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**125 and 145-175 Lawson Road,
Badgerys Creek**
Transport Impact Assessment

SSD-81662708

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P2732A



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Executive summary

This Transport Impact Assessment (TIA) has been prepared by Ason Group to accompany a State Significant Development Application (SSDA) SSD-81662708 for an industrial estate. The project seeks detailed approval for a new industrial estate comprising large and small format warehousing and distribution centres at 125 and 145-175 Lawson Road, Badgerys Creek (the site).

The legal description of the site is outlined in Table 1.

Table 1: Legal description of the site

Property address	Title description
125 Lawson Road, Badgerys Creek	Lot 1 in DP226912
145 Lawson Road, Badgerys Creek	Lot 3 in DP226912
155 Lawson Road, Badgerys Creek	Lot 4 in DP226912
165 Lawson Road, Badgerys Creek	Lot 5 in DP226912
175 Lawson Road, Badgerys Creek	Lot 6 in DP226912

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project (SSD-81662708).

The proposed development site layout considers the future upgrade of Lawson Road and Pitt Street to 25.6-metre-wide and 40-metre-wide road reserves, respectively, in accordance with the requirements outlined in the Aerotropolis Precinct Plan and DCP. Spatial allowance has been made for a future 19.5-metre-wide park edge street along the western side of the site, consistent with that envisaged in the Aerotropolis Precinct Plan and DCP. The park edge street is not required to facilitate the development, noting suitable access arrangements are provided via Lawson Road to all proposed warehouses, as well as Sydney Water's future basins.

Similarly, the project includes an east-west 24-metre-wide corridor along the northern side of the site to allow for a local industrial street to be delivered in the future if required, noting it is not required to facilitate the development. Until then, a private access driveway is proposed to be provided along the northern boundary of the site within this corridor, with separate access points provided along the access driveway to the individual car park and hardstand areas for Warehouses 2 to 4.

Car and bicycle parking are proposed in accordance with DCP requirements, and are appropriately allocated between the warehouses. The site access arrangements, internal circulation, loading areas and parking for a range of light, heavy and emergency vehicles have been designed in accordance with relevant Australian Standards (AS2890 series).

The proposed development is expected to generate around 97 and 113 vehicle trips in the weekday AM and PM peak hours, respectively. Traffic modelling at the Elizabeth Drive/Lawson Road and Elizabeth Drive/Martin Road intersections indicates the proposed development traffic is expected to have a minor impact on the operation of the surrounding road network. Traffic modelling considers both the existing and planned arrangements for these intersections, noting the nearby Elizabeth Drive East upgrade. Overall, these intersections are expected to operate satisfactorily at a LOS C or better during the weekday peak hours with and without the proposed development.

In summary, the proposed industrial estate 125 and 145-175 Lawson Road, Badgerys Creek is supported on traffic and transport planning grounds and will not result in any adverse impacts on the surrounding road network.

1 Introduction

1.1 Background and project description

This Transport Impact Assessment (TIA) has been prepared in support of a development at 125 and 145-175 Lawson Road, Badgerys Creek (the site), including detailed approval for an industrial estate. The project seeks to deliver a new industrial estate comprising large and small format warehousing and distribution centres within Badgerys Creek.

Specifically, the State Significant Development Application (SSDA) seeks approval for the following:

- Construction of an industrial estate, comprising four warehouse buildings with a total of 46,153.9 square metres of warehouse and ancillary office gross floor area (GFA). It will deliver a range of large and small format warehouse and distribution centres, as follows:
 - Warehouse 1 has a total GFA of 40,505.5 square metres
 - Warehouse GFA: 38,572 square metres
 - Office GFA: 1,877.5 square metres (plus 60 square metres dock office)
 - Warehouse 2 has a total GFA of 1,328 square metres
 - Warehouse GFA: 1,186 square metres
 - Office GFA: 142 square metres
 - Warehouse 3 has a total GFA of 1,323 square metres
 - Warehouse GFA: 1,186 square metres
 - Office GFA: 137 square metres
 - Warehouse 4 has a total GFA of 2,997.4 square metres
 - Warehouse GFA: 2,826.5 square metres
 - Office GFA: 140.9 square metres
- Maximum building height of 19.6 metres
- Construction of a private internal driveway along the northern boundary of 125 Lawson Road servicing Warehouses 2 to 4
- Construction of regional basin
- Associated landscaping work and deep soil areas (comprising communal open space areas)
- Provision of road corridors providing an option for future delivery of local roads by the relevant roads authority.

1.2 Purpose of this report

This TIA has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 23 April 2025 and issued for the SSDA (SSD-81662708). Specifically, this report has been prepared to respond to the SEARs and government agency comments summarised in Table 2.

Table 2: SEARs and government agency comments

Item	Description of requirement	Section reference
SEARs – Traffic and Transport	- A quantitative transport impact assessment prepared in accordance with the Transport for NSW (TfNSW) Guide to Transport Impact Assessment (GTIA) and Austroads guidelines, that includes: - Consideration of all deliverables and actions for construction and operation of the development in Appendix E – Scoping checklist of the GTIA	This TIA has been prepared in accordance with the requirements of the GTIA, including Appendix E – Scoping checklist.
	An estimate of trip generation, mode split, arrival/departure profiles and trip distribution	Section 6.1, 6.2 and 9.2
	- Consideration of the road requirements of the Precinct Plan including: - A full assessment of the proposed internal local road network against the relevant sections of the Precinct Plan, including ensuring any variations do not impede on the development of adjoining sites and allow for a permeable street network	Section 7
	Demonstration that Park Edge Streets are provided in accordance with requirement BG4 of the Precinct Plan and are accessible to the wider road network	Section 7
	Locating road infrastructure outside of areas noted as Open Space / Stormwater Land	Addressed separately
	Details of consultation with TfNSW and Liverpool City Council regarding the relationship between the development and any existing or proposed transport infrastructure upgrades required for the proposal or in the surrounding area, including the Eastern Ring Road and Pitt Street	Section 1.4
	Details of road upgrades, infrastructure works or new roads or access points required for the development, in accordance with the outcomes of consultation with TfNSW and Liverpool City Council, including interim and ultimate site access arrangements	Refer to Section 1.4 for details of consultation with authorities. Details proposed/planned road upgrades and infrastructure works are presented in Section 2 and 7.2. Refer to Section 4 and 7 for proposed development access strategy. Section 6 assesses the impact of the proposed development on the surrounding road network with consideration to surrounding planned infrastructure works.
	An assessment of cumulative traffic impact on road performance and safety implications at key intersections using an appropriate modelling framework (including the consideration of existing base case, future base case and	Refer to Section 1.4 for details on agreed modelling methodology with TfNSW.

Item	Description of requirement	Section reference
	project case scenarios), including, but not limited to the Lawson Road / Elizabeth Drive and Martin Drive / Elizabeth Drive intersection	Traffic modelling results are summarised in Section 3.7 and 6.
	Plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network	Section 7 and 8.6.
	Detailed plans of the site access and proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards, Western Sydney Aerotropolis Precinct Plan and Western Sydney Aerotropolis Development Control Plan 2022	Refer to architectural plans. Section 7 assesses the proposed site layout in accordance with the design requirements of AS2890, Western Sydney Aerotropolis Precinct Plan and Western Sydney Aerotropolis Development Control Plan 2022.
	Swept path diagrams for the largest vehicles manoeuvring through site access points, internal roads, hardstand areas and nearby intersections (where necessary)	Appendix C
	Details of likely trip generation during construction, construction vehicle routes, access and parking arrangements and measures to mitigate any construction traffic and parking impacts, including a Draft Construction Traffic Management Plan.	Section 8
TfNSW comments	A comprehensive transport impact assessment detailing the expected trips generation of the proposed development and the impact that this will have on the surrounding road network (trip generation inclusive of trips by pedestrians, cyclists, and vehicles). It is to detail the existing and proposed parking conditions and the suitability of parking and loading arrangements for the development.	This report
	A comprehensive traffic model of the proposed development including SIDRA files that demonstrate daily and peak traffic movements based on opening day and a ten-year future forecast.	Section 3.7 and 6
	Details of light and heavy vehicle movements during construction and operation, including description of heavy vehicle types and haul route origins and destinations.	Section 6.1, 6.2 and 8.8
	Details of the proposed site access and the parking provisions associated with the proposed development, including compliance with Austroads and Australian Standards (i.e. turn paths, sight distance requirements, aisle widths, etc.). The proponent must demonstrate that the site plan, site access and surrounding road network can accommodate the largest vehicles entering, exiting, and manoeuvring throughout the site, with consideration to other development access points in the vicinity.	Section 5 and 7

Item	Description of requirement	Section reference
	Details of the impact of trips generated by the development to nearby intersections (Elizabeth Drive, Lawson Road and Martin Drive), with consideration of the cumulative impacts from other approved developments in the vicinity and the need/associated funding for upgrades or road improvement works.	Section 1.4 and 6.3
	Daily inbound and outbound traffic profiles by time of day and day of week classified by vehicle type.	Appendix B
	The Traffic Management Plan should include managing the number of vehicles likely to be generated during construction and operation, awaiting loading, unloading, or servicing that can be accommodated on the site to avoid queuing in the surrounding road network. This is to demonstrate how internal and external traffic can be managed in conjunction with existing traffic on site.	Section 6.1, 7, 8.6 and 8.8
	A detailed site layout to demonstrate that the site will sufficiently accommodate the most productive parking arrangement on site for the various vehicle types in accordance with the relevant Australian Standard and Council's Development Control Plan.	Refer to architectural plans and Section 7
	Measures to integrate the development with the existing/future public transport network.	Section 7
	Details of travel demand management measures to minimise the impact on general traffic, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel Plan) and facilities to increase the non-car mode share for travel to and from the site.	Section 9
Liverpool City Council comments	Daily and peak traffic movements which are likely to be generated by the proposed development including the impact on nearby intersections and the need/associated funding for upgrading or road improvement works (if required).	Section 6.1 and 6.3
	Details of the proposed accesses and the layout of the parking associated with the proposed development including compliance with the requirements of the relevant Australian Standards (i.e. turn paths, sight distance requirements, aisle widths, etc).	Section 7 and Appendix C
	Proposed number of car parking spaces and compliance with the appropriate parking codes.	Section 5
	Details of heavy vehicle movements and haulage routes (including vehicle type and likely arrival and departure times).	Section 6.2 and 8.8
	Assessment of adequacy of Lawson Road pavement conditions and road infrastructure to cater for increasing traffic movements generated from the subject development and other planned developments within the area.	Section 6.3 assesses the operation impact of development traffic on Lawson Road. Assessment of pavement conditions is addressed separately within the Infrastructure

Item	Description of requirement	Section reference
		and Servicing report prepared by AT&L.
	Intersection performance analysis is to be carried out to assess cumulative traffic impacts of the proposed development and other planned developments within the area.	Section 6.3
	Lawson Road is a collector road. The proposed collector road, local road or park edge street should be designed in accordance with the aerotropolis DCP. Land affectation on the subject site for the proposed new or upgraded road should be shown and identified on the site plan. Design of a collector road, local road and park edge street should be submitted to Council for approval.	Section 7
	Pitt Street is planned to be a future sub-arterial road. Consultation is required with TfNSW and Council for the design of Pitt Street as well as the intersection treatment and layout of Lawson Road/Pitt Street.	Section 1.4 and 7
	It is noted that TfNSW is currently upgrading Elizabeth Drive. The intersection of Elizabeth Drive/Lawon Road will be restricted to left in/left out as part of the upgrade. Consultation is required with TfNSW for interim and ultimate access to/from Elizabeth Drive.	Section 1.4
	Both interim and ultimate access arrangements to the subject site are required to be identified and included in the TIA report.	Section 7
	Identification of the required road, active transport, bus stop and intersection upgrades to facilitate the subject development.	Section 6.3.3
	Prepare a location-specific sustainable travel plan (e.g. 'Travelsmart' or other travel behaviour change initiative); and the provision of facilities to increase the non-car mode share for travel to and from the site. This will entail an assessment of the accessibility of the development site by public transport.	Section 9
	The provision of a construction traffic management plan for all demolition/construction activities, detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.	Section 8

This TIA sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- Strategic context and overarching alignment with the planning intent for the surrounding area
- Existing transport and parking conditions surrounding the site
- Summary of the proposal
- Suitability of the proposed parking supply, access strategy and overall layout

- Service vehicle requirements
- Traffic generating characteristics of the proposed development
- Transport impacts on the surrounding networks
- Preliminary construction and pedestrian management measures
- Preliminary green travel initiatives and objectives.

1.3 References

In preparing this TIA, reference has been made to the following:

- Western Sydney Aerotropolis Development Control Plan (Aerotropolis DCP)
- Western Sydney Aerotropolis Precinct Plan (Aerotropolis Precinct Plan)
- State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (WPC SEPP)
- NSW Government, Aerotropolis Sector Plan, 2025 (Aerotropolis Sector Plan)
- Australian Standard 2890.1:2004: Parking Facilities – Off-Street Car Parking, 2004 (AS 2890.1:2004)
- Australian Standard 2890.2:2018: Parking Facilities – Off-Street Commercial Vehicle Facilities, 2018 (AS2890.2:2018)
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking, 2015 (AS 2890.3:2015)
- Australian Standard 2890.6:2022: Parking Facilities – Off-Street Parking for People with Disabilities, 2022 (AS 2890.6:2022)
- TfNSW, Guide to Transport Impact Assessment – Technical guidance for transport practitioners, V 1.1, 2024 (GTIA)
- NSW Government, Elizabeth Drive – East Upgrade, Review of Environmental Factors, 2023 (Elizabeth Drive REF)
- Ason Group, Transport Statement, Proposed Elizabeth Drive/Crown Road Safety Improvements, Ref: P1743r02v1, dated September 2024
- Other documents and data as referenced in this TIA.

1.4 Stakeholder engagement

1.4.1 TfNSW

TfNSW has been consulted with throughout the project, specifically as it relates to the status of planning for the Pitt Street upgrade (and associated interfaces) and the requirements for traffic modelling to assess the impact of the proposed development and the consideration of future road upgrades.

In a meeting on 7 April 2025, TfNSW indicated that the Pitt Street upgrade is in the very early stages of planning and therefore road alignments and intersection arrangements have not yet been determined. The intersection of Pitt Street and Lawson Road will be a four-way intersection likely to be controlled by traffic signals. Pitt Street to the west of the site is also intended to be a public transport only corridor leading into the Western Sydney International Airport. Walking, cycling and public transport will be prioritised on Pitt Street west of Lawson Road. No funding is currently allocated to the Pitt Street upgrade and it is likely it will not be delivered within the next 10 to 15 years, as confirmed in subsequent email correspondence with TfNSW with regard to expected land acquisition activities for road widening. The future Pitt Street alignment would likely follow the alignment of existing Pitt Street rather than Cuthel Road.

In addition to the above, the following traffic modelling methodology and assumptions were agreed with TfNSW on 5 May 2025:

- SIDRA Intersection (SIDRA) modelling for the following intersections:

- Elizabeth Drive/Lawson Road
- Elizabeth Drive/Martin Road
- Assessment scenarios:
 - 2025 existing conditions
 - 2027 with and without the development (assumed opening year)
 - 2037 with and without the development (10 years post opening)
- TfNSW supports adopting a 4.6 per cent per annum traffic growth rate to estimate future year traffic volumes on the surrounding road network. This traffic growth rate is consistent with the average growth rate forecast for Elizabeth Drive up to 2040 as detailed in the Elizabeth Drive East Upgrade Review of Environmental Factors.

A draft TIA was submitted to TfNSW for review and comment prior to SSD lodgement. A summary of the comments received and the associated response to how each item has been addressed is provided in Table 3.

Table 3: TfNSW pre-DA comments

TfNSW comment	Response
Consider the manoeuvrability/safety/ operational aspects at the Elizabeth Drive/Lawson Road and the operation/safety aspects at the Elizabeth Drive/Martin Road intersection.	A design solution for a possible interim upgrade to the Elizabeth Drive/Lawson Road intersection has been undertaken in response to comments raised by TfNSW to improve road safety at this intersection. Further commentary on the interim upgrade is provided in Section 7.2, while vehicle swept paths for the largest design vehicles travelling through this intersection are provided in Appendix C. The Elizabeth Drive/Martin Road intersection has recently been upgraded to traffic signals which has naturally resulted in an improved road safety outcome at this intersection. The proposed development is not anticipated to compromise road safety at this intersection, nor are further measures are considered necessary to accommodate the proposed development. The proposed development is expected to have a minor impact on the operation of both intersections, as confirmed by the traffic modelling presented in Section 6.3.
Demonstrate swept paths for the largest vehicles proposed by the development, and that they can safely operate between the subject site and the classified road network for existing, interim, and ultimate Elizabeth Drive upgrades.	Vehicle swept paths for the largest design vehicles travelling through the site and connecting with Elizabeth Drive are provided in Appendix C.
The Applicant should propose mitigation measures, such as an Operational Management Plan, to accommodate heavy vehicles to the development, where necessary.	An Operational Management Plan would be prepared prior to occupation of the development once tenant operational requirements are known.
It is recommended that the GTIA traffic generation rates of 0.17 and 0.21 vehicle trips per 100m ² GFA be adopted for the AM and PM peak hours, respectively.	The traffic assessment presented in Section 6 has subsequently been updated to adopt the traffic generation rates recommended by TfNSW.

Ongoing consultation with TfNSW is planned as the project progresses to SSD lodgement with DPHI, and coordination between authorities is required to finalise decisions on infrastructure delivery and road network outcomes.

1.4.2 Liverpool City Council

The project team has met with Liverpool City Council (Council) to progress discussions regarding an upgrade to Lawson Road and associated acquisition arrangements for Lawson Road widening.

Interim improvement works to Lawson Road (connecting to Elizabeth Drive) are included within the scope of the proposal to facilitate site access at the commencement of operations. These works are illustrated in concept drawings 25-1278-SKC01, 125-1278-SKC021 and 25-1278-SKC022. Detailed design will be developed in consultation with Council, as the relevant road authority, prior to the issue of the relevant construction certificate and issue of a Section 128 Roads Act approval.

It is noted that these interim works are proposed as a temporary measure only. There is a reasonable likelihood that they may not ultimately be required, should the permanent upgrade of Lawson Road to a Collector Road — including access to Elizabeth Drive via Martin Road — proceed within a corresponding timeframe as provisioned for under SSD-97688711. In that scenario, the interim works would be unnecessary and therefore not implemented.

Discussions with Council have also involved consideration of the local roads envisaged in the Precinct Plan (including park edge street) and the development proposal, which is considered an informed development outcome that responds to the specific constraints and considerations of the site and delivery a commercially viable scheme. The development proposal is also consistent with the Enterprise zone which is intended to accommodate 24/7 warehousing and logistics operations, including higher-order uses, large-format employment typologies, and freight-capable development outcomes.

1.4.3 Sydney Water

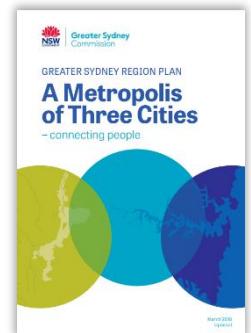
The project team continues to engage with Sydney Water to finalise the regional stormwater basin design (and proposed developer led delivery arrangements) located on the western fringe of the site. The design presented to Sydney Water includes a maintenance access ramp connecting through the warehouse site (via the Lawson Road entrance).

2 Strategic context

2.1 Greater Sydney Regional Plan – A Metropolis of Three Cities

The Greater Sydney Region Plan, A Metropolis of Three Cities sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters.

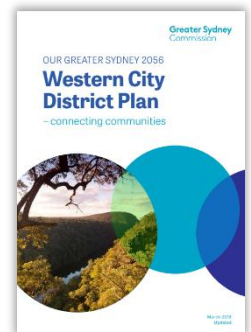
The proposed development directly supports Objective 23 of the plan which seeks to ensure that industrial and urban services land is planned, retained and managed. The Western Parkland City is also highlighted as needing to provide additional industrial and urban services areas to accommodate significant population growth and development growth associated with the new release areas.



2.2 Western City District Plan

This Western City District Plan is also a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It is a guide for implementing the Greater Sydney Region Plan, A Metropolis of Three Cities, at a district level and is a bridge between regional and local planning.

The intended future heavy industrial activities at the site support Planning Priority W10 of maximising freight and logistics opportunities, and planning and managing industrial and urban services land within Western Sydney. The site is located in close proximity to major transport networks such as Elizabeth Drive, the M7 Motorway and the future M12 Motorway, allowing for freight and logistics opportunities to be maximised as sought under this planning priority.

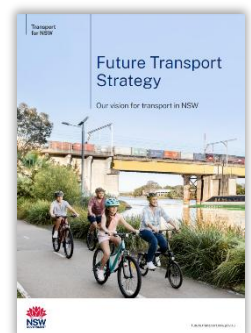


2.3 Future Transport Strategy

The Future Transport Strategy sets TfNSW's vision for safe, healthy, sustainable, accessible and integrated passenger and freight journeys in NSW. The Future Transport Strategy sets the strategic directions for TfNSW to achieve world-leading mobility for customers, communities, businesses and our people. The strategy identifies the expansion of the freight network as a central focus.

Strong population growth, rapid urbanisation and industrial activity in Western Sydney are key factors underpinning freight demand in NSW. The Western Sydney Freight Line has been proposed as a future dedicated freight rail connection to the future Outer Sydney Orbital near Luddenham and would ease road congestion, enabling goods to be transported by rail, rather than road.

The freight line will extend to the north of the site, with an intermodal terminal site confirmed for the Mamre Road precinct, located directly north of the site. The proposed development would be able to take advantage of this planned infrastructure, providing an alternate transport means for site inputs and outputs and minimising impact on the broader road network.



2.4 Western Sydney Aerotropolis

Supported by the Western Sydney International Airport, the Western Sydney Aerotropolis (WSA) is set to become a dynamic economic hub, fostering high-skill employment across sectors such as aerospace, defence, manufacturing, healthcare, freight and logistics, agribusiness, and education.

The planning framework for the Aerotropolis has been established through the Aerotropolis Precinct Plan. This plan facilitates development across the initial precincts, aligning with the opportunities presented by the new international airport.

The Structure Plan for the Aerotropolis is based on the following principles:

- The gradual transition of existing agricultural uses within the Aerotropolis to the west as the Aerotropolis and WSA are constructed
- New freight rail lines providing better connections to global markets through the Aerotropolis Gateway, as well as to Port Botany and Port Kembla, creating opportunities for new and more efficient freight terminals and logistics and freight handling industries
- A new metro lines to the WSA, providing an opportunity to create intensive employment centres around new stations
- Residential opportunities to the east and south of the Aerotropolis to further boost economic growth.

Further to the above, it is expected that the Aerotropolis will make a significant contribution to the 200,000 new jobs planned for Western Sydney through the establishment of a new high-skill jobs hub encompassing sectors such as aerospace and defence, manufacturing, healthcare, freight and logistics, and education and research industries.

Supporting this vision for the Aerotropolis, significant transport infrastructure projects are planned or under investigation which will influence the location and nature of development within the broader sub-region.

Figure 1 illustrates the location of the site in the context of the broader Aerotropolis Structure Plan.

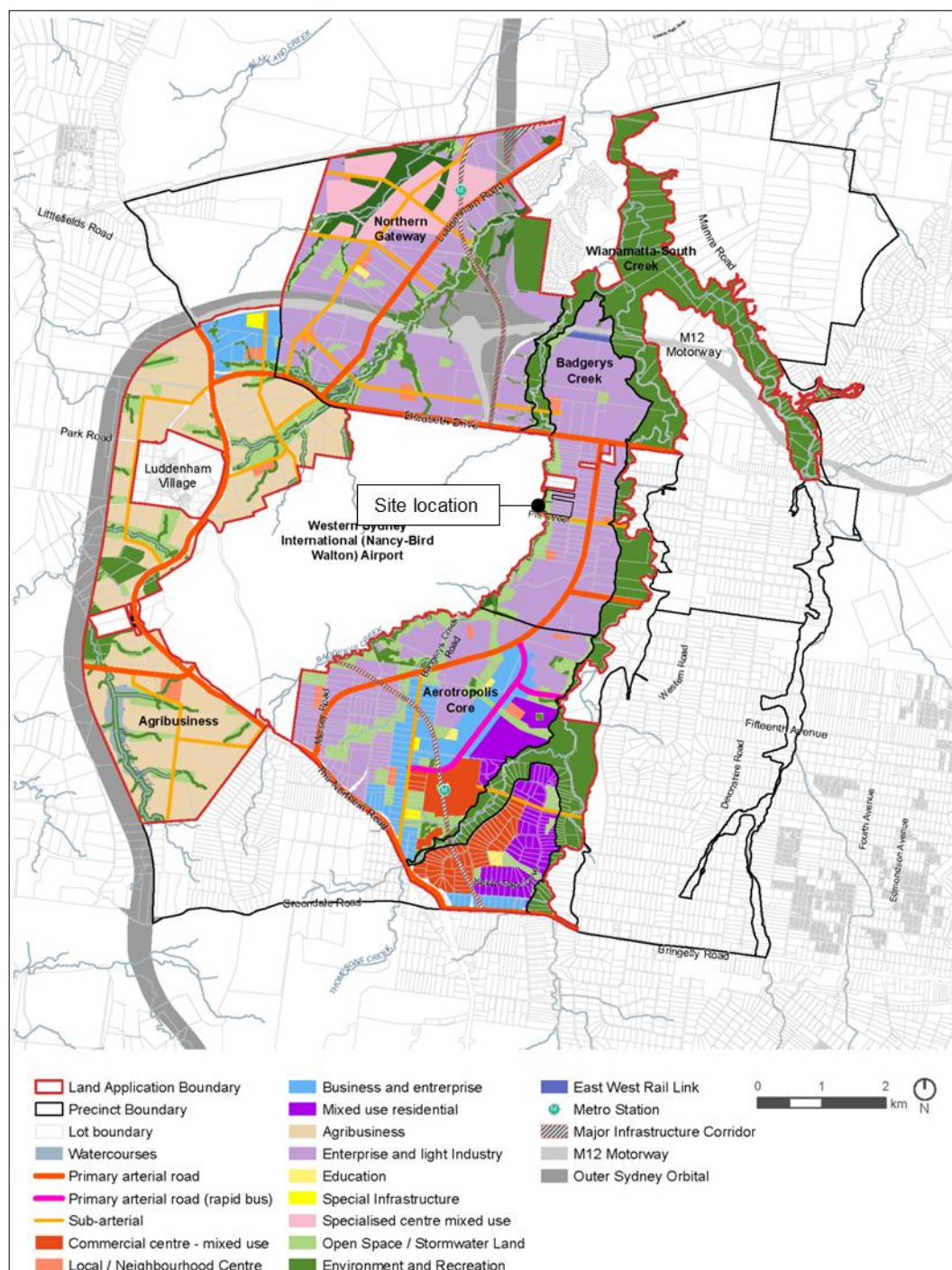


Figure 1: Site location in the context of the Aerotropolis Structure Plan

Base image source: Figure 3 of the Aerotropolis Precinct Plan

The Aerotropolis Precinct Plan provides guidance on the future transport network for the surrounding area. The Western Sydney Aerotropolis transport network is shown in Figure 2, with the street hierarchy shown in Figure 3 and active transport network shown in Figure 4.

