



ST. CLAIR CATHOLIC
DISTRICT SCHOOL BOARD
Lighting the Way ~ Rejoicing in Our Journey

St. Ursula Catholic School Landscaping Natural Play Tender
Monsignor Uyen Catholic School Landscaping Natural Play Tender

OUTDOOR LEARNING ENVIRONMENT TENDERS

INSTRUCTIONS TO BIDDERS

BID PACKAGE #: 647-CP1619
BID PACKAGE #: 618-CP1619

Date: June 16, 2016

1. BID SUBMISSION

The St. Clair Catholic District School Board (Board) is seeking a contractor to provide equipment & installation of Outdoor Learning Environment at St. Ursula Catholic School and Monsignor Uyen Catholic School located in Chatham ON.

Bids from invited bidders shall be submitted on the Bid Form provided and submitted in an envelope clearly marked:

Bid Package : Outdoor Learning Environment (Landscaping –Natural Play) Tender

The envelope shall be sealed and delivered to: St. Clair Catholic District School Board
420 Creek St.
Wallaceburg, ON
N8A 4C4

Attention: Mr. Tony Prizio, Procurement Specialist

Bids will be accepted at the Board's Catholic Education Centre office not later than **June 28, 2016 @ 2:00:00 p.m.** (No extensions to Bid Closing date are anticipated. Bidders are encouraged to act immediately to prepare their submissions!)

Bids shall be filled out in ink or typed, signed in longhand by a duly authorized company official (having authority to bind). One original of the fully completed Bid Form must be submitted. **Failure to provide all of the requested information on the Bid Form may result in disqualification of the bid.**

Unsolicited bids will not be accepted.

Bids by telephone, fax or email will **not** be accepted.

After bid closing, sealed envelopes will be opened by the Board's Procurement Specialist (Tony Prizio) and a representative from Corporate Services' department.

2. SCOPE OF WORK

The Instructions to Bidders identifies the work to be performed in the Contract and takes priority if there is a conflict within the Bid Documents. **Refer to Scope of Work in Appendix A for detailed description of work to be carried out by the successful proponent.**

3. BID DOCUMENTS

The following Bid Documents form the basis of this Bid Package and shall be examined by bidders:

- 3.1 Instructions to Bidders dated June 16, 2016
- 3.2 Bid Form dated June 16, 2016.
- 3.3 **Ron Koudys Landscape Architects Quotation Forms**
- 3.4 **Prime Contract** – Board will issue a purchase order to the successful proponent(s). The Board assumes no responsibility for the bidder's failure to examine **all** of the Bid Documents.



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4. BID ACCEPTANCE

It shall be understood by all bidders, that the bid shall be valid and subject to acceptance by the Board, and that no adjustments shall be made to the Bid amounts for a period of up to and including sixty (60) days from the Bid Closing Date.

The Board reserves the right to determine the successful bidder by any combination of base bid, separate prices, requested alternate prices and voluntary alternate prices submitted with the bid. The Board is not obligated to select the bid with the lowest price and may cancel a bid prior to award without liability to any bidder.

The successful bidder shall be required to enter into a formal contract with the Board, which will include the terms and conditions of the Instructions to Bidders, Bid Form, and all other applicable documents.

5. AWARD

The Board has the right to reject any or all bids. The lowest Bid will not necessarily be accepted. The invitation to bid does not constitute an offer by the Contractor to enter into a contract.

This contract will be awarded on a per location basis or on the best cost of various groupings. The groupings will be determined by the Board. Each bidder agrees to the award on this basis.

Contractor may submit pricing for either all schools or just schools of choice.

6. PAYMENT

The Board shall pay within forty-five (45) days after receipt of the invoices which are received and approved by the Board.

7. TAXES

Include in Bid all Taxes and all other Customs Duties and Excise Taxes which are in force at Bid date as detailed in General Conditions. Harmonized Sales Tax (H.S.T.) is **not** to be included in the bid. The H.S.T. amount and the Bidder's **H.S.T. Registration Number** are to be indicated on the Bid Form in the spaces provided.

8. ADDENDA

Bidders finding discrepancies, ambiguities or omissions in the bid documents or having doubt as to the meaning or intent thereof, shall immediately notify the Procurement Specialist who may issue instructions and/or clarifications by Addendum to all Bidders. Bidders may also, during the Bidding Period, be advised by Addendum of any additions, deletions or alterations to bid documents. All such Addenda shall become part of the Bid Documents.

All questions to be addressed in writing to: **Mr. Tony Prizio**, Procurement Specialist
St. Clair Catholic District School Board
Fax 519.627.8230 or
E-mail: tony.prizio@st-clair.net
Copy: marcie.butler@st-clair.net
No later than 72 hours prior to bid closing date.



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9. CHANGE NOTICES, CHANGE ORDERS

The following fee percentage and overhead charges shall be applied to additional work ordered by the Board:

- For work carried out by the Contractor's own forces – 10% Overhead & Profit
- For work involving a subcontractor, the subcontractor may charge a maximum 10% fee. The General Contractor may charge a maximum of 5% in addition to subcontractor's fee.

10. BONDING – NOT REQUIRED FOR THIS PROJECT

On bids exceeding \$100,000.00, submit with the Bid an Agreement to Bond for a 50% Performance Bond, and a 50% Labour & Material Payment Bond. Upon request, the successful Bidder will be required to provide the 50% Performance Bond and 50% Labour and Material Payment Bond from a bonding company acceptable to the Board. The cost of the bond is not to be included in the bid sum, the amount of which is to be identified on the Bid Form.

11. VOLUNTARY ALTERNATE AND SEPARATE PRICES

The bid amounts are to be based on the bid documents. Where there is any conflict within the bid documents, the bid amount shall include the higher cost alternative. Alternative proposals are encouraged and must be identified in the bid. Submit complete information including any impact on schedule to allow a full evaluation of the proposal including, as applicable, any particulars in which the alternate proposal is at variance with or unable to meet the specifications. Note also any impact on other trades if the alternative is accepted. Alternative proposals may be made without limitation, including for items specified as single sourced.

12. EXAMINATION OF SITE & SITE VISIT

In submitting a bid, it will be assumed that the bidders have carefully examined the site and surrounding properties of the work and have informed themselves as to the existing conditions, access, storage areas and limitations, and have included in the bid price the complete cost of the work contemplated by the drawings and specifications and other bid documents.

A site visit can be scheduled by contacting Paul Lernout (Tel 519.360.6262) or Tony Montanino (Tel 519.381.1777).

13. TIMING OF PROJECT

A purchase order will be issued by July 4, 2016.

Work on ALL sites must take place during the period of July 10 and to be completed no later than August 31, 2016.

14. PROJECT SPECIFIC REQUIREMENTS

Contractor's employees shall use only those toilet and washroom facilities designated by the Owner or provide their own facilities. In the event that the contractor elects to use Board facility washrooms, the contractor will be responsible for the maintenance, stocking and cleaning of the designated washroom. The designated washroom shall be returned to the Board in the same condition as received by the contractor. Any and all damages to facilities while under the control of the contractor shall be repaired at the contractor's cost.

Please be advised that the Owner has a No Smoking Requirement on the Owners' property. Contractors are requested to ensure that employees and suppliers are advised of the Requirement.



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Contractor shall remove rubbish and debris from the site on a daily basis or as directed by the Board. On completion of the work, all debris shall be removed; the floor shall be thoroughly cleaned and swept; the site shall be left in a tidy condition (construction clean). Do not use the Board's equipment or facilities for cleaning or for any reason.

15. INSURANCE

Contractor must maintain, at the Contractor's expense for the entire term of the Contract or as otherwise required, all insurance as set out below:

- The successful Contractor shall provide the Board with proof of insurance for Comprehensive General Liability and Property Damage with a limit of not less than \$2,000,000.00 (two million dollars) inclusive prior to commencing work.
- The successful Contractor shall provide the Board with proof of insurance for Motor Vehicle Public Liability and Property Insurance on all owned and rented equipment with a limit of not less than **\$2,000,000.00 (two million dollars)** inclusive prior to commencing work.
- The Contractor agrees to indemnify, hold harmless, and defend the Board from and against any and all liability for loss, damage and expense, which the Board may suffer or for which the Board may be held liable by reason of injury (including death) or damage to any property arising out of negligence on the party of the proponent or any of its representatives or employees by way of ownership or operation of an automobile.
- The successful Contractor shall provide the Board with a complete certified copy of all policies.
- The successful Contractor must name the St. Clair Catholic District School Board as additional insured on their insurance policies.

16. WORKPLACE SAFETY INSURANCE BOARD (WSIB)

Contractor must furnish a copy of Workplace Safety and Insurance Board Clearance Certificate of good standing, "Section 748" of the Workplace Safety and Insurance Act with its bid documents.

17. PERMITS

The Board will apply and pay for the building permit. The Contractor shall apply for and include costs for any other permits and approvals required for the completion of their work.

18. MEETINGS

A Post Bid Meeting may be convened and chaired by the Board who will invite Contractor and his major Subcontractors to review the Contract Documents and Bid submitted. This meeting will be prior to the Board issuing a Letter of Intent or Contract. This meeting does not constitute or infer any contract award to the proposed contractor or any other contractor, nor that will the project proceed.

During the course of Work, scheduled progress meetings may be required at the call of the Project Leader.

19. GUARANTEE

The guarantee shall be for a period of 1 year from and after completion of the entire job and acceptance thereof by the Board unless a different period of time is specified with the Board's approval. The Contractor's guarantee shall cover all work under the Contract whether or not any portion or trade has



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been sublet.

The Contractor agrees to correct promptly, at the Contractor's own expense, defects or deficiencies in the Work which appear prior to and during the period of guarantee, or such longer periods as may be specified for certain products or work.

If the Contractor fails to make any replacements or repairs required hereunder, after notice from the Board and reasonable opportunity to do so, the Board may have such work done at Contractor's expense, including all necessary labour costs in connection therewith. Board shall inform Contractor in advance of the approximate cost of such work to be done by the Board.

20. SCHEDULE

The Contractor will be required to perform the work in accordance with the Schedule dates provided in 13. Timing of Project. Ordering of major and long delivery items shall begin immediately upon successful bidder's receipt of contract award. The Contractor will provide a construction schedule within five (5) days of being awarded the project.

Time is of the essence. Bidders are to include adequate manpower, overtime and shift work necessary to meet or improve the schedule, and to make up any time lost to weather or normal delays. Include travel, room and board costs for out of town workers, shop overtime and other premiums to expedite material and equipment, shipping premiums and any incentive costs required to meet the schedule.

21. CONTRACTED SERVICES PROGRAM

Contractors performing work on Board property must complete the Contracted Services Program. This program has three basic components that **must** be met before the bid is awarded. Contractors who cannot meet the minimum requirements of this program will not be awarded this tender. Program information can be found on the Board's web site at www.st-clair.net or through the Board contact identified previously in this document.

22. HEALTH and SAFETY

The Occupational Health and Safety Act describes the responsibilities of an employer. The Board requires Contractors to maintain procedures, training, and enforcement so that the responsibilities are carried out in the workplace. The Contractor shall abide by and strictly adhere to the regulations and conditions set out and laid down by the most current versions of the Occupational Health and Safety Act. All staff employed or hired by the Contractor and working on the Board's premise **MUST** be trained in WHMIS in accordance with Occupational Health and Safety Act and Regulations. They **MUST** adhere to all of the Board's Health and Safety Procedures and Guidelines and to Municipal By-Laws.

Contractor will submit proof of its health and safety program, procedures and training as detailed above upon request by the Board.

The Contractor shall appoint a Competent Person as the Supervisor of this project. The Competent Person shall be as defined in Section 1 of the Occupational Health and Safety Act.

The successful Contractor shall conform to the Ontario "Occupational Health and Safety Act" and all regulations made under said act and assume full responsibility for contraventions of same.

All workplace injuries or accidents on Board property **MUST** be reported by the Contractor to the Board's representative within 24 hours.



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Any workplace injury that is defined under the Occupational Health and Safety Act as a "Critical Injury" must be reported to the Board's representative IMMEDIATELY.

23. SAFE SCHOOL PROCEDURES

Contractor's staff is required to report to the main office of each school during regular school hours and notify the school office staff of the purpose of the visit. The Contractor is required to adhere to all school specific procedures if applicable.

It is the responsibility of the Contractor's staff to sign in and sign out of the Log Book, which is located in the main office area, while performing their duties.

The following information must be recorded in a legible manner:

- Date
- Company Name
- Employee Name
- Employee Signature
- Reason for Visit
- Time Entering Building
- Time Leaving Building

24. PARKING

Contractors must park within the designated areas and allow for provisions to and from the designated parking area onto the job site.

25. TIE BIDS

In the event of a tie. A coin flip conducted by the Procurement Specialist with a minimum of one other Board staff will determine the successful proponent.

END OF INSTRUCTIONS TO BIDDERS



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BID FORM

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Date: June 16, 2016

COMPANY NAME: _____

TO: St. Clair Catholic District School Board
420 Creek St.
Wallace burg, ON
N8A 4C4

Attention: **Mr. Tony Prizio**

Contractor may submit pricing for either all schools or just schools of choice.

This contract will be awarded on a per location basis or on the best cost of various groupings. The groupings will be determined by the SCCDSB. Each bidder agrees to the award on this basis.

Tie bids received will be determined by a coin flip. The flip will be done by the Procurement Specialist.

The Drawings, Specifications and other Contract Documents for this Project have been examined, as well as the premises and job site conditions affecting the work. We the undersigned hereby offer to complete the work in accordance with the Contract Documents for the following price in Canadian funds

EXCLUDING HST.

Project	Description	Amount (Does Not Include HST)	HST
647	St. Ursula Catholic School Chatham, ON	\$	
618	Monsignor Uyen Catholic School Chatham, ON	\$	
	TOTAL	\$	

Contract Price Fixed: Note that subject to changes in the Contract Price made in accordance with the Contract, the Contract Price is fixed and constitutes the total compensation payable to the Contractor for providing the work. The Contract Price includes all labour, material, equipment, freight, taxes (**excluding HST**), currency exchange costs, insurances required, and **all** other costs and expenses of any kind respecting the work and materials to be provided.

In lawful money of Canada (**H.S.T. excluded**) if notified of the acceptance of the offer within sixty (60) days from the time set for the opening of bids.

We recognize the right of St. Clair Catholic District School Board to accept any bid at the prices submitted or to reject any or all bids.

This Bid includes the work described in:

ADDENDA No.: _____ Dated _____

_____ Dated _____



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LIST OF SUBCONTRACTORS:

SCHEDULE:

Work schedule to be confirmed with Paul Lernout 519-360-6262 or Tony Montanino 519.381.1777 after contract has been awarded.

H.S.T. REGISTRATION:

Bidder's H.S.T. Registration Number is: _____

CONTRACT

We hereby agree, if notified of the acceptance of this Bid within the specified time of 60 days, to execute a contract for St. Clair Catholic District School Board by issuance of a purchase order between Owner and Contractor.

Executed this _____ day of _____, 2016.

Company Name: _____

Address: _____

Telephone Number: _____

Signature of authorized representative: _____

Name & Title (please print or type): _____

(END OF BID FORM)



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APPENDIX A – SPECIFICATIONS, DRAWINGS & SCOPE OF WORK

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Date: June 16, 2016

SPECIFICATIONS, DRAWINGS & SCOPE OF WORK

The Specifications, Drawings & Scope of Work establish the work to be performed in the contract and take priority regarding the division of work between contracts only if there is a conflict within the bid documents.

Provide all labour, material, equipment and services to install the Outdoor Learning Environment at the schools identified below. Attached drawings and quotation forms for the three schools listed below:.

Facility Name	Address		
St. Ursula Catholic School	426 Lacroix Street	Chatham	N7M 2W3
Monsignor Uyen Catholic School	255 Lark Street	Chatham	N7L 1G9

(END OF SCOPE OF WORK)

SECTION 02050 – DEMOLITION

1. GENERAL

1.1 PROTECTION

- a. Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, and adjacent grades. Provide bracing and shorting as required. Make good damage and be liable for injury caused by demolition.
- b. There shall be no dry cutting of stone, asphalt, or concrete within the site limits, or St. Clair Catholic District School Board Property.

SECTION 02210 – SITE GRADING

1. GENERAL

1.1 SITE CONDITIONS

- a. Known underground and surface utility lines and buried objects may be on site plan. No guarantee is given of completion or accuracy. Contractor to establish exact locations before commencing with work.

1.2 PROTECTION

- a. Prevent damage to fencing, trees, landscaping, natural features, bench marks, existing building, existing pavement, utility lines, site appurtenances, water courses which are to remain. Make good any damage.

2. PRODUCTS

2.1 MATERIALS

- a. Excavated or graded material to be approved before use as fill for grading work. Protect such approved material from contamination.

3. EXECUTION

2.1 REMOVAL OF TOPSOIL

- a. Remove topsoil from areas to be excavated, paved, re-graded. Strip topsoil when dry enough to prevent contamination with sub-grade material.
- b. Do not handle topsoil in wet or frozen condition. Stockpile topsoil on site as direct by the Consultants. Piles are not to exceed 2m (80”) in height.

2.2 GRADING

- a. Rough grade to levels, profiles, and contours allowing for surface treatment as indicated.
- b. Rough grade to the following depths below finished grade:
 - i. Sod 200mm (8”)
 - ii. Concrete walks 300mm (12”)
 - iii. Unit paving 300mm (12”)
 - iv. Light duty asphalt paving 300mm (12”)
- c. Slope rough grade away from building 1:50 minimum.

- d. Prior to placing fill over existing ground, scarify surface to depth of 150mm (6"). Moisture content of fill and existing surface to be approximately the same to facilitate bonding.
- e. Compact filled and disturbed areas to Standard Proctor Densities to Section 02260.
- f. Do not disturb soil within branch spread of trees or shrubs to remain.

2.3 SURPLUS MATERIAL

- a. Remove material unsuitable for fill, grading or landscaping from site.
- b. Remove surplus material from site.

SECTION 02245 – PLANTING BED AND SODDING TOPSOIL

1. GENERAL

1.1 QUALITY ASSURANCE

- a. Obtain approval of the topsoil in writing from the Consultant before work begins.

1.2 PRODUCT DELIVERY, STORAGE AND HANDLING

- a. Do not spread topsoil in a frozen or wet condition.

1.3 JOB CONDITION

- a. Report in writing to the Consultant prior to commencing work any condition or defects encountered on site, upon which the work of this Section depends, and which may adversely affect the performance of the work.
- b. Do not commence work until such condition or defects have been investigate and corrected.
- c. Commencement of work implies acceptance of surface conditions and no claims for damages or extra work will be accepted, except where conditions cannot be determined prior to construction.

2. PRODUCTS

2.1 MATERIALS

- a. Topsoil: a fertile, friable, natural loam, consisting of neither a heavy clay not a very light sandy nature. The soil shall be comprised of approximately 45% sand, 35% silt, 20% clay and pH value of between 6 and 7 capable of sustaining vigorous plant growth. To be free of all debris over 25mm diameter and reasonable free of weeds (as determined by Consultant.)

3. EXECUTION

3.1 PREPARATION

- a. Fine grade the subgrade, eliminating uneven areas and filling low spots. Remove all debris and all subsoil that has been contaminated with toxic materials as directed by the consultant.

- b. Compact finished subgrade to 95% Standard Proctor Dry Density for areas under planting.

3.2 GRADING

- a. Spread dry topsoil during dry weather over approved, dry, unfrozen subgrade.
- b. Exterior foundation walls shall extend not less than 150 mm above finished ground level.
- c. Fine grade and loosen topsoil. Eliminate rough spots and low areas to ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.
- d. Make good all damages caused by topsoil spreading activities.
- e. Topsoil depths: Planting beds 18” – 450mm minimum
- f. Topsoil depths: Sodded area – 6” 150mm minimum.

SECTION 02260 – TOPSOIL AND FINISHED GRADING

1. GENERAL

1.1 HANDLING

- a. Topsoil shall not be handled or delivered while in a frozen or near water saturated condition.

2. PRODUCTS

2.1 MATERIALS

- a. Topsoil: a fertile, friable, natural loam, consisting of neither a heavy clay nor a very light sandy nature. The soil shall be comprised of approximately 45% sand, 35% silt, 20% clay and pH value of between 6 and 7 capable of sustaining vigorous plant growth. To be free of all debris over 25mm diameter and reasonable free of weeds (as determined by Consultant.)
- b. Peat Moss: decomposed plant material, fairly elastic and homogeneous, free of decomposed colloidal residue, wood, sulphur and iron containing minimum 60% organic matter by weight and moisture content, not exceeding 15%. Shredded particles may not exceed 6mm in size. Minimum pH value of peat 4.5, maximum 6.0.
- c. Bone Meal: raw bone meal finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
- d. Lime: Ground agricultural limestone containing minimum 85% of total carbonates.
- e. Sand: Clean, washed, coarse, free from clay, shale and organic matter.
- f. Mulch: Shredded pine mulch (SPM), free of twigs, leaves, toxins or allergens;
 - i. SPM as distributed by Gro-Bark, Waterloo, 1-888-gro-bark.
 - ii. SPM, as distributed by Fisher’s Landscape Depot, London, 519-474-3429
 - iii. SPM as distributed by Baseline Nurseries, London, 519-657-1265.
- g. Mulch: Engineered wood fiber (EWF);

- i. Fiber Bulk, as distributed by ABC Recreation Lts., Paris, 1-800-267-5753
- ii. Wood Carpet, as distributed by KSL Design, Brantford, 1-877-757-7529
- iii. Fibertop, as distributed by Gro-Bark, Waterloo, 1-888-gro-bark
- iv. Fibertop, as distributed by Fisher's Landscape Depot, London, 519-474-3429.
- v. Fibertop, as distributed by Baseline Nurseries, London, 519-657-1265.
- vi. ParkMat, as distributed by Townsend Lumber Inc., Tillsonburg, 519-842-7391

2.2 SOIL MIXTURES

- a. Bone Meal: Incorporate bone meal into planting soil at a rate of 3kg/m³ of soil mixture.
- b. Amendments: Apply lime, sulphur or other amendment at a rate determined from soil same test. Thoroughly mix amendment into topsoil and planting soil.

