Transport Statement

Proposed Warehouse Development Application (DA) – Lot 14 Kemps Creek Logistics Estate (SSD-9522)

Lot 14_657-767 Mamre Road, Kemps Creek
Ref: P2023r01v4_TS_Lot 14_Kemps Creek
16/06/2023

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Document Control

Project No	2023
Project	Lot 14 657-767 Mamre Road, Kemps Creek – Transport Statement
Client	Altis & Frasers Joint Venture
File Reference	P2023r01v4_TS_Lot 14_Kemps Creek

Revision History

Revision No.	Date	Details	Author	Approved by
-	25/08/2022	Draft	J. Wong	A. Rasouli
01	01/11/2022	Issue I	J. Wong	A. Rasouli
02	07/11/2022	Issue II	J. Wong	A. Rasouli
03	08/06/2023	Issue III	J. Wong	A. Rasouli
04	16/06/2023	Issue IV	J. Wong	A. Rasouli

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APPENDICES

Glossary

Acronym	Description
CC	Construction Certificate
OC	Occupation Certificate
Council	Penrith City Council
DA	Development Application
DCP	Development Control Plan
DPE	Department of Planning and Environment
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
RMS Guide Update	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TS	Transport Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

1 Introduction

1.1 Overview

Ason Group has been engaged by Frasers Property Australia and Altis Property Partners Joint Venture (the JV) to undertake a Transport Statement (TS) in support of a proposed warehouse development application (DA) in relation to Lot 14 (the Proposal) within the broader Kemps Creek Logistics Hub which is subject for the approved State Significant Development (SSD-9522). Based on information provided to Ason Group, the proposed Lot 14 would be designed to accommodate 1 tenant – Probiotec. Further, it is noted that the Proposal includes a new Access Road with a cul-de-sac under this DA which has been designed by Costin Roe, and the DA seeks approval for this Access Road along with the warehouse.

The formerly approved Lot 10 under MOD 1 (the Site), is located at 657-767 Mamre Road, Kemps Creek within the Penrith City Council (the Council) Local Government Area, also referred to as Mamre South Precinct (MSP) in this TS, and is approximately 40 kilometres (km) west of the Sydney Central Business District. The MSP comprises 118 hectares (ha) and is located within the Western Sydney Employment Area (WSEA) and the Western Sydney Aerotropolis (WSA).

The original SSD Approval for MSP (SSD-9522) was granted on 21 December 2020, which envisioned construction and operation of 8 warehouses comprising a total of 162,355m^2 of Gross Floor Area (GFA). Following the approval of SSD-9522, the JV lodged a Modification (SSD-9522 MOD 1) with the support of a Transport Assessment prepared by Ason Group (*AG ref: P1565r02v3*). SSD-9522 MOD 1 proposed design configuration amendments for Lots 5 to 8 and the increase of the overall site GFA from 162,355m^2 to 185,013m^2. Furthermore, SSD-9522 MOD 1 was approved by the NSW Department of Planning and Environment (DPE) on 03 September 2021. Moreover, the Modification 2 application (SSD-9522 MOD 2) proposing further adjustments to the overall Estate Plan was recently approved *(AG ref: P1780r01v7)* by DPE on 8 April 2022. Further, Modification 3 (SSD-9522 MOD 3) which seeks to amend warehouse layouts and access arrangements for Lots 2 and 3 has been approved as of 29 September 2022.

This TS aims to support the construction and operation of a warehouse/industrial facility by detailing the parking and traffic requirements, and providing an assessment based on the above and information on the Probiotec tenancy, provided to Ason Group by Frasers.

It should be noted that the entire Lot 10 within MSP is 15.8 ha under SSD-9522 MOD 1 approval and the proposed development (Lot 14) under this DA application only occupies 5.87 ha of that (~37%). This information alongside the proposed Lot 14 Gross-Floor-Area (GFA) forms part of the traffic assessments undertaken in this TS.

The location of the proposed development with respect to the Site is shown overleaf in **Figure 1.**

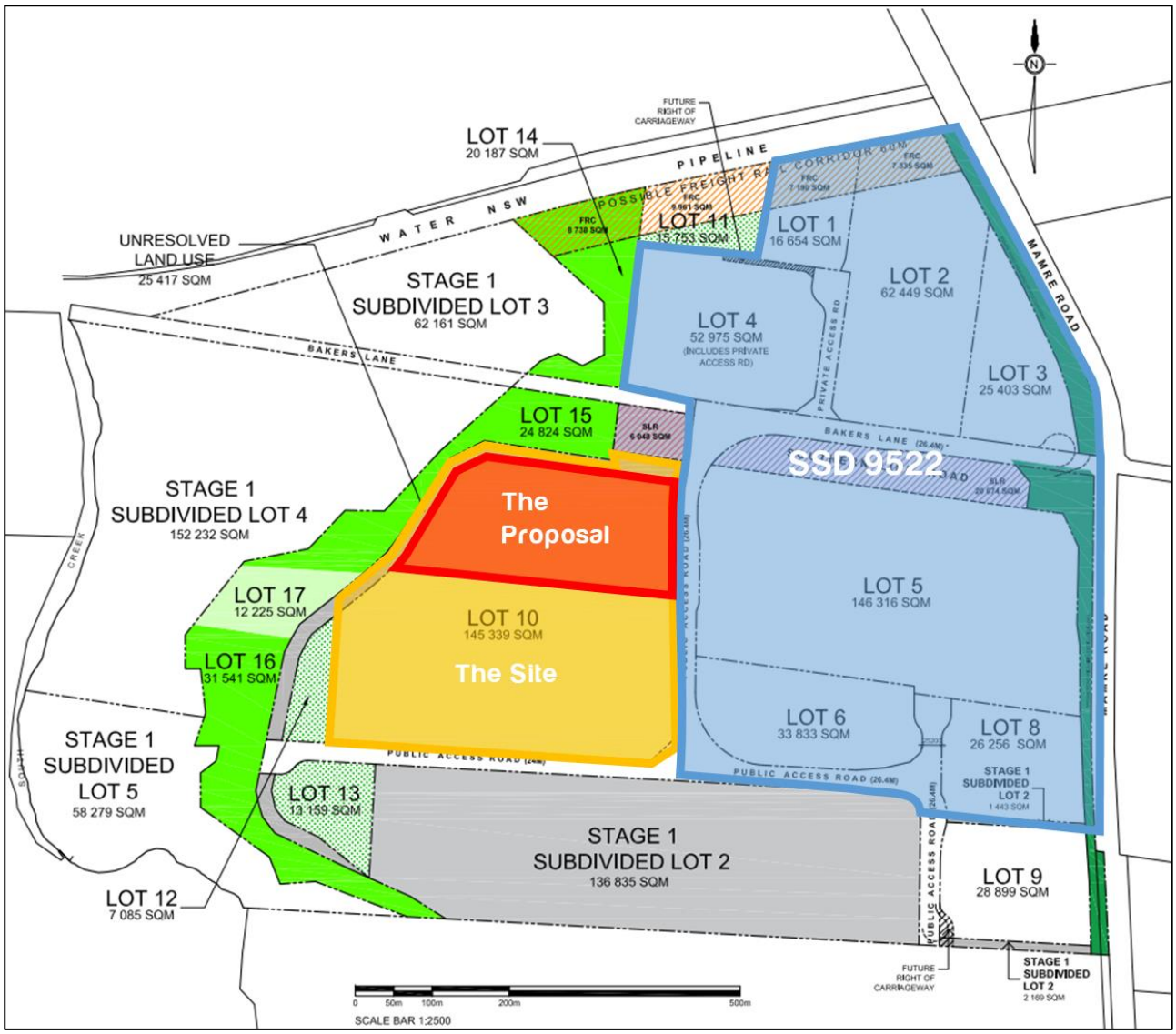


Figure 1: Site Location within the Approved SSD-9522 MOD 3 Stage 2 Subdivision Plan[1]

With regards to the amendments, **Figure 2** showcases the Proposal on the existing approval for the SSD-9522 MOD 1 Site.

[1] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9522-MOD-3%2120220928T052753.581%20GMT

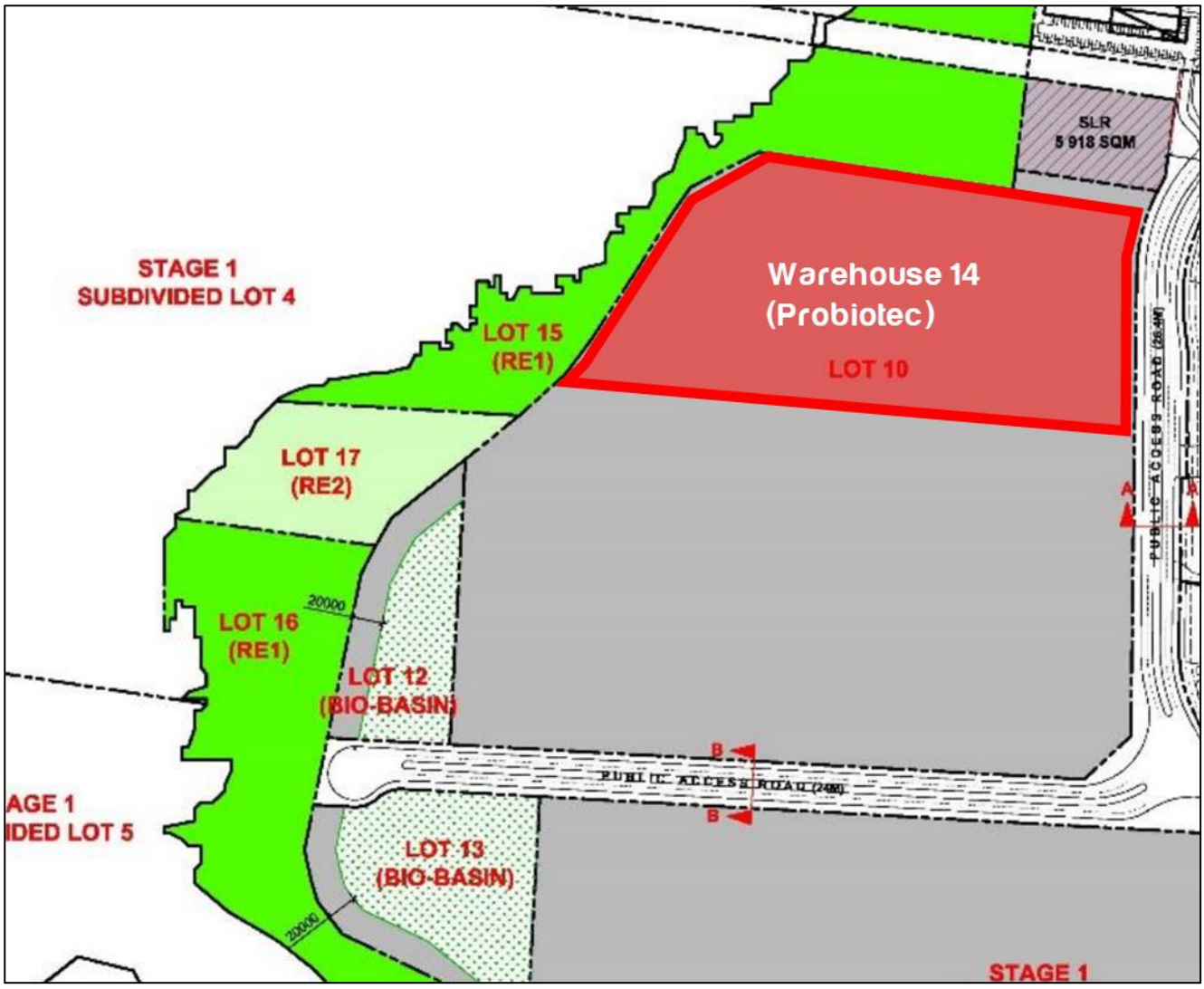


Figure 2: Proposed Lot 14 within the Approved Site Plan for Lot 10 (SSD-9522 MOD 1)

Furthermore, a neighbouring development to the south-east of Lot 14 was submitted under SSD-25725029 for Ardex on 5th November 2021 to DPE. Subsequently, the Ardex development (Lot 12) was approved on 29 September 2022.

Ason Group has also recently prepared a TS as part of a separate DA for a warehouse south-west of Lot 14 which will have Cargoline (Lot 13) as the immediate tenant.

The locations of these warehouses are shown in **Figure 3** to provide context.

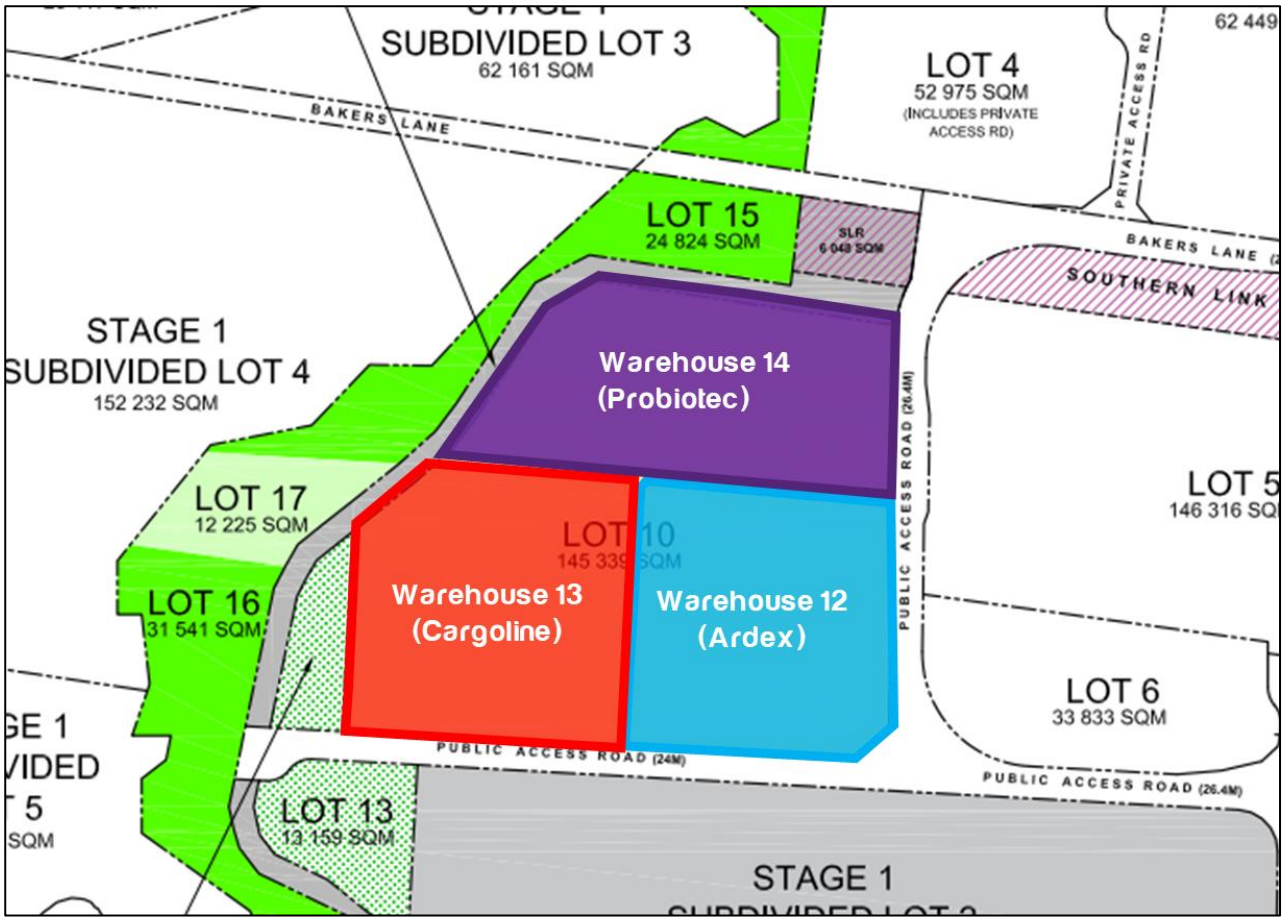


Figure 3: Locations of Lots 12, 13 and 14 on the Approved SSD-9522 MOD 3 Stage 2 Subdivision Plan

For the purpose of robust assessment, we have assumed that Lot 13 will be approved under a separate DA in near future. **Table 1** outlines the site area and GFA of the developments within Lot 10 of the approved SSD-9522 MOD 1 of which this DA traffic assessment would be based on for conservativeness.

TABLE 1 SITE AND BUILT-FORM AREA

Site	Site Area (m^2)	GFA (m^2)	Status
Lot 12 (Ardex)	43,682	27,470	Approved
Lot 13 (Cargoline)	51,693	30,581	On Public Exhibition (DA22/0671)[2]
Lot 14 (Probiotec)	58,655	35,963	To be assessed under this DA
TOTAL	154,030	94,014	NA

1.2 References

Lot 14 is located within the Penrith City Council (the Council) Local Government Area (LGA) and Mamre Road Precinct, and as such, key reference documents include:

[2] https://datracker.penrithcity.nsw.gov.au/track/Pages/XC.Track/SearchApplication.aspx?id=509037

- Penrith City Council Development Control Plan 2014 (DCP 2014);
- Penrith City Council Local Environmental Plan 2010 (LEP 2010); and
- Mamre Road Precinct Development Control Plan 2021 (MRP DCP 2021).

It must be noted that this TS intends to build upon the wider Kemps Creek Warehouse, Logistics and Industrial Facilities Hub, with reference to the previously approved SSD-9522 TA reports:

- Ason Group, Traffic Impact Assessment – *Proposed Warehouse, Logistics and Industrial Facilities Hub – SSD 9522,* dated 3 August 2020;
- Ason Group, Modification 1 – *Warehouse, Logistics and Industrial Facilities Hub – 657 – 769 Mamre Road, Kemps Creek, Traffic Assessment*, dated 04 March 2021 (MOD 1),
- Ason Group, Transport Assessment – *Proposed Lot 10 – Kemps Creek Warehouse Logistics and Industrial Facilities Hub*, dated 05 November 2021 (Ardex Report); and
- Ason Group, Transport Statement – *Proposed Warehouse Development Application (DA) at Lot 13 Kemps Creek Logistics Estate (SSD-9522)*, dated 11 July 2022 (Cargoline Report).

This TS also references general access, traffic and parking guidelines, including:

- Australian Standard 2890.1:2004 Parking Facilities – Off-street Car Parking (AS2890.1:2004);
- Australian Standard 2890.2:2018 Parking Facilities – Off-street Commercial Vehicle Facilities (AS2890.2:2018);
- Australian Standard 2890.3 - 2015: Parking Facilities – Bicycle Parking (AS 2890.3:2015);
- Australian Standard 2890.6:2009 Parking Facilities – Off-street Parking for People with Disabilities (AS2890.6:2009);
- Roads and Maritime Services (RMS), *Guide to Traffic Generating Developments,* 2002 (RMS Guide);
- Roads and Maritime Services (RMS), *Guide to Traffic Generating Developments Updated Traffic Surveys,* 2013 (RMS Guide Update); and
- New South Wales Government, *Planning Guidelines for Walking and Cycling*, 2004

2 Stakeholder Engagement

2.1 Penrith City Council

Council has reviewed the previous revision of this TS (ref: P2023r01v2) and have provided comments in relation to traffic which were received on 29 May 2023. Ason Group's responses to these comments are shown in **Table 2**.