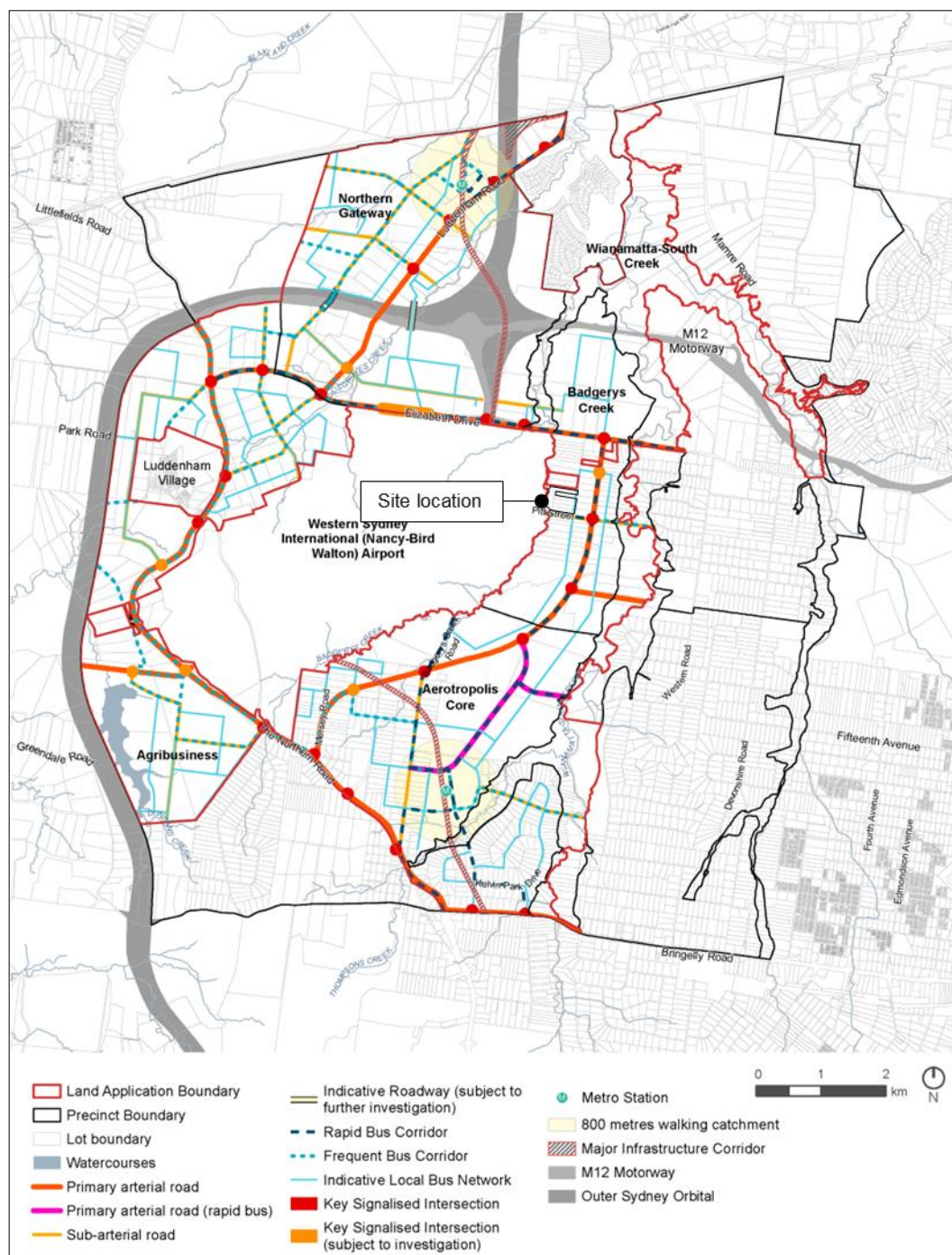


Figure 2: WSA transport network

Base image source: Figure 8 of the Aerotropolis Precinct Plan

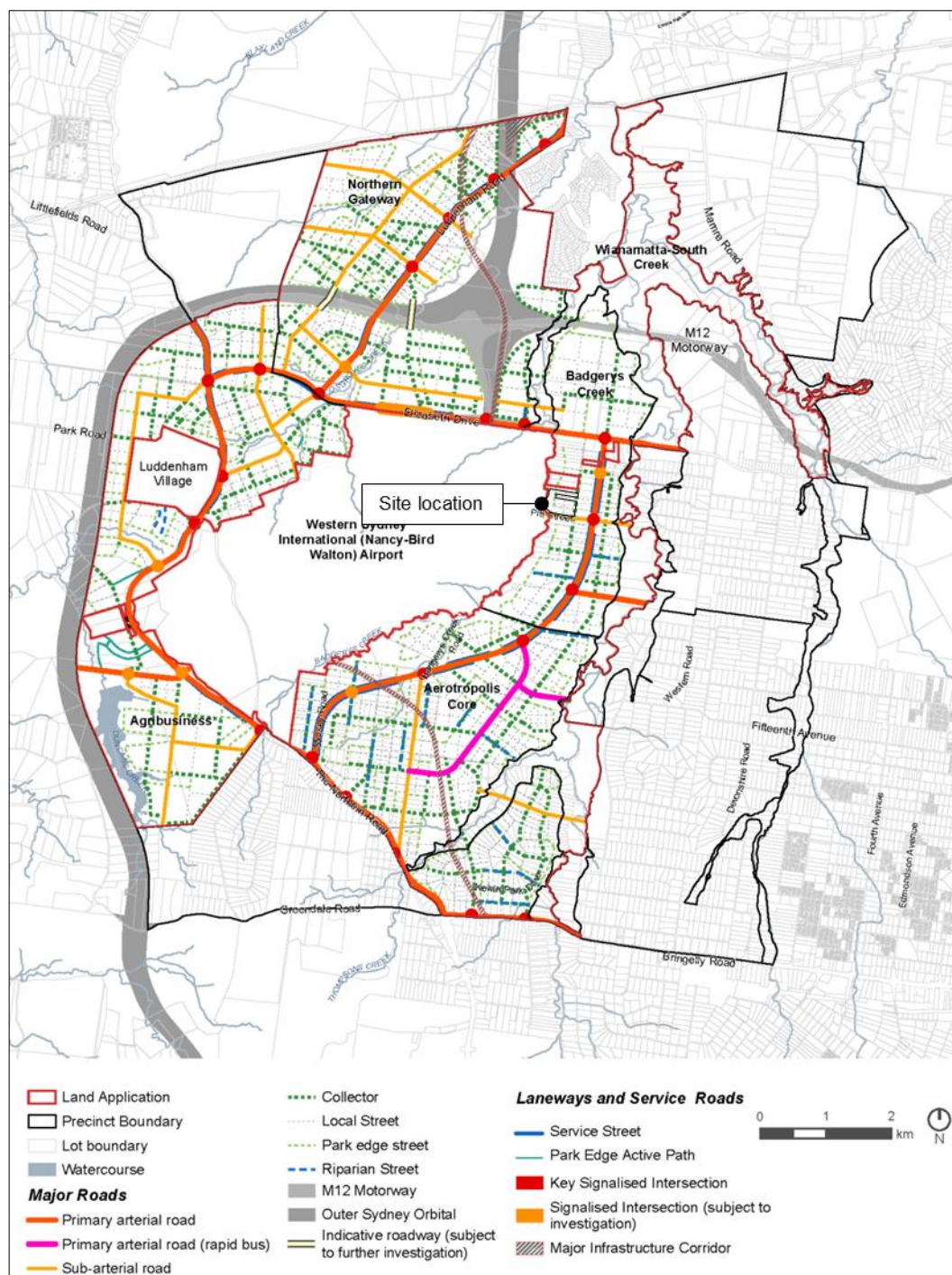


Figure 3: WSA street hierarchy

Base image source: Figure 10 of the Aerotropolis Precinct Plan

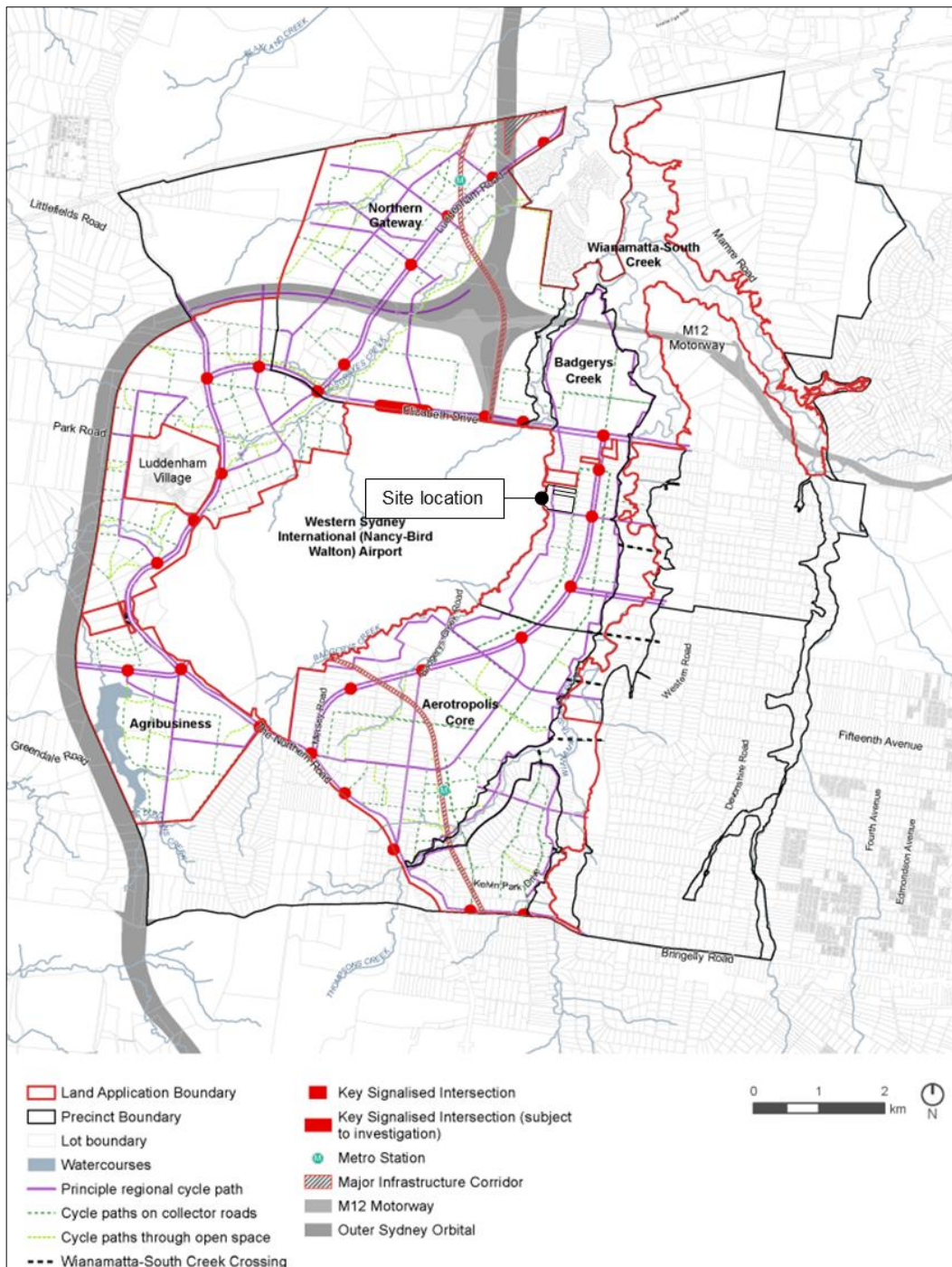


Figure 4: WSA active transport network

Base image source: Figure 9 of the Aerotropolis Precinct Plan

Specific to the site, the Aerotropolis Precinct Plan identifies Lawson Road along the eastern side of the site as a future collector road, while Pitt Street along the southern side of the site is identified as a future sub-arterial road. Pitt Street would also be extended further east to connect with Martin Road (or the future Eastern Ring Road). It is understood through consultation with TfNSW that Pitt Street to the west of the site is intended to be a public transport only corridor leading into the Western Sydney International Airport.

In addition to the above, a north-south park edge street is also identified along a portion of the western side of the site, although it is noted that the Aerotropolis Precinct Plan shows this travelling through land not within the Aerotropolis to

the north, as well as through land owned by other parties. The Aerotropolis Precinct Plan also suggests it would not connect with Pitt Street or Elizabeth Drive. Some local roads are also identified to travel through the site.

With regard to the planned active transport network, Pitt Street and Martin Road would be a principle regional cycle route, with cycle paths also provided along Lawson Road.

The cross-sectional requirements for collector roads (Lawson Road) and sub-arterial roads (Pitt Street) as set out in the Aerotropolis DCP are shown in Figure 5 and Figure 6, respectively. Similarly, the cross-sectional requirements for the park edge street and local roads are shown in Figure 7 and , respectively.

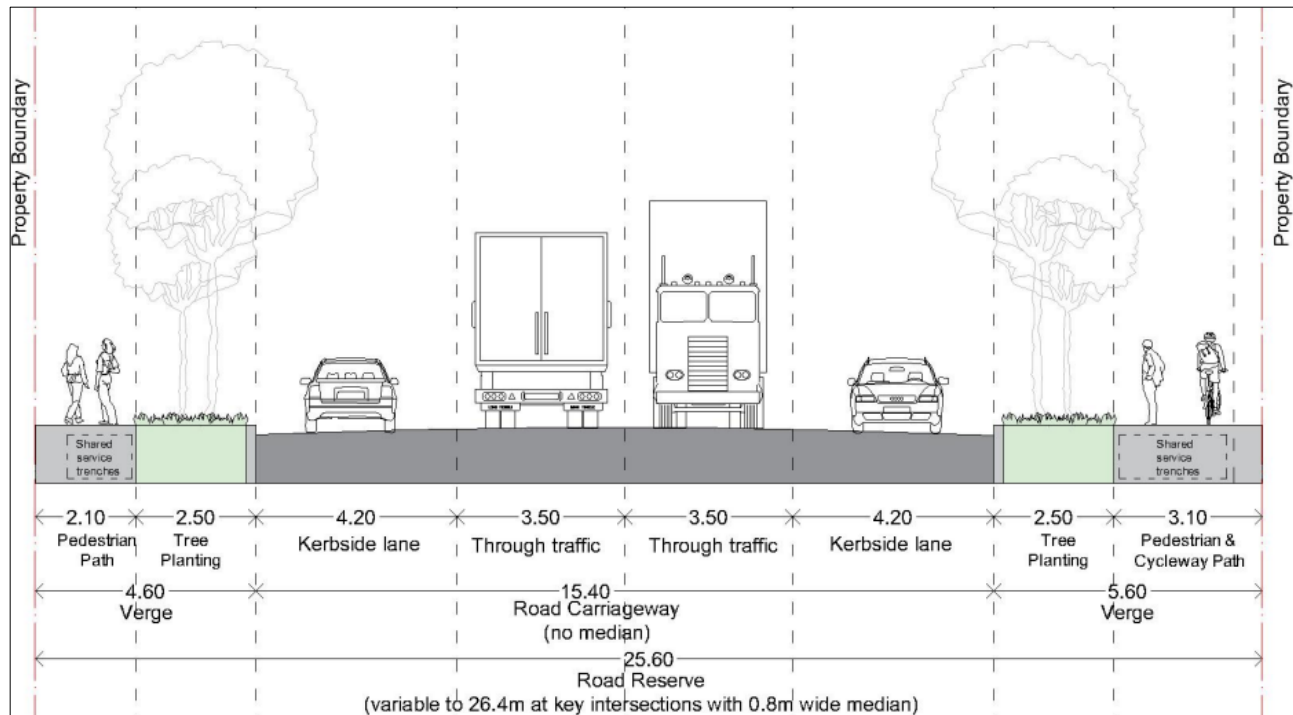


Figure 5: Collector road cross-sectional requirements

Source: Figure 13 in the Aerotropolis DCP

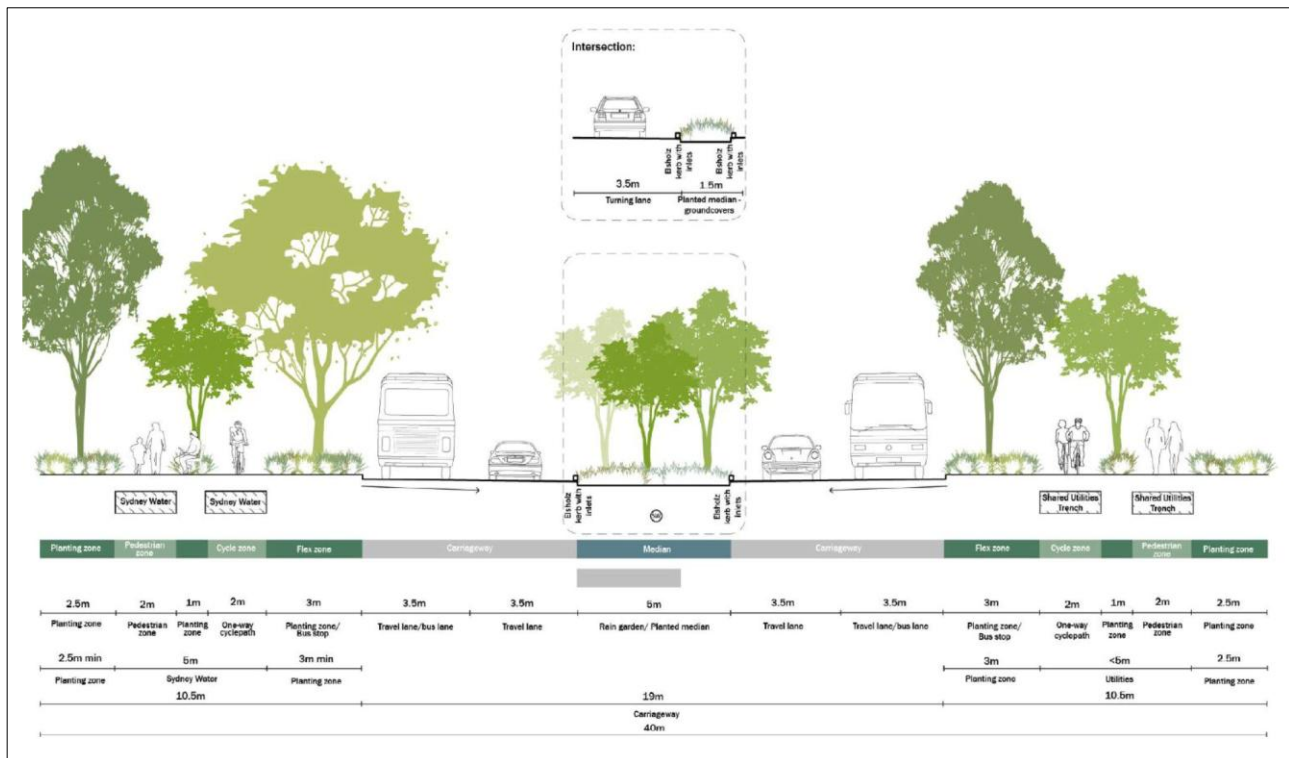


Figure 6: Sub-arterial road cross-sectional requirements

Source: Figure 8 in the Aerotropolis DCP

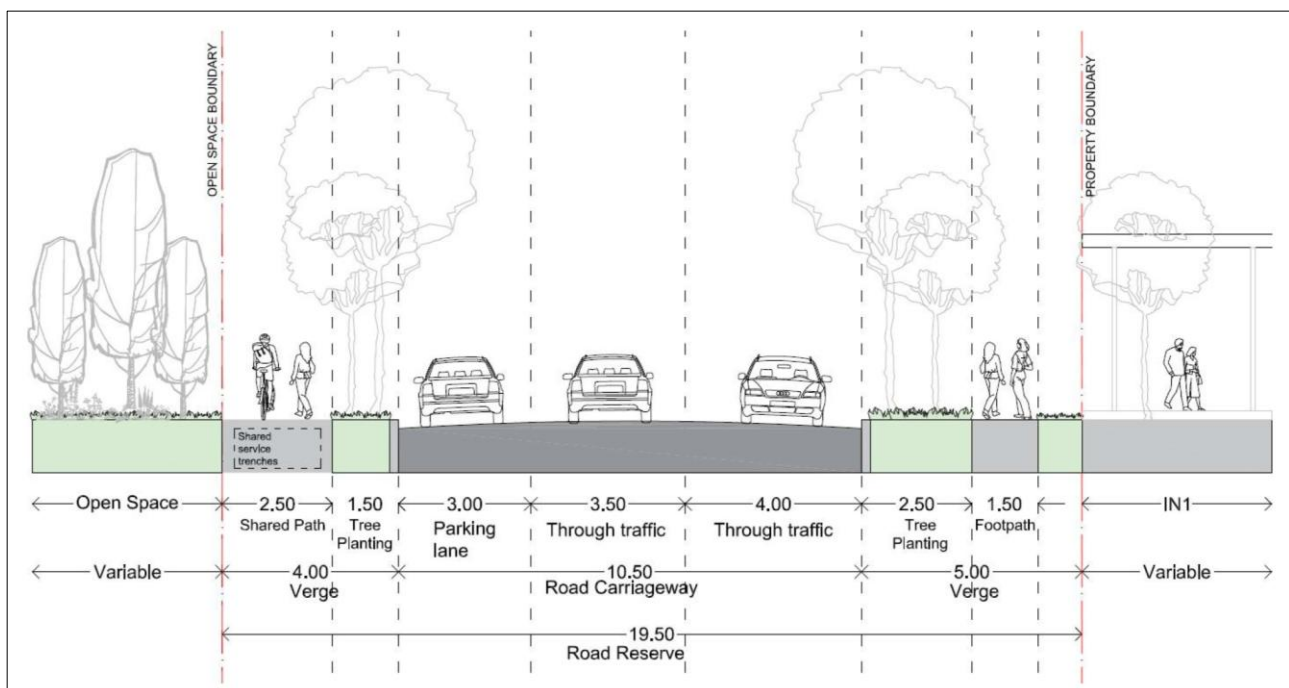


Figure 7: Park edge street cross-sectional requirements

Source: Figure 14 in the Aerotropolis DCP

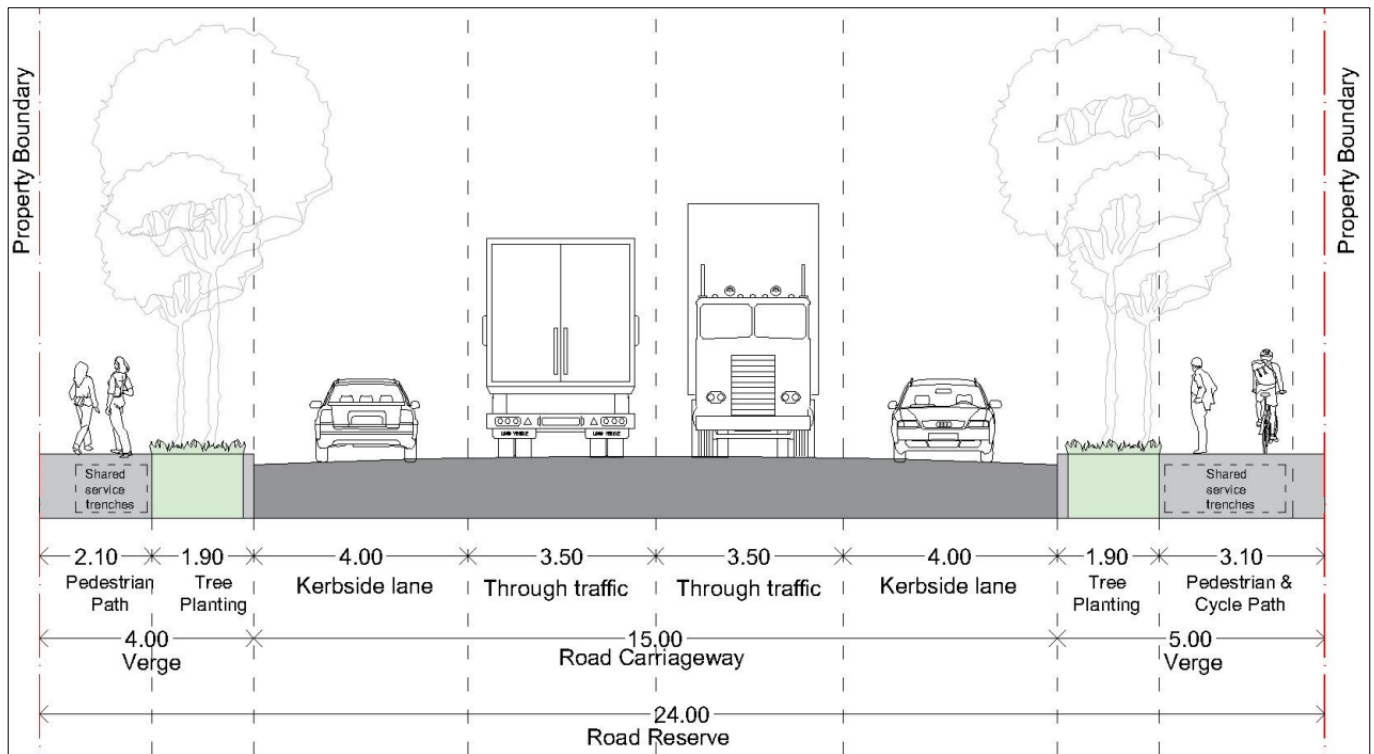


Figure 8: Local industrial road cross-sectional requirements

Source: Figure 12 in the Aerotropolis DCP

Details on the intersection treatment or layout of the Pitt Street and Lawson Road intersection are currently limited, however TfNSW has indicated this intersection would likely be signalised. The Aerotropolis Sector Plan indicates upgrade of Pitt Street and Martin Road/Eastern Ring Road are not expected to commence until after 2040.

2.5 Other surrounding infrastructure projects

2.5.1 Elizabeth Drive Upgrade

To address growth and increase in traffic near the WSA, TfNSW is planning to upgrade Elizabeth Drive. Elizabeth Drive will provide direct access to Western Sydney International Airport, access to employment lands with the Western Sydney Airport Precinct and connect to north-south corridors that are enabling growth of nearby precincts.

The proposed Elizabeth Drive upgrade would provide two lanes in each direction together with a median island, landscaping and paths to improve safety and congestion for neighbouring communities.

The Elizabeth Drive upgrade has been divided into two distinct parts – Elizabeth Drive West and Elizabeth Drive East:

- The Elizabeth Drive West upgrade is about 3.6 kilometres from The Northern Road to near where the future M12 Motorway crosses Elizabeth Drive at Badgerys Creek
- The Elizabeth Drive East upgrade is about 7.8 kilometres in length from near where the future M12 Motorway crosses Elizabeth Drive at Badgerys Creek to 600 metres east of Duff Road at Cecil Park.

The site is located to the south of the Elizabeth Drive East upgrade project. The proposed arrangements for Elizabeth Drive near Lawson Road and Martin Road are shown in Figure 9. In addition to the additional travel lanes on Elizabeth Drive, additional turning lanes would be provided at the signalised intersection with Martin Road along with new bus stops and bus jump lanes. The Elizabeth Drive/Lawson Road intersection would also be restricted to left-in left-out movements only.

The Aerotropolis Sector Plan indicates the Elizabeth Drive East from Badgerys Creek Road to Devonshire Road would be completed by 2030.

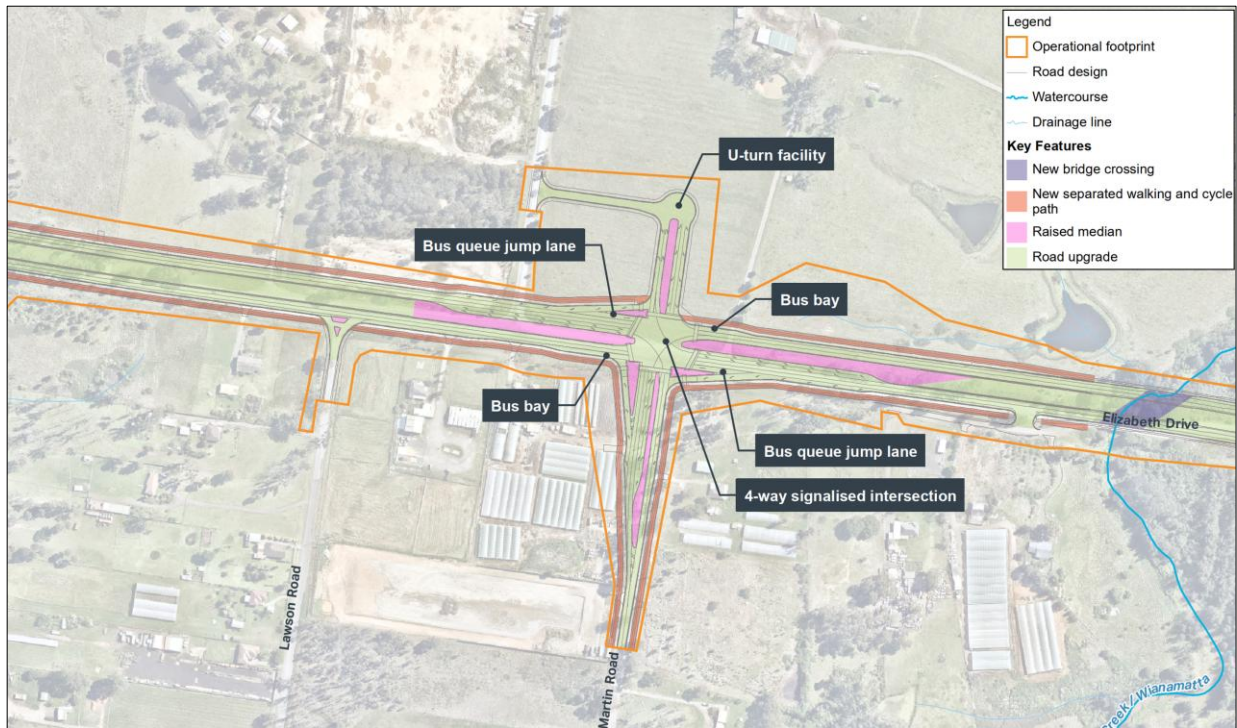


Figure 9: Elizabeth Drive East upgrade at Martin Road and Lawson Road

Source: <https://www.transport.nsw.gov.au/system/files/media/documents/2023/EDU-East-REF-Combined-for-WCAG.pdf> dated September 2023

2.5.2 Elizabeth Drive/Martin Road interim upgrade

An interim upgrade of the Elizabeth Drive/Martin Road intersection has recently been approved by Penrith City Council under DA24/0775. The interim intersection upgrade is shown in Figure 10. This application is linked with SSD-19618251 (currently under assessment) which involves a proposed industrial development located on the land to the north of the intersection.

Noting that SSD-19618251 is yet to be approved, and no known timeline exists for the construction of the interim layout, the interim arrangement of the Elizabeth Drive/Martin Road intersection has not been considered further in any traffic modelling scenarios discussed later in this report.

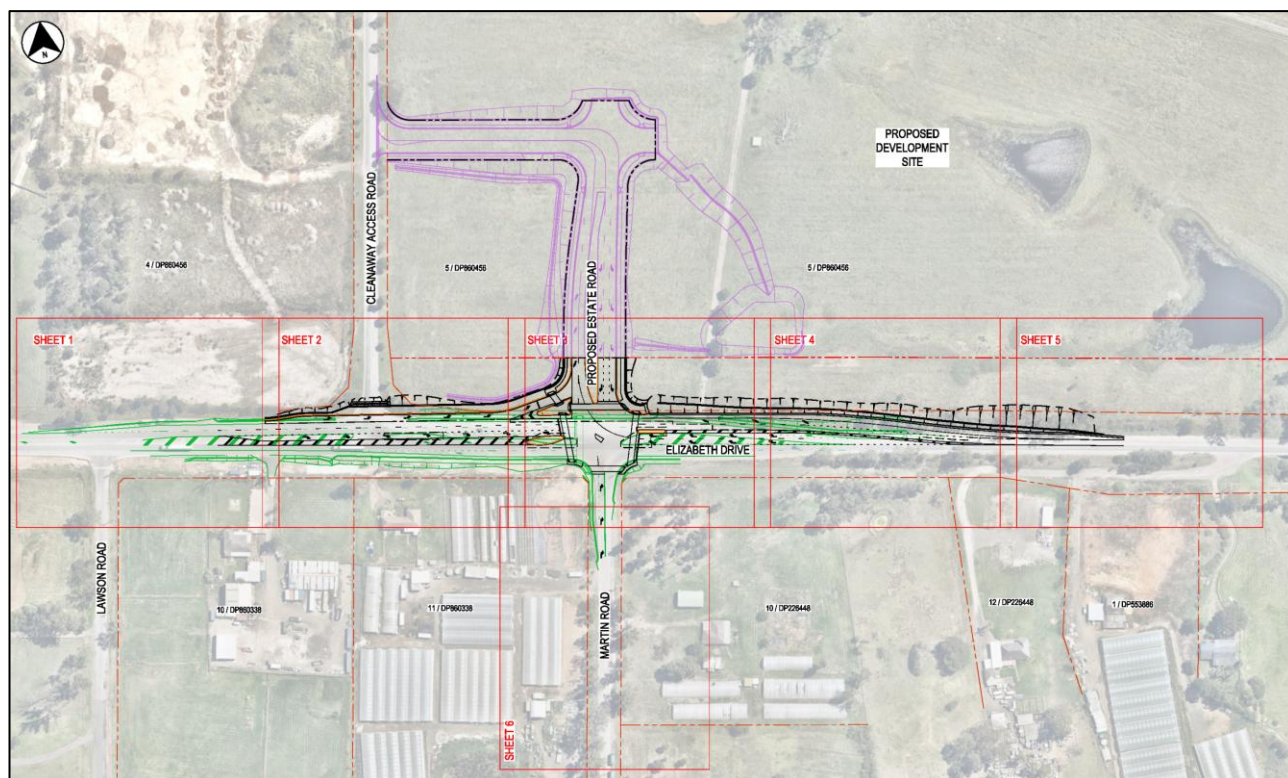


Figure 10: Approved interim Elizabeth Drive/Martin Road intersection arrangement under DA24/0775

3 Existing conditions

3.1 Site location

The site is located at 125 and 145-175 Lawson Road, Badgerys Creek within the Liverpool Local Government Area (LGA). The legal description of the site is outlined in Table 4.

Table 4: Legal description of the site

Property address	Title description
125 Lawson Road, Badgerys Creek	Lot 1 in DP226912
145 Lawson Road, Badgerys Creek	Lot 3 in DP226912
155 Lawson Road, Badgerys Creek	Lot 4 in DP226912
165 Lawson Road, Badgerys Creek	Lot 5 in DP226912
175 Lawson Road, Badgerys Creek	Lot 6 in DP226912

The site is located within the Western Sydney Aerotropolis and is primarily zoned ENT – Enterprise, with the western side of the site zoned as ENZ – Environment and Recreation. The site has frontages to Lawson Road to the east and Pitt Street to the south.

The location of the site and its surrounds are shown in Figure 11.



Figure 11: Site location and context

Source: Urbis

It is important to note 135 Lawson Road is not owned by the applicant and is not applicable to this project. Hanson Construction Materials Pty Ltd owns this property which is subject to a development application (DA-1368/2021). DA-1368/2021 was lodged with Liverpool City Council in 2021 for the construction and use of a concrete batching plant facility. In February 2025 it was addressed at the Liverpool Local Planning Panel in which it was refused. It is understood that DA-1368/2021 is currently under appeal in the NSW Land and Environment Court.

3.2 Surrounding road network

The road network surrounding the site includes a mix of State, Regional and local roads. The surrounding road network near the site is shown in Figure 12 and summarised in Table 5.



Figure 12: Classification of surrounding roads

Base image source: <https://maps.transport.nsw.gov.au/egeomaps/road-network-classification/index.html>

Table 5: Surrounding key roads

Road	Classification	Description	Photo
Lawson Road	Local road	- North-south alignment along eastern boundary of the site - Approved 26m B-double route One traffic lane in each direction 50km/h speed limit	

Road	Classification	Description	Photo
Pitt Street	Local road	- East-west alignment along the southern boundary of the site - One traffic lane in each direction - No provision for on-street parking 50km/h speed limit	
Elizabeth Drive	State road	- East-west alignment to the north of the site - Key east-west corridor through the Western Sydney area - Approved 26m B-double route - Generally one traffic lane in each direction - No provision for on-street parking 80km/h speed limit	

3.3 Public transport

3.3.1 Existing services

Limited public transport services currently operate in the surrounding area. Bus stops are located along Elizabeth Drive near Lawson Road and Martin Road which service the 801 bus route which provides connection between Badgerys Creek and Liverpool, as shown in Figure 13. This bus route currently operates with around six services per day.

