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# Kincumber Residential Aged Care

290 Avoca Drive, Kincumber NSW 2251

Lot 103 DP707503

Town Planning Submission

Landscape Design Report

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ASPECT Studios™

Overview

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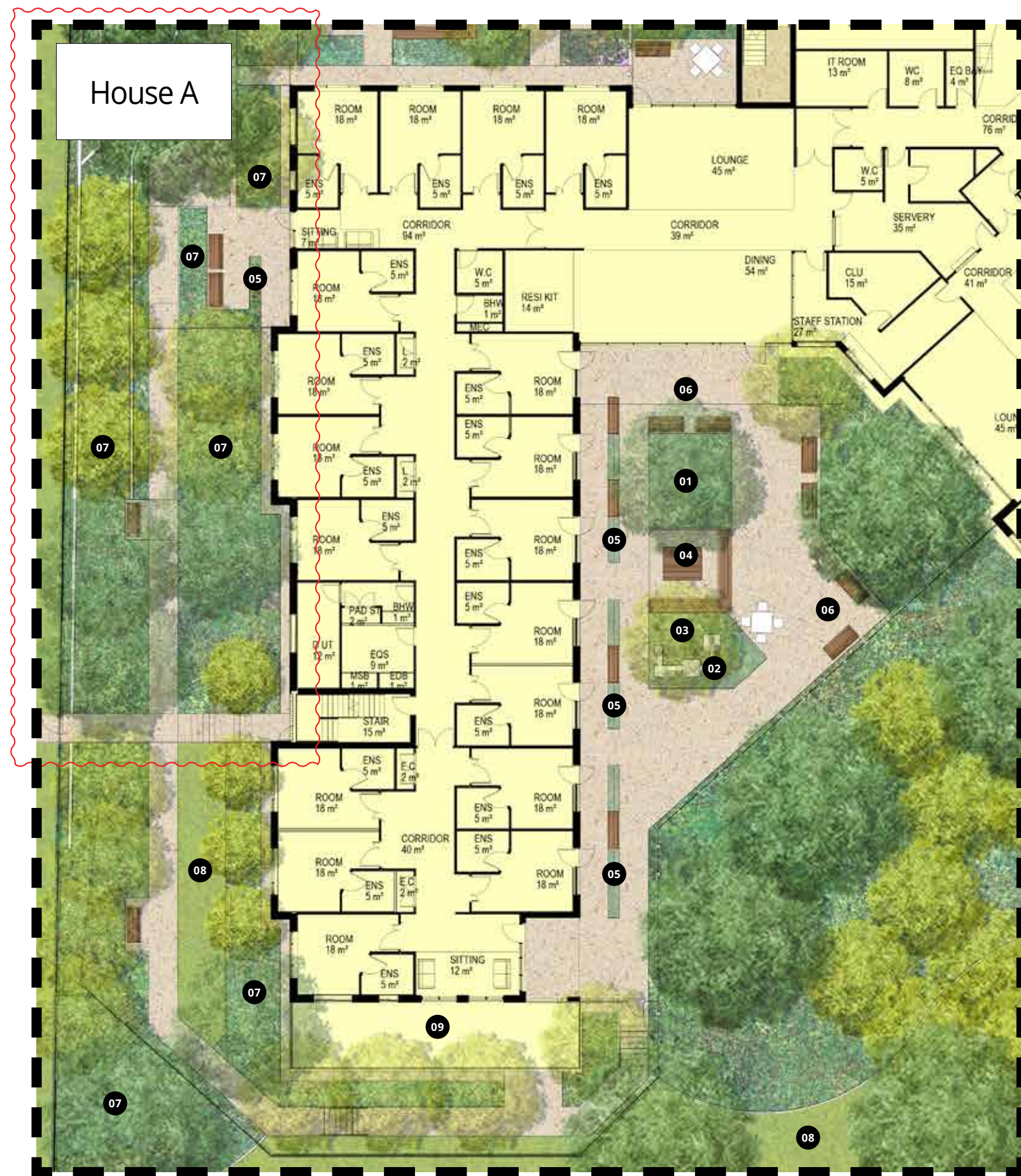




House A, B and C to F







# House A

## Legend

- 01 Raised planter bed-Courtyard palette
- 02 Sculpture garden
- 03 At-grade planter-Courtyard palette
- 04 Picnic seting-roofed pegola / arbour
- 05 Planted trellis screens to private windows
- 06 Seating node
- 07 Garden bed-Perimeter palette
- 08 Turf
- 09 Mechanical Plant

## Landscape Design Response

The design intent for House A is to provide an attractive interactive courtyard that provides opportunities for residents to walk, sit, socialise, and garden.

Screening vegetation to the north and west of the building provides an attractive landscape setting, and serves to reduce the building's bulk and scale.

## Dementia Patients

The secure communal spaces have been designed using a theory based framework underpinning our approach to provide an outcome that is inclusive of all residents, with a particular focus on people living with dementia, catering for the specific needs of these residents. This framework explores accessibility, social interaction, journey (experience & exploration), orientation, visual permeability, clearly defined zones, and contemplation. The key elements supporting these principles are:

**Accessibility** – Generous sized compliant pathways with no physical barriers will encourage people with dementia to exercise, while colour contrast will assist with navigation. Seating located at regular intervals provides resting opportunities that are comfortable and DDA compliant.

**Social interaction / gathering** – Enhance the quality of life for people with dementia by creating opportunities to socialise and interact with family and friends. Providing interactive garden features throughout will bring people together and encourage engagement. Gardens provide opportunity for residents to participate in gardening as a form of exercise and to evoke memories.

**Orientation** – Orientation through visual cues to build self-control and confidence. Encourage exploration through looped path systems that lead users along a journey of interesting focal points. Spaces provided around gardens allows residents to appreciate the planting, which provide sensory stimulation through a palette containing a variety of colour, scent, texture and seasonal change, reminiscent of the gardens in their previous homes.

**Visual permeability** – Ensuring gardens and residents are visible by staff provides a safer outcome all round. Visibility from the internal rooms onto the communal spaces encourage residents to venture out, while clear lines of site within the external space provide visual connections to all areas which encourages exploration.

**Clearly defined zones** – Clearly identified spaces define uses which provides reassurance and confidence to residents. An understanding of the various space, including a variety of seating opportunities, offer people with dementia an opportunity to choose how they use the garden. This definition of space includes clear identification of entry and exit points.

**Contemplation** – Quieter / passive areas allow for relaxation and reflection.





# House B

## Legend

- 01 Raised planter bed-Courtyard palette
- 02 Sculpture garden
- 03 At-grade planter-Courtyard palette
- 04 Picnic setting and roofed pegola / arbour
- 05 Planted trellis screens to private windows
- 06 Garden bed-Perimeter palette
- 07 Turf
- 08 Mechanical plant
- 09 Hedging to screen carpark
- 10 Landscape bund palette

## Landscape Design Response

The design intent for House B is to provide an attractive interactive courtyard that provides opportunities for residents to walk, sit, socialise, and garden.

