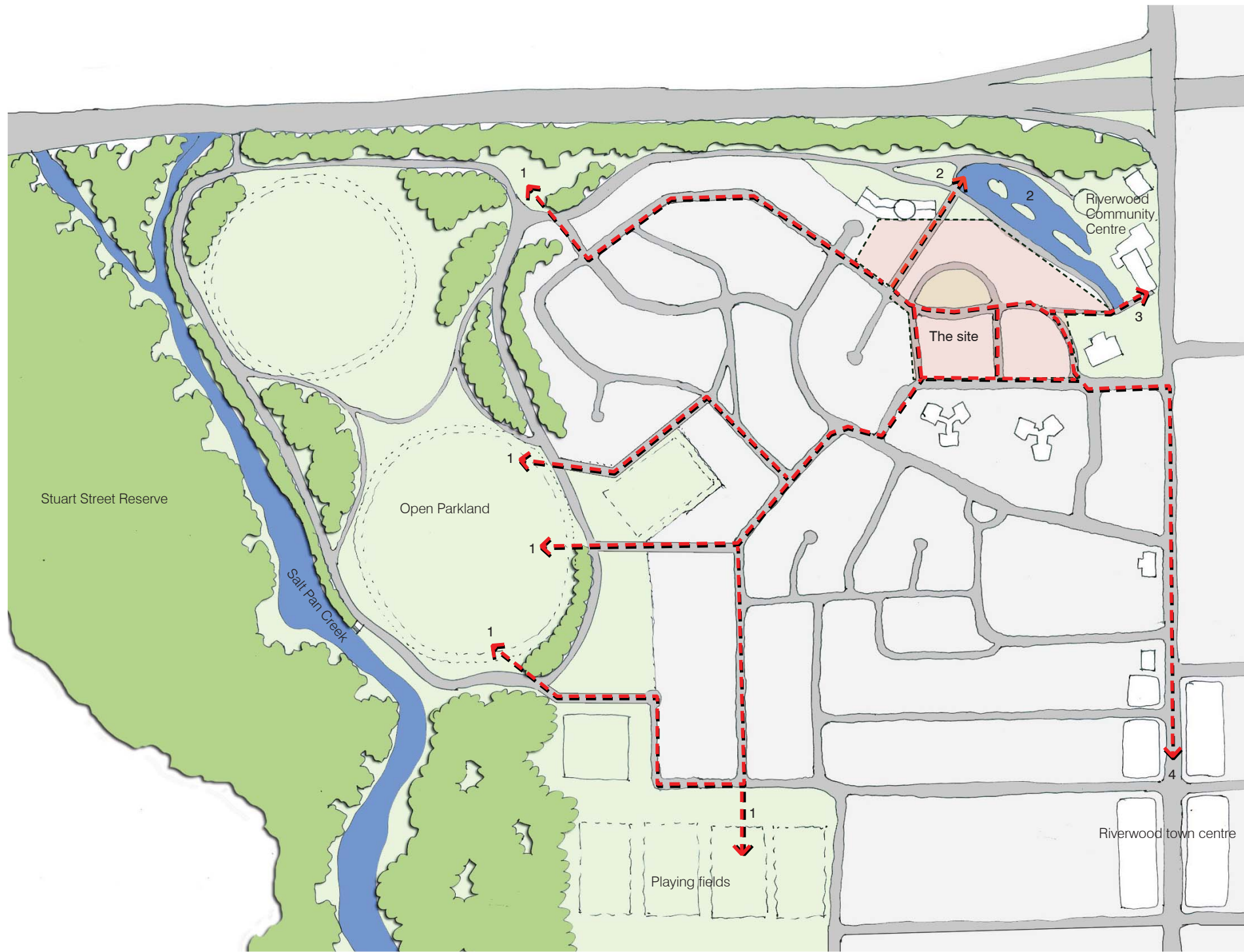


Riverwood North Residential Renewal Project

LANDSCAPE

STATUS: Project Application



Context and site appraisal

The site is located within an established suburban area of Riverwood between Salt Pan Creek and Riverwood's main street Belmore Rd.

Immediately adjacent the site's northern boundary lies Salt Pan Creek Wetlands and Riverwood Community Centre offering both aesthetic qualities of large ponds and parklands, and community facilities. Just beyond the site's north western boundary also lies a vibrant community garden with grid plots of vegetables.

Existing vegetation throughout the area is a typical ad hoc mix of native and exotic trees and shrubs. However, the local area enjoys a strong leafy green aesthetic through substantial tree planting. The vegetation generates rich spatial mixes and high aesthetic values, while masking building mass.

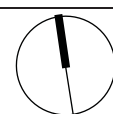
The NPWS Cumberland Plain vegetation maps identifies the site's natural heritage as being Turpentine / Ironbark forest and Shale / Sandstone Transition Forest.

The proposal connects future parkland facilities to existing open spaces within the neighbourhood, providing generous recreational opportunities.



LEGEND

- ← - - - Site connections to local recreational amenity
- 1. Potential pathway connections to Open Parkland and Stuart St Reserve
- 2. Connections to Salt Pan Creek Wetland.
- 3. Connections to Riverwood Community Centre via pedestrian bridge.
- 4. Connection to Riverwood town centre



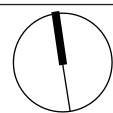
Project
Riverwood North Residential Renewal Project

Drawing Title
CONTEXT

Project No. 0923	Dwg No. LA2	Revision A
Scale	Date 03.02.11	
Dwg Status Project Application		



- 1. CENTRAL PARK**
Use open space within the development as a primary recreational space for community gathering.
- 2. GREEN STREETS**
Increase street tree planting increasing environmental quality.
- 3. GARDEN SQUARE**
Create a garden square character with high quality paving, gardens, seating, and trees in a formal arrangement responding to architectural geometries.
- 4. LIBRARY PLAZA**
Create a space that connects with library uses.
- 5. THROUGH SITE CONNECTIONS**
Connect site to adjacent parkland use.
- 6. BRIDGE LINK**
Connect to existing bridge from garden square.
- 7. PARK INTERFACE**
Provide additional tree planting along parkland edge to accentuate high visual quality of pond views beneath tree canopies, and enhance recreational opportunities.
- 8. COMMUNAL COURTYARDS**
Provide high quality communal courtyards with rich planting and landscape treatments. Where possible encourage long views across public open space and wetlands.



Client

PAYCE COMMUNITIES

Architect

TURNER+ASSOCIATES

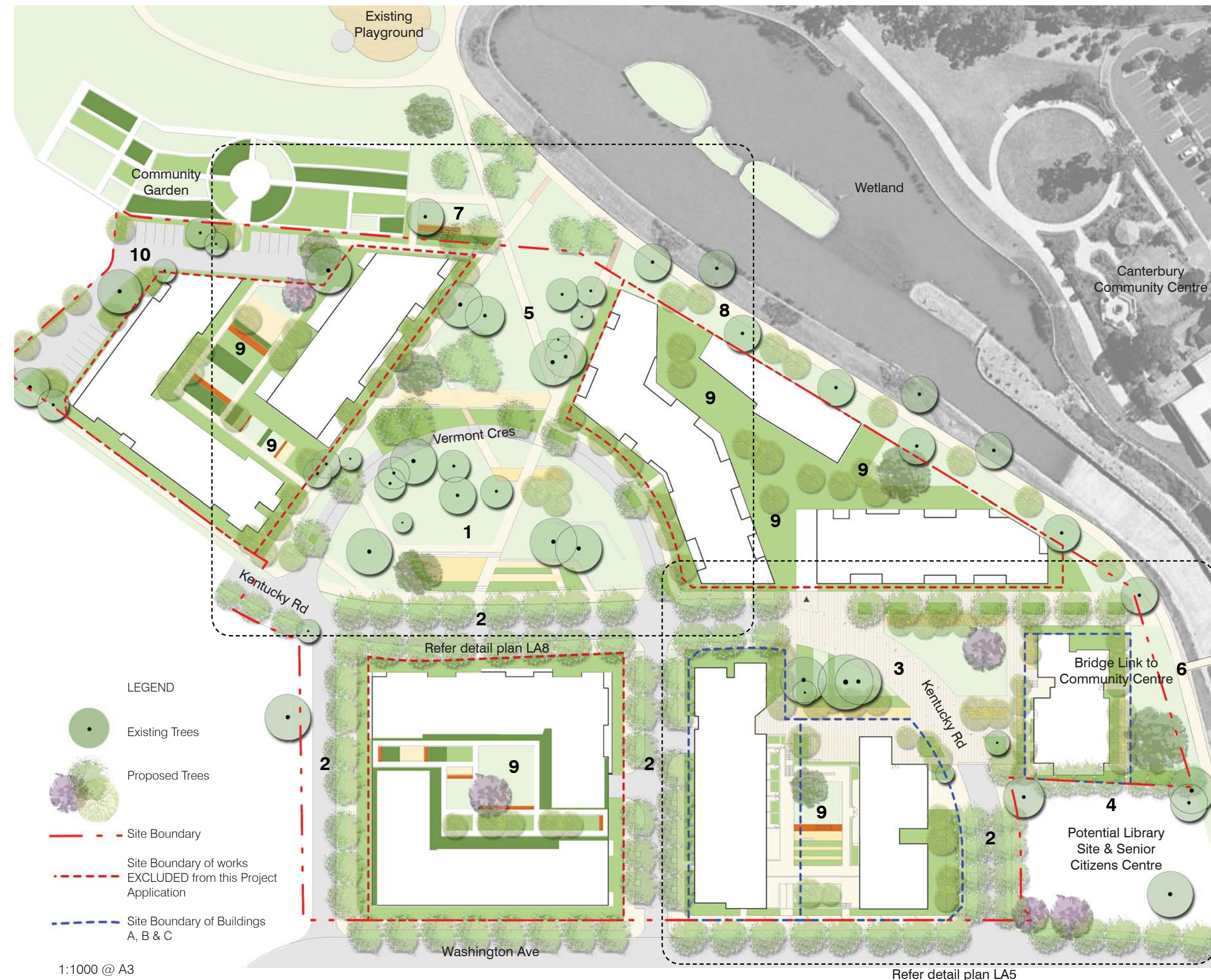
Landscape Architect

turf

Project
 Riverwood North Residential Renewal Project

Drawing Title
 KEY SPATIAL TYPES

Project No. 0923	Dwg No. LA3	Revision A
Scale	Date 03.02.11	
Dwg Status Project Application		

