

CITY OF SURREY

Tree Preservation By-law

12880



Adopted July 29, 1996

INDEX

DEFINITIONS	2	
APPLICATION AND EXEMPTIONS	3	
PROHIBITIONS	4	
OFFENCE	4	
PENALTY	4	
TREE PROTECTION	5	
SECURITY FOR REPLACEMENT	5	
SIGNIFICANT TREES	5	
PLAQUES	5	
INSPECTION ASSESSMENT	6	
CUTTING AND REMOVAL OF TREES	6	
PERMITS	6	
REPLACEMENT TREES	8	
EMERGENCIES	9	
ADDITIONAL DELEGATION	9	
APPEAL PROCESS	9	
GENERAL PROVISIONS	10	
SCHEDULE A: Environmentally Sensitive Area		A1
SCHEDULE B: Significant Trees	B1	
SCHEDULE C: Security Deposits	C1	
SCHEDULE D: Inspections and Assessments		D1
SCHEDULE E: Tree Protection, Planting and Pruning Guidelines		E1
SCHEDULE F: Sample Tree Cutting Permit	F1	

SCHEDULE G: Sample Tree Cutting Permit for Hazardous Trees G1

SCHEDULE H: Sample Tree Cutting Permit Application Form H1

SCHEDULE I: Permit Fee Schedule I1

SCHEDULE J: Replacement Trees J1

SCHEDULE K: Boulevard Trees K1

SCHEDULE L: Replanting Standards L1

SCHEDULE M: Decision Appeal Form M1

City of Surrey

By-law No. 12880

As amended by By-law Nos. 13433, 06/22/98; 13590, 12/14/98; 14186, 12/04/00; 14583, 12/03/01; 14883, 01/13/03; 14937, 03/24/03; 15940, 02/13/06

THIS IS A CONSOLIDATED BY-LAW PREPARED BY THE CITY OF SURREY FOR CONVENIENCE ONLY. THE CITY DOES NOT WARRANT THAT THE INFORMATION CONTAINED IN THIS CONSOLIDATION IS CURRENT. IT IS THE RESPONSIBILITY OF THE PERSON USING THIS CONSOLIDATION TO ENSURE THAT IT ACCURATELY REFLECTS CURRENT BY-LAW PROVISIONS.

A By-law to regulate and prohibit the cutting and removal of trees, the setting of fees and issuance of permits for the same, and the requiring of *Replacement Trees* and of security for their provision and maintenance.

WHEREAS:

- A. Pursuant to the provisions of Division (4.1) - Protection of Trees, Sections 929.01 to 929.08 of the Municipal Act, R.S.B.C., 1979, Chapter 290, the Council may by By-law exercise certain powers to

preserve and protect trees within the Municipality, to regulate their cutting and removal, and to require their replacement;

- B. The Council considers it in the public interest to provide for the protection and preservation of trees, the regulation of their cutting and removal, and their replacement;

NOW THEREFORE IN OPEN MEETING ASSEMBLED the Council of the CITY of SURREY HEREBY ENACTS AS FOLLOWS:

Citation

1. This By-law may be cited for all purposes as "Tree Preservation By-law, 1996, No. 12880."

Definitions

2. In this By-law:

"Agricultural Use" does not include silviculture or arboriculture.

"Boulevard" means all that part of a highway not improved for and designated for vehicular or pedestrian travel.

"Breast Height" means a point on the trunk of a tree 1.4 metres above the highest point of the natural grade of the ground measured from the base of a tree.

"Building Site Envelope" means all those portions of a parcel not within a *Yard* or a yard as varied by a Development or Development Variance Permit.

"Council" shall mean the Municipal *Council* of the City of Surrey.

"D.B.H." means diameter of the trunk of a tree measured at *breast height*.

"Drip Line" means a vertical line extending down from the outer most branches of a tree to the ground.

"General Manager" means the person appointed by *Council* as the *General Manager* of Planning and Development or the duly authorized representative.

"Owner" means the registered *owner* in fee simple of a parcel of land and the trees growing on it.

"Protected Tree" means:

(a) *A Replacement Tree*;

(b) A tree located within the High Sensitivity areas identified on the "City of Surrey Environmentally Sensitive Areas Map" attached hereto as Schedule "A" and forming part of this By-law;

- (c) The following trees of any size:
- (i) Arbutus (*Arbutus menziesii*)
 - (ii) Garry Oak (*Quercus garryana*)
 - (iii) Pacific Dogwood (*Cornus nuttallii*)
 - (iv) Pacific Yew (*Taxus brevifolia*)
 - (v) Western White Pine (*Pinus monticola*)
 - (vi) Western Fir or Grand Fir (*Abies grandis*)
 - (vii) Coast Redwood (*Sequoia sempervirens*)
 - (viii) Dawn Redwood (*Metasequoia glyptostroboides*)
 - (ix) Giant Sequoia (*Sequoiadendron giganteum*)
 - (x) Maidenhair Tree (*Ginkgo biloba*)
 - (xi) Monkey Puzzle Tree (*Araucaria araucana*)
- (d) Any other tree in good health and form with a *D.B.H.* equal to or greater than 30 centimetres (12 inches).

"Qualified Expert" means either an arborist certified by the International Society of Arboriculture, a forester registered with the Association of B.C. Professional Foresters, or a registered landscape architect; provided they have specialized training and experience

"Replacement Tree" means a tree replacing a tree cut, removed or damaged in accordance with either S.9 or S. 28 and S. 29 of this By-law.

"Significant Tree" means a tree listed and identified on Schedule "B".

"Yard" means that area of parcel defined as a front, rear or side yard pursuant to "Surrey Zoning By-law, 1993, No. 12000," as amended.

"Zone" means a zone as defined and delineated pursuant to "Surrey Zoning By-law, 1993, No. 12000," as amended.

Application and Exemptions

3. (a) This By-law applies to *Protected Trees* and *Significant Trees* and to no other trees.
- (b) This By-law does not apply to *Protected Trees* cut or removed pursuant to the *Hydro Power and Authority Act*, R.S.B.C. 1979, c. 188.
- (c) This By-law does not apply to *Protected Trees* cut or removed on City property in accordance with approved City operations.

Prohibitions

4. No person shall cut, remove or damage any *Protected* or Significant Tree, or cause, suffer or permit any such tree to be cut, removed or damaged except where permitted by and in accordance with the terms of this By-law. As noted in S. 34, no permit shall be required prior to the removal of any tree or part of any tree where there is imminent danger of the tree or any part of the tree falling and damaging persons or property.
5. No person shall fail to comply with the terms and conditions of a permit issued pursuant to this By-law.

Offence

6. Every person who violates any of the provisions of this By-law or who suffers or permits any act or thing to be done in contravention or in violation of any provision of this By-law or who omits to do or refrains from doing anything required to be done by any of the provisions of this By-law, is guilty of an offence against this By-law and is liable to the penalties of up to \$10,000.
7. For the purposes of this by-law, each tree cut or removed or damaged in violation of this By-law and each day that a violation is permitted to exist or continues shall constitute a separate offence.

Penalty

8. Every person who commits an offence against this By-law is liable to a fine and penalty allowed by the "Municipal Act" for each offence.
9. In addition to any penalty that may be imposed under this By-law where an Owner cuts, removes or damages, or suffers or permits any tree to be cut, removed or damaged in contravention of this By-law, or in excess of any permission, or in violation of any terms and conditions of a permit issued under this By-law, such tree shall be replaced on the same parcel of land by one or more Replacement Tree(s) of the same species, or of a species listed in the *Replacement Tree* list in Schedule "J" or "K" and be of a size acceptable to the General Manager.

Tree Protection

10. In respect of any tree the Drip Line of which is within 4 metres of any excavation, demolition, construction or engineering works, a protective barrier pursuant to S. 4.1 and S. 4.2 of Schedule "E" shall be provided to protect the tree, unless exempted by the General Manager.

Security For Replacement

11. Wherever in this By-law, or by the terms of a permit granted hereunder, a Replacement Tree is to be planted and maintained, the Owner thereof, shall, prior to the issuance of a permit or upon request of the General Manager, as the case may be, provide to the City a security deposit in cash or letter of credit in the amount, for the period and on the terms specified in S. 12 and in Schedule "C". No interest shall be paid on cash security deposits.
12. Any letter of credit required to be provided under this By-law shall be a clean, unconditional and irrevocable letter of credit drawn from a Canadian financial institution acceptable to the City and in a form acceptable to the City. If, for any reason, the irrevocable letter of credit ceases to be effective security or becomes unenforceable so as to remove or reduce their purpose as full security for the due and proper

performance, the Owner shall replace it with a further letter of credit acceptable to the City within 21 days prior to the expiry of the letter of credit then held by the City. If the *Owner* fails to do so, the City will draw down on the current letter of credit without notice or restriction and hold the monies in lieu thereof.

Significant Trees

13. The trees listed on Schedule "B" are *Significant Trees*.
14. An Owner of a Significant Tree shall maintain the same in accordance with good sound arboricultural practice.

Plaques

15. The General Manager, with the consent of the Owner of the Significant Tree may place a plaque or marker near such *Significant Tree*.

Inspection and Assessment

16. Where the Council, by resolution directs, or in any circumstances specified in Schedule "D", the General Manager may inspect or cause an inspection to be made of any trees and the parcel on which they grow, of any cutting, removal, planting or protection authorized or required by this By-law, and may assess the location, size, condition and species of the trees.
17. Any By-Law Enforcement Officer of the City is authorized to enter at all reasonable times on any property that is subject to this By-law to ascertain whether the requirements of the By-law or any permit issued pursuant to the By-law are being met or the regulations are being observed.

Cutting and Removal of Trees

18. Except as provided in Section 19, a tree may only be cut or removed in accordance with all the provisions of this By-law and pursuant to a valid and subsisting permit to do so. As noted in S.34, no permit shall be required prior to the removal of any tree or part of any tree when there is imminent danger of the tree or any part of the tree falling and damaging persons or property.
19. No permit, except in respect of a Significant Tree, is required to prune the roots or branches of a tree where such pruning is required by sound arboricultural practice and is carried out in accordance with the manner set out in S. 4.4 and S. 4.5 of Schedule "E".

Permits

20. A person wishing to cut or remove a Protected Tree may apply to the General Manager for a permit to cut or remove the tree. A permit shall be substantially in the form of Schedule "F".
21. Any application for a permit shall be substantially in the form of Schedules "G" or "H" provided that the General Manager may exempt in whole or in part an applicant from the requirement to provide a Tree Survey Plan as described in Schedule "H".
22. The fee for a permit shall be determined as set out in Schedule "I" and shall be paid upon application

for the permit.

23. No application for a permit shall be complete unless the application contains all the information required by Schedules "G" or "H", the fee has been paid, and any security required has been delivered to the City. No fee is required for permits to remove trees which have been declared hazardous by a Qualified Expert.
24. A permit to cut or remove a tree, other than a Significant Tree, shall be issued by the General Manager:
- (a) where the tree is certified as being an unreasonable hazard to the safety of persons or property in the opinion of a Qualified Expert;
 - (b) where the tree is certified by a Qualified Expert to be diseased or damaged beyond reasonable expectation of recovery, or is certified to be dead or in decline;
 - (c) where the General Manager, Engineering or the duly authorized representative or an engineer employed by any public utility or a Qualified Expert certifies that in his or her opinion a tree is impairing, interfering with or, presents a risk or hazard to the operation of sewers, drains, water lines, electrical, telephone and cable lines, poles or other similar equipment and appurtenances, structures permitted by "Surrey Zoning By-law, 1993, No. 12000," as amended, driveways, approved parking spaces or septic fields;
 - (d) where a tree is situated within 2 metres of the building foundation wall permitted pursuant to the "Surrey Zoning By-law, 1993, No. 12000," as amended, the General Manager may issue a permit for its removal where the building shape cannot be modified to accommodate the tree;
 - (e) where a tree is situated in a required Yard or Boulevard, and is to be cut and removed for a driveway access route or the construction, placing or laying of any building, utility, structure or septic field permitted pursuant to the "Surrey Zoning By-law, 1993, No. 12000," as amended, to be built in or on the required *yard*;
 - (f) where the tree is situated on a parcel zoned to permit Agricultural Use pursuant to "Surrey Zoning By-law, 1993, No. 12000," as amended, is designated *Agricultural Use* and not rural, suburban or urban, in the City of Surrey Official Community Plan, is situated in the Agricultural Land Reserve, and the application is accompanied by a sworn declaration of the Owner declaring that the tree is to be cut and removed for agricultural purposes.
25. For the pruning of a Significant Tree where such pruning is certified as being necessary by a Qualified Expert, in which case the General Manager may require as a condition of such permit that all pruning activity be carried out under the on-site supervision of a *Qualified Expert*.
26. Except as in S.25, *Significant Trees* cannot be cut or damaged in any way unless they are first removed by Order of Council from Schedule "B" *Significant Trees*.
27. The General Manager may, as a condition of any permit:
- a. require that a *Tree Survey Plan* accompany any *Tree Cutting Permit* application;

- b. require that the cutting and removal of trees or specific trees be carried out under the supervision of a Qualified Expert;
- c. revoke a *Tree Cutting Permit* if the terms and conditions have been breached;
- d. determine the number, species and size of *Replacement Trees* required;
- e. determine the location of *Replacement Trees* when they are planted on private lands or *Boulevards*; and
- f. refuse to grant a Tree Cutting Permit in areas marked as "High" in Schedule "A" Environmental Sensitivity Areas.