TABLE 2 COUNCIL COMMENTS (RECEIVED ON 29 MAY 2023)

Item	Council Comments	Ason Group Responses
1	*The Open Space Edge Road, and detailed in Figure 12 of the Mamre Road Precinct Development Control Plan 2021 (and elsewhere within the document), is a Local Road to be delivered by proponents as development occurs. The DCP makes clear throughout the document that the Open Space Edge Road is to be delivered as a public road. Any variation to such (i.e. in terms of location and extent, will need to be accompanied by adequate justification, and will still need to provide a safe and efficient connection to the approved estate road network. The proposal must include construction in accordance with other design provisions of the DCP and Council's civil engineering standards , and involve dedication as a public road.*	The future alignment of the Open Edge Road conflicts with the future left turn slip lane from NS Road northbound to SLR WB lane. Accordingly, the full extent of the Open Edge Road must stop at the proposed turning head. As per prior discussions between Altis Frasers JV and PCC, a cycleway from the turning head to the NS collector road was deemed an acceptable alternative and is proposed as part of this DA.
2	*The accompanying Traffic Assessment Report has considered a trip generation for the proposed development as being 2.64 vehicles per day per 100 sqm of gross floor area. Given land use changes within the Western Sydney Employment Area, the adopted trip generation of 2.91 vehicles per day per 100 sqm of gross floor area, should be used. Furthermore, the accompanying Traffic Assessment Report, has considered an evening trip generation rate of 0.182 trips per 100 sqm, as opposed to the adopted 0.24 trips per 100 sqm. It is unclear what impacts this may have on the efficiency of the Mamre Road and Bakers Lane intersection. It is requested that SIDRA intersection modelling be undertaken to assess the impacts of the proposal upon the Mamre Road and Bakers Lane intersection. Furthermore, in relation to trip generation, consideration will need to be given to the impact on the road network during peak times, using a worst-case scenario for other future potential occupiers.*	**1. Approved SSD-9522 Rates** It is recognised that the below vehicle trips rates that have been adopted in this TS have been approved as part of SSD-9522 and SSD-9522 MOD 1 applications. • AM Peak: 0.247 vehicle trips per 100 m^2 of GFA • PM Peak: 0.182 vehicle trips per 100 m^2 of GFA • Daily: 2.64 vehicle trips per 100 m^2 of GFA The previously approved SSD-9522 and SSD-9522 MOD 1 applications were applied to the indicative 'ultimate built-form' GFAs which includes Lot 14 in the sequences shown below: • Approved Sequence 1A: 421,820 m^2 GFA and 20,000 m^2 GFA of Southern Lots • Approved Sequences 2 & 3: 421,820 m^2 GFA and 20,000 m^2 GFA of Southern Lots No changes to the above rates have been made for the current DA22/1172. As these rates have been approved as part of SSD-9522 and SSD-9522 MOD 1 applications which includes Lot 14's GFA, it is considered that TfNSW's rates (i.e. 2.64 vehicle trips per 100 m^2 GFA per day, and 0.24 vehicles trips per 100 m^2 GFA during PM peak) are too conservative.

		In addition, it is highlighted that the approved AM Peak vehicle trip rate (0.247 vehicle trips per 100 m^2 of GFA) which has been adopted in the approved modelling is greater than the MRP suggested rates of 0.23 and 0.24 vehicle trips per 100 m^2 of GFA. Therefore, traffic modelling which includes the Mamre Road and Baker Lane intersection done using SSD-9522 rates already suggest a level of conservativeness that is beyond the suggested MRP rates and therefore, also account for future potential Lot 14 tenants' traffic generation. Hence, Ason Group has justified that additional SIDRA modelling is not required. **2. Comparison with Rates Adopted at Mamre West Precinct** Moreover, the Mamre West Precinct (also known as First Estate) which is comparable to the MSP estate adopted the below traffic generation rates. It is emphasised that these rates have been derived from vehicle trip generation rates surveyed for Site 1 (Erskine Park Industrial Estate) from the *TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013* (RMS Guide Update). This is entirely reasonable noting that First Estate lies directly opposite Site 1. • AM Peak: 0.134 vehicle trips per 100 m^2 of GFA • PM Peak: 0.139 vehicle trips per 100 m^2 of GFA It would have been equally appropriate to also adopt the same rates for MSP. However, for the purposes of a worst-case assessment, the DA adopts the average vehicle trip rates averaged from 3 Sydney industrial sites with reference to the RMS Guide Update. Accordingly, it is our opinion that the TfNSW suggested vehicle trip rates for the MRP are considered even more conservative than the average of the surveyed Sites 1, 3, 4 RMS Guide Update rates. Hence, we believe the rates adopted for this assessment is already conservative and most suitable.
3	*The application as referred to Transport for NSW and issue was raised in relation to the provision of access to car parking areas adjacent to heavy vehicle access, and associated potential traffic safety issues with such. Accordingly, it is requested that consideration be given to relocating the carpark away from heavy vehicle access. Furthermore in relation to the overall layout, it is noted that the accompanying Traffic Assessment Report,*	**1. TfNSW Requirements** Firstly, TfNSW has previously requested that access driveways constructed on greenfield lots should be located at least 100m away from the Signal. The latest Lot 14 site plan satisfies this requirement by proposing Lot 14's eastern

	specifies that up to 9 loading docks will need to be vacant for heavy vehicles to exit the site. It is requested that a review of the proposed dock layout be undertaken, in order to provide less operational conflict.	driveways at least 136m away from the stop line of the SLR / Access Road ultimate intersection (Southern leg). **2. Separation Between Truck Driveway and Future SLR Signal** Moreover, maximum separation between the access driveways and the start of the right turn pocket should ideally be provided to allow trucks to turn into the right turn bay. It is noted that Lot 14's truck driveway is already located towards its southern property boundary and therefore, the driveway cannot be shifted further south. Hence, the current design with the truck driveway near its southern boundary already provides the most optimal outcome due to Site constraints. Hence, we do not recommend shifting the driveways northward anymore as this could cause impacts to with the future SLR signal. **3. SSD-9522 MOD 7 Modelling** In preparation for lodgement of the future SSD-9522 MOD 7 application, preliminary SIDRA modelling has been undertaken on the future signal at the SLR / Public Access Road intersection for the ultimate scenario (2036). Modelling results show that the expected back of queue distance would reach a maximum of ~43.9m during peak periods at southern leg. Currently, the length of the right bay fronting Lot 14 is 110 m readily capable of storing this queue, without reaching to the access crossovers of Lot 14. Moreover, the proposed car access driveway is currently located ~92.1m from the back of queue, therefore, the back of queue would unlikely impact Lot 14 driveways' operations. Hence, retaining Lot 14's driveways as they are is deemed to have a better outcome noting that current proposed driveway locations are unlikely to be impacted by the back of queue from a modelling standpoint. As discussed before, these locations are the greatest distance from the future signal. **4. Revised Swept Path Assessment** A swept path assessment has been undertaken on the latest Lot 14 site plan which suggests that the number of loading docks that would need to be vacant to allow sideloading and uncoupling heavy vehicles to exit has reduced to 7 and 5 respectively.

		Conclusion Noting the above points, we advise maintaining current proposed locations of Lot 14's driveways in order to satisfy TfNSW requirements. In addition, the current location of driveways would help vehicles turn into the right turn pocket, and it is unlikely these vehicles would be impacted by the future back of queue from the SLR / Public Access Road signal (according to our modelling and assumptions). Further, the swept paths on the latest plan show that there is now less operational conflict.
4	*Concern is raised regarding the relationship of the heavy vehicle driveway, with the immediately adjacent driveway approved by Statement Significant Development Consent No.25725029, from both a pedestrian and a streetscape perspective. It is expected that the driveway be realigned within the front part of the site to provide landscaping opportunities within the eastern front setback area and a sufficient pedestrian refuge area.*	In regard to pedestrian refuge provision between Lot 14 and SSD-25725029, Lot 14's driveways cannot be shifted any further northward since some separation between access driveways and start of tapers is required as per Item 2. Furthermore, SSD-25725029's heavy vehicle driveway has already been approved, therefore, Ardex's driveway location is expected to remain unchanged. Due to this this circumstance, we recommend maintaining the current locations of Lot 14's driveways.
5	*In accordance with the Mamre Road Precinct Development Control Plan 2021, access to warehousing developments greater than 20,000 sqm, is to be provided for a 30m (PBS Level 2 Type B) length vehicle. Accordingly, swept paths are to be provided demonstrating such.*	30m A-Double swept paths have been undertaken as shown in **Appendix A**. However, it is expected that B-Doubles would be the largest trucks accessing the proposal.

3 Description of the Proposal

The Site forms part of the MSP being development as a joint venture between Frasers and Altis. The Site is approximately 15.8 ha and the area which will contain the Proposal is 5.87 ha.

The Proposal is generally in relation to the construction and operation of a warehouse/industrial facility.

3.1 Proposed Lot 14 Site Plan

A reduced scale copy of the proposed Lot 14 site plan is provided in **Figure 4**.

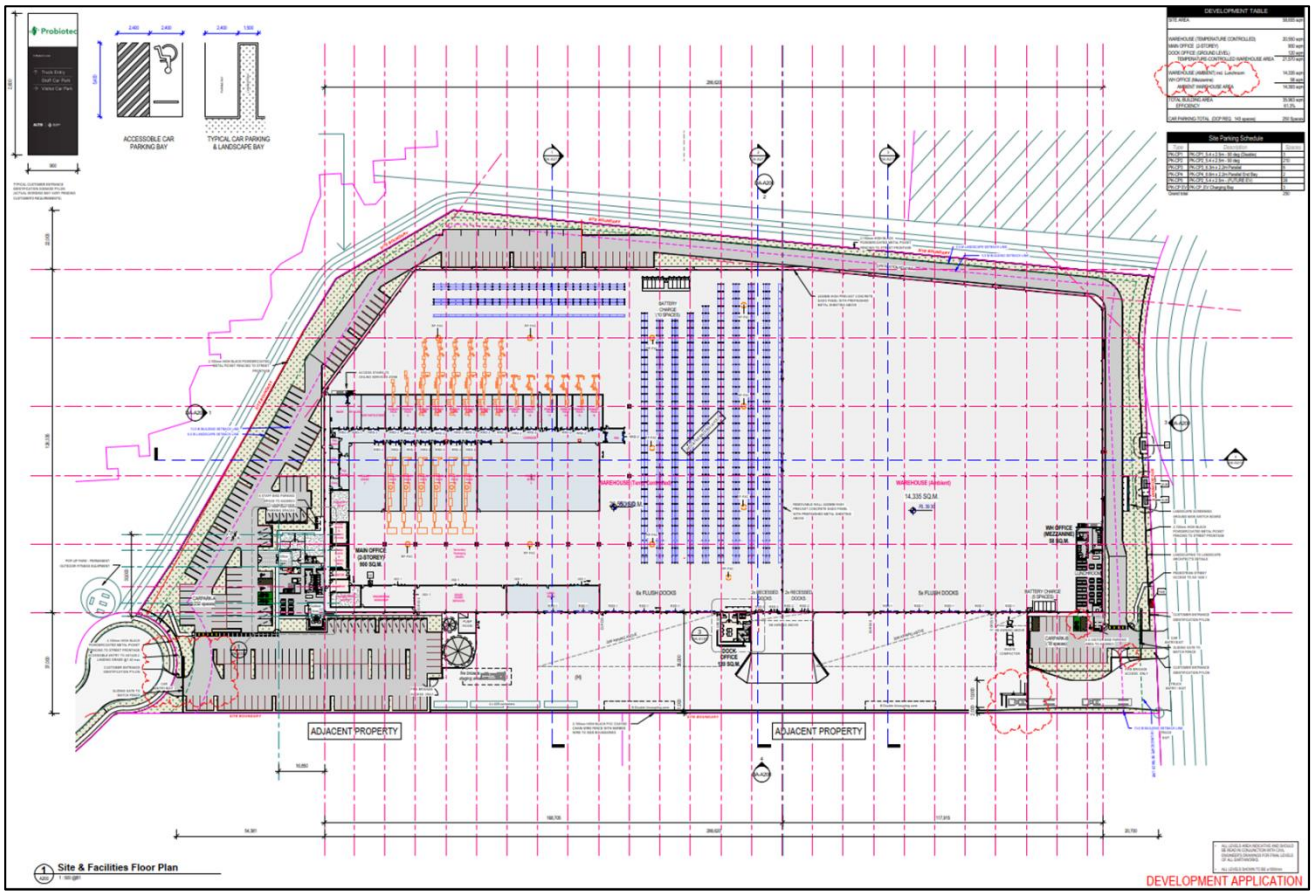


Figure 4: Proposed Lot 14 Site Plan

The Proposal includes the following building components (shown overleaf).

TABLE 3 PROPOSAL YIELD

Land Use	Yield
Warehouse	34,885
Office	1,078
TOTAL	35,963
Loading Dock Provision	15[1]
Car Parking Provision (Spaces)	250[2]

Note: 1) This provision includes 4 recessed docks and 10 Roller Shutter Doors (RSDs) for vehicles up to 20m AVs. Further, there is an additional RSD for the "Waste Compactor".

2) This provision would include 232 spaces in Carpark A and 18 spaces in Carpark B.

3.1.1 Proposed Access Road

The proposed Access Road forms part of this DA and is located to the west of the Site as shown below. This road – terminating into a cul-de-sac – will service the car parking facility and fire truck access to and from Lot 14 as detailed in the following section.

