

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

Landscape and Visual Impact Assessment Report

Prepared for:

Logos Property

Prepared By:

Ben Gluszkowski Director
Registered Landscape Architect #5868

Ground Ink
Suite 201/75 Archer Street
Chatswood, NSW 2067

Ground Ink Pty Ltd
ABN 5516 302 5456

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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 five warehouses with ancillary office space, internal roads, hard stand areas, and associated earthworks and landscaping. The premises will be used by a variety of 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.

1.2 This Report and Author

Ground Ink Pty Ltd has been commissioned by Logos Property to produce a Landscape and Visual Impact Assessment. This LVIA has been written by Ben Gluszkowski (Director and Registered Landscape Architect) who has 15 years' experience in the field of Landscape Architecture. He has been involved in high profile LVIA's on developments within the UK, including the M1 & M62 motorway road widening, several wind farms and energy from waste facilities (EFW).

Ground Ink Pty Ltd has also prepared the Landscape Design drawings (LDA01 to LDA13) and Landscape Design Report LDR01. 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.

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."

This LVIA written by Ground Ink is considered to use a methodology and approach that is appropriate to this type of industrial development.

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 LVIA's 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 one 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 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 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:

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

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 Ground Ink from key viewpoints using a Canon 60D DSLR 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

Fruzzlab 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 Ground Ink.

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 and south west of the site.
- Lot 10 Yarrunga Street
- Lot 28 Yarrunga Street (Corner of Kookaburra Rd North & Yarrunga St)
- Lot 28 Yato Road (Corner of Bernera and Yato Rd)

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**.

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 exists 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 will 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, Bernera Road to the east, and Kurrajong Road to the south.

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



Source: Nearmap

3.2 Site Description

The site is predominantly vacant and covered by pasture grass. The subject property is irregular in shape, measuring approximately 625m wide along the Yarrunga street frontage and 305m deep along the Bernera Road 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	Vacant and grass covered block. High voltage power lines traverse these lots in a north / south alignment.
Lot 34	Contains a single storey residential house, a metal shed and equipment for loading cattle onto trucks
Lot 43	Contains a centrally located metal shed.
Lot 20	Predominately vacant lot containing an old drainage line which has been re-aligned to function with a new culvert placed under Kurrajong Road.

3.3 Context

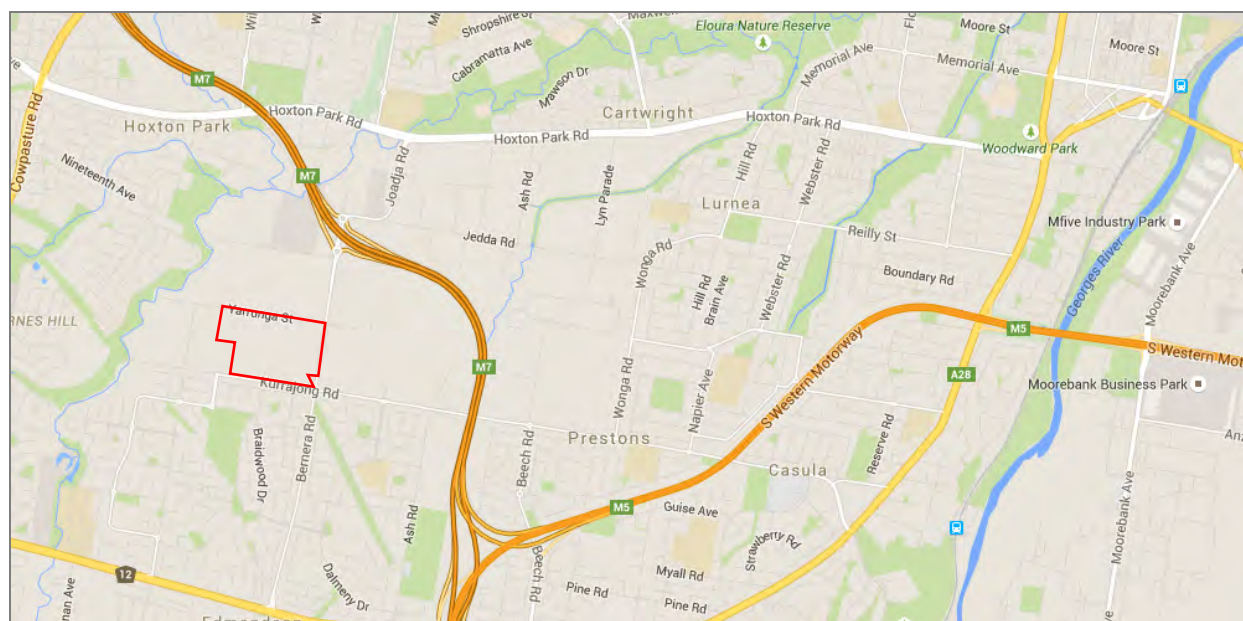
Prestons is situated at the key road junction of the M5 South Western Motorway, the Hume Highway, and the Westlink M7, and therefore has good connectivity to Sydney's centre and north, as well as Canberra and Melbourne. All three roads can be accessed from Camden Valley Way, which also connects Prestons 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

