



Application Form for Tree Maintenance or Emergency Works on a Significant Tree

50 The Octagon, PO Box 5045, Meray Place, Dunedin 9058, New Zealand
Ph 03 477 4000 | www.dunedin.govt.nz

Application details

I/We John Phillips & Darlene Williams hereby apply for land use consent for work on a significant tree.

The work is for the purposes of: ☐ Maintenance ☒ Emergency Works

Tree Species: European Silver Fir (Abies alba) District Plan Tree Number: T444

Name of Contractor: (if known) unknown

Description of Proposed Work:

- ☐ Crown Raising ☐ Crown Clearing ☐ Crown Thinning
☐ Power Line Clearance ☐ Work in Drip Line ☐ Crown Reduction
☒ Other: Removal



Assessment of the effects of the proposed work:

After an inspection of the Silver Fir & its surrounds a detailed tree risk report has concluded that the tree has a high risk probability of shedding a large leader or limb during storms, onto 3 Ferntree Drive where houses are consented to be built in the future. The consequences of such a limb failure may cause significant harm to people & property.

Site description/location

Owner of the Tree: (if not the applicant) Dunedin City Council Community & Recreation

Address of the Property: 5 Ferntree Drive, Wakari, Dunedin

% P O Box 5045, Dunedin 9054

Legal Description: Lot 4 DP 19517

Address for correspondence

Name: John Phillips & Darlene Williams

Address: 139 Studholme Street, Somerfield, Christchurch Postcode: 8024

Phone (daytime): 021 161 1168 Email: johnmaxphillips@gmail.com, Darlene.williams25@gmail.com

Chosen contact method (this will be the first point of contact for all communications for this application)

I wish the following to be used as the address for service: ☒ email ☐ post ☐ other _____

Office use only

RMA: _____ Prop ID: _____ Person ID: _____

Declaration

I certify that, to the best of my knowledge and belief, the information given in this application is true and correct

Signature of Applicant(s): [Signature] Date: 23/7/19

Signature of Tree Owner(s): [Signature] Date: _____

Criteria for assessment of application

This application will be considered with regard to the following matters:

- Assessment Matters 15.6.1, 15.6.2 and 15.6.3 of the Trees section of the District Plan
- Whether or not the work will benefit the health and growth of the tree
- Any alternative methods available to achieve the desired outcome
- Any previous applications involving trees
- The contribution the tree makes to the neighbourhood, both visually and physically
- The contribution the tree makes as a habitat for wildlife
- The extent to which the tree is structurally unsound in the opinion of the Council's Parks Officer- Trees.
- The applicant's need to obtain a practicable building area, access, parking area or install services etc

FURTHER ASSISTANCE

If you require any further help, please contact:

City Planning
Dunedin City Council
First Floor, Civic Centre
50 The Octagon
PO Box 5045
Dunedin
Phone 477 4000
www.dcc.govt.nz

This is also where you can lodge your resource consent application. We are there to provide you with planning information. If you consider you need further planning advice, you may wish to discuss your application with an independent planning consultant.

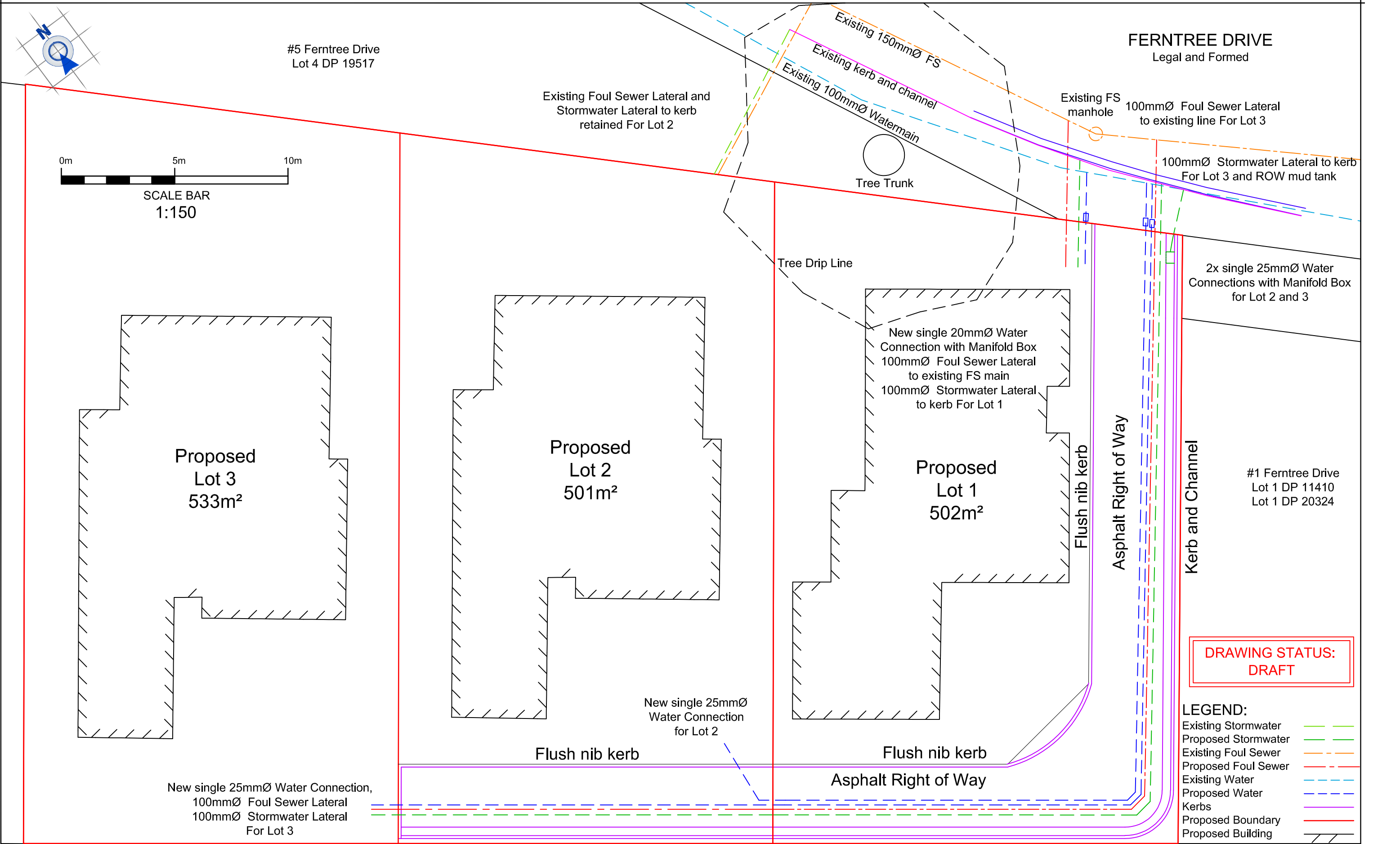
3 Ferntree Drive,
Dunedin.

Please see attached our application for emergency removal of a scheduled tree which includes the following –

- Application form.
- Arborist's report.
- Subdivision Construction Plan.

In addition we would also like to make the following points regarding this application.

1. As well as the danger to people and property on the sub-divided section at 3 Ferntree Drive, there is the danger to vehicular traffic on Ferntree Drive itself and also to pedestrian traffic on the footpath that runs underneath the canopy of the tree.
2. Because of the short-cut provided by the walkway between Hood Street and Ferntree Drive, at times the Ferntree Drive footpath can be quite busy with school children and others walking to the Taieri Road bus stops.
3. During the autumn the tree sheds an abundance of small needles. These needles when combined with rain or frost make the footpath very slippery. A neighbour slipped under the tree and broke her wrist last winter.
4. The uplift caused by the growth of the tree is making negotiation of the footpath hazardous due to unevenness and deformation of the ground surface.
5. The tree currently sits very close to a 100mm water-main that supplies a large number of Dunedin homes. This is shown on the attached 'subdivision construction plans' prepared by Patterson Pitts Surveyors. This plan also shows other services that have been installed extensively around the base of the tree. These services were installed some years ago before the tree became listed when it was common practice to cut tree roots during trenching. As outlined in the arborist's report, cutting of these roots over successive years of ground work calls into question the stability of the tree.



Greentrees Tree Report
concerning a scheduled tree
& application for removal of
European Silver Fir - T444
3 Ferntree Drive
Wakari, Dunedin



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GreenTrees Ltd

Peter Waymouth - Consulting Arborist
11 Bouverie St, Dunedin, NZ, 9010

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03.07.19

John Phillips & Darlene Williams
3 Ferntree Drive
Wakari
Dunedin

Tree Report concerning a scheduled tree: European Silver Fir (*Abies alba*) - T444 at 3 Ferntree Drive, Wakari, Dunedin

Introduction

1 Thank you for engaging me to write a report on a European Silver Fir (T444) at 3 Ferntree Drive. I understand that you have received consent from council to build on the 3 recently sub-divided sections at the above address. The tree in question stands on a small sliver of council land between your frontage & the formed road of Ferntree Drive, which makes the tree council property. I mention this at the outset because this fact would not be immediately evident, to the casual passerby. Essentially, it would appear to be part of the large garden belonging to the recently demolished house; along with the mature shrub border extending along the street frontage.

2 The aim of my report is to outline the benefits & risks presented by the above tree & offer appropriate remedial options. In addition, a revised STEM (Standard Tree Evaluation Method) report is included for the Silver Fir (T444) for comparison with the 2001 council evaluation used to list the tree on the district plan.

Tree Risk & Evaluation Methodology

Tree Risk - approach explained

3 Tree risk assessments are established using a systematic qualitative methodology developed by ISA (International Society of Arboriculture - USA) & in worldwide use since 2013. The check list approach covers many aspects pertaining to each tree. The assessment process employs 2 matrices to arrive at a risk rating. Firstly, the likelihood of failure is measured against the likelihood of impacting a target. This result is then measured by a second matrix against the severity of consequences. The resulting risk rating produced has the primary aim of providing guidance to the tree risk manager or owner through mitigation measures.

STEM (Standard Tree Evaluation Method) - approach explained

4 STEM is the accepted evaluation method used by many city councils throughout the country, since its inception in 1996. It is primarily used to establish a list of protected trees within a town or city by council. For instance, in Dunedin a tree needs a total score of 147 points for acceptance as protected tree on the District Plan. In disputes, where a tree may be removed without an owner's permission there is provision to calculate a notional value as a guide to settlement. My form contains this provision, which I have adapted after careful consideration of the original STEM text, written by landscape architect, Ron Flook. This tends to act as a restraint on applying field values for amenity & condition, which lead on to totaling the points score, in order that a reasonable monetary value may be calculated.

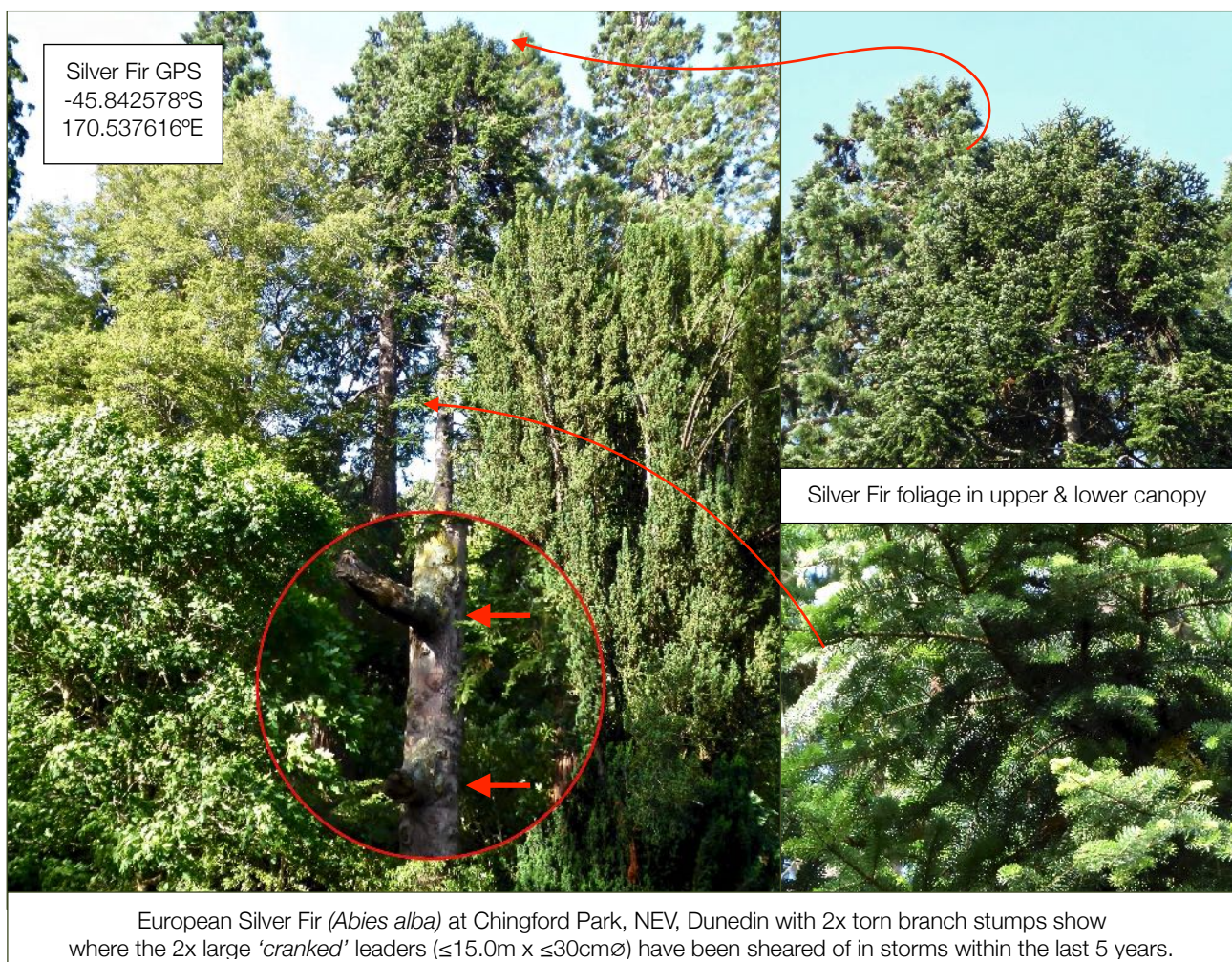




Overview

5 The European Silver Fir is uncommon in an densely populated urban setting & is mainly grown in its natural range in Northern Europe as a production forestry tree in the mountains. Since they grow to a large size in maturity, Silver Fir trees are more suited to parklands & large gardens, where space allows them to achieve a height of over 50 to 60 metres in height, without being disturbed. European Silver Fir is long lived & has a life expectancy of ≤ 500 years. From the position of this Silver Fir in relation to the historic Ferntree Lodge, it is conceivable that the tree was planted near the original driveway & at some distance from the house. Bearing in mind, that the species is fairly slow growing compared with *Pinus radiata* for example, an estimate of its age would be in the vicinity of 90+ years. Putting the tree's maturity into a longterm perspective, it could be reasonably be expected to have the capability of achieving a height of ≤ 60 metres in the next 100 years.

