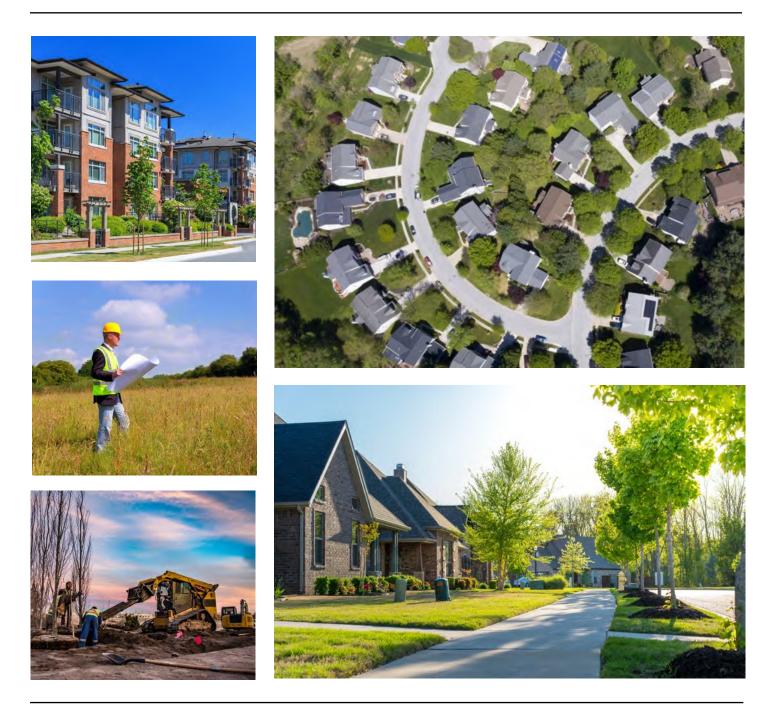
TOWN OF WHITBY

Landscape Plan Guidelines for Site Plan and Subdivision Development 2023



For more information, contact Planning and Development at 905.430.4306 or visit whitby.ca/LandscapePlanGuidelines



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1.0 Introduction

1.1 Purpose

The Town of Whitby seeks excellence in the design and implementation of proposed landscape works associated with development applications. Careful and creative consideration of the landscape contributes to the creation of a healthy, sustainable and complete community. Proposed landscape works will be guided by high-quality urban design principles. Development proposals will include landscape design that promotes a sense of civic identity and place, creating a dynamic, vibrant and aesthetically pleasing public realm that is functional, safe, visually attractive and environmentally sensitive.

These guidelines are for proposed landscape works within new and/or existing developments. In accordance with 6.2.3.15.5 (Whitby Official Plan/OP), a landscape plan is required as part of the development approval process for site plan and subdivision development applications. Landscape plans will be prepared in accordance with these Landscape Plan Guidelines. Proposals for landscape works exceeding minimum requirements are encouraged.

Guideline requirements are subject to reasonable and appropriate adjustments that may be necessary due to the proximity of site servicing, setback requirements or the protection of existing features. Proposed landscape works will maintain and enhance the cultural and natural heritage of the Town and reflect the Vision, Goals and Policies of the Official Plan (OP). Landscape plans will also be prepared in accordance with the conditions of the associated Development Agreement, Letter of Undertaking, Council resolution or other such direction.

1.2 Objectives

These Guidelines will:

- assist developers/applicants and professional consultants in the preparation of landscape plans as one of the requirements for submission of a complete development application;
- summarize the requirements for landscape works proposed through the submission of landscape plans for review and approval;
- establish objectives and performance standards for proposed landscape works;
- enhance communication between developers, consultants and the Town of Whitby;

- ensure that the approval process is transparent and efficient;
- implement excellence in landscape works that promote, sustain and enhance the Town as a desirable place to live, learn work and play;
- promote landscape design that supports and complements the overall design intention and aesthetic qualities of a proposed development, including the proposed built form, architecture and public realm;
- deliver landscape designs that are universally accessible, enhance pedestrian safety and connectivity, and express a pedestrian-oriented community that is comfortable, attractive and facilitates social interaction;
- encourage landscape designs that complement and enhance the existing and planned context, including cultural and natural landscape features;
- promote compatibility with and enhance the character of well-established areas, including the provision of well-designed, high-quality screening elements that minimize visual and acoustic impacts of operational and service elements (i.e. stacking lanes, driveways, parking, services, garbage enclosures, etc.);
- foster a sense of civic identity and pride by requiring creative landscape design solutions that promote a sense of place and contribute to an animated and vibrant public realm;
- maintain, protect and enhance the natural heritage system and urban tree canopy;
- support climate change adaptation by promoting sustainable design initiatives such as low-impact-development (L.I.D.) features; and
- preserve cultural heritage landscapes of historic significance, value or interest (if applicable).

1.3 Contact Information

Inquiries may be directed to:

Planning and Development DepartmentDevelopment Control, Design and Technical Services Division575 Rossland Road East Whitby,ON L1N 2M8Telephone:905.430.4306Fax:905.668.7812Email:planning@whitby.ca

2.0 Submission Requirements

2.1 General Requirements

The following information will assist in the preparation and submission of required landscape plans to the Town as part of a complete development application. The submission of sufficiently detailed information in the appropriate format ensures review by Town staff is efficient and requirements for revisions are minimized. Preconsultation with the Planning and Development Department is required in advance of a submission.

- Submission of landscape plans for review and approval will be made to the Planning and Development Department as a required part of a complete development application.
- Landscape plan submissions will be prepared by an accredited Professional Landscape Architectural consultant who is a member in good standing with the Ontario Association of Landscape Architects (OALA).
- Landscape plan submissions prepared by an alternate professional for Site Plan applications must obtain prior approval by the Planning and Development Department; consideration will be determined based on the scope, size and complexity of the proposed development.
- The planning, design, documentation and implementation of landscape works will reflect applicable by-laws, legislated requirements, codes, regulations and standards, including those set out within these guidelines. The developer/applicant is responsible for ensuring that these provisions of are met, and that their consultants, agents, contractors and/or builders comply throughout all phases.
- The Landscape Architect will undertake a minimum of one site visit to determine existing site conditions and features, identify opportunities and constraints and sufficiently understand the surrounding context prior to initiating the design of proposed landscape works.
- The potential for retaining existing site features will be thoroughly examined during the initial site planning. Preliminary planning and subsequent detailed design development shall include and be based on the findings of a review and assessment of these existing site conditions and features. General requirements will be identified at the preconsultation stage.

- Developers/applicants and the Landscape Architect are encouraged to review preliminary development proposals and anticipated design works with the Development Control, Design and Technical Services Division prior to the formal submission of plans for circulation and review. This is an opportunity to discuss site-specific concerns or conceptual approaches, and supports a transparent and efficient review and approval process.
- Landscape plan submissions will reflect the requirements of the associated development Agreement. Submissions of landscape plans associated with a Subdivision Agreement will reflect the requirements of Schedule C: Appendices (Sidewalks, Fencing, and Buffer Planting).
- Proposed landscape works will be coordinated with all plans associated with the proposed development, including Draft Plan of Subdivision, Engineering (grading, servicing, erosion/sediment control, lighting, construction management, etc.) and/or Site Plan submissions.
- Landscape Plan submissions for Site Plan and Subdivision development require approval by the Town of Whitby Planning and Development Department prior to implementation.
- Approved landscape plan(s) form part of the Subdivision or Site Plan Development Agreement or Letter of Undertaking and should be read in conjunction with the associated Agreement.

2.2 Submission Format

Submissions of proposed Landscape Plans will:

- be made to the Town of Whitby Planning and Development Department for circulation, review and approval;
- be accompanied by a transmittal and/or cover letter describing the content;
- submitted in .pdf format;
- paper submissions will be required at the discretion of the Town and provided in a maximum Arch D (610 mm x 914 mm / 24 in x 36 in) size, folded to 8 $\frac{1}{2}$ " x 11" format, in numerical order with the title block exposed; and
- identify the submission / revision number (1st, 2nd, etc.) and revised plans will include a response letter and matrix.

2.2.1 Site Plan Development Landscape Plan Submissions

Initial landscape plan submissions will be accompanied by a cost estimate for all proposed landscape works. This estimate will be used for Letter of Credit purposes.

Information about the required format and content for cost estimates is provided in Chapter 7: Letter of Credit Administration.

Submissions for plans approval requires five full-size paper copies, one reduced copy at 8 $\frac{1}{2}$ " x 14" and one copy in .pdf format.

2.2.2 Subdivision Development Landscape Plan Submissions

Initial landscape plan submissions will be provided in .pdf format. The submission of paper copies may also be required at the Town's discretion. Typically, five full-sized paper copies are required. Submissions will be accompanied by a cost estimate for all proposed landscape works, including edge management, restoration and buffer planting works, and stormwater management pond facility block plantings. Estimates will be used for Letter of Credit purposes.

Submission requirements for plans approval will be determined through consultation with Planning and Development Department staff and must include a signed and dated copy in pdf format.

2.3 Submission Checklist

Detailed requirements for the submission of landscape plans associated with Site Plan development applications will be determined through consultation with Planning and Development Department staff, and be based on the scope, size and complexity of the proposed development.

The following requirements provide a checklist of typical information required to be included in all landscape plan submissions:

2.3.1 Cover Sheet

A cover sheet is required for proposed landscape works associated with Subdivision developments, and will include:

- development name;
- a context plan illustrating the limit of development and phasing, if applicable;
- applicant/developer name and contact information;
- consulting Landscape Architect name, professional seal, signature, and contact information;
- associated consultant name and contact information (engineer, arborist, etc.);
- Town of Whitby development application file number (site plan development: SP-XX-YR) or (subdivision development: SW-20(YR)-XX) and Phase (I, II, III, etc., if applicable) or Land Division (LD-XX-YR);
- municipal address (if applicable);

- Table of Contents with sheet names and numbers.
- north arrow and
- scale.

2.3.2 Title Block

Every title block will include the information identified above for the cover sheet, (except the context plan) as well as:

- drawing title and sheet number;
- preparation date;
- revision number and date;
- space for the Town of Whitby drawing approval stamp;
- drawings will be illustrated at a typical scale factor, minimum 1:500 or larger and include a scale bar;
- all measurements and statistics will be metric;
- any associated consultant name and contact information, and include their professional seal and signature where required (for structural or other certification requirements);
- a key plan at a metric scale of 1: 10,000 indicating the proposed development location with appropriate street name labeling, a north arrow oriented the same direction as the landscape plans, phasing, if applicable, and highlighting plan area illustrated on drawing sheet; and
- a legend when abbreviations or symbols are used.

2.3.3 Existing Conditions and Removals

A separate drawing sheet illustrating existing conditions on the proposed development site will be submitted for proposed landscape works associated with a site plan application, where required. This plan will include the extent of the adjacent right-of-way to the centre line as well as lands 6.0 metres beyond all property limits. Anticipated impacts of the proposed development on existing conditions will be illustrated. This plan may be combined with a Tree Inventory and Protection Plan through prior approval by Planning Department staff.

An Existing Conditions and Removals plan will include the following features:

- the location of all existing natural features including vegetation, top of bank, watercourse features, valley lands, landforms, etc.;
- existing built form, outbuildings, fencing (height/type), structures, paved areas or other existing features within the development limits;

- all existing trees abutting the proposed development both within the adjacent road right-of-way and on adjacent properties (refer to 2.3.4); and
- the location and extent of all adjoining property lines, underground servicing, above grade utilities (including overhead lines), sidewalks or multi-use pathways, driveways, roadways, building envelopes where appropriate, parking areas, curbing, or other existing features.

2.3.4 Tree Inventory, Arborist Report and Protection Plan (if applicable)

Development proposals on lands which have existing trees and vegetation will provide a Tree Inventory, Arborist Report and Preservation Plan where required. Refer to the **Town of Whitby Tree Protection Requirements for New Developments** for specific requirements.

Plans will accurately locate and describe existing vegetation and the intent to retain or remove in accordance with these requirements. Vegetation will remain undisturbed on the proposed development property until the Tree Inventory, Arborist Report and Protection plan and/or the Landscape plan has been approved by the Planning and Development Department.

2.3.5 Proposed Landscape Works

Landscape plan submissions illustrating proposed landscape works will clearly illustrate, label and/or locate the following:

Location of Proposed Development:

- property line, boundaries and legislated requirements within and adjacent to the proposed development, including type and locations of easements, utility or transportation corridors, reserves, road widening's (if applicable), daylight triangles, sight lines as applicable, etc.;
- phasing and limit of work as applicable;
- street names and designations consistent with registered plans; and
- lot and block numbers, and/or municipal address numbering.

Existing and Proposed Built Form:

- existing buildings or other structures to remain;
- all proposed building envelopes and overhangs including garages and garbage collection facilities, sheds, etc., and
- all doorways including identification of main building entrances, stairwells, and/or pedestrian and vehicular entrances to underground garages if applicable.

Proposed Circulation Network:

- proposed vehicular and pedestrian circulation and surface treatments including sidewalks, site and building entrances/driveways, loading, drop-off and parking areas, curbing (including depressed areas), walkways, courtyards/squares, patios, terraces etc.;
- adjacent right-of-way including boulevards, sidewalks, multi-use pathways, trails (as applicable),
- proposed/revised sidewalk locations will be illustrated and labelled in accordance with the requirements of the associated "Appendix I: Sidewalks" included in Schedule 'C' of the associated Subdivision or Site Plan Agreement; and
- existing and proposed transit bays, stops or shelters.

Utilities and Infrastructure:

Above and below grade utilities including but not limited to:

- lighting (freestanding such as street lights, bollard lighting, and wall mounted);
- catch basins, manholes, valve chambers;
- fire hydrants, cable and bell boxes, gas, hydro poles and overhead lines, transformer boxes, community mailboxes, stop signs, additional signage, etc.; and
- snow storage areas

Proposed Landscape Works:

- proposed vegetation including street trees, planting beds, buffer planting areas (refer to 4.3), sodded and/or seeded areas, and;
- adjacent boulevards labelled "Area to be fine graded, top-soiled and sodded" and including a reference to Engineering Standard 514.0 Tree Pit Detail;
- site furnishings (street furniture/benches, garbage receptacles, bicycle racks, structures (shade/fencing/etc.), public art, etc.) as applicable and with reference to associated details (refer to Construction Details, 2.3.8);
- fencing type/material, height and description (refer to 4.5);
- pillars and/or entry feature gateways (refer to 4.5.2);
- storm water management facility blocks (refer to 4.6);
- edge management / restoration plans (refer to 4.7);
- tree preservation and protection works (refer to 4.8); and
- any additional landscape works, as required by the Town or relevant agencies.

Grading Information and Related Treatments:

Illustrate and label information sufficient to ascertain the location of grade changes that may require distinct treatments (planting, railings or provision of retaining elements, etc.) such as:

- existing and proposed spot elevations at property lines and tree preservation areas (or at the base of existing trees to remain);
- proposed slopes at ramps, sloped areas, swales, and berms;
- fixed floor elevations in proposed buildings and structures;
- top and bottom elevations of proposed retaining walls and stairs and reference approved Engineering drawings, including details; and
- structural certification of any proposed wall over 0.6 m in height is required and will reference the Site Grading/Engineering Plan approved by the Town of Whitby Public Works Department and indicate that the developer's consulting Engineer will be responsible for the inspection and certification of all retaining walls and stairs.

2.3.6 Planting Plan, Plant List and Planting Details

Planting Plan

A Planting Plan will illustrate the layout and arrangement of proposed plant materials. A Planting Plan may be combined with a Site Plan illustrating all proposed landscape works. This will be determined in consultation with Town staff, and be based on the scope, size and complexity of the proposed development. The species and quantity of all proposed vegetation will be labelled on the Planting Plan as follows:

- symbols will reference a symbol key in an associated Plant List;
- groupings of the same species may be included with one label; and
- shrub groupings will illustrate bed edges.

Plant List

A Plant List, organized by vegetation type (deciduous trees, coniferous trees, shrubs, aquatics, groundcovers, vines, perennials, seed mix, etc.) will include the following information:

- Species key and reference list;
- botanical species name;
- common species name and cultivar (if applicable);
- size (caliper, height, spread);
- quantity;

- planting spacing (if applicable);
- condition;
- general requirements for spring dug/spring planting, etc.; and
- Native / non-native.

Planting Plans for Subdivision Development proposals will include a species key and reference list on each drawing sheet.

Planting Details

Details will be provided for all vegetation types and planting conditions. This may include coniferous and deciduous trees, shrubs, perennials, grasses, aquatics, plantings on slopes, whips, live stakes, etc.

Town of Whitby planting details will be illustrated and referenced when plant material is proposed within the public right-of-way and/or on public property. (Refer to Planting Details in Chapter 10.0 Notes and Details).

2.3.7 Required Notes

Town of Whitby typical Notes will be included in submissions of proposed landscape works for new development in accordance with the following requirements*:

Site Plan Development application submissions:

- Detail 750 and 750.10: General Notes
- Detail 751: Standard Utility Clearances for Streetscape Planting

Subdivision Development application submissions:

- Detail 750 and 750.10: General Notes
- Detail 751: Standard Utility Clearances for Streetscape Planting
- Detail 752: Planting Inspection Notes
- Detail 753: Topsoil Notes
- Detail 754: Buffer Planting, General Sidewalk, Multi-Use Path and Trail Notes
- Detail 755, 755.10 and 755.20: Plant Material Standards and Specifications
- Detail 756: Fencing Notes: General, Inspection and Acceptance Requirements
- Detail 757 and 757.10: Fencing Construction, Materials and Layout Requirements

*Additional Town of Whitby notes may be required to be included based on the extent and location of proposed landscape works.

2.3.8 Construction Details

Construction details will accurately convey the design intent of all proposed landscape elements. The materials, finish, dimensions and construction requirements of each landscape element will be illustrated and/or described. Appropriate cross-references between plan(s), elevations, cross-sections and details will be labelled.

Construction details will be included for:

- Pedestrian-oriented surface treatments (walkways, patios, terraces, courtyards, squares, pedestrian crossing areas, etc.) including pattern and layout, warranty or other relevant information;
- **Structural elements**, such as signage, decks, overhead structures /pergolas, proposed pools or ponds, etc.;
- Site furnishings, such as benches, bollards, bicycle racks, garbage containers, planters, tree grates, signage, public art, etc.
- **Fencing** type(s) and materials (chain link, acoustic, privacy, screens, decorative, guide rail, handrail etc.), including associated pillar treatments
 - proposed fencing adjacent to public property will reference and illustrate Town of Whitby standard fencing details (where required);
 - the proposed fencing location in relationship to property lines will be detailed.

3.0 Design Criteria for Landscape Works in Site Plan Development Proposals

3.1 Requirements for Landscape Works

Landscape works proposed as part of a Site Plan development application will provide:

- a high-level of urban design consideration that focuses on primary and flankage street frontages, the main site entry and building entrances, and at corners facing intersections;
- landscape works that unify the appearance of the proposed development, soften and enhance the dominant building mass, contribute to the creation of a pedestrian-scaled environment, and complement and enrich the adjacent streetscape;
- consideration for the protection, preservation and integration of any pre-existing natural or cultural heritage or other place-making elements, especially significant identified features, mature tree canopy and/or views;
- street tree plantings within the public boulevard across the full extent of all frontages;
- a minimum 3.0 metre width (or as otherwise required in the relevant zoning bylaw) planted landscape strip or buffer planting arrangement adjacent to all public roads, residential zones or residential land-use, and parkland/open space to minimize the impact of the proposed development;
- exterior amenity space in residential development, including rear-yard, balcony and/or rooftop amenity spaces;
- pedestrian amenities appropriate to the site and at key locations that may include planters, seating, bicycle racks, garbage receptacles, pedestrian scale lighting, overhead weather protection, pillars, fencing, screens, decking, steps, pools or ponds, guard rails, handrails, pergolas, retaining walls, etc.
 - within downtown or other identified character-areas, pedestrian amenities will reflect Town of Whitby standards, materials and colour palettes;
- facilities for the management and storage of garbage will be provided with recessed, silhouette, below-grade receptacles or garbage rooms internal to built form;
- lighting in accordance with the <u>Town of Whitby Lighting Guidelines;</u>

- fencing adjacent to town and/or regional right-of-ways with an upgraded design treatment (such as masonry pillars, decorative metal fencing, upgraded detailing, etc.) that is:
 - in accordance with the <u>Town of Whitby Fencing By-Law 4394-99</u>, as amended,
 - in accordance with the requirements of any associated noise studies, and
 - installed on private property.
- adjacent rear yard amenity areas and end units will be provided with 1.8 meter height solid-panel privacy screens
- loading and service areas will be screened in accordance with the specific requirements of the Town including:
 - location,
 - height, width and material of screens, and
 - any requirements for planting, fencing and/or berming requirements in areas of parking, utility meters, waste disposal, loading, and/or above ground utilities.
- surface treatment or other considerations that reflect any relevant Town standards or urban design guidelines for the public right-of-way; and
- the minimum requirements of the Whitby Green Standard.

