard Fescue - 20% Festuca rubra/ Creeping Red Fescue

- 10% Lolium perenne / Perennial ryegrass APPLICATION RATE: 180kg/ha

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%

• REFERENCE SPECIFICATION: OPSS 804.

2. SEED MIXTURE TYPE 2: IN ALL VEGETATED SWALES AND

BIORETENTION GREEN FACILITIES. SEED MIXTURE:

- 30% Elymus virginicus / Virginia Wild Rye

- 25% Carex vulpinoides / Fox Sedge - 15% Carex bebbii / Bebb's Sedge

- 10% Muhlenbergia mexicana / Knot-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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### 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

150mm TOPSOIL AND SEED MIXTURE TYPE 1 150mm TOPSOIL AND SEED MIXTURE TYPE 2

> PROPOSED WELL LOCATION PROPOSED BOLLARDS

CONCRETE PAD ASPHALT AREA

BUILDING ENTRANCE

ENCROACHMENT BARRIER

REFUSED APPROVED DAY OF

ADAM BROWN, MANAGER DEVELOPMENT REVIEW RURAL

PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

SURVEY: BY ANNIS O'SULLIVAN VOLLEBEKK LTD.

EGAL DESCRIPTION: PART OF LOT 6, CONCESSION 2, GEOGRAPHIC OWNSHIP 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.

BENCHMARK: IRON BAR - ELEVATION = 109.52m

E 346698.57, N 5018043.47

REVISIONS AS PER COMMENTS GM ILL 19.04.11 ILL ILL 18.12.20 ISSUED FOR CITY APPROVAL \_\_\_\_ILL \_\_\_18.09.19 Appd. YYYY.MM.DD Revision