6 In Chingford Park, NEV, Dunedin a mature European Silver Fir stands ≤ 40 m in height, closely to a line of Sequoia trees on the northside of the main lawn, just below where the historic Chingford homestead stood until the late 1960's. The Chingford Park & the Ferntree Drive Silver Firs trees share very similar characteristics when comparing the health, condition, size & age. However, the Chingford Park example has already shed 2x large leaders (15m x 30cm $\varnothing$) during storms within the last 5 years, despite being in a sheltered situation. I will refer to this aspect again in my tree risk assessment of Silver Fir (T44) later in this report, with reference to similarity of structural weakness in the architecture of both trees.





Tree Risk

On initially viewing Silver Fir - T444 from the same position looking westward, as in the 2001 & 2019 STEM assessment photos, there is no apparent defect in the structural form of the tree. If viewed looking eastward 3 serious defects are clearly seen in the photo opposite & are circled in red for ease of further identification in the field.

These defects are 2x **(A, B)** major bark-included branch unions, which have the potential to completely split away from the main trunk; 2x large section leaders could drop directly from height into 3 Ferntree Drive endangering people & property. A third **(C)** large branch in the lower canopy has a 'cranked' stress raiser profile & is heavily end-weighted overhanging the proposed house to be built on the site at 3 Ferntree Drive.

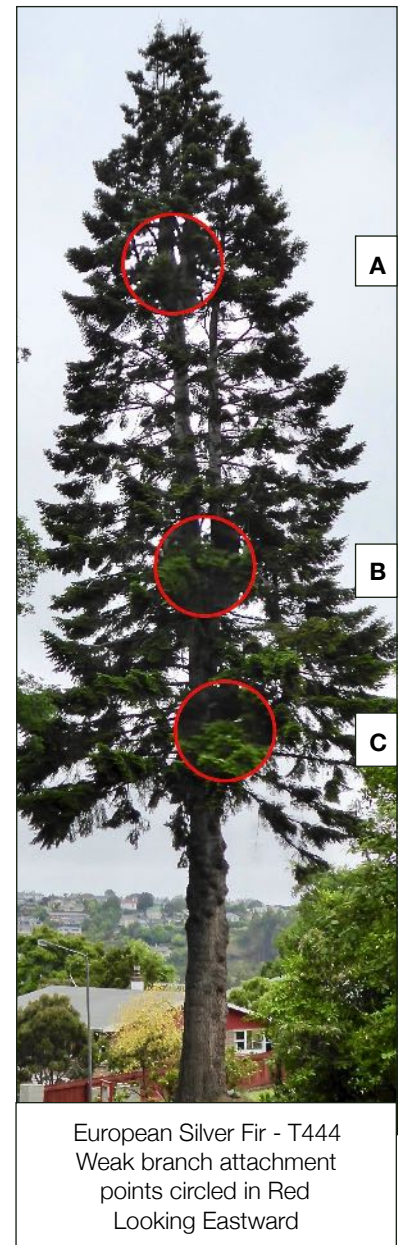
Raising of the canopy recently, to $\frac{1}{3}$ of the height, may have exacerbated the the effect of excessive branch sway in gales. Removal of the low canopy skirt to height $\leq 10\text{m}$ will have also reduced the the mass-damping effect of large forces generated by storms, which were previously evenly distributed throughout the canopy & thereby dissipated. The biomechanical effect now is serving to concentrate the large forces from excessive branch sway to the base or fulcrum of these large branches at a weak attachment point. If the windloading forces exceed mechanical strength of the sound wood, breakage will occur.

An example of a Silver Fir with near identical characteristics can be seen at Chingford Park (page 4) where evidence of 2x major branch failures have occurred. It will be noted that internal rot is not being considered as a causal factor either at Chingford Park or Ferntree Drive.

In general conifers provide for good defences against fungal rots entering wounds. (CODIT - Shigo). Fir trees of the *Abies* genera are also known to be reasonably tolerant of root loss (ie when mature trees are being prepared for transplanting). However, a large girdling root is present on the south side of the Silver Fir (T444), which may compromise tree stability & being on the surface may also be easily damaged during construction.

Normal weather patterns in Dunedin often produce strong southerly gales accompanied by rain. Occasionally the dry Nor'Wester gales of Canterbury come down as far as Dunedin & when these 2 frontal systems meet tremendous localised wind turbulence may occur; tree branches break in sheltered places & trees fall over in a short sharp storm, but rare event.

Having discounted internal fungal rots being of any significance for the Silver Fir (T444), it is then the exponential biomechanical forces (acting on sound wood during storms), which become the main focal point. When huge force occurs at weak branch unions (circled in red above) potential branch breakage becomes a high risk of causing harm to people & property.





ISA Tree Risk Assessment form

Date: 03.07.19

Peter Waymouth - ISA Board Certified Master Arborist

NZ-0039BTM

Tree Characteristics		Client: John Phillips & Darlene Williams									
Genus	Abies	Address: 3 Ferntree Drive, Wakari, Dunedin M 021 161 1168									
Species	alba	E. johnmaxphillips@gmail.com Darlene.williams25@gmail.com									
Common name	European Silver Fir	Assessor: Peter Waymouth				Time Frame: 1 year					
Age (approx)	≤90 years	Tree location (GPS / remote sensor)				Latitude		-45.862163°S			
Live crown ratio (LCR)	≤66%	Tools: Camera, Probe, Measuring Tape				Longitude		170.477547°E			
DBH	≤1.3mø	Trowel, Binoculars, iPad, Laptop, Clinometer, Calculator				(see over for details)					
Height	≥34.0m	Risk		Low		High		Risk Rating			
Spread	≥8.0m	Options		Moderate		Extreme		High			
No.	Target Description & Assessment					Z1	Z2	Z3	O	M	R
1	People living in the proposed private subdivision properties & public road users					100%	100%		3	NO	NO
2	Property within the proposed private subdivision properties & public road users					100%	100%		2	NO	NO
Target Zones: Z1 = 100% Dripline, Z2 = 100% Height, Z3 = 150% Height, M = Move Target, R = Restrict Access? Yes/No											
O = Occupancy Rate, 1 = Rare, 2 = Occasional, 3 = Frequent, 4 = Constant											
Site Factors						Topography		Aspect			
History of failures	None to present					Flat		Slope.....%		NE	
Site Changes	None	Grade	Clearing	Hydrology	Root Cuts	Describe: Grade levels altered					
Soil Conditions	Low Volume	Saturated	Shallow	Compacted	Paved over roots ≤50%		Describe: Road & footpath				
Weather Patterns	Prevailing Wind: Sou'west		High winds	Ice	Snow	Heavy rain	Describe: Dry Nor'wester				
Tree Health & Species Profile											
Vigour	Low	Normal	High	Foliage	Leafoff	Dead	Normal≤90%	Chlorotic 0%	Necrotic 0%		
Pests	Aphid species may defoliate Silver Fir (none present)				Abiotic	Poor architectural branch structure					
Species Failure Profile	Branches	Trunk	Roots	Describe: Tendency to shed very large branches in gales							
Load Factors											
Wind Exposure	Protected	Partial	Full	Funnelling	Crown Size	Small	Medium	Large			
Crown Density	Sparse	Normal	Dense	Interior	Few	Normal	Dense	Vines/Moss			
Recent or planned changes in load factors											
Tree Defects & Conditions Affecting the Likelihood of Failure											
Crown & Branches											
Unbalanced Crown	Dead Branchescm		Cracks				Lightning Damage				
Broken / Hangers	Number		Codominant:				Included Bark				
Over Extended Branches	Epicormics		Weak Attachments				Cavity/Nest hole.....% circ				
Pruning History	Lion Tailed		Previous Branch Failures				Similar Branches				
Cleaning	Thinned		Dead /Missing Bark		Cankers /Galls / Burls		Sapwood Damage / Decay				
Reduced	Topped		Conks								
Flush Cuts	Raised		Response Growth:		2x major branch joints have swellings & are exuding resin,						
Other:			which is likely to be caused by a combination of branch sway & heavy end-weight.								
Main Concerns: 3 branches with attachment defects directly overhang 2 of the new subdivided lots at 3 Ferntree Drive, where 2 new dwellings are to be built in the future. Should a very large branch shear & fall, significant damage may occur to property and/or people.											
Load on Defect	N/A	Minor	Moderate	Significant							
Likelihood of Failure	Improbable	Possible	Probable	Imminent							
Trunk				Roots & Root Collar							
Dead / Missing Bark	Codominant Stems		Cankers/Galls/Burls		Collar Buried / Not Visible		Depth.....cm		Stem Girdling		
Abnormal Bark Color	Included Bark		Conks/Mushrooms		Conks / Mushrooms		Decay		Dead		
Sapwood Decay	Trunk Cracks		Poor Trunk Taper		Cavity.....% circ		Sap Ooze		Cracks		
Heartwood Decay	Sap ooze		Lightning Damage		Distance from trunk.....m		Cut/damaged Roots		Root Plate Lifting		
Cavity/Nest Hole% circ	Depth.....cm		Lean 3° Northerly		Soil Weakness						
Response Growth: Pruning wounds from recent raising of the canopy are occluding soundly.				Response Growth: Not assessed (below ground level)							
Main Concerns: The main trunk is sound				Main Concerns: Large girdling root on south side of the root collar							
				may have some impact on tree stability. In the grading to level of the							
				building sections surface roots will have been lost & compaction							
				may have occurred having a longterm detrimental effect on health							
Defect Load	N/A	Minor	Moderate	Significant							
Likeli..Fail	Improbable	Possible	Probable	Imminent							
Defect Load	N/A	Minor	Moderate	Significant							
Likeli..Fail	Improbable	Possible	Probable	Imminent							





Risk Categories																								
							LIKELIHOOD				Matrix 1		Matrix 2											
							FAILURE		IMPACT		FAILURE & IMPACT		CONSEQUENCES		RISK									
							FAILURE		IMPACT		FAILURE & IMPACT		CONSEQUENCES		Rate									
C						TAR-	i	p	p	i	v	m	h	u	s	l	v	n	m	s	s	of		
O		CONDITIONS				GET	m	o	r	m	l	l	e	i	n	o	i	e	i	i	e	Part		
N	TREE	OF	PART	FALL	GET	PRO	p	s	o	m	o	o	d	g	l	m	k	i	g	n	g	v		
D	PART	CONCERN	SIZE	DIST	No	TECT	r	s	b	i	w	w	i	h	i	e	e	k	l	o	n	e		
CD	TRP	COC	PS	FD	TN	TGP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	RRP	CODES
1	Co-dominants	Large branch falling	30cm	15m	1	NO																		High
2	Co-dominants	Large branch falling	30cm	15m	2	NO																		High



Bark inclusion

3 x large sail areas & co-dominants lacking structural integrity

Matrix 1. Likelihood matrix

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix

Likelihood	Consequences of Failure			
Fail&Impact	Negligible	Minor	Significant	Severe
Very Likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Notes, Explanations & Descriptions:

The photo shown above shows of a 15m x 30cmØ co-dominant stem joining the main trunk at the mid-point on the Silver Fir T444 on the Northwest aspect. The large 'shaded sail areas' associated with the 3 branches will transmit huge lever 'moment' forces to the 'fulcrum' base of the branch during gales. Weak attachment points may allow branches may shear off & drop in very high winds, especially after heavy rain. Examples of such large branch drop from a 40m Silver Fir tree may be seen at Chingford Park, NEV, Dunedin since the 2 torn stumps are remain present on the trunk.