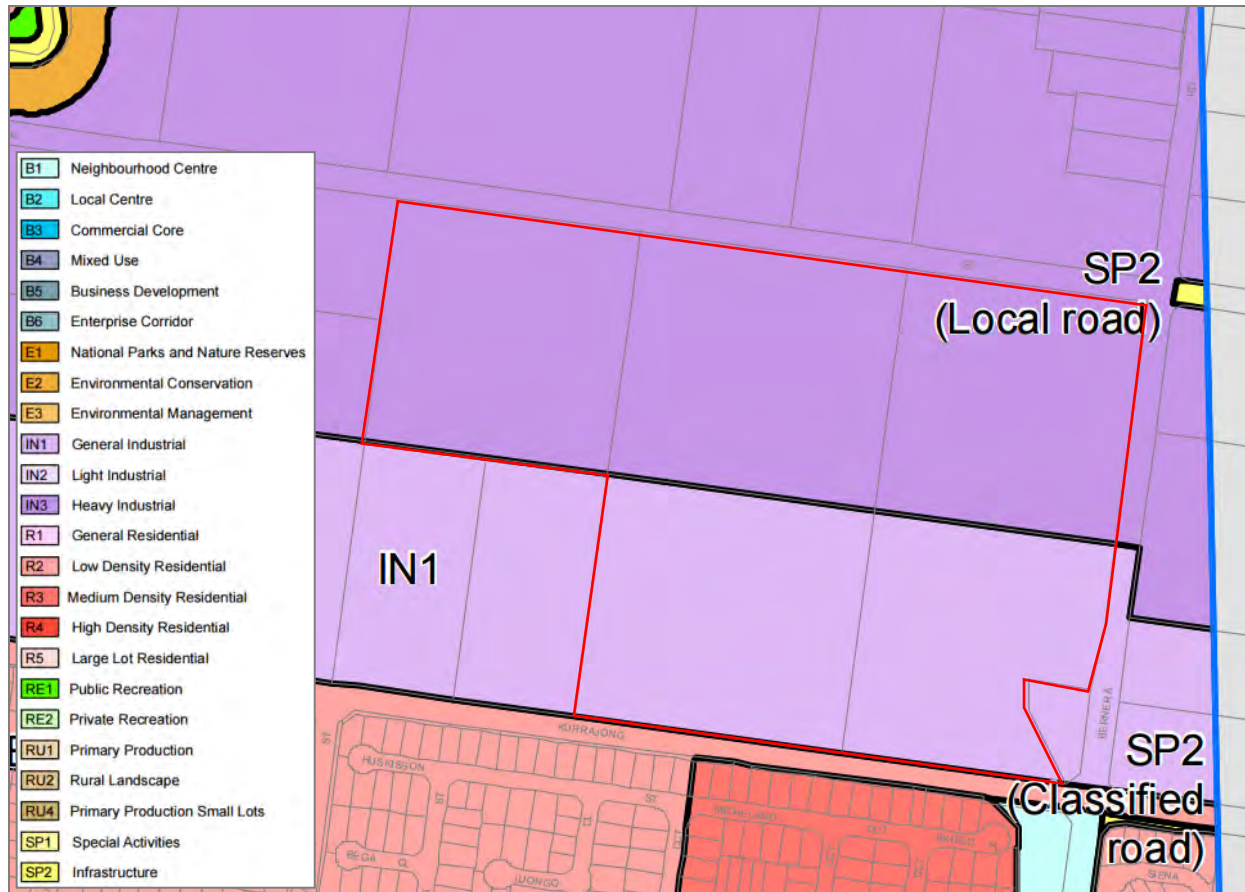
4.1 Planning Context

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 Lot 28 Yato Road. Five 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

Viewpoint Locations Figure 4



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 5 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. Warehouse 5 southern elevation facing residential areas along Kurrajong Road incorporates additional elevation treatment incorporating areas of full height precast panels to reduce visual impact of the building length on the streetscape'

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.

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

5.3 Levels

Warehouse 1 – RL43.80
Warehouse 2 – RL42.10
Warehouse 3 – RL35.00
Warehouse 4 – RL35.80
Warehouse 5 – RL42.10

5.4 Site access & parking

Access for heavy vehicles to warehouse 5 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 5 and building 2. Carparking for warehouse 5 is contained at the lower level along the transmission line easement with access from the private access road from Yarrunga Street along the power easement area. Lift and stair entry points have been provided from the carpark for staff for warehouse 5.

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:

Kurrajong Road – 20m

Bernera Road – 15m

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 on-site 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 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.

The design of the setbacks recognises the need to provide significant mitigation 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. 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. This is included as an offset to the small existing community being removed. Refer to Ground Ink report LDR01 for further details.

Photomontages of the development from Kurrajong Road 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 – LDR01 prepared by Ground Ink 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

Kurrajong Road Looking North West

GPS

33°56'32" S, 150°52'2" E

Date and Time

17th February 2016 – 10.50am