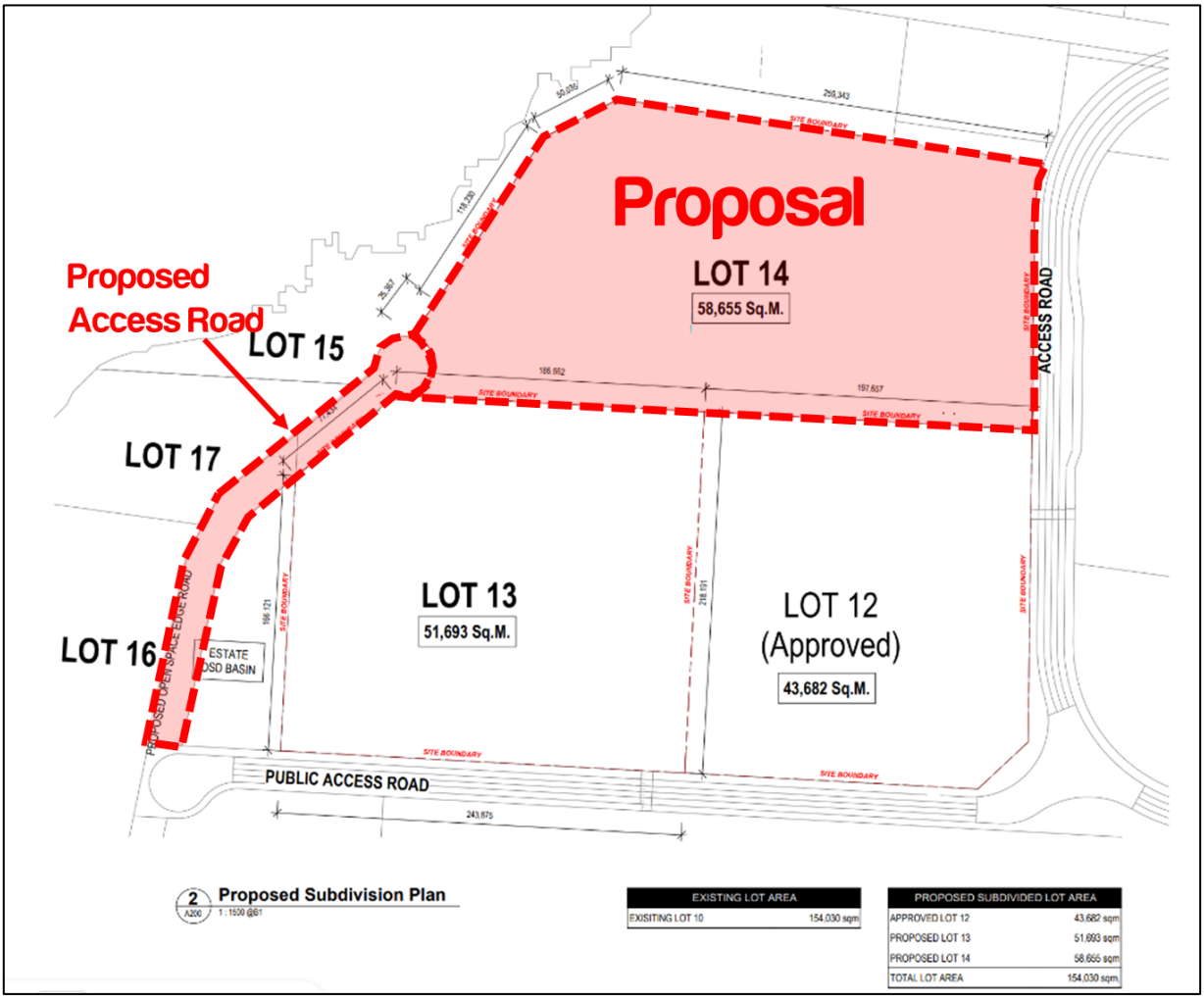


Figure 5: Proposed Access Road Location

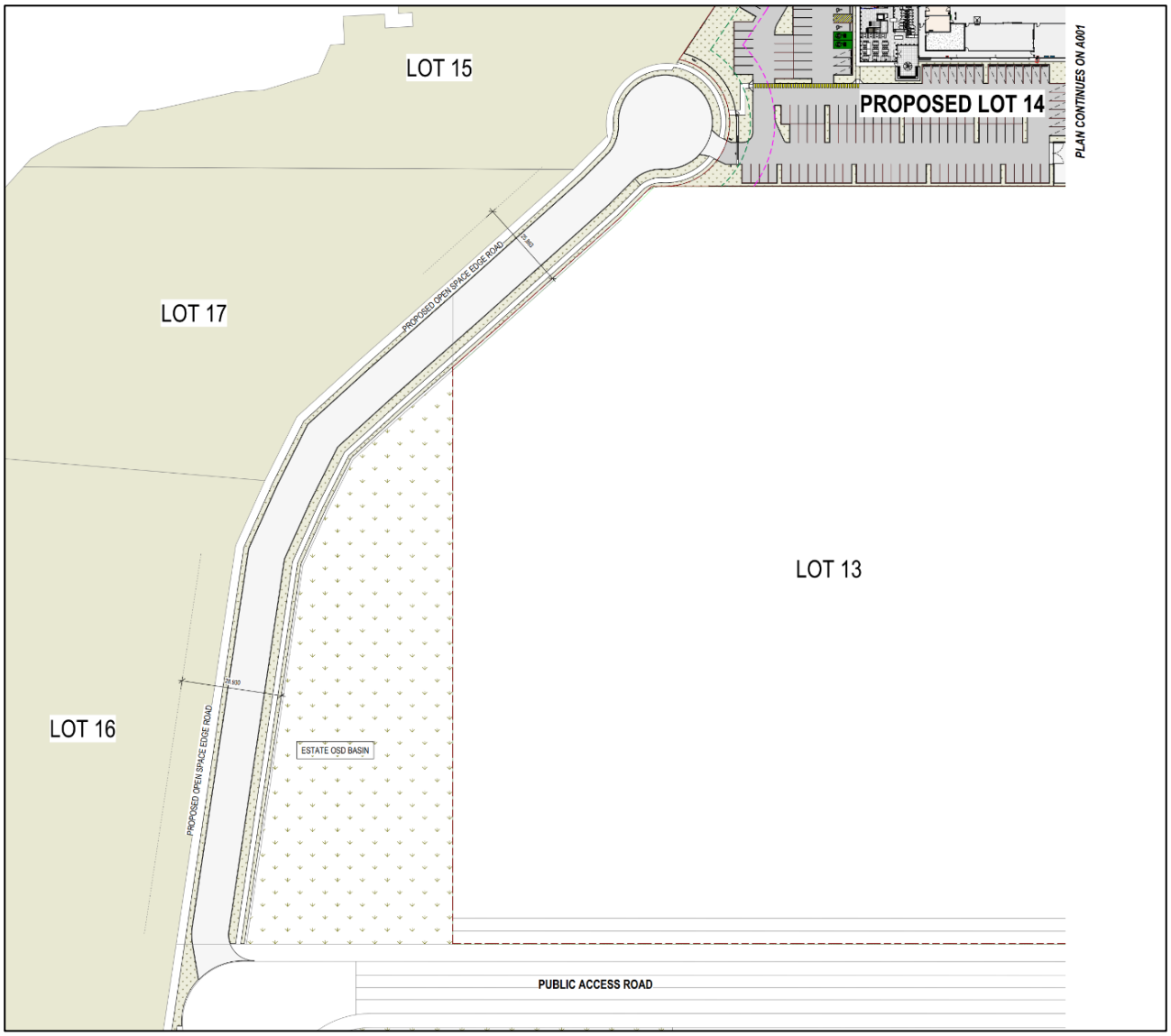


Figure 6: Proposed Access Road

It is expected that the Access Road will be designed by Costin Roe to satisfy DCP road standards.

3.2 Vehicular Access Strategy

A total of three (3) vehicular access crossovers are proposed for the Site, as follows:

- A car parking entry/exit access point on North-South Road to provide light vehicle access to the eastern car park,
- A consolidated truck entry/exit point on North-South Road to provide heavy vehicle access to Lot 14 and to also facilitate fire truck movements, and
- A car parking entry/exit access point from the proposed cul-de-sac to provide light vehicles access to the western car park and to also facilitate fire truck movements.

The proposed access arrangement is shown in the figure below.

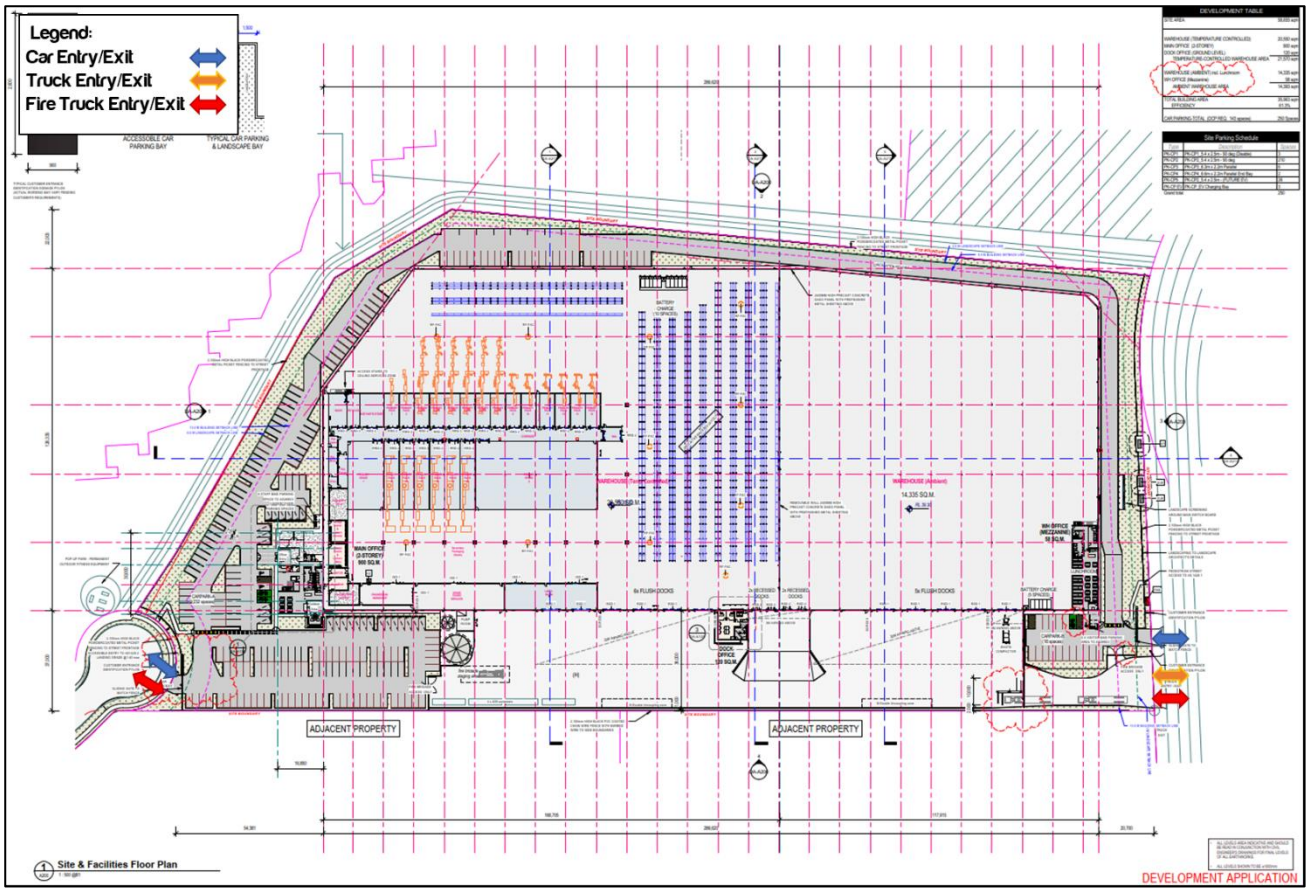


Figure 7: Proposed Access Arrangement for Lot 14

4 Existing Conditions

4.1 Road Network

With reference to **Figure 8**, the key local roads influenced by the application include:

- **Mamre Road** - an arterial road servicing traffic between the Great Western Highway and M4 to the north and Elizabeth Drive to the south. In the vicinity of the MSP, Mamre Road generally provides 2 lanes for two-way traffic, with additional through movement and turning infrastructure at key intersections, specifically at Erskine Park Road and James Erskine Drive. Mamre Road has a posted speed limit of 80km/h.
- **Erskine Park Road** - a sub-arterial road servicing traffic between the Great Western Highway and M4 to the north, Mamre Road to the south-west, as well as linking Lenore Drive (Erskine Park Link Road) to the M7 to the east. Erskine Park Road provides 4 lanes for two-way traffic north-east from the intersection of Mamre Road. Erskine Park Road has a posted speed limit of 70 km/h.
- **James Erskine Drive** - a local industrial access road, providing local access for the Erskine Park Industrial Precinct, which lies to the east of Mamre Road, northeast of the Precinct. James Erskine Drive provides 4lanes for two-way traffic and provides additional turning infrastructure on the approach to Mamre Road. On-street parking is permitted; however, demand for this parking is low and therefore rarely used.
- **Bakers Lane (East)** - a two lane undivided Local Road which operates under a 60 km/hr sign posted speed limit. Bakers Lane (East) provides primary access to a number of local schools and colleges in the area, with School Zone speed limit restrictions (40 km/h) in operation during school peak periods. At present, Bakers Lane (East) forms a Signalised T intersection with Mamre Road.

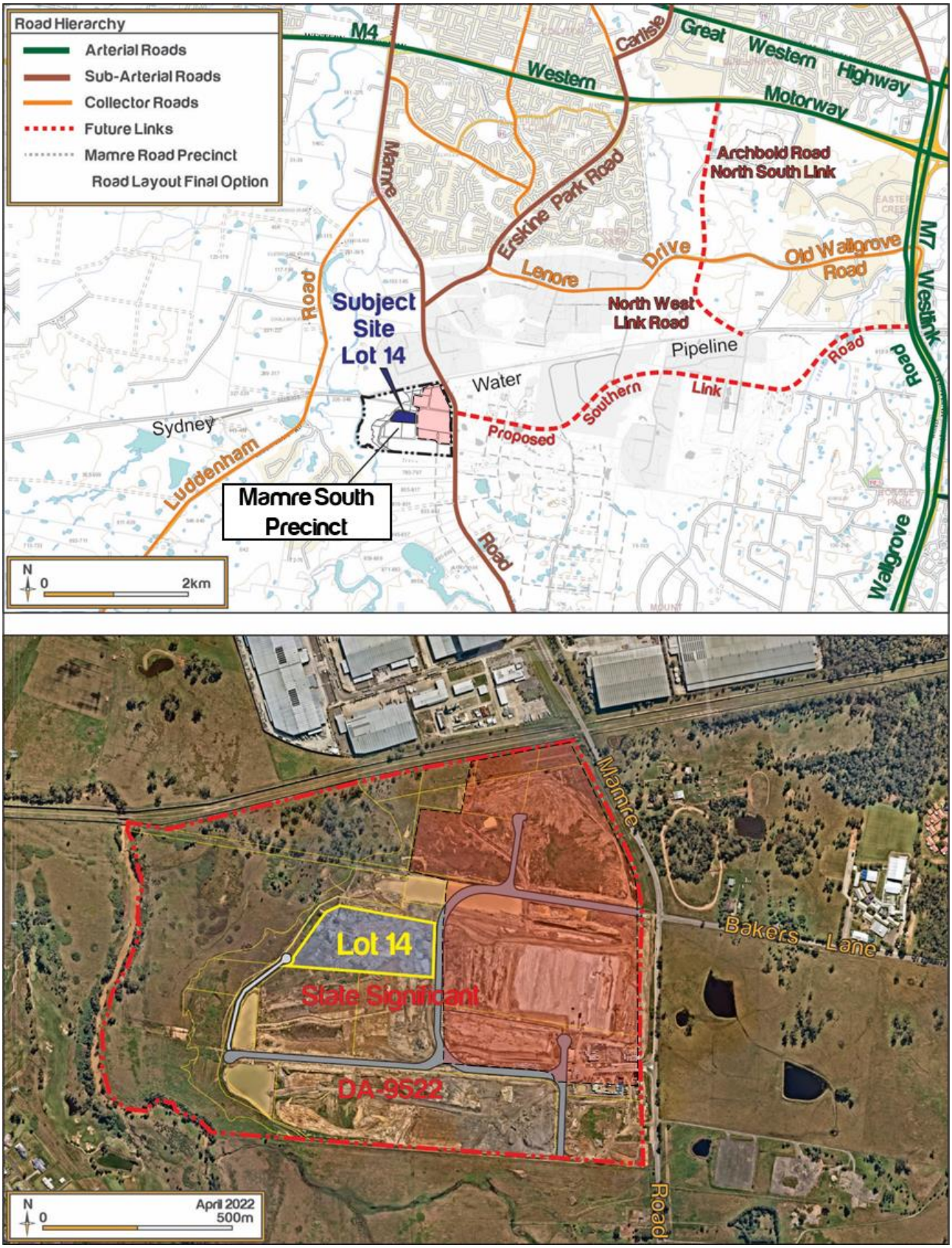


Figure 8: Existing Road Network

4.2 Key Intersections

The key intersections in the vicinity of the MSP are considered as follows:

- Mamre Road / Bakers Lane (Signal) as shown in **Figure 9**.
- Mamre Road / Erskine Park Road (Signal) as shown in **Figure 10**.
- Mamre Road / James Erskine Drive (Signal) as shown in **Figure 10**.
- Mamre Road / Distribution Drive (Signal) as shown in **Figure 10**.

Figure 9: Existing Intersection of Mamre Road / Bakers Lane

Figure 10: Key Intersections in the Vicinity of the Site

Performance of these key intersections during a typical weekday AM and PM peak periods have been assessed and reviewed as part of the SSD-9522 application. SIDRA modelling results indicate that all key intersections currently perform at an acceptable Level of Service (LoS D or better) during both AM and PM peak periods.

4.3 Public Transport

4.3.1 Existing Bus Services

The existing bus services in the vicinity of the MSP are shown in **Figure 11**.

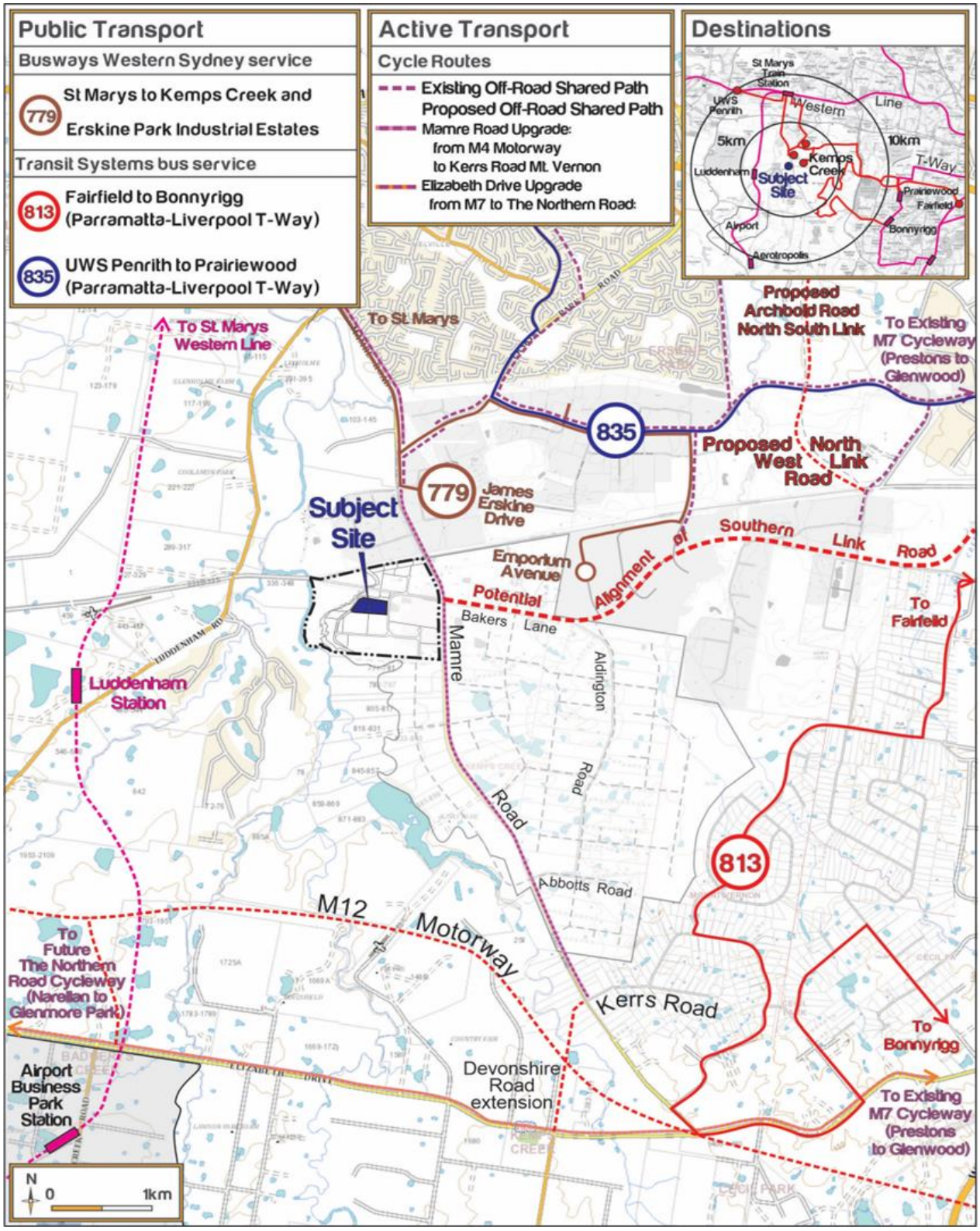


Figure 11: Public Transport Services & Cycling Routes

It is evident that the MSP is not directly serviced by public transport operations at this time. Notwithstanding, opportunities for future connections have been identified and are discussed further below.

4.3.2 Future Bus Service Opportunities

While it is apparent that the MSP will be well served by a future road network, it is nonetheless important that people have the opportunity to use public transport, which requires significantly improved connectivity to the broader area in the first instance. This could be possible through an extension of the 779-bus route to include stops within the future internal road network of the MSP. This route would provide a direct connection to St Marys railway station and to the broader transport network.

The planning of bus services in Sydney is governed by the NSW Service Planning Guidelines, which aims to establish Strategic Transport Corridors and a hierarchy of bus route types that:

- link to Regional centres (such as Penrith and Mt Druitt);
- pass through patronage generators such as district centres, TAFE colleges, hospitals and universities;
- connect with other transport modes (trains, ferries and other buses);
- are multifunctional (serving journeys to work, education, shopping and recreation);
- are direct and frequent; and
- meet the network planning principles.

It is also the case that the establishment of public transport services as early as possible in the development stages of the area is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the study area, the services should ideally:

- integrate with existing bus services in the area;
- connect to regional centres of Penrith, Mt Druitt and Blacktown; and
- in the long term, connect to areas such as Leppington in the South West Growth Centre, Prairiewood and the Liverpool to Parramatta T-Way.

4.4 Cycling

There are opportunities and infrastructure for cyclists to access Lot 14 via Mamre Road which have been readily allowed for and proposed as part of the Mamre Road Upgrade project.

Furthermore, bicycle lanes are provided along Erskine Park Road and sections of Mamre Road, in addition to carriageway shoulders that could also be utilised by cyclists. Notwithstanding, there are opportunities to improve cycling infrastructure through the provision of shared paths along Mamre Road fronting the MSP that could be connected to paths along Erskine Park Road.

