

FABCOT PTY LIMITED

TRAFFIC AND ACCESS
REPORT FOR PROPOSED
WOOLWORTHS WAREHOUSE
AND DISTRIBUTION CENTRE,
250 VICTORIA STREET,
WETHERILL PARK

AUGUST 2021

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I INTRODUCTION

- I.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Fabcot Pty Limited to prepare a traffic and access report to support the state significant development application (SSDA) for the proposed warehouse and distribution centre at 250 Victoria Street, Wetherill Park. The site is located on the northern side of Victoria Street, between Wetherill Street in the east and Walter Street in the west, as shown on Figure I.
- I.2 The proposed development will include a Woolworths warehouse and distribution centre of 77,489m². The facility will include fresh and chilled produce which will be delivered to the site from suppliers and distributed to supermarkets in NSW. Car parking is proposed with access from Victoria Street. Service vehicles will access the site from Redfern Street. 24 hour, seven day operation is proposed.
- I.3 The Secretary's Environmental Assessment Requirements for the project, dated 26 March 2021, include a number of traffic and parking matters. Table I.1 includes the SEARs and the relevant sections of the report in which they are addressed.

Table I.1: SEARs	
SEARs requirement	Section of report
<i>Traffic and transport</i> – including: - details of all traffic types and volumes likely to be generated during construction and operation, including a description of: <ul style="list-style-type: none"> • key access / haul routes • employee shift change pattern • 24-hour temporal profile of truck 	Chapter 6, Chapter 7

generation	
- <i>an assessment of the predicted impacts of this traffic on road safety and the capacity of the surrounding road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model</i>	Chapter 6
- <i>details of any new roads or access points required for the development</i>	Chapter 5, Chapter 6
- <i>details of the largest vehicle anticipated to access and move within the site, including swept path analysis</i>	Chapter 5, Appendix B
- <i>detailed plans of the proposed site access point/s, parking arrangements and proposed pedestrian and cyclist facilities (including end of trip facilities), in accordance with the relevant Australian Standards</i>	Chapter 5
- <i>identification of any dangerous goods likely to be transported on arterial and local roads to/ from the site and. If necessary, the preparation of an incident management strategy</i>	This matter is being addressed by Riskcon Engineering.
- <i>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</i>	Chapter 5
- <i>details of road upgrades, infrastructure works or new roads or access points required for the development if necessary.</i>	Chapter 5, Chapter 6
Consultation	
<p><i>During preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with:</i></p> <ul style="list-style-type: none"> • <i>Fairfield City Council</i> • <i>Transport for NSW</i> • <i>NSW Food Authority</i> • <i>Heritage NSW</i> • <i>NSW Fire and Rescue</i> 	Chapter 8

<ul style="list-style-type: none"> • <i>Environment Protection Authority</i> • <i>Sydney Water</i> • <i>WaterNSW</i> • <i>the Environment, Energy and Science Group</i> • <i>Ausgrid</i> • <i>Endeavour Energy</i> • <i>surrounding local landowners and stakeholders</i> • <i>any other public transport, utilities or community service providers</i> <p><i>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</i></p>	
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1.4 This report assesses the traffic and transport implications of the proposed development, including addressing the SEARs, through the following chapters:

- Chapter 2 - proposed development;
- Chapter 3 - public and active transport;
- Chapter 4 - parking;
- Chapter 5 - access, servicing and internal layout;
- Chapter 6 - traffic effects;
- Chapter 7 - draft construction management plan;

- Chapter 8 - consultation; and
- Chapter 9 - summary.

2 PROPOSED DEVELOPMENT

- 2.1 The proposed development will include a Woolworths warehouse and distribution centre of 77,489m². The facility will include fresh and chilled produce which will be delivered to the site from suppliers and distributed to supermarkets in NSW. Car parking is proposed with access from Victoria Street. Service vehicles will access the site from Redfern Street. 24 hour, seven day operation is proposed.
- 2.2 Deliveries to and from the facility will be made by semi-trailers up to 20 metres long and b-doubles up to 26 metres long. The warehouse and distribution centre will operate with overlapping shifts and the office will operate during normal business hours, from Monday to Friday. The number of employees per shift will vary from some 90 to 425.

3 PUBLIC AND ACTIVE TRANSPORT

Public Transport Services

3.1 A number of bus services operate in the area, including along Victoria Street, Redfern Street, Hassall Street and The Horsley Drive. As previously discussed, there are bus stops on both sides of Victoria Street and Redfern Street, close to the site.

3.2 Bus services include:

- route 800: Blacktown to Fairfield via Wetherill Park;
- route 806: Liverpool to Parramatta via Abbotsbury;
- route 812: Blacktown to Fairfield;
- route 813: Bonnyrigg to Fairfield; and
- route 814: Fairfield to Smithfield.

3.3 The Liverpool to Parramatta Bus Transitway is west of the site, running parallel to Walter Street. The site is some five to 10 minutes' walking distance from the transitway stops. Services on the transitway are every 10 minutes in each direction.

Active Transport

3.4 Pedestrian facilities in the vicinity of the site are provided by existing footpaths on the surrounding road network and pedestrian crossing facilities at signalised intersections. The intersections of Victoria Street/Walter Street, Victoria Street/Hassall Street and Hassall Street/Redfern Street include signalised pedestrian crossings.

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- 3.5 There is a cycle path along the bus transitway, just west of the site. This cycleway connects Parramatta in the north with Liverpool in the south. It also connects to the Bay to Mountains and St Johns Park shared pedestrian/cycle networks. A plan showing cycle routes is provided in Appendix A.
- 3.6 The Western City District Plan identifies Wetherill Park as a significant industrial precinct and employment source in the metropolitan area. Journey to work data indicates the following modes of travel to work in this area:
- car driver - 91 per cent;
 - car passenger - 5 per cent;
 - bus - 2 per cent; and
 - walk/cycle/other - 2 per cent.
- 3.7 Based on the above journey to work data, the proposed development would generate some five to 10 trips by bus and five to 10 trips by walking/cycling/other modes in the morning and afternoon peak hours. The existing public transport services will readily cater for these trips.
- 3.8 Footpaths are proposed along the site frontages in Victoria Street and Redfern Street. This will improve conditions for pedestrians accessing the site.
- 3.9 The proposed development will provide appropriate bicycle parking and end of trip facilities. Maps showing walking and cycling routes will be provided to employees.
- 3.10 The proposed development is therefore consistent with the Western City District Plan, government objectives and planning principles of:
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- (a) improving accessibility to employment and services by public transport;
- (b) improving the choice of transport and reducing dependence solely on cars for travel purposes;
- (c) moderating growth in the demand for travel and the distances travelled, especially by car; and
- (d) support the efficient and viable operation of public transport services.

