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27 May 2010

Mr. Brad Evans  
Manager Planning  
Kew Development Corporation Pty Ltd  
32 Pine Ct  
Kew Vic. 3101

Dear Sir,

**re: Impact of the Proposed Plans for Stage 3B on Trees and Arboricultural Management Plan**

**Introduction**

A new residential development is proposed for Stage 3B at Kew Cottages. A number of trees, including several listed as significant by Heritage Victoria, are located within the site of the proposed works, or close to the perceived works. Galbraith and Associates has been retained by Kew Development Corporation to inspect the trees and the plans and discuss the impact of the proposal, using the Australian Standard AS 4970-2009 'Protection of Trees on Building Sites', as a guideline, as per the wishes of Heritage Victoria. The following discusses the likely impact of the proposal but the conclusions are limited somewhat by the lack of levels on the plans and hence impact of cut and fill.

The architectural drawings upon which I base my assumptions are drawing Nos. ? by Woods Bagot Architects. Each tree is numbered and located on drawing No. and described below.

**Heritage Trees**

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The Heritage listed trees within or close to the stage are numbers 235, 238, 245A, 248, 250, 266, 386, 388, 397, 398, 404, 405, 406, 429, 436, 444, 451, 452, 848, 1065 and 1070. Of these, number 1075 (an Algerian Oak) is dead, numbers 238, 266 and 451 (Monterey Pines) are almost dead, and numbers 397 (Tasmanian Blue Gum) and 436 (Algerian Oak) are in advanced irreversible decline.

### **Heritage Trees Proposed to be Removed**

The Heritage trees which must be removed to allow this proposal to proceed are numbers 238, 388, 397, 398 and 436.

**Tree 238** This is a small stunted Monterey Pine with very little foliage. The proposed road construction and drainage works at the intersection of Road B and Boundary Road will be close to this dying tree. It is likely the works will result in substantial root removal, jeopardising its structural stability. The tree has little or no worth for retention so I recommend it be removed.

**Tree 388** This is a small Holly leaved Cherry measuring approx. 6m in height by 7m in spread with a DBH of 26cm. Although the species is rare in cultivation I understand it can be readily propagated from cuttings. This particular individual is not a good specimen of its type. Despite being healthy, it is heavily lopsided to the west as a result of competition from the Golden Cypress (tree 386). The tree will become more compromised as tree 386 continues to spread laterally. It is of little significance in the landscape.

**Tree 397** This is a Tasmanian Blue Gum which somehow mistakenly has been labeled as a Heritage tree. It is unlikely to be over 40 years of age and is an example of a species which was very commonly planted in Melbourne during the 1970s and 80s. Despite their extremely widespread and common planting, mature trees of this species and size are not so common around the suburbs now. They tend to grow extremely rapidly then become drought stressed, thin out at the extremities, develop canker rots and die off. This tree is thinning and dying at the extremities.

**Tree 398** Of the Heritage trees to be removed, this Himalayan Cedar is the only one in reasonable condition. It measures approximately 20m in height by 15m in spread with a DBH of 70cm. Although of good health, structure and form, the tree is not of historic significance, nor is it unusual botanically. It is unlikely to exceed 60 years of age. The species is commonly occurring in the metropolitan area and throughout Victoria.

**Tree 436** This is probably the oldest of the Heritage trees proposed to be removed, it probably having been planted along with the other mature grafted Algerian Oaks along the avenues approximately 110 years ago. The tree however has declined very badly over the last few years or so, despite receiving plenty of irrigation. It has extensive die-back in the canopy with only approximately 20% of the foliage one would expect to see on a healthy tree of its size. There are also large dead lesions where the sapwood has died due to starvation. One can be assured the roots will have died off big time as well. The tree has little worth for retention in my opinion – it will continue to die back irrespective of treatments.

### **Heritage Trees which can be Retained but which Should be Removed**

**Tree 266** is a large mature Monterey Pine with a DBH of 90cm. Approx. 95% of the canopy as died. The tree should be removed.