Screening vegetation to the north and west of the building provides an attractive landscape setting, and serves to reduce the building's bulk and scale.

Vegetated landscape bund along the south-west elevation of the building provides a softening of the built form from Scaysbrook Drive.

## Dementia Patients

The secure communal spaces have been designed using a theory based framework underpinning our approach to provide an outcome that is inclusive of all residents, with a particular focus on people living with dementia, catering for the specific needs of these residents. This framework explores accessibility, social interaction, journey (experience & exploration), orientation, visual permeability, clearly defined zones, and contemplation. The key elements supporting these principles are:

**Accessibility** – Generous sized compliant pathways with no physical barriers will encourage people with dementia to exercise, while colour contrast will assist with navigation. Seating located at regular intervals provides resting opportunities that are comfortable and DDA compliant.

**Social interaction / gathering** – Enhance the quality of life for people with dementia by creating opportunities to socialise and interact with family and friends. Providing interactive garden features throughout will bring people together and encourage engagement. Gardens provide opportunity for residents to participate in gardening as a form of exercise and to evoke memories.

**Orientation** – Orientation through visual cues to build self-control and confidence. Encourage exploration through looped path systems that lead users along a journey of interesting focal points. Spaces provided around gardens allows residents to appreciate the planting, which provide sensory stimulation through a palette containing a variety of colour, scent, texture and seasonal change, reminiscent of the gardens in their previous homes.

**Visual permeability** – Ensuring gardens and residents are visible by staff provides a safer outcome all round. Visibility from the internal rooms onto the communal spaces encourage residents to venture out, while clear lines of site within the external space provide visual connections to all areas which encourages exploration.

**Clearly defined zones** – Clearly identified spaces define uses which provides reassurance and confidence to residents. An understanding of the various space, including a variety of seating opportunities, offer people with dementia an opportunity to choose how they use the garden. This definition of space includes clear identification of entry and exit points.

**Contemplation** – Quieter / passive areas allow for relaxation and reflection.





# House C - F

## Legend

- 01 Picnic seting-roofed pegola / arbour
- 02 Planted trellis screens to private windows
- 03 Seating node
- 04 Garden bed-Perimeter pallette
- 05 Garden bed-Courtyard pallette

## Landscape Design Response

The design intent for House C-F is to provide an attractive interactive courtyard that provides opportunities for residents to walk, sit, socilaise, and garden.

Screening vegetation to the north and west of the building provides an attractive landscape setting, and serves to reduce the building's bulk and scale.

## General Patient Approach

The secure communal spaces have been designed provide an outcome that is inclusive of all residents, catering for the specific needs of the residents. This framework explores accessibility, social interaction, journey (experience & exploration), orientation, visual permeability, clearly defined zones, and contemplation.



# Landscape Elements

## Picnic Shelter



Courtyard shelters feature a roof for full solar and rain protection. Feature chain in lieu of down-pipe, drainage run-off into garden beds



Battened arbour edge softened with climbing wisteria



Planted screens for privacy

## Precedent Images



Wisteria growing on arbour



Chain down-pipe



Two-tone timber picnic shelter



# Landscape Elements

## Barriers, Screens & Artwork



View toward shelter, garden sculptures on concrete plinths



View from underneath shelter



Fixed garden sculptures on concrete plinths

## Precedent Images



Fence located in garden bed to visually blend into the landscape



Garden sculptures fixed to concrete plinths - MCQ Sandgate



Collection of pots located at key focal points



# Landscape Elements

## Furniture



Priority seating area, located underneath the shelters will contain a wheelchair accessible table - at one end, the leg will be moved inward 400mm to allow inclusive wheelchair access



Concrete bench nodes



Timber benches backing onto raised garden bed

## Furniture Palette



Wheelchair accessible picnic setting under picnic shelters



1500mm long hardwood timber bench seat and powder-coated frame



1500mm long hardwood timber bench seat with back rest and powder-coated frame



1500mm long hardwood timber bench seat with back rest, arm rests and powder-coated frame