3. EXECUTION

3.1 PREPARATION

- a. Grade sub-grade, eliminating uneven areas and low spots, ensuring positive drainage. Remove debris, roots, branches, stones in excess of 50mm diameter and other deleterious material. Remove subsoil that has been contaminated with oil, gasoline, or calcium chloride. Dispose of removed materials off site, and as directed by the Consultant.
- b. Cultivate entire area which is to receive topsoil to depth of 100mm. Repeat cultivation in those areas where equipment used for hauling and spreading has compacted sub-grade.
- c. Mixing and screening of planting soil to be done on site in an approved area. No mixing to be done on paved areas.

3.2 PLACEMENT OF SOIL

- a. Do not spread topsoil until Consultant has inspected and approved sub-grade.
- b. Spread topsoil with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen sub-grade.
- c. Apply topsoil up to finished grade to the following minimum depths:
 - i. 150mm (6") for seeded/sodded areas
 - ii. 300mm (12") for ground cover areas
 - iii. 450mm (18") for shrub beds
- d. Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from topsoil.
- e. Equally spread topsoil around trees and plants.

3.3 FINISH GRADING

- a. Fine grade mechanically entire top soiled area to contours as indicted. Eliminate rough spots and low areas to ensure positive drainage.

- b. Exterior foundation walls shall extend not less than 150 mm above finished ground level.
- c. Fine grade and loosen topsoil prior to seeding/sodding. Eliminate rough spots and low areas to ensure positive drainage. Prepare loosen friable soil bed by means of discing and subsequent raking. Roll lightly and rake where topsoil is too loose.
- d. Roll topsoil with a 70kg – 90kg handroller, minimum 900mm (36”) wide, to compact and retain surface.
- e. Leave surface smooth, uniform, firm against deep foot printing, with a fine loose surface texture.

SECTION 02951 – TREES, SHRUBS, AND GROUNDCOVER

1. GENERAL

1.1 QUALITY ASSURANCE

- a. Planting work is to be carried out by experienced personnel under the direction of a skilled foreman. Exceptions may apply for student and parent groups.

1.2 PRODUCT DELIVERY, STORAGE AND HANDLING

- a. Supply manufactured items such as fertilizer, bonemeal, mulch, etc., in standard containers, clearly indicating contents, weight, component analysis, and the name of the manufacturer.
- b. Store manufactured materials, subject to deterioration, in a weatherproof place on site and in such a manner that their effectiveness is not impaired.
- c. Supply plant material as specified on the plant list.
- d. Provide all material, specified "B. & B." (balled and burlapped) on the plant list, with a solid, earth root ball, wrapped in burlap.
- e. Do not use plant material on which the root ball has been cracked or broken preparatory to or during the planting process.
- f. Cut all roots cleanly when digging plants. Split roots are not acceptable. Roots should be cut even with the edges of the root ball.
- g. Protect all plant material from damage and breakage. Protect all parts of the plant material from drying out from the time of digging until they are installed.
- h. Do not transport plant material in an open truck unless it is adequately protected from sun and wind.
- i. Carefully tie in all branches before transporting.
- j. Pad all points of contact between plant material and equipment
- k. Heel in any plant material that cannot be planted during the current day's operations.
- l. Keep all roots and root balls moist prior to planting.

1.3 JOB CONDITIONS

- a. Proceed with planting operations only during suitable weather conditions.

1.4 SUBSTITUTIONS

- a. Supply and install plant material as specified on the plant list. Substitutions with other plant material will not be allowed without written approval of the Consultant.

1.5 INSPECTION

- a. Make plant material available for inspection at source by the Consultant before installation and inform him/her as to when the inspection can take place.
- b. Approval of plant material at source will not impair the right of the Consultant to inspect plants upon arrival on the site or during the course of construction and to reject plants which have been damaged, or which, in any way do not conform to the specifications.
- c. Give timely notice in writing to the Consultant when acceptance is required.
- d. If partial acceptance is desired, give notice to the Consultant.
- e. Partial acceptance will be given when planting work has been delayed due to circumstances beyond the control of the Contractor or where planting would not be in accordance with good horticultural practices and would jeopardize the performance of the Work and plants.
- f. Final inspection of all plant material will be made at the end of the specified guarantee period. All plants must be in a healthy growing condition at the time of this inspection.
- g. No plant materials will be accepted that have been sprayed with neonicotinoids or organophosphates.

1.6 MAINTENANCE

- a. Maintain all plant material from the time of planting until the date of acceptance.
- b. Maintenance shall include all measures necessary to establish and maintain all plants in vigorous and healthy growing condition, including but not limited to:
 - i. Cultivating and weeding of planting beds and tree pits. Use herbicides in accordance with the manufacturer's directions. Make good any damage, resulting from herbicide use at no extra cost.
 - ii. Watering when required and in sufficient quantities to saturate the root system.
 - iii. Pruning, including the removal of the dead or broken branches.
 - iv. Disease and insect control when required. Use chemical methods in accordance with the manufacturer's directions. Make good any damage at no extra cost.
 - v. Keep all accessories in good condition and properly adjusted. Repair or replace accessories when required at no extra cost.
 - vi. At the time of acceptance, all materials must be in a healthy, vigorous growing condition. Beds and tree pits must be freshly cultivated and free of weeds, rubbish and debris.

1.7 WARRANTY

- a. Provide a written warranty signed and issued in the name of the Owner and Project stating that the Contractor warrants the products and installation for 1 years.
- b. During the warranty period replace all material that is dead or not in satisfactory, healthy growing state or which does not meet the requirements of the specifications, at no extra cost to the contract. Final determination of the acceptability of the plants will be made by the Consultant
- c. All replacements must be plants of the same size and species as shown on the plant list, supplied and planted in accordance with the drawings and specifications.

2. PRODUCTS**2.1 PLANT MATERIAL**

- a. All plant material must be nursery grown and meet the specifications set out in the latest Guide Specifications for Nursery Stock prepared by the Canadian Nursery Trades Association (C.N.T.A.) for size, height, spread, grading, quality and method of cultivation.
- b. Nomenclature of specified plants shall conform to the International Code of Nomenclature for Cultivated Plants and the latest edition of Standardized Plant Names.
- c. Any plant material not conforming to 2.1.1. above will be designated as collected plants.
- d. Collected plants may only be used when approved in writing by the Consultant.
- e. Plant Material: true to name and type, structurally sound, well branched; healthy and vigorous and free from disease, insect infestations, rodent damage, sun scald, frost cracks and other abrasions to the bark and densely foliated with healthy, well developed root system. Pruning wounds must show vigorous bark growth on all edges and all parts must show live and green cambium tissue when cut.
- f. All material must conform to the sizes shown on the plant list except that larger material may be used when approved by the Consultant. Use of larger plants will not increase the contract price.
- g. Plant material sizes must conform to the following standards:
 - i. Caliper – diameter of the trunk measured 300mm above the normal grade around the plant.
 - ii. Height – measured from the normal grade around the plant to the top of the main foliage mass.
 - iii. Spread – the diameter of the main foliage mass, at its widest point.

2.2 OTHER MATERIAL

- a. Anchor stakes: 50mm x 50mm x 2400mm wood stakes, pointed at one end, 2 per tree or as indicated on supplied details.
- b. Twine.

- c. Trunk guards: 150mm (6") diameter PVC or approved alternate, 600mm (24") high.

3. EXECUTION

3.1 PREPARATION

- a. Obtain the approval of the Consultant of all planting excavations as outlined.

3.2 INSTALLATION OF PLANT MATERIAL

- a. Ensure width of all planting excavations is 300 mm (12") greater on all sides than the width of the root ball.
- b. Place plant plumb in the centre of the planting pit with a minimum of 150 mm (6") of compacted planting soil mixture under the root ball. Face the plant to give the best appearance or relationship to adjacent structures. Cut away ropes and fold down top 1/3 of the root ball burlap into the pit.
- c. Backfill with planting soil in 150 mm (6") layers and firmly tamp each layer to ensure the plant retains its orientation. Ensure no air pockets remain around the roots.
- d. Thoroughly water when hole is 1/2 full of tamped soil mixture, and again when the operation is complete.
- e. Except for plants in planting beds, construct an earth saucer around each plant equal to the diameter of the rootball and 50 mm (2") minimum depth to retain water around the roots.

3.3 INSTALLATION OF PLANT ACCESSORIES

- a. Stake or guy all trees as outlined in the drawings and details.
- b. Install trunk guards as outlined in the drawings and details.

3.4 PRUNING

- a. Prune plant after planting to compensate for root loss and in such a manner that the natural shape and character is retained.
- b. Do not cut leader
- c. Use only clean and sharp tools.

3.5 CLEAN UP

- a. At the completion of the planting operations, remove all surplus material from the site at no extra cost.
- b. Make good all damage resulting from planting operations at no extra cost.

SECTION 06110 – ROUGH CARPENTRY**1. GENERAL****1.1 WARRANTY**

- a. Provide a written warranty signed and issued in the name of the Owner and Project stating that the Contractor warrants all workmanship for minimum 2 years.

2. PRODUCTS**2.1 LUMBER MATERIAL**

- a. Except as indicated or specified otherwise, lumber shall be softwood, S4S, moisture content (MC) not greater than 19% at time of installation, in accordance with following standards:
 - i. CSA 0141, latest revised edition
 - ii. CAN/CSA Z-614-14
 - iii. NLGA Standard Grading Rules for Canadian Lumber, latest revised edition and supplement
- b. Machine stress-rated lumber is acceptable for all purposes.
- c. Board sizes: Eastern Spruce species, NLGA construction grade
- d. Dimension sizes: Jack Pine species, NLGA construction grade

2.2 SOURCE QUALITY CONTROL

- a. Identify lumber by grade stamp of an agency certified by Canadian Lumber Standards Administration Board.

2.3 PANEL MATERIAL

- a. Douglas Fir plywood, exterior grade.

2.4 FASTENING AND HARDWARE

- a. In accordance with Part 4 of OBC latest edition as supplemented by following requirements except where specific type is indicated.
- b. Nails Spikes and Staples: To Part 4 of OBC latest revised edition and as follows:
 - i. Use common spiral nails and spiral spikes except where indicated otherwise.
 - ii. Use hot galvanized finish steel for exterior work, interior highly humid areas and for pressure-preservative and fire-retardant treated lumber except where indicated otherwise.
- c. Bolt, Nut, Washer, Screw and Pin Type Fasteners: With hot-dip galvanized finish to CSA G164-11965, latest revised edition, for exterior work, interior highly humid areas and for pressure-preservative and fire-retardant treated lumber, elsewhere with primer paint finish where installed on sight-exposed surfaces.
- d. Use surface fastenings of following types, except where specific type is indicated.
 - i. To hollow masonry, plaster and panel surfaces use toggle bolt.

- ii. To solid masonry and concrete use expansion shield with lag screw, jute fibre or lead plug with wood screw.
- iii. To structural steel use bolts through drilled hole, or welded stud-bolts or power driven self-drilling screw, or welded stud-bolt.

2.5 WOOD PRESERVATIVE

- a. Surface-Applied Wood Preservative: Copper naphthenate base, water repellent wood preservative, colored.

3. EXECUTION

3.1 APPEARANCE GRADE MATERIALS

- a. Install lumber materials designated "Appearance" (A) Grade so that grade-marks and other defacing marks are not visible on surfaces specified to be left unfinished or to be finished with translucent or transparent type coating. Surface cutting or sanding to remove such marks is acceptable only in locations where defacement will not be evident after finishing.

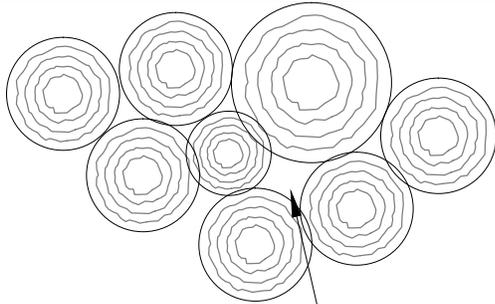
3.2 ROUGH BUCKS, NAILERS, FURRING

- a. Countersink bolts where necessary to provide clearance for other work.

3.3 SURFACE-APPLIED WOOD PRESERVATIVE

- a. Treat surfaces of material with wood preservative, before installation. Wherever possible apply preservative after materials have been cut and fit to size
- b. Apply preservative by dipping, or by brush or spray to completely saturate and maintain wet film on surface for minimum 3 minute soak on lumber and one minute soak on plywood.
- c. Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of preservative before installation.

END OF SPECIFICATIONS



ARRANGEMENT OF LOGS TO VARY - REFER TO LANDSCAPE PLAN

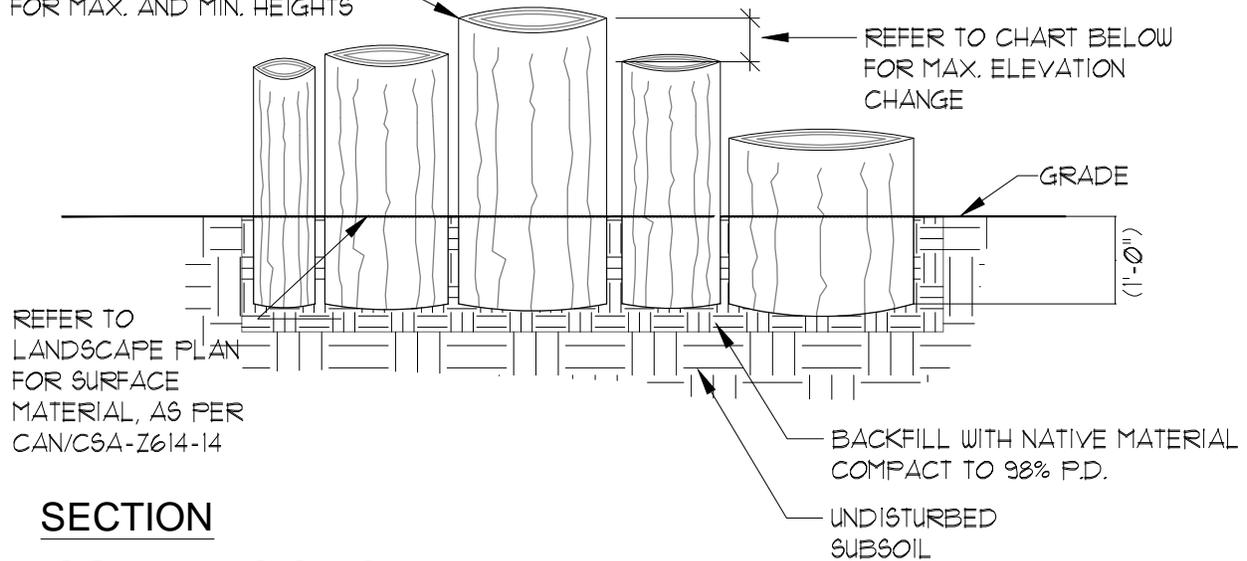
PLAN

REFER TO CHART BELOW FOR MAX. AND MIN. HEIGHTS

MAX. DISTANCE OF 25mm (1") BETWEEN ADJACENT LOGS. GAPS TO BE FILLED WITH PLAY SAND. - NO GAPS PREFERRED



DESIRED LOOK. NOTE: REFER TO LANDSCAPE PLANS FOR SURROUNDING SURFACE REQUIREMENTS.



REFER TO LANDSCAPE PLAN FOR SURFACE MATERIAL, AS PER CAN/CSA-Z614-14

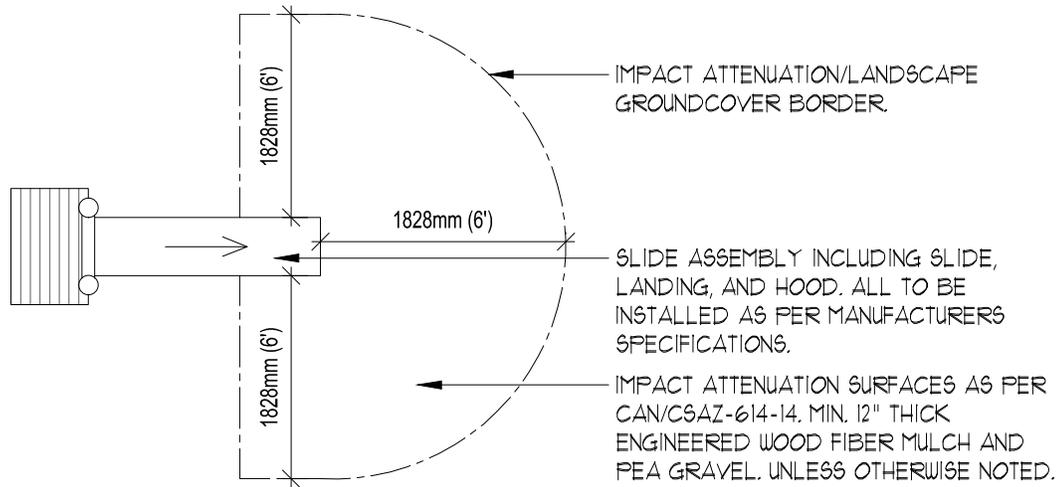
SECTION

LOG DIMENSION CHART

AGE GROUP	MIN. LOG DIA.	MAX. LOG HT. ABOVE GRADE	MAX. SPACING BTW/ ADJ. LOGS	MAX. ELEV. DIFF. BTW/ ADJ. LOGS
18mo - 30mo (TODDLER)	450mm (18")	300mm (12")	25mm (1")	75mm (3")
31mo - 4yr (PRE-SCHOOL)	450mm (18")	350mm (14")	25mm (1")	100mm (4")
4yr+ (KINDERGARDEN)	450mm (18")	450mm (18")	25mm (1")	150mm (6")

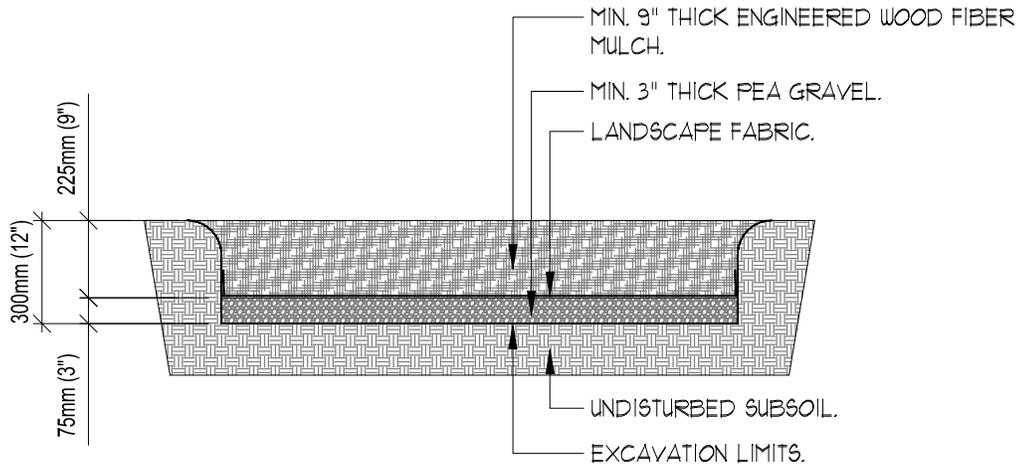
NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, REFER TO CHART FOR SPECIFICATIONS
5. LOGS ARE TO BE BURIED 300mm (1'-0") BELOW GRADE.
6. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
7. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
8. MAX. HEIGHT AND MIN. DIAMETER OF LOGS SPECIFIED IN ABOVE CHART.
9. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
10. LOGS TO BE OF OAK, ASH, HARD MAPLE, OR BEECH SPECIES, OR APPROVED ALTERNATE.
11. ALL SELECTED LOGS TO BE APPROVED BY LANDSCAPE ARCHITECT.
12. ALL WORKMANSHIP TO BE IN ACCORDANCE TO CAN/CSA-Z614-14.



PLAN VIEW

NOTE: SLIDE IS SHOWN FOR REFERENCE ONLY - IMPACT ATTENUATION APPLIES TO ALL FEATURES THAT HAVE 'FALL HEIGHT' AND AS DIRECTED ON LANDSCAPE PLANS.



SECTION

NOTES:

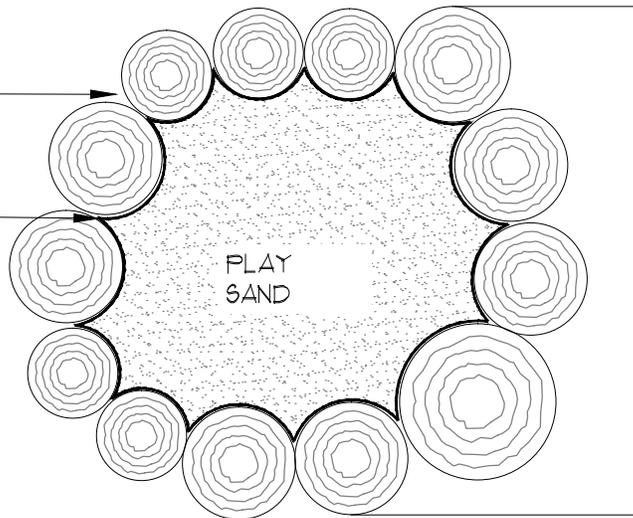
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL MULCH, PEA GRAVEL, AND FILTER CLOTH AS INDICATED.
3. IMPACT ATTENUATION TO BE INSTALLED TO A MINIMUM 6' CLEARANCE RADIUS AROUND ANY EDGE OF FEATURE. REFER TO LANDSCAPE PLAN FOR DIMENSION AND LAYOUTS.
4. IMPACT ATTENUATION SURFACING TO BE FLUSH WITH SURROUNDING GRADE OR AS INDICATED BY SPOT ELEVATIONS AND GRADING PLANS.
5. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.

IMPACT ATTENUATION SURFACING N.T.S.

