# KURRAJONG ROAD, KOOKABUURRA & YARRUNGA STREET, PRESTONS

WAREHOUSE 2 & 6
DISTRIBUTION ESTATE

### **Landscape and Visual Impact Assessment Report**

Prepared for:

**Logos Property** 

Prepared By:



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#### 1.0 - Introduction

#### 1.1 Project Background

The application this Landscape and Visual Impact Assessment (LVIA) relates to seeks approval for the development of a warehouse and distribution centre, including a warehouse and Volvo facility with ancillary office space, internal driveway, hard stand areas, and associated earthworks and landscaping. The premises will be used by 2 single user tenants who are currently being identified by the Applicant.

A request for Secretary's Environmental Assessment Requirements (SEARs) was submitted to the Department of Planning and Environment (DPE) in August 2015. SEARs were provided by the DPE on the 11 September 2015. The SEARs relevant to this assessment included:

- A detailed assessment (including photomontages and perspectives) of the facility (buildings and storage areas) including height, colour, scale, building materials and finishes, signage and lighting, particularly from:
- nearby residential receivers; and
- significant vantage points within the surrounding public domain.

This assessment seeks to satisfy the above requirement.

A Visual Impact Statement was prepared for the entire Estate masterplan by Ground Ink Landscape Architects in March 2013. The DPE approved this VIS and subsequent building construction and landscaping has taken place since that approval. This VIA is an updated statement for the 2 proposed facilities Warehouses 1 and 6.

#### 1.2 This Report and Author

Habit8 have been commissioned by Logos Property Group.

Habit8 Pty Ltd has also prepared the Landscape Design drawings (L001-L004) These documents detail mitigation and design responses which were formed as a result of this assessment and should be read in conjunction with this report. The report author is a landscape architect with 20 years experience registered with the Australian Institute of Landscape Architects.

#### 2.0 - Methodology of Assessment

#### 2.1 Guidelines

The following best practice guidance has been used as the basis for the LVIA:

Guidelines for Landscape and Visual Impact Assessment (GLVIA) – Third Edition (LI/IEMA 2013);

Landscape assessment is concerned with changes to the physical landscape in terms of features/elements that may give rise to changes in character. Visual appraisal is concerned with the changes that arise in the composition of available views as a result of changes to the landscape, people's responses to the changes and to the overall effects on visual amenity. Changes may result in adverse (negative) or beneficial (positive) effects.

The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above, information and data analysis techniques, uses subjective professional judgement and quantifiable factors wherever possible, and is based on clearly defined terms (refer to glossary).

As stated in paragraph 1.20 of the GLVIA:

"The guidance concentrates on principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not follow a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to

the particular circumstances."

#### 2.2 Computer Generated Visualisations

Photomontages have been prepared to create "simulated" views of the proposed development. Although these do not claim to exactly replicate what would be seen by the human eye, they provide a useful tool in analysing potential visual impacts from receptor locations.

These have presented in this report as before and after images on the same sheet for ease of comparison. The computer generated images also include landscape mitigation at a mature age of 15 years. The assessment undertaken at Year 15 assumes that such proposals have the opportunity to grow and become effective. For the purposes of most LVIAs Year 15 effects are also taken to be the 'residual effects' of the development. Residual effects are those which are likely to remain on completion of the development and are to be given the greatest weight in planning terms.

#### 2.3 Sensitivity of the Landscape Resource

A number of factors influence professional judgement when assessing the degree to which a particular landscape receptor can accommodate change arising from a particular development. Sensitivity is made up of judgements about the value attached to the receptor determined at baseline stage and the susceptibility of the receptor to the type of change arising from the development proposal.

The table below provides an indication of the criteria by which the sensitivity of any landscape receptor is determined by combining judgements of the value of the receptor and its susceptibility to the type of change or development proposed. A degree of professional judgement applies in arriving at the sensitivity for receptors. Wherever sensitivity is judged, the specific combinations of factors that have influenced that judgement are

described. The table has been adapted from the GVLIA with terms used as more appropriate for assessment of Australian landscape.

Table: Landscape Receptor Sensitivity Criteria

Category	Landscape Receptor Criteria		
Very High	Nationally designated/valued landscape and landscape features; strong/distinctive landscape characteristics: absence of landscape detractors. Rare receptor in excellent condition.  A landscape receptor extremely sensitive to disturbance or change in character due to the development proposals. No potential or very limited potential for substitution or replacement.		
High	Locally designated valued landscape and features: many distinctive landscape characteristics: very few landscape detractors. Uncommon receptor in good condition.  A landscape receptor sensitive to disturbance or change in character due to the development proposals. Limited potential for substitution or replacement.		
Medium	Undesignated landscape and features: some distinctive landscape characteristics: few landscape detractors. A relatively common receptor in fair condition.  A landscape receptor with a moderate level of sensitivity to disturbance or change in character due to the development proposals. Some potential for substitution or replacement.		
Low	Undesignated landscape and features: few distinctive landscape characteristics: presence of landscape detractors. A common receptor in poor condition.  A landscape receptor with limited sensitivity to disturbance or change in character due to the development proposals. Clear potential for substitution or replacement.		
Very Low	Undesignated landscape and features: absence of distinctive landscape characteristics: presence of many landscape detractors. A common receptor in very poor condition.  A landscape receptor with very limited sensitivity to disturbance or change in character due to the development proposals. Good potential for substitution or replacement.		