Fence Design



Fence Type 1: 1800mm high timber Colorbond fence

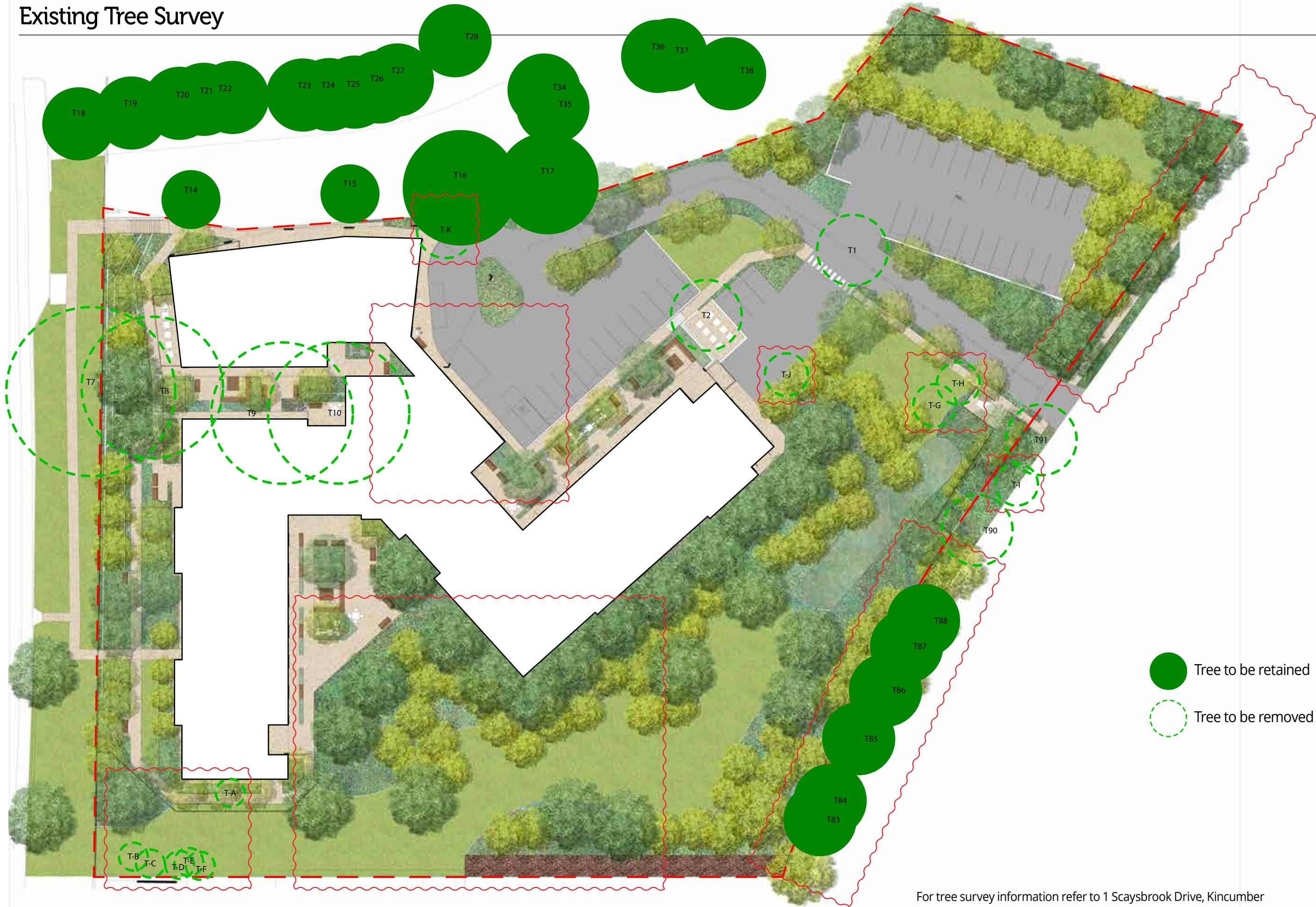


Fence Type 2: ARC Fences 'Ambassador' security fence





Existing Tree Survey



- Tree to be retained
- Tree to be removed

For tree survey information refer to 1 Scaysbrook Drive, Kincumber  
Arboricultural Impact Report, By Landscape Matrix Pty Ltd, 25 January 2018



Existing Tree Survey - Zone E3



For tree survey information refer to 1 Scaysbrook Drive, Kincumber  
Arboricultural Impact Report, By Landscape Matrix Pty Ltd, 25 January 2018



Tree Assessment Summary : On-site

Tree	Species	H (m)	S (m)	DBH (mm)	Condition	G	Unknown tree	Trees were not assessed in previous ecological reports and are concluded to be very small trees/large shrubs. Previous site data collection originally included trees that were considered to be of dimensions that warranted assessment, as these were not captured in the original survey they were deemed too small for
TREES TO BE RETAINED								
83	Eucalyptus saligna	26	14	560	At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.	H	Unknown tree	Trees were not assessed in previous ecological reports and are concluded to be very small trees/large shrubs. Previous site data collection originally included trees that were considered to be of dimensions that warranted assessment, as these were not captured in the original survey they were deemed too small for
84	Eucalyptus scoparia	20	6x10	320	The tree's past canopy development has been suppressed. At the time of inspection the tree was of poor health and poor vigour and exhibited significant levels of dieback and epicormic growth.	I	Unknown tree	Trees were not assessed in previous ecological reports and are concluded to be very small trees/large shrubs. Previous site data collection originally included trees that were considered to be of dimensions that warranted assessment, as these were not captured in the original survey they were deemed too small for
85	Eucalyptus microcorys	24	3.1m	660	At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback. Kerb cracked adjacent to tree.	J	Unknown tree	Trees were not assessed in previous ecological reports and are concluded to be very small trees/large shrubs. Previous site data collection originally included trees that were considered to be of dimensions that warranted assessment, as these were not captured in the original survey they were deemed too small for
86	Corymbia gummifera	22	6x14	420	The tree's past canopy development has been suppressed. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback and epicormic growth.	K	Unknown tree	Trees were not assessed in previous ecological reports and are concluded to be very small trees/large shrubs. Previous site data collection originally included trees that were considered to be of dimensions that warranted assessment, as these were not captured in the original survey they were deemed too small for
87	Eucalyptus nicholii	26	8x12	570	The tree's past canopy development has been suppressed. At the time of inspection the tree was of moderate health and poor vigour and exhibited high levels of dieback and epicormic growth. Conflict with adjacent kerb and pathway lifted.			
88	Eucalyptus scoparia	18	5x11	330	The tree's past canopy development has been suppressed. At the time of inspection the tree was of poor health and poor vigour and exhibited significant levels of dieback and epicormic growth. The tree displays signs of instability with evidence of past wounding and possible decay in the basal trunk on the SW side - early attention to removal recommended			
TREES TO BE REMOVED								
1	Melaleuca styphelioides	8	9	Up to 410 (460 above root flare)	The tree displays fair branch attachment with multiple leaders with some evidence if poor attachment at the junction - the junction is a weak point in the tree's structure with increased risk of failure but is not considered at risk of failure in the short term. At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate to high levels of dieback.			
2	Cinnamomum camphora	12	12	430, 580	Environmental pest species.			
7	Cinnamomum camphora	16	14	Up to ca. 550 (ca. 1200 above root flare)	The tree displays fair branch attachment with multiple leaders from 1 metre with some evidence if poor attachment at the junction - the junction is a weak point in the tree's structure with increased risk of failure but is not considered at risk of failure in the short term. At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate to high levels of dieback and epicormic growth. Environmental pest species of high visual significance.			
8	Cinnamomum camphora	14	12	Up to 580 (960 x1100 above root flare)	The tree displays fair branch attachment with multiple leaders and poorly attached regrowth following severe past pruning - not considered at risk of failure in the short term. Environmental pest species of high visual significance.			
9	Cinnamomum camphora	17	8x10	Up to 500 (1300 x 1700 above root flare)	The tree displays signs of instability with evidence of extensive decay in basal trunk. Th tree also displays poor branch attachment with multiple leaders with evidence of poor attachment, decay in junctions etc. - structurally compromised. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.			
10	Cinnamomum camphora	18	11x16	Up to 1000 (1200 x 2000 above root flare)	The tree displays fair branch attachment with multiple leaders and poorly attached regrowth following severe past pruning - not considered at risk of failure in the short term. At the time of inspection the tree was of moderate health and poor vigour and exhibited reduced foliage density, moderate to high levels of dieback and epicormic growth. Environmental pest species of high visual significance.			
90	Corymbia maculata	14	7x12	290	The tree's past canopy development has been suppressed. At the time of inspection the tree was of poor health and poor vigour and exhibited significantly reduced foliage density and high levels of dieback.			
91	Eucalyptus resinifera	20	11x14	490	At the time of inspection the tree was of fair vigour and exhibited low levels of dieback. Termite mudding in lower trunk bark - monitor.			
A	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			
B	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			
C	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			
D	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			
E	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			
F	Unknown palm				It is noted from aerial imaging that this palm is either a specimen of Alexandra Palm (Archontophoenix alexandrae) or Bangalow Palm (Archontophoenix cunninghamiana). Aerial imaging identifies this palm as relatively small specimens of low to moderate landscape significance – it is recommended these palms be removed and replaced with more appropriate species as part of the works.			