PLACE ADJACENT LOGS IN TIGHT FORMATION TO AVOID GAPS. MAX. GAPS OF 25mm (1")

FABRIC LINER MUST BE FREE OF HOLES AND RIPS, AND PLACED SNUG AGAINST LOGS

REFER TO LANDSCAPE PLAN FOR EXACT SIZE, AND LAYOUT



PLAN

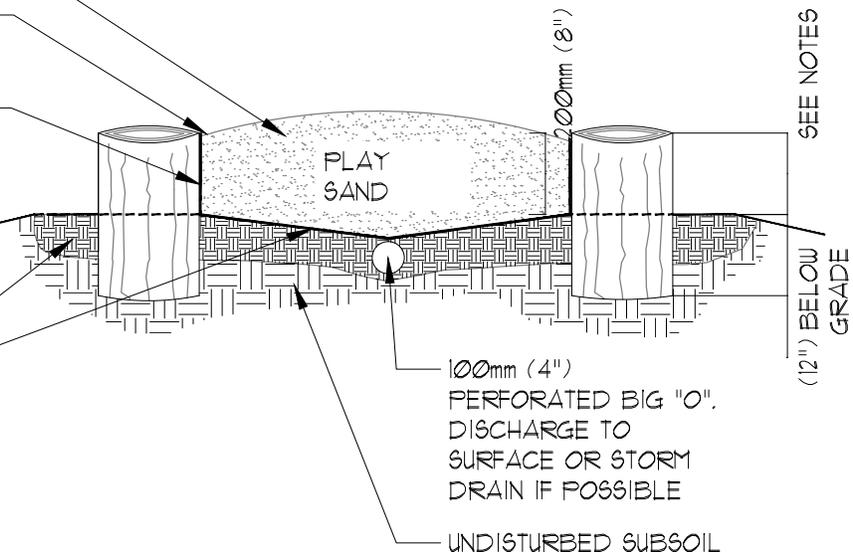
PLAY SAND AS PER CAN/CSA-Z614-14
FILL PLAY SAND TO 50mm (2") BELOW TOP OF

LOGS. NON WOVEN GEO-TEXTILE FILTER W/ MIN. 300mm (12") OVERLAP IF SEAM IS REQUIRED

POSITIVE DRAINAGE

BACKFILL WITH NATIVE MATERIAL, COMPACT TO 98% P.D.

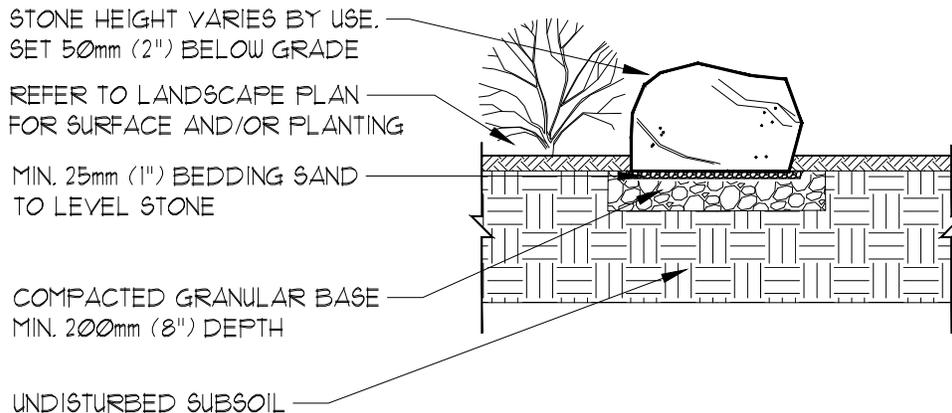
5% SLOPE



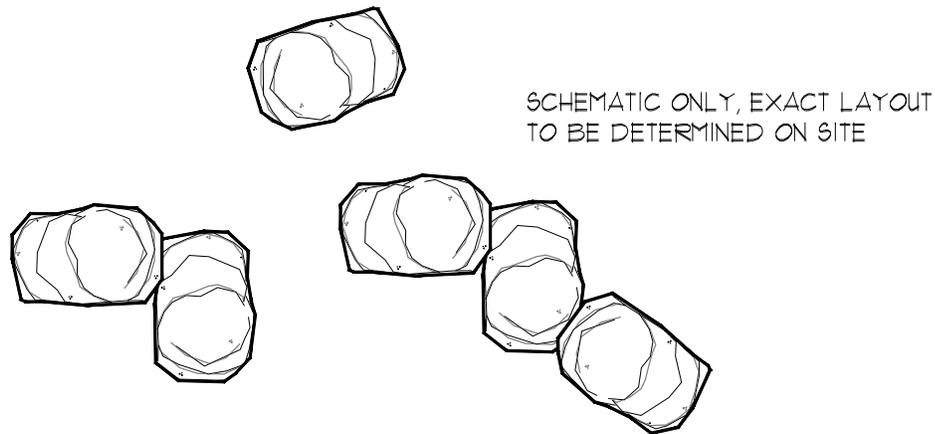
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIALS AS NOTED ABOVE.
3. ARRANGEMENT AS INDICATED ON PLAN IS SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
4. LOGS TO VARY IN DIAMETER, VARYING FROM MIN. OF 300mm (12") TO MAX. OF 500mm (20").
5. LOGS TO BE INSTALLED AT VARYING HEIGHTS AT A RANGE OF 300mm (12") ABOVE GRADE TO 400mm (16") ABOVE GRADE.
6. CONTRACTOR TO ENSURE THAT LOGS ARE INSTALLED IN TIGHT FORMATION TO REDUCE GAPS.
7. LOGS TO BE INSTALLED VERTICAL AND PLUMB WITH CLEANLY CUT TOP SURFACES TO A DEPTH OF 300mm (12") BELOW GRADE.
8. LOGS TO BE OF OAK, ASH, HARD MAPLE, OR BEECH SPECIES OR APPROVED ALTERNATE.
9. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
10. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE WHERE POSSIBLE.
11. QUALITY OF SAND TO BE PLAY SAND AS PER CAN/CSA-Z614-14, FREE OF DIRT AND DEBRIS, FILLED TO 2" BELOW TOP OF LOWEST LOGS.



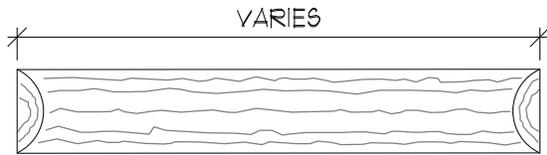
TYPICAL SECTION LAYOUT



TYPICAL PLAN LAYOUT

NOTES:

1. ABOVE GRAPHICS FOR ILLUSTRATION PURPOSE ONLY, PLANTING AND SOD MAY VARY.
2. CONTRACTOR TO REFER TO ALL ATTACHED SPECIFICATIONS.
3. CONTRACTOR TO SUPPLY AND INSTALL LARGE ARMOR STONE OR APPROVED ALTERNATE.
4. LANDSCAPE BOULDERS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
5. BOULDERS ARE TO BE THE FOLLOWING SIZES:
APPROXIMATELY 900mm TO 1200mm IN LENGTH.
APPROXIMATELY 600mm IN WIDTH.
HEIGHT VARIES BY USE - REFER TO LANDSCAPE PLAN.
6. PLACE ADJACENT STONE IN A TIGHT FORMATION TO MAINTAIN 25mm (1") GAPS.
7. CONTRACTOR TO ENSURE SURFACE WATER IS NOT IMPEDED BY STONE INSTALLATION.

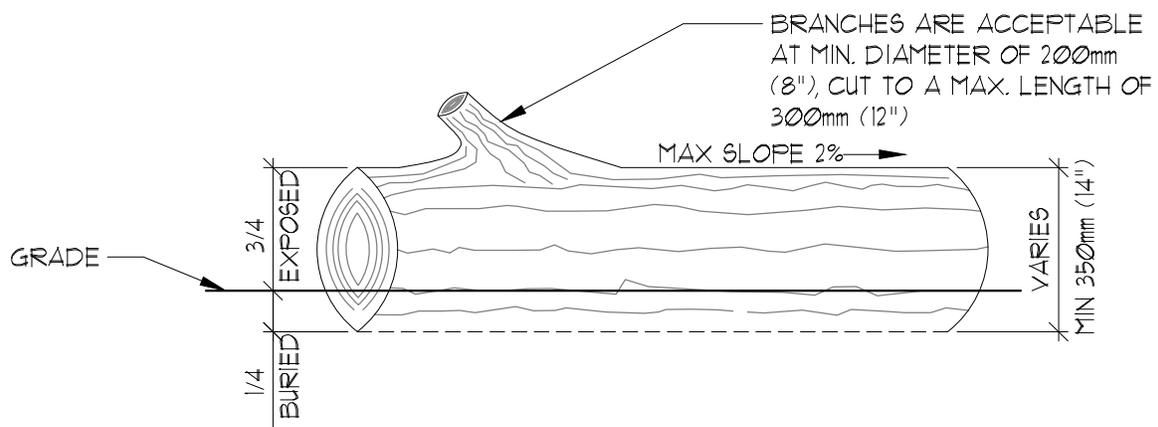


ARRANGEMENT OF LOGS
TO VARY - REFER TO
LANDSCAPE PLAN

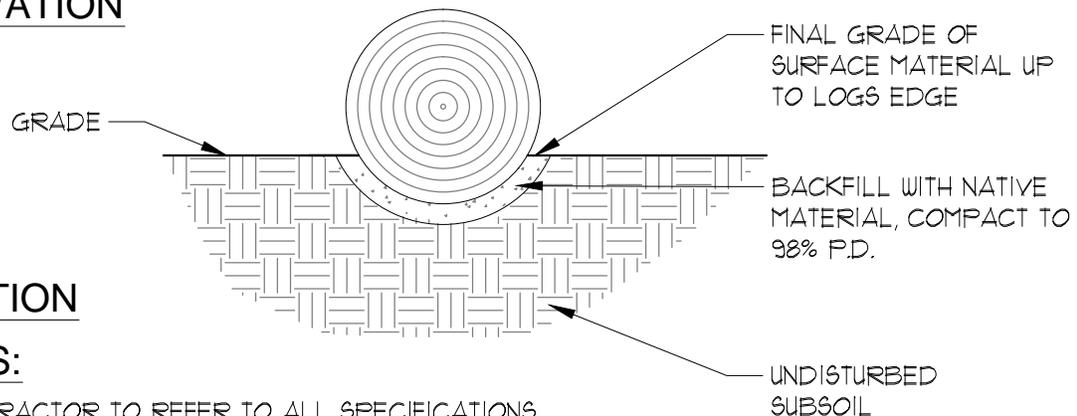


DESIRED LOOK.
NOTE: REFER TO LANDSCAPE PLANS FOR
SURROUNDING SURFACE REQUIREMENTS.

PLAN



ELEVATION

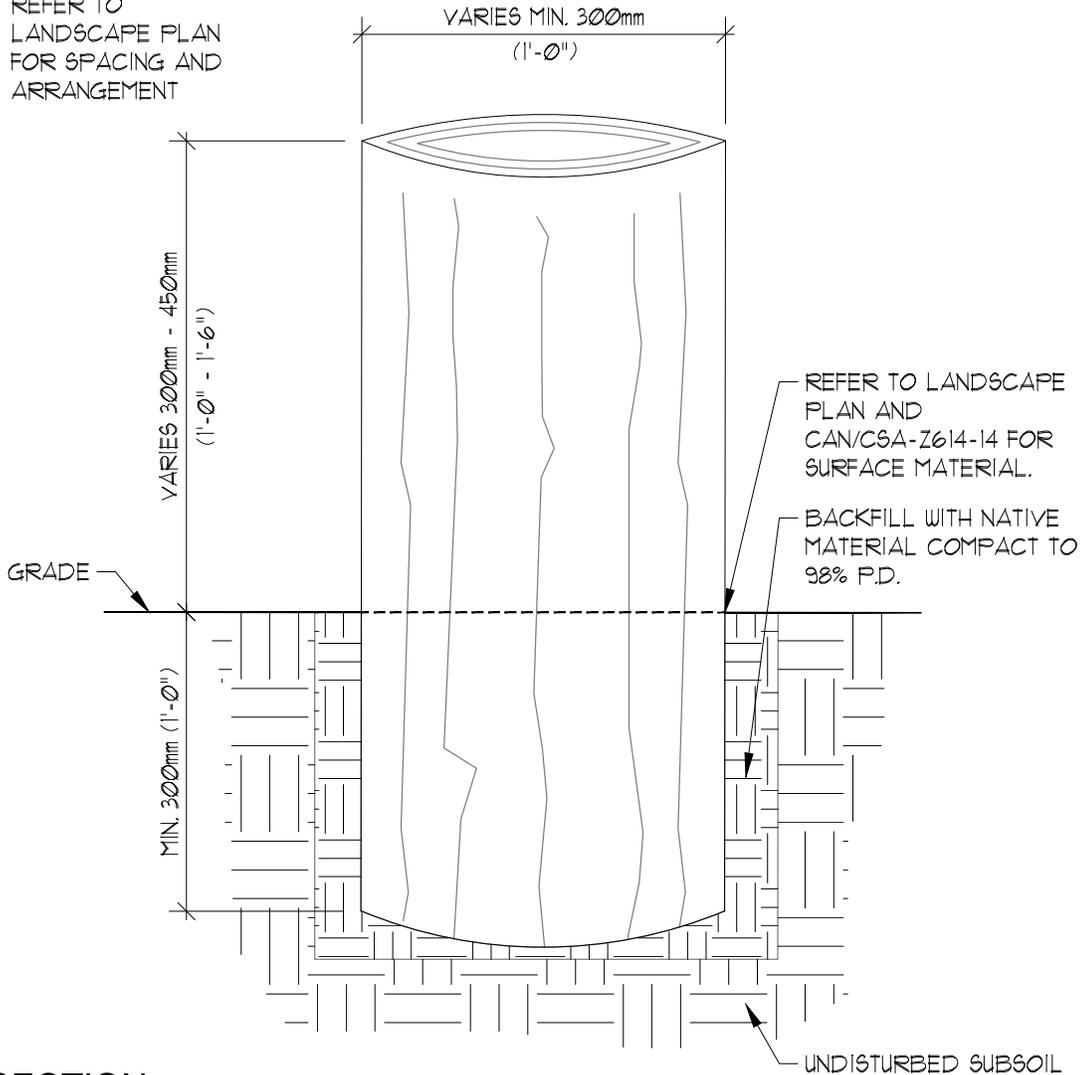


SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LARGE LOGS.
3. SEATING LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, WITH A MINIMUM DIAMETER OF 350mm (14").
5. LOGS ARE TO BE BURIED 1/4 BELOW GRADE TO PREVENT MOVEMENT.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
8. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.
9. ALL WORKMANSHIP TO BE IN ACCORDANCE TO CAN/CSA-Z614-14.
10. THE INTENDED USE OF THIS COMPONENT IS TO BE PLAYED WITH BOTH FEET PLACED FIRMLY ON THE GROUND.

REFER TO
LANDSCAPE PLAN
FOR SPACING AND
ARRANGEMENT



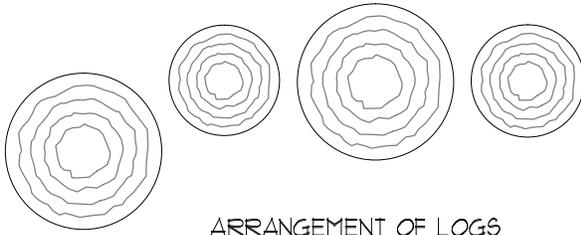
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. REFER TO LANDSCAPE PLAN FOR SPACING AND ARRANGEMENT.
5. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
6. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
9. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.

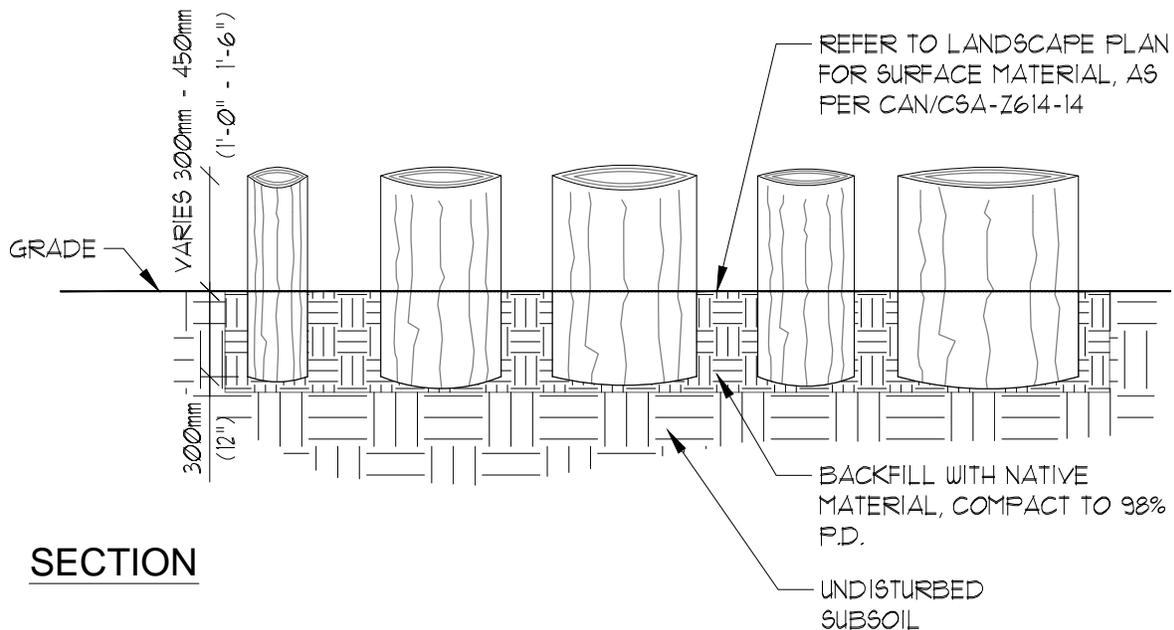
F.00 STANDARD UPRIGHT LOG

N.T.S.



ARRANGEMENT OF LOGS
TO VARY - REFER TO
LANDSCAPE PLAN

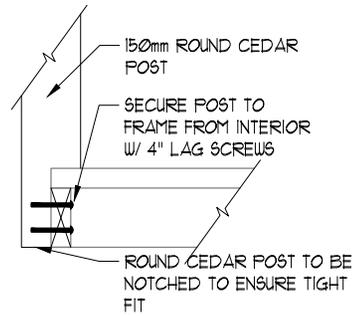
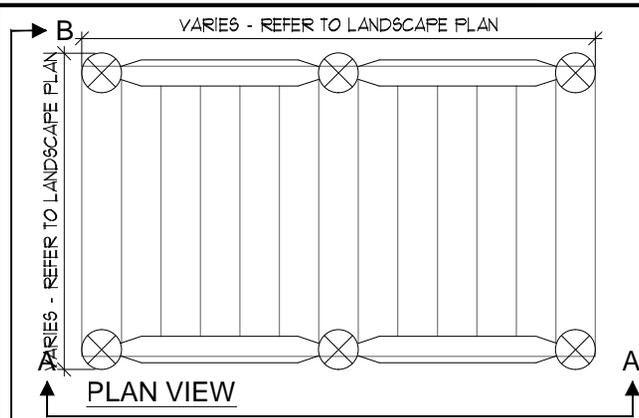
PLAN



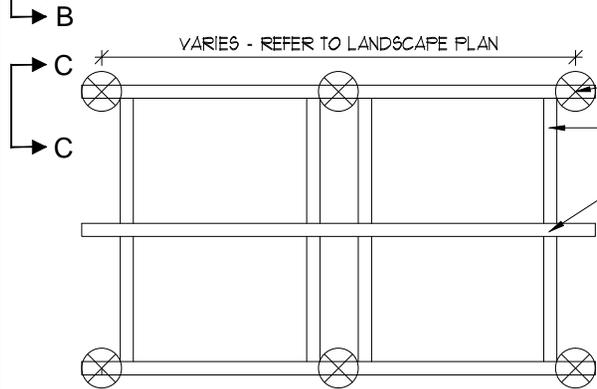
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, WITH A MINIMUM DIAMETER OF 300mm (1'-0").
5. LOGS ARE TO BE BURIED 300mm (1'-0") BELOW GRADE.
6. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
7. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
8. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
9. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
10. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.



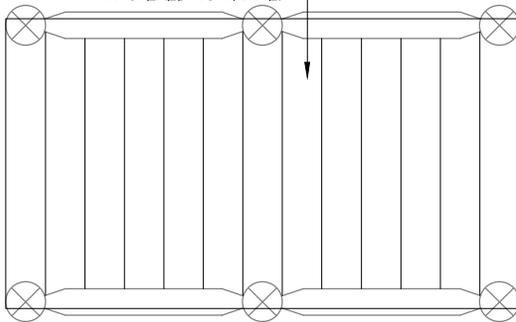
ELEVATION C-C



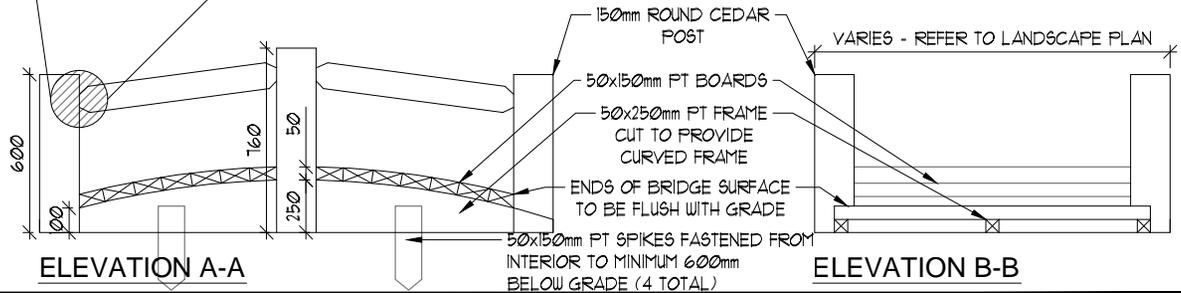
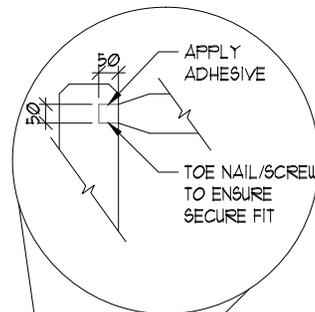
PLAN VIEW - FRAMING

NOTE: ALL FRAMING TO BE 50x150mm

50x150mm PT BOARDS SECURELY FASTENED TO FRAME.



