

QANTAS GROUP FLIGHT TRAINING CENTRE

12 APRIL 2019

# **LANDSCAPE & VISUAL IMPACT ASSESSMENT**

PREPARED FOR

**Qantas Airways Ltd (Qantas)**  
10 Bourke Rd,  
Mascot, NSW, 2020

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# CONTENTS

GLOSSARY

EXECUTIVE SUMMARY

|     |                                   |    |
|-----|-----------------------------------|----|
| 1.  | INTRODUCTION                      | 14 |
| 1.1 | PURPOSE OF THE REPORT             | 14 |
| 1.2 | DESCRIPTION OF SITE AND LOCALITY  | 14 |
| 1.3 | PROJECT DESCRIPTION               | 14 |
| 1.4 | PLANNING CONTEXT                  | 16 |
| 1.5 | APPROACH & ASSESSMENT METHODOLOGY | 16 |
| 1.6 | STRUCTURE OF THE REPORT           | 16 |
| 2.  | LANDSCAPE BASELINE CONDITIONS     | 27 |
| 2.1 | SCOPE OF THE ASSESSMENT           | 29 |
| 2.2 | LANDSCAPE CHARACTER OF STUDY AREA | 29 |
| 2.3 | SITE LANDSCAPE CHARACTER          | 30 |
| 3.  | POTENTIAL LANDSCAPE IMPACTS       | 33 |

|     |                                              |    |
|-----|----------------------------------------------|----|
| 3.1 | LANDSCAPE PROPOSALS                          | 34 |
| 3.2 | POTENTIAL IMPACTS ON LANDSCAPE CHARACTER     | 36 |
| 3.3 | POTENTIAL IMPACTS ON SITE LANDSCAPE FEATURES | 36 |
| 3.4 | SUMMARY OF POTENTIAL LANDSCAPE IMPACTS       | 37 |
| 4.  | VISUAL BASELINE CONDITIONS                   | 39 |
| 4.1 | SCOPE OF ASSESSMENT                          | 40 |
| 4.2 | POTENTIAL VISIBILITY                         | 40 |
| 4.3 | VISUAL RECEPTORS                             | 40 |
| 4.4 | KEY VIEWS                                    | 40 |
| 4.5 | MODEL VIEWS                                  | 41 |
| 5.  | POTENTIAL VISUAL IMPACTS                     | 47 |
| 5.1 | POTENTIAL IMPACTS ON KEY VIEWS               | 48 |
| 5.2 | POTENTIAL IMPACTS ON MODEL VIEWS             | 50 |
| 5.3 | SUMMARY OF POTENTIAL VISUAL IMPACT           | 51 |
| 6.  | MITIGATION MEASURES & ENVIRONMENTAL RISKS    | 53 |
| 6.1 | MITIGATION MEASURES                          | 54 |
| 6.2 | ENVIRONMENTAL RISK ANALYSIS                  | 54 |
| 7.  | SUMMARY                                      | 59 |
| 7.1 | POTENTIAL LANDSCAPE IMPACTS                  | 60 |



|                                                     |                                           |    |
|-----------------------------------------------------|-------------------------------------------|----|
| 7.2                                                 | POTENTIAL VISUAL IMPACTS                  | 60 |
| <hr/>                                               |                                           |    |
| <hr/>                                               |                                           |    |
| <b>LIST OF FIGURES (ALSO LOCATED IN APPENDIX A)</b> |                                           |    |
| <hr/>                                               |                                           |    |
|                                                     | FIGURE 1 – SITE LOCATION & CONTEXT        | 15 |
| <hr/>                                               |                                           |    |
|                                                     | FIGURE 2 – VIEWPOINT LOCATIONS            | 17 |
| <hr/>                                               |                                           |    |
|                                                     | FIGURE 3 – ZONE OF THEORETICAL VISIBILITY | 24 |
| <hr/>                                               |                                           |    |
|                                                     | FIGURE 4 – LANDSCAPE CHARACTER AREAS      | 25 |
| <hr/>                                               |                                           |    |
|                                                     | FIGURE 5 – LANDSCAPE STRATEGY             | 31 |
| <hr/>                                               |                                           |    |
| <hr/>                                               |                                           |    |

## LIST OF TABLES

|                                                                |    |
|----------------------------------------------------------------|----|
| TABLE 1.1 - LANDSCAPE VALUE                                    | 18 |
| TABLE 1.2 - LANDSCAPE SUSCEPTIBILITY                           | 18 |
| TABLE 1.3 - LANDSCAPE SENSITIVITY MATRIX                       | 18 |
| TABLE 1.4 - LANDSCAPE: SIZE OR SCALE OF CHANGE                 | 19 |
| TABLE 1.5 - LANDSCAPE: GEOGRAPHICAL INFLUENCE                  | 19 |
| TABLE 1.6 - LANDSCAPE: DURATION AND REVERSIBILITY              | 19 |
| TABLE 1.7 - SIGNIFICANCE OF EFFECT ON LANDSCAPE                | 19 |
| TABLE 1.8 - SIGNIFICANCE OF EFFECT ON LANDSCAPE DEFINITIONS    | 20 |
| TABLE 1.9 - VALUE OF VIEW                                      | 20 |
| TABLE 1.10 - SUSCEPTIBILITY OF VISUAL RECEPTOR TO CHANGE       | 21 |
| TABLE 1.11 - VISUAL SENSITIVITY MATRIX                         | 21 |
| TABLE 1.12 - VISUAL: SIZE OR SCALE OF CHANGE                   | 21 |
| TABLE 1.13 - VISUAL: GEOGRAPHICAL INFLUENCE                    | 22 |
| TABLE 1.14 - VISUAL: DURATION AND REVERSIBILITY                | 22 |
| TABLE 1.15 - SIGNIFICANCE OF EFFECT ON VIEWS                   | 22 |
| TABLE 1.16 - SIGNIFICANCE OF EFFECT ON VIEWS DEFINITIONS       | 22 |
| TABLE 3.2 – POTENTIAL LANDSCAPE IMPACT SUMMARY TABLE           | 35 |
| TABLE 4.2 – POTENTIAL VISUAL IMPACT ON KEY VIEWS SUMMARY TABLE | 43 |

|                                                                   |    |
|-------------------------------------------------------------------|----|
| TABLE 4.3 – POTENTIAL VISUAL IMPACTS ON MODEL VIEWS SUMMARY TABLE | 43 |
| TABLE 6.3 – RISK ASSESSMENT AND MITIGATION MEASURES TABLE         | 44 |
| <b>APPENDICES [SEPERATE A3 DOCUMENT]</b>                          |    |
| APPENDIX A – FIGURES                                              |    |
| APPENDIX B – PHOTOGRAPHS & VIEWS                                  |    |
| APPENDIX C – PHOTOGRAPHIC & MODEL TECHNICAL INFORMATION           |    |
| APPENDIX D – ARCHITECTURAL RENDERS                                |    |

# GLOSSARY

| TERM                      | DEFINITION                                                                                                                                                                                                                                                                                 |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Baseline studies          | Work done to determine and describe the environmental conditions against which any future changes can be measured or predicted and assessed.                                                                                                                                               |
| Characterisation          | The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.                                                                                                                                                              |
| Characteristics           | Elements, or combinations of elements, which make a contribution to distinctive landscape character.                                                                                                                                                                                       |
| Direct effect             | An effect that is directly attributable to the proposed development.                                                                                                                                                                                                                       |
| Elements                  | Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.                                                                                                                                                                                           |
| Enhancements              | Proposals that seek to improve the landscape resource and the visual amenity of the proposed development site and its wider setting, over and above its baseline condition.                                                                                                                |
| Feature                   | Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines OR a particular aspect of the project proposal.                                                                                                                    |
| Green Infrastructure (GI) | Networks of green spaces, features and watercourses and water bodies that connect the urban and rural environment.                                                                                                                                                                         |
| Indirect Effects          | Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects. |
| Iterative design process  | The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.                                                                                                                             |
| Jet Base                  | Qantas leased land within the boundaries of Sydney Kingsford Smith Airport.                                                                                                                                                                                                                |
| Key characteristics       | Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.                                                                                                            |

| TERM                                          | DEFINITION                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land use                                      | What land is used for, based on broad categories of functional land cover, such as urban and industrial use.                                                                                                                                                                                                                                                   |
| Landform                                      | The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.                                                                                                                                                                                                                |
| Landscape                                     | An area, as perceived by people, the character of which is the result of the action and interaction of natural and/ or human factors.                                                                                                                                                                                                                          |
| Landscape and Visual Impact Assessment (LVIA) | A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity                                                                                                                                    |
| Landscape character                           | A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.                                                                                                                                                                                                     |
| Landscape Character Areas (LCAs)              | These are single unique areas which are the discrete geographical areas of a particular landscape type.                                                                                                                                                                                                                                                        |
| Landscape Character Assessment (LCA)          | The process of identifying and describing variation in the character of the landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process results in the production of a Landscape Character Assessment. |
| Landscape quality (condition)                 | A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.                                                                                                                                           |
| Landscape receptors                           | Defined aspects of the landscape resource that have the potential to be affected by a proposal.                                                                                                                                                                                                                                                                |
| Landscape value                               | The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.                                                                                                                                                                                                    |
| Magnitude                                     | A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.                                                                                                                                                |

| TERM                   | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mascot Campus          | <p>Over 19ha of Qantas Airways Limited controlled land in Mascot to the north of Sydney Kingsford Smith Airport consisting of freehold and leased land.</p> <p>The following lots are owned by Qantas: Lot 133 DP 659434; Lots 4 &amp; 5 DP 38594 Lot 23 DP 883548; Lots 1 &amp; 2 DP 738342; Lot 3 DP 230355; Lot 4 DP 537339; Lots 2 &amp; 4 DP 234489; Lot 4 234489; Lot 1 DP 81210; Lot 1 DP 202093; Lot 1 DP 721562; Lot 2 DP 510447; Lot 1 DP 445957; Lot B DP 164829 and Lot 1 DP 202747 and equates to 16.5ha of land.</p> <p>The following lots are leased by Qantas: Lot 14 DP 1199594 and Lot 2 DP 792885 and equates to 2.7ha of land.</p> |
| Photomontage           | A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sensitivity            | A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Significance           | A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Susceptibility         | The ability of a denned landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Sydney Gateway Project | A RMS Project including a road and rail component that is intended to increase capacity and improve connections to the ports to assist with growth in passenger, freight and commuter movements across the region, by expanding and improving the existing road and freight rail networks.                                                                                                                                                                                                                                                                                                                                                             |
| The Site               | Qantas Airways Limited owned land in Mascot to the north of Sydney Kingsford Smith Airport consisting of Lots 2 & 4 DP 234489, Lot 1 DP 202747, Lot B DP 164829 and Lot 133 DP 659434. Current site improvements include including at-grade carparking for Qantas staff, an industrial shed to store spare aviation parts, a substation, a disused gatehouse, a Sydney Water Asset with two drive-ways over it, the Qantas catering facility and Qantas tri-generation plant.                                                                                                                                                                          |
| The Project            | The construction of a new Flight Training Centre and ancillary uses to replace the existing facility on the Qantas Jet Base that will be impacted by RMS' Sydney Gateway Project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| TERM                                 | DEFINITION                                                                                                                                                                                                                                           |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Visual amenity                       | The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area. |
| Visual impact/effects                | Effects on specific views and on the general visual amenity experienced by people.                                                                                                                                                                   |
| Visual receptors                     | Individuals and/ or defined groups of people who have the potential to be affected by a proposal.                                                                                                                                                    |
| Zone of Theoretical Visibility (ZTV) | A map, usually digitally produced, showing areas of land within, which a development is theoretically visible.                                                                                                                                       |

# ABBREVIATIONS

| ABBREVIATION    | FULL FORM                                                               |
|-----------------|-------------------------------------------------------------------------|
| ARTC            | Australian Rail Track Corporation                                       |
| BBLEP           | Botany Bay Local Environmental Plan 2013                                |
| CASA            | Civil Aviation Safety Authority                                         |
| EP&A Act        | Environmental Planning and Assessment Act 1979                          |
| EP&A Regulation | Environmental Planning and Assessment Regulation 2000                   |
| FTE             | Full-time Equivalent                                                    |
| Gateway         | Sydney Gateway Project                                                  |
| ha              | Hectares                                                                |
| ISEPP           | State Environmental Planning Policy (Infrastructure) 2007               |
| LEP             | Local Environmental Plan                                                |
| LGA             | Local Government Area                                                   |
| NSW             | New South Wales                                                         |
| Qantas          | Qantas Airways Limited                                                  |
| RMS             | NSW Roads and Maritime Services                                         |
| SACL            | Sydney Airport Corporation Limited                                      |
| SEPP            | State Environmental Planning Policy                                     |
| SEPP 55         | State Environmental Planning Policy No. 55 - Remediation of Land        |
| SEPP SRD        | State Environment Planning Policy (State and Regional Development) 2011 |

| ABBREVIATION      | FULL FORM                                                            |
|-------------------|----------------------------------------------------------------------|
| Simulators        | Full Motion Flight Simulators                                        |
| sqm               | Square Metres                                                        |
| SSD               | State Significant Development                                        |
| the Airport       | Sydney Kingsford Smith Airport                                       |
| the Department    | Department of Planning and Environment                               |
| the District Plan | Eastern City District Plan (2018)                                    |
| the Minister      | the Minister for Planning                                            |
| the Region Plan   | A Metropolis of Three Cities – the Greater Sydney Region Plan (2018) |
| the Strategy      | The Future Transport Strategy 2056 (2018)                            |
| ZTV               | Zone of Theoretical Influence                                        |
| SWDC              | Sydney Water Drainage Channel                                        |



# EXECUTIVE SUMMARY

### Introduction

This Landscape and Visual Impact Assessment (LVIA) report identifies and evaluates the potential impacts of the proposed project in the landscape character and views. It includes a analysis of the landscape character and views and proposed landscape strategy and mitigation measures to address the impact of the Project.

### The Project

The Project seeks consent for the construction and operation of a new flight training centre, and associated ancillary uses including a multi-deck carpark.

### The Site

The Site occupies approximately 5.417ha of predominantly hard surfaced asphalt carpark at grade. It is irregular in shape and bordered by the Qantas and corporate related buildings to the north/ north east and the Travelodge hotel and multi-storey carpark building to the east. To the south and west it bounded by King Street and the Botany Freight Rail Line respectively.

### Landscape Assessment

The proposed development sits within an urban setting and built up landscape character areas that feature a mix of large-scale light industrial warehouses, high-rise hotels and large commercial blocks of offices. The Site and surroundings have been distinguished into eight landscape character areas, as shown on Figure 4. These include the

following:

- + LCA 1 - Local Boundary Vegetation
- + LCA 2 - Chalmers Crescent Light Industrial Development
- + LCA 3 - Bourke Road Office Development
- + LCA 4 - O’Riordan Street Hotel Development
- + LCA 5 - O’Riordan Street Light Industrial Development
- + LCA 6 - King Street Corporate Carparking
- + LCA 7- Qantas Drive Transport Corridor
- + LCA 8 - Qantas Aircraft Jet Base

At construction the proposed development would have a moderate impact the two of the local level character areas that the Site sits across including the King Street Corporate Carpark and the Local Boundary Vegetation. The rest of the character areas remain unaffected by the development and would retain the local characteristics. These landscape impacts are not considered significant.

Once established, landscape proposals assist in mitigating some of the impact. The design and setting of the development is also considered to improve the appearance of some of the existing characteristics and the proposed development would fit in with existing urban context and massing, particularly the light industrial units that are found adjacent to the northern side of the Site.

### Visual Assessment

The Qantas Group Training Flight Centre is a State Significant Development, covering a 5.417ha with

a proposed increase in the operational area, which involves increase to the scale, height and bulk of the area within the Site. The visual impacts are, however limited to a relatively small area due to the built-up nature of the surrounding area, and the presence of screening vegetation along the boundaries and the SWDC.

During the construction phase, tall cranes and the carpark building construction infrastructure is likely to be the most visible elements of the Project and potentially visible from most of the key views. The phasing of the construction means that the visual impact during construction would gradually increase over time as elements of the Project become operational.

Once operational, mitigation measures embedded in the Landscape Strategy help reduce of the visual impact. The changing nature of the urban setting and similar scale and land-use in the immediate surroundings, is also considered to limit the visual impact.

The proposed carpark is the most visually prominent new massing present in most of the views. The significant impact of the completed development would be experienced from the residential properties north of the Site including those along Coward Street north of the development, and the DA approved development along Chalmers Crescent. These have clear views across to the proposed northern and western side of the carpark. In close range views, the moderate impact includes views from King Street entrance and from buildings with elevated views onto the Site including the Travelodge, Wilson Carpark and

AMP/Goodman Corporate Connect offices on the eastern boundary and the Qantas offices north of the Site.

### Mitigation

Mitigation measures have been investigated as part of the concept design process. These have included element such as:

### Reduction

- + Siting of designed elements so to avoid the removal of large stands of vegetation including vegetation along the Site boundaries and associated with SWDC.
- + Additional landscape buffer zones of planting including a Native Grove and Green Terrace area, and Forecourt breakout space for staff.
- + Supplementary additional native trees planting to boundary gaps and King Street.
- + Integration of green façade treatment and green pergola to rooftop of the carpark.

### Alleviation

- + Choice of finishes and materials based on limiting the amount of contrast with the surrounding landscape.
- + A diverse mix of native planting to reflect and enhance the existing biodiversity and characteristics of the locality.





01

# INTRODUCTION

# 1.0 INTRODUCTION

## 1.1 PURPOSE OF THE REPORT

**1.1.1** Scott Carver has been commissioned by Qantas Airways Ltd (Qantas) to prepare this report in accordance with the technical requirements of the Secretary’s Assessment Requirements (SEARs) and in support of the SSD 10154 for the development of a new flight training centre at 297 King Street, Mascot.

## 1.2 DESCRIPTION OF SITE AND LOCALITY

1.2.1 The site is located at 297 King Street, Mascot and comprises land known as Lots 2 & 4 DP 234489, Lot 1 DP 202747, Lot B DP 164829 and Lot 133 DP 659434. The site is identified in Figure 1.

1.2.2 Key features of the site are as follows:

- + The site is approximately 5.417ha and is an irregular shape. It is approximately 240m in length and maintains a variable width of between approximately 321m in the northern portion of the site and approximately 93m along the King Street frontage (refer to Figure 1).
- + The site possesses a relatively level slope across the site. An open Sydney Water Drainage Channel (SWDC) bisects the northern portion of the site in an east-west direction. There are some isolated changes in level immediately adjacent to this channel. A Site Survey Plan accompanies the application which details the topographic characteristics of the site.
- + Multiple mature Plane Trees are scattered throughout the site. A variety of native and exotic tress and vegetation also exist around the perimeter of the site which help screen the site from surrounding uses.
- + Site improvements include at-grade carparking for Qantas staff, an industrial shed to store spare aviation parts, a substation, a disused gatehouse, a Sydney Water Asset with two driveways over it, the Qantas catering facility and Qantas tri-generation plant.
- + The site forms part of a larger land holding under the ownership of Qantas that generally extends between Qantas Drive to the west, Ewan Street to the south, Coward Street to the north, with

the Qantas “Corporate Campus” fronting Bourke Road.

- + Vehicular access to the site from the local road network is available from King Street. The site has intra-campus connections along the northern boundary in the form of two connecting driveways in the north-eastern and north-western corner of the site along the northern boundary which link it to the broader Mascot Campus.
- + The site is located within the Bayside LGA.

### 1.2.3 Key features of the locality are:

- + **North:** The site is bounded to the north low scale industrial development, beyond which is Coward Street. Further north of the site is the Mascot Town Centre which is characterised by transport-oriented development including high density mixed-use development focussed around the Mascot Train Station.
- + **East:** The site is bordered to the east by commercial development including a newly completed Travelodge hotel which includes a commercial carpark. Additional commercial development to the east includes the Ibis Hotel and Pullman Sydney Airport fronting O’Riordan Street.
- + **South:** The site is bounded to the south by King Street, beyond which is Qantas owned at-grade carparking and other industrial uses. Further south is the Botany Freight Rail Line and Qantas Drive beyond which is the Domestic Terminal at Sydney Airport.
- + **West:** The site is bordered to the west by the Botany Freight Rail Line and Qantas Drive, beyond which lies Sydney Kingsford Smith Airport and the Qantas Jet Base (location of the current Flight Training Centre).

## 1.3 PROJECT DESCRIPTION

1.3.1 Safety is Qantas’ first priority. The flight training centre is a key pillar of this value. The facility enables pilots and flight crews to undertake periodic testing to meet regulatory requirements by simulating both aircraft and emergency procedural

environments. The Project seeks consent for the construction and operation of a new flight training centre, and associated ancillary uses including a multi-deck carpark. The Project is comprised of the following uses:

### Flight Training Centre

1.3.2 The proposed flight training centre will occupy the southern portion of the site. It is a building that comprises 4 core elements as follows:

- + An emergency procedures hall that contains;
  - Cabin evacuation emergency trainers,
  - An evacuation training pool,
  - Door trainers,
  - Fire trainers
  - Slide descent towers,
  - Security room,
  - Aviation medicine training and equipment rooms.
- + A flight training centre that contains:
  - A flight training hall with 14 bays that will house aircraft simulators,
  - Integrated procedures training rooms, computer rooms, a maintenance workshop, storerooms, multiple de-briefing and briefing rooms, pilot’s lounge and a shared lounge.
- + Teaching Space that contains
  - training rooms,
  - classrooms and two computer based exam rooms.
- + Office Space
  - Office space for staff and associated shared amenities including multiple small, medium and large meeting rooms, think tank rooms, informal meeting spaces, a video room and lunch/tea room.
- + Ancillary spaces including the reception area at the ground floor, toilets, roof plant and vertical circulation. The external ground floor layout will include a loading dock, at-grade carparking for approximately 40 spaces and a bus drop-off zone at the northern site boundary.

### Carpark

1.3.3 The proposed multi-deck carpark will be located to the north-east of the flight training centre and adjacent to the existing Qantas catering facility and tri-generation plant. The carpark is 13 levels and will provide 2095 spaces for Qantas staff. Vehicle access to the carpark will be provided via King Street, Kent Road and from Qantas Drive via the existing catering bridge.



FIGURE 1

# SITE LOCATION & CONTEXT

**LEGEND**

- Site Boundary
- 2m Contours
- Distance



0

25

50

100

150

200m

Scale 1:5,000 @ A3



**SURROUNDING DEVELOPMENTS:**

- A. Stamford Plaza Hotel
- B. 8Hotels Boutique
- C. Quest Hotel
- D. Holiday Inn Express Hotel(Approved)
- E. Mezza Train Apartments Residences
- F. 342 King Street (Low Industrial, DA Recently Rejected)
- G. Qantas On Grade Car Parking
- H. Ibis Hotel
- I. Travelodge Hotel
- J. Wilson Carpark
- K. BCI Drilling Industrial
- L. Pullman Hotel
- M. AMP/Goodman Connect Corporate Centre
- N. Qantas Office & The Joey Club Childcare Centre
- O. 146-154 O'Riordan Street (Approved)
- P. Holiday Inn Hotel
- Q. DHL
- R. Adina Hotel
- S. Qantas Corporate Headquarters
- T. Altitude Corporate Centre
- U. Metrolink Corporate Offices
- V. Danoz Direct
- W. Area of Low Scale Industrial Businesses
- X. 39 Kent Road Apartments
- Y. East Square Apartments
- Z. 244 Coward Street Apartments
- AA. 230 Coward Street Apartment
- BB. Qantas Catering
- CC. Qantas Offices(To Be Demolished)
- DD. 1-5 Chalmers Crescent (Approved)



## 1.4 PLANNING CONTEXT

1.4.1 The Secretary of the NSW Department of Planning and Environment has issued requirements for the proposed development to be assessed as a State Significant Development (SSD) under Section 4.12(8) of the Environmental Planning and Assessment Regulation 2000. The Secretary's Environmental Assessment Requirements (SEARs) for Landscape (Urban Design) and Visual include:

“Layout of the development including staging, gross floor area, site coverage, setbacks, proposed open space and landscaped areas.” This is outlined in chapter X of this report and detailed further in the Landscape Design Report (20180199-LR-DA001).

“A detailed assessment (including photomontages and perspectives) including building height with reference to height of surrounding building, colour, scale, bulk from nearby public receivers and significant vantage points within the broader public realm”. This is covered in this report.

1.4.2 The report and landscape design for the proposed development takes into consideration the requirements of the following statutory and strategic planning policies:

- + State Environmental Planning Policy (State & Regional Development) 2011;
- + State Environmental Planning Policy (Infrastructure) 2007;
- + Botany Bay Local Environmental Plan 2013.
- + Botany Bay Development Control Plan 2013;
  - Part 6 Employment Zones as relevant to landscape and site design)
  - Part 3 L- Landscaping and Tree Management Landscape Technical Guidelines for development sites
- + A Metropolis of Three Cities – The Greater Sydney Region Plan 2018;
- + Eastern City District Plan 2018;
- + NSW Long Term Transport Master Plan 2012;
- + State Infrastructure Strategy 2018-2038;
- + Sydney's Cycling Future 2013;

- + Sydney's Walking Future 2013;
- + Sydney's Bus Future 2013;
- + Crime Prevention Through Environmental Design (CPTED) Principles;
- + Healthy Urban Development Checklist, NSW Health;
- + Better Placed – An integrated design policy for the built environment of NSW 2017;
- + Future Transport 2056 Strategy;
- + Sydney Airport Master Plan 2033 (2014); and
- + Draft Sydney Airport Master Plan 2039 (2018).

## 1.5 APPROACH & ASSESSMENT METHODOLOGY

### General Approach

1.5.1 The approach to the Landscape & Visual Impact Assessment is based on the following best practice guidelines:

- + Guidance Note for Landscape and Visual Assessment for Queensland (2018) – produced by Australian Institute of Landscape Architects (AILA), this provides a practical framework for the practice of LVA and acknowledges “there is currently no national level guideline document for Landscape or Visual Assessment (LVA) in Australia. Landscape Architects in Australia have instead relied on a number of guidance documents offered by other international Landscape Architecture Institutes.”
- + Guidelines for Landscape & Visual Impact Assessment (GLVIA), 2013 – produced by the UK's Landscape Institute and Institute for Environmental Management and Assessment in 2013 (3rd edition), the GLVIA is widely used and advocated by AILA as providing good practice guidelines for assessing the potential impacts of development on landscape character and views.
- + Advice Note 01/11 Photography and Photomontage in Landscape and Visual Assessment (2011) and the 2018 consultation draft – provides advice on best practice photograph and photomontage methods.