Weather conditions

Sunny with clear visibility

Photomontage Figure

Figure 5

Visual Description

Approx. Viewing Distance from Site Boundary

45m

Prominence of the development

This view has been taken from the shared footpath and cycleway of Kurrajong Road near the intersection with Benera Road. 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 site shed and the LDC Distribution Centre.

Views of warehouse 5 may be possible through the understory of tree planting within the buffer zone and the visibility of the development will become more apparent at a greater height.

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 and would potentially experience views of the development.

Visual Sensitivity

Motorists, cyclists and pedestrians are considered to have **medium** 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 **very low**. The double story properties that do have windows that overlook the development are judged to be of **high** sensitivity.

Magnitude of Change

It is believed that motorists, cyclists and pedestrians would experience a **medium** 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 **medium** magnitude of change, however it should be noted that these receptors are very much in the

minority.

Significance of Impact

The significance of the impact for motorists, cyclists and pedestrians would be **moderate/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 **moderate** significance of impact.

Figure 5 – Existing Baseline & Photomontage
Viewpoint 1 Figure 5


8.2 Viewpoint 2

Viewing Location

Kurrajong Road Looking North East

GPS

33°56'30" S, 150°51'46" E

Date and Time

17th February 2016 – 11.30am

Weather conditions

Sunny with clear visibility

Photomontage Figure

Figure 6

Visual Description

Approx. Viewing Distance from Site Boundary

48m

Prominence of the development

This view has been taken from the shared footpath and cycleway of Kurrajong Road opposite the eastern site boundary and delineating fence line. It is representational of receptors such as motorists, cyclist and pedestrians travelling in a west to east direction.