Work Place Travel Plan

3.11 A work place travel plan will be prepared, which will include the following:

- identify existing bus routes which stop adjacent and close to the site, including the location of bus stops and pedestrian crossings at signalised intersections;
 - work with bus operators to improve services;
 - encourage public transport by employees and visitors through the provision of information, maps and timetables in a site travel plan;
 - raise awareness of health benefits of walking and cycling (including maps showing walking and cycling routes, including adjacent to and near the site);
 - encourage cycling by providing safe and secure bicycle parking, including the provision of bicycle parking for employees, plus showers and lockers.
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4 PARKING

Car Parking

- 4.1 Chapter 12 of the Fairfield Citywide Development Control Plan (Car Parking, Vehicle and Access Management) includes a parking requirement for warehouses and distribution centres of one space per 80m² GLA. Where the warehouse is in excess of 5,000m², the DCP indicates that consideration will be given to a provision of one space per 150m².
- 4.2 The proposed warehouse and distribution centre is 77,489m². Based on one space per 150m², the development would require some 517 parking spaces. Based on one space per 80m², the development would require some 969 parking spaces.
- 4.3 The proposed provision is 767 spaces which is within the range identified by the DCP. This parking provision is proposed to cater for shift changes, and to cater for employees at night when public transport options are less frequent. The proposed provision includes eight disabled parking spaces.

Bicycle Parking

- 4.4 The DCP encourages the provision of bicycle parking in new developments. The Austroads guidelines recommend bicycle parking provisions of one space per 500m² for industrial uses. These rates are based on a 10 per cent travel mode by bicycle, which is higher than that for the subject area as noted in paragraph 3.6.
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- 4.5 Based on this rate, the development would require some 155 bicycle parking spaces. Bicycle parking is proposed for 155 bicycles in accordance with these requirements. Showers and lockers are also proposed.

5 ACCESS, SERVICING AND INTERNAL LAYOUT

Vehicular Access

- 5.1 Vehicular access to the site will be provided from Victoria Street and Redfern Street. The employee car park will be accessed from Victoria Street. Truck, service and delivery vehicle access will be provided from Redfern Street.
- 5.2 The driveway for the employee car park will be provided in approximately the centre of the site. The driveway will be left in/left out due to the median in Victoria Street.
- 5.3 In pre-application advice, Transport for NSW requested that a deceleration lane be provided on Victoria Street for cars entering the development. A deceleration lane is proposed in accordance with this requirement.
- 5.4 Access from Redfern Street will be provided for service vehicles at the eastern and western ends of the site. The eastern driveway will provide for Woolworths trucks to enter the site. The western driveway will provide for trucks delivering produce to enter, and for all trucks (inbound and outbound) to exit.
- 5.5 Driveway widths will be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS2890.1:2004 and AS2890.2:2018, to cater for the swept paths of cars, service vehicles and emergency vehicles.
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Service Vehicles

- 5.6 Waiting bays for trucks delivering inbound produce will be provided in a basement level on the eastern side of the site, prior to being allocated a dock. Docks for inbound deliveries will be located on the northern side of the building, on two levels: fresh produce on the ground level and chilled produce on the first floor.
- 5.7 Docks for outbound delivery trucks, taking produce to supermarkets, will be provided on the western side of the building, on ground level. The proposed loading dock arrangements will be designed to comply with the requirements of the Australian Standard for Parking Facilities AS2890.2-2018.
- 5.8 Inbound deliveries to the distribution centre will be made by b-doubles up to 26 metres long. Outbound deliveries will be made by semi-trailers up to 20 metres long. All vehicles will enter and exit the site in a forward direction. Vehicle swept paths are shown in Appendix B.

Internal Circulation and Layout

- 5.9 Within the car parking areas, car parking dimensions, aisle widths, ramp grades and transitions will be in accordance with the Australian Standard AS2890.1-2004. Parking spaces will be provided with minimum dimensions of 2.5 metres wide by 5.4 metres long and aisle widths of 5.8 metres. Spaces located adjacent to obstructions will be 300mm wider to appropriately provide for doors to open. Disabled parking spaces will be 2.4 metres wide, with a 2.4 metre wide adjacent shared zone for wheelchair access. Height clearance will be 2.2 metres generally, with 2.5 metres above disabled spaces. These dimensions are appropriate, being in accordance with AS2890.1:2004.
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6 TRAFFIC EFFECTS

Road Network

- 6.1 The site is at 250 Victoria Street, on the northern side of the road, between Wetherill Street in the east and Walter Street in the west. It is occupied by a number of buildings which are used for industrial purposes. The site also has frontage to Redfern Street on its northern side.
- 6.2 Victoria Street connects Cumberland Highway in the east with Cowpasture Road in the west. Victoria Street provides access to major industrial precincts in Wetherill Park. In the vicinity of the site it provides for two traffic lanes and one parking lane in each direction, clear of intersections, with a central concrete median and a 60 kilometre per hour speed limit. There are school zone restrictions which operate west of the site. There are bus stops on both sides of the road. West of Walter Street, Victoria Street forms part of the bus transitway.
- 6.3 East of the site, Victoria Street intersects Wetherill Street at a two lane roundabout. Wetherill Street provides access to residential areas to the south. West of the site, Victoria Street intersects Walter Street at a signalized intersection. Walter Street provides access to industrial areas.
- 6.4 Redfern Street forms the northern site boundary. It connects Hassall Street in the east with Walter Street in the west, providing one traffic lane and one parking lane in each direction, clear of intersections. There are bus stops on both sides of the road. The intersection of Redfern Street with Hassall Street is traffic signal controlled. The intersection of Redfern Street with Walter Street is unsignalised.
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- 6.5 To the north, Hassall Street connects, via Reconciliation Road and the Prospect Highway, to the M4 Motorway. Victoria Street connects, via Cowpasture Road and The Horsley Drive, to the M7 Motorway to the west.
- 6.6 Transport for NSW is proposing to upgrade the intersections of The Horsley Drive with Cowpasture Road. Both intersections would be signaled and additional capacity provided. The Horsley Drive would also be upgraded between Cowpasture Road and the M7 Motorway.

Traffic Flows

- 6.7 Traffic generated by the proposed development will have its greatest effects during weekday morning and afternoon peak periods, when it combines with other traffic on the surrounding road network. In order to gauge traffic conditions, counts have been undertaken at the following intersections:
- ❑ Cowpasture Road/The Horsley Drive;
 - ❑ Victoria Street/Walter Street;
 - ❑ Victoria Street/Wetherill Street;
 - ❑ Victoria Street/Hassall Street;
 - ❑ Victoria Street/Cumberland Highway;
 - ❑ Redfern Street/Walter Street;
 - ❑ Redfern Street/Hassall Street;
 - ❑ The Horsley Drive/Wetherill Street; and
 - ❑ The Horsley Drive/Cumberland Highway.
- 6.8 The results of the surveys are shown in Figures 2 and 3, and summarized in Table 6.1. Peak hours for local intersections in the vicinity of the site were 7:15 – 8:15 am and 4:00 – 5:00 pm. Cumberland Highway and Cowpasture Road intersections had peak hours of 8:00 – 9:00 am and 4:30 – 5:30 pm.
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Table 6.1: Existing two-way (sum of both directions) peak hour traffic flows

