01____Background

1.1 Introduction

This report has been prepared to describe the landscape design proposal associated with the Part 3A Concept Plan application of Sydney Moorebank Intermodal Alliance (SIMTA) Moorebank Intermodal Facility (MITF).

1.2 The Vision

The development seeks to recognise the natural attributes of the locality and looks to integrate and imitate these qualities into a strong design theme that is reinforced in every aspect of the developments open space areas, by way of:
_strong use of endemic species
_consistent site wide tree canopy
_native understorey plantings
_low maintenance approach to the public domain
_local material context to landscape surface treatment and finishes, and an
_underlying natural landscape character throughout the development.

Reinforcement and extension of the surrounding natural context and ecological qualities will ensure the creation of a high quality landscape that will add environmental and aesthetic value and provide an inherent identity to the development.

The development endeavours to visually and physically connect with the existing landscape and natural vegetation of Cumberland Plain Woodland existing adjacent the site, through complimentary use of key tree species and understorey screen plantings.

The development will draw upon the sites local assets and will:
_aim to create a distinctive and attractive natural environment;
_introduce a strong native planting theme appropriate to the local setting and existing vegetation;
_provide road verges for street tree plantings;
_provide an informal streetscape character by randomly planted groups of selected native tree species;
_consist of high quality robust landscape materials that compliment the setting;
_utilise selected native plant material to accentuate and articulate selected spaces, entries and focal points;
_provide a strong and consistent texture and colour of materials and planting;
_preserve the natural and ‘random’ character of the existing landscape setting;
_encourage opportunity for engagement by the site users with the natural environment; and
_provide a aesthetically pleasing and safe environment for workers and visitors alike.
_utilise the landscape screening for Moorebank Avenue.

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2.2 Moorebank Avenue Frontage

Scale and visual screening are key design considerations to be addressed through the landscape concept for the Moorebank Avenue frontage.

Utilising the buffer zone between property boundary and the bio retention swale and the upper levels adjacent hardstand areas for dense tree canopy and lower screen planting immediate, strong vegetation impact is achieved.

Through careful species selection to the bio retention swale, to achieve stormwater objectives and complementary screen planting objectives, the road frontage landscape is further enhanced and the visual amenity greatly improved.

Key nodal points along Moorebank Avenue, specifically at vehicle entry zones, will include additional feature planting to highlight the arrival experience and embellish the native planting character established elsewhere along the road frontage.

Detail A - Moorebank Avenue Frontage

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2.3 Central Access Road

Consistent with the planting proposed to both the Moorebank Avenue frontage and the boundary and buffer zones, the proposed landscape design to the Central Access Road is to consist predominantly of endemic canopy trees of Eucalyptus species and uniform dense screen planting of native shrubs and ground covers to the lower levels.

Screening of buildings, shade provisions to pedestrians and visual diversity and interest will be paramount in species selection, placement and density.

2.4 Bio Retention Swale

Whilst achieving a primary function any requirement of water filtration and bio retention, the plantings proposed to the swales are to remain consistent with the overarching site wide objectives of uniform species use, endemic planting character, native landscape language and a variety of experiences and visual connections for the users of the development.

Detail B - Central Access Road and Bio Retention swale

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2.5 Boundary Treatment and Buffer Zones

The landscape planting proposed to the developments boundaries and buffer zones shall be consistent with the endemic Cumberland Plan Woodland species, evident locally, and in doing so provide a strong and unifying tree canopy structure that links the site holistically and provides the essential scale of planting necessary to compliment the developments built form.

The proposed planting will achieve a natural and informal appearance of the new landscape that matches and builds upon the existing environment of Cumberland Plain Woodland. Critically, the tree canopy will assist in mitigating the visual impact of planned built form by screening with dense vegetation, at both an upper and mid level.

2.6 Vehicular Carpark

Critical to the use and safety of the vehicular carpark areas associated with the development will be the need for the correct provision of shade trees and understorey plantings that ensure:
_CEPTD requirements are met
_Shade is provided for summer months
_Visual diversity exists to aid character and interest
_Low maintenance objectives are achieved, and
_Limited damage and/or liability to pavements and vehicles alike.