PLAN VIEW



ELEVATION A-A

ELEVATION B-B

NOTES

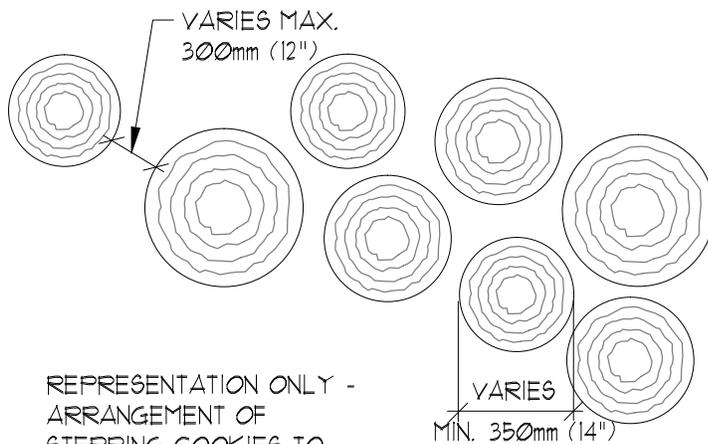
1. ALL WOOD TO BE NATIONAL LUMBER GRADE ASSOC. (N.L.G.A.) - SELECT TIGHT KNOT (S.T.K) GRADE PRESSURE TREATED BOARD AS PER AN/CSA-Z614-14 UNLESS OTHERWISE SPECIFIED.
2. MIN. POST DIMENSIONS: 150mm (6").
3. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FINISH COLOUR TO BE CONSISTENT WITH NATURAL COLOUR OR AGED WOOD. TO BE APPROVED BY CONSULTANT, AND MEET LUMBER SUPPLIERS RECOMMENDED ASTM.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED AS PER CAN/CSA-Z614-14.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. ALL WOOD TO BE SANDED FOR SMOOTH FINISH TO CONSULTANT'S SATISFACTION.
8. CONTRACTOR TO SUPPLY AND INSTALL MATERIALS AS NOTED.
9. OWNER TO PROVIDE ADDITIONAL ACCESSORIES ARE DESIRED.
10. ALL MATERIALS TO BE SECURELY FASTENED.
11. CONTRACTOR TO COUNTER SINK ALL FASTENERS.



DESIRED LOOK

G.03 CURVED WOOD BRIDGE WITH RAILINGS

N.T.S.



REPRESENTATION ONLY -
ARRANGEMENT OF
STEPPING COOKIES TO
VARY - REFER TO
LANDSCAPE PLAN



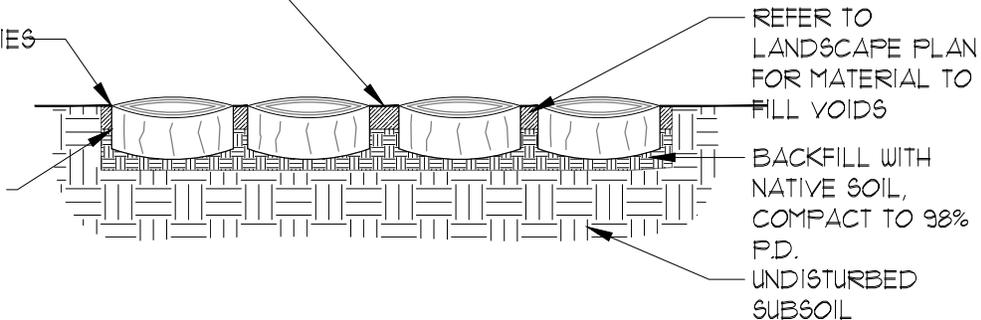
DESIRED LOOK.
NOTE: REFER TO LANDSCAPE PLANS FOR
SURROUNDING SURFACE REQUIREMENTS.

PLAN

REFER TO LANDSCAPE PLAN
FOR SURFACE MATERIAL, AS PER
CAN/CSA-Z614-14

TOPS OF COOKIES
TO BE FLUSH
WITH FINISHED
GRADE

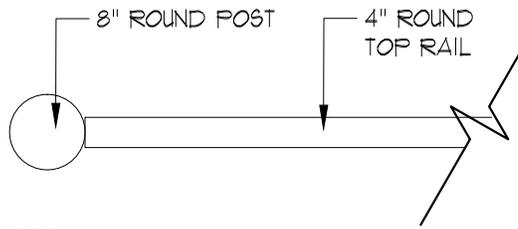
CONSISTENT
THICKNESS OF
150mm (6")



SECTION

NOTES:

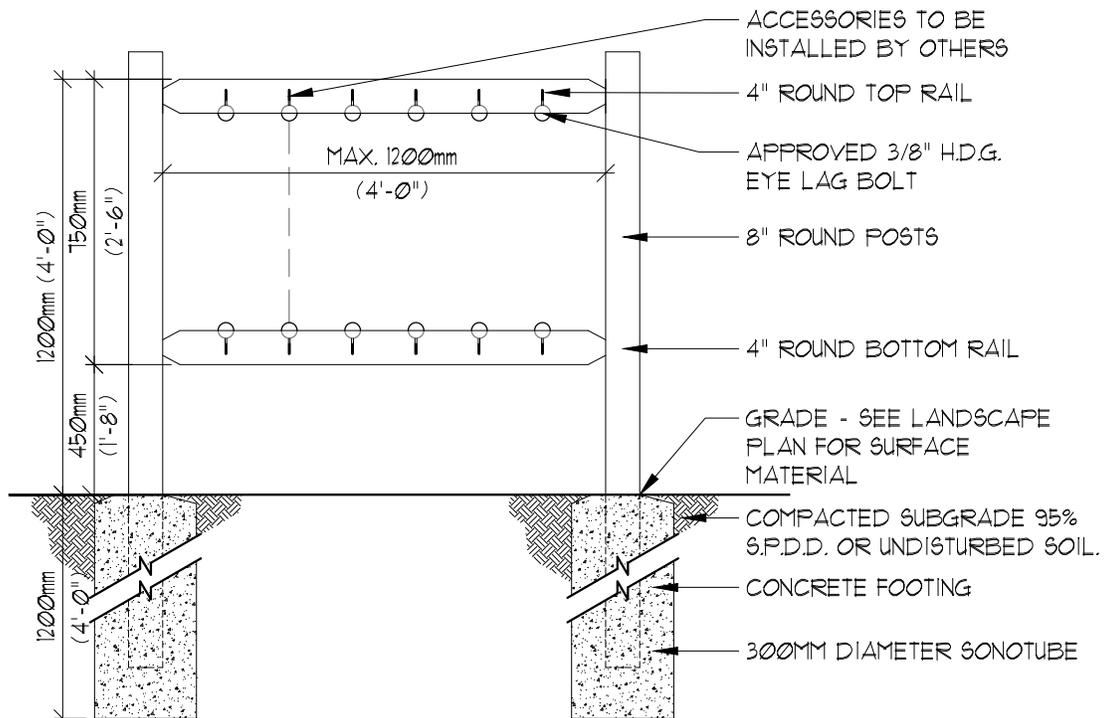
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL STEPPING COOKIES.
3. STEPPING COOKIES AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. STEPPING COOKIES WILL VARY IN DIAMETER, WITH A MINIMUM DIAMETER OF 200mm (8")
5. STEPPING COOKIE TOPS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
6. STEPPING COOKIES ARE TO BE A CONSISTENT THICKNESS OF 150mm (6"), INSTALLED WITH TOPS FLUSH WITH FINAL GRADE.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. COOKIES TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
9. ALL STEPPING COOKIES TO BE APPROVED BY CONSULTANT.



PLAN



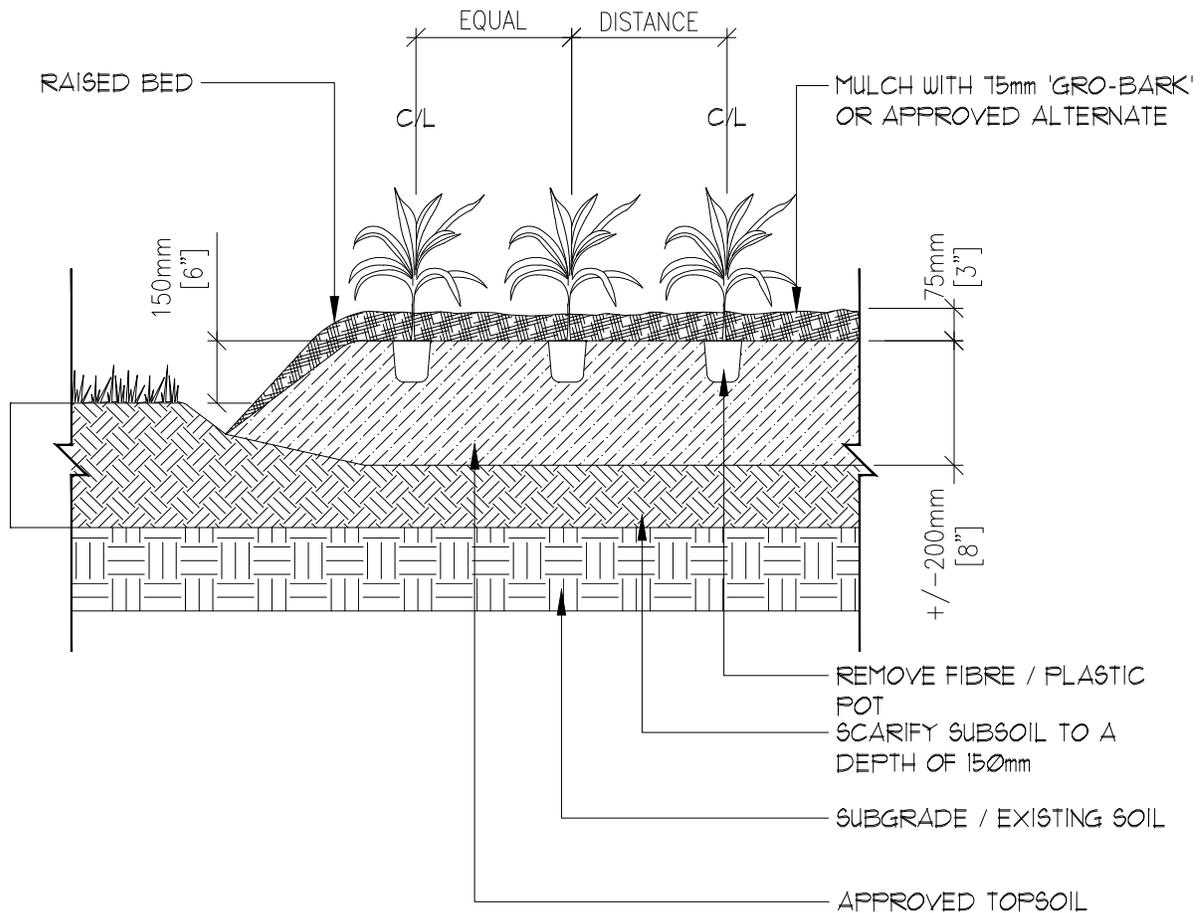
DESIRED FRAME LOOK.
INSERTS WILL VARY



FRONT ELEVATION

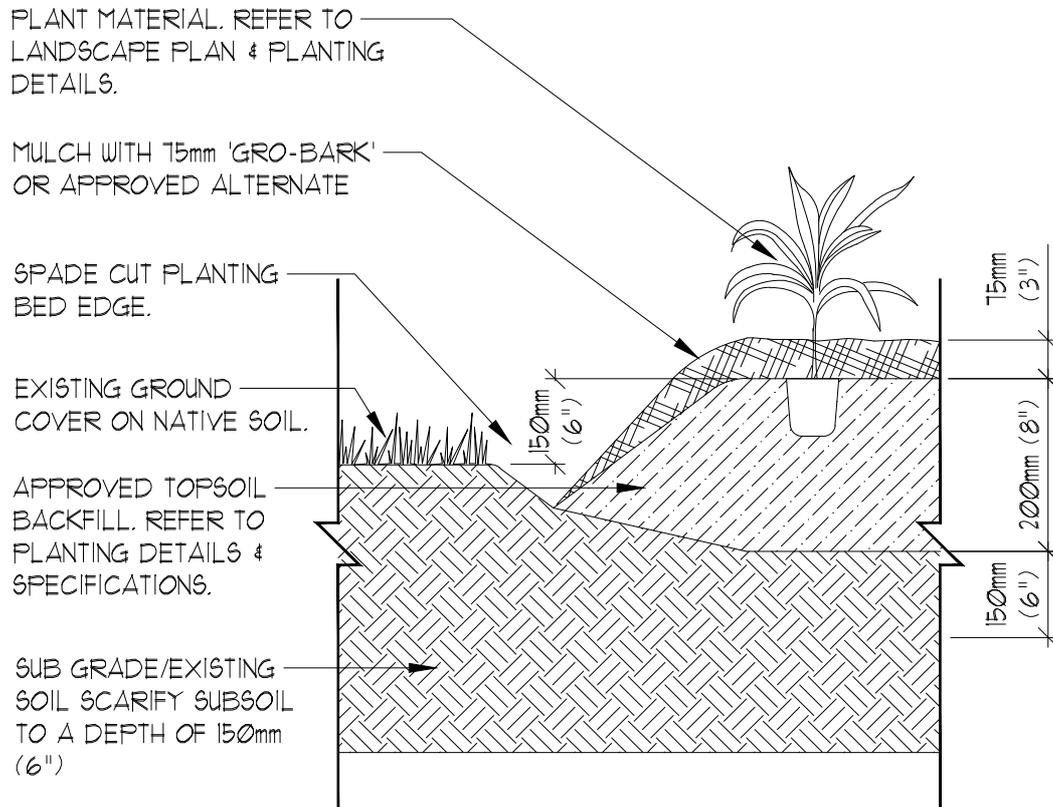
NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIAL AS NOTED ABOVE.
3. ALL HARDWARE TO BE HOT DIPPED GALVANIZED (H.D.G.) AS PER TVDSB SPECIFICATIONS AND CAN/CSA-Z614-14.
4. ALL WOOD TO BE LUMBER GRADE ASSOC. (N.L.G.A.) SELECTION TIGHT KNOT (S.T.K.) GRADE PRESSURE TREATED BOARD AS PER CAN/CSA-Z614-14.
5. ACTIVITY WALL FRAMES AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. CLIENT TO PROVIDE ADDITIONAL ACCESSORIES.
8. THE INTENDED USE OF THIS FEATURE IS TO BE PLAYED WITH BOTH FEET PLACED FIRMLY ON THE GROUND.



NOTES:

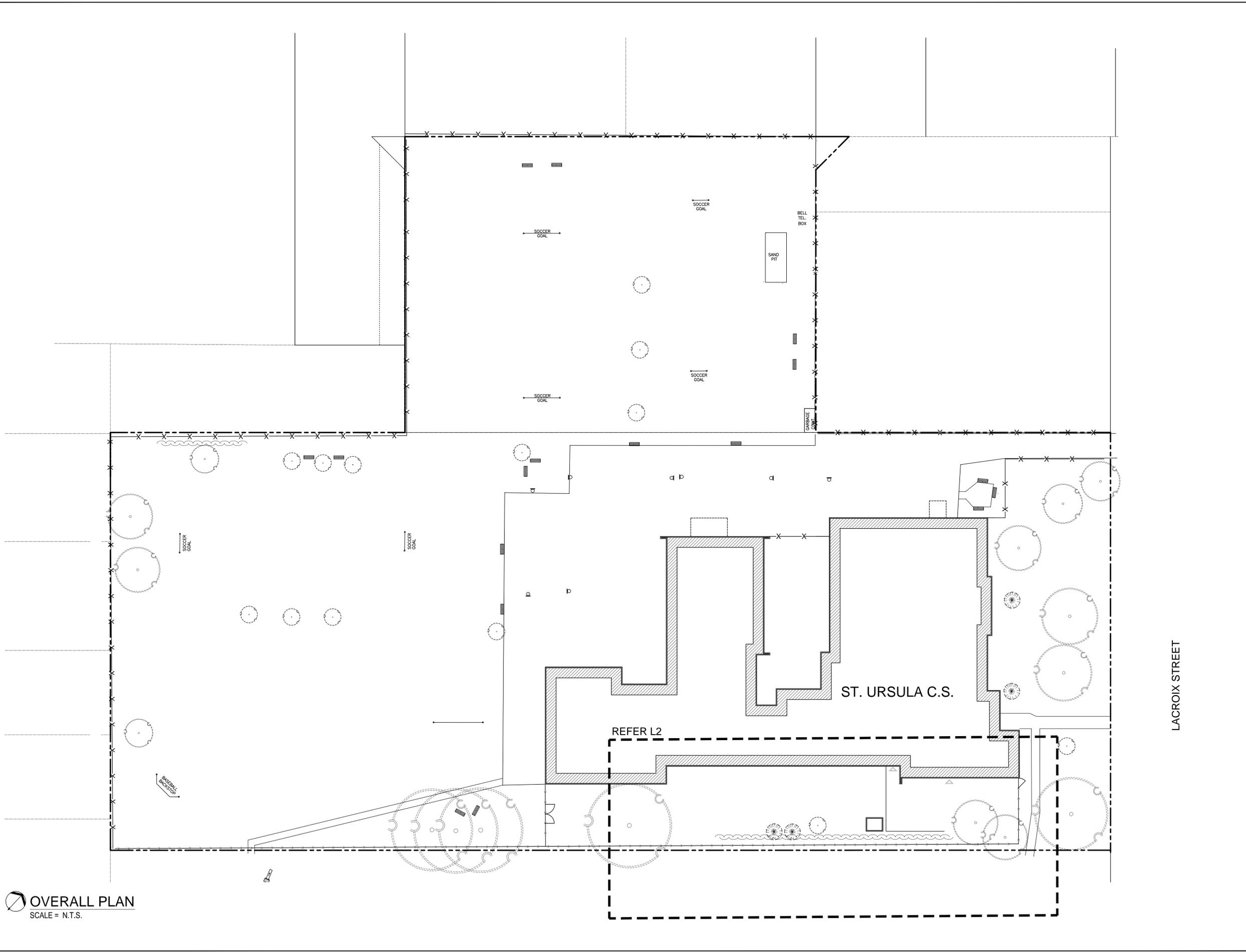
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. ALL PLANTS TO CONFORM TO CNLA - CANADIAN STANDARDS FOR NURSERY STOCK.
3. PROVIDE LANDSCAPE ARCHITECT 48 HOURS NOTICE PRIOR TO INSTALLATION TO INSPECT PLANT MATERIAL AND SOIL PREPARATION - SEE GENERAL SPECIFICATIONS.
4. DO NOT ALLOW AIR POCKETS WHEN BACKFILLING.
5. POSITION CROWN OF ROOT BALL 50MM ABOVE FINISHED GRADE TO ALLOW FOR SETTLING.
6. PLANTING METHOD ILLUSTRATED SHALL APPLY EQUALLY TO BARE ROOT STOCK AND BALLED STOCK.
7. PERENNIALS PLANTED IN GROUPS SHALL BE SET IN CONTINUOUS BED.
8. THE ABOVE DETAIL DOES NOT REPRESENT ANY PARTICULAR SPECIES.
9. ALL DIMENSIONS SHOWN IN MILLIMETERS.
10. INSTALL 75MM OF APPROVED MULCH.



SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO REFER TO ALL ATTACHED PLANTING DETAILS AND USE IN COORDINATION WITH THIS DETAIL.
3. GIVE LANDSCAPE ARCHITECT 48 HOURS NOTICE PRIOR TO INSTALLATION TO INSPECT SITE PREPARATION - SEE GENERAL SPECIFICATIONS.
4. DO NOT ALLOW AIR POCKETS WHEN BACK FILLING.
5. ALL DIMENSIONS SHOWN IN MILLIMETERS.
6. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIALS AS SPECIFIED ABOVE.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. CONTRACTOR TO REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY WORK.



ST. CLAIR CATHOLIC
DISTRICT SCHOOL BOARD

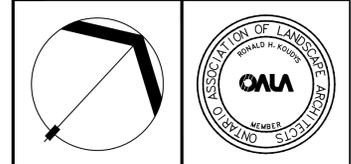


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THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION OR TENDER PURPOSES UNLESS SIGNED AND DATED BY RONALD H. KOUDYS, O.A.L.A. C.S.L.A., LANDSCAPE ARCHITECT, LONDON, ONTARIO (519) 667-3322.

Ronald H. Koudys, O.A.L.A. C.S.L.A. DATE

DATE	DESCRIPTION	No.
JUNE 10, 2016	ISSUED FOR TENDER	3.
MAR. 3, 2016	ISSUED FOR REVIEW	2.
JAN. 21, 2016	ISSUED FOR REVIEW	1.

