# ASPECT INDUSTRIAL ESTATE URBAN DESIGN REPORT

OCTOBER 2020







### 1.1 Aspect Industrial Estate

The Aspect Industrial Estate (AIE) is a 56ha estate which comprises of Lots 54 - 58 of DP259135. AIE is located east of Mamre Road, Kemps Creek within the Penrith City Council Local Government Area (LGA).

AlE has approximately 950m of direct frontage to Mamre Road with a proposed signalised intersection providing vehicular access via Mamre Road to the M4 Motorway and the Great Western Highway to the north and Elizabeth Drive to the south.

AIE is located approximately 4km north-west from the future Western Sydney Nancy-Bird Walton Airport, 13km south-east of the Penrith CBD and 40km west of the Sydney CBD.

This Urban Design Report relates to AIE which is a proposed industrial estate, and is consistent with the proposed Mamre Road Precinct Draft Structure Plan and Western Sydney Employment area strategic planning documents.

Figure 1 shows lots which comprise the AIE.

Table 1 below provides the lot title and area of each lot within AIE.

Lot	DP	Area (ha)
54	259135	10.9
55	259135	12.09
56	259135	12.66
57	259135	10.3
58	259135	10.31
Total Area		56.26

Note: Areas taken from registered title plan. Areas subject to detailed survey



Figure 1: Aspect Industrial Estate (AIE) 1:7,500





### 1.2 Subregion Location

Aspect Industrial Estate (AIE) is located in the Penrith City Council Local Government Area (LGA) within the suburb of Kemps Creek. The site is approximately 4km from the currently under construction Western Sydney Airport.

The predominant existing surrounding land use is small- and largescale agricultural land and grazing pasture. Further north of the precinct on Mamre Road is industrial zoned land and warehousing.

AlE is fronted by Mamre Road to the West. Mamre Road is a key sub-regional road which connects to the M4 Motorway to the North. The M4 also provides access to the M7. Alternatively, the M7 can be accessed via Elizabeth Drive located South of the site.

Figure 2 highlights some of the broader regional features surrounding AIE.



Figure 2 – Subregion Map 1:60,000



AIE boundaries
 Precinct boundaries
 Suburb boundaries
Major link roads



### 1.3 Greater Sydney Region Plan

The Region Plan is built on a vision of three cities, where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. It identifies four themes: infrastructure and collaboration, liveability, productivity, and sustainability. Within these four themes, a set of planning priorities and actions are identified to achieve the Region Plan's vision.

The Region Plan includes a high level structure plan identifying key centres, employment areas, and important infrastructure contributions.

Figure 3 shows AIE in relation to the Greater Sydney Region Plan.

Figure 4 shows the plan of Greater Sydney's 'Three Cities'.



•	Metropolitan Centre		South Creek Parkland Investigation
•	Metropolitan Cluster		Waterways
0	Health and Education Precinct		Train Station
٠	Strategic Centre		Committed Train Link
	Economic Corridor		Train Link/Mass Transit Investigation O–10 years
	Trade Gateway		Train Link/Mass Transit Investigation 10–20 years
	Western Sydney Employment Area		Train Link/Mass Transit Visionary
	Land Release Area	•••••	Freight Rail Investigation
	Transit Oriented Development		Light Rail
	Urban Renewal Area		Light Rail Investigation
	Greater Penrith to Eastern Creek Growth Area		Motorway
	Urban Investigation Area		Committed Motorway
$\bigcirc$	Urban Area		Road Investigation O-10 years
	Protected Natural Area		Road Investigation 10–20 years
	Metropolitan Rural Area		Road Visionary
	Major Urban Parkland including National Parks and Reserves		

Figure 3 – Greater Sydney Region Plan [Source: Greater Sydney Commission]

ľ	
_	
0	Metropolitar
	Metropolitar
	14/



Sydney Commission]





Figure 4 – Plan of Greater Sydney's 'Three Cities' [Source: Greater



### 1.4 Western Parkland City District Plan

The population of the Western Parkland City is projected to grow from 740,000 in 2016 to 1.1 million by 2036 and to well over 1.5 million by 2056.

The city will be established on the strength of the new international Western Sydney Airport and Badgerys Creek Aerotropolis. It will be a polycentric city capitalising on the established centres of Liverpool, Greater Penrith and Campbelltown-Macathur.

New city-shaping transport and the airport will make the city the most connected place in Australia. The Australian and NSW Governments will deliver the first stage of the North South Rail Link from St Marys to the Western Sydney Airport and Badgerys Creek Aerotropolis. A potential new east-west mass transit corridor will connect the Western Parkland City to the Central River City. In the long term, a potential Outer Sydney Orbital will provide the city with direct connections to Greater Newcastle, Wollongong and Canberra.

Figure 5 shows AIE in the context of the Western District Structure Plan.



Figure 5 – Western District Structure Plan [Source: Greater Sydney Commission]





### 1.5 Western Sydney Employment Area (WSEA) SEPP

The New South Wales Government established the WSEA to provide businesses in the region with land for industry and employment, including transport and logistics, warehousing and office space.

On 12 June 2020, AIE as part of the Greater Mamre Road Precinct was rezoned to formally be included in the WSEA by way of a SEPP amendment. The zoning is predominantly IN1 General Industrial, with environmentally sensitive areas zoned E2 Environmental Conservation.

The changes to the WSEA SEPP and introduction of the Mamre Road Precinct structure plan ensures that:

- The precinct becomes a warehousing industrial hub providing around 17,000 new jobs in Western Sydney;
- Surrounding rural residential areas are protected from industrial activities with buffers between homes and the industrial hub;
- Built and natural heritage are protected with the preservation of approximately 95 hectares of environmentally sensitive land, including Cumberland Plain Woodland;
- Over 50 hectares of open space, recreation areas, cycle and walking paths in the precinct, including alongside South Creek are included; and
- Critical transport corridors are preserved and potential opportunities for an intermodal terminal are explored.

Figure 6 shows AIE in the context of the WSEA.



Figure 6 – State Environmental Planning Policy (Western Sydney Employment Area) 2009, Land Zoning Map 1:80,000 [Source: NSW Department of Planning, Industry & Environment]

E2	Environmental Conservat
N1	General Industrial
N2	Light Industrial
RE1	Public Recreation
RE2	Private Recreation



tι	on	
•••	~	

SP2	Infrastructure
PLEP	Penrith Local Environmental Plan 2010
	Transport Investigation Area A
	Transport Investigation Area B
	Cadastre 21/05/2020 © Spatial Services



### 1.6 Mamre Road Precinct Structure Plan

On 12 June 2020 as part of the gazettal of the Mamre Road Precinct in the WSEA, a final structure plan was released. The structure plan identifies AIE as IN1 industrial land with an environmental corridor to the north of the site. Further, there is a proposed intersection along Mamre Road to provide future access to site.