Detail C - Boundary Treatment and Vehicular Carpark

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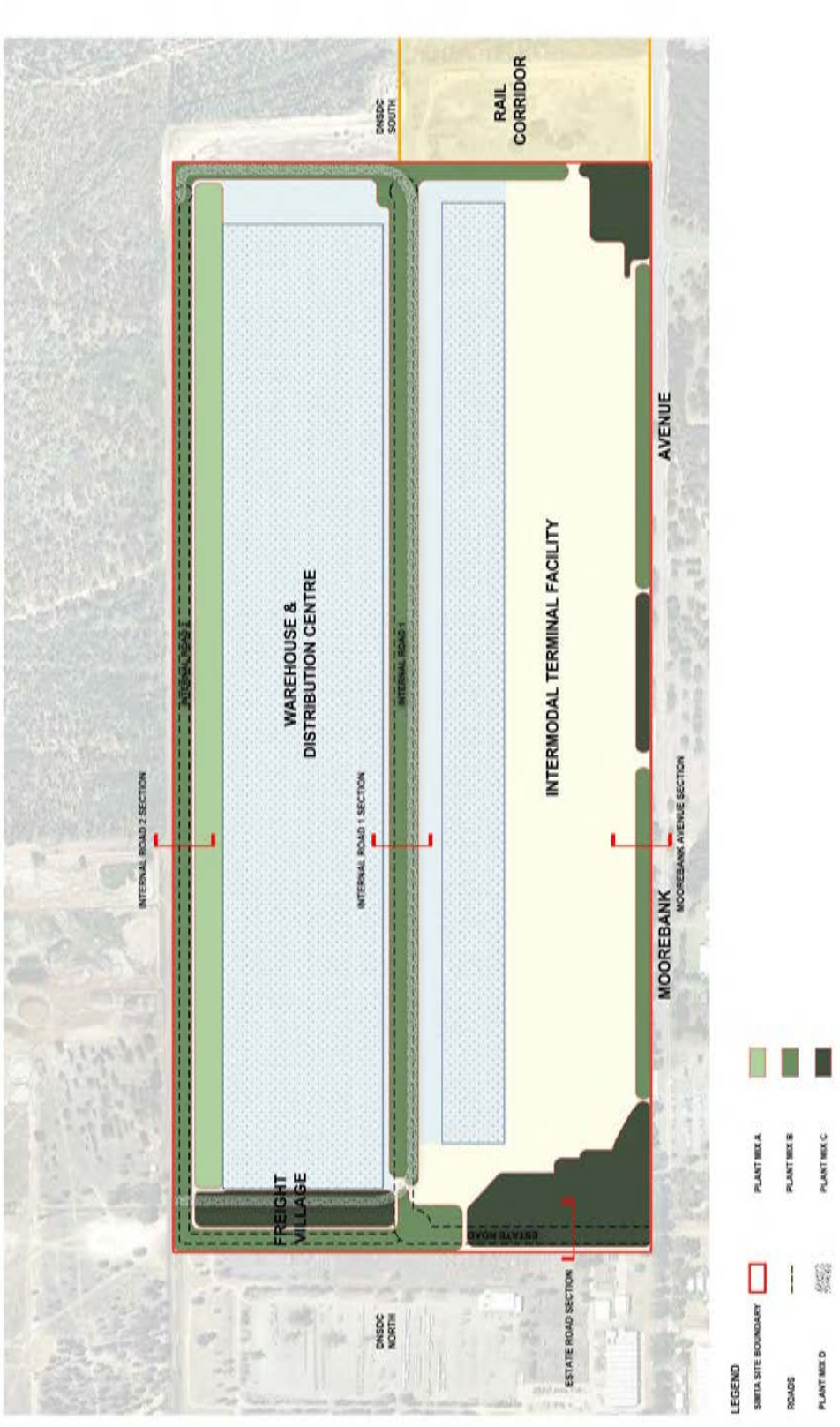
2.7 Planting Principles

Each component of the landscape design has been carefully considered to help achieve the overall vision for the development. (as shown on planting structure diagram) The landscape planting will subtly vary to respond to each spatial zone across the site, while maintaining an overall consistent theme complimenting the endemic Cumberland Plain Woodland. Planting will strengthen and distinguish spaces and provide links between the proposed key vegetation zones, being:

_Entry points and community amenity space
_Boundary treatment and buffer zones
_Vehicular carpark
_Bioretention channels.

Furthermore, the landscape design proposes to build on key principles identified within the Liverpool DCP Part 1.1 and Part 2.4, by:

_Retaining and enhancing the variety of natural characteristics where possible;
_Protection and enhancement of the environmental integrity of the area;
_Ensuring high standard of landscaped areas;
_Ensuring clear sight lines and passive surveillance is maximised;
_Ensuring that the development encourages people to use and interact in streets, car park areas and open spaces without fear or risk;
_Protection of existing natural regeneration on adjoining sites;
_Planting species that are consistent with the landscape themes proposed herein;
_Planting species that are consistent with Liverpool DCP Part 1.2, Appendix 2, for preferred plant species;
_Plant selection that is consistent with the woodland community present on the site; and
_Ensuring appropriate application of site wide Water Sensitive Urban Design Principles.