### **Heritage Trees Close to Perceived Construction Works**

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**Tree 386** This is a Golden Cypress in good condition. The DBH equivalent is 80cm. The TPZ (see definition below) is 9.6m from the trunk centre or if encroaching on one side only is 6.4m. Ideally any dwelling should be kept at least 8m north, 6m south, 6m east and 7m west of the trunk centre. In this case dwelling 163 is at least 8m west of it, hence there should be no problem here. The road to its east is approx. 9.4m from the trunk centre. Hence this tree should be able to be successfully retained.

**Tree 405** This is a fastigiate type Monterey Cypress. The TPZ is 12m from the trunk centre or if encroaching on one side only is 8m. In this case a corner of the end of Road B encroaches to as close as 6.5m from the trunk centre. Given that only a corner is encroaching into one quadrant of the TPZ, this is fine according to the Australian Standard.

**Tree 406** This is a fastigiate type Monterey Cypress. The TPZ is 9.4m from the trunk centre or if encroaching on one side only is 6.3m. In this case a corner of the end of Road B encroaches to as close as 5.7m from the trunk centre. Given that only a corner is encroaching into one quadrant of the TPZ, this is fine according to the Australian Standard.

**Tree 407** This is a Canary Island Pine in good condition with a TPZ of 8.4m or 5.6m if encroaching from one side only. A corner of Main Drive is to be constructed as close as 6.7m from the trunk centre to the north-west – no problem here. The closest dwelling has its north-east corner 9m away from the trunk centre – again well clear of any recommended distances (see table of data below).

**Tree 245A** This is a Moreton Bay Fig whose condition is fair, it being somewhat drought stressed, but still has a long life expectancy. The TPZ is 9.8m or 6.6m if encroaching from one side only. However, any dwelling should be kept 10m north of the trunk centre, 6m south and 8m east and west. In this case the corner of the closest dwelling is 10m away to the north-east – no problem here. The edge of the corner of Main Drive is shown to be 8.7m away, well outside the TPZ of 6.6m, hence there should be no problem. Furthermore the Perkin Centre building once covered this area – root development beneath will be virtually nil or non-existent.

**Tree 248** This is a large Monterey Pine in good condition with a TPZ of 12.6m or 8.4m if encroaching from one side only. The new road goes as close as 6.8m from the trunk centre, within the TPZ. It must be noted however that the large Perkin centre was within 4m of the trunk to the south east of the tree where the road is proposed – there will be no roots beneath the old footprint of the building.

**Tree 1070** The road is proposed to be constructed 5m from the centre of the trunk of this Algerian Oak. According to the standard, encroachment can occur as close as 4.4m from the trunk centre. However there may be substantial excavation closer for road construction works, given the topography and necessity for drains and services.

#### **Other Trees**

The following non Heritage trees will need to be removed: 237, 242, 246, 247, 369, 370A, 370B, 370C, 371, 372, 375, 374, 385, 387, 389, 390, 391, 392, 393, 394, 396, 399, 400, 401, 439A, 439B, 440, 441, 441A, 442, 443, 445, 847, 849, 880, 881, 882, 1072, 1077, 1078, 1079, 1080, 1083, 1084, 1093-1100, 1180. Of these, trees 391, 392, 401 and 1180 are dead. Most of the rest are in poor condition or of little significance.

#### **Indigenous Trees**

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With respect to indigenous species, there are only three on the site and only one which requires removal. This is tree 1093, a Black Wattle in poor condition. Tree 367B is a dead indigenous tree which can be retained however I suggest it be removed and replaced. Tree 367A is the third indigenous tree on the site, a small planted Black Sheoke. It can be readily retained.

**Non Heritage Trees within the Boundary of Stage 3B which can be Retained**

Trees 367A, 367B, 369, 371, 883 and 1092 may be able to be retained. Of these I would suggest that tree 266, 367B, 369 (a young Southern Mahogany Gum with a limb shed history) and 371 (a medium sized Qld Silky Oak with dead sections) be removed. Trees 883 (a Spotted Gum in good condition) and tree 1092 (a small to medium sized Strawberry Tree) should be retained if possible.

**Non Heritage Trees Close to the Perceived Stage 3B Works but Outside the Stage 3B Boundary**

**Trees** 1091, 431, 433, 407A. Of these trees 407A (a young mature Desert Ash) appears to be the only one which has no hope of being retained. The other three appear to be able to be readily retained.