Table Source: Landscape Matrix Pty Ltd, 1 Scaysbrook Drive Kincumber Arboricultural Impact Report, 25 January 2018





Tree Assesment Summary - Zone E3

Tree	Species	H (m)	S (m)	DBH (mm)	Condition						
TREES TO BE RETAINED											
14	Araucaria columnaris	11	4	420	At the time of inspection the tree was of fair vigour ad exhibited reduced foliage density.	34	Eucalyptus saligna	27	18	640	The tree displays evidence of past wounding and decay entry with fruiting body (Phellinus sp. ) at 3 metres on SE. At the time of inspection the tree was of moderate health and fair vigour with the top section of crown dead and epicormic shoots on main trunk. There is also evidence of past wounding/issue loss at 12-14 metres on the west.
15	Xcupressocyparis leylandii	9	7	290, 480	The tree displays poor branch attachment with codominant leaders and recent failure of a third leader at ground level. High levels of lesions on lower trunk indicative of Cypress Canker.	35	Eucalyptus microcorys	24	11	540	Termite mudding on lower trunk. Significant past mechanical damage to lower trunk tissue - monitor for potential decay entry and/or loss of root function.
16	Cupressus macrocarpa	17	13	960	The tree displays poor branch failure with evidence of multiple past failures. At the time of inspection the tree was of fair vigour and exhibited reduced foliage density and low levels of dieback.	36	Eucalyptus saligna	29	16	560	The tree's past canopy development has been suppressed. At the time of inspection the tree exhibited low levels of dieback.
17	Syzigium paniculatum	8	7	270	At the time of inspection the tree was of fair vigour and exhibited reduced foliage density.	37	Eucalyptus saligna	26	16	560	The tree's past canopy development has been suppressed. At the time of inspection the tree was of moderate health and poor vigour with the top 2/3 section of crown dead - possibly the result of past lightning strike damage..
18	Cinnamomum camphora	9	10	Up to ca. 300 (ca. 750 above root flare)	The tree displays fair branch attachment with multiple leaders from 0.7 metres with some evidence if poor attachment at the junction - the junction is a weak point in the tree's structure withy increased risk of failure but is not considered at risk of failure in the short term. At the time of inspection the tree was of fair vigour and exhibited low levels of dieback. Environmental pest species of moderate visual significance.	38	Eucalyptus saligna	29	18	640 x 700	The tree displays fair branch attachment with multiple leaders form 7 meters (possibly following past damage to the main leader at this point) - not considered at risk of failure in the short term.
19	Eucalyptus microcorys	24	14	630	The tree displays poor branch attachment with codominant leaders from 3 metres with evidence of poor attachment at the junction (included bark) - the junction is a weak point in the tree with increased risk of failure. Termite mudding in lower trunk bark. Evidence of disturbance in TPZ.	39	Eucalyptus saligna	29	16	500x540	At the time of inspection the tree was of moderate health and poor vigour and exhibited reduced foliage size and density and moderate to high levels of dieback and epicormic growth.
20	Eucalyptus microcorys	26	16	620	The tree displays poor branch attachment with codominant leaders from 1.7 metres with evidence of poor attachment at the junction (included bark) - the junction is a weak point in the tree with increased risk of failure. Evidence of disturbance in TPZ and past mechanical damage to lower trunk and branches.	40	Eucalyptus saligna	30	18	520	
21	Eucalyptus microcorys	27	8x14	520	The tree's past canopy development has been suppressed. The tree displays fair branch attachment with codominant leaders from 7 metres with evidence of poor attachment at the junction - not considered at risk of failure in the short term. At the time of inspection the tree was of fair vigour and exhibited moderate levels of dieback. Evidence of disturbance in TPZ and past mechanical damage to lower branches (torn branches).	41	Eucalyptus saligna	16	6	360	
22	Eucalyptus resinifera	14	8x14	460	The tree's past canopy development has been suppressed. At the time of inspection the tree was of moderate health and fair vigour and exhibited high levels of dieback.	42	Corymbia citriodora	23	18	620	The tree displays fair to poor branch attachment with 3 x codominant leaders from 3.5 metres with evidence of poor attachment at the junction - the junction is a weak point in the tree with increased risk of failure - not considered at risk of failure in the short term.
23	Eucalyptus microcorys	28	12x14	740	The tree's past canopy development has been suppressed. The tree displays fair to poor branch attachment with multiple leaders from 4 metres and past failure at 5 to 8 metres. At the time of inspection the tree was of fair vigour and exhibited moderate levels of epicormic growth.	43	Liquidambar styraciflua	9	7	300 at 1 meter	
24	Eucalyptus microcorys	28	8x14	620	The tree's past canopy development has been suppressed. Evidence of disturbance in TPZ and past mechanical damage to lower branches (torn branches).	44	Eucalyptus saligna	28	16	640	
25	Eucalyptus microcorys	19	4x10	370	The tree's past canopy development has been suppressed. Evidence of significant past mechanical damage to lower trunk. At the time of inspection the tree was of fair vigour and exhibited low levels of dieback. Monitor potential decay in basal trunk and stability due to possible damage to roots and loss of root function.	45	Eucalyptus saligna	26	12	560	
26	Eucalyptus microcorys	22	3x5	360	The tree's past canopy development has been significantly suppressed. The tree displays poor branch attachment with codominant leaders from 4.5 metres with evidence of poor attachment at the junction (included bark) - the junction is a weak point in the tree with increased risk of failure - OK short term. Evidence of significant past mechanical damage to lower trunk.	46	Eucalyptus saligna	26	12	580	At the time of inspection the tree was of fair vigour and exhibited low levels of dieback and epicormic growth.
27	Eucalyptus microcorys	28	12x16	460, 620	The tree displays fair to poor branch attachment with codominant leaders from 1 metre with evidence of poor attachment at the junction - the junction is a weak point in the tree with increased risk of failure. High levels of termite mudding in lower trunk bark. Evidence of disturbance in TPZ. At the time of inspection the tree was of fair vigour and exhibited moderate levels of dieback.	47	Eucalyptus saligna	24	6x12	420	At the time of inspection the tree was of fair vigour and exhibited low levels of dieback.
28	Eucalyptus microcorys	28	17	670	The tree displays poor branch attachment with codominant leaders from 3 and 6 metres with evidence of poor attachment at the junctions - the junctions are weak points in the tree with increased risk of failure. High levels of termite mudding in lower trunk bark. Evidence of disturbance in TPZ. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.	48	Eucalyptus botryoides	26	14	640	
29	Eucalyptus microcorys	24	8x12	410	The tree's past canopy development has been significantly suppressed. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback. High levels of termite mudding on lower trunk.	49	Eucalyptus botryoides	18	7	380	At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate levels of dieback and epicormic growth.
30	Eucalyptus saligna	24	8x12	460	The tree's past canopy development has been suppressed. Evidence of past mechanical wounding to trunk at 3.5 metres.	50	Eucalyptus saligna	14	5	360	The tree's past canopy development has been significantly suppressed. At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate levels of dieback and high levels of epicormic growth.
31	Eucalyptus microcorys	28	8x12	450	The tree's past canopy development has been suppressed. At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate levels of dieback and epicormic growth. High levels of termite mudding on lower trunk.	51	Eucalyptus saligna	32	12	520	
32	Eucalyptus microcorys				The tree's past canopy development has been suppressed. At the time of inspection the tree was of fair vigour and exhibited moderate levels of dieback and epicormic growth. Termite mudding on lower trunk.	52	Eucalyptus saligna	30	12	580	At the time of inspection the tree was of fair vigour and exhibited low levels of dieback.
33	Eucalyptus microcorys	19	8	460	The tree's past canopy development has been suppressed. At the time of inspection the tree was of fair vigour and exhibited moderate levels of dieback and epicormic growth. Termite mudding on lower trunk.	53	Eucalyptus saligna	20	8x12	440	The tree displays fair branch attachment with multiple leaders from 6 meters following past failure of the main leader at this point - not considered at risk of failure in the short term.
						54	Eucalyptus microcorys	22	8	420	The tree displays fair to poor branch attachment with codominant leaders form 5 metres with evidence of poor attachment at the junction (included bark) - the junction is a weak point in the tree with increased risk of failure.
						55	Eucalyptus microcorys	20	8	460	The tree's past canopy development has been suppressed. The tree displays fair to poor branch attachment with codominant leaders from 4 metres with evidence of poor attachment at the junction - the junction is a weak point in the tree with increased risk of failure.
						56	Eucalyptus microcorys	22	14	540	The tree displays poor branch attachment with multiple codominant l with evidence of poor attachment at the junctions - the junctions are weak points in the tree with increased risk of failure.
						57	Eucalyptus botryoides	10	4	110 ,230	The tree's past canopy development has been suppressed. At the time of inspection the tree was of moderate health and poor vigour and exhibited high levels of dieback and epicormic growth.
						58	Eucalyptus botryoides	22	12	470	At the time of inspection the tree was of fair vigour and exhibited low levels of dieback.
						59	Corymbia eximia	8	7	320	
						60	Eucalyptus botryoides	16	8	310	At the time of inspection the tree was of moderate ealth and fair vigour and exhibited moderate levels of dieback and epicormic growth.
						62	Eucalyptus resinifera	20	11	670	The tree has past wounding from near ground to 3.5 metres with evidence of extensive decay in lower trunk with Phellinus sp . fruiting body at 1.6 metres on east side - large fruiting body - considered to be structurally suspect - urgent testing to confirm structural integrity or removal recommended. At the time of inspection the tree was of fair vigour and exhibited low levels of dieback.
						63	Corymbia maculata	22	12	520	
						64	Eucalyptus botryoides	20	6	480	At the time of inspection the tree was of moderate health and fair vigour and exhibited moderate levels of dieback and epicormic growth.