Road	Location	AM peak hour	PM peak hour
The Horsley Drive	North of Cowpasture Road	2,540	3,155
	East of Cowpasture Road	2,355	2,285
	West of Wetherill Street	2,710	2,535
	East of Wetherill Street	2,275	2,375
	West of Cumberland Highway	1,430	1,190
	East of Cumberland Highway	1,790	1,955
Cowpasture Road	North of The Horsley Drive	1,760	1,620
	South of The Horsley Drive	2,295	2,535
Victoria Street	West of Walter Street	1,660	1,945
	West of Wetherill Street	1,425	1,560
	West of Hassall Street	1,145	1,260
	East of Hassall Street	950	1,315
	West of Cumberland Highway	1,315	2,210
	East of Cumberland Highway	25	45
Cumberland Highway	North of Victoria Street	4,535	5,195
	North of The Horsley Drive	4,125	4,655
	South of The Horsley Drive	3,285	3,670
Redfern Street	East of Walter Street	405	405
	West of Hassall Street	375	420
Walter Street	North of Victoria Street	550	885
	North of Redfern Street	780	580
Wetherill Street	South of Victoria Street	760	775
	South of The Horsley Drive	1,475	1,290
Hassall Street	North of Redfern Street	1,900	2,165
	North of Victoria Street	2,150	2,350
	South of Victoria Street	1,515	1,695

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- 6.9 Table 6.1 shows that Cumberland Highway carried some 3,300 to 5,200 vehicles per hour two-way during the surveyed morning and afternoon peak hours. The Horsley Drive, Cowpasture Road and Hassall Street carried lower flows of some 1,200 to 2,700 vehicles per hour two-way.
- 6.10 Victoria Street carried some 950 to 1,950 vehicles per hour two-way. Wetherill Street, Redfern Street and Walter Street carried some 375 to 1,500 vehicles per hour two-way during the surveyed morning and afternoon peak hours.

Intersection Operations

- 6.11 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersections have been analysed using the SIDRA computer program for the traffic flows shown in Figures 2 and 3.
- 6.12 SIDRA simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle.
- 6.13 Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):
- For traffic signals, the average delay per vehicle in seconds is calculated as $\text{delay}/(\text{all vehicles})$, for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:
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0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode.
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

- 6.14 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

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- 6.15 The analysis found that the intersections of The Horsley Drive with Cowpasture Road operate with average delays of less than 28 seconds per vehicle during peak periods. This represents level of service B, a good level of service. As noted above, TfNSW is proposing to upgrade these intersections.
- 6.16 The signalized intersections of Cumberland Highway with Victoria Street and The Horsley Drive, and of The Horsley Drive with Wetherill Street, are operating with average delays of less than 50 seconds per vehicle during peak periods. This represents level of service D, a satisfactory level of service for busy intersections during peak periods.
- 6.17 The signalized intersection of Victoria Street with Hassall Street is operating with average delays of less than 40 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service.
- 6.18 The signalized intersections of Victoria Street with Walter Street, and of Hassall Street with Redfern Street, are operating with average delays of less than 30 seconds per vehicle during peak periods. This represents level of service B/C, a satisfactory level of service.
- 6.19 The roundabout at the Victoria Street/Wetherill Street intersection operates with average delays for all movements of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 6.20 The unsignalised intersection of Walter Street with Redfern Street is operating with average delays for all movements of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.
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Traffic Generation of Distribution Centre

- 6.21 The development is proposed to operate 24 hours a day, seven days a week. The warehouse and distribution centre will operate with overlapping shifts. It will replace a number of functions currently occurring at the Woolworths distribution centre at Minchinbury, as well as other distribution occurring from Arndell Park.
- 6.22 Daily traffic generation of the warehouse and distribution centre would be some 3,400 vehicles per day two-way (including some 2,000 cars and 1,400 trucks).
- 6.23 Traffic generated by the proposed development will have its greatest effects during the weekday morning and afternoon peak periods when it combines with other traffic on the surrounding road network. Based on surveys at Minchinbury and Arndell Park, the proposed development will generate some 180 to 200 and 300 to 320 vehicles per hour two-way during the morning and afternoon peak periods respectively. These comprise some 80 to 100 trucks plus 100 cars during the morning peak hour and some 80 to 100 trucks plus 220 cars during the afternoon peak hour. We have assessed the upper ends of these ranges.
- 6.24 As previously noted, our traffic counts at Wetherill Park found peak hours in the vicinity of the site as follows:
- 7:15 – 8:15 am; and
 - 4:00 – 5:00 pm.
- 6.25 The Woolworths statement of operations indicates a morning peak hour volume of 54 trucks (108 two-way) between 6:00 am and 7:00 am. The corresponding numbers are 33 and 18 trucks (66 and 36 two-way) between 7:00 – 8:00 am and
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8:00 – 9:00 am respectively. By comparison, our traffic counts at Minchinbury and Arndell Park (from where operations would relocate to Wetherill Park) found 90 two-way truck movements between 7:15 and 8:15 am. Our assessment is based on 100 trucks per hour in the morning, which is:

- similar to the number of trucks counted by ourselves at Minchinbury and Arndell Park;
- similar to the peak number of trucks estimated in the Woolworths statement of operations (albeit for an earlier time in the morning); and
- higher than the number of trucks estimated in the statement of operations for the road network peak period at Wetherill Park.

6.26 Our morning assessment is therefore based on a truck volume which is conservatively high with respect to the statement of operations.

6.27 The statement of operations indicates an afternoon peak hour volume of 61 trucks (122 two-way) between 3:00 pm and 4:00 pm. The corresponding number is 37 trucks (74 two-way) between 4:00 – 5:00 pm. The average across both hours is 49 trucks (98 two-way). By comparison, our traffic counts at Minchinbury and Arndell Park found 88 two-way truck movements between 4:00 and 5:00 pm. Our assessment is based on 100 trucks per hour in the afternoon, which is:

- similar to the number of trucks counted by ourselves at Minchinbury and Arndell Park;
 - similar to the average number of trucks estimated in the Woolworths statement of operations between 3:00 pm and 5:00pm; and
 - higher than the number of trucks estimated in the statement of operations for the road network peak period at Wetherill Park.
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- 6.28 Our afternoon assessment is therefore also based on a truck volume which is conservatively high with respect to the statement of operations.
- 6.29 The statement of operations notes that employee shift change times will be at:
- 5:00 am;
 - 1:00 pm; and
 - 10:00 pm.
- 6.30 These times are not the peak periods for the road network at Wetherill Park.
- 6.31 As noted above, the proposed warehouse and distribution centre will operate with overlapping shifts. To take account of overlapping shifts, we undertook traffic counts at Minchinbury and Arndell Park, from where operations would relocate to Wetherill Park.
- 6.32 These counts found 88 two-way car movements between 7:15 and 8:15 am. Our assessment is based on 100 cars per hour in the morning which is similar to the number counted by ourselves at Minchinbury and Arndell Park.
- 6.33 In the afternoon, our counts found 46 cars per hour between 4:00 and 5:00 pm. Between 3:00 and 4:00 pm the corresponding number was 217 cars. Our assessment is based on 220 cars per hour in the afternoon, which is:
- similar to the number of cars counted by ourselves at Minchinbury and Arndell Park (albeit for an earlier time in the afternoon); and
 - higher than the number of cars counted by ourselves at Minchinbury and Arndell Park for the road network peak hour at Wetherill Park.
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Traffic Effects