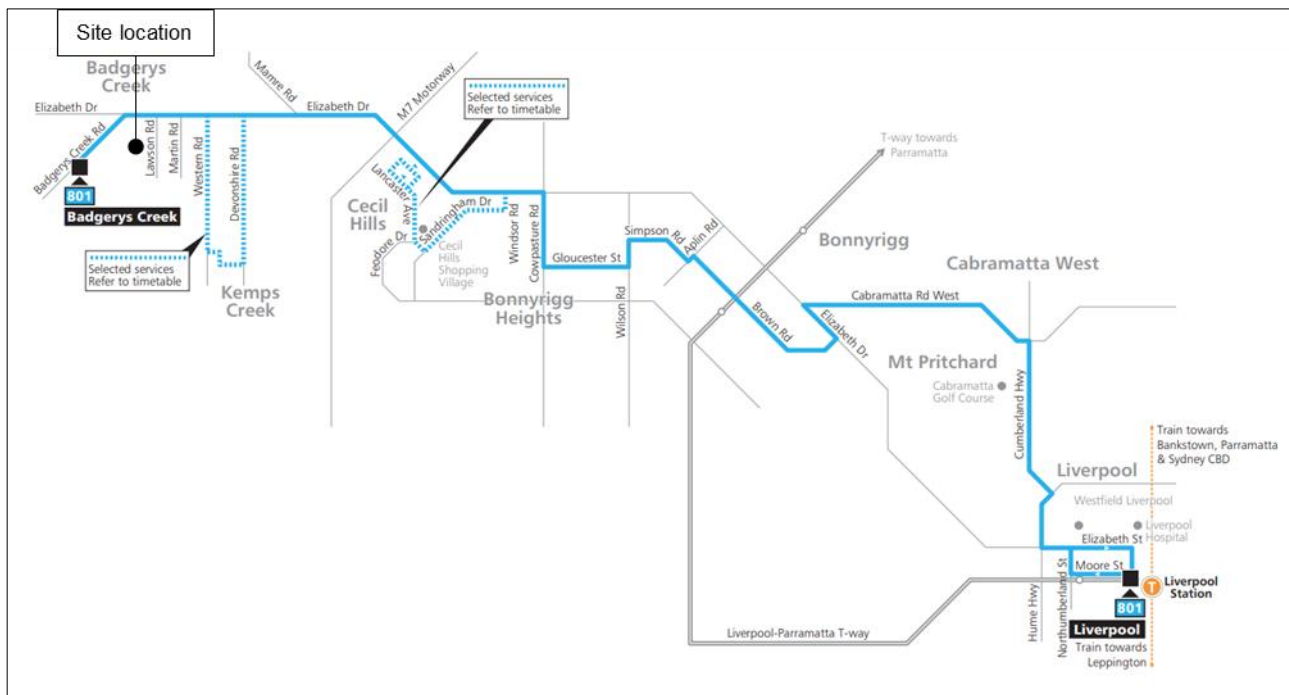


Figure 13: 801 bus route

3.3.2 Future services

As more of the Aerotropolis is developed, it is likely the surrounding bus network will be expanded. Of relevance to the site, the following is identified in the Aerotropolis Precinct Plan:

- **Elizabeth Drive:** This road is identified as a rapid bus corridor. As detailed in Section 2.5.1, the Elizabeth Drive East upgrade includes provision for bus jump lanes and bus stops at its intersection with Martin Road/Eastern Ring Road.
- **Eastern Ring Road (formerly Martin Road):** This road is identified as a rapid bus corridor. Specifically, the Eastern Ring Road is planned to include dedicated four-metre-wide bus lanes for efficient and reliable rapid transit operations.
- **Pitt Street:** To the west of the Eastern Ring Road and along the site frontage, Pitt Street is identified as a rapid bus corridor.
- **Lawson Road:** Along the frontage of the site, Lawson Road is planned to form part of the local bus network.

In addition, the new Sydney Metro – Western Sydney Airport metro railway will become the transport spine for Greater Western Sydney, connecting communities and travellers with the new Western Sydney International Airport and the growing region. The closest metro station to the site will be the Aerotropolis Business Park Station further west of the site. It is anticipated that the future bus network in the area will be designed to integrate and provide connection to and from metro services.

3.4 Active transport

3.4.1 Existing infrastructure

There is currently limited active transport infrastructure in the vicinity of the site, with no dedicated pedestrian or cycling facilities along the Lawson Road or Pitt Street frontages of the site.

3.4.2 Future infrastructure

Naturally as more of the Aerotropolis is developed, the surrounding active transport will be expanded. Of relevance to the site, the following is identified in the Aerotropolis Precinct Plan:

- **Elizabeth Drive:** Elizabeth Drive is identified as a principle regional cycle route. As detailed in Section 2.5.1, new separated walking and cycling paths will be provided on both side of the road as part of the Elizabeth Drive East upgrade. In addition, new signalised pedestrian crossings will be provided at the intersection with Martin Road.
- **Lawson Road:** As detailed in Section 2.4, the future arrangement of Lawson Road includes a footpath on one side of the road and a shared path on the other.
- **Pitt Street:** As detailed in Section 2.4, the future arrangement of Pitt Street includes footpaths on both sides of the road, as well as separated cycle paths.
- **Martin Road/Eastern Ring Road:** The Eastern Ring Road is identified as a principle regional cycle route and is planned to include footpaths and separated cycle paths on both sides of the road.
- **Enhanced pedestrian connectivity:** Anticipated precinct-wide improvements to pedestrian links, supporting greater walkability and integration with future active transport networks.

3.5 Crash history

Crash data for the available five-year period between 2019 and 2023 has been obtained from the TfNSW Centre for Road Safety for the roads surrounding the site is presented in Figure 14.

The crash data indicates one crash was reported during the five-year study period in the vicinity of the site, with this recorded at the Elizabeth Drive/Martin Road intersection. This was classified as a non-casualty (towaway) crash involving a vehicle leaving the carriageway and colliding with an object on the side of the road. No crashes were reported along Lawson Road or Pitt Street near the site.

Considering the above, the available crash data does not indicate there are an existing road safety issues near the site.

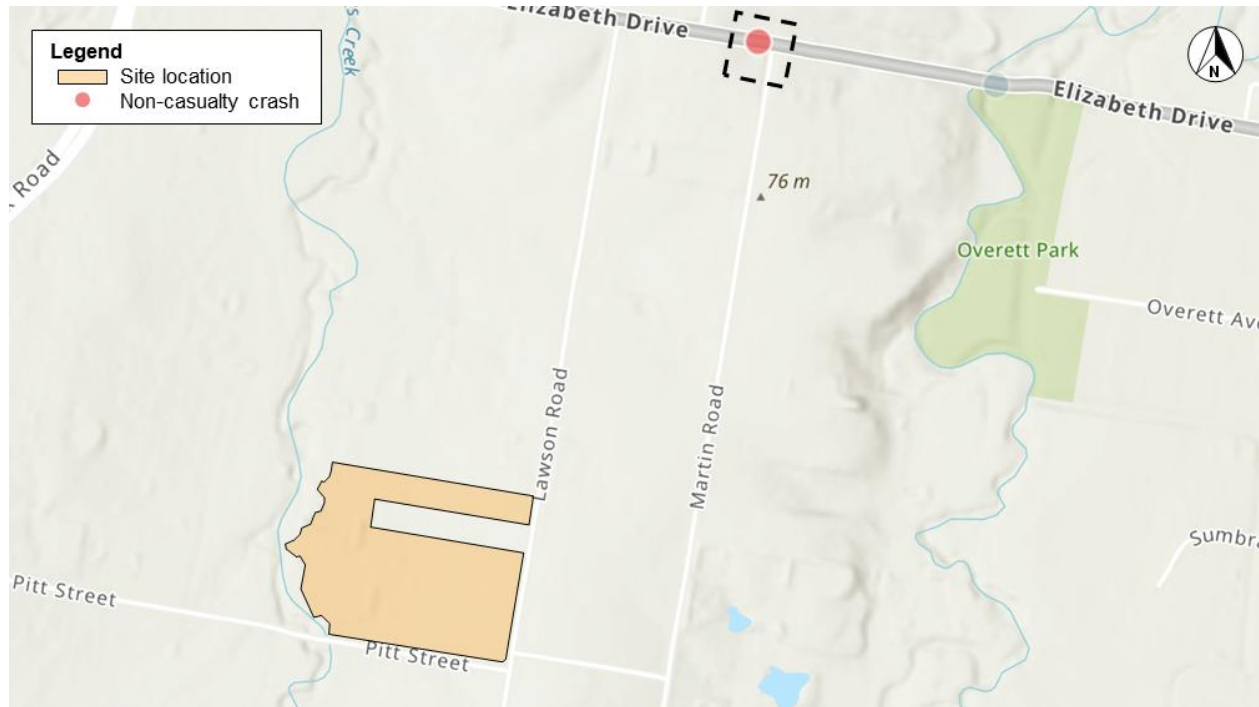


Figure 14: Crash location and type

Base image source: <https://www.transport.nsw.gov.au/roadsafety/statistics/interactive-crash-statistics/lga-view-crashes-map>

3.6 Traffic volumes

Traffic turning movement counts were completed on Wednesday 9 April 2025 from 6:00am to 9:00am and 3:00pm to 7:00pm at the following key intersections:

- Elizabeth Drive/Lawson Road (priority-controlled)
- Elizabeth Drive/Martin Road (signalised).

It is noted that the Elizabeth Drive/Martin Road upgrade was recently upgraded from a priority-controlled intersection to a signalised intersection. The new traffic signals were operational at the time the traffic surveys were completed.

The AM and PM peak hours were identified to occur from 6:00am to 7:00am and 4:30pm to 5:30pm, respectively, with the surveyed peak hour traffic volumes shown in Figure 15 and Figure 16.

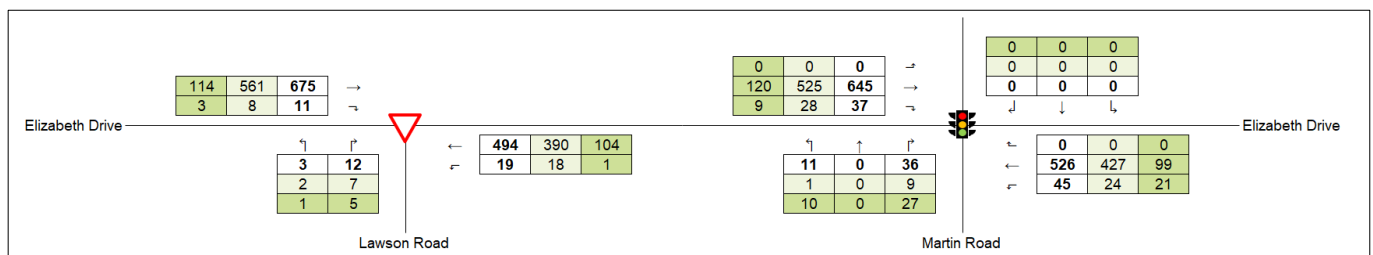


Figure 15: Existing AM peak hour traffic volumes

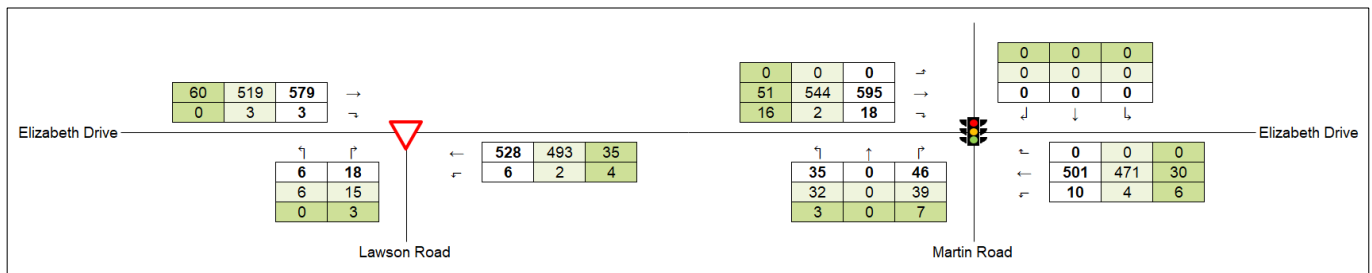


Figure 16: Existing PM peak hour traffic volumes

3.7 Intersection operation

Intersection performance was assessed using the SIDRA version 10 modelling software. Key outputs from SIDRA are summarised in Table 6.

Table 6: SIDRA modelling outputs

Output	Description
Average vehicle delay (seconds) and level of service (LOS)	Average delay is commonly used to assess the operational performance of intersections, with LOS used as an index. For signalised intersections, the reported delay is based on the average delay of all vehicle movements on an approach or through the intersection. For priority-controlled intersections (give-way, stop and roundabout controlled), the reported delay is based on the movement with the highest average delay.
Degree of saturation (DOS)	Ratio of the arrival (demand) flow rate to the capacity of the approach or intersection during a given flow period. Where DOS is close to 1.00, the traffic demand is effectively equal to the capacity of the approach or intersection.

The commonly used measure of intersection performance, as defined by the TfNSW, is vehicle delay and LOS. Table 7 shows the criteria that SIDRA adopts in assessing the LOS. Common practice suggests that when intersection performance falls below a LOS E, investigations should be initiated to determine if suitable remediation can be provided.

Table 7: SIDRA LOS criteria

LOS	Average delay per vehicle (seconds per vehicle)
A	Less than 14
B	15 to 28
C	29 to 42
D	43 to 56
E	57 to 70
F	Greater than 70

Source: GTIA

Table 8 presents a summary of the existing operation of the surveyed intersections. The models were calibrated and validated to represent the existing conditions observed during the site visit. Further details on the calibration and validation of the SIDRA models are provided in Appendix A.

Table 8: Existing intersection performance

Intersection	Peak hour	Average delay (seconds)	LOS	DOS
Elizabeth Drive/Lawson Road	AM	12	A	0.43
	PM	10	A	0.35
Elizabeth Drive/Martin Road	AM	7	A	0.53
	PM	7	A	0.45

Table 8 indicates both the Elizabeth Drive/Lawson Road and Elizabeth Drive/Martin Road intersections operate well at a LOS A in both the AM and PM peak hours.

4 Development proposal

The project seeks to deliver a new industrial estate comprising large and small format warehousing and distribution facilities. Specifically, a large format warehouse is proposed on the southern side of the site, while three smaller format warehouses are proposed on the northern side of the site.

A summary of the development schedule is provided in Table 9, while the site plan is shown in Figure 17.

Table 9: Development schedule

Warehouse	Size (m ² GFA)		
	Warehouse	Office	Total
Warehouse 1	38,572	1,933.5	40,505.5
Warehouse 2	1,186	142	1,328
Warehouse 3	1,186	137	1,323
Warehouse 4	2,856.5	140.9	2,997.4
Total	43,800.5	2,353.4	46,153.9

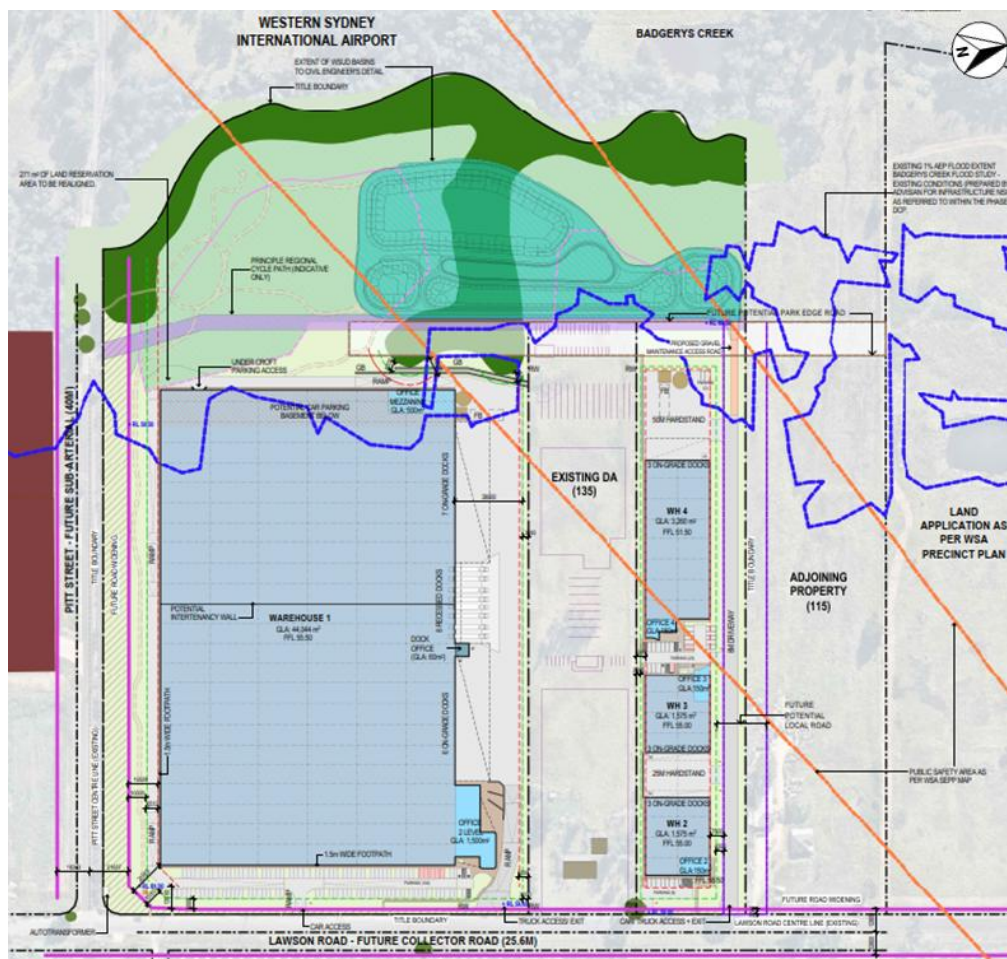


Figure 17: Proposed site master plan

Source: 125 and 145-175 Lawson Road, Badgerys Creek, SSDA Masterplan, Drawing number MP 01 prepared by SBA dated 15 January 2025

Four vehicular access driveways are proposed to be provided on Lawson Road, as summarised below:

- Southern access: Two-way driveway for light vehicles only accessing the car parking areas for Warehouse 1
- Southern central access: Two-way driveway for heavy vehicles only accessing Warehouse 1
- Northern central access: Two-way driveway for light vehicles only accessing the car parking for Warehouse 2
- Northern access: Two-way driveway for both light and heavy vehicles accessing the small format warehouses (Warehouses 2 to 4).

A total of 233 on-site car parking spaces are proposed, as summarised below:

- Warehouse 1: 199 car parking spaces
- Warehouse 2: 9 car parking spaces
- Warehouse 3: 10 car parking spaces
- Warehouse 4: 15 car parking spaces.

5 Parking assessment

5.1 Car parking

Reference has been made to the car parking rates outlined in the Aerotropolis DCP. The relevant car parking rates for the proposed development are summarised in Table 10.

Table 10: DCP car parking rates

Land use	Minimum parking rate	Maximum parking rate
Warehouse or distribution centres	1 space per 300m ²	1 space per 100m ²
Ancillary office space	1 space per 40m ²	

Table 11 sets out the car parking requirements for the proposed development based on the parking rates outlined above.

Table 11: Car parking requirements

Warehouse	Land use	GFA (m ²)	Minimum parking requirement (spaces)	Maximum parking permitted (spaces)	Proposed provision (spaces)
1	Warehouse	38,572.0	129	386	199
	Office	1,933.5	48	48	
	<i>Sub-total</i>	<i>40,505.5</i>	<i>177</i>	<i>434</i>	
2	Warehouse	1,186.0	4	12	9
	Office	142.0	4	4	
	<i>Sub-total</i>	<i>1,328.0</i>	<i>8</i>	<i>15</i>	
3	Warehouse	1,186.0	4	12	10
	Office	137.0	3	3	
	<i>Sub-total</i>	<i>1,323.0</i>	<i>7</i>	<i>15</i>	
4	Warehouse	2,856.5	10	29	15
	Office	140.9	4	4	
	<i>Sub-total</i>	<i>2,997.4</i>	<i>13</i>	<i>32</i>	
Total		46,153.9	205	496	233

As shown, the proposed development is required to provide between 205 and 496 car parking spaces. A total of 233 car parking spaces are proposed, and are appropriately allocated between the warehouses to meet the DCP requirements.

No specific electric vehicle parking requirements are included in the DCP relevant to the subject site. Notwithstanding, a total of eight of the 233 car parking spaces are proposed to be EV charging bays.

5.2 Accessible parking

The National Construction Code (NCC) requires accessible parking for the proposed land uses be provided at a rate of one space per 100 car parking spaces or part thereof.

On this basis, Table 12 sets out the accessible car parking requirements for the proposed development.

Table 12: Accessible car parking requirements

Warehouse	Proposed car parking provision	Accessible car parking requirement	Proposed accessible car parking provision
1	199	2	3
2	9	1	1
3	10	1	1
4	15	1	1
Total	233	5	6

As shown, the proposed development is required to provide a minimum of five accessible car parking spaces. A total of six car parking spaces are proposed, and are appropriately allocated between the warehouses to meet the NCC requirements.

5.3 Bicycle parking and end-of-trip facilities

The relevant car parking rates for the proposed development are summarised in Table 13.

Table 13: DCP bicycle parking rates

Land use	Bicycle parking rate
Warehouse or distribution centres	1 space per 1,000m ² GFA (over 2,000m ² GFA)
Ancillary office space	1 space per 600m ² GFA (over 1,200m ² GFA)

Table 14 sets out the bicycle parking requirements for the proposed development based on the rates outlined above.

Table 14: DCP bicycle parking requirements

Warehouse	Land use	GFA (m ²)	Bicycle parking requirement (spaces)	Proposed bicycle parking provision (spaces)
1	Warehouse	38,572.0	39	56
	Office	1,933.5	4	
	<i>Sub-total</i>	<i>40,505.5</i>	<i>43</i>	
2	Warehouse	1,186.0	2	3
	Office	142.0	1	
	<i>Sub-total</i>	<i>1,328.0</i>	<i>3</i>	
3	Warehouse	1,186.0	2	3
	Office	137.0	1	
	<i>Sub-total</i>	<i>1,323.0</i>	<i>3</i>	
4	Warehouse	2,856.5	3	6
	Office	140.9	1	
	<i>Sub-total</i>	<i>2,997.4</i>	<i>4</i>	
Total		46,153.9	53	68

As shown, the proposed development is required to provide a minimum of 53 bicycle spaces. A total of 68 bicycle spaces are proposed, and are appropriately allocated between the warehouses to meet the DCP requirements.

In addition to the above, Section 3.2 of the Aerotropolis DCP, PO4 recommends the following provision for end-of-trip (EOT) facilities:

- At least one shower cubicle with ancillary change rooms for ancillary office and retail space with a GFA over 2,500 square metres
- At least one shower cubicle with ancillary change rooms for industrial activities with a GFA over 4,000 square metres.

The above rates result in a recommended provision of at least one shower and ancillary change room facilities for Warehouse 1. Showers and/or change room facilities are proposed within Warehouse 1 which meet the above recommendations.

6 Traffic assessment

6.1 Traffic generation

In estimating the likely traffic generation of the proposed development, reference has been made to the traffic generation rates and data outlined in the GTIA.

For large format warehousing between 10,000 and 100,000 square metres GFA similar to the proposal, the GTIA recommends the following traffic generation rates:

- AM peak hour: 0.17 trip per hour per 100 square metres GFA
- PM peak hour: 0.21 trip per hour per 100 square metres GFA
- Daily: 2.83 trip per day per 100 square metres GFA.

Noting the smaller nature of Warehouses 2 to 4, the following higher traffic generation rates have been adopted for these warehouses, consistent with the standardised trip generation rates recommended by the GTIA for warehouses less than 10,000 square metres:

- AM peak hour: 0.5 trip per hour per 100 square metres GFA
- PM peak hour: 0.5 trip per hour per 100 square metres GFA
- Daily: 4.0 trip per day per 100 square metres GFA.

The above rates are considered conservative, particularly noting that the GTIA states that individual warehouses within a larger estate may apply a lower traffic generation rate based on the size of the total estate. With much of the surrounding area having been rezoned to ENT which would facilitate further industrial development, traffic generation rates could reduce as more of the surrounding area is developed.

On the basis of the above, Table 15 summarises the anticipated traffic generation of the proposed development.

Table 15: Traffic generation estimates

Use	Size (m ² GFA)	Traffic generation rate (vehicle trips per hour)			Traffic generation estimate (vehicle trips per hour)		
		AM peak hour	PM peak hour	Daily	AM peak hour	PM peak hour	Daily
Warehouse 1	40,505.5	0.17 / 100m ²	0.21 / 100m ²	2.83 / 100m ²	69	85	1,146
Warehouse 2-4	5,648.4	0.5 / 100m ²	0.5 / 100m ²	4.0 / 100m ²	28	28	226
Total	46,153.9	-	-	-	97	113	1,372

6.2 Traffic distribution and vehicle type

The directional distribution and assignment of traffic generated by the proposed development will be influenced by a number of factors, including the:

- Configuration of the arterial road network in the immediate vicinity of the site
- Existing operation of intersections providing access between the local and arterial road network
- Likely distribution of employee's residences in relation to the site
- Configuration of access points to the site.

It is noted that the Pitt Street extension to Martin Road/Eastern Ring Road is not anticipated to be completed till beyond 2040 and therefore has not been considered as part of the traffic modelling for this assessment. As such, all development traffic would be required to approach and depart via the Elizabeth Drive/Lawson Road intersection.

A design solution for a possible interim upgrade to the Elizabeth Drive/Lawson Road intersection has been undertaken in response to comments raised by TfNSW which would restrict traffic movements to left-in left-out only from Lawson Road. It is noted that this intersection will ultimately be restricted to left-in left-out movements as part of the Elizabeth Drive East upgrade and therefore the proposed interim upgrade just brings forward the planned turning restrictions. Further commentary on the potential interim upgrade is provided in Section 7.2.

On the basis of the above, all development traffic would be required to approach the site from the east and depart via the west, with it assumed that traffic would alter their trip further afield to reflect these turning restrictions at Lawson Road. Once the Elizabeth Drive East upgrade is complete including the ultimate upgrade of the Elizabeth Drive/Martin Road intersection, it has been assumed that vehicles approaching the site from the west would use the U-turn facility on the future northern leg of the intersection to turn around and turn left into Lawson Road. In this regard, the following broad directional distributions have been adopted for the development for estimating the number of trips undertaking this U-turn manoeuvre once the Elizabeth Drive East upgrade is completed:

- Light vehicles:
 - To/from the east: 70 per cent
 - To/from the west: 30 per cent
- Heavy vehicles:
 - To/from the east: 50 per cent
 - To/from the west: 50 per cent.

The slightly higher percentage of light vehicles to the east takes into consideration 2021 journey to work data.

For the purpose of assigning vehicle trips, the vehicle type and direction splits outlined in Table 16 have been adopted which are based on guidance provided in the GTIA.

Table 16: Vehicle type and directional split

Peak hour	Inbound			Outbound		
	Light vehicle	Heavy vehicle	Total	Light vehicle	Heavy vehicle	Total
AM	53%	24%	77%	9%	14%	23%
PM	11%	30%	41%	44%	15%	59%

Appendix B provides a summary of anticipated distribution of proposed development traffic through the key intersections near the site during the weekday AM and PM peak hours.

6.3 Future intersection performance

6.3.1 Assessment scenarios

In assessing the likely traffic impact of the development on the surrounding road network, traffic modelling at the Elizabeth Drive/Lawson Road and Elizabeth Drive/Martin Road intersections has been completed in SIDRA for the scenarios summarised in Table 17.

Table 17: Traffic modelling assessment scenarios

Year	Scenario	Key features			
		Existing road geometry	Interim upgrade at Elizabeth Drive/Lawson Road intersection	Elizabeth Drive East upgrade	Project (operational traffic)
2027 (assumed opening year)	Without proposed development	✓			
	With proposed development		✓		✓
2037 (assumed 10-years post opening)	Without proposed development			✓	
	With proposed development			✓	✓

The SIDRA network layout for 2037 scenarios is shown in Figure 18 and is based on the intersection layouts provided in the Elizabeth Drive East upgrade REF.

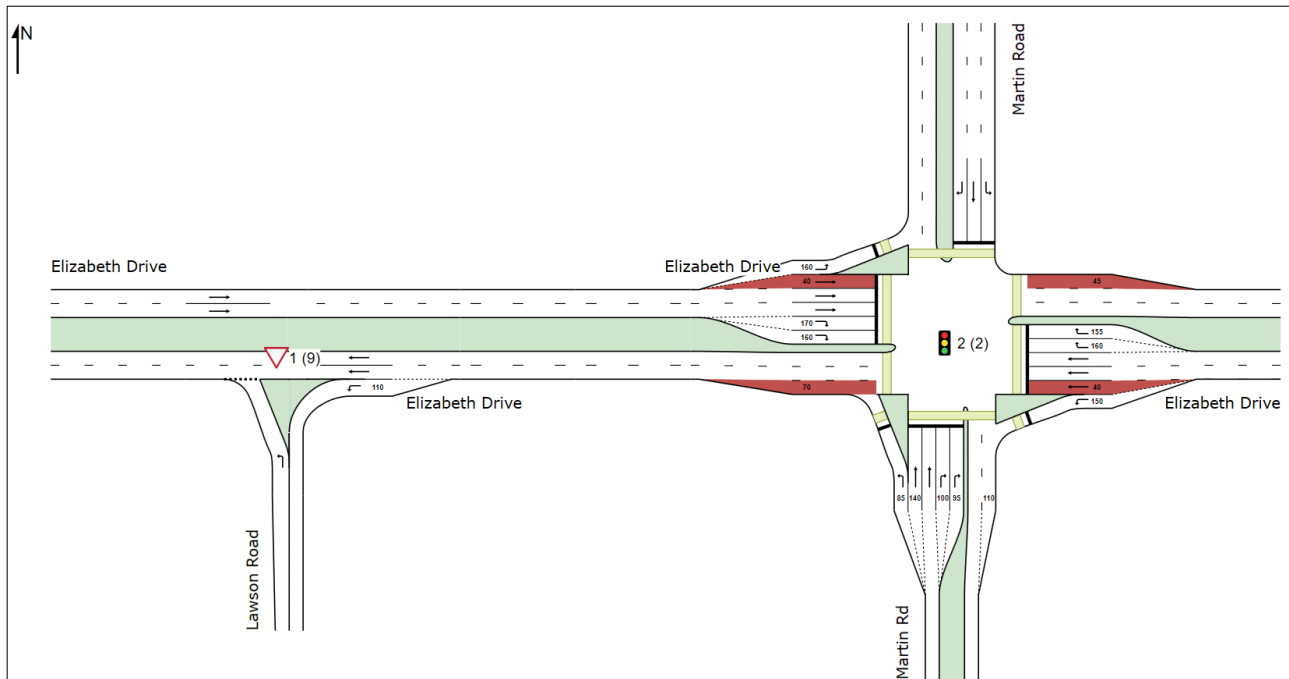


Figure 18: 2037 SIDRA network layout

6.3.2 Future traffic volumes

As stated in the letter from TfNSW dated 8 April 2025 on the request for SEARs, the impact of trips generated by other approved developments near key intersections should be considered as part of future modelling for the project. The following development applications have been reviewed:

- 85 Martin Road, Badgerys Creek (SSD-74191717)
- 30-40 Martin Road, Badgerys Creek (SSD-82437463)
- 225-245 Martin Road, Badgerys Creek (SSD-97711727/SSD-97688711)
- 230 Martin Road, Badgerys Creek (SSD-65529236)
- Elizabeth Enterprise Precinct Stage 1 (SSD-19618251).

It is noted that none of the above projects are yet to be approved. Notwithstanding the above, a traffic growth rate of 4.6 per cent per annum has been applied to existing intersection traffic volumes outlined in Section 3.6 to estimate future year traffic volumes without the proposed development. This traffic growth rate is consistent with the average growth rate forecast for Elizabeth Drive up to 2040 as detailed in the Elizabeth Drive East Upgrade Review of Environmental Factors. This approach to estimating future background traffic growth has been agreed to in consultation with TfNSW, as outlined in Section 1.4.

Appendix B details the anticipated turning movements at the key study intersections for the various future year scenarios.

6.3.3 Intersection performance

Table 18 provides a summary of the anticipated operation of the Elizabeth Drive/Lawson Road and Elizabeth Drive/Martin Road intersections in 2027 with and without the proposed development traffic.

