The EDGE in Constructing Environments

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IN ASSOCIATION

LANDSCAPE DESIGN STATEMENT:
INTERLINK INDUSTRIAL ESTATE
MAMRE ROAD, ERSKINE PARK

For

GOODMAN

31st October 2011

1.0 Site Analysis

1.1 Site context

The site is located at Mamre Road, Erskine Park in the Erskine Park Estate.
It is bounded to the west by Mamre Road and is accessed from James Erskine Drive and Sarah Andrews Close within the estate.

1.2 Soils

The site is situated in the Blacktown Soil Landscape. Soils are shallow to moderately deep hard setting mottled texture red and brown podzolic contrast soils on crests grading to yellow podzolics soils on the lower slopes and drainage lines. Limitations are moderately reactive highly plastic subsoils, low soil fertility and poor soil drainage. These soils have a moderate erosion hazard.

1.3 Topography

The subject site consists of flat land with a slight fall towards the south. The drainage flows overland to the small creek along Lenore Lane and ultimately to Ropes Creek.

1.4 Existing Climate

The site experiences a warm, temperate climate with hot humid summers and generally mild winters. Rainfall is limited with the highest recordings occurring from January through to March, which has monthly mean rainfalls of approximately 90mm. Maximum mean temperatures of 28-29°C are recorded in January.

1.4 Existing Vegetation

The site is to be cleared of existing vegetation on site.

However the vegetation communities to the south of Lenore Lane include Forest Red Gum – Swamp Oak Open Forest and Grey Box Woodland. Swamp oak Casuarina glauca, Forest Red Gum *Eucalyptus tereticornis* and Grey Box *Eucalyptus moluccana* to 20m tall are found. There are also occasional patches of the smaller tree Paperbark *Melaleuca linariifolia.* The site would have once been representative of the Sydney Coastal River Flat Forest / Alluvial Woodland and Cumberland Plain Woodland/ Shale Plains woodland (NPWS 2002).

Both Sydney Coastal River Flat Forest and Cumberland Plain Woodland are listed as endangered ecological communities on the *Threatened Species Conservation Act*. Cumberland Plain Woodland is also listed as an endangered ecological community on the *Environment Protection and Biodiversity Conservation Act*‘.

Opportunities exist in the vegetation planting strategy for the buffer planting to reinstate this Cumberland Plain Woodland.

2.0 Design Principles

2.1 Design Objectives

In accordance with the landscape section (Section 8) of the Penrith Development Control Plan 2006 the landscape objectives include:

a) To provide functional areas of planting that enhance the presentation of a building;
b) To screen undesirable views;
c) To reduce building energy consumption;
d) To provide outdoor staff amenity facilities;
e) To select tree species that are “low maintenance” planting to reduce the impact of green waste;
f) To provide wildlife habitats; and
g) To contribute to the overall character of the locality.

2.2 Design Principles

The aim of the landscape design is to promote the following sound design principles, including;

a) Provide an attractive and functional public domain.
b) Visually unify and enhance the existing environment,
c) Promote safe and secure use of the site for both every-day users and visitors.
d) Provide vegetation screens and visual relief from large-scale “bulk” buildings through appropriate species choice and placement.

These general design principles are coupled with the need to include design measures which promote sustainability, which include:

e) Use of endemic and ecologically appropriate plant species that will reduce irrigation, maintenance requirements, and the use of pesticides and herbicides. It will complement the remnant endemic vegetation on site and suitability for local fauna.
f) The planting of lawns will be minimised and more drought tolerant native groundcovers and grasses will be encouraged as an alternative to lawns.
g) Using irrigation systems that utilise drip irrigation systems
h) Using quality, long lasting materials
i) Using soils and mulches manufactured with recycled waste.
j) No noxious plants or plants known to be invasive or which become invasive will be planted.
k) Shading western building facades with vegetation within bushfire protection constraints will be encouraged.
l) Tree planting to shade roadways and paved areas to reduce heat absorption will be encouraged.
m) Generally soft landscaping will be preferred to large areas of hard landscaping.

2.3 Vegetation protection

The proposed site clearance means that there is minimal vegetation to be protected.

2.4 Indigenous Vegetation

Where available, a wide variety of indigenous plants from local plant communities will be used during revegetation of the site, (refer indicative plant schedule). Where possible, these species will be used in conjunction with hardy, reliable natives species that are known for their consistent performance and adaptability. The combination of indigenous and native species will result in a robust, healthy landscape that will thrive in the long term.

2.5 Integration of design

All landscape and building designs will be complementary and be aiming to achieve similar design outcomes. Similar materials, finishes and colours will be utilised in architectural components and hardscapes in gardens and open space areas to give continuity to the development. The design intent will be to match previous schemes implemented for adjacent developments.