5 Future Context

5.1 Upgrades at the Mamre Road / Bakers Lane Intersection

SSD-9522 and the approved SSD-9522 MOD 1 includes 3 access Sequence strategies at the intersection of Mamre Road and Bakers Lane and Mamre Road / Southern Link Road (SLR), which are briefly discussed as follows:

Approved Modified Sequence 1A:

The approved Modified Sequence 1A is expected to accommodate the potential estate-wide traffic associated with MSP Ultimate Master Plan (with 421,820 m^2) and the assumed GFA for Southern Lots without relying on the previously approved Sequence 1A. The approval for the approved Modified Sequence 1A has been granted under SSD-9522 MOD 1 which replaces Sequence 1A.

For context, a reduced copy of the approved Modified Sequence 1A layout is provided in **Figure 12**.

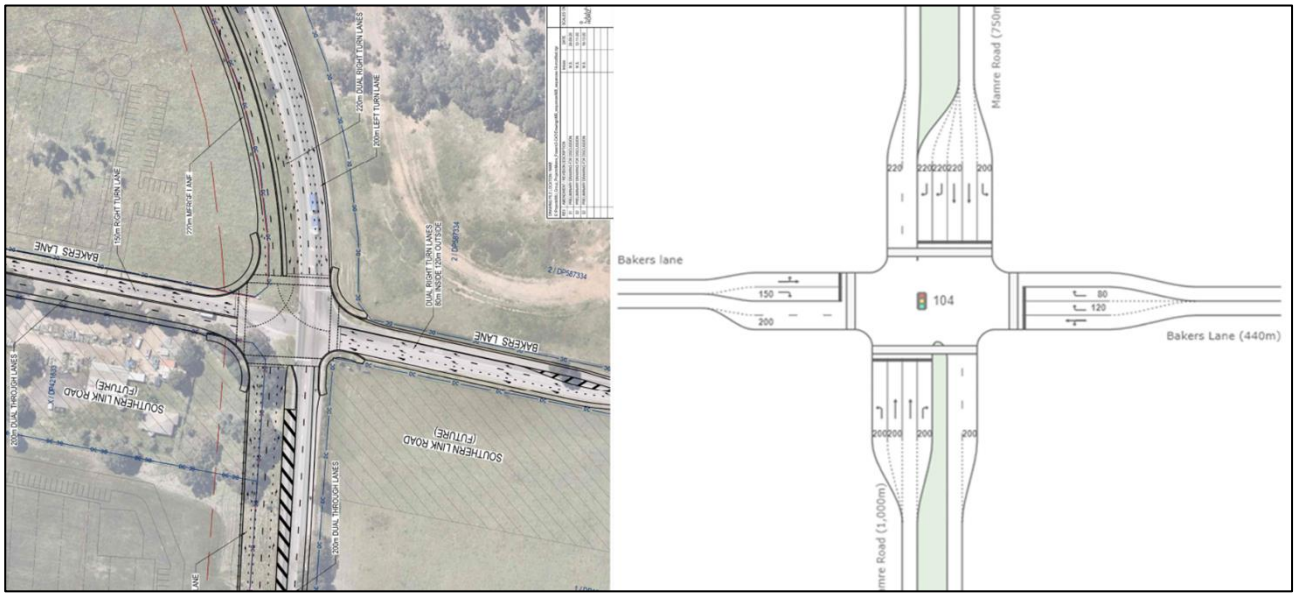


Figure 12: Approved Modified Sequence 1A Mamre Road / Bakers Lane Signal layout

Approved Sequence 1B:

As approved under SSD-9522 MOD 1, Sequence 1B will be delivered by Dec 2025. Sequence 1B relates to the Mamre Road / Bakers Lane signalised intersection, with Mamre Road upgrades to 4 lanes (2-lanes in each direction) from the southern boundary of the Site to the existing Mamre Road / Distribution Drive signalised intersection. The layout of Sequence 1B is shown in **Figure 13**.

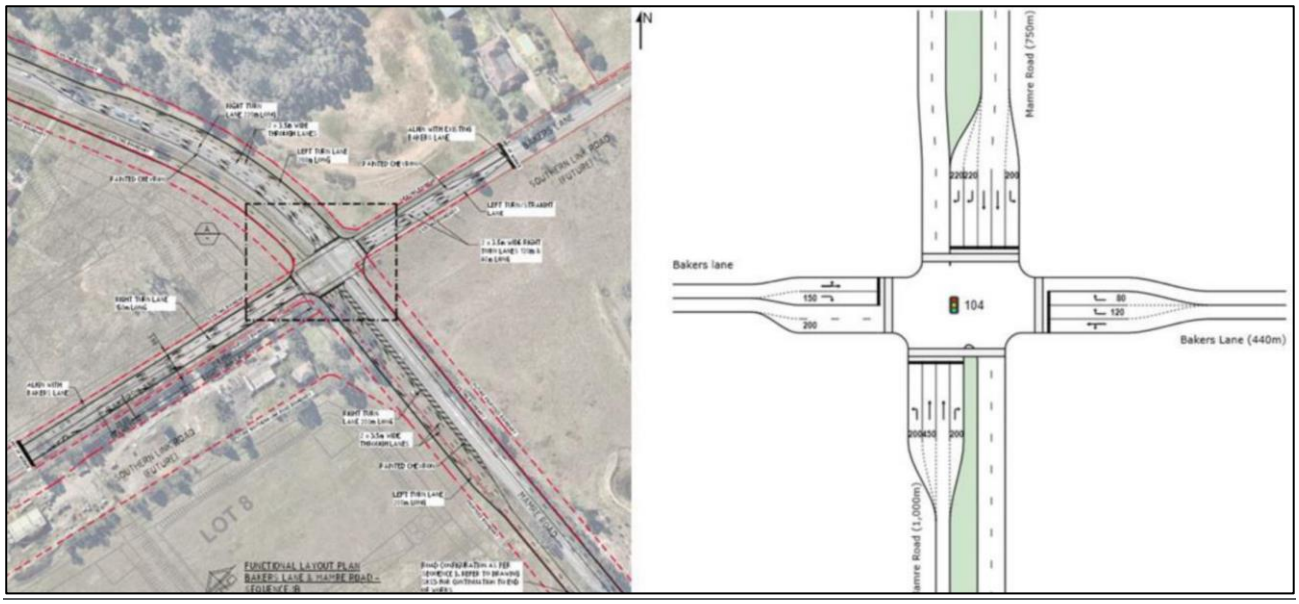


Figure 13: Approved Sequence 1B Mamre Road / Bakers Lane Signal layout

Approved Sequence 2:

As approved under SSD-9522, Sequence 2 will be delivered in the longer-term future when the SLR will be delivered by TfNSW. Bakers Lane will be terminated as a cul-de-sac at the access to the MSP as shown in **Figure 14**.

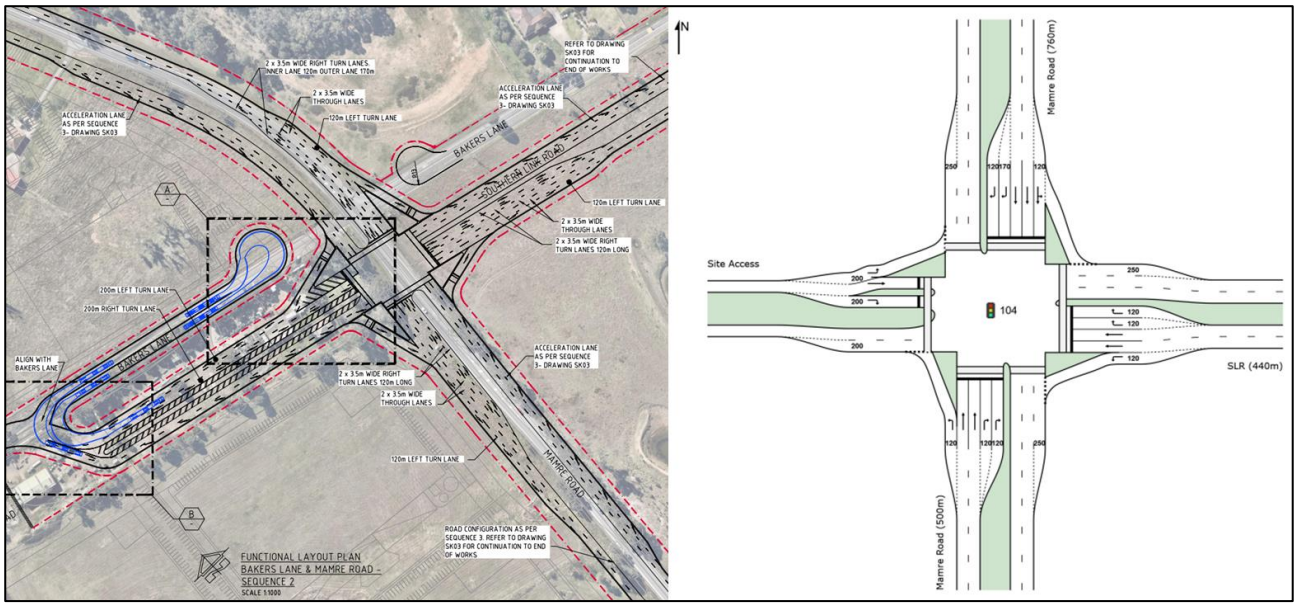


Figure 14: Approved Sequence 2 Mamre Road / Bakers Lane Signal Layout

Approved Sequence 3:

As approved under SSD-9522, Sequence 3 shows the ultimate configuration of the SLR in the future and when it is extended west through the MSP, as shown in **Figure 15**.

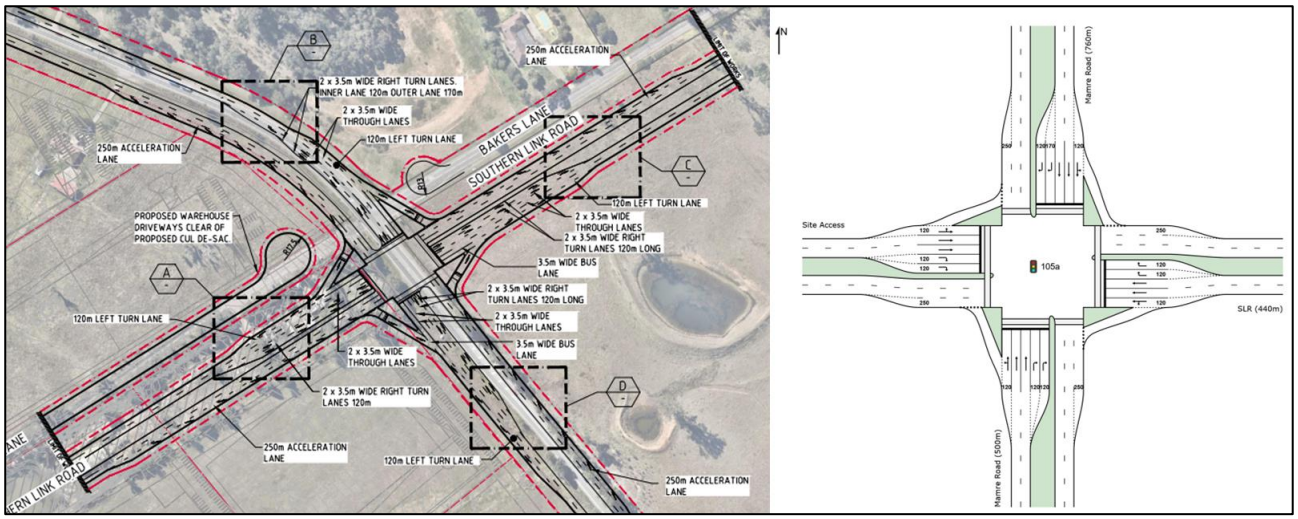


Figure 15: Approved Sequence 3 Mamre Road / Bakers Lane Signal layout

It is noted that the proposed Lot 14 traffic can readily be accommodated through above approved sequence plans and WILL NOT create any additional traffic onto the surrounding road network. Accordingly, the proposed Lot 14 subject to this DA does not require any additional traffic modelling and can be approved as a standalone DA.

5.2 Approved Internal Road Layouts

Latest changes to the internal road layout design as a result of the approval of SSD-9522 MOD 2 on 8th April 2022 by DPE is shown in **Figure 16**. .

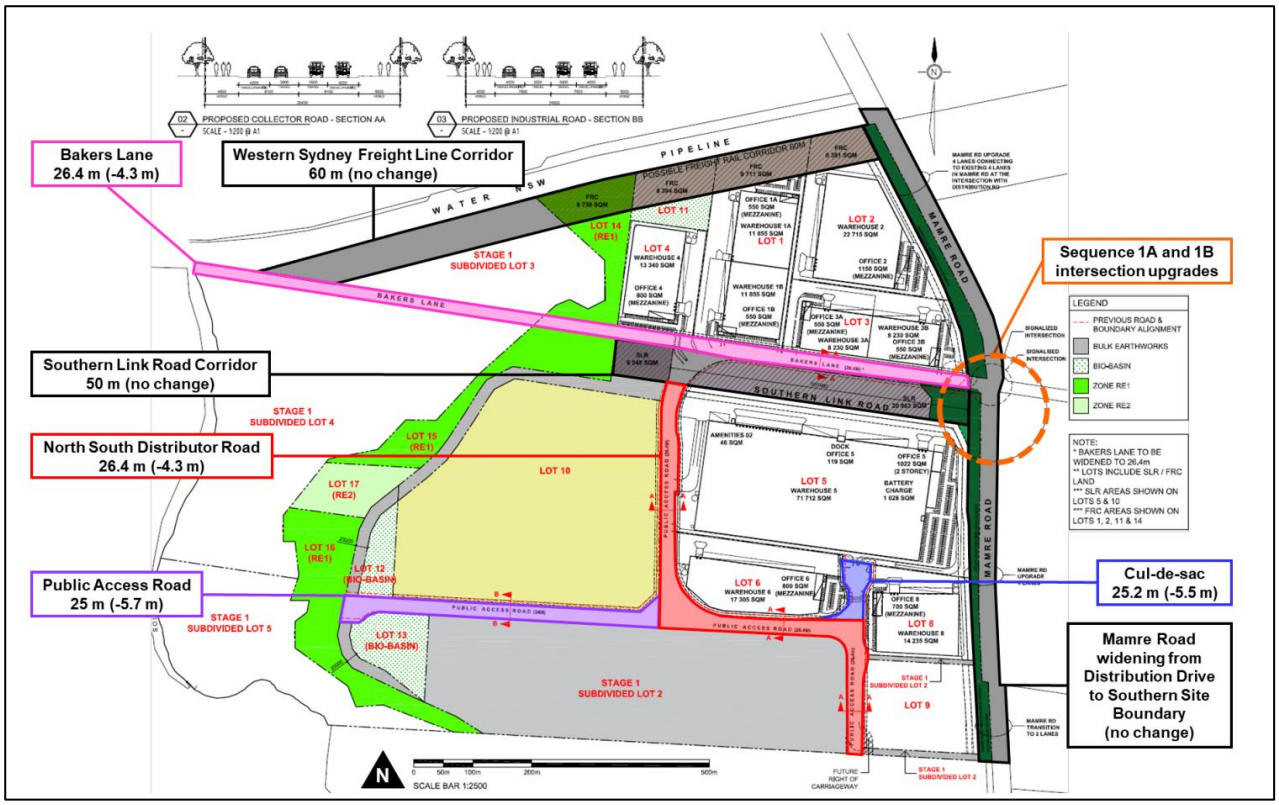


Figure 16: Approved Internal Road Widths (Source: Figure 6 of SSD-9522-MOD 2 Conditions of Consent, dated: 8 April 2022)

The proposed Lot 14 traffic can readily be accommodated through the proposed internal road network and internal intersections and will not result in any additional traffic impact from what has already been approved.

In summary, the proposed Lot 14 traffic will not result in requirements for any additional traffic modelling at internal road network.

6 Parking Provisions

6.1 Car Parking Rates

Parking rates for developments within the Kemps Creek Warehouse, Logistics and Industrial Facilities Hub have been provided in Condition A8 of the SSD-9522 approval as shown below. It is noted that the MRP DCP 2021 also suggests the similar parking rates for warehouse and office components.

TABLE 4 APPROVED SSD-9522 CAR PARKING RATES

Land Use	Parking Rate
Warehouse	1 space per 300 m^2 GFA
Office	1 space per 40 m^2 GFA
Accessible Parking	1 space for accessible parking for every 100 car parking spaces
Electric Vehicle Charging Stations	1 percent of car parking spaces provided with conduit provision for Electric Vehicle Charging Stations

6.2 Car Parking Assessment

Application of the above rates to the proposed Lot 14 results in the following car parking requirements, referred in **Table 5**.

TABLE 5 CAR PARKING REQUIREMENTS AND PROVISION FOR THE PROPOSED LOT 14

Building	Land Use	GFA (m^2)	Car Parking Required	Total Car Parking Required	Parking Provided
Lot 14	Warehouse	34,885	117	144	250[1]
	Office	1,078	27		

Note: 1) This provision includes 232 spaces in Carpark A inclusive of 2 accessible spaces, 2 EV spaces and 26 future EV spaces. Further, the provision includes 18 spaces in Carpark B inclusive of 1 accessible space and 1 EV space.

Strict application of the above rates results in the requirement of a total of 144 spaces for the proposed development. In response, the proposal provides a total of 250 on-site car parking spaces, satisfying and exceeding these requirements. It is noted that the surplus of 106 car spaces is to provide additional flexibility for the tenant (Probiotec) especially during shift changeovers.

In summary, the proposed car parking provision is supportable.

6.3 Accessible Parking

Condition A8(c) of the SSD-9522 CoC specifies the following requirements for accessible parking spaces:

- 1 space for people with disabilities for every 100 car parking spaces.

Table 6 outlines the accessible parking spaces required for the Proposal.

TABLE 6 ACCESSIBLE PARKING REQUIREMENT AND PROVISION

Building	On-site Parking Supply	Accessible Parking Requirement	Accessible Parking Provision
Lot 14	250	3	3

Strict application of the above rates results in a total of 3 accessible parking spaces required for Lot 14. In response, the proposal provides 2 accessible spaces in Carpark A and 1 accessible space in Carpark B. Hence, the Proposal's provision of accessible car parking satisfies the requirement.

In summary, the proposed accessible car parking provision is supportable.

6.4 Electric Vehicle Charging Stations

Condition A8(d) of SSD-9522 specifies the following requirements for electric vehicle charging stations:

- 1 percent of car parking spaces provided with conduit provision for Electric Vehicle Charging Stations.

Table 7 outlines the electric vehicle (EV) charging stations required for the Proposal.

