

## Addendum No. 2

City of Coquitlam  
Tender No. 23-029

### Street Tree Installation – 21 Lot Subdivision Mitchell East

**Issue Date:** February 16, 2023  
(Consists of 20 Pages, including Attachments 1 and 2)

Tenderers shall note the following amendments to the **CONTRACT DOCUMENT** as follows:

#### REVISIONS

##### R1 REPLACE

In the Invitation to Tender Page 2, the following is deleted:

**Tenders submitted must be accompanied by a copy of the original specified 10% Bid Bond and will be received:**

and is replaced with:

**Tenders will be received:**

##### R2 REPLACE

In the Instructions to Tenderers, Section 3.0 Submission of Tenders, the following is deleted:

**3.1 Tenders must be submitted on the Tender Form provided, accompanied by a copy of the original 10% Bid Bond quoting the Tender Name and Number, and be uploaded to the City's file transfer website.**

and is replaced with:

**3.1 Tenders must be submitted on the Tender Form provided, quoting the Tender Name and Number, and be uploaded to the City's file transfer website.**

##### R3 DELETE

In the Instructions to Tenderers, the following is deleted in its entirety:

##### **5.2 A tender must be accompanied by tender security ("*Bid Security*") in the form of:**

**5.2.1 a copy (digital or electronic copy is acceptable) of the original bid bond in an amount equal to 10% of the Tender Price, issued by a surety licensed to carry on the business of suretyship in British Columbia in a form reasonably satisfactory to the *Owner*;**

##### R4 REPLACE

In the Instructions to Tenderers, the following is deleted:

**5.4 The successful tenderer will, within 15 Days of receipt of the written *Notice of Award*, be required to deliver to the *Owner* the items listed in FT5.1.1, including a Performance Bond and a Labour and Material Payment Bond as described in FT5.1.1(a), failing which the provisions of FT6.1 will apply.**

is replaced with:

**5.4 The successful tenderer will, within 15 Days of receipt of the written Notice of Award, be required to deliver to the Owner the items listed in FT5.1.1, failing which the provisions of FT6.1 will apply.**

**R5 REPLACE**

In the Form of Tender, Page the 1, the following is deleted:

**Tender submitted must be accompanied by a copy of the original 10% Bid Bond and will be received:**

and is replaced with:

**Tender will be received:**

**R6 DELETE**

In the Form of Tender, 5 We Agree , 5.1.1, the following is deleted in its entirety:

**a) a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the Contract Price, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the Owner;**

**R7 DELETE**

**Appendix 6 – Bid Bond**

is deleted in its entirety.

**R8 DELETE**

In the Supplementary General Conditions the following is deleted in its entirety:

**Appendix I Performance Bond, and**

**Appendix II Labour and Material Payment Bond**

**R9 DELETE**

In the Contract Specific Notations, 3.01 Pre-Construction Meeting Requirements the following is deleted:

**3. Performance Bond and Labour and Materials Payment Bond**

**R10 ADDITION**

In the Supplementary Contract Specifications, the following Specifications:

**Section 32 92 23 Sodding Platinum, and**

**Section 32 93 01 Planting of Trees, Shrubs and Groundcovers**

are added in their entirety. see Attachment No. 1 and Attachment No. 2 to this Addendum

**QUESTIONS:**

**Q1.** Will the City accept a Certified cheque representing 10% of the contract in lieu of a bid bond?

**A1. \*PLEASE NOTE\***

**Bonding will not be required on this project. Bonding not required will include: Bid Bond, Performance Bond, Labour and Material Payment Bond. Refer to Revisions above.**

**Q2.** If the topsoil is supplied by a reputable source E.g. the Answer, do we still need to get the soil tested or can we provide you with the supplier's soil analysis?

- A2. The successful Bidder is responsible for testing imported *Growing Medium* and all related costs incurred. Testing shall be carried out by Pacific Soil Analysis (Ph.: 604.273.8224) or an approved *Soil Testing Laboratory*.**

The sample analysis shall be of tests done on the proposed *Growing Medium* from samples taken at the supply source within a minimum of 14 days in advance of *Growing Medium* placement.

A copy of all test results shall be forwarded directly to the Contract Administrator and/or the City for review.

The successful Bidder shall not deliver any *Growing Medium* to the site until the test results have been reviewed and approved by the Contract Administrator and/or the City.

- Q3. Can you provide an approximate timeline between completion of this project and when the City will take over the maintenance of the trees? We ask this from a budgeting estimate for watering if we are to maintain these trees throughout the growing season.

- A3. Please see attached specifications to be included in the Contract Documents:**

**Section 32 92 23S - Sodding**

**Section 32 93 01S - Planting of Trees, Shrubs and Groundcovers**

**Regarding the maintenance period for the *Trees*:**

The maintenance period shall begin at the time each tree is planted and continues for fort-five (45) days from the certified Date of *Substantial Performance*, as per the Specification.

**Regarding the maintenance period for the *Sod*:**

The maintenance period shall begin immediately after sodding operation and shall continue until all deficiencies noted in the *Substantial Performance* review have been rectified, and all conditions for *Total Performance* have been achieved, as per the Specification.

- Q4. Can we submit a total tender price as an option rather than providing a price for each line item specification?

- A4. No.**

The City maintains accurate records of all new asset inventory, and the cost of those assets needs to be separated from the cost of the total tender price.

- Q5. Confirming line item 4.03 price includes the cost of purchasing a tree?

- A5. Yes, line item 4.03 shall include the cost to supply and install the tree, as well as, the items shown on City Detail COQ-L2A.**

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*End of Addendum No. 2*

Tenderers shall take into account the content of this Addendum in the preparation and submission of the Tender which will form part of the contract and shall be acknowledged on the Tender Form, Item 1.

Upon submitting a Tender, Tenderers will be deemed to have received notice of all Addenda that are posted on the City's website and deemed to have considered the information for inclusion in the Tender submitted.

*Issued by:*

Mark Pain  
Purchasing Manager  
Email: [bid@coquitlam.ca](mailto:bid@coquitlam.ca)

**PART 1.0 - GENERAL**

1.1 General Requirements

- .1 Section 32 92 23 refers to those portions of the *Works* that are unique to the supply and placement of grass sod. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the *Works* described herein.
- .2 Furnish all labour, materials, equipment and services necessary for the supply and placement of grass sod to areas indicated on drawings.
- .3 The work of this section shall include, but shall not necessarily be limited to the supply, installation and maintenance of the following:
  - .1 Finish grade growing medium
  - .2 Sodding
  - .3 Maintenance of seeded areas until Total Performance
- .4 This section is based on the "British Columbia Landscape Standards and the B.C. Nursery Trades Association. This standard is intended to set a level of quality which is equaled or bettered in the construction documents.