3.2 Plant Material Requirements

Plant material will reflect the requirements provided in Detail 755: Plant Material Standards and Specifications, as well as the following additional requirements:

- tree species will be selected to maximize urban tree canopy;
- tree species will be selected appropriate to the growing conditions and available space;
- large deciduous shade trees will be planted seven to ten metres apart;
- small flowering deciduous shade trees will be utilized in locations where space is restricted, such as adjacent to light standards and with a spacing of five to seven metres apart;
- coniferous trees will be planted four to eight metres apart;
- shrub masses will be grouped by species in large, continuous and mulched beds with a minimum double row in a staggered arrangement;
- plant material selection will utilize a diverse variety of deciduous and coniferous plant species that provide year-round interest;

- plant material selection will utilize species native to southeast Ontario wherever possible; refer to the Recommended Tree Species listing in Chapter 5;
- vegetation may be required to be planted at closer intervals, with larger sized stock, and/or in greater quantities at the discretion of the Town of Whitby;

Buffer Planting

Buffer planting is provided by a well-designed vegetative screen of mixed groupings of coniferous and deciduous shrub and tree species in a well- coordinated layout. Buffers will be used in locations where:

- low branching structure is desirable such as adjacent to long stretches of fencing (where a visual break is aesthetically desirable), a railway corridor or a parking lot; and
- pedestrian safety, visibility and sight lines, setback requirements or access to servicing infrastructure is not compromised.

The Living Wall may be considered appropriate in locations where this type of buffer treatment is desirable.

3.3 Accessibility and Pedestrian Circulation

Pedestrian circulation will be provided in accordance with applicable legislation and guideline documents including the <u>Town of Whitby Accessibility Guidelines</u>, Public Works Design Criteria and Engineering Standards; <u>Design of Public Spaces Ontario</u> <u>Regulation 413/12</u>; the Ontario Building Code (as amended), and any other applicable legislation.

Proposed and/or redeveloped elements of public spaces included in these regulations are:

- recreational trails and beach access routes,
- outdoor eating areas for public use,
- outdoor play spaces (such as playgrounds),
- exterior paths of travel (such as walkways between buildings),
- accessible on-and-off street parking, and
- service counters and waiting areas.

Landscape works proposed as part of a Site Plan development application will provide appropriate design consideration for:

• facilitating connections from and to planned and existing active transportation infrastructure (transit, sidewalks, trails, multi-use pathways and cycling routes) in the public right-of-way or adjacent open spaces and/or utility corridors;

- the provision of barrier-free pedestrian circulation networks with continuous, direct and interesting pathways that provide stable, slip-resistant surfaces free of abrupt changes in grade, including ramps when necessary;
- minimizing conflicts between motorists and pedestrians by:
 - separating pedestrian circulation from vehicular traffic wherever possible,
 - providing predictable, safe, clearly defined and unobstructed access from public pedestrian circulation routes, parking areas and transit stops to building entrances,
 - locating designated parking spaces and pedestrian drop-off areas close to building entrances,
 - locating street furnishings (benches, planters, waste receptacles, newspaper boxes, product displays, bicycle racks, etc.) outside of main pedestrian circulation routes and along any façade with a building entry to protect for clear unobstructed paths of travel,
 - providing an overhead clearance of 2.1 metre (minimum) and 1.5 metre clear pedestrian passage outside of car overhangs, vegetation, signage, light standards, flag or banner poles, between bollards, etc. and along any façade with a building entrance, and
 - providing barrier-free curb ramps and tactile warning plates in pedestrian circulation routes at all intersections and driveway crossings.
- facilitating connections between adjacent properties to support circulation between sites (if applicable);
- the provision of specialty paving enhancements such as distinctive colour and/or texture that:
 - assist in wayfinding,
 - compliment and enhance the architectural style and façade treatments of proposed and/or existing buildings,
 - define main pedestrian priority routes including arrival and entry areas,
 - establish a hierarchy of publicly accessible pedestrian spaces within the development,
 - highlight appropriate pedestrian roadway crossings, and
 - define and enhance connections to and within amenity spaces such as courtyards, entry plazas, play areas, etc.

3.4 Parking Areas

Hard and soft landscape works within and adjacent to parking areas will:

- enhance the overall streetscape and pedestrian environment, providing variety and interest through well-designed arrangements of plant material including trees, shrubs, perennial and ornamental grasses in continuous beds;
- enhance and prioritize pedestrian circulation in, out and through parking areas;
- separate parking areas from internal driveways;
- utilize curbed islands and medians for planting areas and pedestrian circulation to minimize the extent of large, undefined parking areas and enhance wayfinding;
- provide sufficient space to support good growing conditions including sufficient soil volume to support the healthy establishment of trees;
- reduce the heat island impact and maximize the extent of shade through tree planting; and
- provide planting arrangements that avoid interference with light standards.

Plant species selected for use in parking areas will:

- be selected for drought resistance and salt tolerance;
- screen headlights from adjacent properties at the perimeter of the proposed development where necessary;
- provide consideration for the protection of vehicular sight lines and the safety of pedestrians and motorists, especially at entrances into underground parking structures; and
- include consideration for winter snow clearing requirements and salt damage along bed edges.

Parking Areas illustrated on landscape plan proposals will:

- incorporate the Town of Whitby Accessible Parking (Proposed and Retrofit) Standard 413.0 into the Details page of a Landscape plan submission; and
- consider the incorporation of low impact development (L.I.D.) measures such as bioswales, rain gardens, permeable pavement and other sustainable design initiatives as appropriate.

3.5 Crime Prevention through Environmental Design (CPTED)

Landscape works proposed as part of a development application will promote a safe, active, and pedestrian friendly community that incorporates the principles of **Crime Prevention through Environmental Design (CPTED).** Landscape works will not create areas hidden from public view.

Proposed landscape works will:

• promote a safe, pedestrian friendly community;

- distinguish between public and private space through the strategic design and placement of proposed plantings, fencing and pedestrian amenities;
- provide well-lit, enhanced building entries that are visible from and wellconnected to adjacent pedestrian circulation routes;
- provide adequate pedestrian-scale lighting to ensure pedestrian comfort and safety;
- provide clear sightlines at all intersections and sight triangles;
- maintain clear views of signage; and
- provide for the visual overlook of public spaces within the development.

4.0 Design Criteria for Landscape Works in Subdivision Development Proposals

4.1 Requirements for Landscape Works

Landscape works required as part of a proposed Subdivision Development application are intended to unify the appearance of the proposed development, establishing a neighbourhood identity and sense of place with streetscapes that emphasize active and comfortable pedestrian-scaled environments shaded by trees that contribute to the Town's urban forest canopy. Landscape works in subdivision development proposals will reflect the Town's commitment to building a resilient and sustainable community through the implementation of the Whitby Green Standard.

Landscape works will reflect the requirements of the associated Subdivision Agreement. Landscape requirements generally described in the Agreement may include:

- Conditions of Draft Plan Approval;
- street trees in the public right-of-way (refer to 4.2);
- buffer planting along open frontages such as window streets, or adjacent to schools, open spaces or utility areas (refer to 4.3);
- landscape treatment at roundabouts (refer to 4.4);
- legislated types of fencing, such as acoustic and/or other fencing types separating public from private property (refer to 4.5), or
- fencing that fulfills a specific urban design function (refer to 4.5);
- stormwater management facility block plantings and landscape works (refer to 4.6);
- open spaces, edge management, restoration and enhancement planting (refer to 4.7),
- recreational trail requirements (refer to 4.7.1); and
- woodland and/or tree preservation and protection related works, including hazardous tree pruning and/or removals, removal of existing structures or features from natural areas refer to 4.8).

Requirements for additional landscape works will be detailed in the associated Subdivision Agreement as determined through associated studies, reports, and input from internal and external agencies.

Detailed requirements for the design of recreational open spaces such as trails, open spaces, or municipal park areas will be determined by the Towns Community Services (Parks)

Department. Detailed design submissions for these areas will be coordinated with subdivision landscape plan submissions. Review and final approval of park and trail portions of subdivision landscape plans will be provided separately through the Towns Community Services (Parks) Department.

4.2 Street Tree Requirements

Street trees will be provided in every development proposal. Street trees will be located on the boulevards in accordance with Chapter 5: Recommended Tree Species as well as the Design Criteria and Engineering Standards, Public Works Department, <u>Section 400 Geometrics</u>, and in accordance with the following guiding criteria:

Species Selection:

- species selection will be appropriate for the conditions at the planting location including consideration of available planting space and soil conditions, setback requirements, overhead utilities, sight lines, etc.;
- species selection will be predominantly large canopy shade trees wherever possible to maximize the urban forest canopy, reduce the urban heat island effect and enhance pedestrian comfort;
- ornamental, small flowering trees or trees with a more upright form will only be utilized where space is restricted, such as adjacent to street lights or where particular effects are warranted, such as at key intersections or within entry areas to characterize neighbourhood gateway locations;
- street tree species selection shall maximize species biodiversity with a preference for the use of native species, especially those species that are tolerant of urban conditions (pollution, salt, drought, soil compaction); at least fifty percent (50%) native species is required unless otherwise approved by the Town;
- the use of invasive species is not acceptable; and
- species with particular locational requirements, such as distances from adjacent driveways, will be located accordingly.

Spacing Requirements:

- spacing of street trees will reflect the growth habits of the particular species;
- large shade trees will be provided at seven to ten metre spacing;
- small flowering trees will be provided five to seven metres apart in locations where space is restricted, such as adjacent to light standards;
- open frontages, service lanes, parks and open space/woodlot and school block frontages will be provided with a minimum of one street tree per eight linear

metres (unless identified as a "buffer" planting area with closer planting density or other specific requirements); and

• street trees may be required to be planted at closer intervals, with larger sized stock, and/or in greater quantities at the discretion of the Town.

Design and Layout Considerations:

- a minimum of one street tree will be provided for every frontage considered for planting unless site conditions determine otherwise;
- a minimum of two street trees will be provided for every flankage considered for planting unless site conditions determine otherwise;
- monoculture arrangements of street tree species is not acceptable;
- groupings of the same species will be confined to a maximum of five to eight trees of the same species in one area;
- minimum 3.5 metre wide space between adjacent driveways is required to provide street trees between adjacent driveways in a boulevard;
- minimum 1.5 metre depth of municipal boulevard space is required for street tree planting;
- planting of street trees within a drainage swale or easement is not permitted;
- street trees may be required to be planted at closer intervals, planted at an larger caliper size, and/or in greater quantities if a desired effect or specific purpose is identified by the Town of Whitby (such as buffer planting areas, etc.).

4.3 Buffer Planting Requirements

Buffer planting will be provided in accordance with the requirements of the associated Subdivision Agreement "Schedule C: Appendix III: Buffer Planting". The location and species proposed for buffer planting will be illustrated and labelled on plan drawings.

Buffer planting arrangements will reflect one of the following descriptions:

1. densely-planted deciduous and coniferous trees informally arranged on landscaped berming (shrubs are not typically required, unless specified by the Planning and Development Department)

OR

2. densely-planted formal arrangements of street tree plantings provided with 50% deciduous and 50% coniferous trees (where appropriate)

"Densely planted" is defined as a closely spaced arrangement of tree groupings that will provide a connected canopy, often functioning as a visual barrier or screen between adjacent land uses. Buffer planting will be provided in accordance with the following criteria:

- deciduous trees will generally be located with six metre spacing depending on species and desired effect;
- coniferous trees will be generally spaced at four to eight metre spacing, depending on species and desired effect;
- low-maintenance, naturalized mixed-species planting arrangements that include coniferous and deciduous shrub groupings (minimum double staggered rows) arranged together with trees in large, continuous mulched beds may be considered for buffer planting in areas requiring additional screening; and
- The Living Wall may be considered appropriate in locations where buffer treatment is desirable and will be located wholly on private property.

4.4 Roundabout Planting Requirements

Landscaping is a key feature of roundabouts and can enhance the identity, function and aesthetics of an intersection. Landscape works provided in roundabouts will provide consideration for the following general requirements:

- planting arrangements will be simple and visually appealing, provide seasonal interest and emphasize low maintenance design and species selection;
- plant material species will be selected for their suitability to the location and conditions at each roundabout, including soil volume, drought resistance, exposure to road salt, radiant heat, and wind;
- plant material will be provided in accordance with the requirements of Standard Detail 755: Plant Material Standards and Specifications;
- plant material will be installed into continuous mulched beds and with reduced spacing requirements and at sufficient density to facilitate the efficient establishment, reduced watering requirements and to discourage weeds;
- planting beds will reflect the requirements of Detail Standard 753: Topsoil Notes;
- plant material will be arranged to protect for clear access to utilities or other infrastructure (manholes, signage, etc.);
- landscape works will not encourage pedestrian traffic to or through the central island; and
- any fixed objects or features, monuments or public art will be designed to be enjoyed from a distance, located in the high landscape zone, and outside of sight triangles.

Landscape works in roundabouts will also be arranged in accordance with the following considerations:

4.4.1 Low Zone (outer 2.0 metres of central island per TAC Guide)

- arrangements of plant material in this area are restricted to low ornamental grasses, dwarf and spreading shrubs or groundcovers with a maximum height of 0.6 m height in order to maintain sightlines for circulating traffic and provide clear visibility to traffic control signs;
- consideration may be provided for the use of low-maintenance ornamental mulch treatments in this area; and
- fixed objects, such as sculptural elements or public art, will not be located in low zones.

4.4.2 High Zone (central portion of central island)

- this area of a roundabout is typically graded to provide a mound of sufficient height to contribute to limiting sight lines;
- plant material will be of greater height to block sightlines through the middle of the central island, and will include trees;
- coniferous tree species are preferable to deciduous trees to provide year-round visual screening; and
- consideration for the provision of vertical elements in this zone requires the approval of Town and may include vertical structures, monuments and/or public art.

4.5 Fencing Requirements

Fencing will be provided in accordance with the requirements of the associated Subdivision Agreement "Schedule C: Appendix II: Fencing" and the <u>Town of Whitby</u> <u>Fencing By-Law 4394-99</u>, as amended.

The location, type, height and material of proposed fencing and screens will be illustrated and labelled on plan drawings. Labels will include a reference (at each location) to an associated construction detail. Details will reflect the requirements of the appropriate Town of Whitby Engineering Standards (current edition).

4.5.1 Fencing Style and Location Criteria

Proposed fencing will reflect the following criteria:

- acoustic fencing will be:
 - located in accordance with the requirements of the Noise Report for the associated Subdivision Agreement, with posts located wholly on private property; and

- provided in accordance with the Engineering Standard Detail 506.00:Wood Acoustic Fence and 506.10:Wood Acoustic Fence Notes.
- perimeter black vinyl chain link fencing will be provided:
 - at a minimum 1200 mm height adjacent to municipal lands that abut private property including Parkland, Open Space and overland flow / walkway blocks unless otherwise indicated by the Town;
 - generally at 1800 mm height adjacent to Durham District School Board lands adjacent to residential properties (alternative use of galvanized fabric will be at the discretion of the School Board);
 - with the posts centered on the shared property line and the chain link fabric adjacent to the publicly owned property;
 - in accordance with the relevant Engineering Standard Detail 506.30:1200 mm High Black Vinyl Coated Chain Link Fence and/or 506.40:1800 mm High Black Vinyl Coated Chain Link Fence
- **1.0 metre height decorative fencing** may be required at the discretion of the Town in accordance with the following criteria:
 - typically located across the public frontage of higher density development, in locations where a high order of urban design is required or where it contributes to the character or identity of a development and the surrounding streetscape;
 - with posts and fencing panels located wholly on private property;
 - with gates, when provided, opening internally into the private property; and
 - construction details will include detailed product information, including product reference number, name of supplier, colour and finish and any other relevant information.
- **1.8 metre height solid panel wood privacy fencing and/or screens** may be required at the discretion of the Town;
- corner lots are generally not required to be fenced unless otherwise indicated by the Town; and
- **Divisional fencing** (fencing between two adjacent private properties) is generally not required.

4.5.2 Pillars and/or Entry Feature Gateway Requirements

The use of masonry pillars and constructed gateway entry features is discouraged within subdivision developments. These features are not permitted within the public right-of-way. In the event a Subdivider chooses to implement gateway entry features, the private lots supporting the structures will be sized to accommodate these

proposed structures and/or landscaping.

4.6 Stormwater Management Facility Block Requirements

The provision of a detailed landscape plan for proposed Stormwater Management Facility Blocks may be included as a condition of a subdivision agreement. Plans will be provided in accordance with the recommendations of the <u>Ministry of the</u> <u>Environment Stormwater Management Planning and Design Manual (2003, or as</u> <u>amended).</u> A stormwater management facility block landscape plan shall be included as an integral part of an approved subdivision landscape plan package.

Stormwater Management Facility Block Landscape Plans will illustrate and label locations and features including:

- stormwater inlets and outlets, emergency spillways, safety benches;
- access roadways for cleanout and maintenance; and
- active pool and permanent pool elevations.

4.6.1 Topsoil Requirements

Topsoil will be provided in accordance with

- the requirements of the MOE Stormwater Management, Planning and Design Manual, with a minimum depth of 450 mm depth provided in upland areas that are to be planted, and
- the requirements of the Town of Whitby Design Criteria and Engineering Standards, Section G5.00 and
- the requirements of Detail Standard 753: Topsoil Notes.

4.6.2 Plant Material Requirements

Plant material provided in stormwater management facility blocks will generally comply with the requirements of Standard Detail 755: Plant Material Standards and Specifications, as well as the following criteria:

- plant material will include a variety of ecologically appropriate species including deciduous and coniferous trees, shrubs, fringe, aquatic, sub-aquatic and seed species;
- plant material will be provided with 50% native species identified in an associated Plant List;
- plant material will be arranged to reflect natural plant associations;
- plant species will be selected to suit the site conditions (slope, drainage, aspect, soil conditions, etc.);

- plant material selection will provide consideration for low maintenance;
- plant material selection will provide consideration for adjacency to natural heritage areas, woodlands and/or other sensitive natural environments and avoid aggressively seeding, spreading and/or invasive species;
- deciduous trees will be provided with:
 - 50% at 60 mm caliper size, and
 - 50% at 40 mm caliper size,

or

- a mix of 30% 40 mm caliper stock and 20% whips, where appropriate and previously approved.
- coniferous trees will be provided with
 - 50% at a minimum height of 1800 mm
- Shrubs will be provided with potted material as follows:
 - deciduous shrubs at minimum 300 mm height, and
 - 450 mm spread for coniferous shrubs.
- Aquatic species will be provided by native, non-invasive species, including emergent and marginal perennials and submergent aquatic species; and
- Live Stake materials will be provided by locally sourced materials collected during dormancy for planting within 24 hours of collection.

4.6.3 Seeding Requirements

Stormwater management facility blocks will be top-soiled, fine graded and seeded in accordance with the following criteria:

- terra-seeding is the preferable method of seed application, however, hydro seeding is the minimum standard;
- sodding is typically not appropriate in stormwater management facility areas but may be required in mow strips adjacent to internal trails or access roadways;
- seeding shall be provided in any wet meadow areas and any areas not seasonally flooded, including between continuous shrub beds and tree plantings in upland areas; and
- rehabilitative and other appropriate native seed mixes shall be detailed, including species with botanical names, percentage composition, details regarding application methods and rates.

4.6.4 Planting Plan Requirements

- trees and shrubs will be planted above the five-year water level;
- plant material will be provided in sufficient quantity and planting density to screen and discourage public access;
- bio-engineering measures may be proposed where appropriate;
- sediment drying areas will be clearly identified on plans, and seeded only;
- **shrubs** will be located:
 - above the permanent pool elevation,
 - in continuous, mulched planting beds with a minimum double row with a staggered planting arrangement,
 - to provide a minimum 1.5 metre setback from adjacent access roads and trails, and
 - to provide spacing appropriate to the ultimate size and form of the species. (spacing requirements will be identified on the associated Plant List).
- coniferous trees, and spreading or suckering vegetation will be located to provide a minimum three metre setback from adjacent private property, the road right-ofway, internal access roads and trails; and
- deciduous trees
 - will be located to provide a minimum three metre setback from adjacent internal access roads and trails, and
 - will be provided with wire tree guard cages for rodent protection.