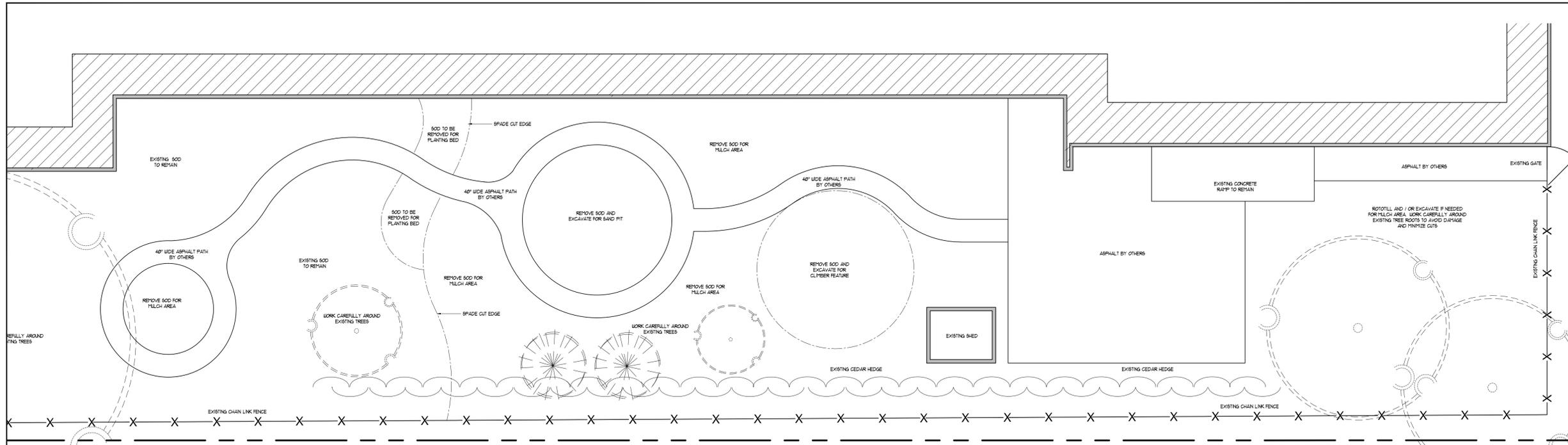
PLOTTING INFORMATION:
PLOTTED DATE: JUNE 10, 2016
PLOTTED SCALE: 1/1



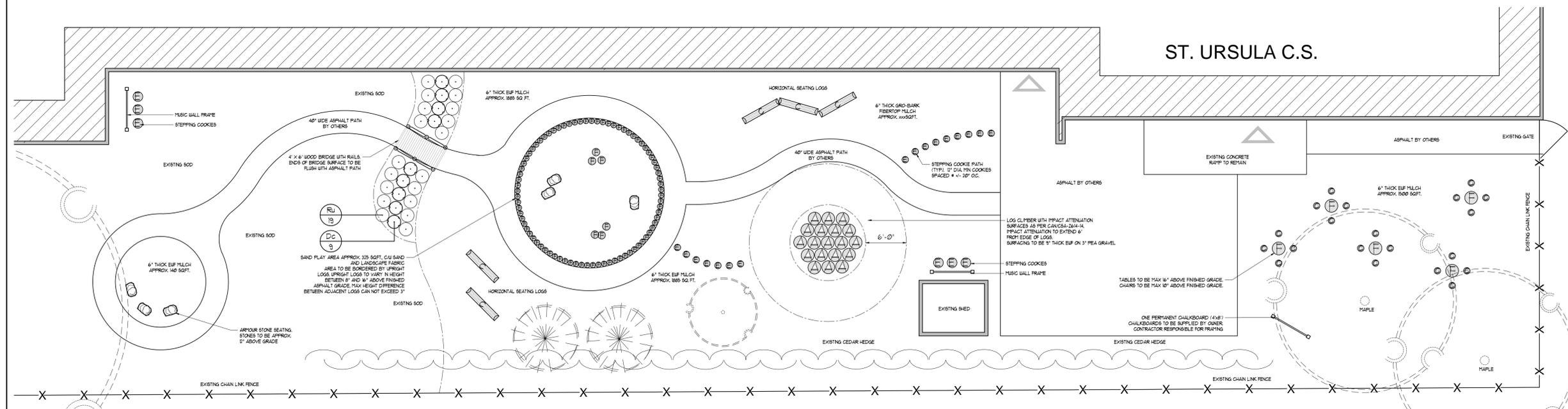
PROJECT TITLE:
647
ST. URSULA C.S.
426 LACROIX ST.
CHATHAM, ON N7M 2W3

DRAWING TITLE:
LANDSCAPE
PLAN

DATE: JAN. 2016	SCALE: AS NOTED	DRAWING No. L-1
DRAWN: RKL/Inc.	CHECKED BY: RHK	
PROJECT No. 15-266 L-C		



FDK REMOVALS PLAN
SCALE = 1/8" = 1' SHEET: 24X36



FDK LANDSCAPE PLAN
SCALE = 1/8" = 1' SHEET: 24X36

PLANT MATERIAL				
KEY	COMMON NAME	BOTANICAL NAME	QTY	SIZE COND
Dc	TUFTED HAIR GRASS	<i>Deschampsia cespitosa</i>	9	2y/gal POT
Ru	BLACK-EYED SUSAN	<i>Rudbeckia hirta</i>	19	2y/gal POT

LEGEND			
(A)	TREE LOG CLIMBER SEE DETAIL	(B)	MUSIC WALL SEE DETAIL
(C)	UPRIGHT SEATING LOGS SEE DETAIL	(C)	ACTIVITY WALLS SEE DETAIL
(E)	STEPPING COOKIES SEE DETAIL	(BRIDGE)	BRIDGE SEE DETAIL
(F)	STANDARD UPRIGHT LOG SEE DETAIL	(ARMOR)	ARMOR STONE SEE DETAIL
(H)	HORIZONTAL SEATING LOG SEE DETAIL	(PLANTING)	PROPOSED PLANTINGS
(T)	LOG TABLE AND CHAIRS SEE DETAIL	(D)	EXISTING DECIDUOUS TREES TO BE KEPT
		(C)	EXISTING CONIFEROUS TREES TO BE KEPT
		(Aa)	PLANT KEYS SEE PLANT MATERIALS LIST



ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD



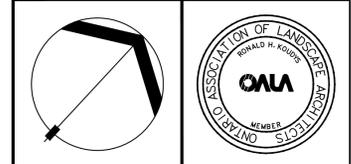
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Ronald H. Koudys, O.A.L.A. C.S.L.A. DATE

DATE	DESCRIPTION	No.
JUNE 10, 2016	ISSUED FOR TENDER	3.
MAR. 3, 2016	ISSUED FOR REVIEW	2.
JAN. 21, 2016	ISSUED FOR REVIEW	1.

PLOTTING INFORMATION:
PLOTTED DATE: JUN 10, 2016
PLOTTED SCALE: 1:1



PROJECT TITLE:
647 ST. URSULA C.S.
426 LACROIX ST.
CHATHAM, ON N7M 2W3

DRAWING TITLE:
LANDSCAPE PLAN

DATE: JAN 2016	SCALE: AS NOTED	DRAWING No.:
DRAWN: RKL/Arc	CHECKED BY: RHL	L-1
PROJECT No.:		15-266 L-C

ITEM	DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL PRICE
L-2 FDK					
1.0	REMOVALS				
1.1	<u>Site Preparation:</u> Remove and dispose offsite existing sod and excavated material as indicated on L-1	sq ft	2800	\$ _____	\$ _____
					1.1 to 1.1 Subtotal \$ _____
2.0	LANDSCAPE FEATURES				
2.1	<u>Tree Log Climber:</u> Supply and install upright log climber. Refer to all attached details and specifications	sq ft	65	\$ _____	\$ _____
2.2	<u>Impact Surfacing:</u> Supply and install impact attenuation surfacing around tree log climber, to conform to CAN/CSA-Z614-14. Refer to all attached details and specifications	sq ft	325	\$ _____	\$ _____
2.3	<u>Sand Pit:</u> Supply and install approximately 67 lin ft. upright log border and approximately 325 sq ft. play sand to min 8" depth, as indicated on L-2 and detail.	Lump			\$ _____
2.4	<u>Armour Stone Seating:</u> Supply and install 12" ht. stone seating (including in sand pit). Refer to all details and specifications.	lin ft	12	\$ _____	\$ _____
2.5	<u>Seating Logs:</u> Supply and install horizontal seating logs, approx. 6' long each. Refer to all attached details and specifications	ea	5	\$ _____	\$ _____
2.6	<u>Table & Chairs:</u> Supply and install upright log table, approximately 24" diameter, with 4 upright log seats, 12"-18" diameter as indicated on L-2 and details.	ea	5	\$ _____	\$ _____
2.7	<u>Wood Bridge:</u> Supply and install 4'x6' wood bridge as indicated on L-2 and details.	ea	1	\$ _____	\$ _____

- 2.8 Stepping Cookies: Supply and install min. 12" diameter log stepping cookies. Refer to all details and specifications. ea 22 \$ _____ \$ _____
- 2.9 Chalkboard Frame: Supply and install wood frame for Owner-supplied chalkboard, approx 4'x8'. Refer to all details and specifications. ea 1 \$ _____ \$ _____
- 2.10 Music Frames: Supply and install music activity frames. Refer to all details and specifications. ea 2 \$ _____ \$ _____

2.1 to 2.2 Subtotal \$ _____

3.0 PLANTING

- 3.1 Garden Bed Prep: Supply and install min. 6" depth topsoil to planting bed areas. Refer to all specifications. sq ft 135 \$ _____ \$ _____
- 3.1 Supply and install Tufted Hair Grass (*Deschampsia caespitosa*), 2yr 1 gal size. ea 9 \$ _____ \$ _____
- 3.2 Supply and install Black-Eyed Susan (*Rudbeckia hirta*), 2yr 1 gal size. ea 19 \$ _____ \$ _____

3.1 to 3.2 Subtotal \$ _____

4.0 SURFACING

- 4.1 Supply and install Engineered Wood Fiber Mulch to 6" depth as indicated on L-2. Refer to all specifications. sq ft 3525 \$ _____ \$ _____

4.1 Subtotal \$ _____

Section 1 to 4 Total \$ _____

Contingency at 10% \$ _____

Subtotal \$ _____

HST \$ _____

TOTAL \$ _____

SECTION 02050 – DEMOLITION

1. GENERAL

1.1 PROTECTION

- a. Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, and adjacent grades. Provide bracing and shorting as required. Make good damage and be liable for injury caused by demolition.
- b. There shall be no dry cutting of stone, asphalt, or concrete within the site limits, or Thames Valley District School Board Property.

SECTION 02210 – SITE GRADING

1. GENERAL

1.1 SITE CONDITIONS

- a. Known underground and surface utility lines and buried objects may be on site plan. No guarantee is given of completion or accuracy. Contractor to establish exact locations before commencing with work.

1.2 PROTECTION

- a. Prevent damage to fencing, trees, landscaping, natural features, bench marks, existing building, existing pavement, utility lines, site appurtenances, water courses which are to remain. Make good any damage.

2. PRODUCTS

2.1 MATERIALS

- a. Excavated or graded material to be approved before use as fill for grading work. Protect such approved material from contamination.

3. EXECUTION

2.1 REMOVAL OF TOPSOIL

- a. Remove topsoil from areas to be excavated, paved, re-graded. Strip topsoil when dry enough to prevent contamination with sub-grade material.
- b. Do not handle topsoil in wet or frozen condition. Stockpile topsoil on site as direct by the Consultants. Piles are not to exceed 2m (80”) in height.

2.2 GRADING

- a. Rough grade to levels, profiles, and contours allowing for surface treatment as indicated.
- b. Rough grade to the following depths below finished grade:
 - i. Sod 200mm (8”)
 - ii. Concrete walks 300mm (12”)
 - iii. Unit paving 300mm (12”)
 - iv. Light duty asphalt paving 300mm (12”)
- c. Slope rough grade away from building 1:50 minimum.

- d. Prior to placing fill over existing ground, scarify surface to depth of 150mm (6"). Moisture content of fill and existing surface to be approximately the same to facilitate bonding.
- e. Compact filled and disturbed areas to Standard Proctor Densities to Section 02260.
- f. Do not disturb soil within branch spread of trees or shrubs to remain.

2.3 SURPLUS MATERIAL

- a. Remove material unsuitable for fill, grading or landscaping from site.
- b. Remove surplus material from site.

SECTION 02245 – PLANTING BED AND SODDING TOPSOIL

1. GENERAL

1.1 QUALITY ASSURANCE

- a. Obtain approval of the topsoil in writing from the Consultant before work begins.

1.2 PRODUCT DELIVERY, STORAGE AND HANDLING

- a. Do not spread topsoil in a frozen or wet condition.

1.3 JOB CONDITION

- a. Report in writing to the Consultant prior to commencing work any condition or defects encountered on site, upon which the work of this Section depends, and which may adversely affect the performance of the work.
- b. Do not commence work until such condition or defects have been investigate and corrected.
- c. Commencement of work implies acceptance of surface conditions and no claims for damages or extra work will be accepted, except where conditions cannot be determined prior to construction.

2. PRODUCTS

2.1 MATERIALS

- a. Topsoil: a fertile, friable, natural loam, consisting of neither a heavy clay not a very light sandy nature. The soil shall be comprised of approximately 45% sand, 35% silt, 20% clay and pH value of between 6 and 7 capable of sustaining vigorous plant growth. To be free of all debris over 25mm diameter and reasonable free of weeds (as determined by Consultant.)

3. EXECUTION

3.1 PREPARATION

- a. Fine grade the subgrade, eliminating uneven areas and filling low spots. Remove all debris and all subsoil that has been contaminated with toxic materials as directed by the consultant.

- b. Compact finished subgrade to 95% Standard Proctor Dry Density for areas under planting.

3.2 GRADING

- a. Spread dry topsoil during dry weather over approved, dry, unfrozen subgrade.
- b. Exterior foundation walls shall extend not less than 150 mm above finished ground level.
- c. Fine grade and loosen topsoil. Eliminate rough spots and low areas to ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.
- d. Make good all damages caused by topsoil spreading activities.
- e. Topsoil depths: Planting beds 18” – 450mm minimum
- f. Topsoil depths: Sodded area – 6” 150mm minimum.

SECTION 02260 – TOPSOIL AND FINISHED GRADING

1. GENERAL

1.1 HANDLING

- a. Topsoil shall not be handled or delivered while in a frozen or near water saturated condition.

2. PRODUCTS

2.1 MATERIALS

- a. Topsoil: a fertile, friable, natural loam, consisting of neither a heavy clay nor a very light sandy nature. The soil shall be comprised of approximately 45% sand, 35% silt, 20% clay and pH value of between 6 and 7 capable of sustaining vigorous plant growth. To be free of all debris over 25mm diameter and reasonable free of weeds (as determined by Consultant.)
- b. Peat Moss: decomposed plant material, fairly elastic and homogeneous, free of decomposed colloidal residue, wood, sulphur and iron containing minimum 60% organic matter by weight and moisture content, not exceeding 15%. Shredded particles may not exceed 6mm in size. Minimum pH value of peat 4.5, maximum 6.0.
- c. Bone Meal: raw bone meal finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
- d. Lime: Ground agricultural limestone containing minimum 85% of total carbonates.
- e. Sand: Clean, washed, coarse, free from clay, shale and organic matter.
- f. Mulch: Shredded pine mulch (SPM), free of twigs, leaves, toxins or allergens;
 - i. SPM as distributed by Gro-Bark, Waterloo, 1-888-gro-bark.
 - ii. SPM, as distributed by Fisher’s Landscape Depot, London, 519-474-3429
 - iii. SPM as distributed by Baseline Nurseries, London, 519-657-1265.
- g. Mulch: Engineered wood fiber (EWF);

- i. Fiber Bulk, as distributed by ABC Recreation Lts., Paris, 1-800-267-5753
 - ii. Wood Carpet, as distributed by KSL Design, Brantford, 1-877-757-7529
 - iii. Fibertop, as distributed by Gro-Bark, Waterloo, 1-888-gro-bark
 - iv. Fibertop, as distributed by Fisher's Landscape Depot, London, 519-474-3429.
 - v. Fibertop, as distributed by Baseline Nurseries, London, 519-657-1265.
 - vi. ParkMat, as distributed by Townsend Lumber Inc., Tillsonburg, 519-842-7391
- h. Base Material (for Sheds): High Performance Bedding™ (HPB).

2.2 SOIL MIXTURES

- a. Bone Meal: Incorporate bone meal into planting soil at a rate of 3kg/m³ of soil mixture.
- b. Amendments: Apply lime, sulphur or other amendment at a rate determined from soil same test. Thoroughly mix amendment into topsoil and planting soil.

3. EXECUTION

3.1 PREPARATION

- a. Grade sub-grade, eliminating uneven areas and low spots, ensuring positive drainage. Remove debris, roots, branches, stones in excess of 50mm diameter and other deleterious material. Remove subsoil that has been contaminated with oil, gasoline, or calcium chloride. Dispose of removed materials off site, and as directed by the Consultant.
- b. Cultivate entire area which is to receive topsoil to depth of 100mm. Repeat cultivation in those areas where equipment used for hauling and spreading has compacted sub-grade.
- c. Mixing and screening of planting soil to be done on site in an approved area. No mixing to be done on paved areas.

3.2 PLACEMENT OF SOIL

- a. Do not spread topsoil until Consultant has inspected and approved sub-grade.
- b. Spread topsoil with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen sub-grade.
- c. Apply topsoil up to finished grade to the following minimum depths:
 - i. 150mm (6") for seeded/sodded areas
 - ii. 300mm (12") for ground cover areas
 - iii. 450mm (18") for shrub beds
- d. Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from topsoil.
- e. Equally spread topsoil around trees and plants.

3.3 FINISH GRADING

- a. Fine grade mechanically entire top soiled area to contours as indicted. Eliminate rough spots and low areas to ensure positive drainage.
- b. Exterior foundation walls shall extend not less than 150 mm above finished ground level.
- c. Fine grade and loosen topsoil prior to seeding/sodding. Eliminate rough spots and low areas to ensure positive drainage. Prepare loosen friable soil bed by means of discing and subsequent raking. Roll lightly and rake where topsoil is too loose.
- d. Roll topsoil with a 70kg – 90kg handroller, minimum 900mm (36”) wide, to compact and retain surface.
- e. Leave surface smooth, uniform, firm against deep foot printing, with a fine loose surface texture.

SECTION 02490 – SODDING

1. GENERAL

1.1 QUALITY ASSURANCE

- a. All sod shall be subject to inspection by the Consultant at its original location prior to cutting and lifting or at the job site. If inspection is not feasible, the Contractor shall submit a representative sample of 1/2m² for approval.

1.2 DELIVERY, STORAGE AND HANDLING

- a. Schedule deliveries in order to keep storage at job site to minimum without causing delays.
- b. Sod shall be rolled or folded prior to lifting. Handling of sod shall be done in such a manner as to prevent tearing or breaking. Damaged pieces will be rejected by the Consultant. Sod shall be fresh and in a healthy condition when arriving on the site and shall be subject to inspection and acceptance prior to installation. All sod shall be installed within 48 hours of being lifted.
- c. During wet weather allow sod to dry sufficiently to prevent tearing during lifting and handling.
- d. During dry weather protect sod from drying and water sod as necessary to ensure its vitality and prevent dropping of soil in handling. Dry sod will be rejected. Fertilizer shall be delivered to the site mixed as specified, in standard bags, showing weight, analysis and name of manufacturer. It shall be stored in weatherproof storage place and in such a manner that it will be kept dry and its effectiveness not impaired.

1.3 WARRANTY

- a. Provide a written warranty signed and issued in the name of the Owner and Project stating that the Contractor warrants the sod for minimum 1 year.

2. PRODUCTS

2.1 MATERIALS

- a. Grass Sod: Sod shall be a certified No. 1 Kentucky Bluegrass Nursery Sod in accordance with the classifications of Nursery Sod Grower Association of Ontario. It shall be two years old from the time of original seeding, be well rooted, free from stones and burned or bare spots and shall be fresh at time of laying.
- b. Fertilizer: Fertilizer shall be a complete commercial fertilizer with a maximum of 35% water soluble nitrogen and contain the following percentages by weight: 10% Nitrogen, 10% Phosphoric Acid, and 10% Potash.
- c. Water: Potable and free of any matter harmful to the sod.

3. EXECUTION

3.1 PREPARATION

- a. Areas to be sodded shall be at grades as shown at the time of sodding.
- b. Crown or slope for surface drainage and eliminate all low spots or depressions.
- c. Incorporate into top 50mm (2") of soil 10-10-10 fertilizer at the rate of 11kg per 100m². Apply within 48 hours before laying sod.
- d. Obtain approval of topsoil grade, depth, and finished raking prior to sodding.

3.2 INSTALLATION

- a. Sod shall be installed in all areas where shown on Drawings, unless otherwise indicated.
- b. The areas to be sodded shall be fine graded and rolled with a 70kg to 90kg handroller to make the soil firm against footprints. Rolling shall be done in two directions perpendicular to each other.
- c. Lay sod during growing season. Sodding during dry summer periods, at freezing temperatures or over frozen soil is not acceptable.
- d. Lay sod in rows, perpendicular to slope, smooth and even with adjoining areas, and with joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Cut out irregular or thin sections with a sharp knife.
- e. Install sod to blend with adjoining grass areas and to be flush with paving, top of curbs, etc.
- f. On any slopes steeper than 1:3, sod shall be laid perpendicular to the slope and shall be pegged with wooden pegs at intervals of not more than two feet. Pegs shall be driven flush with sod so as not to form a hazard during maintenance operations.
- g. Provide close contact between sod and soil by means of the handroller. Heavy rolling to correct irregularities in grade is not permitted.
- h. Water immediately after laying sod to obtain moisture penetration through sod into top 100mm (4") of topsoil.
- i. All sodded areas shall be protected from trespassing and other damage by protective barriers where necessary and / or signs.
- j. Provide watering as necessary in sufficient quantities and at regular intervals to maintain subsoil to be sufficiently moist.

- k. When joining new sod to existing grass areas, do not overlay sod. Properly prepare existing adjacent grade, and tie in new sod to existing grassed areas such that it is a level and smooth transition.

3.3 ACCEPTANCE

- a. Sodded areas will be accepted at final inspection provided that:
 - i. Sodded areas are properly established and in a vigorous and health growing condition after the second cutting. Contractor is responsible for cutting and removal of cutting from site.
 - ii. Sod is free of base and dead spots and without weeds and quack grass.
 - iii. No surface soils visible when grass has been but to height of 30mm (1.5”).

3.4 ACCEPTANCE

- a. Remove from the site all surplus materials and other debris resulting from sodding operations.
- b. Flush all walks and paved areas clean to the satisfaction of the Consultant.

SECTION 02951 – TREES, SHRUBS, AND GROUNDCOVER

1. GENERAL

1.1 QUALITY ASSURANCE

- a. Planting work is to be carried out by experienced personnel under the direction of a skilled foreman. Exceptions may apply for student and parent groups.

1.2 PRODUCT DELIVERY, STORAGE AND HANDLING

- a. Supply manufactured items such as fertilizer, bonemeal, mulch, etc., in standard containers, clearly indicating contents, weight, component analysis, and the name of the manufacturer.
- b. Store manufactured materials, subject to deterioration, in a weatherproof place on site and in such a manner that their effectiveness is not impaired.
- c. Supply plant material as specified on the plant list.
- d. Provide all material, specified "B. & B." (balled and burlapped) on the plant list, with a solid, earth root ball, wrapped in burlap.
- e. Do not use plant material on which the root ball has been cracked or broken preparatory to or during the planting process.
- f. Cut all roots cleanly when digging plants. Split roots are not acceptable. Roots should be cut even with the edges of the root ball.
- g. Protect all plant material from damage and breakage. Protect all parts of the plant material from drying out from the time of digging until they are installed.
- h. Do not transport plant material in an open truck unless it is adequately protected from sun and wind.
- i. Carefully tie in all branches before transporting.
- j. Pad all points of contact between plant material and equipment

- k. Heel in any plant material that cannot be planted during the current day's operations.
- l. Keep all roots and root balls moist prior to planting.

