

CNR BERNERA ROAD &
YARRUNGA STREET, PRESTONS
WAREHOUSE & DISTRIBUTION ESTATE

Landscape Design Report – LDR01

Prepared for:

Logos Property

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1.0 - The Project

The project at Yarrunga Street, Prestons involves the development of approximately 20ha of land for a new a warehouse and industrial estate.

The site is bound by 3 roads and setbacks allow for significant landscape buffer planting to screen the development and integrate the site within its broader environment.

This design report has been prepared as part of an SSD submission to the Department of Planning and is to be read alongside Ground Ink drawings LDA-01 to LDA-13 and Ground Ink Report LVIA01 - Landscape and Visual Impact Assessment. It responds to the SEARs issued for Prestons Industrial Estate SSD 7155, particularly addressing the following:

Urban Design & Visual

- *Setbacks, proposed open space areas and landscaped areas*
- *Suitable landscaping incorporating endemic species*

2.0 - Overall Design Approach

2.1 Landscape Buffer Zones

Significant setbacks have been created along the 3 main streets which surround the site. These range from 20m along Kurrajong Road to 10m along Yarrunga Street.

Landscaping aims to achieve two main outcomes within these areas:

- Screening of the development from nearby residential receptors and road users, with a mix of tall tree and shrub planting. Trees to be planted at a rate of 1 per 30m² (5.5m centres) as per Liverpool Council DCP Part 7 for industrial areas.
- Strengthen local character with the use of native and endemic species.

2.2 Internal Buildings, Carparks and Surrounds

Landscaping aims to achieve the following:

- A low water use, low maintenance approach with the use of native shrubs and grasses.
- Provide shade amenity with the use of tall canopy trees within car parking islands and pathway connections.
- Provide clear site lines for trucks and vehicular users.
- CEPTD requirements are met.
- Separate areas with the use of hedge planting.
- Soften the impact of retaining walls with planting.
- Use flowering deciduous tree planting around office buildings and in outdoor staff areas. This will help with wayfinding to office buildings and provide solar access during the winter months and shade during summer.
- Use of recycled materials where possible for furniture and paving.

2.3 Transmission Easement

All tree and shrub planting within the transmission easement is to have a maximum mature height of 4m as per the Transgrid Guidelines. Landscaping close to the electrical towers will mostly consist of native groundcovers and grasses to ensure easy access for maintenance teams.

2.4 Prestons Aboriginal Creek Bank Site

This area is proposed to be used as amenity for the users of the Estate. It includes areas of seating and open turf. Overland flow from the adjacent carpark runs through the site and out to a swale along Bernera Road.

An indicative landscape plan has been provided which includes soil mounding with native grasses over the area of the Aboriginal Creek Bank Site. This to ensure that the site is protected and proposed larger trees and shrubs are planted outside of this zone.

The design is subject to preparation of an Aboriginal Heritage Management Plan and incorporation of heritage elements. Refer to the Heritage report for further detail.

2.5 Cumberland Plain Woodland Offset Areas

Significant areas of the site (refer to LA01 Landscape Site Masterplan) have been dedicated to revegetate using only Cumberland Plain Woodland species. This is to facilitate an offset for the removal of existing Cumberland Plain species that have been identified by the project Ecologist. A new area of approximately 6428m² along Kurrajong road will contain trees, shrubs, groundcovers and grasses typical of this type of community. These are listed in section 4.0 of this report.

The planting will provide the same level of screening as per the buffer zones along Bernera and Yarrunga Street.

An area of 1834m² within the transmission easement will also contain these species, however these will be limited to a mature a height of 4m due to Transgrid restrictions.

Cumberland Plain groundcovers and grasses are used within the site boundary of the Prestons Aboriginal Creek Bank area.

3.0 – Proposals

3.1 Kurrajong Road

The existing grass verge is to remain with a new 1.8m security fence erected to the boundary. A 20m landscape buffer is proposed with a maximum grade of 1:3.