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.

At year 15 of the development, filtered views of Warehouse 5 will be possible with more open views of Warehouse 2 due to the height restriction to vegetation within the transmission easement. The transmission tower would be less visible at ground level due to new planting.

Visual Sensitivity

Motorists, cyclists and pedestrians are considered to have **medium** 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 **very low**. The double story properties that do have windows that overlook the development are judged to be of **high** sensitivity.

Magnitude of Change

It is believed that motorists, cyclists and pedestrians would experience a **medium** 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 **high**

magnitude of change, however it should be noted that these receptors are very much in the minority.

Significance of Impact

The significance of the impact for motorists, cyclists and pedestrians would be **moderate/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 **major** significance of impact.

Figure 6 – Existing Baseline & Photomontage
Viewpoint 2 Figure 6


8.3 Viewpoint 3

Viewing Location

Lot 10 Yarrunga Street Looking South

GPS

33°56'16" S, 150°51'54" E

Date and Time

01st March 2016 – 10.15am

Weather conditions

Scattered cloud with clear visibility

Photomontage Figure

Figure 7

Visual Description

Approx. Viewing Distance from Site Boundary

20m

Prominence of the development

This view has been taken from Yarrunga Street directly in front of the residential receptor property at Lot 10.

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

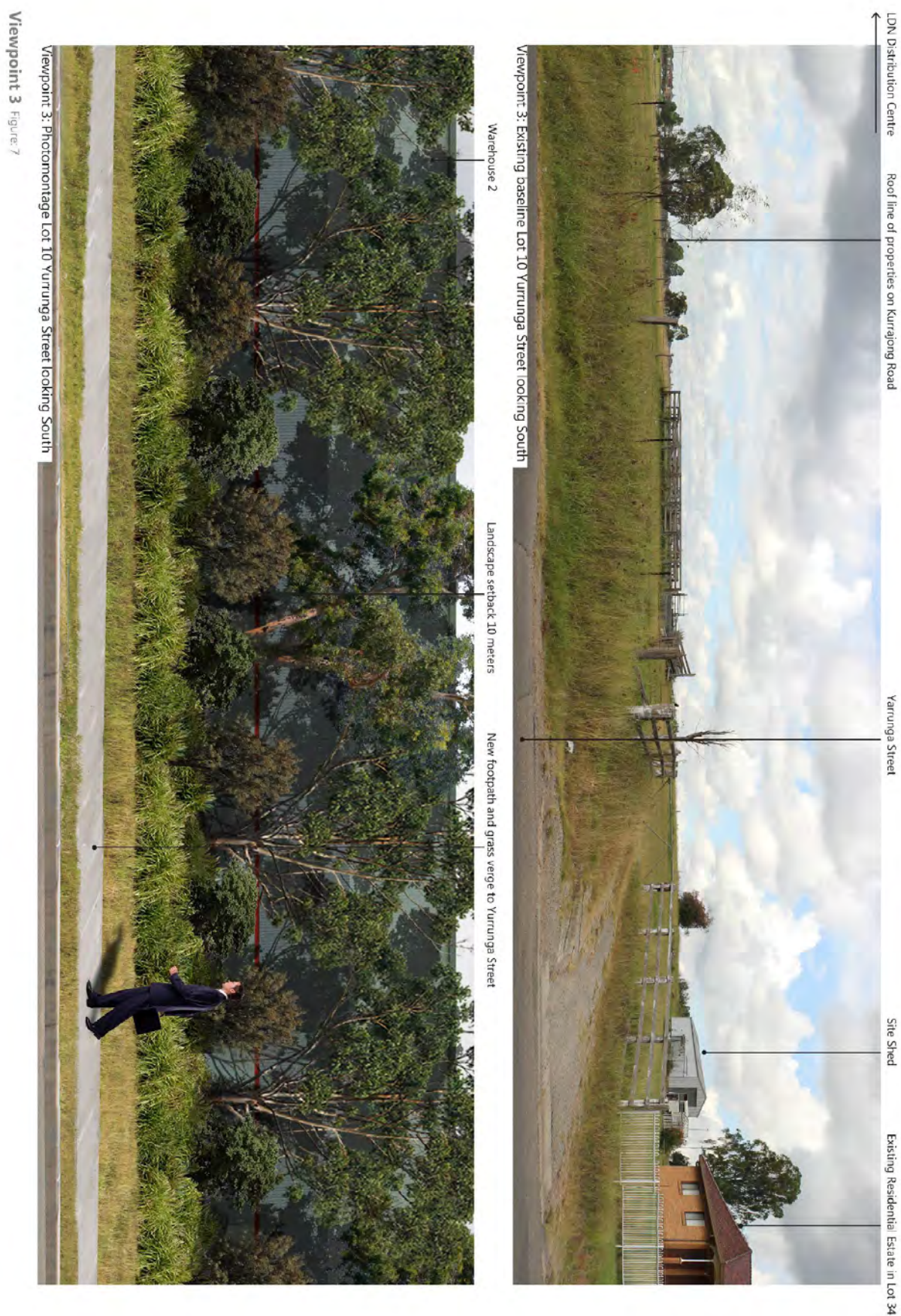
Due to the proximity of this property to the development site and the direct views that it experiences, it would be considered to have **very high** sensitivity.