1.3 JOB CONDITIONS

- a. Proceed with planting operations only during suitable weather conditions.

1.4 SUBSTITUTIONS

- a. Supply and install plant material as specified on the plant list. Substitutions with other plant material will not be allowed without written approval of the Consultant.

1.5 INSPECTION

- a. Make plant material available for inspection at source by the Consultant before installation and inform him/her as to when the inspection can take place.
- b. Approval of plant material at source will not impair the right of the Consultant to inspect plants upon arrival on the site or during the course of construction and to reject plants which have been damaged, or which, in any way do not conform to the specifications.
- c. Give timely notice in writing to the Consultant when acceptance is required.
- d. If partial acceptance is desired, give notice to the Consultant.
- e. Partial acceptance will be given when planting work has been delayed due to circumstances beyond the control of the Contractor or where planting would not be in accordance with good horticultural practices and would jeopardize the performance of the Work and plants.
- f. Final inspection of all plant material will be made at the end of the specified guarantee period. All plants must be in a healthy growing condition at the time of this inspection.
- g. No plant materials will be accepted that have been sprayed with neonicotinoids or organophosphates.

1.6 MAINTENANCE

- a. Maintain all plant material from the time of planting until the date of acceptance.
- b. Maintenance shall include all measures necessary to establish and maintain all plants in vigorous and healthy growing condition, including but not limited to:
 - i. Cultivating and weeding of planting beds and tree pits. Use herbicides in accordance with the manufacturer's directions. Make good any damage, resulting from herbicide use at no extra cost.
 - ii. Watering when required and in sufficient quantities to saturate the root system.
 - iii. Pruning, including the removal of the dead or broken branches.

- iv. Disease and insect control when required. Use chemical methods in accordance with the manufacturer's directions. Make good any damage at no extra cost.
- v. Keep all accessories in good condition and properly adjusted. Repair or replace accessories when required at no extra cost.
- vi. At the time of acceptance, all materials must be in a healthy, vigorous growing condition. Beds and tree pits must be freshly cultivated and free of weeds, rubbish and debris.

1.7 WARRANTY

- a. Provide a written warranty signed and issued in the name of the Owner and Project stating that the Contractor warrants the products and installation for 1 years.
- b. During the warranty period replace all material that is dead or not in satisfactory, healthy growing state or which does not meet the requirements of the specifications, at no extra cost to the contract. Final determination of the acceptability of the plants will be made by the Consultant
- c. All replacements must be plants of the same size and species as shown on the plant list, supplied and planted in accordance with the drawings and specifications.

2. PRODUCTS

2.1 PLANT MATERIAL

- a. All plant material must be nursery grown and meet the specifications set out in the latest Guide Specifications for Nursery Stock prepared by the Canadian Nursery Trades Association (C.N.T.A.) for size, height, spread, grading, quality and method of cultivation.
- b. Nomenclature of specified plants shall conform to the International Code of Nomenclature for Cultivated Plants and the latest edition of Standardized Plant Names.
- c. Any plant material not conforming to 2.1.1. above will be designated as collected plants.
- d. Collected plants may only be used when approved in writing by the Consultant.
- e. Plant Material: true to name and type, structurally sound, well branched; healthy and vigorous and free from disease, insect infestations, rodent damage, sun scald, frost cracks and other abrasions to the bark and densely foliated with healthy, well developed root system. Pruning wounds must show vigorous bark growth on all edges and all parts must show live and green cambium tissue when cut.
- f. All material must conform to the sizes shown on the plant list except that larger material may be used when approved by the Consultant. Use of larger plants will not increase the contract price.
- g. Plant material sizes must conform to the following standards:

- i. Caliper – diameter of the trunk measured 300mm above the normal grade around the plant.
- ii. Height – measured from the normal grade around the plant to the top of the main foliage mass.
- iii. Spread – the diameter of the main foliage mass, at its widest point.

2.2 OTHER MATERIAL

- a. Anchor stakes: 50mm x 50mm x 2400mm wood stakes, pointed at one end, 2 per tree or as indicated on supplied details.
- b. Twine.
- c. Trunk guards: 150mm (6") diameter PVC or approved alternate, 600mm (24") high.

3. EXECUTION

3.1 PREPARATION

- a. Obtain the approval of the Consultant of all planting excavations as outlined.

3.2 INSTALLATION OF PLANT MATERIAL

- a. Ensure width of all planting excavations is 300 mm (12") greater on all sides than the width of the root ball.
- b. Place plant plumb in the centre of the planting pit with a minimum of 150 mm (6") of compacted planting soil mixture under the root ball. Face the plant to give the best appearance or relationship to adjacent structures. Cut away ropes and fold down top 1/3 of the root ball burlap into the pit.
- c. Backfill with planting soil in 150 mm (6") layers and firmly tamp each layer to ensure the plant retains its orientation. Ensure no air pockets remain around the roots.
- d. Thoroughly water when hole is 1/2 full of tamped soil mixture, and again when the operation is complete.
- e. Except for plants in planting beds, construct an earth saucer around each plant equal to the diameter of the rootball and 50 mm (2") minimum depth to retain water around the roots.

3.3 INSTALLATION OF PLANT ACCESSORIES

- a. Stake or guy all trees as outlined in the drawings and details.
- b. Install trunk guards as outlined in the drawings and details.

3.4 PRUNING

- a. Prune plant after planting to compensate for root loss and in such a manner that the natural shape and character is retained.
- b. Do not cut leader
- c. Use only clean and sharp tools.

3.5 CLEAN UP

- a. At the completion of the planting operations, remove all surplus material from the site at no extra cost.
- b. Make good all damage resulting from planting operations at no extra cost.

SECTION 06110 – ROUGH CARPENTRY**1. GENERAL****1.1 WARRANTY**

- a. Provide a written warranty signed and issued in the name of the Owner and Project stating that the Contractor warrants all workmanship for minimum 2 years.

2. PRODUCTS**2.1 LUMBER MATERIAL**

- a. Except as indicated or specified otherwise, lumber shall be softwood, S4S, moisture content (MC) not greater than 19% at time of installation, in accordance with following standards:
 - i. CSA 0141, latest revised edition
 - ii. CAN/CSA Z-614-14
 - iii. NLGA Standard Grading Rules for Canadian Lumber, latest revised edition and supplement
- b. Machine stress-rated lumber is acceptable for all purposes.
- c. Board sizes: Eastern Spruce species, NLGA construction grade
- d. Dimension sizes: Jack Pine species, NLGA construction grade

2.2 SOURCE QUALITY CONTROL

- a. Identify lumber by grade stamp of an agency certified by Canadian Lumber Standards Administration Board.

2.3 PANEL MATERIAL

- a. Douglas Fir plywood, exterior grade.

2.4 FASTENING AND HARDWARE

- a. In accordance with Part 4 of OBC latest edition as supplemented by following requirements except where specific type is indicated.
- b. Nails Spikes and Staples: To Part 4 of OBC latest revised edition and as follows:
 - i. Use common spiral nails and spiral spikes except where indicated otherwise.
 - ii. Use hot galvanized finish steel for exterior work, interior highly humid areas and for pressure-preservative and fire-retardant treated lumber except where indicated otherwise.

- c. Bolt, Nut, Washer, Screw and Pin Type Fasteners: With hot-dip galvanized finish to CSA G164-11965, latest revised edition, for exterior work, interior highly humid areas and for pressure-preservative and fire-retardant treated lumber, elsewhere with primer paint finish where installed on sight-exposed surfaces.
- d. Use surface fastenings of following types, except where specific type is indicated.
 - i. To hollow masonry, plaster and panel surfaces use toggle bolt.
 - ii. To solid masonry and concrete use expansion shield with lag screw, jute fibre or lead plug with wood screw.
- iii. To structural steel use bolts through drilled hole, or welded stud-bolts or power driven self-drilling screw, or welded stud-bolt.

2.5 WOOD PRESERVATIVE

- a. Surface-Applied Wood Preservative: Copper naphthenate base, water repellent wood preservative, colored.

3. EXECUTION

3.1 APPEARANCE GRADE MATERIALS

- a. Install lumber materials designated "Appearance" (A) Grade so that grade-marks and other defacing marks are not visible on surfaces specified to be left unfinished or to be finished with translucent or transparent type coating. Surface cutting or sanding to remove such marks is acceptable only in locations where defacement will not be evident after finishing.

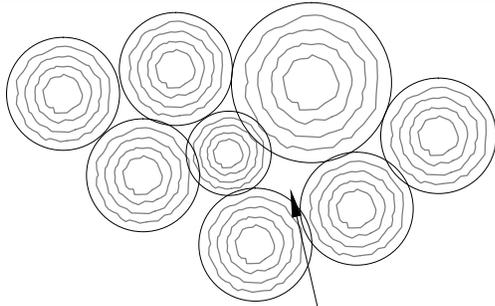
3.2 ROUGH BUCKS, NAILERS, FURRING

- a. Countersink bolts where necessary to provide clearance for other work.

3.3 SURFACE-APPLIED WOOD PRESERVATIVE

- a. Treat surfaces of material with wood preservative, before installation. Wherever possible apply preservative after materials have been cut and fit to size
- b. Apply preservative by dipping, or by brush or spray to completely saturate and maintain wet film on surface for minimum 3 minute soak on lumber and one minute soak on plywood.
- c. Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of preservative before installation.

END OF SPECIFICATIONS



ARRANGEMENT OF LOGS TO VARY - REFER TO LANDSCAPE PLAN

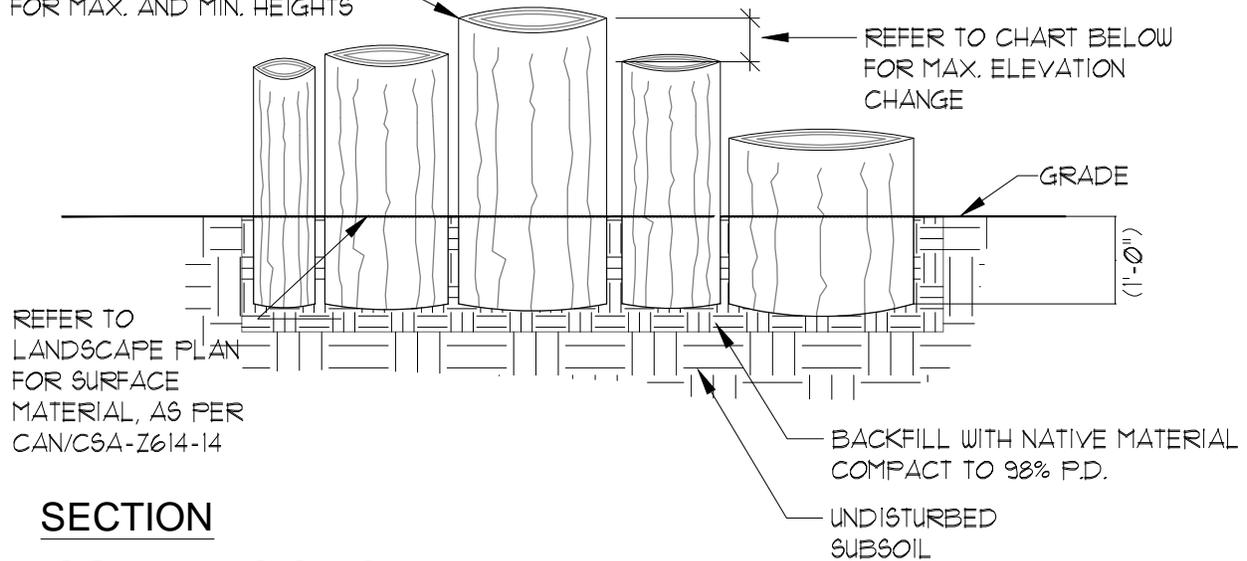
PLAN

REFER TO CHART BELOW FOR MAX. AND MIN. HEIGHTS

MAX. DISTANCE OF 25mm (1") BETWEEN ADJACENT LOGS. GAPS TO BE FILLED WITH PLAY SAND. - NO GAPS PREFERRED



DESIRED LOOK. NOTE: REFER TO LANDSCAPE PLANS FOR SURROUNDING SURFACE REQUIREMENTS.



REFER TO LANDSCAPE PLAN FOR SURFACE MATERIAL, AS PER CAN/CSA-Z614-14

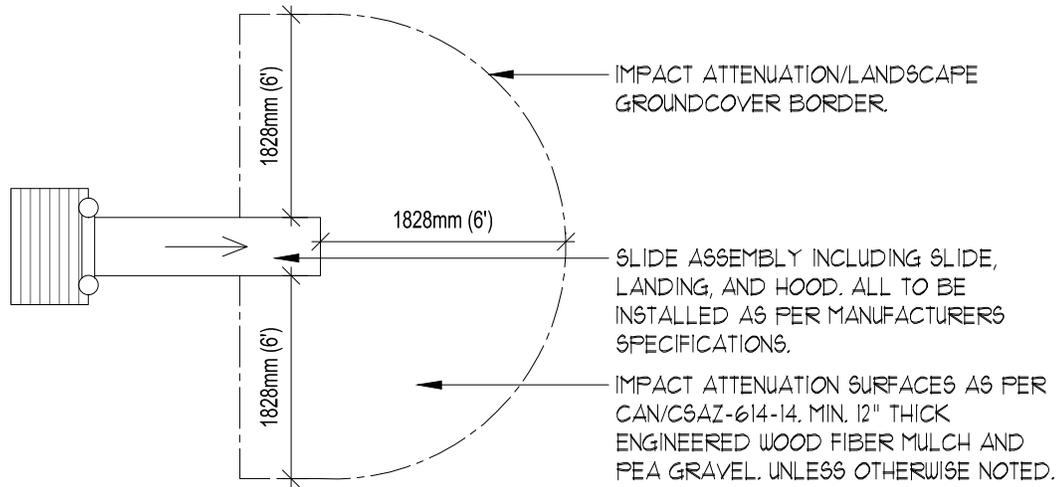
SECTION

LOG DIMENSION CHART

AGE GROUP	MIN. LOG DIA.	MAX. LOG HT. ABOVE GRADE	MAX. SPACING BTW/ ADJ. LOGS	MAX. ELEV. DIFF. BTW/ ADJ. LOGS
18mo - 30mo (TODDLER)	450mm (18")	300mm (12")	25mm (1")	75mm (3")
31mo - 4yr (PRE-SCHOOL)	450mm (18")	350mm (14")	25mm (1")	100mm (4")
4yr+ (KINDERGARDEN)	450mm (18")	450mm (18")	25mm (1")	150mm (6")

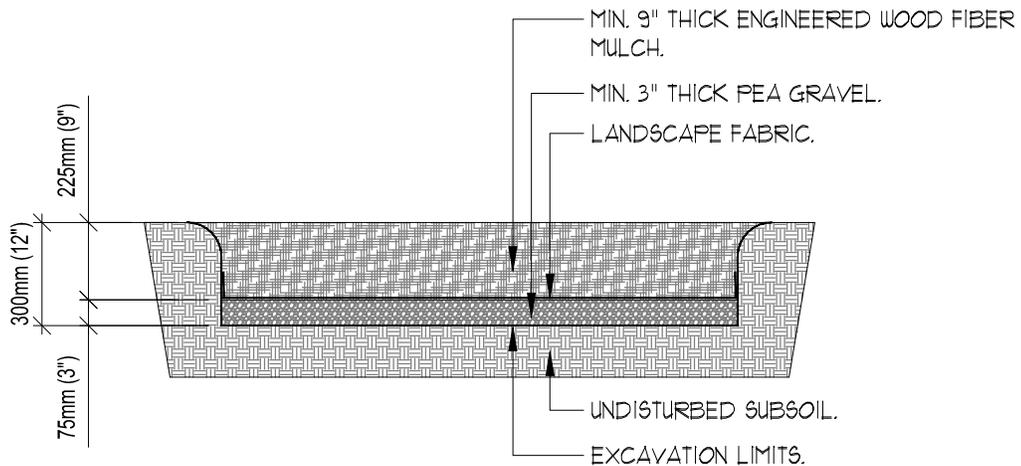
NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, REFER TO CHART FOR SPECIFICATIONS
5. LOGS ARE TO BE BURIED 300mm (1'-0") BELOW GRADE.
6. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
7. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
8. MAX. HEIGHT AND MIN. DIAMETER OF LOGS SPECIFIED IN ABOVE CHART.
9. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
10. LOGS TO BE OF OAK, ASH, HARD MAPLE, OR BEECH SPECIES, OR APPROVED ALTERNATE.
11. ALL SELECTED LOGS TO BE APPROVED BY LANDSCAPE ARCHITECT.
12. ALL WORKMANSHIP TO BE IN ACCORDANCE TO CAN/CSA-Z614-14.



PLAN VIEW

NOTE: SLIDE IS SHOWN FOR REFERENCE ONLY - IMPACT ATTENUATION APPLIES TO ALL FEATURES THAT HAVE 'FALL HEIGHT' AND AS DIRECTED ON LANDSCAPE PLANS.



SECTION

NOTES:

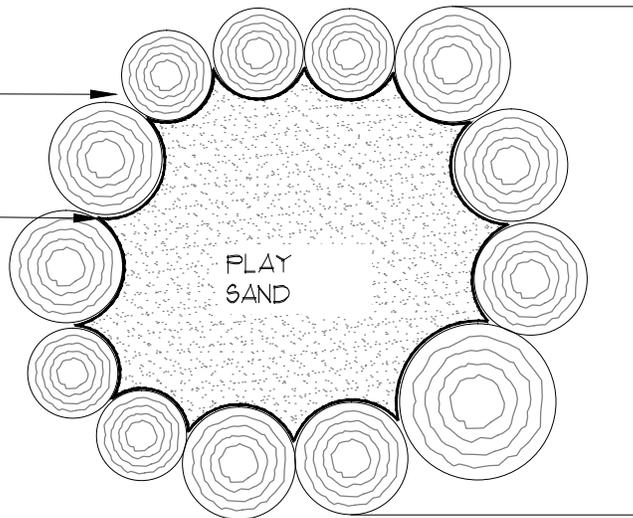
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL MULCH, PEA GRAVEL, AND FILTER CLOTH AS INDICATED.
3. IMPACT ATTENUATION TO BE INSTALLED TO A MINIMUM 6' CLEARANCE RADIUS AROUND ANY EDGE OF FEATURE. REFER TO LANDSCAPE PLAN FOR DIMENSION AND LAYOUTS.
4. IMPACT ATTENUATION SURFACING TO BE FLUSH WITH SURROUNDING GRADE OR AS INDICATED BY SPOT ELEVATIONS AND GRADING PLANS.
5. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.

IMPACT ATTENUATION SURFACING N.T.S.

PLACE ADJACENT LOGS IN TIGHT FORMATION TO AVOID GAPS. MAX. GAPS OF 25mm (1")

FABRIC LINER MUST BE FREE OF HOLES AND RIPS, AND PLACED SNUG AGAINST LOGS

REFER TO LANDSCAPE PLAN FOR EXACT SIZE, AND LAYOUT



PLAN

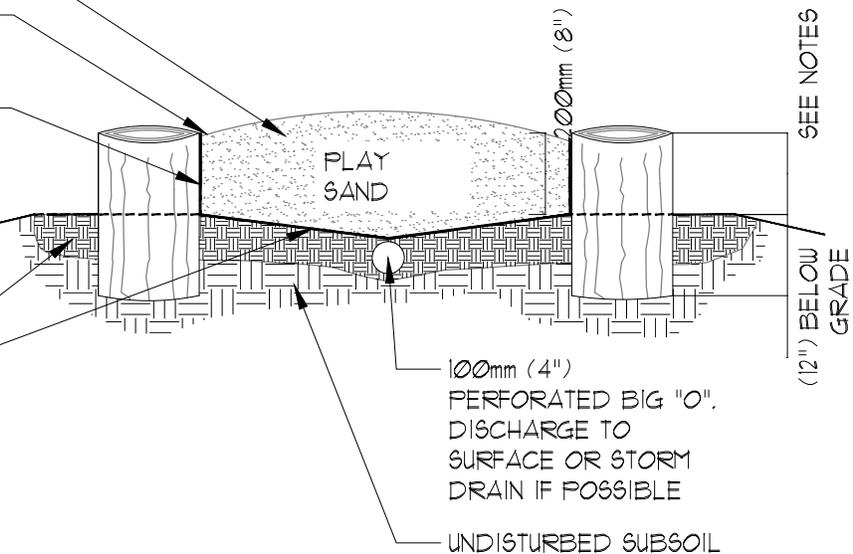
PLAY SAND AS PER CAN/CSA-Z614-14
FILL PLAY SAND TO 50mm (2") BELOW TOP OF

LOGS. NON WOVEN GEO-TEXTILE FILTER W/ MIN. 300mm (12") OVERLAP IF SEAM IS REQUIRED

POSITIVE DRAINAGE

BACKFILL WITH NATIVE MATERIAL, COMPACT TO 98% P.D.

