WAGGA WAGGA BASE HOSPITAL

Schematic Design

LANDSCAPE DESIGN REPORT

Arcadia
LANDSCAPE ARCHITECTURE

Prepared by: Arcadia Landscape Architects
Architect: Billard Leece Partners
Date: November 2012
Issue: A
Scale: NA

LANDFORM + CONTOURS

NATURAL FEATURES

NATIVE VEGETATION

PATTERNS + TEXTURE

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LOCAL LANDSCAPE CHARACTER

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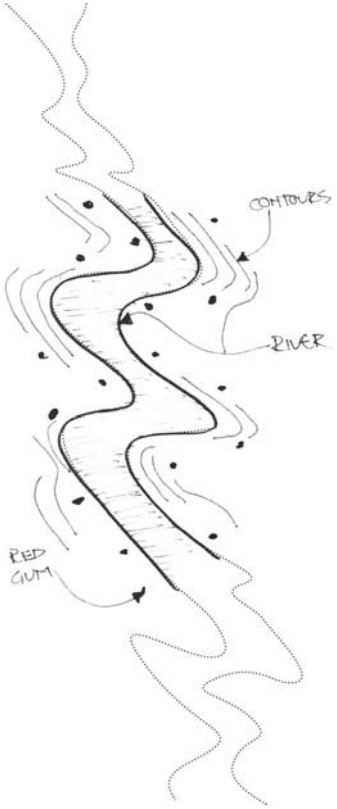
MURRUMIBIDGEE RIVER



RIVER STRUCTURE

RED RIVER GUM TRUNK

DESIGN PHILOSOPHY LAYERING

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LANDSCAPE DESIGN PHILOSOPHY

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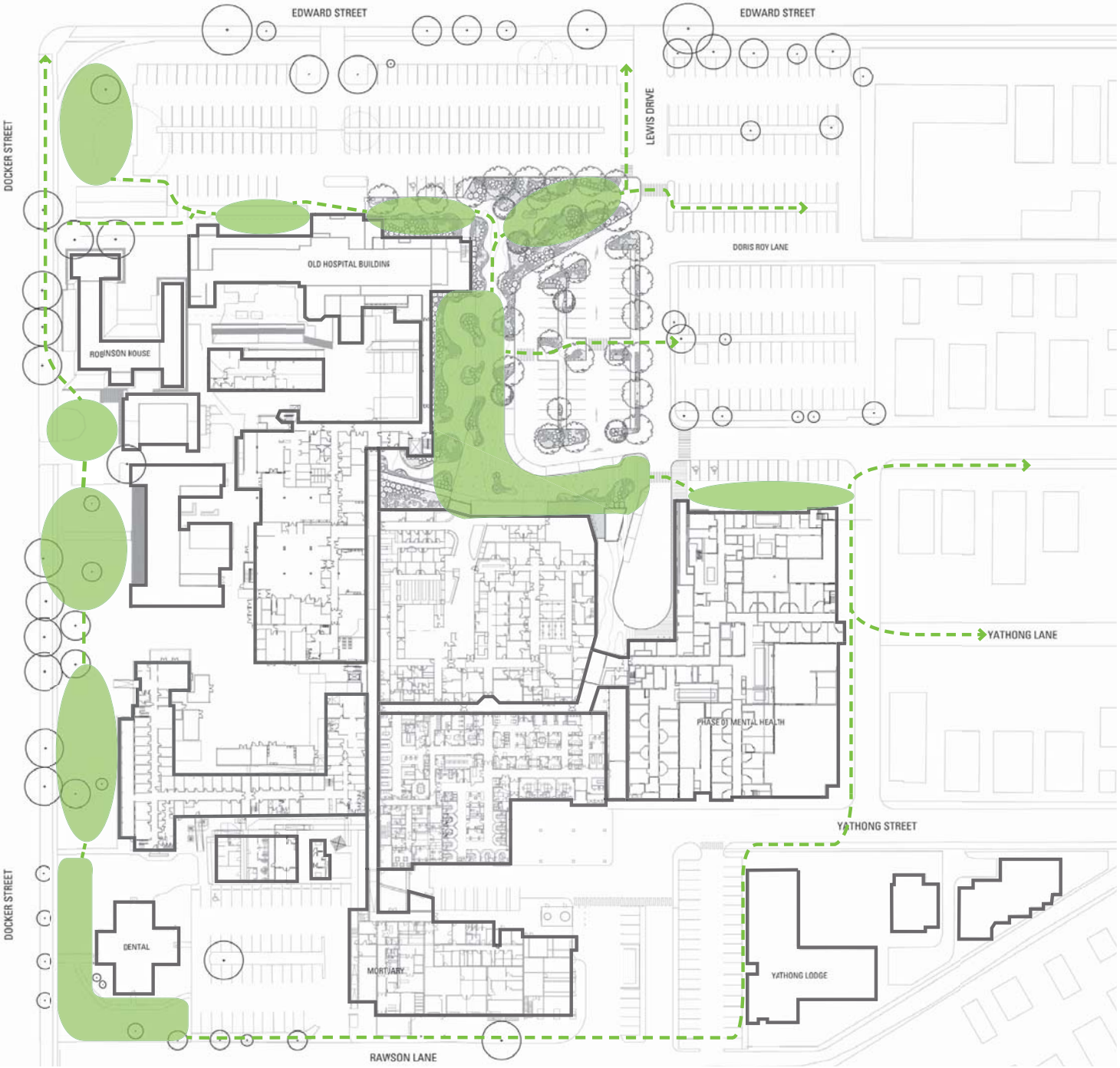