1.2 Related Work

- .1 Section 31 22 01 - Site Grading
- .2 Section 32 91 21 - Growing Medium Preparation and Placement
- .3 Section 32 92 20 - Seeding
- .4 Section 32 92 19 - Hydraulic seeding
- .5 Section 32 93 01 - Planting of Trees, Shrubs and Groundcovers
- .6 Section 32 84 23 - Irrigation

1.3 References

- .1 Master Municipal Construction Documents(MMCD) Volume II 2009 Platinum Edition
- .2 British Columbia Landscape Standards (current edition)
- .3 Canadian System of Soil Classification (current edition)

1.4 Interpretation of the Work

- .1 The Contractor shall be fully acquainted with the existing site and shall fully understand the difficulties and restrictions attending the execution of the work under this contract. Any 'interpretations' by the Contractor of the meaning of any section of the contract drawings and specifications herein prior to submitting a tendered price shall not remove the responsibility of completing the *Works* as per the directions of the City Representative/Consultant, including all costs associated with the *Works*, should the Contractor's 'interpretation' be incorrect. In order to avoid Contractor 'interpretations' prior to submitting a tendered price for the *Works*, the Contractor must seek clarification from the City Representative/Consultant for any items within the contract drawings and specifications that may appear to be unclear or conflicting.

1.5 Quality Assurance

- .1 City Representative/Consultant shall review sod sample for approval prior to installation. The sample accepted by the review will form the standard by which the project will be supplied.
- .2 Should the Contractor require the source of sod supply to change during the construction a written request must be provided to the Consultant 48 hours in advance. The request is to be followed up by submission of proposed sod substitution sample and include the name of sod farm, base soil type, seed mix percentage for Consultants review prior to the start of supply to the site.
- .3 Sod shall be cut by machine designed for that purpose, and by acceptable methods to an industry standard length of 457mm wide by 2.19m long (1m<sup>2</sup>), plus or minus two (2) percent in width and five (5) percent in length. Small, irregular or broken pieces of sod delivered to the site will be rejected.
- .4 Sod to be cut to a uniform soil thickness of 16mm (0.7 inches) excluding top growth or thatch, lifted in such a manner to prevent tearing and breaking and rolled for shipment.

- .5 Grass height at time of sod cutting shall be 40mm and 60mm (1 1/2" – 2").
- .6 All sod shall be completely free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.
- .7 Broken, dry or discoloured sod is unacceptable and will be rejected.

1.6 Scheduling

- .1 Schedule all operations to ensure optimum environmental protection, grading, growing medium placement, planting, seeding or sodding operations as outlined in the contract specifications.
- .2 Schedule seeding to coincide with preparation of soil surface and as designated by the City Representative/Consultant.
- .3 Organize scheduling to ensure a minimum of on-site storage of seed and fertilizer material, minimum movement and compaction of growing medium, and prompt watering operations. Coordinate work schedule with scheduling of other trades on site.
- .4 Plan, schedule and execute the work to ensure a supply of water for landscape purposes in adequate amounts and at adequate pressures for satisfactory irrigation of all seeded areas.

1.7 Delivery Storage and Protection

- .1 Schedule sod deliveries such that sod installation occurs within twenty-four (24) hours of being lifted from the source sod farm.
- .2 Sod is to be neatly stacked or rolled at the source sod farm, delivered and unloaded on sturdy pallets which are no more than 3 pallets high.
- .3 Protect sod during transport to the site to prevent excessive drying. Sod to arrive at site green in colour, fresh and healthy condition.

1.8 Samples

- .1 Submit one (1) square metre (1 square yard) of sod to Consultant for review. Ensure sample is complete with name of sod farm, base soil type, seed mix percentage.
- .2 The City Representative/Consultant requires a sample which has been handled and shipped in such a manner as to be representative of product supplied and placed.

1.9 Drainage Control

- .1 Provide for proper water management and drainage of site during work of this section. Water management shall include silt traps, erosion control measures, temporary water collection ditches, as well as their adequate maintenance to ensure that storm water which may become laden with soil, growing medium or hydraulic seed is detained and cleaned prior to discharge from site.

1.10 Site Examination

- .1 Examine site prior to the commencement of work to verify surface preparation is complete and has been accepted by the City Representative/Consultant.

1.11 Guarantee

- .1 The Contractor hereby guarantees that the sod will remain free of weeds and defects for a period of one (1) year from the date of Substantial Performance. The contractor shall make all corrections, adjustments and replacements required as a result of failure of all products in this section.
- .2 The Owner reserves the right to extend the Contractor's guarantee period and responsibilities for one (1) additional year if, at end of the initial guarantee period if the development and growth of the sod is not sufficient to ensure future survival.

1.12 Inspection and Testing

- .1 Refer to MMCD General Conditions, Clause 4.12, Tests and Inspections
- 1.13 Measurement and Payment
- .1 Payment for sodding includes the necessary equipment to supply, placement and maintenance to meet conditions of Total Performance.
- .2 Measurement for payment will only be made for surfaces actually sodded. Areas of blending into existing grass or sod and areas of overlaying onto existing grass or sod will not be measured for payment.
- .3 No additional payment will be made for pegging of sod over sloped areas.
- .4 Measurement and payment for this item shall be by the square meter of sod supplied, placed and maintained, as determined by field measurements by the City Representative/Consultant. Tender unit price to include full compensation for all labour, materials and equipment required to complete the work as specified.
- .5 Payment for all *Work* performed in this section will include supply, application of grass seed and maintenance to meet conditions of Total Performance as specified in Section 32 92 23 – 3.6 and 3.7.

**PART 2.0 – PRODUCTS**

2.1 Materials

- .1 Sod to be approved by the City Representative/Consultant and to be nursery grown, true to type, conforming to standards of nursery Sod Growers' Association and their Nursery Sod Specifications. Sod to be quality, cultured turf grass grown from seed approved by Canada Department of Agriculture, free of disease, clovers, stones, pests and debris.
- .2 Nursery sod:
- .1 Shall be No. 1 Premium grade and contain only species of grass indicated on the suppliers certificate.
- .2 Sod is to be 'non-netted'

.3 Table Guideline of Approved Sod Mix Ratios

<b>Supreme Soil Base Sod</b>	
(Elka II) Perennial Ryegrass	40%
(Shamrock) Kentucky Bluegrass	30%
(Cindy) Chewing Red Fescue	30%
<b>Seed Rate:</b> 50g per square metre (10 lbs per 1000 ft <sup>2</sup> ) (435 pounds per acre)	
Acceptable products include 'Supreme' as supplied by Anderson Sod Farms, Dewdney, BC or approved equal.	