Figure 7 shows AIE in the context of the Mamre Road Structure Plan.



Figure 7 – Mamre Road Structure Plan (June 2020) [Source: NSW Department of Planning, Industry & Environment]



	2.4.2	r
N CREEK		(
LEY PARK		I
		E
n Link Road		(
lgrove Road rn Sydney		F
	÷	F
	÷	ľ
	€-	F
	<b>«</b>	F
<u></u>	<b></b>	F
	<b>&lt;-</b>	I
rial road		I
y road	$\checkmark$	٦
		٦ (
vice Hub consolidated		L
		l (

	Precinct boundary
	Cadastral boundary
	Industrial
	Environmental conservation
	Open space
	Potential intermodal terminal
÷	Proposed Western Sydney Freight Line
÷	Mamre Road & potential connections
€-	Potential Southern Link Road
<b>«</b>	Potential road access
<b>&lt;</b>	Potential freight connection to precinct
<b>&lt;-</b>	Indicative road access
	Indicative riparian buffers
	Transition to rural
	Transition to Environmental Conservation
	Local heritage items
	Indicative employment service hub (with 400m catchment)
<b>()</b>	Opportunity for ecological corridor



7

### 1.7 Western Sydney Aerotropolis Planning Package

On 11 September 2020, the Department of Planning, Industry and Environment released the finalised Western Sydney Aerotropolis Plan (WSAP), the State Environment Planning Policy (Western Sydney Aerotropolis) (SEPP) and the Western Sydney Aerotropolis Development Control Plan (DCP) Phase 1.

The WSAP is a strategic document which recognises that the Airport is the catalyst for the Aerotropolis. It does so by defining how the broader region's environment, waterways, infrastructure and economics will come together to create the Aerotropolis as a contemporary metropolitan city. The WASP is implemented through the Aerotropolis State Environmental Planning Policy (SEPP) and Development Control Plan (DCP).

Through the WSAP, the Mamre Road Precinct land is to be rezoned separately under the WSEA SEPP.

Figure 8 shows the Western Sydney Aerotropolis Land Zone Plan.



Figure 8 – Western Sydney Aerotropolis Land Zone Plan (September 2020) [Source: NSW Depar Planning, Industry & Environment]





### 1.8 Penrith LEP

#### **Current Planning Controls**

The AIE site is not subject to the Penrith Local Environmental Plan 2010 as it is subject to the SEPP WSEA.



Figure 9 – Penrith Local Environmental Plan 2010 Land Zoning Map June 2020, 1:20,000 [Source: NSW Department of Planning, Industry & Environment]

E1	National Parks and Nature Reserves	RU1	Primary
E2	Environmental Conservation	RU3	Rural La
<b>E</b> 3	Environmental Management	RU4	Primary
E4	Environmental Living	SP2	Infrastru



- Production
- andscape
- Production Small Lots
- ructure





### 1.10 Planned Infrastructure

#### Mamre Road Upgrades

The NSW Government has started early planning for a future upgrade of a 10 kilometre section of Mamre Road, between the M4 Motorway and Kerrs Road to support economic and residential growth in the area. The NSW Government has committed \$220 million to upgrade of Mamre Road between M4 and Erskine Park Road.

#### M12 Motorway

Announced as part of the \$4.1 billion road investment program, the new M12 Motorway between the M7 Motorway and the Northern Road will provide direct connection to the Western Sydney Airport. There is provision for a future gradeseparated interchange in the vicinity of Devonshire Road / Mamre Road. Start date of major construction expected 2022 with expected completion before the opening of the Western Sydney Airport.

#### Western Sydney Freight Line

The NSW Government announced on 1<sup>st</sup> July 2020 the preservation of the Western Sydney Freight corridor between the M7 at Horsley Park and the future Outer Sydney Orbital at Luddenham.

Figure 11 shows the planned infrastructure in the region.



Figure 11 – Planned Infrastructure Map 1:60,000





	_	Proposed North South Rail Link – Stage 1
Corridor		Potential future road connection between Mamre Rd & Elizabeth Dr
		Mamre Road
ne		Elizabeth Drive
		Westlink M7



### 1.10 Planned Infrastructure

#### Western Sydney Airport

Construction of Western Sydney International (Nancy-Bird Walton) Airport is underway and on track to begin operations in 2026. The airport is a transformational infrastructure project that will generate economic activity, provide employment opportunities closer to home for people in the Western Sydney region, and meet Sydney's growing aviation needs. The airport will be a full service airport operating curfew free, delivering international, domestic, passenger and freight services.

Figure 12 shows the Planned Infrastructure supporting the Western Sydney Airport.



Figure 12 – Planned Infrastructure supporting the Western Sydney Airport 1:80,000





	_	Proposed North South Rail Link – Stage 1
Corridor		Potential future road connection between Mamre Rd & Elizabeth Dr
		Mamre Road
ne		Elizabeth Drive
		Westlink M7



### 2.1 Topography

With high points running along the Southern and Eastern boundaries, the site has a gentle undulating topography falling north-west towards the dams and Mamre Road. The site's lowest point is in the North Western corner.

The site currently comprises a series of rural residential land uses with small farming ventures throughout.

Figure 13 shows the topography of the AIE site.



Figure 13 – AIE Site Topography 1:7,500 [Source: SBA Architects]



Topographic contours

### 2.2 Natural Features (Unvalidated)

DPI mapping shows two unnamed hydrolines within the AIE as shown within Figure 14.

These include a 1st order mapped hydroline in the south east of the site and a 2nd order mapped hydroline in the north of the site.

Within the AIE there are also five (5) man-made farm dams, most of which have limited riparian and / or fringing vegetation surrounding them with poor aquatic habitat.

Small pockets of mapped vegetation are located within the North-East of the site.

Figure 14 shows the natural features (unvalidated) that presently exist on AIE.



Figure 14 – AIE Site Natural Features 1:7,500 [Source: EcoLogical Australia]



	1st Order Stream - Strahler

2nd Order Stream - Strahler

### 2.3 Natural Features (Validated)

Ecological Australia's Biodiversity Assessment Report which was informed by a field survey identified that the AIE also hosts some relatively small pockets of mapped vegetation that are largely centred to the north-east of the land parcel.