Table 18: 2027 Intersection performance with and without development

Intersection	Peak hour	2027 without development			2027 with development		
		Average delay (seconds)	LOS	DOS	Average delay (seconds)	LOS	DOS
Elizabeth Drive/Lawson Road	AM	13	A	0.19	7	A	0.08
	PM	10	A	0.01	8	A	0.06
Elizabeth Drive/Martin Road	AM	12	A	0.73	16	B	0.85
	PM	11	A	0.59	12	A	0.68

As shown, the two study intersections are expected to continue operating satisfactorily in 2027 with and without the development at a LOS B or better in both the AM and PM peak hours. The proposed interim upgrade at the Elizabeth Drive/Lawson Road which involves restricting Lawson Road to left-in left-out movements only would result in a reduction in vehicle delay at the intersection. The proposed development traffic is expected to result in minor increases in vehicle delay of up to four seconds at the Elizabeth Drive/Martin Road intersection.

Table 19 provides a summary of the anticipated operation of the study intersections in 2037 with and without the proposed development traffic.

Table 19: 2037 intersection performance with and without development

Intersection	Peak hour	2037 without development			2037 with development		
		Average delay (seconds)	LOS	DOS	Average delay (seconds)	LOS	DOS
Elizabeth Drive/Lawson Road	AM	9	A	0.05	10	A	0.09
	PM	9	A	0.01	9	A	0.06
Elizabeth Drive/Martin Road	AM	31	C	0.66	34	C	0.73
	PM	30	C	0.56	33	C	0.63

As shown, the two study intersections are expected to continue operating satisfactorily in 2037 with and without the development at a LOS C or better in both the AM and PM peak hours. The proposed development traffic is expected to result in minor increases in vehicle delay of up to three seconds at any intersection during the peak hours.

The above assessment clearly demonstrates traffic associated with the proposed development is expected to have a minor impact on the surrounding road network and can be supported from a traffic impact perspective.

7 Design commentary

7.1 Site layout and design

The site access arrangements, internal circulation, parking areas and loading docks have been designed in accordance with the following Australian Standards:

- AS2890.1:2004 for Off-Street Car Parking
- AS2890.2:2018 for Off-Street Commercial Vehicle Facilities
- AS2890.3:2015 for Parking Facilities: Bicycle Parking
- AS2890.6:2022 for Off-Street Parking for People with Disabilities.

In addition to the above, Chapters 2.6 to 2.9 and 3.2 of the Aerotropolis DCP provide various transport related performance outcomes and benchmark solutions. In general, the proposed development has been designed in accordance with these transport related performance outcomes.

The site layout considers the future upgrade of Lawson Road and Pitt Street to 25.6-metre-wide and 40-metre-wide road reserves, respectively, in accordance with the requirements outlined in the Aerotropolis Precinct Plan and DCP. Upgrades to Lawson Road have been identified to be funded through the Aerotropolis Section 7.12 Contributions Plan, while upgrades to Pitt Street have been identified to be funded through the Western Sydney Aerotropolis Special Infrastructure Contribution (SIC) and planned to be delivered in circa 2040 (subject to funding). Details on the intersection treatment or layout of the Pitt Street and Lawson Road intersection are currently limited, however TfNSW has indicated this intersection would likely be signalised. In this regard, the proposed site layout has been designed to consider appropriate setbacks from a potential future signalised intersection at Pitt Street and Lawson Road.

Section 4.6.2 of the Aerotropolis Precinct Plan states that ‘*The alignments of lower order streets are shown indicatively [within the Aerotropolis Precinct Plan], and the alignment of these roads will be subject to more detailed design as part of development applications*’. It is noted that the Aerotropolis Precinct Plan indicatively shows a park edge street travelling along the western side of the site and further north through land owned by WSA which is not formally located within the Aerotropolis (i.e. it is excluded from the ‘land application map’ in Figure 1 of the Precinct Plan). Discussions with WSA indicate there are no intentions for this park edge street to be provided through their land. The Precinct Plan also suggests the park edge street would not connect with Pitt Street or Elizabeth Drive, and this has been confirmed in the meeting with TfNSW on 7 April 2025. TfNSW has indicated their preference to limit the number of intersections on Elizabeth Drive, noting its function as an arterial road, as well as on Pitt Street, noting its future function of prioritising walking, cycling and public transport. On the basis of the above, the project has proposed a solution where a 19.5-metre-wide park edge street corridor is preserved (future-proofed) enabling this park edge road to be delivered in the future, if required. Any future park edge street is also dependent on its extension through land owned by others (e.g. 115 and 135 Lawson Road). Importantly, this park edge street is not required to facilitate the development or access to any other landholdings, noting suitable access arrangements are provided via Lawson Road to all proposed warehouses (and adjacent sites and the publicly accessible open space adjacent to Badgerys Creek). Suitable maintenance access arrangements are also provided for Sydney Water to access their future basins via Lawson Road.

Local streets are also indicatively shown within the Precinct Plan through the site. While the Aerotropolis Precinct Plan acknowledges the location of local streets are indicative only, the project includes an east-west 24-metre-wide corridor along the northern side of the site to allow for a local industrial street to be delivered in the future if required. Until then, a private access driveway is proposed to be provided along the northern boundary of the site, with separate access points provided along the access driveway to the individual car park and hardstand areas for Warehouses 2 to 4. The access to the Warehouse 2 car park has been provided directly from Lawson Road rather than the interim private access driveway. This approach prevents potential issues with the access point being positioned too close to an intersection in the event the east-west local road is constructed in the future.

The proposed site access driveways have been designed to consider a range of users and internal site layout requirements. With consideration to market conditions and the characteristics of the site with regard to vehicle access,

a 26 metre B-double has been adopted as the design vehicle for accessing Warehouse 1, while 8.8 metre and/or 12.5 metre heavy rigid vehicles have been adopted as the design vehicle for accessing Warehouses 2 to 4.

All vehicle access driveways are well located with consideration to adjacent driveways and intersections (including potential future intersections), in accordance with relevant Australian Standards. All secure gates on the entry driveways would remain open during standard business hours to ensure no queuing impacts on the frontage roads. Appropriate setbacks are provided on Lawson Road to allow a vehicle to store between the security gate and the property boundary in the event access is required outside of standard business hours.

Warehouse 1 includes 21 formal loading docks across the northern building façade which are generally able to be accessed by vehicles up to and including 20-metre semi-trailers. Larger vehicles including 26-metre B-doubles would also be able to park parallel within the at-grade loading areas and be loaded/unloaded, before performing a U-turn to exit the site. On-site management would be able to ensure the necessary loading bays are vacant for when B-double deliveries are expected.

Warehouses 2 to 4 include nine formal loading docks split between the various warehouses. Loading docks for Warehouses 2 and 3 have been designed to accommodate vehicles up to and including 8.8 metre medium rigid vehicles, while Warehouse 4 has been designed to accommodate vehicles up to and including 12.5 metre heavy rigid vehicles.

Aerial fire appliance vehicles are able to appropriately circulate around Warehouse 1 and access the designated hardstand area, as required. Similarly, aerial fire appliance vehicles are able to access the Warehouse 2 to 4 site, turn around in the area near Warehouse 4, and access the designated hardstand area, as required. Waste collection would be completed by private waste contractors using vehicles ranging from 8.8 metre medium rigid vehicles to 12.5 metre heavy rigid vehicles, with suitable area provided for these vehicles to circulate the site as required. All relevant design vehicle swept paths have been completed and included in Appendix C.

Car parking areas for Warehouse 1 are provided on the eastern and western sides of the site, with the circulation road between the parking areas facilitating complete separation between light and heavy vehicle movements. Car parking for Warehouses 2 to 4 would be provided adjacent to the respective warehouses. Noting the smaller sizes of these warehouses and smaller sized heavy vehicles accessing these warehouses, this arrangement is considered acceptable. This arrangement is also consistent with what typically occurs for smaller format industrial developments across Sydney. All car parks have been designed to meet or exceed the dimensional requirements of a User Class 1A parking facilities including 5.4-metre-long and 2.4-metre-wide spaces with adjacent 5.8-metre-wide circulation aisles. Accessible parking spaces have been designed in accordance with AS2890.6:2022.

Pedestrian travel paths and bicycle parking areas are generally separated from vehicle circulation and manoeuvring areas to facilitate safe and convenient movement for pedestrians and cyclists. Paths within the site connect with Lawson Road, which will in future provide connection to the broader active transport network that will be delivered in time as more of the Aerotropolis is developed.

Overall, the site access, loading, parking and internal circulation arrangements are well considered and expected to operate efficiently.

7.2 Interim Lawson Road improvement works

As discussed in Section 6.2, interim improvement works to Lawson Road (connecting to Elizabeth Drive) are included within the scope of the proposal to facilitate site access at the commencement of operations. These works are illustrated in concept drawings 25-1278-SKC01, 125-1278-SKC021 and 25-1278-SKC022. Detailed design will be developed in consultation with Council, as the relevant road authority, prior to the issue of the relevant construction certificate and issue of a Section 128 Roads Act approval.

It is noted that these interim works are proposed as a temporary measure only. There is a reasonable likelihood that they may not ultimately be required, should the permanent upgrade of Lawson Road to a Collector Road — including access to Elizabeth Drive via Martin Road — proceed within a corresponding timeframe as provisioned for under SSD-97688711. In that scenario, the interim works would be unnecessary and therefore not implemented.

The interim works at the Elizabeth Drive/Lawson Road intersection involve localised road widening on Lawson Road, as well as an island median on Lawson Road to restrict traffic movements to left-in left-out only from Lawson Road in response to comments raised by TfNSW to improve road safety at this intersection. It is noted that this intersection will ultimately be restricted to left-in left-out movements as part of the Elizabeth Drive East upgrade, and therefore the proposed interim works just bring forward the planned turning restrictions.

The interim works at the Elizabeth Drive/Lawson Road intersection have been designed with consideration to the ultimate layout of the intersection being delivered as part of the Elizabeth Drive East upgrade, and would be able to accommodate vehicles up to and including 26-metre B-doubles. Vehicle swept paths have been completed by AT&L for the proposed interim intersection upgrade and are included in Appendix C.

The potential interim improvement works at the Elizabeth Drive/Lawson Road intersection are shown in Figure 19.

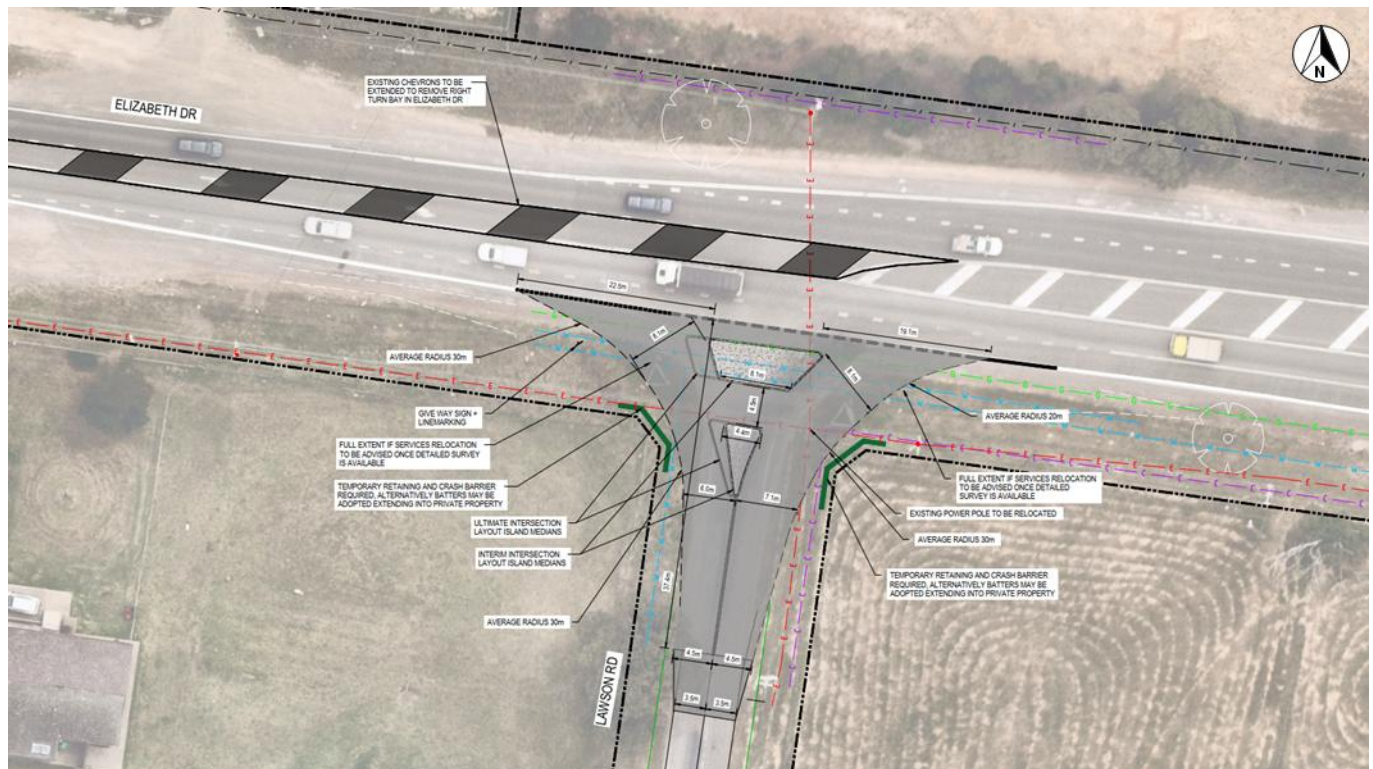


Figure 19: Potential interim works at the Elizabeth Drive/Lawson Road intersection

Base image source: Elizabeth Dr and Lawson Rd Interim Scoping Plan, Drawing Number: 25-1278-SKC021 prepared by AT&L dated 13 November 2025

8 Preliminary Construction Traffic Management Plan

8.1 Overview

This section seeks to provide an overview of the Construction Traffic Management Plan (CTMP) initiatives to be implemented as part of the construction works associated with the proposed development. Specifically, this preliminary CTMP considers the following:

- Estimated truck routes to/ from the site
- Anticipated truck volumes during all construction stages
- Potential construction site access arrangements
- Estimated works zones
- Pedestrian and cyclist access
- Worker parking (if any)
- Traffic control measures.

A detailed CTMP, confirming the details within this preliminary CTMP, will form part of subsequent planning stages.

8.2 Principles of traffic management

The general principles of traffic management during construction activities are as follows:

- Minimise the impact on pedestrian and cyclist movements
- Maintain appropriate public transport access
- Minimise the loss of on-street parking
- Minimise the impact on adjacent and surrounding properties
- Maintain access to/ from any adjacent properties
- Restrict construction vehicle movements to designated routes to/from the site
- Manage and control construction vehicle activity near the site
- Carry out construction activity in accordance with approved hours of works.

8.3 Construction program

At this early stage of planning, a contractor has not been onboarded, and the detailed construction requirements are not yet fully understood. Indicative construction staging and durations are as follows:

- Site preparation: 3-6 months
- Main works: 12-24 months.

8.4 Work hours

The works will be carried out during the approved work hours. Indicative work hours based on the NSW Environmental Protection Authority Interim Construction Noise Guideline are as follows:

- Weekdays: 7:00am – 6:00pm.
- Saturdays: 8:00am – 1:00pm.
- Sundays and public holidays: no work permitted.

Workers would be advised of the approved work hours during induction. Any works outside of the approved work hours would be subject to specific prior approval from the appropriate authorities. Such works may include delivery of cranes, large plant or equipment required on the site that require oversize vehicle access.

8.5 Worker induction

All workers and subcontractors engaged on-site would be required to complete site induction. The induction would include permitted arrival and departure routes for all vehicle types, as well as standard environmental, work health and safety (WHS), driver protocols and emergency procedures.

Any workers required to undertake works or traffic control within the public domain would be suitably qualified and covered by all necessary insurances.

8.6 Site access, loading, and on-street works zones

Given the footprint of the site, all loading/unloading are expected to be able to be accommodated within the bounds of the site without the need for an on-street work zone. At this stage of planning, it is anticipated that two construction accesses would be required on Lawson Road to facilitate construction of Warehouse 1 and Warehouses 2 to 4. Vehicle access locations would be confirmed in consultation with stakeholders as part of detailed construction planning prior to the construction commencement. Call-up procedures would be put in place to ensure site access gates are open in advance of construction vehicles arriving to ensure no vehicle queuing occurs on the road network.

As part of the detailed CTMP, Traffic Guidance Schemes (TGS) would be prepared in accordance with the principles of the Traffic Control at Work Sites manual (TfNSW, 2022). The TGS would primarily show where construction signs would be located at specific locations (such as uncontrolled intersections) along the approved truck routes to warn other road users of the increase in construction vehicle movements.

Access to the neighbouring sites by emergency vehicles would not be affected by the works as the road and footpath frontages would be unaffected. Emergency protocols on the site would include a requirement for site personnel to assist with emergency access from the street. All truck movements to the site and/ or incident point would be suspended and cleared.

8.7 Construction worker parking

At this stage of planning, exact construction worker numbers are currently unknown. Noting the limited public transport accessibility in the area, some level of car parking would be provided on site for workers. There is potential for the appointed contractor to investigate the potential for shuttle services to transport workers to/from nearby transport hubs such as train stations. Appropriate arrangements would be made for any equipment/ tool storage and drop-off requirements.

8.8 Construction vehicle generation and access routes

Construction vehicles generated by the site would generally include vehicles up to 12.5-metre heavy rigid trucks, 18.1-metre truck and dog combinations and 19-metre semi-trailers. Any oversize or overmass vehicles would require additional approvals from Council, TfNSW and/or approval.

At this early stage of planning, a contractor has not been onboarded, and the detailed construction requirements are not yet fully understood. However, based on other similar projects, it is expected that construction works on the site would generate up to 90 vehicle trips (60 light vehicles and 30 heavy vehicles) during the peak hours. This is less than

the expected traffic generation of the proposed development once operational (up to 98 vehicle trips per hour as detailed in Section 6.1), therefore also likely resulting in a lower traffic impact on the surrounding road network.

Heavy vehicle movements would be restricted to designated routes and confined to the arterial road network wherever feasible. Truck routes to/ from the site have been identified with the aim of providing the most direct routes to/ from the site as well as minimising the impact of heavy vehicles on local roads, as shown in Figure 20. This specifically includes vehicles using Elizabeth Drive and Lawson Drive to access the site.

The construction vehicle routes and construction site access locations would be finalised as part of the detailed CTMP.

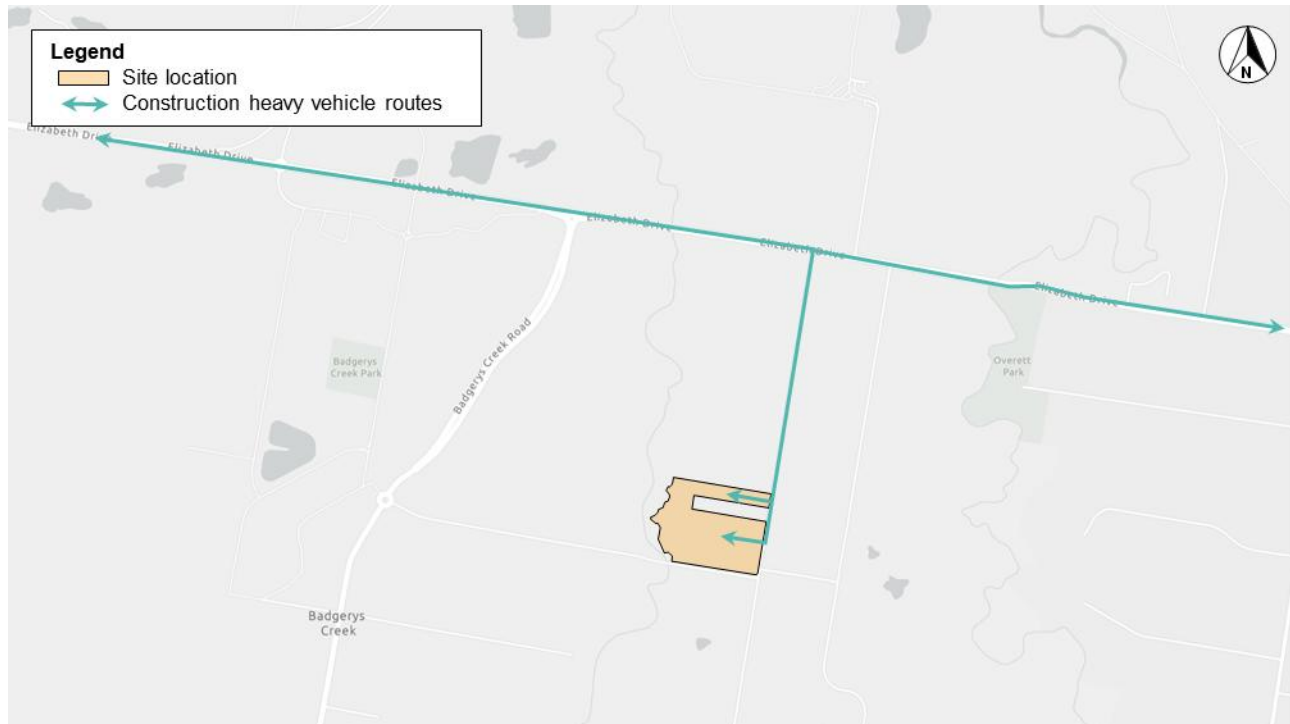


Figure 20: Anticipated construction heavy vehicle routes

All vehicles transporting loose materials will have the entire load covered and secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site.

All subcontractors must be inducted by the Contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site.

8.9 Pedestrian and cyclist access

A-Class hoarding and fencing would be provided around the boundary of the site to provide separation between the public and the work area. It is noted that no footpaths are currently provided along the frontages of the site, and therefore the proposed construction works are not anticipated to impact any existing pedestrian and cyclist movements.

9 Preliminary Green Travel Plan

9.1 Introduction

Transport is an essential aspect of daily life, impacting the economy, public health, and the environment. The transportation sector stands out as one of the rapidly growing sources of emissions in Australia, presenting a significant opportunity for reducing greenhouse gases. Beyond environmental considerations, offering diverse travel options, prioritising walking, cycling, and public transport, holds substantial public health advantages and contributes to the development of a strong and prosperous community.

Future Green Travel Plans (GTPs) would ensure that the transportation infrastructure, services, and policies both within and beyond the site are tailored to user needs and strategically coordinated to achieve the highest level of sustainability.

9.1.1 Context

Given the proposal is in its early stages, the purpose of this preliminary GTP is to outline the overarching requirements for a future GTP. Noting the proposed use of the site, the focus of the future GTP would be to effect changes in staff and visitor travel to and from the site, and assist in:

- Removing barriers to active travel for all site employees and visitors; and
- Maximising the number of people who walk, cycle or utilise public or active transport to and from the site.

This GTP is intended to develop a package of site-specific measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport and car sharing. In this regard, this plan sets out objectives and strategies to assist the Council in achieving its goal to improve sustainability. These targets are to be realistic but ambitious enough to initiate substantive behavioural change to achieve the desired outcomes.

As a 'living' document, this GTP should be updated regularly as part of an ongoing review to ensure it remains relevant and reflective of current conditions.

9.1.2 Objectives of GTP

Underpinning this GTP comprises a package of measures which could be adopted and designed to address the specific travel needs of the site. In this regard, the overall intention is to encourage and facilitate the use of alternative and sustainable modes of transport and to reduce single-occupancy car travel for journeys to and from the site.

The primary objectives of the future GTP would be to:

- Reduce the environmental footprint of the site
- Set future staff travel mode share targets
- Improve access, amenity, convenience, and safety of sustainable transport modes to/from the site
- Promote the use of 'active transport' modes such as walking and cycling, particularly for short-medium distance journeys
- Reduce reliance on the use of private vehicles for all journeys
- Encourage a healthier, happier, and more active and public transport use culture.

Having regard for the above, this GTP seeks to adopt the movement hierarchy shown in Figure 21, with priority given to active transport such as walking and cycling.

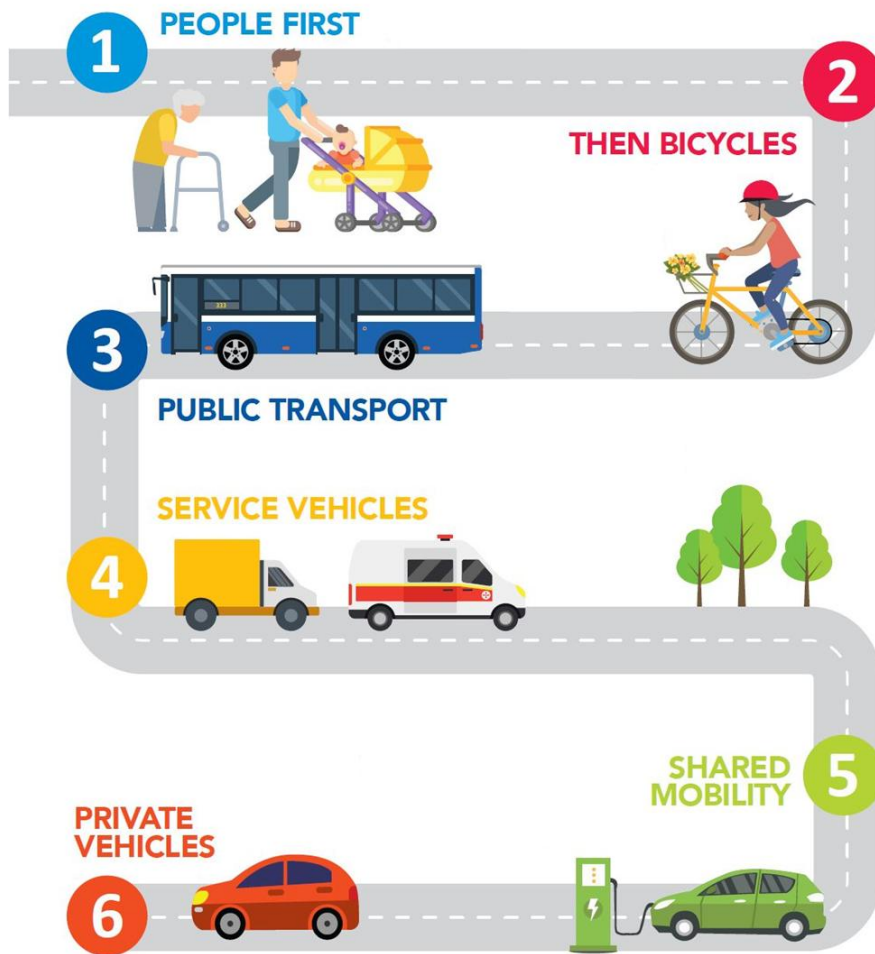


Figure 21: Movement hierarchy

9.2 Travel mode share targets

9.2.1 Introduction

An audit of the site is required to determine the existing facilities in the area and review existing transport choices. This section will need to be updated prior to implementation of the future GTP, and at appropriate times, during the period of monitoring and review. The audit should consider the following:

- Site conditions, once the development is complete
- Public transport services in the area, including proximity to the site, frequency of services and accessibility
- Bicycle and pedestrian facilities, including accessibility, connectivity, and safety
- Mode-split data for the site and local area.

9.2.2 Existing travel patterns

Journey to work data from the Australian Bureau of Statistics (ABS) 2021 Census and specifically aggregated destination zones has been referenced to understand the baseline travel characteristics of the area, inclusive of the site. This data has been used to inform the initial targets in lieu of site-specific travel data, which cannot be collated until the site is occupied.

The existing travel mode shares for those travelling to the surrounding Austral – Greendale area (Destination Zone 115054112) is summarised in Table 20.

Table 20: ABS journey to work for surrounding area

Travel mode	Mode share ^[1]
Car as driver	84%
Car as passenger	9%
Train	0%
Walked only	0%
Truck	7%
Bus	0%
Bicycle	0%
Motorbike	0%

[1] Excludes those that worked at home or did not work.

As shown, it is evident that travel by private vehicle is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 93 per cent of people in the surrounding area travel to work by car including 84 per cent as the driver and nine per cent as passenger (i.e. carpooling). The remaining seven per cent relates to people travelling by truck.

This is reflective of the current nature of the area, which accommodates rural residential properties and agricultural businesses with limited public transport integration.

9.2.3 Travel mode share targets

Noting the current and future land use of the site being industrial in nature, the existing journey to work data likely accurately reflects the current trends for travel to places of work at industrial sites. The TfNSW Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013, provides details in relation to the principal mode of travel used by staff at the Erskine Park and Eastern Creek warehouses surveyed by TfNSW. These surveys indicate that 90 per cent of all workers travel via private vehicles, with eight per cent travelling as passengers. Therefore, the existing census data is reflective of typical travel patterns to industrial developments.

In estimating travel mode share targets for the site, reference has been made to the mode share targets identified in the Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report (AECOM, 2020). The site is located within the Badgerys Creek Precinct of the Western Sydney Aerotropolis. The Badgerys Creek Precinct is projected to have a relatively low sustainable mode share target (20 per cent), with this largely attributable to the planned land uses which are anticipated to support warehousing and logistics similar to the subject site. The 2056 target mode shares for the Badgerys Creek Precinct are as follows:

- Private vehicle: 80 per cent
- Public transport: 18 per cent
- Active transport: 2 per cent.

The target mode share for the subject site should ideally reflect a similar target, noting however that a change in travel behaviour may be slower until more of the surrounding area is developed and the surrounding public and active transport networks are integrated.

Preliminary mode share targets have been formulated and are presented in Table 21. The targets are based on reasonable inference on the basis of existing and proposed infrastructure that will work to encourage the modal shift away from private vehicles. Measures and strategies to achieve these targets are discussed in Section 9.3.

Table 21: Mode share targets

Travel mode	Existing mode share	Preliminary mode share target	Relative change
Car as driver	84%	80%	-4%
Car as passenger	9%	9%	0%
Train	0%	0%	0%
Walked only	0%	0%	0%
Truck	7%	7%	0%
Bus	0%	3%	3%
Bicycle	0%	1%	1%
Motorbike	0%	0%	0%

9.3 Measures and action strategies

9.3.1 Measures

The below list provides a range of measures which could be implemented to achieve the objectives of this preliminary GTP, with any such details to be reviewed and confirmed prior to implementation of any future GTP:

- An introduction to the plan for all staff, setting out its purpose and objectives
- Provision of public transport travel information for staff and visitors
- Encouragement of carpooling amongst future staff on site
- Assisted cycle purchase schemes for staff
- The provision of public transport advice to future staff on site, and ensuring all travel information is always up to date
- The provision of transport information for visitors to the site.

9.3.2 Strategies

Seven main strategies are identified, and the actions required for each are detailed in Table 22. The table details specific actions that could be implemented as part of a future Plan (subject to tenant requirements) and the party responsible for implementing each action.

These actions must be reviewed at regular intervals to ensure that the mode split targets are being met. By that principle, this document is classed as a living document and subject to regular review. It is important to note, that the actions should not be taken as mandatory but rather potential options that should be investigated and implemented by future inhabitants of the development.