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## **Definitions**

In order to understand the column headings of the table of data below, I have provided the following definitions:

**DBH** diameter of trunk over bark at breast height In a number of cases where the tree has forked into multiple trunks below breast height (1.3-1.5m) the diameter is measured below the fork and an estimate is made for the single trunk equivalent at breast height, or else figures for each of the individual stems can be given.

**HxS** This is the estimated height (H) of the tree and its average crown spread (S).

**SULE** Safe useful life expectancy in years. Taken in the context that the area is to be developed for residential use, and that sensible distances are maintained between the buildings and the trees, this is the estimate of time that the tree will continue to provide useful amenity without imposing an onerous financial burden in order to maintain relative safety, and avoid excessive nuisance.

**Condition** This descriptor can be encapsulated by three terms, namely **Health (H), Structure (S) and Form (F)**.

Health is largely governed by the ease in which the metabolic functions are occurring throughout the tree. Symptoms of health include the amount, distribution, density, size and colour of the foliage.

Structure refers to the structural stability of the tree and its branches. A well structured tree is not likely to shed branches or stems, or snap in the trunk or blow over, whereas a poorly structured tree is more likely to.

Form basically refers to the symmetry of the tree. A tree with a straight trunk and symmetrical crown and evenly distributed branches is referred to as having good form, whilst a lopsided leaning tree may have fair – poor form.

## **Worthiness of Retention (WOR):**

The worth for retention of a tree is based on the assumption that the site is to be re-developed, and that there is the opportunity for new tree planting. It is based on a number of factors. These factors are:

1. structure, health, form and safe useful life expectancy,

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2. size, prominence in the landscape,
3. species rarity,
4. whether indigenous,
5. whether an environmental weed.
6. importance for habitat of native wildlife
7. whether of historical or cultural interest

Any tree with a WOR rating of 3 or less should be seriously considered for removal before development begins because it is dead, nearly dead or dangerous, a weed, is causing or is likely to cause a severe nuisance in the near future, or just of very little significance and readily replaceable with new plantings. Trees rated 4-6 are of some significance. Some of these trees may respond to treatments such as formative pruning, removal of dead wood, weight reduction pruning etc. Trees rated 7 or higher are of high significance (the higher the ranking the more so), primarily because of their good health, structure, form, prominence in the landscape and SULE, although all they still may need substantial works done on them as already detailed, if they are to be retained.

### **Tree Protection Zone (TPZ)**

According to the Australian Standard AS 4970-2009 'Protection of Trees on Building Sites', the TPZ is the principal means of protecting trees on development sites. It is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.' The radius of the TPZ is calculated by multiplying the DBH by 12. The radius is measured from the centre of the stem at ground level. An area of 10% of the TPZ is deemed acceptable to violate if 10% area is made up in other directions. Thus If encroachment is from one side only, encroachment to as close as approximately 8 times the DBH is permissible.

The AS 4970-2009 is a rough guide only. It is only used in this statement because various local authorities as well as Heritage Victoria now demand it in their assessments of development applications. Many factors such as the type of encroachment on the TPZ, species tolerance, age, presence of spiral grain, soil type, soil depth, tree lean, the existence of onsite structures or root directional impediments, irrigation and ongoing tree care and maintenance are each highly influential on the size and success of the TPZ estimation, therefore the figures derived from the Standard and provided in this report must be treated as rough guides only.

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**Tree Data- Stage 3B (Kew Cottages)**

Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.	
				N	S	E	W				
235	<i>Pinus radiata</i>	65, 70	F/P	11	9	9	10	11.5	3	B 7	
236	<i>Quercus canariensis</i>	36	F	5	5	6	6	4.3	5	B 7	
237	<i>Pittosporum undulatum</i>	33	F	5	4	6	6		3	B 7	
238	<i>Pinus radiata</i>	58	P						2	B 7	
242	<i>Casuarina glauca</i>	15	F					2	3	C 6	
245	<i>Pinus radiata</i>	Was dead and has been removed									C 6
245A	<i>Ficus macrophylla</i>	70, 43, 37	F	10	6	8	8	9.8	7	C 6	
246	<i>Eucalyptus occidentalis</i>	72	F/P	Repeatedly bifurcated					3	C 6	
247	<i>Eucalyptus cornuta</i>	80	P	One side has recently collapsed					2	C 6	
248	<i>Pinus radiata</i>	105	G	8	10	8	10	12.6	7	C 6	
266	<i>Pinus radiata</i>	97	P	97% of the canopy is dead					1	D 5	
296, 297	<i>Quercus canariensis</i>										
	x 2	100, 78	G, F	6	10	11	9	8, 6	9, 7	F 8	
297A	<i>Fraxinus angustifolia</i>	37	P						1	F 8	
298	<i>Prunus ilicifolia</i>	18, 16, 16, 15, 10, 10, 10	F/P	6	5	4.5	4.5	4.4	4	F 8	
367A	<i>Allocasuarina littoralis</i>	24	F/G					2.9	4	D 5	
367B	<i>Allocasuarina littoralis</i>		Dead					1		D 5	