TABLE 7 ELECTRIC VEHICLE CHARGING STATION REQUIREMENT AND PROVISION

Building	On-site Parking Supply	EV Charging Station Requirement	EV Charging Station Provision
Lot 14	250	3	3

Strict application of the above rates results in a total of 3 EV charging spaces required for Lot 14. In response, the proposal provides 3 EV charging spaces. Further, it is noted that 26 additional spaces have been dedicated as future EV charging spaces. Hence, the Proposal's provision of EV spaces satisfies the requirement.

In summary, the proposed EV space provision is supportable.

6.5 Bicycle Parking

Condition A9 of SSD-9522 refers to the Planning Guidelines for Walking and Cycling, which requires bicycle parking to be provided at a rate of 3-5% of staff numbers (for long-term use) and 5-10% of staff numbers (for short-term use).

Based on information provided to Ason Group on the staff numbers, Probiotec will have up to 200 staff onsite at any given time on a typical day.

The bicycle parking requirement and provision is shown in **Table 8**.

TABLE 8 BICYCLE PARKING REQUIREMENTS AND PROVISION

Warehouse	Bicycle Parking Requirements	Bicycle Parking Provision
Probiotec[1]	Staff: 6-10 spaces Visitor: 10-20 spaces	16 spaces

Notes: 1) Assuming 200 staff

Strict application of the above rates results in the requirement of at least 16 bicycle spaces for Probiotec. In response, the proposal provides a total of 16 spaces comprising of 11 bicycle spaces at Carpark A and 5 bicycle spaces at Carpark B. As such, this provision readily satisfies the requirements set out in the *Planning Guidelines for Walking and Cycling 2004*.

Additionally, the *Planning Guidelines for Walking and Cycling 2004* also provides the following requirements (shown in **Table 9**) for End of Trip (EoT) facilities on-site based on staff numbers.

TABLE 9 EOT FACILITIES REQUIREMENTS

Staff	Lockers	Showers	Changerooms
150-299	1 per 3 racks	6 (3 male and 3 female)	2 (1 male and 1 female)

It is expected that the EoT facilities outlined in the table above can be readily provided to satisfy the requirements set out in the Planning Guidelines for Walking and Cycling. This can be undertaken as part of the post DA or pre–Construction Certificate (CC) stage.

In summary, bicycle parking and EoT facilities provided at rates set out in Table 8 and Table 9 would be supportable.

7 Traffic Assessment

7.1 Neighbouring Development Traffic

SSD-25725029 for Lot 12 has been approved by DPE and Lot 13 is currently under review by Council under a separate DA. For the purpose of robust assessment, we have assumed that Lot 13 will be approved and will generate traffic at full capacity.

Acknowledgement – This assumption is to just assess the worst-case scenario.

7.2 Approved Trip Generation Rates

Based on the approved SSD-9522 TA, vehicular trip generation rates have been referred to the following three (3) industrial sites for vehicles trips during the adjacent road AM and PM peak periods.

- Site 1: Erskine Park Industrial Estate, Erskine Park,
- Site 2: Wonderland Business Park, Eastern Creek, and
- Site 3: Riverwood Business Park, Riverwood

As such the approved rates (during adjacent road network AM and PM peak hours) are as follows:

- AM Rate: 0.247 trips per 100 m^2 GFA
- PM Rate: 0.182 trips per 100 m^2 GFA
- Daily Rate: 2.640 trips per 100 m^2 GFA

7.3 Lot 14 Traffic Generation (Based on Approved Rates)

Application of the approved traffic generation rates to the Proposal yield, results in the following theoretical AM, PM and daily traffic volumes (shown in **Table 10**).

TABLE 10 TRAFFIC GENERATION OF THE PROPOSAL BASED ON APPROVED TRAFFIC GENERATION RATES

Building	GFA (m^2)	AM Peak (veh trips/hr)	PM Peak (veh trips/hr)	Daily (veh trips/day)
Lot 14	35,963	89	65	949

7.4 Lot 14 First Principles Traffic Assessment

Furthermore, Ason Group has been provided with information on the actual estimated traffic generation of the future immediate tenant (Probiotec).

Based on Probiotec's advice, there would be 3 staff shifts per day as listed below. It is assumed that staff will attend the Site within one hour before the shift starts and within one hour after the shift ends.

- Shift 1: 5:00 AM – 1:30 PM, 170 staff
- Shift 2: 1:30 PM – 10:30 PM, 70 staff
- Shift 3: 8:00 AM – 5:30 PM, 30 staff

Moreover, it is expected that up to 14 visitors (up to 5% of maximum number of staff onsite at any given time) would visit Lot 14 per day and would likely occur outside of road network peak periods where there is less congestion and more convenient.

Additionally, Ason Group has been provided with advice that up to 8 heavy vehicles would access Lot 14 per day and would occur during road network peak hours.

Therefore, based on the above information, there will be up to 584 vehicle trips per day accessing Lot 14 comprising of 568 light vehicle trips and 16 heavy vehicle trips (inbound trips + outbound trips)

With consideration of the above tenant information, the traffic generation of the Site during the AM and PM road network peak is summarised in **Table 11**.

TABLE 11 TRAFFIC GENERATION OF THE PROPOSAL BASED ON PROBIOTEC INFORMATION

Building	GFA (m^2)	AM Peak (veh trips/hr) (8:00 AM – 9:00 AM)	PM Peak (veh trips/hr) (3:00 PM – 4:00 PM)	Daily (veh trips/day)
Lot 14	35,963	Light: 0 Heavy: 8	Light: 0 Heavy: 8	Light: 568 Heavy: 16
TOTAL		8	8	584

Note: ALL staff arrival and departure occur outside road network peak hours in accordance with the staffing schedule provided above.

7.5 Traffic Impact

7.5.1 Based on Approved Trip Rates

Table 12 provides a comparison between the estimated traffic generation of Lots 12, 13 and 14, adopting approved trip rates against the current approval for Lot 10 under SSD-9522 MOD 1.

TABLE 12 COMPARISON BETWEEN LOTS 12, 13, 14 TRAFFIC GENERATION AND APPROVED SSD-9522 MOD 1 TRAFFIC GENERATION

	Area (m^2)	AM Peak (veh trips/hr)	PM Peak (veh trips/hr)
Lot 12	27,470	68	50
Lot 13	30,581	76	56
Lot 14	35,963	89	65
Total Proposed	94,014	233	171
Current SSD9522 MOD 1 Approval (Lot 10)	158,550[1]	193	126
Difference (proposed – approval)	**-**	**+40**	**+45**

Notes: 1) Lot 10 site area. Approved theoretical generation for Lot 10 has been estimated via site area based trip rates from the Guide to Traffic Generating Developments Updated Traffic Surveys (RMS Guide Update).

The above table demonstrates that the traffic generation of the 3 warehouses combined are theoretically in the order of 233 vehicle trips per hour and 171 vehicle trips per hour for the AM and PM Peak, respectively when **approved rates are strictly adopted**. It is evident that the proposed traffic generation results in a moderate increase of 40 and 45 vehicle trips per hour for the AM and PM peak respectively compared to the approved traffic generation for Lot 10 under MOD 1. This equates to approximately 1 additional vehicle every minute in the PM Peak hour.

It is noted that Lots 12,13 and 14 will all have immediate tenants, hence, the actual traffic generation of Lot 10 under SSD-9522 MOD 1 can be obtained as shown in the following section.

7.5.2 Based on First Principles

Table 13 provides a comparison between the traffic generation of Lots 12, 13 and 14, adopting first principles assessment and having regard for immediate tenant information, against the current approval for Lot 10 under SSD-9522 MOD 1.

The traffic generation considers first principles for Lots 12, 13, and 14. The actual anticipated traffic for Ardex and Cargoline has been sourced from the TA prepared for that site.

TABLE 13 COMPARISON BETWEEN LOT 12, 13 & 14 WAREHOUSES AND APPROVED SSD-9522 MOD 1 TRAFFIC GENERATION (FIRST PRINCIPLES ASSESSMENT)

Lot	GFA (m^2)	AM Peak (veh trips/hr)	PM Peak (veh trips/hr)
Lot 12	27,470	44	5
Lot 13	30,581	20	24
Lot 14	35,963	8	8
Total Proposed	94,014	72	37
Current SSD-9522 MOD 1 Approval (Lot 10)	158,550[1]	193	126
Difference (proposal – approval)	**-**	**(-) 121**	**(-) 89**

Notes: 1) Lot 10 site area. Approved theoretical generation for Lot 10 has been estimated via site area based trip rates.

Despite the moderate increase obtained from **Table 12**, it is noted that all lots will have an immediate tenant. As such, **Table 13** demonstrates the traffic generation of the 3 warehouses combined are 72 vehicle trips per hour and 37 vehicle trips per hour for the AM and PM Peak, respectively. It is evident that the proposed traffic generation which considers first principles is **significantly less** than the approved traffic generation for Lot 10 by the difference of 121 and 89 vehicle trips per hour for AM and PM peak, respectively. Hence, the difference in traffic generation would provide a buffer for any potential future growth in traffic generation on Lot 10 as well as the entire Kemps Creek Hub and provide for additional confidence that the actual anticipated traffic from Lot 10 does not reach its sub-precinct approved threshold.

Therefore, the Site is supported on traffic generation grounds and does not warrant any additional traffic assessment or modelling beyond previously approved.

8 Design Commentary

The relevant design commentary is explained in the following sections.

8.1 Relevant Design Standards

The Site access, car park and loading area generally comply with the following relevant Australian Standards:

- AS2890.1:2004 for car parking areas; and
- AS2890.2:2018 for commercial vehicle loading areas.

It is expected that any detailed construction drawings in relation to any modified areas of the Site access, car park and loading area would comply with these Standards. Furthermore, compliance with the above Standards would be expected to form a standard Condition of Consent prior to any development approval.

8.2 Design Vehicle

Proposed warehouse hardstand areas and the truck entry/exit points have been designed to accommodate movements of vehicles up to 30m A-Doubles. However, the Proposal is expected to have B-Doubles as the largest trucks for their operation.

The western car parking access and internal parking facilities would be designed to accommodate B-99 vehicles and general movements for Fire trucks (12.5m HRVs).

In this regard, **Appendix A** provides a swept path analysis.

8.3 Warehouse Hardstand Area

Reference should be made to **Appendix A** for the swept path analysis of the proposed Site. The swept path analysis confirm that the layout has been designed to accommodate movements of 30m A-Doubles.

A convex mirror setup opposite Lot 14's easternmost dock is recommended to assist with achieving adequate sight distance. It is recommended that an Operational Traffic Management Plan (OTMP) be prepared to formalise management recommendations for Lot 14 prior to the Occupation Certificate (OC) phase of the project and in response to a suitable Condition of Consent (CoC).

8.4 Car Parking Design

Staff and visitor parking – situated in proximity to the tenancy– is demonstrated to generally comply with AS2890.1:2004 in line with User Class 2 which is superior to the minimum User Class 1/1A required for staff parking.

The car park design of Lot 14 is supportable as outlined in **Appendix A**.

8.5 Fire Service Appliance Circulation

In line with the Fire and Rescue NSW (FRNSW) Guidelines, circulation around the Site and through the fire path perimeter has been tested for a 12.5m HRV and there would be sufficient access for 'General and 'Specialist' fire appliances.

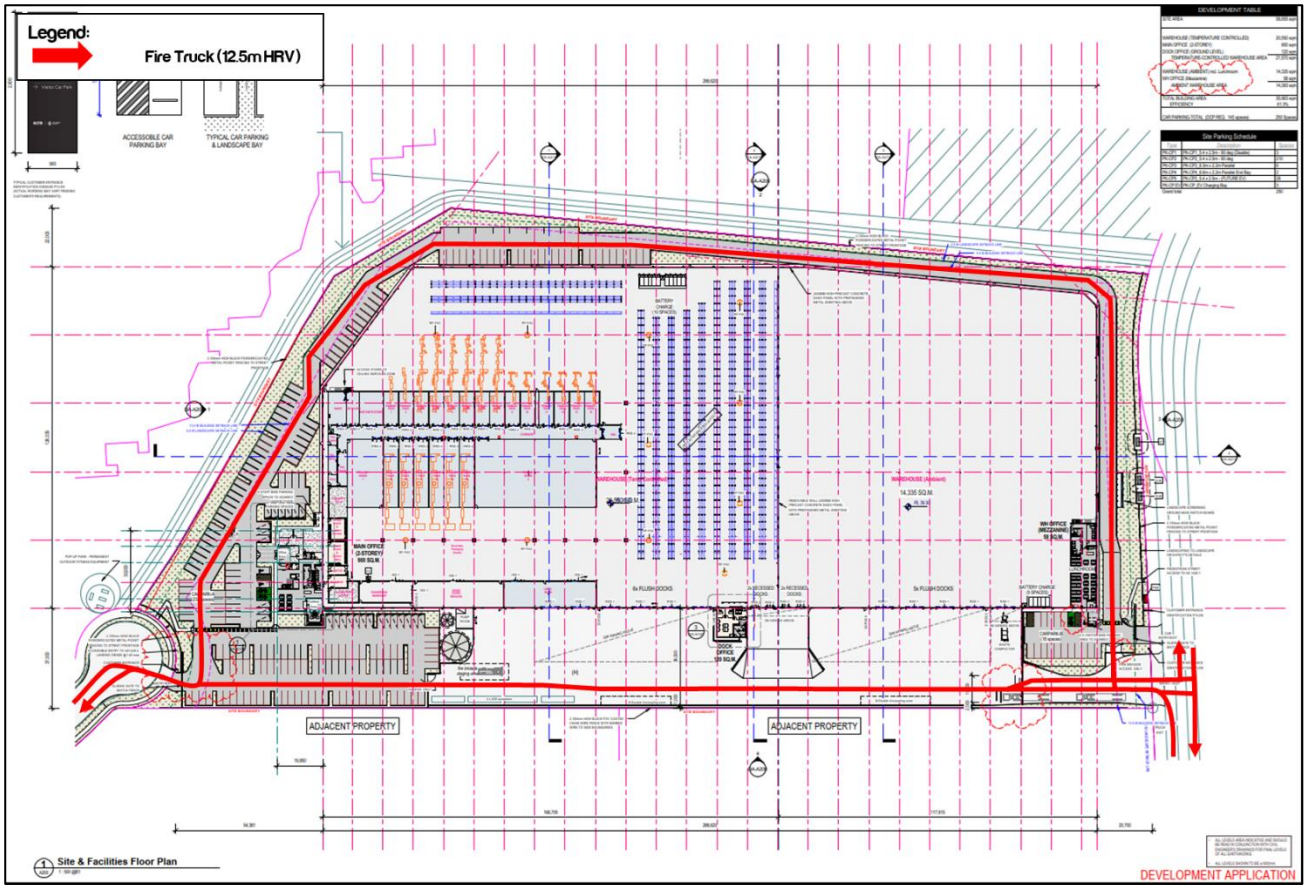


Figure 17: Fire Truck Circulation for Lot 14

8.6 Internal Circulation

Vehicles up to 30.0m A-doubles are expected to traverse the hardstand of Lot 14 in a clockwise direction. All truck movements will be to and from North-South Road. According to the Probiotec's operational traffic volumes, it is expected that this access would cater for minimal daily truck movements, hence the inbound and outbound truck movements is deemed manageable through appropriate signage and line marking and other operational management measures which can form the OTMP report prior to OC.

Reference should also be made to the swept path analysis attached in **Appendix A** showcasing heavy vehicles entering and exiting at the proposed access crossover of the proposed Site.

9 Summary and Conclusions

Ason Group has been engaged by Altis Property Partners (Altis) and Frasers Property Australia (FPA) Joint Venture (JV) to prepare a TS to assess the traffic and parking implications associated with the proposed Lot 14 and proposed Access Road within the Kemps Creek Warehouse, Logistics and Industrial Facilities Hub.

9.1 Key Findings

The key findings of this TS are:

- The estimated proposed DA traffic generation having regard for the approved traffic generation rates as part of the SSD-9522 TA are shown in **Table 14** as follows:

TABLE 14 TRAFFIC GENERATION OF THE PROPOSAL BASED ON APPROVED TRAFFIC GENERATION RATES

Building	GFA (m^2)	AM Peak (veh trips/hr) (8:00 AM – 9:00 AM)	PM Peak (veh trips/hr) (3:00 PM – 4:00 PM)	Daily (veh trips/day)
Lot 14	35,963	89	65	949

- Furthermore, based on the operational data provided by the immediate tenant (Probiotec) that will be occupying the western portion of the warehouse, Lot 14 is expected to generate the following vehicular traffic generation onto the surrounding road network (actual anticipated traffic generation of the Site), **Table 15**.