Table 22: Potential action strategies

Strategy		How it works	Resources/responsibility	Timeline	Funding
1 Travel Planning and Demand Management					
1.1	Green Travel Plan	- Develop a GTP and associated transport access guide (TAG) providing details of other available transport modes to the site - Management of GTP. - Promotion of GTP.	Building Manager to be responsible for overall implementation of final GTP and providing annual reporting on GTP outcomes to Council. Tenant to develop Company specific travel plan based on final GTP prior to the commencement of a new lease/sale of property. Company/staff/visitors shall be responsible for ongoing implementation of company assigned actions and participation in annual monitoring and reporting process to Council.	Upon completion of the development and ongoing annual GTP events.	Tenant/business owner
1.2	Travel information points	- Establish locations such as travel information points where staff and visitors and others can access travel information via interactive platforms. - Promotion of GTPs - Provision of travel and transport information options	Tenant/business owner	Subject to employer preference. Can be implemented at building occupation	Tenant/business owner
1.3	Flexible working hours	Allow employees the flexibility to commute outside peak periods to reduce overall congestion and travel time.	Tenant/business owner	Subject to employer preference. Can be implemented at building occupation	Tenant/business owner
1.4	Teleworking	Provide the option to work remotely (where possible) to reduce the number of vehicles travelling to the development and	Tenant/business owner	Subject to employer preference. Can be	Tenant/business owner

Strategy		How it works	Resources/responsibility	Timeline	Funding
		encourage teleconferencing rather than travelling to meetings.		implemented at building occupation	
2 Promoting public transport					
2.1	Opal Card Loan Schemes / Subsidising schemes for public transport travel through pre-paid credit cards	Company may consider subsidising staff public transport travel. Alternatively, staff can pay for their own Opal Cards / pre-paid travel card through their salary, spreading the cost over the year to make it more affordable.	Tenant/business owner/travel plan coordinator (TPC)	Subject to employer. Can be implemented at building occupation.	Tenant/business owner
2.2	Public transport for work travel	The company/TPC can promote public transport as one of the main preferences for work travel. This should be supported by all users and visitors to development having access to Opal cards.	TPC	Subject to employer. Can be implemented at building occupation	Tenant/business owner
3 Promoting carpooling					
3.1	Open car sharing	Where anyone in a defined geographical area can join a ride sharing scheme. This involves no input from the employer and should be on the onus of staff to schedule.	Staff	Ongoing in the workplace	Costs can be split equitably by those involved
3.2	Closed car sharing	The company/department sets up an in-house car-matching scheme	Company, TPC	Ongoing in the workplace. Updates can be made to organisation as appropriate	Tenant/business owner

Strategy		How it works	Resources/responsibility	Timeline	Funding
3.3	Third-party car sharing program	Companies such as Liftshare are an online service that facilitates journey sharing between individual users, as well as providing separate services for businesses, organisations and events.	Staff – encouraged by TPC	Ongoing in the workplace	Staff
3.4	Carpool week	Arrange for a dedicated carpool campaign week to promote the benefits of carpooling.	Tenant/business owner	One week per calendar year	Tenant/business owner
4 Promoting cycling					
4.1	Create a bicycle users group (BUG)	BUGs are local groups of like-minded bike riders who get together generally for social riding in their area. For the purposes of the workplace, this can be adapted as a way of creating as social and healthy aspect of travelling to work.	Tenant/business owner, TPC	Ongoing in the workplace	Tenant/business owner
4.2	Providing and maintaining end of trip facilities	Providing facilities such as showers, change rooms, lockers. For the initial stages of the development it is recommended to provide facilities compliant with the relevant controls, and as the site develops further, they should be reviewed as part of monitoring process to meet any increase in demand.	Developer, tenant/business owner	End-of-trip facilities are being provided as part of the project	Developer, tenant/business owner
4.3	Promote bicycle initiatives	Promotion of bicycle initiatives – NSW bicycle week, Ride to Work etc.	Tenant/business owner, TPC	To be promoted annually	Tenant/business owner
4.4	Advertise bicycle routes	Promotion of bike lanes through the TAG.	Tenant/business owner, TPC	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant/business owner

Strategy		How it works	Resources/responsibility	Timeline	Funding
5 Promoting walking					
5.1	Providing end-of-trip facilities	Provision of sufficient end-of-trip facilities such as showers, change rooms, lockers etc. to maximise pedestrian activity throughout the site.	Developer	End-of-trip facilities are being provided as part of the project	Tenant/business owner
5.2	Walking routes	Incentivise travelling by foot by highlighting possible routes particularly those to nearest bus stops	Tenant/business owner	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant/business owner
6 Promoting low emission vehicles					
6.1	Providing EV charging facilities within car parking areas	Provision of electric vehicle charge points to encourage employee and visitor uptake of electric vehicles.	Developer, tenant/business owner	EV parking spaces are being provided as part of the project	Developer, tenant/business owner
7 Influencing travel behaviour					
7.1	Provision of sustainable travel packs to employees and visitors	Introduces employees and visitors alike to the GTP and provides information on walking and cycling routes, and travel by bus & train, timetables, and access routes. This would include a TAG.	Tenant/business owner, TPC	Travel Packs to be provided upon occupancy of building to employees.	Tenant/business owner

9.4 Implementation and monitoring

9.4.1 Responsibility for implementation

The Travel Plan Coordinator (TPC) would be responsible for the running of the future GTP, including its administration and all liaison with interested parties. The role is likely to be undertaken by site/ building Management, or an independent consultant, appointed by building management. The TPC would be appointed following occupation of the development, who would liaise with Council as part of the monitoring process.

9.4.2 Travel Plan Coordinator

The TPC should be appointed to act as the primary point of contact for enquiries relating to the progress of the future GTP. The TPC would manage all aspects of the future GTP, including the co-ordination and joint working practices between those on-site.

The TPC would promote participation in and commitment to the future GTP from and would work in partnership with all stakeholders to deliver the strategies and actions.

The TPC should be appointed within one month of the site becoming occupied. Contact details for the TPC should be provided in the implemented GTP.

9.4.3 Plan maintenance

So as to record the overall success, as well as the effectiveness of the individual measures, monitoring and review of the GTP is to be conducted at regular intervals. The TPC would act as the primary point of contact for all enquiries relating to the GTP's progress.

The GTP would be monitored around every one to two years, with the first survey being carried out shortly after first occupation of the development (approximately six months). Travel mode surveys would determine the proportion of persons travelling to/from the site by each transport mode. This would be in the form of annual travel mode questionnaire surveys to be completed by all persons attending the site, as far as practicable.

The key considerations when reviewing or monitoring the GTP are as follows:

- Update baseline conditions to reflect any changes to the transport environment in the vicinity of the site such as changes to public transport services, new cycle routes etc.
- Track progress against target travel mode targets
- Identify any shortfalls and develop an updated action plan to address issues
- Update travel modes targets (if necessary) to ensure they are realistic and remain ambitious.

If targets are not met at the end of the initial period of monitoring, the GTP would be reviewed, new measures introduced and would be reassessed at the next monitoring stage.

9.4.4 Consultation

It is essential that any parties that may play a part in the future of GTPs and their actions are aware and have an opportunity to discuss. This would enable equitable input and feedback as well maximising their overall efficacy. For this reason, a coordinated approach to GTPs should be implemented (subject to individual tenant participation) to assist in the consultation with the relevant parties, which could include the following:

- Council's traffic and transport department.
- Traffic committee
- Local bus operators
- TfNSW.

Other organisations may be added to this list as the plans evolve.

10 Summary

This TIA has been prepared in support of a development at 125 and 145-175 Lawson Road, Badgerys Creek, including detailed approval for an industrial estate. The project seeks to deliver a new industrial estate comprising large and small format warehousing and distribution centres within Badgerys Creek.

In summary, the key findings of the TIA are as follows:

- The proposed development is required to provide between 205 and 496 car parking spaces. A total of 233 car parking spaces are proposed, and are appropriately allocated between the warehouses to meet the DCP requirements.
- Similarly, the proposed development is required to provide a minimum of 53 bicycle spaces. A total of 68 bicycle spaces are proposed, and are appropriately allocated between the warehouses to meet the DCP requirements.
- The proposed development is expected to generate around 97 and 113 vehicle trips in the weekday AM and PM peak hours, respectively.
- Interim improvement works to Lawson Road (connecting to Elizabeth Drive) are included within the scope of the proposal to facilitate site access at the commencement of operations. These works are illustrated in concept drawings 25-1278-SKC01, 125-1278-SKC021 and 25-1278-SKC022. Detailed design will be developed in consultation with Council, as the relevant road authority, prior to the issue of the relevant construction certificate and issue of a Section 128 Roads Act approval.
- It is noted that these interim works are proposed as a temporary measure only. There is a reasonable likelihood that they may not ultimately be required, should the permanent upgrade of Lawson Road to a Collector Road — including access to Elizabeth Drive via Martin Road — proceed within a corresponding timeframe as provisioned for under SSD-97688711. In that scenario, the interim works would be unnecessary and therefore not implemented.
- Traffic modelling at the Elizabeth Drive/Lawson Road and Elizabeth Drive/Martin Road intersections indicates the proposed development traffic is expected to have a minor impact on the operation of the surrounding road network. Traffic modelling considers the existing, proposed interim and planned ultimate arrangements for these intersections, with consideration to the planned Elizabeth Drive East upgrade. Overall, these intersections are expected to operate satisfactorily at a LOS C or better during the weekday peak hours with and without the proposed development.
- The proposed development site layout considers the future upgrade of Lawson Road and Pitt Street to 25.6-metre-wide and 40-metre-wide road reserves, respectively, in accordance with the requirements outlined in the Aerotropolis Precinct Plan and DCP. Spatial allowance has been made for a future 19.5-metre-wide park edge street along the western side of the site, consistent with that envisaged in the Aerotropolis Precinct Plan and DCP. The park edge street is not required to facilitate the development, noting suitable access arrangements are provided via Lawson Road to all proposed warehouses.
- Similarly, the project includes an east-west 24-metre-wide corridor along the northern side of the site to allow for a local industrial street to be delivered in the future if required. Until then, a private access driveway is proposed to be provided along the northern boundary of the site within this corridor, with separate access points provided along the access driveway to the individual car park and hardstand areas for Warehouses 2 to 4.
- The site access arrangements, internal circulation, loading areas and parking for a range of light, heavy and emergency vehicles have been designed in accordance with relevant Australian Standards (AS2890 series).
- A preliminary CTMP has been prepared and provides an overview of anticipated construction traffic impacts, construction vehicle routes, access and parking arrangements and measures to manage any construction impacts on other road users.
- A preliminary GTP has also been prepared and outlines potential initiatives to encourage sustainable transport choices for the future tenant, including monitoring of mode share targets and periodic review of travel demand management measures.



In summary, the proposed industrial estate at 125 and 145-175 Lawson Road, Badgerys Creek is well considered and readily supported from a transport perspective. The project responds to broader planning objectives including maximising freight and logistics opportunities, and planning and managing industrial and urban services land within Western Sydney.

Appendix A SIDRA calibration and validation

The existing conditions SIDRA model has been calibrated and validated using traffic survey data and site observations, in accordance with the TfNSW Traffic Modelling Guidelines (2013).

Parameters in SIDRA were generally retained at their default values. The SIDRA model has been coded with the following input parameters to calibrate the model with the observed conditions and alignment with the TfNSW Traffic Modelling Guidelines:

- Site LOS Method was set to Delay (NSW)
- Physical features of the existing intersections
- Intersection geometries were coded with reference to Nearmap aerial imagery as well as site visit observations
- Speed limits were input as per existing posted speed limits at each location
- Passenger Car Unit (PCU) factors of 1.0 for light vehicles and 2.0 for heavy vehicles was adopted.
 - The TfNSW Traffic Modelling Guidelines (2013) does not have any recommendations with respect to PCU factors. Reference has been made to Table 3 of Traffic Modelling Guidelines: SIDRA Intersection (2022) by Government of South Australia Department for Infrastructure and Transport, in lieu of any other specific guidance for PCU factors.
 - The adoption of such PCU factors is generally more conservative than the SIDRA defaults and would therefore be deemed an appropriate approach.
- The necessary steps outlined in Section 14.4 of the TfNSW Traffic Modelling Guidelines have been undertaken to calibrate the model based on the observed signal phasing and timing under SCATS operation.

The base models have been validated by matching modelled queue lengths to be as close as possible to the queue length survey results and on-site observations. Table 23 and Figure 22 compare the 95th percentile modelled vehicle queue length against surveyed vehicle queue lengths.

As shown, the observed and modelled back of queue lengths for each intersection are generally consistent in the modelled weekday peak hours, which indicates that the model is representative of existing conditions.

Table 23: Queue length validation (number of vehicles)

Intersection	Approach	AM		PM	
		Modelled	Surveyed	Modelled	Surveyed
Elizabeth Drive / Lawson Road	East	0	0	0	0
	South	0	3	0	1
	West	0	1	0	0
Elizabeth Drive / Martin Road	East	10	8	9	9
	South	1	2	2	4
	West	5	6	4	8

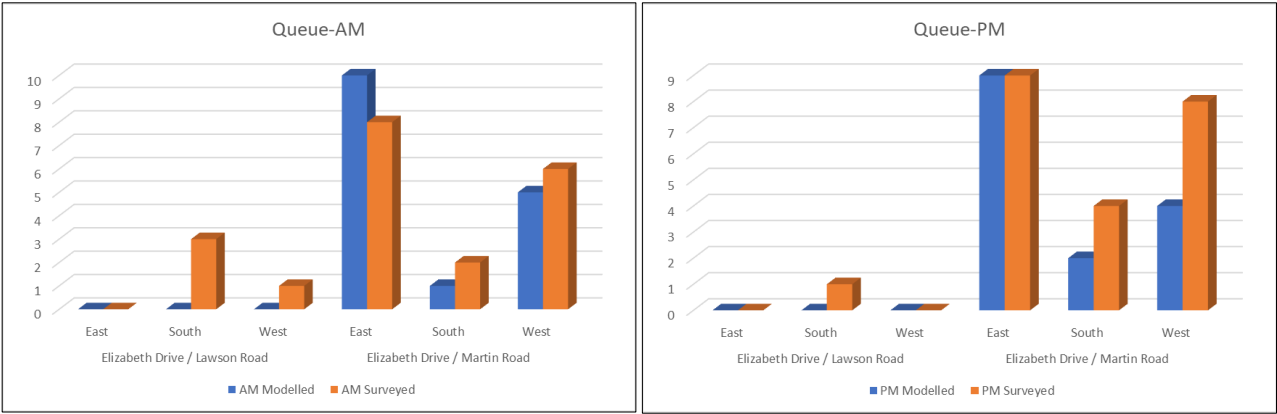


Figure 22: Queue length validation

Appendix B Future traffic volumes

Table 24: Daily development traffic profile¹

Time	Inbound		Outbound		Total	
	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
0:00	4	3	4	3	7	6
1:00	3	2	3	2	6	5
2:00	4	3	4	3	7	6
3:00	10	8	10	8	20	16
4:00	11	9	11	9	23	18
5:00	18	14	18	14	37	29
6:00	30	23	30	23	60	47
7:00	25	19	25	19	49	39
8:00	28	22	28	22	56	44
9:00	24	19	24	19	47	37
10:00	18	14	18	14	35	28
11:00	18	14	18	14	35	28
12:00	20	16	20	16	40	32
13:00	21	17	21	17	42	33
14:00	18	15	18	15	37	29
15:00	21	17	21	17	43	33
16:00	29	23	29	23	58	45
17:00	24	19	24	19	48	38
18:00	21	17	21	17	43	34
19:00	11	8	11	8	21	17
20:00	8	6	8	6	16	13
21:00	7	6	7	6	14	11
22:00	6	5	6	5	13	10
23:00	5	4	5	4	10	8
Daily	384	302	384	302	768	604

¹ There may be some discrepancies between movements for individual hours and the total movements per day due to rounding.

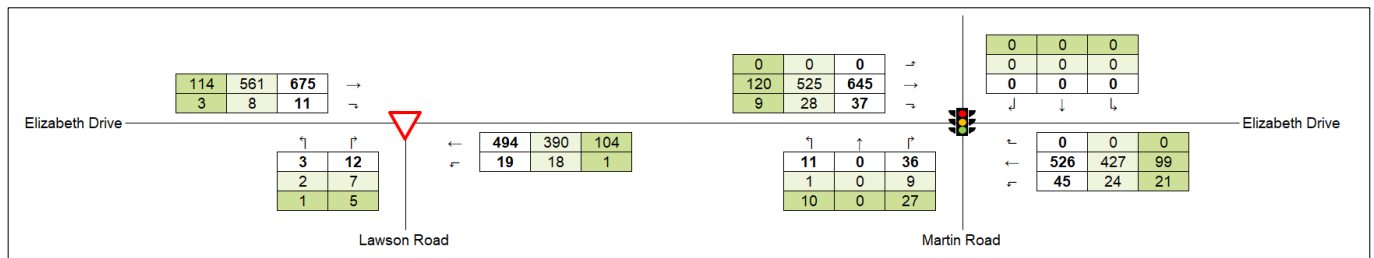


Figure 23: 2025 AM peak hour traffic volumes

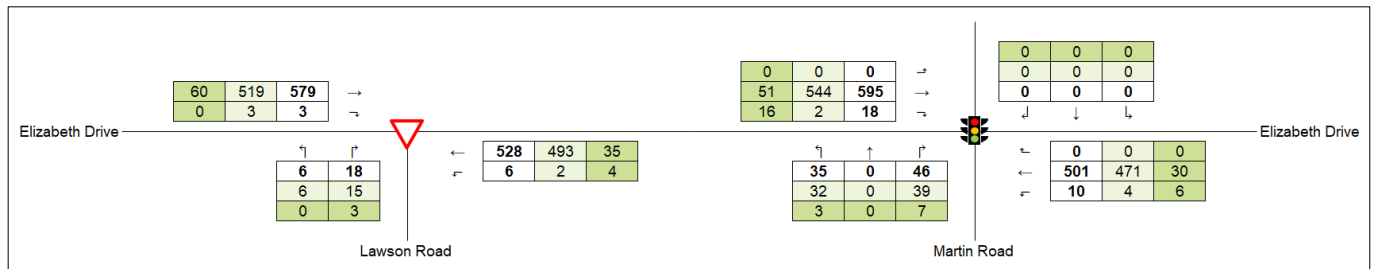


Figure 24: 2025 PM peak hour traffic volumes

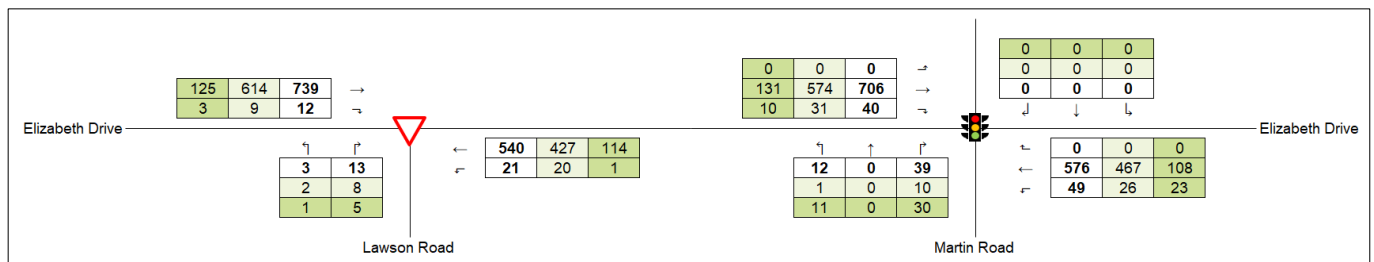


Figure 25: 2027 AM peak hour traffic volumes

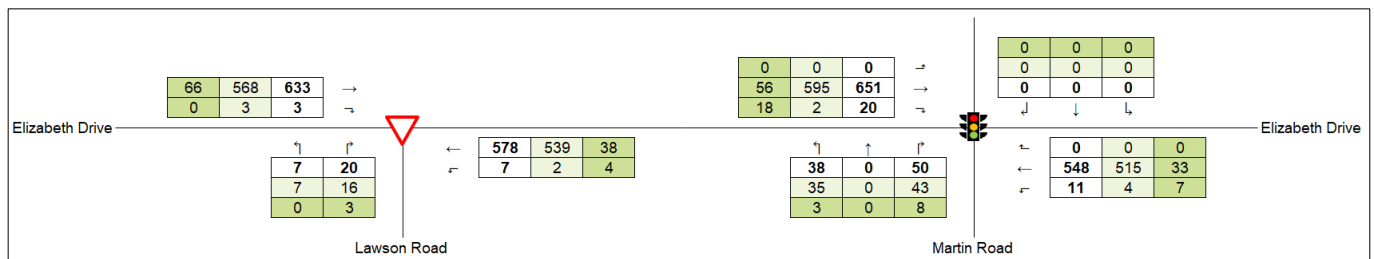


Figure 26: 2027 PM peak hour traffic volumes

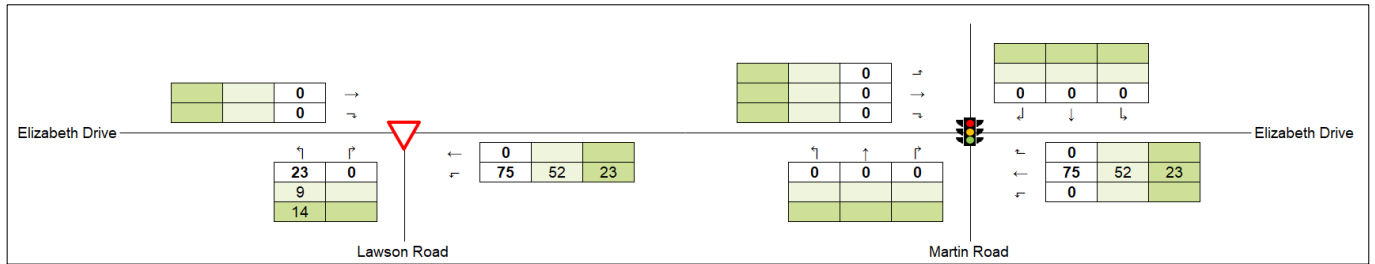


Figure 27: 2027 development AM peak hour traffic volumes

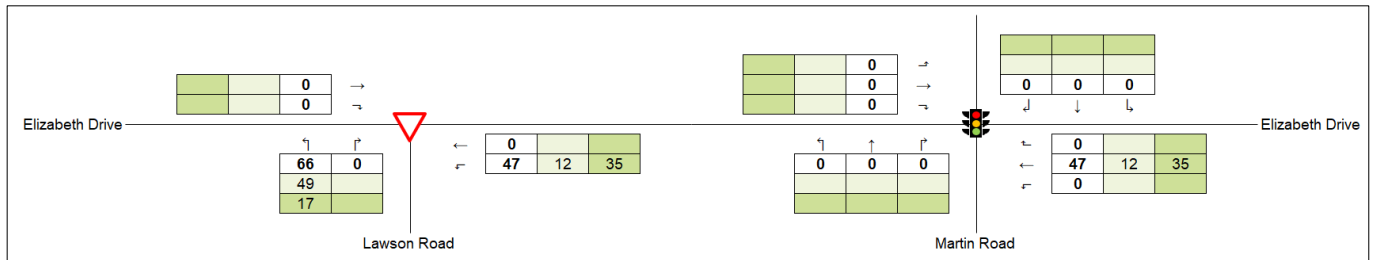


Figure 28: 2027 development PM peak hour traffic volumes

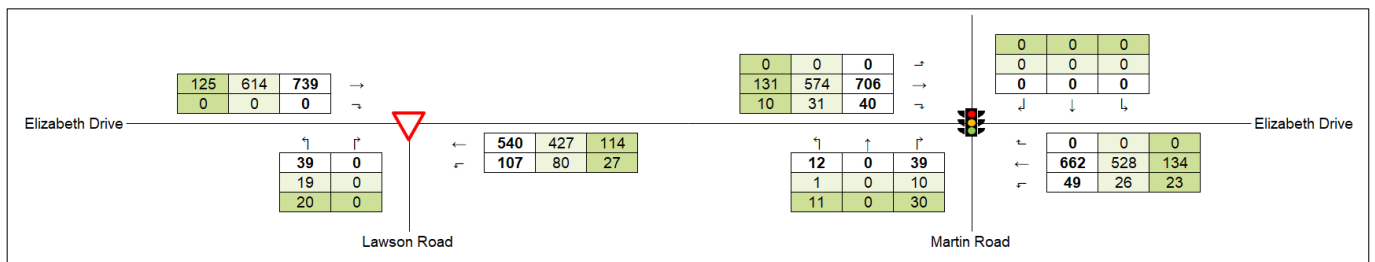


Figure 29: 2027 with development AM peak hour traffic volumes

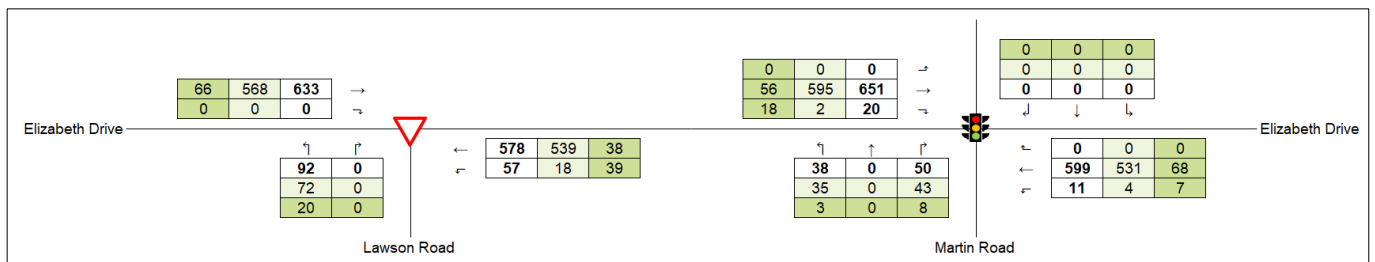


Figure 30: 2027 with development PM peak hour traffic volumes

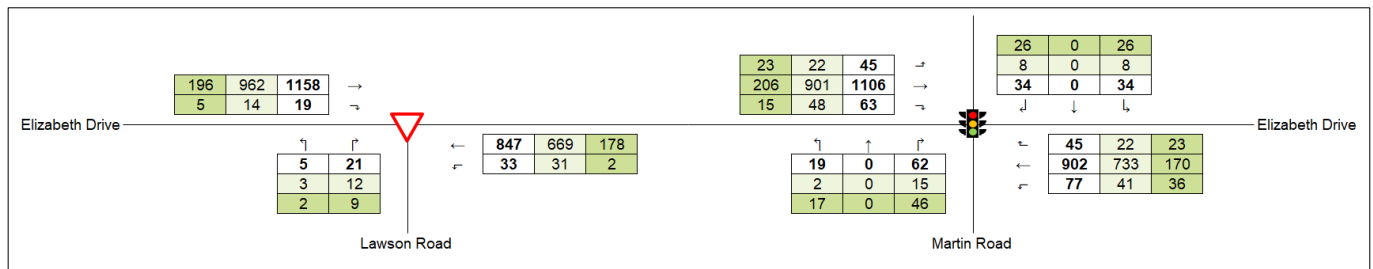


Figure 31: 2037 AM peak hour traffic volumes

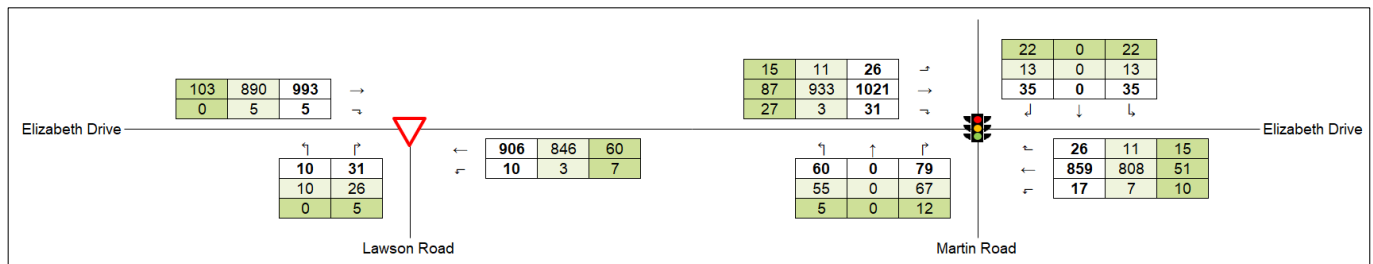


Figure 32: 2037 PM peak hour traffic volumes

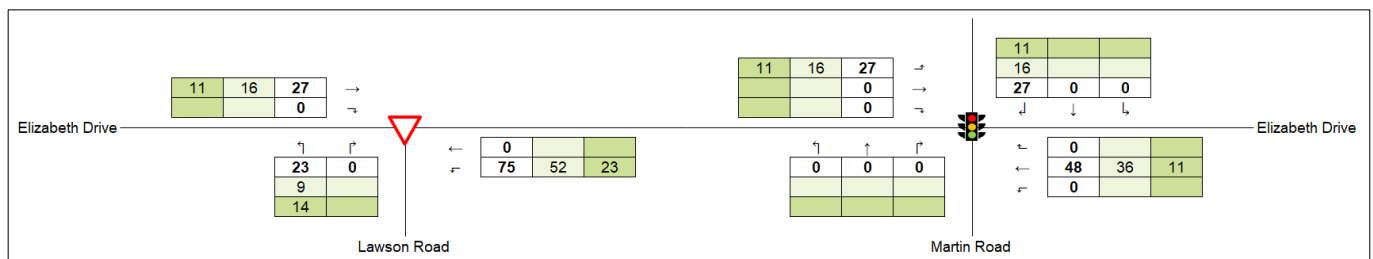


Figure 33: 2037 development AM peak hour traffic volumes

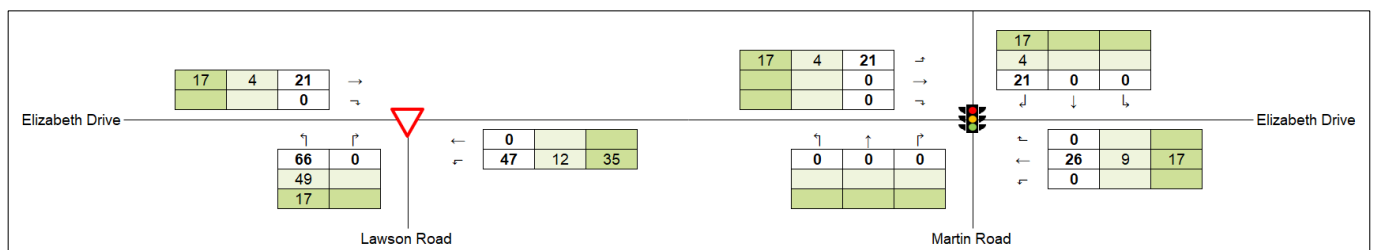


Figure 34: 2037 development PM peak hour traffic volumes

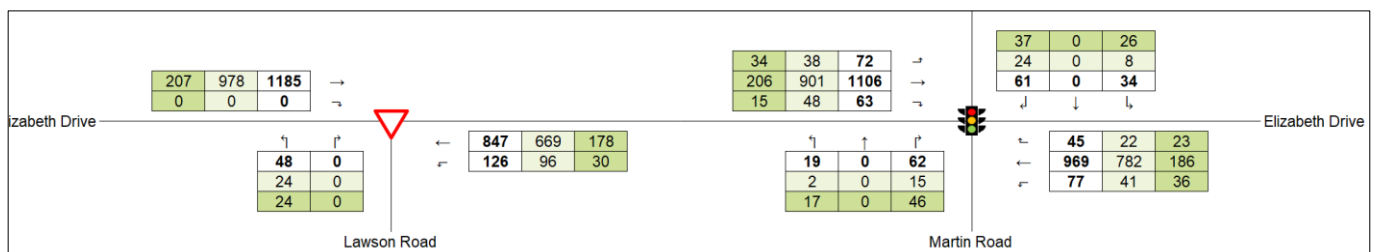


Figure 35: 2037 with development AM peak hour traffic volumes

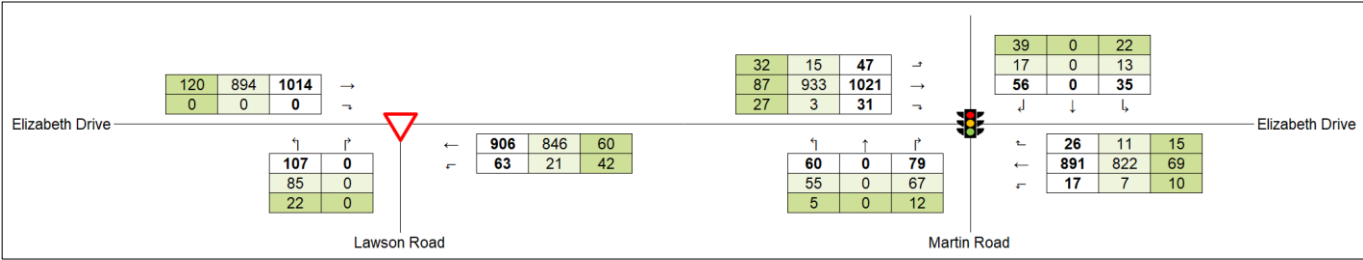
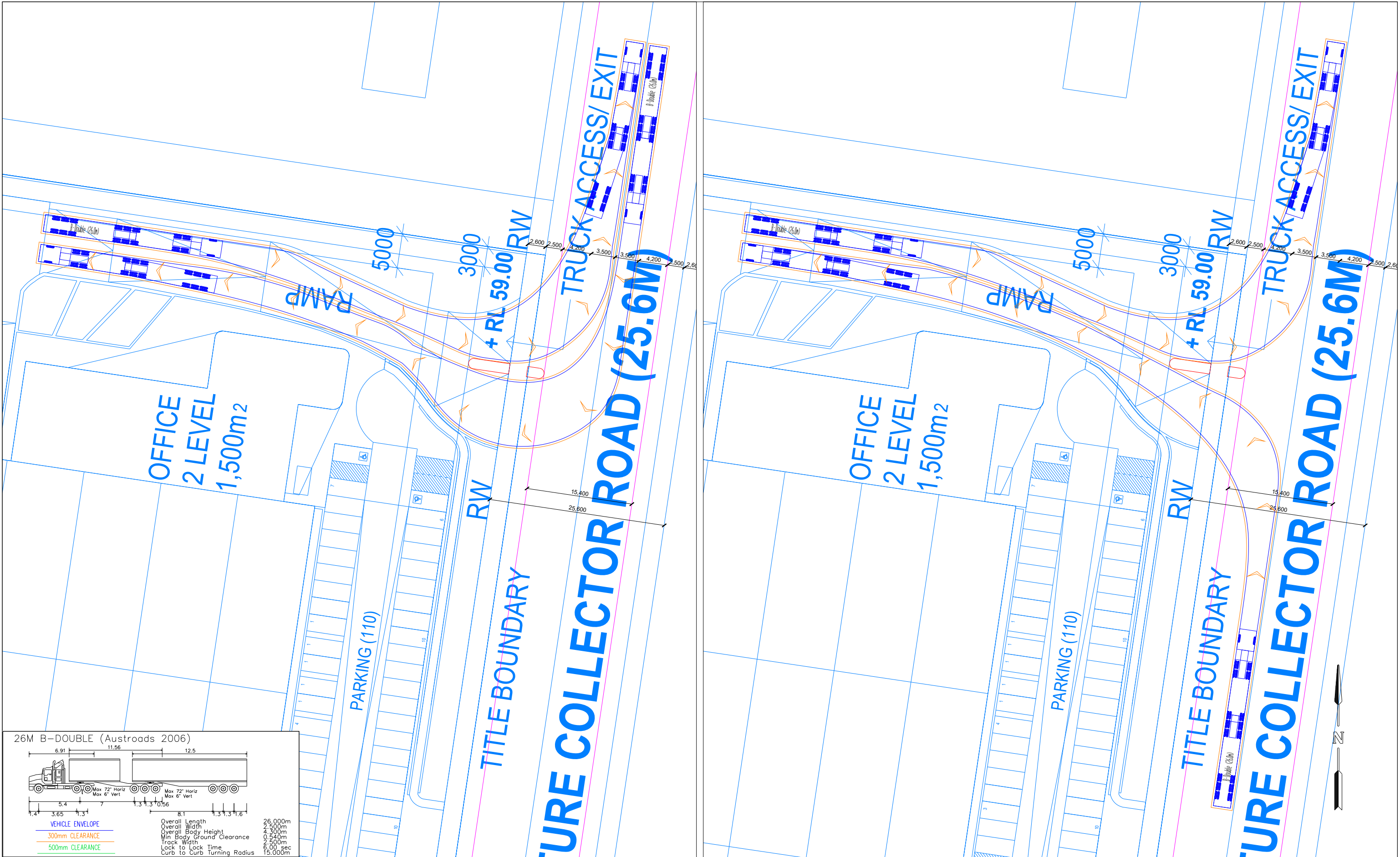