The magnitude of change is determined through a range of considerations particular to each receptor and effect. In line with the GLVIA, the three main attributes considered are:

- 1. Scale of Change
- 2. Geographical Extent
- 3. Duration and reversibility

The table below provides an indication of the criteria by which the magnitude of change as a result of the development proposed upon a landscape receptor is judged within this assessment. These criteria provide a framework for assessment, and final conclusions are reached through clear and transparent use of reasoned professional judgement, taking into account a range of factors as described above.

Table: Landscape Receptor of Change Criteria

Category	Definition
Very High	Total loss of or major alteration to key elements/features/characteristics of the baseline condition. Addition of elements which strongly conflict with the key characteristics of the existing landscape.  Large scale effects influencing several landscape types or character areas.
High	Notable loss or alteration to on or more key elements/features/characteristics of the baseline condition. Addition of elements that are prominent and may conflict with the key characteristics of the of the existing landscape.  Effects at the scale of the landscape type or character areas within which the proposal lies.
Medium	Partial loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may be evident but do not necessarily conflict with the key characteristics of the of the existing landscape.  Effects within the immediate landscape setting of the site.

Low	Minor loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may not be uncharacteristic within the existing landscape.  Effects at the site level (within the development itself)
Very Low	Barely discernible loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements not uncharacteristic within the existing landscape.  Effects only experienced on parts of the site at a very localised level.

#### 2.4 Visual Receptor Sensitivity

Factors which influence professional judgment when assessing the degree to which a particular view can accommodate change arising from a particular development, without detrimental effects would typically include:

- Judgements of value attached to views take into account recognition of the value attached to particular views e.g. heritage assets or through planning designations
- Judgements of susceptibility of visual receptors to change is mainly a function of the occupation or activity
  of people experiencing the view at particular locations; and the extent to which their attention or interest
  may therefore be focussed on the views and the visual amenity they experience at particular locations.

Typically, sensitivity of visual receptors may be judged to be very high, high, medium, low or very low. Definitions of these indicative categories as appropriate to this assessment are set out in the table below.

Table: Visual Receptor Sensitivity

Category	Definition	
Very High	Designed view to or from a heritage / protected asset. Key protected viewpoint e.g. interpretive signs. References in literature and art/or guidebooks and tourist maps. Protected view recognised in planning policy designation [LEP, DCP, DOP]. Views from the main living space of residential properties, state public rights of way e.g. bush trails and state designated landscape feature with public access. Visitors to heritage assets of state importance.	
High	View of clear value but may not be formally recognised e.g. framed view of high scenic value from an individual private dwelling or garden. It may also be inferred that the view is likely to have value e.g. to local residents.  Views from the secondary living space of residential properties and recreational receptors where there is some appreciation of the landscape e.g. golf and fishing. Local public rights of way and access land. Road and rail routes promoted in tourist guides for their scenic value.	
Medium	View is not promoted or recorded in any published sources and may be typical of the views experienced from a given receptor. People engaged in outdoor sport where an appreciation of the landscape has little or no importance e.g. football and soccer. Road users on main routes (Motorway/Freeway/Highway) and passengers on trains.	
Low	View of clearly lesser value than similar views experienced from nearby visual receptors that may be more accessible. Road users on minor roads. People at their place of work or views from commercial buildings where views of the surrounding landscape may have some importance.	
Very Low	View affected by many landscape detractors and unlikely to be valued. People at their place of work or other locations where the views of the wider landscape have little or no importance.	

For the visual receptors identified, the factors above are examined and the findings judged in accordance with the indicative categories below in the table to determine the magnitude of change.

Table: Visual Receptor Magnitude of Change Criteria

Category	Definition	
Very High	There would be a substantial change to the baseline, with the proposed development creating a new focus and having a defining influence on the view. Direct views at close range with changes over a wide horizontal and vertical extent.	
High	The proposed development will be clearly noticeable and the view would be fundamentally altered by its presence. Direct or oblique views at close range with changes over a noticeable horizontal and or/vertical extent.	
Medium	The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor. Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.	
Low	The proposed development will for a minor constituent of the view being partially visible or at sufficient distance to be a small component. Oblique views at medium or long range with a small horizontal/vertical extent of the view affected.	
Very Low	The proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation. Long range views with a negligible part of the view affected.	

#### 2.5 Significance of the Impact

For each receptor type, the **sensitivity** of the location is combined with the predicted **magnitude of change** to determine the level of effect on any particular receptor. Having taken such a wide range of factors into account when assessing sensitivity and magnitude at each receptor, the level of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in the table below:

	Magnitude of Change					
vity		Very High	High	Medium	Low	Very Low
	Very High	Substantial	Major	Major / Moderate	Moderate	Moderate/Minor
Sensitivity	High	Major	Major / Moderate	Moderate	Moderate/Minor	Minor
Receptor :	Medium	Major / Moderate	Moderate	Moderate/Minor	Minor	Minor Negligible
Rece	Low	Moderate	Moderate/Minor	Minor	Minor/ Negligible	Negligible
	Very	Moderate/Minor	Minor	Minor	Negligible	Negligible/None
	Low			Negligible		

In all cases, where overall effects are predicted to be moderate or higher (shaded grey), this will result in a prediction of a significant effect in impact terms. All other effects will be not significant.