1.5.2 In accordance with the GLVIA, the following distinct but related assessments have been undertaken:

- + Assessment of landscape effects – assessing effects of the proposed development on the landscape as a resource, this includes changes to physical elements/features of the landscape and/or the aesthetic, perceptual and experiential characteristics that make different landscapes distinctive.
- + Assessment of visual effects – assessing effects of the proposed development on the views available to people and their visual amenity, this includes changes in the context and character of the views as a result of the change or loss of the existing elements of the landscape and/or the introduction of new elements.

1.5.3 A more detailed breakdown of the methodology is explained in each relative Section below.

### Baseline Landscape Character Assessment

1.5.4 The landscape character within the study area is assessed to provide a baseline against which the effects of the proposed development can be assessed. The assessment by a desk top review of: relevant up-to-date OS mapping, aerial images as well as the Project's associated Arboricultural Assessment, Biodiversity Assessment, Heritage Reports. Two site visits including a photographic survey during February 2019 helped identify and confirm the baseline landscape character areas described.

1.5.5 The landscape value of each character area is assessed using a set assessment criteria based on examples in the GLVIA guidelines and modified for the purposes of this assessment. The five point criteria is set out in **Table 1.1: Landscape Value**.

## Baseline Visual Assessment

1.5.6 A Zone of Theoretical Visibility (ZTV) for the Site was initially mapped by overlaying landform and landcover data. The ZTV was checked in the field to validate the visibility of the Site from accessible areas and identify key views. Due to the built up nature of the Site and surroundings, modelling software was used to illustrate views from high-rise building that are not accessible.

1.5.7 Following this, representative viewpoints with photomontages were agreed with the project team and consultants.

### Assessment of Landscape and Visual Effects

1.5.8 The assessment approach determines the significance of the changes to the landscape and views, should the proposed development proceed. This is achieved by first identifying the relative sensitivity of the character of the landscape and the view being experienced and then combining this with the magnitude or extent of change that would result from the proposed development. According to GLVIA the measure of sensitivity combines a consideration of value and susceptibility to change. The measure of magnitude combines the scale of change, geographical extent and duration and the three aspects of magnitude are combined to produce an overall magnitude of change range, this is based on professional judgement to be either, very low, low, medium, high or very high. The overall significance of effect combines both the sensitivity and magnitude of change. In relation to these measures, a set of definitions and assessment criteria have been developed and subsequently modified for the purposes of undertaking this assessment, these are set out in

Table 1.1: Landscape Value.

| Landscape Value | Definition                                                                                                                                                                                                                                        |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High       | Landscapes and landscape receptors which have a particularly high quality, by virtue of their condition, land-use, high scenic qualities, strong characteristics and cultural associations                                                        |
| High            | Landscapes and landscape receptors which are considered high quality, by virtue of their condition, land-use, positive characteristics, sense of place and cultural associations                                                                  |
| Medium          | Landscapes and landscape receptors which retain a positive/moderate character and sense of place and/or of local interest. May exhibit a mix of some individual features of local rarity or value whilst displaying some damage or deterioration. |
| Low             | Landscapes and landscape receptors in fair condition, which have undergone some change to the extent that they have a weak strength of character, particular aesthetic quality and lack cultural associations.                                    |
| Very Low        | Degraded landscapes in poor condition with character and aesthetic that has been seriously damaged.                                                                                                                                               |

Table 1.2 - Table 1.16

| Table 1.2: Landscape Susceptibility |                                                                                                                                                                            | Diagram Labels |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Susceptibility to Change            | Criteria                                                                                                                                                                   |                |
| Very High                           | A very limited ability of the landscape to accommodate flight training building and carpark. Landscape/ feature particularly susceptible to change.                        |                |
| High                                | A fairly limited ability of the landscape to accommodate flight training building and carpark. Landscape/feature often susceptible to change from development              |                |
| Medium                              | A moderate ability of the landscape to accommodate flight training building and carpark. Landscape/ feature likely to have some susceptibility to change from development. |                |
| Low                                 | A well-defined ability of the landscape to accommodate flight training building and carpark. Landscape/ feature has little susceptibility to change from development.      |                |

Table 1.3: Landscape Sensitivity Matrix

| Criteria |           | Susceptibility |           |        |        |
|----------|-----------|----------------|-----------|--------|--------|
|          |           | Very High      | High      | Medium | Low    |
| Value    | Very High | Very High      | Very High | High   | Medium |
|          | High      | Very High      | High      | Medium | Medium |
|          | Medium    | High           | Medium    | Medium | Low    |
|          | Low       | Medium         | Medium    | Low    | Low    |

Table 1.4: Landscape: Size or Scale of Change

| Size/Scale of Change | Criteria                                                                                                                                                                                                                                                                  |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High            | The proposal constitutes a very major change to the feature or key characteristics and attributes of the landscape type, resulting in total loss or permanent alteration to existing landscape features and forming a dominant new feature in the landscape.              |
| High                 | The proposal constitutes a major change to the feature or key characteristics and attributes of the landscape type, resulting in major loss or permanent alteration to existing landscape features and forming a prominent new feature in the landscape.                  |
| Medium               | The proposal constitutes a noticeable change to the feature or key characteristics and attributes of the landscape type, resulting in a conspicuous loss or alteration to existing landscape features and forming a new feature in the landscape.                         |
| Low                  | The proposal constitutes a minor change to the feature or key characteristics and attributes of the landscape type, resulting in limited loss or alteration to existing landscape features and forming a minor new feature in the landscape.                              |
| Negligible           | The proposal constitutes little discernible change to the feature or key characteristics and attributes of the landscape type, resulting in no loss or permanent alteration to existing landscape features and forming a barely discernible new feature in the landscape. |

Table 1.5: Landscape: Geographical Influence

| Geographical Influence | Criteria                                                                                                                                             |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High              | Effects experienced over an extensive area of the landscape, where this is likely to have an evident effect on all of the landscape character area.  |
| High                   | Effects experienced where changes would occur over large parts of a landscape character area.                                                        |
| Medium                 | A moderate extent of a landscape character type is affected.                                                                                         |
| Low                    | Effects limited to a localised area and small proportion of the landscape character area.                                                            |
| Very Low               | Effects limited to a very restricted extent, sufficient that there is little discernible influence on the character of the landscape character area. |

Table 1.6: Landscape: Duration and Reversibility

| Duration & Reversibility | Criteria                                                                                                                                                                                                |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High                | Long term development (over 30 years) and very difficult to reverse                                                                                                                                     |
| High                     | Medium term development (10 to 30 years) and very difficult to reverse or long term development (over 30 years) and partially reversible                                                                |
| Medium                   | Medium term development (10 to 30 years) and partially reversible or short term development (1 to 10 years) and very difficult to reverse or long term development (over 30 years) and fully reversible |
| Low                      | Medium term development (10 to 30 years) and fully reversible or short term development (1 to 10 years) and partially reversible                                                                        |
| Very Low                 | Short term development (1 to 10 years) and fully reversible                                                                                                                                             |

Table 1.7: Significance of Effect on Landscape

| Criteria       |            | Sensitivity    |                |                |            |
|----------------|------------|----------------|----------------|----------------|------------|
|                |            | Very High      | High           | Medium         | Low        |
| Magni-<br>tude | High       | Major          | Major          | Major-Moderate | Moderate   |
|                | Medium     | Major-Moderate | Major-Moderate | Moderate       | Minor      |
|                | Low        | Moderate       | Moderate       | Minor          | Negligible |
|                | Negligible | Minor          | Minor          | Negligible     | Negligible |

**Table 1.8: Significance of Effect on Landscape Definitions**

| Significance        | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Major Adverse       | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ are at a considerable variance with the scale and pattern of the landscape and would degrade the integrity of the landscape</li> <li>+ would permanently degrade, diminish or destroy the integrity of valued/characteristic landscape features, elements and/or their setting would permanently degrade, features, elements and/or their setting</li> <li>+ Would cause a very high quality landscape to be permanently changed and its condition diminished</li> </ul> |
| Moderate Adverse    | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ are out of scale with the landscape or at odds with the local pattern</li> <li>+ would have an adverse effect on a landscape of high quality</li> </ul>                                                                                                                                                                                                                                                                                                                  |
| Minor Adverse       | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ do not quite fit into the scale and pattern of the landscape</li> <li>+ adversely affect the quality of the landscape</li> </ul>                                                                                                                                                                                                                                                                                                                                         |
| Neutral             | <p>The Proposed Development would result in no discernible adverse or beneficial landscape effects.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Minor Beneficial    | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ generally fit with the scale and pattern of the landscape</li> <li>+ provide minor positive enhancements of landscape quality/condition</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| Moderate Beneficial | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ fit well with the scale and pattern of the landscape</li> <li>+ provide moderate positive enhancements of landscape quality/condition</li> </ul>                                                                                                                                                                                                                                                                                                                         |
| Major Beneficial    | <p>The Proposed Development would result in effects that:</p> <ul style="list-style-type: none"> <li>+ fit very well with the scale and pattern of the landscape</li> <li>+ provide major positive enhancements of landscape quality/condition</li> </ul>                                                                                                                                                                                                                                                                                                                       |

**Table 1.9: Value of View**

| Value of view | Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Diagram Labels |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| High          | Views from publicised vantage points or regional specific vista or focused views. Particularly noteworthy public views from National trails, National Parks or heritage assets i.e. more than local value & could be expected to be regularly used. Windows from residential properties or hotels that are specifically designed to take advantage of a particular view. Panoramic view or vista. Will include water and natural elements, mountains and hills with both mid-ground elements and a background. |                |
| Medium        | Locally known or valued vantage viewpoints. Views from promoted pedestrian footpaths or clear evidence of regular use and areas of informal open space. Views from regularly used bedrooms or living space. Panoramic view, vista or other noteworthy view from active recreation areas or transport routes. May include water and natural elements, or skyline features or mountains and hills.                                                                                                               |                |
| Low           | View is not publicised and/or that there is relatively limited evidence of being regularly used. Visually degraded locations. View from small windows or otherwise assumed as not forming the main living or workspaces. Views of little noteworthiness from areas of active recreation or transport routes.                                                                                                                                                                                                   |                |
| Low           | A well-defined ability of the landscape to accommodate flight training building and carpark. Landscape/ feature has little susceptibility to change from development.                                                                                                                                                                                                                                                                                                                                          |                |

Table 1.10: Susceptibility of Visual Receptor to Change

| Susceptibility of visual receptor to change | Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High                                        | Residential properties. Areas of open space where informal recreation is the main activity e.g. country parks and public open space. Users of pedestrian footpaths. Recreational activity where the primary enjoyment comes from the view. General views from heritage assets or attractions.                                                                                                                                                            |
| Medium                                      | Leisure properties and areas of outdoor sport or active recreation where appreciation of views forms part of the experience e.g. hotels, golf courses; pedestrians using footpaths; vehicular users and cyclists on roads; and rail passengers.                                                                                                                                                                                                          |
| Low                                         | Areas of active sport or play where the view does not form part of the experience e.g. football, rugby, play equipment. Commercial premises and areas of employment, where the view has limited value in relation to the activity being undertaken. (There may be specific locations where buildings and the type of employment has been designed to enhance the quality of working life, in which case a higher level sensitivity would be applicable.) |
| Low                                         | The proposal constitutes a minor change to the feature or key characteristics and attributes of the landscape type, resulting in limited loss or alteration to existing landscape features and forming a minor new feature in the landscape.                                                                                                                                                                                                             |

Table 1.11: Visual Sensitivity Matrix

| Criteria |        | Susceptibility |        |        |
|----------|--------|----------------|--------|--------|
|          |        | High           | Medium | Low    |
| Value    | High   | Very High      | High   | Medium |
|          | Medium | High           | Medium | Low    |
|          | Low    | Medium         | Low    | Low    |

Table 1.12: Visual: Size or Scale of Change

| Size/Scale of Change | Criteria                                                                                                                                                                                                                                                                                                                       |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High            | The proposed development would become the most dominant feature in the view and that completely contrasts with the other existing features in the view. The contrasting features of the development would be fully visible.                                                                                                    |
| High                 | The proposals development would constitute a major change to the view, forming a prominent new feature in the view that noticeably contrasts with other existing features in the view. The development would be predominantly visible.                                                                                         |
| Medium               | The proposals development would form a noticeable change to the view, forming a conspicuous new feature in the view that partially contrasts or harmonises with other features in the view. The contrasting features of the development would be partially visible.                                                            |
| Low                  | The proposal development would constitute a small change to the view, forming a minor new feature in the view that largely integrates with its surroundings with little discernible change. This could also be a result of being a glimpsed or filtered view through vegetation and/or at some distance relative to its scale. |
| Very Low             | The proposed development would be a barely discernible change to the view, which could e.g. be due to a very filtered view through vegetation or considerable distance relative to scale.                                                                                                                                      |



Table 1.13: Visual: Geographical Influence

| Geographical Influence | Criteria                                                                                                                                                                                                      |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High              | The development affects all or nearly all of the view and forms the primary focus of the view to the extent that it is overwhelming. It is likely that the view is within the site or very close to the site. |
| High                   | The development affects a large extent of the view and at the centre of the view. It is likely that the view is close to the site or possibly in the site.                                                    |
| Medium                 | The development affects a moderate extent of the view and lies near the centre of the view or at a slightly oblique angle. It is likely that this is a localised view.                                        |
| Low                    | The development affects a small extent of the view and and/or at a moderately oblique angle. It is likely that the development is in the mid-distance of the view.                                            |
| Very Low               | The development affects a very small extent of the view and and/or at a very oblique angle. It is likely that the development is in the far distance of the view.                                             |

Table 1.14: Visual: Duration and Reversibility

| Duration and Reversibility | Criteria                                                                                                                                                                                                |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High                  | Long term development (over 30 years) and very difficult to reverse                                                                                                                                     |
| High                       | Medium term development (10 to 30 years) and very difficult to reverse or long term development (over 30 years) and partially reversible                                                                |
| Medium                     | Medium term development (10 to 30 years) and partially reversible or short term development (1 to 10 years) and very difficult to reverse or long term development (over 30 years) and fully reversible |
| Low                        | Medium term development (10 to 30 years) and fully reversible or short term development (1 to 10 years) and partially reversible                                                                        |
| Very Low                   | Short term development (1 to 10 years) and fully eversible                                                                                                                                              |

Table 1.15: Significance of Effect on Views

| Criteria       |            | Sensitivity    |                |                |            | Diagram Labels |  |
|----------------|------------|----------------|----------------|----------------|------------|----------------|--|
|                |            | Very High      | High           | Medium         | Low        |                |  |
| Magni-<br>tude | High       | Major          | Major          | Major-Moderate | Moderate   |                |  |
|                | Medium     | Major-Moderate | Major-Moderate | Moderate       | Minor      |                |  |
|                | Low        | Moderate       | Moderate       | Minor          | Negligible |                |  |
|                | Negligible | Minor          | Minor          | Negligible     | Negligible |                |  |

Table 1.16: Significance of Effect on Views Definitions

| Significance        | Definition                                                                                                             |
|---------------------|------------------------------------------------------------------------------------------------------------------------|
| Major Adverse       | The Proposed Development would cause a substantial deterioration in the existing view for a sensitive visual receptor. |
| Major Adverse       | The Proposed Development would cause a moderate deterioration in the existing view for a sensitive visual receptor.    |
| Minor Adverse       | The Proposed Development would cause a slight deterioration in the existing view for a sensitive visual receptor.      |
| Neutral             | No discernible deterioration or improvement in the existing view for a sensitive visual receptor.                      |
| Minor Beneficial    | The Proposed Development would cause a slight improvement in the existing view for a sensitive visual.                 |
| Moderate Beneficial | The Proposed Development would cause a moderate improvement in the existing view for a sensitive visual receptor.      |
| Major Beneficial    | The Proposed Development would cause a substantial improvement in the existing view for a sensitive visual receptor    |

## Limitations and Assumptions

1.5.9 The visual assessment was not necessarily exhaustive but focused on key visual receptors. Attempts were made to develop a reasonably accurate Zone of Theoretical Influence it was not intended to be a precisely mapped zone. Its purpose is as a tool for assessing the general extent of visibility of the development from the surrounding area.

1.5.10 The assessment of significance of effect is based upon experience and reasoned judgement, substantiated and supported by objective evidence as far as possible.

1.5.11 In February 2019, a set of photographs were taken of a number of representative views of the Site and its surrounding context. Photographs were taken using a Canon EOS 5D MKII camera (lens set to 50mm lens f/1.2 Aperture) at eye-level in accordance with LI Advice Note 01/2011: ‘Photography and photomontage in Landscape and Visual Impact Assessment’ and the consultation draft 2018.

1.5.12 In relation to assessing the screening potential of planting over time, the typical rate of growth for native planting stock was informed by reference to establishment success encountered on other projects with similar soils and growing conditions i.e. an average of approximately 300mm/year for trees.

1.5.13 For this scheme an assessment is made during the construction period, which encompasses both stage 1 and stage 2 construction of the developments, as these stages are proposed to overlap then it was considered best to consider both of them combined as a worst case-scenario. The operational effect is based on the first year following completion.

1.5.14 The following assumptions have been made in respect to the assessment of effects:

- + the assessment of the Baseline Year is 2019;
- + the construction phase will commence at September 2019 and cover a period of 16 months;

stage 1 includes the construction works of the SIMs Hall, EP building and Carpark (ground floor to floor 5). Stage 2 completes the carpark building from floors 5 to 13.

- + Operation effects will be assessed as if the whole scheme is complete i.e. in 2021;
- + the Proposed Development is regarded as being permanent in landscape and visual terms and is considered to be non- reversible;
- + existing vegetation will continue to grow at rates appropriate to the location, species and maturity of the vegetation;
- + the proposed tree planting would grow at a rate of approximately 300-500mm/year and the proposed shrub planting at approximately 300mm/year, based on the average expected growth rates for the selected species. Predicted growth is also based on the assumption that no growth will take place in the first year, as the plants adjust to their new growing environments;
- + visual receptors from footpaths, public open space and office development, residential properties and hotels is based on an adult standing with an eye height of 1.6m above ground level; and
- + visual effects are assessed on the basis of good visibility. Visual effects can be expected to vary e.g. poor visibility at times of low cloud, rainfall and dusk. At these times a reduction in visual clarity, colour and contrast would be experienced. Reduced visibility would limit the extent of view possible particularly from mid to long distance views. Consequently, the assessment of effects is based on the worst-case scenario, where the proposed development would be most visible.

1.5.15 In undertaking the assessment, we had access to the Qantas owned Buildings where we were able to take photographs, however other private property has not been accessed, as it is generally considered impractical to seek approval to gain access to residential properties or other buildings to assess the effect on views from each window in a property or adjoining land. Assessment is therefore based on the nearest publicly accessible location. Professional judgement is therefore required as to what the likely

effect on views would be from windows, making allowances for changes in height e.g. from a fifth floor window.

1.5.16 Due to the scoping of a number of views from high-rise buildings surrounding the Site, it was decided that a number of model views would be provided (See Appendix B) and included in the visual assessment to represent the effects on views from receptors in the surrounding high-rise buildings. The model views provide basis for the perspective in relation to massing and main built features, however it is recognised that they are missing a large amount of information that could affect the experience of the view, in particular the existing mature vegetation, therefore professional judgement is required as to what the likely effect on views would be from these. The model views also include massing of future developments that are known to have DA approval to show the heights and scale of the development planned for the surrounding area.

## 1.6 STRUCTURE OF THE REPORT

1.6.1 The report is structured as follows:

- + **Section 2** sets out an appraisal of the existing landscape baseline conditions against which the landscape effects can be assessed
- + **Section 3** sets out an assessment of the predicted landscape impacts of the proposed development.
- + **Section 4** sets out an appraisal of the existing visual baseline conditions against which the visual effects of the proposed development area assessed.
- + **Section 5** sets out an assessment of the visual impacts of the proposed development.
- + **Section 6** sets out the mitigation measures and environmental risk of the proposed development
- + **Section 7** provides a conclusion of the landscape and visual assessment findings.

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02

# LANDSCAPE BASELINE CONDITIONS

## 2.0 LANDSCAPE BASELINE CONDITIONS

### 2.1 SCOPE OF THE ASSESSMENT

2.1.1 The study area for the assessment of the landscape baseline conditions is shown in Figure 1. This study area provides an appropriate context for the assessment of landscape effects taking into account the local context and Zone of Theoretical Influence from street-level, shown in Figure 3.

### 2.2 LANDSCAPE CHARACTER OF STUDY AREA

2.2.1 To enable the assessment of impacts on the landscape character, local level landscape character areas have been identified for the Site and the local surroundings. Landscape character areas are defined as having a distinct, recognisable pattern of elements be it natural (soil, vegetation, landform) and/or human built form/land use, distinguishing one landscape different from another.

2.2.2 The Site and surroundings have been distinguished into eight landscape character areas, as shown on Figure 4. These include the following:

- + LCA 1 - Local Boundary Vegetation
- + LCA 2 - Chalmers Crescent Light Industrial Development
- + LCA 3 - Bourke Road Office Development
- + LCA 4 – O’Riordan Street Hotel Development
- + LCA 5 - O’Riordan Street Light Industrial Development
- + LCA 6 - King Street Corporate Carparking
- + LCA 7- Qantas Drive Transport Corridor
- + LCA 8 - Qantas Aircraft Jet Base

#### LCA1 - Local Boundary Vegetation

2.2.3 This area demarcates the fringes and boundaries of the Site consisting of a mix of native trees and shrubs.

##### Key Characteristics:

- + Landform - relatively flat areas and some localised grading to the SWDC.
- + Water Systems - SWDC.
- + Vegetation - Botanical surveys reveal a mix of predominantly native vegetation. Dominant stands of vegetation feature along the SWDC recorded as

planted Melaleuca quinquenervia (Broad-leaved Paperbark) to the western portion of the Channel and as regrowth Casuarina glauca (Swamp She-oak) only to the east. Both areas lacked any floristic structure in both the middle and ground stratum. Casuarina glauca also dominate along the other boundaries and grow close to fence lines. Other boundary vegetation comprises a Lophostemon confertus (Brushbox) in good health, mixed with low level shrubs (mostly Callistemon species). These blocks of vegetation provide important screening and structure to the area.

- + Ecology – Surveys shows “habitat is in a poor condition due to many habitat elements having been lost (i.e. old growth trees, fallen timber, rocky habitat etc.) and tree canopies are highly fragmented. Habitat linkages with other remnant ecosystems in the landscape are severely compromised by extensive clearing in the past.” (Biodiversity Development Assessment Report, Feb 2019)
- + Built form/Land use – acts as important boundary and screening vegetation.
- + Spatial – rows, clusters and stands of trees provide important structural basis for surroundings.
- + Experiential – provides shelter, shade and enclosure to otherwise open expansive area.

#### 2.2.4 Landscape Value

2.2.5 This character area is assessed as being of medium value. Although surveys acknowledge that some of the vegetation is planted regrowth and in poorer condition, some of it is representative of the wider Sydney Bioregion and the presence along boundaries provides a green structure and sense of character to the area.

#### LCA 2 - Chalmers Crescent Light Industrial Development

2.2.6 Medium scale industrial development spreads north of the Site up to Coward Street.

##### Key Characteristics:

- + Landform – Gently sloping down west along Chalmers Crescent

- + Water Systems – none present
- + Vegetation /Ecology – Small to medium native trees lining Chalmers crescent, with limited habitat provision.
- + Built form/Land use – Large expanse of commercial and industrial units up to approximately 20m in height, consisting primarily of larger buildings including the large scale Qantas Catering block located in the north west corner of the Site, and smaller warehouse units comprising wholesale bakery, hospitality, homeware and mail warehouses and storage facilities.
- + Spatial – Chalmers Crescent acts as spine to area, scattered with parallel parked cars. Large scale units with little opportunity for views in or out of the area.
- + Experiential – a quiet industrial environment with amenable food smells.

**2.2.7 Local Landscape Value** - This character area is assessed as being of low value. The area is in fair condition with valuable service industry use, however its appearance is dominated by warehouses with homogenous aesthetic that lacks character.

#### LCA 3 - Bourke Road Office Development

2.2.8 Large scale commercial business premises north-east and east of the Site associated with Bourke Road and O’Riordan Street.

##### Key Characteristics:

- + Landform – gently slopes south from Bourke Road
- + Water Systems – none present
- + Vegetation/ Ecology– Large mature Ficus trees line Bourke Road with native and ornamental planting beds providing boundary planting and green edges to the development.
- + Built form/Land use – large Qantas buildings with corporate offices and entrance dominate the land-use. A second driveway leads to the large-scale AMP/Goodman Connect corporate offices.
- + Spatial – open entrance driveway areas enclosed by large corporate buildings up to 20m tall.
- + Experiential – A large working environment creates busy atmosphere of people and vehicles throughout the working week.



FIGURE 4

# LANDSCAPE CHARACTER AREAS





**2.2.9 Landscape Value** - This character area is assessed as being of medium value. The area is in good condition, the corporate buildings provide a large area of employment, the design is of a higher quality than the general industrial aesthetic of the area and the large established Ficus trees are one of the established defining characteristics for the Mascot area.

**LCA 4 - O’Riordan Street Hotel Development**

2.2.10 Area dominated by high-rise hotel development east of the Site.

**Key Characteristics:**

- + Landform – a large flat area with gradual grade to O’Riordan Street.
- + Water Systems – none present
- + Vegetation/ Ecology– areas of ornamental planting found around the fringes of the hotels including a small pocket park north of the Pullman Hotel.
- + Built form/Land use – includes three large scale hotel developments, the Pullman Hotel, The Ibis and the newly built Travelodge with a large multi-storey Wilson carpark .
- + Spatial – high-rise buildings up to 50m tall add scale to the area and increase the sense of enclosure on the ground plane.
- + Experiential – small pocket park provide interest, but is dominated by busy O’Riordan Street.

**2.2.11 Local Landscape Value** - This character area is assessed as being of medium value. The area is in generally good condition with some relatively recently built hotel development and associated small areas of amenity for the hotel guests and the public.

**LCA 5 - O’Riordan Street Light Industrial Development**

2.2.12 Low scale industrial development south of the Site, flanked by King Street to the north and O’Riordan Street to the east.

**Key Characteristics:**

- + Landform – relatively flat with gentle slope down to the north with localised level changes

- + Water Systems – none present
- + Vegetation – Semi-mature Platanus spp. (London Plane) trees within narrow nature strip along O’Riordan Street.
- + Built form/Land use – expanse of small industrial units up to 12m tall, along O-Riordan Street includes car rentals, valet and delivery services. Vacant warehouses on King Street side and a 9 level multi-storey carpark.
- + Spatial – enclosed area with carparking for visitors and staff along O’Riordan Street
- + Experiential – dominated by O’Riordan Street, quieter along King Street.