A detailed site survey by Ecologists, EcoLogical Australia, identified that 1st order hydroline did not meet the definition of a 'river' under the Water Management Act 2000 (WM Act). A portion of the 2nd order hydroline in the north west of the development area did meet the definition of a 'river' under the WM Act, however remains in a degraded condition with steep and bare banks, a lack of native riparian vegetation and proliferation of exotic pasture grasses in the vicinity of the waterway.

Figure 15 shows the section of validated river under the WM Act.



Figure 15 - AIE Site Natural Features 1:7,500 [Source: EcoLogical Australia]





2nd Order Stream - Strahler, validated

Mapped Vegetation

Dam

Validated River and Riparian

### 2.4 Heritage

Zones of archaeological potential are clustered around the north-eastern section of the site. This report has identified both areas of potential artefact concentration as well as locations of individual artefacts, whilst also outlining general areas where items of archaeological potential may be located.

Heritage consultant, Artefact, were commissioned by Mirvac to undertake a heritage assessment of the AIE.

The Aboriginal Cultural Heritage Assessment Report (ACHAR) identified one Aboriginal site, MAM AS 1901 (AHIMS ID 45-5-5186) is assessed as being of moderate archaeological significance.

The Non-Aboriginal Statement of Heritage Impact (SoHI) assessed the AIE as demonstrating nil-low potential to contain archaeological relics.

Figure 16 shows the heritage assessment of the AIE site.



Figure 16 - AIE Site Heritage 1:7,500 [Source: SBA Architects]





Archaeological - MAM AS 1901

Low Archaeological Potential

### 2.5 Transport & Access

As discussed in Section 1.10, the NSW Government has started initial planning work for a future upgrade of Mamre Road between the M4 Motorway and Kerrs Road.

The AIE fronts Section 2 of the proposed Mamre Road upgrade from Erskine Park Road to Kerrs Road. The Department of Planning, Industry and Environment released State Environmental Planning Policy (SEPP) maps on 12<sup>th</sup> June 2020 including a SP2 zone corridor for the proposed Mamre Road Section 2 Upgrade.

The AIE benefits from 950m of direct frontage to Mamre Road and signalised intersection access as indicated within the Transport for NSW proposed Mamre Road design.

Figure 17 shows the SP2 zone to facilitate the future Mamre Road Upgrade as shown within the Mamre Road Precinct SEPP maps.



Figure 17 – AIE Site Existing Transport and Access [Source: SBA Architects]





SP2 - Mamre Road Infrastructure Zone

New Signalised Intersection

### 2.6 Flooding

The site is unaffected by the 1 in 100 year ARI flood event and the Probable Maximum Flood from South Creek as defined within the following supporting flood studies:

- Worley Parsons 2015 South Creek Flood Study prepared on behalf of Penrith City Council;
- Cardno (2020) South Creek Flood Risk Assessment prepared on behalf of Mirvac to support AIE SSD;
- Advision (2020) South Creek Floodplain Risk Management Study prepared on behalf of Penrith City Council and adopted by Penrith City Council within Ordinary meeting on 27 April 2020.

A Flood Impact Assessment supporting the AIE SSDA application has been prepared by Cardno (2020) to confirm the AIE results in no adverse impacts to downstream flood behaviour.

Figure 18 shows the AIE site relative to the the flood planning land map extracted from the Advision flood study.



Figure 18 - South Creek Floodplain Risk Management Study [Source: Penrith City Council]



Extent	_	Kemps & South Creek farm dams
Extent		Flood Protection to nearby properties
	_	Sydney Water Pipeline - Risk Assessment

### 2.7 ANEF Contours

ANEF is the short form for Australian Noise Exposure Forecast. These forecasts provide predictions for aircraft noise levels expected into the future.

When visualised diagrammatically the forecasts are expressed as "Australian Noise Exposure Concept (ANEC) and take into account the anticipated number of movements, types of aircraft, and flights paths including the height for arrivals and departures"

Using these predictions, planning and development can be managed by aligning noise tolerant land uses within areas of greater airport noise exposure and lees less tolerant uses within quieter areas. Additionally, the design of buildings within ANEC impacted areas can be designed to higher standards to mitigate their exposure.

Prefer Direction 5 refers to the operational direction of a single runway with most departures being to the north-east and arrivals form the south-west.

As the AIE site falls within an area that is exposed to <20 ANEC development may need to adopt appropriate design and construction standards to reduce potential noise impacts within the Prefer Direction 5, 2030 stage one scenario.

Figure 19 shows the ANEF Contours from the Stage 1 5 direction scenario.



Figure 19 – ANEF Contours Map Stage 1 (Year 2030) Prefer 5 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25ANEC = 25-30



ANEC = 30-35ANEC = > 35

### 2.8 ANEF Contours

Prefer Direction 23, 2030 stage one scenario refers to the operational direction of a single runway with majority departures to the south-west and arrivals form the north-east.

Within the Prefer direction 23, the AIE site falls partially within the ANEC 20-25 contour. Within this contour conditional acceptance may be given to residential uses, motels/hotels, schools, universities or hospitals and nursing homes. Light industrial uses are acceptable in ANEC <30 whilst all other industrial uses are acceptable in all contours.

Although AIE partially sits within Prefer direction 23, 2030 stage one scenario, it has no significant impact as industrial uses are permissible within this noise contour.

Figure 20 shows the ANEF Contours from the Stage 1 23 direction scenario.



Figure 20 - ANEF Contours Map Stage 1 (Year 2030) Prefer 23 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25 ANEC = 25-30



ANEC = 30-35ANEC = > 35

### 2.8 ANEF Contours

Prefer Direction 5, 2050 scenario refers to the operational direction of a single runway with most departures being to the north-east and arrivals form the south-west.

Within the Prefer Direction 5, the AIE site falls mostly within the ANEC 20-25 contour. Within this contour conditional acceptance may be given to residential uses, motels/hotels, schools, universities or hospitals and nursing homes. Light industrial uses are acceptable in ANEC <30 whilst all other industrial uses are acceptable in all contours.

Although AIE partially sits within Prefer Direction 5, 2050 scenario, it has no significant impact as industrial uses are permissible within this noise contour.

Figure 21 shows the ANEF Contours from the One Runway 5 direction scenario.