ARCHITECT
REIDCAMPBELL

Moorebank Intermodal Terminal Facility | Landscape Structure
Moorebank Avenue, Moorebank

Figure 12 | August 2011 | NORTH | CLIENT SIMTA

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2.8 Plant Species

The proposed planting mixes have been developed to build upon and enhance the following key vegetation communities found in the immediate vicinity of the development

_Shale Gravel Transition Forest
- _Eucalyptus fibrosa
- _Eucalyptus moluccana
- _Eucalyptus tereticornis
- _Melaleuca decora

_Cooks River/Castlereagh Iron bark Forest
- _Brachychiton populneus
- _Corymbia maculata
- _Eucalyptus Crebra
- _Eucalyptus fibrosa
- _Eucalyptus longifolia
- _Melaleuca decora

_Castlereagh Scribbly Gum Woodland
- _Eucalyptus sclerophylla

_Castlereagh Swamp Woodland
- _Eucalyptus parramattensis ssp parramattensis
- _Melaleuca decora

and remain consistent with Preferred Species of Liverpool DCP Part 1.1, Appendix 2.

In addition, the following plants have been chosen for the bio retention channels as they are able to remove nutrients effectively whilst maintaining a high filtration capacity:

_Small tree:
- _Melaleuca erictifolia

_Grasses and Sedges:
- _Carex appressa
- _Ficinia nodosa
- _Goodenia ovate
- _Juncus amabilis
- _Juncus flavidus.

PLANT MIX A_Entry Points and Community Amenity Space

Species	*Height (m)*	*Spread (m)*
Trees		
_ Acacia baileyana	8	5
_Acacia decurrens	15	5
_Banksia integrifolia	8	5
_Callestemon citrinus	5	3
_Corymbia maculata	30	12
_Doryanthese excelsa	4	4
_Eucalyptus crebra	30	20
_Eucalyptus fibrosa	25	18
_Eucalyptus moluccana	30	12
_Eucalyptus terreticornis	35	15
_Leptospermum petersonii	6	3
_Lomandra ‘tanika’	1	1

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PLANT MIX B_Boundary Treatment and Buffer Zones

Species	*Height (m)*	*Spread (m)*
Trees		
_Eucalyptus fibrosa	25	18
_Eucalyptus moluccana	30	12
_Eucalyptus terreticornis	35	15
Shrubs		
_Bursaria spinosa	3.5	2.5
_Daviesia ulicifolia	2	2
_Dillwynia sieberi	2.5	3
_Eucalyputs crebra	18	12
_Eucalyptus longifolia	25	16
_Indigofera australis	2.5	2

PLANT MIX C_Vehicular carpark

Species	*Height (m)*	*Spread (m)*
Trees		
_Banksia integrifolia	10	5
_Eucalyputs crebra	30	20
_Leptospermum petersonii	6	3
_Lomanda 'Tanika'	1	1
_Doryanthes excelsa	4	4

PLANT MIX D_Bioretention Channels

Species	*Height (m)*	*Spread (m)*
_Acacia baileyana	8	5
_Acacia decurrens	20	5
_Banksia integrifolia	8	5
_Callestemon citrinus	5	3
_Carex appressa	0.8	0.6
_Eucalyptus parramattensis	20	10
_Goodenia ovate	1.2	1
_Goodenia paniculata	1	2
_Juncus amabilis	1	0.8
_Juncus flavidus	1.2	1
_Juncus usitatus	1	1
_Leptospermum petersonii	6	3
_Melaleuca ericifolia	3	3
_Melaleuca decora		

2.9 Materiality

All proposed landscape materials used to pathways, boardwalks, channels, planting zones and pedestrian amenity spaces will be selected to enhance the endemic plant community and create a strong language that will permeate the entire development. Materials will compliment the built form and will provide a robust, rustic feel in the form of warm tones and natural textures.

Materials traditionally associated with a bushland landscape such as that proposed for this development may include aged metals, gravels, natural stone and timber. They will age gracefully and require a minimum of maintenance. These materials will be used to create a variety of elements including seats and shade structures, signage, paving and edging.

All proposed landscape materials will be of robust nature, resistant to pollutants and require minimal maintenance. The materials selected will be able to withstand the proposed intermodal, industrial and logistical land uses.