Replacement Trees

28. Where *Replacement Trees* are required to be planted pursuant to this By-law, the *Replacement Trees* shall be of a species listed in Schedule "J" and shall conform to the size and type set out for the replacement species in Schedule "J".
29. Where *Replacement Trees* are required to be planted on a Boulevard the species shall be selected by the General Manager, and the trees planted shall be located as approved by the *General Manager* and shall conform to the size and type for that species set out in Schedule "K".
30. An Owner shall plant, maintain, nurture and care for all *Replacement Trees* in accordance with sound arboricultural practice and in the manner provided in Schedule "L".
31. Where a Replacement Tree is required to be planted pursuant to S. 9 it shall be planted within 90 days of the cutting or removal requiring the replanting, and where the *Replacement Tree* is required to be planted pursuant to S. 26 it shall be planted within 90 days of the issuance of the occupancy permit for the last house (or other principal building) being constructed as part of the project, or within not more than three (3) years of the date of the permit when the date of construction completion is unknown.
32. Except as specified in Ss.9 and 33, the City may require two *Replacement Trees* for every one tree removed pursuant to this By-law.
33. Where an Owner who is required by the terms of this By-law or a permit issued pursuant to the By-law to plant *Replacement Trees* provides to the General Manager, a report of a Qualified Expert stating that one or more of the *Replacement Trees* cannot be planted in accordance with sound arboricultural practice such that its survival of adjacent existing trees is unlikely, or where it is not possible due to other considerations such as required setbacks, lot size or topography, the Owner will not be required to plant the required 2:1 replacement ratio.

Emergencies

34. Necessity shall be a defence to the cutting or removal of trees contrary to this By-law where such necessity arises from an imminent danger of the tree or any part of it falling and damaging persons or property.

Additional Delegation

35. In addition to any other authority of the General Manager under this By-law, the *General Manager* may exercise all the powers of Council and perform the duties of *Council* under S. 929.05 of the Municipal Act.

Appeal Process

36. In respect of any delegation of authority under this By-law to the General Manager, an Owner or occupier of real property subject to any decision of the *General Manager* is entitled to have the Council reconsider the decision without charge. Any person wishing to have *Council* reconsider a decision of the *General Manager* shall apply in writing to the City Clerk, substantially in the form attached to this By-law as Schedule "M" within thirty (30) days of the *General Manager's* decision.
37. On receipt of an application for reconsideration pursuant to S. 38, Council shall require a written report from the General Manager and upon receipt of the same shall hear from the applicant before rendering a decision.

General Provisions

38. All Schedules referred to herein are attached to and form part of this By-law.
39. The provisions of this By-law are several and the invalidity of any part of this By-law shall not affect the validity of the remainder of this By-law.
40. "Tree Preservation, Removal and Replacement By-law, 1992, No. 11565," as amended, is hereby repealed.

PASSED THREE READINGS on the 22nd day of July, 1996

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the 29th day of July, 1996.

_____ "R.J. Bose" _____ MAYOR
_____ "D.B. Kenny" _____ CLERK

Schedule "A"

Environmentally Sensitive Areas

The following is taken from the City of Surrey Publication: "Finding the Balance: Environmentally Sensitive Areas in Surrey" July 1990



SCHEDULE "A" Environmentally Sensitive Areas



Schedule "B"

Significant Trees



Amended
 BL 13433
 06/22/98
 BL 13590
 12/14/98
 BL 14883
 01/13/03

SCHEDULE "B"

Significant Trees

SIGNIFICANT TREES

Council has designated the following trees to be significant trees. These trees shall not be cut for any reason other than being hazardous so long as they remain on the list.

Tree No.	Tree Species	Location	Designation	Date of Designation	Owner
1	English Oak (Quercus robur)	Road right-of-way in front of 3439 KGH	Heritage (planted for visit of George VI in 1939)	96/07/29	City of Surrey

2	"	3427 KGH	"	96/07/29	City of Surrey
3	"	3407 KGH	"	96/07/29	City of Surrey
4	"	3395 KGH	"	96/07/29	City of Surrey
5	"	3383 KGH	"	96/07/29	City of Surrey
6	"	3347 KGH	"	96/07/29	City of Surrey
7	"	3333 KGH	"	96/07/29	City of Surrey
8	"	3247 KGH	"	96/07/29	City of Surrey
9	"	3247/3237 KGH	"	96/07/29	City of Surrey
10	"	3189 KGH	"	96/07/29	City of Surrey
11	"	3109 KGH	"	96/07/29	City of Surrey
12	"	3033 KGH	"	96/07/29	City of Surrey
13	"	3050 KGH	"	96/07/29	City of Surrey
14	"	2966 KGH	"	96/07/29	City of Surrey
15	"	2901 KGH	"	96/07/29	City of Surrey
16	"	2904 KGH	"	96/07/29	City of Surrey
17	"	2902 KGH	"	96/07/29	City of Surrey
18	"	2877 KGH	"	96/07/29	City of Surrey
19	"	2884 KGH	"	96/07/29	City of Surrey
20	"	2865 KGH	"	96/07/29	City of Surrey
21	"	2812 KGH	"	96/07/29	City of Surrey
22	"	2658 KGH	"	96/07/29	City of Surrey
23/ 24	"	2 @ 2619 KGH	"	96/07/29	City of Surrey
25	"	2622 KGH	"	96/07/29	City of Surrey
26, 27 &28	"	3 @ 2567 KGH	"	96/07/29	City of Surrey
29	"	2205 KGH	"	96/07/29	City of Surrey
30	"	2195 KGH	"	96/07/29	City of Surrey
31	"	2187 KGH	"	96/07/29	City of Surrey
32	"	2155 KGH	"	96/07/29	City of Surrey
33	"	5 @ 2120	"	96/07/29	City of Surrey
37					
38	"	2127 KGH	"	96/07/29	City of Surrey
39	"	2121 KGH	"	96/07/29	City of Surrey
40	"	2078 KGH	"	96/07/29	City of Surrey
41	"	2072 KGH	"	96/07/29	City of Surrey
42	"	2093 KGH	"	96/07/29	City of Surrey
43,	"	2 @ 2062 KGH	"	96/07/29	City of Surrey
44					
45	"	KGH ROW behind 1986 Lilac Drive	"	96/07/29	City of Surrey
46	"	KGH ROW behind 1987 - 158A Street	"	96/07/29	City of Surrey

47	"	1697 KGH	"	96/07/29	City of Surrey
48	"	1683 KGH	"	96/07/29	City of Surrey
49	Various	Semiahmoo Trail	Designated Heritage by By-law 5556	78/10/16	City of Surrey
50	Various	Cloverdale Library 17671-56 Ave	Designated Heritage by By-law 6442	78/10/16	City of Surrey
51	Various	St. Helen's Church 10787-128 St	Designated Heritage by By-law 6442	78/10/16	Synod of the Diocese of New West.
52	Various	Christ Church 16631 Old McLellan Rd	Designated Heritage by By-law 6442	78/10/16	Synod of the Diocese of New West.
53	Various	Elgin Hall 14250 Crescent Rd	Designated Heritage by By-law 6442	78/10/16	City of Surrey
54	Various	Elgin Centre 3530-144 St	Designated Heritage by By-law 6442	78/10/16	City of Surrey
55	Various	Pillath Hall/ House 11113-148 St.	Designated Heritage by By-law 7355	82/12/20	City of Surrey
56	Various	Crescent Rd from K.G.H. to Bayview St.	Designated Heritage by By-law 7716	84/04/02	City of Surrey
57	Various	Steward House/Ward's Marina 13723 Crescent Rd.	Designated Heritage by By-law 7823	85/01/28	City of Surrey
58	Red Cedar Stump	8920 Queen Mary Blvd.	Designated Heritage by By-law 8131	85/01/28	City of Surrey
59	Various	Old Anniedale School 9744-176 St.	Designated Heritage by By-law 8579	86/06/23	Surrey School District No. 36
60	Royal Oak Tree	16613 Old McLellan Rd	Designated Heritage by By-law 8579	86/06/23	City of Surrey
61	Various	Avenue of Trees 16613 Old McLellan Rd	Designated Heritage by By-law 8579	86/06/23	City of Surrey
62	Various	Robert Dougal MacKenzie House 5418-184 St.	Designated Heritage by By-law 8791	86/10/20	William & Margaret MacIntosh
63.	English Oak	1284 KGH	Heritage		City of Surrey
64.	English Oak	1278 KGH	Heritage		City of Surrey
65.	English Oak	1272 KGH	Heritage		City of Surrey
66.	English Oak	1266 KGH	Heritage		City of Surrey

67.	English Oak	1260 KGH	Heritage	City of Surrey
68.	English Oak	1254 KGH	Heritage	City of Surrey
69.	English Oak	1246 KGH	Heritage	City of Surrey
70.	English Oak	1242 KGH	Heritage	City of Surrey
71.	English Oak	1236 KGH	Heritage	City of Surrey
72.	English Oak	1251 KGH	Heritage	City of Surrey
73.	English Oak	1232 KGH	Heritage	City of Surrey
74.	English Oak	1232 KGH	Heritage	City of Surrey
75.	English Oak	16433 - 12 Ave	Heritage	City of Surrey
76.	English Oak	16433 - 12 Ave	Heritage	City of Surrey
77.	English Oak	1199 KGH	Heritage	City of Surrey
78.	English Oak	1187 KGH	Heritage	City of Surrey
79.	English Oak	1175 KGH	Heritage	City of Surrey
80.	English Oak	1163 KGH	Heritage	City of Surrey
81.	English Oak	16350 KGH	Heritage	City of Surrey
82.	English Oak	16350 KGH	Heritage	City of Surrey
83.	English Oak	16350 KGH	Heritage	City of Surrey
84.	English Oak	16350 KGH	Heritage	City of Surrey
85.	English Oak	16350 KGH	Heritage	City of Surrey
86.	English Oak	16350 KGH	Heritage	City of Surrey
87.	English Oak	16350 KGH	Heritage	City of Surrey
88.	English Oak	16350 KGH	Heritage	City of Surrey
89.	English Oak	16350 KGH	Heritage	City of Surrey
90.	English Oak	1250 KGH	Heritage	City of Surrey
91.	English Oak	1250 KGH	Heritage	City of Surrey
92.	English Oak	1250 KGH	Heritage	City of Surrey
93.	2 English Oak	1222 KGH	Heritage	City of Surrey
94.	English Oak	1210 KGH	Heritage	City of Surrey
95.	English Oak	1210 KGH	Heritage	City of Surrey
96.	English Oak	1210 KGH	Heritage	City of Surrey
97.	English Oak	1210 KGH	Heritage	City of Surrey
98.	English Oak	1210 KGH	Heritage	City of Surrey
99.	English Oak	1160 KGH	Heritage	City of Surrey
100.	English Oak	1160 KGH	Heritage	City of Surrey
101.	Douglas Fir	Park at Kilkee Pl.	Heritage	City of Surrey
102.	Butternut/White Walnut	Sullivan Park	Heritage	City of Surrey
103.	Douglas Fir	15100 - 22 Ave	Heritage	City of Surrey
104.	Canadian/ Japanese Walnut Cross	1660 - 168 St	Heritage	Private