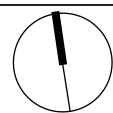


- 1. CENTRAL PARK**
 - Central park activated through provision of greater recreational opportunities, such as; seating, viewing terraces, shade structure, irrigated lawns, and mass planted garden beds.
- 2. GREEN STREETS**
 - Incorporate current Green Street principles throughout existing streets via supplementary street tree and front garden planting to:
 - a) reduce the urban heat island effect,
 - b) increase carbon sequestration,
 - c) extend the rich and diverse vegetation of the area, and
 - d) create shaded corridors for vehicles and pedestrians.
- 3. GARDEN SQUARE**
 - Embrace informal road alignment within a formalised 'Garden Square' with geometries relating to new building arrangements strengthening open space relationships.
 - Convert Kentucky Rd into a paved threshold to reduce speed limits and blend with the formal square aesthetic.
 - Provide seating, tree planting, gardens and irrigated lawns.
- 4. LIBRARY PLAZA**
 - Potential in future stages of development for a series of quiet external reading spaces and small gravel plaza to connect with library uses.
- 5. THROUGH SITE CONNECTIONS**
 - Provide open space connections maximising neighbourhood permeability and community facility usage. Induce usage of larger areas through the provision of shaded seating and picnicking opportunities.
- 6. BRIDGE LINK**
 - Formalise bridge access to adjacent community centre by creating a small formal square connecting to the garden square. Provide formal paths, pavements, rain gardens, seating and lawn area.
- 7. COMMUNITY GARDEN BREAKOUT SPACE**
 - Upgrade community garden entry with new tree planting and seating. Provides social gathering space and shade relief while tending lots. Connect to site and adjacent open space with new pathways.
- 8. PARK INTERFACE**
 - Provide additional tree planting along parkland edge to accentuate high visual quality of wetland views beneath tree canopies, and enhance recreational opportunities.
- 9. COMMUNAL COURTYARDS**
 - Develop high quality private residential courtyards with a focus on views to public open space and wetlands.
- 10. PUBLIC CARPARK**
 - A new visitors car park provided adjacent to existing community garden and recreational area.

LEGEND

- Existing Trees
- Proposed Trees
- Site Boundary
- Site Boundary of works EXCLUDED from this Project Application
- Site Boundary of Buildings A, B & C

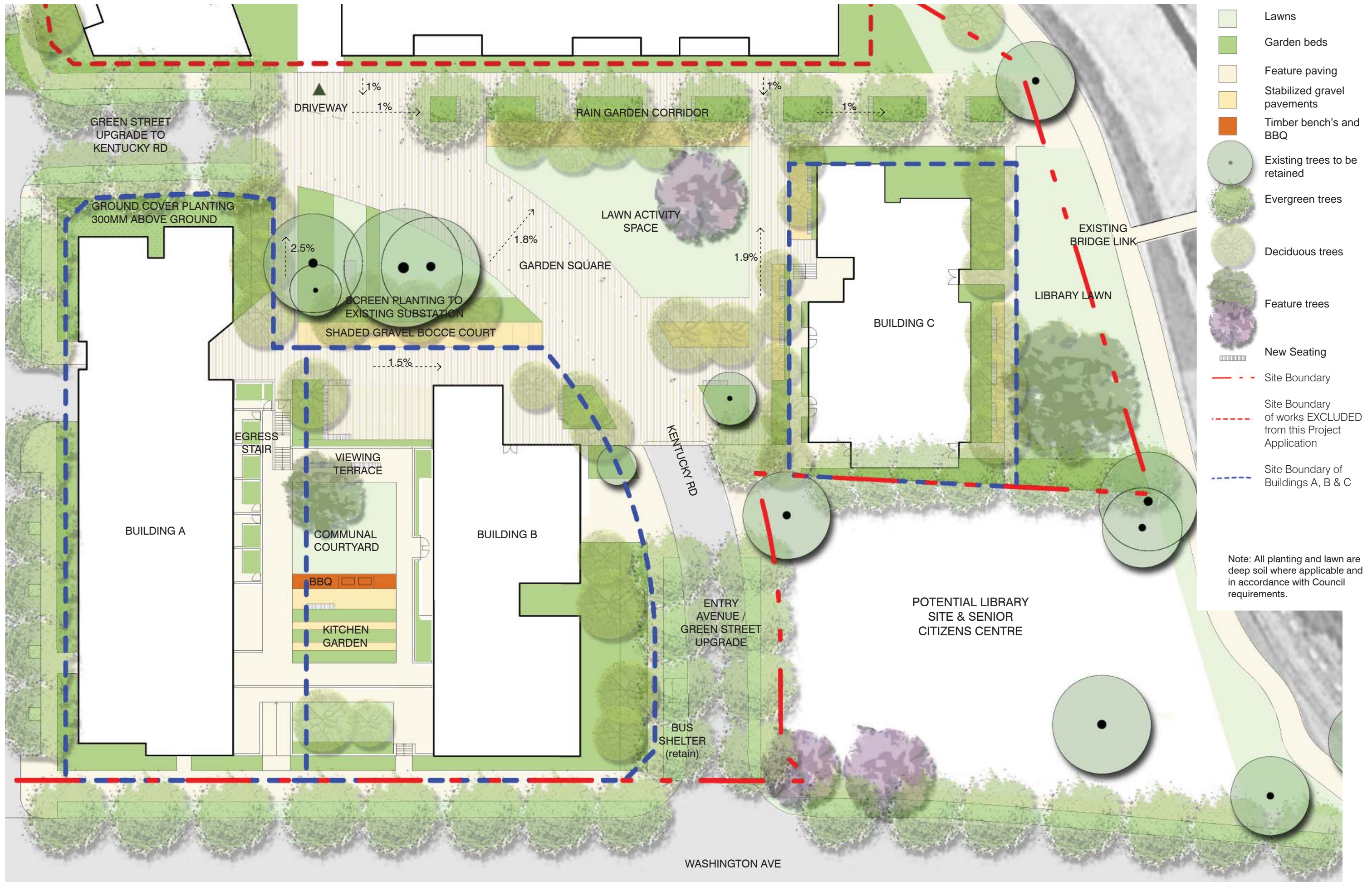
1:1000 @ A3



Project
Riverwood North Residential Renewal Project

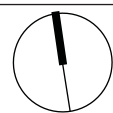
Drawing Title
LANDSCAPE MASTER PLAN

Project No. 0923	Dwg No. LA4	Revision A
Scale 1-1000@A3	Date 03.02.11	
Dwg Status Project Application		



- Lawns
- Garden beds
- Feature paving
- Stabilized gravel pavements
- Timber bench's and BBQ
- Existing trees to be retained
- Evergreen trees
- Deciduous trees
- Feature trees
- New Seating
- Site Boundary
- Site Boundary of works EXCLUDED from this Project Application
- Site Boundary of Buildings A, B & C

Note: All planting and lawn are deep soil where applicable and in accordance with Council requirements.



Project Riverwood North Residential Renewal Project

Drawing Title GARDEN SQUARE DETAIL PLAN




Project No. 0923	Dwg No. LA5	Revision A
Scale 1-400@A3	Date 03.02.11	
Dwg Status Project Application		

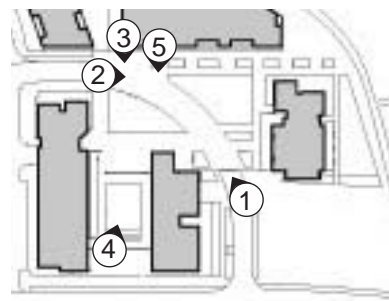





Section B - Garden Square 1-125 @ A3



Section B - Communal Courtyard 1-250 @ A3

Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	SECTION B DETAIL	Project No.	0923	Drawg No.	LA6	Revision	A
										Scale	AS SHOWN	Date	03.02.11		
										Drawg Status	Project Application				






Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	GARDEN SQUARE 3D VIEWS	Project No.	0923	Dwg No.	LA7	Revision	A
										Scale		Date	03.02.11		
										Dwg Status	Project Application				






- 1. KENTUCKY RD STREET CONNECTION PATH**
Connect existing street footpath network through park. Incorporate tree planting and low understorey planting to street edge to frame park and define space.
- 2. UPPER TERRACES**
Accentuate the existing park vantage point by retaining the existing slope creating a level terrace of paths, gardens and seating opportunities.
- 3. UPPER WOODLAND**
Retain existing indigenous trees within open parkland. Collect seed and plant new seedlings to replace over mature trees. Insert low walls in grass to create level seating areas.
- 4. VERMONT CRESCENT**
Convert to one way and narrow road width to one 3m travel lane only reduce the impact of the road on the parkland. Opportunity also exists to convert the asphalt to unit pavement creating a shared zone through the park.
- 5. PUBLIC OPEN SPACE CONNECTION**
Provide a strong connection through the parkland to the adjacent public open space and wetland.
- 6. BIOSWALE**
Incorporate a vegetated bioswale adjacent Vermont Crescent to collect and treat road runoff.
- 7. LOWER TERRACE**
Utilise the existing cut and fill terrace of the Vermont Crescent road reserve to create a lower level terrace overlooking the lower parkland to the wetland beyond.
- 8. PLAYGROUND CONNECTION PATH**
Provide a new path opening a view line to the existing public playground.
- 9. WATER MANAGEMENT ZONE**
Utilise the existing low lying land as a collection point for stormwater and overland flows. Incorporate bioretention gardens connecting to the existing swale. Provide timber bridge cross connections to activate.
- 10. COMMUNITY GARDEN CARPARK CONNECTIONS**
Provide path connections from the community garden parking zone.
- 11. COMMUNITY GARDEN ENTRANCE**
Provide a new entrance and respite space for the community gardens with trees, gravel and seating.