Table Source: Landscape Matrix Pty Ltd, 1 Scaysbrook Drive Kincumber Arboricultural Impact Report, 25 January 2018





# Tree Assesment Summary - Zone E3

65	Eucalyptus botryoides	26	8x10	440	The tree's past canopy development has been suppressed. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.
66	Eucalyptus botryoides	20	5	330	At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.
67	Corymbia citriodora	22	22	ca. 800	
68	Eucalyptus pilularis	30	16	720	
69	Eucalyptus pilularis	30	12	780	
70	Eucalyptus pilularis	32	14	560	
71	Corymbia gummifera	11	5x12	370	The tree's past canopy development has been suppressed. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback. Branch conflict with tree number 70 at 5 metres.
72	Eucalyptus sp.	34	10x18	680	Similar to E. pilularis (Blackbutt) but bark extends further up trunk, bark is more flaky, and fruit is 1/3 size of Blackbutt. Low levels of termite mudding in lower trunk bark - monitor for potential termite nest in root crown. At the time of inspection the tree was of fair vigour and exhibited low to moderate levels of dieback.
73	Eucalyptus pilularis	34	14x20	340, 760	Suspended dead branch at 10 metres requires removal.
74	Eucalyptus microcorys	16	9	380	The tree has recently died.
75	Eucalyptus microcorys	17	8x12	480	The tree has recently died. Lower trunk buried in fill materials.
76	Eucalyptus microcorys	21	9	380	Lower trunk and 75% of TPZ buried in fill materials - oderate levels of dieback forming on west side of crown.
77	Eucalyptus microcorys	19	6x12	ca. 320	Lower trunk and 75% of TPZ buried in fill materials - moderate levels of dieback forming on west side of crown. Mechanical damage to lower trunk and torn branches present.
78	Eucalyptus microcorys	16	8x12	520	Lower trunk and 35-40% of TPZ buried in fill materials. Upper section of crown recently failed and suspended at 6 metres. Large diameter section of a tree trunk is leaning against basal trunk.
79	Eucalyptus microcorys	15	9	470	Main leader has failed in recent past at 8 metres.
80	Eucalyptus microcorys	11	9	470	There is a kink in the main trunk at 1.8 metres where the original leader failed in the past and a new leader has assumed dominance - appears sound.
81	Eucalyptus microcorys	16	8	300	Lower trunk and 100% of TPZ buried in fill materials - moderate levels of dieback forming on west side of crown and foliage browning. Mechanical damage present.

Table Source: Landscape Matrix Pty Ltd, 1 Scaysbrook Drive Kincumber Arboricultural Impact Report, 25 January 2018





# Planting Design

## Preliminary Planting Schedule

Code	Botanical Name	Zones	Common Name	Type	Mature Size H x W (m)
COURTYARD NATIVE PALETTE (C)					
TREES - 25 lit bags					
LAG nat	<i>Lagerstroemia natchez</i>	C/P	Crepe myrtle var	Tree	4 x 4
MAG gra	<i>Magnolia grandiflora</i>	C/P	Evergreen magnolia	Tree	10 x 8
MAG lit	<i>Magnolia little gem</i>	C/P	Dwarf evergreen magnolia	Tree	3.5 x 1.5
PLU rub	<i>Plumeria rubra</i>	C/P	Frangipanni	Tree	4 x 4
PYR uss	<i>Pyrus ussuriensis</i>	C/P	Manchurian pear	Tree	8 x 6
SHRUBS - 200mm pots					
ASP nid	<i>Asplenium nidus</i>	C/P	Birds nest fern	Shrub	1 x 1
AZA sp	<i>Azalea SP</i>	C	Azalea	Shrub	1.2 x 1.2
CAM sas	<i>Camellia sasanqua</i>	C/P	Camellia	Shrub	2 x 1.5
CYA aus	<i>Cyathe a australis</i>	C/P	Tree fern	Shrub	3.5 x 3
GAR aug	<i>Gardenia augusta</i>	C/P	Gardeina	Shrub	1 x 1
LAV den	<i>Lavandula dentata</i>	C	Lavender	Shrub	.5 x .5
LOR rub	<i>Loropetalum rubrum</i>	C	Purple fringe flower	Shrub	1.2 x 1.2
RHO vir	<i>Rhododendron vireya</i>	C/P	Native rhododendron	Shrub	1.5 x 1.5
VIB odo	<i>Viburnum odoratissimum</i>	C/P	Viburnum	Shrub	2 x 2
CLIMBERS - 140mm pots					
WIS sin	<i>Wisteria sinensis</i>	C	Wisteria	Climber	
GROUND COVERS / PERENNIALS SHADE - 140mm pots					
ACA mol	<i>Acanthus mollis</i>	C/P	Oyster plant	Groundcover	0.75 x 0.75
CLI min	<i>Clivia miniata</i>	C/P	Clivea	Groundcover	0.3 x 0.3
LIR mus	<i>Liriope muscari</i>	C/P	Liriope var	Groundcover	0.3 x 0.3
VIO hed	<i>Viola hederacea</i>	C/P	Native violets	Groundcover	g'cover
GROUND COVERS / PERENNIALS SUN - 140mm pots					
CHR api	<i>Chrysocephalum apiculatum</i>	C/P	Common everlasting	Groundcover	g'cover
DIC 'SF'	<i>Dichondra Repens</i>	C/P	Dichondra Silver Falls	Groundcover	g'cover
NAN dom	<i>Nandina domestica gulf stream</i>	C/P	Dwarf nandina	Groundcover	0.5 x 0.5m
TRA jas	<i>Trachelospermum jasminoides</i>	C/P	Star jasmine	Groundcover	g'cover