4.6.5 Planting Detail Requirements

The following standard Town Landscape planting details will be included in Landscape Plan submissions where stormwater management pond facility blocks are included:

- 711: Coniferous Tree Planting
- 712: Shrub Planting and Layout
- 716: Deciduous Tree Planting with Rodent Cage
- 718: Deciduous Tree Whip Planting with Rodent Cage
- 719: Live stake Planting (where applicable)
- 720: Fringe and Aquatic Plantings

Additional planting and/or other details may be required depending on the scope and extent of proposed landscape works. Town standard details will be utilized when available and appropriate.

4.6.6 Stormwater Management Facility Block Recreational Trail Requirements

Stormwater management facility blocks are not intended for recreational purposes. Trail connections through a facility will only be permitted by the Public Works Department when they are part of a larger overall planned recreational trail network, and will not be permitted to "loop" around the facility.

If a trail through a stormwater management facility block is proposed, Public Works and Community Services (Parks) will be advised at the draft plan review stage to ensure that the block is sized appropriately to accommodate an area that is safe for pedestrian use.

Where recreational trails are to be provided within stormwater management facility blocks, they will be designed and located in accordance with legislated requirements including Design of Public Spaces, O. Reg. 413/12, as well as the standard details and guideline requirements of Public Works, Community Services (Parks) and Accessibility. Connections at intersections with right-of-ways will be provided with drop curbs.

A minimum 2.0 m wide mowing strip will be provided wherever possible adjacent to recreational trails provided through stormwater management pond facility blocks. No additional plant material will be proposed within this setback.

4.7 Open Spaces, Edge Management, Restoration and Enhancement Requirements

4.7.1 General Planting Requirements

A detailed landscape plan will be provided for Edge Management and/or Restoration Planting in accordance with the requirements of the associated subdivision agreement. This type of planting is typically required adjacent to woodland areas where the vegetation protection zone (VPZ) may be disturbed or require enhancements. Review and approval of these plans will include consideration by Central Lake Ontario Conservation (CLOC) as well as the Ministry of Natural Resources (MNR), where required. An Edge Management/Restoration Plan will be included as an integral part of the landscape plan submission and approval requirements of a proposed subdivision development.

Planting plans in these areas will provide a mix of informally arranged plant material that includes a variety of native trees, shrubs, and seeding. Plant material will reflect the minimum requirements of Landscape Standard Detail 755: Plant Material Standards and Specifications and the following criteria:

 plant material will be arranged with sufficient density, size and quantity to screen and discourage public access to these and any adjacent protected areas;

- plant material, including seed mixes will be primarily composed of native species;
- seeding will be provided in accordance with the requirements of 4.6.3;
- sodding is typically not required in edge management areas, except in specific circumstances, such as drainage swales or adjacent to trail or other specific features as directed by the Town; and
- tree protection and preservation measures will reflect the requirements of an associated EIS, EIA, Arborist Report and/or tree preservation plan.

4.7.2 Recreational Trail Requirements

General Requirements:

Open space areas may also be used to provide active recreational trail facilities that enhance connections to existing and planned active transportation networks and Parks through the development and the Town. The requirement for the provision of recreational trails will be identified through consultation with the various commenting agencies during the preconsultation stage.

If a trail is proposed, CLOC (Central Lake Ontario Conservation), Community Services (Parks), and Public Works will be advised at the draft plan review stage to ensure that the block is sized appropriately to accommodate appropriate setback and planting requirements, as well as providing an area that is safe for pedestrian use.

The following general criteria will guide trail location and design, however, detailed requirements for each circumstance will be based on the specific requirements of the associated subdivision agreement as well as the guidance and review of proposed Landscape Plan submissions by Community Services (Parks):

- recreational trails will be designed and located in accordance with legislated requirements including Design of Public Spaces, O. Reg. 413/12, as well as the standard details and guideline requirements of Community Services (Parks), Public Works Design Criteria and Engineering Standards, and the Towns Accessibility Guidelines;
- accessible bench seating areas will be provided at a rate of a minimum 3 per kilometer of trail and the associated Community Services (Parks) standard detail "Rest Area Design" will be included in the landscape plan submission;
- asphalt rest areas will be provided in between accessible bench seating areas, alternating on each side of trail every 150 metres, maximum and the associated Community Services (Parks) standard detail "Concrete Bench Pad/Bench with Curb" will be included in the landscape plan submission;
- Timber Guardrail will be utilized at all locations where grades adjacent to the trail slope greater than 30%;

- P-Gates will be added at all trail intersections with streets and right-of-ways if there is a curb-cut and roadway crossings. Trails that terminate at sidewalks without road crossing typically do not require p-gates. The associated Community Services (Parks) standard detail "Barrier P-Gates-Offset Alignment" will be included in the landscape plan submission; and
- Landscape Plan submissions with proposals for recreational trails will include and reflect the requirements of Detail 754: Buffer Planting, General Sidewalk, Multi-Use Path and Trail Notes.

Planting Requirements:

Trees

- deciduous and coniferous trees will be provided in accordance with the requirements of 4.6.2; and
- Acer species will be limited to no more than 10% of the proposed tree species.

Shrub and Perennial Planting

- plantings will be grouped into nodes/islands rather than long linear strips;
- proposed shrubs and trees will be planted a minimum of 1.5m away from the edge of the asphalt to ensure the plants will not overgrow the mown edge and trail;
- all disturbed areas will receive a mix of native potted shrubs and perennials (excluding trees in this calculation) to provide shrub and perennial plantings spaced at 75% of their expected mature diameter and covering 75% of the total disturbed area;
- proposed shrub and perennial planting mix will be comprised of 75% shrubs and 25% perennials;
- perennials will be comprised of 70% wildflowers and 30% grasses;
- native and pollinator-friendly shrubs and perennials will be included in mix;
- Plant material sizes to be:
 - Perennials: minimum 1 gal (potted)
 - Shrubs: minimum 60cm (potted); and
- mulch will be specified as arborist's freshly chipped tree mulch.

Seeding

• a commercially available seed mix suitable to the specific planting environment will be provided for all disturbed areas;

- the proposed seed mix will be specified that provides a diverse native species mix and include all milkweed species, such as:
 - OSC's Short Upland Trail Native Seed Mixture 8255 and/or
 - Rural Ontario Roadside Native Seed Mixture 8145;
- seeding will be completed by pneumatic terraseeding (hydraulic seeding is not acceptable);
- a terraseeding specification will be included in the landscape plan;
- seed and topsoil mix will be blown over all disturbed areas and around all planted shrubs and perennials; and
- depth of composted soil/seed mix will vary dependent upon the slope as follows:
 - 0-25% slopes: 20-25 mm depth
 - 26% and greater slopes: 50 mm depth

4.8 Tree and Woodland Protection Requirements

Requirements for submissions of Tree Inventory, Arborist Report and Tree Preservation and Protection Plans (TPP) are determined through the development application process. General requirements will be identified at the preconsultation stage through consultation with the Town and other relevant agencies, such as Central Lake Ontario Conservation (CLOC), and Durham Region.

When subdivision development is proposed in proximity to a woodland, preliminary studies and reports may be included in initial development application requirements. Submission requirements may include an Environmental Impact Study (EIS), Natural Heritage Evaluation, Woodland Evaluation, Vegetation Assessment/Management Plan and/or other Studies. A more detailed discussion of these requirements is provided in the Planning and Development Department publication "Development and Woodlands in Designated Areas".

Preparation of Tree Protection Plans and report submissions will be guided by the Planning and Development Department publication **Tree Protection Requirements for New Developments**. Requirements for TPP may be partially satisfied through the submission of preliminary studies and reports.

Landscape plan submissions for subdivision development proposals will reflect the requirements of these preliminary studies and reports. Plans will typically illustrate, label and reference information that describes:

 the vegetation protection zone (VPZ) identified through the EIS/EIA, as well as any legislated setback requirements (NHS/natural heritage systems, natural hazard areas, woodlands, wetlands, endangered species, etc.);

- the surveyed dripline of any individual existing trees or vegetation to be retained and protected, relocated or removed, including endangered species, hazard and boundary trees;
- existing and proposed grades at the base of individual or groupings of trees to be protected and preserved; and
- the location, type and construction detail of tree protection measure(s), including temporary protective fencing, silt fencing, signage, vegetation management plan recommendations and/or any additionally required measures, (restoration/edge management/enhancement planting, wildlife enhancement measures, etc.).

5.0 Recommended Tree Species

The creation and maintenance of a healthy, diverse and sustainable urban forest that reflects the needs of the community is the principal objective guiding tree species selection in the Town of Whitby. This species list will assist Developers in preparing landscape plan submissions associated with development applications, as well as Town staff that provide tree planting services to the Whitby community. Species recommendations are regularly reviewed and updated by Town staff including Public Works: Operational Services (Forestry), Planning and Development, and Community Services (Parks).

Species recommendations are for locations on municipal property, including:

- Boulevards and road allowances,
- Parks and Open Space Blocks,
- Edge Management, Restoration and Enhancement Planting areas,
- Stormwater Management Pond Facility Blocks, and
- Roundabouts.

Additional information about the criteria for these locations is discussed in Chapter 4: Design Criteria for Landscape Works in Subdivision Development Proposals.

Species recommendations are based on the following criteria:

- Hardiness Zones (5b-6a),
- Soil Chemistry,
- Inventory of trees on Town property, and
- Experience.

5.1 Species Diversity

Tree species diversity is a common indicator of urban forest health. A broader diversity of tree species guards against the possibility of large-scale devastation by both native and introduced pests and diseases. Species diversity within a neighbourhood will ideally reflect the "10-20-30" rule of acceptable diversity proposed by Santamour (1990), whereby:

- no tree species exceeds 10% of the inventory,
- no tree genus exceeds 20% of the inventory, and
- no tree family exceeds 30% of the inventory.
 - Monoculture arrangements of trees are NOT acceptable
 - Groupings of the same species will not exceed 8

5.1.1 Requirements for Native Species Selection

Native species are encouraged in locations with conditions that support and promote healthy growth. Selection of native plant material will provide consideration for the requirements associated with the local ecodistrict. Ecodistricts are areas of land and water defined by physical features, including bedrock, surface geology and topography as well as local climate patterns, due to elevation and latitude. These features play a major role in determining patterns of species presence, association and the habitats that develop.

The Forest Gene Conservation Association identifies the Whitby area as Ecodistrict 6E-13 (Oshawa-Cobourg). The characteristics of this region are deep, tills, often drumlinized and water-sorted sands and gravels associated with the south slope of the Oak Ridges Moraine and the Lake Iroquois Plain.

More information and a list of native species appropriate for the Whitby Ecodistrict is available on their website (<u>www.fgca.net</u>).

5.2 Tree Specifications

Tree planting works will be completed in accordance with the requirements of the Landscape Standard Detail 755: Plant Material Standards and Specifications.

Capital planting works will be completed in accordance with the following additional criteria:

- recommended caliper for deciduous trees is 30mm to 60mm (or as specified);
- recommended height for evergreen trees is 100 cm to 200cm (or as specified)

For additional information, please contact the Town of Whitby Public Works Department, Operational Services (Forestry) at (905) 668-3437 or <u>Operations:</u> Forestry.

5.3 Recommended Tree Species List

The following pages identify species recommendations. Species are organized by botanical name, recommended planting location, digging and planting times, and species status as native. Requests for adjustments to recommended cultivars, locations or consideration of alternate species requires consultation with Town staff.

Species (botanical name)	Planting Location	Digging Time
Deciduous Trees		
Acer campestre	Nrb, Rb, P, Os, H	Spring, Fall
Acer X freemanii 'Marmo'	Nrb, Rb, P, Os	Spring , Fall
Acer ginnala + cultivars (tree form)	Nrb*, Rb*, H*	Spring , Fall
Acer griseum	P*, 0s*	Spring
Acer miyabei 'Morton'	Nrb*, Rb*, P*, Os*	Spring , Fall
Acer nigrum + cultivars	Nrb, Rb, P, Os, SWMP, EM/RA	Spring , Fall
Acer platanoides 'Columnare'	Nrb*	Spring , Fall
Acer platanoides 'Crimson King'	Nrb*, Rb*	Spring , Fall
Acer platanoides 'Deborah'	Nrb*, Rb*	Spring , Fall
Acer platanoides 'Emerald Lustre'	Nrb*, Rb*	Spring , Fall
Acer rubrum ┿ + cultivars	P, Os, SWMP, EM/RA	Spring
Acer saccharinum ┿ + cultivars	Nrb, Rb*, P, Os, SWMP, EM/RA	Spring
Acer saccharum 🌞 + cultivars	Nrb, Rb, P, Os, SWMP, EM/RA	Spring , Fall
Acer tataricum + cultivars	Nrb, Rb, H	Spring , Fall
Aesculus X carnea	Nrb*, Rb*, P, Os,	Spring
	(minimum of 5m from driveway)	

Notes: 1. 🕈 Native Species

- 2. Pyramidal and Columnar tree forms are not permitted within residential boulevards
- 3. Variegated species are not permitted

Planting Location:

- Nrb: Non-residential boulevard (park frontage, window street, industrial/commercial, etc.)
- Rb: Residential boulevard *(species in italicized bold)*
- P: Parks
- Os: Open spaces
- H: Under overhead power lines / locations where a small canopy is required
- SWMP: Storm Water Management Pond facility blocks

EM/RA: Edge Management / Restoration Areas

* Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Aesculus glabra	Nrb*, Rb*, P, Os, (minimum of 5m from driveway)	Spring
Aesculus hippocastanum	Nrb*, Rb*, P, Os, (minimum of 5m from driveway)	Spring
Aesculus hippocastanum 'Baumanii'	Nrb*, Rb*, P, Os	Spring
Alnus incana 🍁	Nrb*, P, Os, (tree form on boulevards)	Spring
Amelanchier arborea 🌞 + cultivars	P, Os, EM/RA	Spring , Early Fall
Amelanchier canadensis + cultivars	Nrb, Rb, P, Os, H, EM/RA (tree form on boulevards)	Spring , Early Fall
Amelanchier grandiflora +cultivars	Nrb, Rb, P, Os, H, (tree form on boulevards)	Spring , Early Fall
Amelanchier laevis 🍁 + cultivars	Nrb, Rb, P, Os, H, (tree form on boulevards)	Spring , Early Fall
Betula alleghaniensis 🌞	SWMP, EM/RA	Spring
Betula nigra 'Riversii'	P*, Os*	Spring
Betula papyrifera 🌞	P*, Os*, SWMP, EM/RA	Spring
Carpinus betulus 'Fastigiata'	P, Os	Spring
Carpinus caroliniana 🌞	P, Os, SWMP, EM/RA	Spring
Carya cordiformis 🌞	P*, Os*, SWMP, EM/RA	Spring

Notes: 1. 🍁 Native Species

- 2. Pyramidal and Columnar tree forms are not permitted within residential boulevards
- 3. Variegated species are not permitted

- Nrb: Non-residential boulevard (park frontage, window street, industrial/commercial, etc.)
- Rb: Residential boulevard *(species in italicized bold)*
- P: Parks
- Os: Open spaces
- H: Under overhead power lines / locations where a small canopy is required
- **SWMP:** Storm Water Management Pond facility blocks
- EM/RA: Edge Management / Restoration Areas
- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Carya laciniosa	SWMP	Spring
Carya ovata 🌞	P*, Os*, SWMP, EM/RA	Spring
Catalpa speciosa	Nrb*, Rb*, P, Os (minimum of 5m from driveway)	Spring , Fall
Celtis occidentalis 🍁 + cultivars	Nrb, Rb, P, Os, EM/RA	Spring, Early Fall
Cercidiphyllum japonicum	P*, 0s*	Spring
Cercis canadensis	P*, Os*, EM/RA*	Spring , Early Fall
Cladrastis lutea	Nrb*, Rb*, P*, Os*	Spring
Cornus alternifolia 🌞	P*, Os*, EM/RA*	Spring
Cornus florida	P*, 0s*	Spring
Corylus colurna	Nrb, Rb, P, Os	Spring, Early Fall
Crataegus 🍁 spp.	SWMP	Spring
Crataegus crusgalli var. inermis	P*, 0s*	Spring
Fagus grandifolia 🌞	P*, Os*, EM/RA	Spring
Fagus sylvatica + cultivars	P*, 0s*	Spring
Ginkgo biloba + cultivars (male only)	Nrb, Rb, P, Os	Spring, Early Fall
Gleditsia triacanthos cultivars	Nrb, Rb, P, Os	Spring , Fall

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- EM/RA: Edge Management / Restoration Areas
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Species (botanical name)	Planting Location	Digging Time
Gymnocladus dioicus + cultivars	Nrb, Rb, P, Os	Spring , Early Fall
Juglans nigra	Nrb*, Rb*, P, Os (minimum of 5m from driveway)	Spring
Juglans cinerea 🌞	P*, Os*, EM/RA	Spring
Liriodendron tulipifera	Nrb, Rb, P, Os	Spring
Liriodendron tulipifera 'Emerald City'	Nrb, Rb, P, Os	Spring
Liriodendron tulipifera 'Fastigiata'	P, Os	Spring
Magnolia acuminate	Nrb*, Rb*, P*, Os*	Spring
Malus 'Harvest Gold'	Nrb, Rb, P, Os, H (minimum 4m from driveway/sidewalk)	Spring , Fall
Malus 'Prairefire'	Nrb, Rb, P, Os, H (minimum 4m from a driveway/sidewalk)	Spring , Fall
Malus 'Robinson'	Nrb, Rb, P, Os, H (minimum 4m from a driveway/sidewalk)	Spring , Fall
Nyssa sylvatica	Nrb*, Rb*, P*, Os*	Spring
Ostrya virginiana 🌞	P*, Os*, SWMP, EM/RA	Spring
Phellodendron amurense 'Macho'	Nrb*, Rb*	Spring
Platanus X acerifolia	Nrb, Rb, P, Os	Spring, Early Fall
Platanus X acerifolia 'Exclamation'	Nrb, Rb, P, Os	Spring, Early Fall

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- P: Parks
- Os: Open spaces
- H: Under overhead power lines / locations where a small canopy is required
- **SWMP:** Storm Water Management Pond facility blocks
- EM/RA: Edge Management / Restoration Areas
- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Platanus X acerifolia 'Bloodgood'	Nrb, Rb, P, Os	Spring, Early Fall
Platanus occidentalis	Nrb, Rb, P, Os, SWMP	Spring, Early Fall
Populus balsamifera 🌞	P*, Os*, SWMP, EM/RA	Spring
Populus deltoides 🌞	P*, Os*, SWMP, EM/RA	Spring
Populus tremuloides 🌞	P*, Os*, SWMP, EM/RA	Spring
Prunus nigra 🍁	EM/RA	Spring
Prunus pennsylvanica 🌞	SWMP, EM/RA	Spring
Prunus serotina 🌞	SWMP, EM/RA	Spring
Pyrus calleryana + cultivars	P, Os	Spring
Pyrus calleryana 'Chanticleer'	Nrb, Rb, P, Os, H	Spring
Quercus alba 🌞	P*, Os*, SWMP, EM/RA	Spring
Quercus bicolor 🌞	P*, Os*, SWMP	Spring
Quercus macrocarpa 🍁	Nrb, Rb, P, Os, SWMP, EM/RA	Spring
Quercus muehlenbergii	Nrb*, Rb*, P, Os, SWMP, EM/RA*	Spring
Quercus palustris	SWMP	Spring
Quercus rubra ┿	Nrb, Rb, P, Os, SWMP, EM/RA	Spring