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 Impact

The significance of the impact Lot 28 Yato Road is considered **Substantial**.

Figure 7 – Existing Baseline & Photomontage


8.4 Viewpoint 4

Viewing Location

Lot 28 Yato Road Looking West

GPS

33°56'21" S, 150°52'3" E

Date and Time

01st March 2016 – 10.25am

Weather conditions

Scattered cloud with clear visibility

Photomontage Figure

Figure 8

Visual Description

Approx. Viewing Distance from Site Boundary

36m

Prominence of the development

This view has been taken from the corner of Bernera Road and Yato Street in front of a residential dwelling at Lot 28.

The dwelling has views over the corner aspect of Bernera Road and Yarrunga Street and a far reaching view towards the development site.

The existing baseline view contains an existing group of mature trees and open farmland. There are several landscape detractors in the view including the transmission easement and a number of signs and telegraph poles. A number of industrial warehouse can be seen in the north and also properties along Kurrajong Road.

Visual Sensitivity

Due to the proximity of this property to the development site it would be considered to have **high** sensitivity.

Magnitude of Change

The magnitude of change for this receptor is considered to be **moderate**. The view is at close/medium range and the proposed development will be noticeable. However, the existing character of the group of mature trees in the view will be maintained somewhat once proposed planting has matured. This will help to screen the development. Other industrial warehouses are visible in this view including Main Freight Transport and Favelle Favco Cranes. To the South West of this position is the LDN Distribution Centre.

Significance of Impact

The significance of the impact Lot 28 Yato Road is considered **moderate**.

Figure 8 – Existing Baseline & Photomontage


8.5 Viewpoint 5

Viewing Location

Lot 10 Yarrunga St Looking South

GPS

33°56'16" S, 150°51'35" E

Date and Time

01st March 2016 – 09.55am

Weather conditions

Scattered cloud with clear visibility

Photomontage Figure

Figure 9

Visual Description

Approx. Viewing Distance from Site Boundary

205m

Prominence of the development

This view has been taken from Yarrunga Street in front of a residential dwelling at Lot 28.

The dwelling has views over the corner aspect of Kookaburra Road North and Yarrunga Street and a far reaching view towards the development site.

The existing baseline view contains three greenhouse structures which are situated in the adjacent lot. The remainder consists of open farmland with scatterings of mature trees. The west facing upper portions of warehouses 1 and 5 will be visible.

Visual Sensitivity

Due to the proximity of this property to the development site it would be considered to have **high** sensitivity. However, any future development in the land zoned to be industrial closest to the receptor would dominate and restrict views of the development from this location.