In certain cases, where additional factors may arise, a further degree of professional judgement may be applied when determining whether the overall change in the view or effect upon landscape receptor will be significant or not and, where this occurs, it is explained in the assessment.

Visual effects are more subjective as people's perception of development varies through the spectrum of negative, neutral and positive attitudes. In the assessment of visual effects, Ground Ink will exercise objective professional judgement in assessing the significance of effects and will assume, unless otherwise stated, that all effects are adverse, thus representing the worst-case scenario.

#### 2.6 Site Inspection and Photographic Recording

The consultant team carried out a site inspection to verify the results of desktop study and to evaluate the existing visual character of the area. Locations were identified that would potentially be subject to visual

impacts from the Proposal. Photographs were taken by Fruzlab from key viewpoints using a Canon 60D DLSR Camera and 18mm lens. GPS recordings were taken and locations mapped using topographical survey data. This information was later used to create the photomontages.

#### 2.7 Visualisation of the Development

Fruzlab were engaged to develop a digital three-dimensional model in Trimble SketchUp, this was then rendered using Cinema 4D. The model included all aspects of the proposed development combined with the landscape design and mitigation proposed by Habit8.

Views were generated from the model that matched the camera positions of photographs taken from the key viewpoints. These were then combined with the photographs to create simulated views of the proposal.

#### 2.8 Assessment of Visual Impact

The visual impact from the key receptors has been assessed on the basis of the criteria described in Section 2.4. This report focuses on the visual receptors judged to have the highest sensitivity to the development, these are:

- The residential dwellings along Kurrajong Road to the south west of the site.
- Lot 28 Yarrunga Street (Corner of Kookaburra Rd North & Yarrunga St)

Views at a variety of distances from the site have also been considered, however it is noted that the site is surrounded to the west and north by Cabramatta Creek which is vegetated with a large amount of tall native canopy trees. This provides a dense visual screen between the site and the residential areas of Carnes Hill, Hoxton Park and Middleton Grange. The topographical elevation of these areas is somewhat similar to the development site at RL 40m – 50m. It is expected that for the properties within residential areas behind Cabramatta Creek the significance of the visual impact will be **negligible/none**.

There is also considerable completed industrial warehouse facilities surrounding the site to the East, North and West.

Some residential dwellings at higher elevations of RL 100m such as West Hoxton may experience glimpsed views over the development and horizon beyond, however the magnitude of change for such dwellings is likely to be **very low** due to the distance from the proposed site and the existing industrial character which exist to the east and north east. The significance of the visual impact from these properties is judged to be **minor**.

Residential areas such as Lurnea, Cartwright and Liverpool are all located behind an existing industrial area, therefore it is considered that views from these areas will be unaffected by the development and the significance of visual impact with be **negligible/none**.

Refer to section 8.0 for the visual impact assessment from the key receptors.

#### 3.0 - The Site and Environs

#### 3.1 Location

The site is located at Yarrunga Street, Prestons, and is legally described as Lots 33-35 and Lot 43 in DP2359 and Lot 20 in DP117483. These lots are bounded by Yarrunga Street to the north, and Kookaburra Rd to the west. Existing constructed warehouse facilities border the site to the East. The property north of Yarrunga Street is a construction site for another Warehouse facility.

The site has an area of approximately 20.3 hectares and is located approximately 5km from the Liverpool CBD. The site is in the Liverpool Local Government Area.

Figure 1 provides the site's location. Figure 2 provides the site's

context. Figure 1 - Site Location



The site is predominantly vacant and covered by pasture grass. The subject property is rectabgular in shape, taking up the Yarrunga street frontage and part of the Kookaburra Rd Frontage.

The following table briefly outlines the key features of each lot within the site.

Table 1 – Existing Features on the Site

LOT	FEATURES
Lot 33 & 35	Proposed warehouses for this block covered in paddock grass, High voltage power lines traverse these lots in a north / south alignment.
Lot 34	Constructed Warehouse
Lot 43	Empty vacant paddock
Lot 20	Constructed Warehouse

#### 3.3 Context

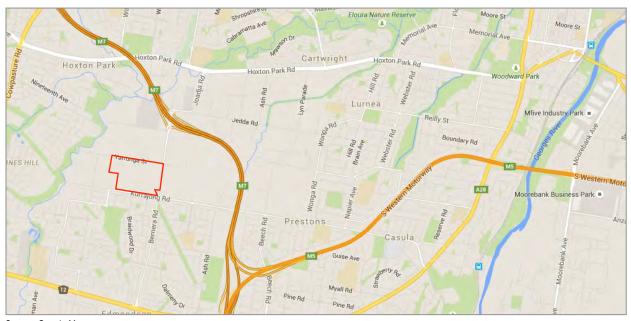
Prestons is situated at the key road junction of the M5 South Western Motorway, the Hume Highway, and the Westlink M7, and therefore has good connectivity to Sydney's centre and north, as well as Canberra and Melbourne. All three roads can be accessed from Camden Valley Way, which also connects Prestons to Liverpool and Camden. Prestons is serviced by trains to the city via Granville and the Airport from Glenfield and Edmondson Park stations.

The development immediately surrounding the site is described in the following table, whilst **Figure 2** provides the site's context.