Figure 36: 2037 with development PM peak hour traffic volumes

Appendix C Swept path assessment

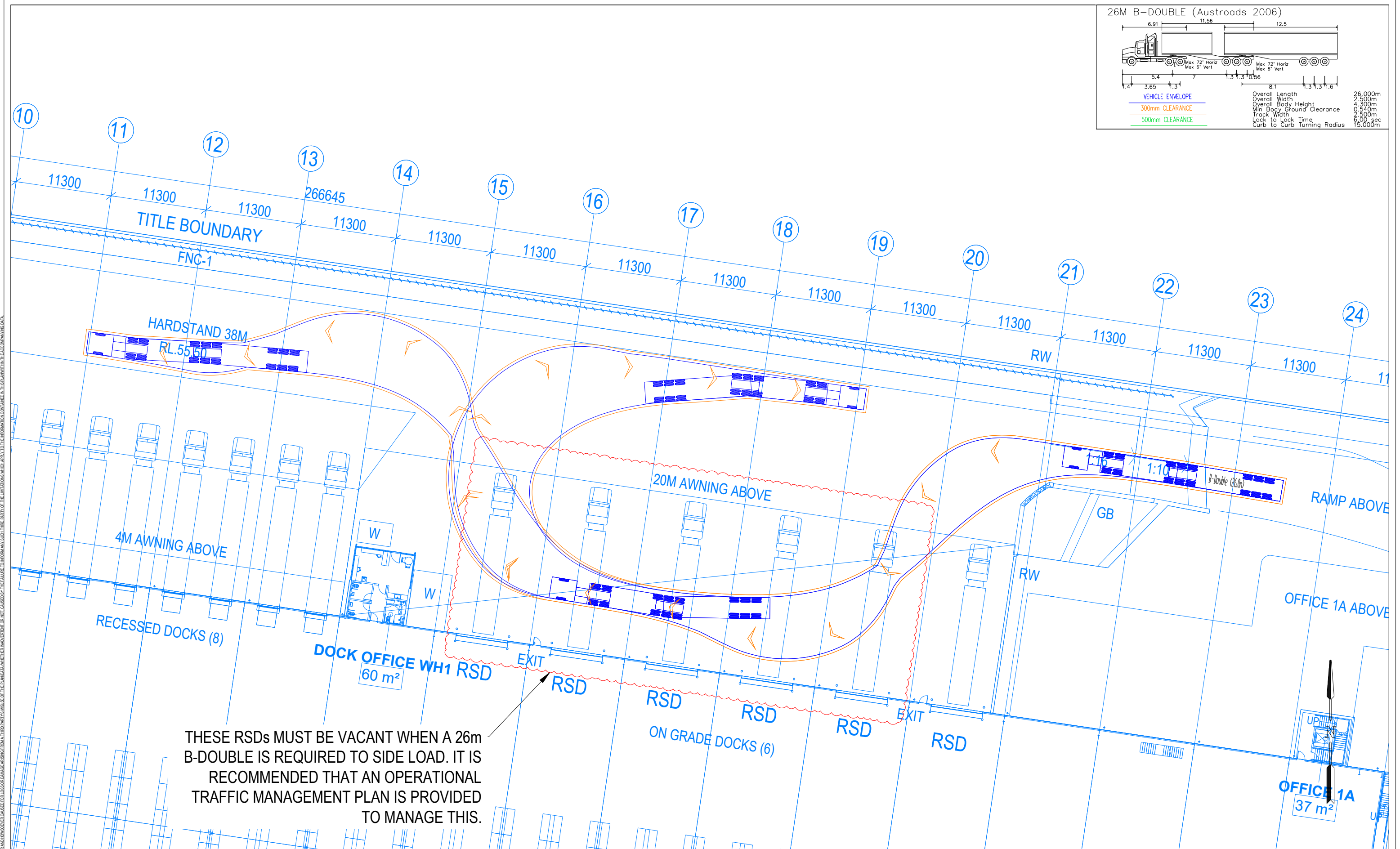
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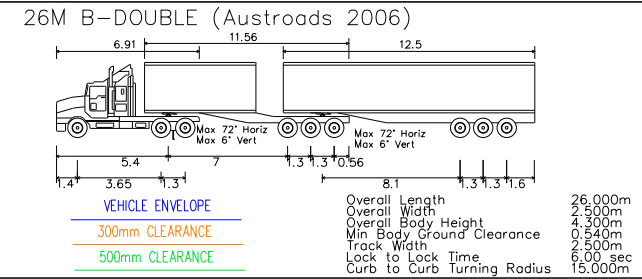
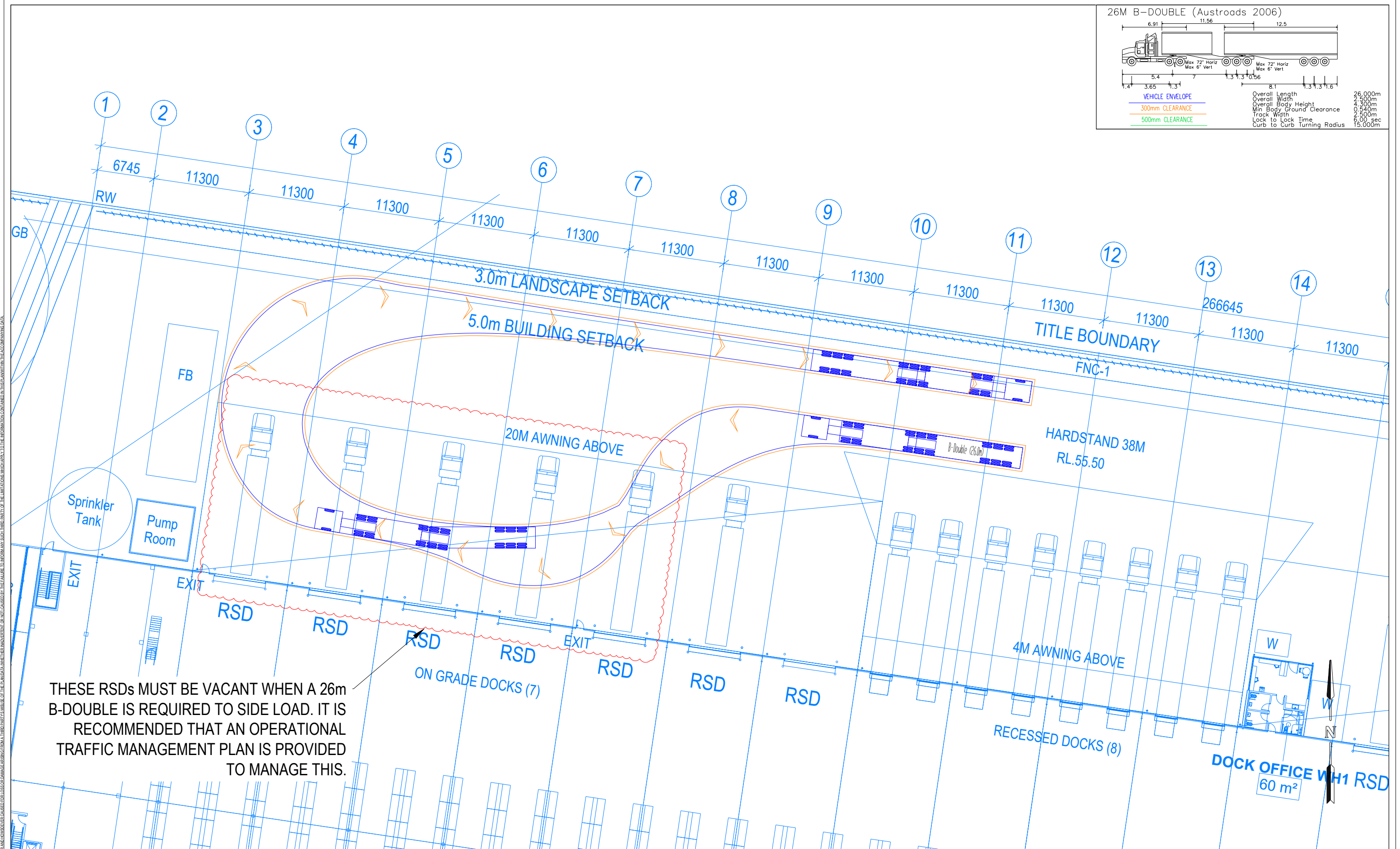
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	APPROVED BY Mack Brinums	DATE 30.05.2025	PROJECT P2732A	26m B-Double WH1 Site Access (Option A)	
	SCALE 1:500	0 5 10	145 Lawson Road, Badgenys Creek	FILE NAME AG2732A-01-v05.dwg	SHEET AG02

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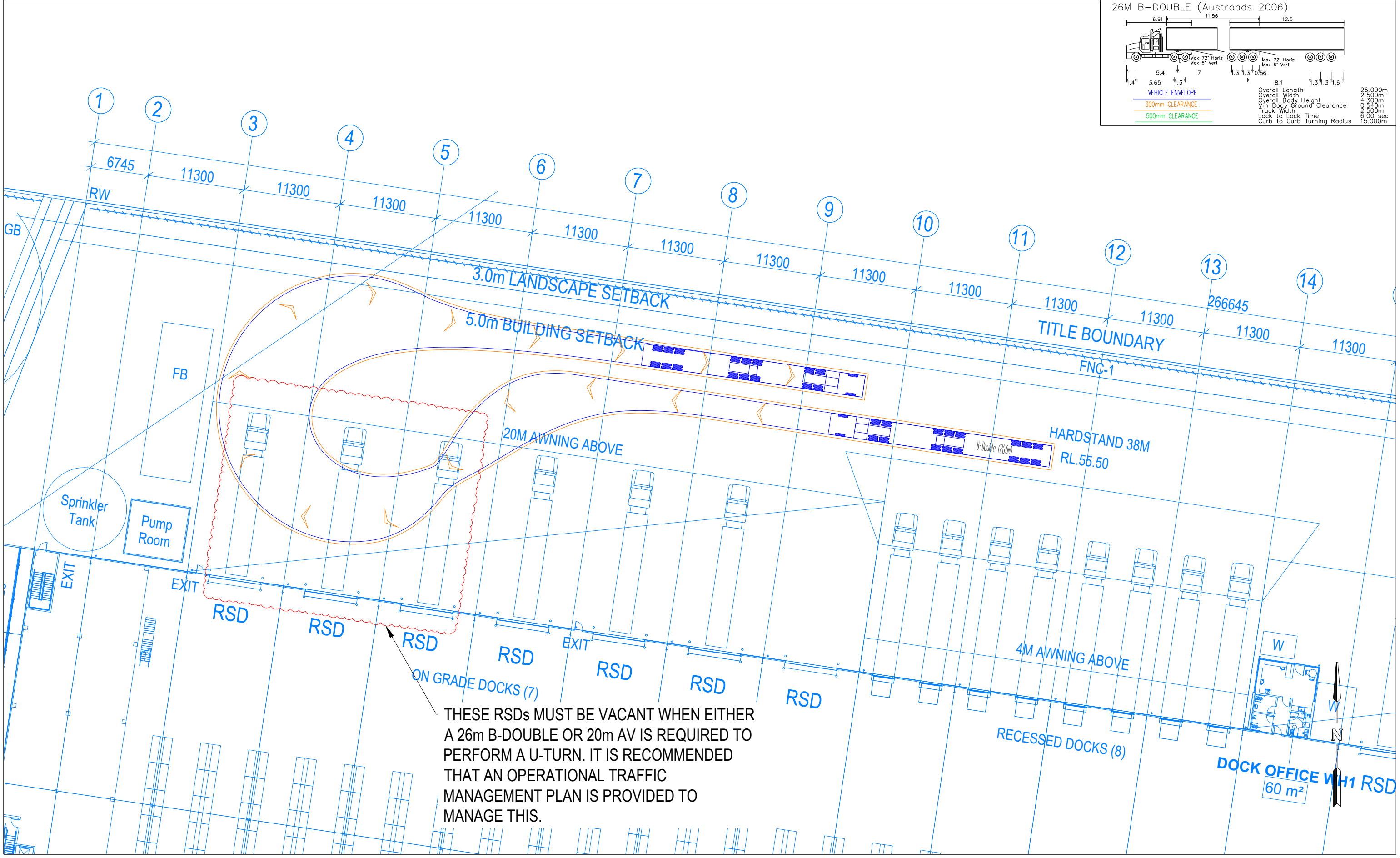
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				26m B-Double WH1 Side Loading 1	
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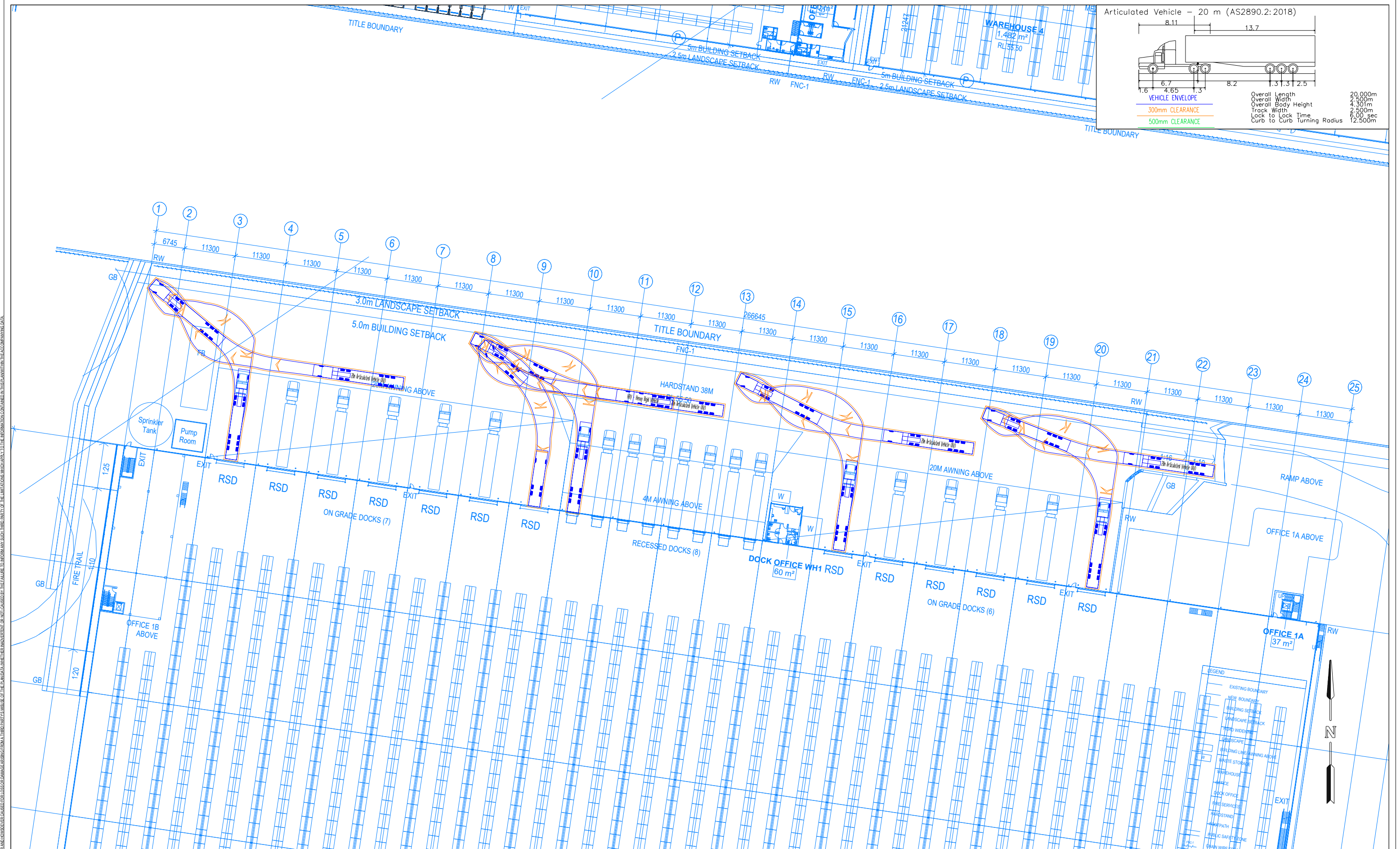
THESE RSDs MUST BE VACANT WHEN A 26m B-DOUBLE IS REQUIRED TO SIDE LOAD. IT IS RECOMMENDED THAT AN OPERATIONAL TRAFFIC MANAGEMENT PLAN IS PROVIDED TO MANAGE THIS.

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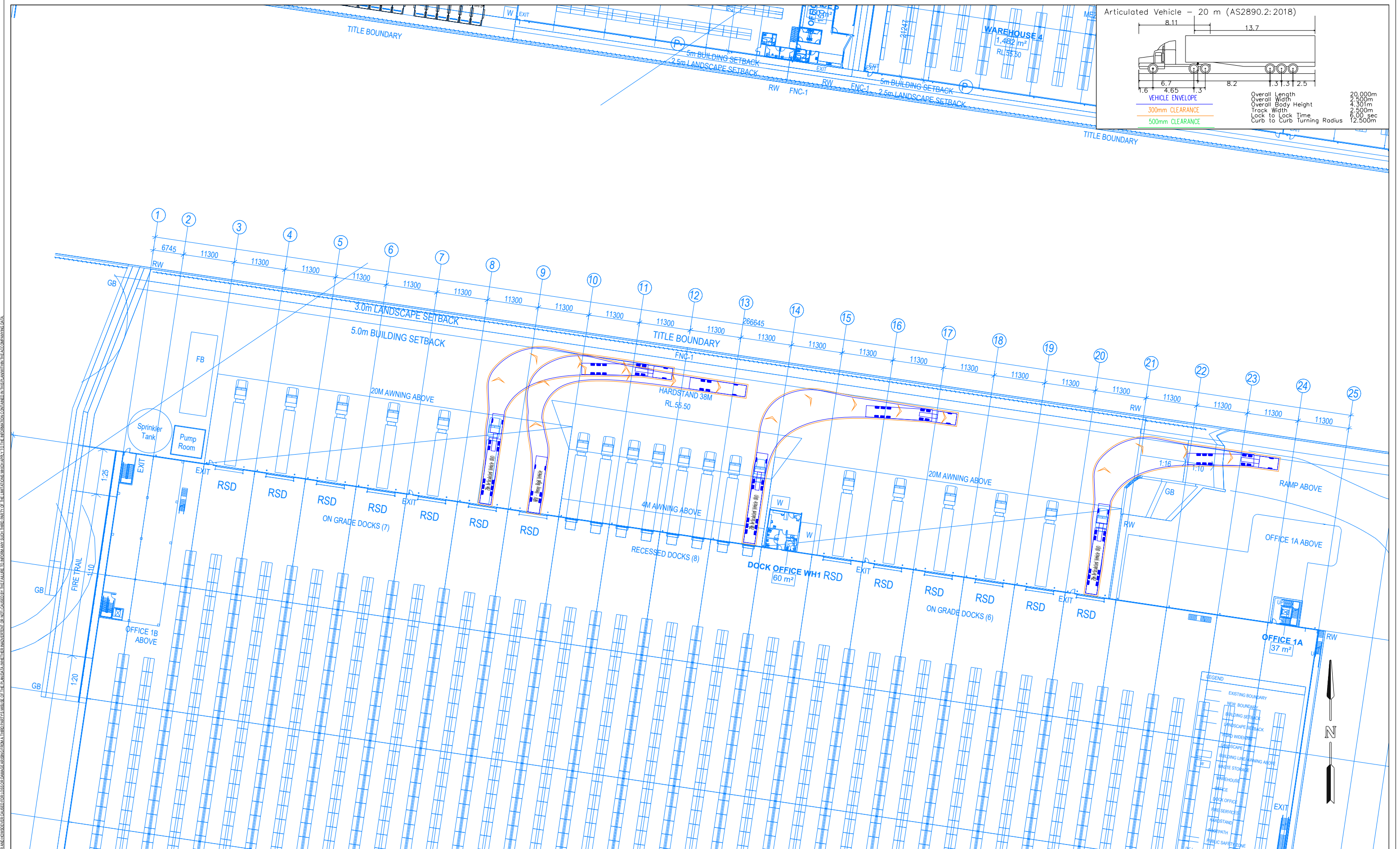
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	26m B-Double WH1 Side Loading 2					



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	APPROVED BY Mack Brinums	DATE 30.05.2025	PROJECT P2732A	20m AV WH1 Loading - Entry (Left-Hand Down)		
	SCALE 1:750		145 Lawson Road, Badgenys Creek	FILE NAME AG2732A-01-v05.dwg	SHEET AG06	

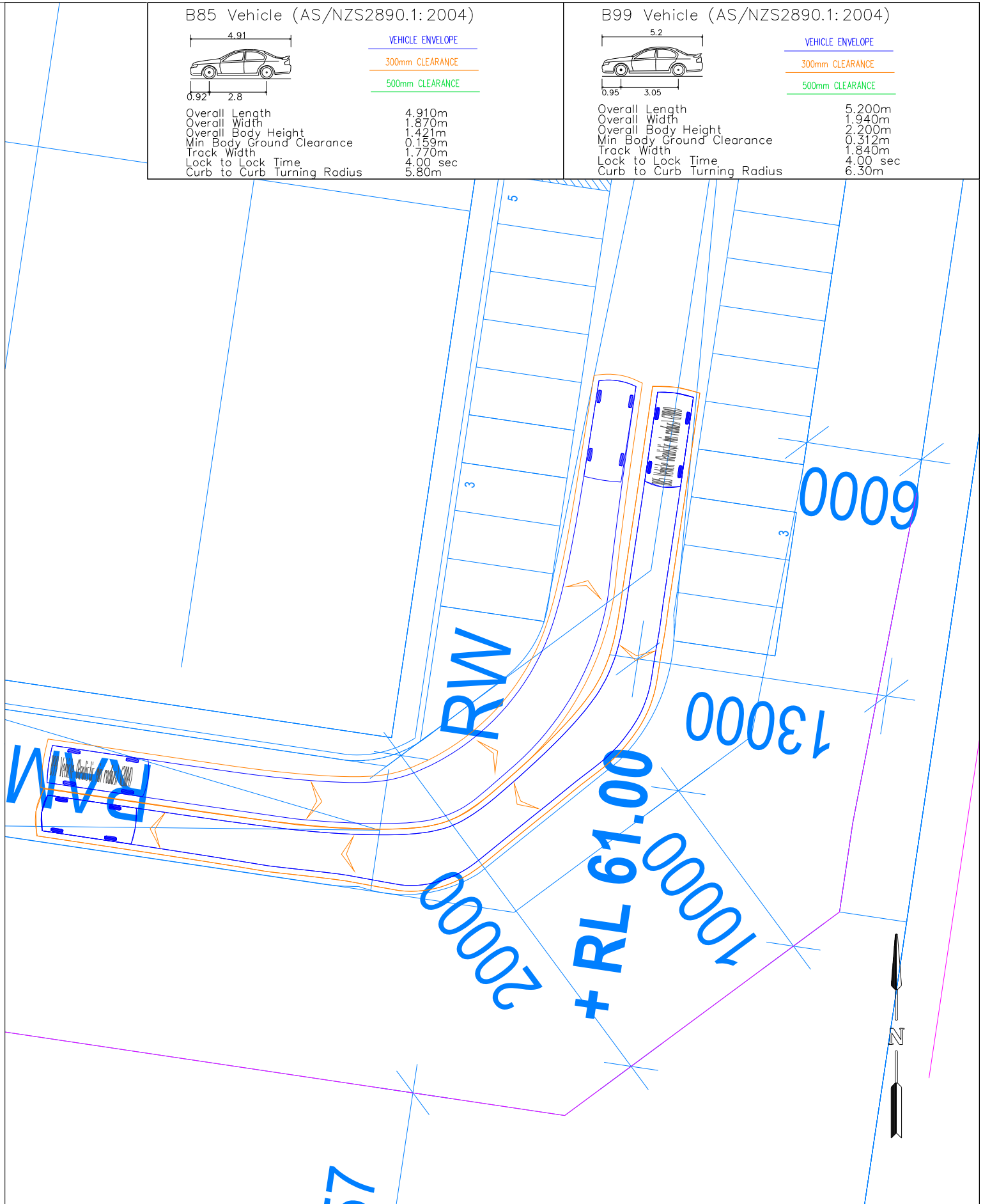
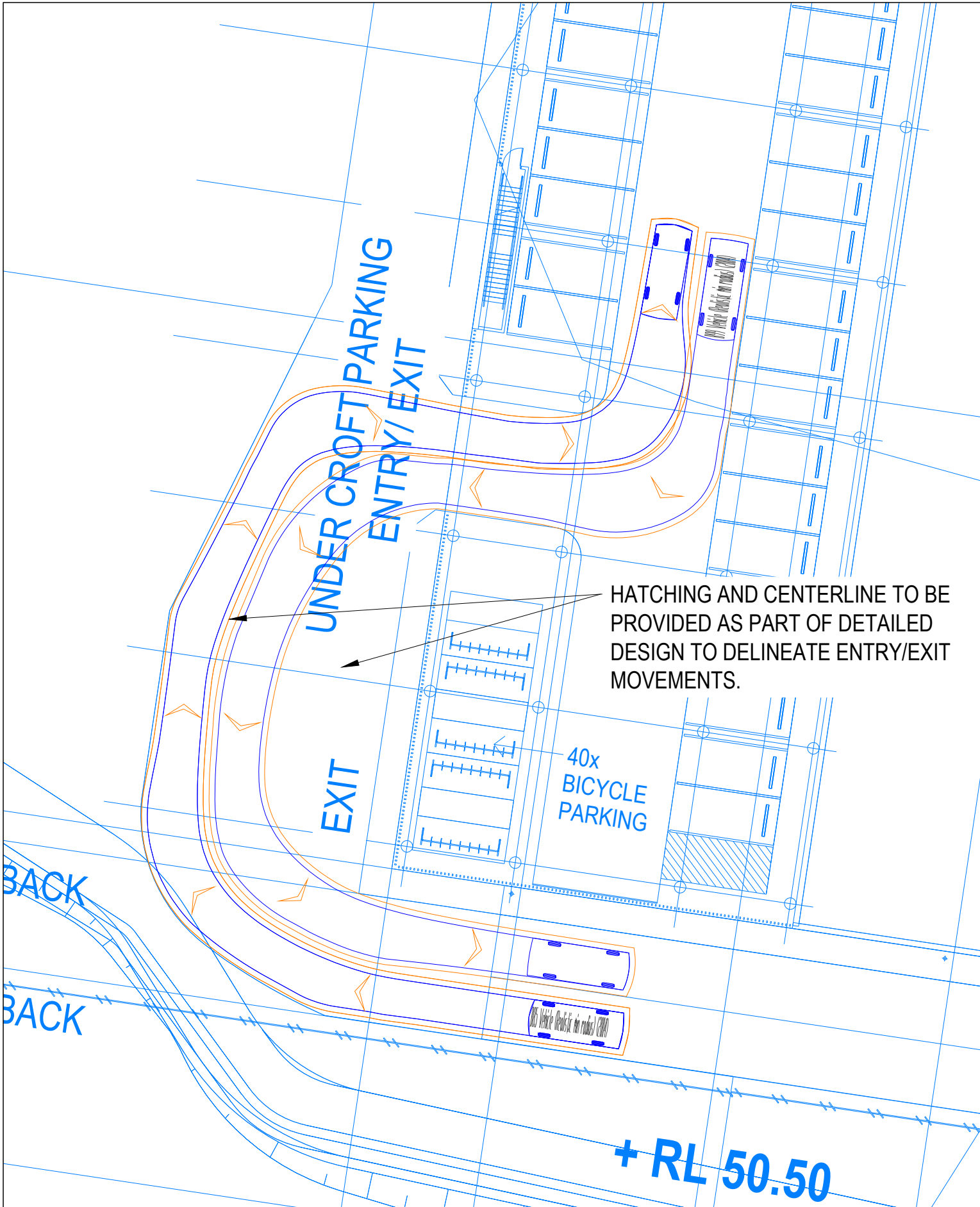