EDIBLE HERB GARDEN (EXAMPLE SPECIES)					
ACH mil	<i>Achillea millefolium</i>	C	Yarrow	Herb	1.5 x 1.5
ALL sch	<i>Allium schoenoprasum</i>	C	Chives	Herb	0.3 x 0.3
ALL tub	<i>Allium tuberosum</i>	C	Garlic chives	Herb	0.3 x 0.3
LOB mar	<i>Lobularia maritima</i>	C	Sweet alyssum	Herb	0.3 x 0.3
MAR rec	<i>Matricaria recutita</i>	C	German chamomile	Herb	0.5 x 0.3
OCI bas	<i>Ocimum basilicum</i>	C	Sweet Basil	Herb	0.5 x 0.5
PET cri	<i>Petroselinum crispum</i>	C	Parsely	Herb	0.6 x 0.3
ROS off	<i>Rosmarinus officinalis</i>	C	Rosemary	Shrub	1.5 x 1.5

Code	Botanical Name	Zones	Common Name	Type	Mature Size H x W (m)
PERIMETER PALETTE (P)					
TREES - 25 lit bags					
HOW for	<i>Howea forsteriana</i>	P	Kentia palm	Tree	8 x 4
LAG nat	<i>Lagerstroemia natchez</i>	C/P	Crepe myrtle var	Tree	4 x 4
MAG gra	<i>Magnolia grandiflora</i>	C/P	Evergreen magnolia	Tree	10 x 8
MAG lit	<i>Magnolia little gem</i>	C/P	Dwarf evergreen magnolia	Tree	3.5 x 1.5
PLU rub	<i>Plumeria rubra</i>	C/P	Frangipanni	Tree	4 x 4
PYR uss	<i>Pyrus ussuriensis</i>	C/P	Manchurian pear	Tree	8 x 6
SHRUBS - 200mm pots					
ALP cae	<i>Alpinia caerulea atherton</i>	P	Native ginger var	Shrub	2 x 1.5
ASP nid	<i>Asplenium nidus</i>	C/P	Birds nest fern	Shrub	1 x 1
BAN spi	<i>Banksia spinulosa</i>	P	Hairpin banksia	Shrub	2 x 2
CAL vim	<i>Callistemon viminalis</i>	P/N	Bottlebrush var	Shrub	3 x 1.3
CAM sas	<i>Camellia sasanqua</i>	C/P	Camellia	Shrub	2 x 1.5
COR str	<i>Cordyl ine stricta</i>	P	Red palm lilly	Shrub	1.5 x 0.75
CYA aus	<i>Cyathe a australis</i>	C/P	Tree fern	Shrub	3.5 x 3
CER gum	<i>Ceratopetalum gummiferum</i>	P	NSW Xmas bush	Shrub	3.5 x 2
GAR aug	<i>Gardenia augusta</i>	C/P	Gardeina	Shrub	1 x 1
HYD mac	<i>Hydrangea macrophylla</i>	P	Hydrangea	Shrub	1.5 x 1.5
RAP cos	<i>Raphiolepis cosmic white</i>	P	Dwarf indian hawthorn var	Shrub	1 x 1
SYZ cas	<i>Syzygium cascade (pink)</i>	P	Dwarf lillipilli var	Shrub	2.5 x 2
SYZ pan	<i>Syzygium paniculatum dwarf</i>	P	Dwarf lillipilli var	Shrub	2.5 x 1.5
RHO vir	<i>Rhododendron vireya</i>	C/P	Native rhododendron	Shrub	1.5 x 1.5
VIB odo	<i>Viburnum odoratissimum</i>	C/P	Viburnum	Shrub	2 x 2
WES 'M'	<i>Westringia Fruticosa Mundi</i>	P/N	Mundi	Shrub	1 x 1

GROUND COVERS / PERENNIALS SHADE - 140mm pots					
ACA mol	<i>Acanthus mollis</i>	C/P	Oyster plant	Groundcover	0.75 x 0.75
CLI min	<i>Clivia miniata</i>	C/P	Clivea	Groundcover	0.3 x 0.3
LIR mus	<i>Liriope muscari</i>	C/P	Liriope var	Groundcover	0.3 x 0.3
VIO hed	<i>Viola hederacea</i>	C/P	Native violets	Groundcover	g'cover

GROUND COVERS / PERENNIALS SUN - 140mm pots					
CAR gla	<i>Carpobrotus glaucescens</i>	P	Pigface	Groundcover	g'cover
CHR api	<i>Chrysocephalum apiculatum</i>	CP	Common everlasting	Groundcover	g'cover
DIC 'SF'	<i>Dichondra Repens</i>	C/P	Dichondra Silver Falls	Groundcover	g'cover
GRE poo	<i>Grevillea poorinda royal mantle</i>	P/N	Grevillea var	Groundcover	g'cover
LOM lon	<i>Lomandra longifolia tanika</i>	P/N	Mat rush var	Groundcover	0.5 x 0.5m
MYO par	<i>Myoporum parvifolium</i>	P	Creeping boobialla	Groundcover	g'cover
NAN dom	<i>Nandina domestica gulf stream</i>	C/P	Dwarf nandina	Groundcover	0.5 x 0.5m
TRA jas	<i>Trachelospermum jasminoides</i>	C/P	Star jasmine	Groundcover	g'cover