Figure 21 – ANEF Contours Map One Runway (Year 2050) Prefer 5 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25 ANEC = 25-30



ANEC = 30-35 ANEC = > 35

### 2.8 ANEF Contours

Prefer Direction 23, 2050 scenario refers to the operational direction of a single runway with most departures being to the north-east and arrivals form the north-east.

Within the Prefer Direction 5, the AIE site falls both within the ANEC 20-25 and 25-30 contours.

Within the ANEC 20-25 contour conditional acceptance may be given to residential uses, motels/hotels, schools, universities or hospitals and nursing homes. While within the 25-30 contour residential uses are unacceptable, and acceptance of other uses may be conditional to stricter design and construction controls to whole or part of buildings.

Light industrial uses are acceptable in ANEC <30 whilst all other industrial uses are acceptable in all contours.

Although AIE sits within Prefer Direction 23, 2050 scenario, it has no significant impact as industrial uses are permissible within this noise contour.

Figure 22 shows the ANEF Contours from the One Runway 23 direction scenario.



Figure 22 – ANEF Contours Map One Runway (Year 2050) Prefer 23 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25 ANEC = 25-30



ANEC = 30-35 ANEC = > 35

### 2.8 ANEF Contours

Prefer Direction 5, 2063 long term scenario refers to the operational direction of dual runways with most departures being to the north-east and arrivals form the south-west.

Within the Prefer direction 5, the AIE site falls partially within the ANEC 20-25 contour. Within this contour conditional acceptance may be given to residential uses, motels/hotels, schools, universities or hospitals and nursing homes. Light industrial uses are acceptable in ANEC <30 whilst all other industrial uses are acceptable in all contours.

Although AIE partially sits within Prefer Direction 5, 2063 long term scenario, it has no significant impact as industrial uses are permissible within this noise contour.

Figure 23 shows the ANEF Contours from the Long Term 5 direction scenario.



Figure 23 - ANEF Contours Map Long Term (Year 2063) Prefer 5 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25 ANEC = 25-30

ANEC = 30-35ANEC = > 35

### 2.8 ANEF Contours

Prefer Direction 23, 2063 long term scenario, refers to the operational direction of dual runways with majority departures to the south-west and arrivals form the north-east.

Within the Prefer direction 23, the site falls mostly within the ANEC 20-25 contour. Within this contour conditional acceptance may be given to residential uses, motels/hotels, schools, universities or hospitals and nursing homes. Light industrial uses are acceptable in ANEC <30 whilst all other industrial uses are acceptable in all contours.

Based on current modelling, a small portion of the site may be affected by ANEC contour 25-30. Within this contours Residential uses are unacceptable, and acceptance of other uses may be conditional to stricter design and construction controls to whole or part of buildings.

As the modelling currently stands this scenario poses a more significant impact the AIE in its long-term development, however it will not restrict industrial uses. The development may need to adopt appropriate design and construction standards to reduce potential noise impacts.

The ANEC contours presented in the current modelling are expected to come under review and recalibrated over time in line with the Airports Act 1996 and/or as aircraft technology develops.

Figure 24 shows the ANEF Contours from the Long Term 23 direction scenario.



Figure 24 – ANEF Contours Map Long Term (Year 2063) Prefer 23 Direction Scenario [Source: Australian Government Department of Infrastructure, Transport, Cities and Regional Development Noise Modelling Tool]





ANEC = 20-25

ANEC = 25-30

ANEC = 30-35ANEC = > 35

## **3.0 CONSTRAINTS & OPPORTUNITIES**

### 3.1 Constraints

As outlined within Section 2.2, DPI mapping shows two unnamed hydrolines within the AIE. Detailed site survey by Ecologists, EcoLogical Australia, identified that 1st order hydroline did not meet the definition of a 'river' under the Water Management Act 2000 (WM Act). A portion of the 2nd order hydroline in the north west of the development area did meet the definition of a 'river' under the WM Act, however remains in a degraded condition with steep and bare banks, a lack of native riparian vegetation and proliferation of exotic pasture grasses in the vicinity of the waterway.

The section of validated river under the WM Act is shown within Figure 24.

Within the AIE there are also five (5) man-made farm dams, most of which have limited riparian and / or fringing vegetation surrounding them with poor aquatic habitat.

Small pockets of mapped vegetation are located within the North-East of the site.

As outlined within Section 2.3, investigations identified areas of Potential Archaeological Deposit (PAD) located within the North-East of the site. In accordance with received Secretary's Environmental Assessment Requirements (SEARs) for AIE, an Aboriginal Cultural Heritage Assessment Report (ACHAR) is being prepared in consultation with Aboriginal stakeholders. This information is provided to support the proposed AIE SSD.

Figure 25 shows the natural and potential archaeological features that presently exist on AIE.



Figure 25 – Constraints Plan 1:7,500 [Source: SBA Architects]





ation	Low Archaeological Potential
	Validated River and Riparian
Potential	 Validated Not a River under the WM Act
Canadanatian	

## **3.0 CONSTRAINTS & OPPORTUNITIES**

### 3.2 Opportunities

With expansive frontage along its western boundary to the existing Mamre Road, AIE provides an opportunity to activate Mamre Road through careful sighting and design of the proposed development including the location of built form and landscaping.

The site offers connection to the Mamre Road by way of a proposed intersection located centrally along the site boundary as shown in Figure 26. This intersection will provide AIE with fast access to Mamre Road and subsequently the wider road network including M4 Motorway, the Great Western Highway to the north, and Elizabeth Drive to the south. Future internal roads to the north, east, and west of the site will provide interconnectivity of AIE with the broader Mamre Road Precinct.

It is proposed that the validated river and riparian will be realigned further North towards the boundary of the site. The realignment of the watercourse and riparian area will offer a significant improvement on the current condition of the riparian area on site. The key benefits of this realignment are as follows:

- The proposed size of the new riparian area is to be greater than the current riparian area. This increase to the riparian land area will offer a greater area for vegetation as well as improving the aesthetic appeal and amenity intent of the site.
- The river will be vegetated with a full complex of native riparian vegetation in the ground, shrub and canopy layers, as per the Vegetation Management Plan prepared by ELA (2020).
- The vegetated channel will also incorporate an instream aquatic habitat, have a range of different surfaces along the bed and banks of the channel to create different geomorphic features such as pools and riffles which will expand into the development area.

Figure 26 shows the opportunities of the AIE site plan.