- ---- ---- -----File Name: 160410099-DB Dwn. Chkd. Dsgn. YY.MM.DD

Permit-Seal



Client/Project

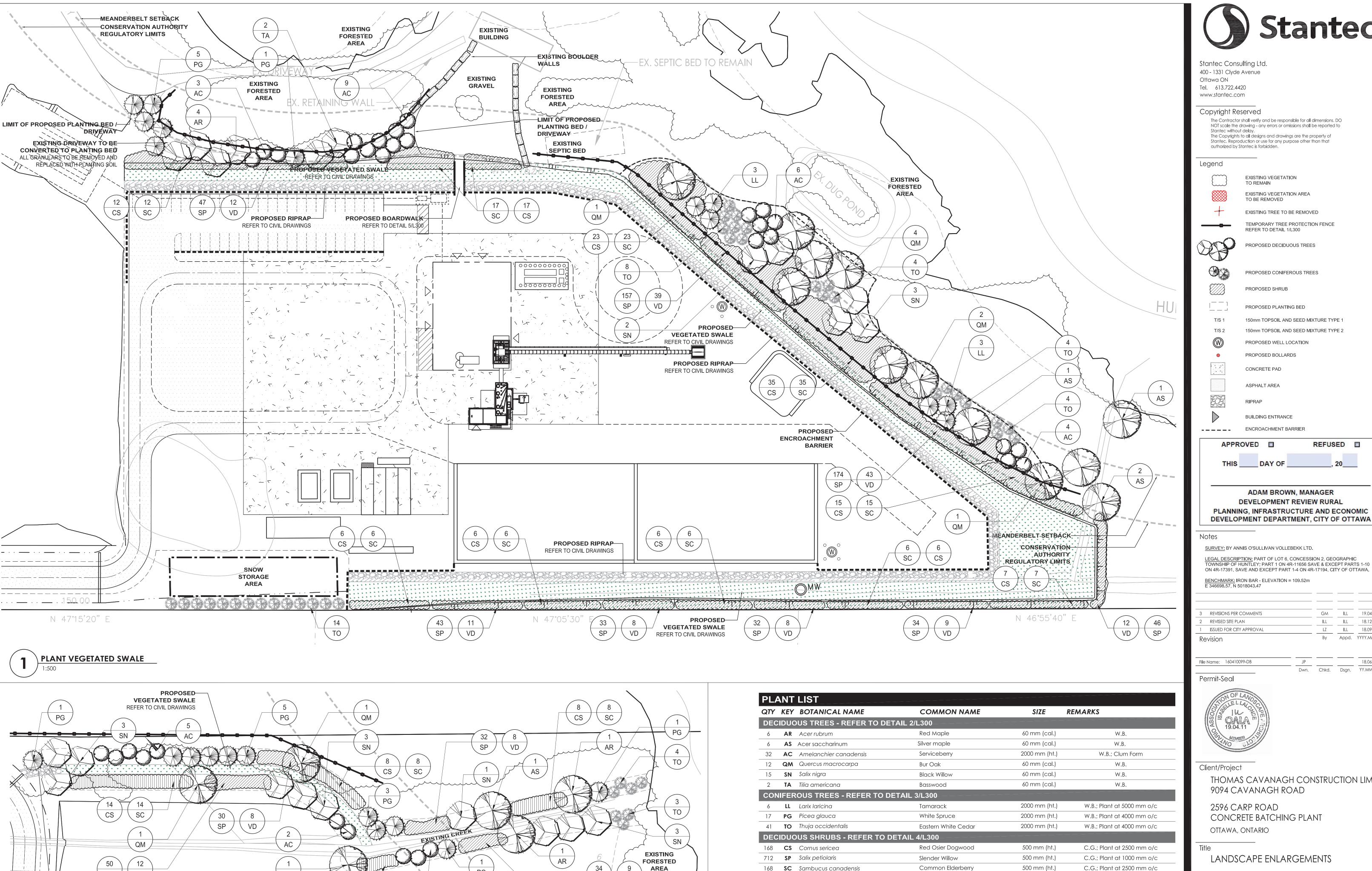
THOMAS CAVANAGH CONSTRUCTION LIMITED 9094 CAVANAGH ROAD

2596 CARP ROAD CONCRETE BATCHING PLANT OTTAWA, ONTARIO

OVERALL LANDSCAPE PLAN

Project No. 160410099 Drawing No. Sheet l of 3

ORIGINAL SHEET - ARCH D



-MEANDERBELT SETBACK -CONSERVATION AUTHORITY

REGULATORY LIMITS

179 **VD** Viburnum dentatum

Arrowwood Viburnum

500 mm (ht.)

C.G.; Plant at 2000 mm o/c

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EXISTING VEGETATION AREA

EXISTING TREE TO BE REMOVED TEMPORARY TREE PROTECTION FENCE

PROPOSED DECIDUOUS TREES

PROPOSED CONIFEROUS TREES

PROPOSED PLANTING BED 150mm TOPSOIL AND SEED MIXTURE TYPE 1

150mm TOPSOIL AND SEED MIXTURE TYPE 2 PROPOSED WELL LOCATION

PROPOSED BOLLARDS

REFUSED

ADAM BROWN, MANAGER DEVELOPMENT REVIEW RURAL PLANNING, INFRASTRUCTURE AND ECONOMIC

SURVEY: BY ANNIS O'SULLIVAN VOLLEBEKK LTD.

<u>LEGAL DESCRIPTION:</u> 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.

3	REVISIONS PER COMMENTS	GM	ILL	19.04.1
2	revised site plan	ILL	ILL	18.12.2
1	ISSUED FOR CITY APPROVAL	LZ	ILL	18.09.1
Re	evision	Ву	Appd.	YYYY.MN