A mix of Cumberland Plain Eucalyptus trees are proposed to provide screening of Warehouse Facility 5. This is supplemented by mid storey planting such as Acacia, Bursaria, Melaleuca and Indigofera. Low level Cumberland Plain groundcover planting includes grasses and creeping planting. The combined planting will create a dense vegetated screen, with an informal natural looking appearance. The scale of the planting will help to sit the warehouses more comfortably in the landscape by reducing the visual domination of the built form.

This treatment is specifically aimed at screening and softening views of the Estate from the adjoining residential areas opposite on Kurrajong Road.

Small trees and shrubs to a mature height of 4m are proposed in the buffer zone within the transmission easement.



Section & Elevation of Kurrajong Road

3.2 Bernera Road

Two buffers zones are proposed along Bernera Road. The first is located in front of the Warehouse Facility 4 carpark, the second is located in front of Warehouse Facility 3 and is 14m in width. A mix of predominately endemic Eucalyptus, Casuarina, Angophora and Syncarpia trees are proposed to provide screening. This is supplemented by mid storey planting such as Acacia, Hakea, Leptospermum and Pittosporum. Low level groundcover planting includes native grasses and creeping planting intended to bind the soil.

The main landscape buffer areas are separated by overland flow in the form of a swale (see engineering drawings). Planting of this area will consist of native sedges and grasses capable of coping with water inundation during certain periods of time. The base of the swale will be planted with Juncus, Carex, Ghania and Isolepsis, while embankments are to be planted with Lomandra species.

A new 1.2m wide pedestrian footpath to Council Standard is included along Bernera Road which will join up the existing intersection and crossing of Kurrajong Road. 1.8m high Palisade fencing is used along the site boundary.



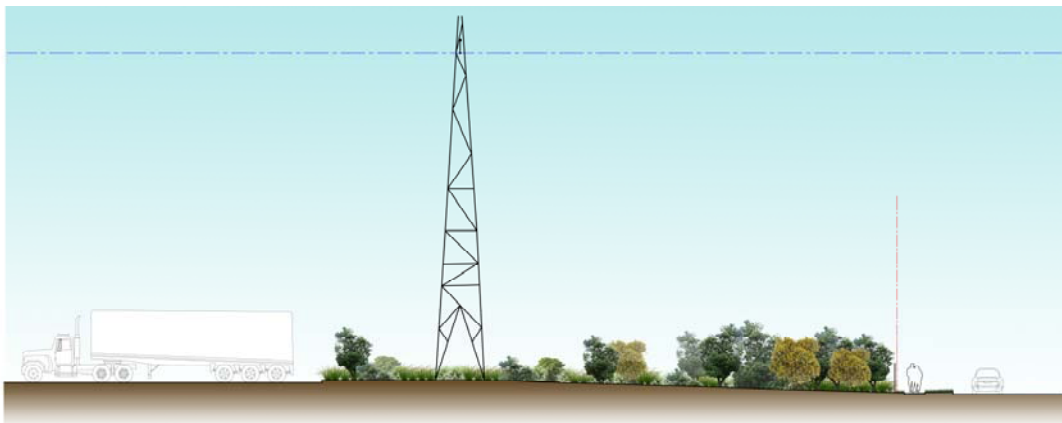
Sections & Elevation of Bernera Road

3.3 Yarrunga Street

The 10m wide buffers zones continue the planting of Bernera Road to create a unified landscape screen.

Small trees and shrubs to a mature height of 4m are proposed in the buffer zone within the transmission easement. Though planting is smaller this will still provide screening of the carpark from the road.

A new 1.2m wide pedestrian footpath to Council Standard is included along Yarrunga Street Road which will create a new crossing at the corner of Yarrunga and Bernera Road. 1.8m high Palisade fencing is used along the site boundary.



Sections & Elevation of Yarrunga Street

4.0 – Planting

Plant species have been carefully selected for the heavy clay soils of Liverpool and many are present in The Liverpool Development Control Plan Part 1 Appendix 2.