**2.2.13 Landscape Value** - This character area is assessed as being of low value. The area is in fair condition with valuable use, however it has no distinguishable characteristics and the appearance is dominated by warehouses units and the busy O’Riordan Street.

**LCA – 6 King Street Corporate Carpark**

2.2.14 At grade carparking areas for staff of Qantas, which forms the main character area of the Site and extends south of King Street.

**Key Characteristics:**

- + Landform – relatively flat with gentle slopes south from Bourke road
- + Water Systems – none present
- + Vegetation/ Ecology– Individual trees Platanus spp. (London Plane) trees punctuate the carparking bays, these provide structure and shade but the majority are found in poor condition
- + Built form/Land use – dominated by vehicles and carparking bays. There are a number of industrial sheds in use by Qantas, a substation and a disused gatehouse along King Street.
- + Spatial – large expanse open in character with some interrupted views towards the jet base and Freight Line
- + Experiential – low-lying enclosed area, busy at the beginning and end of the day but otherwise characterised by surrounding land-use including Freight Line and Qantas Drive.

**2.2.15 Local Landscape Value** - This character area is assessed as being of low value. The area is in fair condition with valuable carparking provision to Qantas, however appearance is dominated by monotonous carparking bays, with trees in poor condition.

**LCA 7 - Qantas Drive Transport Corridor**

2.2.16 This area encompasses the transport routes of Qantas Drive and the Botany Freight Railway Line that lies west of the Site.

**Key Characteristics:**

- + Landform – gently sloping down as road turns north-west.
- + Water Systems – SWDC demarcates the boundary of the Freight Railway Line.
- + Vegetation/ Ecology– fragmented vegetation on the boundary between the road and railway line.
- + Built form/Land use – major road corridor for vehicles travelling around the northern side of the airport, as well as the Botany Freight rail line.
- + Spatial – open in character, large billboards dominate the eastern stretch of the road.
- + Experiential – transitory experience dominated by fast driving vehicles on the roads with limited use of footpaths.

**2.2.17 Local Landscape Value** - This character area is assessed as being of medium value. The area acts as an important transport corridor, although it lacks aesthetic appeal and has no distinguishing positive features.

**LCA – 8 Aircraft Jet Base**

2.2.18 This area forms the Qantas Jet Base that lies west of the Site, within the boundaries of Sydney Kingsford Smith Airport.

**Key Characteristics:**

- + Landform – slopes west toward the Jet Base that gently plateaus out.
- + Water Systems – none present
- + Vegetation/ Ecology– large mature trees located along the boundaries of the Jet Base.



- + Built form/Land use – major aircraft related development, features the current flight training centre and a mixture of high-rise vacant office buildings and low industrial units as ancillary development to the Jet base.
- + Heritage – pumping station and sewage station listed as heritage items (Botany Bay LEP).
- + Spatial – open in character with enclosure around the boundaries of the Jet Base.
- + Experiential – utilitarian appearance with no public access due to security around Jet Base.

**2.2.19 Local Landscape Value** - This character area is assessed as being of medium value. The area is importance due to its complex cultural value that as a aircraft Jet Base, however it shows signs of deterioration with vacant buildings and areas in disuse.

## 2.3 SITE LANDSCAPE CHARACTER

2.3.1 The Site boundary and local surroundings is shown in Figure 1. The Site occupies approximately 5.417ha of predominantly hard surfaced asphalt carpark at grade. It is irregular in shape and bordered by the Qantas and corporate related buildings to the north/ north east and the Travelodge hotel and multi-storey carpark building to the east. To the south and west it bounded by King Street and the Botany Freight Rail Line respectively.

2.3.2 The SWDC bisects the northern portion of the site in an east-west direction. For the purposes of this assessment, the Site has been split into two, north and south of the Drainage Channel; Northern Carpark and Southern Carpark, both carparks are bordered by boundary vegetation to the east and west and south.

2.3.3 The site has a relatively level slope across the site, from 6m AOD along the east and south side of the site at the industrial shed, gently sloping down to the drainage channel and Northern Carpark at 4m AOD. There are some isolated changes in level at 6m AOD and 4m AOD within Southern Carpark and adjacent to the Drainage Channel.

### Sydney water Drainage Channel

2.3.4 The SWDC is a fenced off area that spans approximately 9m in width and comprises a narrow 1.5m width dish channel that is concrete lined and culverted as it enters the adjacent land to the east. *Casuarina glauca* (Swamp She-oak) and *Melaleuca quinquinervia* (Broad Leafed Paperbark) provide a dense canopy of semi-mature and mature trees either side of the channel, which form a prominent feature and back drop to both carparks. Two driveways provide bridged access for vehicles across the central and eastern width of the Drainage Channel.

### Northern Carpark

2.3.5 Northern Carpark forms approximately one third of the site, it is bordered by Qantas Catering facility and Qantas Tri-generation plant, with the Drainage Channel to the south. It comprises an asphalt surface for Qantas staff carparking sub-divided into two carparks by an existing row of predominantly large and healthy *Casuarina glauca* (Swamp she-oak), these join up with the same trees along the Drainage Channel, which provide a dense green backdrop to the Northern Carpark. The Qantas driveway enters the Project Site on the north-eastern corner, which is separated from the carparks by concrete bollards, metal mesh fencing and a small kerb-lined verge of grasses. On the eastern boundary is a raised planted embankment of semi-mature *Casuarina glauca* exist with shrub planting and some weeds have taken hold.

### Southern Carpark

2.3.6 The Southern Carpark is also asphalt and forms approximately two-thirds of the site, which is bordered by the Drainage Channel to the north and existing boundary vegetation to the east, south along King Street and west along the boundary of the Freight Railway Line. A variety of native and exotic trees and vegetation also exist around the perimeter of the carpark described below as western, eastern and southern boundary.

2.3.7 Widespread *Platanus x hybrida* and *Platanus orientalis* (London Plane Tree) are scattered in a grid between carparking bays to break up the Southern

Carpark. These are recorded as poor health and poor form with insect and pest infestation.

2.3.8 Located in the south-west corner of the Site there is a large an 15m x 12.5m industrial shed to store spare aviation parts, at approximately 16m in height. A substation and a disused gatehouse is situated along the southern boundary.

2.3.9 Vehicular access to the site from the local road network is available from King Street to the south. A connecting driveway in the north-western corner of the site links it to the broader Mascot Campus.

### Western Boundary

2.3.10 A row of mature *Lophostemon confertus* (Brushbox) in good health exist along the western boundary planted close to the fence along the rail line. At low level shrubs, mostly *Callistemon* species, provide additional structure and provide screening from the rail line.

### Eastern Boundary

2.3.11 The northern, central and southern portions of the boundary have semi-mature groups of *Casuarina* species trees growing closely along a sloped embankment along the fence line. A number of the parent trees have been lopped which has resulted in heavy suckering from the roots forming a dense thicket of young trees. Tree roots are shown to be breaking up some of the existing asphalt surface.

### Southern Boundary/King Street Frontage

2.3.12 King Street is a public road terminating at the rail land with no through route. Given the land adjacent to the site is also owned by Qantas and used for on grade parking

2.3.13 A turf verge in poor condition exists along King Street frontage which is raised above the adjacent existing carpark level. Within the verge there are five existing street trees alternating between *Agonis flexuosa* and *Eucalyptus scoparia* in moderate health. Inside the boundary along this frontage there are a further eight trees consisting of *Platanus x hybrida*, *Casuarina glauca* and *Lophostemon confertus*.



03

POTENTIAL  
LANDSCAPE IMPACTS

# 3.0 POTENTIAL LANDSCAPE IMPACTS

## 3.1 LANDSCAPE PROPOSALS

3.1.1 The Landscape proposals are illustrated by Figure 5. As part of the scheme development the Landscape Proposals have been developed in conjunction with design team and client as an iterative process. The consideration of landscape and visual impacts and the provision of landscape area and green infrastructure has been considered from the outset and the initial findings of the assessment have been used to inform and shape the design of the proposed development to address the greatest impacts identified.

3.1.2 The existing site features including: topography, boundaries, visual amenity and existing trees, informed the location of the landscape proposals. These proposals seek to retain and enhance existing features and provide new landscape features that would further alleviate visual impacts and provide a positive contribution to the local landscape character. The main proposals are set out below:

- + Retain, protect and buffer the SWDC vegetation
- + Supplementary native planting to the eastern and western boundaries in gaps to increase screening, canopy cover and enclosure to Site
- + King Street Frontage public domain works including new native trees and buffer planting
- + A green terrace west of the carpark forms a large area of native shrubs and trees to buffer the existing trees and provide additional landscape area
- + Carpark rooftop pergola planter and upper level greening with native climbing plants
- + Ground level carpark native buffer planting with green wall of climbing plants
- + Staff entrance amenity area with native and ornamental planting
- + A native grove of attractive trees along the eastern boundary to increase screening from the east and provide a pleasant area for pedestrians passing along the footpath



FIGURE 5

# LANDSCAPE STRATEGY

LEGEND

- Site Boundary
- Tree to be Retained and Protected
- Proposed Tree
- Planting Area
- Stage 2 of development: Carpark floors 5-13

Refer to Landscape Drawings for more detailed design information.





3.2 POTENTIAL IMPACTS ON LANDSCAPE CHARACTER

3.2.1 Section 1.3 sets out the methodology used for assessing the effects on the landscape character and landscape features of the Site.

3.2.2 The baseline landscape character areas identified for the Site and surroundings provide a basis to assess the impact of the proposed development. The predicted impacts and significance of effect of the development on the landscape character is set out below. Table 3.1 summarises the assessment outcome.

LCA1 - Local Boundary Vegetation

Landscape Sensitivity

3.2.3 In conjunction with a medium value landscape, with a proposed development that is sensitive to the local boundary vegetation, it is considered to have a fair ability to accommodate development, as a result the overall landscape sensitivity is measured as low.

Construction

3.2.4 At construction, the local boundary vegetation would be subject to some changes, as part of the site clearance and preparation several trees would be removed to enable the development, the majority of these trees are Casuarina glauca located north of the SWDC, and in the south east corner of the Southern Carpark. This is classed as moderate areas of the vegetation, resulting in a medium magnitude of effect and consequent minor adverse significance of effect.

Operation

3.2.5 The Casuarina glauca trees and a small number of trees along the southern boundary of the Site have been lost to the development. The magnitude of change remains as medium. As part of the landscape proposals, the local boundary vegetation has been extended and where possible enhanced through supplementary planting. This over time will be beneficial to the protection and enhancement of the existing character area. As a result, the significance of effects is considered to be minor beneficial at operation.

LCA 6 – King Street Corporate Carparks

Landscape Sensitivity

3.2.6 The landscape character area is identified as having a low susceptibility to change and a low value landscape, due to its poor overall appearance and trees in poor condition, therefore the overall landscape sensitivity is assessed as low.

Construction

3.2.7 To enable to the works for the proposed development, a vast extent of the character area would be affected and it would constitute a major change to the key characteristics of the area including loss of all of the trees located in the carparks north of King St and the built features such as the industrial shed and security gatehouse (within the Site). The construction works would form a large change to the character. Consequently, the magnitude of change is high and as a low sensitivity landscape the significance of effect is moderate adverse for this character area.

Operation

3.2.8 Once built the character area would increase in scale and bulk, and the main characteristics of this section of the carpark would completely change. Therefore the magnitude of change is still considered to be high. However, the proposed development will transform the existing carpark into an important Training Facility and associated multistorey carpark, that would largely integrate into the adjacent urban fabric and the landscape proposals are considered to enhance and complement the existing characteristics. As a result, the overall significance of effect is assessed as effect moderate beneficial.

3.2.9 The remaining landscape character areas including: LCA 2- Chalmers Crescent Light Industrial Development, LCA 3 - Bourke Road Corporate/ Office Development, LCA 4 – O’Riordan Street Hotel Development, LCA 5 - O’Riordan Street Light Industrial Development, LCA 7- Qantas Drive Transport Corridor, LCA 8 - Qantas Aircraft Jet Base have all been

assessed as negligible. The landscape sensitivity for the character areas is measured as low overall due to a low general condition and appearance and low susceptibility to change within a similar urban setting. The magnitude of effects is perceived to be negligible as the proposed development is not considered to have any discernible change on the key features and/ or characteristics, resulting in no loss or alteration to the character areas.

3.3 POTENTIAL IMPACTS ON SITE LANDSCAPE FEATURES

3.3.1 The baseline landscape features of the Site are identified in Section 2 and the predicted impacts and significance of effect of the development on these features area set out below.

Sydney Water Channel

3.3.2 There would not be any direct impacts on the SWDC. There are no works proposed within the channel and associated area and the fence will be retained. All the trees within this location would be retained and protected. The magnitude of change and significance of effects is therefore **negligible**.

Northern Carpark Trees

3.3.3 The northern carpark trees are semi-mature and generally in good health with a low susceptibility to change, the trees therefore have a low sensitivity. As part of the proposed carpark the row of Casuarina glauca that dissects the carpark would be removed which forms a high magnitude change to the features and results in a **moderate adverse** significance of effect that would be a direct impact of the proposed development and therefore the case at construction and operation stages.

Southern Carpark Trees

3.3.4 The trees that punctuate the southern carpark would all be lost to enable the proposed development. These are classified as a low sensitivity feature, they currently provide structure and character to the carpark but are found to be in poor health and infected with diseases. Losing the trees would result in a total change and removal of the landscape features,

therefore it constitutes high magnitude of change, which results in a **moderate adverse** significance of effect that would be a direct impact of the proposed development at construction and operation.

Western Boundary

3.3.5 The western boundary existing vegetation is measured as medium value and low susceptibility to change and therefore is a low sensitive landscape feature. The trees along these boundaries are to be retained and protected for the duration of the construction works. After this it is proposed that the existing vegetation is supplemented with additional tree and shrub planting to increase the landscape buffer and biodiversity potential of the boundary. The planting augmentation may result in minor beneficial changes which would constitute a low magnitude of change which is considered to have a **negligible** effect on the features at construction and operation.

Eastern Boundary

3.3.6 The eastern boundary existing vegetation is measured a medium value and low susceptibility to change and therefore is a low sensitive landscape feature. The trees along these boundaries are to be retained and protected for the duration of the construction works, with the exception of three Casuarina glauca trees in the south-eastern corner, which would be removed to enable a driveway entrance and pedestrian walkway. This constitutes a noticeable change to the boundary resulting in a medium magnitude of change and overall minor adverse significance of effect at construction stage. As part of the landscape proposals new supplementary trees are proposed to improve and enhance the existing landscape characteristics, therefore mitigating some of the effect to **minor beneficial** at operation.

Southern Boundary/ King Street Frontage

3.3.7 The southern boundary is considered to be medium value with low susceptibility to change, which constitutes a low sensitivity landscape feature. During construction, four of the existing street trees will be removed to allow the proposed driveways. This would form a noticeably large change to the southern

TABLE 3.2 – POTENTIAL LANDSCAPE IMPACT SUMMARY TABLE

| Sensitivity                    |       |                |                     | Magnitude Construction |                        |                            |                   | Significance of Effect (Construction) | Magnitude Operation    |                        |                            |                   | Significance of Effect (Operation) |
|--------------------------------|-------|----------------|---------------------|------------------------|------------------------|----------------------------|-------------------|---------------------------------------|------------------------|------------------------|----------------------------|-------------------|------------------------------------|
| Location                       | Value | Susceptibility | Overall Sensitivity | Size/Scale of Change   | Geographical Influence | Duration and Reversibility | Overall Magnitude |                                       | Size / Scale of Change | Geographical Influence | Duration and Reversibility | Overall Magnitude |                                    |
| Effects on Landscape Character |       |                |                     |                        |                        |                            |                   |                                       |                        |                        |                            |                   |                                    |
| LCA 1<br>Boundary Vegetation   | M     | L              | L                   | L                      | M                      | VH                         | M                 | Minor Adverse                         | L                      | M                      | VH                         | L                 | Minor Beneficial                   |
| LCA 2<br>Chalmer Crescent      | L     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| LCA 3<br>Bourke Road           | M     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| LCA 4<br>Hotel                 | M     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| LCA 5<br>Industrial            | L     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| LCA 6<br>Carpark               | L     | L              | L                   | VH                     | H                      | VH                         | H                 | Moderate Adverse                      | VH                     | H                      | VH                         | H                 | Moderate Beneficial                |
| LCA 7<br>Qantas Drive          | M     | L              | L                   | L                      | VL                     | VH                         | L                 | NEGLIGIBLE                            | L                      | VL                     | VH                         | L                 | NEGLIGIBLE                         |
| LCA 8<br>Jet Base              | M     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| Effects on Landscape Features  |       |                |                     |                        |                        |                            |                   |                                       |                        |                        |                            |                   |                                    |
| Sydney Water Channel           | M     | L              | L                   | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                            | NEGLIGIBLE             | NEGLIGIBLE             | VH                         | NEGLIGIBLE        | NEGLIGIBLE                         |
| Northern Carpark Trees         | M     | L              | L                   | H                      | H                      | VH                         | H                 | Moderate Adverse                      | H                      | H                      | VH                         | H                 | Moderate Adverse                   |
| Southern Carpark Trees         | L     | M              | L                   | VH                     | VH                     | VH                         | VH                | Moderate Adverse                      | VH                     | VH                     | VH                         | VH                | Moderate Adverse                   |
| Eastern Boundary               | M     | L              | L                   | M                      | M                      | VH                         | M                 | Minor Adverse                         | M                      | M                      | VH                         | M                 | Minor Beneficial                   |
| Western Boundary               | M     | L              | L                   | L                      | L                      | VH                         | L                 | NEGLIGIBLE                            | L                      | L                      | VH                         | L                 | NEGLIGIBLE                         |
| Southern Boundary              | M     | L              | L                   | H                      | M                      | VH                         | H                 | Moderate Adverse                      | M                      | M                      | VH                         | M                 | Minor Beneficial                   |

boundary over a medium extent which is measured as a moderate magnitude of change with a moderate adverse significance of effect at construction. Once completed the public verge will be reinstated including turf and concrete footpath to match the recent works in front of the Travelodge. Proposed layers of planting would be incorporated with new trees to unify the character of the frontage along King Street. Overall this reduces the significance of effect to **minor beneficial** at operation on the southern boundary.

#### 3.4 SUMMARY OF POTENTIAL LANDSCAPE IMPACTS

3.4.1 The impact on the landscape is limited to two character areas out of the eight identified in the local vicinity with direct impact on three of the six landscape features identified in the Site. The impact ranges from moderate adverse, minor beneficial to negligible

3.4.2 The landscape character immediately surrounding the Site is typical of the Mascot District with large areas of light industrial warehouse and commercial development next to Sydney Airport related infrastructure including the Jet Base and surrounding roads. It is an area that is dominated by change and development, as evident in the area with many new buildings just completed, currently in construction or with pending applications associated with the land. The majority of the study area is perceived to be in fair condition but lacking any defining positive characteristics, therefore the landscape sensitivity is low.

3.4.3 The proposed development would have the greatest impact on the King Street on grade Carpark character area, as it would permanently change the scale and functionality of the carpark. This is a low sensitivity landscape and therefore the impact is considered to be moderate. The landscape proposals include replacement of the lost trees, assisting in mitigating the impact of the development. Once established, the design and setting the development is considered to improve the appearance of the existing characteristics and the proposed development would fit in with existing urban context and massing. Due to the size and nature of the buildings, they would form an extension of the Chalmers Crescent Light Industrial

Development Character Area identified. Therefore, the impact of the development is moderate beneficial and not a significant effect.

3.4.4 The Local Boundary Vegetation is a low sensitivity character area that would also be impacted by the proposed development. A few localised areas of the vegetation would be removed, but the vast majority of the character area would remain intact. The landscape proposals include replacement of the lost vegetation with buffer protection and supplementary planting of the Local Boundary Vegetation on the Site. This would assist in mitigating the impact of the development. This leads to an overall minor beneficial impact that is not a significant effect.

3.4.5 Similarly, at Site level there are a number of landscape features that are part of the landscape character areas mentioned above, that would be impacted by the proposed development. These features were measured as low sensitivity. These include the northern carpark trees and southern carpark trees that would be lost to the development and form a permanent moderate adverse impact, which is not considered to be a significant effect. The southern and eastern boundaries would also be subject to tree removal. Proposals to plant new trees along these boundaries and across the proposed development assist in mitigating some of this impact, which reduces to minor beneficial overall and is not significant.



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04

# VISUAL BASELINE CONDITIONS

## 4. VISUAL BASELINE CONDITIONS

### 4.1 SCOPE OF ASSESSMENT

- 4.1.1 The study area from the assessment of the visual baseline conditions is defined by the sites Zone of Theoretical Influence (ZTV) as shown in Figure 3.
- 4.1.2 The visual baseline assessment considers the potential visibility of the Site and identifies the visual receptors and key views that may be affected by the proposed development.
- 4.1.3 The key viewpoints have been identified and located in the field to represent the visual receptors typical views towards the Site. These are documented with existing photographs and photomontages in Appendix A & B. Whilst scoping the visual assessment a number of high-rise buildings were identified as key visual receptors to the proposed development. It was considered impractical to seek approval to gain access to these properties/ hotels and therefore a number of model views have been selected to form a basis for the assessment.
- 4.2 POTENTIAL VISIBILITY**
- 4.2.1 The extent of the ZTV has been informed from site visits at public locations within the study area. The visibility of the Application Site outside the ZVI and within the wider landscape is contained by landform, vegetation and settlement.
- 4.2.2 The ZTV shows that visibility to the Site is limited to the immediate locality at street level, and to a mixture of high-rise buildings to the north, east and south of the Site, no further than 300m from the Site boundary. From the west, at ground level there are limited views from Qantas Drive, which are generally filtered into the Site by boundary vegetation. The edge of the Jet Base also has views to the Site including two high-rise towers that are soon to be demolished. Views extend along King Street immediately south and east of the Site and there are filtered views between vegetation from the Qantas carpark on the southern side of King Street. Four hotels have elevated views from the south.
- 4.2.3 Views from the east at street-level are limited to local footpaths and small sections of Bourke Road and O’Riordan Street, as well as around the foot of the

- AMP/Goodman Connect Offices and Pullman Hotel. The buildings immediately east including the hotels and office development have elevated views of the Site. Beyond this, there are two residential apartments that have filtered view towards the Site.
- 4.2.4 To the north, at street-level Chalmers Crescent is the only location to be able to view the edge of the Site. There are a number of taller buildings to the north and north-east that are identified as having elevated views across to the Site, this includes commercial and office developments along Bourke Road to the north-east, Qantas offices and Danoz offices to the north, and high rise residential apartment blocks along Coward Street.
- 4.3 VISUAL RECEPTORS**
- 4.3.1 Visual receptors are individual and/or defined groups of people who have the potential to be affected by a proposal. For the purposes of this assessment the following visual receptors have been identified:
- **Workers/professionals** – Qantas staff using the carparks and other staff members using the corporate buildings nearby.
  - **Travellers/hotel guests** – those visiting the area and staying in local hotels nearby.
  - **Residents** – in high-rise buildings that are located north and east of the site.
  - **Road users** – predominantly passing through by car along the nearby roads or sometimes by foot or bicycle.
- 4.4 KEY VIEWS**
- 4.4.1 Based on the visibility analysis, 11 key representative views have been identified from accessible locations. These are illustrated in Appendix B as an existing view, wireframe view (taken from a 3D model software) and a photomontage view to illustrate typical views in relation to the surrounding visual receptors. A further 7 model views have been identified to represent views from high-rise buildings are illustrated in Appendix B also.
- 4.4.2 The following paragraphs identify the visual receptors within each view and describes the nature of each view.

- Viewpoint 1 – North-east from Qantas Jet Base**
- 4.4.3 Distance to main Project boundary - 55m
- Visual receptors:**
- 4.4.4 Workers based on the Jet Base
- 4.4.5 This view represents views from office workers within the high-rise buildings within the Jet Base. However, it is noted that these buildings have now been evacuated ready to demolition in preparation for the Sydney Gateway works. Therefore, any magnitude of change to the view from the proposed development will be only temporary. The view will also be representative of that of the road users on the Gateway road following construction although it should be noted that the final alignment and height of the overpass is not know at this stage.
- Existing View**
- 4.4.6 A local elevated view from the third floor of the high-rise building within the Jet Base. View looks north-east across the Qantas Drive and Freight Line Railway in the immediate foreground and then onto the Site. The Southern Carpark is central to the view but filtered by the existing trees along the western boundary of the Site and from within the Site. The large scale Qantas catering, office buildings and hotels behind the Site dominate the view and the existing industrial shed is prominent feature in the view.
- Viewpoint 2 – North-east from Qantas Drive**
- 4.4.7 Distance to main Project boundary – 33m
- Visual receptors:**
- 4.4.8 Road users along Qantas Drive including those in vehicles and on foot or bike
- Existing View**
- 4.4.9 A local transitory view from Qantas Drive west of the Site. As road users are travelling along this road views extend to the north and over to the east where there are glimpsed views from the road to the Site across the existing Freight Line. Many of these views are screened due to the location of large billboards along the eastern stretch of the road aswell as the trees and vegetation along the western boundary of

- the Site.
- Viewpoint 3 – North-west from King Street**
- 4.4.10 Distance to main Project boundary - 9m
- Visual Receptors:**
- 4.4.11 Road users – visitors and workers travelling along King St by car or on foot/bicycle.
- Existing View**
- 4.4.12 A local view looking down along King Street towards the Site and across to the Travelodge and Wilson Carpark entry. The Hotel development including the Ibis and Travelodge are tall buildings that overlook the street. The brick high-rise offices located on the Jet Base is a prominent building in the mid-distance, beyond the Site. A number of trees break up the views onto the buildings and the existing trees at the end of King Street on the southern boundary of the Site provide a green focal point for the view.
- Viewpoint 4 – North from King Street**
- 4.4.13 Distance to main Project boundary - 9m
- Visual receptors:**
- 4.4.14 Road users – visitors and workers travelling along King Street by car or on foot/bicycle.
- 4.4.15 Workers – using the staff carpark
- Existing View**
- 4.4.16 Located on King street looking north, this is the closest street-level view to the Site. The view looks across King Street, through the existing wire fence into the Site carpark. Old turnbar entry gates are located centre to the view with a Qantas industrial shed used to store aircraft parts to the left, and open carpark to the right. The presence of existing trees along the street frontage, scattered across the carpark and in the background is very evident and breaks up the view to the carpark.
- Viewpoint 5 – North-west from Travelodge**
- 4.4.17 Distance to main Project boundary - 22m
- Visual receptors:**
- 4.4.18 Worker/visitors using the Wilson multistorey carpark roof



FIGURE 3

# ZONE OF THEORETICAL VISIBILITY

**LEGEND**

- Site Boundary
- 2m Contours
- Distance
- Street Level Zone of Theoretical Visibility (Including Direct Views & Filtered)
- High-Rise Building With Views To Site

0 25 50 100 150 200m

Scale 1:5,000 @ A3



**SURROUNDING DEVELOPMENTS:**

- A. Stamford Plaza Hotel
- B. 8Hotels Boutique
- C. Quest Hotel
- D. Holiday Inn Express Hotel(Approved)
- E. Mezza Train Apartments Residences
- F. 342 King Street (Low Industrial, DA Recently Rejected)
- G. Qantas On Grade Car Parking
- H. Ibis Hotel
- I. Travelodge Hotel
- J. Wilson Carpark
- K. BCI Drilling Industrial
- L. Pullman Hotel
- M. AMP/Goodman Connect Corporate Centre
- N. Qantas Office & The Joey Club Childcare Centre
- O. 146-154 O’Riordan Street (DA Approved)
- P. Holiday Inn Hotel
- Q. DHL
- R. Adina Hotel
- S. Qantas Corporate Headquarters
- T. Altitude Corporate Centre
- U. Metrolink Corporate Offices
- V. Danoz Direct
- W. Area of Low Scale Industrial Businesses
- X. 39 Kent Road Apartments
- Y. East Square Apartments
- Z. 244 Coward Street Apartments
- AA. 230 Coward Street Apartment
- BB. Qantas Catering
- CC. Qantas Offices(To Be Demolished)
- DD. 1-5 Chalmers Crescent (DA Approved)



Hotel guests – staying in the Travelodge with a window that overlooks the Site

**Existing View**

4.4.19 This is an elevated view that looks north-west from the top of the Wilson multi-storey carpark adjacent to the eastern boundary of the Site. This view provides a panorama of the Southern Carpark, dotted with cars and Plantanus ssp. trees canopies and the Casuarina glauca trees form a backdrop to the north, behind which stands the large-scale Qantas Catering building. Coward Street residential apartments and the large scale Qantas Corporate buildings area visible along the skyline.