Table 2 – Surrounding Development

Lot	Features			
North	Yarrunga Street.			
	Favelle Favco Cranes Pty Ltd.			
	Large industrial warehouse and storage yards.			
South	Kurrajong Road.			
	Low density residential development is located on the adjacent side of Kurrajong Road.			
East	Bernera Road.			
	LDN Distribution Centre (flyer and publication printing).			
	Large warehouses and car park.			
West	Predominantly undeveloped.			
	Grass covered sites with evidence of market gardening.			

Figure 2 – Site Context



Source: Google Maps

#### 4.0 - Baseline Description

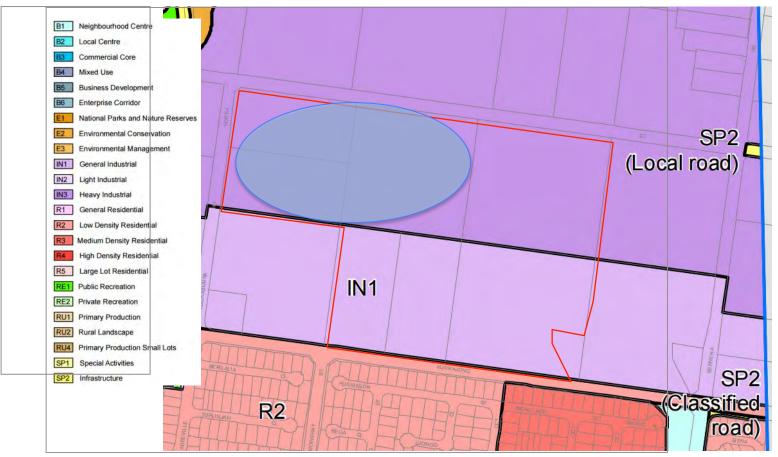
#### 4.1 Planning Context

The following provides a description of relevant local planning policies applicable to the proposed development.

#### Liverpool Local Environmental Plan 2008 - Zoning

The site is zoned IN1 General Industrial and IN3 Heavy Industrial under the Liverpool Local Environmental Plan 2008. Figure 3 illustrates the sites zoning.

FIGURE 3 - SITE ZONING MAP



Source: NSW Legislation

#### **Maximum Building Height**

All buildings are below the maximum building height with a maximum height of 13.7m.

#### **Liverpool Development Control Plan 2008**

'Part 7: Development in Industrial Areas' of the Liverpool Development Control Plan 2008 (the DCP) applies to the proposed development. An assessment of the proposed development against the key controls of the DCP can be found in the Environmental Impact Assessment (EIS). The key controls include:

Setbacks
Landscaped
area
Building design, streetscape and
layout Landscaping and fencing

#### 4.2 Landscape Character

The development site's baseline can be described as being open farm land. It is covered in grass and occasionally grazed by livestock. There is a gentle slope visible which has an elevational rise of 20m from the corner of Bernera and Kurrajong road to approximately the centre of the site. There are also a few small communities of Cumberland plain woodland and an existing culvert and drainage ditch. Detractors of the site include several sheds, the two transmission towers and associated conductors.

This character continues to Cabramatta Creek situated directly to the west. To the north and east the character changes to one more of industrial with several warehouse developments. To the south the area is residential and bounded by Camden Valley Way.

#### 4.3 Sensitivity of the Landscape

There are no current statutory designations within the LEP which attribute Landscape or Environmental value to the site. A local value may be held by some visual receptors with high sensitivity to the site along Kurrajong road and passing pedestrians and motorists of medium sensitivity. These views are likely to be based on perceptual aspects such as wildness, tranquillity, land use and green open space. The site is privately owned and therefore does not add any recreational benefit to the community. The character of the adjacent sites to the north and south is industrial. The landscape in the majority is therefore considered to have a small value.

An Ecological report has identified that an area of remnant vegetation on site occurs as a total area of 0.48 ha, this is classified as Cumberland Plain Woodland. The landscape design and mitigation proposals (see section 6.0) contain a 20m buffer to the south, planted with Cumberland Plain Species which offset this loss. A large number of native tall canopy trees will be planted in the north and eastern setbacks. Almost all planting within the development is proposed to be native with a large proportion of endemic species.

The site is zoned in the Liverpool DCP 2008 as IN1 General Industrial and IN3 Heavy Industrial, therefore the ability of this site to accept an industrial use has already been assessed and approved by Liverpool Council.

The conclusion drawn from the analysis above suggests the sensitivity of the landscape to be low.

#### 4.4 Key Views - Receptor Locations

The symbols and numbering on the following map indicate the locations from viewpoints close to nearby sensitive residential receptors and significant vantage points within the surrounding public domain. The most visual sensitive receptors are those properties along Kurrajong Road, Lot 10 Yarrunga Street, Lot 28 Yarrunga Street and Lots Kookaburra rd. Eye-level photomontages have been generated to represent as closely as possible views from these receptor locations. The four remaining photomontages are taken in aerial positions from four corners of the development, these are useful for visualising the surrounding contextual envelope of the development. Refer to the visual impact assessment at Section 8.0 of this report and the corresponding viewpoints 1 to 9.

Figure 4 – Visual Receptor Locations



#### 5.0 - Development Proposals

Some of the following information has been taken from the Architectural Design Statement Prepared by Axis Architectural Pty Ltd.