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Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.
				N	S	E	W			
369	<i>Eucalyptus botryoides</i>	33	F	Healthy but shedding history				4	4	D 5
370A	<i>Eucalyptus sideroxylon</i>	25	F-P	Dying top, lopsided					3	D 5
370B	<i>Eucalyptus sideroxylon</i>	21	G					2.5	4	D 5
370C	<i>Eucalyptus sideroxylon</i>	33	G					4	4	D 5
371	<i>Grevillea robusta</i>	38	F					4.6	4	D 5
372	<i>Melaleuca styphelioides</i>	33,25	P	Splitting apart					2	D 5
374	<i>Fraxinus angustifolia</i>	45	G					5.4	4	E 4
375	<i>Liquidambar styraciflua</i>	25	F					3	4	E 4
381A	<i>Arbutus canariensis</i>	10	G	3	3	3	3.5	2	5	E 7
381B	<i>Arbutus canariensis</i>	10	G	3	3	3	3.5	2	5	F 8
385	<i>Fraxinus angustifolia</i>	38	F	6	6	6	6	4.6	4	E 7
386	<i>Cupressus macrocarpa</i> 'Horizontalis Aurea'	80	G	8	6	5	7	9.6	7	E 6
387	<i>Liquidambar styraciflua</i>	35	P						3	E 6
388	<i>Prunus ilicifolia</i>	26	G	3	5.5	5.5	5	3	6	E 6
389	<i>Liquidambar styraciflua</i>	32	F/P	5	5	5	6	3.8	3	D 6
390	<i>Eucalyptus spathulata</i>	35,33,30,23	F	Healthy but poor structurally					3	D 7
391	<i>Eucalyptus leucoxylon</i>	40	Dead						1	D 6
392	<i>Eucalyptus leucoxylon</i>	30	Dead						1	D 6
393	<i>Acacia elata</i>	43	P						3	D 7



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Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.
				N	S	E	W			
394	Pittosporum eugeniodes 'Variegatum'	22	F	4.5	5	4	4	2.6	4	C 7
396	Lophostemon confertus	38	F	5.5	5.5	5	5	4.6	5	D 7
397	Eucalyptus globulus	80	P	7	9	7	9		3	D 7
398	Cedrus deodara	70	F/G	9	11	8	8.5	8.4	7	D 7
399	Acacia prominens	50	P							D 7
400	Eucalyptus maculata	46	F	7	6	6	7	5.5	5	D 7
401	Acacia prominens	36	Dead						1	D 7
403	Fraxinus angustifolia	28	F/P	4.5	3	4	4	3.4	3	E 7
404	Cupressus macrocarpa 'Fastigiata'	37, 32, 24	F	5	5	5.5	5	6.5	6	E 7
405	Cupressus macrocarpa 'Fastigiata'	approx 100	F	5	8	7	7	12	5	E 7
406	Cupressus macrocarpa 'Fastigiata'	50, 52, 30	F	6.5	8	7	6	9.4	5	E 8
407	Pinus canariensis	70	G	8	6	7	7	8.4	7	D 7
407A	Fraxinus angustifolia	45	F	6	6	7	7	5.4	4	E 8
408	Melaleuca styphelioides	57	F/P	4.5	4	4	4.5	4	3	E 8
409	Acacia implexa	47, 37	F/G	6	7	5	6	5	7	E 8
410	Fraxinus "Raywood"	38	F	6.5	7	4	7	3	5	E 8
429	Ficus macrophylla	29, 51	F					7	6	