2.6 Streetscape

The landscaped frontage of the development will make a contribution to the existing streetscape by way of the design of any structures or vegetation. Some elements of landscaping and streetscape include the following:

a) Landscaping will be used to soften the impact of buildings when viewed from the street front and neighbouring properties.
b) Landscaping will act as a visual screen between the existing street frontages and the developments built form.
c) The hierarchy of streetscapes within the development will be defined by selected street tree species, many native or indigenous.
d) Landscape areas will provide amenity to warehouse facility users, whilst being in context with the bushland setting of the development.
e) Landscape to frontages will be designed to match previous schemes implemented for adjacent developments.
f) Landscaping on the corner of Mamre Road and James Erskine Drive will be planted with advanced trees for instant impact at this high profile location.
g) Tree planting along key boundaries are of sufficient scale that once mature they will break the roofline of the proposed facilities.

2.7 Fencing

The fencing design ensures that the security needs of the development are satisfied in a manner which complements the surrounding landscape design and streetscape quality.

In accordance with Section 5.7 of the Penrith DCP 2006 no fencing will be erected along front site boundarys. High security fencing will be located either behind the landscape setback or alternatively within the landscaped area midway between the site front boundary and the building line.

The Security fencing will be of an "open" nature in 2 types depending on the location. 1.8m high black PVC coated chainwire fence will be located on side boundarys. Along road frontages 2.1m high black colour press form spear fencing will be located behind the landscape mounding.

3.0 Plant Materials

A selection of plant species is proposed (Refer Indicative Plant Schedule).

In accordance with the landscape section (Section 8) of the Penrith Development Control Plan 2006 selection and use of planting materials take the following into account, including:

a) A framework planting of endemic canopy and shrub species has been established the development. This will enhance the sense of place for each building/ business. Consideration has been given to features such as bird attracting qualities, aromatic foliage and flowers, and habitat value as well as visual qualities, site suitability, and proximity to biodiversity corridors or areas. Habitat value is given high priority;

b) Smaller scale and less visually prominent planting includes species other than those endemic to the area. This will produce variety and interest in the landscape at this scale;

c) Property entrances will be highlighted with feature planting, and will not be limited to native or endemic species. No plant species will be used on site that could become a weed within remnant bushland areas or creeklines;

d) Plant species have been carefully selected to meet service authority requirements in easement locations;

e) Plant material in carparks will be used to provide shade, ameliorate views of large expanses of paved areas and cars, and to identify entrances to carparks;

f) Trees in carparks will be given sufficient area for root development;

g) Narrow strips of landscaped area between an allotment boundary and building, or between parking areas and a building are minimised;

h) Island planting beds will be interspersed throughout large parking areas. Planting should consist of ground covers, shrubs to 1 metre, shade producing and canopy species;

i) Plant material will be a mix of super-advanced, advanced and normal nursery stock that will provide a quick effect especially in visually prominent areas.

j) Groundcovers have been considered as a grass alternative in areas not specifically designed for pedestrian use;

k) Presentation of a building facade to the street has been complemented with appropriate enframing or screening vegetation. The visual impact of large expanses of wall has been reduced in scale by dense grove planting and mounding of landscape to street frontages.

l) Planting on the site will not impede driver sight distance of vehicles entering or leaving the site.

3.1 Streetscape Planting

The street tree to be used on the Estate Road is *Melaleuca linarifolia*.

Planting design along the Estate Road within the development will create a strong, bold planting theme with predominantly native and endemic species. Trees have been chosen to complement the scale of the building façade and create a consistent visual street front. Trees within planting beds are grouped, with a view corridor provided for building signage at the site entry.

3.2 Boundary Planting

Robust mass native planting along the Mamre Road street front effectively screens the development. However, view corridors have been incorporated to allow for building signage to be visible from this aspect. The use of both native and endemic species will integrate the development with the character of surrounding industrial developments.

3.3 Open Space and Courtyard Planting

Whilst the areas of the site adjacent to the boundaries will be planted predominantly with indigenous and native species, near building entries/staff courtyards, a mix of species will be used. The use of ornamental species within these areas will allow for the creation of differing character zones.

3.4 Plant Establishment and Maintenance

Careful selection of plant materials, good ground preparation before planting and adequate delivery of water, will ensure that the landscape will establish and thrive. Particular attention will be paid during the planting and installation phase to make sure that best practice is followed. Maintenance will play an integral part of the establishment process, ensuring that there will be a high standard of presentation at all times.

Maintenance of the landscaping to the site will be carried out to the satisfaction of the Director General.

4.0 Conclusion

The landscape proposal for the Interlink Industrial Estate, Erskine Park has been designed to complement and integrate the development with its surrounding character, and the future developments of the Erskine Park industrial area. It will provide a high standard of landscape and amenity in a functional and practical landscape.

The landscape design is in accordance with the landscape section (Section 8) of the Penrith Development Control Plan 2006 (Part 6 Section 6.14 Erskine Park Employment Area) and meets its primary objectives; namely:

(a) To retain and enhance locally and regionally significant cultural and ecological values;

(b) To create a landscape character and amenity that is appropriate to the scale and nature of the development; and

(c) To develop an overall landscape character that is derived from natural and cultural landscape features contained within the site and immediate environs.