Figure 26 – Opportunities Plan 1:7,500 [Source: SBA Architects]



←	Connections to Mamre Road Precinct
	Mamre Road frontage
Ο	New Signalised Intersection
	Validated not a watercourse
	Validated Watercourse

## 4.0 SITE COMPATIBILITY WITH STRUCTURE PLAN

### 4.1 Aspect Industrial Estate

Aspect Industrial Estate will be located within the broader Mamre Road Precinct. Within the Western Sydney Employment area, the proposed precinct is intended as a warehousing industrial hub, providing around 17,000 new jobs in the area.

The proposed structure plan guiding our precinct defines the general framework for the area. It sets out the critical transport corridors, sets aside land for environmental conservation, drainage and open space and defines riparian buffers. Whilst also highlighting local heritage items, potential intermodal terminal locations and protecting nearby, existing, residential land uses.

AIE road network has been designed to ensure connectivity can be provide to the wider Mamre Road Precinct.

Figure 27 overlays the proposed and indicative road networks and AIE site on the Mamre Road Structure Plan.



Figure 27 – Mamre Road Structure Plan (June 2020) [Source: NSW Department of Planning, Industry & Environment]





Precinct boundary Cadastral boundary Industrial Environmental conservation Open space Potential intermodal terminal Proposed Western Sydney Freight Line Mamre Road & potential connections Potential Southern Link Road Potential road access Potential freight connection to precinct Indicative road access Indicative riparian buffers Transition to rural Transition to Environmental Conservation Local heritage items Indicative employment service hub (with 400m catchment) Opportunity for ecological corridor Mirvac Aspect Industrial Estate (Lots 54-58 DP 259135) Proposed Mirvac Development Road Network Indicative connections to local road network

## **5.0 URBAN DESIGN PRINCIPLES**

### 5.1 Project Vision

#### The Future for Industry & Logistics

The vision for Mamre Road is to redefine industrial and logistics facilities in Western Sydney through emphasis on design quality, flexibility, technology and sustainability.

#### <u>Quality</u>

Continue to deliver Mirvac quality through superior design, presentation and attention to detail.

#### **Flexibility**

Design to maximise flexibility, through ability to accommodate for changing customer requirements, such as automation.

#### <u>Technology</u>

Incorporate construction, technological and digital solutions to deliver value for customers and pioneer a "first of its kind" for Australian logistics.

Deliver SMART buildings which maximise occupant control and building performance.

#### <u>Sustainability</u>

Deliver a sustainability benchmark within Mirvac's industrial assets.

Protect and enhance existing vegetation by providing passive recreation opportunities together with local onsite cafe and amenities incorporated into employee wellbeing strategies.

Implement sustainability initiatives outlined in the Ecological Sustainable Design Report prepared by Stantec.

Figure 28 shows an artist impression of the AIE.



Figure 28 – AIE perspective [Source: Mirvac]



## 6.0 DCP CONTROLS

### 6.1 PROPOSED DCP CONTROLS SUMMARY

The AIE development area is guided by the draft DCP prepared by Urbis titled 'Aspect Industrial Estate, Kemps Creek, Development Control Plan 2019'. The proposed DCP is in accordance with the provisions of Division 6 of the EP&A Act 1979 and Part 3 of the EP&A Regulation 2000.

The DCP includes specific objectives that address the principal development standards listed within the SEPP WSEA and the planning principles developed during the precinct planning process.

A summary of the key controls proposed in the draft DCP is provided in Table 2. The draft DCP controls have been used to inform the design of the Concept Master Plan.

draff DCP controls have bee	n used to inform the design of the Concept Master Plan.		spaces/100 spaces
Issue/Element	Control	Road Infrastructure	1. The internal industric
Site Coverage	No maximum, defined by setbacks		following:
Minimum Lot Size	Minimum 1,000sqm for IN1 - General Industrial		1.1. 24.5m road rese including:
Minimum Frontage	Minimum 40m (excluding cul-de-sacs)		a. One x 4m ve
Minimum Lot Width	Minimum 35m (at building line) (for lots > 5,000sqm) 60m (for lots > 10,000sqm)		b. One x 5m ve footway)
FSR	-		c. A 15.5m carı both directior
Building Height	Maximum 20m (unless otherwise increased by Consent Authority Approval)		1.2. 23m road reserv
Building Setback - Primary	Minimum 20m to Mamre Road (including min. 10m landscaping)		a. One x 4m me footway)
Frontage	Minimum 7.5m to Subdivision Road (including min. 3.5m landscaping)		b. One x 5m ve footway)
Building Setback - Side	5m building (No minimum for landscaping)		c. A 14m carria
Building Setback - Rear	5m building (2.5m landscape setback)		directions an

Table 2 – Key DCP Controls

Issue/Element

Car Parking

Control



On-site car parking to be provided at the following minimum rates: Warehouse - 1 space/300sqm GFA.

Ancillary office - 1 space/40sqm GFA.

Industrial/manufacturing - 1 space/200sqm GFA.

Cafe/restaurant - 1 space/10sqm of seating area.

Accessible parking - in accordance with the provisions of the Building Code of Australia and relevant Australian Standards. 2 accessible

al subdivision roads shall comprise of the

erve for roads connecting to Arterial roads

erge width (including a 1.5m concrete footway) erge width (including a 2.5m concrete shared

riage way, comprising 7m for travel lanes in ns and two x 4.25m kerbside parking lanes.

ve for Internal Estate Roads including: etre verge width (including a 1.5m concrete

erge width (including a 2.5m concrete shared

age way, comprising 7m for travel lanes in both d two x 3.5m kerbside parking lanes

## 7.0 OPTIONS ANALYSIS

### 7.1 Master Plan Options



Figure 29 – Option 1 - SEARs Master Plan Realigned Riparian Area

#### **Option 1**

- Option was prepared in advance of rezoning which introduced E2 zoning on site
- Option prepared in accordance with received ecological advice which results in an improved ecological outcome by increasing riparian area compared to what has been validated on site
- Designed in advance of work undertaken by authorities on the wider Mamre Road Precinct road network i.e. road reservations and alignments



Figure 30 - Option 2 - Naturalised Riparian & WSEA SEPP E2 Corridor Alignment with Precinct Connectivity

#### **Option 2**

- Maintains the current E2 corridor zoning as per the WSEA SEPP
- future occupiers;
- (CPTED) principles;
- Would limit opportunities for public or private open space.