**Viewpoint 6 – North-west from Wilson Carpark**

4.4.20 Distance to main Project boundary - 12m

**Visual receptors:**

4.4.21 Worker/visitors using the Wilson multistorey carpark roof

Workers – located in office at the AMP/Goodman Corporate Centre

**Existing View**

4.4.22 This is an elevated view that looks north and north-west from the top of the Wilson multi-storey carpark on the eastern boundary of the Site looking across the Northern Carpark. The Casuarina glauca associated stands of trees along the SWDC are located across the foreground of this view with some glimpses of the Northern Carpark. The Qantas Catering and tri-generator are visible in the view and the residential apartments along Coward Street are the tallest buildings seen in the background of the view. A Qantas corporate office is located in the right of this view.

**Viewpoint 7 – West from AMP/Goodman Connect Corporate**

4.4.23 Distance to main Project boundary - 128m

**Visual receptors:**

4.4.24 Hotel guests/passers by – visitors at the Pullman hotel using the small greenspace for waiting or sitting

Workers – from AMP/Goodman Connect Corporate

using the small greenspace e.g. to sit at lunchtime beneath the tree canopy

Vehicle users – accessing the AMP/Goodman Connect Corporate offices/ carpark.

Representative view from within both the Pullman Hotel and Corporate Connect offices for workers and visitors from areas with windows facing The Site.

**Existing View**

4.4.25 This is publicly accessible small greenspace located at the entrance to the Pullman Hotel Entrance and adjacent to a side access road for the AMP/ Goodman connect Corporate offices. The view looks dues west towards the Site which is located at the end of the side road.

**Viewpoint 8 – West from O’Riordan Street & Bourke Road**

4.4.26 Distance to main Project boundary - 188m

**Visual Receptors:**

4.4.27 Road users – along O’Riordan Street and Bourke Road junction

Workers – parking and working at the light industrial units east of O’Riordan street, comprise Gearhouse Broadcast WorkVentures warehouses.

**Existing View**

4.4.28 This is predominantly a transitory view for road users looking west towards the Site. Workers in the small industrial shed across O’Riordan street may also catch glimpsed views from small windows. It is a middle distance view that look across the busy road junction towards the AMP/Goodman Connect Corporate offices of Jaguar and Land Rover and the onto the associated carpark. Ficus trees enclose the view of Bourke Road on the right-hand side.

**Viewpoint 9 – South-west from Bourke Road**

4.4.29 Distance to main Project boundary - 154m

**Visual Receptors:**

4.4.30 Hotel guests – staying at the Holiday Inn across the road

Road users – along O’Riordan Street and at Bourke Road junction

Workers/visitors – entering the Qantas campus of corporate offices

**Existing View**

4.4.31 This is local view that looks south-west from Bourke Road towards the Site. It comprises predominantly transitory view for vehicles passing by, with some instances where a small number of hotel guests would have a window overlooking this direction. The Qantas head offices dominate the middle of the view, with large Ficus trees to the left and a Qantas building centre to the view and a black AMP/Goodman Connect Office standing out behind this.

**Viewpoint 10 – South from within Qantas Corporate Building on Level 6**

4.4.32 Distance to main Project boundary - 155m

**Visual Receptors:**

4.4.33 Workers – Qantas staff working with views form offices in this building

**Existing View**

4.4.34 This is a local view from the Qantas Corporate offices on level 6 that overlooks the Site to the South. The view is enclosed by the surrounding buildings including the Qantas and AMP/Goodman Corporate offices to the left, the tri-generation plant at a lower level in the foreground and the Qantas Catering to the right. The view looks directly onto the Northern Carpark where the existing trees provide a dense carpet of screen across the Site combined with the tree visible south of theSite. The Travelodge is prominent in the middle distance and further afield the airport and the Botany Bay is visible on the horizon.

**Viewpoint 11 – South-east from Chalmers Crescent**

4.4.35 Distance to main Project boundary - 123m

**Visual Receptors:**

4.4.36 Road users – along Chalmers Crescent  
Workers – located in the warehouses  
Representative view from Danoz Direct office building on Chalmers Street

**Existing View**

4.4.37 This view looks south across Chalmers Crescent in the direction of the Site. A large warehouse

used as a wholesale bakery extends down the southern side of the road, this has numerous garage openings for vehicles to access the warehouse. There are a few clusters of small trees scattered along the street that break up the view to the brick warehouse. The street is also used for parking by the local workers.

4.5 MODEL VIEWS

Model View 1 – North-west from Stamford Plaza Hotel

4.5.1 Distance to main Project boundary - 225m

Visual Receptors:

4.5.2 Travellers/hotel guests – staying in hotel rooms of the Stamford Plaza Hotel

Representative view for the travellers and hotel guests in the new Holiday Inn Express Hotel currently under construction on the corner of Sarah & O’Riordan Streets.

Existing View

4.5.3 This is an elevated from view looking north across the surrounding area. It is relatively wide-ranging with views of numerous hotels, apartment blocks and developments in the vicinity. The development in the foreground dominate the view.

Model View 2 – North-west from new Holiday Inn Express Hotel (Under Construction)

4.5.4 Distance to main Project boundary - 152m

Visual Receptors:

4.5.5 Travellers/hotel guests – staying in hotel rooms of the Holiday Inn, Quest Hotel and neighbouring 8Hotel Boutique.

Existing View

4.5.6 This is an elevated from view looking north across the surrounding area. It is relatively wide-ranging with views of numerous hotels, apartment blocks and developments in the vicinity.

Model View 3 – North-west from Mezza Train Apartments

4.5.7 Distance to main Project boundary - 173m

Visual Receptors:

4.5.8 Residents – living in the Mezza Train Apartments

Existing View

4.5.9 This is an elevated view form the apartments that looks north-west. The view extends along King Street with the light industrial units to the left, the Travelodge in the centre of the view and the other hotel developments meeting to O’Riordan Street to the right.

Model View 4 – West from Pullman Hotel

4.5.10 Distance to main Project boundary - 102m

Visual Receptors:

4.5.11 Travellers/hotel guests – staying in hotel rooms of Pullman Hotel

Existing View

4.5.12 This is an elevated view form the Pullman Hotel that looks west across the Site and Qantas Drive and then towards the Qantas Jet Base.

Model View 5 – North-west from 146-154 O Riordan Street

4.5.13 Distance to main Project boundary - 190m

Visual Receptors:

4.5.14 Residents – living in new DA approved development at 146-154 O Riordan Street

Existing View

4.5.15 This is an elevated view form the apartments that looks west. The view extends across O’Riordan Street and to the eastern boundary of the Site. The AMP/Goodman Connect Corporate Centre and Pullman Hotel are the most prominent buildings that occupy most of the view.

Model View 6 – West from Adina Hotel

4.5.16 Distance to main Project boundary - 155m

Visual Receptors:





05

# POTENTIAL VISUAL IMPACTS

5.1 POTENTIAL IMPACTS ON KEY VIEWS

5.1.1 The visual baseline for the Site and the surroundings outlined in Section 4 provide a basis to assess the impact of the proposed development. The potential impacts and significance of effect of the development on the views is set out below. The accompanying photographs and photomontages are located in Appendix B, these reference the height, scale and bulk of the proposed and existing surrounding development, Appendix D includes the architectural renders to show the material colour and finish to the proposed buildings, further information is shown in the Architectural Drawing Set. Section 1.3 sets out the methodology used for the assessment on the views. A. Table 5.1 summarises the assessment outcome. Figure 5 shows the viewpoint locations and ZTV identified for the Site.

Viewpoint 1 – North-east from Qantas Jet Base

Visibility Sensitivity

5.1.2 This is a low value view from irregularly used window in an office building into with a low susceptibility to change and therefore has a low overall sensitivity. The view however represents the potential visibility from the future Gateway road link into the Airport. Although the details of the proposed road, alignment and height, are not known, the view from the road will likely be more oblique than the photograph location, and will be inherently transitory in nature.

Construction

5.1.3 Many of the early works and ground-based construction will be screened by the existing intervening vegetation. Once the Carpark and Training facility start being built this will be more prominent in the view and the cranes and associated equipment will noticeably contrast with the surroundings. The magnitude of change is medium and the significance of effect is classed as **minor adverse**.

Operation

5.1.4 The boundary vegetation forms an effective break in the view and once the buildings are finished they harmonise within the existing location in line

with other similar sized buildings in the background. The carpark is the most prominent building that at 13 storey rises to the similar height as the adjacent AMP/ Goodman Centre. Vegetation planted as part of the landscape provision around the Training facility and on top of the carpark would enhance the appearance the buildings. Over time, as trees reaches mature height, this planting may provide some screening of the Training Centre. The magnitude of change is classed as medium and the overall significance of effect is **minor neutral**.

Viewpoint 2 – North-east from Qantas Drive

Visibility Sensitivity

5.1.5 Due to the transitory nature of this view with little noteworthiness along Qantas Drive it is deemed low value with a low susceptibility to change, therefore a **low** sensitivity view.

Construction

5.1.6 During construction of the training facility there will be small changes to this view, which is situated behind the rail line and trees and it sat at an oblique angle. As a result the visual magnitude of change is assessed as **minor adverse**.

Operation

5.1.7 At completion the new EP building will enclose the western side of the transport corridor more, however this will be barely discernible from the road as the new buildings replaces the existing industrial shed in height and it forms part of a glimpsed transitory view through billboards and trees at an oblique angle. In addition, proposed planting along the side of the Training Facility will further screen the development from the view at eye level. The Carpark building will form a new noticeable feature in the upper angle of the view from the road. As a result the magnitude of change is assessed as medium and the overall visual significance of effect is assessed as **minor neutral**.

Viewpoint 3 – North-west from King Street

Visibility Sensitivity

5.1.8 This view will only be experienced by road users and is of little noteworthiness due to it being flanked by industrial units and large scale hotels. It is

assessed as have low value and low susceptibility to change, with an overall **low** sensitivity.

Construction

5.1.9 At construction this road will be used as access for construction vehicles to the Site so will be more active in use throughout the day. The location of a construction site at the end of the road will generally be tucked away, however the construction work would form noticeable change to the view and will comprise contrasting features such as heavy machinery and equipment which will disrupt the view more than usual. As a result it is deemed to have a medium magnitude of change and a **minor adverse** significance of effect to the view during construction.

Operation

5.1.10 Once operational, the Training facility will occupy the street frontage and the end of the road, this will constitute a small change to the view which will form a new feature in the view. The new building is considered to blend in with the context of other large-scale buildings within the view. A few existing trees will be lost to make way for the building, these will be replaced as part of a new planting scheme to enhance the existing landscape character at the end of the street. Therefore the magnitude of change is low and the significance of effect is assessed as **negligible**.

Viewpoint 4 – North from King Street

Visibility Sensitivity

5.1.11 This is low value view, experienced by staff in the local carpark or road users, it is not of any noteworthiness and has a low susceptibility to change to development. Therefore it is an overall **low** sensitivity view.

Construction

5.1.12 The building and construction works will constitute a major disruption to this location and cover a large extent of the view. It will be busy throughout the day with access for trucks and vehicles, and although hoarded up, this will be an entrance to the construction site and there will be a lot of activity and building work visible up close. As a result, the

magnitude of change at construction is assessed as high with a **moderate adverse** significance of effect.

Operation

5.1.13 At completion the new Training Facility will occupy the other side of the road instead of an open carpark, with a green backdrop. This is therefore perceived to form a major change to the view, as the building forms a dominant new feature in the view. The built form of the training facility is considered to fit in and add to the urban grain of the street frontage, although a number of trees would be lost along the southern boundary, once established the landscape treatment along the street frontage would uplift the street character and buffer the edge of the development, which assists in mitigating some of the impact. The magnitude of change is still considered high and the overall significance of effect becomes **moderate neutral**.

Viewpoint 5 – North-west from Travelodge

Visibility Sensitivity

5.1.14 This view comprises a low value view due to it looking out across the existing carpark, which is of little noteworthiness. Windows at higher locations within the hotel will have further reaching views of Qantas Drive, the Jet Base and Mascot city suburb in the far distance. As the hotel is a leisure property, it is classed as having a medium susceptibility to change, being a transit related hotel guests are less likely to be concerned by their view than in a similar facility elsewhere, this comprises a **low** sensitivity view.

Construction

5.1.15 The construction works from this elevated view would be dominant in the foreground, with construction works taking place over approximately 16 months, which will disrupt the harmony of the current view for hotel guests. The trees along the boundary and SWDC within the view would be incorporated into the development, which will provide some buffering around the building works, however the carpark building works will be prominent above these trees. The magnitude of change is high, as a low sensitivity view,

the significance of effect is assessed as **moderate adverse**.

**Operation**

5.1.16 Once the proposed development is built the existing and proposed trees will help create some buffering between the building edges, nevertheless the view would look at the new carpark building that would stand prominent approximately 20m above the stands of Casuarina glauca (Swamp She-oak). The carpark will block further views north from the Wilson carpark and most of the hotel views. The direct views to the materiality and design of the Training building would be aesthetically pleasing and visually blends with the surroundings. The scale and massing is also considered to blend with the adjacent Qantas Catering warehouse, which is taller in the background. The scale of change and geographical influence is high for this view, as an overall low sensitivity view the magnitude of change has been assessed as **moderate adverse**.

**Viewpoint 6 – North-west from Wilson Carpark**

**Visibility Sensitivity**

5.1.17 This is a low value view for carpark users and office workers that will occasionally look across the carpark area that is filtered by the trees. It has a low susceptibility to change and therefore an overall **low** sensitivity.

**Construction**

5.1.18 The initial construction works will be predominantly screened by the existing trees in the view, however in the later construction stages the proposed carpark building will remove the row of trees along the centre of the Northern Carpark and the building would form the focus of the view looking north, compromising features that adversely contrast with the existing view. The scale and extent of change is regarded as high, the low sensitivity view means the construction significance of effect is **moderate adverse**.

**Operation**

5.1.19 The proposed carpark is centre of the view and becomes the focus and a prominent new large-scale massing, although it does tie in with the buildings

in the context of the view, the close nature of the building increases the scale of the effect. The overall magnitude of change is high and the significance of effect is assessed at **moderate adverse**.

**Viewpoint 7 – West from AMP/Goodman Connect Corporate**

**Visibility Sensitivity**

5.1.20 The location of the small greenspace provides a pleasant area for workers and visitors to sit. The view towards the Site is at an oblique angle to the seating areas and it looks across the boardwalk and planting beds within the open space, to the AMP/Goodman office building and has views of the trees within the Site in the background. The view is classed as a low value view, and it experienced by hotel guests that have a medium susceptibility to change and therefore the view is overall **low** sensitivity.

**Construction**

5.1.21 At this oblique angle the construction works for the southern end of the proposed carpark will be visible and the associated building apparatus will form noticeable contrasting features partially visible in the view. As a result the magnitude of change is medium and the significance of effect is assessed as **minor adverse**.

**Operation**

5.1.22 Once the proposed carpark is built, the southern end of the tall building will be visible at the end of the view. It is considered that the carpark covers a small extent of the view at an oblique angle and the carpark building is not as noticeable at the end of the view next to the AMP/Goodman Connect Corporate, which is a more dominant building in this view. As a result the overall magnitude of change is assessed as **negligible**.

**Viewpoint 8 – West from O’Riordan Street & Bourke Road**

**Visibility Sensitivity**

5.1.23 This is a low value view for road users and local workers, which have a low susceptibility to change and therefore the view is assessed at having **low** sensitivity.

**Construction**

5.1.24 The construction works of the proposed carpark would be distinguishable between the opening of the AMP/Goodman Connect carpark and trees adjacent to the Qantas Corporate offices. This forms a small change to the view in the middle distance that currently has nearby roadworks that are more visible in the foreground, therefore the magnitude of change is assessed as low and the significance of effect is assessed as **negligible**.

**Operation**

5.1.25 Once the carpark has been built it would fill the gap between the existing buildings in the view, however it is noted that the building will be portrayed as a small extension to the existing AMP/Goodman carpark in this view. The carpark roof would be detailed with attractive climbing plants on a pergola structure, this would be visible but in context of the view the change would be barely discernible. The overall magnitude of change is low and the overall significance of effect is assessed as **negligible**.

**Viewpoint 9 – South-west from Bourke Road**

**Visibility Sensitivity**

5.1.26 This is considered to be a **low** sensitivity view. The potential hotel guests with views mean it has a medium susceptibility to change.

**Construction**

5.1.27 From this location a large extent of the eastern elevation of the proposed carpark is visible, it is shown to occupy the opening between the AMP/ Goodman Connect Corporate and the Qantas buildings. Therefore the construction works would form a large extent of the view and noticeably stand out with contrasting works taking place as the carpark gets built. The construction magnitude of change is measured as high, with a **moderate adverse** significance of effect.

**Operation**

5.1.28 The eastern elevation of the carpark is in full view from this location. Although the building occupies a large extent of what was an opening to the sky, the surrounding buildings that are closer dominate the

view more and the carpark appears as an additional building, which largely integrates with the surrounding buildings mass. The **Diagram 10** magnitude of change is medium and the significance of effect is assessed as **minor neutral**.

**Viewpoint 10 – South from within Qantas Corporate Building on Level 6**

**Visibility Sensitivity**

5.1.29 This is considered to be a medium value view from a busy office working environment which has been designed with glazed windows for workers to enjoy the views from outside whilst working. Due to its nature as a workplace it has a low susceptibility to change which means the view has a **low** sensitivity overall.

**Construction**

5.1.30 Central to the view, the construction works would take place and form prominent new disruptive activity in front of the Qantas offices. This would include removal of the trees closest to the view and a change from green tree canopies in the middle of the views to a construction site. Office workers would have less visibility of the Training Facility as this would be screened by the existing trees along the Draing Channel, but the would experience the full construction of the carpark from beginning to end. As a result it is deemed that during construction this would form high magnitude of change, which would result in a **moderate adverse** significance of effect.

**Operation**

5.1.31 The northern elevation of the carpark is in full view from the Qantas offices; it forms a large new prominent building, centre to the view and blocks some of the distant views beyond to the airport and water on the horizon. The carpark is a tall building that now dominates the view, however with full consideration of the context of the view it is considered that the building largely integrates with the surrounding massing seen in each direction. The proposed greening to the carpark façade with climbing plants on over a shade pergola would assist in softening some of the direct views to the façade. Therefore at operation the scale of change reduces but the magnitude of change



TABLE 4.2 – POTENTIAL VISUAL IMPACTS ON KEY VIEWS SUMMARY TABLE

| Sensitivity                   |       |                |                     | Magnitude Construction |                        |                            |                   | Significance of Effect (Construction) | Magnitude Operation    |                        |                            |                   | Significance of Effect (Operation) |
|-------------------------------|-------|----------------|---------------------|------------------------|------------------------|----------------------------|-------------------|---------------------------------------|------------------------|------------------------|----------------------------|-------------------|------------------------------------|
| Location                      | Value | Susceptibility | Overall Sensitivity | Size/Scale of Change   | Geographical Influence | Duration and Reversibility | Overall Magnitude |                                       | Size / Scale of Change | Geographical Influence | Duration and Reversibility | Overall Magnitude |                                    |
| Effects on Views              |       |                |                     |                        |                        |                            |                   |                                       |                        |                        |                            |                   |                                    |
| Viewpoint 1 Jet Base          | L     | L              | L                   | H                      | L                      | VL                         | M                 | Minor Adverse                         | H                      | M                      | VL                         | M                 | Minor Neutral                      |
| Viewpoint 2 Qantas Drive      | L     | L              | L                   | M                      | L                      | VH                         | M                 | Minor Adverse                         | M                      | L                      | VH                         | M                 | Minor Neutral                      |
| Viewpoint 3 King St           | L     | L              | L                   | M                      | L                      | VH                         | M                 | Minor Adverse                         | L                      | L                      | VH                         | L                 | Negligible                         |
| Viewpoint 4 King St           | L     | L              | L                   | H                      | H                      | VH                         | H                 | Moderate Adverse                      | H                      | H                      | VH                         | H                 | Moderate Neutral                   |
| Viewpoint 5 Travelodge        | L     | M              | L                   | VH                     | H                      | VH                         | H                 | Moderate Adverse                      | VH                     | H                      | VH                         | H                 | Moderate Adverse                   |
| Viewpoint 6 Wil-son Carpark   | L     | L              | L                   | H                      | H                      | VH                         | H                 | Moderate Adverse                      | H                      | H                      | VH                         | H                 | Moderate Adverse                   |
| Viewpoint 7 Amp/Goodman       | L     | M              | L                   | M                      | L                      | VH                         | M                 | Minor Adverse                         | L                      | L                      | VH                         | L                 | Negligible                         |
| Viewpoint 8 O’Riordan/Bourke  | L     | M              | L                   | L                      | L                      | VH                         | L                 | Negligible                            | L                      | L                      | VH                         | L                 | Negligible                         |
| Viewpoint 9 Bourke Road       | L     | M              | L                   | H                      | M                      | VH                         | H                 | Moderate Adverse                      | M                      | M                      | VH                         | M                 | Minor Neutral                      |
| Viewpoint 10 Qantas Corporate | M     | L              | L                   | H                      | H                      | VH                         | H                 | Moderate Adverse                      | M                      | H                      | VH                         | H                 | Moderate Adverse                   |
| Viewpoint 11 Chalmer Crescent | L     | L              | L                   | M                      | L                      | VH                         | M                 | Minor Adverse                         | M                      | L                      | VH                         | M                 | Minor Neutral                      |

TABLE 4.3 – POTENTIAL VISUAL IMPACTS ON MODEL VIEWS SUMMARY TABLE

| SENSITIVITY                        |       |                | MAGNITUDE OF EFFECT (CONSTRUCTION) |                      |                        |                            |                   | SIGNIFICANCE OF EFFECT (CONSTRUCTION) | MAGNITUDE OF EFFECT (OPERATION) |                        |                            |                   | SIGNIFICANCE OF EFFECT (OPERATION) |
|------------------------------------|-------|----------------|------------------------------------|----------------------|------------------------|----------------------------|-------------------|---------------------------------------|---------------------------------|------------------------|----------------------------|-------------------|------------------------------------|
| LOCATION                           | VALUE | SUSCEPTIBILITY | OVERALL SENSITIVITY                | SIZE/SCALE OF CHANGE | GEOGRAPHICAL INFLUENCE | DURATION AND REVERSIBILITY | OVERALL MAGNITUDE |                                       | SIZE / SCALE OF CHANGE          | GEOGRAPHICAL INFLUENCE | DURATION AND REVERSIBILITY | OVERALL MAGNITUDE |                                    |
| EFFECTS ON VIEWS                   |       |                |                                    |                      |                        |                            |                   |                                       |                                 |                        |                            |                   |                                    |
| MODEL VIEW 1 – STANFORD HOTEL      | M     | M              | M                                  | M                    | L                      | VH                         | M                 | MODERATE ADVERSE                      | M                               | L                      | VH                         | M                 | MODERATE NEUTRAL                   |
| MODEL VIEW 2 QUEST HOTEL           | M     | M              | M                                  | L                    | L                      | VH                         | L                 | MINOR ADVERSE                         | L                               | L                      | VH                         | L                 | MINOR                              |
| MODEL VIEW 3 MEZZA TRAIN           | M     | H              | H                                  | M                    | M                      | VH                         | M                 | MAJOR - MODERATE ADVERSE              | L                               | L                      | VH                         | L                 | MODERATE NEUTRAL                   |
| MODEL VIEW 4 - PULLMAN HOTEL       | L     | M              | L                                  | VH                   | H                      | VH                         | H                 | MODERATE ADVERSE                      | VH                              | H                      | VH                         | H                 | MODERATE ADVERSE                   |
| MODEL VIEW 5 O’RIORDAN             | M     | H              | H                                  | L                    | L                      | VH                         | L                 | MODERATE ADVERSE                      | L                               | L                      | VH                         | L                 | MODERATE NEUTRAL                   |
| MODEL VIEW 6 ADINA HOTEL           | L     | M              | L                                  | H                    | M                      | VH                         | H                 | MODERATE ADVERSE                      | M                               | M                      | VH                         | M                 | MINOR NEUTRAL                      |
| MODEL VIEW 7 EAST SQUARE           | M     | H              | H                                  | M                    | M                      | VH                         | M                 | MAJOR - MODERATE ADVERSE              | M                               | M                      | VH                         | M                 | MAJOR - MODERATE NEUTRAL           |
| MODEL VIEW 8 1-5 CHALMERS CRESCENT | M     | H              | H                                  | H                    | H                      | VH                         | H                 | MAJOR ADVERSE                         | M                               | M                      | VH                         | M                 | MAJOR-MODERATE NEUTRAL             |

is still determined as high with an overall **moderate adverse** significance of effect.