Client 	Architect 	Landscape Architect 	Project Riverwood North Residential Renewal Project	Drawing Title CENTRAL PARK SECTION A	Project No. 0923	Dwg No. LA9	Revision A
				Scale 	Date 03.02.11		
				Dwg Status Project Application			



Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	CENTRAL PARK SECTION B	Project No.	0923	Dwg No.	LA10	Revision	A
								Scale		Date	03.02.11				
								Dwg Status	Project Application						



Client 	Architect 	Landscape Architect 	Project Riverwood North Residential Renewal Project	Drawing Title CENTRAL PARK 3D VIEWS	Project No. 0923	Dwg No. LA11	Revision A
				Scale	Date 03.02.11		
				Dwg Status Project Application			

Parks and public spaces planting concept

The NPWS Cumberland Plain vegetation maps identifies the site's natural heritage as being Turpentine / Ironbark forest and Shale / Sandstone Transition Forest. New tree planting will incorporate species from these two ecological communities to both ensure compatibility with the environment and soils, and promote local biodiversity. Species will include:

- Syncarpia glomulifera,
- Eucalyptus crebra,
- Eucalyptus fibrosa,
- Eucalyptus paniculata,

It is proposed that approximately 50% of new tree planting within the deep soil public domain areas will be indigenous to the site.

Additionally, exotic broad leaved deciduous trees will be incorporated to enhance of public amenity and passive solar initiatives through the provision of summer shade and winter sun. To retain links with the site's historical use as an American Army Base Hospital species will include:

- Liquidambar styraciflua,
- Acer negundo,
- Liriodendron tulipifera,
- Nyssa sylvatica,
- Platanus occidentalis,
- Quercus palustris,
- Robinia pseudoacacia 'Frisia'
- Jacaranda mimosifolia.

It is proposed that new tree species along the Salt Pan Creek Wetland frontage be consistent with the riparian character of similar ecosystems. In this way the Wetland will visually blend and connect with the site enhancing the setting of the wetlands and community parkland e.g:

- Melaleuca styphelioides,
- Melaleuca linariifolia.

Smaller open spaces between buildings will be planted with more shade tolerant species. The lush green foliage setting will offer an alternative spatial quality to the more open areas and strengthen the more intimate nature of the spaces e.g:

- Acmena smithii,
- Brachychiton populneus,
- Waterhousia floribunda,
- Harpullia pendula,
- Magnolia grandiflora.

Private residential planting concept

Private residential spaces will be embellished with a range of plant species, both exotic and indigenous.

Vegetation will be structured to develop spatial interest, privacy and intimacy, retention of visual corridor linkages, and to mediate environmental factors such as intense afternoon summer sun.

Species selection will be based on the aim of developing a landscape character where plants appear to have a long founded association. Consideration will be given to complimenting foliage texture and colour.

Planting will also be visually vibrant and enticing to the eye providing residents with an attractive landscape in which to reside in and interact with.

Indicative public spaces planting



Indicative private spaces planting

Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
			Riverwood North Residential Renewal Project	PLANTING	0923	LA12	A
					Scale	Date	
						18.02.10	
					Dwg Status	Project Application	



RIVERWOOD NORTH - EXISTING TREE SCHEDULE

Ref #	Species	Common Name	Comment
1	Eucalyptus sideroxylon	Red Ironbark	Large mature. Retention favoured.
2	Corymbia citriodora	Lemon-scented gum	Large mature. Good form. Retention favoured.
3	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
4	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
5	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
6	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
7	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
8	Eucalyptus botryoides	Bangalay	Large mature. Street tree heavily pruned around wires. Continual management required.
9	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
10	Corymbia citriodora	Lemon-scented gum	Large mature. Retention favoured.
11	Eucalyptus saligna	Sydney Blue Gum	Large mature. Retention favoured.
12	Acer negundo	Box Elder	Good specimen. Retention favoured. Removal necessitated by public domain proposal.
13	Acer negundo	Box Elder	Removal necessitated by public domain proposal.
14	Eucalyptus tereticornis	Forest Red Gum	Borer damage in competing leader. Aboricultural work required. Removal necessitated by current proposed building location.
15	Eucalyptus scoparia	Wallangarra White Gum	Large mature. Retention favoured.
16	Casuarina glauca	Swamp Oak	Removal necessitated by public domain proposal.
17	Callistemon viminalis	Weeping Bottlebrush	3 Specimens. Removal necessitated by public domain proposal.
18	Casuarina glauca	Swamp Oak	Large mature. Removal necessitated by current proposed building location.
19	Syagrus romanzoffiana	Cocos Palm	Close to proposed building façade. Removal required.
20	Liquidambar styraciflua	American Sweetgum	Large mature. Good form. Removal necessitated by current proposed building location. Potential to relocate.
21	Liquidambar styraciflua	American Sweetgum	Exemplary form. Removal necessitated by current proposed building location. Potential to relocate
22	Liquidambar styraciflua	American Sweetgum	Removal necessitated by public domain proposal.
23	Sapium sebiferum	Chinese tallow tree	Removal necessitated by public domain proposal.
24	Sapium sebiferum	Chinese tallow tree	Removal necessitated by public domain proposal.
25	Callistemon salignus	Willow Bottlebrush	Removal necessitated by public domain proposal.
26	Acer negundo	Box Elder	Removal necessitated by public domain proposal. Potential to relocate
27	Liquidambar styraciflua	American Sweetgum	Removal necessitated by public domain proposal. Potential to relocate
28	Hymenosporum flavum	Native Frangipani	Removal necessitated by public domain proposal.
29	Acer negundo	Box Elder	Removal necessitated by public domain proposal. Potential to relocate
30	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location.
31	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
32	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
33	Hymenosporum flavum	Native Frangipani	Mature specimen. Some top dieback. Removal necessitated by current proposed building location.
34	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location (Lower Ground). Potential to relocate.
35	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location. Potential to relocate.
36	Platanus x hybrida	London plane tree	Removal necessitated by current proposed building location.
37	Eucalyptus saligna	Sydney Blue Gum	Severe borer damage to trunk. Disfigured form. Removal recommended.
38	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
39	Liquidambar styraciflua	American Sweetgum	Mature specimen. Tree canopy within proposed building boundary. Remove.
40	Corymbia citriodora	Lemon-scented gum	Open divergent crown - possible limb drop. Aboricultural work required. Removal necessitated by current proposed building location.
41	Eriobotrya japonica	Loquat	Removal necessitated by current proposed building location.
42	Hymenosporum flavum	Native Frangipani	Poor form. Minor dieback to upper crown. Removal necessitated by current proposed building location.

Ref #	Species	Common Name	Comment
43	Liquidambar styraciflua	American Sweetgum	Mature specimen. Removal necessitated by current proposed building location.
44	Liquidambar styraciflua	American Sweetgum	Mature specimen. Removal necessitated by current proposed building location.
45	Liquidambar styraciflua	American Sweetgum	Mature specimen. Removal necessitated by current proposed building location.
46	Liquidambar styraciflua	American Sweetgum	Mature specimen. Removal necessitated by current proposed building location.
47	Ligustrum lucidum	Large-leaf Privet	Weed species. Tree canopy within proposed building boundary. Remove.
48	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
49	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location.
50	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location.
51	Platanus x hybrida	London plane tree	Removal necessitated by current proposed building location.
52	Eucalyptus scoparia	Wallangarra White Gum	Poor health. Aboricultural work recommended to retain.
53	Eucalyptus scoparia	Wallangarra White Gum	Poor health. Aboricultural work recommended to retain.
54	Eucalyptus tereticornis	Forest Red Gum	Substantial dieback of heartwood though good callus growth. Aboricultural work recommended.
55	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Semi mature, dieback of minor branches, poor form, removal recommended.
56	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Semi mature, dieback of minor branches, poor form, removal recommended.
57	Eucalyptus saligna	Sydney Blue Gum	Mature. Limb pruning already undertaken. Possible safety concern with upper limb branch bark ridge breach. Aboricultural work required. Retention favoured.
58	Eucalyptus saligna	Sydney Blue Gum	Possible limb drop through power attack. Aboricultural work required. Retention favoured.
59	Eucalyptus saligna	Sydney Blue Gum	Possible safety concern. Branch bark ridge breach. Aboricultural work required. Retention favoured.
60	Eucalyptus botryoides	Bangalay	Malformed. Remove.
61	Eucalyptus botryoides	Bangalay	Malformed. Remove.
62	Jacaranda mimosifolia	Jacaranda	Covered in wisteria. Aboricultural work required. Removal recommended.
63	Eucalyptus tereticornis	Forest Red Gum	Remnant. Borer damage on upper trunk. Retention favoured.
64	Eucalyptus crebra	Narrow-leaved ironbark	Remnant. Borer damage on upper trunk. Retention favoured.
65	Platanus x hybrida	London plane tree	Large shade tree for community garden breakout space. Close proximity to proposed building. Retain if possible.
66	Liquidambar styraciflua	American Sweetgum	Large shade tree for community garden breakout space. Close proximity to proposed building. Retain if possible.
67	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Poor form. Removal recommended.
68	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Poor form. Removal recommended.
69	Sapium sebiferum	Chinese tallow tree	Young specimen. Retention favoured.
70	Sapium sebiferum	Chinese tallow tree	Poor Form. Removal necessitated by current proposed building location.
71	Sapium sebiferum	Chinese tallow tree	Poor Form. Removal necessitated by current proposed building location.
72	Liquidambar styraciflua	American Sweetgum	Mature tree. Removal necessitated by current proposed building location.
73	Corymbia citriodora	Lemon-scented gum	Large mature. Exemplary form. Removal necessitated by current proposed building location.
74	Callistemon viminalis	Weeping Bottlebrush	Retention favoured.
75	Platanus x hybrida	London plane tree	Mature tree. Good specimen. Removal necessitated by current proposed building location.
76	Morus nigra	Black Mulberry	Removal necessitated by current proposed building location
77	Sapium sebiferum	Chinese tallow tree	Removal necessitated by current proposed building location
78	Sapium sebiferum	Chinese tallow tree	Good specimen. Removal necessitated by current proposed building location. Potential to relocate.
79	Hymenosporum flavum	Native Frangipani	Good form. Mature specimen. Removal necessitated by current proposed building location.
80	Callistemon salignus	Willow Bottlebrush	Retention favoured.
81	Callistemon viminalis	Weeping Bottlebrush	Retention favoured.
82	Callistemon viminalis	Weeping Bottlebrush	Retention favoured.
83	Prunus x blireana	Double Flowering Plum	Exemplary form. Retention favoured. Potential conflict with public domain proposal. Potential to relocate.
84	Prunus x blireana	Double Flowering Plum	Removal necessitated by current proposed building location. Potential to relocate.