Code	Botanical Name	Zones	Common Name	Type	Mature Size H x W (m)
NATIVE BUFFER PALETTE (N)					
TREES - 25 lit bags					
COR cit	<i>Corymbia citriodora</i>	N	Lemon-scented Gum	Tree	20 x 12
ELA eum	<i>Elaeocarpus eumundii</i>	N	Qandong	Tree	6 x 3.5
ELA ret	<i>Elaeocarpus reticulatus</i>	N	Blueberry Ash	Tree	6 x 4
EUC bot	<i>Eucalyptus botryoides</i>	N	Southern Mahogany	Tree	12 x 10
EUC mic	<i>Eucalyptus microcorys</i>	N	Tallowwood	Tree	25 x 15
EUC pil	<i>Eucalyptus pilularis</i>	N	Blackbutt	Tree	25 x 15
EUC res	<i>Eucalyptus resinifera</i>	N	Red Mahogany	Tree	12 x 10
EUC sal	<i>Eucalyptus saligna</i>	N	Sydeny Blue Gum	Tree	25 x 15
SHRUBS - 200mm pots					
CAL vim	<i>Callistemon viminalis</i>	P/N	Bottlebrush var	Shrub	3 x 1.3
WES 'M'	<i>Westringia Fruticosa Mundi</i>	P/N	Mundi	Shrub	1 x 1
PIT yel	<i>Pittosporum revolutum</i>	N	Yellow pittosporum		3 x 2.5pitt
BRE obl	<i>Breynia oblongifolia</i>	N	Coffee Bush		2 x 1.5
LEP pol	<i>Leptospermum polygalifolium</i>	N	Tantoon		3 x 2
BAN spin	<i>Banksia spinulosa</i>	N	Hairpin banksia		2 x 2
ACA sua	<i>Acacia suaveolens</i>	N	Sweet wattle		3 x 2
GROUND COVERS / PERENNIALS SUN - 140mm pots					
GRE poo	<i>Grevillea poorinda royal mantle</i>	P/N	Grevillea var	Groundcover	g'cover
LOM lon	<i>Lomandra longifolia</i>	P/N	Mat rush	Groundcover	1 x 1

NOTE: Trees at 45 lit size to be mixed in with 25 lit size to provide more of an instant impact.

STREET TREES					
Trees - 100 lit bags					
BUC cel	<i>Buckinghamia celsissima</i>	ST	Ivory curl tree	Tree	8 x 5
EUC ter	<i>Eucalyptus tereticornis</i>	ST	Blue gum	Tree	25 x12
BIORETENTION					
Grass - tube stock					
FIC nod	<i>Ficinia nodosa</i>	B	Knobby club rush	Grass	8/m2
GAH asp	<i>Gahnia aspera</i>	B	Rough saw-sedge	Grass	8/m2
IMP cyl	<i>Imperata cylindrica</i>	B	Cogon grass	Grass	8/m2
LOM lon	<i>Lomandra longifolia</i>	B	Mat rush	Grass	8/m2

HEDGING					
SHRUBS - 300mm pots					
SYZ cas	<i>Syzygium cascade (pink)</i>	P	Dwarf lillipilli var	Shrub	2.5 x 2





# Planting Design

## Preliminary Planting Schedule

Code	Botanical Name	Zones	Common Name	Type	Mature Size H x W (m)
LANDSCAPE BUND PALETTE					
TREES - 200 lit bags					
ELA eum	<i>Elaeocarpus eumundii</i>	N	Qandong	Tree	6 x 3.5
ELA ret	<i>Elaeocarpus reticulatus</i>	N	Blueberry Ash	Tree	6 x 4
SHRUBS - 200mm pots					
ALP cae	<i>Alpinia caerulea atherton</i>	P	Native ginger var	Shrub	2 x 1.5
ASP nid	<i>Asplenium nidus</i>	C/P	Birds nest fern	Shrub	1 x 1
BAN spi	<i>Banksia spinulosa</i>	P	Hairpin banksia	Shrub	2 x 2
CAL vim	<i>Callistemon viminalis</i>	P/N	Bottlebrush var	Shrub	3 x 1.3
CAM sas	<i>Camellia sasanqua</i>	C/P	Camellia	Shrub	2 x 1.5
COR str	<i>Cordyline stricta</i>	P	Red palm lilly	Shrub	1.5 x 0.75
CYA aus	<i>Cyathea australis</i>	C/P	Tree fern	Shrub	3.5 x 3
CER gum	<i>Ceratopetalum gummiferum</i>	P	NSW Xmas bush	Shrub	3.5 x 2
GAR aug	<i>Gardenia augusta</i>	C/P	Gardeina	Shrub	1 x 1
HYD mac	<i>Hydrangea macrophylla</i>	P	Hydrangea	Shrub	1.5 x 1.5
RAP cos	<i>Raphiolepis cosmic white</i>	P	Dwarf indian hawthorn var	Shrub	1 x 1
SYZ cas	<i>Syzygium cascade (pink)</i>	P	Dwarf lillipilli var	Shrub	2.5 x 2
SYZ pan	<i>Syzygium paniculatum dwarf</i>	P	Dwarf lillipilli var	Shrub	2.5 x 1.5
RHO vir	<i>Rhododendron vireya</i>	C/P	Native rhododendron	Shrub	1.5 x 1.5
VIB odo	<i>Viburnum odoratissimum</i>	C/P	Viburnum	Shrub	2 x 2
WES 'M'	<i>Westringia Fruticosa Mundi</i>	P/N	Mundi	Shrub	1 x 1
GROUND COVERS / PERENNIALS SHADE - 140mm pots					
ACA mol	<i>Acanthus mollis</i>	C/P	Oyster plant	Groundcover	0.75 x 0.75
CLI min	<i>Clivia miniata</i>	C/P	Clivea	Groundcover	0.3 x 0.3
LIR mus	<i>Liriope muscari</i>	C/P	Liriope var	Groundcover	0.3 x 0.3
VIO hed	<i>Viola hederacea</i>	C/P	Native violets	Groundcover	g'cover
GROUND COVERS / PERENNIALS SUN - 140mm pots					
CAR gla	<i>Carpobrotus glaucescens</i>	P	Pigface	Groundcover	g'cover
CHR api	<i>Chrysocephalum apiculatum</i>	CP	Common everlasting	Groundcover	g'cover
DIC 'SF'	<i>Dichondra Repens</i>	C/P	Dichondra Silver Falls	Groundcover	g'cover
GRE poo	<i>Grevillea poorinda royal mantle</i>	P/N	Grevillea var	Groundcover	g'cover
LOM lon	<i>Lomandra longifolia tanika</i>	P/N	Mat rush var	Groundcover	0.5 x 0.5m
MYO par	<i>Myoporum parvifolium</i>	P	Creeping boobialla	Groundcover	g'cover
NAN dom	<i>Nandina domestica gulf stream</i>	C/P	Dwarf nandina	Groundcover	0.5 x 0.5m
TRA jas	<i>Trachelospermum jasminoides</i>	C/P	Star jasmine	Groundcover	g'cover





# Planting Design

## Courtyard Palette

### TREES



Lagerstroemia natchez



Magnolia grandiflora



Magnolia Little Gem



Plumeria rubra



Pyrus ussuriensis

### SHRUBS



Asplenium nidus



Azalea



Camellia sasanqua



Cyathea australis



Gardenia augusta



Lavandula dentata



Loropetalum rubrum



Rhododendron vireya



Viburnum odoratissimum

### Ground Covers / Perennials Shade



Acanthus mollis



Clivia miniata



Liriope muscari



Viola hederacea

### Ground Covers / Perennials Sun



Chrysocephalum apiculatum



Dichondra Repens



Nandina domestica gulf stream



Trachelospermum jasminoides tricolor

### Climbers







Wisteria sinensis







# Planting Design

## Courtyard Palette

EDIBLE HERB GARDEN (EXAMPLE SPECIES)