Bark inclusion

Bark inclusion

15m

Excess end-weight

Mitigation Options					
1.Reduce end-weight on large co-dominant stems & insert 4T WLL steel cables to stabilise the tree's structure				Residual Risk	LOW
2. Remove tree to ground level, grind stump & replant with trees/shrubs suited to the site				Residual Risk	LOW

Tree Risk Rating									
Overall Tree Risk Rating	Low	Moderate	High	Extreme	Work Priority	1	2	3	4
Overall Residual Risk	Low	Moderate	High	Extreme	Recommended Inspection Interval of:				
Data	Final	Preliminary	Advanced Assessment needed	No	Yes	Type / Reason			
Inspection Limitations	None	Visibility	Access	Vines	Root Collar Buried	Describe:			



STEM: Standard Tree Evaluation Method (NZ)

Adapted from RNZIH - www.rnzi.org.nz - Ron Flook 1996
see below for full explanation

Client	John Phillips & Darlene Williams	P		Date	03.07.19
Address	3 Ferntree Drive, Wakari, Dunedin	M	021 161 1168	Lat	-45.862163°S
Email	johnmaxphillips@gmail.com Darlene.williams25@gmail.com			Lon	170.477547°E
Species	European Silver Fir	H	≥34.0m	DBH	≥1.3m (650/90=7.2mm pa)
T444	<i>Abies alba</i>	S	≥8.0m	Age	≤90 years

1. Condition of tree (points)	3 (10%)	9 (30%)	15 (50%)	21 (70%)	27 (90%)	Score
Form (structure / appearance)	imperfect	average	standard	choice	fine	3
Occurrence (frequency in locality)	frequent	common	occasional	scarce	rare	15
Vigour/Vitality (health)	poor	adequate	fair	good	excellent	15
Function (usefulness)	small	useful	practical	strong	robust	15
Age (years)	10 yrs+	20 yrs+	40 yrs+	80 yrs+	100yrs+	21
Subtotal Points						69

2. Amenity values (points)	3 (10%)	9 (30%)	15 (50%)	21 (70%)	27 (90%)	Score
Stature (greater of height or spread)	3m - 8m	9m -14m	15m -20m	21m -26m	27m+	27
Visibility (from unseen to landmark)	0.5km	1.0km	2.0km	4.0km	8.0km	9
Proximity (presence of other trees)	forest	woodland	group 10+	group 3+	solitary	9
Role (as landscape element)	lesser	modest	select	prime	notable	15
Climate (Micro-ecological effect)	slight	normal	valuable	vital	critical	15
Subtotal Points						75

3. Valuation (based on replacement cost equivalent) ✖	Σ	Calculations	69
		(1. + 2.)	75
a. Total Points (Condition of tree + Amenity values = Total points score)	a	TP = a	144
b. Unit cost -10 x 1yr trees (H = 0.4m, S = 0.2m, DBH = 0.02m) ★	b	∴ (144TP x 75) = b	10800.00
c. Cost of planting (10 tree-holes 0.5mø x 0.25m depth, plant & mulch)	c	3hr @ \$40/hr = c	120.00
d. Maintenance period (over equivalent period to approx tree age) †	d	(90 x 10 x 4) = d	3600.00
e. Wholesale value (gst incl)	e	(a x b) + (c + d) = e	14520.00
f. Retail Value (2 x e) #	f		\$29040.00



NZ-0039BTM

Explanation of terms used above

✖ Flook formula for wholesale value (a x b) + (c + d) = e. Ref. ISA - Journal of Arboriculture 28(1) Jan 2002

★ Unit cost based on 10 replacement trees @\$7.50 each = \$75.00

† Maintenance equivalent = Age of tree x 10 replacements x \$4.00 p.a.

Retail Value is twice wholesale ⇒ (2 x e) = f. Ref. ISA - Journal of Arboriculture 28(1) Jan 2002

N.B. This STEM evaluation form is adapted from Ron Flook's 1996 publication ISBN 0.473.04039.5

In order to allow for unique field values within the matrices for database applications, some changes have been made.

These changes in no way affect the intended statistical or functional outcomes of the original Standard Evaluation Tree Method.



European Silver Fir (*Abies alba*) T444
3 Ferntree Drive
Wakari, Dunedin
03.07.19



STANDARD TREE EVALUATION FORM

T444
European
Silver Fir

Date	2.4.2001	
Tree	Nothofagus domboyii Abies alba	
Address	3 Fern tree drive.	
	849	
Height (m)	Radius (m)	Circumference (m) @ 1.2m

CONDITION EVALUATION						
Points	3	9	15	21	27	Score
• Form	Poor	Moderate	Good	Very Good	Specimen	21
• Occurrence	Predominant	Common	Unfrequent	Rare	Very Rare	21
• Vigour & Vitality	Poor	Some	Good	Very Good	Excellent	15
• Function	Minor	Useful	Important	Significant	Major	15
• Age (Yr)	10 Yrs+	20 Yrs +	40 Yrs +	80 Yrs +	100 Yrs+	15
Subtotal Points						87

AMENITY EVALUATION						
Points	3	9	15	21	27	Score
• Stature (m)	3-8	9-14	15-20	21-26	27+	21
• Visibility (km)	0.5	1.0	2.0	4.0	8.0	9
• Proximity	Forest	Parkland	Group 10+	Group 3+	Solitary	27
• Role	Minor	Moderate	Important	Significant	Major	15
• Climate	Minor	Moderate	Important	Significant	Major	15
Subtotal Points						87

NOTABLE EVALUATION						
Recognition Points	Local 3	District 9	Regional 15	National 21	International 27	Score
Stature						
• Feature						
• Form						
Historic						
• Age 100+						
• Association						
• Commemoration						
• Remnant						
• Relict						
Scientific						
• Source						
• Rarity						
• Endangered						

Subtotal Points

Total Points 174

Peter Hammonds
Arborist

03.07.19
STEM re-assessed by
Peter Waymouth

Based on STEM - A Standard Tree Evaluation Method



Peter Waymouth

3
15
15
15
15
21
69

27
9
9
15
15
75

144



3 Fern Tree Drive



Abies alba (European silver fir)
02.04.01

Tree No 849



Evaluation

For the purposes of this report a renewed STEM evaluation was undertaken, to establish any relevant changes to the Silver Fir's condition & amenity values, since the last survey in 2001.

- 14 The strongest visual effect in the 2001 STEM photo is of a large tree with a canopy skirt almost to the ground. It almost appears as a giant Christmas tree planted in suburbia. In fact, Silver Firs are grown specifically in Northern Europe as Christmas trees.

- 15 From the visual perspective its original aesthetic charm has been entirely lost by the raising of its canopy. In production forestry the live crown ratio (LCR) would now be seen 66% & it is now effectively a large forest tree, which is unsuited to its present situation. It will become disproportionately large over time in relation to the consented infill subdivision houses it will overhang, because Silver Fir trees may achieve a height in excess of 50m.

Form

- 16 The form of Silver Fir (T444) looking westward is balanced but looking eastward 3 major structural defects stand out clearly. These defects constitute a potential health & safety risk to people & property as previously stated in the tree risk analysis. Consequently, the tree has received a low 'Form' mark of 3 in STEM 2019. A quotation from Ron Flook's STEM 1996 book on page 17 offers clear guidance on form of a tree for evaluation purposes:

"To obtain the most points, the tree should be reliable in structure and be a good example of the species"

Vigour & Vitality

- 17 The 'Vigour & Vitality' mark has remained unchanged at present but there is question over whether this will remain so, since grading & leveling of the already consented subdivision sections will have resulted in some feeding root loss with the disturbance of the 'A' horizon soil layer due to grading & compaction. A large girdling root may also compromise stability.

- 18 Water table changes will also affect moisture retention levels in the soil presently occupied by feeding roots. As the houses are built & a long driveway is paved the impervious surfaces across the the 3 sections will be likely to increase to over 70% of the land in the subdivision area, particularly in Lot 1. This previous water source potential will be channelled into the storm water system & be lost completely to the Silver Fir (T444).

Another quote from Ron Flook's STEM guidance on page 18 is also pertinent:

- 19 *"Changes in water table levels through site works or damage caused by storms also play a part. Trees do shed branches but this is often to enable the tree to sustain its natural balance. The cause of this natural balancing effort by the tree would be detectable in most cases by an experienced arborist"*

Proximity

- 20 The 3D Applemaps image shows the Silver Fir (T444) almost as part of Ferntree Reserve; from an urban forester's perspective given the virtually unbroken canopy cover the Silver Fir is an edge tree. However, rather than allocating 'Forest', a 'Parkland' mark of 9 has been given.



3D Applemaps image of European Silver Fir (*Abies alba*) - T444 shown within the context of surrounding urban forest on the edge of the Ferntree Reserve & subject to the related stress of infill development.



Tree Protection Zone - TPZ
Radius = 16.50m
Silver Fir - T444

Ferntree Drive
Legal and Formed

Scheduled
Tree T444
Tree height 33m

Potential Branch Fall Zone
Radius = 16.50m
Silver Fir - T444



LEGEND:

New Boundaries ————
New Easements ————
Reduced Yard Line ————
Depicts half height
of Scheduled Tree
T444 (16.50m from
centre of trunk). - - - - -

PROPOSED EASEMENTS			
PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
Right of Way	A	Lot 1	Lot 2 and 3
	B	Lot 2	Lot 3

Services easements to be determined at time of survey.

NOTES:

All areas and dimensions subject to Land Transfer Survey.

PATERSONPITTS GROUP
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Client/Location:

John Phillips
3 Ferntree Drive
Pt Lot 1 DP 11410

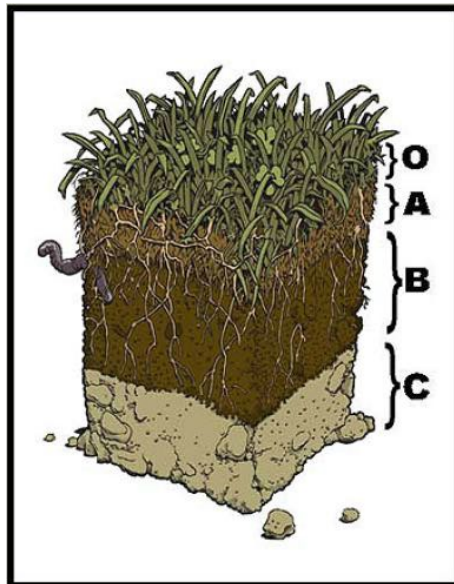
Drawing Title:

Lots 1-3 Being Proposed
Subdivision of
Pt Lot 1 DP 11410
CT: OT 18C/851

Surveyed by:	N/A	Original Size:	Scale:	1:250
Designed by:	N/A	A3	DO NOT SCALE	
Drawn by:	ARR			
Checked by:	LRI	Sheet No:	1	Date Created:
Approved by:	LRI	Revision No:	4	06/10/2016
Job Ref:	D15407 Scheme V5			

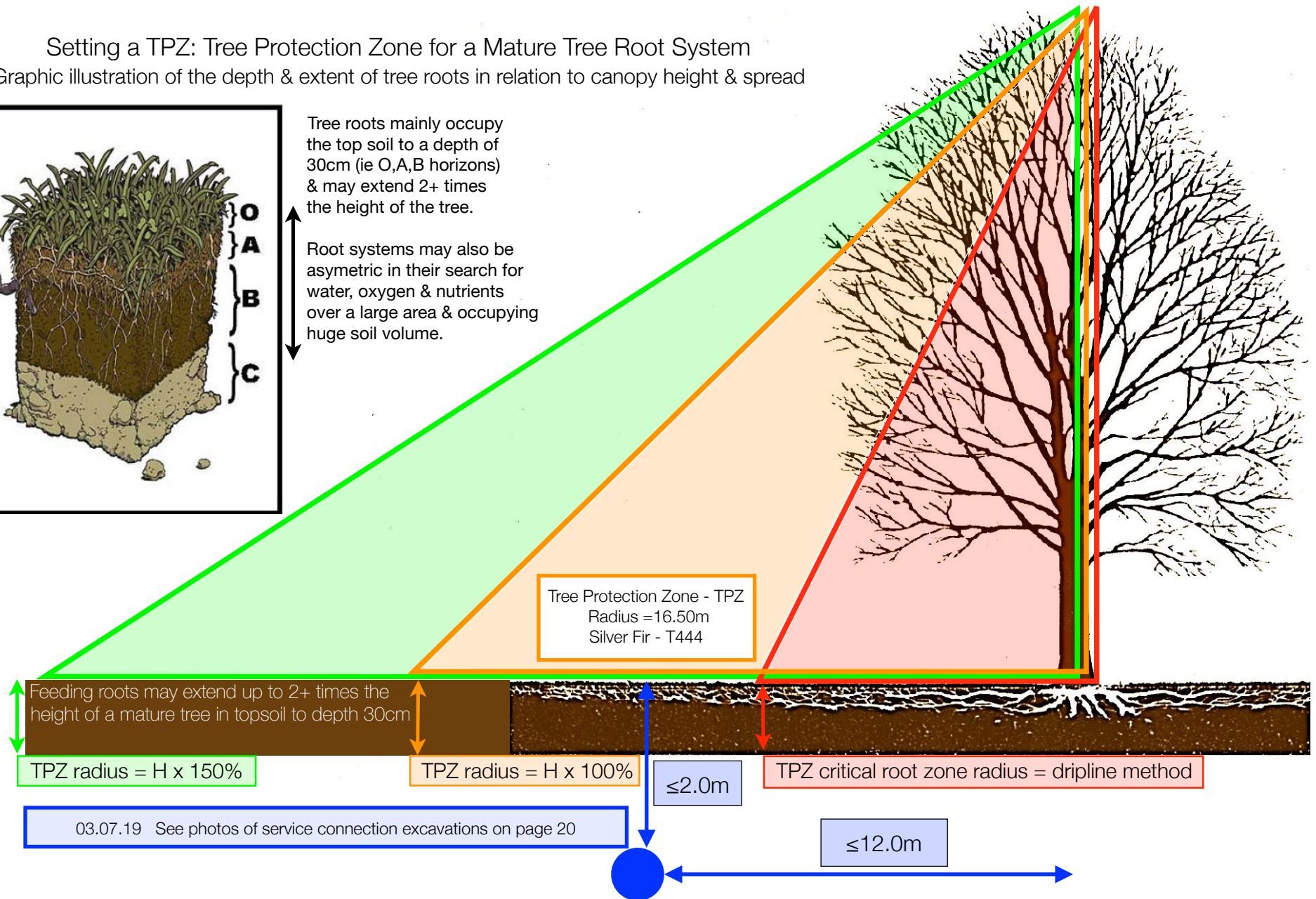
Setting a TPZ: Tree Protection Zone for a Mature Tree Root System