TABLE 15 TRAFFIC GENERATION OF THE PROPOSAL BASED ON PROBIOTEC INFORMATION

Building	GFA (m^2)	AM Peak (veh trips/hr) (8:00 AM – 9:00 AM)	PM Peak (veh trips/hr) (3:00 PM – 4:00 PM)	Daily (veh trips/day)
Lot 14	35,963	Light: 0 Heavy: 8	Light: 0 Heavy: 8	Light: 568 Heavy: 16
TOTAL		**8**	**8**	**584**

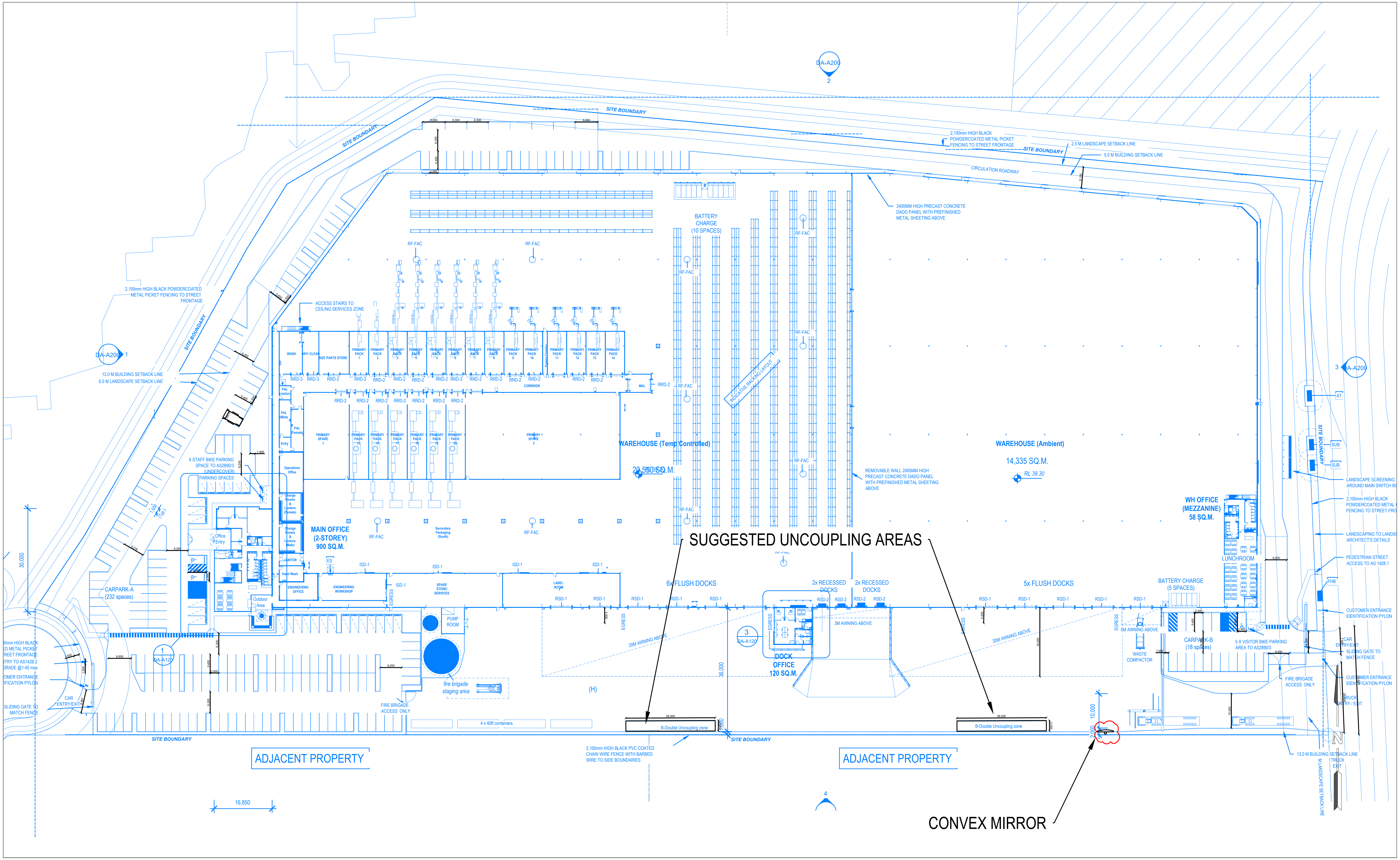
- Based on the traffic assessment undertaken on Lot 14 with consideration given to the potential neighbouring warehouses, it is noted that the traffic generation of Lot 14 calculated using approved rates and first principles is **acceptable** and largely aligns with the approved traffic generation of Lot 10 under the SSD-9522 MOD 1 approval.
- Traffic associated with the entire Lot 10 has already been assessed as part of SSD-9522 and the approved MOD 1 (APPROVED Sequences Modified 1A, 1B, 2 and 3). In this regard, the traffic report accompanying the approved SSD-9522 and other MODs included detailed modelling for the surrounding road network.
- On-site parking provisions for the proposed Lot 14 are expected to meet the requirements under Condition A8 of SSD 9522 and SSD-9522 DCP parking requirements. Any surplus in spaces would provide flexibility for the future tenant.
- Proposed development's Site access, car park and loading areas are expected to comply with the following relevant Australian Standards:
  - AS 2890.1:2004 for car parking areas; and

  - AS 2890.2:2018 for commercial vehicle loading areas.
- It is expected that any detailed construction drawings in relation to the car park or Site access would comply with these Standards. Furthermore, compliance with the above Standards would be expected to form a standard Condition of Consent prior to any development approval.
- It is noted that an OTMP would be required at the main access of the Site to allow safe access for vehicles.

9.2 Conclusions

In summary, the proposed development is deemed supportable on traffic and transport modelling and assessment grounds and will not result in any adverse impacts on the surrounding road network traffic modelling done as part of previous approved SSD-9522 and SSD-9522 Modification applications.

Appendix A. Design Commentary and Swept Path Assessment



GENERAL NOTES

This drawing is provided for information purposes only and should not be used for construction.
Base Plan prepared by HLA Architects, received 15.06.2023.
Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023
SCALE: 1:1000	0 10 20	Bakers Lane, Kemps Creek

DOCUMENT INFORMATION

DESIGN REVIEW

SITE OVERVIEW

FILE NAME	SHEET
AG2023-01-v11.dwg	AG01

asongroup
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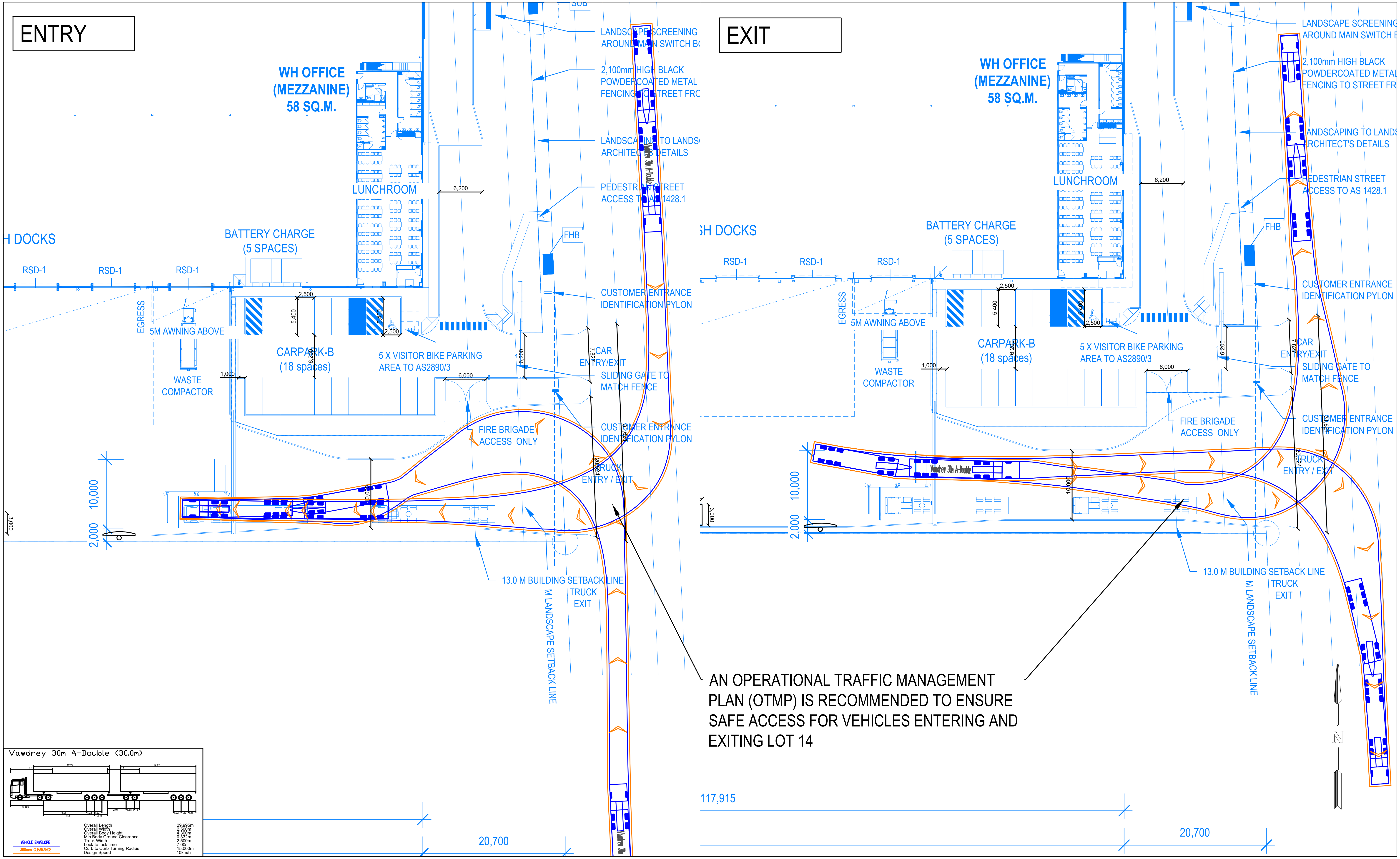
Sydney NSW 2000
info@asongroup.com.au

PLOT DATE: 15/06/2023 5:41:10 PM | CAD REFERENCE: C:\Users\Jasmine Wong\OneDrive - Ason Group\Documents\project\2023 - Probiotec\AG2023-01-v11.dwg | Jasmine Wong |



ENTRY
EXIT
WH OFFICE (MEZZANINE) 58 SQ.M.
LUNCHROOM
BATTERY CHARGE (5 SPACES)
RSD-1
EGRESS
5M AWNING ABOVE
WASTE COMPACTOR
CARPARK-B (18 spaces)
5 X VISITOR BIKE PARKING AREA TO AS2890/3
FHB
FIRE BRIGADE ACCESS ONLY
CAR ENTRY/EXIT
SLIDING GATE TO MATCH FENCE
CUSTOMER ENTRANCE IDENTIFICATION PYLON
TRUCK ENTRY / EXIT
TRUCK EXIT
13.0 M BUILDING SETBACK LINE
M LANDSCAPE SETBACK LINE
PEDESTRIAN STREET ACCESS TO AS 1428.1
2,100mm HIGH BLACK POWDERCOATED METAL FENCING TO STREET FRONT
AN OPERATIONAL TRAFFIC MANAGEMENT PLAN (OTMP) IS RECOMMENDED TO ENSURE SAFE ACCESS FOR VEHICLES ENTERING AND EXITING LOT 14
Vawdrey 30m A-Double (30.0m)
VEHICLE ENVELOPE
300mm CLEARANCE
Overall Length 29.995m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.332m
Track Width 2.500m
Lock-to-lock time 7.00s
Curb to Curb Turning Radius 15.000m
Design Speed 10km/h
117,915
20,700
10,000
2,000
6,200
6,000
2,500
5,400
1,000
3,000
N

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APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023
SCALE: 1:500	0 5 10	Bakers Lane, Kemps Creek

DOCUMENT INFORMATION

DESIGN REVIEW

ACCESS

FILE NAME	SHEET
AG2023-01-v11.dwg	AG02

asongroup
Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
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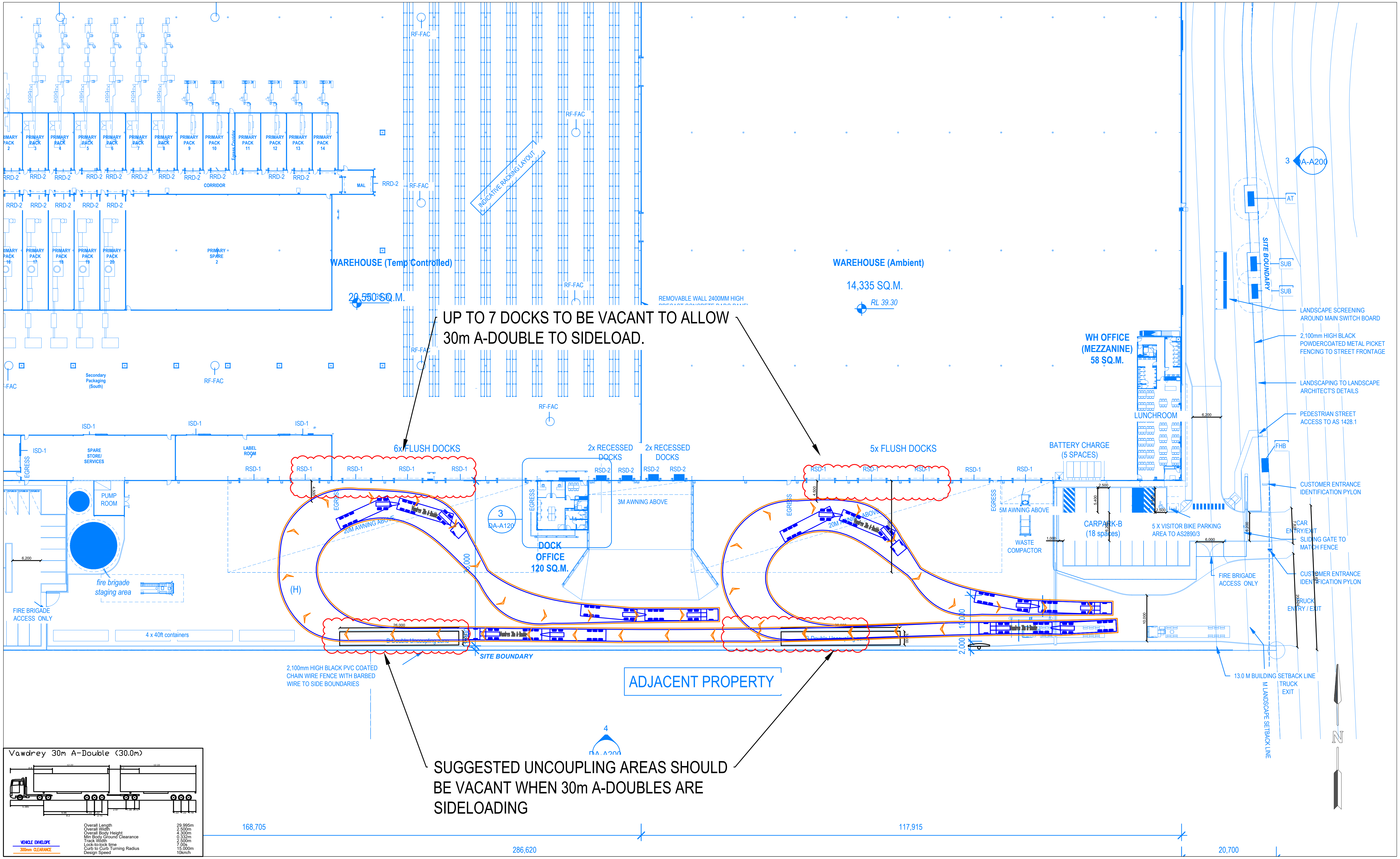
UP TO 7 DOCKS TO BE VACANT TO ALLOW 30m A-DOUBLE TO SIDELOAD.
SUGGESTED UNCOUPLING AREAS SHOULD BE VACANT WHEN 30m A-DOUBLES ARE SIDELOADING
WAREHOUSE (Temp Controlled)
20,550 SQ.M.
WAREHOUSE (Ambient)
14,335 SQ.M.
RL 39.30
WH OFFICE (MEZZANINE) 58 SQ.M.
LUNCHROOM
6x FLUSH DOCKS
2x RECESSED DOCKS
2x RECESSED DOCKS
5x FLUSH DOCKS
BATTERY CHARGE (5 SPACES)
DOCK OFFICE 120 SQ.M.
3M AWNING ABOVE
5M AWNING ABOVE
20M AWNING ABOVE
WASTE COMPACTOR
CARPARK-B (18 spaces)
5 X VISITOR BIKE PARKING AREA TO AS2890/3
PUMP ROOM
fire brigade staging area
FIRE BRIGADE ACCESS ONLY
4 x 40ft containers
SITE BOUNDARY
ADJACENT PROPERTY
2,100mm HIGH BLACK PVC COATED CHAIN WIRE FENCE WITH BARBED WIRE TO SIDE BOUNDARIES
REMOVABLE WALL 2400MM HIGH
INDICATIVE RACKING LAYOUT
LANDSCAPE SCREENING AROUND MAIN SWITCH BOARD
2,100mm HIGH BLACK POWDERCOATED METAL PICKET FENCING TO STREET FRONTAGE
LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAILS
PEDESTRIAN STREET ACCESS TO AS 1428.1
CUSTOMER ENTRANCE IDENTIFICATION PYLON
CAR ENTRY/EXIT
SLIDING GATE TO MATCH FENCE
TRUCK ENTRY / EXIT
TRUCK EXIT
13.0 M BUILDING SETBACK LINE
SITE BOUNDARY
168,705
117,915
286,620
20,700
Vawdrey 30m A-Double (30.0m)
Overall Length 29.995m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.332m
Track Width 2.500m
Lock-to-lock time 7.00s
Curb to Curb Turning Radius 15.000m
Design Speed 10km/h
VEHICLE ENVELOPE
300mm CLEARANCE

GENERAL NOTES

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Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION: DESIGN REVIEW
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023	30m A-DOUBLE SWEPT PATHS
SCALE: 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME: AG2023-01-v11.dwg; SHEET: AG03

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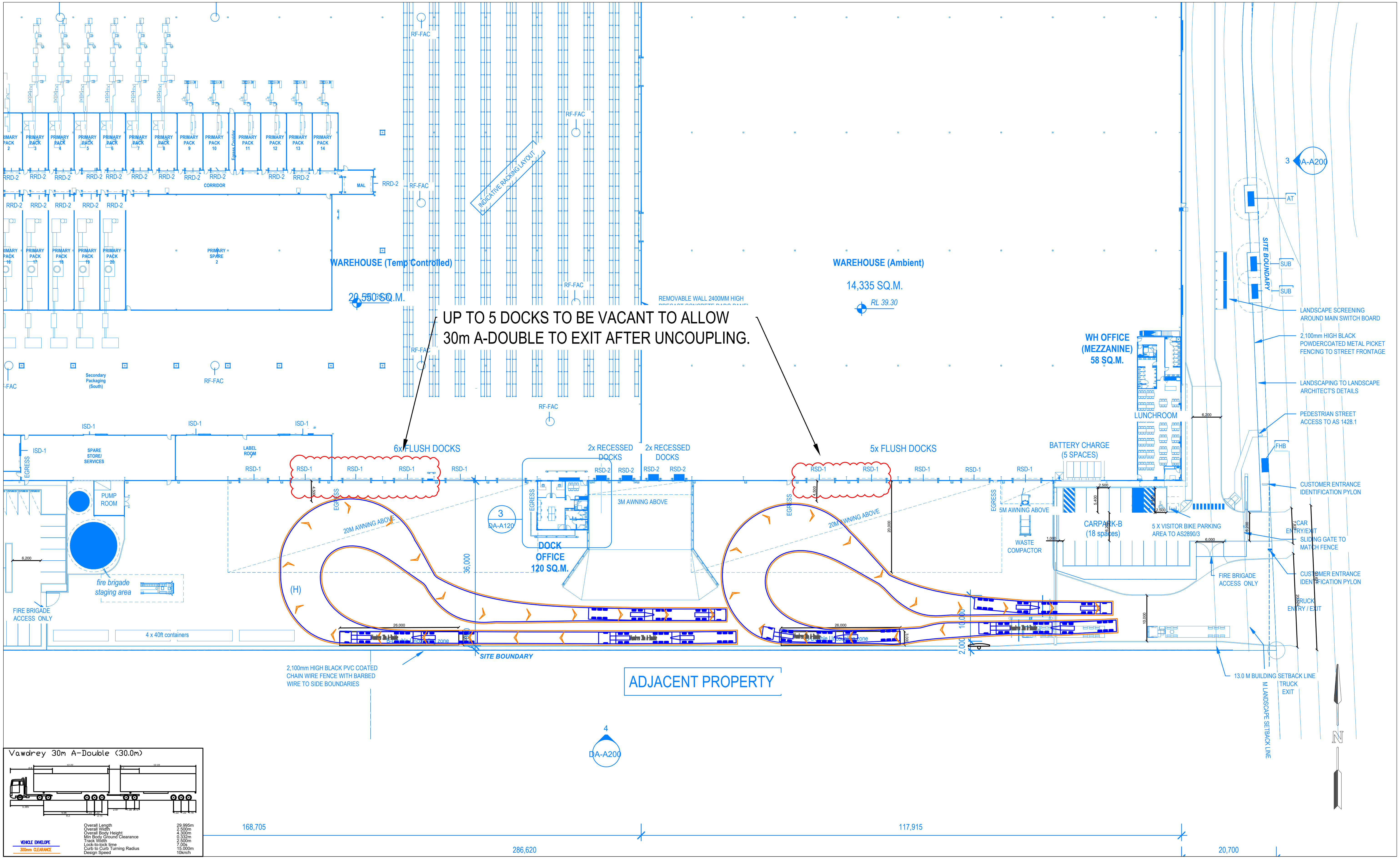