105.	Madrona	12101 Sullivan St.	Heritage	Private
106.	Douglas Fir	1990 - 134 St	Heritage	Private
107.	Douglas Fir	9016 - 164 St	Heritage	Private
108.	Douglas Fir	19587 - 0 Ave	Heritage	Private
109.	Weeping Willow	2865 - 164 St	Heritage	Private
110.	Sitka Spruce	13398 - Vine Maple Drive	Heritage	Private
111.	English Oak	9381 - 160 St	Heritage	City of Surrey
112.	Scotch Elm	5418 - 184 St	Heritage	Private
113.	Nordmann Fir	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
114.	Spanish Fir	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
115.	Incense Cedar (3 Trees)	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
116.	Corkscrew Hazel	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
117.	Sekkan Sugi Japanese Cedar	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
118.	Sweet Chestnut	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
119.	White Mulberry	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
120.	Bigleaf Magnolia	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
121.	Medlar	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
122.	Antarctic Beech	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
123.	Ironwood	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
124.	Empress Tree	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
125.	Oriental Spruce	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
126.	Chinese Elm	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
127.	Variegated Hiba Arborv.	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
128.	California Bay Tree	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
129.	China Fir	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
130.	Weep. Giant Sequoia	1660 - 168 St. (Dartshill)	Heritage	City of Surrey
131.	Western Red Cedar	10648 - 127 St	Heritage	City of Surrey

132.	Douglas Fir	19016 - 96 Ave (St. Oswalds)	Heritage	Synod of the Diocese of New West.
133.	Douglas Fir	19016 - 96 Ave (St. Oswalds)	Heritage	Synod of the Diocese of New West.
134.	Douglas Fir	19016 - 96 Ave (St. Oswalds)	Heritage	Synod of the Diocese of New West.
135.	Douglas Fir	19016 - 96 Ave (St. Oswalds)	Heritage	Synod of the Diocese of New West.
136.	Western Red Cedar	19587 - 0 Ave	Heritage	Private
137.	European Beech	Peace Arch Park	Heritage	Prov. of BC
138.	Western White Pine	Peace Arch Park	Heritage	Prov. of BC
139.	European Larch	Peace Arch Park	Heritage	Prov. of BC
140.	Red Japanese Maple	Peace Arch Park	Heritage	Prov. of BC
141.	Atlas Cedar	Peace Arch Park	Heritage	Prov. of BC
142.	Crimson King Maple	Peace Arch Park	Heritage	Prov. of BC
143.	Maidenhair Tree	Peace Arch Park	Heritage	Prov. of BC
144.	Lawson's Cypress	Peace Arch Park	Heritage	Prov. of BC
145.	Horsechestnut (15 Trees)	#10 & 178 St. (Cloverdale Elem.)	Heritage	City of Surrey
146.	Incense Cedar	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
147.	Sweet Chestnut	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
148.	Golden Lawson's Cypress	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
149.	English Walnut	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
150.	Dawn Redwood	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
151.	Red Oak	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
152.	Giant Sequoia	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
153.	Hiba Arborvitae (2 trees)	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
154.	Siberian Elm	179 St & 20 Ave (Redwood Park)	Heritage	City of Surrey
155.	Golden Locust	14239 Melrose	Heritage	Private
156.	Gary Oak Grove	140 St & 96 Ave (Green Timbers)	Heritage	City of Surrey
157.	Douglas Fir	18558 - 56 Ave	Heritage	City of Surrey
158.	Oriental Plane	4117 - 152 St	Heritage	Private

159.	Western Red Cedar	NE Corner 184 St & 16 Ave	Heritage	Private
160.	Sycamore Maple	18537 - 54 Ave	Heritage	Private
161.	English Oak	16671 Old McLellan Rd	Heritage	City of Surrey
162.	Western Red Cedar	168 St & 50 Ave (Mound Farm)	Heritage	City of Surrey
163.	Western Red Cedar	168 St & 50 Ave (Mound Farm)	Heritage	City of Surrey
164.	Douglas Fir	168 St & 50 Ave (Mound Farm)	Heritage	City of Surrey
165.	Douglas Fir	168 St & 50 Ave (Mound Farm)	Heritage	City of Surrey
166.	Douglas Fir	168 St & 50 Ave (Mound Farm)	Heritage	City of Surrey
167.	Weep. Norway Spruce	561 - 172 St (The Glades)	Heritage	Private
168.	Kobus Magnolia	561 - 172 St (The Glades)	Heritage	Private
169.	Dove Tree	561 - 172 St (The Glades)	Heritage	Private
170.	Dawn Redwood	561 - 172 St (The Glades)	Heritage	Private
171.	Eastern White Pine	561 - 172 St (The Glades)	Heritage	Private
172.	Tulip Tree	561 - 172 St (The Glades)	Heritage	Private
173.	California Bay St	561 - 172 St (The Glades)	Heritage	Private
174.	Mirbeck's Oak	561 - 172 St (The Glades)	Heritage	Private
175.	Wilson's Magnolia	561 - 172 St (The Glades)	Heritage	Private
176.	Western Red Cedar	561 - 172 St (The Glades)	Heritage	Private
177.	Various - Arboretum	9800 - 140 St (Green Timbers)	Heritage	Prov. of BC
178.	English Oak	13997 - 90 Ave	Heritage	City of Surrey
179.	Butternut	6091 - 181 A St	Heritage	City of Surrey
180.	Black Locust	SW corner 126 St & 64 Ave	Heritage	City of Surrey
181.	Monkey Puzzle	100 m S of 152 St & KGH	Heritage	City of Surrey
182.	Sitka Spruce	Tynehead Regional Park	Heritage	GVRD
183.	Sitka Spruce	Tynehead Regional Park	Heritage	GVRD

184.	Common Apple	10829 - #10 Hwy	Heritage	Private
185.	Horse Chestnut	18029 - #10 Hwy	Heritage	Private
186.	English Walnut	18029 - #10 Hwy	Heritage	Private
187.	English Walnut	18029 - #10 Hwy	Heritage	Private
188.	Black Walnut	18029 - #10 Hwy	Heritage	Private
189.	Black Walnut	18029 - #10 Hwy	Heritage	Private
190.	Walnut	14636 - 76 Ave	Heritage	Private
191.	Douglas Fir	18 Ave & 136 St (Bell Heritage Park)	Heritage	City of Surrey
192.	Douglas Fir	18 Ave & 136 St (Bell Heritage Park)		City of Surrey
193.	Coulter Pine	12649 - 25 Ave	Heritage	Private
194.	English Oak	13722 - 56 Ave	Heritage	Private
195.	2 Douglas Fir	13600 - 55 A Ave & 13614 - 56 Ave	Heritage	City of Surrey
196.	Arbutus	1389 - 130 St	Heritage	Private
197.	Tulip Tree	12976 - Old Yale Rd	Heritage	City of Surrey
198.	English Walnut	19251 - 76 Ave	Heritage	Private
199.	Beech	12691 - 14 Ave	Heritage	Private
200.	Dead Douglas Fir	South Side of Highway #1 East of 176 Street	Heritage	Prov. of B.C.
201.	Western Red Cedar	12237 and 12245 Avenue - 91A	Heritage	Private

Schedule "C"

Security Deposits



SCHEDULE "C" Securities

SECURITY DEPOSITS

- C1. The amount of any deposit to secure the provision and maintenance of *Replacement Trees* required by this By-law to be planted and maintained shall be as follows:
- (a) except where *Replacement Trees* are required as part of a penalty as stated in S.9, no security will be required when less than 5 *Replacement Trees* are required to be planted;
 - (b) where 5 or more *Replacement Trees* are required to be planted, security of \$200.00 per Replacement Tree shall be required.
- C2. The amount of security deposit held by the City shall be reduced in stages as provided in Articles C3 and C4 of this Schedule. It shall be a condition precedent to each reduction of the security deposit that the Owner request an inspection and assessment pursuant to Article D1(d) of Schedule "D" and that the General Manager be satisfied that the Owner has complied with the tree replacement and maintenance requirements of this By-law including the replacement of any Replacement Tree that is dead or dying.
- C3. Subject to Article C2 of this Schedule, a deposit shall be reduced as follows:
- (a) by 50% of the original amount after the planting of all *Replacement Trees* required to be provided and the City's approval of these trees;
 - (b) by the balance of the deposit after one year from the date of the first reduction provided for in C3(a) provided that the trees receive City approval.

- C4. Subject to Article C2 of this Schedule, where a developer submits a letter of credit to cover the total costs of the required landscaping and when that letter of credit includes the amount of securities required to cover the *Replacement Trees*, the securities shall be reduced as follows:
- (a) by 90% of the original amount after the landscaping is complete and has been approved by the City.
 - (b) by the balance of the deposit for one year from the date of the first reduction provided for in C4(a) provided that the landscaping receives the City's approval.
- C5. Whenever the City holds cash as security no interest shall be payable or paid to the Owner.
- C6. If at any time an Owner fails to comply with the provisions of this By-law relating to requirements for *Replacement Trees* and their maintenance, the City may by its employees or others under its direction enter upon the lands that are the subject of such requirements to plant *Replacement Trees* and/or maintain the same and for such purpose may draw upon the deposit and expend the deposit to cover all costs and expenses of so doing.
-

Schedule "D"

Inspections & Assessments



SCHEDULE "D" Inspections

INSPECTIONS AND ASSESSMENTS

- D1. For the purposes of ensuring the proper administration and enforcement of this By-law, inspections and assessments of trees, and the parcels on which they grow, may be undertaken at any reasonable time whenever:
- (a) land forming the whole or part of the parcel is subject of an application for subdivision, a development permit, a development variance permit, or building permit;
 - (b) an application is received pursuant to Ss. 20 and 21 of this By-law;
 - (c) a permit is issued pursuant to S. 24 of this By-law;
 - (d) the General Manager directs;
 - (e) an Owner of *Replacement Trees* requests an inspection and assessment for the purpose of reducing any security deposit held by the City in accordance with Schedule "C";
- D2. Copies of inspection reports and assessments shall be provided to the Owner upon request.
-

Schedule "E"

Tree Protection, Planting & Pruning Guidelines



SCHEDULE "E" Protection

4 TECHNICAL GUIDELINES

4.1 Tree Retention

- (a) Where trees are to be retained on a site, protection barriers must be installed as specified in the "Tree Preservation By-law, 1996, No. 12880."
- (b) Any required excavation in or around the protection barrier to accommodate underground services, footings, etc. should be indicated on the plan and done by hand.
- (c) Trees inside the protection zone should be cared for throughout the construction process, i.e., they must be watered sufficiently, particularly if a portion of the tree's root system has been disturbed by excavation.
- (d) A protection barrier or temporary fence at least 1.2 m in height must be installed around the

tree to be retained. This must be constructed prior to the issuance of permits for any site work or demolition and remain intact throughout the entire period of construction.

- (e) Protection barriers must be erected and inspected by the Planning and Development Department prior to the issuance of permits allowing demolition or construction unless a letter of assurance by a Certified Arborist or a registered Landscape Architect is submitted at the time of application.
- (f) The required location of tree protection barrier fencing is determined by the trunk size of the tree to be retained. For every 2.5 cm of trunk diameter, a protection zone diameter of 30 cm plus the trunk diameter is required. For example, if the tree to be retained has a trunk diameter of 25 cm, the protection zone would need to be 3.25 m (3 m + 25 cm) in diameter, i.e., the barrier would be located 1.5 m away from the tree trunk. These distances may only be compromised adjacent to the building envelope, where the full distance cannot be provided, upon advice of a Certified Arborist, Landscape Architect or Planning staff. In the case of boulevard trees, tree protection must avoid conflicts with competing uses (e.g. sidewalks).
- (g) The protection barrier must be constructed of either snow fencing securely fastened to metal stakes spaced no further than 1 m apart, plywood nailed to wood stakes, or another form of barrier to the satisfaction of the General Manager, Planning and Development or the duly authorized representative on private property, or the General Manager, Parks and Recreation or the duly authorized representative on street allowances (see Section 4.2.).
- (h) The protection barrier must clearly display all-weather signage indicating that the area within the barrier is a protected zone, i.e., storage, dumping, parking, and machinery operation are prohibited in this zone.
- (i) Any required excavation in or around the protection zone to accommodate underground services, footings, etc., must be indicated on the plan and is to be done by hand.
- (j) Root and branch pruning, where necessary, must be done in accordance with Sections 4.4 and 4.5. Only the Parks and Recreation Department and Engineering Department are authorized to prune trees on City property.