- .4 Water:
- .1 Potable, free of impurities that would inhibit seed germination. Contractor to ensure adequate water is available to maintain seeded areas during germination and in a vigorously growing, healthy state until Final Acceptance of work of this section.
- .5 Fertilizer: complete synthetic slow release fertilizer. Type and application shall be as required by the growing medium analysis report.
- .6 Wooden Pegs: 19mm x19mm x 150mm long (3/4"x3/4" x 6") No. 1 grade or better Hem/fir
- .7 Binder Twine: Hemp based multiple strand string.
- .8 Flagging Tape: 30mm wide (1.875"), biodegradable ribbon tape made of non woven cellulosic material, colour: red, or an approved equal.

### **PART 3.0 – EXECUTION**

#### **3.1 Finish Grade Preparation**

- .1 Do not perform work under adverse field conditions such as frozen soils, excessively wet or dry soils or soils covered with snow, ice or standing water.
- .2 Loosen existing sub grade by means of thorough scarification, discing or harrowing to minimum 150mm (6") depth over entire area to receive growing medium and seed.
- .3 Fine grade scarified sub grade. Fine grading process shall ensure area to receive growing medium and seed provides slopes (2% minimum - 33% maximum) for positive drainage, is free of humps and hollows, deleterious material, sticks and stones over 50 mm (2") in size (dimensions relates to length, width and height).
- .4 Place growing medium to a depth of 300mm (12") when compacted to 80%MPD. Compaction of growing medium to 80% MPD will not leave deep foot impressions when walked on.
- .5 Fine grade growing medium to lines and levels indicated on construction documents. Ensure that all low spots, humps and irregularities are eliminated prior to review by City Representative/Consultant.
- .6 Finish grade growing medium smooth to extent required for class of sodding to be carried out, firm against footprints, loose textured and free of all stones, roots, branches, etc. larger than 25mm (1") or required for removal for class of sodding to be carried out.
- .7 Prior to the placement of sod City Representative/Consultant to review and direct minor adjustments and refinements of finish grades prior to the Contractor proceeding. Review includes grades, growing medium depth and condition of finished surface. Subsequent to the City Representative/Consultant review and at no cost to the Owner the Contractor shall re-grade, add growing medium and make adjustments as directed by City Representative/Consultant.
- .8 Remove and dispose of weeds, soils contaminated by oil, gasoline and any other deleterious materials to an approved off-site disposal area.

#### **3.2 Laying of Sod**

- .1 Placement of sod during hot dry summer periods, at freezing temperatures, or over frozen growing medium is not acceptable. Sod placed in these conditions will be rejected.
- .2 Allow sod to dry sufficiently during wet weather to prevent tearing during lifting and handling.
- .3 Handle sod carefully to minimize tearing and dropping of soil.
- .4 Placement of Sod:
  - .1 Lay sod in rows smooth and flush to adjoining grass areas and paving and top surfaces of curbs unless shown otherwise on Contract Drawings. Ensure there is a full roll width between the new sod and any adjoining surfaces. Small cut pieces from a full roll will not be accepted.
  - .2 Stagger joints and ensure that sod sections are butted closely together without overlapping or leaving gaps between sections.
  - .3 Cut out irregular or thin sections with a sharp knife.
  - .4 Cut sod to fit tight around landscape elements.
  - .5 Cut sod to create clean, smooth lines along all plant beds.
- .5 Placement of Sod on Slopes:
  - .1 Lay sod with the length of each sod section parallel to slope taking extra care to ensure that sod sections are butt tight and each sod section is set in a staggered formation.
  - .2 On slopes exceeding 3:1 gradient ensure sod is secured with wooden pegs at intervals of not more than 450mm (18") along the center of each section. Ensure wooden pegs are driven flush with the sod.
  - .3 Prior to acceptance of sod areas that have been secured with wooden pegs either



remove the wooden pegs or drive each wooden peg at least 50mm (2") below finished grade.

- .4 Where required, place erosion control mesh or netting and secure with stakes or staples sunk firmly into ground to a minimum depth of 150 mm at maximum intervals of 4 meters along pitch of slope. Place stakes or staples horizontally across slope at intervals equal to width of mesh or netting minus 150mm and drive flush with top of sod.
- .6 Use a light roller to ensure that there is full, close contact between sod and growing medium. Use of a heavy roller to correct irregularities in grade is not permitted.
- .7 Ensure all sodded areas are watered immediately after installation. Verify that water applied to has penetrated through sod into top 100 mm (4") of growing medium. Continue watering operations as needed to ensure that adequate moisture content is maintain to encourage deep root growth and healthy, vigorous leaf growth.
- .8 Protect newly placed sod from heavy foot traffic during installation and until acceptance by the Consultant. Protection shall include but is not limited to placement of wood planks or plywood of sufficient thickness to bear the imposed weight and prevent damage to sod or displacement and/or compaction of sod/growing medium
- .9 Sod that has been damaged by construction operation, construction/ site personnel or construction traffic shall be replaced at no cost to the Owners. Replacement shall include removal of growing medium, regarding of sub grade, replacing growing medium and sod as required.

### 3.3 Protection

- .1 Protect all sodded areas against trespassing and from damage at all times clearly marked, staked, string and flagging tape.
- .2 Perimeter Protection: All sodded areas shall be surrounded by a 900 mm high barrier made up of the following components:
  - .1 Wood posts placed at 1.8 metres (6'-0") on centre.
  - .2 Wood Posts to be driven to a depth of 300mm (12").
  - .3 String two (2) strands of hemp based binder twine (or equal product) between posts. Insure one full wrap of twine around each post.
  - .4 Tie 300 mm (12") strands of 'red' flagging tape at 450 mm (18") intervals along the entire length of both strands of twine.
  - .5 Maintain perimeter protection until Final Acceptance of seeded area by consultant. Upon acceptance remove perimeter fence and dispose of off site.
- .3 Hydraulic seeded areas that have been damaged by construction operation, construction/ site personnel or construction traffic shall be replaced at no cost to the Owners. Replacement shall include removal of growing medium, regarding of sub grade, replacing growing medium and reseeding as required.