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Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.
				N	S	E	W			
431	<i>Corymbia maculata</i>	60	F/G	5	7	5	7	7.2	5	D 9
433	<i>Mel. Styph.x bracteata</i>	35	F					4.2	4	D 9
434	<i>Eucalyptus maculata</i>	39	F	4	5.5	6	4	7.2	4	D 9
435	<i>Calitris gracilis/glaucophylla</i>	30,25,20	G	4	4	4	4	4	7	D 9
436	<i>Quercus canariensis</i>	85	P	Substantial Die-back				10.2	3	D 9
439A	<i>Ligustrum lucidum</i>	48	F						2	C 8
439B	<i>Ligustrum lucidum</i>	33	P						2	C 8
440	Gone									
441	<i>Hakea suaveolens</i>	30,20	P						2	C 8
441A	<i>Callitris rhomboidea</i>	14	P						2	C 7
442	<i>Melaleuca armillaris</i>	40	P						3	C 7
443	<i>Lophostemon confertus</i>	53	F/G					6.4	6	C 7
444	<i>Ficus macrophylla</i>	130	F	10	10	12	10	15	7	B 7
445	<i>Pittosporum undulatum</i>		P						2	B 6
451	<i>Pinus radiata</i>	95	P	Almost dead					1	B 7
452	<i>Acacia implexa</i>	50	F/G	5	5	5	10	6	7	B 7
846	<i>Fraxinus angustifolia</i>	18	F/P						3	
847	<i>Cotoneaster glaucophyllus</i>	35							3	E 7
848	<i>Cupressus macrocarpa</i>	100	F	3	4.5	5.5	4	12	7	E 7

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Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.
				N	S	E	W			
849	Fraxinus ornus	18	P					2	E 7	
880	Gone - previously dead									
881	Agonis flexuosa	10	P					2		
882	Melaleuca armillaris	45	P					2	E 6	
883	Corymbia citriodora	54						5	E 6	
1065	Quercus canariensis	65	F/G					7.8	7 C 5	
1070	Quercus canariensis	55	F			7		6.6	6 C 6	
1072	Acacia podalyriifolia	20	P					2	B 6	
1075	Quercus canariensis	Dead							B 7	
1076	Pittosporum undulatum	24	F/P					2	B 7	
1077	Melaleuca quinquenervia	16	F/P					3	D 6	
1078	Callistemon salignus	12,12	F/P					3	D 6	
1079	Hakea laurina	21	F	3.5	3	3	3.5	1.7	3 D 7	
1080	Hakea laurina	10	G	3	3	3	3	1.2	3 D 7	
1083	Melaleuca bracteata	25	F					3	4	
1084	Lophostemon confertus	30	F	5	5.5	5	5	2.2	4 D 7	
1091	Arbutus unedo	30, 25	P					3	D 9	
1092	Arbutus unedo	22, 15,11	F	3	4	5	4	3.5	4 D 9	
1093	Acacia mearnsii	30	F-P					3.6	3 C 8	
1094	Ligustrum lucidum	40	P					2	C 8	
1095	Syzygium paniculatum	43	F					4	C 8	

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Tree No.	Species	DBH (cm)	Condition G/F/P	Min. Comfort Distance from Trunk Centre in each of 4 Cardinal Directions for Construction of Dwellings				TPZ (m)	WOR (1-10)	Map Ref.
				N	S	E	W			
1096	Syzygium paniculatum	33	F					4	C 8	
1097	Syzygium paniculatum	31	F					4	C 8	
1098	Syzygium paniculatum	40	F					4	C 8	
1099	Syzygium paniculatum	33	F/P					4	C 8	
1100	Syzygium paniculatum	38	P					3	C 8	
1180	Dead							1	D 7	

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## **TREE MANAGEMENT PLAN**

### **Demolition Protection**

Have each tree to be retained clearly marked with strict instructions to the demolition contractor to avoid any physical impact with them.

Fell the non protected trees in a manner which does not damage the trees to be retained.

Avoid excavating, compacting or filling within the TPZs.

When removing concrete and paving from within the TPZs, ensure it is slid out away from the trees without gouging or excavating within the TPZs.