Internal Estate, Carparks, Roads and Office Buildings

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT
Trees		
<i>Eucalyptus haemastoma</i>	Scribbly Gum	12-18m
<i>Eucalyptus molucana</i>	Grey Box	12-18m
<i>Elaeocarpus reticulatus</i>	Blueberry Ash	8m
<i>Fraxinus oxycarpa Raywoodii</i>	Claret Ash	8m
<i>Lagerstroemia indica</i>	Crepe Myrtle	8m
<i>Tristaniopsis laurina</i>	Water Gum	6-8m
Shrubs		
<i>Acmena smithii</i>	Lilly-pilly	1.8m (Hedging)
<i>Callistemon citrinus</i>	Scarlet Bottlebrush	4m
<i>Callistemon citrinus 'White Anzac'</i>	White Anzac Bottlebrush	1m
<i>Doryanthes excelsa</i>	Gynea Lily	3m
<i>Banksia ericifolia</i>	Heath Banksia	3m
<i>Grevillea 'Robyn Gordon'</i>	Grevillea 'Robyn Gordon'	1.5m
<i>Grevillea rosmarinifolia</i>	Rosemary Grevillea	2m
<i>Kunzea ambigua</i>	Tick-bush	4m
<i>Leptospermum sp.</i>		3m
<i>Pittosporum undulatum</i>	Pittosporum	3m
<i>Westringia fruticosa</i>	Coast Rosemary	1.5m
Groundcovers		
<i>Dianella caerulea</i>	Blue Flax-lily	1m
<i>Dianella revoluta</i>	Blue Flax-lily, Spreading Flax-lily	1m
<i>Dichondra repens</i>	Kidney-weed, Mercury Bay Weed	0.2m
<i>Hardenbergia violacea</i>	False Sarsaparilla	0.5m
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	1m
<i>Myoporum parvifolium</i>	Creeping Boobialla	0.5m
<i>Viola hederacea</i>	Native Violet	0.2m

Bernera Road Swale

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT
Groundcovers		
<i>Carex appressa</i>	Tall Sedge	0.8m - 1m
<i>Gahnia clarkei</i>	Tall Saw-sedge	1.5 - 2m
<i>Isolepis nodosa</i>	Water Club-rush	1m
<i>Juncus usitatus</i>	Common Rush	0.8m - 1m
<i>Lomandra hystrix</i>	Common Rush	1m
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	1m

Transmission Easement (Except For Planting within Kurrajong Road Easement Cumberland Buffer)

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT
Small Trees		
<i>Lagerstroemia indica</i> x <i>L. fauriei</i> 'Lipan'	Lipan Crepe Myrtle	4m
<i>Leptospermum lanigerum</i>	Woolly tea tree	4m
<i>Melaleuca parvistaminea</i>	Rough barked honey myrtle	4m
Shrubs		
<i>Acacia cultriformis</i>	Knife leaf wattle	3m
<i>Acacia elongata</i>	Slender wattle	3m
<i>Breynia oblongifolia</i>	Coffee Bush	3m
<i>Bursaria spinosa</i>	Boxthorn	4m
<i>Callistemon linearis</i>	Narrow-leaved Bottlebrush	3m
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	2m
<i>Dillwynia parvifolia</i>		1.5m
<i>Hakea dactyloides</i>	Finger Hakea	3m
<i>Hakea salicifolia</i>	Willow Hakea	3m
<i>Melaleuca ericifolia</i>	Swamp paperbark	3m
<i>Melaleuca nesophyla</i>		3m
<i>Pittosporum tenuifolium</i>	New Zealand Pittosporum	3m
<i>Pultenaea villosa</i>	Hairy Bush-pea	2m
Groundcovers		
<i>Austrodanthonia fulva</i>	Wallaby Grass	0.8m
<i>Billardiera scandens</i>	Hairy Apple Berry	1m
<i>Dampiera stricta</i>	Blue Dampiera	0.6m
<i>Dianella caerulea</i>	Blue Flax-lily	1m
<i>Dianella revoluta</i>	Blue Flax-lily, Spreading Flax-lily	1m
<i>Dichondra repens</i>	Kidney-weed, Mercury Bay Weed	0.2m
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	1m
<i>Microlaena stipoides</i>	Weeping Grass, Meadow Rice-grass	1m
<i>Themeda australis</i>	Kangaroo Grass	1m