#### 5.1 Built Elements

The proposal consists of 2 facilities of varying sizes across the site. Building heights have been set at 13.7m top of ridge for each building with height at eaves typically 10 to 11m at the underside of rafter allowing for high bay warehouse storage that is typical for this type of development. Office areas are a mix of one (1) and two (2) storey offices. All buildings are below allowable buildings from Liverpool Local Environmental Plan 2008 – Height of Buildings Map sheet HOB\_008

#### 5.2 Materials

The following extract has been taken from the Architectural Design Statement prepared by Axis Architectural:

'External building facades for the main warehouse buildings are mix of precast concrete wall panels and colorbond steel metal claddings. Office areas are a combination of precast concrete panels, fibre cement sheet wall cladding, prefinished aluminium cladding with performance glazing in aluminium framing.

Warehouse facades consist of painted dado panel precast with metal cladding above being the dominant material and utilises alternate colours to form a consistent unifying theme to connect all buildings of the industrial estate.

The use of precast concrete panelling provides a neutrally coloured appearance to the development. This neutral approach has already been incorporated on the LDN distribution centre on Bernera Road, with the use of white and grey panelling.

No dominant bright colours are proposed with the building form which could potentially draw attention to the development from visual receptors. The dominance of the materiality will become less apparent in year 15 when landscape is expected to be at full maturity within the setback zones.

Warehouse 6 is a small facility with a significantly reduced building form as the facility is designed for Volvo who require maximum ground area for car/truck parking.

Refer to section 6.0 Visual Assessment for further description of materials and finishes from visual receptor locations.

#### 5.3 Levels

Warehouse 1 RL41.95 Warehouse 6 RL36.00

#### 5.4 Site access & parking

Access for heavy vehicles to warehouse 1 is via the private access road from Yarrunga Street between warehouse 1 and 2. Loading hardstand and waste collections areas are screened from street fronts by building 1 and future building 7. Carparking for warehouse 1 amd 6 is contained behind the setback landscaping area from Yurrunga Street (west end) Lift and stair entry points have been provided from the carpark for staff for both warehouse facilities.

#### 5.5 Set backs

Building setbacks follow or exceed the required setback along street frontages. Side and rear setbacks vary and allow for fire truck access around buildings as required by BCA requirement for Large Isolated buildings and Liverpool City Council DCP for Developments in Industrial Areas. Landscape buffer zones widths are as follows:

Kookaburra Rd North 10m

Yarrunga Street 10m

#### 5.6 Lighting

Lighting is to be provided with a combination of light poles and building mounted lighting around the site for onsite security and safety. Lighting is to be positioned to shine inwards onto the site minimising light spillage onto adjoining properties. The layout of the buildings and internal roads and loading areas alomng with the topography and distance of the proposed development site will ensure that residential properties to the south of Kurrajong Road will not be affected by light spill.

#### 5.7 Signage

Signage will be considered on an Estate wide basis such that there will be consistency in materials and finishes of the signs across the Estate. Signage will be a combination of building mounted signage for individual buildings, and estate and tenant identification signage in landscape setbacks, at access road and driveway entries, and at building entries.

#### 6.0 Landscape Strategy, Design and Mitigation

#### **6.1** Potential effects of the development

It has been established in section 4.3 that the sensitivity of the landscape is low and the ability of the site to accept the proposal is judged to be appropriate. From baseline study it is apparent that views close and across the development site are of greater importance than those views from the wider landscape, therefore the greatest impact would be most prominent from the residential properties south and southwest along Kurrajong Road. This particular section of the overall Estate is not adjoining or within the visual corridor of the residences along Kurrajong rd asit sits in the North west corner of the site. Any visual impacts would affect Lots to the west (predominantly vacant) and North (Industrial warehouse zoning and sites under construction)

The design of the setbacks recognises the need to provide significant mitigation to surrounding lots in the form of dense canopy tree planting together with a shrub and groundcover understory. This should help to soften the appearance of the development from the most highly sensitive receptors. (a small metal farmhouse in the far north west corner and distant impacts to Kurrajong rd) It can be argued that the landscape will be enhanced by the introduction of 3 dedicated managed areas of Cumberland Plain species totalling approximately 9230m2. Refer to Habit8 documentation et for further details.

Photomontages of the development from Kurrajong Road and Kookaburra Rd north and from four aerial views are assessed in section 6.0 of this report. These demonstrate a view at approximately year 15 of the development, this is when planting is expected to maturity and become most effective at screening the development.

#### 6.2 Detailed Landscape Proposals

Please refer to Landscape Design Report – prepared by Habit8 for detailed landscape proposals.

#### 7.0 Landscape Impact Assessment

The sensitivity of the landscape has been assessed within the baseline to be **low** (see section 4.0). From understanding the development proposals, mitigation and the existing industrial character of adjacent landscape, the magnitude of change is judged to be **low**. There will be some loss to the existing characteristic of the open farmland but the introduction of the development is not uncharacteristic of the context in which it will sit. The significance of impact therefore is judged to be **minor/negligible**.

#### 8.0 Visual Impact Assessment

#### **8.1** Viewpoint 1

#### Viewing Location Photomontage Figure

Kurrajong Road Looking North West Figure 5

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

#### 900m

This view has been taken from the shared footpath and cycleway of Kurrajong Road opposite the edge of Building 5 that adjoins the vacant block with small derelect farmhouse. It is representational of receptors such as motorists, cyclist and pedestrians. It is also a close representation of views from second storey rear facing properties along Kurrajong Road. There are a number of existing landscape detractors within this view including lighting poles, an existing house, clump of remnant vegetation, topography and the distance from this area to the proposed warehouses 1 and 6.