Ref #	Species	Common Name	Comment
85	Platanus x hybrida	London plane tree	Large mature. Heavily pruned around wires. Potential conflict with public domain proposal. Retain if possible.
86	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Removal necessitated by current proposed building location.
87	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Removal necessitated by current proposed building location.
88	Eucalyptus nicholii	Narrow-Leaved Black Peppermin	Dead. Removal recommended.
89	Eucalyptus punctata	Grey Gum	Large mature. Removal necessitated by current proposed building location.
90	Liquidambar styraciflua	American Sweetgum	Retention favoured.
91	Callistemon Citrinus	Crimson Bottlebrush	Retention favoured.
92	Callistemon Citrinus	Crimson Bottlebrush	Retention favoured.
93	Callistemon Citrinus	Crimson Bottlebrush	Retention favoured.
94	Lophostemon confertus	Brush Box	Retention favoured.
95	Liquidambar styraciflua	American Sweetgum	Large mature. Retention favoured.
96	Cupressus torulosa	Bhutan cypress	Removal necessitated by proposed new street.
97	Liquidambar styraciflua	American Sweetgum	Removal necessitated by proposed new street.
98	Cupressus torulosa	Bhutan cypress	Removal necessitated by proposed new street.
99	Lophostemon confertus	Brush Box	Retention favoured.
100	Liquidambar styraciflua	American Sweetgum	Removal necessitated by current proposed building location.
101	Pinus patula	Mexican weeping pine	3 needle pine. Removal necessitated by current proposed building location.
102	Corymbia eximia	Yellow Bloodwood	Young specimen. Removal necessitated by current proposed building location.
103	Callitrus glaucohylla	Cypress Pine	Removal necessitated by current proposed building location.
104	Schinus areira	Peppercorn tree	Removal necessitated by current proposed building location (Lower Ground)
105	Pistacia chinensis	Chinese Pistachio	Removal necessitated by current proposed building location (Lower Ground)
106	Pistacia chinensis	Chinese Pistachio	Removal necessitated by current proposed building location (Lower Ground)
107	Pistacia chinensis	Chinese Pistachio	Removal necessitated by current proposed building location.
108	Corymbia maculata	Spotted Gum	Retention favoured.
109	Pistacia chinensis	Chinese Pistachio	Retention favoured.
110	Cupressus torulosa	Bhutan cypress	Removal necessitated by current proposed building location.
111	Cupressus torulosa	Bhutan cypress	Removal necessitated by current proposed building location.
112	Corymbia maculata	Spotted Gum	Good form. Removal necessitated by proposed new street.
113	Corymbia maculata	Spotted Gum	Good form. Retention favoured.
114	Corymbia maculata	Spotted Gum	Good form. Retention favoured.
115	Cupressus torulosa	Bhutan cypress	Retention favoured.
116	Cupressus torulosa	Bhutan cypress	Retention favoured.
117	Cupressus torulosa	Bhutan cypress	Retention favoured.
118	Corymbia maculata	Spotted Gum	Retention favoured.
119	Corymbia maculata	Spotted Gum	Retention favoured.
120	Corymbia maculata	Spotted Gum	Retention favoured.
121	Corymbia maculata	Spotted Gum	Retention favoured.
122	Ficus Hillii	Hill's Weeping Fig	Large mature. Good form. Removal necessitated by current proposed building location. Potential to relocate.
123	Ficus Hillii	Hill's Weeping Fig	Large mature. Removal necessitated by current proposed building location. Potential to relocate.
124	Syagrus romanzoffiana	Cocos Palm	Removal necessitated by proposed new street.
125	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by proposed new street.
126	Ficus Hillii	Hill's Weeping Fig	Large mature. Removal necessitated by proposed new street. Potential to relocate.
127	Ficus Hillii	Hill's Weeping Fig	Large mature. Removal necessitated by proposed new street. Potential to relocate.
128	Ficus Hillii	Hill's Weeping Fig	Large mature. Removal necessitated by current proposed building location. Potential to relocate.
129	Ficus Hillii	Hill's Weeping Fig	Large mature. Removal necessitated by current proposed building location. Potential to relocate.
130	Eucalyptus botryoides	Bangalay	Large mature. Removal necessitated by current proposed building location.
131	Liquidambar styraciflua	American Sweetgum	Large mature. Exemplary specimen. Retention favoured.
132	Corymbia maculata	Spotted Gum	Retention favoured.




Ref #	Species	Common Name	Comment
133	Corymbia maculata	Spotted Gum	Large mature. Exemplary specimen. Retention favoured.
134	Acer negundo	Box Elder	Retention favoured.
135	Melaleuca linariifolia	Snow in summer	Good form. Retention favoured.
136	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
137	Callistemon viminalis	Weeping Bottlebrush	Removal necessitated by current proposed building location.
138	Pinus patula	Mexican weeping pine	Removal necessitated by current proposed building location.
139	Hymenosporum flavum	Native Frangipani	Good form. Removal necessitated by current proposed building location.
140	Cupressus torulosa	Bhutan cypress	Good form. Removal necessitated by current proposed building location.
141	Eucalyptus nicholii	Narrow-Leaved Black Peppermint	Removal necessitated by current proposed building location.
142	Liquidambar styraciflua	American Sweetgum	Large mature. Removal necessitated by current proposed building location.
143	Liquidambar styraciflua	American Sweetgum	Removal necessitated by current proposed building location.
144	Liquidambar styraciflua	American Sweetgum	Removal necessitated by current proposed building location.
145	Liquidambar styraciflua	American Sweetgum	Removal necessitated by current proposed building location.
146	Melaleuca armillaris	Bracelet honey myrtle	Light canopy shade from E. botryoides. Retention favoured.
147	Eucalyptus botryoides	Bangalay	Large mature. Retention favoured.
148	Eucalyptus botryoides	Bangalay	Large mature. Retention favoured.
149	Eucalyptus botryoides	Bangalay	Large mature. Retention favoured.
150	Callistemon viminalis	Weeping Bottlebrush	Covered in Dodder (Devil's Twine). Removal recommended.
151	Eucalyptus microcorys	Tallowwood	Retention favoured.
152	Acer negundo	Box Elder	Retention favoured.
153	Eucalyptus microcorys	Tallowwood	Removal necessitated by proposed new street.
154	Eucalyptus microcorys	Tallowwood	Removal necessitated by proposed new street.
155	Eucalyptus microcorys	Tallowwood	Removal necessitated by proposed new street.
156	Callistemon salignus	Weeping Bottlebrush	Removal necessitated by proposed new street.
157	Callistemon 'Harkness'	Bottlebrush	Removal necessitated by proposed new street.
158	Eucalyptus botryoides	Bangalay	Removal necessitated by current proposed building location.
159	Eucalyptus botryoides	Bangalay	Removal necessitated by current proposed building location.
160	Eucalyptus botryoides	Bangalay	Removal necessitated by current proposed building location.
161	Eucalyptus microcorys	Tallowwood	Removal necessitated by current proposed building location.
162	Remnant Eucalypt. Species to be confirmed		Stringy bark. Basal wound. Retain. Undertake seed collection.
163	Remnant Eucalypt. Species to be confirmed		Cockatoo hollow. Ironbark. Retain. Undertake seed collection.
164	Remnant Eucalypt. Species to be confirmed		Retain. Undertake seed collection.
165	Eucalyptus crebra	Narrow-leaved ironbark	Dead. Borer attack. Already removed.
166	Remnant Eucalypt. Species to be confirmed		Retain. Undertake seed collection.
167	Remnant Eucalypt. Species to be confirmed		Retain. Undertake seed collection.
168	Remnant Eucalypt. Species to be confirmed		Light crown. Minor dieback. Retain. Undertake seed collection.
169	Remnant Eucalypt. Species to be confirmed		Light crown. Minor dieback. Retain. Undertake seed collection.
170	Remnant Eucalypt. Species to be confirmed		Light crown. Minor dieback. Retain. Undertake seed collection.
171	Remnant Eucalypt. Species to be confirmed		Light crown. Minor dieback. Retain. Undertake seed collection.
172	Remnant Eucalypt. Species to be confirmed		Retain. Undertake seed collection.

Protection of Existing Vegetation

All trees or vegetation proposed or required to be retained as part of the development will be protected during demolition, excavation and construction stages to ensure that it remains healthy and survives. Tree protection measures will be implemented in accordance with AS4970-2009 (Australian Standard: Protection of trees on development sites).

With reference to Canterbury City Council DCP 45 – Landscape, the following measures will also be taken:

- The natural ground levels at the base of existing trees and shrubs will be preserved to ensure the long term health of the plants.
- Protective fencing will be installed to the edge of the drip line of the tree.
- No materials will be stored within the fenced area.
- All Council approved pruning will be undertaken in accordance with AS 4373-1996 (Australian Standard: Pruning of Amenity Trees).

Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
			Riverwood North Residential Renewal Project	TREE MANAGEMENT PLAN	0923	LA15	A
					Scale	Date	
						03.02.11	
					Dwg Status	Project Application	

VEGETATION OF SIGNIFICANCE

1. Central Parkland Eucalypts

The Gandangara Local Aboriginal Land Council (GLALC) has been consulted as part of this project. Ian Edwards, from the GLALC, identified several mature gum trees as being of cultural significance to Aboriginal people. The trees are represented by numbers 162-172 within this document. Edwards has expressed concern that these trees might be affected by the proposed development, however this is not the case, given their location on Lot 450 (Central Park)

It is also noted that the Biosis Flora and Fauna study speculates that these trees have been "planted within recent decades"². Due to their age and current condition the trees may be considered as over-mature. Seed collection and supplementary planting strategy is recommended to ensure genetic integrity of these local species is not reduced any further.

In addition to their natural heritage significance, these trees were observed to provide habitat to native fauna.



Central Parkland Eucalypts

2. Significant trees

In addition to the Central Parkland Eucalypts, some native specimens within the site area are deemed to be significant, and possibly also remnant for the previously identified reasons. Of particular note are the trees represented by numbers 63 and 64 within this document, Eucalyptus tereticornis and Eucalyptus crebra, respectively.

Other noteworthy native specimen trees include:

- Corymbia citriodora (2-7)
- Corymbia maculata (132, 133)
- Eucalyptus sideroxylon (1)
- Eucalyptus tereticornis (14)



Potentially remnant *E. tereticornis* and *E. crebra* (Ref # 63, 64)



Large Eucalypts outside existing seniors centre (Ref # 1-4)

3. Tree specimens potentially worth salvaging

There are a number of exotic specimens currently located within the site which are potentially useful for salvaging during the development phases and replanting within new landscape works.

Further assessment will be required though potential exists with species such as:

- Ficus hillii,
- Acer negundo,
- Jacaranda mimosifolia,
- Prunus x cerasifera 'Nigra', and
- Sapium sebiferum.



Prunus x blireana tree potentially worth salvaging (Ref #83)

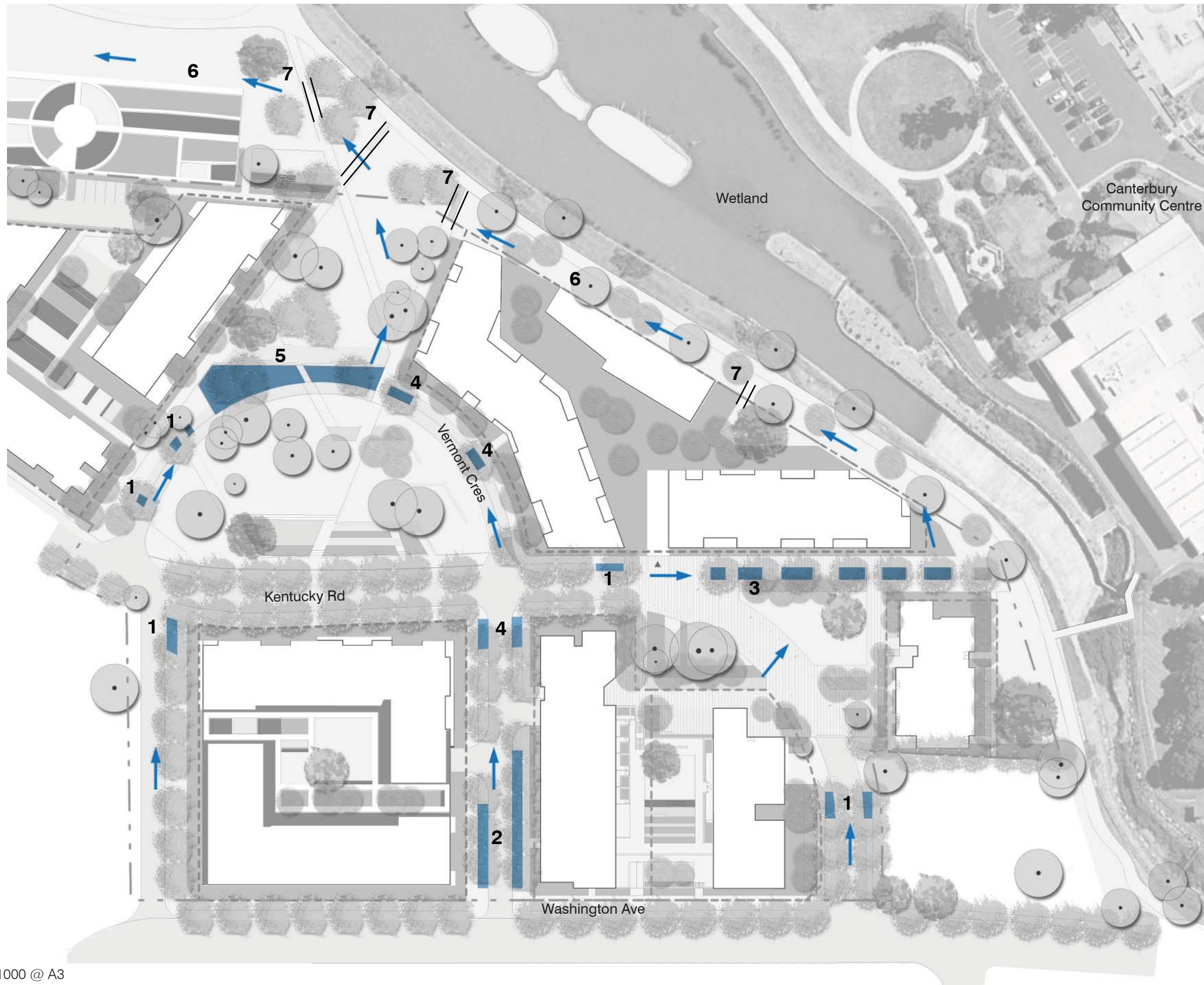


Ficus hillii trees potentially worth salvaging (Ref #122,123)

References

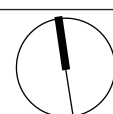
1. Biosis Research, November 2008, *Riverwood North Urban Renewal Project - Preliminary Heritage & Archeological Assessment*
2. Biosis Research, November 2008, *Riverwood North Flora and Fauna Assessment & Risk Analysis*

Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
			Riverwood North Residential Renewal Project	VEGETATION OF SIGNIFICANCE	0923	LA16	A
					Scale	Date	
						03.02.11	
					Dwg Status	Project Application	



- 1. STREETSCAPE BIORETENTION**
Provide bioretention gardens at the lower end of graded streets to collect and filter road runoff.
Where trees are planted within verges utilise the tree pit for collection, infiltration and cleansing of stormwater.
Refer detail LA18.
- 2. BIORETENTION TREE PIT WITHIN ROAD PAVEMENT**
Where trees are planted within the road utilise the tree pit for collection, infiltration and cleansing of stormwater.
Permeable paving of parking lanes to maximise water infiltration and mitigate overland flows.
Refer detail LA19.
- 3. GARDEN SQUARE TREATMENT**
Rain gardens used to filter overland flow from Garden Square pavements.
Refer detail LA20.
- 4. PARKING LANE BIORETENTION**
Parking lane utilised to filter overland flow from road pavements.
Refer detail LA21.
- 5. RAIN GARDENS FOR VERMONT CRES**
Provide stormwater treatment at the bottom of Vermont Crescent via ornamental rain-gardens linking with the recreational use of the adjacent parkland terrace.
- 6. EXISTING SWALE**
Overland flows to flow into the existing swale network along perimeter of the wetland.
- 7. BRIDGE CROSSINGS**
Pedestrian bridges located at key points along existing swale to link site and adjacent wetland.