- Creates irregular shaped allotments resulting in low efficiency of employment generating development and poor site arrangements and building shapes for

- Restricts the flexibility for accommodating different sizes and configurations of individual sites which further diminishes employment generating development; - Would not facilitate passive surveillance and thus would result in a poor layout when considered against crime prevention through environmental design

## 7.0 OPTIONS ANALYSIS

### 7.1 Master Plan Options



Figure 31 - Option 3 - Naturalised Riparian & E2 Realignment, Ring Road with Smaller Lots

#### **Option 3**

- Provides smaller lots which reduces flexibility for larger users.
- Does not provide connectivity to the wider precinct.
- Naturalised realignment of E2 zone to northern boundary in accordance in consultation with DPIE and NRAR.



Connectivity

#### **Option 4**

- topography of the site.
- consultation with DPIE and NRAR.
- Option does not provide efficient lot layouts.



Figure 32 - Option 4 - Naturalised Riparian & E2 Realignment, Large Flexible Lots with North/South

- Creates large flexible lots and north / south connectivity to wider precinct however does not provides connectivity to the east or respond to the

- Naturalised realignment of E2 zone to northern boundary in accordance in

## 7.0 OPTIONS ANALYSIS

### 7.1 Master Plan Options



Figure 33 - Option 5 - Naturalised Riparian Realignment, Large Flexible Lots with Precinct Connectivity

#### **Option 5**

- Creates large flexible allotments which appropriately respond to site topography, road network, E2 realignment and enables economic and orderly development. Further detail is provided in Section 9.1.
- Naturalised realignment of E2 zone to northern boundary in accordance in consultation with DPIE and NRAR.

### 7.2 Option Design Requirements

Multiple options were prepared and analysed when considering the AIE Concept Master plan. The following key design requirements have been considered in the preparation of the concept master plan options:

- 1) Location of signalised intersection at Mamre Road
- in accordance with advice received from ecological Australia.

In addition to the above requirements the following key objectives have been considered in the preparation of the concept master plan:

- local road network.

- E) for a diverse range of customer requirements.

#### **OPTIONS**

	А	В	С	D	E
1	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	×
2	$\checkmark$	$\checkmark$	$\checkmark$	×	X
3	$\checkmark$	X	$\checkmark$	×	X
4	$\checkmark$	X	$\checkmark$	×	×
5	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$



2) The realignment of riparian assets to improve biodiversity and ecological values

A) Improve the biodiversity and ecological values of the area through the incorporation and restoration of riparian assets within the site. Utilising landscape and urban design features to complement biodiversity values.

B) Provide a rational, efficient road network which is integrated with the future

C) Provide a development that enables integrated water management and enables stormwater infrastructure to be designed to have dual functions of water cycle management, recreation and amenity. Integrate water into the landscape and urban form to enhance ecological, visual, social, economic and cultural values.

D) Provide contextually and economically appropriate design whilst mitigating earthworks requirements and retaining walls fronting public road reserves.

Economic and orderly development catering for WSEA IN1 - General Industrial user requirements for large regular shaped lots to enable flexibility to provision

## 8.0 CONCEPT RIPARIAN PLAN

### 8.1 Proposed Design

The proposed AIE master plan seeks to improve the biodiversity and ecological values of the area through the naturalised realignment of the E2 corridor, restoration and ongoing management of riparian assets within the site under a Vegetated Management Plan (VMP). The realigned E2 has been designed in accordance with the Biodiversity Conservation Act 2016 and the Water Management Act 2000.

The proposed riparian design will showcase canopy vegetation to provide cooling shade pockets to the site and integrate the building scale with the broader precinct. Dense riparian shrubs and plants will form the banks of naturalised realigned creek design and will offer an enhanced ecological outcome based on the existing conditions of the site.

The riparian zone will provide substantial amenity to the broader AIE by way of nature outlooks from Mamre Road and the northern offices, seating nodes accessible from the proposed offices, and cycle and pedestrian walkways to be used as active recreation spaces on the site.

Figure 34 shows the Riparian Zone Plan.

Figure 35 shows the interface between the riparian zone and office.







Figure 35 – Riparian & Office Interface



## **8.0 CONCEPT RIPARIAN PLAN**

### 8.2 Riparian Urban Design Principles





### 9.1 Concept Master Plan

The proposed Concept Master Plan is based on Option 5 which:

- Permits greater connectivity to broader precinct to the north, south and east
- Provisions for a potential future dedicated freight road network (by others)
- Includes a signalised intersection in a location consistent with Mamre road strategic design and access strategy
- Responds to topography particularly steeper areas in east of site
- Responds to the geometry of the site and provides for regular, orthogonal shaped parcels for efficient employment development
- Provides flexible allotments capable of accommodating a range of sizes

The AIE master plan Utilises landscaping and urban design features to complement biodiversity values. The AIE master plan will enable stormwater infrastructure to be designed to have dual functions of water cycle management, recreation and amenity.

With direct access to Mamre Road through signalised intersection consistent with the TfNSW Mamre Road Upgrade design, the AIE concept master plan provides for connectivity to the adjoining development lands.

The AIE master plan provide contextually and economically appropriate design whilst responding to topography constraints to mitigate site earthworks requirements and retaining walls fronting public road reserves. The AIE provides for economic and orderly development to cater for IN1 - General Industrial user requirements for large regular shaped flexible allotments to provision for a diverse range of customer requirements.

The concept master plan provides for 11 warehouses as well as a cafe at the entrance to site.

Figure 36 shows the AIE Concept Master Plan.



Figure 36 – Aspect Industrial Estate Master Plan 1:5,000 [Source: SBA Architects]



## 9.2 Design Analysis – Height, Bulk & Scale

Located within a newly established industrial precinct, the AIE master plan and building design plans have been developed, in terms of bulk, height and scale, to match in with expectable design qualities of industrial usages. In considering this context the buildings have:

- Implemented a dynamic geometric façade to break up elevations and create visual interest, minimising perceived bulk
- Office components are sited so as to further break up the site and define the corner condition of warehouses along Mamre Road
- Office components are architecturally designed to provide textural contrasts to warehouse materials
- Where possible, offices have been situated to take advantage of any views across to the west and the Blue Mountains.
- A large set-back and basin zone along Mamre road allows significant space for landscaping and other natural features to further minimise the perceived bulk and scale of the development
- Buildings have been designed to a height of 13.7m, below the 20m maximum building higher allowable within the Draft site specific AIE DCP

Figure 37 shows an indicative view of the proposed cafe and office.