Achillea millefoliumAllium schoenoprasumAllium tuberosumLobularia maritima



Matricaria recutitaOcimum basilicumPetroselinum crispumRosmarinus officinalis



# Planting Design

## Perimeter Palette

### TREES



Howea forsteriana



Lagerstroemia natchez



Magnolia grandiflora



Magnolia Little Gem



Plumeria rubra



Pyrus ussuriensis

### SHRUBS



Alpinia caerulea Atherton



Asplenium nidus



Banksia spinulosa



Callistemon viminalis



Camellia sasanqua



Cordylina stricta



Cyathea australis



Ceratopetalum gummiferum



Gardenia augusta



Hydrangea macrophylla



Raphiolepis 'Cosmic White'



Syzygium Pink Cascade



Syzygium paniculatum dwarf



Rhododendron vireya



Viburnum odoratissimum



Westringia fruticosa mundi



# Planting Design

## Perimeter Palette

TREES



Elaeocarpus eumundii



Elaeocarpus reticulatus

SHRUBS



Alpinia caerulea Atherton



Asplenium nidus



Banksia spinulosa



Callistemon viminalis



Camellia sasanqua



Cordyline stricta



Cyathea australis



Ceratopetalum gummiferum



Gardenia augusta



Hydrangea macrophylla



Raphiolepis 'Cosmic White'



Syzygium Pink Cascade



Syzygium paniculatum dwarf



Rhododendron vireya



Viburnum odoratissimum



Westringia fruticosa mundi



# Planting Design

## Perimeter Palette & Street Trees

### STREET TREES



Buckinghamia celsissima



Eucalyptus tereticornis

### Ground Covers / Perennials Shade



Acanthus mollis



Clivia miniata



Liriope muscari



Viola hederacea



Carpobrotus glaucescens



Chrysocephalum apiculatum



Dichondra Repens



Grevillea Poorinda Royal Mantle



Lomandra longifolia tanika



Myoporum parvifolium

### Bioretention



Nandina domestica gulf stream



Trachelospermum jasminoides tricolor



Ficinia nodosa



Gahnia aspera



Imperata cylindrica



Lomandra longifolia



Syzygium Pink Cascade

### Hedging



# Planting Design

## Native Buffer Palette

TREES



Corymbia citriodora



Elaeocarpus eumundii



Elaeocarpus reticulatus



Eucalyptus botryoides



Eucalyptus microcorys



Eucalyptus pilularis

SHRUBS



Callistemon viminalis



Westringia fruticosa mundi



Grevillea Poorinda Royal Mantle



Lomandra longifolia tanika



Pittosporum revolutum



Breynia oblongifolia



Leptospermum polygalifolium



Banksia spinulosa



Acacia suaveolens

TREES



Eucalyptus resinifera



Eucalyptus saligna



# General Specification Notes

## 1. GENERAL

Scope of works as shown on drawings. All garden areas to have minimum internal width of 600mm. A durable edge is to be provided between all garden beds and turfed areas or areas of other loose material. Also under all fences on common boundaries and road frontages.

## 2. CULTIVATION

Subsoil is to be cultivated prior to spreading topsoil to a minimum depth of 150mm unless this will adversely affect the roots of established trees.

## 3. TOPSOIL

Standards: To AS 4419 ‘Soils for landscaping and garden use.’ Priority is to be given to using existing site topsoil provided it meets or can be cost-effectively ameliorated to be the Australian Standard. If additional soil is required to meet the minimum depths, the imported topsoil is to meet the Australian Standard.

Minimum depths:

- To garden beds - 300mm
  - To tree holes in deep planting areas - 2 x width of root ball, 1.5 depth of root ball
  - To tree holes and pits - 400mm or 1.5 x root ball depth
- Whichever is greater - over an area of twice the root ball diameter for trees supplied in pots or bags

## 4. MULCH

Standards: To AS4454 ‘Compost, soil conditioners and mulches’.

Mulch Type: Hoop Pine bark - 100mm deep

## 5. TREES

Minimum sizes:

Street trees - min 100 litre stock

Other areas - 25 litre stock

Trees adjacent to pathways, entries, parking areas and driveways shall be capable of attaining a 1.8m clear trunk height on maturity.

Staking: All trees shall be staked.

All trees supplied are to comply with AS 2303 - Tree Stock for Landscape Use.

## 6. SHRUBS AND GROUNDCOVERS

Minimum sizes:

Shrubs - 200mm stock

Groundcovers - 140mm stock or native tube stock

Tree selection along a pathway is to ensure a clear trunk height of 1.8m at maturity. Shrubs shall not exceed 1m height along street frontages, pathways and adjacent to open space areas.

Landscaping, planting and mounding shall not interfere with visibility along a pathway.

Planting densities and stock sizes are to ensure full coverage of mulched planting areas within 2 years.

## 7. PEDESTRIAN PAVEMENTS

All pedestrian pavements shall be stable and usable in all weathers.

All pedestrian surfaces shall have a classification of ‘W’ or ‘V’ to AS/ NZS 4586 ‘Slip Resistance classification of new pedestrian surface materials’.

## 8. IRRIGATION

All garden beds and planter boxes in common areas shall be irrigated by a reticulated irrigation system. Irrigation controllers shall be located in accessible areas. Storage tank harvesting roof water with potable backup to be provided.

Hose cocks shall be provided in each private landscape and recreation area.

The irrigation system is to be designed by a suitably qualified person accredited as a certified irrigation designer by the Irrigation Association of Australia, holding a diploma of Irrigation, or with equivalent experience.

For landscaping located on a podium, a minimum of 75% of the plant’s water needs is to be sourced from other than the reticulated water supply.

## 9. DRAINAGE

All pavements, turf and planted areas shall be adequately drained.

All garden beds and planter boxes shall be drained with subsurface drains connected to storm water. Wherever possible surface run off shall be directed towards garden beds, turf or other permeable surfaces where water quality is conducive to plant growth.

Landscaping uses appropriate materials to maintain the function of an overland flow path.

## 10.LIGHTING

Lighting shall be provided to entries, driveways, parking areas and pedestrian pathways.

Standards: To AS/NZS 1158 ‘Lighting for Roads and Public Spaces’.

## 11.SERVICES

Tree and shrub location will consider all service locations, eusuring adequate clearance and offset are provided.

## 12.ESTABLISHMENT AND DEFECTS LIABILITY

An establishment period of 12 weeks from the date of practical completion shall apply to landscape soft works (planting).

A defects liability period of 12 months from the date of practical completion shall apply to landscape hard works.