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FORECOURT LANDSCAPE PLAN | OPEN SPACE DIAGRAM

Prepared by: Arcadia Landscape Architects
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FUTURE BUILDING FOOTPRINT

FUTURE PAVING EDGE

SECTION LINES
refer Forecourt Sections page

PUBLIC ART INSTALLATIONS

CANOPY LAYER

INDIGENOUS TREE PLANTING
from Murrumbidgee River banks

CONTOUR EDGES + SEATING ELEMENTS

BENCHING + BREAKOUT SPACE
reflecting local landforms, outdoor rooms created by surrounding pockets of vegetation and contour benching provides opportunity for rest.

LOW CLUMPING VEGETATION CONTRASTED BY PEBBLE MULCH

LOW CLUMPING VEGETATION
mimicking form + habitat of the local river

SURFACE PAVING REFLECTING GUM TREE BARK TEXTURE

PAVED SURFACE
Tonal variations of coloured concrete paving emulates the textured pattern of the gum tree bark.

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FORECOURT LANDSCAPE PLAN

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FORECOURT LANDSCAPE PLAN | MOVEMENT + CIRCULATION

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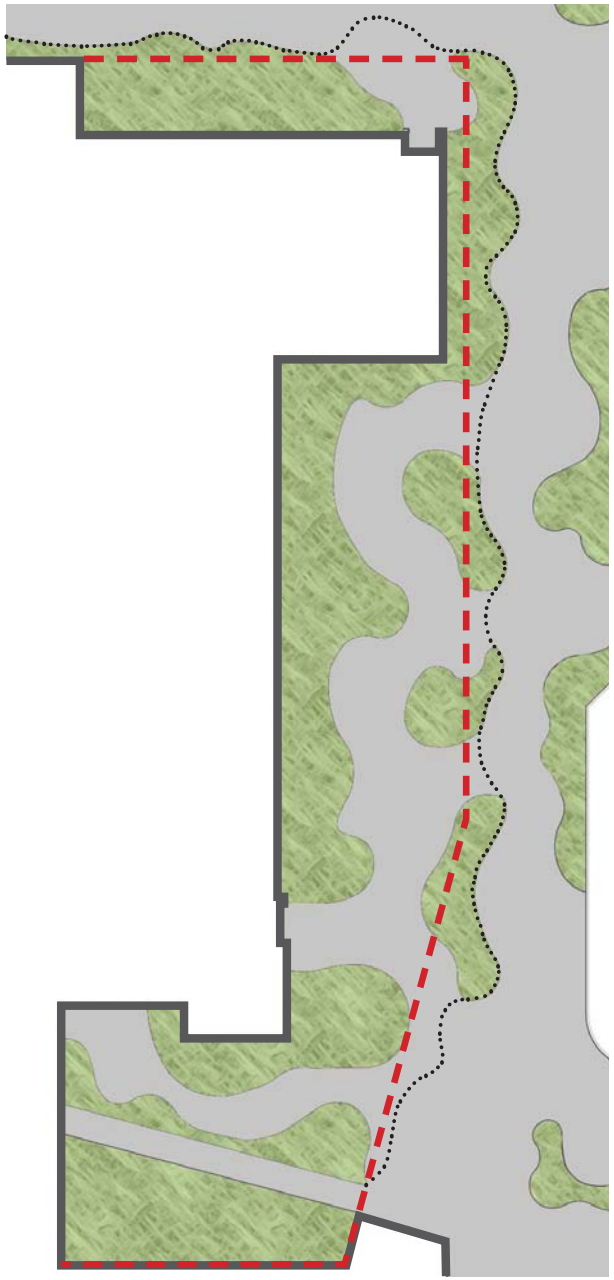
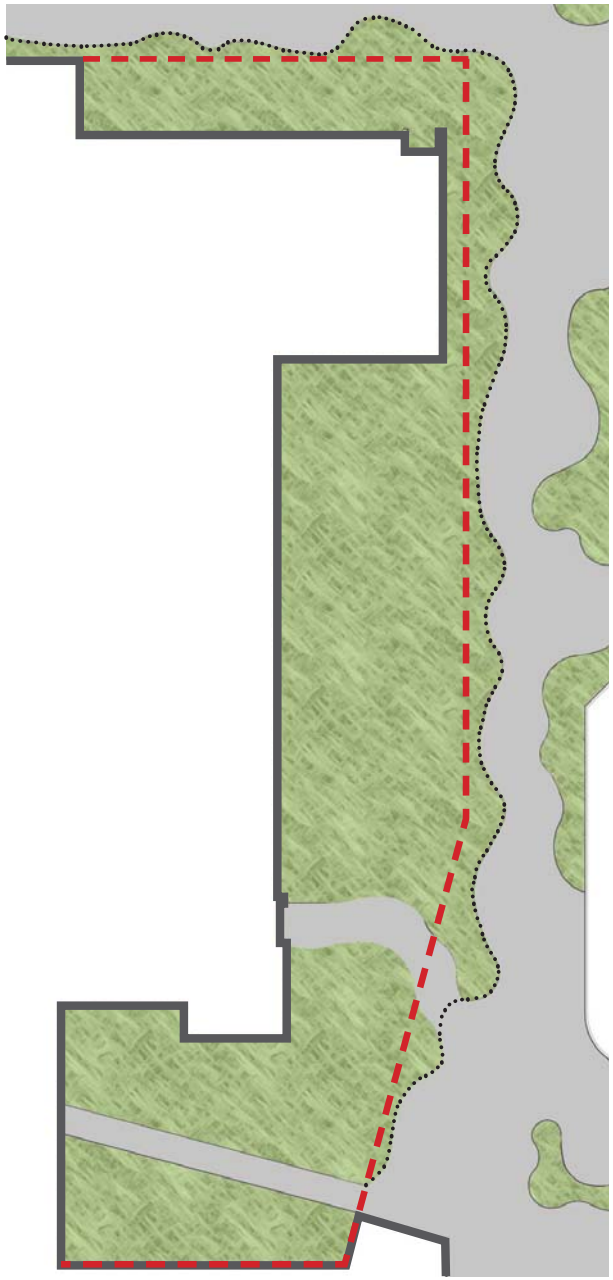
FUTURE FOOTPRINT TREATMENT - OPTION ONE



FUTURE FOOTPRINT AREA:		904m²
of which is	*PLANTED*	657m²
	PAVED	361m²
COST OF PLANTEDAREA:		$117/m²
		$76,920 TOTAL
COST OF PAVED AREA:		$121/m²
		$43,680 TOTAL
OPTION ONE TOTAL COST:		$120,550