Figure 38 shows a typical view of the warehouse and office articulation.



Figure 37 - Cafe & Office from Estate Entrance [Source: SBA Architects]



Figure 38 - Cafe & Office from Access Road 1 [Source: SBA Architects]







### 9.3 Design Analysis – Topography

The cut/fill requirements within the AIE have been defined through multiple iterations and careful consideration of the following:

- Undulating topography within the Mamre Road Precinct resulting in the requirement for extensive cut and fill operations in order for AIE to facilitate economic development and provide flexibility to cater for the range of industrial customer requirements.
- TfNSW proposal for a potential co-located intermodal facility within the Mamre Road Precinct therefore driving the requirement to ensure that allotments can facilitate flexibility to cater for current and future connectivity requirements.
- Provisioning for connectivity to adjoining lands and managing existing upstream catchment flows.
- Mitigate retaining walls fronting Mamre Road and internal public road reserves;
- Mitigate extensive cut in bedrock sub-surface units.
- Meet the requirements for the site to cater for IN1 General Industrial employment which requires large flexible allotments.
- Implement circular economy principles of 'Reduce, Reuse and Recycle' throughout all lifecycle stages of the development.

It is recommended that the proposed earthworks design contained within the AT&L documentation provides the most contextually and economically appropriate design in consideration of the above requirements. Whilst retaining walls fronting Mamre Road have been avoided, this has resulted in a maximum 12m high cut retaining wall along a section of the AIE Eastern boundary due to significant topography within the site. Where possible, landscaped battered slopes have been proposed to mitigate retaining walls and provide landscape led visual amenity within the precinct.

Figure 39 shows the AIE General Arrangement Plan.



Figure 39 – General Arrangement Plan 1:5,000 [Source: AT&L Engineers]



### 9.4 Design Analysis – Open Space & Outlook

The master plan has been spatially arranged to take advantage of the views towards the Blue Mountains, towards the west of the site. Vista corridors are created by both the road and hardstand layout of the front lots.

Further to this, every warehouse office provides for first level outdoor lunchroom and breakout spaces to provide outlooks, whilst also providing architectural features to break-up the bulk and scale of the development.

The AIE master plan utilises landscaping and urban design features to complement biodiversity values. The AIE master plan will enable stormwater infrastructure to be designed to have dual functions of water cycle management and visual amenity.

The proposed bio-rention basin and vegetated riparian realignment fronting Mamre Road is proposed to add to open space and aesthetics of AIE and offer views for the cafe and offices.

Figure 40 shows Aspect Industrial Estate Master Plan with the inclusion of vistas.



Setback from Mamre Road

• Views to Blue Mountains

Cafe

Office outdoor breakout spaces



### 9.5 Access & Circulation

With direct access to Mamre Road through signalised intersection consistent with the TfNSW Mamre Road Upgrade design, the AIE concept master plan provides for road vehicle, pedestrian and cycle connectivity to and from the wider Mamre Road Precinct.

- In order to encourage both public transport use and walkability/ cyclability the planned road reserves provide for pedestrian pathways along each road edge. In addition, as highlighted, a wider pathway is provided to allow for shared pedestrian and cycle ways along one side of each road
- As far as practicable, truck and car crossovers have been grouped within the same general location to minimise potential pedestrian and vehicular conflicts
- A signalised intersection at Mamre Road provides both safe and efficient entering and exiting for all use types

Figure 41 shows Aspect Industrial Estate Master Plan with the inclusion of cycleways and vehicular access.





- •••• Pedestrian path
- •••• Vehicular Access
- Truck entry/exit points





### 9.6 Landscape Master Plan

The AIE master plan utilises landscaping and urban design features to complement biodiversity values. Integrated creeks and waterways are key features of the landscape design. Landscaping for the AIE responds to the key interfaces of the estate with the public domain, adjoining properties and environmentally sensitive lands such as riparian corridors. The landscape strategy for the AIE aims to reflect a consistent image and maintenance regime across the entire estate and respond to its unique site characteristics.

The Landscape Master Plan includes the following key elements:

- Riparian: The proposed AIE master plan seeks to improve the biodiversity and ecological values of the area through the naturalised realignment, restoration and ongoing management of riparian assets within the site under a Vegetated Management Plan (VMP).
- Stormwater Basin: The AIE master plan will enable stormwater infrastructure to be designed to have dual functions of water cycle management and visual amenity.
- Entry Landscape: An open lawn area with a series of banding grasses and concrete inlays frames the entry road and provides a design framework and entry statement to the AIE.
- Typical Lot Frontage: Planting to the frontages will consist of a variety of native and exotic, shrubs, groundcovers and small-medium trees. Security fencing where possible will be positioned amongst the landscape to recede into planting.
- Mamre Road Frontage: The Mamre Road frontage consists of embankments sloping from lots down the road. Massed planting of shrubs, grasses and groundcovers is proposed with large canopy trees.
- Estate Roads: Proposed to have groups of canopy trees with low grass and groundwater under planting. Tree species will vary based on street hierarchy.
- Boundaries: Will feature planting of native shrub grass and groundcovers. In locations
  where retaining walls are required, cascading plants will be provided to break up the mass
  of walls.
- Water Sensitive Urban Design: Carpark design incorporates water sensitive urban design (WSUD) to treat run-off and achieve passive irrigation. Pervious and porous surfaces and grass swales to channel and infiltrate storm water along riparian corridor land.
- Pavement Areas: The master plan design integrates tree canopies and shading elements where large paved areas are required in order to prevent heat island effect.

Figure 42 shows the Concept Landscape Master Plan for AIE.



Figure 42 – Aspect Industrial Estate Concept Landscape Master Plan 1:5,000 [Source: Site Image Landscape Architects]



### 9.7 Landscape Sections

The significant area of land to the north-west of the site dedicated to a riparian corridor and stormwater basins offer significant frontage to Marmre Road. The two figures across depict the relationships of these features to Mamre Road.

The Landscape Sections depict the following features:

- Riparian: The proposed AIE master plan seeks to improve the biodiversity and ecological values of the area through the naturalised realignment, restoration and ongoing management of riparian assets within the site under a Vegetated Management Plan (VMP).
- Stormwater Basin: The AIE master plan will enable stormwater infrastructure to be designed to have dual functions of water cycle management and visual amenity.
- Mamre Road Frontage: The Mamre Road frontage consists of embankments sloping from lots down the road. Massed planting of shrubs, grasses and groundcovers is proposed with large canopy trees.