Dwn. Chkd. Dsgn. YY.MM.DD

THOMAS CAVANAGH CONSTRUCTION LIMITED 9094 CAVANAGH ROAD

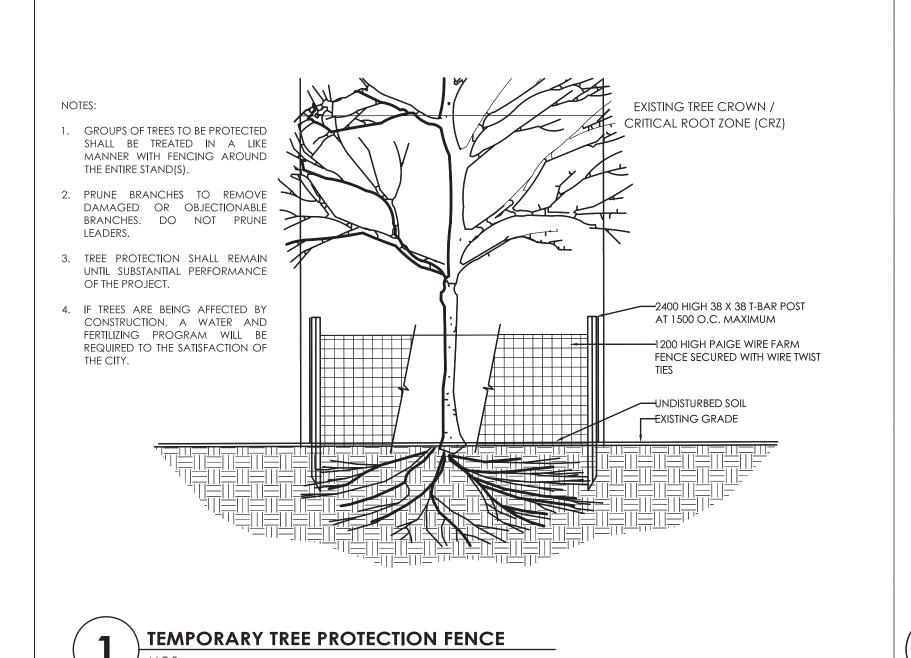
CONCRETE BATCHING PLANT

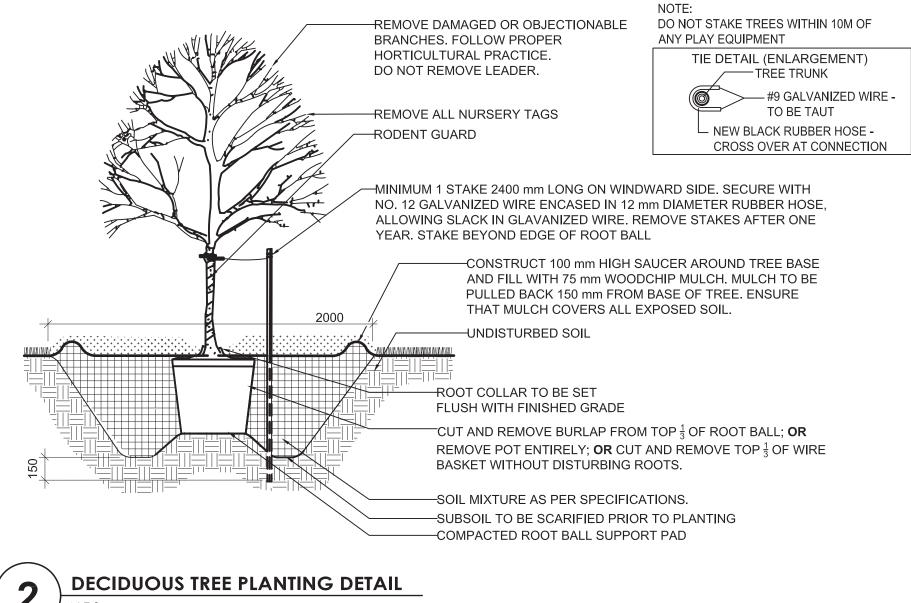
LANDSCAPE ENLARGEMENTS