4.2 Tree Retention on Boulevards Adjacent to Construction Sites

Boulevard trees adjacent to construction sites, including those of less than 20 cm diameter, must be protected in accordance with these guidelines and cannot be pruned, moved or otherwise disturbed without prior written permission from the City.



Barrier fencing used for tree protection must:

- (a) allow for free and clear passage of pedestrians on the sidewalk and adjacent portion of boulevard;
- (b) provide for clear visibility of fire hydrants, driveway access, crosswalks, etc. ("see-through" fencing should be used);
- (c) be 0.6 m or more from the curb to provide for the opening of car doors; and
- (d) be 0.3 m or more from the edge of any sidewalk located within a grass boulevard.

NOTE: These setbacks also reduce the possibility of interference with underground utilities when staking fences in place.

4.3 Excavation Adjacent to Retained Trees

In cases where proposed building excavation will affect existing trees to be retained, special attention should be given to proper root pruning and care for the remaining root system. It is important to note that most roots are located in the top 60 cm of soil, with the major roots for water and nutrients absorption in the top 20 to 30 cm.

- (a) In order to minimize root damage, soil erosion and tree disturbance, a temporary root curtain* should be wrapped around the root zone to retain and protect the exposed area. The root curtain should consist of heavy wire mesh or similar material lined with burlap (to retain moisture) and supported by posts. Backfill should be used as required to ensure that none of the roots are left exposed. Only hand excavation should be used in the root zone area.
- (b) It is critical that the root zone system (or roots of the tree) be kept moist by watering as required throughout the construction process.
- (c) Once the foundation is ready to be backfilled, the root curtain can be carefully removed. It is of utmost importance that the area surrounding the tree be kept free of building materials, as well as pedestrian and vehicular traffic, to avoid soil compaction.
- (d) Tunnelling rather than trenching should be considered when installing underground utilities and drainage lines to minimize damage to existing trees. This technique entails boring a hole under or through the root system with minimum disturbance. To ensure that the work is undertaken in the appropriate manner, a certified Arborist or similarly qualified landscape professional should be consulted if the applicant decides to use this technique.

* A root curtain is a material such as wire mesh that helps retain the roots and soil in place.



4.4 Root Pruning

Root pruning is the practice of removing a portion of a tree's root system. As a first alternative, adding soil and reseeding is recommended to prevent the removal of key structural roots. However, root pruning sometimes becomes necessary in order to accommodate landscape features such as walks, retaining walls, drains or utilities. Root pruning may also be necessary when existing roots begin to interfere with the routine maintenance of surrounding lawns and shrub beds. For example, it would be better to remove a surface root which is continually wounded by a lawn mower blade rather than to increase potential for disease through open wounds in the root. Other reasons for root pruning may include transplanting and undesirable growth patterns.

The circumstances necessitating root pruning vary, but the objective of tree root pruning is always to ensure the health, stability and longevity of the tree. Therefore, major root pruning should only be done by, or in consultation with, an Arborist or other qualified landscape professional.

The following general guidelines for root pruning are provided for your convenience:

- (a) A tree should be root pruned only if the problem can be solved by removing less than 33 percent of the tree's roots, with no more than 25 percent from one side.
- (b) For trees 30 cm in diameter and less, roots should not be removed within 1.2 m of the outer edge of the tree base. Trees with diameters over 30 cm should be allowed an additional 30 cm for every extra 7.5 cm of trunk diameter measured at a point 1.4 m above ground. For example, a tree with a 37.5 cm diameter trunk measured 1.4 m above the ground would require a minimum 1.55 m allowance around it.



The accompanying Root Pruning Table provides a guideline for root pruning different tree sizes.

ROOT PRUNING TABLE

<u>Tree Diameter</u> [Measured 1.4 m above ground]	<u>Distance From Trunk</u>	
	Minimum	Preferred
15 cm	1.2 m	1.5 m
22.5 cm	1.2 m	1.5 m
30 cm	1.2 m	1.8 m
37.5 cm	1.5 m	2.1 m
45 cm	1.8 m	2.4 m
52.5 cm	2.1 m	2.7 m

- (c) Cut roots cleanly after excavation with clean, sharp tools, to promote callus formation and wound closure. Wounds may be dressed with a tree rooting hormone compound that is available at garden centres.

- (d) Backfill the excavation as soon as possible and water the soil around roots to avoid leaving air pockets.
- (e) Mix soil improvements (e.g., peat moss) with fill soil to promote new root growth, especially if the existing soil is of poor quality. The soil quality can be easily determined by using a basic soil testing kit which is readily available at most nursery supply stores. Do not add fertilizers until improved tree growth is noticed, generally after 6 to 8 weeks during a growing season. Soil testing will better determine soil deficiencies and additional amendment requirements.
- (f) Surface roots which interfere with other elements in the landscape can be removed under the supervision of an Arborist or other qualified landscape professional. Each tree has a different root system and requires individual analysis and treatment.



4.5 Branch Pruning

Branch pruning can perform a number of functions. Most importantly, it is critical to the long-term health and vigour of the tree. Periodic pruning can cut away dead or diseased wood that is limiting growth. It can also contribute to enhancing views and limiting potential hazardous conditions.

- (a) Branch pruning should generally be undertaken during the dormant or less active periods of the year, during winter or summer, depending on the tree species (type). Pruning should be avoided if possible during spring, due to new growth, and fall, due to potential disease.
- (b) Branches should be cut cleanly with a proper saw or shears, depending on the size of the branch. The cut should be located adjacent to a node (swelling) in branch. Along the tree trunk, branches should be cut at the swelling at the base of the branch (i.e., branch collar), not flush to the tree trunk, to avoid unnecessary tissue damage.
- (c) Pruning should provide for attractive tree form and not create unnecessary stress on the trunk. The branches should be adequately spaced along and around the tree trunk. In the instance of large trees, one tree trunk should normally be used as the major support for the tree to avoid potentially hazardous situations. Tree paints on cut branches are no longer considered necessary but the application of tree pruning hormones, in certain instances, can prevent excess growth of new stems.

- (d) Contact B.C. Hydro if pruning is required close to power lines.
- (e) Boulevard trees, owned by the City, must not be pruned without prior written approval of the Parks and Recreation Department, in accordance with the "Surrey Tree Cutting By-law, 1979, No. 5835," as amended.

4.6 Transplanting Trees

In cases where tree retention is not practical or desirable, transplanting trees should be considered as an alternative. It is important to consider the special conditions required to relocate trees. Size, time of year, preparation and post-transplanting care are critical to ensure a higher survival rate. Generally, a 10 cm diameter tree can be moved without special equipment. A tree spade can be used to move trees up to a 30 cm diameter.

Larger trees generally require special procedures and equipment but greater costs make these cases more unusual. Local tree nurseries might also be interested in acquiring specimen trees and relocating them at their own cost. The following procedures should be used as guidelines for transplanting trees:

- (a) Trees should be generally moved during their least active or dormant period. Deciduous trees should only be transplanted when their leaves are absent from the tree, normally in late fall, winter or early spring. Coniferous trees are best moved in late fall or winter. However, adequate water uptake prior to dormancy is critical to the coniferous tree surviving winter transplantation. Broadleaf evergreen trees are generally best moved as growth begins in spring.
- (b) The soil should be irrigated to a depth of 50 cm two to three days prior to digging and the soil should not be soaked. One additional day for the tree to absorb the moisture and excess water to drain away from the roots should be allowed. Penetrating the soil area with a bar or similar implement within the drip line (extent of branches) of the tree at 30 cm intervals will aid in water penetration, especially in grassed areas. Specific transplanting fertilizers may be used in consultation with a landscape professional to reduce dehydration and other potentially damaging factors associated with transplanting.
- (c) As a general rule, root ball diameter for transplanting should be 30 cm per 2.5 cm diameter of tree trunk measured 1.4 m above the ground. For example, a 10 cm diameter tree should have at least a 1.2 m diameter root ball. Roots should be cut by hand using an axe, chainsaw, or tree spade, depending on the size of the root ball. Do not use a back hoe or similar equipment to sever roots, as this will cause unnecessary damage to the root system. If root damage such as root splitting occurs, ensure that the proper repair (i.e., pruning) is undertaken prior to transplanting.
- (d) Before transplanting a tree to a new site, the prepared ground should be made moist but not wet. Stake or guy the tree only if it is unable to stand on its own. The planting area should be irrigated, but avoid applying fertilizers until new growth is evident.

4.7 Replacement Trees

- (a) Refer to the "Tree Preservation By-law, 1996, No. 12880" for replacement tree requirements for determining the total minimum number of trees (based on site size and number of existing trees on site), species selection and minimum sizes.

- (b) When selecting replacement trees, consideration should be given to ultimate size, form and habit as well as specific site aspects including soils, topography and drainage. Replacement trees should also respect the building architecture, surrounding buildings, landscape elements, space restrictions, and general neighbourhood character.
- (c) In determining what type of tree or trees to choose as replacement trees, the following are some very basic considerations for the homeowner or developer:
- What overall landscape character is to be achieved for the property? For the street or neighbourhood? Which trees from Schedules "J" and "K" will provide this character?
 - What functions are the trees to fulfill? Provide shade? Frame views? Screen undesirable views? Or attract birds? Which trees from Schedule B and C will fulfill these functions?
 - How great a concern is maintenance (e.g., raking leaves, pruning, etc.)?
 - Are trees that produced flowers, fruit or nuts desirable?
 - Are native species appropriate?



A tree spade is a mechanized tree mover normally attached to a truck.

4.8 Tree Planting

The following tree planting guidelines are based on the most recent recommended practice by the American Forestry Association. Refer also to the "Tree Preservation By-law, 1996, No. 12880."

- (a) Ensure that the root ball is uniformly watered one day prior to planting, if possible. Water the newly planted tree once a week, soaking thoroughly the cultivated area.
- (b) The area surrounding the planting site should be prepared and cultivated 50 cm deep, or the depth of the root ball if deeper, and 2.5 m wide. Cultivate the planting area with a rototiller or shovel. Set the tree in the centre of the planting area on firm ground.
- (c) Soil composition should generally be approximately 50% loam, 30% decomposed organic matter, and 20% sand. Soil testing kits are normally available through local nurseries, and private laboratories will also test soil samples.
- (d) Generally 4.5 kg of dolomite lime per 9.3 m³ should be cultivated uniformly into the planting

area. A unique soil composition and planting might require an alternative treatment.

- (e) The root ball should normally be set at the same level as it was growing in the nursery or tree farm. Where drainage is poor, it may be beneficial to plant the tree 2.5 cm to 5 cm higher than the surrounding ground. Under no circumstances should the top of the root ball be buried.
- (f) Soil should be compacted with a water sprinkler or hose and heavy foot traffic around the planting area should be avoided.
- (g) A 5 to 7.5 cm layer of mulch (peat, mushroom manure, leafmold, etc.) may be applied to the planting area but must be kept 15 cm away from the tree trunk.
- (h) A tree should only be staked if it is unable to stand on its own. When staking, the stake should be placed on the windward side of the tree avoiding damage to the trunk and root ball. The stake should not be driven through the root ball. The tree should be tied to the stake, allowing for natural movement of the trunk. The stake should be fastened to the tree with a figure-eight loop tie of a soft elasticized material, i.e., rubber tubing, or similar fastener, that is appropriate to the size, type and condition of the tree. The stake should be removed after one year or when the tree is established.
- (i) A regular maintenance program should be adopted for one year after planting to ensure survival and establishment, including pruning, watering, and cultivating the planting area. Do not fertilize until late spring of the second year following planting.

Additional Sources of Tree Information

B.C. Hydro. Planting Near Power Lines. (Pamphlet)

C.M.H.C. 1979. Roof Decks Design Guidelines.

Harris, Richard W. 1983. Arboriculture: Care of Trees, Shrubs and Vines in the Landscape.

Shigo, Alex L. 1986. A New Tree Biology.

Shigo, Alex. L. 1989. Proper Pruning of Trees.

Shigo, Alex L., Vollbrecht, K., and Hvass, N. 1987. Tree Biology and Tree Care.