Notes: 1. **•** Native Species

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- SWMP: Storm Water Management Pond facility blocks
- **EM/RA**: Edge Management / Restoration Areas
- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Quercus robur	Nrb, Rb, P, Os	Spring
Quercus robur 'Fastigiata'	Nrb, P, Os	Spring
Quercus velutina 🍁	P*, Os*, SWMP*, EM/RA*	Spring
Rhus typhina 🍁	EM/RA	Spring, Fall
Salix nigra 🌞	SWMP	Spring
Sassafras albidum	P*, Os*, SWMP*, EM/RA*	Spring
Sorbus thuringiaca 'Fastigiata'	Nrb, Rb, P, Os (minimum 4m from a driveway/sidewalk)	Spring, Fall
Syringa reticulata + cultivars	Nrb, Rb , P, Os, H	Spring, Fall
Tilia americana ┿ + cultivars	Nrb, Rb, P, Os, SWMP, EM/RA (minimum of 5m from driveway)	Spring, Fall
Tilia cordata + cultivars	Nrb, Rb, P, Os (minimum of 5m from driveway)	Spring, Fall
Tilia cordata 'Summer Sprite'	Nrb, Rb, P, Os, H (minimum of 5m from driveway)	Spring, Fall
Tilia tomentosa 'Sterling'	Nrb, Rb, P, Os (minimum of 5m from driveway)	Spring, Fall
Ulmus americana 'Princeton"	Nrb*, Rb*, P, Os, SWMP	Spring, Fall
Viburnum lentago 🌞	Nrb*, P, Os, H*(tree form on boulevards)	Spring

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- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Zelkova serrata + cultivars	Nrb, Rb, P, Os	Spring
Coniferous Trees		
Abies balsamea 🍁	SWMP	Spring, Early Fall
Abies concolor	Nrb, P, Os	Spring, Early Fall
Juniperus virginiana 🌞	SWMP	Spring, Early Fall
Larix decidua	Nrb, P, Os	Spring, Early Fall
Larix laricina 🌞	Nrb, P, Os, SWMP	Spring, Early Fall
Metasequoia glyptostroboides	Nrb*, P*, Os*	Spring
Picea abies	Nrb, P, Os	Spring, Early Fall
Picea glauca 🍁	Nrb*, P, Os, SWMP, EM/RA	Spring, Early Fall
Picea mariana 🌞	SWMP	Spring, Early Fall
Picea pungens	Nrb, P, Os	Spring, Early Fall
Picea pungens 'glauca'	Nrb, P, Os	Spring, Early Fall

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- Os: Open spaces
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- SWMP: Storm Water Management Pond facility blocks
- EM/RA: Edge Management / Restoration Areas
- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

Species (botanical name)	Planting Location	Digging Time
Coniferous Trees, continued		
Picea pungens 'glauca'	Nrb, P, Os	Spring, Early Fall
Pinus nigra	Nrb*, P*, Os*	Spring, Early Fall
Pinus strobus 🍁	Nrb, P, Os, SWMP, EM/RA	Spring, Early Fall
Pinus sylvestris	Nrb*, P*, Os*	Spring, Early Fall
Pseudotsuga menziesii	Nrb*, P*, Os*	Spring
Thuja occidentalis 🍁	Nrb, P, Os, SWMP, EM/RA	Spring, Early Fall
Tsuga canadensis 🍁	SWMP, EM/RA	Spring

Notes: 1. + Native Species

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- Os: Open spaces
- H: Under overhead power lines / locations where a small canopy is required
- SWMP: Storm Water Management Pond facility blocks
- EM/RA: Edge Management / Restoration Areas
- * Limited use (Approval from Superintendent of Operations-Parks or designate required)

6.0 Inspection Requirements

It is the responsibility of the developer/applicant /consultant to contact the Landscape Inspector in the Planning and Development Department to request an Inspection for required landscape works that are financially secured for through an associated development agreement.

Inspection requests will identify the Site Plan or Subdivision development by the associated application file number (i.e. SW-YEAR-XX or SP-XX-YR) and address, as well as the following additional information:

- the purpose of the inspection,
- the proposed date and time of the inspection,
- the expected duration of the inspection,
- who will be in attendance at the inspection, and
- where the inspection is to take place (street address or landmark).

Inspections will occur in accordance with the following criteria:

- 1. Landscape works will be installed and inspected with reference to the requirements of the approved Landscape Plans, subject to any on-site adjustment as approved by the Town.
- 2. Inspections are subject to time of year and weather conditions.
- 3. Plant material is required to be inspected while in full leaf.
- 4. It is the responsibility of the developer to provide the contractor or other such sub-consultant with a copy of the approved landscape plan for reference.

6.1 Site Plan Development: Landscape Works Inspections

Inspections for satisfactory completion of required landscape works associated with approved Site Plan developments will be provided only upon FULL completion of the required landscape works, unless otherwise agreed to by the Town. Depending on the scope of the development, the Landscape Inspector may require confirmation of substantial completion to be submitted by the project Landscape Architect prior to scheduling an Inspection.

6.1.2 Warranty Requirements

Landscape works internal to the property limits do not have warranty requirements. A minimum one-year warranty period is required for landscape works external to the property. Following a satisfactory **Inspection for Completion**, the Landscape Inspector will initiate the required one-year warranty period for external landscape works, notifying the developer/applicant.

6.2 Subdivision Development: Street Tree and Planting Works Inspections

It is the responsibility of the project Landscape Architect to ensure that plant material is installed under ideal seasonal conditions and in accordance with the requirements of the approved Landscape Plan, as well as any additional requirements identified by the Town prior to installation. The Town reserves the right to adjust the quantity, location, and species based on on-site conditions such as available space, above ground utilities, intersection visibility, driveways, etc.

Street Trees:

Locations for street trees within subdivision developments will be confirmed on site by the project Landscape Architect with the Landscape Inspector. Inspections associated with street tree installation are described in more detail below, and include:

- 6.2.1 Initial Street Tree Layout
- 6.2.2 Street Tree Layout (follow-up, as necessary)
- 6.2.3 Inspection for Completion
- 6.2.5 Inspection for Acceptance
- 6.5 Inspection for Deficiency Works

Additional Planting Works:

Landscape planting works required in addition to street trees require an Inspection for Completion (6.2.3), an Inspection for Acceptance (6.2.5), and may also include Inspections of Deficiency Works (6.5, as necessary). These planting works include:

- stormwater management facility blocks;
- edge management and/or restoration;
- buffer planting;
- compensation planting; and/or
- roundabout or other feature area plantings.

A description of each type of inspection follows:

6.2.1 Initial Street Tree Layout

Inspections will include a representative from the Public Works Department as well as the Landscape Inspector and the project Landscape Architect. The purpose of this initial inspection is to confirm planting locations on site and coordinate the installation of the required Tree Pit Rooting Zone Public Works Standard Detail 514.0.

6.2.2. Street Tree Layout

Prior to the delivery of trees, street tree planting locations may require re-marking to confirm planting locations to the planting contractor. An on-site **street tree layout** inspection will be held with the project Landscape Architect and the Landscape Inspector. Ideally, the planting contractor will also be in attendance. Planting locations, species and any additional requirements will be reviewed at this meeting.

Both the initial (6.2.1) and follow-up (6.2.2) street tree layout inspections will:

- confirm individual locations for all street trees in accordance with the approved landscape plan and on-site conditions, and
- mark street tree locations with a painted 'dot' on the curb or sidewalk by the project Landscape Architect.

Prior to street tree planting, the following conditions must also be satisfied:

- street tree planting will occur prior to the installation of the top coat of asphalt,
- buildings on associated lots or blocks are complete,
- lots, blocks, and boulevards are graded and sodded,
- curb works are complete, and
- utility location stake-outs are completed.

6.2.3 Inspection for Completion

Once required planting works are completed (street trees and/or additional planting works) an **Inspection for Satisfactory Completion** is required to be undertaken by the project Landscape Architect and the Landscape Inspector. This inspection will be completed with regard for the following criteria:

- the project Landscape Architect and the Landscape Inspector reserve the right to investigate, inspect and reject any plant material, tree or procedure that does not meet the Town's minimum requirements;
- any damaged trees, including trees damaged during shipment or installation will be replaced or treated in accordance with proper horticultural standards as directed by the project Landscape Architect;
- acceptance of plant material at delivery will not impair the right of inspection and rejection during progress or at the completion of the work;
- trees showing signs of distress will be treated or replaced immediately, as directed; and
- unacceptable defects and deficiencies will include, but not be limited to, dieback, disease, lack of vigour in 50% or greater amount of the crown, poor form, improper or poor installation, topped crowns, etc.

6.2.4 Warranty Requirements

Following a satisfactory **Inspection for Completion** and receipt of the required **Inspection Report**, the Landscape Inspector will initiate the required one-year warranty period, notifying the developer/applicant and the project Landscape Architect.

6.2.5 Inspection for Acceptance

Prior to the expiry of the required warranty period, and while plant material is still in full leaf, It is the responsibility of the developer and/or the project Landscape Architect to request an **Inspection for Acceptance** of installed street trees and/or additional planting works. This inspection will be undertaken by the project Landscape Architect with the Landscape Inspector.

6.2.6 Subdivision Inspection Reporting Requirements

A detailed Inspection Report will be submitted by the project Landscape Architect to the Landscape Inspector within ten days of any inspection.

Inspection Reports will include the following information:

- lot number and/or municipal address,
- planting location (front/flankage/window street, etc.),
- site conditions that prevented or enabled street tree installation (light standard, hydrant, hydro transformer opening side, easement, servicing, additional space, etc.),
- species and quantity in accordance with the approved landscape plan, and
- species and quantity as per the street tree locate/installation.

6.3 Subdivision Development: Fencing Works Inspections

Fencing will be installed to reflect the requirements of the approved Landscape Plans, the associated acoustic reports (including any addendums or updates), as well as the subdivision agreement. Inspections for fencing works will be conducted in accordance with the requirements of the Public Works Department, and will include the Public Works Fencing Inspector, the project Landscape Architect and the fencing contractor. Please contact the Public Works Department for additional information.

6.4 Subdivision Development: Tree Protection and Hazard Tree Removals

Refer to "Chapter 5.0 Inspections, Monitoring and Financial Securities" in **Tree Protection Requirements for New Developments**.

6.5 Deficiency Works Inspection Requirements

Landscape works provided as part of site plan or subdivision development agreement requirements may be identified as unacceptable or deficient as a result of an inspection. Deficiencies will be identified by the Landscape Inspector and/or, in subdivision developments, by the project Landscape Architect. Depending on the scope and extent of the deficiencies, remedial and/or replacement works may be required, warranty requirements may be extended, and/or acceptance of completed works may be delayed. A follow-up inspection to confirm the satisfactory completion of any required deficiency works is typically required.

7.0 Administration of Financial Securities

7.1 Requirements for Financial Securities

Landscape works required as a condition of a subdivision or site plan agreement will be financially secured for. The intent of these securities is to ensure these works reflect the requirements of the approved landscape plans and are completed in a timely manner. The developer/applicant is required to provide these financial securities through an irrevocable, renewable Letter of Credit in accordance with the Town's policy for Letters of Credit.

The value of the financial security is based on the type of development (site plan or subdivision), the location of the proposed works (private or public lands) and the estimated cost for the installation of the required landscape works specified in the development agreement. Estimates for the value of landscape works are based on quantity, unit price and include 15% contingency and HST.

7.1.1 Site Plan Agreement Letter of Credit Values

Financial securities will be provided at 50% of the value for internal landscape works (on private property) and at 100% of the value for external landscape works (on public property).

A **Site Plan Cost Estimate Template** is available to assist consultants in the preparation of estimates for the value of required landscape works. Refer to **Appendix 1: Cost Estimate Template for Site Plan Development Application**.

7.1.2 Subdivision Agreement Letter of Credit Values

Financial securities will be provided at 100% of the value for the required landscape works.

7.2 Administration of Financial Securities

7.2.1 Site Plan Developments: Reduction and Release of Security Values

At the completion of a satisfactory **Inspection for Completion**, the Treasury Department will provide a full release of the associated Letter of Credit value for completed internal landscape works upon notification by the Planning and Development Department. Letter of Credit values for warrantied external works will be reduced to 20% of the current value. This value will be maintained for the duration of the warranty period and until a final satisfactory **Inspection for Acceptance**.

At the completion of a satisfactory **Inspection for Acceptance** and with notification from the Planning and Development Department, the Treasury Department will provide a full release of any remaining Letter of Credit values for completed external landscape works.

Consideration for partial reductions in Letter of Credit values require prior approval by the Planning and Development Department.

7.2.2 Subdivision Developments: Reduction and Release of Security Values

At the completion of a satisfactory **Inspection for Completion**, receipt of all required documentation, and notification from the Planning and Development Department, the Treasury Department will provide a reduction of the associated Letter of Credit values for completed landscape works. Letter of Credit values for these works will be reduced to 20% of the current value. This value will be maintained for the duration of the warranty period and until a final satisfactory **Inspection for Acceptance**.

At the completion of a satisfactory **Inspection for Acceptance**, the receipt of all required documentation, and notification from the Planning and Development Department, the Treasury Department will provide a full release of any remaining Letter of Credit values for completed landscape works.

7.3 Incomplete or Deficient Landscape Works

If required landscape works are incomplete or unsatisfactory, the Planning and Development Department will issue a deficiency letter to the developer/applicant. Letter of Credit values associated with these works will be retained until the deficiencies have been satisfactorily completed. The developer/applicant is responsible for arranging a follow-up Inspection for Completion with the Landscape Inspector. Once the Landscape Inspector has confirmed satisfactory completion of the incomplete or required deficiency works, the developer/applicant is eligible for a release of the Letter of Credit value associated with the deficiency works.

7.3.1 Non-Compliance

If any or all of required landscape works are not completed in accordance with the requirements of the associated development agreement, the Town of Whitby may, after proper due notice, establish a condition of non-compliance. Required landscape works will be completed by the Town using the posted securities to pay for this work in accordance with the terms and conditions of the associated development agreement.

7.3.2 Cash Contribution for Incomplete Works on Public Lands

Prior to final acceptance and full release of any remaining Letter of Credit values, landscape works required on lands in public ownership that are unable to be completed in accordance with the requirements of the associated development agreement due to site conditions may arrange to submit a cash contribution to the Town. The value of this cash contribution will be determined in consultation with the Planning and Development Department. Unit costs are reviewed to reflect current values and an additional 10% administration fee is typically included. Cash contributions are held by the Town in a reserve fund to complete the required landscape works as site conditions permit and in accordance with the requirements of the associated development agreement.

7.4 Required documentation

It is the responsibility of the developer to submit the following documentation to the Planning and Development Department to facilitate the reduction and release of Letter of Credit values associated with required landscape works:

7.4.1 Site Plan Development

Depending on the scope and complexity of the required landscape works, a **Letter of Substantial Completion**, prepared by the consulting Landscape Architect may be required to facilitate an Inspection for Completion.

7.4.2 Subdivision Development

- Statutory Declaration-submitted by the developer following a satisfactory Inspection for Completion/Acceptance confirming payment for the delivery and installation of the completed works and that no liens have been filed. This is required to be provided prior to any reductions in the Letter of Credit value associated with the completed landscape works.
- **Confirmation of Satisfactory Payment**-submitted by the contractor on their letterhead confirming payment for the delivery and installation of completed landscape works.

The following additional documentation is required for the acceptance of required landscape works and the final release of any remaining Letter of Credit values:

- Letter of Substantial Completion-submitted by the Landscape Architect confirming substantial completion of all required landscape works.
- "As-built" landscape plans submitted by the Landscape Architect as follows:
 - 5 paper copies (7 copies for development adjacent to or including a regional road), folded to 8.5" x 11" format, in numerical order with title block exposed
 - > 1 electronic drawing set in .pdf and .dwg format

8.0 Additional Resources

Landscape plans prepared as part of the submission requirements of a development application shall be guided by the most recent editions (or as amended) of the following policy, standard and guideline documents:

8.1 Town of Whitby Official Plan

Office Consolidation, July 2018

8.2 Town of Whitby Tree Protection Requirements for New Development 2020

8.3 Town of Whitby Design Criteria and Engineering Standards

Public Works Department, revision July 2019 (as amended)

8.4 Stormwater Management Planning and Design Manual

Ministry of the Environment 2003

8.5 Accessibility

- Integrated Accessibility Standards Regulation, O. Reg. 191/11
- Design of Public Spaces, 0.Reg.413/12
- Town of Whitby Accessibility Plan 2019 2022
- Town of Whitby Accessibility Standards Planning and Development Department, June 2005

8.6 Whitby Green Standard

8.7 Town of Whitby Lighting Guidelines

Planning and Development Department, November 2009

8.8 West Whitby Community Architectural / Urban Design Guidelines

April 7, 2016 and addendum November 13, 2017

8.9 Brooklin Urban Design and Sustainable Development Guidelines Town of Whitby, August 2018

8.10 Brooklin Heritage Conservation District Plan

Town of Whitby, Final Draft, July 30, 2007

8.11 Werden's Plan Neighbourhood Heritage Conservation District

May 2017, as amended

9.0 Appendices

Appendix 1: Cost Estimate Template for Site Plan Development Applications

Site Plan Development: Landscape Cost Estimate

Date:	Prepared by:	
Applicant:		
Whitby Development File No.:		
Project Name & Address:		

1.0 Hardscape Works (Internal)

Item	Description	Qty.	Unit	Unit Cost	Total
1.1	Unit Paving		sq.m.	\$	\$ 0.00
1.2	Concrete Paving		sq.m.	\$	\$ 0.00
1.3	Precast Concrete Patio Slabs		sq.m.	\$	\$ 0.00
1.4	Precast Concrete Pillars		each.	\$	\$ 0.00
1.5	1200mm Ht. Black Vinyl Chain Link Fence		Lm.	\$	\$ 0.00
1.6	1800mm Ht. Cedar Acoustic Fence		Lm.	\$	\$ 0.00
1.7	1000mm Ht. Decorative Metal Fence		Lm.	\$	\$ 0.00
1.8	Tree Protection Fence (Light Duty)		Lm.	\$	\$ 0.00
1.9	Tree Protection Fence (Heavy Duty)		Lm.	\$	\$ 0.00
1.10	Other (Specify)			\$	\$ 0.00
	(Subtot	al 1.0 Ha	rdscape W	/orks)	\$ 0.00

2.0 Softscape Works (Internal)

Item	Description	Qty.	Unit	Unit Cost	Total
2.1	Deciduous Trees @ 60mm Cal.		each.	\$	\$ 0.00
2.2	Coniferous Trees @ 1.8m Ht.		each.	\$	\$ 0.00
2.3	Deciduous Shrubs		each.	\$	\$ 0.00
2.4	Coniferous Shrubs		each.	\$	\$ 0.00
2.5	Perennials		each.	\$	\$ 0.00
2.6	Annuals		each.	\$	\$ 0.00
2.7	Topsoil, Fine Grade & Sod		each.	\$	\$ 0.00
2.8	Other (Specify)			\$	\$ 0.00
		(Subtotal 2.0 Soft	scape W	orks)	\$ 0.00

3.0 Site Furnishings (Internal)

Item	Description	Qty. Unit	Unit Cost	Total
3.1	Benches	each.	\$	\$ 0.00
3.2	Waste Receptacle	each.	\$	\$ 0.00
3.3	Bicycle Racks / Rings	each.	\$	\$ 0.00
3.4	Bollards	each.	\$	\$ 0.00
3.5	Entry Signage	each.	\$	\$ 0.00
3.6	Lighting	each.	\$	\$ 0.00
3.7	Other (Specify)		\$	\$ 0.00
		(Subtotal 3.0 Site Furnishir	ngs)	\$ 0.00

4.0 External Works

Item	Description	Qty. Unit	Unit Cost	Total
4.1	(Specify)	each.	\$	\$ 0.00
4.2	(Specify)	each.	\$	\$ 0.00
4.3	(Specify)	each.	\$	\$ 0.00
		(Subtotal 4.0 External Wo	rks)	\$ 0.00

Total Cost Estimate

1.0 Hardscape Works (Internal)	Subtotal	\$ 0.00
2.0 Softscape Works (Internal)	Subtotal	\$ 0.00
3.0 Site Furnishings (Internal)	Subtotal	\$ 0.00
Internal Works	Subtotal	\$ 0.00
(Secured @ 50%)		\$ 0.00
External Works (Secured @ 100%)	Subtotal	\$ 0.00
Internal Works + External Works	Subtotal	\$ 0.00
+ 15% Contingency		\$ 0.00
+ 13% HST		\$ 0.00

Total Landscape Security Value	\$	0.00
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10.0 Notes and Details

Town of Whitby Standard Notes and Details will be included in submissions of proposed landscape works for new development. These convey the design intent and Town requirements associated with proposed landscape elements. Notes and Details are organized as follows:

Planting Details

Details 710 and up

Fencing Details

Details 730 and up

Miscellaneous Details

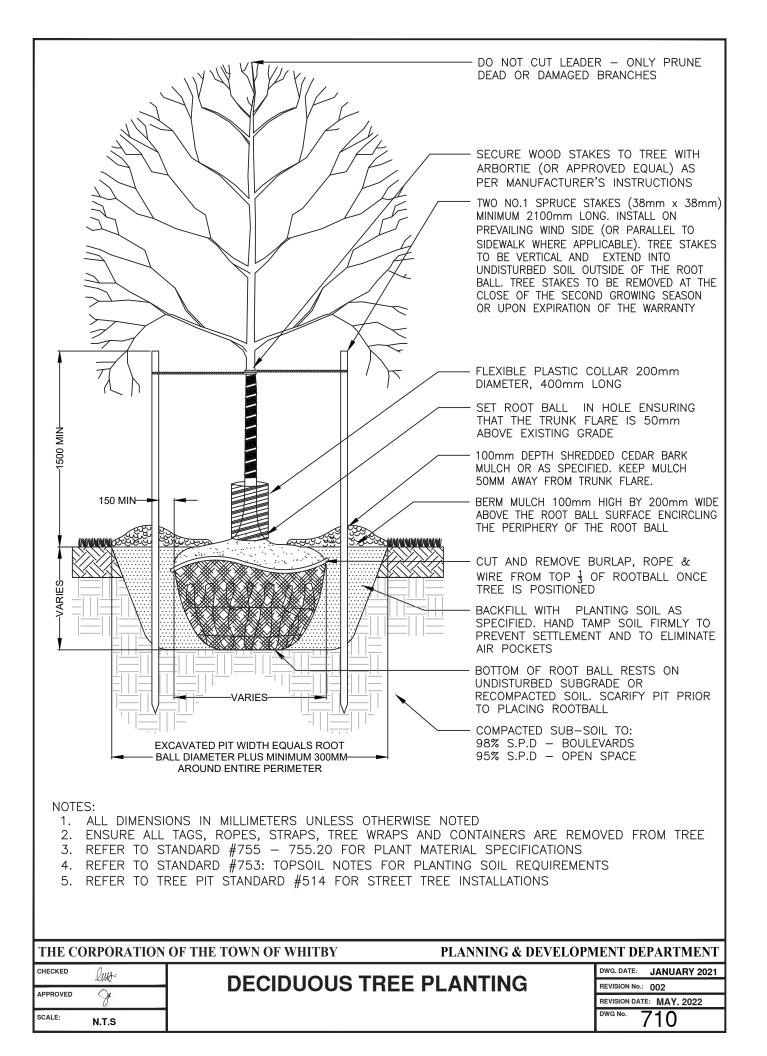
Details 740 and up

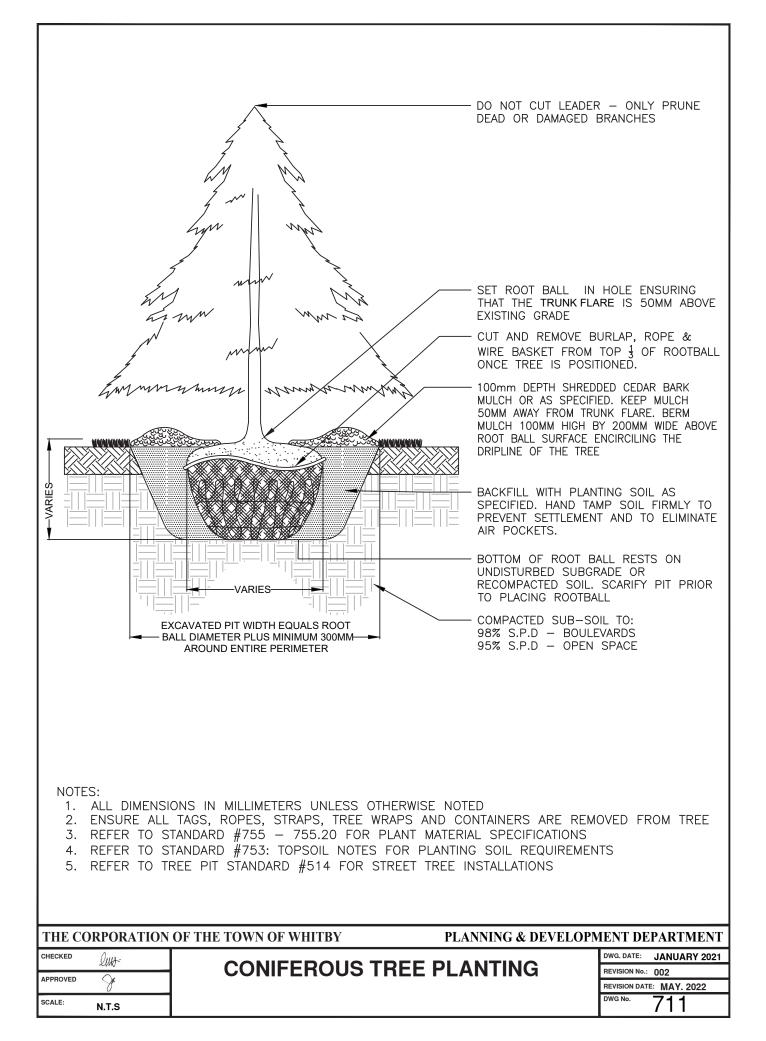
Notes

Details 750 and up

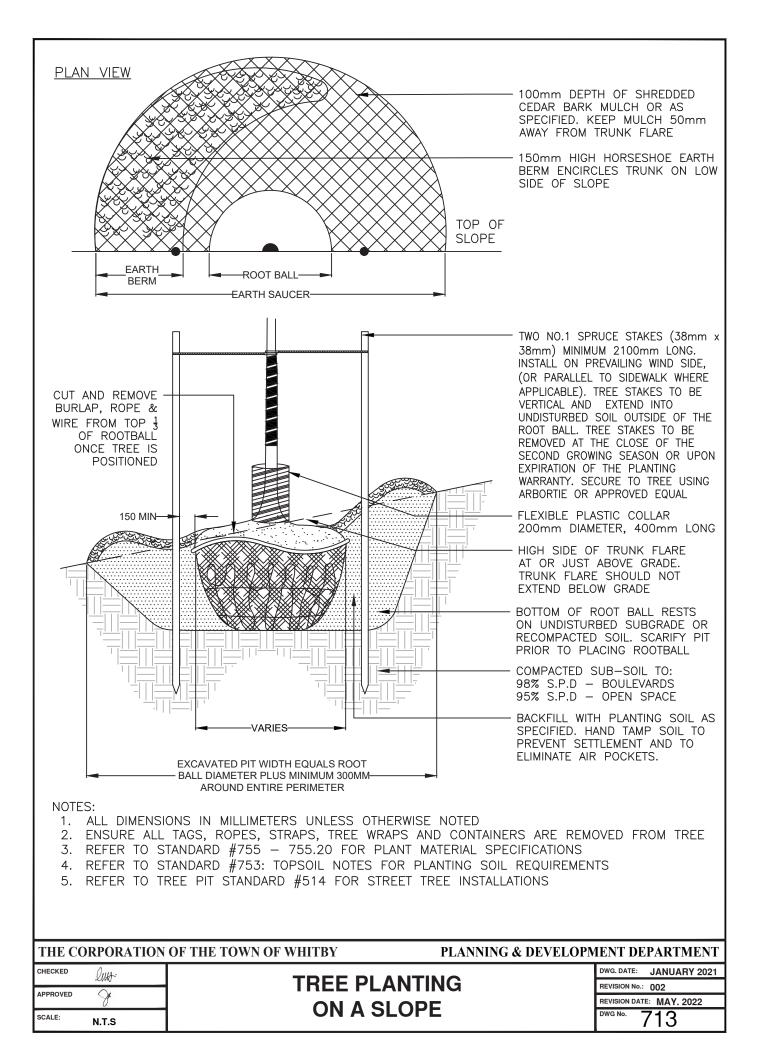
Planting Details

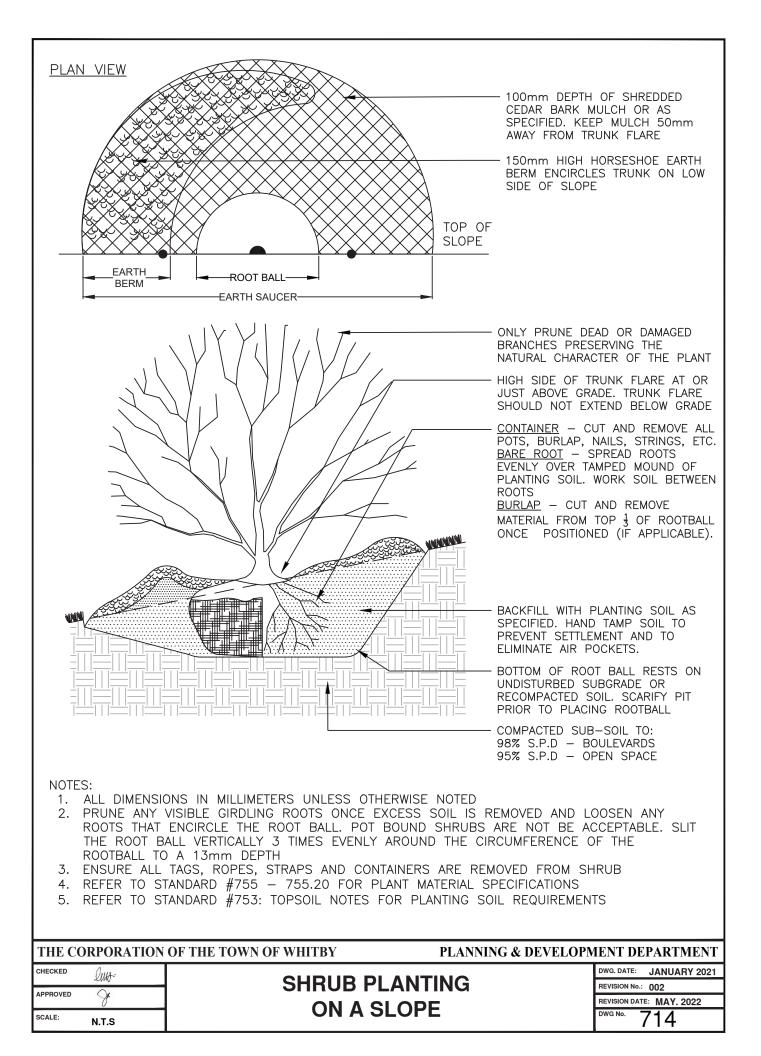
- 710 Deciduous Tree Planting
- 711 Coniferous Tree Planting
- 712 Shrub Planting and Layout
- 713 Tree Planting on a Slope
- 714 Shrub Planting on a Slope
- 715 Deciduous Tree Planting with 75L Water Bag
- 716 Deciduous Tree Planting with Rodent Cage: Storm Pond
- 717 Deciduous Tree Whip Planting
- 718 Deciduous Tree Whip Planting with Rodent Cage: Storm Pond
- 719 Livestake Planting
- 720 Stormwater Management Pond Fringe and Aquatic Plantings

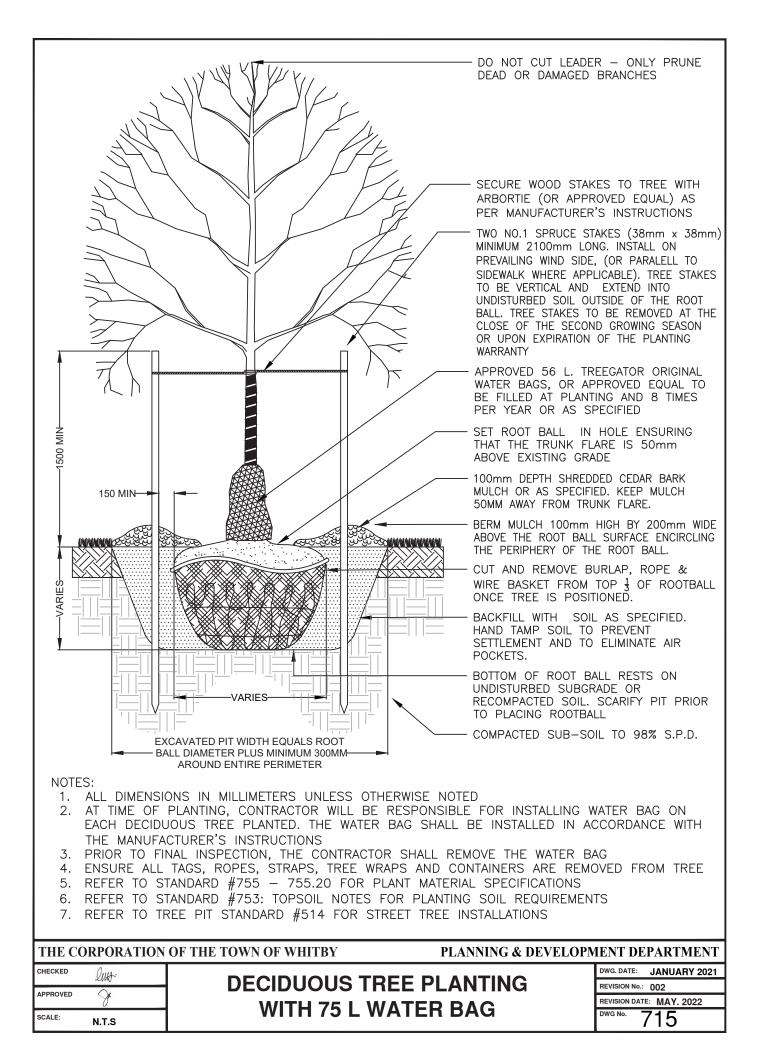


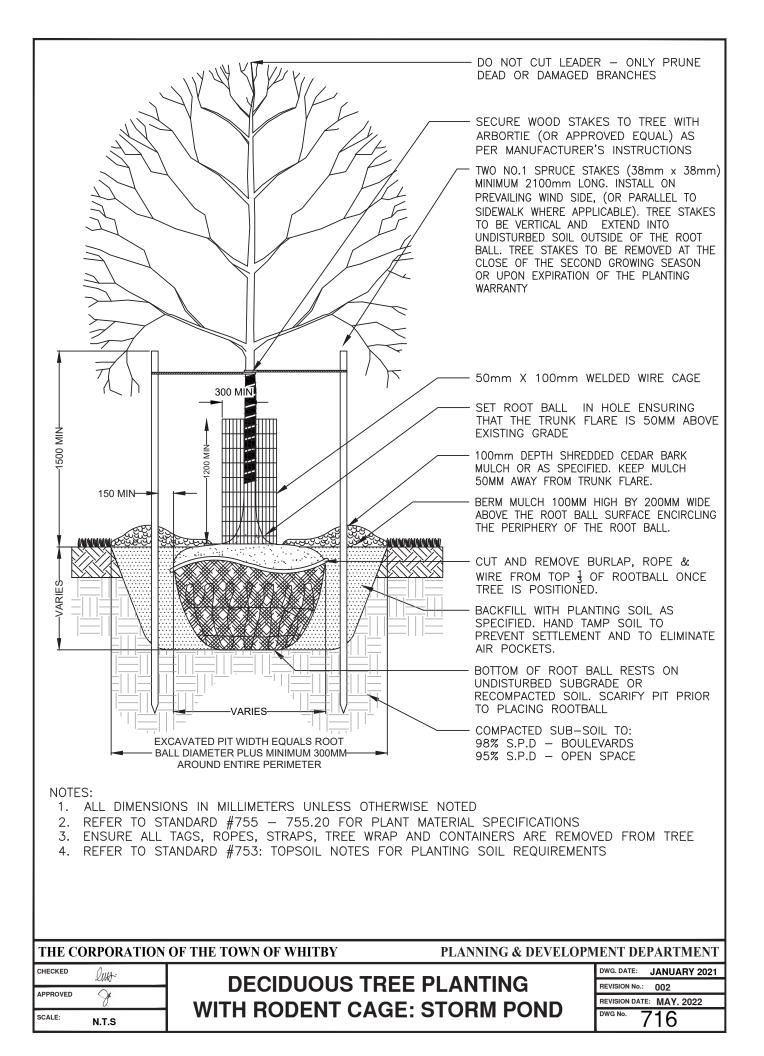


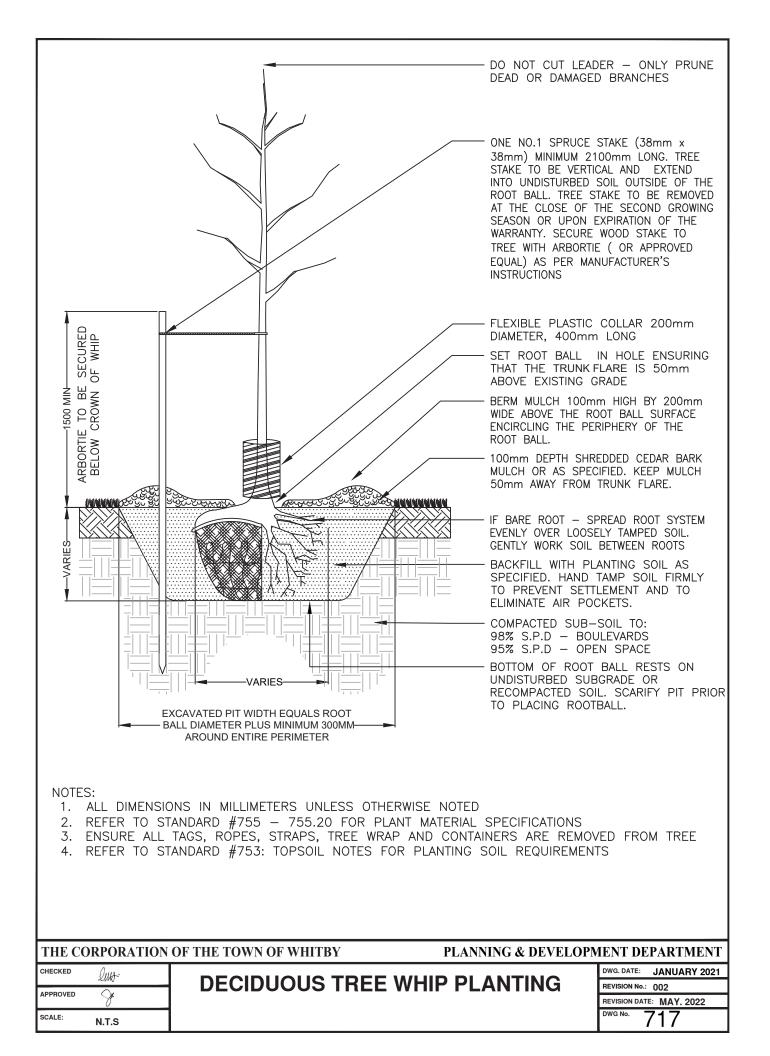
	SPADE CUT EDGE	PLAN	VIEW
CONTIN	SHRUB LAYOUT TO BE STAGGERED IN A		
		ONLY PRUNE DEAD BRANCHES PRESER CHARACTER OF TH	RVING THE NATURAL
		SET ROOT BALL IN THAT THE ROOT FI HIGHER THAN THE	LARE IS 50mm
		100mm DEPTH SH BARK MULCH OR A MULCH 50mm AWA	AS SPECIFIED. KEEP
			Y ROOTS IF PLANT BURLAP GROWN TO NT FROM BECOMING
-VARIES		BACKFILL WITH PLA SPECIFIED. HAND T PREVENT SETTLEME ELIMINATE AIR POC	AMP SOIL FIRMLY TO
		COMPACTED SUB-S 98% S.P.D – BOU 95% S.P.D – OPE	LEVARDS
		BOTTOM OF ROOT UNDISTURBED SUB RECOMPACTED SOIL TO PLACING ROOTE	GRADE OR SCARIFY PIT PRIOR
2. <u>BARE ROO</u> SOIL. WOR 3. <u>BURLAP</u> –	ETHOD: $\frac{1}{2}$ – CUT AND REMOVE ALL POTS, BURLAP, NAIL $\frac{1}{2}$ – SPREAD ROOTS EVENLY OVER TAMPED MO K SOIL BETWEEN ROOTS CUT AND REMOVE MATERIAL FROM TOP $\frac{1}{3}$ OF ITIONED (IF APPLICABLE).	UND OF PLANTING	
 PRUNE A ROOTS TH SLIT THE ROOTBALL ENSURE A 4. REFER TO 5. REFER TO 	INSIONS IN MILLIMETERS UNLESS OTHERWIS NY VISIBLE GIRDLING ROOTS ONCE EXCESS HAT ENCIRCLE THE ROOT BALL. POT BOUN ROOT BALL VERTICALLY 3 TIMES EVENLY / TO A 13mm DEPTH ALL TAGS, ROPES, STRAPS AND CONTAINER O STANDARD #755 – 755.20 FOR PLANT I O STANDARD #753: TOPSOIL NOTES FOR P	SOIL IS REMOVED AND D SHRUBS ARE NOT AC AROUND THE CIRCUMFEN RS ARE REMOVED FROM MATERIAL SPECIFICATION LANTING SOIL REQUIREM	CEPTABLE. RENCE OF THE SHRUB S MENTS
	OF THE TOWN OF WHITBY	PLANNING & DEVELOPN	
LUNG	SHRUB PLANTING ANI	D LAYOUT	DWG. DATE: JANUARY 2021 REVISION No.: 002
	4		REVISION DATE: MAY. 2022
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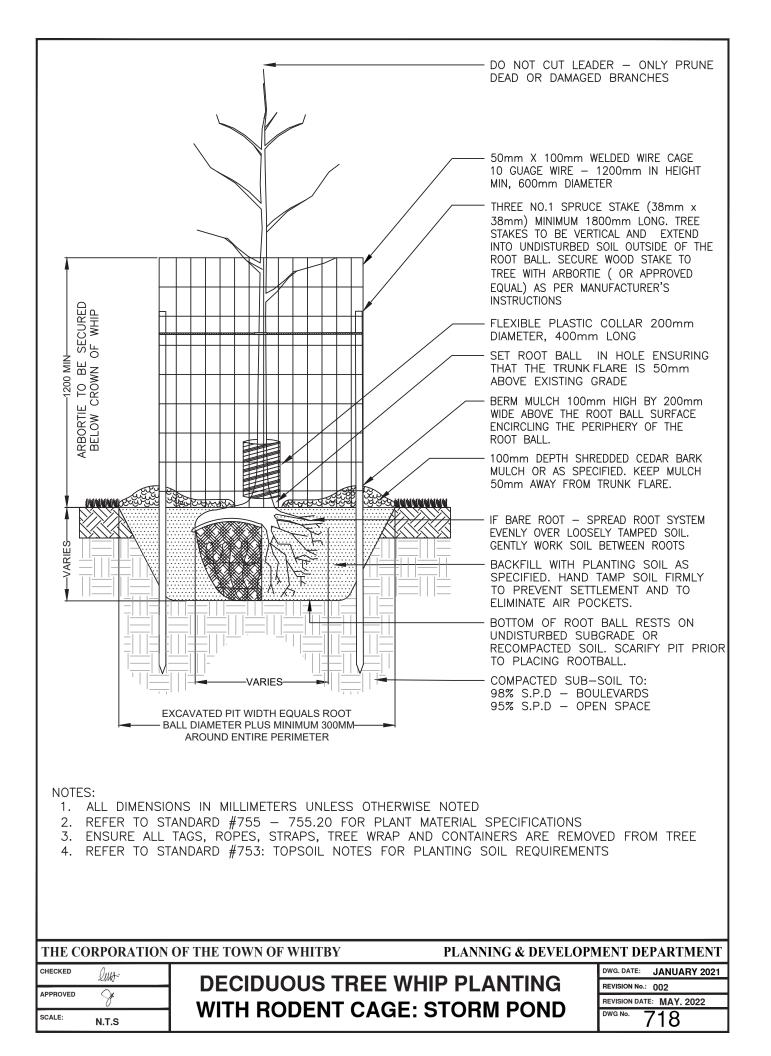