PAVING AREA
PLANTING AREA
FUTURE BUILDING FOOTPRINT
FUTURE PAVING EDGE

FUTURE FOOTPRINT TREATMENT - OPTION TWO



FUTURE FOOTPRINT AREA:		904m²
of which is	*PLANTED*	845m²
	PAVED	59m²
COST OF PLANTEDAREA:		$117/m²
		$98,865 TOTAL
COST OF PAVED AREA:		$121/m²
		$7,140 TOTAL
OPTION ONE TOTAL COST:		$106,005

PAVING AREA
PLANTING AREA
FUTURE BUILDING FOOTPRINT
FUTURE PAVING EDGE

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FUTURE FOOTPRINT TREATMENT | OPTIONS ONE + TWO

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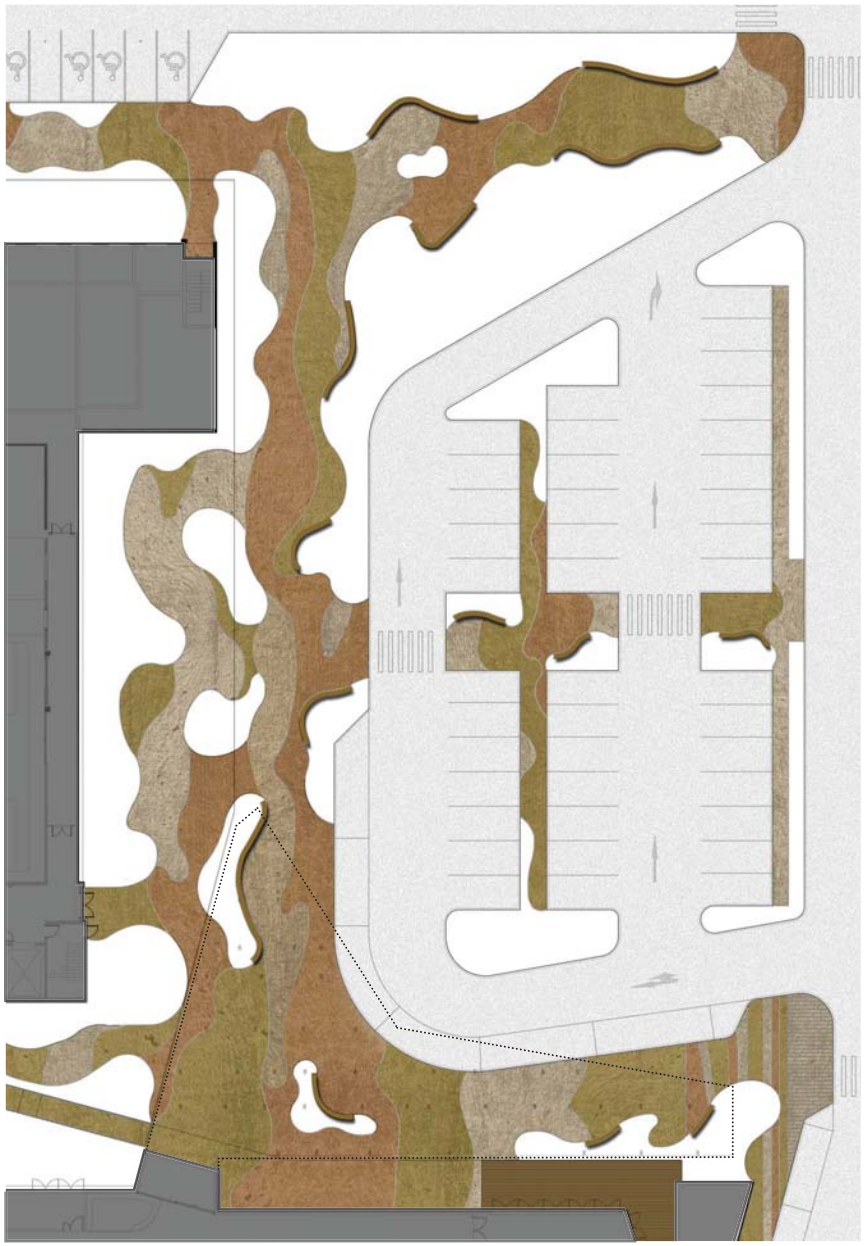
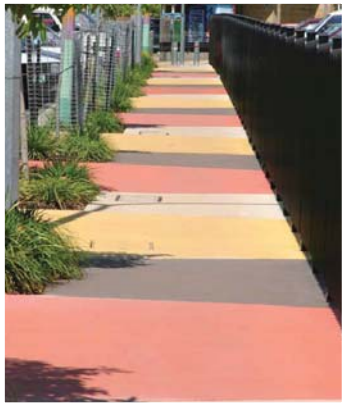
DESIGN GENERATOR