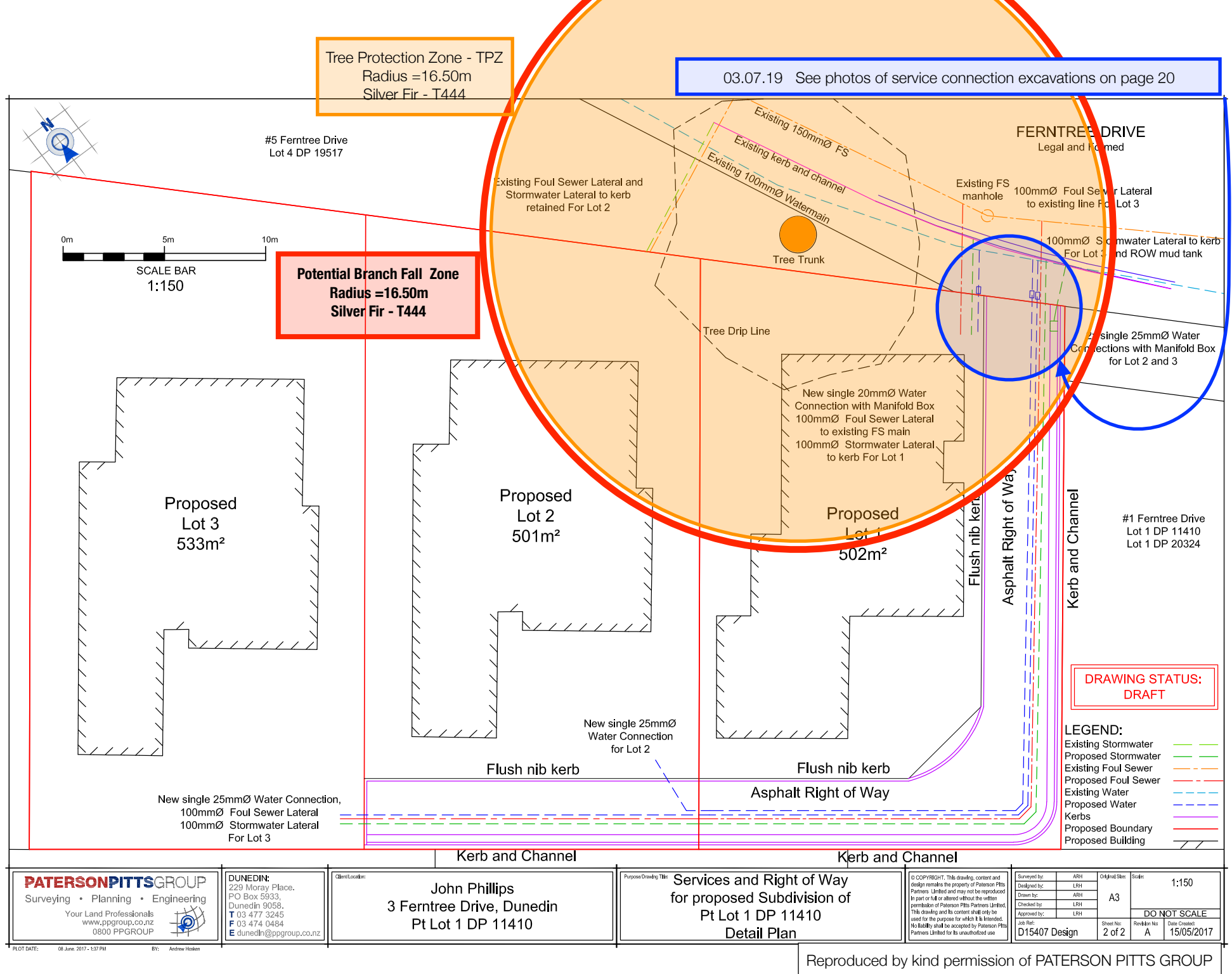
Graphic illustration of the depth & extent of tree roots in relation to canopy height & spread

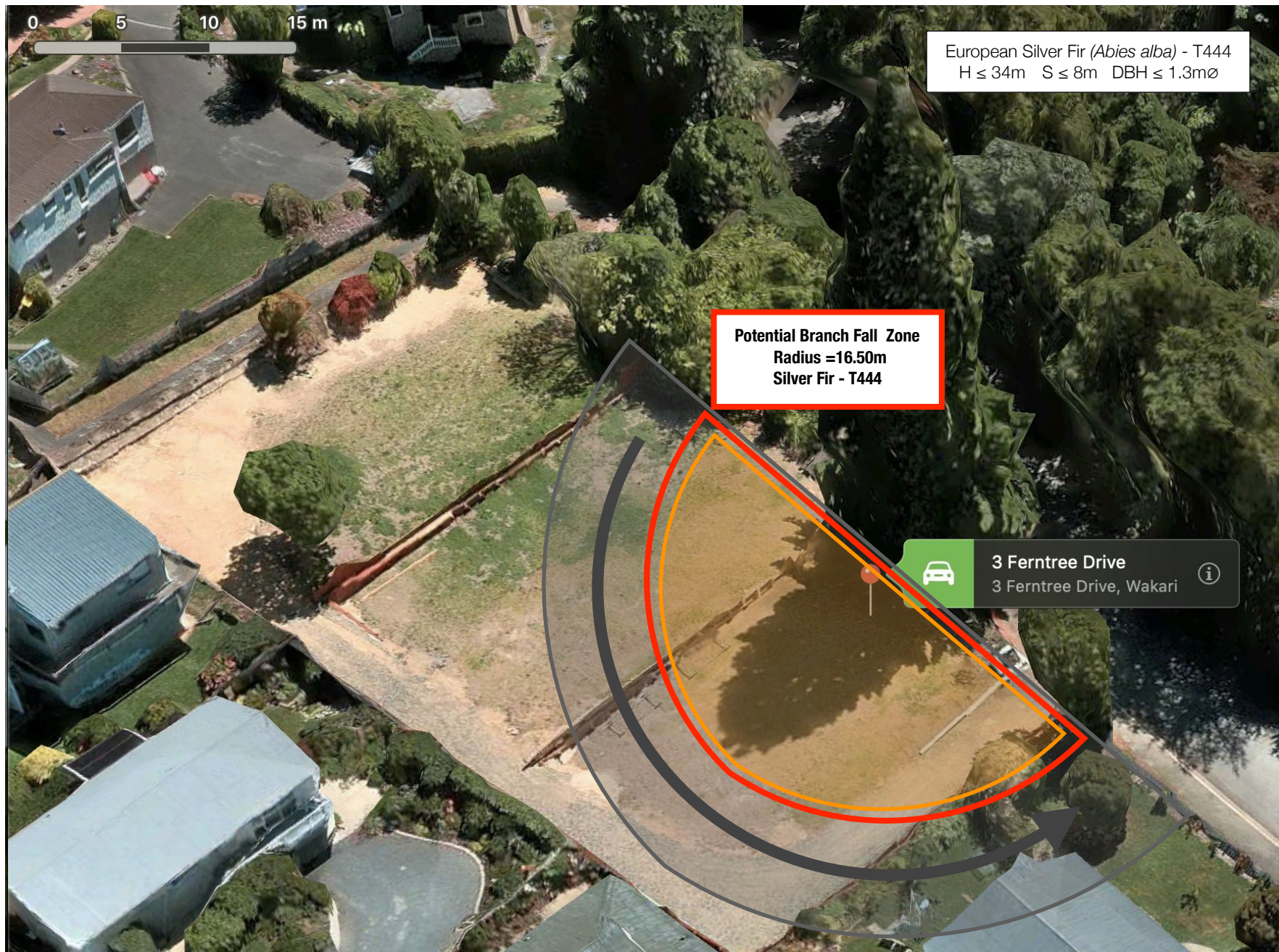


Tree roots mainly occupy the top soil to a depth of 30cm (ie O,A,B horizons) & may extend 2+ times the height of the tree.

Root systems may also be asymetric in their search for water, oxygen & nutrients over a large area & occupying huge soil volume.







3D Applemaps aerial view of European Silver Fir - T444 showing indicative shading potential affecting 3 adjacent properties in Ferntree Drive. The rotational daily seasonal pattern of Summer shading is shown in the Orange TPZ & Winter in Dark Gray, assuming Summer image as baseline.





Conclusion

- 21 There appear to be only 2 viable options available to remedy the potential health & safety issues arising from the close proximity of the European Silver Fir (T444) tree, in relation to proposed new houses within the subdivision SUB-2016-103, under land use consent LUC-2016-515.
- 22 The main concerns arise from the tendency of mature Silver Fir trees to shed large branches and/or leaders during storms, feeding root loss affecting water/nutrient uptake after recent grade changes within the TPZ & a large girdling root compromising tree stability. (pgs19,21)
- 23 During 2 recent service trench excavations on Ferntree Drive (03.07.19) within the tree protection zone (TPZ radius =16.50m), only fine feeding roots seen were near the surface at $\leq 12\text{m}$ from the Silver Fir (T444), in the trench closest to the tree. No other roots were seen in the 10m2 excavation zone, which was consented as LUC-2019-61 - 5 Ferntree Drive. Therefore, it can be fairly safely assumed that the effect of this specific activity will have no longterm impact on tree health. (pgs 20,21)
- 24 Option 1. Prune the Silver Fir (T444) using reduction cuts on the 3 '*shaded sail areas*' as shown in the tree risk assessment on page 7, in order to lessen end-weight. Install steel cabling & bracing systems or similar with a working load limit (WLL) of 4 tonnes at the owner's/risk manager's discretion.
- 25 Option 2. Remove the Silver Fir (T444) to ground level & replant with rhododendrons, camellias, azaleas, viburnums to compliment the existing planting near the frontage of 3 Ferntree Drive.

Replanting Offer

- 26 Replanting as described above could be sought as a condition of consent, if removal consent for Silver Fir (T444) were granted.

If removal consent were granted & the above replanting suggestions were acceptable to council, then replanting shall be acted upon immediately following tree removal, to a prior approved landscape plan.