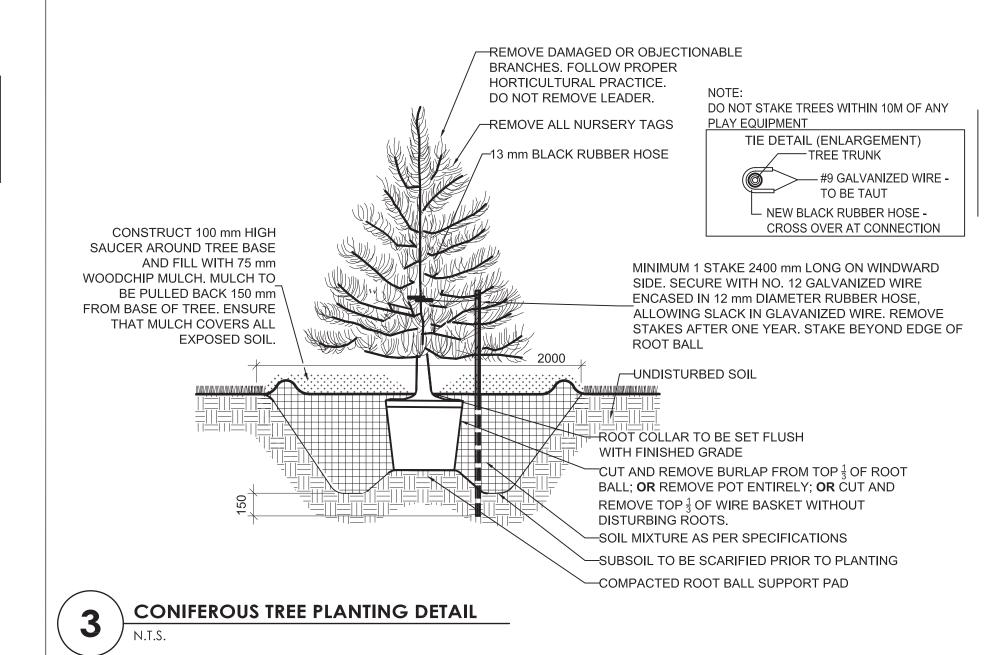
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Drawing No.	Sheet	Revision
L200	2 of 3	3

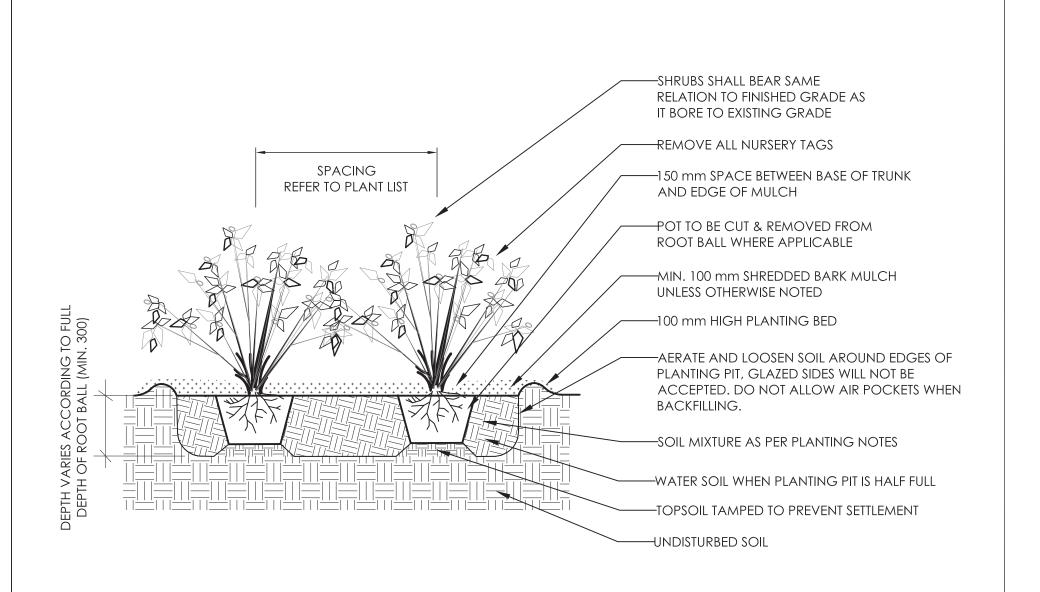
PROPOSED RIP-RAP REFER TO CIVIL DRAWINGS