PAVING SCHEME



PROJECT EXAMPLES
Images: Coloured Concrete Systems

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FORECOURT LANDSCAPE | PAVING

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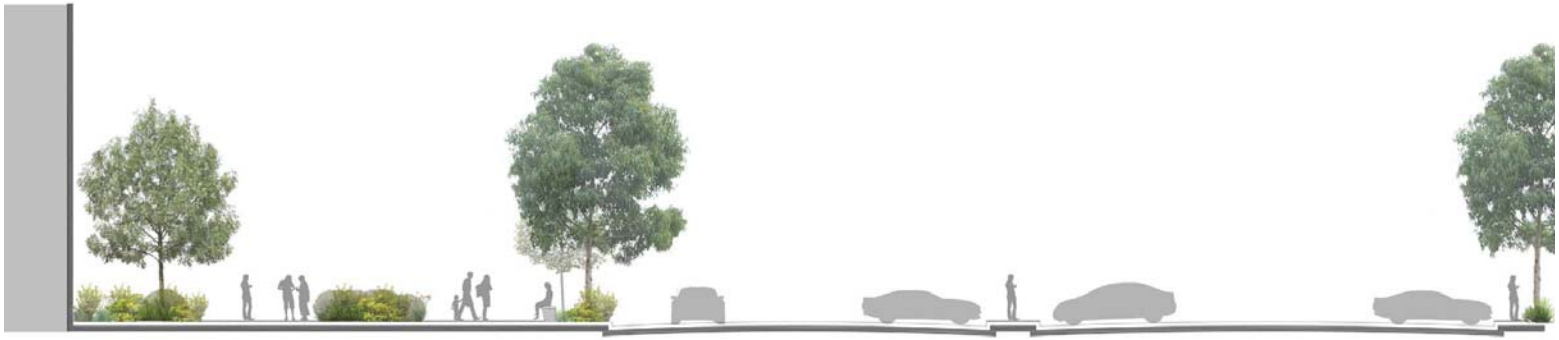

SECTION AA

TYPICAL SEATING COMPOSITION

SECTION BB

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FORECOURT LANDSCAPE | SECTIONS

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TREES

Acacia pycnantha | Golden Wattle

Corymbia maculata | Spotted Gum

Eucalyptus camaldulensis | Red River Gum

Eucalyptus torquata | Coral Gum

MEDIUM SHRUBS

Banksia marginata | Silver Banksia

Calistemon citrinus | Red Bottlebrush

SMALL SHRUBS

Baeckea virgata 'Miniture' | Twiggy Baeckea

Leucophyta brownii | Cushion Bush

Westringia fruticosa | Costal Rosemary

GRASSES / ACCENTS

Lomandra longifolia | Mat Rush

Dianella revoluta 'Little Rev' | Dwarf Flax Lily

Anigozanthus 'Ruby Velvet' | Red Kangaroo Paw

Pennisetum alopecuroides 'Purple Lea' | Fountain Grass

GROUNDCOVERS

Myoporum parvifolium | Creeping Boobialla

Grevillea juniperina 'Gold Cluster' | Grevillea Gold Cluster

Carpobrotus glaucescens | Pigface

Brachyscome Multifida | Swan River Daisy

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FORECOURT LANDSCAPE | PLANT PALETTE