### 3.4 Clean Up:

- .1 Remove from the Work Site all surplus material and other debris resulting from sodding operations.
- .2 Immediately flush all walkways and paved areas where growing medium or debris has been spilled onto surfaces and clean to the satisfaction of the City Representative/Consultant.

### 3.5 Maintenance

- .1 Maintenance of sodded areas shall begin immediately after sodded operation and shall continue until all deficiencies noted in the Substantial Performance review have been rectified to the satisfaction of the City Representative/Consultant and conditions for Final Acceptance been achieved. The Contractor is to notify the City Representative/Consultant in writing forty eight hours (48) prior to stopping maintenance operations.

- .2 Sod Cutting: After the 'first' cut of sodded lawn areas cutting operations shall be carried out on a weekly (seven day) basis until Final Acceptance by City Representative/Consultant:
  - .1 First cut of sodded lawn areas shall occur when a uniform grass height of 75mm (3") has been attained. First cut shall be to a height of 65 mm (2.5").
  - .2 Continue regular weekly cutting at a height of 65mm (2") until Final Acceptance.
  - .3 Cutting operations shall be such that each cut is at right angles to the previous cut.
  - .4 Contractor to remove grass clippings after each cut and dispose of off site.
  - .5 Roll when required to remove any minor depressions or irregularities.
  - .6 Immediately repair seeded areas that show deterioration or bare spots. Top-dress all areas showing shrinkage due to lack of watering and seed with seed mix that matches the original seed mix.
- .3 Fertilizer analysis shall conform to recommendations provided with growing medium analysis. Application of fertilizer shall follow manufacturers' recommendations noting that after October 1 lawn areas shall not be fertilized until April 15th of the following spring.
- .4 Sodded lawn areas are to be kept free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects
- .5 All maintenance equipment and practices are to conform to the BC Landscape Standard Level 2 'Groomed'.

3.6 Conditions for Total Performance

- .1 Conditions for Total Performance of Sodded areas:
  - .1 Sodded areas exhibit fully established root systems.
  - .2 No seams are visible between sod sections.
  - .3 Sod areas are smooth and evenly graded. No depressions, foot marks or vehicle tracks.
  - .3 Sod is free of bare and dead spots and does not have any broadleaf weeds, noxious grasses including but not limited to poa annua.
  - .4 No surface growing medium is visible when grass has been cut to height of 65 mm (2 1/2").
  - .5 Sodded areas have been cut a minimum of two (2) times, at seven (7) day intervals.
  - .6 Sodded areas are a uniform green colour with no discoloured sections or patches.
  - .7 Sodded areas exhibit a thick, dense, uniform and healthy appearance.
- .2 Lawns sodded after September 30 will be not be reviewed for Final Acceptance until April 30<sup>th</sup> the next year.

3.7 Guarantee/Maintenance

- .1 One(1) year guarantee period will apply as standard for hydraulic seeded work. Contractor to guarantee all materials and workmanship for a period of one full year from the date of Total Performance, unless specified otherwise in contract documents.
- .2 One(1) year guarantee period includes replacing all hydraulic seeded areas determined by City Representative/Consultant to be dead or failing at the end of the guarantee period. Replacements to be made at next appropriate season and, conditions of guarantee will apply to all replacement seeding for one full growing season.
- .3 Contractor is responsible for materials and workmanship until Total Performance. After Total performance Owner is responsible for work and maintenance.

**END OF SECTION 32 92 23**

## **PART 1.0 - GENERAL**

### **1.1 General Requirements**

- .1 Section 32 93 01SS refers to those portions of the *Works* that are unique to the sourcing, supplying, placing and maintaining the plant material indicated on the Contract Drawings and the Plant List(s). This section must be referenced to and interpreted simultaneously with all other sections pertinent to the *Works* described herein.

### **1.2 Related Work**

- .1 Section 31 22 01 - Site Grading
- .2 Section 32 91 21 - Topsoil and Finish Grading
- .3 Section 32 92 20 - Seeding
- .4 Section 32 92 19 - Hydraulic Seeding
- .5 Section 32 92 23 - Sodding

### **1.3 References**

- .1 Master Municipal Construction Documents(MMCD) Volume II 2009 Edition
- .2 British Columbia Landscape Standards (current edition)
- .3 Canadian System of Soil Classification (current edition)
- .4 Canadian Nursery & Landscape Association (CNLA) Standard for Nursery Stock (current edition).
- .5 The British Columbia Landscape & Nursery Association (BCLNA).
- .6 ANSI A-300 Tree Pruning Guidelines

### **1.4 Source Quality Control**

- .1 Seven (7) days prior to the City Representative/Consultant review of plant material at source the Contractor shall confirm in writing availability of plant material noted on Plant List.
- .2 Plant material will be supplied from nurseries who are certified by the Clean Plants program, Canadian Nursery Certification Institute (CNCI), current certification standard <http://cleanplants.ca/>. The certification shall include but is not limited to the requirements of the current active module(s), e.g. P. Ramorum module. The certification must extend to all fields and allied nursery operations where plant material is sourced. Only nurseries, fields and allied nursery operations that are certified will be permitted to supply plant material for this project.
  - .1 Prior to the review of plant material by the City Representative/Consultant the Contractor shall submit written documentation with CNCI certification stamp stating that the nursery has undergone all components of a certification program and has been audited to verify that all components are properly implemented.
  - .2 The documentation submitted shall include but is not limited to the nurseries CNCI Clean Plants certification number.
- .3 Plant Material Review at the source nursery
  - .1 Contractor request for review of the plant material at source nursery to be a minimum of seven (7) days prior to scheduled review.
  - .2 Shipping of plant material to project site shall not proceed until City Representative/Consultant has reviewed the plant material at the source nursery.
  - .3 City Representative/Consultant shall make one (1) visit to source nursery for review of plant material for entire project.
  - .4 All plant material, including substitutions shall be gathered at one location for review.
  - .5 Contractor shall accompany City Representative/Consultant during plant material review at the source nursery.
- .4 Plant Material Review at Project Site
  - .1 All plant material shall be reviewed at the project site by the City Representative/Consultant prior to planting.
  - .2 Plant material that is rejected by the City Representative/Consultant shall be immediately removed from the site and replaced at the Contractors expense.