UP TO 5 DOCKS TO BE VACANT TO ALLOW
30m A-DOUBLE TO EXIT AFTER UNCOUPLING.
WAREHOUSE (Temp Controlled)
20,550 SQ.M.
WAREHOUSE (Ambient)
14,335 SQ.M.
RL 39.30
INDICATIVE RACKING LAYOUT
REMOVABLE WALL 2400MM HIGH
WH OFFICE
(MEZZANINE)
58 SQ.M.
LUNCHROOM
6x FLUSH DOCKS
2x RECESSED DOCKS
2x RECESSED DOCKS
5x FLUSH DOCKS
BATTERY CHARGE
(5 SPACES)
DOCK
OFFICE
120 SQ.M.
3M AWNING ABOVE
20M AWNING ABOVE
5M AWNING ABOVE
PUMP ROOM
SPARE STORE/ SERVICES
LABEL ROOM
Secondary Packaging (South)
CORRIDOR
fire brigade staging area
FIRE BRIGADE ACCESS ONLY
4 x 40ft containers
WASTE COMPACTOR
CARPARK-B
(18 spaces)
5 X VISITOR BIKE PARKING AREA TO AS2890/3
FIRE BRIGADE ACCESS ONLY
SITE BOUNDARY
ADJACENT PROPERTY
2,100mm HIGH BLACK PVC COATED CHAIN WIRE FENCE WITH BARBED WIRE TO SIDE BOUNDARIES
LANDSCAPE SCREENING AROUND MAIN SWITCH BOARD
2,100mm HIGH BLACK POWDERCOATED METAL PICKET FENCING TO STREET FRONTAGE
LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAILS
PEDESTRIAN STREET ACCESS TO AS 1428.1
CUSTOMER ENTRANCE IDENTIFICATION PYLON
CAR ENTRY/EXIT
SLIDING GATE TO MATCH FENCE
CUSTOMER ENTRANCE IDENTIFICATION PYLON
TRUCK ENTRY / EXIT
13.0 M BUILDING SETBACK LINE
TRUCK EXIT
M LANDSCAPE SETBACK LINE
SITE BOUNDARY
168,705
117,915
286,620
20,700
Vawdrey 30m A-Double (30.0m)
Overall Length 29.995m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.332m
Track Width 2.500m
Lock-to-lock time 7.00s
Curb to Curb Turning Radius 15.000m
Design Speed 10km/h
VEHICLE ENVELOPE
300mm CLEARANCE

GENERAL NOTES

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Base Plan prepared by HLA Architects, received 15.06.2023.
Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION: DESIGN REVIEW
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023	30m A-DOUBLE SWEPT PATHS
SCALE: 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME: AG2023-01-v11.dwg — SHEET: AG04

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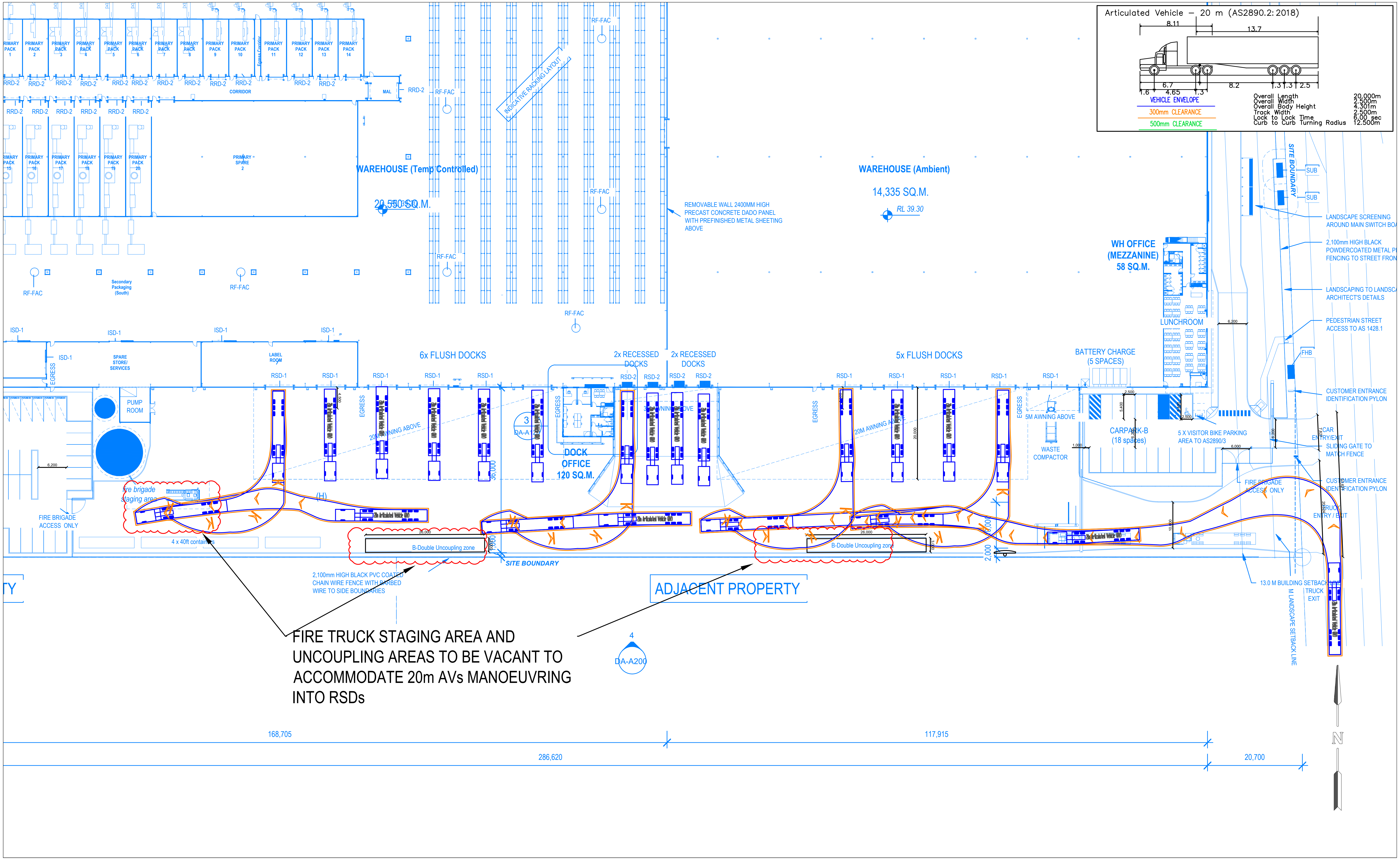

GENERAL NOTES

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Base Plan prepared by HLA Architects, received 15.06.2023.
Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED Jasmine Wong	PAPER SIZE A3	CLIENT Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION DESIGN REVIEW	
APPROVED BY X.XXXX	DATE 15.06.2023	PROJECT 2023	20m AV ENTRY	
SCALE 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME AG2023-01-v11.dwg	SHEET AG05

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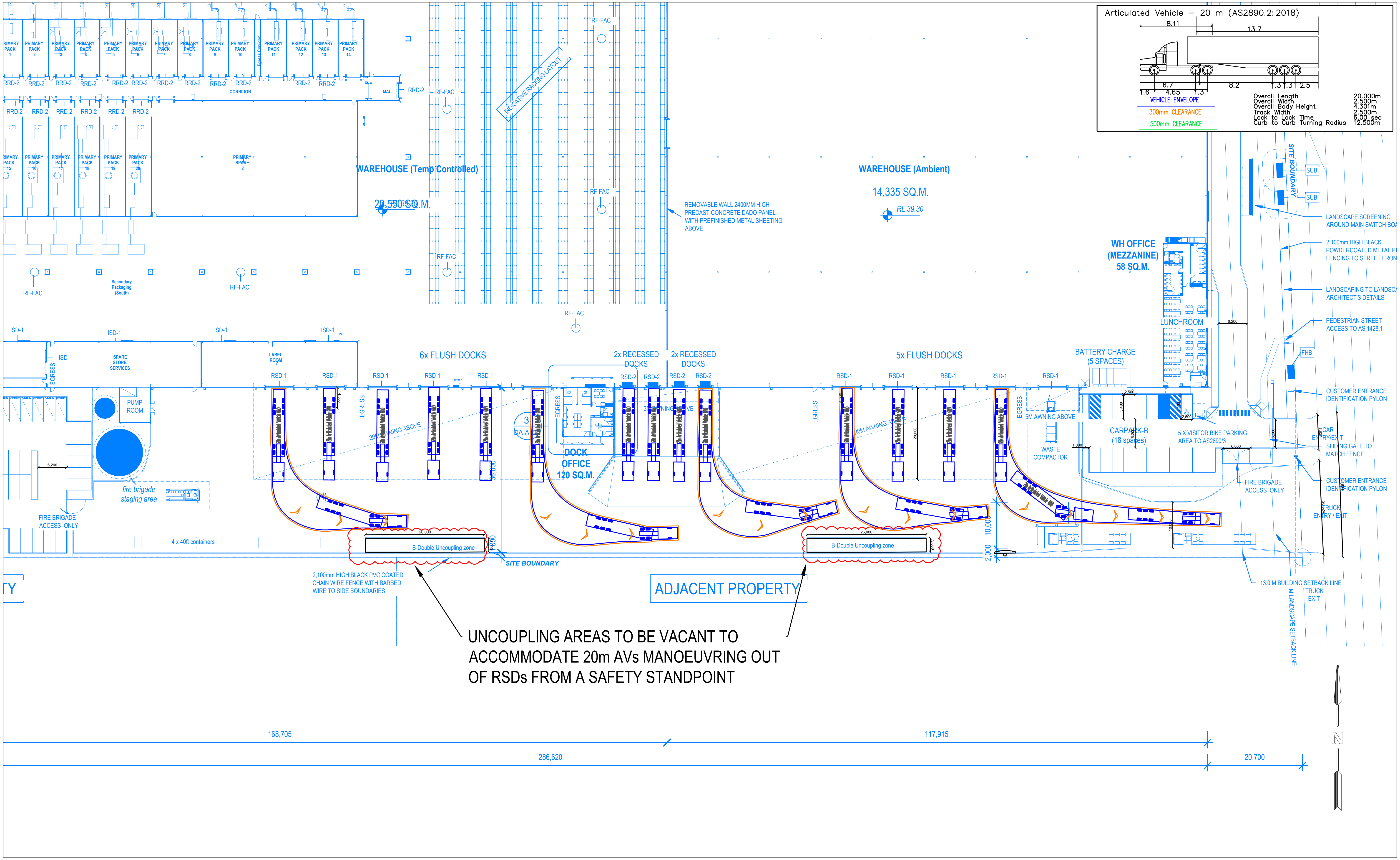

GENERAL NOTES

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Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION: DESIGN REVIEW
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023	20m AV EXIT
SCALE: 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME: AG2023-01-v11.dwg — SHEET: AG06

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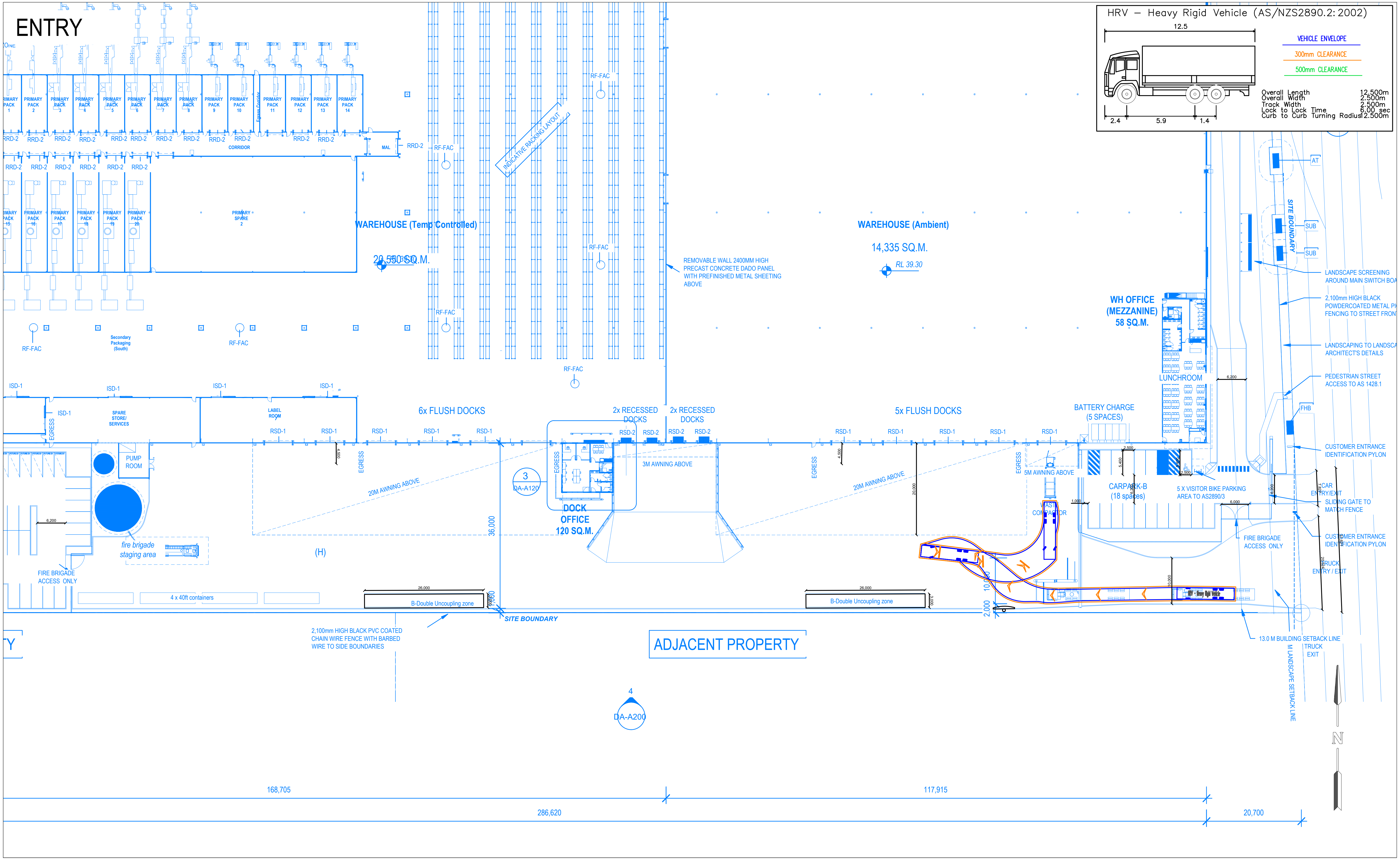
ENTRY
HRV – Heavy Rigid Vehicle (AS/NZS2890.2:2002)
12.5
VEHICLE ENVELOPE
300mm CLEARANCE
500mm CLEARANCE
Overall Length 12.500m
Overall Width 2.500m
Track Width 2.500m
Lock to Lock Time 6.00 sec
Curb to Curb Turning Radius 12.500m
2.4
5.9
1.4
WAREHOUSE (Temp Controlled)
20,550 SQ.M.
WAREHOUSE (Ambient)
14,335 SQ.M.
RL 39.30
INDICATIVE RACKING LAYOUT
REMOVABLE WALL 2400MM HIGH PRECAST CONCRETE DADO PANEL WITH PREFINISHED METAL SHEETING ABOVE
WH OFFICE (MEZZANINE) 58 SQ.M.
LUNCHROOM
6x FLUSH DOCKS
2x RECESSED DOCKS
2x RECESSED DOCKS
5x FLUSH DOCKS
BATTERY CHARGE (5 SPACES)
DOCK OFFICE 120 SQ.M.
3M AWNING ABOVE
20M AWNING ABOVE
20M AWNING ABOVE
5M AWNING ABOVE
CARPARK-B (18 spaces)
5 X VISITOR BIKE PARKING AREA TO AS2890/3
PUMP ROOM
fire brigade staging area
FIRE BRIGADE ACCESS ONLY
FIRE BRIGADE ACCESS ONLY
4 x 40ft containers
B-Double Uncoupling zone
B-Double Uncoupling zone
SITE BOUNDARY
2,100mm HIGH BLACK PVC COATED CHAIN WIRE FENCE WITH BARBED WIRE TO SIDE BOUNDARIES
ADJACENT PROPERTY
DA-A120
DA-A200
LANDSCAPE SCREENING AROUND MAIN SWITCH BOA
2,100mm HIGH BLACK POWDERCOATED METAL PI FENCING TO STREET FRONT
LANDSCAPING TO LANDSCA ARCHITECT'S DETAILS
PEDESTRIAN STREET ACCESS TO AS 1428.1
CUSTOMER ENTRANCE IDENTIFICATION PYLON
CAR ENTRY/EXIT
SLIDING GATE TO MATCH FENCE
CUSTOMER ENTRANCE IDENTIFICATION PYLON
TRUCK ENTRY / EXIT
13.0 M BUILDING SETBACK LINE
TRUCK EXIT
M LANDSCAPE SETBACK LINE
SITE BOUNDARY
168,705
117,915
286,620
20,700
N

GENERAL NOTES

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Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED	PAPER SIZE
Jasmine Wong	A3
APPROVED BY	DATE
X.XXXX	15.06.2023
SCALE	
1:750	NTS

CLIENT
Altis Frasers JV Pty Ltd

PROJECT
2023
Bakers Lane, Kemps Creek

DOCUMENT INFORMATION
DESIGN REVIEW
12.5m HRV SWEPT PATHS (WASTE TRUCK)