**Viewpoint 11 – South-east from Chalmers Crescent**

**Visibility Sensitivity**

5.1.32 As a view only experienced by predominantly workers travelling down the road it is assessed is a low value view with a low susceptibility of change, there a **low** sensitivity view.

**Construction**

5.1.33 From this location it would be possible to see the construction of the northern end of the carpark in the later stages as it gets built. This would not change the view at street level but the construction works would be visible in the upper field of view behind the warehouse. Therefore the construction works would be noticeable in the form of conspicuous contrasting building works in the view. The magnitude of change is assessed as medium and therefore a **minor adverse** significance of effect.

**Operation**

5.1.34 The northern and western elevation of the carpark is visible above the top of the warehouse. The building would be a similar height to the AMP/ Goodman Connect Corporate that can also be seen from above the wholefood warehouse. A new building would be added to the skyline above the warehouse, and the proposed carpark would form a noticeable change to the view and constitutes a medium magnitude of change, which constitutes overall **minor neutral** significance of effect.

**5.2 POTENTIAL IMPACTS ON MODEL VIEWS**

**Model View 1 – North-west from Stamford Plaza Hotel**

**Visibility Sensitivity**

5.2.1 This is assessed as a medium value view as it encompasses an elevated intermediate ranging view that shows the surrounding urban context in Mascot. The hotel guests have a medium susceptibility to change, therefore it is a **medium** sensitivity view overall.

**Construction**

5.2.2 The Site sits in the middle distance slightly off centre to the view. At construction the associated building works would stand out and form a noticeable new feature in the landscape over a small extent of the total view. The magnitude of change is assessed as medium with overall **moderate adverse** significance of effect.

**Operation**

5.2.3 Once built the new buildings would form new features in the views, with the carpark adding mass to the view, however the development would largely integrate into the surrounding urban environment. As a result the magnitude of change is medium and the significance of effect is **moderate neutral**.

**Model View 2 – North-west from Quest Hotel**

**Visibility Sensitivity**

5.2.4 This is assessed as a medium value view as it encompasses an elevated intermediate ranging view that shows of the surrounding urban context in Mascot. The hotel guests have a medium susceptibility to change, therefore it is a **medium** sensitivity view overall.

**Construction**

5.2.5 During construction the building works for the Training facility would be visible and a small proportion of the carpark construction would be noticeable in the centre of the view in the middle distance, however the change is considered to constitute a small change in context to the rest of the view. The magnitude of change is low and the significance of effect is therefore **minor adverse**.

**Operation**

5.2.6 At operation it is considered that the proposed development would only form a small change to the view and the proposed carpark would be largely hidden behind other buildings. The development is considered to integrate into the surroundings. The magnitude of change is therefore low and the

significance of effect is therefore **minor neutral**.

**Model View 3 – North-west from Mezza Train Apartments**

**Visibility Sensitivity**

5.2.7 As a view from a residential apartment with a balcony, this view is assessed as **high** sensitivity.

**Construction**

5.2.8 During construction the building works for the carpark would be the most apparent to the centre of the view, they would form conspicuous new features in the view and contrast with the existing development whilst in construction. The magnitude of change is assessed as medium and as a high sensitivity view this is assessed a **major-moderate adverse** significance of effect.

**Operation**

5.2.9 Once built the new features would not contrast with the rest of the surroundings as much and although adding more mass to the view it would largely integrate with the surroundings. The magnitude of change is assessed as low and the significance of effect is **moderate neutral** overall.

**Model View 4 – West from Pullman Hotel**

**Visibility Sensitivity**

5.2.10 This is assessed as a low value view as the view has little noteworthiness as it looks across the carpark towards the Jet Base. The hotel guests have a medium susceptibility to change, therefore it is a **low** sensitivity view overall.

**Construction**

5.2.11 The construction works would be highly visible from this direction, in both angles of the view there would be building works being carried out, compromising features that adversely contrast with the existing view. The scale and extent of change is regarded as high, however the low sensitivity view means the construction significance of effect is **moderate adverse**.

**Operation**

5.2.12 The proposed development would be the focus and a prominent new character to the view, although the buildings sit within the existing landscape which helps break up the views, the close nature of the building increases the scale of change. The overall magnitude of change remains high and the significance of effect is assessed at **moderate adverse**.

**Model View 5 – North-west from 146-154 O Riordan Street [DA Approved]**

**Visibility Sensitivity**

5.2.13 As a view from a residential apartment (approved but not constructed) with balconies this view is assessed as **high** sensitivity.

**Construction**

5.2.14 The construction of part of the southern end of the proposed carpark will be visible at the end of this view, it forms a small change of view in the middle distance. Therefore the magnitude if effect is assessed as low and the significance of effect is assessed as **moderate adverse**.

**Operation**

5.2.15 Once the carpark has been built it is perceived that it would form as an extension to the existing AMP/ Goodman carpark in this view and therefore only form a minor new feature in the view. The overall magnitude of change is low and the overall significance of effect is assessed as **moderate neutral**.

**Model View 6 – West from Adina Hotel**

**Visibility Sensitivity**

5.2.16 This is assessed as a low value view, as the view has little noteworthiness and does not span far into the distance. The hotel guests have a medium susceptibility to change, therefore it is a **low** sensitivity view overall.

**Construction**

5.2.17 At construction the building works of the carpark would be highly visible and stand out against the office buildings, as a result the magnitude of change is assessed as high and the significance of



effect as **moderate adverse**.

#### Operation

5.2.18 The proposed carpark building occupies a moderate extent of the centre of the view, however due to its surroundings it would not constitute a major change to the view and the carpark would integrate with the surrounding built form, including the DA Approved 1-5 Chalmers Crescent that is prominent to the right of the carpark. Consequently, the magnitude of change at operation reduces to medium and the significance of effect is **minor neutral**.

#### Model View 7 – South from East Square Apartments

##### Visibility Sensitivity

5.2.19 As a view from a residential apartment with balconies this view is assessed as **high** sensitivity.

##### Construction

5.2.20 A large extent of the construction of the northern end of the carpark would be in full view from the high-rise apartments; the works would form new noticeable features that would partially contrast with the rest of the view. As the building is built it would block some of the distant views beyond to the airport and Botany Bay on the horizon. As a result, the building works are considered to have a moderate magnitude of change in context of the wider view these apartments have, it is likely to have other areas of change within the field of view. This results in an overall **major-moderate adverse** significance of effect at construction.

##### Operation

5.2.21 5.2.21 Once built the magnitude of change remains as medium due to the scale and bulk of the carpark. Overall the view of the building generally integrates into the surrounding context of the view. The bulk of the development is less imposing than the DA approved 1-5 Chalmers Crescent that site closer and to the right of the carpark. The green treatment of the carpark roof softens some of the view that assists in mitigating some of the impact, consequently the overall significance of effect is assessed as **major-moderate neutral**.

#### Model View 8 – South-east from 1-5 Chalmer Crescent (DA Approved)

##### Visibility Sensitivity

5.2.22 As a view from the living space of a residential apartment, this view is assessed as **high** sensitivity.

##### Construction

5.2.23 The building of the SIMs and EP building would be visible first beyond the SWDC trees, followed by the construction of the western end of the carpark. These construction works would cover a large extent of the view and would be particularly apparent when the western façade of the carpark is being built at this close proximity. As a result, the building works are considered to have a high magnitude of change to the view. This results in an overall **major adverse** significance of effect at construction.

##### Operation

5.2.24 Once built the magnitude of change is medium. The carpark building is at close proximity to the apartments due to the scale and bulk of the carpark, the building dominates the left-hand side of the view, the carpark scale and height is similar to the apartment blocks and the other buildings in the vicinity. The green treatment of the carpark roof softens some of the view that assists in mitigating some of the impact, consequently the overall significance of effect is assessed as **major-moderate neutral**.

### 5.3 SUMMARY OF POTENTIAL VISUAL IMPACT

5.3.1 5.3.1 The assessment of the eleven key viewpoints is representative of a wide range of visual receptors surrounding the Site and the eight key model views represent the range of views from the surrounding high-rise development. The visual impacts during the full cycle of the project range from early works to built operation range from negligible to major with the vast majority of the effects at negligible to moderate adverse or neutral once built.

##### Construction

5.3.2 The Construction phase (stage 1 and 2 combined) is deemed to have the most visually

prominent activities with works likely to include:

- + establishment of construction facilities
- + demolition or relocation of existing buildings, structures and carpark
- + temporary fencing, lighting and builders' compounds
- + earthworks, infrastructure installation, stockpiling of materials
- + structure construction including foundations, slabs and columns
- + tall construction cranes and other construction equipment
- + building construction works including façade, roofs and glazing

5.3.3 The early work would have limited impact on the visual amenity, but the later stages including the structure and building facades and roofs and associated equipment including tall cranes, scaffolding would become contrasting features that will stand out in varying degrees in all of the views. The carpark construction would be the most visible from all of the views with the exception of Viewpoint 3 (King Street.) The significance of effect is higher and more adverse during the construction stages than at operation. Other sources of visual impact such as hoarding and construction vehicles would be highly localised along King Street.

5.3.4 There are three views from the high sensitivity receptors at residential apartments that have elevated views towards the proposed development that are regarded as significant (major and major-moderate adverse) during construction. Visual receptors close to the Site, at the King Street entrance and the elevated views from the Travelodge, Wilson Carpark and AMP/Goodman Corporate Connect offices on the eastern boundary experience a high magnitude of change to the views, however the view experienced by the workers and road users and hotel guests have a lower sensitivity that limits the severity of the effect. The only significant effects for the construction stage is experienced from the high sensitive residential properties in the vicinity including the existing East Square Apartments and Mezza Train Apartments and the DA approved development of 1-5 Chalmer

Crescent who have more long ranging views from living spaces that will view onto the construction work.

##### Operation

5.3.5 Once the proposed development is fully operational the visual effect generally reduces for all receptors as the contrasting machinery and elements are removed from the views and the new buildings occupy the view instead. The buildings are considered to largely integrate into the surrounding context of the views. Due to the changing nature of the urban setting and surrounding land-use of commercial offices, similar height residential apartments and large scale warehouses it is considered that the development fits in with the surroundings and therefore the effect becomes neutral in the majority of views, with the exception of some of the closer views where the scale of change from an at grade carpark to large buildings is very noticeable and therefore adverse. The two significant effects of major-moderate for operation is experienced the from the high sensitive residential properties to the north of the Site including East Square Apartments as major moderate neutral and the DA approved development of 1-5 Chalmers Crescent as major-moderate neutral due to the close proximity. They both have more long ranging district views over the airport to Botany Bay in the distance and would face straight towards the development.



06

# MITIGATION MEASURES & ENVIRONMENTAL RISKS



## 6. MITIGATION MEASURES & ENVIRONMENTAL RISKS

### 6.1 MITIGATION MEASURES

6.1.1 Effective mitigation measures for any form of potential visual impact are those that entail avoidance, reduction, alteration, off site mitigation, and off-site compensation.

6.1.2 Mitigation measures have been considered during the concept design process and have been developed with the design team as an iterative process. This is reflected in the landscape proposals described in Section 3.1 and in the Landscape Strategy plan, shown in Figure 5. This section sets out the proposed measures for mitigation of any significant and adverse visual effects identified in Section 5.

#### Avoidance

6.1.3 The Project has been subject to significant regional analysis and is based on a site that has a long history of urban industrial activity. The proposed development is of State importance and its location is central to its functionality, so avoidance measures have not been considered appropriate.

#### Reduction

6.1.4 The principal forms of reduction are associated with refinements and modifications that address the siting, bulk and articulation of built form, minimising building and lighting pole heights where possible.

6.1.5 Concept Design measures already included:

- + Siting of designed elements so to avoid the removal of large stands of vegetation currently obscuring and filtering views into the site. This includes the stands of vegetation along the Site boundaries and associated with SWDC.
- + Align and locate planting within the at grade carpark to minimise visual impacts from the surroundings.
- + Refinements to building siting and alignment of road and footpath locations to assist in retaining significant existing vegetation such as individual tree specimens or groups of trees.
- + Maximising the integration of landscape around the Training Facility by buffer zones of planting including a Native Grove and Green Terrace area, a Forecourt breakout space for staff, as well as

way-finding throughout the site.

- + Where possible retain existing trees along boundaries to mitigate visual impact as well as providing supplementary additional native trees to gaps and open areas to maximise the opportunity for screening, shade and to provide a landscape frontage that is scaled to compliment the new development.
- + Integration of green façade treatment to the multi-storey carpark including climbing plants to the ground floor and a pergola structure to the roof, to soften the impact on the views and alleviate the heat the effect of the sun on the rooftop to cars.

6.1.6 Detail Design to consider:

- + Consider the use of lower, more frequent light poles where possible to mitigate light spill effects and ambient light impacts.
- + Integration of carparking, planting and signage to present as one cohesive address.
- + Placement of lighting columns and the specification of suitable lighting levels that would ensure minimal light spillage to surrounding areas and for high-rise apartment views.

#### Alleviation

6.1.7 Options to alleviate impacts are usually associated with detailed design features such as materials, finishes, articulation, reflectivity, planting character and the like. The principle forms of mitigation applicable to this project at detailed design stage include:

- + Choice of finishes and materials based on limiting the amount of contrast with the surrounding landscape with the preferred use of muted colours.
- + A diverse mix of native planting to reflect and enhance the existing biodiversity and characteristics of the locality.
- + Detailed Design measures to be considered:
- + Choice of finishes and use of muted colours including paving, fencing and bollards.
- + On site planting of suitable vegetation species at a

range of heights.

#### Off Site Mitigation

6.1.8 Any attempt to provide mitigation in the way of screening vegetation off site runs numerous complications and is not practicable. It is recommended that this is not pursued.

#### Off-Site Compensation

6.1.9 Given the nature of the proposed on site mitigation measures outlined in ‘Reduction’ and ‘Alleviation’, the resultant visual impact is considered not to be of a level of significance to warrant any off-site compensation.

### 6.2 ENVIRONMENTAL RISK ANALYSIS

6.2.1 An environmental risk analysis has been conducted to identify potential environmental impacts associated with the project. This analysis comprises a qualitative assessment consistent with AS/NZS ISO 31000:2009 Risk Management–Principles and Guidelines (Standards Australia 2009). The level of risk was assessed by considering the potential impacts of the proposed development prior to application of any mitigation or management measures.

6.2.2 Risk comprises the likelihood of an event occurring and the consequences of that event. For the

proposal, the following descriptors were adopted for ‘likelihood’ and ‘consequence’. (Table 6.1)

Table 6.1 – Risk Matrix

6.2.3 The risk levels for likely and potential impacts were derived using the following risk matrix Table 6.2

| Likelihood |                | Consequence |                                                                               |
|------------|----------------|-------------|-------------------------------------------------------------------------------|
| A          | Almost certain | 1           | Widespread and/or irreversible impact                                         |
| B          | Likely         | 2           | Extensive but reversible (within 2 years) impact or irreversible local impact |
| C          | Possible       | 3           | Local, acceptable or reversible impact                                        |
| D          | Unlikely       | 4           | Local, reversible, short term (<3 months) impact                              |
| E          | Rare           | 5           | Local, reversible, short term (<1 month) impact                               |

|             |   | Likelihood |          |          |          |          |
|-------------|---|------------|----------|----------|----------|----------|
| Consequence |   | A          | B        | C        | D        | E        |
|             | 1 | High       | High     | Medium   | Low      | Very Low |
|             | 2 | High       | High     | Medium   | Low      | Very Low |
|             | 3 | Medium     | Medium   | Medium   | Low      | Very Low |
|             | 4 | Low        | Low      | Low      | Low      | Very Low |
|             | 5 | Very Low   | Very Low | Very Low | Very Low | Very Low |

6.2.4 The results of the environmental risk assessment for the proposed development are presented in Table 6.3

6.2.5 It is considered that level of risk to the landscape is medium and with the mitigation measures required the impacts will be acceptable.

Table 6.3 - Risk Assessment and Mitigation Measures

| Matter           | Potential Impact                                                                                                                                                | Likelihood | Consequence | Risk Level | Proposed Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Landscape Impact | Impacts on Local Character Area - Local Boundary Vegetation                                                                                                     | C          | 3           | Medium     | Existing trees to be protected during the construction works and integrated in the landscape proposals. Proposed native tree and shrub planting to buffer and supplement the existing vegetation.                                                                                                                                                                                                                             |
|                  | Impact on Local Character Area – King Street Corporate Carparks                                                                                                 | C          | 3           | Medium     | Proposed landscape design principles to enhance the setting and character of the proposed buildings where possible, including the provision of high quality outdoor amenity space for staff enjoyment.                                                                                                                                                                                                                        |
|                  | Tree loss across the northern and southern carparks and eastern and southern boundaries                                                                         | B          | 3           | Medium     | Landscape proposals incorporate new layers of native planting including groundcovers, grasses, shrubs and trees.<br>All trees lost to the development will be replaced as part of the Landscape Strategy, as per Figure 5 and the Landscape Drawings.                                                                                                                                                                         |
| Visual Impact    | Impact on key views immediately adjacent to the Site from King Street, the Travelodge, the Wilson Carpark and the 1-5 Chalmers Crescent DA approved development | B          | 3           | Medium     | Building to be constructed in non-visually dominant materials to minimise perceived bulk, as per Architectural Drawings.<br>Provision of native planting including layers of grasses and shrubs to create green buffers around the building and an attractive frontage to King Street, as per Figure 5 and the Landscape Drawings.<br>Provision of a pergola with native climbing plants to provides green to top of carpark. |
|                  | Impact on key close range views to the proposed multi-storey carpark from Bourke Road and Qantas Corporate Building.                                            | C          | 3           | Medium     | Building to be constructed in non-visually dominant materials to minimise perceived bulk, as per Architectural Drawings.<br>Provision of a landscape buffer around the perimeter of the carpark with climbing plants to soften view to the base of the carpark.<br>Provision of a pergola with native climbing plants to provides green to top of carpark.                                                                    |
|                  | Impact on key middle range views from high-rise residential apartments in the north looking towards the proposed carpark                                        | C          | 3           | Medium     | Building to be constructed in non-visually dominant materials to minimise perceived bulk, as per Architectural Drawings.<br>Provision of a landscape buffer around the perimeter of the carpark with climbing plants to soften view to the base of the carpark.<br>Provision of a pergola with native climbing plants to provides green to top of carpark.                                                                    |



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07

# SUMMARY

# 7. SUMMARY

## 7.1 POTENTIAL LANDSCAPE IMPACTS

7.1.1 The proposed development sits within an urban setting and built up landscape character areas that feature a mix of large-scale light industrial warehouses, high-rise hotels and large commercial blocks of offices. The project includes the introduction of two new large-scale buildings, associated road access, a small area of at grade carparking, a staff courtyard and landscape boundary treatments to the setting of the new buildings and roads. This has a moderate direct impact on the existing landscape character of the Site’s landscape features including the existing trees in the current carparks and localised tree removal along the eastern and southern boundaries to enable the development.

7.1.2 At construction the proposed development would have a moderate impact on two of the local level character areas that the Site sits across including the King Street Corporate Carpark and the Local Boundary Vegetation. The rest of the character areas remain unaffected by the development and would retain the local characteristics. These landscape impacts are not considered significant.

7.1.3 Once established, landscape proposals assist in mitigating some of the impact. The design and setting of the development is also considered to improve the appearance of some of the existing characteristics and the proposed development would fit in with existing urban context and massing, particularly the light industrial units that are found adjacent to the northern side of the Site.

## 7.2 POTENTIAL VISUAL IMPACTS

7.2.1 The Qantas Group Training Flight Centre is a State Significant Development, covering a 5.417ha with a proposed increase in the operational area, which involves increase to the scale, height and bulk of the area within the Site. The visual impacts are, however limited to a relatively small area due to the built-up nature of the surrounding area, and the presence of screening vegetation along the boundaries and the SWDC.

7.2.2 During the Construction phase, tall cranes and the carpark building construction infrastructure is likely to be the most visible elements of the Project and potentially visible from most of the key views. The phasing of the construction means that the visual impact during construction would gradually increase over time as elements of the Project become operational.

7.2.3 Once operational, mitigation measures embedded in the Landscape Strategy help reduce of the visual impact. The changing nature of the urban setting and similar scale and land-use in the immediate surroundings, is also considered to limit the visual impact.

7.2.4 The proposed carpark is the most visually prominent new massing present in most of the views. The significant impact of the completed development would be experienced by residential properties north of the Site including those along Coward Street north of the development, and the DA approved development along Chalmers Crescent. These properties have clear views across to the proposed northern and western side of the carpark. In close range views, the moderate impact includes views from King Street entrance and from buildings with elevated views onto the Site including the Travelodge, Wilson Carpark and AMP/ Goodman Corporate Connect offices on the eastern boundary and the Qantas offices north of the Site.



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QANTAS GROUP FLIGHT TRAINING CENTRE

12 APRIL 2019

# **LANDSCAPE & VISUAL IMPACT ASSESSMENT**

**[APPENDICES]**





# APPENDIX A

[FIGURES]

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FIGURE 1

# SITE LOCATION & CONTEXT

**LEGEND**

- Site Boundary
- 2m Contours
- Distance

0 25 50 100 150 200m  
Scale 1:5,000 @ A3



**SURROUNDING DEVELOPMENTS:**

- A. Stamford Plaza Hotel
- B. 8Hotels Boutique
- C. Quest Hotel
- D. Holiday Inn Express Hotel(Approved)
- E. Mezza Train Apartments Residences
- F. 342 King Street (Low Industrial, DA Recently Rejected)
- G. Qantas On Grade Car Parking
- H. Ibis Hotel
- I. Travelodge Hotel
- J. Wilson Carpark
- K. BCI Drilling Industrial
- L. Pullman Hotel
- M. Goodman Connect Corporate Centre
- N. Qantas Office & The Joey Club Childcare Centre
- O. 146-154 O'Riordan Street (Approved)
- P. Holiday Inn Hotel
- Q. DHL
- R. Adina Hotel
- S. Qantas Corporate Headquarters
- T. Altitude Corporate Centre
- U. Metrolink Corporate Offices
- V. Danoz Direct
- W. Area of Low Scale Industrial Businesses
- X. 39 Kent Road Apartments
- Y. East Square Apartments
- Z. 244 Coward Street Apartments
- AA. 230 Coward Street Apartment
- BB. Qantas Catering
- CC. Qantas Offices(To Be Demolished)
- DD. 1-5 Chalmers Crescent



FIGURE 2

# VIEWPOINT LOCATIONS

**LEGEND**

- Site Boundary
- 2m Contours
- Distance
- Viewpoint Location From Ground Level
- Viewpoint Location From Model Only (from top habitable floor for maximum view)

0 25 50 100 150 200m  
Scale 1:5,000 @ A3

- SURROUNDING DEVELOPMENTS:**
- A. Stamford Plaza Hotel
  - B. 8Hotels Boutique
  - C. Quest Hotel
  - D. Holiday Inn Express Hotel(Approved)
  - E. Mezza Train Apartments Residences
  - F. 342 King Street (Low Industrial, DA Recently Rejected)
  - G. Qantas On Grade Car Parking
  - H. Ibis Hotel
  - I. Travelodge Hotel
  - J. Wilson Carpark
  - K. BCI Drilling Industrial
  - L. Pullman Hotel
  - M. Goodman Connect Corporate Centre
  - N. Qantas Office & The Joey Club Childcare Centre
  - O. 146-154 O’Riordan Street (Approved)
  - P. Holiday Inn Hotel
  - Q. DHL
  - R. Adina Hotel
  - S. Qantas Corporate Headquarters
  - T. Altitude Corporate Centre
  - U. Metrolink Corporate Offices
  - V. Danoz Direct
  - W. Area of Low Scale Industrial Businesses
  - X. 39 Kent Road Apartments
  - Y. East Square Apartments
  - Z. 244 Coward Street Apartments
  - AA. 230 Coward Street Apartment
  - BB. Qantas Catering
  - CC. Qantas Offices(To Be Demolished)





FIGURE 3

# ZONE OF THEORETICAL VISIBILITY

## LEGEND

- Site Boundary
- 2m Contours
- Distance
- Street Level Zone of Theoretical Visibility (including direct views & filtered)
- High-Rise Building with Views to Site

0 25 50 100 150 200m  
Scale 1:5,000 @ A3

## SURROUNDING DEVELOPMENTS:

- A. Stamford Plaza Hotel
- B. 8Hotels Boutique
- C. Quest Hotel
- D. Holiday Inn Express Hotel(Approved)
- E. Mezza Train Apartments Residences
- F. 342 King Street (Low Industrial, DA Recently Rejected)
- G. Qantas On Grade Car Parking
- H. Ibis Hotel
- I. Travelodge Hotel
- J. Wilson Carpark
- K. BCI Drilling Industrial
- L. Pullman Hotel
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- U. Metrolink Corporate Offices
- V. Danoz Direct
- W. Area of Low Scale Industrial Businesses
- X. 39 Kent Road Apartments
- Y. East Square Apartments
- Z. 244 Coward Street Apartments
- AA. 230 Coward Street Apartment
- BB. Qantas Catering
- CC. Qantas Offices(To Be Demolished)
- DD. 1-5 Chalmers Crescent



FIGURE 4

# LANDSCAPE CHARACTER AREAS

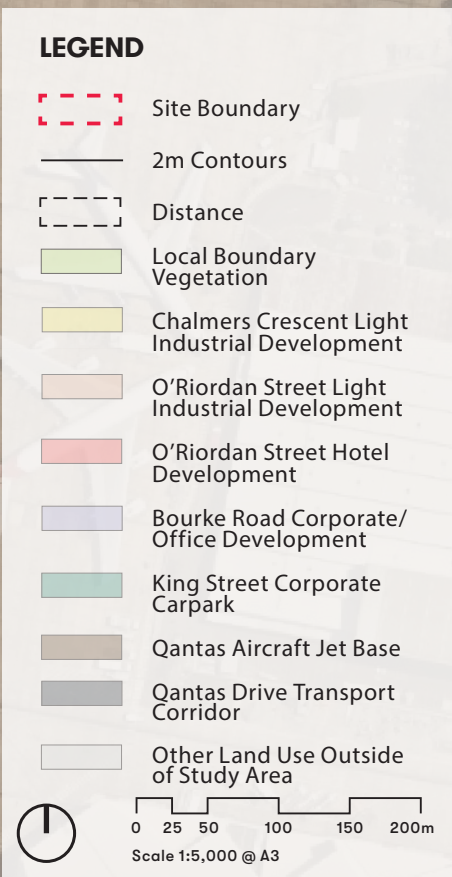




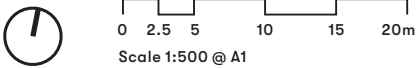
FIGURE 5

# LANDSCAPE STRATEGY

LEGEND

- Site Boundary
- Tree to be Retained and Protected
- Proposed Tree
- Planting Area
- Stage 2 of development: Carpark floors 5-13

Refer to Landscape Drawing for more detailed design information.