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		APPROVED BY	DATE	PROJECT	20m AV WH1 Loading - Exit	
		Mack Brinums	30.05.2025	P2732A	FILE NAME	SHEET
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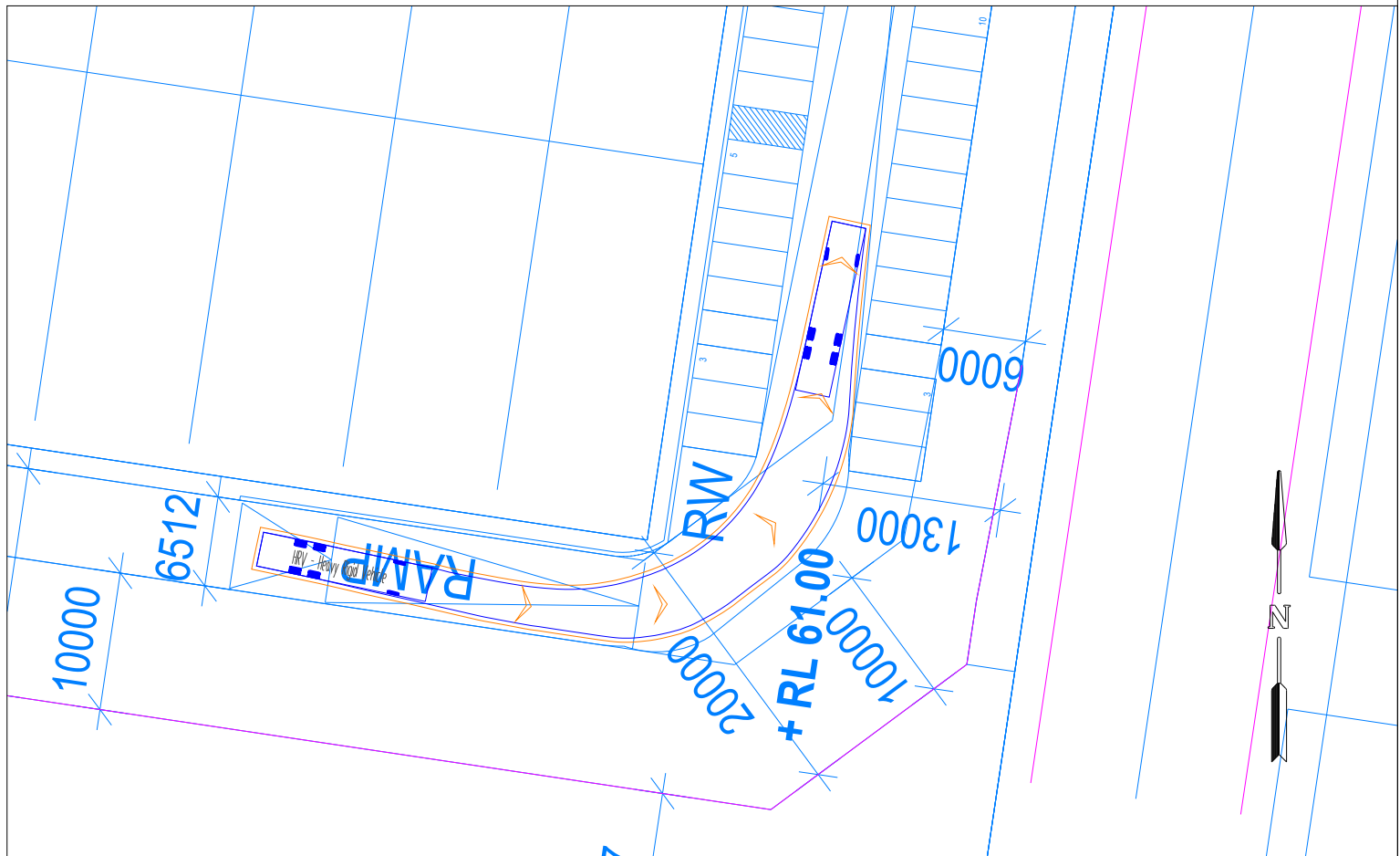
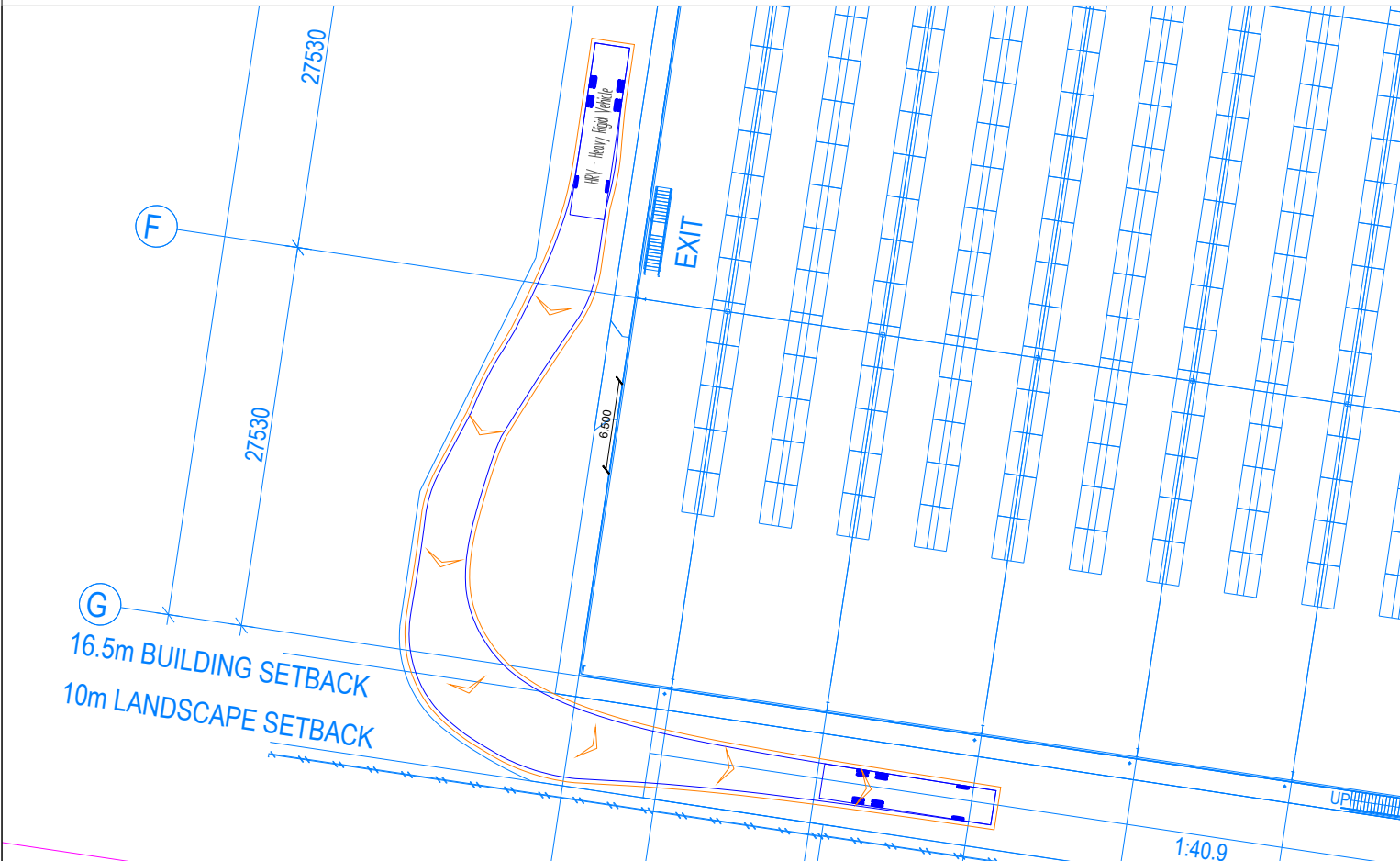
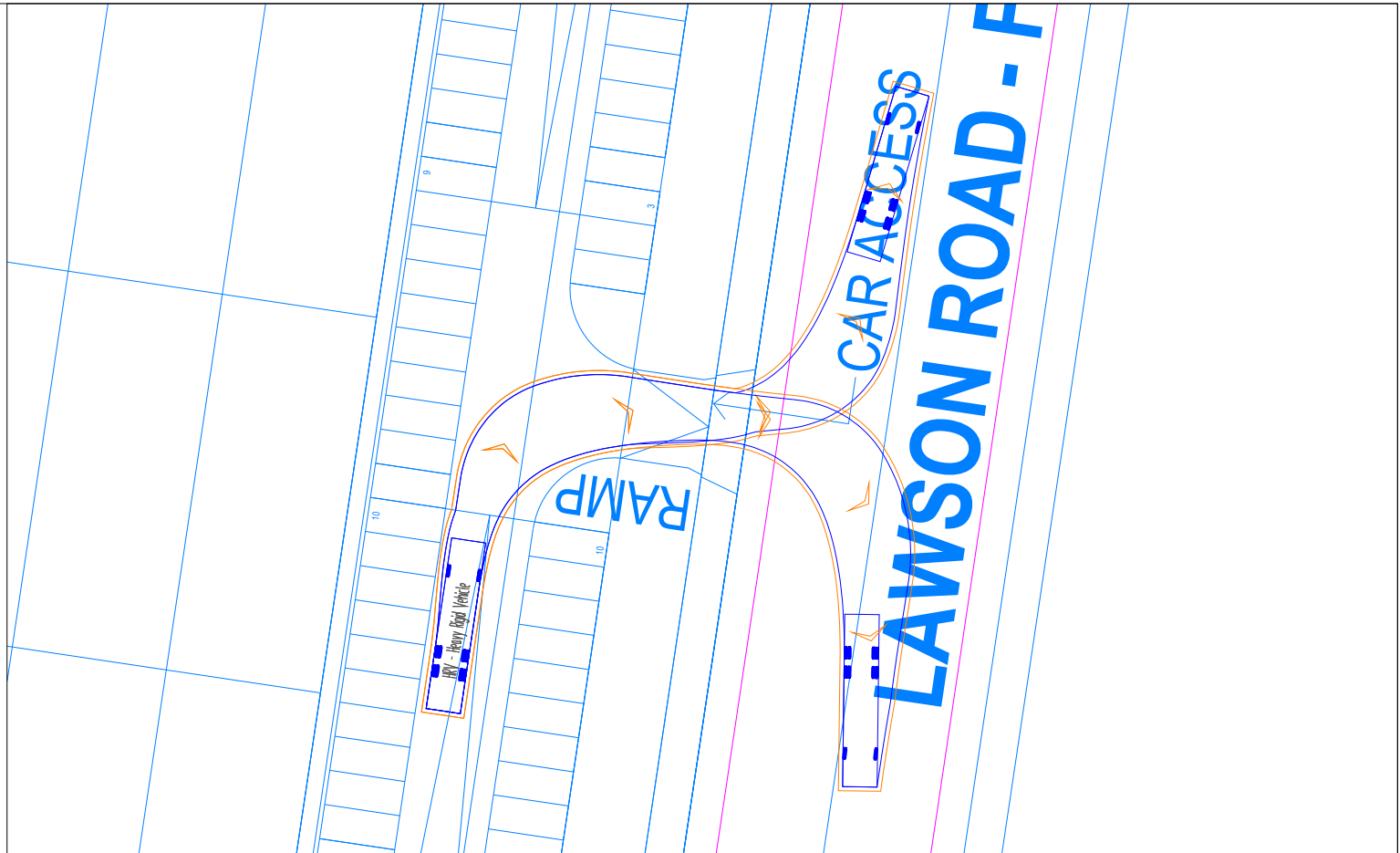
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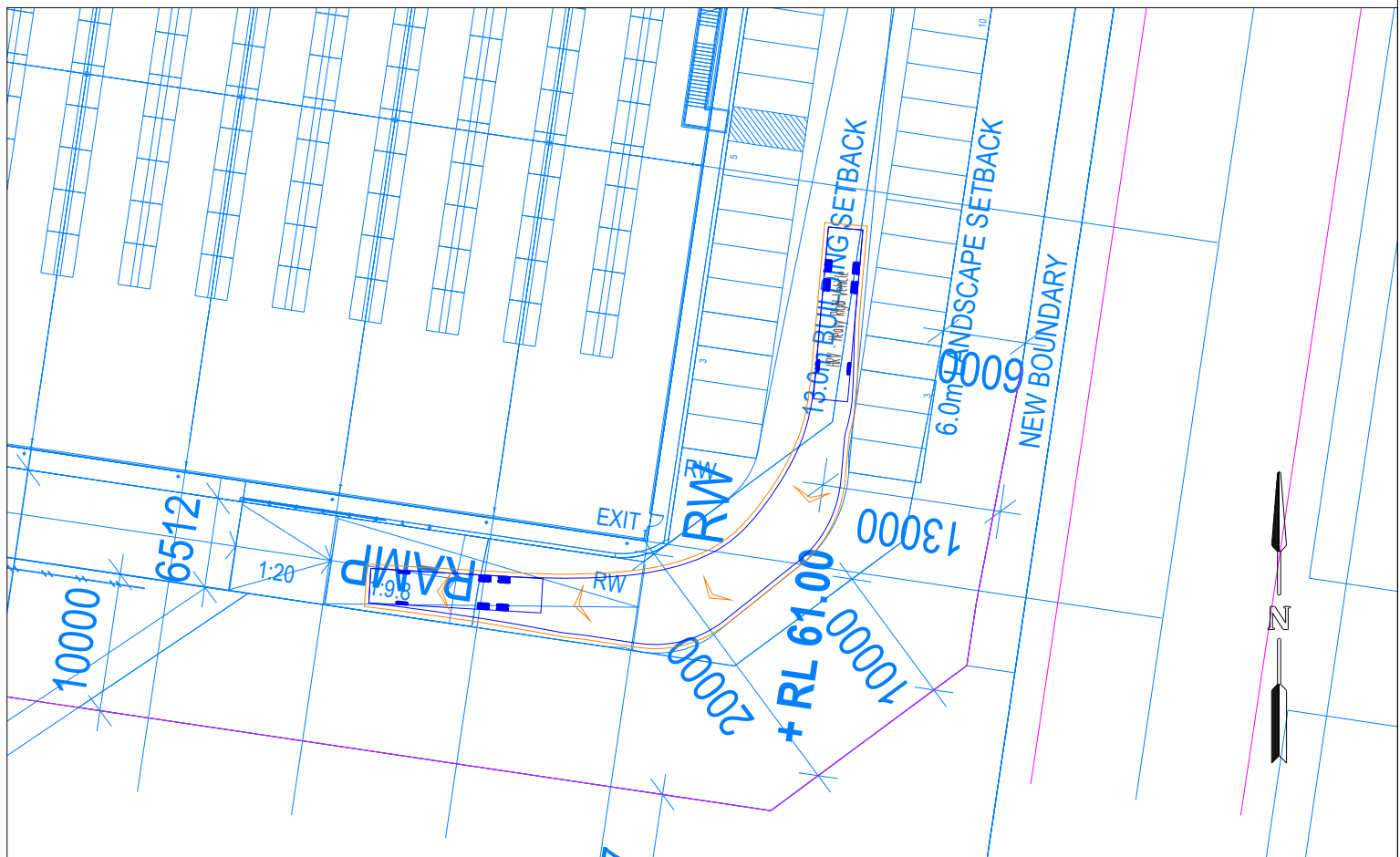
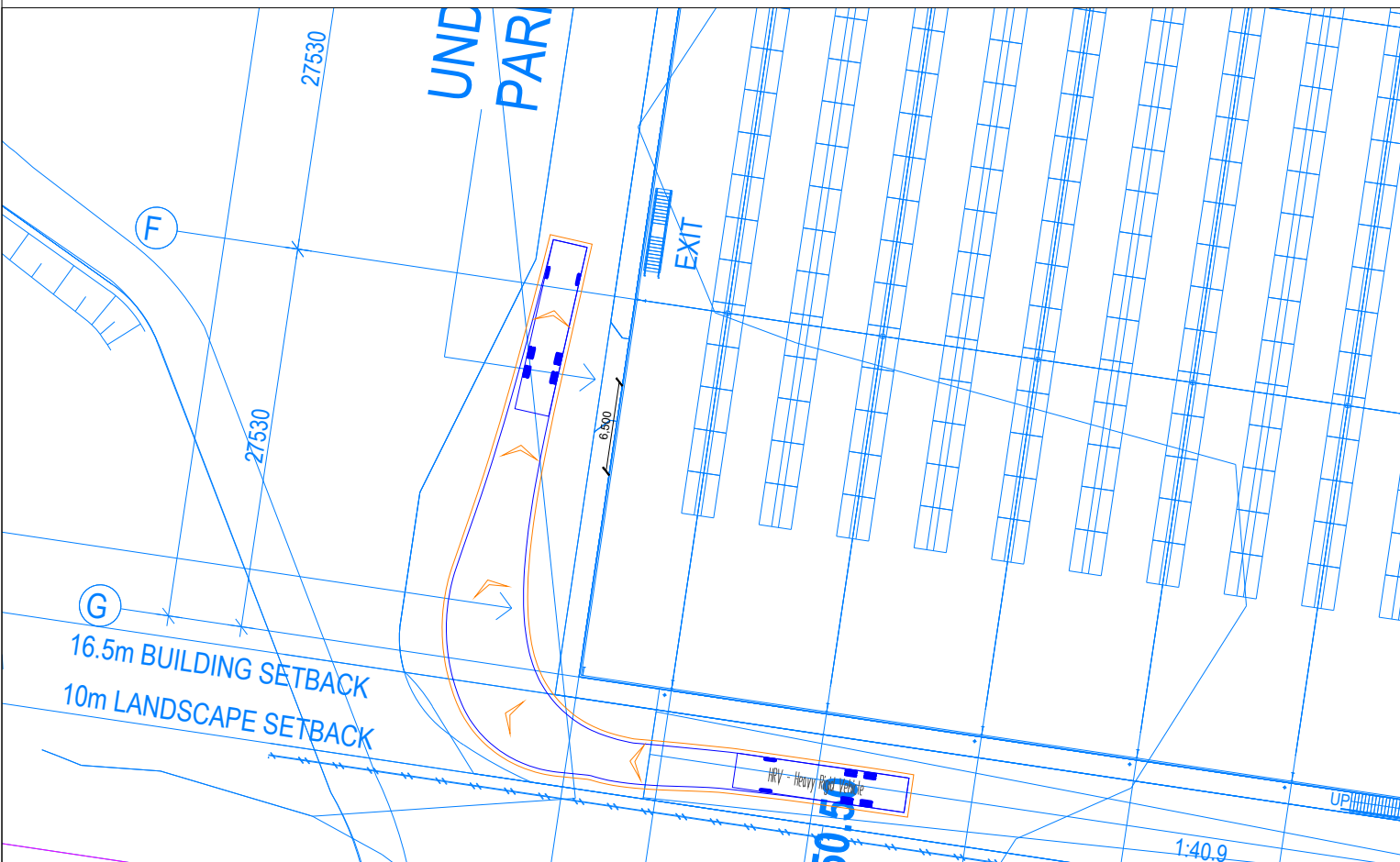
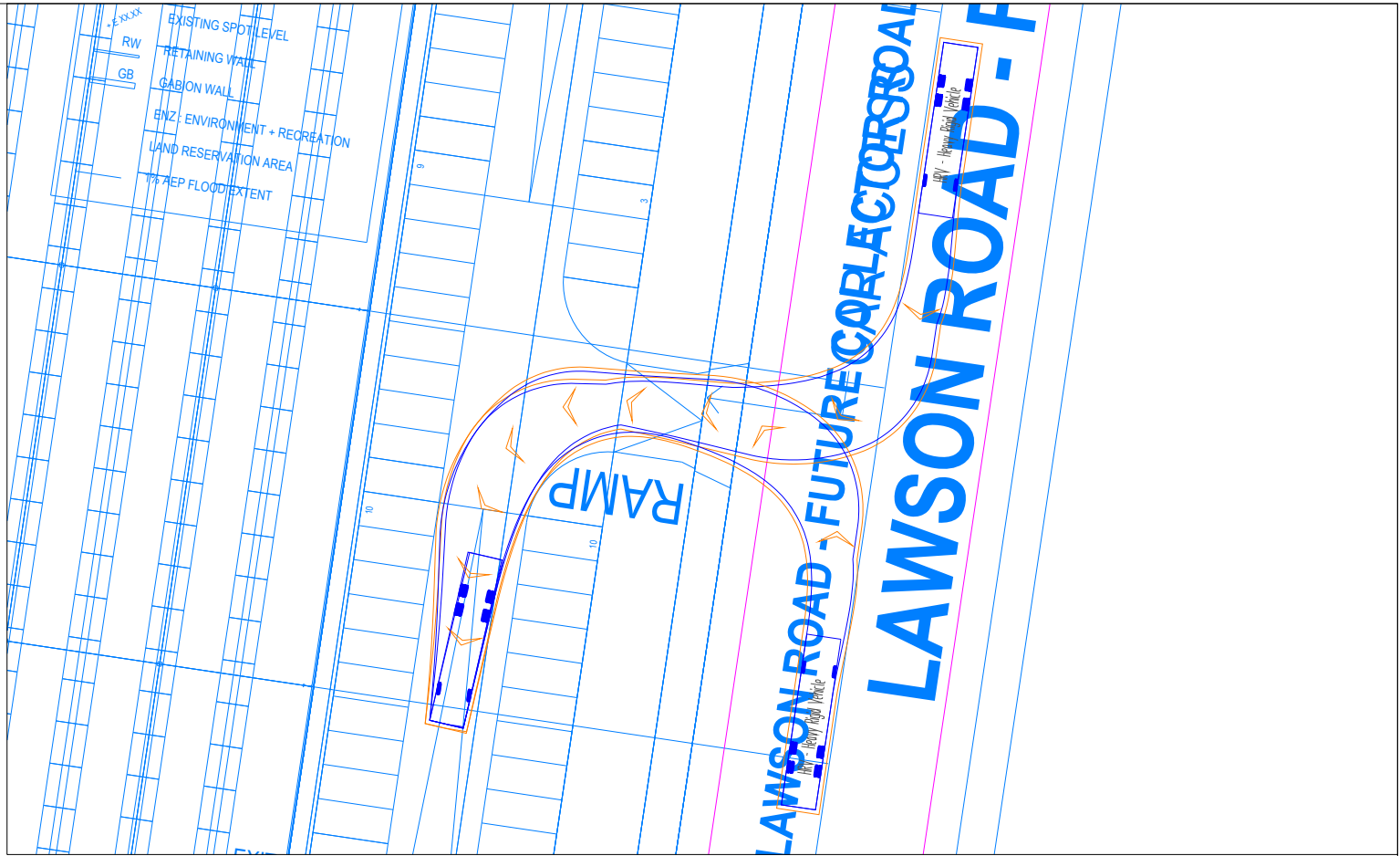
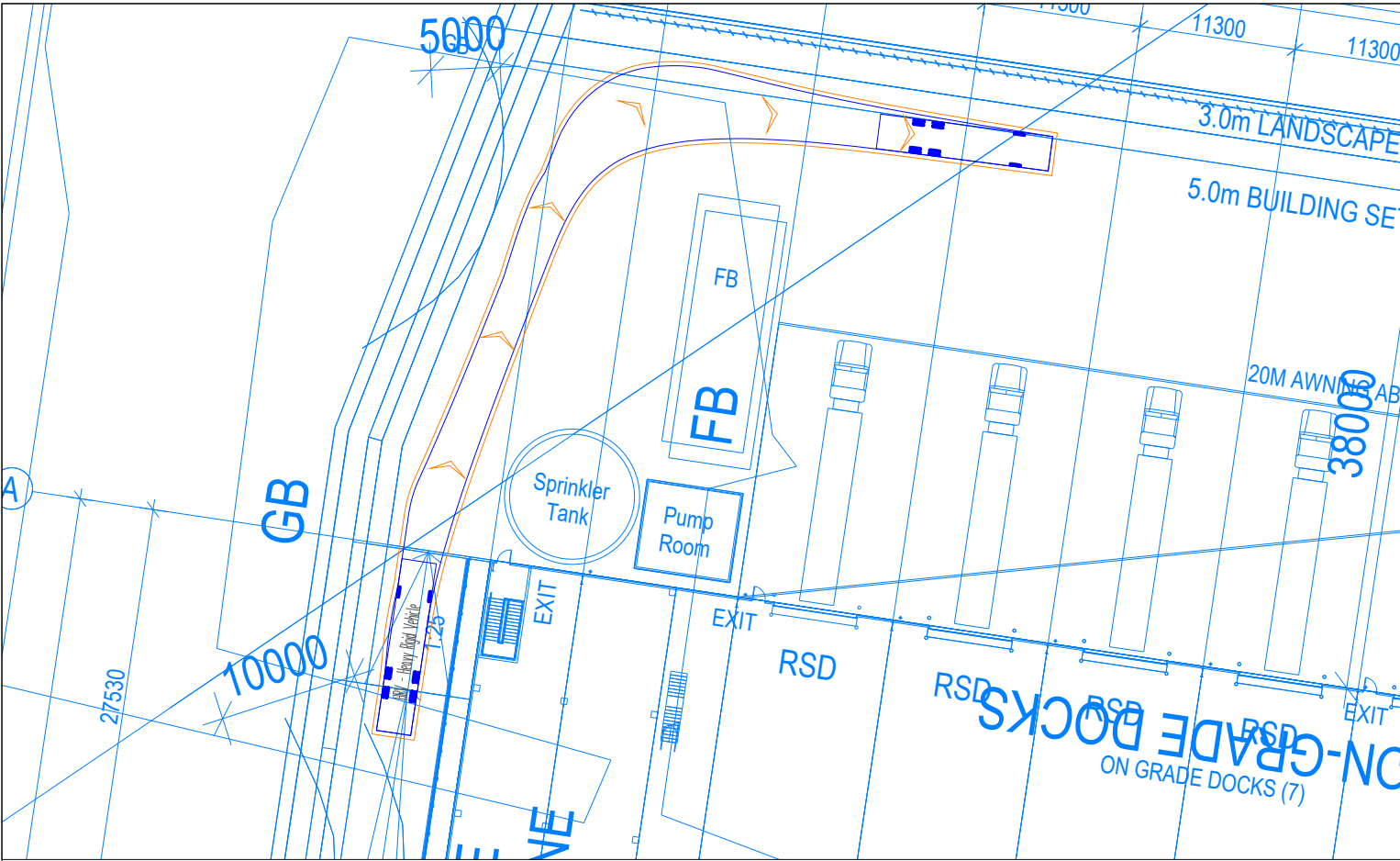
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			145 Lawson Road, Badgenys Creek			

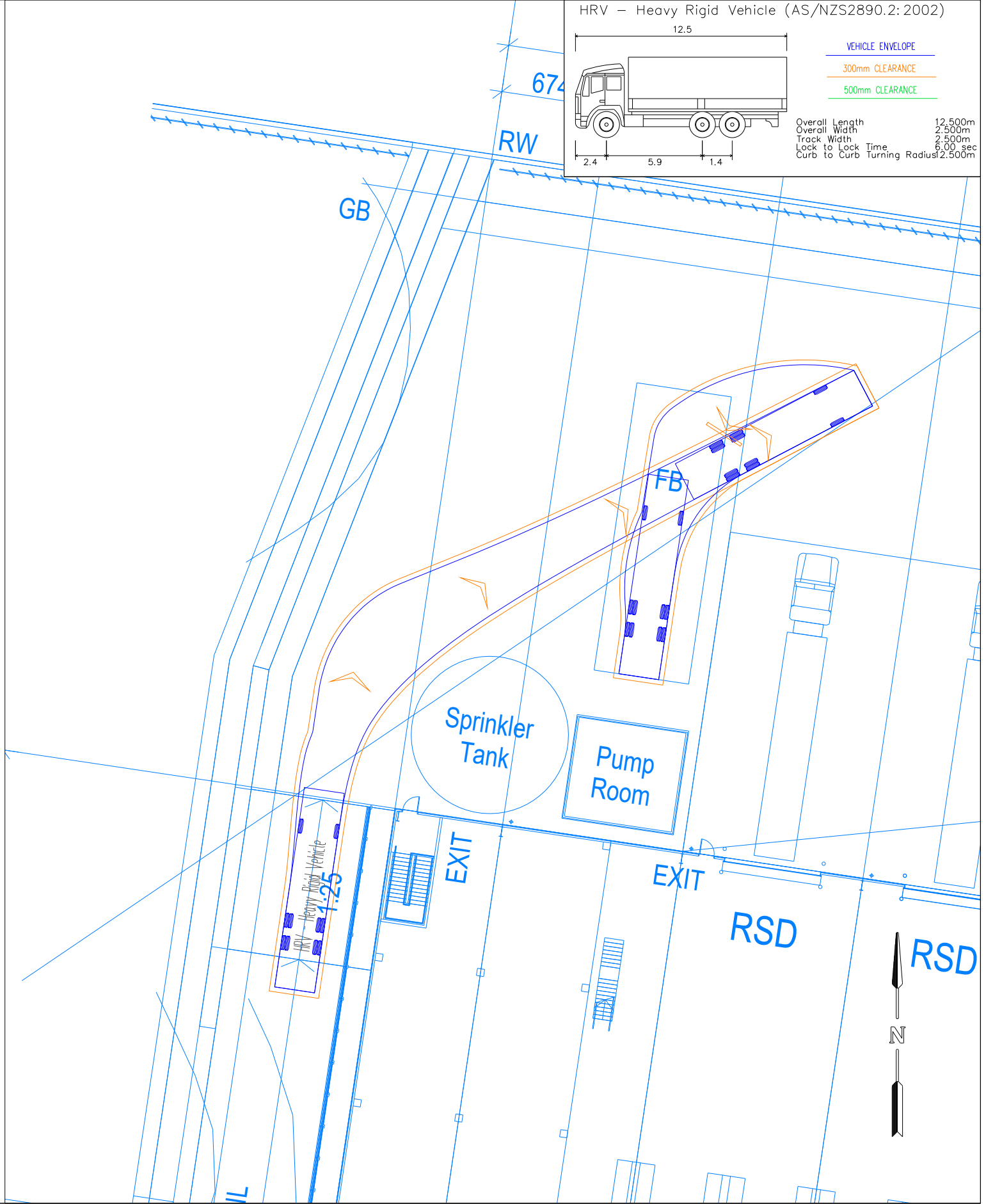
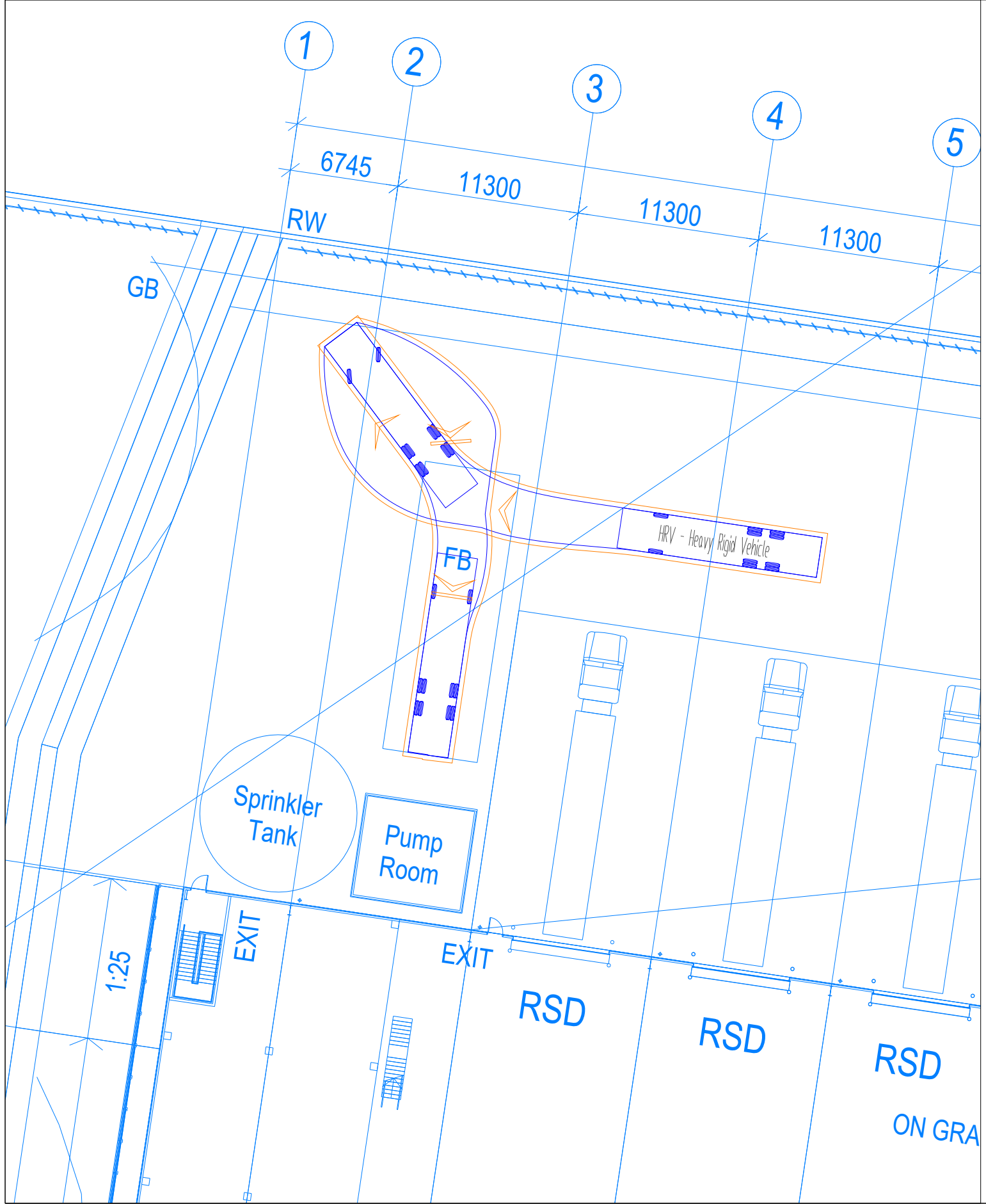