Landscape Buffer Zones - Bernera Road and Yarrunga Street Screening

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT
Trees		
<i>Allocasuarina littoralis</i>	Black She-Oak	10-18m
<i>Angophora floribunda</i>	Rough-barked Apple	15-20m
<i>Angophora subvelutina</i>	Broad-leaved Apple	15-20m
<i>Casuarina cunninghamiana</i>	River She Oak	15-20m
<i>Casuarina glauca</i>	Swamp Oak, Swamp She-oak	10-18m
<i>Eucalyptus amplifolia</i>	Cabbage Gum	12-20m
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	12-18m
<i>Eucalyptus fibrosa</i>	Red Ironbark	12-18m
<i>Eucalyptus longifolia</i>	Woollybutt	15-20m
<i>Eucalyptus moluccana</i>	Grey Box	12-18m
<i>Eucalyptus punctata</i>	Grey Gum	10-20m
<i>Eucalyptus sideroxylon</i>	Mugga, Red Ironbark	15-20m
<i>Eucalyptus tereticornis</i>	Forest Red Gum	15-20m
<i>Syncarpia glomulifera</i>	Turpentine	15-20m
Shrubs		
<i>Acacia falcata</i>	Sickle Wattle	5m
<i>Acacia floribunda</i>	White Sally	4-6m
<i>Breynia oblongifolia</i>	Coffee Bush	3m
<i>Bursaria spinosa</i>	Boxthorn	4m
<i>Callistemon citrinus</i>	Scarlet Bottlebrush	4m
<i>Callistemon linearis</i>	Narrow-leaved Bottlebrush	3m
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	2m
<i>Dillwynia parvifolia</i>		1.5m
<i>Hakea dactyloides</i>	Finger Hakea	3m
<i>Hakea salicifolia</i>	Willow Hakea	3m
<i>Leptospermum laevigatum</i>	Coast Tea Tree	3m
<i>Leptospermum petersonii</i>	Lemon-scented Tea Tree	4-6m
<i>Melaleuca ericifolia</i>	Swamp paperbark	3m
<i>Melaleuca nesophyla</i>		3m
<i>Pittosporum tenuifolium</i>	New Zealand Pittosporum	3m
<i>Pultenaea villosa</i>	Hairy Bush-pea	2m
Groundcovers		
<i>Austrodanthonia fulva</i>	Wallaby Grass	0.8m
<i>Billardiera scandens</i>	Hairy Apple Berry	1m
<i>Dampiera stricta</i>	Blue Dampiera	0.6m
<i>Dianella caerulea</i>	Blue Flax-lily	1m
<i>Dianella revoluta</i>	Blue Flax-lily, Spreading Flax-lily	1m
<i>Dichondra repens</i>	Kidney-weed, Mercury Bay Weed	0.2m
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	1m
<i>Microlaena stipoides</i>	Weeping Grass, Meadow Rice-grass	1m
<i>Themeda australis</i>	Kangaroo Grass	1m

Cumberland Plain Woodland Species - Kurrajong Road, Kurrajong Road Transmission Easement and Prestons Aboriginal Creek Bank