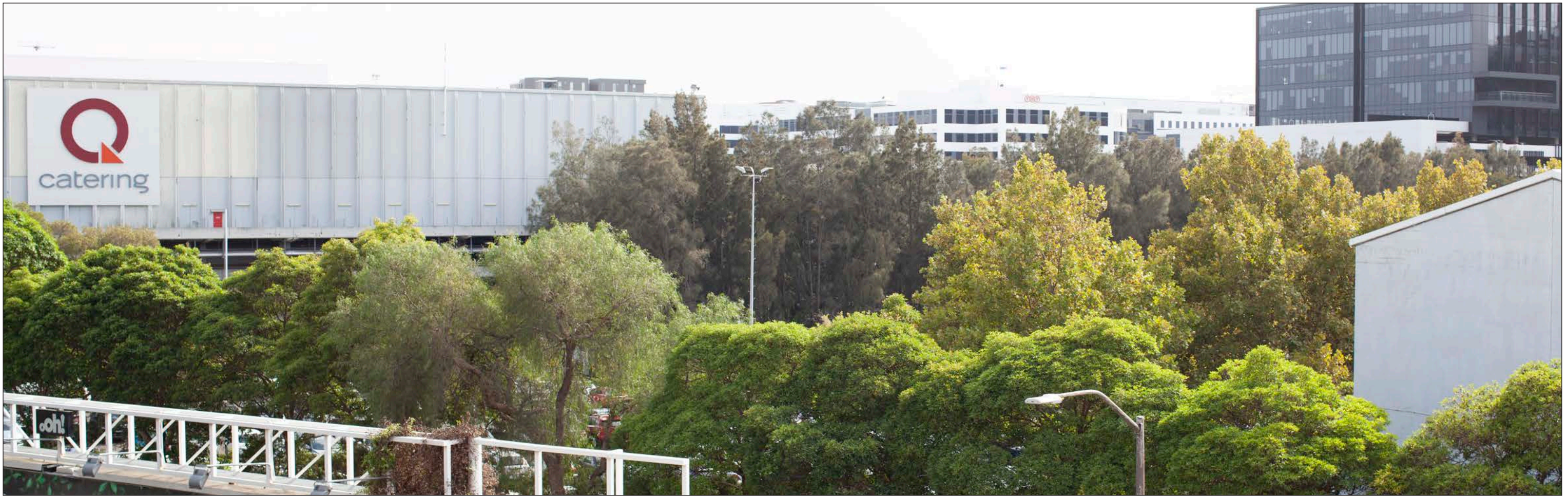




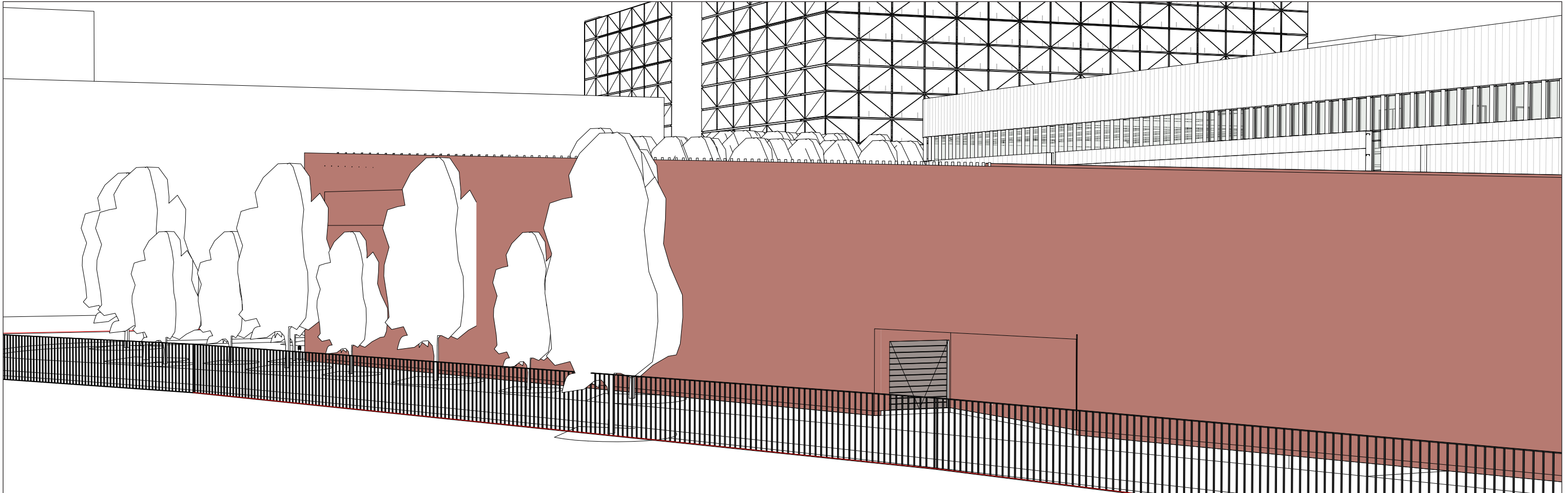
# APPENDIX B

## [PHOTOGRAPHS & VIEWS]



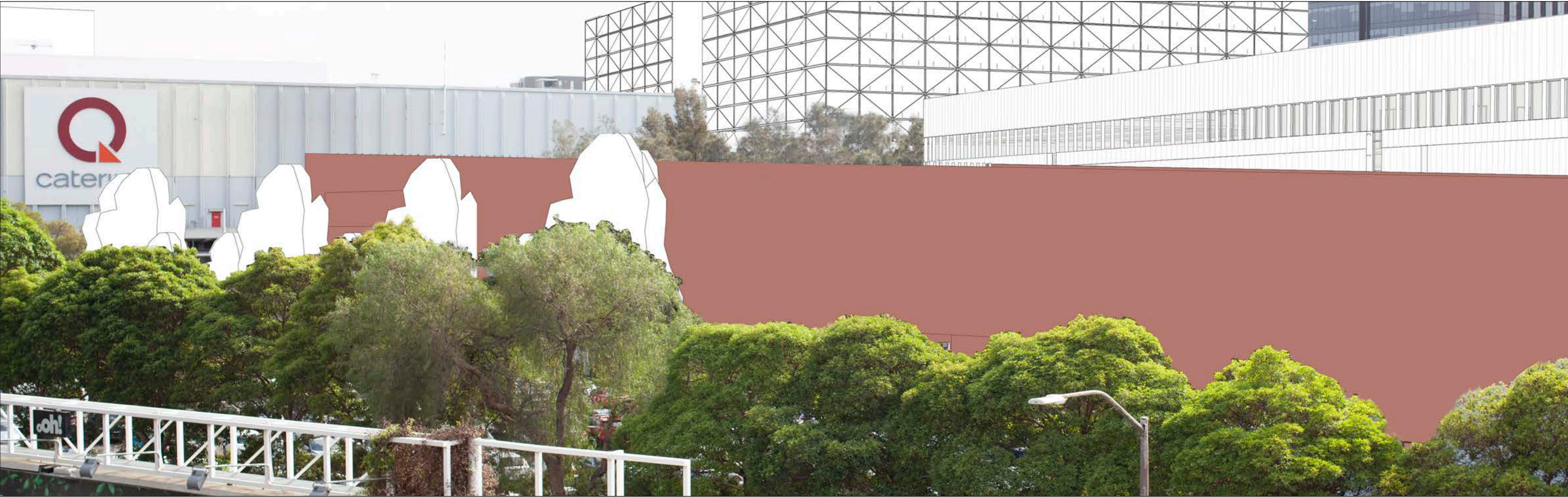


EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW



LOCATION PLAN



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QANTAS GROUP FLIGHT TRAINING CENTRE

Project  
Client  
QANTAS



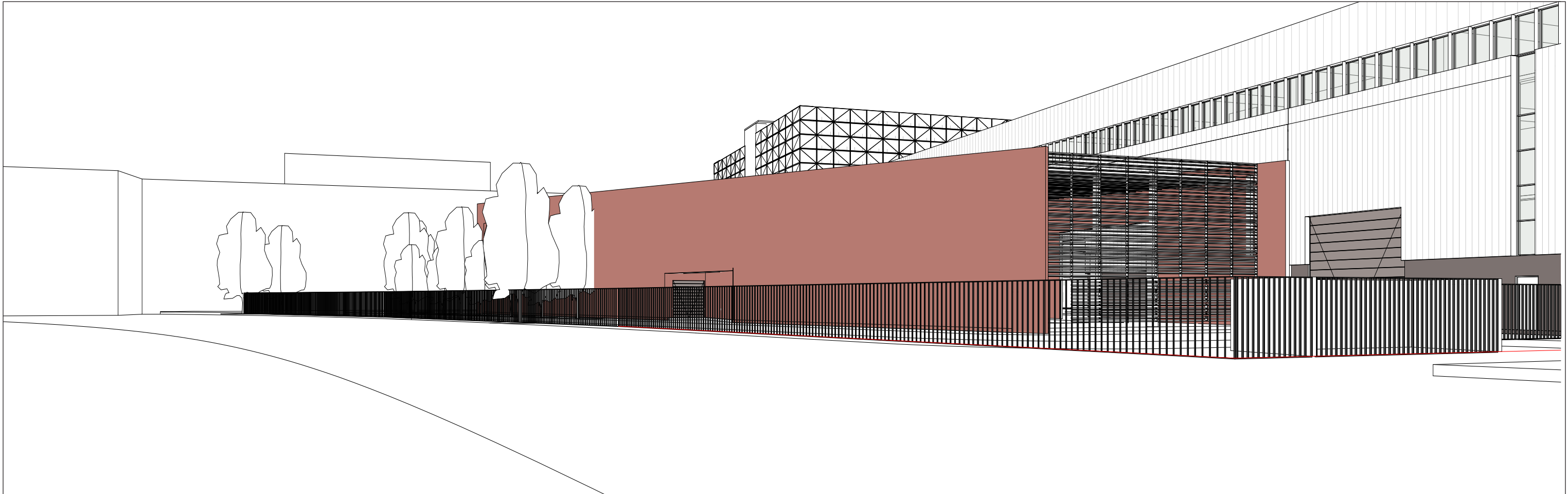
Viewpoint 1: North-East From Qantas Jet Base

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA02        | Rev. 1 |





EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW

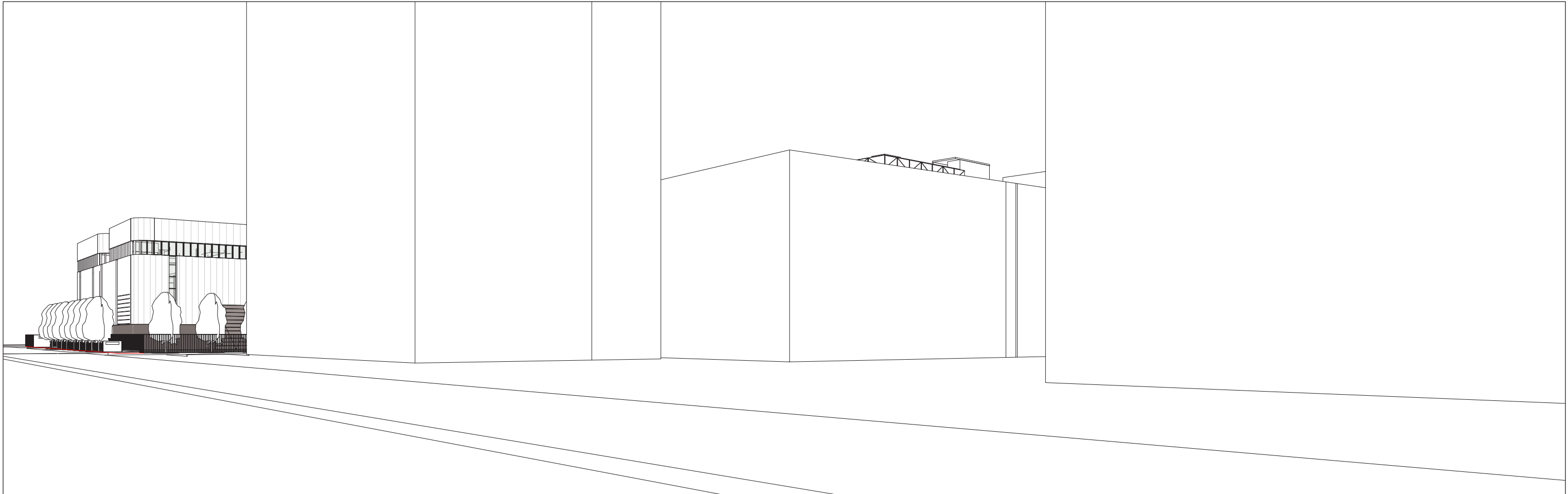


LOCATION PLAN





EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW



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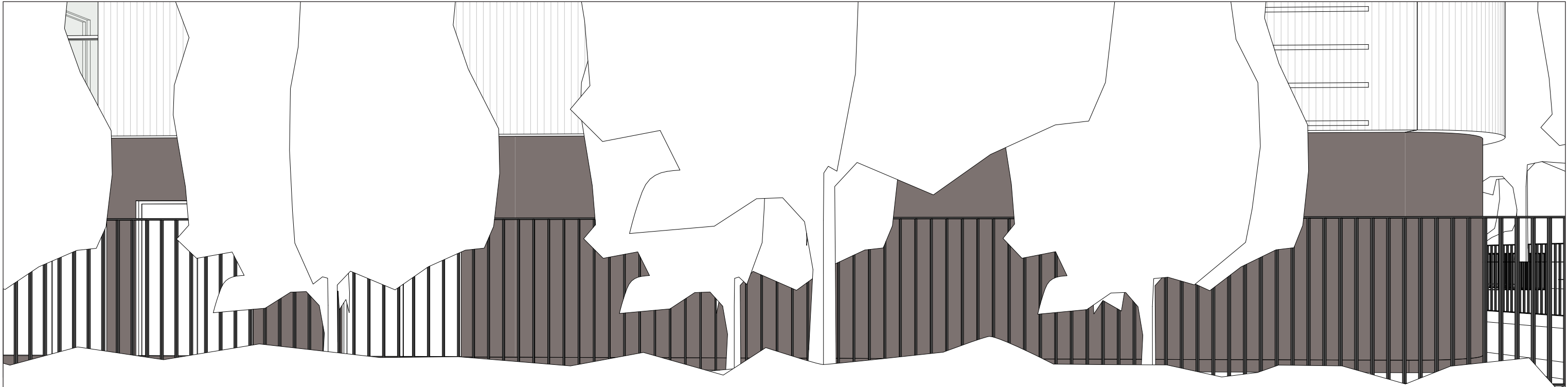
Viewpoint 3: North-West From King St

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA06        | Rev. 1 |





EXISTING VIEW

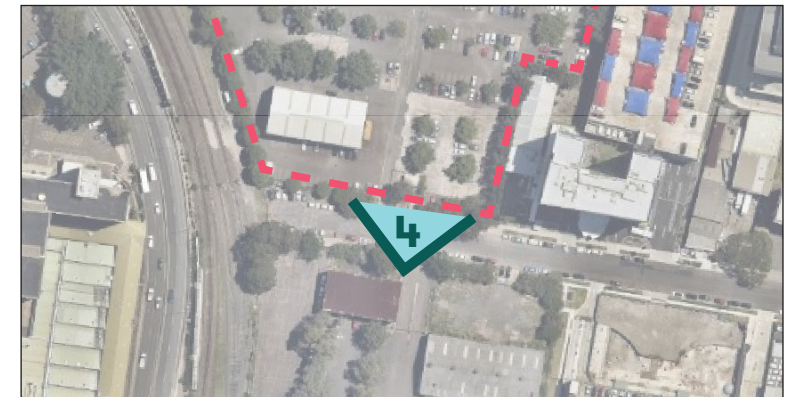


WIREFRAME VIEW





PHOTOMONTAGE VIEW

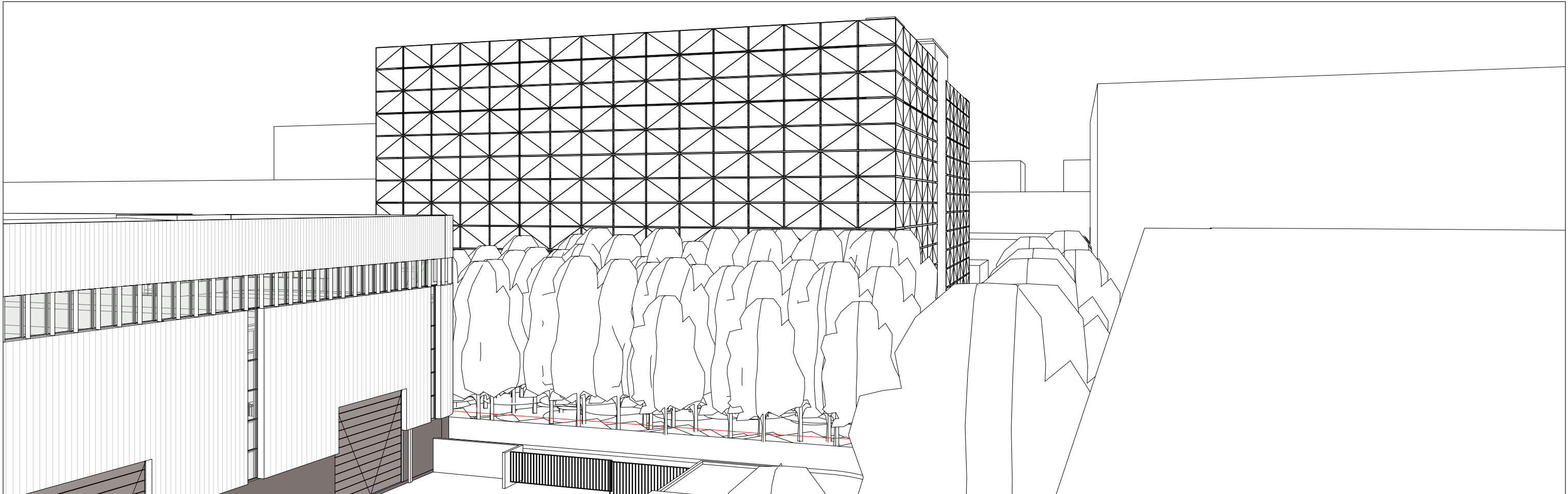


LOCATION PLAN





EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW



LOCATION PLAN



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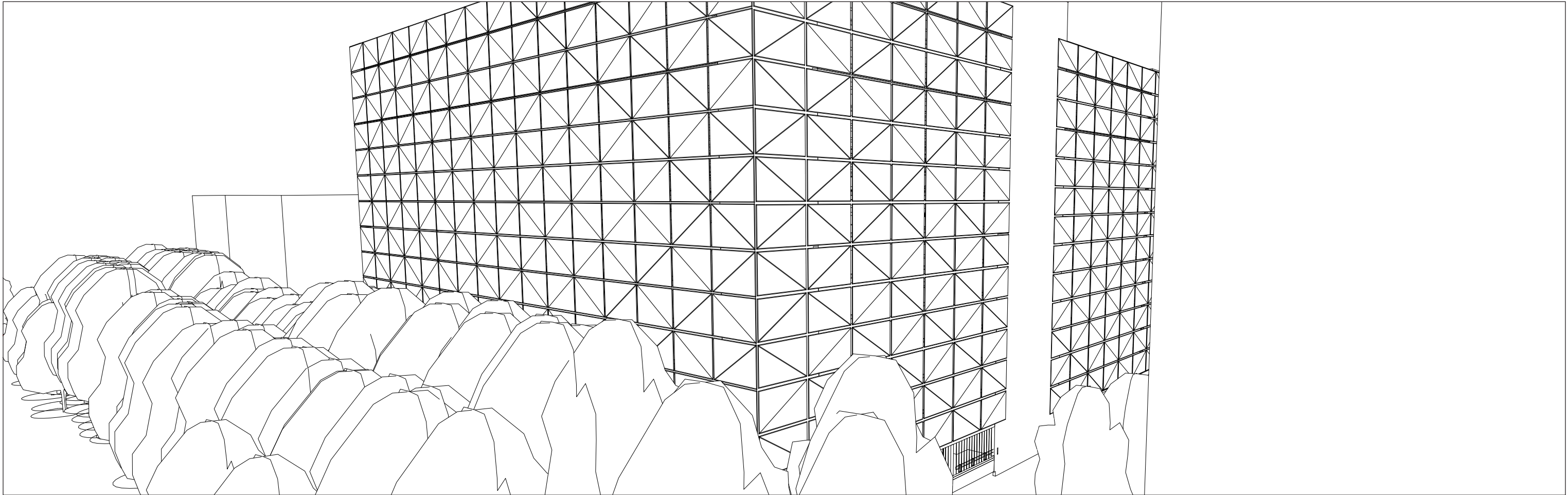
Viewpoint 5: North-West From Travelodge

| Reference No. | Discipline | Drawing No. | Rev. |
|---------------|------------|-------------|------|
| 20180199      | LD         | DA10        | 1    |





EXISTING VIEW



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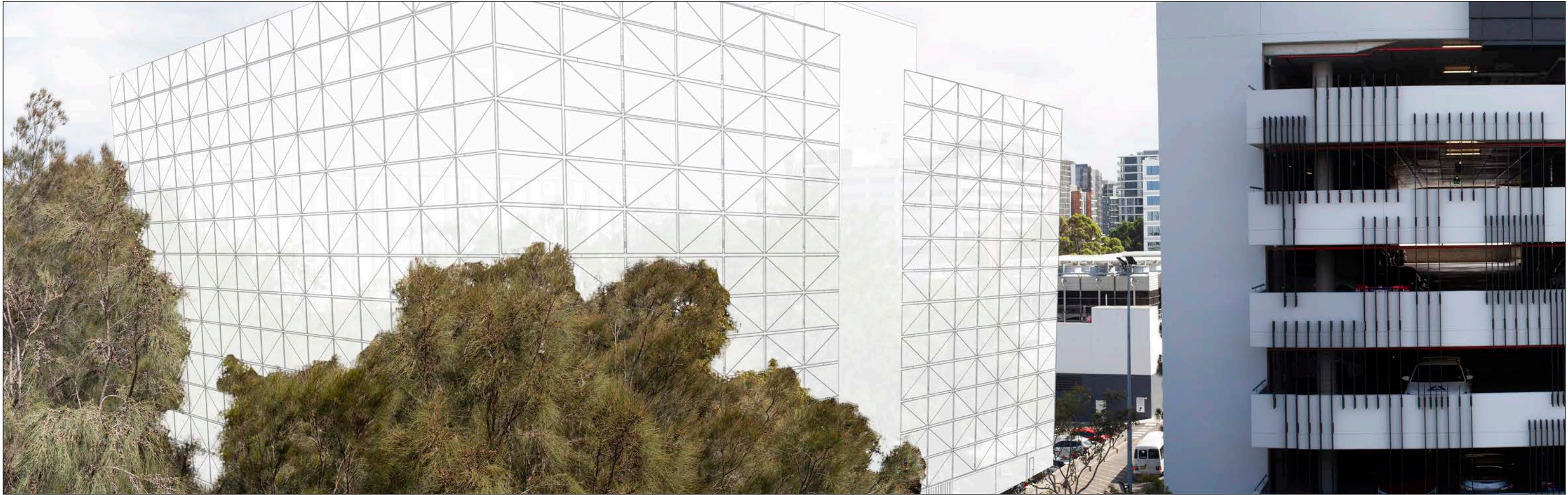
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Project  
Client  
**QANTAS**



Viewpoint 6: North-West From Wilson Carpark

| Reference No. | Discipline | Drawing No. | Title |
|---------------|------------|-------------|-------|
| 20180199      | LD         | DA11        | 1     |