- 6.34 The additional traffic has been assigned to the surrounding road network. Some 70 per cent of trucks are expected to travel along Victoria Street, to and from the M7. Most of the remaining trucks would use Hassall Street, to and from the M4. A small number of trucks would use Victoria Street, to and from the Cumberland Highway. Existing peak hour traffic flows plus the additional development traffic are shown in Figures 2 and 3, and summarised on Table 6.2.
- 6.35 Traffic increases on Victoria Street and Walter Street would be some 30 to 185 vehicles per hour two-way at peak times. Increases on The Horsley Drive, Cowpasture Road, Cumberland Highway, Redfern Street, Wetherill Street and Hassall Street would be lower at some five to 85 vehicles per hour two-way.
- 6.36 The intersections previously analysed have been reanalysed with SIDRA for the additional development traffic flows shown on Figures 2 and 3. The analysis found that the intersections of The Horsley Drive with Cowpasture Road would operate with average delays of less than 30 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service.
- 6.37 The signalized intersections of Cumberland Highway with Victoria Street and The Horsley Drive, and of The Horsley Drive with Wetherill Street, would continue to operate with average delays of less than 50 seconds per vehicle during peak periods. This represents level of service D, a satisfactory level of service for busy intersections during peak periods.
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Table 6.2: Existing two-way peak hour traffic flows plus development traffic

Road	Location	AM peak hour		PM peak hour	
		Existing	Plus development	Existing	Plus development
The Horsley Drive	North of Cowpasture Road	2,540	+ 70	3,155	+ 100
	East of Cowpasture Road	2,355	+ 20	2,285	+ 30
	West of Wetherill Street	2,710	-	2,535	-
	East of Wetherill Street	2,275	-	2,375	-
	West of Cumberland Highway	1,430	-	1,190	-
	East of Cumberland Highway	1,790	+ 5	1,955	+ 10
Cowpasture Road	North of Horsley Drive	1,760	+ 70	1,620	+ 100
	South of Horsley Drive	2,295	+ 30	2,535	+ 40
Victoria Street	West of Walter Street	1,660	+ 100	1,945	+ 140
	West of Wetherill Street	1,425	+ 25	1,560	+ 185
	West of Hassall Street	1,145	+ 20	1,260	+ 85
	East of Hassall Street	950	+ 15	1,315	+ 45
	West of Cumberland Highway	1,315	+ 25	2,210	+ 45
	East of Cumberland Highway	25	-	45	-
Cumberland Highway	North of Victoria Street	4,535	+ 10	5,195	+ 20
	North of The Horsley Drive	4,125	+ 15	4,655	+ 25
	South of The Horsley Drive	3,285	+ 10	3,670	+ 15
Redfern Street	East of Walter Street	405	+ 85	405	+ 85
	West of Hassall Street	375	+ 45	420	+ 45
Walter Street	North of Victoria Street	550	+ 115	885	+ 115
	North of Redfern Street	780	+ 30	580	+ 30
Wetherill Street	South of Victoria Street	760	+ 5	775	+ 20
	South of The Horsley Drive	1,475	+ 5	1,290	+ 20
Hassall Street	North of Redfern Street	1,900	+ 30	2,165	+ 65
	North of Victoria Street	2,150	+ 35	2,350	+ 70
	South of Victoria Street	1,515	+ 10	1,695	+ 20

- 6.38 The signalized intersection of Victoria Street with Hassall Street would operate with average delays of some 45 seconds per vehicle or less during peak periods. This represents level of service D, a satisfactory level of service for a busy intersection during peak periods.
- 6.39 The signalized intersections of Victoria Street with Walter Street, and of Hassall Street with Redfern Street, would operate with average delays of less than 40 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service.
- 6.40 The intersection of Victoria Street/Wetherill Street would continue to operate with average delays for all movements of less than 20 seconds per vehicle during peak periods. This represents level of service B, a good level of service.
- 6.41 The intersection of Walter Street with Redfern Street would continue to operate with average delays for all movements of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.
- 6.42 Therefore, the road network will be able to cater for the traffic from the proposed development.
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7 DRAFT CONSTRUCTION TRAFFIC MANAGEMENT PLAN

- 7.1 The construction methodology, process and staging will be finalised when a builder has been appointed. The CTMP will be finalised prior to the commencement of work, taking into account relevant consent conditions.

Overall Principles for Traffic Management

- 7.2 The overall principles for traffic management during construction of the development are:

- ❑ provide a convenient and appropriate environment for pedestrians;
- ❑ minimise effects on pedestrian movements and amenity;
- ❑ manage and control vehicular movements to and from the site;
- ❑ maintain traffic capacity at intersections and mid-block around the site;
- ❑ maintain access to other properties adjacent to the site;
- ❑ restrict vehicle activity to designated truck routes through the area;
- ❑ maintain safety for workers;
- ❑ provide appropriate access to the site for construction traffic; and

- ❑ manage and control vehicle activity in the vicinity of the site.

7.3 If works zones are required in Victoria Street or Redfern Street, a separate application will be made to Fairfield Council.

Hours of Work

7.4 Subject to conditions of consent, work associated with construction activities will be carried out between the following hours:

- ❑ Monday to Friday: 7:00 am to 6:00 pm;
- ❑ Saturday: 7:00 am to 4:00 pm; and
- ❑ Sunday/public holidays: no work.

7.5 All work including demolition, excavation and construction work during these hours will be carried out in accordance with the conditions of consent and the Australian Standard AS 2436.10 Guide to Noise Control and Construction, Maintenance and Demolition Sites. The site contractor will be responsible to instruct and control all workers and sub-contractors regarding the hours of work. Any work outside these times would be subject to a separate application to Fairfield Council. The control of hours of operation avoids truck movements during the early hours of the morning, before 7:00 am and in the evening, after 6:00 pm.

Truck Routes

7.6 During construction, trucks removing transporting material to the site will be accommodated on the site. Vehicular access to and from the site will be provided

from Redfern Street and Victoria Street, via two driveways, located adjacent to the northern and southern boundaries of the site.

7.7 General traffic movements on surrounding roads and continued access to adjacent properties will be maintained during construction. Truck movements will be restricted to designated truck routes and will be confined to the main road network through the area. Trucks at no time during demolition, excavation and construction will be permitted to park on-street in the vicinity of the site.

7.8 Trucks would travel to and from the site along the following designated routes, as shown in Figure 2:

- approach routes:
 - The Horsley Drive, Elizabeth Street, Victoria Street, Walter Street, Redfern Street;
 - Cumberland Highway, Victoria Street, Hassall Street, Redfern Street;
- departure routes:
 - Redfern Street, Hassall Street, Victoria Street, Cumberland Highway; and
 - Redfern Street, Walter Street, Victoria Street, Elizabeth Street, The Horsley Drive.