FILE NAME	SHEET
AG2023-01-v11.dwg	AG07

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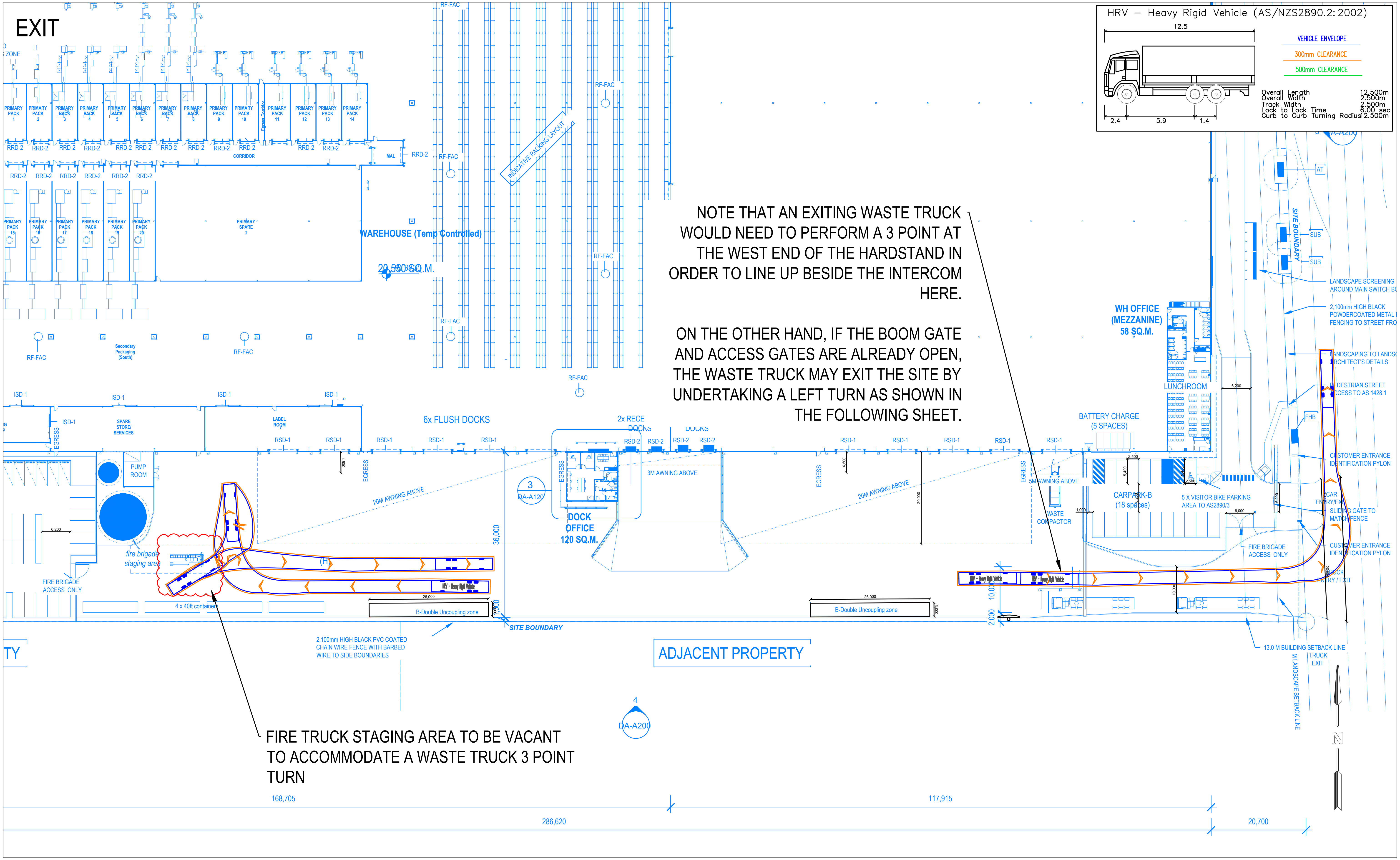

GENERAL NOTES

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Base Plan prepared by HLA Architects, received 15.06.2023.
Access Road has a speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION: DESIGN REVIEW
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023	12.5m HRV SWEPT PATHS (WASTE TRUCK)
SCALE: 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME: AG2023-01-v11.dwg; SHEET: AG08

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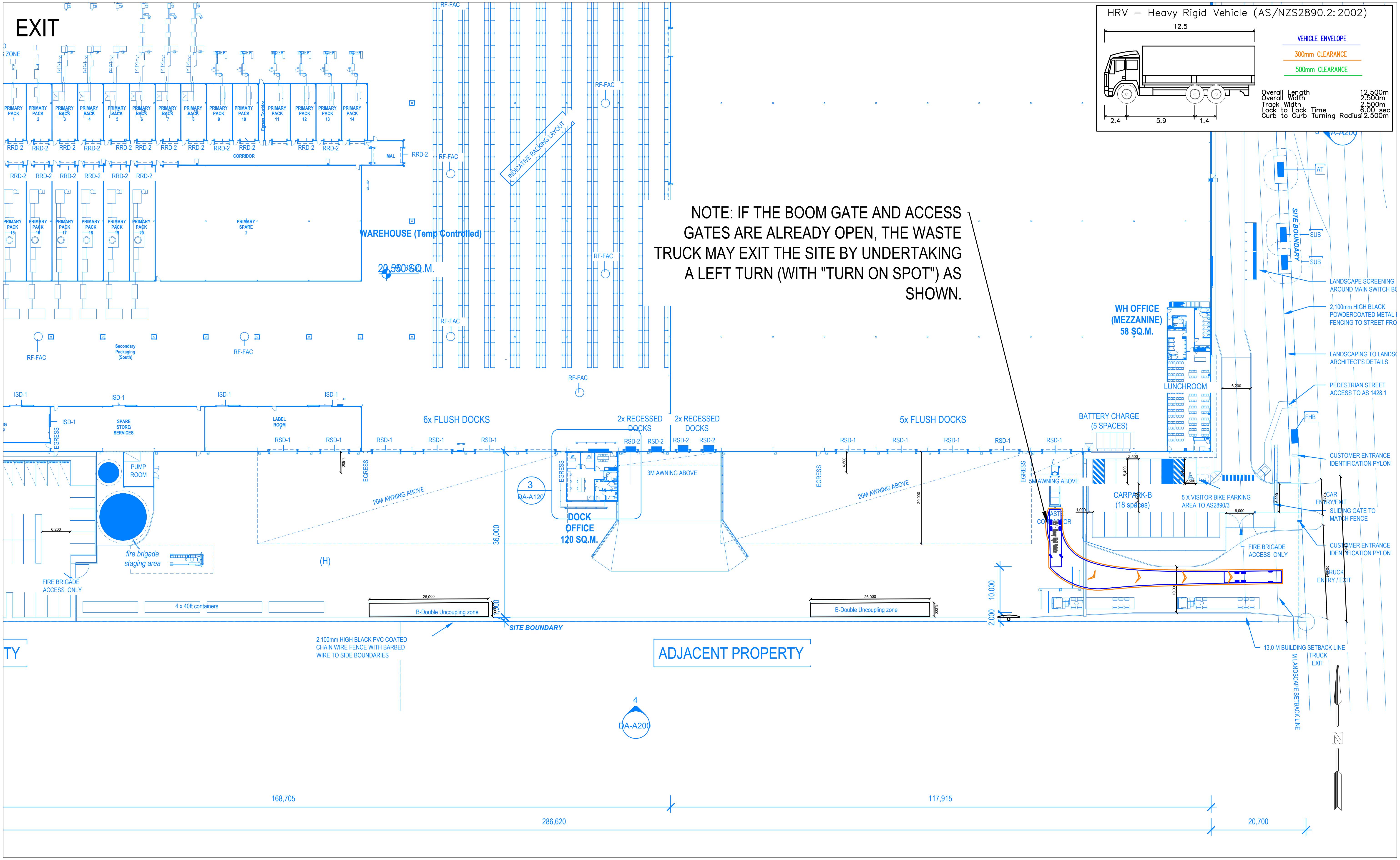
EXIT
HRV – Heavy Rigid Vehicle (AS/NZS2890.2: 2002)
VEHICLE ENVELOPE
300mm CLEARANCE
500mm CLEARANCE
Overall Length 12.500m
Overall Width 2.500m
Track Width 2.500m
Lock to Lock Time 6.00 sec
Curb to Curb Turning Radius 12.500m
NOTE: IF THE BOOM GATE AND ACCESS GATES ARE ALREADY OPEN, THE WASTE TRUCK MAY EXIT THE SITE BY UNDERTAKING A LEFT TURN (WITH "TURN ON SPOT") AS SHOWN.
WAREHOUSE (Temp Controlled)
20,550 SQ.M.
WH OFFICE (MEZZANINE) 58 SQ.M.
LUNCHROOM
6x FLUSH DOCKS
2x RECESSED DOCKS
5x FLUSH DOCKS
BATTERY CHARGE (5 SPACES)
DOCK OFFICE 120 SQ.M.
CARPARK-B (18 spaces)
5 X VISITOR BIKE PARKING AREA TO AS2890/3
LANDSCAPE SCREENING AROUND MAIN SWITCH BOARD
2,100mm HIGH BLACK POWDERCOATED METAL FENCING TO STREET FRONT
LANDSCAPING TO LANDSCAPE ARCHITECT'S DETAILS
PEDESTRIAN STREET ACCESS TO AS 1428.1
CUSTOMER ENTRANCE IDENTIFICATION PYLON
CAR ENTRY/EXIT
SLIDING GATE TO MATCH FENCE
FIRE BRIGADE ACCESS ONLY
TRUCK ENTRY / EXIT
13.0 M BUILDING SETBACK LINE
TRUCK EXIT
SITE BOUNDARY
ADJACENT PROPERTY
2,100mm HIGH BLACK PVC COATED CHAIN WIRE FENCE WITH BARBED WIRE TO SIDE BOUNDARIES
B-Double Uncoupling zone
4 x 40ft containers
fire brigade staging area
PUMP ROOM
168,705
117,915
286,620
20,700

GENERAL NOTES

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Design vehicle: 30m A-Double

DESIGNED: Jasmine Wong	PAPER SIZE: A3	CLIENT: Altis Frasers JV Pty Ltd	DOCUMENT INFORMATION: DESIGN REVIEW
APPROVED BY: X.XXXX	DATE: 15.06.2023	PROJECT: 2023	12.5m HRV SWEPT PATHS (WASTE TRUCK)
SCALE: 1:750	NTS	Bakers Lane, Kemps Creek	FILE NAME: AG2023-01-v11.dwg — SHEET: AG09

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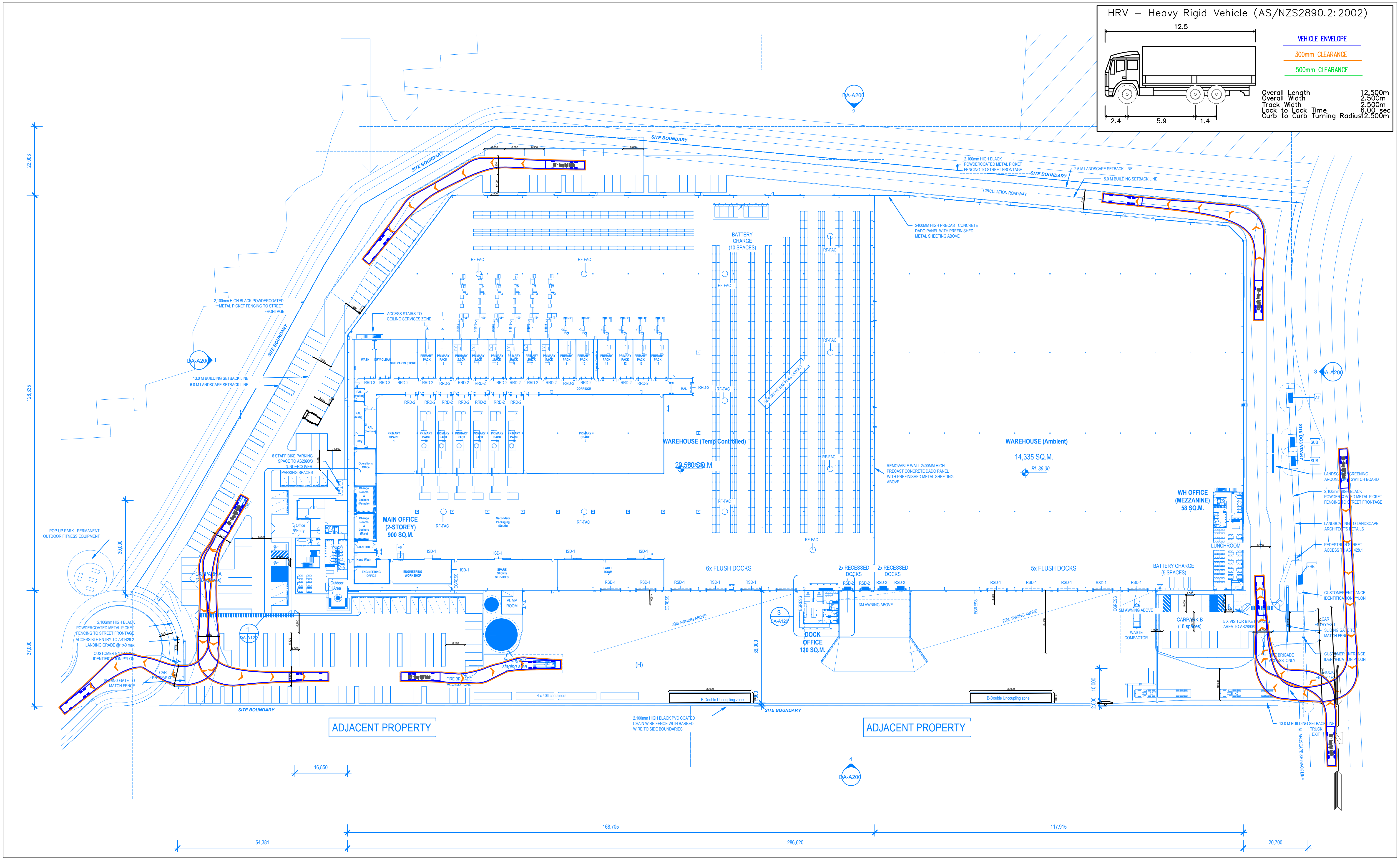

GENERAL NOTES

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Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED	PAPER SIZE
Jasmine Wong	A3
APPROVED BY	DATE
X.XXXX	15.06.2023
SCALE	
1:1100	NTS

CLIENT
Altis Frasers JV Pty Ltd

PROJECT
2023
Bakers Lane, Kemps Creek

DOCUMENT INFORMATION
DESIGN REVIEW
FIRE TRUCK SWEPT PATHS (ANTI CLOCKWISE)

FILE NAME	SHEET
AG2023-01-v11.dwg	AG10

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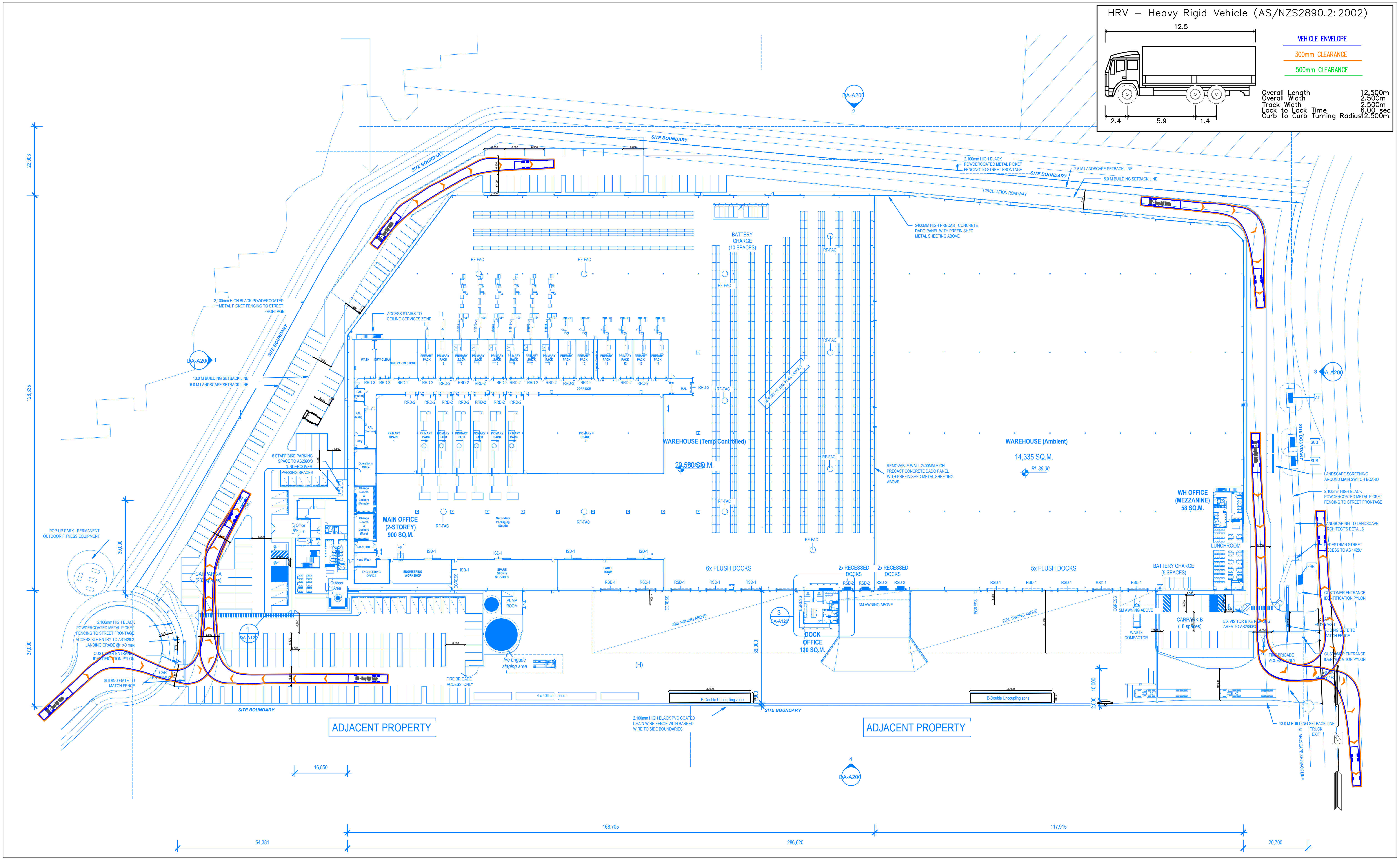

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Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30m A-Double

DESIGNED	PAPER SIZE
Jasmine Wong	A3
APPROVED BY	DATE
X.XXXX	15.06.2023
SCALE	
1:1100	NTS

CLIENT

Altis Frasers JV Pty Ltd

PROJECT

2023

Bakers Lane, Kemps Creek

DOCUMENT INFORMATION

DESIGN REVIEW

FIRE TRUCK SWEPT PATHS (CLOCKWISE)

FILE NAME	SHEET
AG2023-01-v11.dwg	AG11

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