- .5 Imported Plant Material
  - .1 Plant material imported from out of province and out of country shall be accompanied with necessary federal and provincial permits and import licenses.
  - .2 The contractor shall conform to all federal and provincial laws and regulations with regard to horticultural inspection of domestic and imported plant material.
- .6 Condition of Plant Material
  - .1 Plant rootballs and containers shall be completely free of noxious weeds and volunteer plants including Horsetail and Morning Glory.
  - .2 Plant materials grown or supplied in Fabric Containers are not acceptable.
- 1.5 Quality Assurance
  - .1 All materials and execution to conform to the latest edition of the BCNTA Guide Specifications for Nursery Stock and the BCNTA Guide Specifications for Landscape Construction.
- 1.6 Submittals
  - .1 Certificates
    - .1 Submit inspection certificates as required by law for each shipment of plant material.
  - .2 Confirmation Plant List
    - .1 Contractor shall provide in writing to the City Representative/Consultant a minimum of seven (7) days prior to review of plant material at the source nursery a plant list confirming the quantity, botanical name, common name and size of plants specified.
  - .3 Substitutions
    - .1 Contractor shall provide in writing to the City Representative/Consultant a minimum of seven (7) days prior to review of plant material at the source nursery a list of proposed substitutions for review.
    - .2 Plant substitutions shall be of similar genus and species and of equal or greater size as those originally specified. The list shall contain the following information:
      - .1 Botanical name, common name of the specified plant
      - .2 Botanical name, common name of the proposed substitute plant
      - .3 Pot size and plant size in the nursery
  - .4 Planting Schedule
    - .1 Contractor shall provide in writing to the City Representative/Consultant upon award of the Contract a detailed Planting Schedule outlining dates and duration of planting operations.
    - .2 Revisions to the Planting Schedule as a result of delays of any kind shall be submitted to the City Representative/Consultant in a timely manner prior to the start of planting operations.
    - .3 Schedule all planting to ensure optimum environmental protection, grading, growing medium placement, planting, seeding, or sodding operations as outlined in these Specifications. Organize scheduling to ensure a minimum duration of on-site storage of plant material, minimum movement and compaction of growing medium, and prompt mulching and watering operations. Coordinate works schedule with schedule of other trades on-site.
    - .4 Coordinate and schedule plating such that no damage occurs to plant material before and after placement. In particular, meet requirements of living plant material.
  - .5 Product Data
    - .1 Composted Mulch
      - .1 Contractor to submit a one (1) litre sample of Composted Mulch to the City Representative/Consultant for review prior to shipment to the site.
    - .2 Prepared Growing Medium
      - .1 Contractor to submit a one (1) litre sample of the Prepared Growing Medium to the City Representative/Consultant for review prior to shipment to the site.
    - .3 Anti-desiccant

- .1 Contractor to submit three (3) copies of manufacturer product data and specification for City Representative/Consultant review.
- .4 Fertilizer
  - .1 Contractor to submit three (3) copies of manufacturer product data and specification for City Representative/Consultant review.
- .5 Guying assembly including clamps, collar, guying wire, anchors and wire tighteners
  - .1 Contractor to submit three (3) copies of manufacturer product data and specification for City Representative/Consultant review.
- 1.7 Substitutions
  - .1 If it is impossible to obtain the particular plant material listed on the Landscape Drawing, the Landscape Contractor may be permitted to suggest substitutions with types and variations possessing the same characteristics. The Landscape Contractor must request any substitutions of trees in writing at least one (1) months and shrubs and groundcover at least one (1) months prior to planting. Substitutions must be approved by the City Representative/Consultant.
- 1.8 Plant Material Supply and Search Area
  - .1 Before substitutions of plant material are proposed, documented proof that materials are not available through search on the west coast of Canada and United States must be provided. Area of supply shall include, but not be limited to, all of Western North America.
- 1.9 Shipment and Pre-Planting Care
  - .1 Coordinate shipping of plant material and excavation of planting pits to ensure minimum time lapse between nursery digging and on site planting.
  - .2 Ensure branches of trees and shrubs are bound securely into a confined mass during handling and transport.
  - .3 Do not bind planting stock with rope or wire that would damage bark, break or damage branches or damage the natural shape of the plant
  - .4 Protect plant material against abrasion, and exposure to extreme temperature change during transit.
  - .5 Cover plant foliage and branches with tarpaulin to prevent loss of moisture during transit.
  - .6 Fully support root ball of large trees during all lifting operations.
  - .7 Do not lift trees or shrub by the trunk or branches. Plant material to be moved by lifting the root ball or container.
  - .8 Remove broken and damaged roots with clean cuts using sharp pruning shears.
  - .9 Temporary Storage/ Heel-In of Plant Material on Site:
    - .1 Temporarily store trees, shrubs and miscellaneous plant material that can not be planted immediately by heeling-in. Acceptable heel-in material includes approved growing medium or sawdust.
    - .2 Ensure temporary storage/heel-in area is shaded and protected from the wind.
    - .3 Provide sufficient water at regular intervals to ensure health of plant material in the temporary storage/heel-in area.
    - .4 Plant material that has not been properly maintained in the storage/heel-in area and illustrates signs of degradation or stress will be rejected by the City Representative/Consultant. Rejected plant material shall be replaced at by the Contractor at no cost to the Owner.
- 1.10 Plant Material Identification
  - .1 Plant material that has been located by the City Representative/Consultant and tagged for the project is to have the identification tags removed only after inspection and instruction by the City Representative/Consultant after delivery to the site.
- 1.11 Plant Material Replacement
  - .1 The contractor shall remove from the site and immediately replace any plant material that has been determined by the City Representative/Consultant to have died or failed to grow in a

satisfactory manner during the guarantee or maintenance period.

- .2 The Contractor shall extend the guarantee on this replacement plant material for one (1) year from the date of removal.
- .3 The Contractor shall continue such replacement and guarantee of plant material until the City Representative/Consultant has determined that the 'Conditions for Final Acceptance' have been met.
- .4 All required replacements shall be plants of the same size and species as specified on the plant list and shall be supplied and planted in accordance with the drawings, specifications and change orders thereto.
- .5 The cost of replacements resulting from theft, accidental damage, vandalism, carelessness, neglect on the part of others, shall be borne by the Landscape Contractor until the certified date of Substantial Performance.