Views of warehouse 1 and 6 from this location is impossible and will be even more shielded from view when the vacant lot separating Kurrajong road from the subject site is developed with warehouse facilities.

The majority of residential properties along Kurrajong Road are single storey bungalows and have south facing street addresses on Huskisson Street and Michelago Circuit. Rear gardens face the site however a retaining wall, fencing and some landscaping prevent views directly to the development site. Four properties are double storey but will still not be impacted from the proposed development of warehouses 1 and 6 on the corner of Kookaburra Rd and Yurrunga street.

#### **Visual Sensitivity**

have **negligible/none** sensitivity. The majority of residential properties from this location are in close proximity of the development but are single story. Therefore, it can be judged that sensitivity of these receptors is classed as **negligible/none** The double story properties that do have windows that overlook the estate are also judged to be of s **negligible/none** ensitivity.

Motorists, cyclists and pedestrians are considered to

#### **Magnitude of Change**

It is believed that motorists, cyclists and pedestrians would experience a **negligible/none** magnitude of change. Single story residential dwellings adjacent to Kurrajong Road would experience a **negligible/none** magnitude of change. For the small number of properties which have second storey windows these would experience a **negligible/none** magnitude of change.

#### Significance of

The significance of the impact for motorists, cyclists and pedestrians would be **negligible/none**. Rear facing Single storey dwellings on Huskisson Street and Michelago Circuit would be **negligible/none**. The few residential properties with second storey windows overlooking the development would experience a **negligible/none** significance of impact.

Figure 5 – Existing Baseline & Photomontage





#### 8.2 Viewpoint 2

#### Viewing Location

East

Photomontage

Cnr Kookaburra rd and Kurrajong Road Looking North

Figure 6

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

#### 600m-900m

This view has been taken from the shared footpath and cycleway at the intersection of Kurrajong Road and Kookaburra Rd opposite the western site boundary to the vacant future development site lot. It is representational of receptors such as motorists, cyclist and pedestrians travelling in a west to east direction mostly.

Far reaching views of higher landscape topography are currently visible.

The majority of residential properties along Kurrajong Road are single storey bungalows and have south facing street addresses on Huskisson Street and Michelago Circuit. Rear gardens face the site however a retaining wall, fencing and some landscaping prevent views directly to the development site. A small number of properties are double storey and would potentially experience views of the development in a far distance but topography and the future development between these houses and the subject site inhibits any views to the development along Kookaburra Rd.

At year 15 of the development, filtered views of Warehouse 6 (smaller warehouse for Volvo) will be possible with minimal views of Warehouse 1 due to distance , height of planting in proposed vegetation buffers and future infill development.

#### Visual Sensitivity

Magnitude of Change

Motorists, cyclists and pedestrians are considered to have **low** sensitivity. The majority of residential properties from this location are not in close proximity of the development and are single story. Therefore, it can be judged that sensitivity of these receptors is classed as **very low**. The double story properties that do have windows that may see parts of the development in the distance and are judged to be of **very low** sensitivity.

It is believed that motorists, cyclists and pedestrians would experience a **low** magnitude of change. Single story residential dwellings adjacent to Kurrajong Road would experience a **very low** magnitude of change. For the small number of properties which have second storey windows these would experience a **very low** magnitude of change.

#### Significance of

The significance of the impact for motorists, cyclists and pedestrians would be **minor**. Rear facing Single storey dwellings on Huskisson Street and Michelago Circuit would be **negligible/none**. The few residential properties with second storey windows overlooking the development would experience a **minor** significance of impact.

Figure 6 – Existing Baseline & Photomontage





#### 8.3 Viewpoint 3

#### Viewing Location

Photomontage

Cnr Kookaburra and Yarrunga Street Looking South n/a Refer to Landscape Elevations and Aerial View Figure 7

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

100m

This view has been taken from Yarrunga Street directly in front of the zoned industrial property across the road from the development. (near the corner of Kookaburra rd)

The dwelling is in very close proximity to the site and will be opposite warehouse facility 2.

The existing baseline view contains open farmland some groups of scattered trees. The residential properties in Lot 34 are prominent and far reaching views to properties along Kurrajong road exist. The LDN distribution centre is situated to the left of the image.

Warehouse 2 will be situated opposite Lot 10 and will be mitigated with a 10m wide buffer containing trees, shrubs and groundcovers. A new footpath and verge will be visible along Yarrunga Street and well as car park and lorry entrances in the wider view.

#### **Visual Sensitivity**

Due to the proximity of this property to the development site and the direct views that it experiences, it would be considered to have **very high** sensitivity.

#### **Magnitude of Change**

The magnitude of change for this receptor is considered to be **very high**. The view is at very close range and the proposed development will fundamentally change the view both horizontally and vertically, it will create a new focus and have a defining influence on the view.

#### Significance of

The significance of the impact Lot 10 Yarrunga St is considered **Substantial**.

Figure 7 –Photomontage



#### 8.4 Viewpoint 4

#### Viewing Location

Photomontage

Kurrajong rd west Looking North East Figure 8

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

#### 100m

This view has been taken from a group of houses at the western end of Kurrajong road past the Logos Industrial precinct site. The photo is taken looking across the adjoining vacant land opposite the site towards the edge of the development that fronts Kookaburra rd.