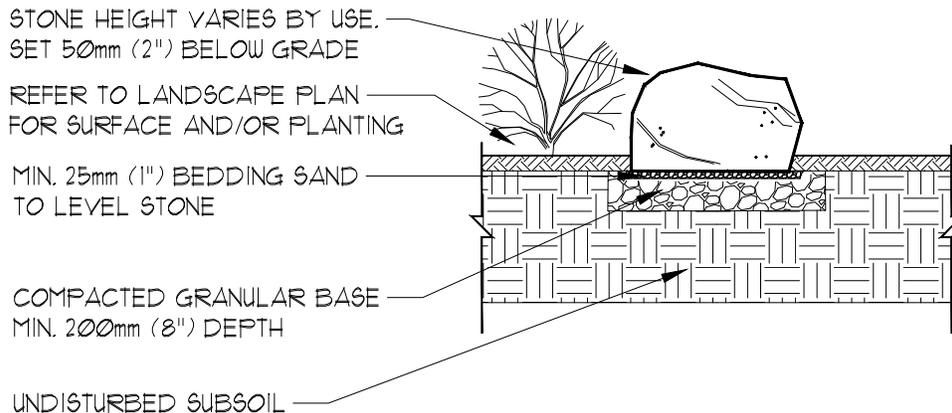
5% SLOPE



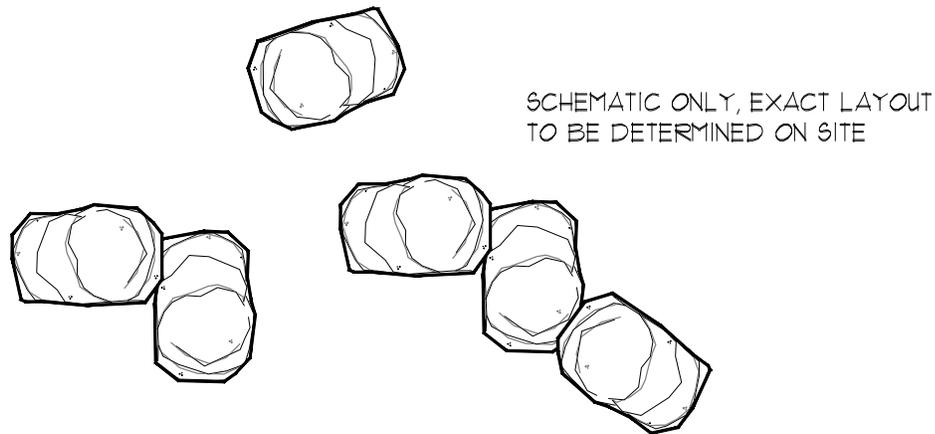
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIALS AS NOTED ABOVE.
3. ARRANGEMENT AS INDICATED ON PLAN IS SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
4. LOGS TO VARY IN DIAMETER, VARYING FROM MIN. OF 300mm (12") TO MAX. OF 500mm (20").
5. LOGS TO BE INSTALLED AT VARYING HEIGHTS AT A RANGE OF 300mm (12") ABOVE GRADE TO 400mm (16") ABOVE GRADE.
6. CONTRACTOR TO ENSURE THAT LOGS ARE INSTALLED IN TIGHT FORMATION TO REDUCE GAPS.
7. LOGS TO BE INSTALLED VERTICAL AND PLUMB WITH CLEANLY CUT TOP SURFACES TO A DEPTH OF 300mm (12") BELOW GRADE.
8. LOGS TO BE OF OAK, ASH, HARD MAPLE, OR BEECH SPECIES OR APPROVED ALTERNATE.
9. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
10. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE WHERE POSSIBLE.
11. QUALITY OF SAND TO BE PLAY SAND AS PER CAN/CSA-Z614-14, FREE OF DIRT AND DEBRIS, FILLED TO 2" BELOW TOP OF LOWEST LOGS.



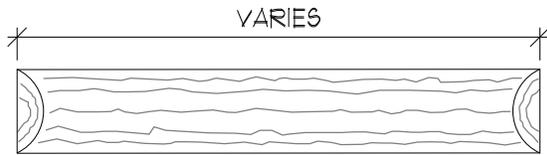
TYPICAL SECTION LAYOUT



TYPICAL PLAN LAYOUT

NOTES:

1. ABOVE GRAPHICS FOR ILLUSTRATION PURPOSE ONLY, PLANTING AND SOD MAY VARY.
2. CONTRACTOR TO REFER TO ALL ATTACHED SPECIFICATIONS.
3. CONTRACTOR TO SUPPLY AND INSTALL LARGE ARMOR STONE OR APPROVED ALTERNATE.
4. LANDSCAPE BOULDERS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
5. BOULDERS ARE TO BE THE FOLLOWING SIZES:
APPROXIMATELY 900mm TO 1200mm IN LENGTH.
APPROXIMATELY 600mm IN WIDTH.
HEIGHT VARIES BY USE - REFER TO LANDSCAPE PLAN.
6. PLACE ADJACENT STONE IN A TIGHT FORMATION TO MAINTAIN 25mm (1") GAPS.
7. CONTRACTOR TO ENSURE SURFACE WATER IS NOT IMPEDED BY STONE INSTALLATION.

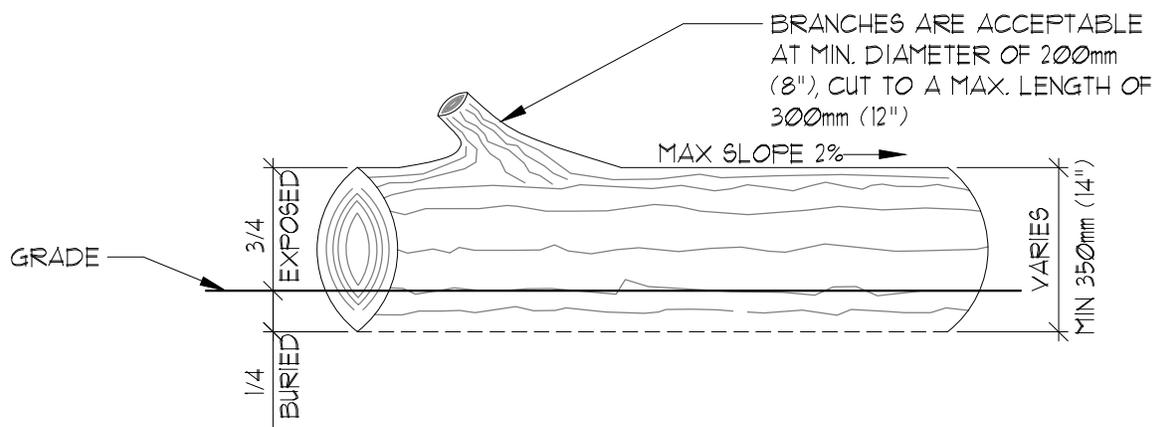


ARRANGEMENT OF LOGS
TO VARY - REFER TO
LANDSCAPE PLAN

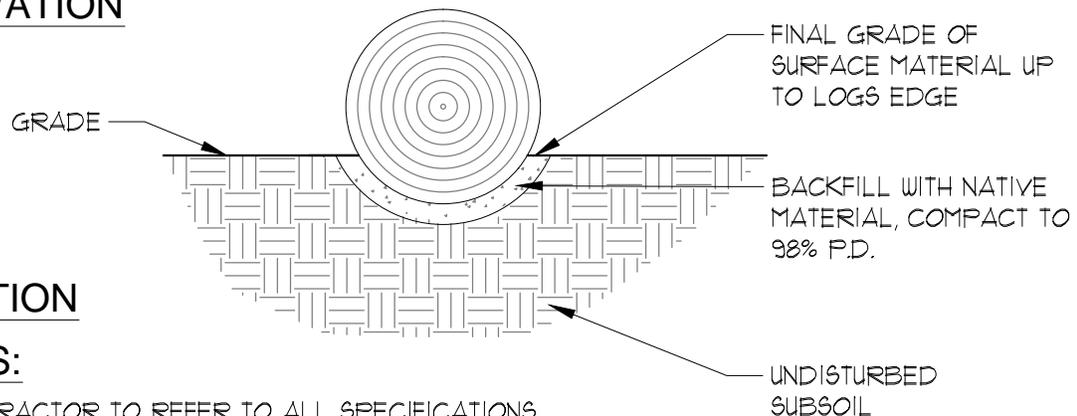


DESIRED LOOK.
NOTE: REFER TO LANDSCAPE PLANS FOR
SURROUNDING SURFACE REQUIREMENTS.

PLAN



ELEVATION

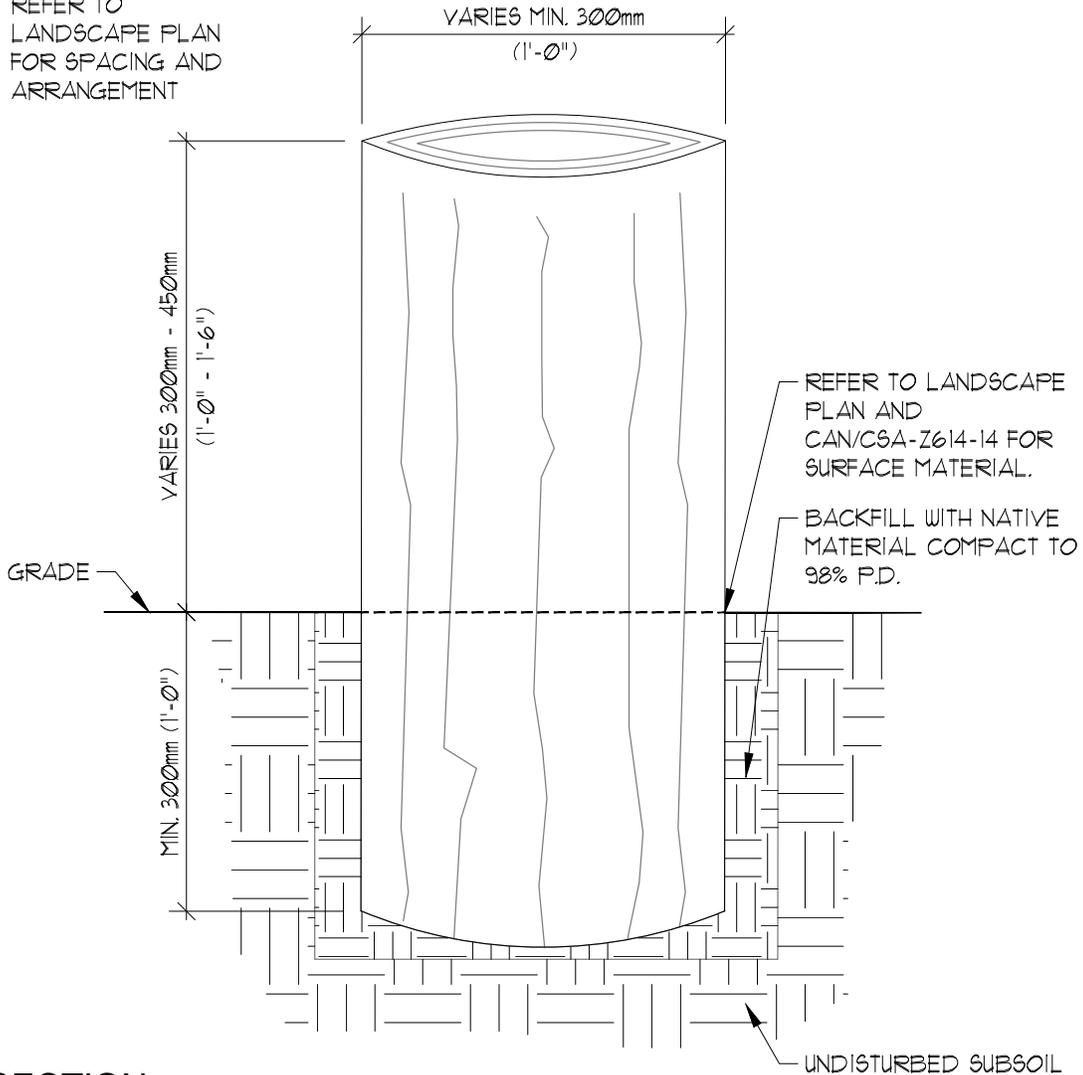


SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LARGE LOGS.
3. SEATING LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, WITH A MINIMUM DIAMETER OF 350mm (14").
5. LOGS ARE TO BE BURIED 1/4 BELOW GRADE TO PREVENT MOVEMENT.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
8. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.
9. ALL WORKMANSHIP TO BE IN ACCORDANCE TO CAN/CSA-Z614-14.
10. THE INTENDED USE OF THIS COMPONENT IS TO BE PLAYED WITH BOTH FEET PLACED FIRMLY ON THE GROUND.

REFER TO
LANDSCAPE PLAN
FOR SPACING AND
ARRANGEMENT



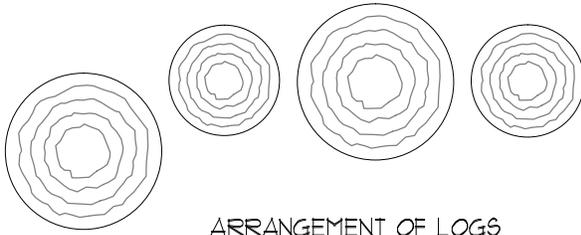
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. REFER TO LANDSCAPE PLAN FOR SPACING AND ARRANGEMENT.
5. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
6. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
9. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.

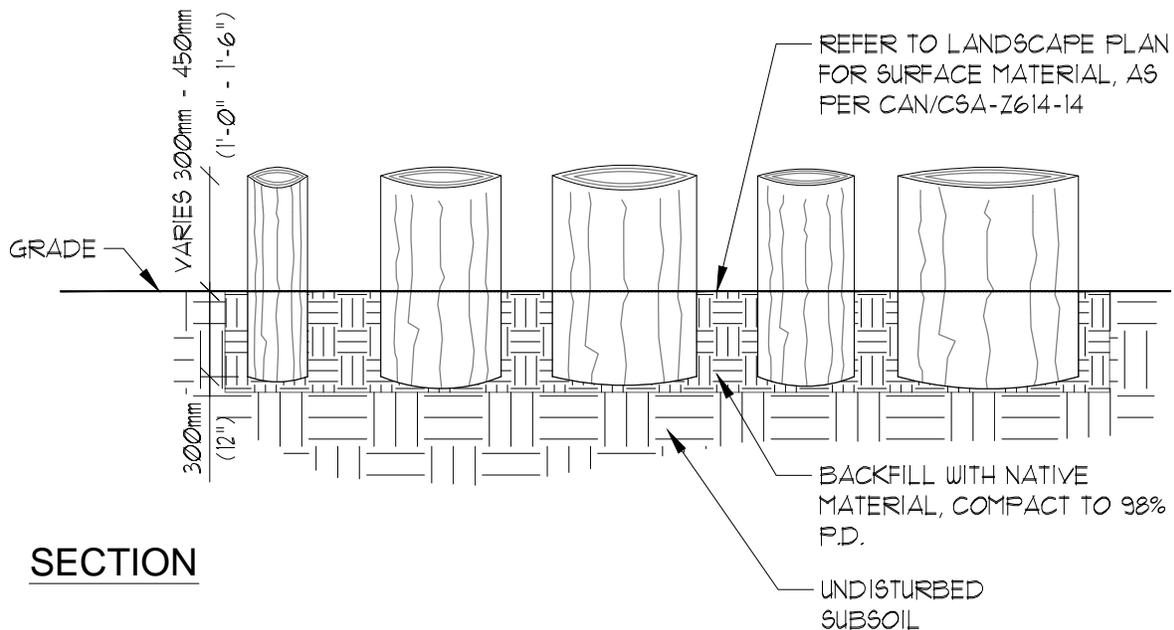
F.00 STANDARD UPRIGHT LOG

N.T.S.



ARRANGEMENT OF LOGS
TO VARY - REFER TO
LANDSCAPE PLAN

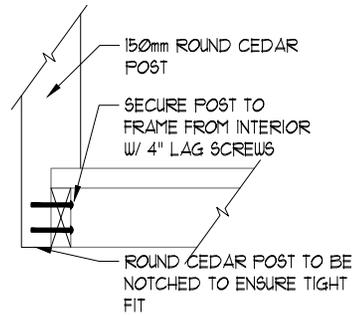
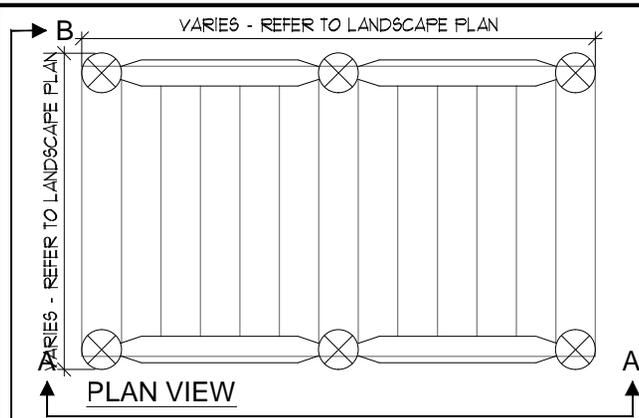
PLAN



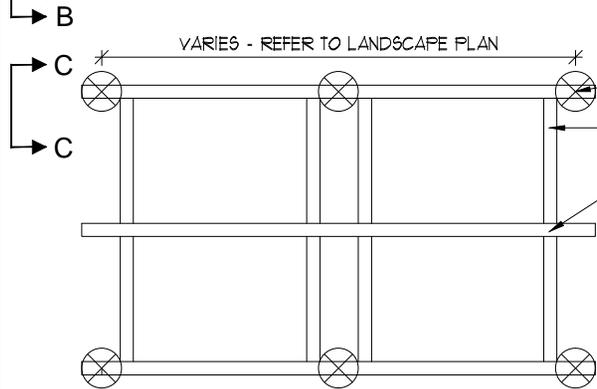
SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL LOGS.
3. VERTICAL LOGS AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. LOGS WILL VARY IN LENGTH AND DIAMETER, WITH A MINIMUM DIAMETER OF 300mm (1'-0").
5. LOGS ARE TO BE BURIED 300mm (1'-0") BELOW GRADE.
6. LOGS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
7. LOGS TO BE INSTALLED PLUMB AND VERTICAL.
8. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
9. LOGS TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
10. ALL SELECTED LOGS TO BE APPROVED BY CONSULTANT.



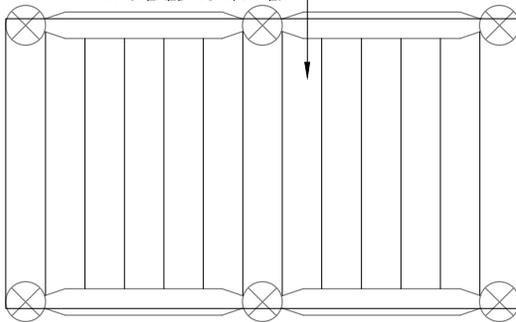
ELEVATION C-C



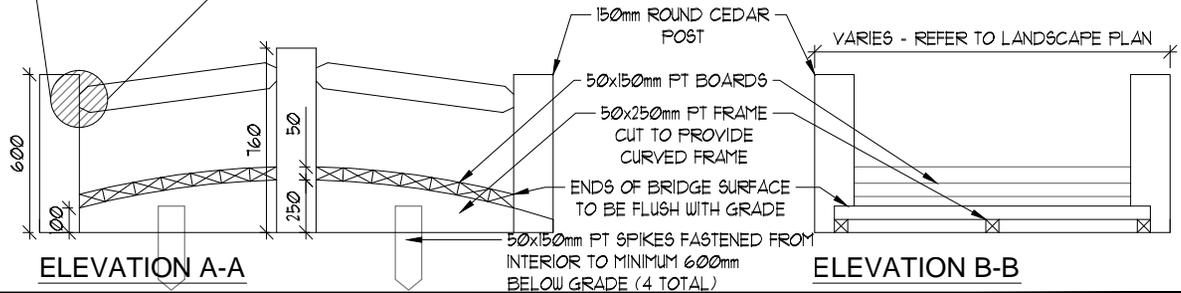
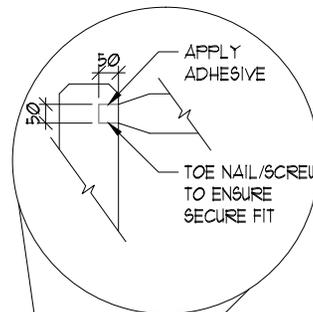
PLAN VIEW - FRAMING

NOTE: ALL FRAMING TO BE 50x150mm

50x150mm PT BOARDS SECURELY FASTENED TO FRAME.



PLAN VIEW



ELEVATION A-A

ELEVATION B-B

NOTES

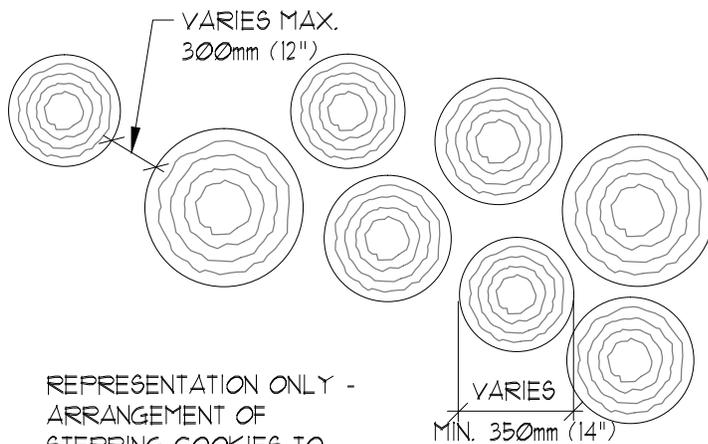
1. ALL WOOD TO BE NATIONAL LUMBER GRADE ASSOC. (N.L.G.A.) - SELECT TIGHT KNOT (S.T.K) GRADE PRESSURE TREATED BOARD AS PER AN/CSA-Z614-14 UNLESS OTHERWISE SPECIFIED.
2. MIN. POST DIMENSIONS: 150mm (6").
3. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FINISH COLOUR TO BE CONSISTENT WITH NATURAL COLOUR OR AGED WOOD. TO BE APPROVED BY CONSULTANT, AND MEET LUMBER SUPPLIERS RECOMMENDED ASTM.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED AS PER CAN/CSA-Z614-14.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. ALL WOOD TO BE SANDED FOR SMOOTH FINISH TO CONSULTANT'S SATISFACTION.
8. CONTRACTOR TO SUPPLY AND INSTALL MATERIALS AS NOTED.
9. OWNER TO PROVIDE ADDITIONAL ACCESSORIES ARE DESIRED.
10. ALL MATERIALS TO BE SECURELY FASTENED.
11. CONTRACTOR TO COUNTER SINK ALL FASTENERS.



DESIRED LOOK

G.03 CURVED WOOD BRIDGE WITH RAILINGS

N.T.S.