1.12 Maintenance

- .1 The maintenance period begins at the time each plant is planted and continues for one (1) year from the certified date of Substantial Performance. In cases where one (1) year maintenance is not required, the maintenance period shall begin at the time each plant is planted and continues for forty-five (45) days from the certified date of Substantial Performance.
- .2 Maintenance includes necessary watering, cultivation, weeding, pruning, mowing, aerating, disease and insect control, protective spraying, replacement of unacceptable material, straightening plants which lean or sag, adjustment of plants which settle or are planted too low, and any other procedures consistent with good horticultural practice necessary to insure normal, vigorous and healthy growth of all work under this contract.
- .3 Maintain all accessories such as tree stakes, etc., in good condition including adjustment to keep tree stakes tight and repair or replace all such accessories when required.

1.13 Guarantee/Warranty

- .1 The Contractor hereby guarantees/warrants that the plant material will remain free of defects in accordance the General Conditions for a period of one (1) year from the date of Substantial Performance. The contractor shall make all corrections, adjustments and replacements required as a result of failure of all plant material in this section.
- .2 The Owner reserves the right to extend Contractor's guarantees/warrantees period and responsibilities for one (1) additional year if, at end of the initial guarantee/warranty period the leaf development and growth of the plant material is not sufficient to ensure future survival.
- .3 The Consultant reserves the right to reject plant materials at any time during installation, for which the Landscape Contractor shall be responsible for replacing to the satisfaction of the Consultant.
- .4 End of warranty inspection will be conducted by City Representative/Consultant.

1.14 Interpretation of the Work

- .1 The Landscape Contractor shall be fully acquainted with the existing site and shall fully understand the difficulties and restrictions attending the execution of the work under this contract. Interpretations by the Landscape Contractor of the meaning of any section of the contract drawings and specifications herein prior to submitting a tendered price shall not remove the responsibility of completing the Work as per the directions of the City Representative/Consultant, including all costs associated with that Work, should the Landscape Contractor's interpretation be incorrect. Prior to submitting a tendered price for the Work, the Landscape Contractor must seek clarification from the City Representative/Consultant for any items within the contract drawings and specifications that may appear to be unclear or conflicting.

1.15 Measurement and Payment

- .1 Payment for trees shrubs and groundcovers will include all preparatory work, supply, planting guying and mulching of the trees, shrubs and groundcovers as applicable and other incidental work specified herein including maintenance to meet Conditions of Total Performance.
- .2 The Contractor shall furnish all services, labour, materials, equipment, plant and operations to supply and install all items based upon respective unit prices in the *Schedule of Quantities and Prices*.

**PART 2.0 – PRODUCTS**

2.1 Materials

- .1 Water
  - .1 Potable and free of minerals that are detrimental to plant growth.
- .2 Composted Mulch
  - .1 9mm (3/8") Composted Mulch, black/brown in colour with no cedar or redwood bark or wood material manufactured by Yard Works, Richmond, BC, Eco-Soil ,Langley BC Fraser Richmond Bio-Cycle, Richmond, B.C. or pre-approved equal.
- .3 Anti-desiccant
  - .1 Wax-like emulsion that will provide a transpiration reducing film over the plant surface. Moisturin by GSI Horticultural, Bend, Oregon, (541) 383-0222 or approved equal.
- .4 Tree Trunk Protection
  - .1 Extrusion mold process, polyethylene with UV protectors: "Arborgard" manufactured by DeepRoot products Canada, Inc., Vancouver, B.C., or pre-approved equal.
- .5 Burlap
  - .1 Shall be untreated, free from toxic contaminants and of sufficient strength to hold the rootball in a compact, stable mass that does not move relative to the main stem(s) of the tree or shrub.
- .6 Wire Baskets
  - .1 Non-galvanized metal basket designed and manufactured for the purpose of tree moving. Basket shall be shaped to ensure that the root ball will allow a stable planting condition in accordance with standards noted.
- .7 Tree Ties
  - .1 Flat woven polypropylene material. 20 mm (3/4") wide, 544 Kg. (1200 lb), break strength. Arbor Tie by Deep Root or approved equal.
- .8 Tree Guy Anchors/ Tree Guy System
  - .1 Direct burial or screw type disc guy anchor and guy system. The Arrow Anchor by Tree-Guy/ Tree Guy System, Santa Anna, California (800) 624-1116, or approved equal.
- .9 Stakes and Stake Fasteners
  - .1 ACQ pressure treated Hem/Fir, 75 mm dia. (3") round, 2500 mm (8'-0") long. Stake fasteners shall be hot dipped galvanized or stainless steel.
- .10 Flagging Tape
  - .1 30mm (13/16") wide 'Red' PVC flagging tape by Identi-Tape, Boulder, CO or approved equal.
- .11 Planting Fertilizer Tablets
  - .1 Prolonged-release fertilizer tablets containing a minimum of 20% nitrogen, 10% phosphoric acid, and 5% potash (20-10-5). Evergro Tabs as supplied by Agrico or pre-approved equivalent. Store in weatherproof storage space.

2.2 Plant Material

- .1 Plant Material Size
  - .1 Overall plant spread to be measured when branches are in their natural position.
  - .2 Height and spread dimensions refer to main body of plant and not from branch tip to branch tip.
- .2 Grade
  - .1 Plant material to be No. 1 grade or better.

- .3 Plant material obtained from areas with milder climatic conditions from those of site is acceptable provided:
  - .1 Plant material is moved to the site prior to the breaking of buds at their original climatic zone.
  - .2 Plant material is heeled-in at a protected area until the climatic conditions are suitable for planting.
  
- .4 Plant material shall have structurally sound, strong fibrous root system free of disease, insects, defects or injuries. All plants, typical of their species or variety, have a normal habit of growth and shall be first quality, sound, healthy, vigorous, well branched, and densely foliated, free of disease, insect pests, eggs or larvae.
  
- .5 Root Pruning at Source Nursery
  - .1 Plant material shall have been root pruned on a regular basis at the source nursery.
  - .2 Plant material shall be root pruned at least one growing season prior to digging and shipment to the project site.
  - .3 Large trees shall be half root pruned during each of two successive growing seasons. The second root pruning shall have carried out a minimum of one growing season prior to shipment to the site.
  