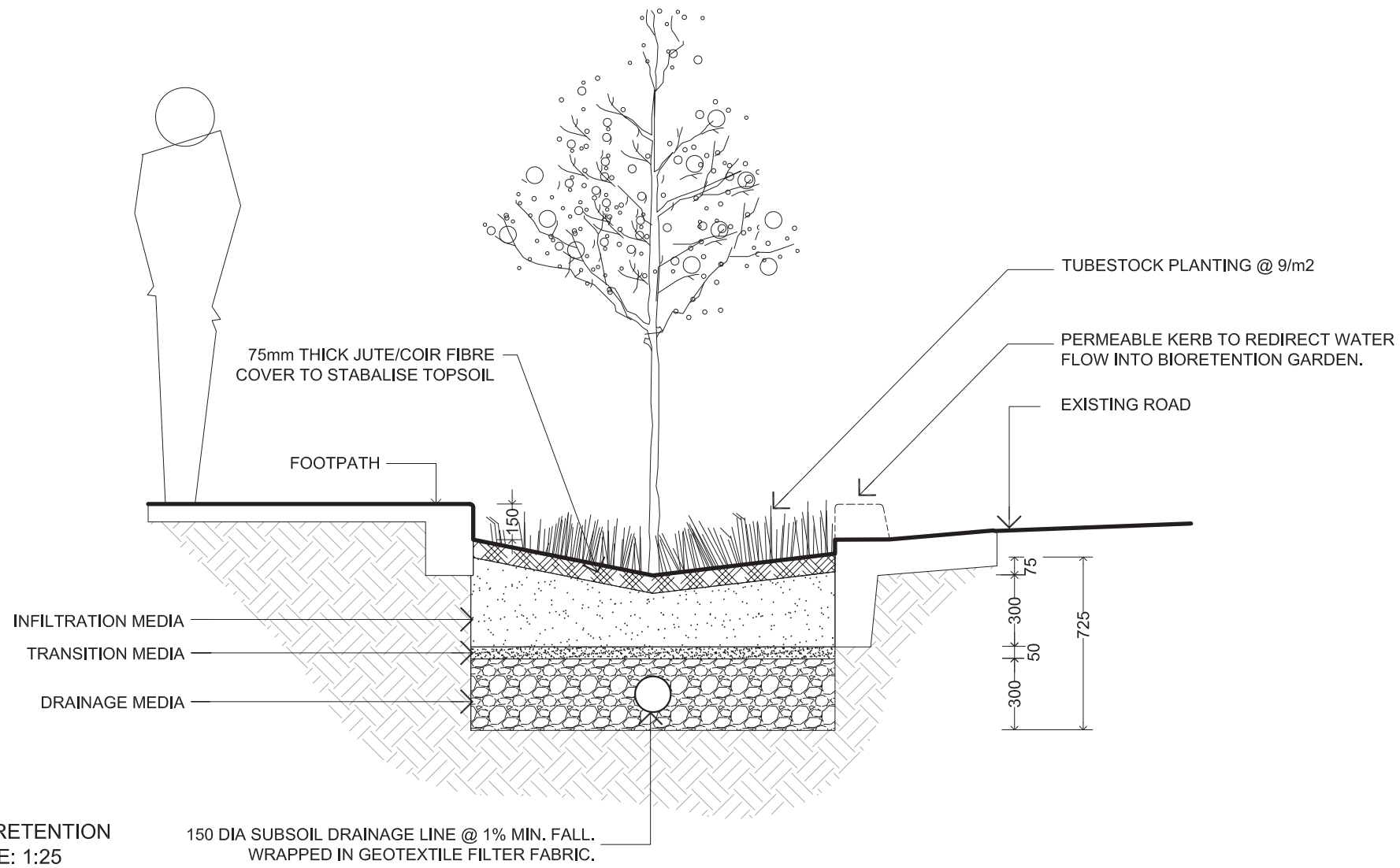
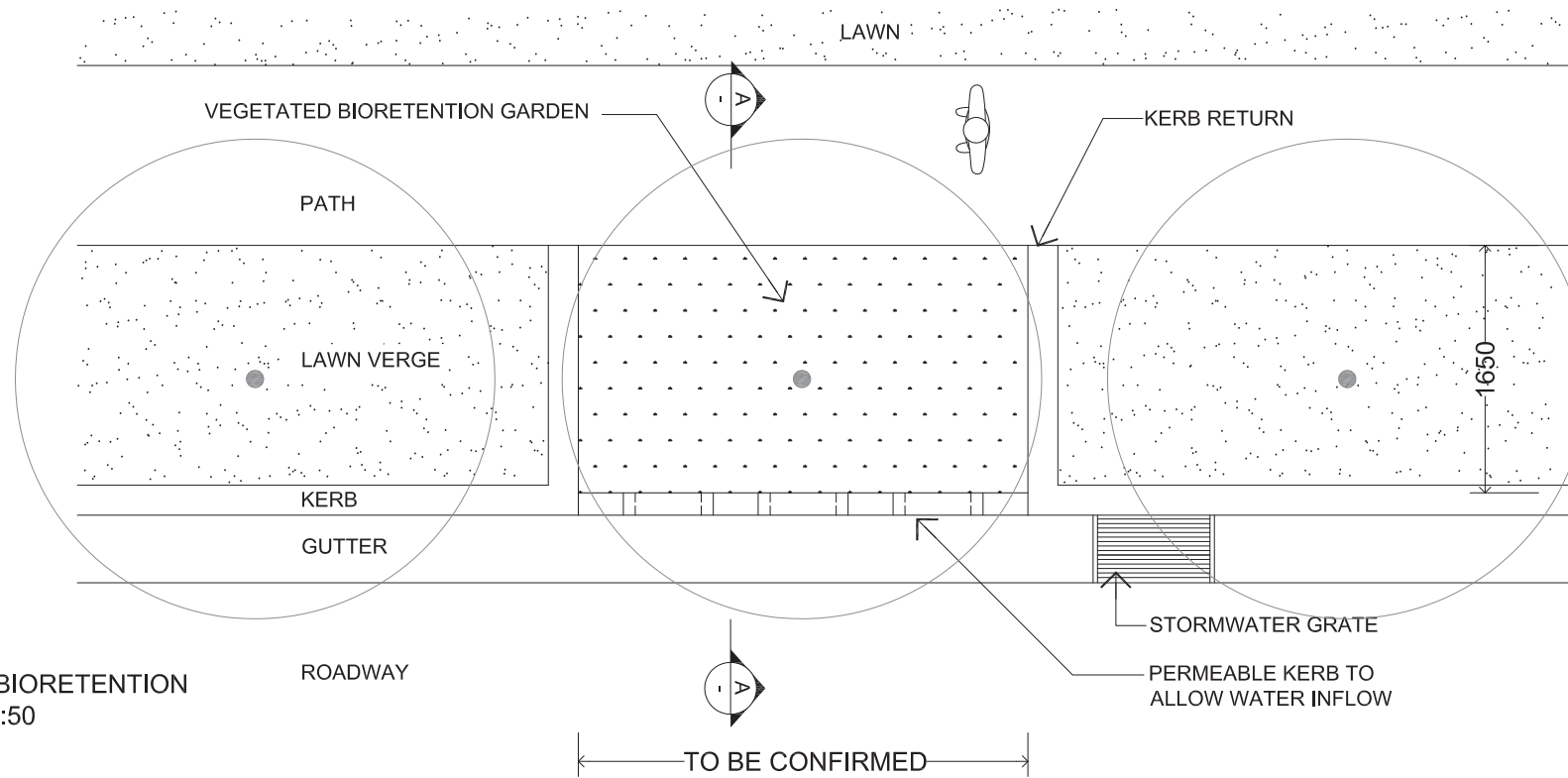
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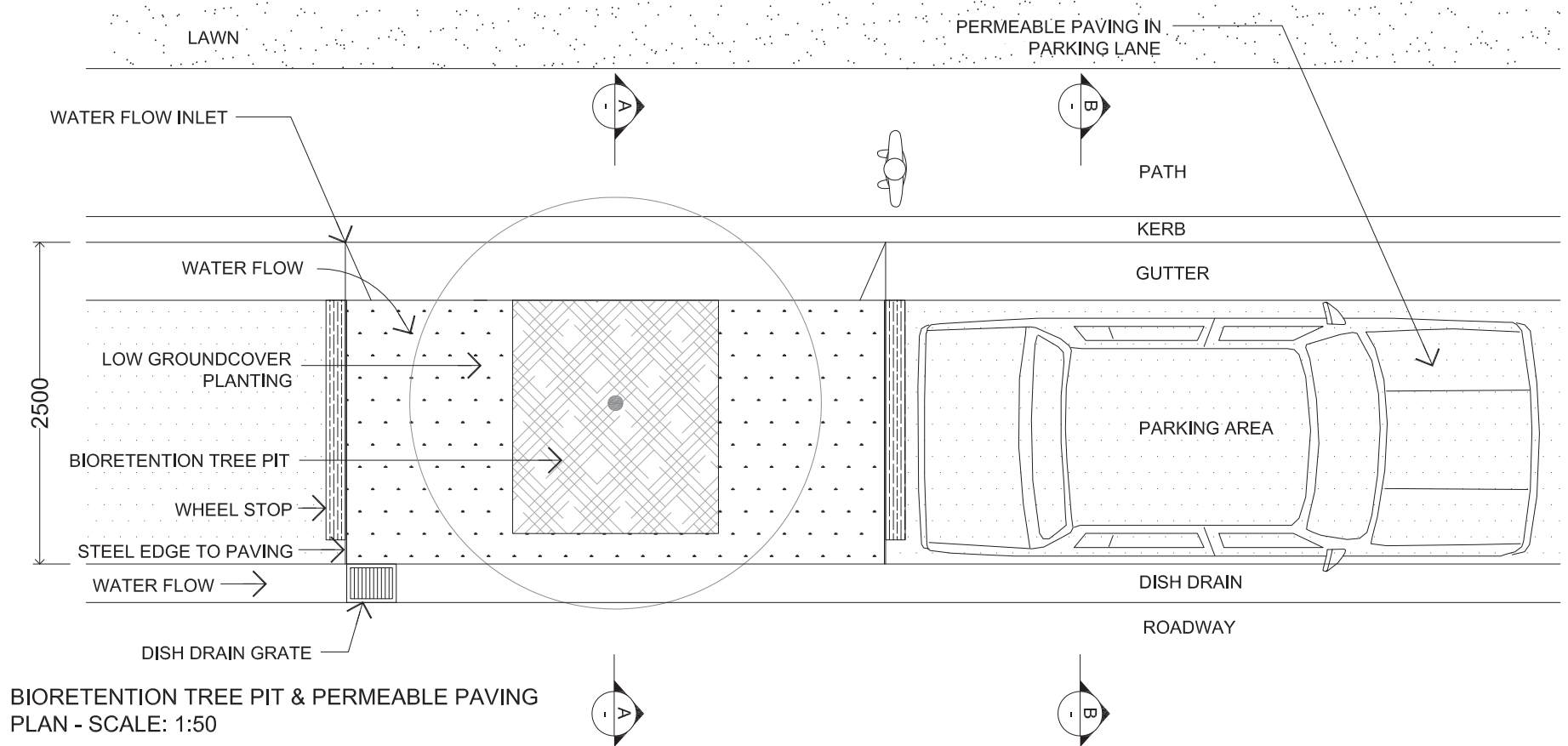
Project
Riverwood North
Residential Renewal Project