Figure 43 shows the landscape relationship of the AIE to Mamre Road.

Figure 44 shows the landscape relationship of the AIE to Mamre Road and the proposed stormwater basin.







Figure 44 – Section 2 Mamre Road Frontage and Basin Section, NTS







Proposed Lot 1

P

Proposed fence Lot 1 boundary planting

Proposed lot levels. Refer to DRG drawin for details

Existing ground level

\_\_\_\_\_

## 10.0 STAGE 1 SSD PLAN

### 10.1 Stage 1 SSD Plan

The first stage of development across Aspect Industrial Estate provides the key elements of most significance to its wider context.

Stage one establishes the biodiversity buffer zone and stormwater basin along the north-western boundary, whilst providing the majority of the internal road network.

Two warehouses will also be constructed during this stage and establishing the general pad locations, facilitating flexibility to its future provisions.

Figure 45 shows the State Significant Development Plan for the AIE site.









Stage 1 Development Lots (Warehouses, Ancillary Offices & Cafe)

Bulk Earthworks/temporary sediment erosion basins/ landscaping/ batter stabilisation





## 10.0 STAGE 1 SSD PLAN

### 10.2 Stage 1 SSD Landscape Plan

The AIE Stage 1 SSD will deliver on majority of the overall landscape intent for AIE. The AIE master plan utilises landscaping and urban design features to complement biodiversity values. Landscaping for the AIE responds to the key interfaces of the estate with the public domain, adjoining properties and environmentally sensitive lands such as riparian corridors. The landscape strategy for the AIE aims to reflect a consistent image and maintenance regime across the entire estate and respond to its unique site characteristics.

Note the stormwater basin will act as sediment and erosion control basin until the development is stabilised in accordance with the civil engineering documentation

The key elements of the AIE landscaping are outlined within Section 9.6.

Figure 46 shows the Stage 1 SSD Landscape plan for AIE.



Figure 46 – Aspect Industrial Estate Stage 1 SSD Landscape Plan 1:5,000 [Source: Site Image Landscape Architects]



### APPENDIX A – ARTIST IMPRESSION - WAREHOUSE 1 OFFICE & CAFE



Figure 47 – Aspect Industrial Estate Artist Impression [Source: Mirvac]



### **APPENDIX B – SEARS COMPLIANCE TABLE**

This document has been prepared in consideration of the Planning Secretary's Environmental Assessment Requirements (SEARs) issued for the proposal (SSD-10448) issued on 30 April 2020. Table 3 below summaries all key issues relevant to this report and how they have been responded to.

Reference	Requirements	Response/Ref
General Re	quirements	
3	<ul> <li>A detailed description of the development, including:</li> <li>the need for the proposed development;</li> <li>justification for the proposed development</li> <li>suitability of the site</li> <li>alternatives considered</li> <li>likely staging of the development</li> <li>likely interactions between the development and existing, approved and proposed operations on site and in the vicinity of the site</li> <li>plans of any proposed building works</li> <li>contributions required to offset the development and</li> <li>infrastructure upgrades or items required to facilitate the development, including measures to ensure these upgrades are appropriately maintained</li> </ul>	Section 7.0 Optic options and the p
Key Issues -	- Statutory & Strategic Context	
11	Alignment to planning instruments         Demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, proposed environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to:         - State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)         - State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)         - State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA)         - State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)         - State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)         - Penrith Local Environmental Plan 2010 (PLE 2010)         - Draft Mamre Road Precinct Rezoning Package for SEPP WSEA         - Draft Western Sydney Aerotropolis Plan         - Western Sydney Aerotropolis Discussion Paper on the proposed Western Sydney Aerotropolis State Environmental Planning Policy o Greater Sydney Region Plan: A Metropolis of Three Cities         - Future Transport 2056 and supporting plans         - Freight and Ports Plan 2018-2023         - Draft Mamre Road Upgrade Strategic Design Report (2016)         - Mamre Road Upgrade Strategic Design Report (2016)	Section 1.0 SITE & proposal and the



#### eference

ons Analysis, pages 29 to 31 - demonstration of alternative progression of the design

& CONTEXT, pages 2 to 11 – demonstration of the e location in which it sits

### **APPENDIX B – SEARS COMPLIANCE TABLE**

Reference	Requirements	Response/Ref
Key Issues –	Suitability of the Site	
14	Site Constraints An analysis of site constraints	Section 2.0 SITE A Section 3.0 CONS summary of the co
Key Issues –	Soil & Water	
31	Topographic assessment A topographic assessment and justification the proposed earthworks are site responsive and contextually appropriate	Section 9.3 Design
Key Issues –	Urban Design & Visual	
48	Detailed design analysis A detailed design and options analysis of the development including diagrams, illustrations and drawings with reference to the built form, height, setbacks, bulk and scale in the context of the immediate locality, the wider area and the desired future character of the area, including views, vistas, open space and the public domain with consideration of Clause 31 of SEPP WSEA	Section 9.0 CONC and diagrams des
50	Surrounding vehicular, pedestrian and cycling networks Consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks	Section 3.2 Oppor Section 9.5 Access
Plans & Doc	uments	
63	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following:	Section 1.0 SITE & proposal and the l
	<ul> <li>1. An existing site survey plan drawn at an appropriate scale illustrating: <ul> <li>the location of the land, boundary measurements, area (sqm) and north point · the existing levels of the land in relation to buildings and roads</li> <li>location and height of existing structures on the site</li> <li>location and height of adjacent buildings and private open space</li> <li>all levels to be to Australian Height Datum (AHD).</li> </ul> </li> <li>2. Locality/context plan drawn at an appropriate scale should be submitted indicating: · significant local features such as heritage items</li> <li>the location and uses of existing buildings, shopping and employment areas</li> <li>traffic and road patterns, pedestrian routes and public transport nodes.</li> <li>3. Drawings at an appropriate scale illustrating:</li> <li>detailed plans, sections and elevations of the existing building, which clearly show all proposed internal and external alterations and additions.</li> </ul>	



#### eference

ANALYSIS, pages 12 to 23. NSTRAINTS & OPPORTUNITIES, pages 24 and 25 – a constraints and opportunities.

gn Analysis - Topography, page 36.

NCEPT MASTER PLAN, pages 34 to 40 – design analysis escribing the site and functionality.

portunities, page 25. ess & Circulation, page 38.

& CONTEXT, pages 2 to 11 - demonstration of the e location in which it sits