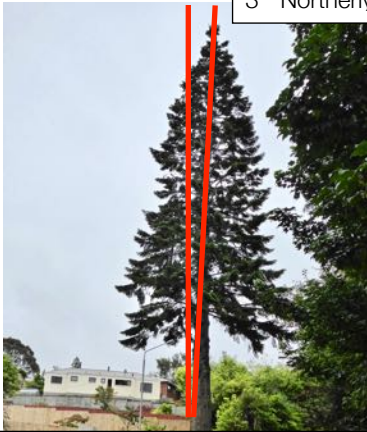
Peter Waymouth

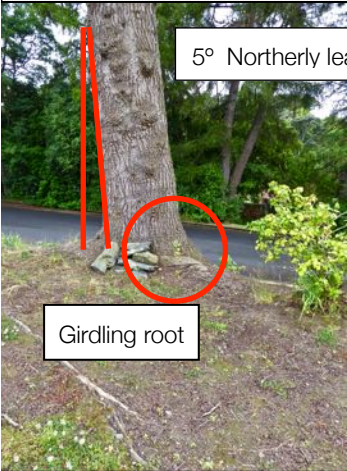
References	Title	Author	Pub	ISBN	
'Common sense risk management of trees'			The National Tree Safety Group	2011 UK Forestry Commission	978.0.85538.840.9
'Wood Decaying in Living and Dead Trees:A Pictorial Overview'			Shortle & Dudzik	2012 USDA forest service	Report NRS-97
'STEM - A Standard Tree Evaluation Method'			Ron Flook	1996 Ron Flook	0.473.04039.5
'Tree Roots in the Built Environment'			Roberts, Jackson & Smith	2018 Arboricultural Assn UK	978.0.900978.859.3
'Diagnosis of ill-health in trees'			Strouts & Winter	2017 Arboricultural Assn UK	978.0.900978.586
Principles of Tree Hazard Assessment & Management'			Lonsdale	2016 Arboricultural Assn UK	978.0.900978.579
'The Manual Tree Statics & Tree Inspection'			Wessolly & Erb	2016 Patzer Verlag	978.3.87617.143.2
'An Illustrated Guide to Pruning'			Gilman	2012 Delmar, Cengage Learning	978.1.111.30730.1
'Tree Risk Assessment Manual' 2nd Edition			Dunster	2017 International Society of Arb.	978.1.881956.99.0

Additional Reference material:

Dunedin City Council 26.01.17 Letter of Decision for Subdivision Consent SUB-2016-103 & Land Use Consent LUC-2016-515 3 Ferntree Drive, Dunedin
Dunedin City Council 03.07.19 Land Use Consent LUC-2019-61 to excavate 10m2 for underground services within 16.5m T444 5 Ferntree Drive, Dunedin



		
Silver Fir looking eastward	Sliver Fir looking westward	Entrance Ferntree Mews

		
Girdling root		

Pg21 Silver Fir root collar is sound except for large girdling root on south face

		
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Sound pruning wound response Healthy new foliage pg7,21 Co-dominant

		
Resin exuding from bark-inclusion joint pg7,21	Girdling root pg21	Cranked stressor branch pg7,21



Co-dominant leaders. pg7,21



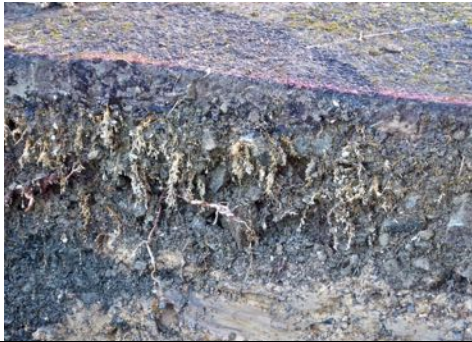
Drainage contractors on site 03.07.19



Laying drains within the TPZ of Silver Fir (T444)



pg21 Adventitious feeding roots immediately under asphlat



Water, Electricity, Fibre Optic cables etc



Drainage connections excavated without damaging kerbing



Backfill with AP20 gravel



Disclaimer: All tree risk assessments in this report have considered only those known targets & visible or detectable diagnostic conditions observed on the date of inspection. The assumption of normal prevailing weather patterns over the specified timeframe is a given. Regular yearly monitoring should be used to inform tree management options, thereby ensuring the continuing safety & vitality of the relevant trees in providing amenity benefits. After any extreme weather events trees of concern should be inspected.



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Dunedin 9058, New Zealand
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Email: planning@dcc.govt.nz
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7 March 2019

D L Williams
139 Studholme Street
Somerfield
Christchurch 8024

Via email: Darlene.williams25@gmail.com and johnmaxphillips@gmail.com

Kia ora rā kōrua,

LUC-2019-61 – 5 FERNTREE DRIVE

Thank you for your application to conduct works within the dripline of the significant tree (Plan ID: T444) located on Council reserve land at 5 Ferntree Drive, Dunedin. Please be advised that the site plan provided which shows the new development at 3 Ferntree Drive was not considered to be part of this application and as such was not assessed. Mr Phillips stated via phone call on 6th March 2019 that this site plan was an indicative plan only, and meant for the purpose of showing service connections. As such, the only activity being assessed via this consent was the 10m² drill hole on the site at 5 Ferntree Drive.

Building consent was granted in 2017 via ABA-2017-856 which obtained a planning stamp of approval. Please note that if you wish to change the location of that dwelling, especially in respect of constructing the dwelling closer to T444, then further resource consent will be required.

If you have any questions or concerns regarding the content of this letter please contact me on (03) 479 9345 or by emailing lily.burrows@dcc.govt.nz.

Ngā mihi,

Lily Burrows
Planner



Minor Tree Work Consent

50 The Octagon, PO Box 5045, Moray Place
Dunedin 9058, New Zealand
Ph 477 4000
www.dunedin.govt.nz

Reference: LUC 2019-61 Property ID 5020198 Person ID 10236
Enquiries to: Resource Consents Senior Planner – non-notified consents.
Phone: 477 4000
Date: 7 March 2019

Application

LUC: 2019-61

Applicant/s: Darlene Lynette Williams and John Phillips

Tree located at: T444 is located at 5 Ferntree Drive

Your application for resource consent for works on a Significant Tree was processed on a non-notified basis in accordance with sections 95A to 95F of the Resource Management Act 1991. The application was considered under delegated authority by the Senior Planner for non-notified consents.

Description of Activity

☐ Crown Raising	☐ Crown Cleaning	☐ Crown Thinning
☐ Powerline Clearance	☒ Work in Dripline	☐ Crown Reduction
☐ Other: _____		

Planning Status

The proposal has been assessed as a **discretionary** activity.

The owner of the tree is Dunedin City Council Parks and Recreation Department. Mr Battrick provided his land owner approval on behalf of DCC Parks and Recreation on 6 March 2019.

Affected Persons

☐	The applicant is the owner of the tree
☒	The owner of the tree has provided their consent to the proposal
☒	No other persons are considered to be adversely affected by the proposed works

Consent Decision

That pursuant to section 34A(1) and 104B and after having regard to Part II matters and sections 104 of the Resource Management Act 1991, the Dunedin City Council grants consent to the proposed tree work, subject to Conditions

1, 2, 3 and 4. Roberts Consulting report must be read in conjunction with this report.

The full text of the conditions appears on the back of this page.

Reasons

☐	The proposed work is beneficial to the long-term health of the tree
☒	The proposed work is acceptable arboricultural practice
☒	The adverse effects of the health or visual appearance of the tree will be no more than minor
☒	The work will have a positive effect on the owner/occupier/neighbour

Yours faithfully

Planner Lily Burrows

Signature *L Burrows*

Senior Planner Campbell Thomson

Signature *C Thomson*

Conditions of Consent

Please see 'Consent Decision' section on other side of this decision letter to determine which of the following conditions your consent is subject to.

1. All proposed works must be carried out by an experienced arborist in accordance with recognised arboricultural practice.
2. Prior to and at all times during construction activity on the site, the guidelines for working in close proximity to trees shall be adhered to.
3. In addition to the guidelines for working in close proximity to trees, the protected area around each tree shall be fenced off to prevent access at all times during construction.
4. Where specified, all development work must take place outside the protected zone of the tree/s. This includes vehicle access, buildings, service trenches, and the lowering or raising of the ground level.
5. ~~Pruning shall consist of _____, only and shall involve the removal of no more than _____% of the live crown of the tree/s. The overall shape and form of the tree/s must be taken into account and the natural form and balance is to be maintained during pruning.~~
6. ~~Crown Cleaning shall consist of the removal of all dead, dying, diseased, damaged, crossing/rubbing branches, any weak growth or epicormic growth in order to enhance the safety, health and appearance of the tree/s.~~
7. ~~Crown thinning shall consist of the removal of a maximum of _____% of secondary and small diameter live branches throughout the crown to produce an even density of foliage and a balanced branch structure~~
~~to increase light and air movement~~
~~reduce the weight of heavy branches~~
~~provide clearance for views. (tick as appropriate)~~
8. ~~Crown raising shall consist of the removal of the lower branches of a tree~~
~~to a height of _____metres~~
~~to a maximum of _____% the height of the tree/s~~
~~to provide clearance for buildings, pedestrians and views (tick as appropriate)~~
9. ~~The crown reduction shall involve of the use of thinning cuts to reduce the height and/or spread of the tree/s. The lateral branches to which the leaders are pruned shall be at least 1/3 the diameter of the branch being removed.~~

Compliance with Conditions

It is the applicant's responsibility to comply with any conditions imposed on this resource consent prior to and during (as applicable) exercising the resource consent. Failure to comply with the conditions may result in prosecution, the penalties for which are outlined in section 339 of the Resource Management Act 1991.

Duration of Consent

It is brought to the consent holders attention that under the terms of Section 125 of the Resource Management Act 1991, this consent shall lapse if effect has not been given to it within five (5) years or Council has not granted an extension of time.

Rights of Objection

In accordance with section 357 of the Resource Management Act 1991, the consent holder may object to this decision or any condition within 15 working days of the decision being received, by applying in writing to the Dunedin City Council at the following address:

Resource Consents Manager
 Dunedin City Council
 PO Box 5045
 Moray Place
 Dunedin 9058

Mark Roberts
 Roberts Consulting
 p: +64 21 508 255
 e: mark@robertsconsulting.co.nz
 w: www.robertsconsulting.co.nz



February 28, 2019

RE: Works within the root protection zone of T444

Lily Burrows
 City Planning
 Dunedin City Council
 PO Box 5045
 Dunedin 9058

Dear Lily,

As per your February 15, email request, I have conducted a site visit to Ferntree Drive, Dunedin to inspect significant tree T444 listed on Schedule 25.3 of the operative district plan as a European silver fir (*Abies alba*). The purpose of the visit was to assess the condition of the tree, specifically in relation to works within the root protection zone described Planning Application LUC-2019-61.

The tree was visually inspected on the afternoon of February 18, the weather was clear and calm at the time of the visit.

1 Condition assessment and observations

- 1.1 In general, at the time of the assessment all the tree looked to be in good health and have vitality within the normal range for the species and age.
- 1.2 The canopy of the tree was evenly foliated throughout
- 1.3 The tree had good trunk taper and root flare, and the root plate appeared to be stable.

2 Supplementary information provided

I have been supplied with copies of:

- 2.1 Patersonpitts Group, detail plan; Services and Rite of Way for Proposed Subdivision of Pt Lot 1 DP 11410 [sheet 2 of 2 15/05/2017]
- 2.2 The subdivision showing excavation to TPZ. 05/02/19 Sheet A-1 [NB: there is no author indication or scale provided on this drawing]
- 2.3 A single page attachment to a February 8 email, from jonmaxphillips@gmail.com to dcc@dcc.govt.nz. The email subject line is; Application for tree work, and the attachment is headed with; Application for tree work-T44-3 Ferntree Drive, Waikari

3 Comments in relation to the works described in LUC-2019-61.

- 3.1 The works described in LUC-2019-61 is to excavate a hole approximately 10m² to enable the connection of services that have already been laid to be connected with the corresponding services that are already in place.
- 3.2 The proposed hole is outside the drip-line of the tree but within the 2GP Tree Protection Zone (TPZ) of half the height of the tree away from the tree.
- 3.3 The applicant has given the area of the TPZ as 950m², the TPZ was calculated on a separate matter regarding the same tree on December 5, 2018, at 907m²
- 3.4 The proposed excavation represents an incursion into the TPZ of less than 10%.
 - 3.4.1 An incursion of less than 10% is not considered a major incursion according to the relevant Standards for Protection of Trees on Development Sites recommended by the New Zealand Arboricultural Association (those standards being; AS 4970-2009 and BS 5837-2012)



www.robertsconsulting.co.nz

4 Conclusion and recommendations

- 4.1 Based on works described in application LUC-2019-61, and the location and size of the proposed excavation as given in the accompanying documentation to application LUC-2019-61, I have no arboricultural grounds to decline these works and recommend that the application is approved

This tree condition assessment has only considered known targets and visible or detectable tree conditions at the time of the inspection. Ongoing arboricultural inspections should take place annually and after extreme weather events to monitor health and condition. These inspections will form the bases of a tree management programme to ensure ongoing safety and maintain the vitality of the tree.

As per your request, I have provided a relatively concise report. If you require an explanation of any of the recommendations provided, or documentary evidence to support any of the content in this report please do not hesitate to ask.

Yours sincerely

Mark Roberts
Roberts Consulting Ltd



26 January 2017

50 The Octagon, PO Box 5045, Moray Place
Dunedin 9058, New Zealand
Telephone: 03 477 4000, Fax: 03 474 3488
Email: dcc@dcc.govt.nz
www.dunedin.govt.nz

DL Williams
C/- Andrew Robinson
Paterson Pitts Group Ltd
PO Box 5933
Moray Place
Dunedin 9058

Dear Andrew

RESOURCE CONSENT APPLICATION: SUBDIVISION: SUB-2016-103
LAND USE: LUC-2016-515
3 FERN TREE DRIVE
DUNEDIN

Your application for the subdivision of the land at 3 Fern tree Drive, Dunedin, into three lots, and land use consent for future residential activity with reduced yard spaces on Lots 1 and 3, was processed on a non-notified basis in accordance with sections 95A to 95G of the Resource Management Act 1991. In considering sections 95A to 95G, it was determined that the effects would be no more than minor, there were no persons affected by the application, and that there were no special circumstances in relation to the proposal. Therefore, public notification of the application was not required. A Senior Planner considered the application under delegated authority on 26 January 2017.

I advise that the Council has **granted** consent to the applications with conditions. The decision and conditions are shown in the attached certificate.