- .6 Shade, Ornamental and Evergreen Trees:
  - .1 Trees shall have straight trunks and a well-formed branch system which is characteristic of the species
  - .2 Trees shall exhibit clear signs of vigorous growth.
  - .3 Trees shall have good twig extension growth, branch spacing and trunk taper.
  - .4 Tree foliage shall be evenly distributed on upper 2/3 of the tree.
  - .5 Trees shall not have upright branches other than leaders.
  - .6 Trees will have spreading branches with a single trunk and a single leader and, unless otherwise noted on plans or plant list.
  - .7 Tree trunks and branches shall not have any mechanical damage.
  - .8 Trees shall be in good health with no presence of insects or disease.
  - .9 Trees shall not have been 'headed back'.
  - .10 Tree root balls shall be solid, kept moist at all times and/or protected from drying.
  - .11 Trees shall not exhibit symptoms of root circling or girdling.
  
- .7 Container Grown Plant Material:
  - .1 Root ball to container relationship shall be of sufficient ratio to ensure room for healthy, vigorous root development.
  - .2 Plant material shall have been container grown for a minimum of one (1) growing season but not longer than two (2) growing seasons.
  - .3 The plant root systems that do not have the ability to "hold" growing medium when removed from the container will be rejected.
  - .4 Root bound plant material will be rejected.
  
- .8 Balled and Burlapped Plant Material:
  - .1 Coniferous and broadleaved evergreens over 2.4 metre (7'-8") tall shall be dug with firm soil root ball.
  - .2 Deciduous trees in excess of 3.0 metre (10'-0") height shall be dug with firm soil root ball.
  - .3 Root ball diameter shall be a minimum of 230 mm (9") for each 25 mm (1") caliper size.
  - .4 Secure root-balls with burlap, heavy twine and rope.
  - .5 Large tree root balls shall be double layer burlap wrapped. Burlap to be secured with drum laces made up of 10 mm (3/8") (minimum) diameter rope



- .9 Tree Spade Dug Plant Material
  - .1 Plant material shall be dug with mechanized hydraulic spade or clamshell type digging equipment.
  - .2 Root ball diameter shall be a minimum of 230 mm (9") for each 25 mm (1") caliper size.
  - .3 Wire basket shall be lined with burlap. Root ball shall be laced and tied to wire basket with heavy rope.
  - .4 Ensure trunk of tree is not damaged by wire basket, ties or rope.

### **PART 3.0 – EXECUTION**

#### **3.1 Pre Planting Operations**

- .1 Place stakes on site to identify location trees, shrubs and plant beds in accordance to the Landscape Plans.
- .2 City Representative/Consultant to review all tree locations and plant bed layout prior to start of plant bed preparation and planting operation.
- .3 Anti-desiccant shall be applied only as directed by the City Representative/Consultant. Application of anti-desiccant shall be in accordance with manufacturer's instructions.
- .4 Coordinate planting operations with other trades and project schedule.

#### **3.2 Planting Schedule**

- .1 All planting operations shall be done in a timely manner in accordance to the 'Planting Schedule'.
- .2 'Planting Schedule' shall be updated as required by the Contractor to coincide with status of site and coordination with other trades. Provide the City Representative/Consultant with up dates to the schedule as required throughout the planting process.

#### **3.3 Excavation**

- .1 Existing Utilities
  - .1 The contractor is responsible for confirming the location and extent of existing utilities prior to the start of all planting operations. All attempts should be made to ensure that utility services are maintained to all on and off site parties through out the entire planting operation.
- .2 Tree Pits
  - .1 Tree Pit Depth 900mm (3'-0") minimum.
  - .2 Width of tree pit shall be a minimum of 450 mm to 600 mm (1'-6" to 2'-0") greater than diameter of the root ball.
  - .3 Prior to the placement of growing medium scarify the sides and bottom of tree pits created with a tree spade to eliminate glazed surface.
- .3 Ensure tree pits dug in heavy or compacted soils exhibit the ability to drain freely by filling each tree pit with a minimum of 20 litres (5 gallon) of water. Water should freely drain through subsoil within ten (10) minutes.
  - .1 Notify City Representative/Consultant if tree pits in any soil condition do not drain freely or if tree pit fills with ground water.
  - .2 There shall be no standing water in the bottom of tree pit at time of planting.
- .4 Protect bottom of tree pit(s) against freezing.
- .5 Ensure tree pits and plant beds are kept well drained and free of contaminants and construction debris.
- .6 Planting Areas:
  - .1 Excavate planting areas to accommodate the following depths;
    - .1 Shrub Beds, Perennials, Ornamental Grasses 450 mm (1'- 6")
    - .2 Ground Cover, Annual Flowers 300 mm (1'- 0")
    - .3 Trees 900 mm (3'- 0")

3.4 Planting

- .1 Planting operations shall be carried out under conditions that are conducive to healthy, vigorous growth of plant material.
- .2 Plant material shall be planted vertical, straight and plumb at locations staked in field and or noted on landscape plans.
- .3 Ensure orientation of plant material will give best appearance in relation to views from adjacent buildings, roads, walks or use areas.
- .4 Ensure planting depth of root ball is equal to the depth of root ball originally established in the nursery. The top of root ball shall be level with adjacent growing medium.
- .5 Ball and Burlap Plant Material: After plant has been lowered into plant bed or tree pit cut away all root ball ties from around trunk. Loosen burlap from around trunk and cut away minimum top 1/3 without disturbing root ball.
- .6 Container Grown Plant Material: Remove entire container (including biodegradable containers) without disturbing root ball. Score root ball vertically at six (6) locations evenly spaced around entire root ball to minimize girdling of roots.
- .7 Tree Spade Dug Root Balls: Cut wire basket around entire perimeter of root ball. Bend down top 2/3 of wire basket without disturbing root ball. Cut away all root ball ties from around trunk. Loosen burlap from around trunk and cut away minimum top 1/3 without disturbing root ball.
- .8 Backfill planting areas in 150 mm (6") lifts to 2/3 of the depth tamping each lift of growing medium around root system to eliminate air voids. Do not use frozen or saturated growing medium for backfill operation.
- .9 Prior to placing remaining growing medium, thoroughly water planting areas, fill tree pits with water. Complete backfill operation only after water has completely penetrated into growing medium.
- .10 Build 100 mm high by 150 mm wide (4" high by 6" wide) saucer around outer edge of tree pit to assist with maintenance watering.
- .11 Tree Stabilization
  - .1 Guy or stake trees as directed by City Representative/Consultant.
  - .2 Ensure guy pins and stakes are not placed through the root ball.
  - .3 Trees that have had root balls penetrated by guy pins and stakes will be rejected.
  - .4 Tie one (1) to two (2) flagging tape flags to all guy wires at a height that is clearly visible.
- .12 Place Tree Trunk Protection around base of tree trunk as per manufacturer instructions.
  - .1 Trees 100 mm (4") caliper or less shall have one protector. Do not interlock ends of tree protector.
  - .2 Trees greater than 100 mm (4") caliper shall have a minimum of two interlocked protectors. Do not interlock outside ends.