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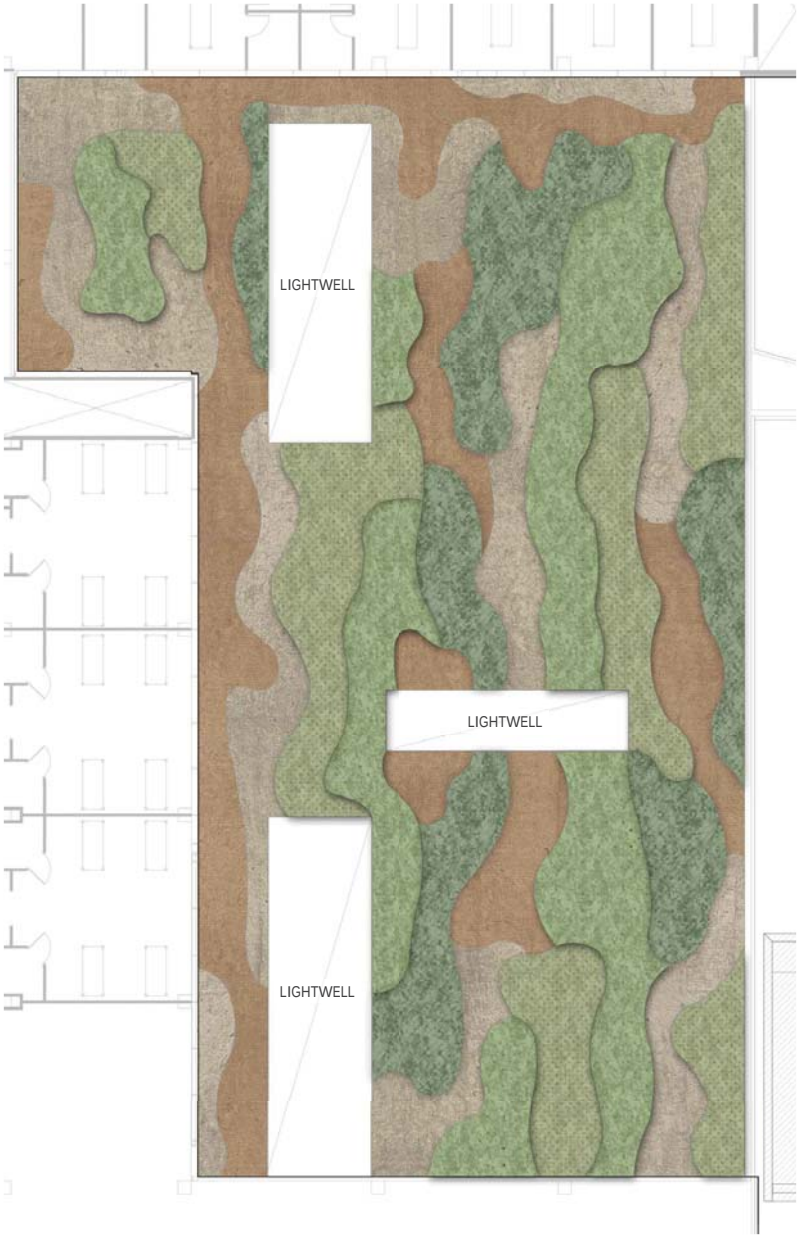