Magnitude of Change

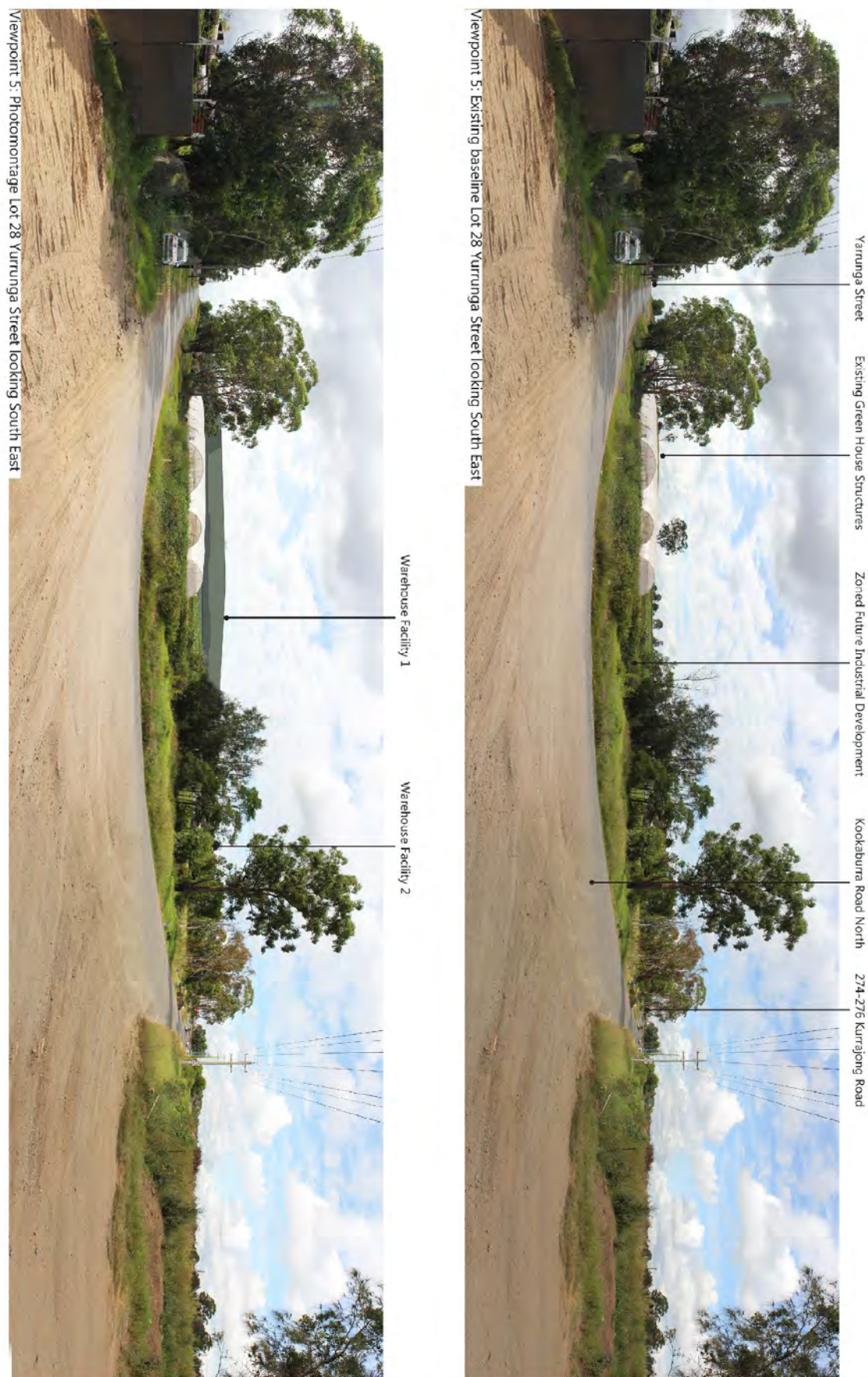
The magnitude of change for this receptor is considered to be **low**. The development will form a new recognisable element on the horizon, however it will be screened partially by existing mature vegetation.