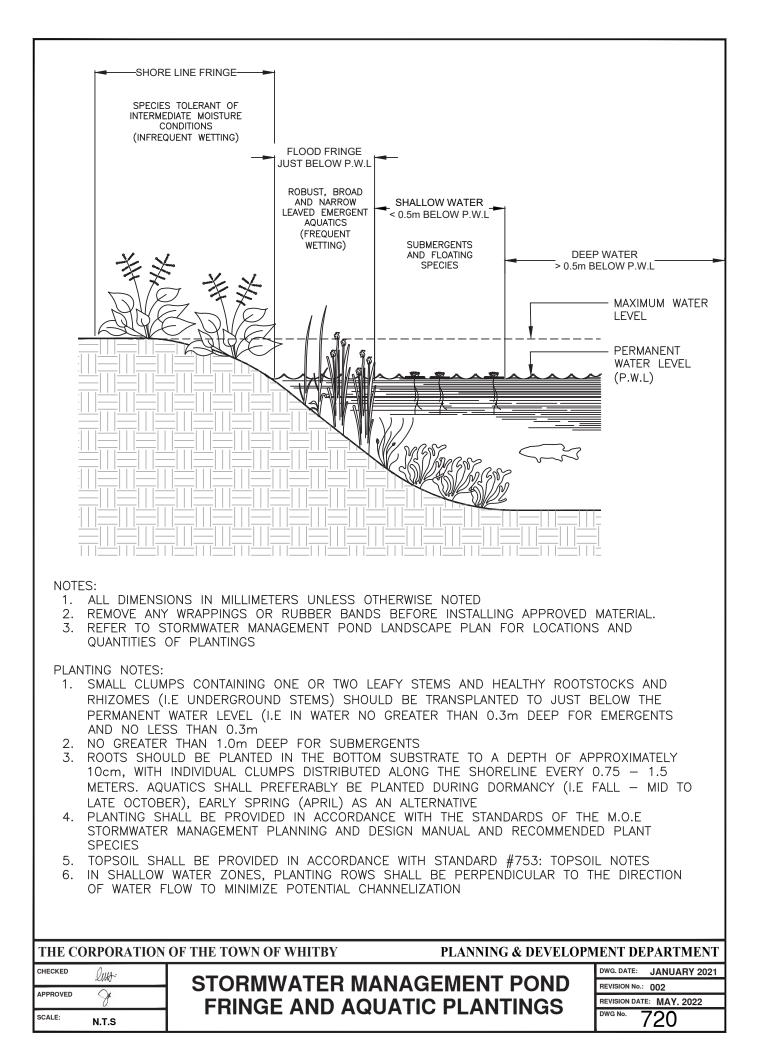






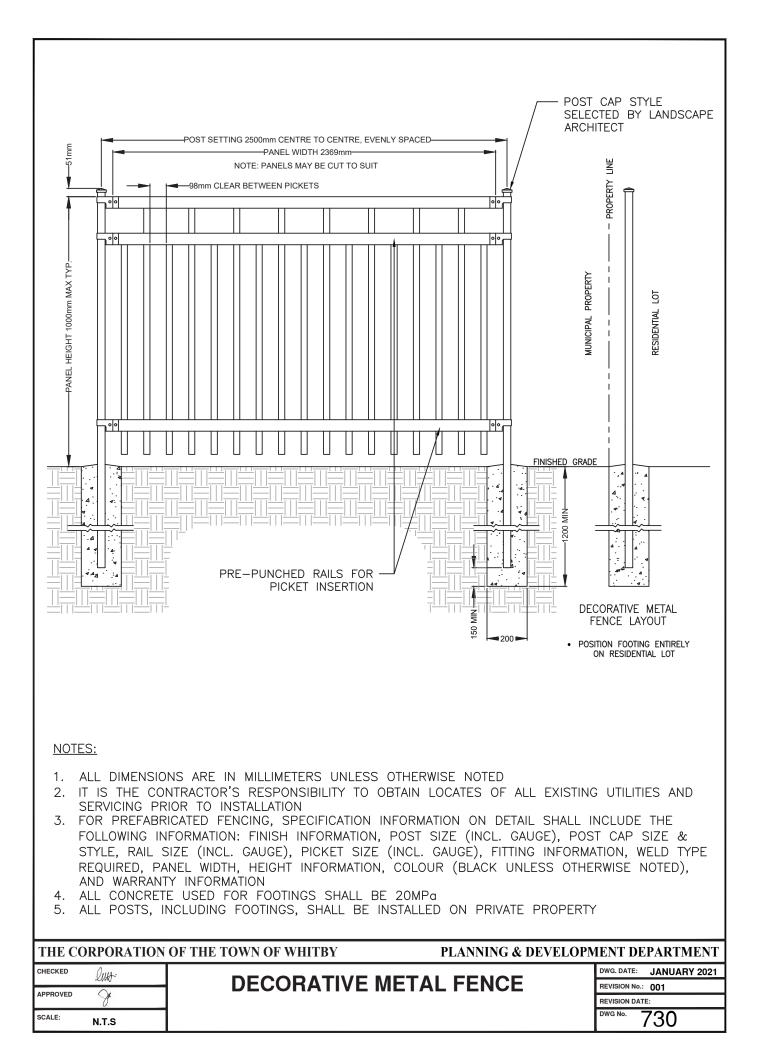


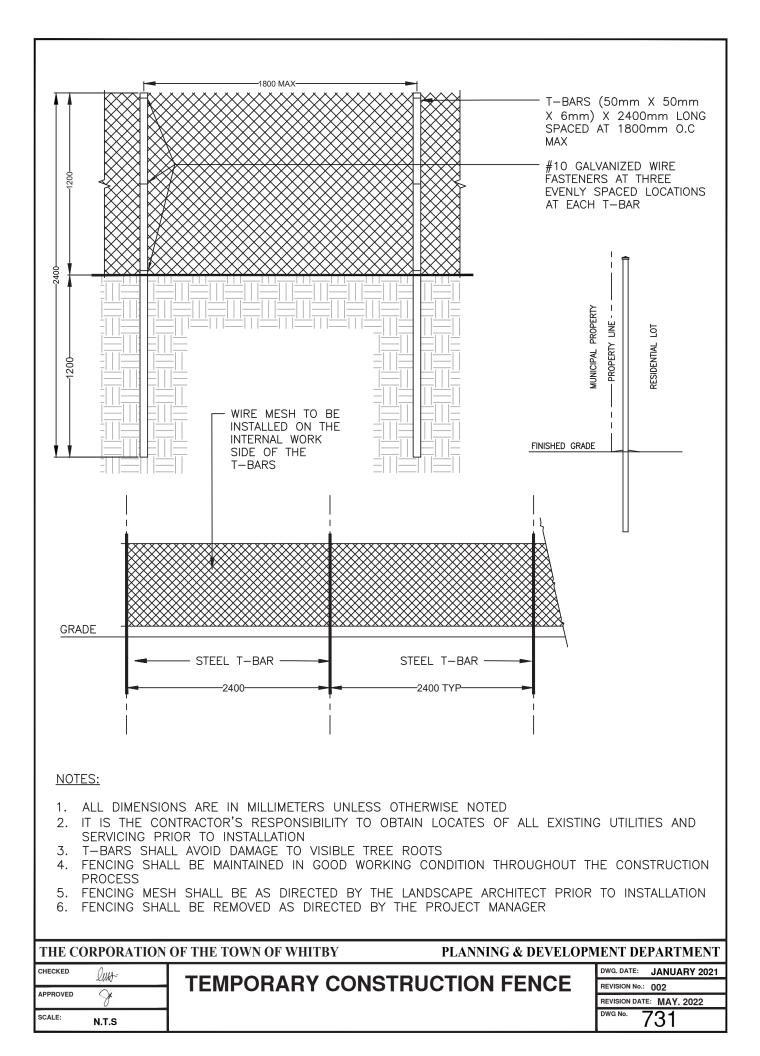
	DORMANT BUDS; MINIMUM OF 2 BUDS EXPOSED ABOVE GROUND SELECT LIVE, HEALTHY DORMANT BRANCHES FOR CUTTINGS 100mm DEPTH SHREDBED CEDAR BARK MULCH OR AS SPECIFIED. KEEP MULCH SOMM AWAY FROM TRUNK FLARE. BACKFILL WITH PLANTING SOIL AS SPECIFIED. HAND TAMP SOIL FIRMLY TO PREVENT SETTLEMENT AND TO ELIMINATE AIR POCKETS BOTTOM OF LIVE STAKE TO BE ANGLE CUT
NOTES:	
1. ALL DIMENSI	DNS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED
 ALL CUTTING COLLECT ANI 	NDOM FASHION SPACING AS PER PLANTING PLAN S TO BE A MINIMUM 7mm IN DIAMETER, MAXIMUM 25mm) PLANT CUTTINGS DURING DORMANCY PERIOD BETWEEN NOVEMBER AND APRIL I 24 HOURS OF COLLECTION
INSTALLATION ME	THOD:
2. DRIVE STEEL	S TO BE PRESOAKED FOR A PERIOD OF TWO HOURS MIN. PRIOR TO PLANTING ROD OR POLE INTO GROUND OR POWER AUGER TO CREATE A HOLE LARGER THAN
3. DRIVE LIVE S	R OF THE LIVE STAKE TAKE INTO GROUND TO DEPTH AS PER DETAIL KE WITH RUBBER MALLET OR DEADBLOW HAMMER IF NECESSARY
5. TRIM OFF TO 6. PAINT, FLAG	P OF STAKE TO 100mm ABOVE GRADE OR OTHERWISE TAG EACH LIVE STAKE WITH A BRIGHT COLOUR FOR EASY
IDENTIFICATIO	Ν
	OF THE TOWN OF WHITBY PLANNING & DEVELOPMENT DEPARTMENT
	LIVESTAKE PLANTING
SCALE: N.T.S	REVISION DATE: MAY. 2022 DWG No. 719

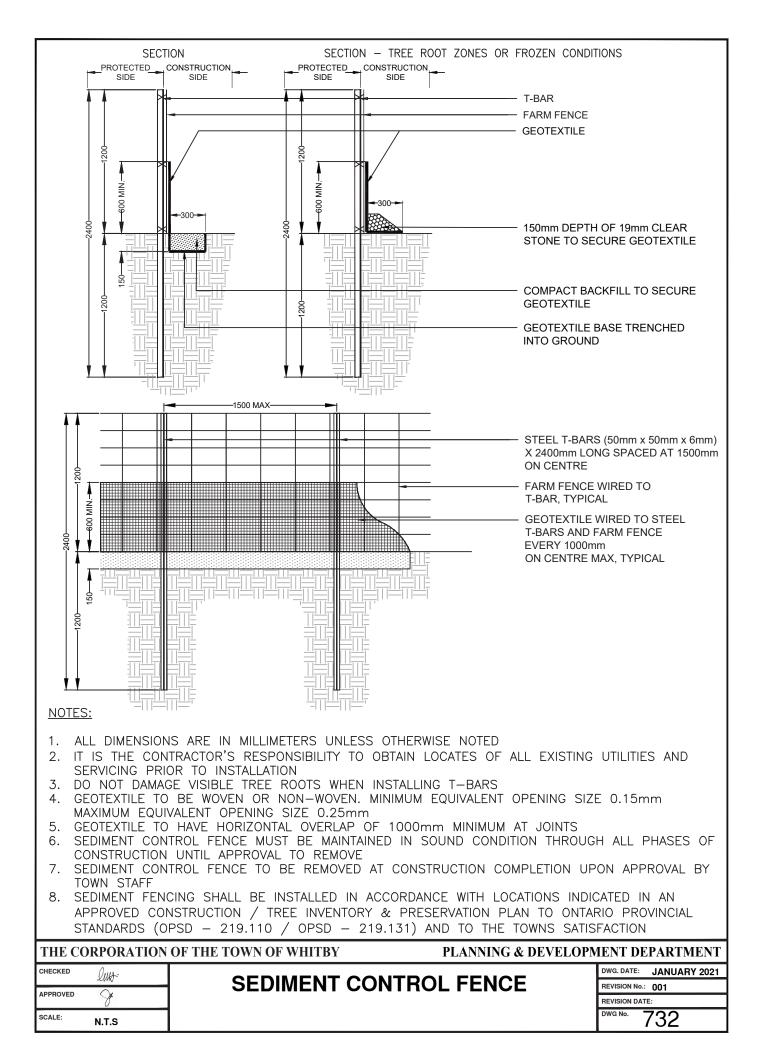


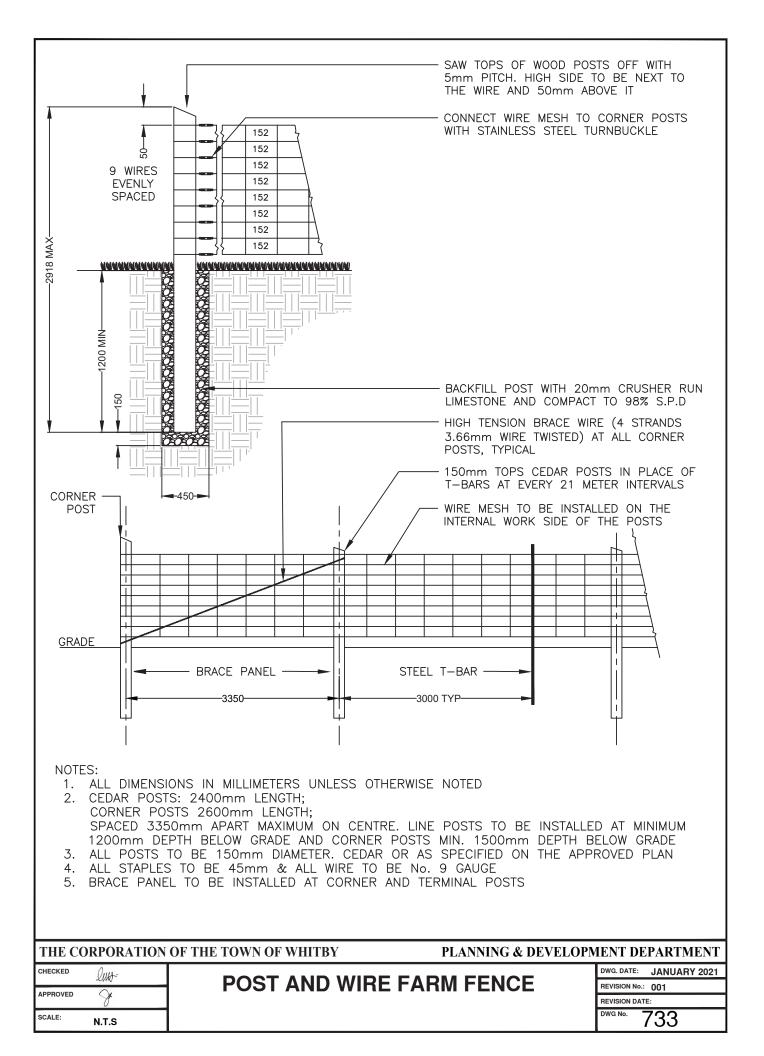
Fencing Details

- 730 Decorative Metal Fence
- 731 Temporary Construction Fence
- 732 Sediment Control Fence
- 733 Post and Wire Farm Fence