PHOTOMONTAGE VIEW

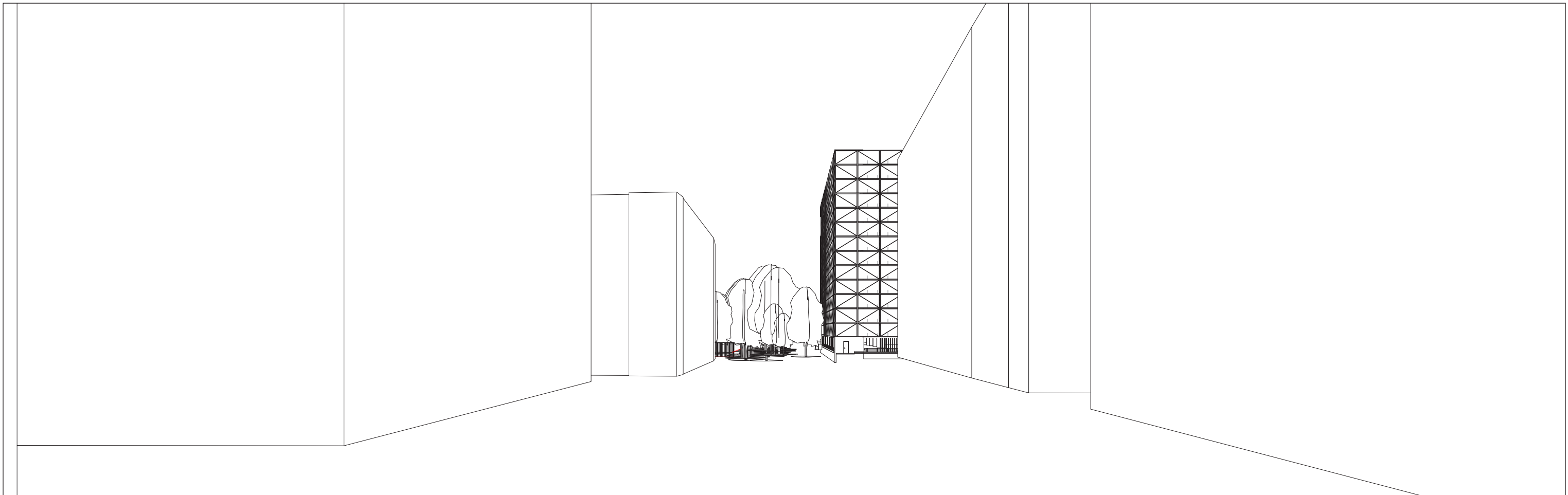


LOCATION PLAN



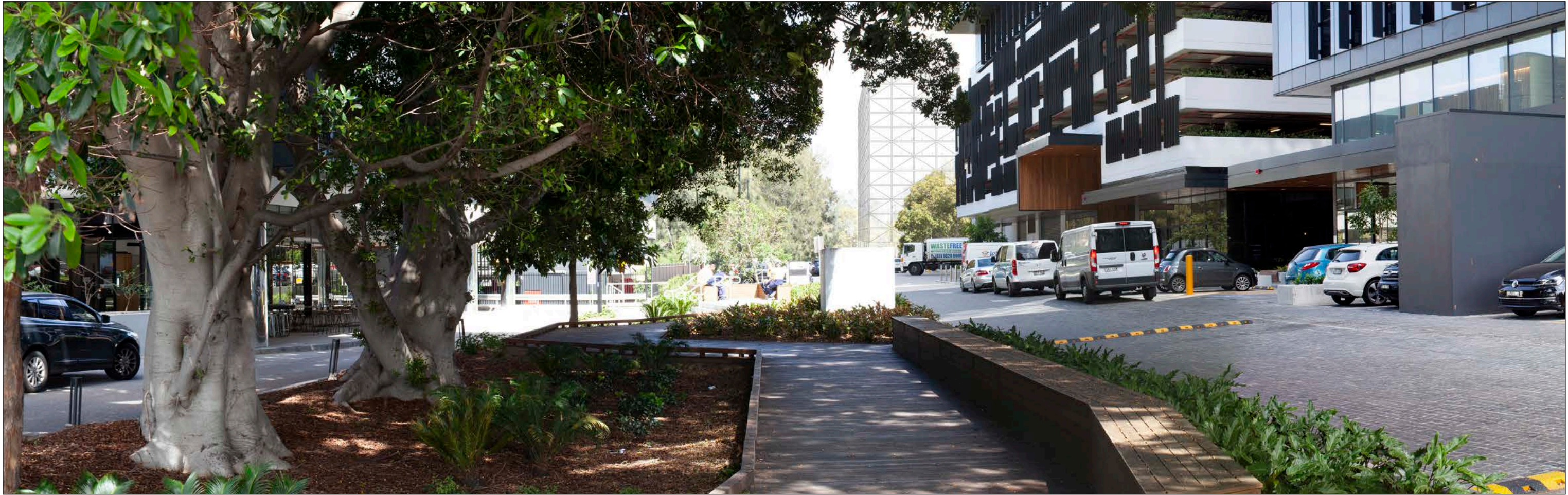


EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW

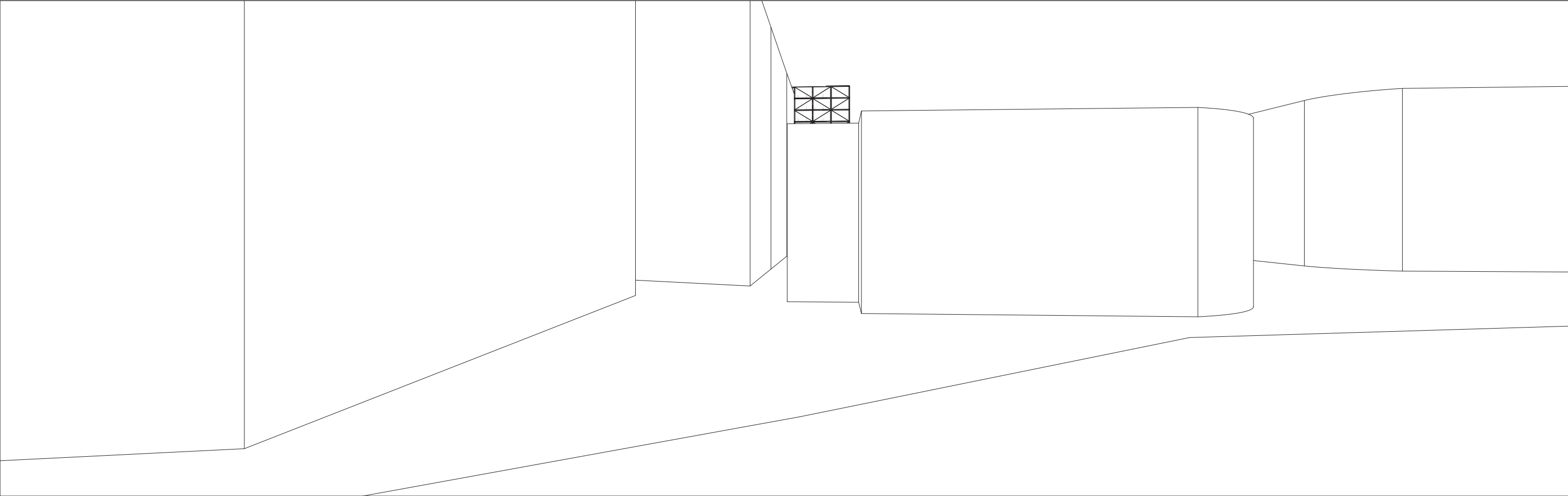


LOCATION PLAN





EXISTING VIEW



WIREFRAME VIEW



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QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



Viewpoint 8: West From O'Riordan St & Bourke Rd

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA15        | Rev. 1 |





PHOTOMONTAGE VIEW



LOCATION PLAN



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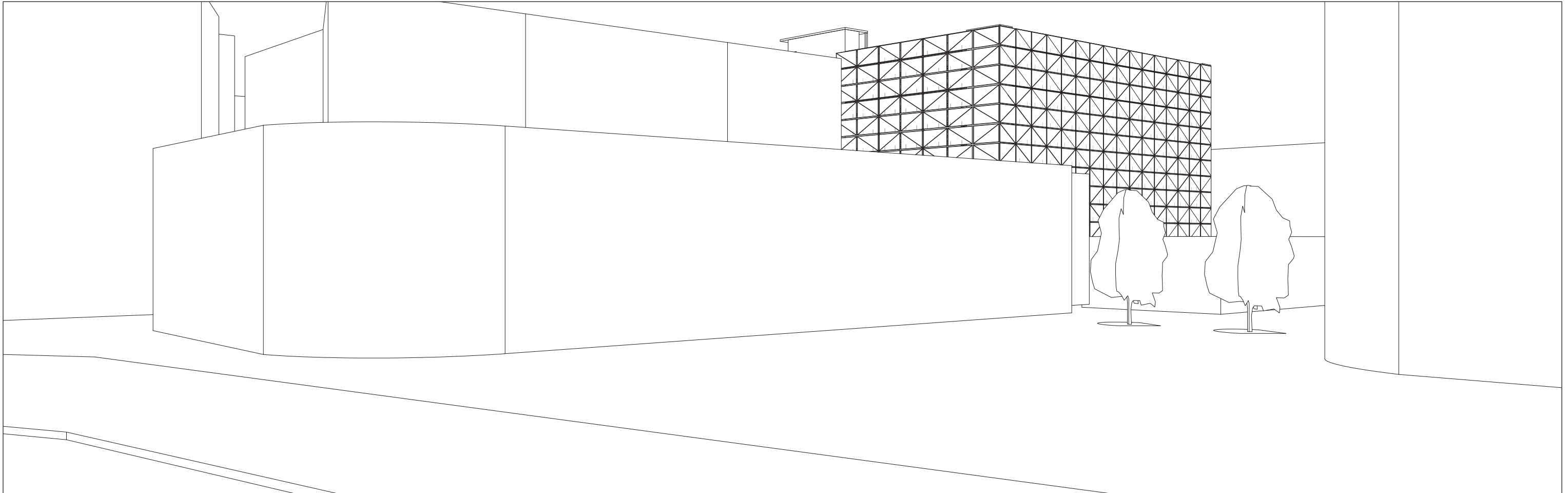
Viewpoint 8: West From O'Riordan St & Bourke Rd

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA16        | Rev. 1 |





EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW

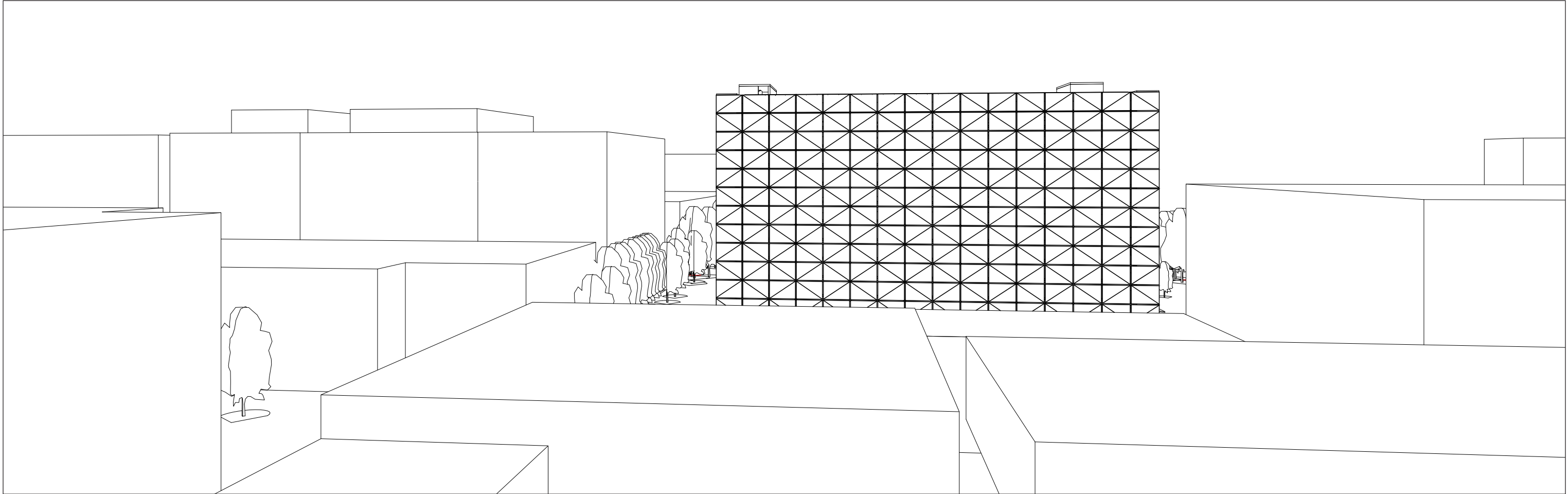


LOCATION PLAN





EXISTING VIEW



WIREFRAME VIEW



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Viewpoint 10: South From Qantas Corporate

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA19        | Rev. 1 |





PHOTOMONTAGE VIEW



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Viewpoint 10: South From Qantas Corporate

| Reference No. | Discipline | Drawing No. | Title |
|---------------|------------|-------------|-------|
| 20180199      | LD         | DA20        | 1     |





EXISTING VIEW



WIREFRAME VIEW





PHOTOMONTAGE VIEW



LOCATION PLAN



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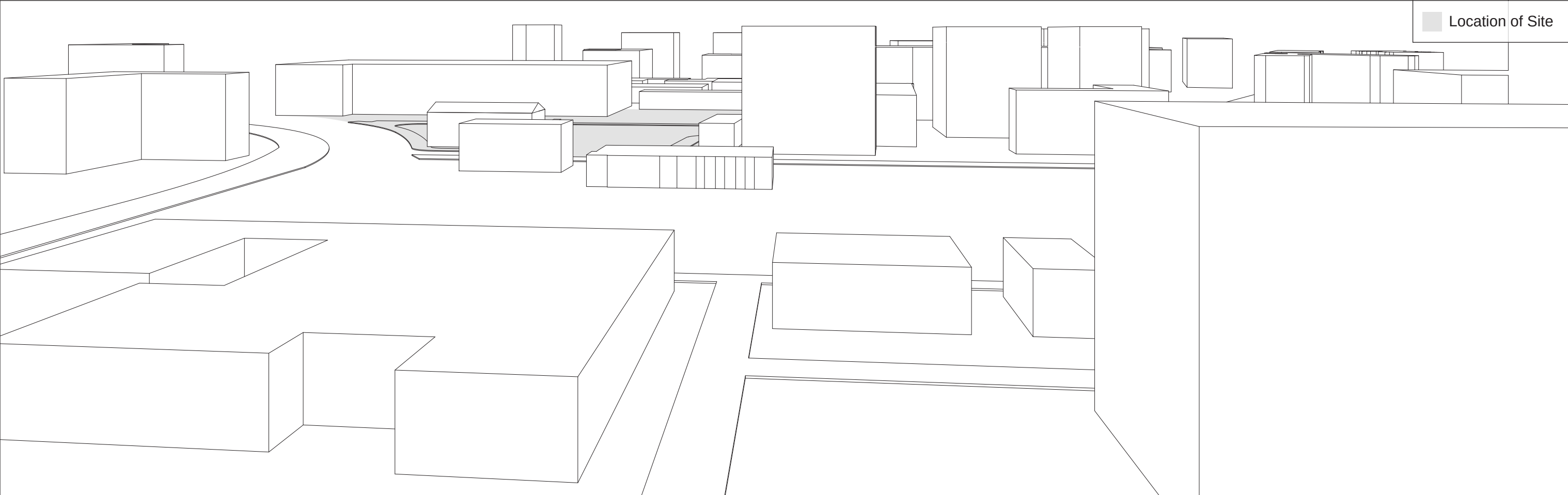
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



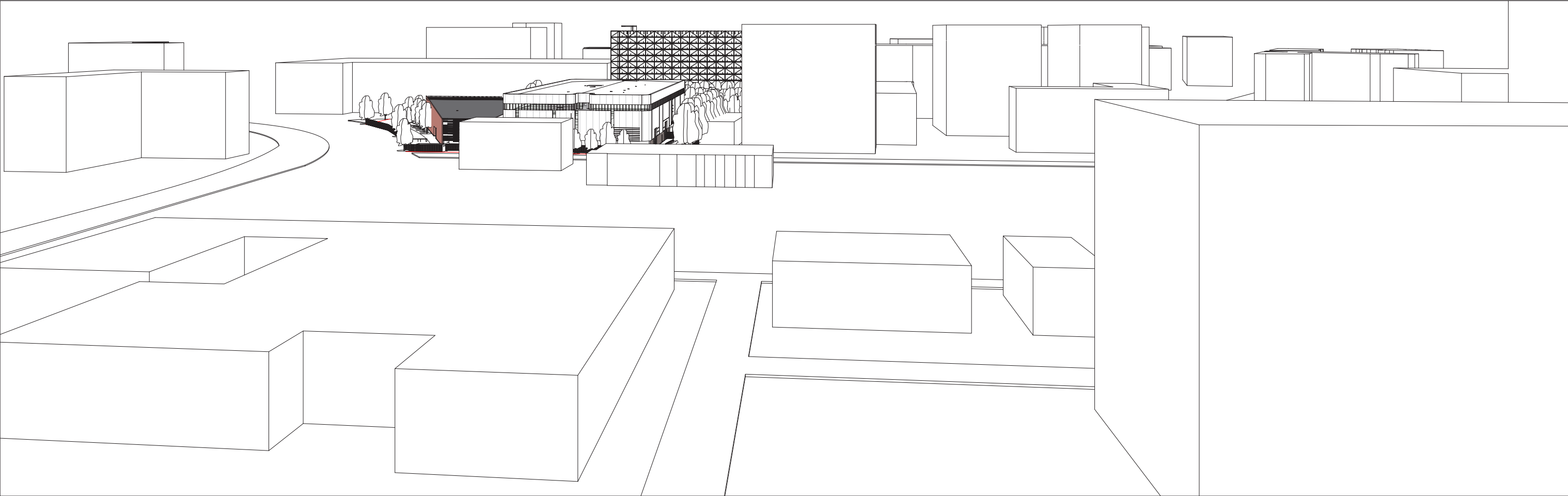
Viewpoint 11: South-East From Chalmers Cres

| Reference No. | Discipline | Drawing No. | Title |
|---------------|------------|-------------|-------|
| 20180199      | LD         | DA22        | 1     |





EXISTING MODEL VIEW



WIREFRAME VIEW



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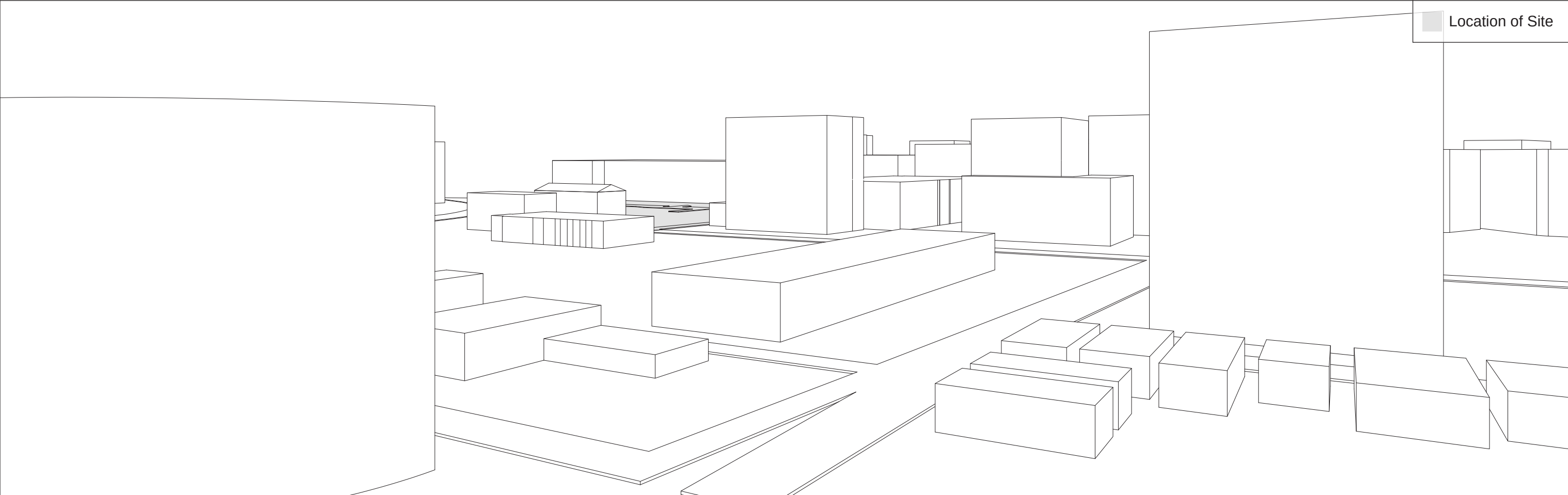
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



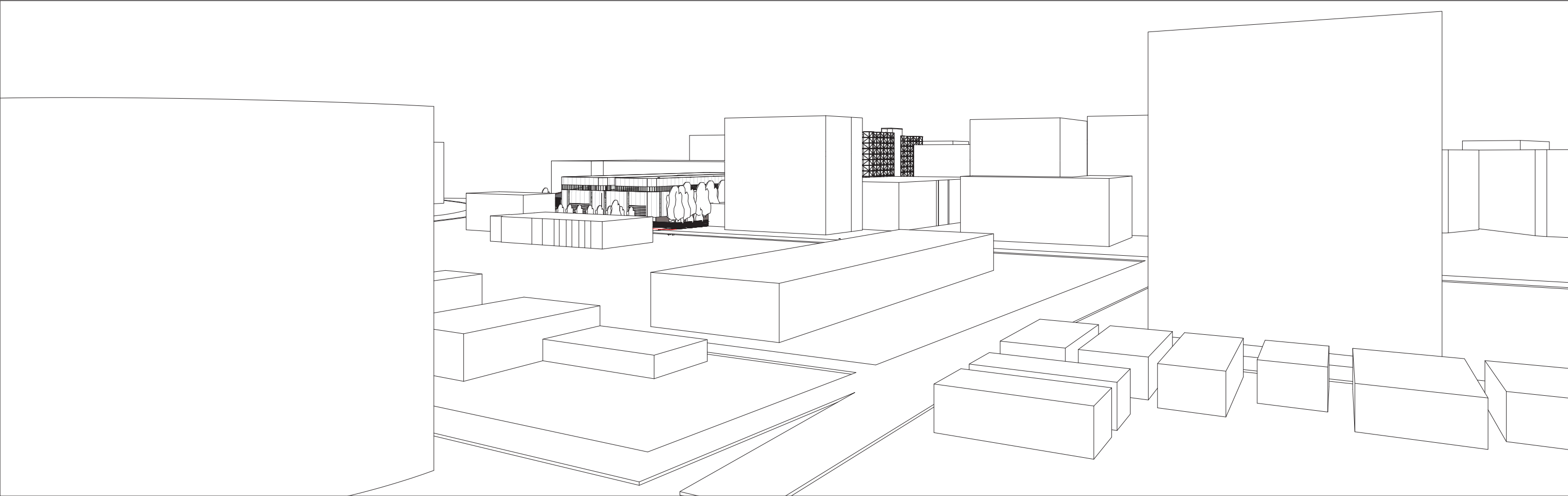
Model View 1: North-West From Stamford Hotel

| Reference No. | Discipline | Drawing No. | Title  |
|---------------|------------|-------------|--------|
| 20180199      | LD         | DA23        | Rev. 1 |

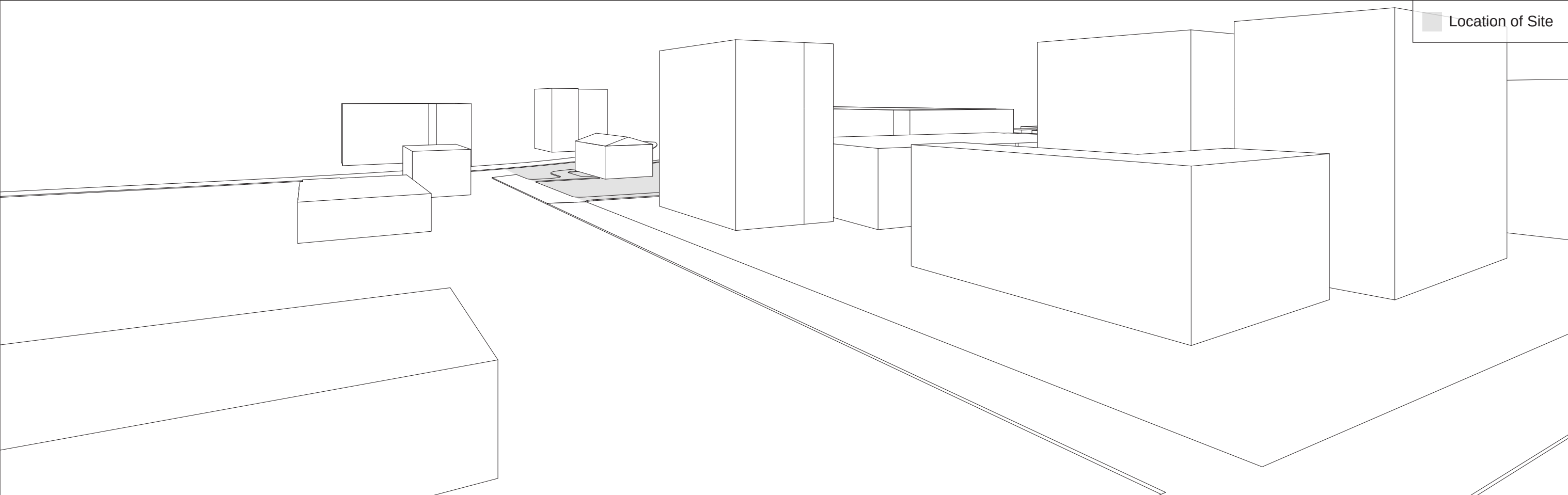




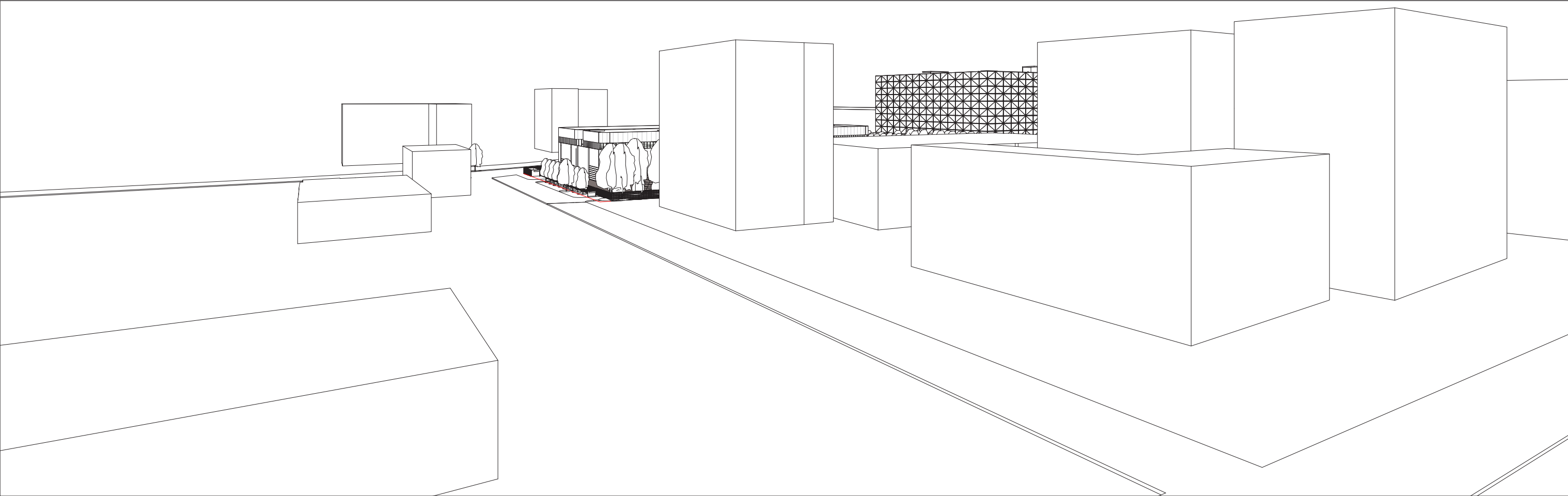
EXISTING MODEL VIEW



WIREFRAME VIEW



EXISTING MODEL VIEW



WIREFRAME VIEW



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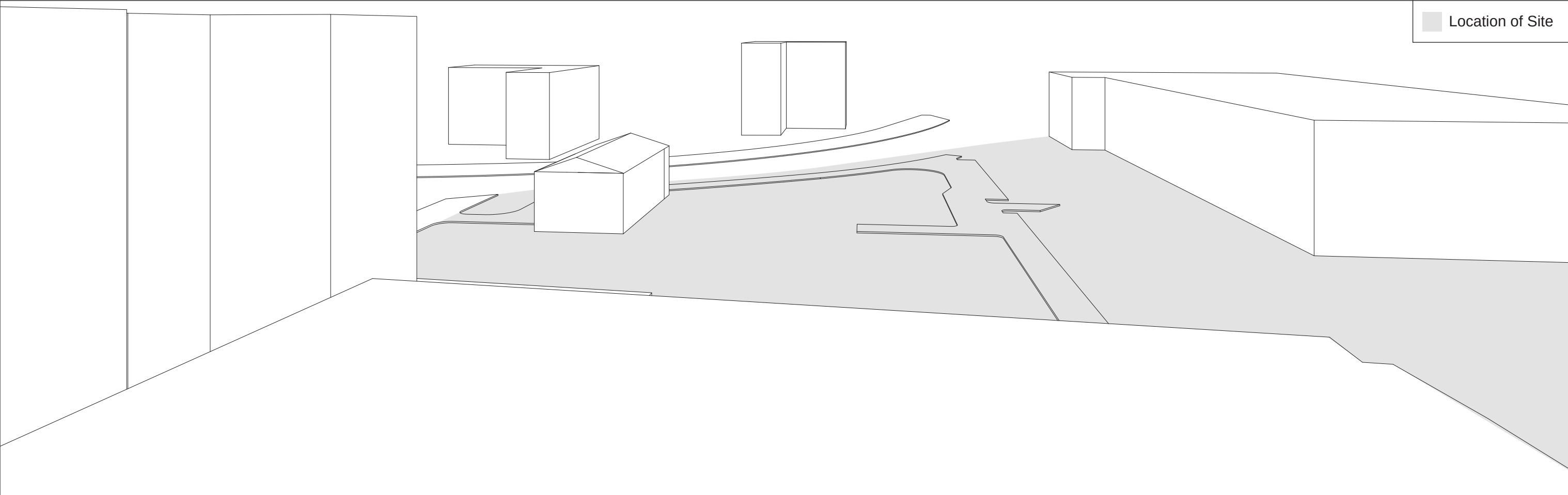
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