7.9 The designated truck routes to and from the site are proposed to restrict truck traffic to the main road network through the area. Truck drivers will be inducted and advised of the designated truck routes to and from the site. The approach and departure route of demolition, excavation and construction vehicles are considered appropriate.

Construction Site Operation

- 7.10 During construction, all construction vehicles and materials handling, including delivery of construction material, will be accommodated within an on-site construction compound/ materials handling area. Construction hoarding and containment fencing will be erected around the perimeter of the site compound, with scaffolding and overhead protection provided where required.
- 7.11 Trucks will enter and exit the site in a forward direction. The construction access driveways on Redfern Street and Victoria Street will be managed and controlled by qualified traffic controllers. The traffic controllers will be located within the site and will manage pedestrians and truck movements across the adjacent footpath. They will ensure that the access driveway is kept clear at all times, to allow trucks unobstructed access to the site. They will not enter the public road reserve or attempt to stop vehicles within Redfern Street or Victoria Street. Trucks exiting the site will give way to traffic and pedestrians and will wait for appropriate gaps in the traffic in order to enter the surrounding road network.
- 7.12 The construction access driveways will provide appropriate sight lines for construction vehicle access, with regards to the number, type and size of construction vehicles. Pedestrian warning signs will be erected adjacent to the driveways and on pedestrian paths adjacent to the construction activity, in accordance with SafeWork NSW requirements.
- 7.13 Truck drivers will be advised of the presence of the traffic controllers, and that they must observe their direction at all times. All traffic controllers will be fully qualified with the relevant TfNSW Traffic Controllers qualifications.
-

Traffic and Parking Effects

- 7.14 The number of vehicles generated during the various stages of construction is likely to be up to some 40 to 60 construction vehicles per day two-way at peak times. The effects of construction vehicle activity on the surrounding road network will therefore be less than the operational effects. Construction vehicles will access the site from Redfern Street or Victoria Street, via temporary construction driveways. All construction vehicles will enter and exit the site in a forward direction.
- 7.15 Construction worker numbers will vary over the construction period, but would be generally be some 50 to 150 workers. Construction workers will be able to park on the site, as parking areas become available.
- 7.16 Construction workers would generate some 90 to 280 vehicles per day two-way. Construction of the proposed development would therefore have a total daily traffic generation up to some 340 vehicles per day two-way (including some 280 cars and 60 construction vehicles per day). The effects of construction vehicle activity on the surrounding road network will therefore be less than the operational effects of the proposed warehouse and distribution centre.

Draft Construction Traffic Management Plan

- 7.17 The draft traffic management plan for construction of the proposed development is presented below. It includes the principles of traffic management and is subject to SafeWork NSW requirements, as well as survey and final design.
-

- 7.18 The builder/contractor, once appointed, will be responsible for preparation of a detailed construction traffic management plan, to incorporate these principles and refine the construction methodology, staging and timing.
- 7.19 Site operations, signage, construction fencing/hoarding, overhead protection, safety barriers and line marking detail will be provided in accordance with Australian Standards and the TfNSW Manual for Traffic Control at Work Sites. A copy of the traffic management plan will be kept on-site at all times. Signage details, traffic management, the control of pedestrians in the vicinity of the site, and the control of trucks to and from the site will be the responsibility of the site contractor.
- 7.20 The draft construction traffic management plan includes the following:
- ❑ all construction activity to be provided for on-site or within the on-street work zones;
 - ❑ the construction activity to be coordinated with the construction of other developments in the vicinity of the site;
 - ❑ construction vehicle access to be provided from Spine Road and Church Street, via temporary construction access driveways;
 - ❑ construction hoarding/fencing and scaffolding to be erected around the construction site, with overhead protection provided where required;
 - ❑ construction work to be restricted to the approved hours of construction. Any work outside the approved hours would be subject to prior approval from Fairfield Council and the traffic committee;
-

- ❑ the movement of trucks on and off the site to be managed and controlled by traffic controllers in accordance with a safe work method statement and appropriate traffic control plans;
 - ❑ construction vehicles will include single unit dump truck, concrete trucks and semi-trailers;
 - ❑ truck movements to and from the site to be restricted to the designated truck routes;
 - ❑ trucks to enter and exit the site in a forward direction;
 - ❑ maintain access to other adjacent properties in the vicinity of the site at all times during construction;
 - ❑ maintain appropriate capacity for pedestrians and cyclists at all times along the adjacent footpaths;
 - ❑ openings in the construction hoarding to be provided for access to the site for construction vehicles;
 - ❑ construction access driveways to be managed and controlled by qualified traffic controllers;
 - ❑ traffic controllers to ensure that the construction access driveways are kept clear at all times, to allow trucks unobstructed access to the site;
-

- ❑ the management of the site works will be the responsibility of the site contractor/builder;
- ❑ pedestrian activity across the site access driveways will be managed and controlled by traffic controllers where required;
- ❑ pedestrian and cyclist warning signs to be utilised in the vicinity of the site;
- ❑ pedestrian arrangements, construction activity and erection of safety fencing will be provided in accordance with SafeWork NSW requirements;
- ❑ the construction site manager/builder to be responsible for the management of the site, the movement of trucks on and off the site, signage detail, traffic management and the control of pedestrians/cyclists; and
- ❑ construction signage to be provided in accordance with Australian Standards and the TfNSW Manual for Traffic Control at Work Sites.

8 CONSULTATION

- 8.1 Meetings were held with Transport for NSW and Fairfield Council on 2 March and 25 March 2021 respectively. These authorities also provided letters dated 15 March and 16 March respectively. The matters raised in these documents are discussed below.

TfNSW Letter of 15 March

- *The plan presented shows two access points from Victoria Street, one for entry and one for entry/exit. TfNSW would not support multiple access points on Victoria Road.*

- 8.2 An initial plan included two access points on Victoria Street. The submitted plans include a single access point.

- *TfNSW has concerns with heavy vehicles turning at the intersection of Victoria and Hassall streets and do not believe the increased turning movements can be accommodated, including B-doubles that would be accessing the site.*

- 8.3 As noted in Chapter 6, with the additional development traffic, the intersection of Victoria Street with Hassall Street would operate with average delays of less than 42 seconds per vehicle during peak periods. This represents level of service C, a satisfactory level of service. The number of additional vehicles through this intersection would be relatively modest.