Drawing Title
WSUD OPPORTUNITIES

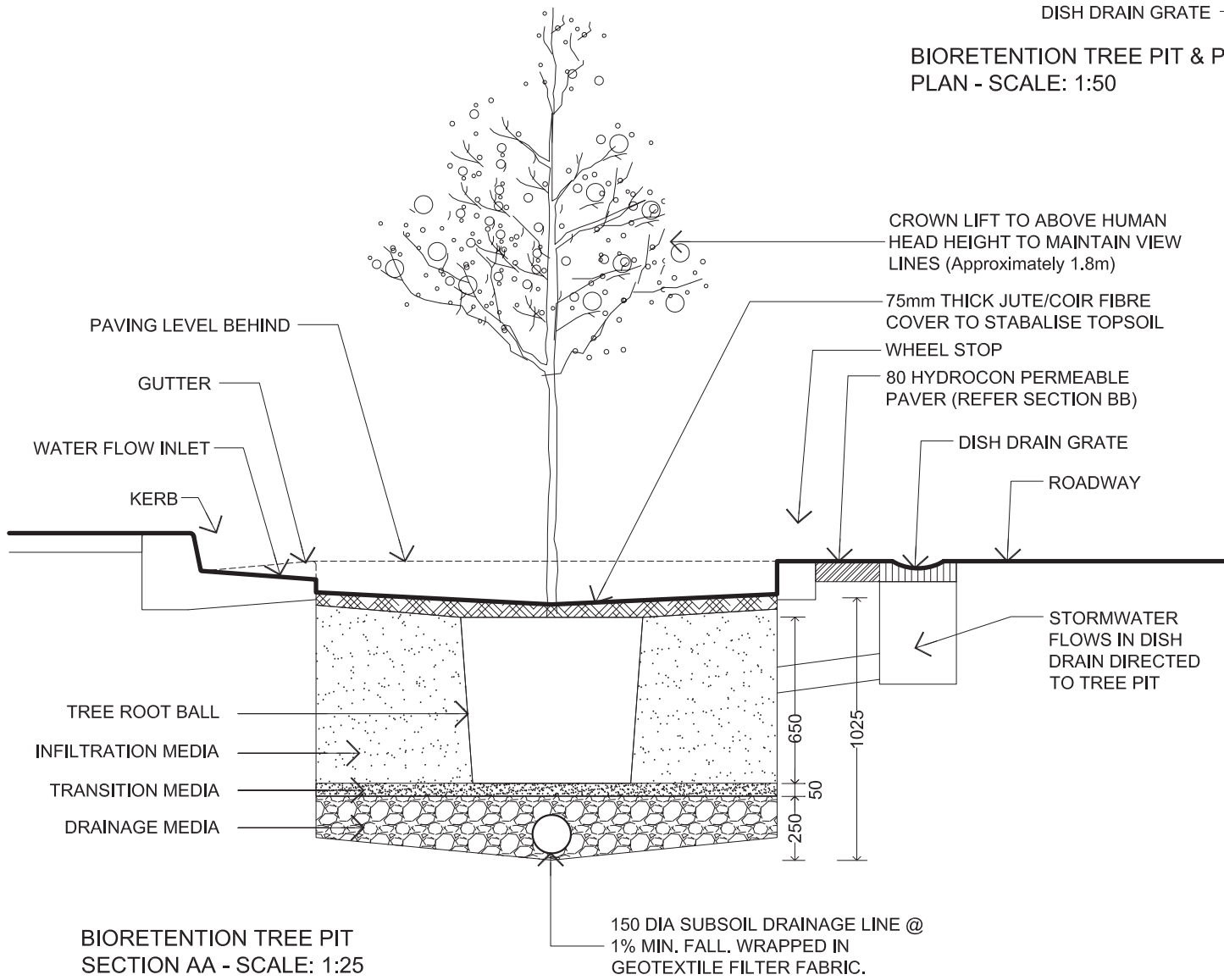
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Scale 1-1000@A3	Date 03.02.11	
Dwg Status Project Application		



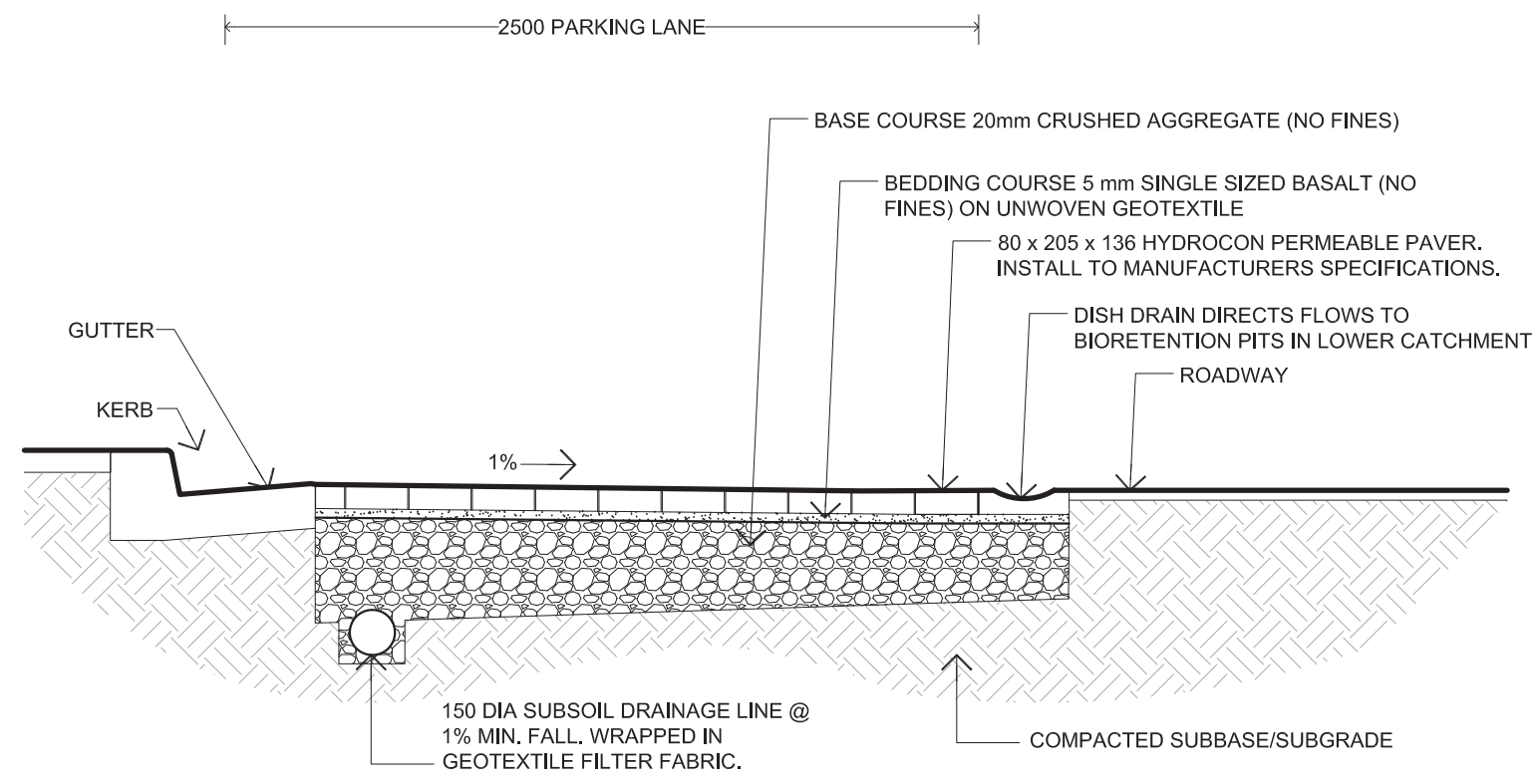
Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
			Riverwood North Residential Renewal Project	WSUD DETAILS	0923	LA18	A
					Scale	Date	
						03.02.11	
					Dwg Status	Project Application	