The dwellings in the this location have very distant views across another potential development site to the proposed development by Logos.

The existing baseline view contains open farmland some groups of scattered trees with some views east down Kurrajong rd towards completed stages in the development site.

Warehouse 6 (Volvo) will be screened significantly with setback vegetation along the Kookaburra rd frontage. The distance to this building from this group of houses is approx. 500m+.

Warehouse 6 has a small building footprint both in area and height thus reducing its impact from the surrounding context.

#### **Visual Sensitivity**

Due to the proximity of these properties to the development site and the filtered views through the lot opposite that it experiences, it would be considered to have **very low** sensitivity.

#### **Magnitude of Change**

The magnitude of change for this receptor is considered to be **very low**. The view is at a very long range with another lot and two roads forming a separation between the housing and the proposed development. The proposed development will have a very small change on the view both horizontally and vertically. With potential re-development of the Lot opposite these houses, the views from Kurrajong rd west towards the site will eventually be negated.

Figure 8 –Photomontage



#### **8.5** Viewpoint 5

#### **Viewing Location**

Cnr of Kookaburra Rd and Yarrunga St Looking E

Photomontage

Figure 9

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

#### 205m

This view has been taken from cnr of Yarrunga Street and Kookaburra Rd in front of an old weatherboard shack used for commercial purposes. There is nobody living on this site which is zoned industrial use. The shack on site has views over the corner aspect of Kookaburra Road North and Yarrunga Street and a far reaching view towards the entire development site.

The entire development site shall be in view of this Lot but building views shall be mitigated by the dense tree planting in the landscape setback. In addition, the Volvo facility on the corner site (warehouse 6) is only partly covered with built form with a majority of the site covered in car parking and hardstand thus limiting visual impact.

#### **Visual Sensitivity**

Due to the proximity of this property to the development site it would be considered to have **moderate** sensitivity. However, the Volvo facility (warehouse 6) is only partly covered by built form and has significant landscaped setbacks and car parking areas separating it from the street environment and adjoining properties. Warehouse 1 will be visible but again sits further to the east of the corner and is blocked by landscaped areas and building on the Warehouse 6 corner site. (Volvo)

#### Magnitude of Change

The magnitude of change for this receptor is considered to be **high**. The development will form a new recognisable element across the road, however it will be screened partially by proposed setback vegetation and the site has only part coverage with a warehouse building.

#### Significance of

The significance of the impact Lot 14(no.50) Yarrunga Street is considered **moderate/high**.

#### Cumulative Impacts

The corner lot of Kookaburra Road North and Yurrunga Street is also zoned for future industrial development. At this stage the proposals are unknown, however any development is likely to dominate the view at this receptor location. Some of the north façade of the Prestons development (Warehouse 1) and part of the building for Warehouse 6 (Volvo) maybe visible following development. Significant landscape buffer planting shall have impacts and are considered to be **low.** 

Figure 9 –Photomontage



#### **8.6** Viewpoint 6

#### Viewing Location

Date and Time Weather conditions Photomontage

#### Aerial view South West

N/A – Generated through 3D Model and Aerial Mapping N/A – Generated through 3D Model and Aerial Mapping Figure 10

#### **Visual Description**

Approx. Viewing Distance from Site Boundary Prominence of the development

#### 600m

This is an aerial view from the south west corner of the site looking over the proposed development. Although there are no visual receptors at this height it is nevertheless a useful view to demonstrate the context in which the proposed development is sitting and how the setbacks offer dense screen planting at maturity to Kurrajong Road, Kookaburra rd and Yarrunga Street. The scale and massing of the development is in keeping with the existing development of Industrial warehouses which are visible to both the north and east. The south west corner will be open to direct views of warehouses 1,6 & 5, however this has been designed in order to accommodate the future development of the adjoining lot which is also zoned for IN1 General Industrial. This development would have to include the same 20m setback along Kurrajong Road and continue the dense screen planting proposed by this development. This would unify the screen planting before along the entire distance of Kurrajong Road.

#### **Visual Sensitivity**

**Magnitude of Change** 

#### Significance of

than recreational groups such as light aircraft or gliders, it has been assigned a visual sensitivity of **very low** 

As this view has no visual receptor at this height, other

#### Medium

The significance of the impact is considered **minor/ negligible**. The view will form a new and recognisable element, however, this is offset by the visual sensitivity at this height and the presence of existing industrial development. It is therefore in keeping with the surrounding character.

Figure 10 -Aerial View



Warehouse & Distribution Estate – LVIA

#### 8.7 Viewpoint 8

# Viewing Location Aerial view North East N/A – Generated through 3D Model and Aerial Mapping Date and Time N/A – Generated through 3D Model and Aerial Mapping Weather conditions N/A – Generated through 3D Model and Aerial Mapping Photomontage Figure Visual Description

Approx. Viewing Distance from Site Boundary Prominence of the development

313m

This is an aerial view from the North West corner of the site looking over the proposed development. To the top of the image residential dwellings are visible to the south of Kurrajong Road and also ground at higher topography to the west (see section 1.6). The higher topography is densely vegetated and provides screening to visual receptors located to the west of the development site.

The single property at 10 Yarrunga street is visible surrounded by farm land. This receptor is of high sensitivity due to the proximity to the development site and the street frontage orientation. A 10m setback will help to soften and screen the development directly to the south of 10 Yarrunga Street.