Schedule "F"

Tree Cutting Permit



SCHEDULE "F"

Tree Cutting Permit

Tree Cutting Permit No. _____ Development Permit No. _____

CITY OF SURREY

TREE CUTTING PERMIT

1. This Permit is issued pursuant to the City of Surrey "Tree Preservation By-law, 1996, No. 12880" and applies to the following lands:

Civic Address _____

Legal Description _____

_____.

2. This Permit authorizes the Permittee to cut and remove only the trees listed and described on Appendix "A" of this Permit subject to the terms and conditions hereinafter set out.

3. This Permit is issued subject to the following terms and conditions:

(a) any tree authorized to be cut or removed by this Permit shall only be cut or removed in strict compliance with the provisions of the City of Surrey "Tree Preservation By-law, 1996, No. 12880";

(b) all trees cut or removed pursuant to this Permit shall be replaced in accordance with the tree replacement plan attached hereto as Appendix "B" to this Permit;

(c) all *Replacement Trees* shall be planted and maintained in accordance with the provisions of the City of Surrey "Tree Preservation By-law, 1996, No. 12880";

(d) other conditions:

4. The authorization herein to cut or remove trees expires and is of no further force or effect one year after the date of issuance of this Permit, provided that any obligation to plant and maintain *Replacement Trees* survives the expiry of the authorization herein.

5. This Permit is issued on the ____ day of _____, _____.

6. A security deposit of \$_____ has been provided by the Permittee and is held by the City of Surrey pursuant to the terms and conditions of Schedule "C" of the By-law.

7. If this Permit authorizes the pruning of a Significant Tree, it is a term and condition of the issuance of this Permit that such pruning be carried out for and in accordance with good, sound arboricultural practice and not for any other purpose or in any other manner and shall be carried out under the on-site supervision of a Qualified Expert.

General Manager

SCHEDULE "F" Appendix "A" T123

(To be provided by the applicant at the time of application submission)

SCHEDULE "F" Appendix "B"

(To be provided by the applicant at the time of application submission)

Schedule "G"
Tree Cutting Permit for Hazardous Trees

SCHEDULE "G"

I.S.A Arborist Report

(To be provided by the applicant at the time of application submission)

Schedule "H"

Tree Cutting Permit Application Form



SCHEDULE "H"

Permit Application

APPLICATION FORM

CITY OF SURREY

Application for Tree Cutting and Removal Permit
(Tree Preservation By-law, 1996, No. 12880)

1. I, _____ of _____
[name] [address]

in the City of _____ hereby make application to cut and remove

that tree [those trees] situate on property civically described as _____

_____ in the City of Surrey and legally described as
[address]

_____ (the "Lands"),
[legal description]

identified, described and shown on the sketch of the Lands attached to this application.

Trees marked with an " " on the attached sketch are proposed to be cut and removed and trees marked with an "●" are proposed to be retained, and trees marked with a "■" are proposed *Replacement Trees*.

2. Unless exempted by the General Manager, the following shall form part of this application:

(a) an accurate Tree Survey Plan of the property; or

(b) a Site Assessment Report done by an I.S.A. accredited arborist.

3. The Tree Survey Plan should correctly show:

- i) all property lines;
- ii) all adjacent roadways complete with street names;
- iii) a bar scale;
- iv) a north arrow;
- v) the location, size (D.B.H.) and species of all *Protected* and *Significant Trees* on the property and all trees immediately adjacent the property which have canopies or root systems infringing onto the property (including existing boulevard trees);

- vi) the outline of all building envelopes, roadways, driveways, service lines, playing fields and any other existing or proposed features on the property which will affect tree preservation and replacement;
- vii) the location, size and species of all proposed *Replacement Trees*; and
- viii) a legend showing the following:

trees to be preserved and protected = •

trees to be removed =

Replacement Trees = ■

4. The Site Assessment Report shall be submitted by an arborist accredited by the I.S.A. and shall include:

- (i) an aerial photograph of the site at a scale where trees and groups of trees are clearly visible (either one provided by the applicant or one of the City's aerial photographs).
- (ii) an overlay drawn to the same scale as the aerial photograph showing:
 - all property lines;
 - the road rights-of-way of all proposed and existing roadways, lanes, easements and underground services;
 - the outline of all existing and proposed structures (including underground parking lots);
 - any watercourses and proposed major grade changes proposed;
 - the general condition and age of the majority of tree;
 - the dominant species and type of ecosystem;
 - a description of any extraordinary or outstanding trees on or immediately adjacent to the property;
 - the suitability for preservation of the trees on the site given the proposed development;
 - the location, size, and species of any trees which are valuable enough because of their size, condition, value as a landmark, their wildlife value, or their historical significance to be protected and designated by City Council as being *Significant Trees*.

5. I have read a copy of City of Surrey "Tree Preservation By-law, 1996, No. 12880," and am aware of the regulations therein including the requirement for *Replacement Trees*.

6. [If applicable] I intend to provide *Replacement Trees* of the species and size in accordance with the By-law all of which *Replacement Trees* are shown by species, size and location on the attached sketch plan and marked in as a "■".

7. I understand that I will be required to provide a security deposit by way of cash or letter of credit as

required by the By-law to guarantee the provision and maintenance of all *Replacement Trees* in accordance with the By-law.

Dated the ____ day of _____, _____.

Signature of Applicant

Where Applicant is not the registered owner of the property, this Application will not be considered complete or processed until the registered owner signs below.

I, _____ the registered owner of the property described in this Application hereby consent to this Application being made and to the issuance of a permit to the Applicant. I certify that the information in this Application is correct and true and I acknowledge that I am the person responsible for compliance with all provisions of "Tree Preservation By-law, 1996, No. 12880."

Dated the ____ day of _____, _____.

Signature of Registered Owner

Address of Registered Owner

[Note: Wherever the trunk or any part of the trunk and major root structure of any tree are situated on more than one parcel of land any application to cut or remove such tree must be signed and consented to by all registered *Owners* of all properties]

Schedule "I"

Permit Fee Schedule



SCHEDULE "I" Fees

TREE PERMIT FEE SCHEDULE

As amended by By-law Nos. 14186, 12/04/00; 14583, 12/03/01; 14937, 03/24/03; 15940, 02/13/06

Fee for a Tree Cutting Permit shall be determined in accordance with the following Table and shall be payable upon issuance of the Permit.

TABLE 1

Required Permit Fees Effective February 1, 2006

SINGLE FAMILY LOTS

<i>Zone</i>	<i>Permit Price</i>			
	<u>1st 5 lots</u>	<u>Next 5 Lots</u>	<u>Next 10 Lots</u>	<u>Lots over 19</u>
Smaller than				
RF-G	\$66	\$56	\$29	\$23
RF-G	\$90	\$79	\$39	\$33

RF	\$90	\$79	\$39	\$33
RH-G	\$106	\$101	\$45	\$39
RH	\$106	\$101	\$45	\$39
RA-G	\$337	\$312	\$279	\$112
RA (1 acre)	\$337	\$312	\$279	\$112

MULTI FAMILY LOTS

<i>Zone</i>	<i>Permit Price</i>		
	<u>1st 5 Acres</u>	<u>Next 5 Acres</u>	<u>Land Over 10 Acres</u>
RM	\$335/acre	\$280/acre	\$223/acre

COMMERCIAL AND INDUSTRIAL LOTS

<i>Zone</i>	<i>Permit Price</i>		
	<u>1st 5 Acres</u>	<u>Next 5 Acres</u>	<u>Land Over 10 Acres</u>
C, I or Other Except Residential	\$279/acre	\$253/acre	\$202/acre

Schedule "J"

Replacement Trees

- *The following table lists acceptable Replacement Tree species and sizes.*
- *In the column headed "TYPE" the L = Large, M = Medium, S = Small and F = Fastigate (or Columnar) and refer to the size of tree at maturity, not the size when planted.*
- *All planting techniques must comply with the Schedule "L"*



SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
xc				
AMUR CORK TREE	PHELLODENDRON AMURENSE	5 cm	M	
ASH				
WHITE ASH	FRAXINUS AMERICANA	5 cm	L	
AUTUMN PURPLE	FRAXINUS AMERICANA AUTUMN PURPLE	5 cm	L	
EUROPEAN ASH	FRAXINUS EXCELSIOR	5 cm	L	
WESTHOFF'S GLORY ASH	FRAXINUS EXCELSIOR 'WESTHOFF'S GLORY'	5 cm	L	
GREEN ASH	FRAXINUS PENNSYLVANICA	5 cm	L	
FLOWERING ASH	FRAXINUS ORNUS	5 cm	M	
RAYWOOD ASH	FRAXINUS OXYCARPA RAYWOODII	5 cm	M	
BASSWOOD				
	TILIA AMERICANA	5 cm	L	
	TILIA AMERICANA "REDMOND"	5 cm	M	
BEECH				
AMERICAN BEECH	FAGUS GRANDIFOLIA	5 cm	L	
EUROPEAN BEECH	FAGUS SYLVATICA	5 cm	L	
COPPER BEECH	FAGUS SYLVATICA 'ATROPURPUREA'	5 cm	L	
DWARF BEECH	FAGUS SYLVATICA DAWYCKII	5 cm	F	
BIRCH				
JACQUEMONTII BIRCH	BETULA JACQUEMONTII	5 cm	M	
WEeping BIRCH	BETULA LANCINIATA	5 cm	M	
RIVER BIRCH	BETULA NIGRA	5 cm	M	
PAPER BIRCH	BETULA PAPYRIFERA	5 cm	M	
EUROPEAN WHITE BIRCH	BETULA PENDULA	5 cm	M	
ASIAN WHITE BIRCH	BETULA PLATYPHYLLA	5 cm	M	
YOUNG'S BIRCH	BETULA PENDULA "YOUNGII"	5 cm	S	
CATALPA				
COMMON CATALPA	CATALPA BIGNONIOIDES	5 cm	M	

WESTERN CATALPA	CATALPA SPECIOSA	5 cm	L
CEDAR			
ATLAS CEDAR	CEDRUS ATLANTICA	3 m	M
GOLDEN CEDAR	THUJA PLICATA AUREA	3 m	L
BLUE ATLAS CEDAR	CEDRUS ATLANTICA GLAUCA	3 m	M
CALIFORNIA INCENSE CEDAR	CALOCEDRUS DECURRENS	3 m	F
DEODAR CEDAR	CEDRUS DEODARA	3 m	L
WESTERN RED CEDAR	THUJA PLICATA EXCELSA	3 m	L
CEDAR OF LEBANON	CEDRUS LIBANI	3 m	F

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
CHERRY				
SARGENT FLOWERING CHERRY	PRUNUS SARGENTII	5 cm	M	
BLACK CHERRY	PRUNUS SEROTINA	5 cm	M	
YOSHINO CHERRY	PRUNUS YEDOENSIS	5 cm	M	
JAPANESE FLOWERING CHERRY	PRUNUS SERRULATA	5 cm	S	
HIGAN CHERRY	PRUNUS SUBHIRTELLA	5 cm	S	
CHESTNUT				
COMMON HORSECHESTNUT	AESCULUS HIPPOCASTANUM	5 cm	L	
RED HORSECHESTNUT	AESCULUS X CARNEA	5 cm	M	
RUBY RED HORSECHESTNUT	AESCULUS X CARNEA BRIOTTI	5 cm	M	
CHOKECHERRY	PRUNUS VIRGINIANA	5 cm	S	
CRABAPPLE				
JAPANESE CRABAPPLE	MALUS FLORIBUNDA	5 cm	S	
PRAIRIFIRE CRABAPPLE	MALUS X 'PRAIRIFIRE'	5 cm	S	
FLOWERING CRABAPPLE	MALUS ZUMI 'CALOCARPA'	5 cm	S	
CUCUMBER TREE				
CUCUMBER TREE	MAGNOLIA ACUMINATA	3 m	M	
YELLOW CUCUMBER TREE	MAGNOLIA CORDATA	3 m	S	
CYPRESS				
HINOKI FALSE CYPRESS	CHAMAECYPARIS OBTUSA	2.5 m	L	
SAWARE FALSE CYPRESS	CHAMAECYPARIS PISIFERA	2.5 m	L	
NOOTKA CYPRESS	CHAMAECYPARIS NOOTKATENSIS	2.5 m	M	
DROOPING NOOTKA CYPRESS	CHAMAECYPARIS NOOTKATENSIS PENDULA	2.5 m	M	
DOGWOOD				
GIANT DOGWOOD	CORNUS CONTROVERSA	5 cm	M	
FLOWERING DOGWOOD	CORNUS FLORIDA	5 cm	M	
PACIFIC DOGWOOD	CORNUS NUTTALLII	5 cm	M	
CHINESE DOGWOOD	CORNUS CHINENSIS	5 cm	S	
EDDIE'S WHITE WONDER	CORNUS 'EDDIE'S WHITE WONDER'	5 cm	S	