3.5 Pruning

- .1 All pruning cuts shall be made with pruning saws or hook and blade pruning tools designed and manufactured for pruning operations. Anvil-type pruning tools shall not be used in any pruning operations.
- .2 Prune trees and shrubs after planting operation as directed by City Representative/Consultant.
- .3 Prune each tree and shrub planted to preserve the natural character of the plant and in a manner appropriate to its particular requirement in the landscape design. Pruning in general shall be heavier on collected than on nursery-grown plants. Remove all soft wood sucker growth and all broken or badly bruised branches with a clean cut.
- .4 Employ clean sharp tools and make cuts without damaging the branch collar.
- .5 Do not damage the leader or lead branches. Plants which have had the main leader or lead branches damaged or removed will be rejected and replaced by the Contractor at no cost to the Owner.
- .6 Do not remove minor twig branches along the main structural branches.

3.6 Fertilizer Application

- .1 Fertilize as per recommendations based on soil testing and place planting tablets at the following rates in prepared planting holes. Spread the tablets in each hole before planting.

	<u>Plant/Container Size</u>	<u>Table Size</u>	<u>Tablets per Plant</u>
.1	Trees	21g (0.75 oz)	1 per every ½" of trunk caliper
.2	#15/ 45 cm (18") tub	21g (0.75 oz)	3
.3	#7/ 35 cm (14") tub	21g (0.75 oz)	3
.4	#5/ 30 cm (12") pot	21g (0.75 oz)	2
.5	#3/ 27 cm (10") pot	21g (0.75 oz)	2
.6	#2/ 21 cm (8") pot	21g (0.75 oz)	1
.7	#1/ 15 cm (6") pot	21g (0.75 oz)	1

.2 Other sizes as per fertilizer manufacturer's recommendations.

**3.7 Guying and Staking**

- .1 Guy and stake all trees immediately after planting. Plant material not guyed or staked immediately shall be replaced if damaged.
- .2 Drive one (1) stake per tree vertically into the ground to a depth of 750-1000mm (30"-42"), in such a manner so as not to injure the root or root ball.
- .3 Fasten tree to the crotch and midway between the crotch and the ground with galvanized wire protected by hose.
- .4 Trees to stand plumb upon completion of this operation.

**3.8 Application of Composted Mulch**

- .1 Prior to the application of composted mulch;
  - .1 Manually remove all weeds and weed roots from root balls and adjacent growing medium.
  - .2 Remove all deleterious material and debris from planting areas.
  - .3 All fine grading is complete, the growing medium is loose and friable
  - .4 The City Representative/Consultant has reviewed of all planting areas.
- .2 Spread composted mulch to minimum depth of 50 mm (2").
  - .1 Ensure finish composted mulch layer is a minimum of 12mm (1/2") below adjacent hard landscape surfaces and edges.
  - .2 Ensure mulch is kept 125 mm (5") away from tree trunks and 75 mm (3") away from stems of shrubs.

**3.9 Maintenance**

- .1 Maintenance of plants shall begin immediately after planting operation and shall continue in an uninterrupted fashion until all deficiencies noted in the Substantial Performance review have been rectified and the City Representative/Consultant has provided to the Contractor in writing confirmation of the date of Installation Total Performance.
- .2 If for any reason The Contractor elects, on his own without the written consent of the City Representative/Consultant to suspend maintenance operations he is to provide the City Representative/Consultant written notice of such action. Any damages or requirement for the replacement of plant material that as a result of the suspension of maintenance operations shall be the borne by the Contractor at no cost to the Owner.
- .3 Maintenance of plant material includes but is not limited to watering at intervals sufficient to maintain healthy, vigorous growth, weeding of plant beds and tree pits, cultivating of growing medium, pruning, treatment of insects, molds, fungi or disease to the Level 2 "Groomed" as per the BCNLA Landscape Standard, Current Edition or as directed by consultant.
- .4 Plant material shall be deep watered at least once per day when temperatures exceed 25 degrees Celsius (77 degrees F).
- .5 Water sufficiently to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion.
- .6 Supply equipment such as pumps, portable sprinklers systems, tank trucks, hose and sprinklers required for watering operations. Water trucks, if used for watering operations, must service the site from adjacent roads until irrigation system is operational.
- .7 Contractor to ensure adequate moisture in plant root zone prior to winter freeze-up.

- .8 Reset all plants that have settled to plant depths approved by the City Representative/Consultant prior to the placement of composted mulch.
- .9 Ensure tree guards, stakes, flagging tape on tree guy wire and tree ties are kept secure, taught and in proper repair.

3.10 Installation Total Performance

- .1 Conditions for Installation Total Performance:
  - .1 Substantial Performance shall have been granted by the City Representative/Consultant and, Final Acceptance at the end of the guarantee/warranty period.
  - .2 All plant material is healthy; exhibiting signs of vigorous growth and meets the requirements of this specification.
  - .3 Plant material installed less than ninety (90) days prior to frost will be accepted in following spring, thirty (30) days after start of growing season provided that final acceptance conditions are fulfilled.
  - .4 Unless otherwise indicated in the contract drawings the original shape and form of the plant as reviewed by the Consultant has been maintained, leaders are in tact, there are no wounds or abrasions on trunks or branches.
  - .5 Mulch has been maintained to specified depths.
  - .6 All planting areas continue to be free draining with no signs of standing water.
  - .7 All plant beds are completely free of weeds and noxious grasses.
- .2 The Contractor shall continue to maintain the work of this section until the City Representative/Consultant provides written confirmation that Installation Total Performance **conditions have been met.**

3.11 Clean-Up

- .1 Ensure growing medium spilled onto pavement and growing medium stains on pavement or adjacent hard surfaces is cleaned up immediately.
- .2 Remove from the site all pots, cans, surplus materials, and other debris resulting from planting operations.
- .3 Ensure complete removal of planting tags, labels, strings, or other materials prior to substantial completion.
- .4 Neatly dress and finish all planting areas and flush all walks and paved areas clean to the satisfaction of the Consultant and Owner.

**END OF SECTION 32 93 01SS**