ACCESS ROAD VEGETATED SWALE



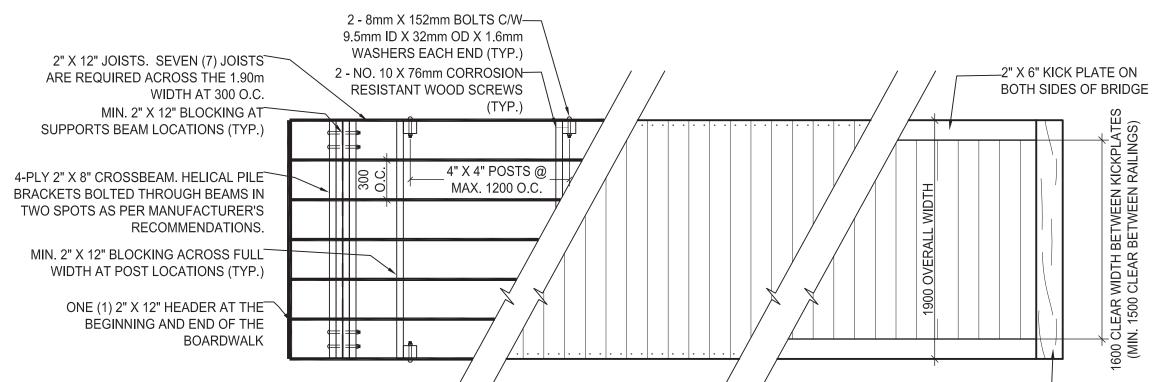








- 1. THE DETAILS ON THIS SHEET DO NOT REPRESENT ANY PARTICULAR SPECIES.
- 2. TREES AND SHRUBS AS INDICATED IN THE DETAILS REPRESENT BOTH CONIFEROUS AND DECIDUOUS SPECIES.
- 3. MATERIAL PLANTED IN GROUP SHALL BE SET IN CONTINUOUS PLANTING BEDS.
- 4. CENTRE LINE OF SHRUBS SHALL NOT BE CLOSER THAN 2.4m FROM BUILDING FACE TO PROTECT BUILDING FOOTINGS AND INSULATION.
- 5. PRUNING TO SUIT SPECIES PRUNE BRANCHES BY 1/3 TO REMOVE DAMAGED OR OBJECTIONABLE BRANCHES FOLLOWING PROPER HORTICULTURAL PRACTICE. DO NOT PRUNE LEADERS.
- 6. FIRMLY COMPACT BACKFILLED PLANTING MIXTURE TO ELIMINATE AIR POCKETS OR PREVENT SETTLEMENT.
- 7. PLANTING MATERIAL QUALITY STANDARDS:
- ALL PLANT MATERIALS TO CONFORM TO THE CANADIAN NURSERY LANDSCAPE ASSOCIATION FOR VARIETY, SIZE AND CONDITION;
- PLANT MATERIAL COLLECTED FROM WILD SOURCES WILL NOT BE
- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REFUSE ACCEPTANCE OF ANY PLANT DISPLAYING POOR GROWTH HABITS, INJURY OR DISEASE; ANY PLANTS THAT DO NOT CONFORM TO THE ABOVE STANDARDS WILL
- BE PROMPTLY REMOVED FROM THE SITE BY THE CONTRACTOR AND REPLACED WITH MATERIAL OF ACCEPTABLE QUALITY AT NO ADDITIONAL COST TO THE PROJECT.
- 8. TOPSOIL: 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%
  - 8-6 :Ha -SPREAD TOPSOIL TO FOLLOWING MINIMUM DEPTHS AFTER
  - SETTLEMENTS UNLESS OTHERWISE NOTED ON DETAILS: - 500mm FOR SHRUB BEDS - 1000mm FOR TREE PLANTING