Significance of Impact

The significance of the impact Lot 10 Yarrunga Street is considered **moderate/minor**.

Cumulative Impacts

The corner lot of Kookaburra Road North and Yarrunga 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) maybe visible following any future development. It is considered that the cumulative impacts would be **low**.

Figure 9 – Existing Baseline & Photomontage
Viewpoint 5 Figure: 9


8.6 Viewpoint 6

Viewing Location

Aerial view South West

GPS

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

Figure 10

Visual Description

Approx. Viewing Distance from Site Boundary

440m

Prominence of the development

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. 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 & 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

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 Impact**

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 – Existing Baseline & Photomontage



8.7 Viewpoint 7

Viewing Location

Aerial view South East

GPS

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

Figure 11

Visual Description

Approx. Viewing Distance from Site Boundary

212m

Prominence of the development

This is an aerial view from the south east corner of the site looking over the proposed development. This image is useful to demonstrate that some existing vegetation does exist on the south side of Kurrajong Road between the residential housing and the proposed development.

The design of the architectural form and colour palette of materials are in keeping to the warehouses visible to the north west and maintain the same neutral tone.

In this view the dense belt of vegetation which follows Cabramatta Creek is clearly visible (refer to section 1.6). This provides a dense screen of tall trees between the development and the nearby residential suburbs to the west and north.

Native robust planting is also visible within the internal site, this will help to soften retaining walls and large surface areas such as carparks.

The corner intersection of Kurrajong Road and Bernera Road is to be heavily vegetated providing a dense screen to any linear medium sensitivity receptors such as motorist waiting at the intersection or pedestrians crossing.

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 Impact**

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 – Existing Baseline & Photomontage
Viewpoint 7 Figure 11


8.8 Viewpoint 8

Viewing Location

Aerial view North East

GPS

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

Figure 12

Visual Description

Approx. Viewing Distance from Site Boundary

313m

Prominence of the development

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 Impact**

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 12 – Existing Baseline & Photomontage


8.9 Viewpoint 9

Viewing Location

Aerial view North West

GPS

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

Figure 13

Visual Description

Approx. Viewing Distance from Site Boundary

256m

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 **very low**.