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT
Trees		
<i>Acacia implexa</i>	Hickory Wattle	5-12m
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	12-18m
<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	20m
<i>Eucalyptus fibrosa</i>	Red Ironbark	12-18m
<i>Eucalyptus maculata</i>	Spotted Gum	20m
<i>Eucalyptus moluccana</i>	Grey Box	12-18m
<i>Eucalyptus tereticornis</i>	Forest Red Gum	15-20m
Shrubs		
<i>Acacia decurrens</i>	Sydney Green Wattle	3-10m
<i>Acacia falcata</i>	Sickle Wattle	5m
<i>Acacia parramattensis</i>	Parramatta wattle	2-15m
<i>Bursaria spinosa</i>	Boxthorn	4m
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	2m
<i>Dillwynia sieberi</i>	Prickly parrot pea	0.5 -2.5m
<i>Exocarpos cupressiformis</i>	Native Cherry	8m
<i>Indigofera australis</i>	Australian Indigo	2.5m
<i>Lissanthe strigosa</i>	Peach Heath	0.7m
<i>Melaleuca decora</i>	White Feather Honey Myrtle	7m
<i>Phyllanthus filicaulis</i>		0.5m
<i>Solanum pungetium</i>	Eastern Nightshade	1.5m
Grasses, Groundcovers and Herbs		
<i>Aristida ramosa</i>	Wiregrass	1.2m
<i>Aristida vagans</i>	Three-awned spear grass	0.8m
<i>Arthropodium milleflorum</i>	Pale vanilla lily	0.5m
<i>Asperula conferta</i>	Common Woodruff	0.5m
<i>Brunoniella australis</i>	Blue Trumpet	0.2m
<i>Cheilanthes sieberi</i>	Mulga Fern	0.3m
<i>Chloris truncata</i>	Windmill grass	0.5m
<i>Chloris ventricosa</i>	Blue Star Grass	1m
<i>Commelina cyanea</i>	Scurvy weed	0.2m
<i>Cyperus gracilis</i>	Slender flat sedge	0.3m
<i>Dianella longifolia</i>	Smooth flax lily	1m
<i>Dichelachne micrantha</i>	Short-haired Plume Grass	1.2m
<i>Dianella revoluta</i>	Blue Flax-lily, Spreading Flax-lily	1m
<i>Dichondra repens</i>	Kidney-weed, Mercury Bay Weed	0.2m
<i>Echinopogon caespitosus</i>	Tufted Hedgehog Grass	1.5m
<i>Echinopogon ovatus</i>	Forest Hedgehog Grass	1.2m
<i>Entolasia marginata</i>	Bordered Panic Grass	0.8m
<i>Eragrostis leptostachya</i>	Paddock lovegrass	1m
<i>Eremophila debilis</i>	Winter Apple	0.5m
<i>Glycine clandestina</i>	Twining Glycine	1m
<i>Glycine tabacina</i>	Native soybean	1m
<i>Goodenia hederacea</i>	Ivy Goodenia	0.8m
<i>Hardenbergia violacea</i>	Hardenbergia	6m
<i>Hibbertia diffusa</i>	Wedge Guinea Flower	0.1m
<i>Hypericum gramineum</i>	Grassy St. Johnswort	0.4m
<i>Hypoxis hygrometrica</i>	Golden Star	0.2m
<i>Lepidosperma laterale</i>	Variable Sword-sedge	1m
<i>Lomandra filiformis</i>	Wattle Mat Rush	0.5m

<i>Lomandra multiflora</i>	Many-flowered Mat-rush	0.9m
<i>Microlaena stipoides</i>	Weeping Grass, Meadow Rice-grass	1m
<i>Oplismenus aemulus</i>	Australian Basket Grass	0.3m
<i>Oxalis exilis</i>	Creeping oxalis	0.3m
<i>Panicum simile</i>	Two-colour Panic	0.7m
<i>Pratia purpurascens</i>	Whiteroot	0.2m
<i>Themeda australis</i>	Kangaroo Grass	1m
<i>Tricoryne elatior</i>	Yellow Autumn-lily	0.4m
<i>Vernonia cinerea</i>	Bitterleaf	0.7m
<i>Wahlenbergia gracilis</i>	Australian Bluebell	0.5m

5.0 – Conclusion

The proposed landscape design will create a unified natural endemic environment that will help to mitigate the development from visual receptors. The use of species local to the area will integrate the subdivision into the wider context and landscape character. A low maintenance and low water use philosophy is to be adopted across the design, with harvested rainwater available for irrigation within the site should it be required.

From within the site key buildings are highlighted and shade amenity is provided with tall canopy trees within carparks and deciduous trees for staff outdoor areas. Edges are softened and separated with shrub and hedge planting. Landscaping is used to break up areas of hardscape wherever possible and provide a visual relief from the built form.