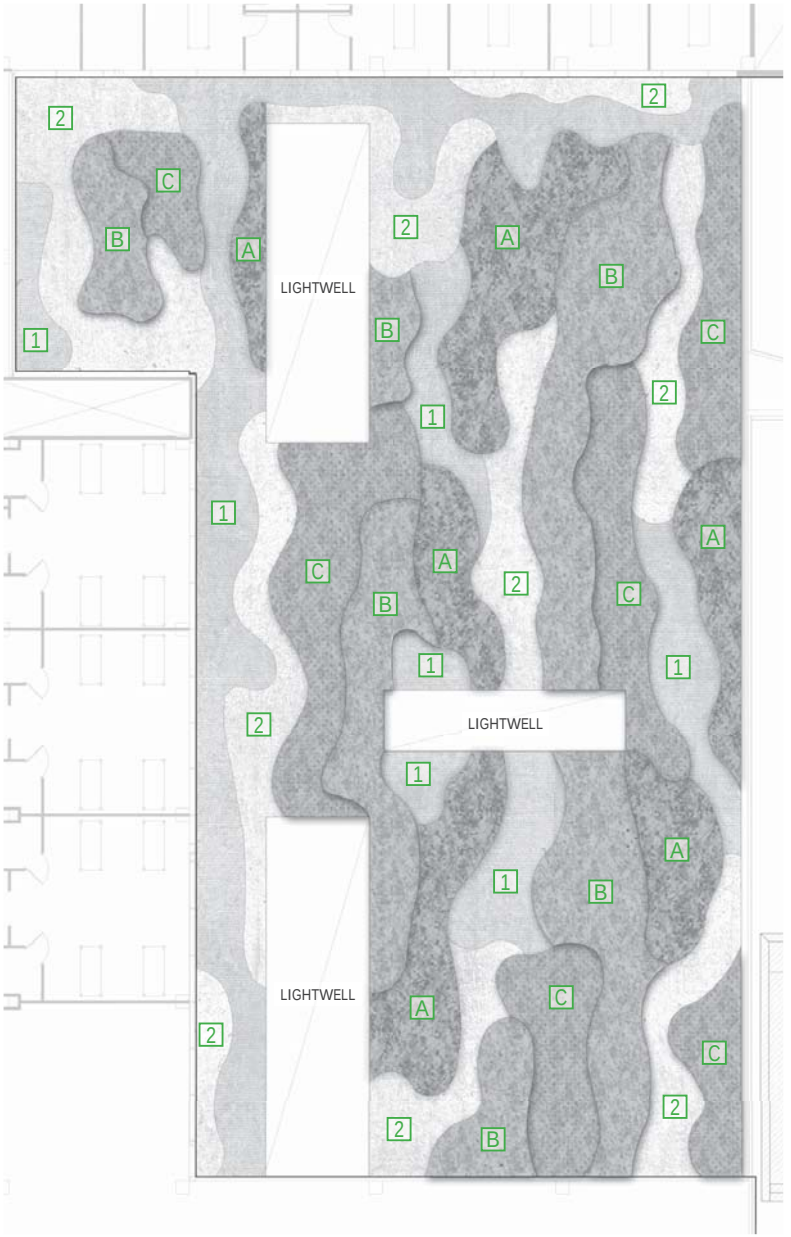

A

Pennisetum seacteum 'Rubrum' | Purple Fountain Grass

B

Lomandra longifolia | Spiny Head Mat-Rush

C

Carpobrotus glaucescens | Pigface

1

R *River Pebble Mulch Type 1*

2

River Pebble Mulch Type 2

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SECOND FLOOR ROOFTOP LANDSCAPE PLAN

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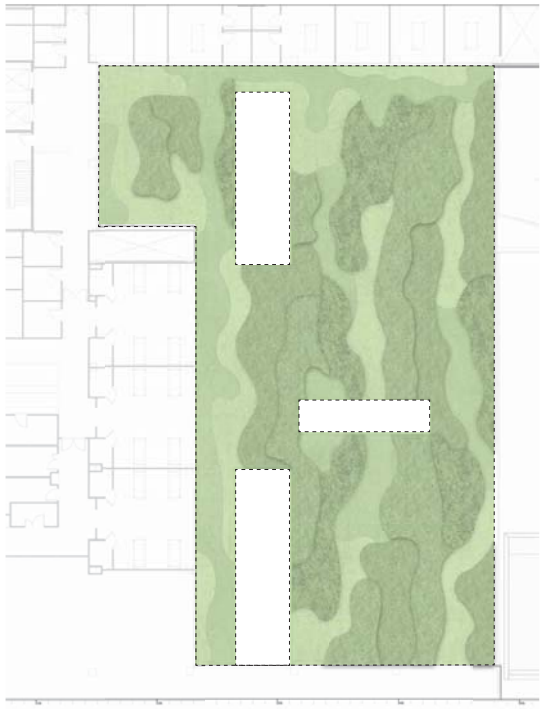