Please note that the processing of this application could not be completed within the 20 working day time limit prescribed under section 115 of the Resource Management Act 1991. The time limits for the processing of this consent have been extended pursuant to section 37A(2)(b) of the Resource Management Act 1991 on 18 November 2016 by Senior Planner – Consents, under delegated authority.

DESCRIPTION OF ACTIVITY

The proposal is to subdivide the subject site into three residential units. The subject site is legally described as Part Lot 1 Deposited Plan 11410, held in Computer Freehold Register OT18C/851, and has an area of 1538m². The site is almost rectangular and has approximately 5.5m of frontage to Fern tree Drive. It appears to be a front site, however, as there is an undeveloped triangle of land belonging to the Council Parks and Recreation Services department between much of the site and the road. This Council-owned parcel contains a large fir tree overhanging the boundary of the subject site. There is also a public walkway following the northwest boundary of the subject site. The site has a single storey dwelling, with basement, and a garage on-site.

While not discussed in the application, the existing occupation on the site will have to be removed. The proposed subdivision will create three new rectangular lots of 501m² to 533m². Proposed Lot 1 will contain the frontage to the site and will provide access to proposed Lots 2



and 3 via right of way along its southeast and southwest boundaries. The right of way will continue along the southwest boundary of proposed Lot 2 in favour of Lot 3.

The Ferntree Drive frontage and the walkway along the northwest boundary of the subject site are both considered to be front boundaries. The northeast boundary between the subject site and the Council Parks and Recreation land is not considered to be a front boundary. The applicant seeks to reduce the front yard space along the northeast boundary from 4.5m to 3.0m. Although the proposed 3.0m yard space is shown on the application plan as extending across the width of proposed Lot 1, it will only apply next to the actual frontage onto Ferntree Drive (i.e. 5.5m). It is unnecessary to reduce the northeast yard spaces of Lots 2 and 3 and the balance of Lot 1, as 2.0m yards already apply (albeit where effectively modified by the presence of the listed tree).

The application proposes to reduce the northeast (next to the public walkway) front yard space of proposed Lot 3 from 4.5m to 2.0m. The proposal also shows a reduction of the yard space along the northeast boundary of Lot 1 from 2.0m to 1.0m.

REASONS FOR APPLICATION

Dunedin currently has two district plans: The Dunedin City District Plan and the Proposed Section Generation Dunedin City District Plan (the Proposed Plan). The Proposed Plan was notified on 26 September 2015 and is currently proceeding through the public process of becoming the operative plan. Until the rules of the Proposed Plan become operative, the current District Plan remains the operative plan. Where the rules of the Proposed Plan have been given effect, the provisions of both plans need to be considered.

Section 88A of the Resource Management Act 1991 states that the activity status of an application is determined at the time of lodging the consent. The activity status could, therefore, be determined by the current District Plan or the Proposed Plan, depending on which rules are operative at the time. Nevertheless, even if it is the current District Plan which determines the activity status of the application, the rules of a proposed plan must be considered during the assessment of the application pursuant to section 104(1)(b) of the Act.

The relevant rules of the two district plans for this application are as follows:

The Dunedin City District Plan.

The subject site is zoned **Residential 1** in the District Plan. The large fir tree overhanging the boundary is listed as **T444 – European Silver Fir**. There are no hazards shown for the subject site on the Hazards Register.

Subdivision is a restricted discretionary activity in the residential zones where the application complies with Rules 18.5.3 – 18.5.6 and 18.5.9 – 18.5.12, and each resulting site meets minimum area and frontage requirements. Lot 2 (and arguably Lot 3) will have no frontage. Accordingly, the subdivision is considered to be a **non-complying** activity pursuant to Rule 18.5.2.

Rule 8.7.1(i) lists residential activity on a site of not less than 500m² per residential unit, provided that a single residential unit can be built on an existing site of any size, as a permitted activity for the Residential 1 zone, subject to compliance with the performance criteria of Rule 8.7.2. The residential activity of the new lots will fail to meet the following:

- Rule 8.7.2(i)(a) specifies front yards of 4.5m and side and rear yards of 2.0m. The proposal seeks to reduce the following yards:
 - The front yard (next to the Ferntree Drive road reserve boundary only) of Lot 1 is to be reduced from 4.5m to 3.0m. The rest of the northeast boundary of Lot 1 is not a front boundary and 2.0m yards will apply.
 - The 'front' yard of proposed Lot 3 next to the walkway is to be reduced from 4.5m to 2.0m.
 - The northwest side yard of Lot 1 is to be reduced from 2.0m to 1.0m.



The future residential activity of Lots 1 and/or 3, if built within the reduced yard spaces, will be **restricted discretionary** activities pursuant to Rule 8.7.4(i)

The Proposed Plan

In the Proposed Plan, the site is zoned **General Residential 1** and it is in an **Infrastructure Constraint Area**.

Subdivision Activity:

Rule 15.3.3.3 specifies that subdivision is a restricted discretionary activity in the Residential zones, subject to compliance with the performance criteria. Rule 15.7.4.1(a) sets a minimum site size of 500m² for the General Residential 1 zone. The proposal is considered to be a restricted discretionary activity pursuant to Rule 15.3.2.13.

Under the Proposed Plan, activities have both a land use activity and a development activity component.

Land Use Activity:

Rule 15.3.3.3 specifies that residential activity is permitted in the Residential zones, subject to the performance standards. On the basis of information currently available, the future residential activity of the Lots 1 to 3 is expected to be a permitted activity.

Development Activity:

No new development is proposed as part of this subdivision proposal, but the applicant proposes to reduce yards as detailed above along selected boundaries of Lots 1 and 3. As such, these lots will fail to comply with the following:

- Rule 15.6.14.1(a)(i) specifies setbacks of 4.5m from any road boundary and 2.0m along any side or rear boundary. The reduced setbacks for these lots as discussed above will create breaches of 1.0m and 1.5m respectively.

The residential activity of Lots 1 and 3 will be a restricted discretionary activity pursuant to Rule 15.3.2.13 unless these yards are maintained as specified by the Proposed Plan at the time of actual development.

Overall Proposed Plan Status:

Having regard to both the land use and development activity components under the Proposed Plan, the land use proposal is considered to be a restricted discretionary activity.

Summary

The application was lodged on 22 September 2016, after the close of submissions on the Proposed Plan. The Residential zone rules are subject to submissions and could change as a result of the subdivision process. Accordingly, the Proposed Plan provisions are not relevant to the activity status of the application as determined at the time of lodgement.

The activity status of the proposed subdivision is therefore determined by the Dunedin City District Plan, and is considered to be a **non-complying** activity. The activity status of the land use activity is also determined by the Dunedin City District Plan, and is considered to be a **restricted discretionary** activity.

At the time of issuing this subdivision and land use decision, none of the relevant Proposed Plan rules have been given effect or made operative. The relevant provisions are subject to submissions and could change as a consequence of the submission process. Accordingly, the Council need not have regard to the rule provisions of the Proposed Plan as part of the assessment of this subdivision and land use application.



NES Soil Contamination Considerations:

The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 came into effect on 1 January 2012. The National Environmental Standard applies to any piece of land on which an activity or industry described in the current edition of the Hazardous Activities and Industries List (HAIL) is being undertaken, has been undertaken or is more likely than not to have been undertaken. Activities on HAIL sites may need to comply with permitted activity conditions specified in the National Environmental Standard and/or might require resource consent.

The applicant's agent has had a search of Dunedin City Council records undertaken (HAIL-2016-101) in order to determine whether or not the NES is likely to be relevant, as provided for by Regulation 6 of the NES. The search of Council records has not identified any use of the land by a HAIL activity. On the basis of the information received, the applicant's agent comments:

'We have reviewed retrievable information from a number of sources and have found no evidence of activities or industries on the site that would potentially have led to contamination of the site.'

Accordingly, it is accepted that the NES is not applicable to this application.

PLANNING ASSESSMENT

Affected Persons

No written consents were submitted with the application. No persons are considered to be adversely affected by this proposal for those reasons outlined below in the section headed Effects on the Environment.

Effects on the Environment

The following assessment of effects on the environment has been carried out in accordance with section 104(1) of the Resource Management Act 1991. It addresses those assessment matters listed in sections 8.13 and 18.6 of the District Plan considered relevant to the proposed activity, and is carried out on the basis that the environment is a residential area with mature gardens.

Any actual or potential effects on the environment of allowing this proposal to proceed will be no more than minor for the following reasons:

1. Lot Size and Dimensions (18.6.1(q)) and Physical Limitations (18.6.1(k))

The proposed subdivision will create three residential lots of 502m², 501m² and 533m² respectively. All three lots will meet minimum site size for the Residential 1 zone. Only proposed Lot 1 will have frontage, and all are considered to be rear sites. Access to all three lots will be via Lot 1's short length of frontage, and over rights of way along the southeast and southwest boundaries of the subdivision.

The proposed lots are each considered to be of practicable size and shape to accommodate a future residential dwelling. There are no known geotechnical issues applying to this land which are expected to compromise the building potential of the vacant sites. Accordingly, there is no expectation that the proposed subdivision will create any site having physical limitations rendering it unsuitable for future use, except that the position of the listed tree could have implications for the development options of Lots 1 and 2. The Proposed Plan rules for trees could further restrict the building platforms for these lots, but are not currently in effect or operative.

2. Easements (18.6.1(i))

Transfer 348853 identifies the subject site as being the servient tenement for drainage rights in favour of numerous properties uphill from the subject site. The easement follows the roadside boundary of the property, commencing slightly above the site's



frontage onto Ferntree Drive. The easement will carry down onto proposed Lot 1 across its frontage.

New easements shown on the application plan are limited to rights of way over Lots 1 and 2 in favour of Lots 2 and 3, as required. The rights of way shall have a minimum legal width of 3.5m.

Services easements will also be required, although none are shown on the application plan. It is advised that services cannot be obtained across the Council Parks and Recreation land without Council approval. Furthermore, the digging of trenches underneath the canopy spread of the listed tree for installation of services is a discretionary activity, and resource consent may not be granted.

3. Infrastructure (18.6.2(d), (e), (i), (j), (n), (o), and (p))

The Consents and Compliance Officer, Water and Waste Services Business Unit, has considered the application. She notes that a review of the Council's GIS records shows a 100mm diameter water pipe and 150mm diameter wastewater pipe in Ferntree Drive.

Water Supply

It is required that each lot be serviced from an individual Point of Supply as defined by the Dunedin City Council Water Bylaw 2011. All new water service connections to the proposed development must be in accordance with the requirements of Section 6.6.2 of the Dunedin Code of Subdivision and Development 2010. A new individual water connection is required for each unserved lot, which will be approved through the "Application for Water Supply" process. This will be a condition of consent.

Fire-fighting Requirements

All aspects relating to the availability of the water for fire-fighting should be in accordance with SNZ PAS 4509:2008, being the Fire Service Code of Practice for Fire Fighting Water Supplies. There is a fire hydrant (WFH01562) 90.0m from the development entrance. Based on SNZ PAS 4509:2008 a W3 (25l/s) zone requires a fire hydrant within 135.0m and a second within 270.0m of a dwelling. The proposal is compliant with these fire-fighting requirements.

Stormwater Services

The proposal complies with the density rules specified for the Residential 1 zone and the applicant has proposed that the site coverage will be below the 40% threshold specified in the District Plan. The Water and Waste Services Business Unit has no concerns with the stormwater discharges from this proposal.

Private Drainage

Lot 1's wastewater is to drain to the Council-owned wastewater pipe in Ferntree Drive, and the stormwater to the Ferntree Drive kerb and channel.

Lots 2 and 3 are to drain wastewater to the Council-owned wastewater pipe in Ferntree Drive via either easements over proposed Lot 1 and/or 2 (as necessary) or via easements over 5 Ferntree Drive (the Council Parks and Recreation land). Stormwater is to drain to the road's kerb and channel via the same routes.

Easements

All rights are to be reserved for any necessary easements required by this subdivision. Service easements are required where private drains and water supplies pass over other lots.

The Water and Waste Services Business Unit has no issues with the proposed subdivision, subject to conditions consistent with the above comments.



4. Hazards (18.6.1(t))

Council's Consulting Engineer, MWH, has considered the application in relation to the Hazards Register, street files, and available aerial photography. He notes that there are no relevant hazards for this land in regards to this subdivision proposal. While the subdivision could result in small lot sizes, MWH does not anticipate onerous or overly significant earthworks will be required to develop the lots. Normal advice is recommended, as follows:

All walls retaining over 1.5m, or a surcharge / slope, including terracing, require design, specification and supervision by appropriately qualified person/s.

- *Where the long-term stability of others' land or structures may rely upon the continued stability of retaining works, the designer must confirm that the retaining structure can be safely demolished following a complete design life without creating hazards for neighbouring properties.*
- *Any earth fill over 0.6m thick supporting foundations must be specified and supervised by a suitably qualified person in accordance with NZS 4431-1989 Code of Practice for Earthfill for Residential Development.*
- *Slopes may not be cut steeper than 1:1 (45°) without specific engineering design and construction.*
- *Slopes may not be filled steeper than 2h:1v (27°) without specific engineering design and construction.*

MWH has no issues with the proposed subdivision, and did not recommend any conditions of consent.