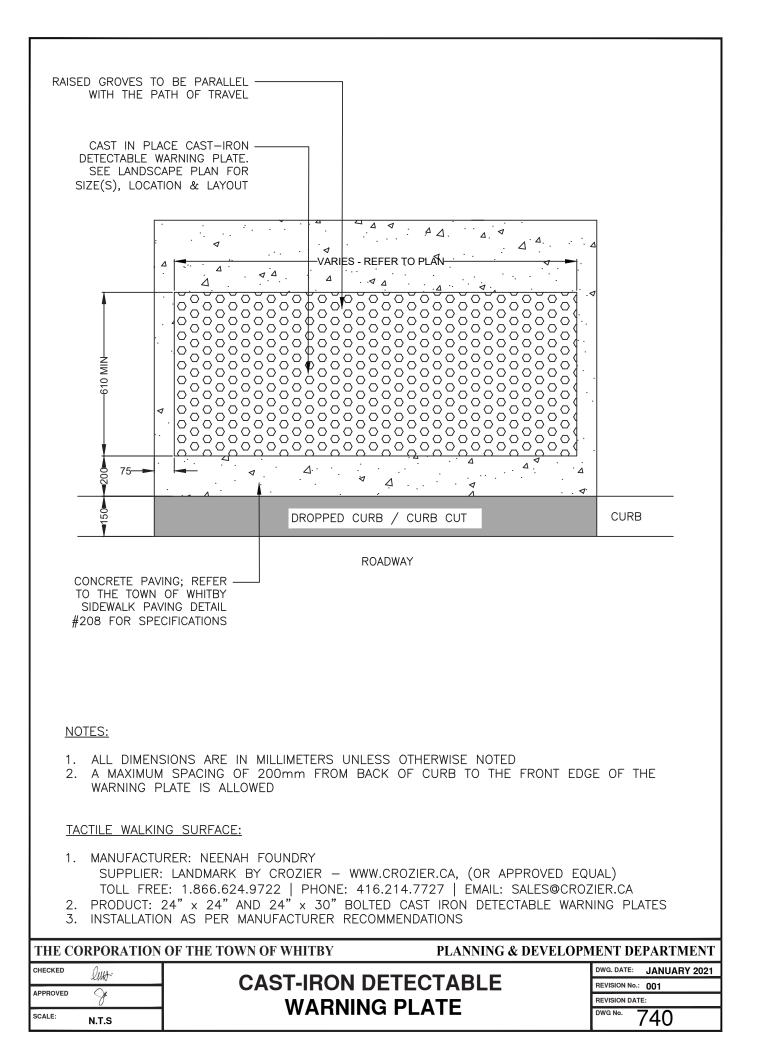






Miscellaneous Details

740 Cast-Iron Detectable Warning Plate



Notes

750	General Notes (750 & 750.10)
750.10	General Notes Continued (750 & 750.10)
751	Standard Utility Clearances for Streetscape Planting
752	Planting Inspection Notes Subdivision Development
753	Topsoil Notes
754	Buffer Planting, General, Sidewalk Multi-Use Path & Trail Notes
755	Plant Material Standards & Specifications
755.10	Plant Material Standards & Specifications Continued
755.20	Plant Material Standards & Specifications Continued
756	Fencing Notes: General, Inspection and Acceptance Requirements
757	Fencing Notes: Fencing Construction Materials & Layout Requirements
757.10	Fencing Notes: Fencing Construction Materials & Layout Requirements Continued

- 1. THE CONTRACTOR WILL INSTALL TREE PRESERVATION AND PROTECTION FENCING (TPF) AT APPROVED VEGETATION PROTECTION ZONES (VPZ) PRIOR TO ANY WORKS COMMENCING ON SITE. INSTALLATION MUST BE INSPECTED AND APPROVED BY TOWN OF WHITBY LANDSCAPE INSPECTOR AND FORESTRY STAFF AS WELL AS CLOCA (WHERE REQUIRED) PRIOR TO THE COMMENCEMENT OF ON SITE WORKS.
- 2. TPF MAY BE INSPECTED PERIODICALLY BY TOWN STAFF THROUGHOUT WORKS FOR SATISFACTORY INSTALLATION. TPF SHALL NOT BE REMOVED UNTIL AUTHORIZED BY TOWN STAFF AT THE COMPLETION OF ALL WORKS.
- 3. ANY REVISIONS TO THE APPROVED LANDSCAPE PLANS REQUIRE REVIEW AND APPROVAL BY THE PLANNING AND DEVELOPMENT DEPARTMENT PRIOR TO INSTALLATION.
- 4. BOULEVARD AREAS WILL BE FINE GRADED, TOP-SOILED AND SODDED. BOULEVARD TREE PLANTING LOCATIONS WILL BE PREPARED IN ADVANCE OF PLANTING IN ACCORDANCE WITH THE REQUIREMENTS OF ENGINEERING STANDARD 514.0 TREE PIT ROOTING ZONE.
- 5. INSTALLED PLANT MATERIAL WILL BE MAINTAINED BY THE CONTRACTOR OR PROPERTY OWNER IMMEDIATELY FOLLOWING PLANTING UNTIL THE DATE OF ACCEPTANCE.
- 6. MAINTENANCE WILL INCLUDE ALL MEASURES NECESSARY TO ESTABLISH AND MAINTAIN INSTALLED PLANT MATERIAL IN VIGOROUS CONDITION AND HEALTH INCLUDING CULTIVATING, WEEDING, WATERING/WATER BAGS WHEN REQUIRED, PRUNING, MAINTENANCE OF ALL ACCESSORIES AND/OR ANY OTHER MEASURES REQUIRED BY THE TOWN OR LANDSCAPE ARCHITECT.
- 7. CORRECTIVE PRUNING WILL BE COMPLETED IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, PRIOR TO INSPECTIONS, AND INCLUDE THE REMOVAL OF ANY DEAD OR BROKEN BRANCHES, SUCKERS AT THE TRUNK, AND CO-DOMINANT LEADERS.
- 8. THE CONTRACTOR/APPLICANT WILL BE RESPONSIBLE FOR THE PROTECTION OF INSTALLED TREES AND SHRUBS FROM RODENT AND OTHER DAMAGE FOR THE DURATION OF THE REQUIRED WARRANTY PERIOD (IF APPLICABLE) AND IN ACCORDANCE WITH TOWN PLANTING STANDARDS.
- 9. PROTECTIVE COLLARS WILL BE INSTALLED <u>PRIOR</u> TO THE APPLICATION OF SHREDDED CEDAR BARK MULCH. COLLARS WILL BE FLEXIBLE PLASTIC COMPOSITION, A MINIMUM OF 400 MM HIGH AND 200 MM IN DIAMETER.
- 10. ALL MULCH WILL BE SHREDDED CEDAR BARK. WOOD CHIPS OR DYED MULCH WILL NOT BE ACCEPTED. MULCH WILL BE PULLED BACK FROM THE TRUNK OF THE TREE.
- 11. THE CONTRACTOR/APPLICANT WILL REMOVE ALL TRUNK WRAP, ROPE, TAGS, TIES, AND TREE STAKES PRIOR TO INSPECTION FOR ACCEPTANCE BY THE TOWN.
- 12. LEANING TREES WILL BE STRAIGHTENED PRIOR TO INSPECTION FOR COMPLETION AND/OR ACCEPTANCE.
- 13. AT THE TIME OF INSPECTION FOR COMPLETION, INSTALLED PLANTING BEDS AND TREE PITS WILL BE FRESHLY CULTIVATED AND WELL-MULCHED, WITH CLEAN SPADE-CUT BED EDGES, AND FREE OF WEEDS, BROKEN BRANCHES AND DEBRIS.
- 14. FOR ALL INSPECTIONS OF LANDSCAPE WORKS IN SUBDIVISION DEVELOPMENTS, IT IS THE RESPONSIBILITY OF THE APPLICANT OR THEIR LANDSCAPE ARCHITECT TO REQUEST AN APPOINTMENT WITH THE LANDSCAPE INSPECTOR. MINIMUM 5-BUSINESS DAY NOTICE IS REQUIRED FOR ALL INSPECTION APPOINTMENTS.
- 15. FOR INSPECTION OF REQUIRED LANDSCAPE WORKS ASSOCIATED WITH SITE PLAN DEVELOPMENTS, IT IS THE RESPONSIBILITY OF THE APPLICANT TO REQUEST AN INSPECTION FOR SATISFACTORY COMPLETION AND ACCEPTANCE BY THE LANDSCAPE INSPECTOR ONCE THE INSTALLATION OF ALL REQUIRED LANDSCAPE WORKS HAS BEEN COMPLETED.

THE CORPORATION OF THE TOWN OF WHITBY PLANNING & DEVELOPMENT DEPARTMENT				
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MINIMUM CLEARANCE REQUIREMENTS FOR NEW STREET TREES:

- 1.5 M FROM DRIVEWAYS
- 3.5 M BETWEEN ADJACENT DRIVEWAYS* (REQUIRES PRIOR APPROVAL OF TOWN)
- 1.5 M FROM UTILITY PEDESTALS
- 1.5 M FROM CONCRETE BASE OF ANY CABINETS
- 2.0 M FROM COMMUNITY MAILBOXES (NO EVERGREENS PERMITTED)
- 3.0 M FROM FIRE HYDRANTS
- 3.0 M FROM HYDRO TRANSFORMERS
- 3.0 M FROM LIGHT STANDARDS FOR SMALL OR FLOWERING TREES
- 5.0 M FROM LIGHT STANDARDS FOR LARGE OR SHADE TREES
- 15.0 M FROM STOP SIGNS OR END OF CURB RADII AT INTERSECTIONS

NOTES:

- 1. THE CONTRACTOR/APPLICANT IS RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES PRIOR TO ANY EXCAVATION.
- 2. ALL RELEVANT UTILITY AGENCIES WILL BE GIVEN REQUIRED NOTICE FOR STAKE OUTS PRIOR TO ANY EXCAVATION.
- 3. ALL STREET-TREE LOCATIONS WILL BE COORDINATED WITH ABOVE AND BELOW GROUND UTILITIES. NO TREES WILL BE PLANTED DIRECTLY OVER ANY UNDERGROUND UTILITIES OR DIRECTLY UNDER ANY OVERHEAD UTILITIES.
- 4. NO TREES WILL BE PLANTED IN THE FOLLOWING LOCATIONS:
- EASEMENTS
- WITHIN VISIBILITY TRIANGLES AT INTERSECTIONS
- *IN BETWEEN ADJACENT DRIVEWAYS UNLESS APPROVED BY THE TOWN
- ON PROPERTY LINES
- HYDRO ONE CORRIDORS
- SWALES
- 5. NO TREES WILL BE PLANTED IN A MANNER THAT OBSTRUCTS REGULATED TRAFFIC SIGNAGE I.E. UPSTREAM OF LIGHT STANDARDS MOUNTED WITH TRAFFIC SIGNS OR OTHER SIGN POSTS.
- 6. THE TOWN RESERVES THE RIGHT TO ADJUST THE QUANTITY, LAYOUT AND SPECIES OF TREES IN THE FIELD TO SUIT SPECIFIC SITE CONDITIONS PRIOR TO PLANTING. ADJUSTMENTS MUST BE APPROVED BY THE TOWN OF WHITBY PRIOR TO THEIR IMPLEMENTATION.

THESE CLEARANCE REQUIREMENTS REFLECT SECTION G2.02 UTILITY CLEARANCES OF SECTION G: STREET TREE PLANTING AND PROTECTION FOUND IN THE CURRENT VERSION OF THE TOWN OF WHITBY DESIGN CRITERIA AND ENGINEERING STANDARDS.

NOTE TO CONSULTANTS:

THESE CLEARANCE REQUIREMENTS PROVIDE GUIDELINES FOR THE PLANNING OF NEW STREETSCAPES, AND ARE REQUIRED TO BE INCLUDED IN APPROVED LANDSCAPE PLANS.

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	FOR STREETSCAPE PLANTING		REVISION No.: 003	
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SCALE: N.T.S			^{DWG No.} 751	

NOTES:

- 1. THE LANDSCAPE ARCHITECT AND THE TOWN'S LANDSCAPE INSPECTOR ARE REQUIRED TO ATTEND ALL INSPECTIONS. THE LANDSCAPE ARCHITECT WILL CONTACT THE TOWN'S LANDSCAPE INSPECTOR IN THE PLANNING AND DEVELOPMENT DEPARTMENT TO ARRANGE ALL REQUIRED INSPECTIONS.
- 2. A STREET TREE LAYOUT INSPECTION IS INITIALLY REQUIRED TO MARK ALL TREE LOCATIONS ON SITE AND IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN. ALL PROPOSED STREET TREE LOCATIONS REQUIRE VERIFICATION AND APPROVAL ON SITE IN ADVANCE OF TOPSOIL INSTALLATION IN ACCORDANCE WITH THE TOWN'S ENGINEERING STANDARD 514.0 TREE PIT ROOTING ZONE. THE LANDSCAPE INSPECTOR WILL DETERMINE IF THE ATTENDANCE OF THE TOWNS' CONSTRUCTION INSPECTOR IS ALSO REQUIRED.
- 3. POSSIBLE CONFLICTS BETWEEN TREES AND UTILITIES OR OTHER SITE CONDITIONS WILL BE ADDRESSED AT THE INITIAL LOCATION STAKEOUT. STREET TREE LOCATIONS WILL BE ADJUSTED ACCORDINGLY IN THE FIELD AND WITH THE PRIOR APPROVAL OF THE LANDSCAPE INSPECTOR.
- 4. THE REQUIREMENT FOR A FOLLOW-UP STREET TREE LAYOUT INSPECTION WILL BE DETERMINED BY THE TOWN'S LANDSCAPE INSPECTOR PRIOR TO STREET-TREE PLANTING. THIS INSPECTION MAY BE NECESSARY TO RE-CONFIRM PREVIOUSLY MARKED TREE PLANTING LOCATIONS IF LOCATION MARKINGS HAVE BEEN REMOVED BY THE PASSAGE OF TIME OR SITE DISTURBANCE.
- 5. STREET TREE CARE INFORMATIONAL DOOR-HANGERS ARE SUPPLIED BY THE PLANNING AND DEVELOPMENT DEPARTMENT TO THE LANDSCAPE ARCHITECT AT THE STREET TREE LAYOUT INSPECTION. THESE WILL BE DISTRIBUTED BY THE LANDSCAPE ARCHITECT OR THE CONTRACTOR AT THE TIME OF THE STREET TREE PLANTING TO EACH RESIDENCE THAT RECEIVE A STREET TREE.
- 6. PRIOR TO THE INSPECTION FOR COMPLETION:
 - VEGETATION WILL BE IN FULL-LEAF;
 - INSTALLED PLANTING BEDS AND TREE PITS WILL BE FRESHLY CULTIVATED AND WELL-MULCHED, WITH CLEAN SPADE-CUT BED EDGES AND FREE OF WEEDS, BROKEN BRANCHES AND DEBRIS; AND
 - TRUNK WRAP WILL BE REMOVED.
- 7. PRIOR TO THE INSPECTION FOR ACCEPTANCE, THE ABOVE CONDITIONS WILL BE IN PLACE AS WELL AS ANY REMAINING TREE STAKES WILL BE REMOVED.
- 8. A SATISFACTORY INSPECTION FOR COMPLETION WILL INITIATE THE REQUIRED ONE-YEAR WARRANTY PERIOD FOR ALL INSTALLED PLANT MATERIAL.
- 9. A SATISFACTORY INSPECTION FOR ACCEPTANCE IS REQUIRED PRIOR TO EXPIRATION OF THE WARRANTY PERIOD.
- 10. IF A TREE DIES OR IS OTHERWISE UNACCEPTABLE DUE TO POOR HEALTH OR CONDITION PRIOR TO ACCEPTANCE, IT WILL BE REPLACED BY THE DEVELOPER'S CONTRACTOR. THE TOWN'S LANDSCAPE INSPECTOR WILL BE NOTIFIED OF ANY REPLACEMENTS BY THE LANDSCAPE ARCHITECT. REPLACEMENT TREES WILL HAVE A NEW ONE YEAR WARRANTY.
- 11. THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR RECORDING AND CIRCULATING CURRENT, ACCURATE AND TIMELY INSPECTION AND SITE-MEETING NOTES, INCLUDING ANY CHANGES, TO THE PLANNING AND DEVELOPMENT DEPARTMENT.

THE CO	RPORATION	OF THE TOWN OF WHITBY	PLANNING & DEVELOPN	IENT DEPARTMENT
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TOPSOIL:

THE FOLLOWING REQUIREMENTS APPLY TO ALL TOPSOIL WHETHER ACQUIRED FROM THE JOBSITE OR IMPORTED FROM OFFSITE:

TOPSOIL SHALL BE A FERTILE, NATURAL LOAM, CAPABLE OF SUSTAINING HEALTHY PLANT GROWTH, CONTAINING A MINIMUM OF 5% ORGANIC MATTER, TO A MAXIMUM OF 25% BY VOLUME

TOPSOIL TO BE AMENDED IN ACCORDANCE WITH THE RECOMMENDATIONS OF AN ASSOCIATED SOILS REPORT TO ENSURE MINIMUM ORGANIC CONTENT.

TOPSOIL SHALL BE LOOSE AND FRIABLE, SCREENED TO BE FREE OF SUBSOIL, CLAY LUMPS, STONES, ROOTS OR ANY OTHER DELETERIOUS MATERIAL GREATER THAN 25mm DIAMETER.

TOPSOIL SHALL BE SCREENED PRIOR TO DELIVERY

TOPSOIL SHALL BE FREE OF ALL LITTER AND TOXIC MATERIALS THAT MAY BE HARMFUL TO PLANT GROWTH.

TOPSOIL CONTAINING SOD CLUMPS, CRABGRASS, COUCHGRASS OR OTHER NOXIOUS WEEDS IS NOT ACCEPTABLE.

TOPSOIL SHALL NOT BE DELIVERED OR PLACED IN A FROZEN OR EXCESSIVELY WET CONDITION.

TOPSOIL ACIDITY / ALKALINITY SHALL BE IN THE RANGE OF 6.0PH TO 7.5PH. TOPSOIL IN EXCESS OF 7.5PH SHALL BE AMENDED TO REDUCE ALKALINITY IN ACCORDANCE WITH THE RECOMMENDATIONS OF AN ASSOCIATED SOILS REPORT THAT IS ACCEPTABLE BY THE TOWN.

TOPSOIL TESTING

TOPSOIL TESTING SHALL BE COMPLETED BY AN ACCREDITED AGENCY APPROVED BY THE TOWN OF WHITBY, AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE DESIGN CRITERIA AND ENGINEERING STANDARDS, SECTION G 5.00, SOIL REQUIREMENTS AND TESTING.

TOPSOIL SHALL BE TESTED TO CONFIRM SOIL TYPE, (I.E. PERCENTAGE OF SAND, SILT, CLAY AND ORGANIC CONTENT), MACRO AND MICRONUTRIENT CONTENT AND PH LEVELS.

TEST RESULTS SHALL BE FORWARDED TO THE TOWN OF WHITBY CONSTRUCTION INSPECTOR PRIOR TO COMMENCEMENT OF TOPSOIL PLACEMENT.

FERTILIZERS AND SOIL AMENDMENTS PER TOPSOIL TEST RESULTS SHALL BE INCORPORATED AT TIME OF TOPSOIL PLACEMENT OR DURING PLANTING / SODDING / SEEDING OPERATIONS.

TOPSOIL DEPTH

THE CONSULTING LANDSCAPE ARCHITECT SHALL COORDINATE WITH CIVIL ENGINEERING AND SITE WORKS OPERATIONS TO ENSURE THE MINIMUM DEPTH TOPSOIL IS ACCOUNTED FOR IN SOIL BALANCING CALCULATIONS AND IS PROVIDED ON SITE.

TOPSOIL DEPTH REQUIREMENTS:

- 1.STORM WATER MANAGEMENT FACILITIES
- a. ACTIVE STORAGE AND UPLAND AREAS:
- b. FRINGE AND AQUATIC AREAS

(TO WATER DEPTH OF 1.0m WITHIN THE PERMANENT POOL): 2. CREATED OR DISTURBED OPEN SPACE LANDS, BUFFERS:

- 3. FEATURED PLANTING AREAS, MEDIANS, ROUNDABOUTS
- & SHRUB PLANTING BEDS: (OR AS SPECIFIED)
- 4. TREE PIT ROOTING ZONES (ENG STD. #514.0)
- 5. SODDED / SEEDED AREAS:
- 6. RESIDENTIAL LOTS:

450MM MINIMUM CONTINUOUS DEPTH

300MM MINIMUM CONTINUOUS DEPTH 300mm MINIMUM CONTINUOUS DEPTH

300mm MINIMUM CONTINUOUS DEPTH 600mm MINIMUM CONTINUOUS DEPTH 150mm MINIMUM CONTINUOUS DEPTH 150mm MINIMUM CONTINUOUS DEPTH

THE CONSULTING LANDSCAPE ARCHITECT SHALL CONFIRM, IN WRITING TO THE TOWN OF WHITBY LANDSCAPE / CONSTRUCTION INSPECTORS, THE MINIMUM DEPTH OF TOPSOIL PLACED PRIOR TO PLANTING, SEEDING OR SODDING OPERATIONS.

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BUFFER PLANTING NOTES

LAYOUT OF FINAL BUFFER PLANTING LOCATIONS WILL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SUBDIVISION PLANTING INSPECTION NOTES STANDARD DETAIL 752.

- 1. PLANT MATERIAL WILL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING MINIMUM SETBACKS FROM ADJACENT SIDEWALKS, MULTI-USE PATHS AND TRAILS:
 - 2.0 M FOR DECIDUOUS TREES
 - 3.0 M FOR CONIFEROUS TREES
 - 1.5 M FOR SHRUBS
- 3. A MINIMUM 2.0 M WIDE MOWING STRIP WILL BE PROVIDED WHEREVER POSSIBLE ADJACENT TO WALKWAYS PROVIDED THROUGH OPEN SPACE AREAS.