#### **Visual Sensitivity**

As this view has no visual receptor at this height, other than recreational groups such as light aircraft or gliders, it has been assigned a visual sensitivity of **very low** 

#### Magnitude of Change

#### Medium

#### Significance of

The significance of the impact is considered **minor/ negligible**. The view will form a new and recognisable element, however, this is offset by the visual sensitivity at this height and the presence of existing industrial development. It is therefore in keeping with the surrounding character.

Figure 11 – Aerial View



#### **8.8** Viewpoint 9

Viewing Location	Aerial view North West
GPS Date and Time Weather conditions Photomontage Figure	N/A – Generated through 3D Model and Aerial Mapping N/A – Generated through 3D Model and Aerial Mapping N/A – Generated through 3D Model and Aerial Mapping Figure 12
Visual Description Approx. Viewing Distance from Site Boundary Prominence of the development	This is an aerial view from the North East corner of the site looking over the proposed development.  The industrial yard of Favelle Favco Cranes is visible at the bottom of the image and is next to WGB Trailer Repairs which is out of the shot to the right. These are both in close proximity to the development site.
Visual Sensitivity	As this view has no visual receptor at this height, other than recreational groups such as light aircraft or gliders, it has been assigned a visual sensitivity of <b>very low</b> .
Magnitude of Change	Medium
Significance of	The significance of the impact is considered <b>minor/ negligible</b> . The view will form a new and recognisable element, however, this is offset by the visual sensitivity at this height and the presence of existing industrial development. It is therefore in keeping with the surrounding character.

Figure 12 – Aerial view



#### 9.0 Conclusions and Non-Technical Summary

The main purpose of this Landscape and Visual Impact Assessment was to address the relevant Secretary's Environmental Assessment Requirements that were provided by the DPE on the 11 September 2015.

This Landscape and Visual Impact Assessment revision is a new report undertaken for the next stage of building on the site which includes lots in the North West corner of the Industrial Subdivision. (cnr Yarrunga and Kookaburra Rd)

Although not the main focus of this report, the value of the site itself has been assessed based on the character and context in which it is located. It has been concluded that the significance of the impact upon the landscape at this next stage of the Prestons development to be **minor/negligible**. This is in part due to the surrounding character of the development already being heavily influenced by industrial development and in part due to the industrial zoning designation by Liverpool Council within its Development Control Plan.

Through this report it is concluded that the proposed development at Preston's will cause a change in the view for a very small minority of houses (2 in particular) who will experience views of the development. The most important of these have been determined through visual analysis and are identified as residential dwellings close to the development site, road users pedestrians, and cyclists.

Adjacent to Kurrajong Road a small number of rear facing properties have second storey windows facing the development, views from these windows would experience little change from the existing condition as it will be difficult to see any development on the corner of Kookaburra and Yarrunga street from the cnr of Kurrajong Road.

Views from single houses located on large land holdings across the road from the development will be mitigated with a 10m setback in which tall native canopy trees, understorey shrubs are groundcovers are planted. Following maturity, these planted buffers will provide a dense screen to help to soften and screen the development. Single storey properties from this location should experience moderate visual change initially from the development due to existing trees, screen fencing and landscaping.

The development proposes substantial landscape planting to offset the visual impact in the form of setbacks with dense tree and shrub planting. This will be most effective after 15 years and for those receptors who experience direct views at close range.

Passing motorists, cyclists and pedestrians will also experience a change in view. However Kookaburra and Yarrunga street are not on the major cycleway route and are not streets where walking is encouraged due to industrial truck movements. Kurrajong road is more important to these groups of users and views to the development from Kurrajong road are negligible.

As previously discussed within sections of this report, the development will be heavily landscaped in setbacks surrounding the site helping to soften and screen views for these users. It should also be noted that these users traveling in an east west direction along Yarrunga Street currently experience views which include the LDN Distribution Centre on the corner of Bernera Road, light industrial to the north, old sheds, old housing, old industrial machinery to lots to the west and North west and degraded streetscape with dumped rubbish issues along the flank of Kookaburra Road to the west.

Wider reaching views to the site from residential areas located in the greater landscape have also been considered, however many of these areas are surrounded to the west and north by Cabramatta Creek which is vegetated with a large amount of tall native canopy trees and understorey planting. The dense screen that this provides results in vegetated screen between these residential areas and the site resulting in no visual impact.

## 10.0 Glossary of Terms

Term	Definition
SEARs	Secretary's Environmental Assessment Requirements
GVLIA	Guidelines for Landscape and Visual Impact Assessment (UK Landscape Institute)
LVIA Landscape and Visual Impact Assessment	
DPE	Department of Planning and Environment
LEP	Local Environmental Plan
DCP	Development Control Plan
Baseline	The existing condition / character of the landscape or view as it current condition.
Landscape Receptor	The landscape of the development site
Landscape Sensitivity	How sensitive a particular landscape is to change and to ability accept
	the development proposals.
Visual Receptor	A group or user experiencing views of the development from a particular location.
Visual Sensitivity	The degree to which a particular view can accommodate change arising from a particular development, without detrimental effects.
Magnitude of Change	The magnitude of the change to a landscape receptor or visual receptor.
Significance of Impact	How significant an impact is for a landscape or visual Receptor.
Cumulative Effects	Cumulative landscape or visual effects are the combined effects
	that arise through the interaction of two or more developments,
	whether of the same type or not.