REPRESENTATION ONLY -
ARRANGEMENT OF
STEPPING COOKIES TO
VARY - REFER TO
LANDSCAPE PLAN



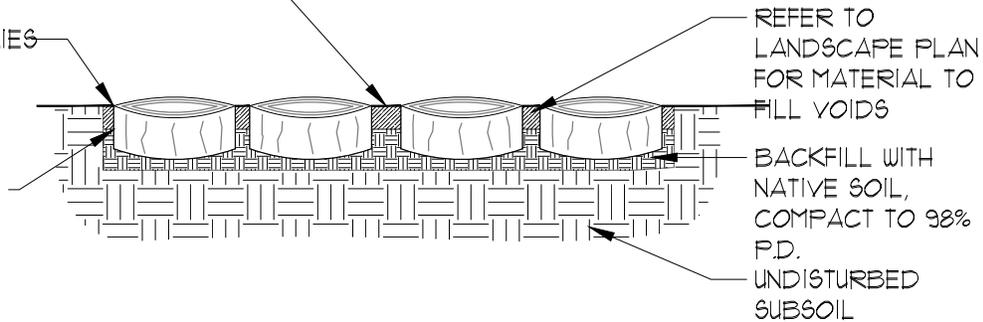
DESIRED LOOK.
NOTE: REFER TO LANDSCAPE PLANS FOR
SURROUNDING SURFACE REQUIREMENTS.

PLAN

REFER TO LANDSCAPE PLAN
FOR SURFACE MATERIAL, AS PER
CAN/CSA-Z614-14

TOPS OF COOKIES
TO BE FLUSH
WITH FINISHED
GRADE

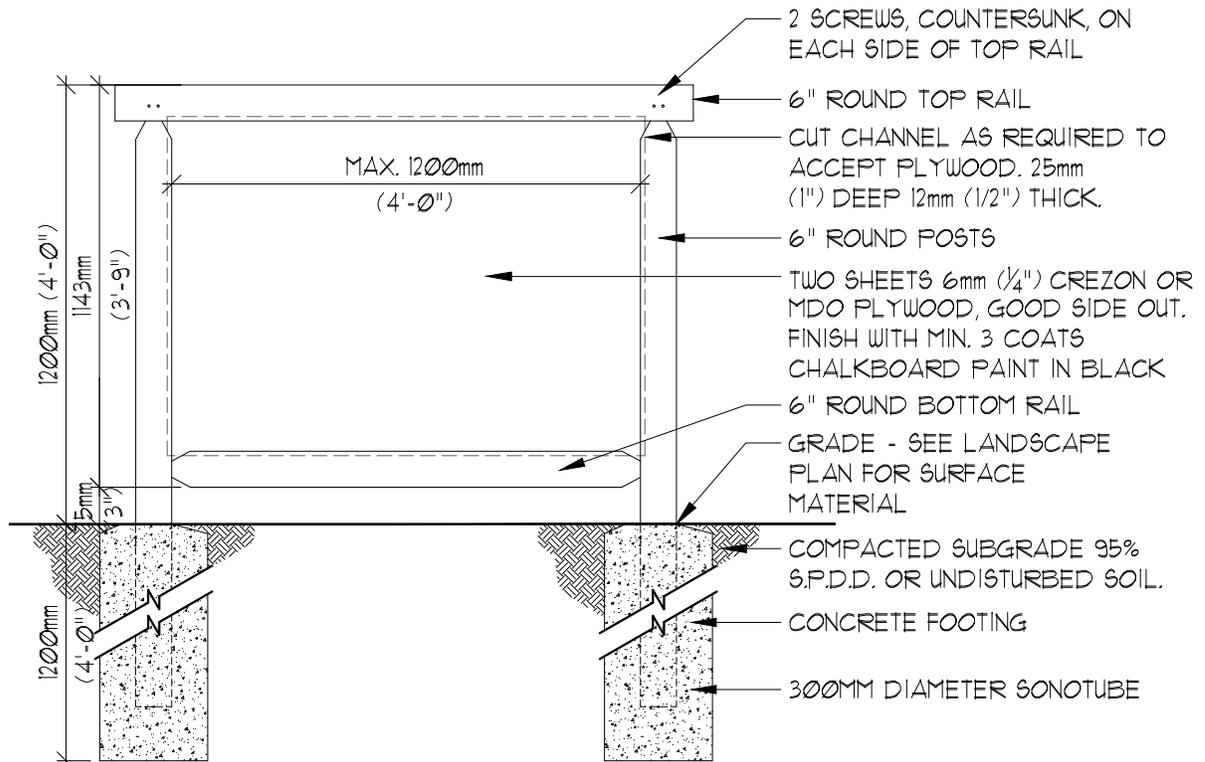
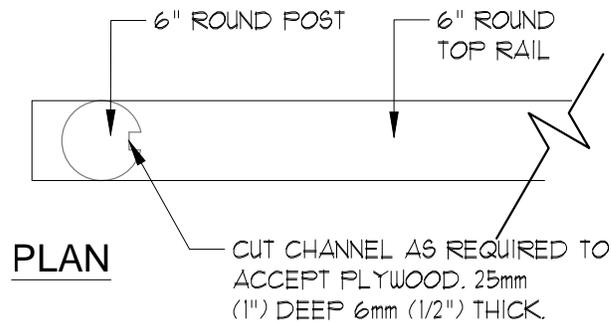
CONSISTENT
THICKNESS OF
150mm (6")



SECTION

NOTES:

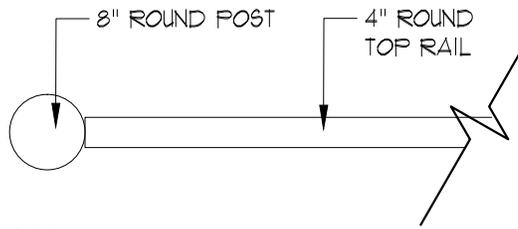
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL STEPPING COOKIES.
3. STEPPING COOKIES AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE CONSULTANT.
4. STEPPING COOKIES WILL VARY IN DIAMETER, WITH A MINIMUM DIAMETER OF 200mm (8")
5. STEPPING COOKIE TOPS TO BE CUT CLEANLY AND WITH A LEVEL SURFACE.
6. STEPPING COOKIES ARE TO BE A CONSISTENT THICKNESS OF 150mm (6"), INSTALLED WITH TOPS FLUSH WITH FINAL GRADE.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. COOKIES TO BE OF OAK, ASH, HARD MAPLE OR BEECH SPECIES, OR APPROVED ALTERNATE.
9. ALL STEPPING COOKIES TO BE APPROVED BY CONSULTANT.



FRONT ELEVATION

NOTES:

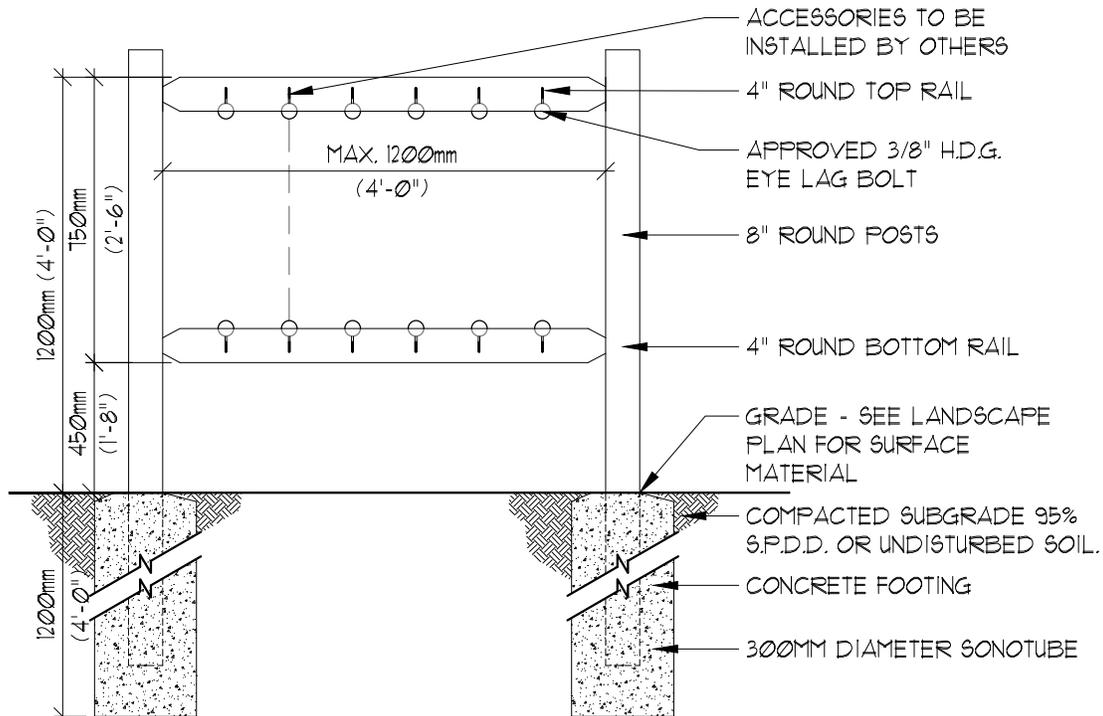
1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIAL AS NOTED ABOVE.
3. ALL HARDWARE TO BE HOT DIPPED GALVANIZED (H.D.G.) AS PER TVDSB SPECIFICATIONS AND CAN/CSA-Z614-14.
4. ALL WOOD TO BE LUMBER GRADE ASSOC. (N.L.G.A.) SELECTION TIGHT KNOT (S.T.K.) GRADE AS PER CAN/CSA-Z614-14.
5. CHALKBOARD ACTIVITY FRAMES AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. THE INTENDED USE OF THIS FEATURE IS TO BE PLAYED WITH BOTH FEET PLACED FIRMLY ON THE GROUND.



PLAN



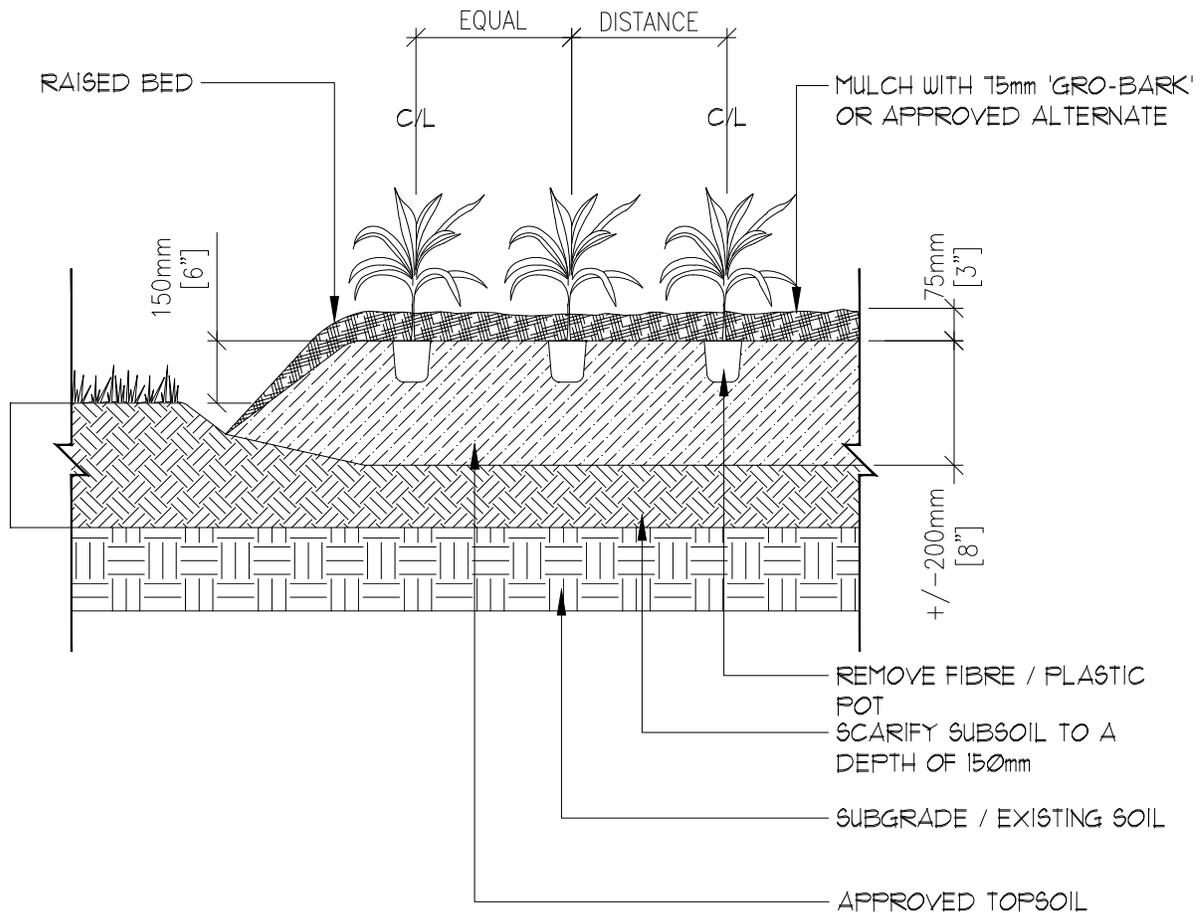
DESIRED FRAME LOOK.
INSERTS WILL VARY



FRONT ELEVATION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIAL AS NOTED ABOVE.
3. ALL HARDWARE TO BE HOT DIPPED GALVANIZED (H.D.G.) AS PER TVDSB SPECIFICATIONS AND CAN/CSA-Z614-14.
4. ALL WOOD TO BE LUMBER GRADE ASSOC. (N.L.G.A.) SELECTION TIGHT KNOT (S.T.K.) GRADE PRESSURE TREATED BOARD AS PER CAN/CSA-Z614-14.
5. ACTIVITY WALL FRAMES AS INDICATED ON PLANS ARE SCHEMATIC ONLY, EXACT PLACEMENT TO BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT.
6. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
7. CLIENT TO PROVIDE ADDITIONAL ACCESSORIES.
8. THE INTENDED USE OF THIS FEATURE IS TO BE PLAYED WITH BOTH FEET PLACED FIRMLY ON THE GROUND.



NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. ALL PLANTS TO CONFORM TO CNLA - CANADIAN STANDARDS FOR NURSERY STOCK.
3. PROVIDE LANDSCAPE ARCHITECT 48 HOURS NOTICE PRIOR TO INSTALLATION TO INSPECT PLANT MATERIAL AND SOIL PREPARATION - SEE GENERAL SPECIFICATIONS.
4. DO NOT ALLOW AIR POCKETS WHEN BACKFILLING.
5. POSITION CROWN OF ROOT BALL 50MM ABOVE FINISHED GRADE TO ALLOW FOR SETTLING.
6. PLANTING METHOD ILLUSTRATED SHALL APPLY EQUALLY TO BARE ROOT STOCK AND BALLED STOCK.
7. PERENNIALS PLANTED IN GROUPS SHALL BE SET IN CONTINUOUS BED.
8. THE ABOVE DETAIL DOES NOT REPRESENT ANY PARTICULAR SPECIES.
9. ALL DIMENSIONS SHOWN IN MILLIMETERS.
10. INSTALL 75MM OF APPROVED MULCH.

PLANT MATERIAL. REFER TO LANDSCAPE PLAN & PLANTING DETAILS.

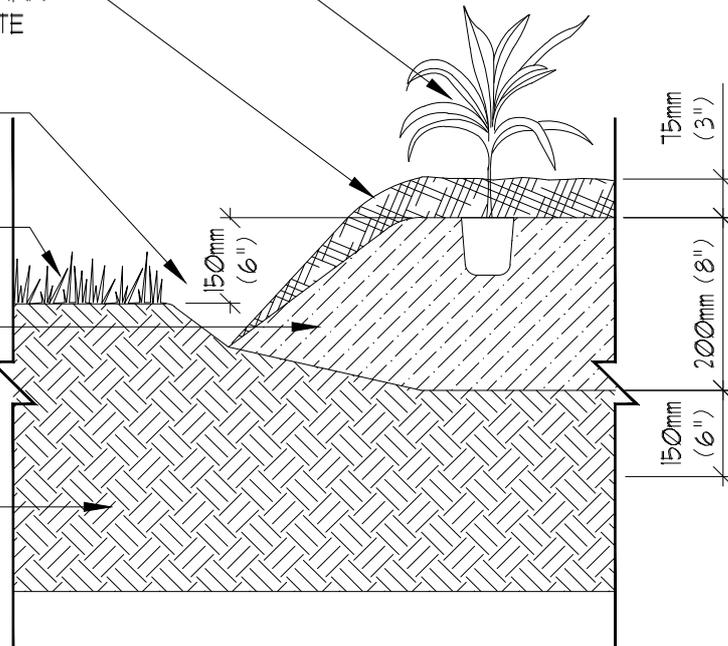
MULCH WITH 75mm 'GRO-BARK' OR APPROVED ALTERNATE

SPADE CUT PLANTING BED EDGE.

EXISTING GROUND COVER ON NATIVE SOIL.

APPROVED TOPSOIL BACKFILL. REFER TO PLANTING DETAILS & SPECIFICATIONS.

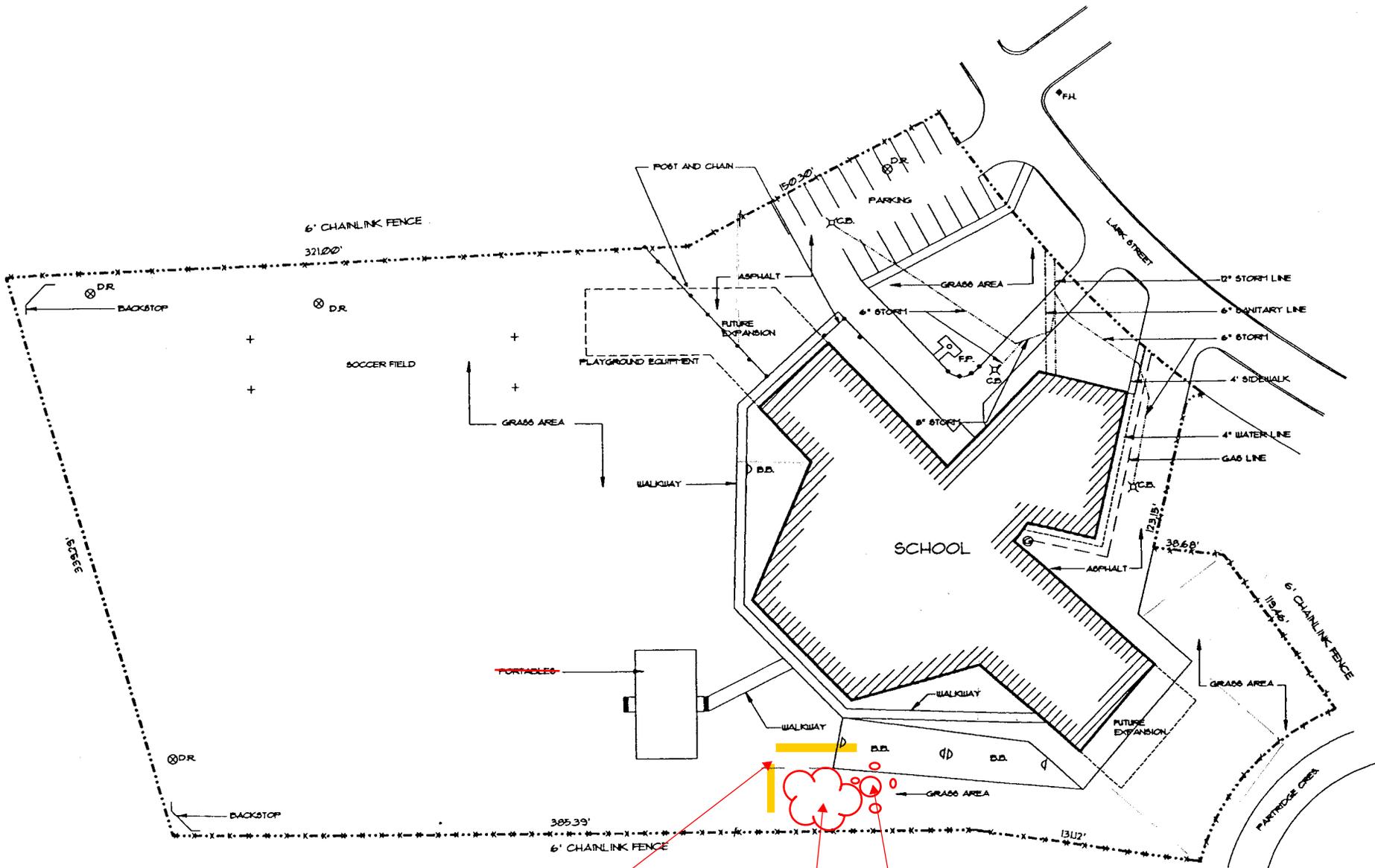
SUB GRADE/EXISTING SOIL SCARIFY SUBSOIL TO A DEPTH OF 150mm (6")



SECTION

NOTES:

1. CONTRACTOR TO REFER TO ALL SPECIFICATIONS.
2. CONTRACTOR TO REFER TO ALL ATTACHED PLANTING DETAILS AND USE IN COORDINATION WITH THIS DETAIL.
3. GIVE LANDSCAPE ARCHITECT 48 HOURS NOTICE PRIOR TO INSTALLATION TO INSPECT SITE PREPARATION - SEE GENERAL SPECIFICATIONS.
4. DO NOT ALLOW AIR POCKETS WHEN BACK FILLING.
5. ALL DIMENSIONS SHOWN IN MILLIMETERS.
6. CONTRACTOR TO SUPPLY AND INSTALL ALL MATERIALS AS SPECIFIED ABOVE.
7. CONTRACTOR TO ENSURE NO SHARP EDGES, CORNERS, OR OBJECTS.
8. CONTRACTOR TO REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ANY WORK.



2 NEW LARGE LOG SEATING REFER TO DETAIL AND SPECIFICATIONS

EXISTING MAPLE TREE

NEW LOG TABLE AND CHAIRS REFER TO DETAILS AND SPECIFICATIONS



L-2 FDK

ITEM	DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL PRICE
1.0	LANDSCAPE FEATURES				
1.2	<u>Log Tables & Chairs:</u> Supply and install upright log table, approximately 24" diameter, with 4 upright logs seats 12-18" diameter, as indicated in details.	ea	1	\$ _____	\$ _____
1.3	<u>Seating Logs:</u> Supply and install horizontal seating logs, approx. 6' long each. Refer to all attached details and specifications.	ea	2	\$ _____	\$ _____
				Section 1 to 1.3 Total	\$ _____
					HST \$ _____
					TOTAL \$ _____