- 8.4 We also note that while both Victoria Street and Hassall Street are approved b-double routes, trucks using this route would be outbound vehicles delivering to supermarkets. These vehicles will be semi-trailers, not b-doubles.
-

- *A deceleration lane would be required on Victoria Street.*

8.5 A deceleration lane is proposed, as shown in the submitted plans.

- *Details all daily and peak traffic and transport movements likely to be generated (light and heavy vehicle, public transport, pedestrian and cycle trips) during construction and operation of the development. Key intersections should include:*
 - *Victoria Street/Walter Street*
 - *Horsley Drive/Cowpasture Road*
 - *Victoria Street/Hassall Street*
 - *Hassall Street/Redfern Street*
 - *Victoria Street/ Cumberland Highway*
 - *Cumberland Highway/The Horsley Drive*
 - *Victoria Street/Wetherill Street roundabout*
 - *Wetherill Street/The Horsley Drive*
 - *Walder Street/Redfern Street*

8.6 These matters are discussed in Chapters 3, 6 and 7.

- *Details of the current daily and peak hour vehicle, public transport, pedestrian and bicycle movements and existing traffic and transport facilities provided on the road network located adjacent to the proposed development.*

8.7 Existing traffic flows are discussed in Chapter 6. Existing public transport services and pedestrian and cycle facilities are discussed in Chapter 3.

- *An assessment of the operation of existing and future transport networks including public transport, pedestrian and bicycle provisions and their ability to accommodate the forecast number of trips to and from the development.*
-

8.8 These matters are discussed in Chapter 3.

- *Details the type of heavy vehicles likely to be used (e.g. B-doubles) during the operation of the development and the impacts of heavy vehicles on nearby intersections.*

8.9 These details are discussed in paragraphs 2.2, 5.8, 8.3, 8.4, 8.20, 8.23 and chapter 6 of the traffic report. Woolworths has provided the following estimate for the proportion of trucks which will use the facility:

- some 78 per cent of deliveries to stores by semi-trailers;
- some 22 per cent of deliveries to stores by rigid trucks;
- some 56 per cent of deliveries to the warehouse by b-doubles;
- some 42 per cent of deliveries to the warehouse by semi-trailers; and
- some two per cent of deliveries to the warehouse by rigid trucks.

8.10 For the intersections in the immediate vicinity of the site, all trucks have been assessed in the SIDRA modelling as large trucks. Beyond this, including on Victoria Street, Cumberland Highway and Cowpasture Road, the number of trucks would not noticeably affect the proportion of heavy vehicles using the arterial road network.

- *Details of access to, from and within the site to/from the local road and strategic (motorway) network including intersection location, design and sight distance (i.e. turning lanes, swept paths, sight distance requirements).*

8.11 No changes to existing intersections in the vicinity of the site are proposed. The proposed access points provide good sight lines in both directions along Redfern Street and Victoria Street, as discussed in Chapter 5. The proposed driveways are also designed to accommodate the swept paths of the vehicles which will use

them, in accordance with Australian Standards. Swept paths are shown in Appendix B.

- *Impact of the proposed development on existing and future public transport and walking and cycling infrastructure within and surrounding the site.*

8.12 These matters are discussed in Chapter 3. Footpaths on the site frontages on Victoria and Redfern Streets will be provided in association with the development. Bicycle parking, showers and lockers are proposed on the site.

- *An assessment of the existing and future performance of key intersections providing access to the site and any upgrades (roads/ intersections) required as a result of the development.*

8.13 This matter is discussed in Chapter 6.

- *An assessment of predicted impacts on road safety and the capacity of the road network to accommodate the development.*

8.14 Development traffic would not create unusual safety issues. Appropriate access arrangements are proposed. Surrounding intersections have adequate capacity, as discussed in Chapter 6. Appropriate truck routes are available.

- *Demonstrate the measures to be implemented to encourage employees of the development to make sustainable travel choices, including walking, cycling, public transport and car sharing to include a Green Travel Plan prepared in consultation with TfNSW.*
 - *Appropriate provision, design and location of on-site bicycle parking, and how bicycle provision will be integrated with the existing bicycle network.*
-

8.15 These matters are discussed in Chapter 3.

- *Details of the proposed number of car parking spaces and compliance with appropriate parking codes and justify the level of car parking provided on the site.*

8.16 These matters are discussed in Chapter 4.

- *Details of access and parking arrangements for emergency vehicles.*

8.17 Emergency vehicles will be able to use any of the access points on Redfern Street. These vehicles will be able to access any of the areas utilised by trucks.

- *Detailed plans of the proposed layout of the internal road network and parking provision on-site in accordance with the relevant Australian Standards.*

8.18 These matters are discussed in Chapter 5.

- *The existing and proposed pedestrian and bicycle routes and end of trip facilities within the vicinity of and surrounding the site and to public transport facilities as well as measures to maintain road and personal safety in line with CPTED principles.*

8.19 Public transport, and facilities for pedestrians and cyclists, are discussed in Chapter 3. CPTED principles are being addressed by other study team members.

- *Preparation of a draft Construction Traffic Management Plan which includes:*
 - *details of vehicle routes, number of trucks, hours of operation, access management and traffic control measures for all stages of construction;*
 - *assessment of cumulative impacts associated with other construction activities;*
 - *an assessment of road safety at key intersections;*
-

- *details of anticipated peak hour and daily truck movements to and from the site;*
- *details of access arrangements for workers to/from the site, emergency vehicles and service vehicle movements;*
- *details of temporary cycling and pedestrian access during constructions;*
- *an assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrians, cyclists and public transport operations.*

8.20 These matters are discussed in Chapter 7.

Fairfield Council Letter of 16 March

Road Hierarchy – *As Victoria Street between Elizabeth Street and Cumberland Highway is a State road that carries much higher traffic volume than Redfern Street (local road). The applicant shall consider the option to allow ingress and egress for rigid vehicles via Victoria Street and staff access via Redfern Street. Vehicle access for a development proposed off a State road requires approval from Transport for NSW.*

8.21 For operational and safety reasons, separate car and truck access to the development is proposed. Employee access is proposed from Victoria Street and truck access from Redfern Street. The number of cars generated by the development will be higher than the number of trucks. All roads in the vicinity of the site are designed and intended to serve the industrial precinct, including catering for b-doubles.

Traffic – *Detailed traffic modelling assessment shall be undertaken to analyse the impacts of traffic generation on the adjoining road network (Victoria Street and Redfern Street). The outcome of the modelling results shall be provided to Council for assessment.*

- 8.22 This matter is discussed in Chapter 6. SIDRA movement summaries are provided in Appendix C. Electronic copies of the SIDRA files have also been provided.

Parking – *Parking provision within the site shall comply with Chapter 12 of Fairfield City Wide Development Control Plan*

- 8.23 This matter is discussed in Chapter 4.

Truck Fleet – *The applicant has advised Council that the truck fleet will predominantly comprise:*

- *B-Doubles;*
- *16m Trailers;*
- *11m Trailers; and*
- *11m Rigid vehicles.*

Clarification is required regarding the type of the vehicles that will be used for the development as it is different to the standard vehicle combinations such as 19m long articulated vehicles and 12.5m long heavy rigid vehicle.