KOUSA DOGWOOD	CORNUS KOUSA	3 m	S
CORNELIAN CHERRY	CORNUS MAS	3 m	S
DOVE TREE	DAVIDIA INVOLUCRATA	5 cm	L

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
ELM				
AMERICAN ELM	ULMUS AMERICANA	5 cm	L	
SCOTCH ELM	ULMUS GLABRA	5 cm	L	
SIBERIAN ELM	ULMUS PUMILA	5 cm	M	
EMPRESS TREE	PAULOWNIA TOMENTOSA	5 cm	M	
FILBERT				
GIANT FILBERT	CORYLUS MAXIMA	3 m	S	
PURPLE GIANT FILBERT	CORYLUS MAXIMA PURPUREA	3 m	S	
FIR				
BALSAM FIR	ABIES BALSAMEA	2.5 m	L	
WHITE FIR	ABIES CONCOLOR	2.5 m	L	
FRASER'S FIR	ABIES FRASERI	2.5 m	L	
GRAND FIR	ABIES GRANDIS	2.5 m	L	
NOBLE FIR	ABIES PROCERA	2.5 m	L	
DOUGLAS FIR	PSEUDOTSUGA MENSIESII	2.5 m	L	
ALPINE FIR	ABIES LASIOCARPA	2.5 m	F	
FRINGE TREE	CHIONANTHUS VIRGINICUS	3 m	M	
GOLDENCHAIN TREE	LABURNUM WATERERI 'VOSSII'	5 cm	M	
GOLDENRAIN TREE	KOELREUTERIA PANICULATA	3 m	M	
HACKBERRY (COMMON)	CELTIS OCCIDENTALIS	5 cm	S	
HAWTHORNE				
LAVALLE HAWTHORNE	CRATAEGUS CRUS-GALLI INERMIS	5cm	S	
	CRATAEGUS LAVALLEI	5 cm	S	
HEMLOCK				
CANADIAN HEMLOCK	TSUGA CANADENSIS	2.5 m	L	
WESTERN HEMLOCK	TSUGA HETEROPHYLLA	2.5 m	L	
MOUNTAIN HEMLOCK	TSUGA MERTENSIANA	2.5 m	L	
HOLLY				
ENGLISH HOLLY	ILEX AQUIFOLIUM	3 m	S	

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
HONEY LOCUST				
SHADE MASTER	GLEDITSIA TRICANTHOS 'SHADEMASTER'	5 cm	L	
SUNBURST	GLEDITSIA TRICANTHOS 'SUNBURST'	5 cm	L	

HORNBEAM				
	EUROPEAN	CARPINUS BETULUS	5 cm	M
HORNBEAM	COLUMNAR	FASTIGIATA	5 cm	F
HORNBEAM				
JAPANESE ANGELICA TREE		ARALIA ELATA	3 m	M
JAPANESE PAGODA TREE		SOPHORA JAPONICA	3 cm	S
KATSURA TREE		CERCIDIPHYLLUM JAPONICUM	5 m	L
LARCH (EUROPEAN)		LARIX DECIDUA	3 m	M
LAUREL (PORTUGAL)		PRUNUS LUSITANICA	3 m	S
LILAC				
	LILAC TREE	SYRINGA RETICULATA 'IVORY SILK'	3 m	S
LINDEN				
	LITTLE LEAF LINDEN	TILIA CORDATA	5 cm	L
	CRIMEAN LINDEN	TILIA EUCHLORA	5 cm	M
LOCUST				
1	HONEY LOCUST	GLEDITSIA TRIACANTHOS	5 cm	L
2	BLACK LOCUST	ROBINIA PSEUDOACACIA	5 cm	L
3	YELLOW LEAFED BLACK LOCUST	ROBINIA PSEUDOACACIA FRISIA	5 cm	L
4	THORNLESS HONEY LOCUST	GLEDITSIA TRIACANTHOS INERMIS	5 cm	M
LOCUST				
5	SUNBURST HONEY LOCUST	GLEDITSIA TRIACANTHOS SUNBURST	5 cm	M
LOCUST				
6	PINK LOCUST	ROBINIA AMBIGUA ISAHOENSIS	5 cm	M
MADRONE				
	PACIFIC MADRONE	ARBUTUS MENZIESII	#5 pot	M

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
MAGNOLIA				
	DAWSON MAGNOLIA	MAGNOLIA DAWSONIANA	3 m	M
	SOUTHERN MAGNOLIA	MAGNOLIA GRANDIFLORA	3 m	M
	NORTHERN JAPANESE MAGNOLIA	KOBUS	3 m	M
MAGNOLIA				
	SAUCER MAGNOLIA	MAGNOLIA SOULANGIANA	3 m	S
	OYAMA MAGNOLIA	MAGNOLIA SIEBOLII	3 m	S
MAIDENHAIR TREE				
		GINKGO BILOBA	5 cm	L
MAPLE				
	BIGLEAF MAPLE	ACER MACROPHYLLUM	3 m	L
	DEBORAH'S NORWAY	ACER PLATANOIDES 'DEBORAH'	5 cm	L
	CRIMSON KING NORWAY	ACER PLATANOIDES 'CRIMSON KING'	5 cm	L
	SYCAMORE MAPLE	ACER PSEUDOPLATANUS	5 cm	L
	RED MAPLE	ACER RUBRUM	5 cm	L
	MORGAN RED MAPLE	ACER RUBRUM 'MORGAN'	5 cm	L
	RED SUNSET MAPLE	ACER RUBRUM 'RED SUNSET'	5 cm	L
	SILVER MAPLE	ACER SACCHARINUM	5 cm	L
	SUGAR MAPLE	ACER SACCHARUM	5 cm	L

HEDGE MAPLE	ACER CAMPESTRE	5 cm	M
CAPPADOCIAN MAPLE	ACER CAPPADOCICUM	5 cm	M
DAVID MAPLE	ACER DAVIDII	5 cm	M
ROCKY MOUNTAIN MAPLE	ACER GLABRUM	3 m	M
PAPERBARK MAPLE	ACER GRISEUM	5 cm	M
MANITOBA MAPLE	ACER NEGUNDO	5 cm	M
STRIPED MAPLE	ACER PENNSYLVANICUM	5 cm	M
NORWAY MAPLE	ACER PLATANOIDES	5 cm	M
CRIMSON SENTRY	ACER PLATANOIDES 'CRIMSON SENTRY'	5 cm	M
DRUMMOND NORWAY MAPLE	ACER PLATANOIDES DRUMMONDI	5 cm	M
ROYAL RED MAPLE	ACER PLATINOIDES 'ROYAL RED'	5 cm	M
SCHWEDLER NORWAY MAPLE	ACER PLATANOIDES 'SCHWEDLERI'	5 cm	M
PACIFIC SUNSET MAPLE	ACER TRUNCATUM 'WARREN RED'	5 cm	M
JAPANESE MAPLE	ACER PALMATUM	3 m	S
VINE MAPLE	ACER CIRCINATUM	3 m	S
AMUR MAPLE	ACER GINNALA	5 cm	S
COLUMNAR NORWAY	ACER PLATINOIDES 'COLUMNAR'	5 cm	F
GLOBE NORWAY	ACER PLATINOIDES 'GLOBO SUM'	3 m	S
ARMSTRONG RED MAPLE	ACER RUBRUM 'ARMSTRONG'	5 cm	F

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
BOWHALL MAPLE	ACER RUBRUM 'BOWHALL'	5 cm	F	
KARPICK MAPLE	ACER RUBRUM 'KARPICK'	5 cm	F	
SCANLON RED MAPLE	ACER RUBRUM 'SCANLON'	5 cm	F	
SCARLET SENTINEL MAPLE	ACER RUBRUM 'SCARLET SENTINEL'	5 cm	F	
COLUMNAR RED MAPLE	ACER RUBRUM X 'COLUMNAR'	5 cm	F	
MONKEY PUZZLE TREE	ARAUCARIA ARAUCANA	5 cm	L	
MOUNTAIN ASH				
WHITEBEAM	SORBUS AIRIA 'LUTESCENS'	5 cm	M	
EUROPEAN MOUNTAIN ASH	SORBUS AUCUPARIA	5 cm	M	
PINK PAGODA MT. ASH	SORBUS HUPHENSIS 'PINK PAGODA'	5 cm	M	
MULBERRY				
WHITE MULBERRY	MORUS ALBA	5 cm	S	
OAK				
ORIENTAL CHESTNUT OAK	QUERCUS ACUTISSIMA	5 cm	L	
SCARLET OAK	QUERCUS COCCINEA	5 cm	L	
GARRY OAK	QUERCUS GARRYANA	5 cm	L	
PIN OAK	QUERCUS PALUSTRIS	5 cm	L	
ENGLISH OAK	QUERCUS ROBUR	5 cm	L	
RED OAK	QUERCUS RUBRA	5 cm	L	
SHUMARD OAK	QUERCUS SHUMARDII	5 cm	L	

UPRIGHT ENGLISH OAK	QUERCUS ROBUR 'FASTIGIATA'	5 cm	F
ORNAMENTAL PLUM			
PURPLE LEAF PLUM	PRUNUS CERASIFERA PISSARDI 'NIGRA'	5 cm	M
JAPANESE FLOWERING PLUM	PRUNUS BLIREANA	5 cm	S
FLOWERING PLUM	PRUNUS TRILOBA	5 cm	S
PALM			
WINDMILL PALM	TRACHYCARPUS FORTUNEI	3 cm	S
PERSIAN PARROTIA	PARROTIA PERSICA	5 m	M
PINE			
PONDEROSA PINE	PINUS PONDEROSA	2.5 m	L
MONTEREY PINE	PINUS RADIATA	2.5 m	L
RED PINE	PINUS RESINOSA	2.5 m	L
EASTERN WHITE PINE	PINUS STROBUS	2.5 m	L

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:	IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.			
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
SCOTCH PINE	PINUS SYLVESTRIS	2.5 m	L	
JAPANESE BLACK PINE	PINUS THUNBERGII	2.5 m	L	
HIMALAYAN WHITE PINE	PINUS AGRIFITHII WALLICHIANA	2.5 m	M	
WESTERN WHITE PINE	PINUS MONTICOLA	2.5 m	M	
AUSTRIAN PINE	PINUS NIGRA	2.5 cm	M	
UMBRELLA PINE	SCIADOPITYS VERTICILLATA	2.5 m	M	
SHORE PINE	PINUS CONTORTA	2.5 m	S	
PLANE TREE				
LONDON PLANE TREE	PLATANUS ACERIFOLIA	5 cm	L	
ORIENTAL PLANE TREE	PLATANUS ORIENTALIS	5 cm	L	
REDBUD				
EASTERN REDBUD	CERCIS CANADENSIS	5 cm	M	
REDWOODS				
COAST REDWOOD	SEQUOIA SEMPERVIRENS	2.5 m	L	
DAWN REDWOOD	METASEQUOIA GLYPTOSTROBOIDES	2.5 m	L	
GIAANT SEQUOIA	SEQUOIA GIGANTEUM	2.5 m	L	
SILVERBELL				
MOUNTAIN	HALSESIA MONTICOLA	3 m	M	
SILVERBELL				
SNOWBELL				
JAPANESE SNOWBELL	STYRAX JAPONICA	5 cm	S	
FRAGRANT	STYRAX OBASSIA	5 cm	S	
SNOWBELL				
SOURWOOD	OXYDENDRUM ARBOREUM	3 m	S	
SPRUCE				
NORWAY SPRUCE	PICEA ABIES	2.5 m	L	
WHITE SPRUCE	PICEA GLAUCA	2.5 m	L	
SERBIAN SPRUCE	PICEA OMORIKA	2.5 m	L	
COLORADO SPRUCE	PICEA PUNGENS	2.5 m	L	