GENERAL SIDEWALK, MULTI-USE PATH AND TRAIL NOTES

1. ALL CONCRETE SIDEWALKS WILL BE;

- CONSTRUCTED AS PER TOWN OF WHITBY DESIGN CRITERIA AND ENGINEERING STANDARDS AND STANDARD DETAIL 208;
- CONSTRUCTED WITH MINIMUM SLOPES TO ENSURE ACCESSIBILITY;
- A MINIMUM WIDTH OF 1500 MM UNLESS OTHERWISE REQUIRED; AND
- LABELLED AS "CASH-IN-LIEU OF 1.5 M CONCRETE SIDEWALK" WHERE APPROPRIATE IN COMPLIANCE WITH THE REQUIREMENTS OF THE ASSOCIATED SUBDIVISION AGREEMENT.
- 2. ASPHALT MULTI-USE PATHWAYS WILL BE CONSTRUCTED AS PER TOWN OF WHITBY DESIGN CRITERIA AND ENGINEERING STANDARDS AND STANDARD DETAIL 214.0.
- 3. ALL TRAILS WILL BE CONSTRUCTED;
 - WITH A MAXIMUM LONGITUDINAL SLOPE OF 5% AND MAXIMUM CROSS SLOPE OF 2%: AND
 - WITH A MINIMUM 1.5 METRE SOD MOWING/MAINTENANCE SHOULDER ON BOTH SIDES OF THE TRAIL, SLOPED AT A MAXIMUM OF 25%.
 - WITH AN ALIGNMENT THAT PROVIDES A MINIMUM 1.5 METRE SETBACK FROM RESIDENTIAL PROPERTY

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GENERAL NOTES:

- 1. ALL PLANT MATERIAL WILL BE NURSERY GROWN IN ACCORDANCE WITH THE CANADIAN NURSERY TRADES ASSOCIATION "CANADIAN NURSERY STOCK STANDARDS" PUBLISHED BY THE CANADIAN NURSERY LANDSCAPE ASSOCIATION (LATEST METRIC EDITION), AND UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE TOWN OF WHITBY FOR THE PAST 2 YEARS.
- 2. THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR REPORTING TO THE TOWNS' LANDSCAPE INSPECTOR THAT ALL PLANTINGS WORKS HAVE BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROVED LANDSCAPE PLAN, AS WELL AS ANY REQUIRED CERTIFICATIONS OR TESTING RESULTS / RECOMMENDATIONS.

SOD & SEEDING SPECIFICATIONS:

1. ALL SOD IS TO CONFORM TO THE CANADIAN NURSERY SOD GROWERS SPECIFICATIONS AND IN ACCORDANCE WITH OPSS 802 AND 803 AND AMENDMENTS MADE BY THE TOWN OF WHITBY

2. SEEDING IS TO CONFORM TO OPSS 804.

SHRUB & GROUNDCOVER SPECIFICATIONS;

1. SHRUBS WILL:

- BE MINIMUM 60 CM (600 MM) IN HEIGHT
- DISPLAY THEIR NATURAL FORM AND A MINIMUM OF 4 CANES
- 2. GROUNDCOVERS WILL:
 - HAVE HEALTHY TOPS AND SIZE PROPORTIONATE TO ROOT REQUIREMENTS

NOTE* PLANT MATERIAL STANDARDS CONTINUES IN DETAIL 755.10 & 755.20

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TREE SPECIFICATIONS: (CONTINUED FROM DETAIL 755)

1. ALL ROOT BALLS_WILL:

- HAVE A HEALTHY, WELL-DEVELOPED ROOT SYSTEM WITH A MINIMUM OF 3 STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE);
- POSSESS A ROOT COLLAR THAT IS VISBLE ABOVE THE SOIL LINE OF THE ROOT BALL;
- POSSESS UNIFORM ROOT DISTRIBUTION THROUGHOUT THE ROOT BALL;
- POSSESS FIRM, SECURELY WRAPPED ROOT BALLS WITH UNIFORM ROOT DISTRIBUTION THROUGHOUT THE ROOT BALL AND SPECIES-APPROPRIATE GROWTH, WITH NO MOVEMENT AT THE TRUNK AND NO GIRDLING ROOTS; AND
- BE FIRMLY WRAPPED WITH NON-SYNTHETIC, BIODEGRADABLE BURLAP AND SECURED WITH HEAVY, NON-SYNTHETIC, BIODEGRADABLE TWINE.
- BROKEN ROOT BALLS WILL NOT BE ACCEPTED

2. ALL TREES WILL:

- BE TRUE TO SPECIES NAME, TYPE AND FORM;
- BE STRUCTURALLY SOUND, HEATHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF, UNDAMAGED AND FREE OF ANY DECAY, SUNSCALD, FROST CRACKS, WOUNDS OR MECHANICAL DAMAGE;
- POSSESS ONE CENTRAL AND STRAIGHT LEADER, WITH NO MULTIPLE COMPETING STEMS DISEASE (IF THE LEADER WAS HEADED, A NEW LEADER WITH A LIVE TERMINAL BUD AT LEAST ONE-HALF OF THE DIAMETER OF THE PRUNING CUT WILL BE PRESENT); AND
- BE FREE FROM ANY WEEDS, PESTS, DISEASE OR INSECTS INCLUDING EGGS OR LARVAE.

3. DECIDUOUS TREES:

- STREET TREES WILL BE A MINIMUM 60 MM CALIPER, 3000 MM TO 3500 MM HEIGHT (60 MM TO 75 MM CALIPER SHOULD BE WIRE BASKET OR B & B), OR AS OTHERWISE REQUIRED, AND POSSESS A MINIMUM 1500 MM BRANCHING HEIGHT CLEARANCE FROM GRADE AT THE TIME OF PLANTING, WITH AN ULTIMATE REQUIREMENT OF A MINIMUM 2500 MM BRANCHING HEIGHT;
- 50% OF EDGE MANAGEMENT, RESTORATION PLANTING AND STORMWATER MANAGEMENT POND TREES WILL BE A MINIMUM 40 MM CALIPER, OR AS OTHERWISE REQUIRED;
- WILL HAVE A BALANCED CANOPY WITH UNIFORM BRANCHING ALL AROUND AND CHARACTERISTIC OF THE GROWTH HABIT OF THE SPECIES;
- HAVE THREE OR MORE MAIN STEMS ORIGINATING FROM A COMMON BASE AT GROUND LEVEL IF THEY
 ARE CLUMP FORM OR MULTI-STEM TREES; AND
- SPECIES REQUIRING SPRING INSTALLATION WILL NOT BE ACCEPTED FOR FALL PLANTING.

4. CONIFEROUS TREES:

- WILL BE A MINIMUM OF 1.8 M HEIGHT;
- UP TO 50% OF TREES WITHIN EDGE MANAGEMENT, RESTORATION PLANTING AND STORMWATER MANAGEMENT POND TREES MAY BE PROVIDED AT A MINIMUM HEIGHT OF 1.2 M; AND
- WILL BE EVENLY BRANCHED ALL AROUND.

NOTE* PLANT MATERIAL STANDARDS CONTINUES IN DETAIL 755.20

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PLANT MATERIAL STANDARDS & SPECIFICATIONS CONTINUED

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TREE PIT ROOTING ZONE REQUIREMENTS: (CONTINUED FROM DETAILS 755 & 755.10)

- 1. TREE PITS WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF WHITBY DESIGN CRITERIA AND ENGINEERING STANDARDS DETAIL 514.0 TREE PIT ROOTING ZONE AND THE REQUIREMENTS OF SECTION G, THE APPROPRIATE TOWN OF WHITBY (DECIDUOUS/CONIFEROUS) TREE PLANTING STANDARD DETAIL, AND ANY REQUIREMENTS BASED ON AN ASSOCIATED SOILS REPORT.
- 2. SUB-GRADE SURFACE WILL BE LOOSENED TO A DEPTH OF 25 MM.
- 3. SUB-GRADE SURFACE WILL BE FREE OF VEGETATION AND OTHER DEBRIS AND FREE OF STONES OVER 20 MM IN DIAMETER.
- 4. TREE PLANTING PITS WILL BE A MINIMUM OF TWICE THE WIDTH OF THE ROOT BALL AND NOT BE DEEPER THAN THE OVERALL HEIGHT OF THE ROOT BALL; TREES WILL BE INSTALLED WITH THE TRUNK FLARE 50 MM ABOVE GRADE AND VISIBLE; TREES WILL BE PLACED SO THAT THE MAIN LATERAL BRANCHES ARE ORIENTED AWAY FROM THE ROADWAY.
- 5. NO TREE PITS AND/OR TREE PIT ROOTING ZONES WILL BE LEFT OPEN OVERNIGHT.

PLANTING BED PREPARATION

- 1. PLANTING BEDS WILL BE PREPARED WITH TOPSOIL PLACED IN ACCORDANCE WITH THE DEPTH REQUIRED IN STANDARD #753: TOPSOIL NOTES.
- 2. PLANTING BEDS WILL BE CONTINUOUS.
- 3. PLANTING BEDS WILL BE FINE GRADED TO A UNIFORM SURFACE IN ACCORDANCE WITH OPSS 206.

PLANTING SOIL REQUIREMENTS

1. PLANTING SOIL WILL BE PROVIDED IN ACCORDANCE WITH STANDARD #753: TOPSOIL NOTES, AND THE ASSOCIATED PLANTING STANDARD

BACKFILLING REQUIREMENTS

- 1. TREE PITS AND SHRUB BEDS WILL BE BACKFILLED WITH EXCAVATED TOPSOIL FROM PREPARED TREE PITS AND PLANTING BEDS WHEREVER POSSIBLE.
- 2. BACKFILLING WILL OCCUR IN TAMPED 150 MM LIFTS TO REMOVE ALL AIR POCKETS, AND TO ENSURE ROOT BALL IS STABLE AND SURFACE IS FIRM AND SMOOTH.
- 3. PLANTING HOLES WILL BE WATERED THOROUGHLY WHEN HOLES ARE 2/3 FULL.
- 4. BACKFILL WILL CONTINUE TO TOP OF ROOT BALL AND WILL NOT PLACE SOIL AROUND THE TRUNK OR ABOVE THE ROOT FLARE.

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GENERAL REQUIREMENTS

- 1. ALL FENCING WILL BE PROVIDED IN ACCORDANCE WITH THE FENCING SCHEDULES INCLUDED IN THE ASSOCIATED SUBDIVISION AGREEMENT AND AS PER THE CORPORATION OF THE TOWN OF WHITBY BY-LAW NO. 4394-99, AND TOWN OF WHITBY ENGINEERING STANDARDS 506, 506.10, 506.30 AND 506.40.
- 2. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT ALL REQUIREMENTS AND CONDITIONS ARE MET IN ORDER FOR THE SUBDIVISION DEVELOPMENT TO BE ASSUMED BY THE TOWN OF WHITBY.

INSPECTION REQUIREMENTS

- 1. THE DEVELOPER, THEIR LANDSCAPE ARCHITECT AND THE FENCE CONTRACTOR WILL REQUEST A PRE-FENCE CONSTRUCTION MEETING WITH THE FENCING INSPECTOR TO REVIEW TOWN OF WHITBY ENGINEERING STANDARDS AND THE APPROVED LANDSCAPE PLANS.
- 2. ALL FOOTINGS REQUIRE AN INSPECTION BY THE FENCING INSPECTOR, AND SOILS CONSULTANT (WHERE REQUIRED) WITH 48 HOURS NOTICE.
- 3. A POST-CONSTRUCTION INSPECTION WILL BE COMPLETED BY THE FENCING INSPECTOR AND THE DEVELOPER'S LANDSCAPE ARCHITECT FOLLOWING COMPLETION OF FENCING INSTALLATION, AND THE SUBMISSION AND ACCEPTANCE OF AN AS-BUILT SURVEY WITH TIES TO THE PROPERTY LINE.

CERTIFICATIONS, SURVEY AND DECLARATION SUBMISSION REQUIREMENTS

IT IS THE DEVELOPER'S RESPONSIBILITY TO SUBMIT THE FOLLOWING REQUIRED DOCUMENTS. THESE DOCUMENTS WILL BE SUBMITTED THROUGH THE LANDSCAPE ARCHITECT OR THE ENGINEERING CONSULTANT TO THE FENCING INSPECTOR:

PRIOR TO INSTALLATION:

• STRUCTURAL CERTIFICATION WILL BE AND BE PROVIDED BY THE STRUCTURAL ENGINEER FOR FENCING OVER 2.0M IN HEIGHT

PRIOR TO SUBDIVISION ASSUMPTION:

- AS-BUILT SURVEY, WITH TIES TO THE PROPERTY LINE ILLUSTRATED FOR ALL FENCING PROVIDED IN ACCORDANCE WITH THE FENCING SCHEDULES INCLUDED IN THE ASSOCIATED SUBDIVISION AGREEMENT;
- ACOUSTICAL CERTIFICATION, PROVIDED BY THE ACOUSTICAL ENGINEER;
- PAYMENT CERTIFICATION, PROVIDED BY THE FENCING CONTRACTOR ON THE CONTRACTOR'S LETTERHEAD STATING THAT ALL FENCING WORKS ARE PAID IN FULL; AND A
- STATUTORY DECLARATION, PROVIDED BY THE DEVELOPER.

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GENERAL

1. ALL FENCE POSTS WILL BE PLUMB WITHIN 5MM/M.

2.ALL FENCE HARDWARE TO BE GALVANIZED.

3.GATES ARE NOT PERMITTED IN DIVISIONAL FENCES, ADJACENT TO WALKWAYS, OPEN SPACE AREAS, PARKS, WOODLOTS, TRANS-CANADA PIPELINE (TCPL) OR OTHER CORRIDORS, HYDRO CORRIDORS, OR OTHER PUBLICLY OWNED PROPERTIES.

FOOTINGS

- 1.DEPTH OF FOOTING IS MEASURED FROM CURRENT GRADE LEVEL AT THE TIME OF INSPECTION. TOP OF CONCRETE WILL BE 75 MM BELOW FINAL GRADE. SONOTUBES MAY BE REQUIRED TO ELEVATE TOP OF CONCRETE.
- 2.ALL FENCE POSTS WILL INCLUDE CONCRETE FOOTINGS DELIVERED FROM A CONCRETE TRUCK AT 20 MPA AND AS PER THE APPROVED DETAIL.

3.EACH FENCE POST WILL EXTEND INTO THE CONCRETE FOOTING MINIMUM 1100 MM.

PRIVACY SCREEN FENCES WILL BE CONSTRUCTED:

- IN ACCORDANCE WITH THE CONSTRUCTION DETAIL INCLUDED ON THE APPROVED LANDSCAPE PLAN;
- AT A MAXIMUM HEIGHT OF 2000 MM;
- WITH MINIMUM 150 MM X 150 MM PRESSURE TREATED POSTS AT A MAXIMUM SPACING OF 2400 MM ON CENTRE, EVENLY SPACED OVER THE LENGTH OF THE FENCE WHEREVER POSSIBLE;
- WITH POSTS LOCATED ON THE RESIDENTIAL PRIVATE PROPERTY FLUSH TO THE PROPERTY LINE; AND
- WITH SOLID PANELS CONSTRUCTED WITH NO. 1 GRADE PRESSURE TREATED WOOD, SELECTED FOR GOOD APPEARANCE (MEMBERS WITH HEAVY KNOTS AND/OR SAP STAIN WILL BE MINIMAL AND WELL DISTRIBUTED THROUGHOUT THE INSTALLATION).

DECORATIVE FENCING WILL BE CONSTRUCTED:

- IN ACCORDANCE WITH THE CONSTRUCTION DETAIL INCLUDED ON THE APPROVED LANDSCAPE PLAN;
- AT A MAXIMUM HEIGHT OF 1000 MM IN ACCORDANCE WITH TOWN OF WHITBY FENCING BY-LAW NO. 4394-99 2(1) AND 2(2);
- WITH POSTS LOCATED ON THE RESIDENTIAL PRIVATE PROPERTY FLUSH TO THE PROPERTY LINE;
- WITH BLACK METAL, OR APPROVED EQUIVALENT;
- IN CONFORMANCE WITH CSA STANDARDS Z614-03 WITH NO OPENINGS BETWEEN 155 MM AND 225 MM; AND
- WITH GATES, WHERE PERMITTED (GATES SHALL OPEN INTO PRIVATE PROPERTY ONLY).

BLACK VINYL CHAIN LINK FENCING WILL BE CONSTRUCTED:

- IN ACCORDANCE WITH THE ASSOCIATED ENGINEERING STANDARD DETAIL #506.30 OR #506.40, AS APPLICABLE;
- WITH POSTS CENTERED ON THE PROPERTY LINE; AND
- WITH CHAIN-LINK FABRIC INSTALLED ON THE MUNICIPAL SIDE OF THE PROPERTY LINE.

NOTE* FENCING CONSTRUCTION NOTES CONTINUES IN DETAIL 757.10				
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ACOUSTIC FENCING (CONTINUED FROM DETAIL 757)

1. ACOUSTIC FENCES WILL BE CONSTRUCTED :

- IN ACCORDANCE WITH THE ENGINEERING STANDARD DETAIL FOR WOOD ACOUSTIC FENCE (506) AND THE ASSOCIATED WOOD ACOUSTIC FENCE NOTES (506.10);
- AT A MINIMUM HEIGHT OF 1800 MM (THE HEIGHT OF THE ACOUSTIC FENCE WILL BE MEASURED FROM THE HIGHEST ADJACENT GRADE WHERE THERE IS A GRADE DIFFERENCE AT EACH END OF THE FENCE AND TO TOP HORIZONTAL RAIL); AND
- AT A MAXIMUM HEIGHT AS PER THE APPROVED ACOUSTICAL REPORT AND SUBDIVISION AGREEMENT;

2.WOOD FENCE POSTS IN ACOUSTIC FENCES WILL BE:

- WITH POSTS LOCATED ON THE RESIDENTIAL PRIVATE PROPERTY, FLUSH TO THE PROPERTY LINE AND IN ACCORDANCE WITH THE ASSOCIATED ENGINEERING STANDARD #506 AND #506.1
- EVENLY SPACED OVER THE LENGTH OF THE FENCE WHEREVER POSSIBLE

3.STAIN OF WOOD ACOUSTIC FENCING WILL BE:

- APPLIED IN ACCORDANCE WITH THE ENGINEERING STANDARD DETAIL 506 AND 506.10;
- APPLIED ON CLEAN DRY WOOD USING SPRAY, BRUSH OR DIPPING METHODS TO ACHIEVE FULL COVERAGE OF ALL EXPOSED SURFACES;
- PRIOR TO ANY STAIN APPLICATION, THE FENCE CONTRACTOR IS REQUIRED TO NOTIFY THE FENCING INSPECTOR FOR REVIEW AND APPROVAL. ACOUSTIC FENCING REQUIRES FULL ACCEPTANCE PRIOR TO THE FIRST COAT OF STAIN.

4.LAYOUT OF ACOUSTIC FENCE RETURNS:

• LOCATION OF ACOUSTICAL FENCE RETURNS TO BUILDINGS WILL BE DETERMINED IN THE FIELD BY THE FENCING INSPECTOR AND THE DEVELOPER DURING THE PRE-FENCE CONSTRUCTION MEETING. ADDITIONAL FENCE RETURN LOCATES REQUIRE A MINIMUM FIVE (5) BUSINESS DAYS ADVANCE NOTICE TO THE FENCING INSPECTOR. ANY CHANGES TO ACOUSTICAL FENCE RETURNS REQUIRE NOTIFICATION, REVIEW AND ACCEPTANCE BY THE FENCING INSPECTOR IN ADVANCE OF INSTALLATION.

5.GATES IN ACOUSTIC FENCE RETURNS WILL BE:

- CONSTRUCTED WHEREVER REAR YARD ACCESS IS NOT POSSIBLE THROUGH THE OPPOSITE SIDE YARD OF THE RESIDENCE, AS FOLLOWS:
- PROVIDE A REASONABLE WIDTH FOR A PERSON TO PASS THROUGH, MINIMUM 1070 MM (42 INCHES);
- CONSTRUCTED IN THE SAME MANNER AND STYLE AS THE ACOUSTIC FENCE AND COMPLY WITH THE ASSOCIATED NOISE REPORT.

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