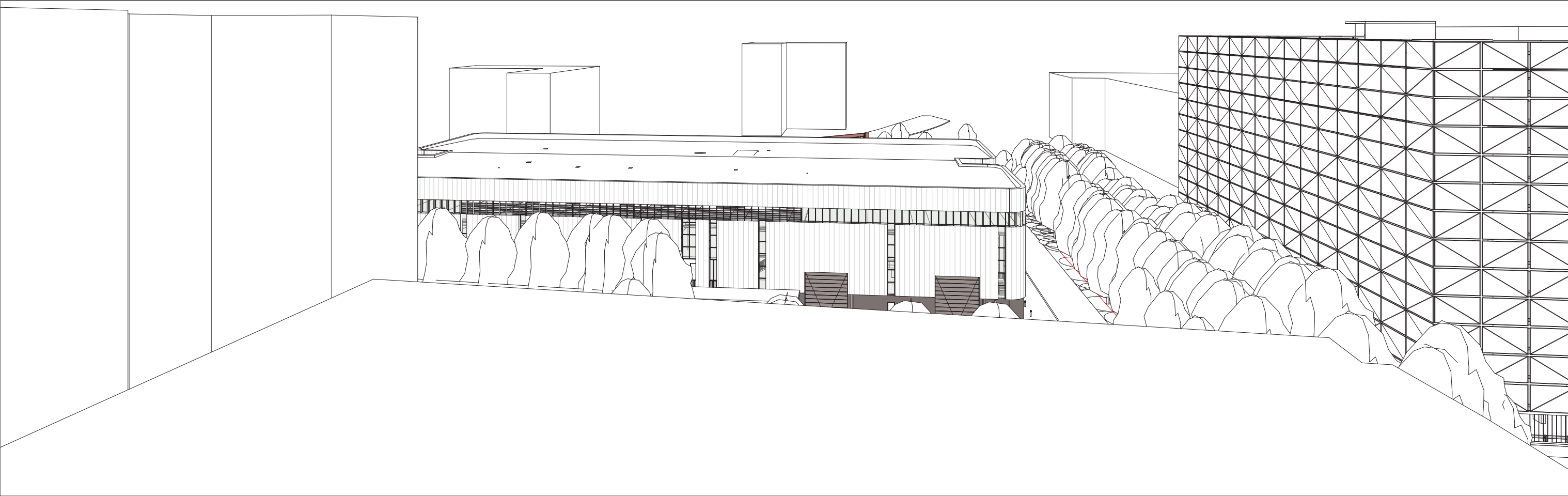
Model View 3: North-West From Mezza Train Apartments

| Reference No. | Discipline | Drawing No. | Rev. |
|---------------|------------|-------------|------|
| 20180199      | LD         | DA25        | 1    |





EXISTING MODEL VIEW



WIREFRAME VIEW

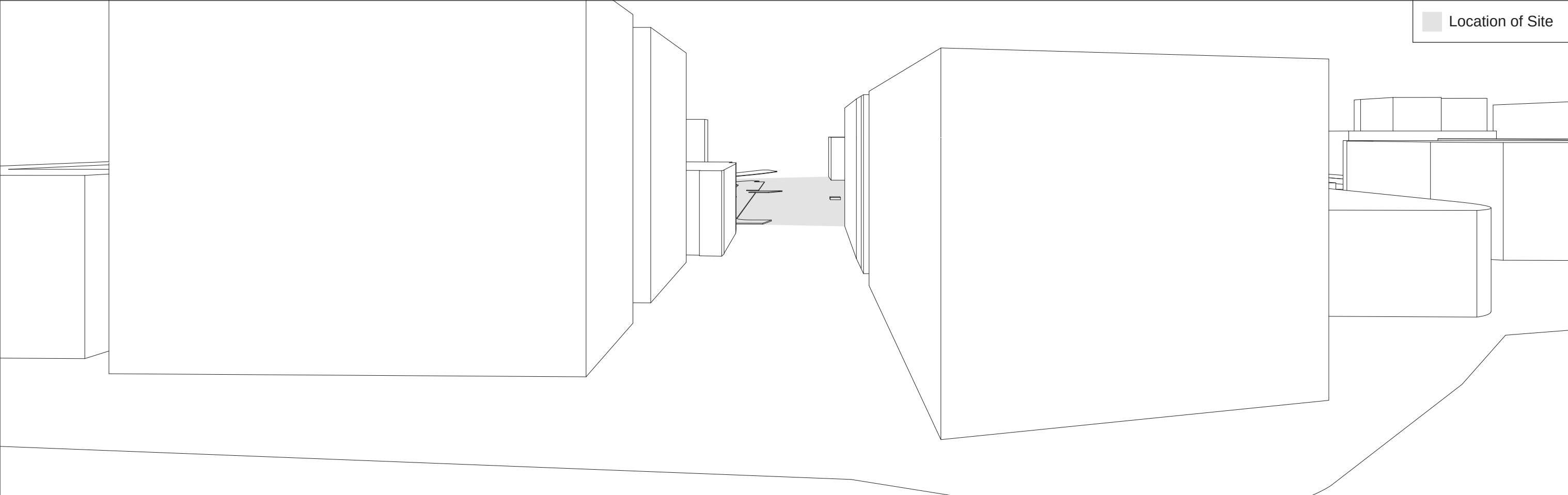


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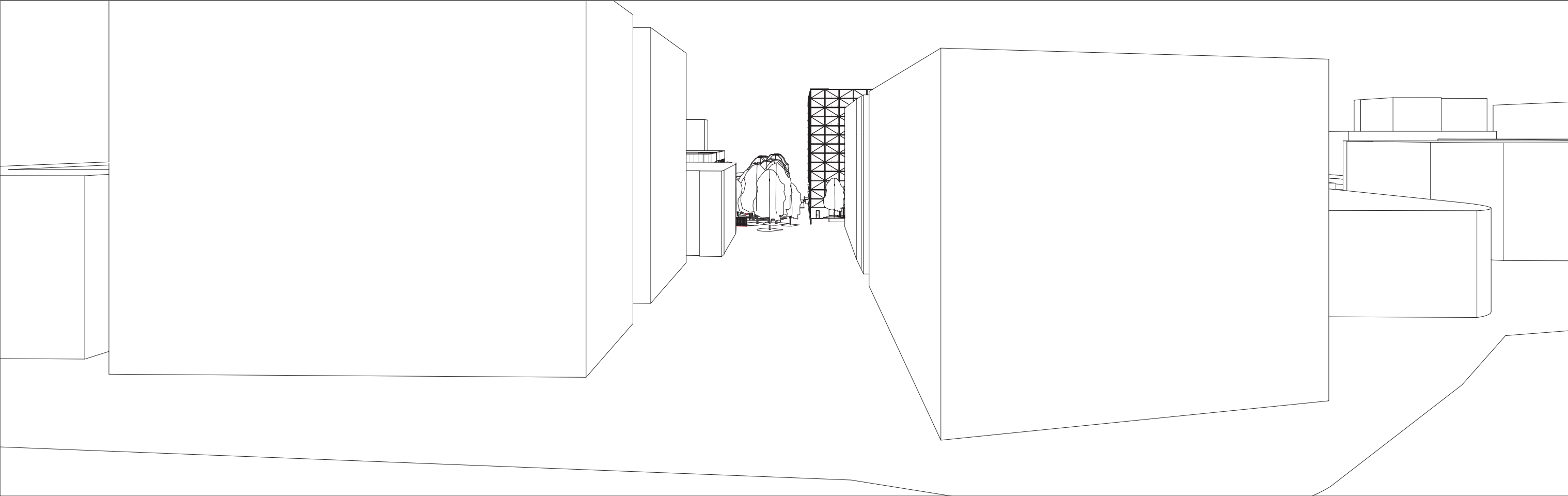
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



Model View 4: West From Pullman Hotel  
Reference No. 20180199  
Discipline LD  
Drawing No. DA26  
Title Rev. 1



EXISTING MODEL VIEW



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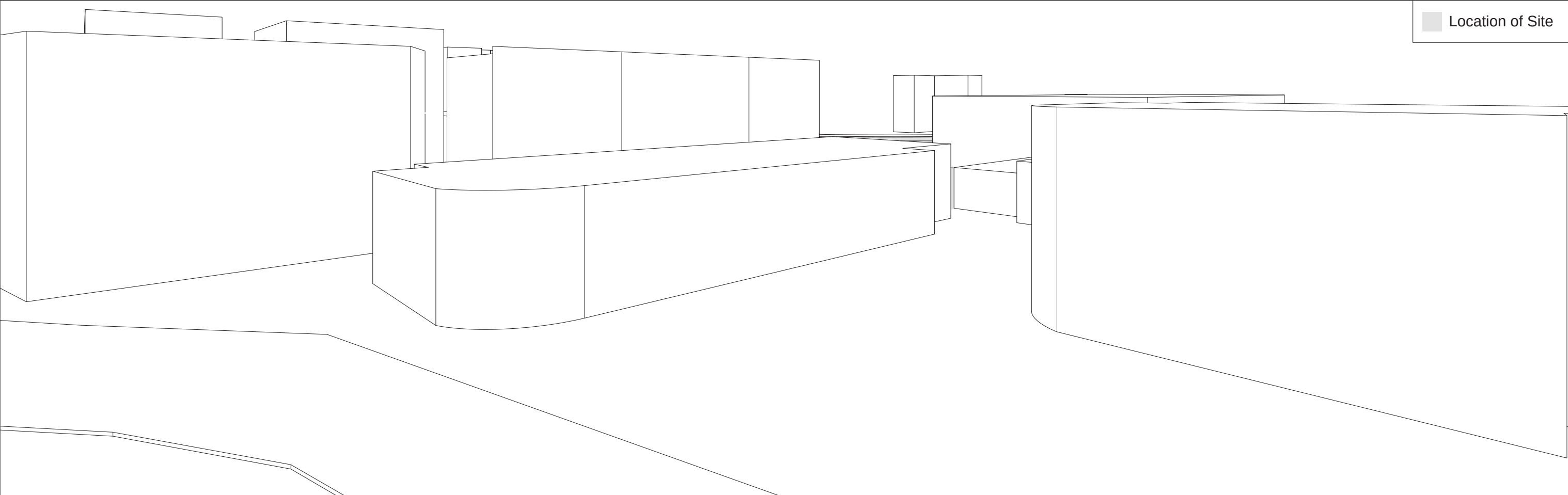
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



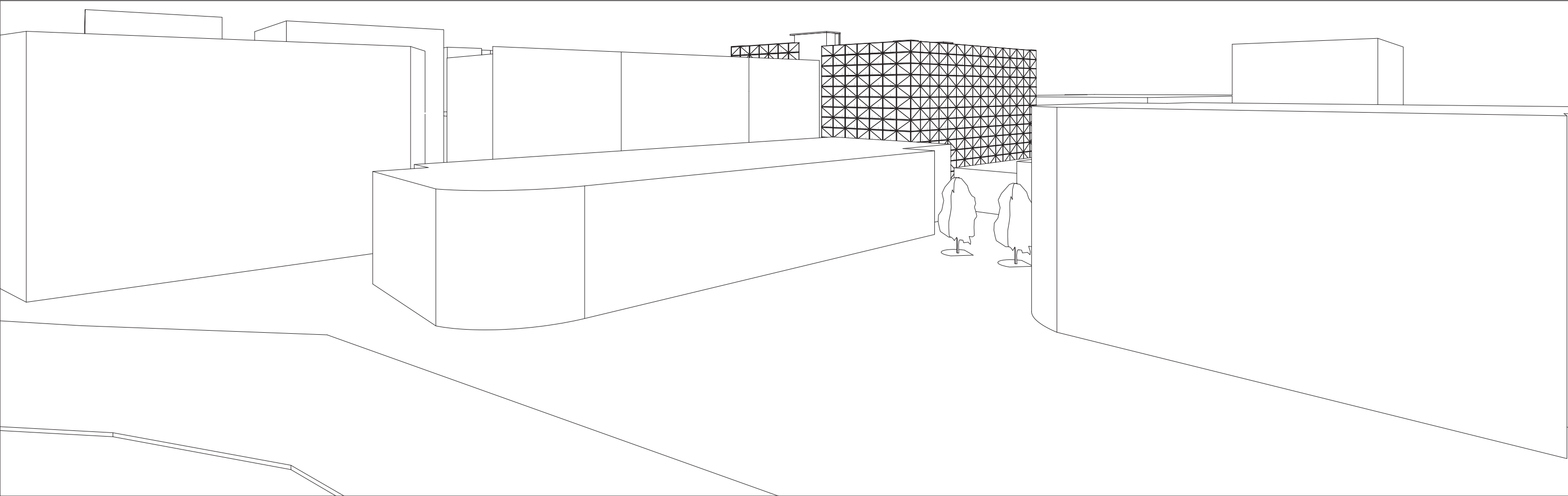
Model View 5: North-West From 146-154 O’Riordan St

| Reference No. | Discipline | Drawing No. | Rev. |
|---------------|------------|-------------|------|
| 20180199      | LD         | DA27        | 1    |





EXISTING MODEL VIEW



WIREFRAME VIEW

Location of Site

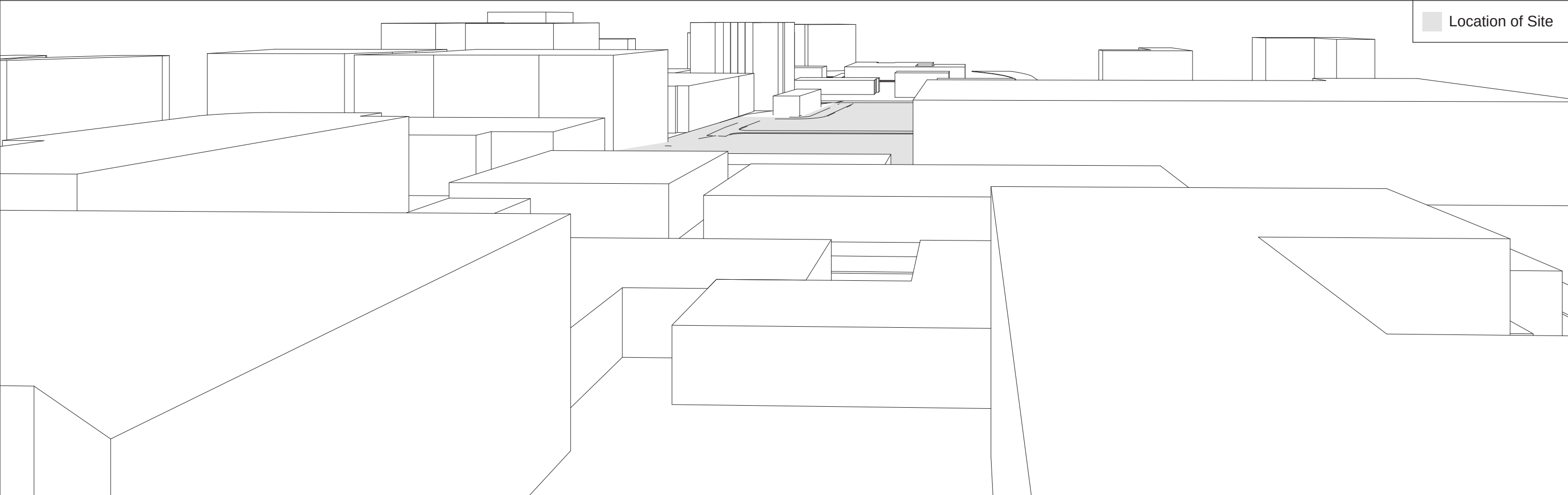


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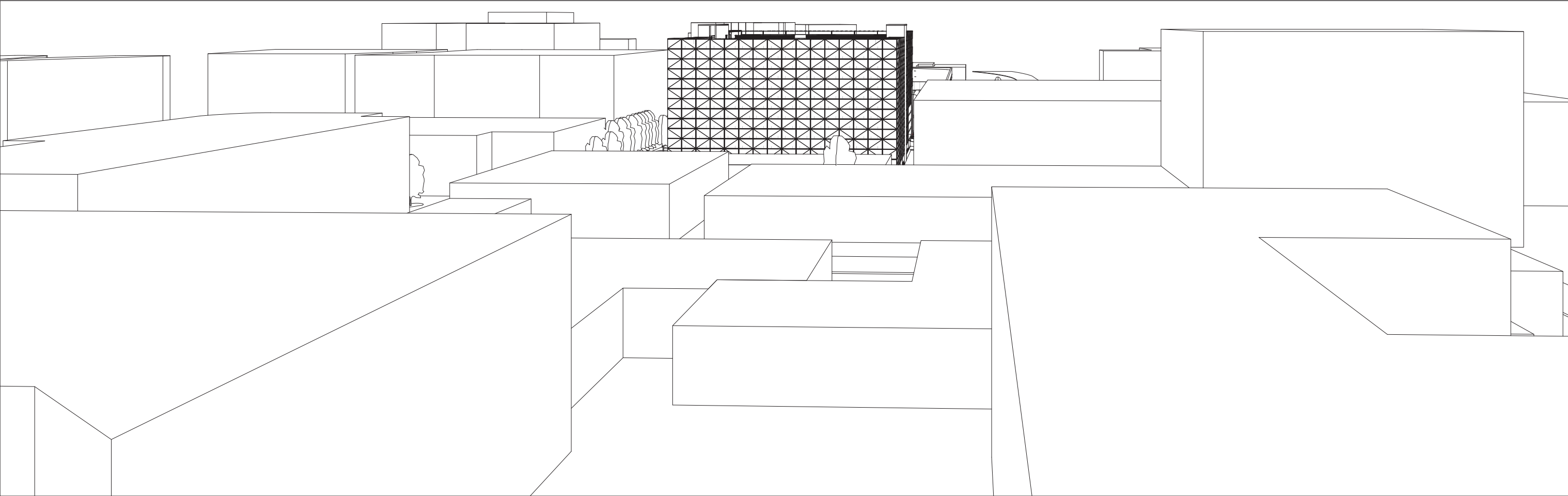
QANTAS GROUP FLIGHT TRAINING CENTRE  
Project  
Client  
QANTAS



Model View 6: West From Adina Hotel  
Reference No. 20180199  
Discipline LD  
Drawing No. DA28  
Title Rev. 1



EXISTING MODEL VIEW



WIREFRAME VIEW



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QANTAS GROUP FLIGHT TRAINING CENTRE

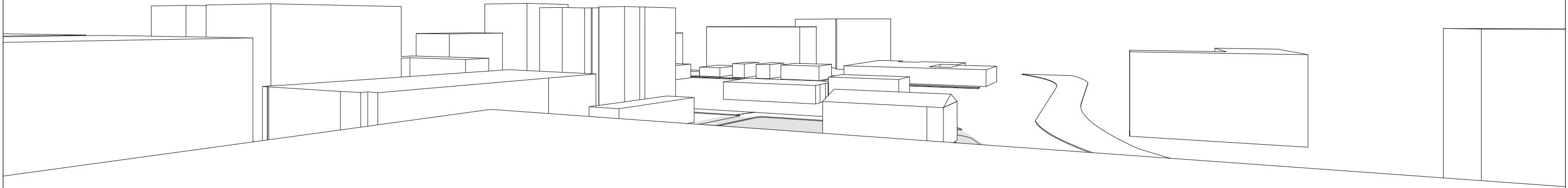
Project  
Client  
QANTAS



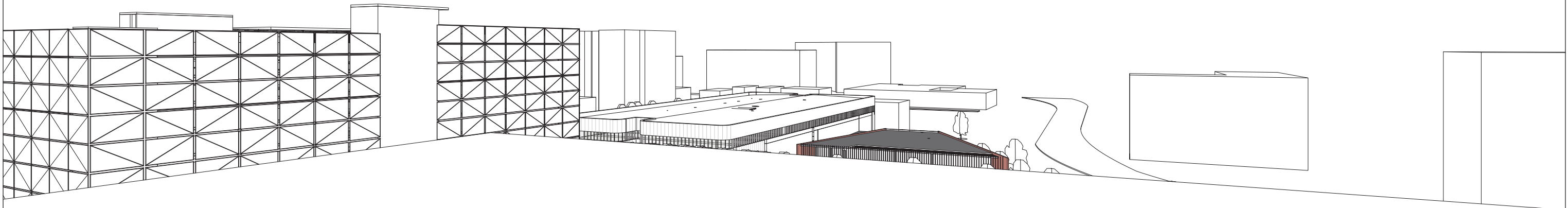
Model View 7: South From East Square Apartments

| Reference No. | Discipline | Drawing No. | Rev. |
|---------------|------------|-------------|------|
| 20180199      | LD         | DA29        | 1    |





EXISTING MODEL VIEW



WIREFRAME VIEW





# APPENDIX C

## [PHOTOGRAPHIC & MODEL TECHNICAL INFORMATION]

# APPENDIX C - PHOTOGRAPHIC METHODOLOGY INFORMATION

**Viewpoint 1: North-East From Qantas Jet Base**

Taken: 13/02/19 9:15am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 36 NE: 33.55.40S, 151.11.3E  
Height (above ground): Level 3 + 1.65m  
(approx. 8.6m)  
Distance from Site: 55m

**Viewpoint 2: North-East From Qantas Dr**

Taken: 13/02/19 9:50am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 23 NE: 33.55.141S, 151.11.2E  
Height (above ground): 1.65m  
Distance from Site: 33m

**Viewpoint 3: North-West From King St**

Taken: 13/02/19 10:25am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 301 NW: 33.55.42S, 151.11.11E  
Height (above ground): 1.65m  
Distance from Site: 130m

**Viewpoint 4: North From King St**

Taken: 13/02/19 10:30am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 353N: 33.55.41S, 151.11.6E  
Height (above ground): 1.65m  
Distance from Site: 9m

**Viewpoint 5: North-West From Travelodge**

Taken: 13/02/19 10:40am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 316NW: 33.55.40S, 151.11.9E  
Height (above ground): Level 5 + 1.65m  
(approx. 16.65m )  
Distance from Site: 22m

**Viewpoint 6: North-West From Wilson Carpark**

Taken: 13/02/19 10:55am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 300NW: 33.55.39S, 151.11.10E  
Height (above ground): Level 5 + 1.65m  
(approx. 16.65m)  
Distance from Site: 12m

**Viewpoint 7: West From Goodman Connect Corporate**

Taken: 13/02/19 11:05am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 273W: 33.55.39S, 151.11.14E  
Height (above ground): 1.65m  
Distance from Site: 128m

**Viewpoint 8: West From O’Riordan St & Bourke Rd**

Taken: 13/02/19 11:15am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 265W: 33.55.36S, 151.11.17E  
Height (above ground): 1.65m  
Distance from Site: 188m

**Viewpoint 9: South-West From Bourke Rd**

Taken: 13/02/19 12:00pm  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 225SW: 33.55.30S, 151.11.14E  
Height (above ground): 1.65m  
Distance from Site: 154m

**Viewpoint 10: South From Qantas Corporate**

Taken: 13/02/19 11:50am  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 183S: 33.55.29S, 151.11.9E  
Height (above ground): Level 6 + 1.65m  
(approx. 19.65m)  
Distance from Site: 155m

**Viewpoint 11: South-East From Chalmers Cres**

Taken: 13/02/19 12:20pm  
Camera: Canon 5D MK II  
Lens: Canon 50mm Lens f/1.2  
Location: 140SE: 33.55.31S, 151.11.5E  
Height (above ground): 1.65m  
Distance from Site: 123m



# APPENDIX C - MODEL METHODOLOGY INFORMATION

## Viewpoint 1: North-East From Qantas Jet Base

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 2: North-East From Qantas Dr

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 3: North-West From King St

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 4: North From King St

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 5: North-West From Travelodge

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 6: North-West From Wilson Carpark

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 7: West From Goodman Connect Corporate

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 8: West From O’Riordan St & Bourke Rd

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 9: South-West From Bourke Rd

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 10: South From Qantas Corporate

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

## Viewpoint 11: South-East From Chalmers Cres

3D Modelling Software: Revit 2019

Topographic Height Data: Geodetic Calculations - Redfearn’s Formulae, Geographic to Grid (<[http://www.ga.gov.au/geodesy/datums/redfearn\\_geo\\_to\\_grid.jsp](http://www.ga.gov.au/geodesy/datums/redfearn_geo_to_grid.jsp)>)

Exif Camera Data

iPhone Compass Application

Overall Method:

The camera locations reference GPS gained from Exif Data and the iPhone Compass application. This was translated using Geoscience Australia’s, Geodetic Calculator. This information was then able to be used in Revit 2019 to place a co-ordinate marker in the architect’s model. Ground features helped to locate the photograph in aerial photography.

Overall Limitations:

GPS co-ordinates have limitations in accuracy. They were used with the help of Google Maps and Nearmaps aerial photography to help gain as accurate a position as possible. When the photos were taken from upper levels of buildings, the height data was estimated.





# APPENDIX D

## [ARCHITECTURAL RENDERS]



**APPENDIX D - ARCHITECTURAL RENDERS**



QGFT - King Street



APPENDIX D - ARCHITECTURAL RENDERS



QGFT - North-West Corner



APPENDIX D - ARCHITECTURAL RENDERS



QGFT - Qantas Drive



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