BIORETENTION TREE PIT & PERMEABLE PAVING PLAN - SCALE: 1:50

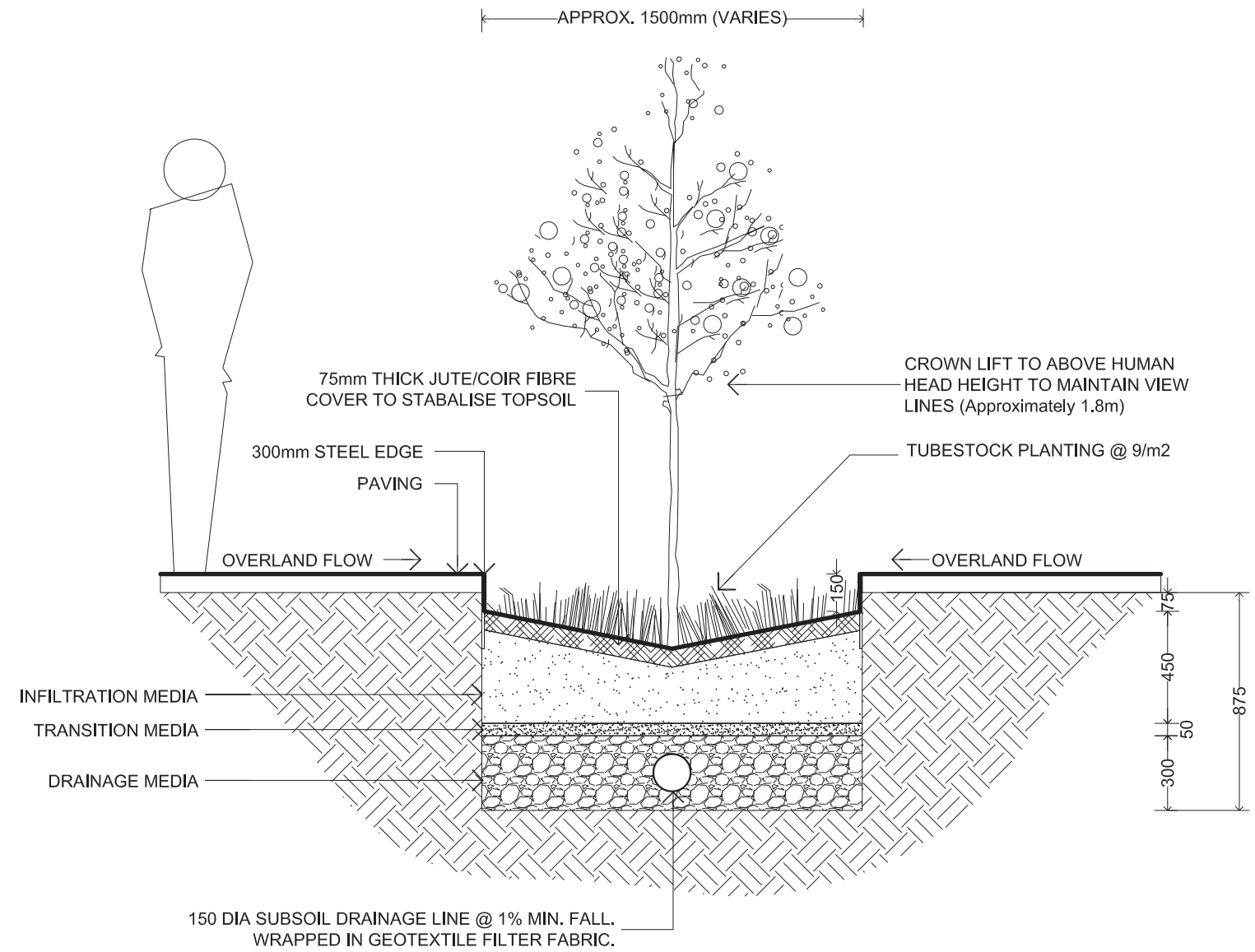


BIORETENTION TREE PIT SECTION AA - SCALE: 1:25



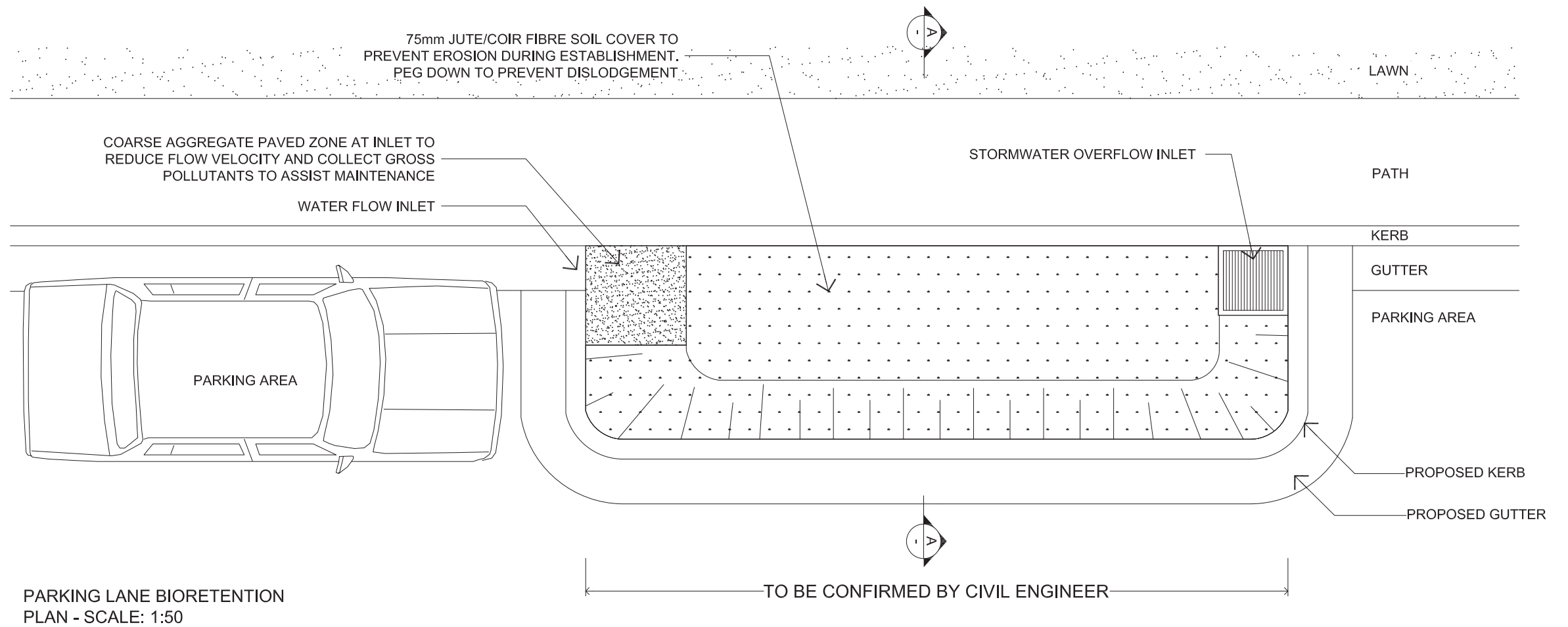
PARKING LANE PERMEABLE PAVING SECTION BB - SCALE: 1:25

Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	WSUD DETAILS	Project No.	0923	Dwg No.	LA19	Revision	A
										Scale		Date	03.02.11		
										Dwg Status	Project Application				

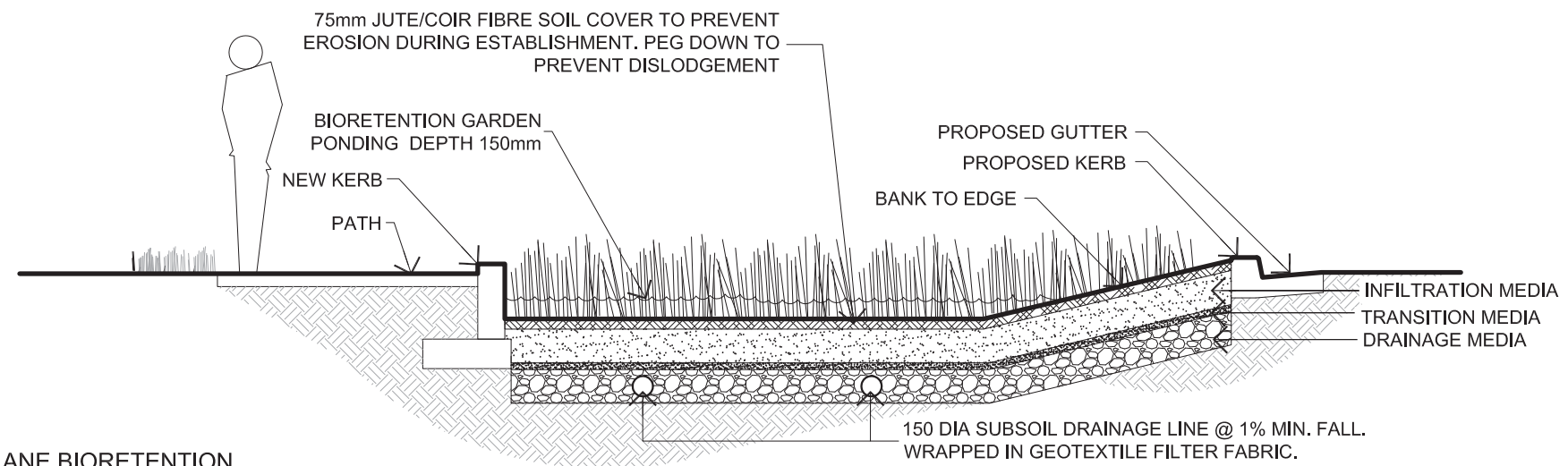


GARDEN SQUARE TREATMENT
SECTION - SCALE: 1:50

Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	WSUD DETAILS	Project No.	0923	Dwg No.	LA20	Revision	A
										Scale	Varies	Date	03.02.11		
										Dwg Status	Project Application				



PARKING LANE BIORETENTION
PLAN - SCALE: 1:50



PARKING LANE BIORETENTION
SECTION AA - SCALE: 1:50

Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
			Riverwood North Residential Renewal Project	WSUD DETAILS	0923	LA21	A
					Scale	Date	
						03.02.11	
					Dwg Status	Project Application	



Lighting

Lighting throughout the site will be positioned to ensure adequate illumination of key pedestrian and vehicular routes.

Generally, the lighting scheme will be designed in accordance with AS1158.1, and Energy Australia Street Lighting Design Standards (where applicable).

Non frangible street lighting will be offset a minimum of 750mm from back of kerb, in accordance with Energy Australia standards.

Principles outlined in Canterbury City Council's "Lighting of Public Spaces Policy" will guide lighting design, with particular attention given to Crime Prevention through Environmental Design (CPTED).



1. Street Lighting

BEGA 7954

- 95W 3000K LED
- 6.5m pole mounted
- asymmetric flat beam distribution
- graphite finish



2. Public Domain Lighting

WE-EF FLC-200

- 3 x 35W 3000K LED
- 6.5m pole mounted floodlights
- wide beam
- graphite finish

Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	INFRASTRUCTURE	Project No.	0923	Dwg No.	LA22	Revision	A
										Scale		Date	03.02.11		
										Dwg Status	Project Application				



1. Galleria Bench

STREET FURNITURE AUSTRALIA CMG402

- Contoured bench.
- Cast aluminium frame and supports.
- Hardwood timber battens.



2. Galleria Seat

STREET FURNITURE AUSTRALIA CMG102

- Contoured seat with backrest and armrests.
- Cast aluminium frame and supports.
- Hardwood timber battens.



Slimline Bollard

SECURAPOST SECURITY BOLLARDS SSP

- 80NB - (88.9mm) x 3.05 / 5.49 / 7.62mm
- Grade 304 Stainless Steel Pipe

Seating

A range of seating types will be provided in each precinct to satisfy differing seating requirements of users. Informal seating in the form of low retaining walls, steps, etc. will provide additional opportunities for seating throughout the site.

The following seating types will be included in the public domain:

- 1) Galleria Bench - A contoured bench without back support to allow people to sit on either side. Suitable for open areas with access from either side of the seat.
- 2) Galleria Seat - A contoured seat with back support and armrests. Suitable for along paths and against walls or garden beds.

Bollards

Bollards will be used to ensure vehicular movement through Garden Square is limited to the roadway. These bollards also act as an important visual cue for pedestrians to exercise caution when crossing.

Stainless steel bollards are robust and have a long design life. The Slimline 90mm diameter bollards provide the required restriction of vehicle access within the square whilst minimising the visual and physical impact.

Bollards will be located in accordance with relevant Australian Standards and Council requirements.

Client		Architect		Landscape Architect		Project	Riverwood North Residential Renewal Project	Drawing Title	URBAN ELEMENTS	Project No.	0923	Dwg No.	LA23	Revision	A
										Scale		Date	03.02.11		
										Dwg Status	Project Application				