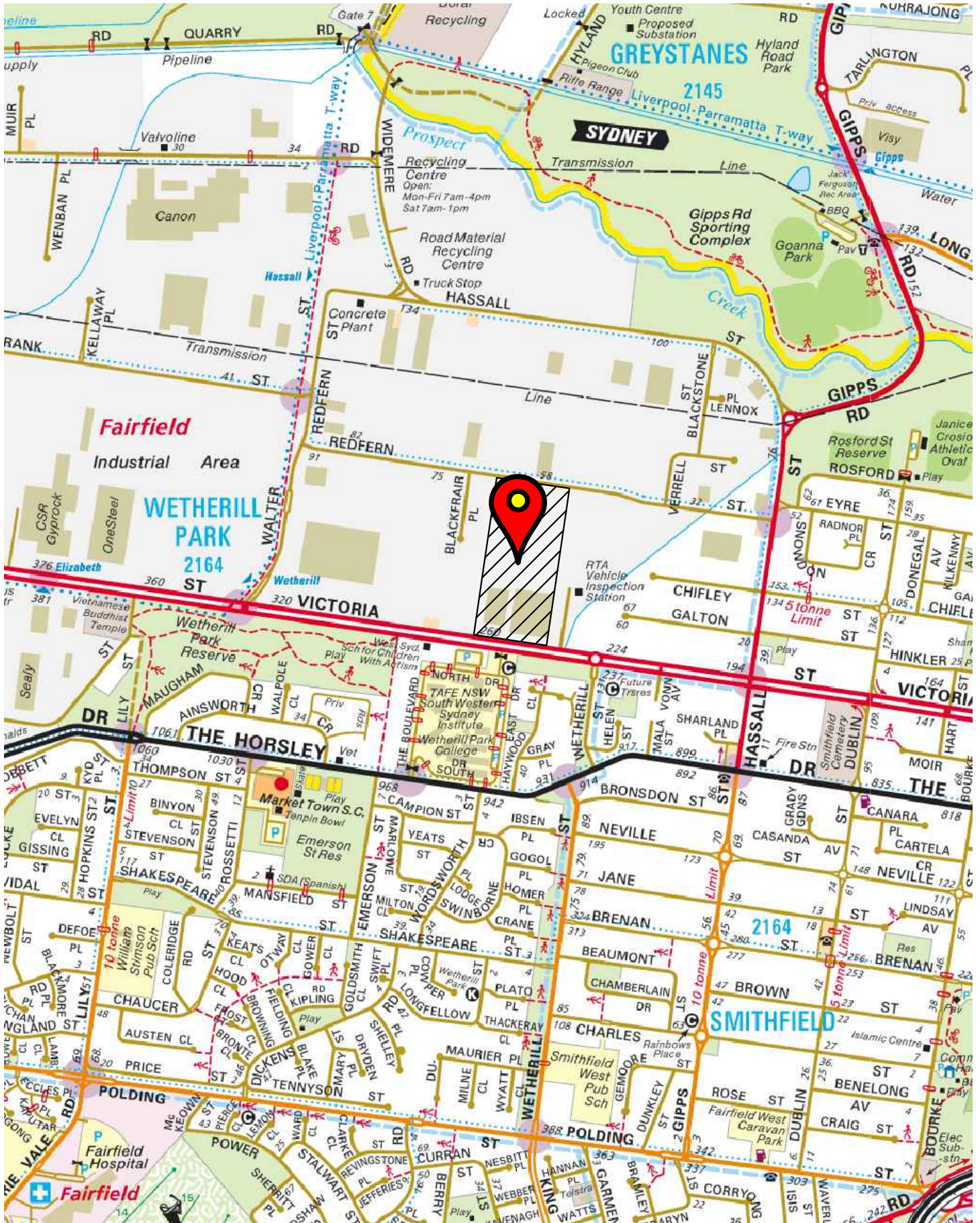
Access Design – *The largest vehicle servicing the site needs to be specified. The width of the driveway shall be designed to accommodate the simultaneous movements of the largest vehicle and another vehicle whichever case is the worst case scenario.*

- 8.24 These matters are discussed in Chapter 2. Deliveries to and from the facility will be made by semi-trailers up to 20 metres long and b-doubles up to 26 metres long. Swept paths are shown in Appendix B.

9 SUMMARY

9.1 In summary, the main points relating to the traffic implications of the proposed development are as follows:

- i) the proposed development will be a Woolworths warehouse and distribution centre;
- ii) the site is accessible by public transport services;
- iii) improvements are proposed to the pedestrian network in the vicinity of the site;
- iv) bicycle parking, showers and change facilities will be provided for cyclists and employees;
- v) the proposed parking provision is appropriate;
- vi) access, servicing and internal layout will be provided in accordance with Australian Standards AS 2890.1:2004 and AS 2890.2:2018;
- vii) the surrounding road network and intersections will be able to cater for the development traffic; and
- viii) Table 1.1 in Chapter 1 sets down the SEARs and identifies the relevant sections of the report where they are addressed.