When removing unwanted woody vegetation near the trees to be retained, do not gouge out the stumps with excavator buckets or excavate within the TPZs. If the stumps remain in the ground when pulling the trees/shrubs out, then have them carefully ground out at a later date. When removing non woody vegetation within the TPZs, again, do not scrape back the top soil more than approximately 100mm depth.

Mulch the trees and shrubs wherever possible for use on the retained trees

### **Pre-Construction Protection**

Spray and kill existing grass and weeds within the TPZs.

Add mulch to as close as possible to the extent of the TPZs to a depth of approximately 100mm. The mulch should be organic such as wood chips, preferably rich in foliar content. Woodchips from removed trees or branch prunings are fine.

Fence off the trees to be retained to at least the root preservation zones (TPZs) from the trunk centres wherever possible. If this is impossible, due to site constraints such as lack of pedestrian access and the necessity for pathways within the TPZs for the ferrying of materials, or the existing or future presence of structures such as buildings, roads, drives, car parks and footpaths within the TPZs, at least protect the trunks with fencing, and mulch to a depth of 150mm outside the fences (where structures or paving is not present) to a radius of at least the TPZs from the trunk centres.

Each fence must be at least 1.8m high sturdy high visibility fencing. Builder`s chain and mesh temporary fencing is good for this. The fences must remain intact without any fill or rubbish entering them for the life of the project. If they have to be removed or shifted within that time, the period during which this occurs must be minimized, and there must be no excavation or soil compaction within the TPZ, unless this is deemed by the consulting arborist as not being prejudicial to the safe useful life expectancy (SULE) of the tree during that time.

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The following worded sign must be attached to the tree protection fences “Tree Protection Fence” The signs must be weatherproof with large clear professional lettering.

Undertake any building clearance pruning according to the Australian Standard AS 4373:1996.

### **During Construction Protection**

Maintain as above. Any pruning which is necessary for civil works clearances or hazard reduction must be undertaken according to the Australian Pruning Standard AS 4373:1996. Only the minimum amount necessary should be removed.

There must not be any trenching, excavation, addition of fill or level reductions by more than 100mm for any purpose, or significant soil compaction within the TPZs from the centre of the retained tree, unless it has been shown by non root destructive exploratory trenching under arboricultural supervision beforehand that the tree's SULE is unlikely to be compromised.

Drains or services, if they have to go within the TPZs, must only be undertaken by non root destructive means such as horizontal boring at greater than 800mm depth or by pneumatic or hydraulic means under arboricultural supervision, unless it has been shown by non root destructive exploratory trenching under arboricultural supervision beforehand that the tree's SULE is unlikely to be compromised.

Do not excavate nor reduce levels by more than 100mm for any reason including paving, within the TPZs, unless it has been demonstrated by non root destructive exploratory excavation under arboricultural supervision beforehand it is unlikely to adversely impact on the SULEs of the trees to do so.

The tree protection fences and signs must be maintained in good order for the life of the project. They can only be moved with the permission of the consulting arborist.

Do not wash or dump chemicals into the soil anywhere near the trees.

The consulting arborist should inspect the site on at least a fortnightly basis to check overall adherence to the tree management plan. Brief reports should be compiled for each visit. Visits in addition to these will be required for the supervision of any works within TPZs of retained trees. Make recommendations where necessary. Where works such as irrigation, hazard reduction pruning, disease, pest and weed control are thought warranted by the consulting arborist, the measures recommended by him must be implemented. Again brief reports of such proceedings need to be compiled.

### **Irrigation**

The trees which have had works conducted close to or within their TPZs must be regularly irrigated, the amount and frequency being determined by the consulting arborist. The means of administering the water can be from a drip system or water truck and done in a manner which allows the administered water to soak into the root zone as opposed to running off its surface.

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### **Post Construction**

For up to two years after construction the heritage trees should be regularly inspected by the consulting arborist. The inspections must be undertaken at least twice during the April to October periods and fortnightly during the November to March periods. Reports must be made of these inspections. Where works such as irrigation, hazard reduction pruning, disease, pest and weed control are thought warranted by the consulting arborist, the measures recommended by him must be implemented.

GALBRAITH & ASSOCIATES

Rob Galbraith  
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