5. Earthworks

This consent does not address any earthworks for this subdivision associated with the development of the new lots, or the formation of any new access, manoeuvring areas, or retaining walls (should any be required). Should any future earthworks on-site breach the performance standards of Section 17 of the District Plan, further consent will be required. Land use consent will also be required for any structures, such as retaining walls supporting fill or surcharge, near to boundaries.

6. Transportation (18.6.1(c))

The Transportation Planner, Transport, has considered the application. Ferntree Drive is a Local Road in the District Plan roading hierarchy. The site also has frontage along its northwest boundary to a Council-owned utility corridor containing a public walkway between Ferntree Drive and Hood Street.

Access to all three lots will be via a driveway located at the south-eastern corner of the subject site, utilising rights of way as necessary. The legal width of the rights of way will be 4.0m along the southeast side of proposed Lot 1, and 3.5m along the southwest side of Lots 1 and 2. The rights of way will need to be formed to a minimum width of 3.0m, be hard surfaced for their entire length, and be adequately drained.

The vehicle access to between the carriageway and the property boundary is over legal road and is therefore required to be constructed in accordance with the Dunedin City Council Vehicle Entrance Specification (available from Transport).

The parking and on-site manoeuvring provision for the new lots shall be assessed at the time of building consent or resource consent application for any future development proposal for the site.

Transport also advises that the walkway boundary is a front boundary, and the applicant intends reducing the yard space along this boundary to 2.0m. The



Transportation Planner considers that the proposed yard encroachment will have no effect on the safety and functionality of the walkway.

Transport considers that the proposal is acceptable, subject to conditions regarding the formation of the rights of way.

7. Bulk and Location (8.13.3)

The applicant has applied to have the front yard of proposed Lot 1 reduced from 4.5m to 3.0m. The application plan shows this to extend across the full width of the lot (excluding yard and easement spaces) on the basis that the boundary shared with the Parks and Recreation land is a front boundary. In fact, it is not, and the property owner of Lot 1 need only maintain a 2.0m yard along this side except next to the actual front boundary which is more or less as wide as the right of way easement. Having noted that only a 2.0m yard space is required for much of this side of Lot 1, no construction can occur under the canopy spread of the listed tree on the Parks and Recreation land. The tree overhangs Lot 1 by approximately 3m to 4m, and creates an equivalent 'yard space' in effect. The front yard of Lot 1 can be reduced to 3.0m, but has no real effect given that this area will be developed as a shared driveway.

The northwest side boundary of proposed Lot 1 is to be reduced from 2.0m to 1.0m in order to provide a larger building platform on-site. No consent for an associated height plane angle breach has been applied for or granted, and any such breach by the future development of Lot 1 will require further resource consent.

The northwest front boundary of Lot 3, along the public walkway, is to be reduced from 4.5m to 2.0m. Again there is no application for an associated height plane angle breach. Transport has assessed this proposed yard breach as being acceptable as it will not impose on the safety or functionality of the walkway.

Overall, the effects of the proposed yard breaches for future residential development will be confined to the new lots and the walkway. The proposed breaches are therefore considered to be acceptable.

8. Trees (15.5.1)

A listed fir tree overhangs the boundary of proposed Lot 1. It also has a small encroachment into Lot 2. The District Plan does not allow any activity to occur under the canopy spread of a listed tree without resource consent, and it is recommended to maintain a distance from a tree at least half its height although there is no District Plan rule to this effect. In this case, the tree is a tall, narrow species, having a present height of over 20m, and 'half its height' will affect 10m or more of Lot 1 although the canopy spread is not nearly as wide.

While the District Plan allows construction up to the edge of a tree's canopy spread, it is advised that a large tree in close proximity to a dwelling can create adverse shading effects, particularly when the tree is on the northern side of the house (as will be the case for Lot 1). There are also risks to persons and property from falling branches (or occasionally falling trees), as well as a general nuisance factor associated with the tree's seasonal cycle of leaf and seed distribution. It is advised that the tree cannot be felled or pruned without resource consent, and as the tree is not on the subject site itself, the property owners of the new lots will not own the tree. They should not expect to be able to have the tree removed. It is therefore recommended that the new development on the new lots maintain as great a distance as possible from the tree in order to minimise any associated adverse effects. However, the proposed lots are all over minimum lot size, and the Council has limited ability to decline consent to the subdivision.

While the relevant Proposed Plan rules are not in effect or operative, it is worth considering the situation under the Proposed Plan rules as notified on 26 September 2015. Rule 7.3.2 lists any work on a scheduled tree which will lead to its death or



terminal decline as being a non-complying activity. Rule 7.5.2 requires structures to be clear of the dripline or maintain a setback distance at least half the height of the tree, whichever is the greater. Accordingly, while a house can currently be built on Lot 1 up to the dripline of the tree, the development of Lot 1 will need to be set back a much greater distance in order to be a permitted activity once the Proposed Plan rules (as notified) are in effect or operative. This could have implications for the future development of Lots 1 and 2, but this cannot be addressed as part of this consent as Council cannot give consent for activities which do not currently breach a Plan rule. Nor should it be assumed that any such breach will be approved.

Council's Consulting Arborist, Treescape Environmental, has considered the application. She advises that the tree is of good health and vitality. The tree stands to the north of proposed Lot 1, and to the east of Lot 3. She estimates the tree as being approximately 25m high, and 80 years old. The tree, *Abies alba*, is an evergreen species with a relatively dense canopy, and will cast shadow and impact on the light levels for the new lots.

The tree is currently suitable for its surroundings, but the increase in density of development (and therefore the targets for a falling tree) can impact on the status of the tree and lead to it being perceived as the wrong tree in the wrong place. While the subdivision of the subject site will, on paper, have no effect on the significant tree, it is considered inevitable that development of the new lots will have an adverse effect on the tree if not properly addressed and planned.

Any work undertaken within the dripline of the tree will require resource consent, and it is possible that consent will be declined if the proposal does not satisfy the guidelines for working within the dripline of a significant tree. The arborist advises:

'The tree has some exposed surface roots at the western side, which is on the proposed subdivision side of the tree. The ground slopes down to the footpath and road at the eastern side. The majority of the feeding roots are likely to be sitting just below the surface on the western side of the tree where the majority of unaltered permeable surface is present. Even shallow excavations of 100mm in depth will likely have an adverse effect on the tree.'

The arborist identifies the possibility of earthworks within the dripline of the tree in order to create the vehicle entrance and driveway, and trenches for services. It is also possible that the tree will require crown lifting if there is to be traffic of any sort under the tree. This will require a pruning consent. The placement of boundary pegs, construction of dwellings, and access formation under the tree will require consent. The arborist recommends the following conditions:

A Tree Protection Zone (TPZ) in the form of a physical barrier must be established prior to any works being carried out, to prevent construction and compaction damage to the tree. The extent of the TPZ must be established by Council's arborist. The TPZ must exclude all vehicles, plant, machinery, construction materials, fuels, liquids, etc from entering the zone. This must remain in place until all works have been completed on site.

If an accessway and/or infrastructure are to be installed within the protected root zone of the tree, structural suspended pavement cells (Silva Cell) or similar should be employed to avoid excavation.

The owner of the tree must be consulted before any consents on the tree are issued.



9. Amenity Values

The proposal is for a residential development in a residential zone, and in this regard, the proposal is considered to maintain the amenity values of the area. One means by which the District Plan maintains the amenity values of an area is through the density provisions of the various zones. In this case, the subject site has an area of 1538m² and is large enough for three residential dwellings to be built on-site as a permitted activity without subdivision. The proposed subdivision will create three complying lots except for frontage which is considered to be a technical non-compliance as legal and physical access will be provided for all new sites. The proposed subdivision is considered to maintain the amenity values and character of the Residential 1 zone.

As discussed above, the listed tree on 5 Ferntree Drive has the very real possibility of adversely affecting the amenity values of the new lots, particularly if future dwellings are constructed in close proximity. Provided the new development (including driveways and services) maintain the appropriate distance from the tree (according to whichever rules are in effect or operative), there is little Council can do to control such activity except to provide advice regarding the status of the tree and the protection afforded to the tree.

CONSENT DECISION

That, having taken into account:

- *the interests of any person who may be adversely affected by the time extension;*
- *the interests of the community in achieving an adequate assessment of effects of a proposal, policy statement or plan, and*
- *its duty under Section 21 to avoid reasonable delay*

the Council has, pursuant to section 37A(2)(b) of the Resource Management Act 1991, extended the requirement outlined in section 115 regarding the time in which notification of a decision must be given after the date the application was first lodged with the Council.

Subdivision SUB-2016-103

*That pursuant to section 34A(1) and 104B of the Resource Management Act 1991, and after having regard to Part II matters and sections 104 and 104D of the Act, and the Dunedin City District Plan, the Dunedin City Council **grants** consent to a **non-complying** activity being the subdivision of the land legally described as Part Lot 1 DP 11410 (CFR OT18C/851) at 3 Ferntree Drive, Dunedin, into three lots, subject to the conditions imposed under sections 108 and 220 of the Act, as shown on the attached certificate.*

Land Use LUC-2016-515

*That pursuant to section 34A(1) and 104C and after having regard to section 104 of the Resource Management Act 1991, and the Dunedin City District Plan, the Dunedin City Council **grants** consent to a **restricted discretionary** activity being future residential activity with reduced yards along the following lots of SUB-2016-103:*

- *The Ferntree Drive frontage of Lot 1 from 4.5m to 3.0m (the balance of the northeast boundary is not a front boundary, and yards of 2.0m will apply);*
- *The northwest side yard of Lot 1 (shared with Lot 2) from 2.0m to 1.0m; and*
- *The northwest front yards of Lot 3 (next to walkway) from 4.5m to 2.0m;*

subject to conditions imposed under section 108 of the Act, as shown the attached certificate.

REASONS

Effects

In accordance with section 104 of the Resource Management Act 1991, the actual and potential adverse effects associated with the proposed subdivision have been assessed and are outlined above. It is considered that the proposed activity will have no more than minor adverse effects on the environment.



District Plan – Objectives and Policies

In accordance with section 104(1)(b) of the Resource Management Act 1991, the objectives and policies of the District Plan were taken into account when assessing the application.

The proposal is considered to be consistent with the following objectives and policies:

- **Objective 4.2.1 and Policy 4.3.1 (Sustainability Section)** seek to maintain and enhance the amenity values of Dunedin.
- **Objective 8.2.1 and Policy 8.3.1 (Residential Zones Section)** that seek to ensure the adverse effects on the amenity values and character of residential areas are avoided, remedied or mitigated.
- **Objective 15.2.1 and Policy 15.3.1 (Trees Section)** seek to maintain and enhance the amenity and environmental quality of the City by encouraging the conservation and planting of trees.
- **Objective 18.2.1 and Policy 18.3.1 (Subdivision Section)** seeks to ensure that subdivision activity takes place in a coordinated and sustainable manner.
- **Objective 20.2.2 and Policy 20.3.4 (Transportation Section)** seek to ensure that land use activities are undertaken in a manner, which avoids, remedies, or mitigates adverse effects on the transportation network.
- **Objective 20.2.4 and Policy 20.3.6 (Transportation Section)** seek to maintain and enhance a safe, efficient and effective transportation network.

Proposed Plan

The objectives and policies of the Proposed Plan must be considered alongside the objectives and policies of the current district plan. The proposal is considered to be consistent with the following Proposed Plan objectives and policies:

- **Objective 6.2.3 and Policies 6.2.3.3, 6.2.3.4 and 6.2.3.9 (Transportation Section)**, which seek to ensure that land use, development and subdivision activities maintain the safety and efficiency of the transport network for all travel methods.
- **Objective 7.2.1 and Policy 7.2.1.4 (Trees Section)** seek to maintain the contribution of significant trees to the visual landscape and history of neighbourhoods.
- **Objective 15.2.2 and Policy 15.2.2.1 (Residential Zones)**, which seek to ensure that residential activities, development, and subdivision activities provide high quality on-site amenity for residents.
- **Objective 15.2.3 and Policy 15.2.3.1 (Residential Zones)**, which seek to ensure that activities in residential zones maintain a good level of amenity on surrounding residential properties and public spaces.

The proposal is consistent with the relevant policy provisions above.

Section 104D

Section 104D of the Resource Management Act requires that a resource consent for a non-complying activity must not be granted unless the proposal can meet one of two limbs. The limbs of section 104D require that the adverse effects on the environment will be no more than minor, or the application is for an activity which will not be contrary to the objectives and policies of either the relevant plan or the relevant proposed plan. In my opinion, the proposed subdivision of the subject site will have effects which are no more than minor and are not contrary to the objectives and policies of the District Plan. Therefore Council can exercise its discretion under Section 104D to grant consent subject to the recommended conditions.

**Other Matters**

Case law has suggested that in order to grant consent to a non-complying activity, the application needs to be a 'true exception' otherwise, in terms of precedent effects, the integrity of the Plan could be undermined. In this instance, the subdivision proposal is non-complying because not all lots will have frontage. However, all lots will have adequate legal and physical access, and accordingly, the lack of frontage is considered to be a technicality of no real consequence. The granting of subdivision consent is not considered to challenge the integrity of the District Plan.