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HRV - Heavy Rigid Vehicle (AS/NZS2890.2:2002)

12.5

VEHICLE ENVELOPE

300mm CLEARANCE

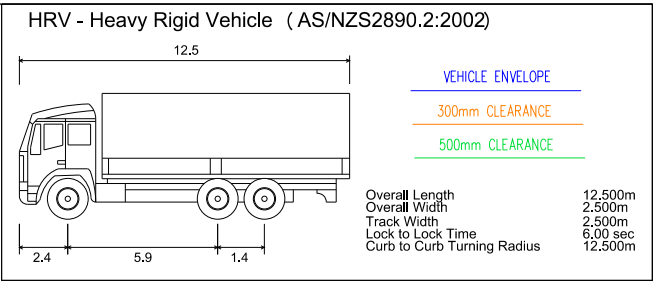
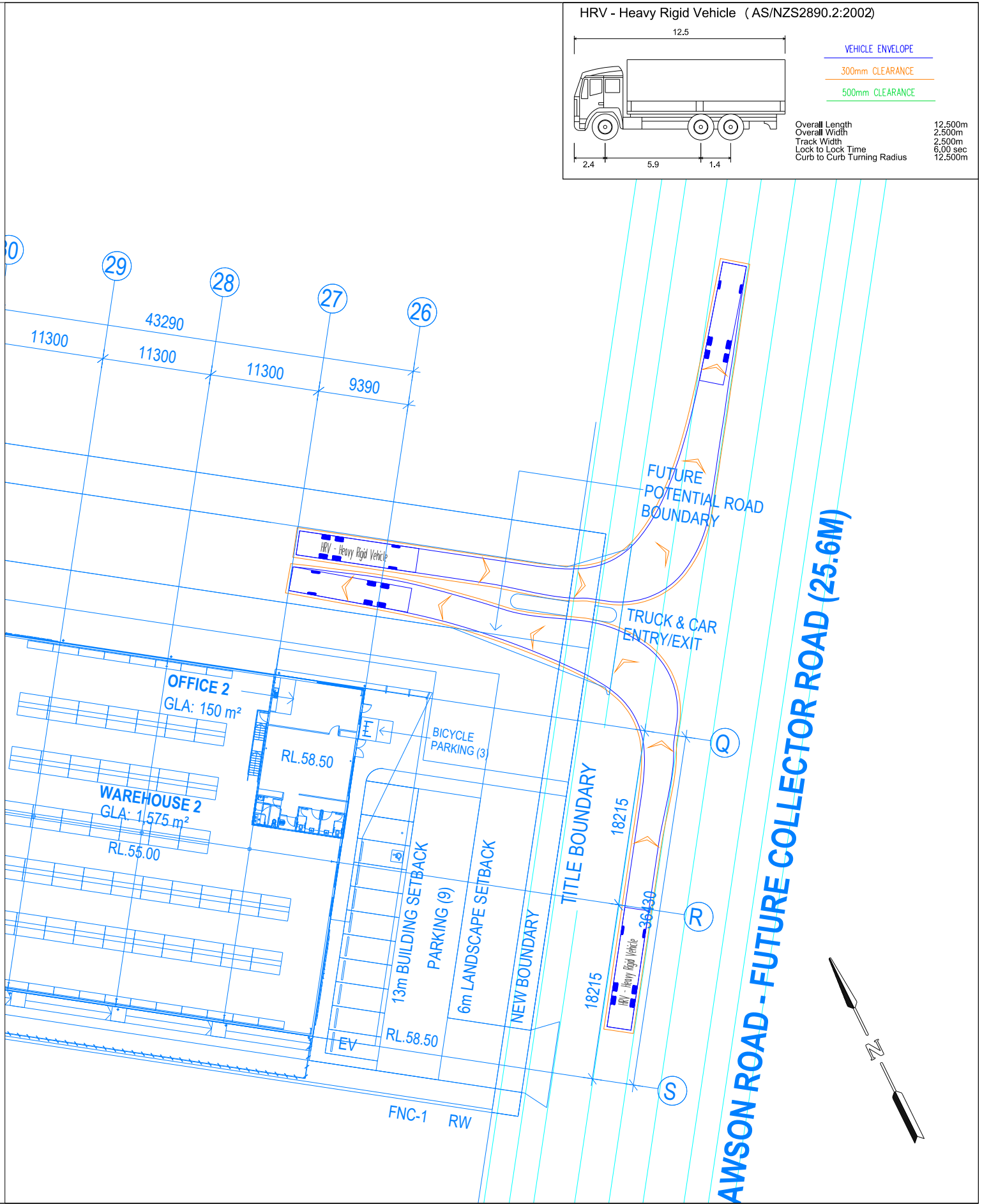
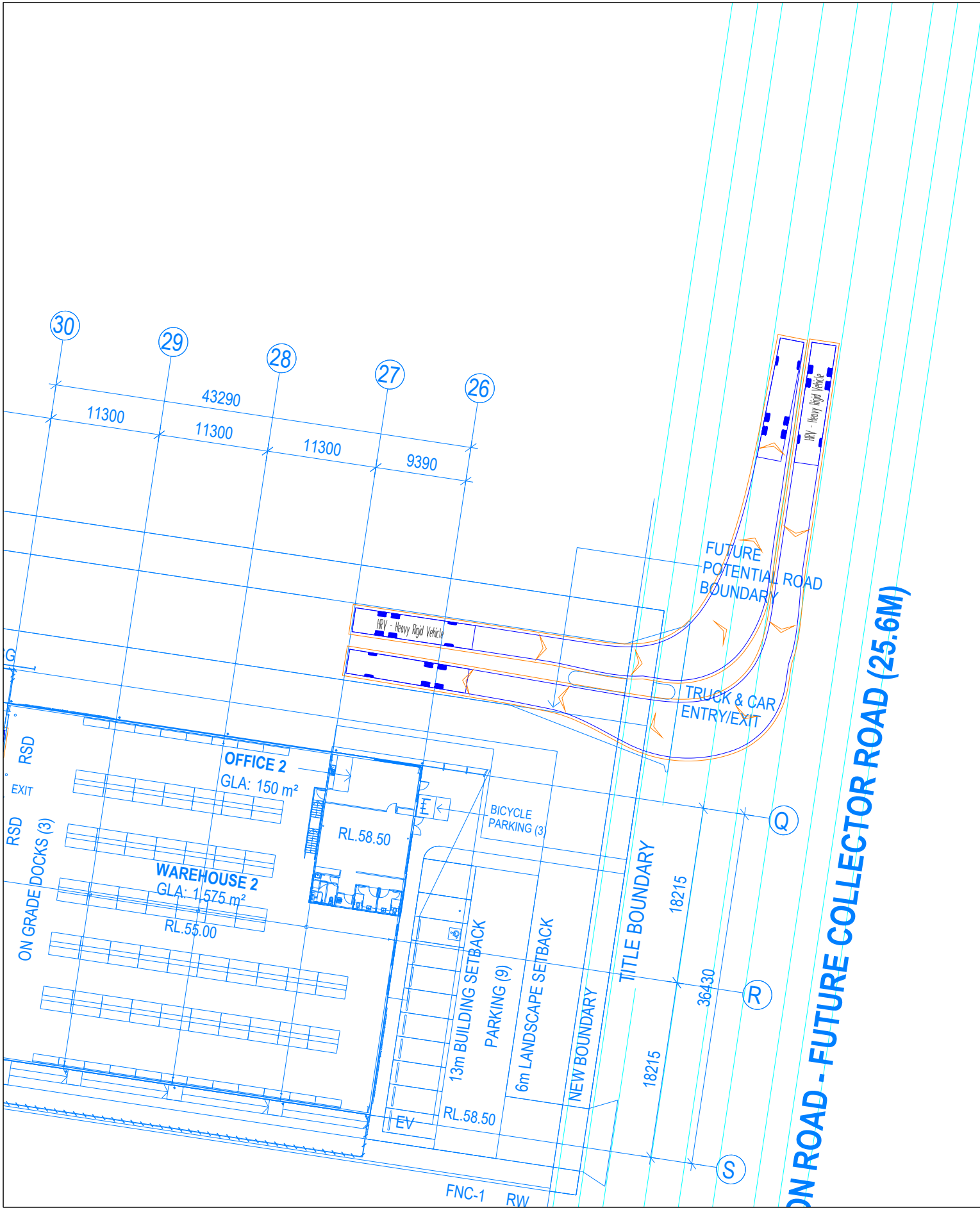
500mm CLEARANCE

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

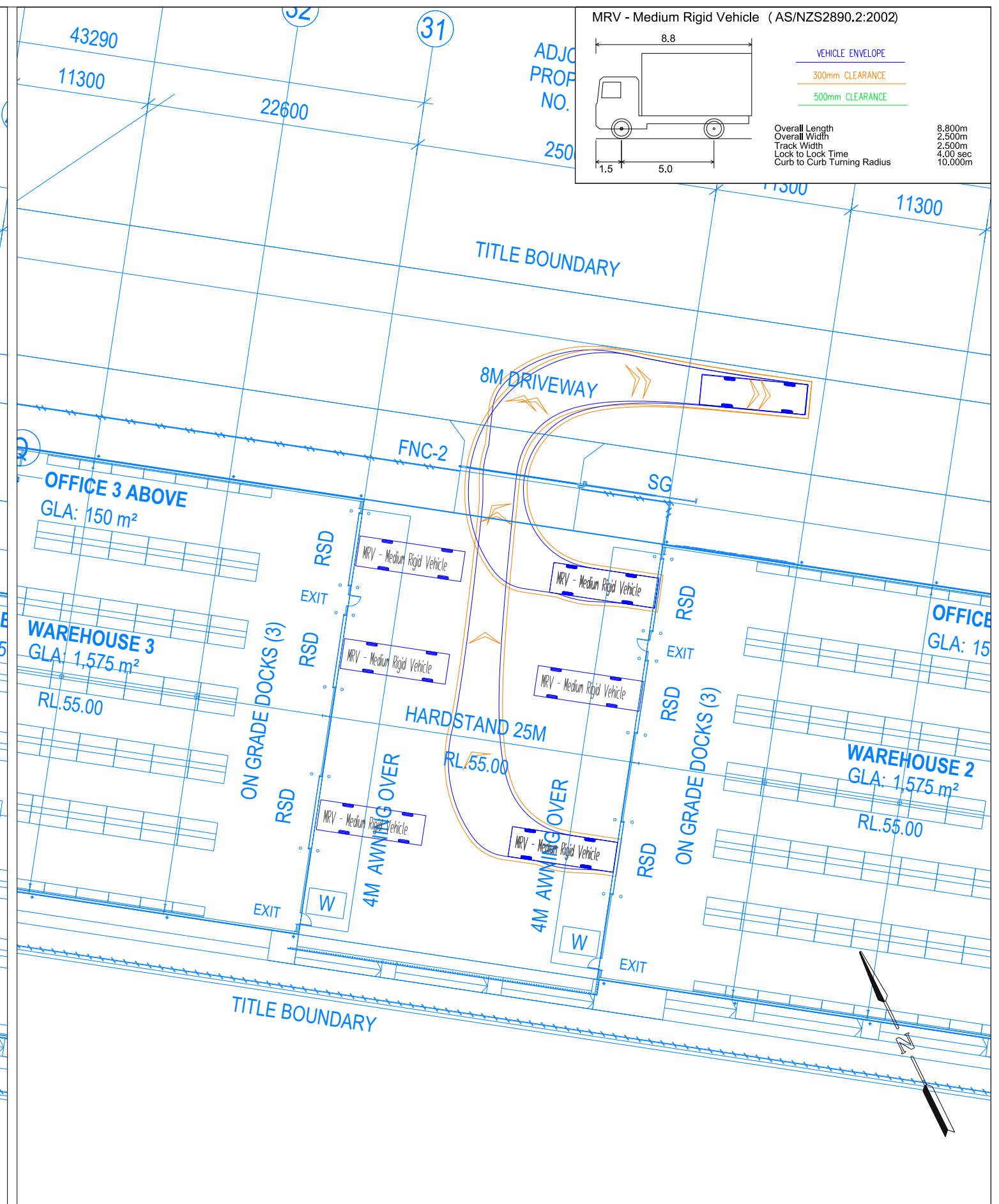
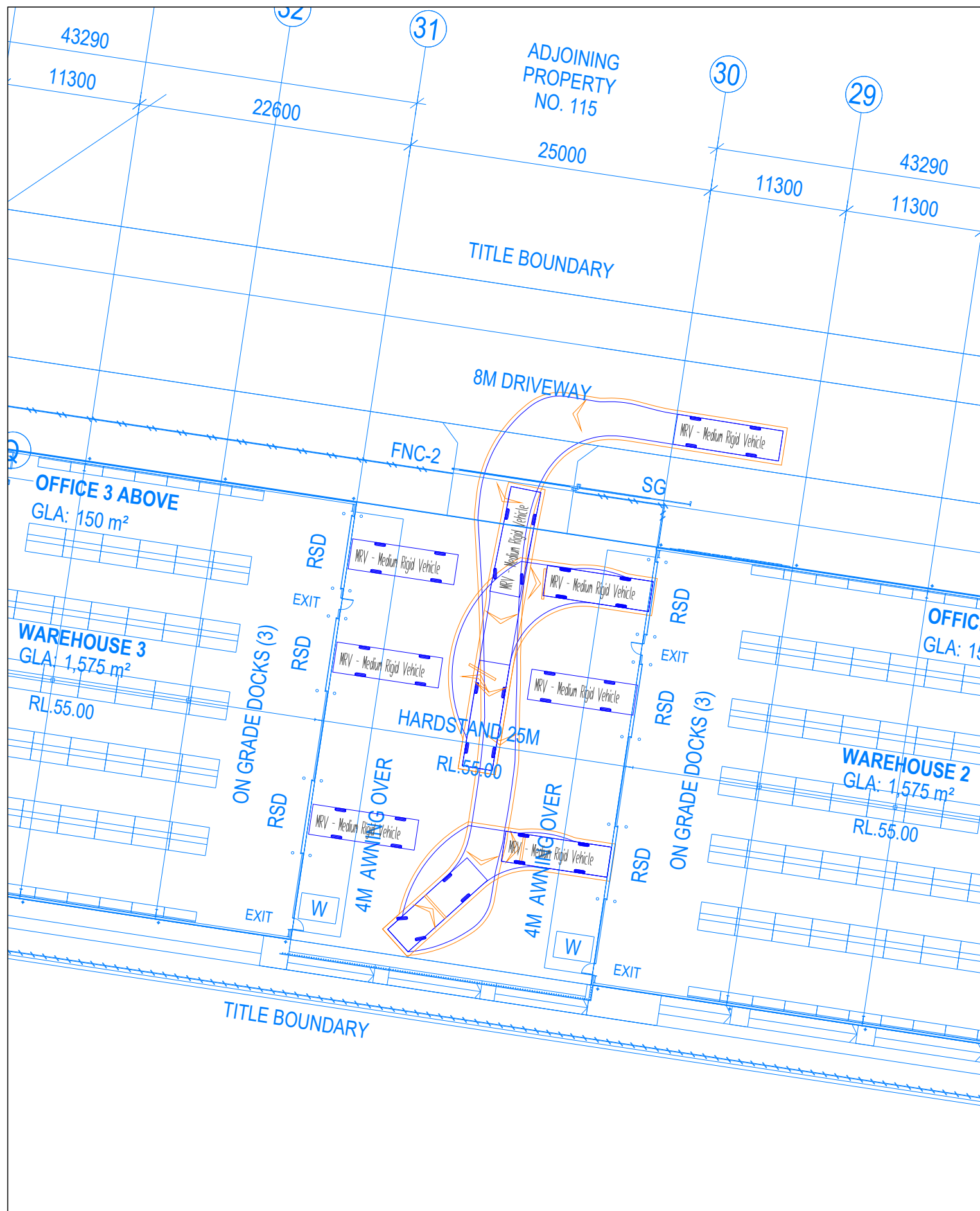
2.4 5.9 1.4

GENERAL NOTES	DESIGNED	PAPER SIZE	CLIENT		DOCUMENT INFORMATION	
	Jayden Lam	A3	Formus Property Pty Ltd		Design Review	
	APPROVED BY	DATE	PROJECT		12.5m Fire Truck Bay	
This drawing is provided for information purposes only and should not be used for construction. Lawson Road has a posted speed limit of 50km/h. Swept path assessments completed at 10 km/h and 300mm clearance. Design vehicle: 12.5m HRV Check Vehicle: 12.5m HRV	Mack Brinums	30.05.2025	P2732A		FILE NAME	
	SCALE		145 Lawson Road, Badgenys Creek		AG2732A-01-v05.dwg	
	1:300	0 3 6			SHEET	
					AG11	
					asongroup	
					Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au	

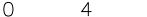
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GENERAL NOTES	DESIGNED Jay Wu	PAPER SIZE A3	CLIENT Formus Property Pty Ltd	DOCUMENT INFORMATION Warehouse 2-4 Design Review		 Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au
	APPROVED BY Mack Brinums	DATE 06.02.2026	PROJECT P2732A	12.5m HRV WH2-4 Site Access		
	SCALE 1:500		145 Lawson Road, Badgerys Creek	FILE NAME AG2732A-02-v04 Updated SSDA.dwg	SHEET AG001	



GENERAL NOTES

DESIGNED Jay Wu	PAPER SIZE A3
APPROVED BY Mack Brinums	DATE 06.02.2026
SCALE 1:400	

CLIENT Formus Property Pty Ltd	
PROJECT P2732A 145 Lawson Road, Badgerys Creek	

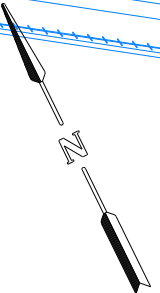
DOCUMENT INFORMATION

Warehouse 2-4 Design Review	
8.8m MRV Loading Dock Entry & Exit	
FILE NAME	SHEET
AG2732A-02-v04 Updated SSDA.dwg	AG002

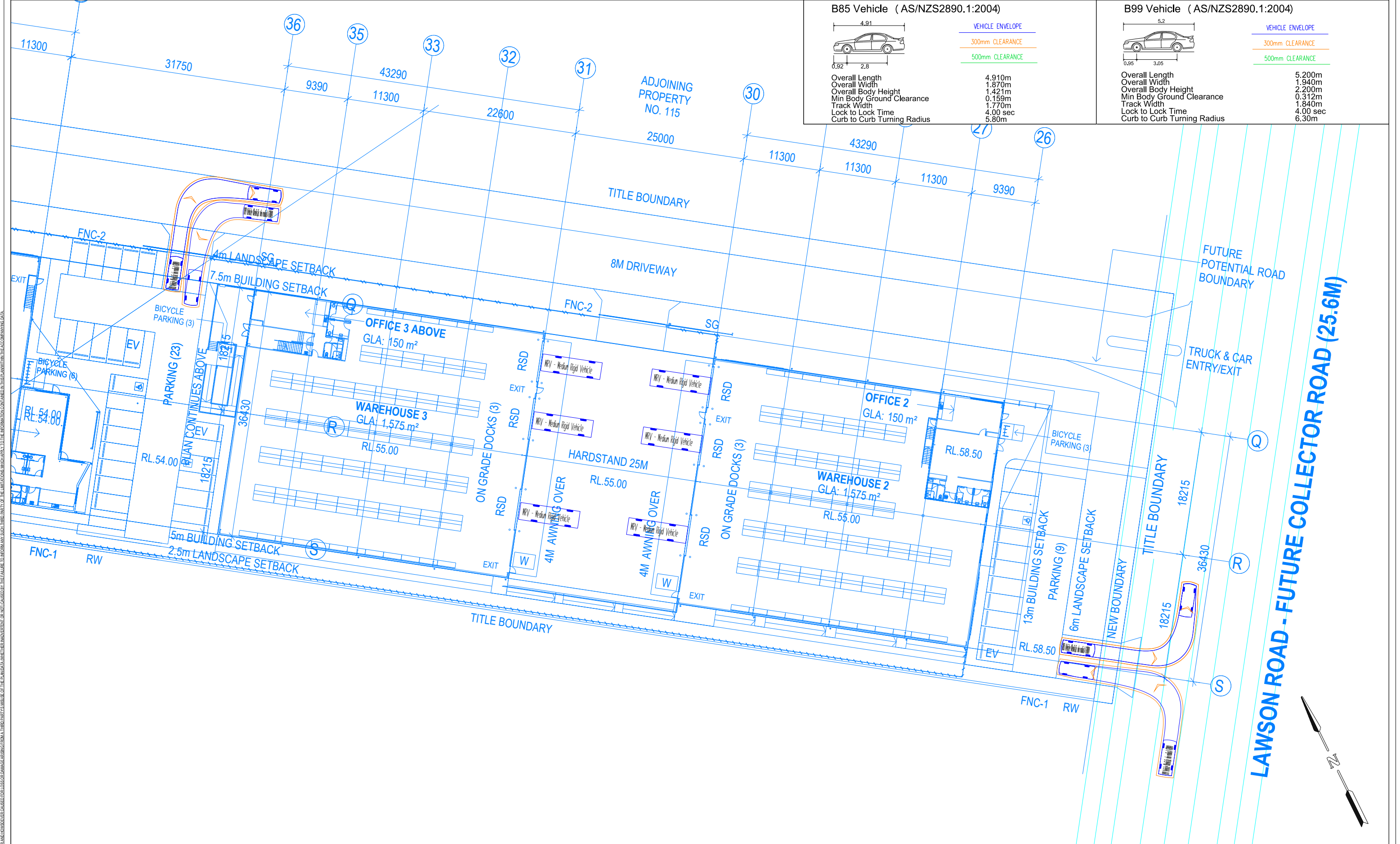
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GENERAL NOTES	DESIGNED Jay Wu	PAPER SIZE A3	CLIENT Formus Property Pty Ltd	DOCUMENT INFORMATION Warehouse 2-4 Design Review 12.5m HRV WH4 Loading Dock Entry & Exit		 Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au
	APPROVED BY Mack Brinums	DATE 06.02.2026	PROJECT P2732A			
	SCALE 1:500		145 Lawson Road, Badgerys Creek	FILE NAME AG2732A-02-v04 Updated SSDA.dwg	SHEET AG003	



B85 Vehicle (AS/NZS2890.1:2004)	
	VEHICLE ENVELOPE
	300mm CLEARANCE
	500mm CLEARANCE

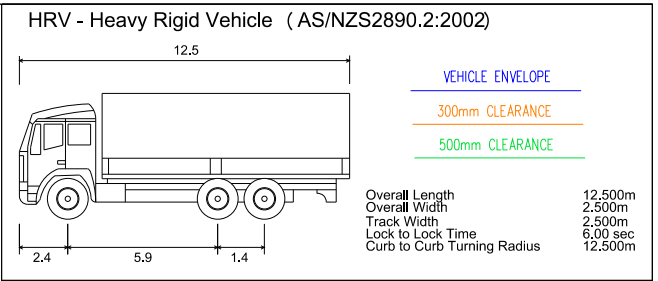
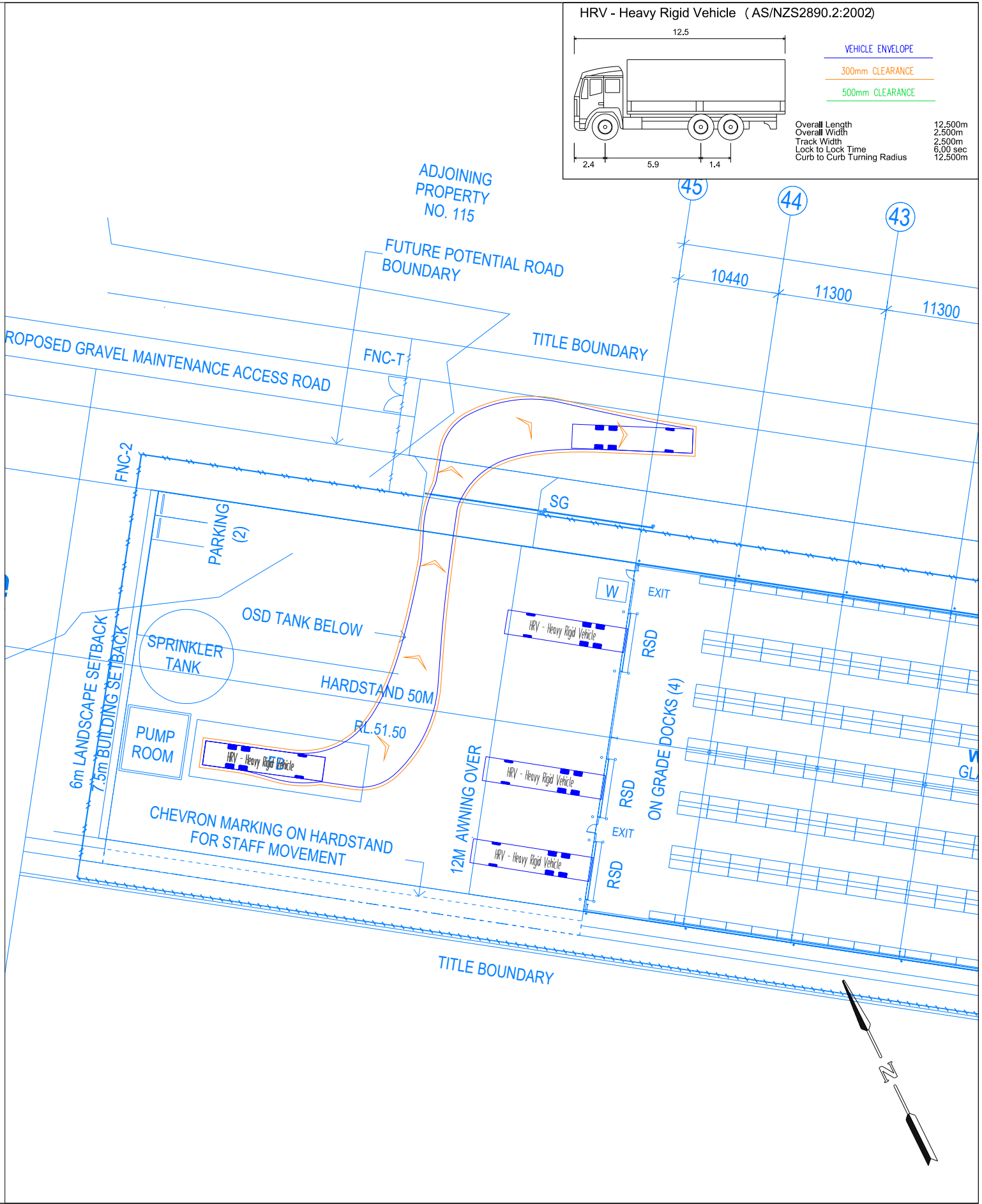
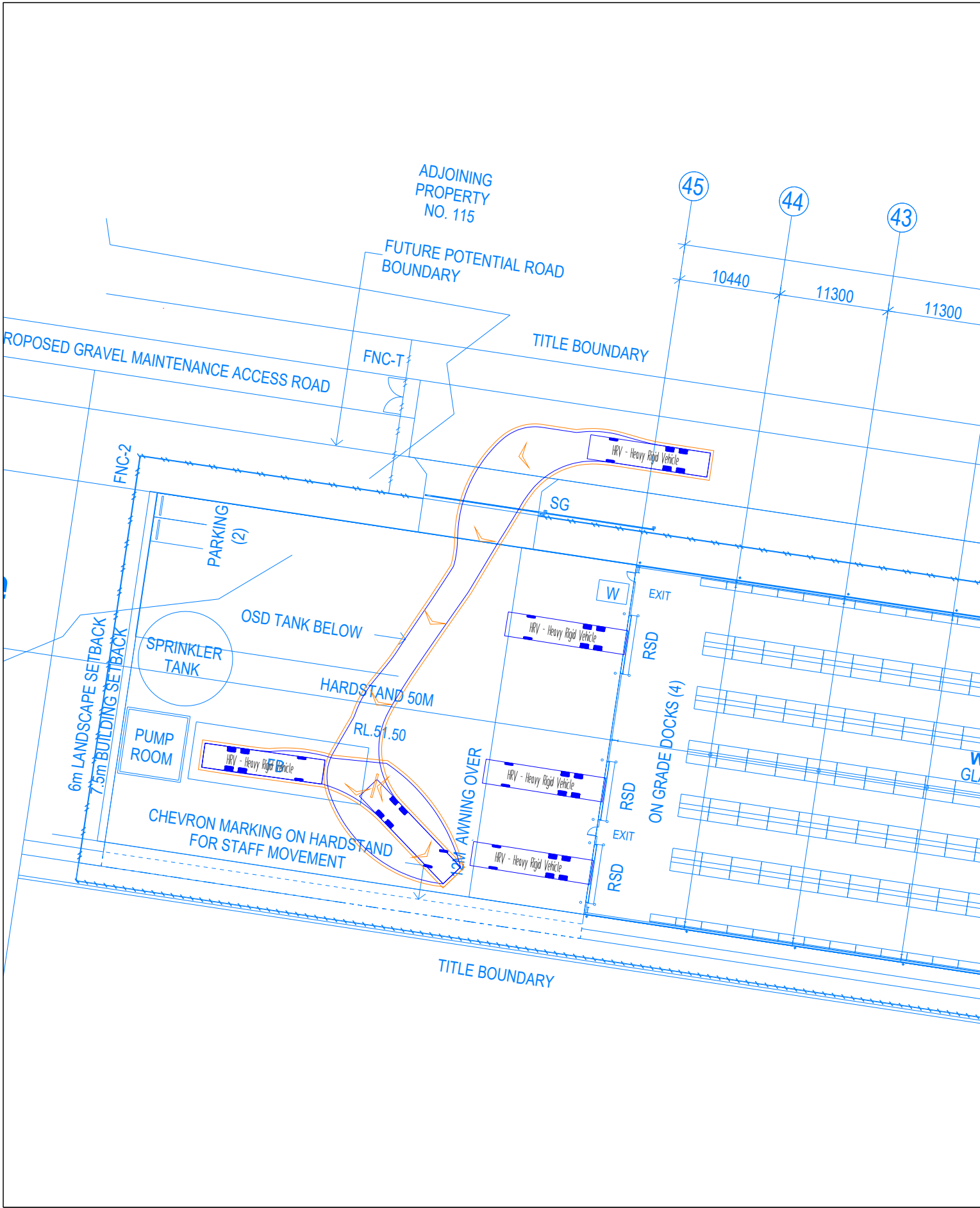
B99 Vehicle (AS/NZS2890.1:2004)	
	VEHICLE ENVELOPE
	300mm CLEARANCE
	500mm CLEARANCE

GENERAL NOTES		DESIGNED	PAPER SIZE	CLIENT	DOCUMENT INFORMATION	
		Jay Wu	A3	Formus Property Pty Ltd	Warehouse 2-4 Design Review	
		APPROVED BY	DATE	PROJECT		
		Mack Brinums	06.02.2026	P2732A	Car Park Layout	
		SCALE		145 Lawson Road, Badgerys Creek	FILE NAME	SHEET
		1:500	0 5 10		AG2732A-02-v04 Updated SSDA.dwg	AG004

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GENERAL NOTES	DESIGNED	PAPER SIZE	CLIENT		DOCUMENT INFORMATION	
	Jay Wu	A3	Formus Property Pty Ltd		Warehouse 2-4 Design Review	
	APPROVED BY	DATE	PROJECT		12.5m Specialist Fire Truck Access & Circulation	
	Mack Brinums	06.02.2026	P2732A		FILE NAME	SHEET
SCALE	1:500		145 Lawson Road, Badgenys Creek		AG2732A-02-v04 Updated SSDA.dwg	AG005_FIRE