COLORADO BLUE SPRUCE	PICEA PUNGENS 'GLAUCA'	2.5 m	L
KOSTER BLUE SPRUCE	PICEA PUNGENS 'KOSTER'	2.5 m	L
SITKA SPRUCE	PICEA SITCHENSIS	2.5 m	L
HOOP'S BLUE SPRUCE	PICEA PUNGENS 'HOOPSII'	2.5 m	L

SCHEDULE J		REPLACEMENT TREES	REPLACEMENT	
NOTE TO TABLE:		IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.		
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
STRAWBERRY TREE	ARBUTUS UNEDO	2.5 m	S	
SUMAC	STAGHORN SUMAC RHUS TYPHINA	3 m	S	
SWEETGUM	LIQUIDAMBAR STYRACIFLUA 'WARPELSDON'	5 cm	L	
SYCAMORE (AMERICAN)	PLATANUS OCCIDENTALIS	5 cm	L	
TREE-OF-HEAVEN	AILANTHUS ALTISSIMA	3 m	L	
TULIP TREE	LIRIODENDRON TULIPIFERA	5 cm	L	
WALNUT	JUGLANS Spp.	5 cm	L	
WILLOW				
1	WHITE WILLOW	SALIX ALBA	5 cm	L
2	GOLDEN WEEPING WILLOW	SALIX ALBA TRISTIS	5 cm	L
3	WEeping WILLOW	SALIX BABYLONICA	5 cm	M
4	CORKSCREW WILLOW	SALIX MATSUDANA TORTUOSA	5 cm	M
YEW				
	PACIFIC YEW	TAXUS BREVIFOLIA	2 m	M
	HATFIELD YEW	TAXUS HATFIELDII	2 m	M
	HICK'S YEW	TAXUS MEDIA HICKSII	2 m	M
ZELKOVA				
	JANANESE ZELKOVA	ZELKOVA SERRATA	5 cm	L

Schedule "K"

Boulevard Trees.

- The following table lists acceptable Replacement Tree species and sizes.
- In the column headed "TYPE" the L = Large, M = Medium S = Small and F = Fastigate (or Columnar) and refers to the size of tree at maturity, not the size when planted.
- All planting techniques must comply with Schedule "L"



SCHEDULE K	BOULEVARD TREES	BOULEVARD
NOTE TO TABLE:	IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.	
COMMON NAME	BOTANICAL NAME	MIN. SIZE TYPE
ASH		
WESTHOFF'S GLORY	FRAXINUS EXELSIOR 'WESTHOFF'S GLORY'	5 cm L
FLOWERING ASH	FRAXINUS ORNUS	5 cm M
RAYWOOD ASH	FRAXINUS OXYCARPA 'RAYWOOD'	5 cm M
BEECH		
DWARF BEECH	FAGUS SYLVATICA 'DAWYCKII'	5 cm F
CHERRY		
BIRD CHERRY	PRUNUS PADUS	5 cm M
SARGENT CHERRY	PRUNUS SARGENTII 'RANCHO'	5 cm M
YOSHIDO CHERRY	PRUNUS X YEDOENSIS	5 cm M
DAYBREAK CHERRY	PRUNUS X YEDOENSIS 'AKEBONO'	5 cm S
CRABAPPLE		
JAPANESE CRABAPPLE	MALUS FLORIBUNDA	5 cm S
FLOWERING CRABAPPLE	MALUS ZUMI 'CALOCARPA'	5 cm S
HAWTHORNE	CRATAEGUS CRUS-GALLI INERMIS	5 cm S

HONEY LOCUST				
SHADEMASTER	GLEDITSIA TRICANTHOS 'SHADEMASTER'	5 cm	L	
SUNBURST	GLEDITSIA TRICANTHOS 'SUNBURST'	5 cm	L	
HORNBEAM				
EUROPEAN HORNBEAM	CARPINUS BETULUS 'FASTIGIATA'	5 cm	F	
KATSURA TREE	CERCIDIPHYLLUM JAPONICUM	5 m	L	
LILAC				
TREE LILAC	SYRINGA RETICULATA 'IVORY SILK'	3 m	S	
LINDEN				
GREENSPIRE LINDEN	TILIA CORDATA 'GREENSPIRE'	5 cm	M	
CRIMEAN LINDEN	TILIA X EUCHLORA	5 cm	M	
MAIDENHAIR TREE	GINKO BILOBA	5 cm	L	
MAGNOLIA				
NORTHERN JAPANESE MAGNOLIA	MAGNOLIA KOBUS	3 m	M	

SCHEDULE K	BOULEVARD TREES	BOULEVARD		
NOTE TO TABLE:	IN THE MINIMUM SIZE COLUMN, REFERENCE TO A FIGURE IN CENTIMETRES (cm) IS A MEASUREMENT OF TRUNK DIAMETER 15 cm ABOVE THE GROUND. REFERENCE TO A FIGURE IN METRES (m) IS A MEASUREMENT OF HEIGHT ABOVE THE GROUND.			
COMMON NAME	BOTANICAL NAME	MIN. SIZE	TYPE	
MAPLE				
DEBORAH MAPLE	ACER PLATANOIDES 'DEBORAH'	5 cm	L	
MORGAN MAPLE	ACER RUBRUM 'MORGAN'	5 cm	L	
CAPPADOCIAN MAPLE	ACER CAPPADOCICUM	5 cm	M	
STRIPED MAPLE	ACER PENNSYLVANICUM	5 cm	M	
CRIMSON KING	ACER PLATINOIDES 'CRIMSON KING'	5 cm	M	
DRUMMOND NORWAY	ACER PLATINOIDES 'DRUMMONDII'	5 cm	M	
ROYAL RED NORWAY	ACER PLATINOIDES 'ROYAL RED'	5 cm	M	
HEDGE MAPLE	ACER CAMPESTRE	5 cm	S	
AMUR MAPLE	ACER GINNALA	5 cm	S	
COLUMNAR NORWAY	ACER PLATANOIDES 'COLUMNAR'	5 cm	S	
GLOBE NORWAY	ACER PLATANOIDES 'GLOBOSUM';	5 cm	S	
ARMSTRONG MAPLE	ACER RUBRUM 'ARMSTRONG'	5 cm	F	
COLUMNAR RED MAPLE	ACER RUBRUM 'COLUMNAR'	5 cm	F	
SCANLON MAPLE	ACER RUBRUM 'SCANLON'	5 cm	F	
SCARLET SENTINEL	ACER RUBRUM 'SCARLET SENTINEL'	5 cm	F	
MOUNTAIN ASH				
WHITEBEAM	SORBUS AIRIA 'LUTESCENS'	5 cm	M	
PINK PAGODA MT. ASH	SORBUS HUPHENSIS 'PINK PAGODA'	5 cm	M	
OAK				
ORIENTAL CHESTNUT OAK	QUERCUS ACUTISSIMA	5 cm	L	
PIN OAK	QUERCUS PALUSTRIS	5 cm	L	
UPRIGHT ENGLISH OAK	QUERCUS ROBUR 'FASTIGIATA'	5 cm	F	
SNOWBELL				
SNOWBELL TREE	STRYAX JAPONICA	5 cm	S	
SWEETGUM				
	LIQUIDAMBAR	5 cm	L	
	STYRACIFLUA 'WARPELSDON'			
TULIP TREE				
	LIRIODENDRON TULIPIFERA	5 cm	L	

Schedule "L"

Replanting



SCHEDULE "L" BCSLA

PLANTS AND PLANTING SPECIFICATIONS EXTRACTED FROM THE "BRITISH COLUMBIA
LANDSCAPE STANDARD" 1993 EDITION PREPARED BY THE B.C.S.L.A. AND THE B.C.N.T.A.

8.1 GENERAL

8.1.1 Pertinent Standards and Legislation

Landscape/Paysage Canada Guide Specification for Nursery Stock

8.1.2 Transporting Plants to Site

8.1.2.1 Dormant Period

- (a) Deciduous - Bare Roots (only in dormant period): Adequate protection shall be given in order to preserve moisture around the root system. For short transit period, 4 hours or less, maximum temperature in the truck should be not above 20^o Celsius. In all cases, at all times, roots should be protected from frost, wind and sun. Example: closed van with wet straw or other suitable material. Temperature to be maintained as uniformly as possible by mechanical means, or in any event to prevent frost damage to roots. Appropriate temperature range to be above 0^o Celsius and no more than 10^o Celsius.
- (b) Evergreens - It is recommended that balls not be subjected to freezing temperatures below -5^o Celsius for a period longer than 4 hours and that adequate protection from wind and sun be given to prevent desiccation.

8.1.2.2 Non-Dormant Plants

Deciduous or Evergreens - Movement of container grown, B&B, wire basket should be restricted to closed van or well-covered truck with tarp or similar material in order to protect the leaves or needles from windburn. When in transit with protection of a tarp cover only, it is recommended that foliage be sprayed with an anti desiccant. For the above material in transit for more than 3 days, it should be unloaded and then stored away from direct sun for 24 hours to avoid burning.

8.1.2.3 Unloading Procedures

- (a) B.R. (Bare Root): Roots should be covered and protected immediately from frost, sun and wind.
- (b) Pots/Containers: Should be handled as much as possible by pots only in order to reduce breakage of branches or leaves.
- (c) Ball & Burlap: Handle with caution to maintain the firmness of the balls. Protect against damage to stems and branches.
- (d) Wire Basket: Specimen trees should not be lifted by the trunk.
- (e) All plants should be unloaded and checked immediately upon arrival and should be watered if necessary.

8.1.3 Handling and Storage

8.1.3.1 Plants are to be kept in a moist condition at all times. All plants shall be well protected against damage and/or drying out until they are planted on the site.

8.1.3.2 Protection Against Stem and Branch Damage

During loading, transportation, off-loading, and planting, all trees should be protected against damage to stems and branches. This applies particularly to larger wire-basketed trees.

Bark should be protected against chafing from chains, cables, equipment, or other trees by a wrapping of cardboard or sackcloth.

Sudden or rapid movement of trees in transit or off-loading should be avoided. If the tree's branches are entangled with those of other trees, care should be taken to separate them without damage to branches.

If damage occurs, proper corrective measures should be carried out. Shattered bark should be removed and broken branches should be pruned back to the branch collar with care to avoid tearing of the stem bark. Wounds should be traced ~~and painted with orange shellac to prevent desiccation of the cambium.~~ [Note: the City of Surrey has deleted the strikeout passage to conform to current arboricultural practice.]

8.1.3.3 During Growing Season: All plants in containers, B&B, or wire basket, if not planted within three (3) days, shall be stored in an upright position and care should be taken to provide enough space between plants so that light reaches all around to the bottom of the plant in order to avoid burning when planted out.

(a) **Balled & Burlapped Material:** Special attention should be given to the rootball, and unless weather is rainy or cool, balls shall be protected by heeling in material suitable to protect them from drying out. (Examples: sawdust, peat moss, topsoil). Plants intended to be planted in the open shall not be kept stored in a building or any area of low light intensity for a period exceeding seven (7) days. All plants shall be kept well watered and protected from heat and frost.

(b) **Containerised Plants:** In extreme weather, freezing or high dry heat, the containers shall be buried in a protective medium. Plants intended to be planted in the open shall not be kept stored in a building, truck, or any area of low light intensity for a period exceeding seven (7) days during the growing season.

(c) **During Dormant Period:** Plants shall be cared for according to each plant's requirement for winter protection needs and according to geographical location.

8.1.4 Planting Time

Plant trees, shrubs and ground covers only during periods that are normal for such work as determined by local weather conditions, when seasonal conditions are likely to ensure successful adaptation of plants to their new location.

8.1.5 Recommended Conditions for Acceptance

Acceptance of plants and planted areas by the Authority and by the Owner for further maintenance should be done only when the following conditions exist:

- 8.1.5.1 Growing medium quality, fertility levels, depths and surface grading are as set out in this Standard.
- 8.1.5.2 All plants are in the positions shown in the contract documents (subject to minor amendments by the designer).
- 8.1.5.3 All plants are healthy and turgid.
- 8.1.5.4 Water content in the growing medium is within the ranges set in this Standard.
- 8.1.5.5 All boulevard trees are staked as required.
- 8.1.5.6 All pruning is completed as required.
- 8.1.5.7 All planted areas are free of weeds.
- 8.1.5.8 Mulch is in place as required.
- 8.1.5.9 Unmulched areas are cultivated to leave a loose, friable, water-permeable surface.