Appendix A:

INTERLINK INDUSTRIAL ESATATE - INDICATIVE PLANT SCHEDULE

Species	Common Name	Size	Spacing	No
NORTHERN BOUNDARY PLANTING (3 rows, random, mixed)				
Allocasuarina torulosa	Forest Sheoak	Tube		150
Angophora floribunda	Rough Barked Apple	Tube		50
Casuarina cunninghamiana	River Sheoak	Tube		150
Eucalyptus moluccana	Grey Box	Tube		100
Eucalyptus tereticornis	Forest Red Gum	Tube		100
Melaleuca linariifolia	Paperbark	Tube		125
Melaleuca stypheloides	Prickly-leaved paperbark	Tube		125
MAMRE RD BOUNDARY PLANTING (5 rows, mixed)				
Trees				
Allocasuarina torulosa	Forest Sheoak	Tube		100
Angophora floribunda	Rough Barked Apple	Tube		100
Casuarina cunninghamiana	River Sheoak	Tube		150
Eucalyptus moluccana	Grey Box	Tube		50
Eucalyptus tereticornis	Forest Red Gum	Tube		50
Melaleuca linariifolia	Paperbark	Tube		150
Melaleuca stypheloides	Prickly-leaved paperbark	Tube		50
Shrubs				
Callistemon "Anzac"	Bottlebrush	Tube		100
Doryanthes excelsa	Gymea Lily	Tube		100
Grevillea "Superb"	Spider Flower	Tube		100
Westringia fruticosa	Coastal Rosemary	Tube		100
Leptospermum ' Pacific Beauty'	Tea tree	Tube		100
SARAH ANDREWS CLOSE PLANTING (low, mixed planting)				
Callistemon "Captain Cook"	Bottlebrush	5L		100
Grevillea 'Bronze Rambler'	Bronze Rambler	150mm		100
Dianella caerulea	Flax Lily	150mm		200
Hardenbergia violacea	False sarsparilla	150mm		100
Lomandra longifolia 'Tanika'	Lomandra 'Tanika'	150mm		200
Syzygium paniculatum 'Dwarf'	Dwarf Lilly Pilly	25L		100
STREET TREES				
Melaleuca linariifolia	Paperbark	5L	As Shown	
SCREEN PLANTING				
Acmena smithii minor	Lilly Pilly	5L	1500	
Callistemon sp.	Bottlebrush	5L	1500	
Melaleuca decora	Paperbark	5L	2500	
Melaleuca linariifolia	Paperbark	5L	2500	
Melaleuca stypheloides	Prickly-leaved paperbark	5L	2500	
ENTRY/ACCENT PLANTING				
Austromyrtus 'Blushing Beauty'	Native Myrtle 'Blushing Beauty'	5L	600	
Brachycome multifida	Cut Leaf Daisy	150mm	350	
Callistemon "Anzac"	Bottlebrush	5L	1000	
Callistemon "Captain Cook"	Bottlebrush	5L	1000	
Dianella caerulea	Flax Lily	150mm	350	
Doryanthes excelsa	Gymea Lily	25L	1000	
Gazania hybrida	Gazania	150mm	350	

Grevillea "Moonlight"	Spider Flower	5L	1200
Grevillea "Superb"	Spider Flower	5L	1000
Grevillea 'Bronze Rambler'	Bronze Rambler	5L	800
Hibbertia scandens	Snake Vine	5L	1000
Melaleuca quinquenervia	Paperbark	45L	As Shown
Nerium oleander "Dwarf"	Dwarf oleander	5L	600
Syzygium australe "Dwarf"	Dwarf Lilly Pilly	5L	800
Westringia fruticosa	Coastal Rosemary	5L	1000
SHRUBS			
Bursaria spinosa	Black thorn	Tube	800
Callistemon sp.	Bottlebrush	5L	800-1500
Grevillea sp.	Spider Flowers	5L	800-1500
Leptospermum ' Pacific Beauty'		5L	800
Syzygium paniculatum 'Dwarf'	Dwarf Lilly Pilly	5L	1000
GRASSES & GROUNDCOVERS			
Austrodanthonia racemosa	Striped Wallaby Grass	Tube	150
Dianella caerulea	Flax Lily	150mm	300
Dianella relovuta 'Little Rev'	Blue Flax Lily	150mm	300
Dicondra repens	Kidney Weed	Tube	150
Grevillea juniperina	Prostrate Yellow Grevillea	Tube	800
Hardenbergia violacea	False sarsparilla	150mm	600
Lomandra longifolia	Mat Rush	150mm	500
Lomandra longifolia 'Tanika'	Lomandra 'Tanika'	150mm	300
Microlaena stipoides	Weeping Grass	Virotube	150
Poa labillardieri Cv. Eskdale	Poa	Virotube	150
Themeda australis	Kangaroo Grass	Virotube	150
Viola hederaceae	Ivy Leaf Violet	Tube	300