SARNAFIL GREEN ROOF OVER CONCRETE

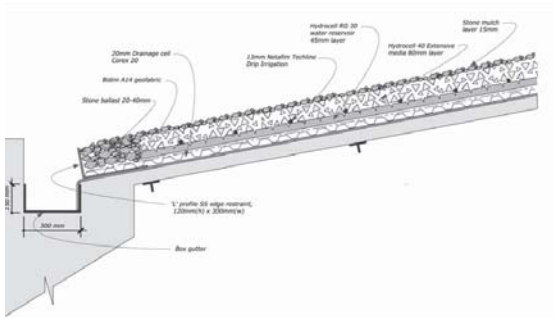
SEMI EXTENSIVE ROOFTOP PROJECTS
Images: Fytogreen | Victorian Desalination Plant

TOTAL ROOF AREA (excluding voids) 1154m²

COST OF FYTOGREEN SEMI-EXTENSIVE ROOF GARDEN SYSTEM INCLUSIVE OF Sika® Sarnafil® MEMBRANE + PLANTS: $340/m²

SIKA SARNAFIL

- Sika® Sarnafil® has been waterproofing green roof projects in Australia for over 30 years.
- Sika® Sarnafil® G476 membrane is compounded to remain watertight in extreme conditions including constant dampness / ponding water / high & low alkaline conditions.
- Membrane is root and algae resistant.
- Membrane is thermoplastic – when seams and flashings are welded together the sheets become one monolithic layer of material, impenetrable to moisture infiltration.



TYPICAL DETAIL - EXPOSED BOX GUTTER

Semi-Extensive **LIGHTWEIGHT SEMI-EXTENSIVE ROOF GARDEN GUIDELINES**

Fytogreen Australia's lightweight semi-extensive roof garden system works to the following depth options and saturated weight guidelines.
The soil mix is 40% Hydrocell flakes, 15% composted organic matter, 35% 14mm scoria and 10% <7mm Scoria by volume.
NB: Outside Melbourne, recycled concrete is used to replace scoria, the weight is similar.

Saturated bulk density is 935 kg/m3

Plants	Allowed 15kg/m2 for plants					
Stone mulch Layer 6	20-25mm scoria stone mulch					
Soil Mix Layer 5:	60mm depth 56 kg psm	70mm depth 65 kg psm	80mm depth 75 kg psm	90mm depth 84kg psm	120mm 112 kg psm	170mm 158 kg psm

Layer 4: **Hydrocell Hardfoam RG30 sheet 30**mm thick. Saturated weight allowance of 18kg/m2 of which 16kg is water.
Layer 3: **Geotextile Membrane-** Various types such as Bidim A14G. Thickness 2mm, weight negligible.
Layer 2: **Drainage Layer-** Allow 20mm for Atlantis Flo cell 20
Layer 1: **Vapour Layer-** LDPE plastic is laid as extra protection above the waterproofed roof. Thickness 0.02mm, weight negligible.

Total Depth:	**136mm**	**145 mm**	**155 mm**	165mm	195mm	245mm
Total Saturated Weight:	**111 kg/m2**	**120 kg/m2**	**129 kg/m2**	139kg/m2	167kg/m2	215 kg/m2
Total Water at Field Capacity:	42 litres/m2	48 litres/m2	51 litres/m2	54 litres/m2	63 litres/m2	78 litres/m2

Please note: Soil mix layer includes 15% for particle integration.
The parapet should be 50mm higher than the finished garden level.

Disclaimer: This information is supplied in good faith and trials are recommended by the user to test the suitability of the procedure in their climatic region. The system now covers 2.8 million square metres of roof garden in Europe since 1985 and 80,000m2 in Australia since 2002. No liability will be accepted by Fytogreen Australia or it's representatives as to the final performance based on this information.
Date 7/11/2011