8.2 **PRODUCTS**

8.2.1 Plants

- 8.2.1.1 All nursery-grown plants shall, as a minimum, comply with the Landscape/Paysage Canada Guide Specification for Nursery Stock and the B.C.N.T.A. Standard for Container Grown Plants with respect to sizing, grading and quality.
- 8.2.1.2 All collected native plants shall be held and maintained in a nursery until new roots have formed through the burlap or other suitable packing material, or in the case of containerised plants, until such time that the roots grow to fill and hold the soil within the container.
- 8.2.1.3 All plants specified "Container" shall be grown for the length of time necessary to permit the roots to fill and hold the soil within the container, as required by Landscape/Paysage Canada Guide Specification for Nursery Stock.

NOTE: THE NURSERY REPRESENTATIVES OF THE B.C.N.T.A. HAVE WRITTEN THE B.C.N.T.A. STANDARD FOR CONTAINER GROWN PLANTS . . .

This document sets out standardized container size/plant size relationships in order to achieve the following goals:

1. to standardize the products growers are to produce;
2. to simplify the bidding process; and
3. to allow for proper root growth and pruning for healthy, well-developed plants.

While it is recognized that the provisions of tender documents and contacts take precedence over these standards, it is recommended that non-specimen plants be specified according to the B.C.N.T.A. STANDARD FOR CONTAINER GROWN PLANTS.

Each plant list should contain or be accompanied by the statement: "PLANTS IN THIS PLANT LIST ARE SPECIFIED ACCORDING TO THE LANDSCAPE CANADA GUIDE SPECIFICATION FOR NURSERY STOCK AND THE B.C.N.T.A. STANDARD FOR CONTAINER GROWN PLANTS."

Each plant list should specifically note any exceptions to the above statement.

- 8.2.1.4 Plants shall be true to name, type and form, and representative of their species or variety. Plants shall be compact and properly proportioned, not weak or thin, or injured by being planted too closely in nursery rows. In particular, conifers shall have a healthy single leader and overall natural form characteristic of the species or variety. The leader shall have well-spaced whorls of vigorous newly-growing branches, such that proper development of the plant's form can be expected.
- 8.2.1.5 Plants shall have normal, well-developed branches and vigorous, fibrous root systems. They shall be healthy, vigorous plants, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant diseases, insect pests' eggs, borers and all forms of infestation or objectionable disfigurements.
- 8.2.1.6 Trees shall have straight stems unless that would be uncharacteristic and shall be well and characteristically branched for the species or variety.
- 8.2.1.7 Ground cover plants shall have healthy tops to a size proportionate to the above root requirements typical of the species or variety.
- 8.2.1.8 Rootballs and soil in containers shall be free from pernicious perennial weeds.

8.2.2 Root Balls

8.2.2.1 The following is extracted from the Canadian Nursery Trades Association Metric Guide Specifications for Nursery Stock, third edition, 1984:

- All . . . nursery stock shall have an adequate fibrous root system that has been developed by proper cultivating practices, particularly transplantings or root pruning. Pertinent facts such as to when larger nursery stock was transplanted or root pruned should be available to the buyer.
- Balls shall be solid, (and remain so until planted), tied tightly with burlap and of a sufficient size and depth to encompass the fibrous and feeder root system.

- Diameters stated below are recommended minimums. Trees that have not been transplanted or root pruned for four (4) or more years, varieties with course roots, e.g. *Quercus borealis*, or plant material moved out of season, require balls of greater diameter than the recommended minimums.
- Collected or native material dug from wood lots or fence rows shall be dug with a ball 20% greater than the table states.
- The following table represents the recommended minimum sizes of balls for trees which are grown in the nursery under favourable conditions and which have received the proper cultural treatments to develop a well-branched root system. These specifications are for plants dug with the ball of earth in which they are growing.
- Further development of new techniques, i.e., root pruning, may permit small earth ball sizes.

Group 3: Tall and Broad Evergreen Trees

Height (cm)	Minimum Ball Diameter (cm)	
	Hand Dug	Machine Dug
50-60	30	-
60-70	35	-
70-80	35	-
80-90	35	-
90-100	40	-
100-125	45	35
125-150	50	40
150-175	60	50
175-200	70	60
200-250	80	80
250-300	90	100
300		120
350		140

Evergreens produced in a nursery whereby root pruning practices are carried out may have the ball size reduced by up to 25%.

Group 4: Deciduous Trees

Caliper (mm)	Minimum Diameter of Ball (cm)
45	55
50	60
60	65
70	75
80	80
90	90
100	100
125	110
150	120
175	130
200	140

8.2.2.2 Following are Root Ball Standards adopted May 1992 by the B.C. Nursery Trades Association.

Securing Root Balls over 24":

Root balls over 24" are to be secured with either poly twine or treated sisal with a maximum of 4" between wraps and have a lateral line around the centre of the ball at right angles to the regular ties.

Root Ball Sizing:

The following minimum standards have been set. This does not, however, preclude the fact that root ball sizes could be larger for certain areas of British Columbia and other provinces in Canada.

<u>Thuja Type</u>	<u>Minimum Ball Size</u>
3' or 1.00 m	13" (33 cm)
4' or 1.25 m	15" (38 cm)
5' or 1.50 m	17" (43 cm)
6' or 1.75m	19" (48 cm)
7' or 2.00 m	21" (53 cm)
8" or 2.50 m	24" (61 cm)

<u>Spruce & Pine Type</u>	<u>Minimum Ball Size</u>
-------------------------------	--------------------------

3' or 1.00 m	15" (38 cm)
4' or 1.25 m	17" (43 cm)
5' or 1.50 m	19" (48 cm)
6' or 1.75 m	21" (53 cm)
7' or 2.00 m	24" (61 cm)
8' or 2.50m	28" (71 cm)

Caliper Trees

Minimum Ball Sizes

1.0" or 2.50 cm	15" (38 cm)
1.5" or 4.00 cm	18" (45 cm)
2.0" or 5.00 cm	24" (61 cm)

8.2.2.3 It is recommended that the B.C.N.T.A. minimum root ball sizes apply only in areas of the province where transplanting plants with small root balls has proven successful. Plants dug in colder or drier regions should have root balls sized to the C.N.T.A. guide specifications.

8.2.2.4 Current practices in British Columbia include the use of "grow bags" and pre-digging trees then heeling them in sawdust for several months to develop fibrous roots. These practices may yield successful transplants with smaller root balls. Digging, preparation and transplanting shall be such that the fibrous roots are well developed and are protected. Trees shall be suited to establishment after planting, without undue setback, and without "dieback."

8.2.3 Planting Accessories

8.2.3.1 Bark shall be protected against chafing from wire or rope guys.

8.2.3.2 Where trees are staked, stakes shall be in good condition and shall securely support the trees. Ties shall be placed around the trunk to provide adequate support and prevent damage.

8.3 **EXECUTION**

8.3.1 Digging of Plants

8.3.1.1 Plants specified "BR" (Bare Roots) shall be dug and moved while dormant and in accordance with C.N.T.A. guide specifications.

8.3.1.2 Plants specified as "B&B" (Ball & Burlap) shall be dug and planted in accordance with C.N.T.A. guide specifications.

8.3.1.3 All plants specified "MTS" shall be dug with a mechanical tree spade.

8.3.2 Preparing Roots

- 8.3.2.1 Before removing plants from containers for planting, the plants shall be well watered to reduce injury to the plants and insure a better survival rate.
- 8.3.2.2 Should water not penetrate the ball (in some cases where the plant has been left dry for too long), the ball should be soaked in a container of water.
- 8.3.2.3 In many plants, roots have a tendency to circle the ball. When this is apparent, outside roots should be gently loosened or cut (with a sharp knife) vertically in one or two places. (Mainly with trees, pines or other large evergreens).

8.3.3 Planting Pits

- 8.3.3.1 All trees and shrubs shall have at least 150 mm of growing medium under the rootball and at least 300 mm of growing medium surrounding the rootball to the sides. Where growing medium depth is not sufficient for this, planting pits shall be excavated and filled with growing medium. Excess excavated material shall be removed from the site.
- 8.3.3.2 Planting pits shall be tested by filling with water. Conditions permitting the retention of water in planting pits for more than 24 hours shall be reported before proceeding with work (see Administration Recommendations 1.1).
- 8.3.3.3 Where necessary, holes dug by a mechanical tree spade shall be scarified to ensure that they do not have glazed sides.

8.3.4 Planting

- 8.3.4.1 Plants shall be planted so that after settlement they will be at the original growing medium depth. The soil mark on the stem is an indication of this and it shall be maintained on the finished level, allowing for settling of the growing medium after planting. Total depth of rootballs shall be planted in growing medium.
- 8.3.4.2 Plants shall be set plumb in the planting beds or in the centre of the pits, except where the plant's character requires variation from this.
- 8.3.4.3 Growing medium shall be placed in layers around the roots or ball, preferably by hand. Each layer shall be carefully tamped so as to avoid injuring the roots or ball, or disturbing the position of the plant.
- 8.3.4.4 When growing medium is up to about two-thirds of the rootball height, ties shall be cut and the top portion of "burlap" on B&B plants shall be folded back carefully, not disturbing the rootball integrity.
- 8.3.4.5 Soil should be moist in tree pits at this stage and allowed to settle around the roots. After the water has been absorbed, the backfilling shall be completed and tamped lightly. Any settling shall be brought up to the intended grade with growing medium.

8.3.4.6 Wire baskets should not be removed. Any visible portion should be folded down away from the root ball and buried.

8.3.4.7 All imperishable containers and tying materials shall be removed. Perishable containers such as fibre tubs should be removed, but trees dug B.R. and planted in tubs for summer planting (if not fully established at time of planting) can be planted with the fibre tub if the rim is removed below grade and large holes cut out on the sides.

8.3.5 Bare Root Planting - While dormant only.

8.3.5.1 Damaged or broken roots should be cut back to living parts remaining. Roots should be spread evenly in the planting pit.

8.3.5.2 Growing medium shall be placed around the roots, gently shaking the tree so all the soil particles sift into the root system to ensure close contact with all roots and to prevent air pockets. Avoid direct contact with the roots of fertilizer (except slow release) and also of manure, if used.

8.3.6 Watering

Watering shall be carried out when required and with sufficient quantities to prevent plants and underlying growing medium from drying out.

8.3.7 Pruning

Pruning shall be limited to the minimum necessary to remove dead or injured branches ~~and to compensate for the loss of roots as a result of transplanting operations~~. Pruning shall be done in such a manner as to preserve the natural character of the plants. Only clean, sharp tools shall be used. All cuts shall be clean and cut to the branch collar, leaving no stubs. Cuts, bruises or scars on the bark shall be traced back to living tissue and removed. The affected areas shall be shaped so as not to retain water and ~~all treated areas shall be painted with a standard tree paint containing 1% naphthalene acetic acid~~. [Note: City of Surrey has deleted the strikeout passages in order to conform to current arboricultural practices.]

8.3.8 Tree Support

8.3.8.1 Immediately following planting, trees shall be braced upright in position, [if necessary] preventing excessive motion, by guy wires or by stakes with ties.

8.3.8.2 All tree support methods shall be such that they do not damage the tree.

8.3.8.3 Removal of tree stakes should occur once the trees are stable. Tree stakes and tree guys should remain for a maximum of 2 years.

NOTE: IN SOME CASES (e.g. STREET TREES), STAKES MIGHT BE LEFT IN PLACE TO PROTECT THE TREES, BUT TIES SHOULD BE REMOVED.

Schedule "M"

Decision Appeal Form



SCHEDULE "M"

Reconsideration

RECONSIDERATION OF THE CITY'S DECISION APPLICATION FORM FOR RECONSIDERATION OF GENERAL MANAGER'S DECISION

1. I, _____ of _____ in the City of _____
request Council to reconsider the decision of the General Manager made on the _____ day of _____

_____, 199__ pursuant to the City of Surrey "Tree Preservation By-law, 1996, No. 12880" that:

[details of decision of General Manager]

in respect of lands civically described as
in the City of Surrey and legally described as:

My reasons for requesting a reconsideration of the *General Manager's* decision are:

Dated this _____ day of _____, _____.

Signed