Part II Matters

The proposed activity has also been assessed in terms of Part II matters of the Resource Management Act 1991. For the reasons outlined above, the proposed activity is considered consistent with section 5(2)(c); "Avoiding, remedying, or mitigating any adverse effects of activities on the environment", section 7(c) "The maintenance and enhancement of amenity values" and section 7(f) "The maintenance and enhancement of the quality of the environment."

RIGHTS OF OBJECTION

In accordance with section 357 of the Resource Management Act 1991, the consent holder may object to this decision or any condition within 15 working days of the decision being received, by applying in writing to the Dunedin City Council at the following address:

The Chief Executive
Dunedin City Council
P O Box 5045
Dunedin 9058

Attn: Senior Planner- Enquiries Plaza, Ground Floor.

Yours faithfully

Lianne Darby
PLANNER



50 The Octagon, PO Box 5045, Moray Place
Dunedin 9058, New Zealand
Telephone: 03 477 4000, Fax: 03 474 3488
Email: dcc@dcc.govt.nz
www.dunedin.govt.nz

Consent Type: Subdivision & Land Use

Consent Number: SUB-2016-103 & LUC-2016-515

Location of Activity: 3 Ferntree Drive, Dunedin

Legal Description: Part Lot 1 DP 11410 (CFR 18C/851).

Lapse Date: Subdivision SUB-2016-103: 26 January 2022, unless the consent has been given effect to before this date.
Land Use: LUC-2016-515: Five years from the issuing of s223 certificate for SUB-2016-103.

Subdivision SUB-2016-103

*That pursuant to section 34A(1) and 104B of the Resource Management Act 1991, and after having regard to Part II matters and sections 104 and 104D of the Act, and the Dunedin City District Plan, the Dunedin City Council **grants** consent to a **non-complying** activity being the subdivision of the land legally described as Part Lot 1 DP 11410 (CFR OT18C/851) at 3 Ferntree Drive, Dunedin, into three lots, subject to the conditions imposed under sections 108 and 220 of the Act, as follows:*

1. *The proposal shall be given effect to generally in accordance with the plan prepared by Paterson Pitts Group entitled, 'Lots 1-3 Being Proposed Subdivision of Pt Lot 1 DP 11410,' dated 6 October 2016, and the accompanying information submitted as part of SUB-2016-103 received at Council on 20 October 2016, except where modified by the following:*
2. *That prior to certification of the survey plan pursuant to section 223 of the Resource Management Act 1991, the applicant shall ensure the following:*
 - a) *That if a requirement for any easement for services is incurred during the survey, then those easements shall be granted or reserved and included in a Memorandum of Easements.*
 - b) *That a services easement shall be duly created or reserved for Lots 2 and 3 as necessary, and shall be shown on the survey plan in a Memorandum of Easements.*
 - c) *That Right of Way A shall be duly created or reserved over Lot 1 in favour of Lots 2 and 3, and shall be shown on the survey plan in a Memorandum of Easements. The easement shall have a minimum legal width of 3.5m.*
 - d) *That Right of Way B shall be duly created or reserved over Lot 2 in favour of Lot 3, and shall be shown on the survey plan in a Memorandum of Easement. The easement shall have a minimum legal width of 3.5m.*
3. *Prior to certification pursuant to section 224(c) of the Resource Management Act 1991, the applicant shall complete the following:*
 - a) *The existing buildings on-site shall be removed.*

- b) *An 'Application for Water Supply' shall be submitted to the Water and Waste Services Business Unit to establish a water connection to each unserviced lot. Details of how the lots are to be served for water shall be provided to the Water and Waste Services Business Unit. This detail can accompany the application for water supply.*
- c) *Upon approval by the Water Network Engineering Officer, the new water service connection shall be installed in accordance with the requirements of Section 6.6.2 of the Dunedin Code of Subdivision and Development 2010.*
- d) *That Rights of Way A and B shall be formed to a minimum width of 3.0m, be hard surfaced, and be adequately drained for their duration.*
- e) *A Tree Protection Zone (TPZ) in the form of a physical barrier must be established prior to any works being carried out for the formation of the access and/or servicing of the new lots, to prevent construction and compaction damage to the tree. The extent of the TPZ must be established by Council's arborist. The TPZ must exclude all vehicles, plant, machinery, construction materials, fuels, liquids, etc. from entering the zone. This must remain in place until all works have been completed on site.*
- f) *If an accessway and/or any infrastructure is to be installed within the protected root zone of the tree, structural suspended pavement cells (Silva Cell) or similar should be employed to avoid excavation.*
- g) *The owner of the tree must be consulted before any consents on the tree are issued.*
- h) *That plans for each of Lots 1 and 3 shall be prepared showing the building areas for these lots. The buildable areas shall be the standard yards for the Residential 1 zone except where varied by LUC-2016-515. The yards shall be clearly dimensioned. The plans shall be attached to the consent notice of condition 3(f) below.*
- i) *That a consent notice shall be registered on the titles of Lots 1 and 2 for the following on-going conditions:*
 - 'Any dwelling or accessory building constructed on this lot shall be within the buildable area as shown on the attached diagram, or resource consent will be required. The yards shown on this diagram shall override the yards specified in the District Plan for this zone.'*
 - 'A Tree Protection Zone (TPZ) in the form of a physical barrier must be established prior to any construction works being carried out, to prevent construction and compaction damage to the tree. The extent of the TPZ must be established by Councils arborist. The TPZ must exclude all vehicles, plant, machinery, construction materials, fuels, liquids, etc from entering the zone. This must remain in place until all works have been completed on site.'*
 - 'If an accessway and/or any infrastructure is to be installed within the protected root zone of the tree, structural suspended pavement cells (Silva Cell) or similar should be employed to avoid excavation.'*



'The owner of the tree must be consulted before any consents on the tree are issued.'

Land Use LUC-2016-515

That pursuant to section 34A(1) and 104C and after having regard to section 104 of the Resource Management Act 1991, and the Dunedin City District Plan, the Dunedin City Council **grants** consent to a **restricted discretionary** activity being future residential activity with reduced yards along the following lots of SUB-2016-103:

- The Ferntree Drive frontage of Lot 1 from 4.5m to 3.0m (the balance of the northeast boundary is not a front boundary, and yards of 2.0m will apply);
- The northwest side yard of Lot 1 (shared with Lot 2) from 2.0m to 1.0m; and
- The northwest front yards of Lot 3 (next to walkway) from 4.5m to 2.0m;

subject to one condition imposed under section 108 of the Act, as follows:

1. The proposal shall be given effect to generally in accordance with the plan prepared by Paterson Pitts Group entitled, 'Lots 1-3 Being Proposed Subdivision of Pt Lot 1 DP 11410,' dated 6 October 2016, and the accompanying information submitted as part of SUB-2016-103 received at Council on 20 October 2016.

Advice Notes:

1. In addition to the conditions of a resource consent, the Resource Management Act establishes through sections 16 and 17 a duty for all persons to avoid unreasonable noise, and to avoid, remedy or mitigate any adverse effect created from an activity they undertake. A similar responsibility exists under the Health Act 1956.
2. The lapse period specified above may be extended on application to the Council pursuant to section 125 of the Resource Management Act 1991.
3. It is the consent holder's responsibility to comply with any conditions imposed on their resource consent prior to and during (as applicable) exercising the resource consent. Failure to comply with the conditions may result in prosecution, the penalties for which are outlined in section 339 of the Resource Management Act 1991.
4. This is resource consent. Please contact the Building Control Office, Development Services, about the need for building consent for any construction work as part of the subdivision.
5. All aspects relating to the availability of the water for fire-fighting should be in accordance with SNZ PAS 4509:2008, being the Fire Service Code of Practice for Fire Fighting Water Supplies, unless otherwise approved by the New Zealand Fire Service. Any new development must be within 135m of a fire hydrant, otherwise the proposal will be non-compliant with fire-fighting requirements.
6. The installation and connection of a new water service to the existing public water reticulation system or the upgrading of an existing water service connection will be carried out after the consent holder has completed and submitted an 'Application for Water Supply' form to the Water and Waste Services Business Unit or an approved AWSCI, as per the Dunedin City Council Water Bylaw 2011. A quote for the required work must be obtained from an approved water supply connection installer (AWSCI). The list of AWSCI's, application form and the full process can be found here <http://www.dunedin.govt.nz/services/water-supply/new-water-connections>.
7. Parts 4, 5 and 6 (Stormwater Drainage, Wastewater and Water Supply) of the Dunedin Code of Subdivision and Development 2010 must be complied with.



8. It is advised that any drainage issues and requirements (including the necessary works) will be addressed via the building consent process.
9. Any vehicle access from the carriageway to the property boundary is over road reserve and is to be constructed in accordance with the Dunedin City Council Vehicle Entrance Specification (available from Council's Transportation Operations Department).
10. This consent does not address any earthworks for this subdivision associated with the development of the new lots, driveway manoeuvring areas, or retaining walls. Should earthworks on-site breach the performance standards of Section 17 of the District Plan, further consent will be required. Land use consent will also be required for any structures, such as retaining walls supporting fill or surcharge, near to boundaries.
11. It is advised that future earthworks are likely to be subject to the following controls:
 - All walls retaining over 1.5m, or a surcharge / slope, including terracing, will require design, specification and supervision by appropriately qualified person/s;
 - Where the long-term stability of other's land or structures may rely upon the continued stability of retaining works, the designer must confirm that the retaining structure can be safely demolished following a complete design life without creating hazards for neighbouring properties;
 - Any earth fill over 0.6m thick supporting foundations must be specified and supervised by a suitably qualified person in accordance with NZS 4431-1989 Code of Practice for Earthfill for Residential Development;
 - Slopes may not be cut steeper than 1:1 (45°) without specific engineering design and construction;
 - Slopes may not be filled steeper than 2h:1v (27°) without specific engineering design and construction.
12. It is advised that under the rules of the Proposed Plan as notified on 26 September 2015, the placement of any structure within half the height of the listed European Silver Fir (T444) will be non-complying activity. This could have significant implications for the development options of Lots 1 and 2. Furthermore, a European Silver Fir can reach considerable height, and will have shading and other effects. As the tree is on Council-owned land, the property owners of the new lots should not have any expectation that the tree will be removed at their request.

Issued at Dunedin this 26 January 2017.

Lianne Darby
Planner



Application Form for Tree Maintenance or Emergency Works on a Significant Tree

50 The Octagon, PO Box 5045, Moray Place, Dunedin 9058, New Zealand
Ph 03 477 4000 | www.dunedin.govt.nz

Application details

I/We John Phillips & Darlene Williams hereby apply for land use consent for work on a significant tree.

The work is for the purposes of: ☐ Maintenance ☒ Emergency Works

Tree Species: European Silver Fir (Abies alba) District Plan Tree Number: T444

Name of Contractor: (if known) unknown

Description of Proposed Work:

- ☐ Crown Raising ☐ Crown Clearing ☐ Crown Thinning
☐ Power Line Clearance ☐ Work in Drip Line ☐ Crown Reduction
☒ Other: Removal



Assessment of the effects of the proposed work:

After an inspection of the Silver Fir & its surrounds a detailed tree risk report has concluded that the tree has a high risk probability of shedding a large leader or limb during storms, onto 3 Ferntree Drive where houses are consented to be built in the future. The consequences of such a limb failure may cause significant harm to people & property.

Site description/location

Owner of the Tree: (if not the applicant) Dunedin City Council Community & Recreation
Address of the Property: 5 Ferntree Drive, Wakari, Dunedin
% P O Box 5045, Dunedin 9054
Legal Description: Lot 4 DP 19517

Address for correspondence

Name: John Phillips & Darlene Williams
Address: 139 Studholme Street, Somerfield, Christchurch Postcode: 8024
Phone (daytime): 021 161 1168 Email: johnmaxphillips@gmail.com, Darlene.williams25@gmail.com

Chosen contact method (this will be the first point of contact for all communications for this application)

I wish the following to be used as the address for service: ☒ email ☐ post ☐ other _____

Office use only

RMA: _____ Prop ID: _____ Person ID: _____



Declaration

I certify that, to the best of my knowledge and belief, the information given in this application is true and correct

Signature of Applicant(s): _____ Date: _____

Signature of Tree Owner(s): _____ Date: _____

Criteria for assessment of application

This application will be considered with regard to the following matters:

- Assessment Matters 15.6.1, 15.6.2 and 15.6.3 of the Trees section of the District Plan
- Whether or not the work will benefit the health and growth of the tree
- Any alternative methods available to achieve the desired outcome
- Any previous applications involving trees
- The contribution the tree makes to the neighbourhood, both visually and physically
- The contribution the tree makes as a habitat for wildlife
- The extent to which the tree is structurally unsound in the opinion of the Council's Parks Officer – Trees.
- The applicant's need to obtain a practicable building area, access, parking area or install services etc

FURTHER ASSISTANCE

If you require any further help, please contact:

City Planning
Dunedin City Council
First Floor, Civic Centre
50 The Octagon
PO Box 5045
Dunedin
Phone 477 4000
www.dcc.govt.nz

This is also where you can lodge your resource consent application. We are there to provide you with planning information. If you consider you need further planning advice, you may wish to discuss your application with an independent planning consultant.