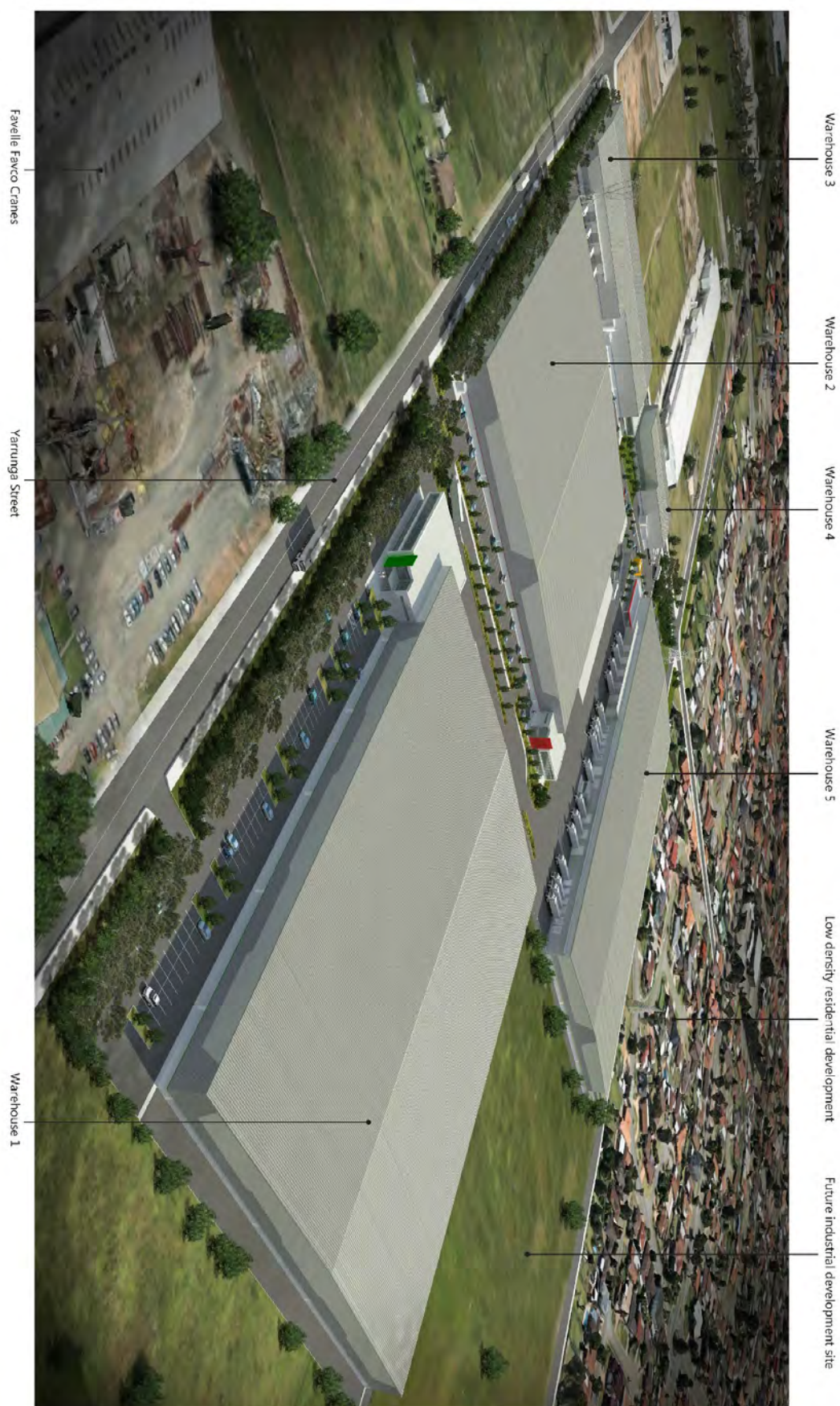
Magnitude of Change**Medium****Significance of Impact**

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 13 – Existing Baseline & Photomontage

Viewpoint 9 Figure 13

Viewpoint 6: Aerial photomontage view from North West



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.

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 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 number of groups 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 a significant change from the existing condition. However, it must be understood that these residential properties represent a very small proportion of residential dwellings that can actually view the development from Huskisson Street and Michelago Circuit. These views are also mitigated with a 20m setback in which tall native canopy trees, understorey shrubs and 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 no visual change from the development due to existing screen fencing and landscaping. Light spill from the development onto these properties is likely to be negligible, this is due to the fact that tall street lighting columns currently exist on both sides of Kurrajong Road.

The visual impact of three other residential properties on Yarrunga Street and Yato Road were also assessed. All three properties would experience a significance of impact, with Lot 10 the being the most substantial. However, it once again must be stated that these properties are in the **minority** rather than the majority. There are very few residential properties in close proximity to the site along Kookaburra Road North, Yarrunga Street and Yato Road. The visual amenity of Lot 28 Yarrunga Street would be much more heavily affected by future development than the current development proposals. The dwellings at Lot 10 Yarrunga St and Lot 28 Yato Road also currently experience views of existing industrial development, even though this does not always form the major component of their view.

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. Out of this group pedestrians and cyclists are of most sensitivity. During site analysis it was noted that the number of passing cyclists and pedestrians traveling along Kurrajong Road was small. 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 currently experience views which include the LDN Distribution Centre on the corner of Bernera Road. The view of the LDN Distribution Centre from the west of the development will be beneficially improved to user groups travelling east by the dense screen planting

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.