RESISTANT WOOD SCREWS (TYP.) 2" X 6" TOP RAIL--2" X 6" KICK PLATE ON BOTH SIDES OF SCREWED TO POSTS. BRIDGE TO BE SCREWED INTO PLACE 2" X 6" SIDE RAIL-WITH GALVANIZED WOOD SCREWS SCREWED TO POSTS. -2" X 6" DECKING MATERIAL 4" X 4" POST ATTACHED TO-VARIES TO BE SCREWED INTO CONCRETE PILE WITH STEEL 3048 MAX. PLACE WITH GALVANIZED MOUNTING BRACKET. WOOD SCREWS 2" X 6" MID-RAIL-TNO. 10 X 76mm CORROSION RESISTANT ~2" X 6" X 6" BLOCKING FOR SCREWED TO POSTS. WOOD SCREWS - TWO PER POST (TYP.) UNDER KICK PLATE TO BE 2" X 6" KICK PLATE— SCREWED INTO PLACE WITH GALVANIZED WOOD 2" X 12" JOISTS (SEE PLAN)— SCREWS 4-PLY 2" X 8" BUILT UP BEAM. –2" X 12" JOISTS. <sup>L</sup> 2" X 12" BLOCKING GALVANIZED 1/4" ATTACH TO BEAMS WITH BRACKET / SADDLE ACROSS FULL WIDTH SIMPSON STRONG-TIE A-23 ANGLE BRACKETS OR 1/2" DIA. THROUGHBOLTS-**RAILING SECTION 1-1** APPROVED EQUIVALENT. (TYP.)BOLTED THROUGH BRACKETS SHALL BE ON BEAMS AND BLOCKING. EACH SIDE OF THE JOIST. 6" X 6" POST TO SUIT, MIN.-900mm EMBEDMENT IN MIN. 600mm DIA. AUGERED PIER. USE SONO TUBE IF SOIL \_\_\_ - WELL COMPACTED AUGERED PIER CONDITIONS WARRANT THEIR USE. SUBGRADE 95% S.P.D. AUGERED PIER SHALL BEAR ON SOUND, UNDISTURBED SECTION VIEW

NATURAL SOIL CAPABLE OF SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 200 KPA (4000 psf).

PLAN VIEW

8" X 8" TIMBER ON BOTH SIDES OF BRIDGE AS A TRANSITION FROM THE ASPHALT TRAIL TO **BOARDWALK SURFACE** 

Scale Project No. VARIES 160410099

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Ottawa ON

Legend

APPROVED REFUSED DAY OF ADAM BROWN, MANAGER

DEVELOPMENT REVIEW RURAL

PLANNING, INFRASTRUCTURE AND ECONOMIC

DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

GM ILL 19.04.11 REVISED AS PER COMMENTS REVISED SITE PLAN ILL ILL 18.12.20 LZ ILL 18.09.19 ISSUED FOR CITY APPROVAL By Appd. YYYY.MM.DD Revision \_ \_\_\_ \_\_\_ \_\_\_ File Name: 160410099-DB Dwn. Chkd. Dsgn. YY.MM.DD Permit-Seal

CALA

19.04.11

Client/Project

THOMAS CAVANAGH CONSTRUCTION LIMITED 9094 CAVANAGH ROAD

2596 CARP ROAD CONCRETE BATCHING PLANT OTTAWA, ONTARIO

LANDSCAPE DETAILS

Sheet Drawing No. Revision 3 of 3

**BOARDWALK WITH AUGERED PILES** 

SHRUB PLANTING DETAIL

— NO. 10 X 76mm CORROSION

ORIGINAL SHEET - ARCH D