Click: <https://goo.gl/maps/xxxxxxxxxx>

Location Plan

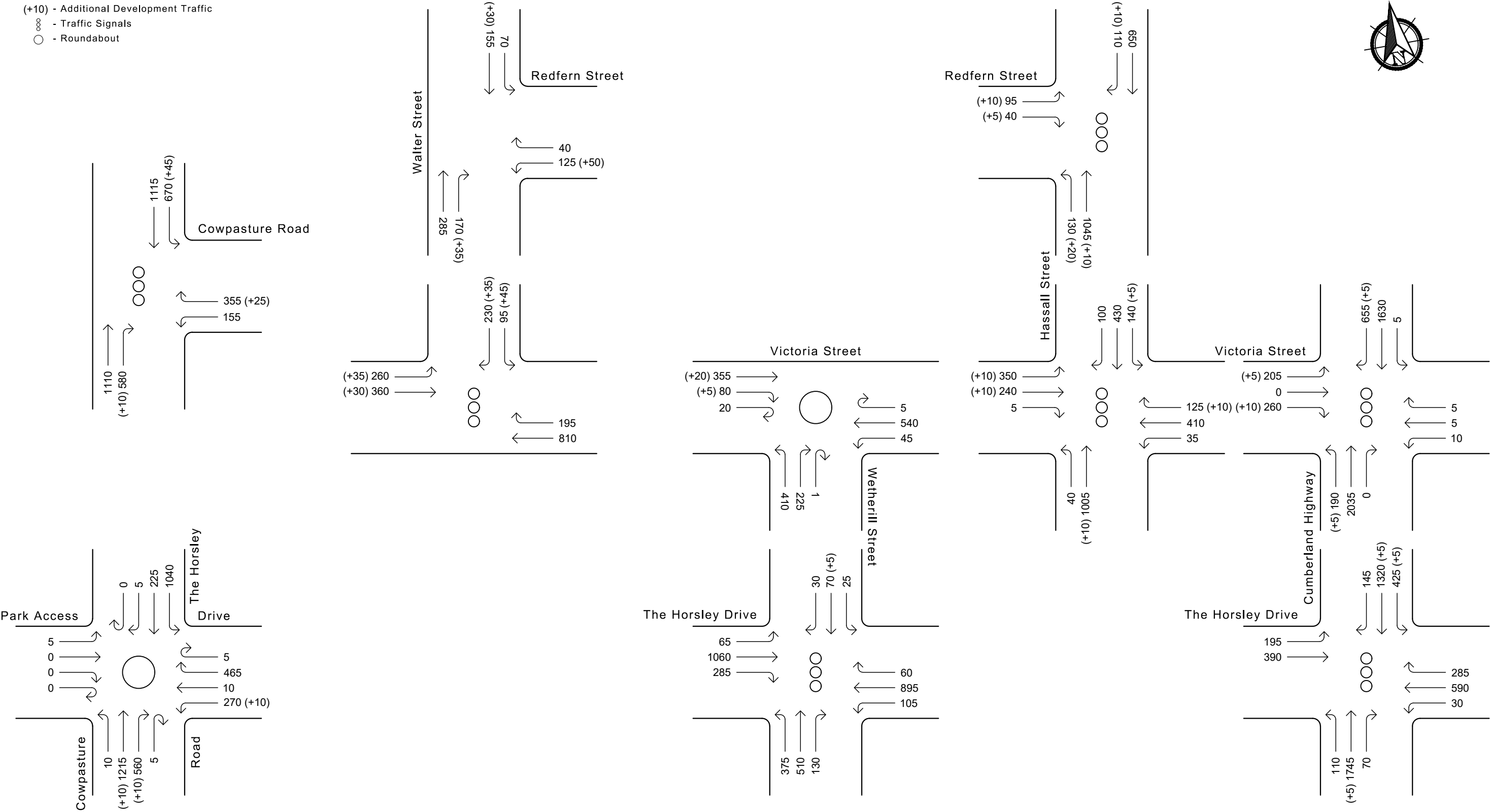
Colston Budd Rogers & Kafes Pty Ltd

Drawn By: CBRK Pty Ltd_hs Ref: 11725 21.04.2021

Figure 1

LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- ∞ - Traffic Signals
- - Roundabout

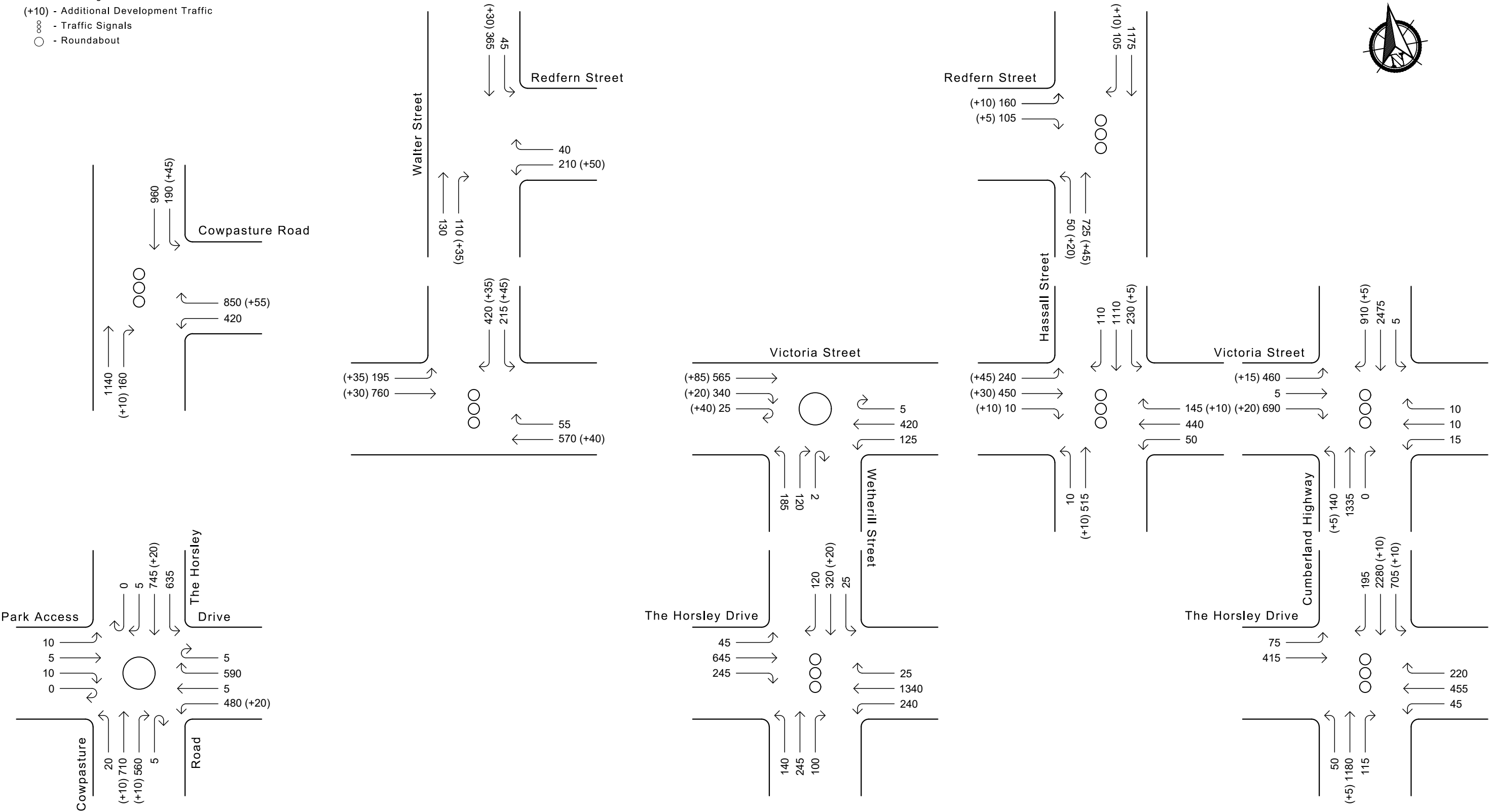


Existing weekday morning
peak hour traffic flows plus
development traffic

Figure 2

LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- ∞ - Traffic Signals
- - Roundabout



Existing weekday afternoon
peak hour traffic flows plus
development traffic

Figure 3

APPENDIX A

CYCLE ROUTES

FAIRFIELD CITY CYCLEWAYS - 2019



Carwarra Place Park Playground. Artist: Joe Hurst.

CYCLE NETWORK

EXISTING LOCAL CYCLEWAY ROUTE

BICYCLE STORAGE FACILITIES

TRANSITWAY

TRANSITWAY STATIONS

RAILWAY LINE

OPEN SPACE

SCHOOLS

RETAIL OUTLETS

EMPLOYMENT PRECINCTS

TAFE

POLICE

HOSPITAL

LEISURE CENTRE

SKATE PARKS

WESTERN SYDNEY CYCLING NETWORK

LIBRARIES

MUSEUMS

COUNCIL

EXERCISE EQUIPMENT

PUBLIC ARTWORKS

1A - 1B WARALI WALL (HOLROYD)

1C - 1D WARALI WALL (FAIRFIELD)

2A - 2D CYCLEWAY MARKERS

3A SEATING WALL 3B FISH HABITAT PROJECT

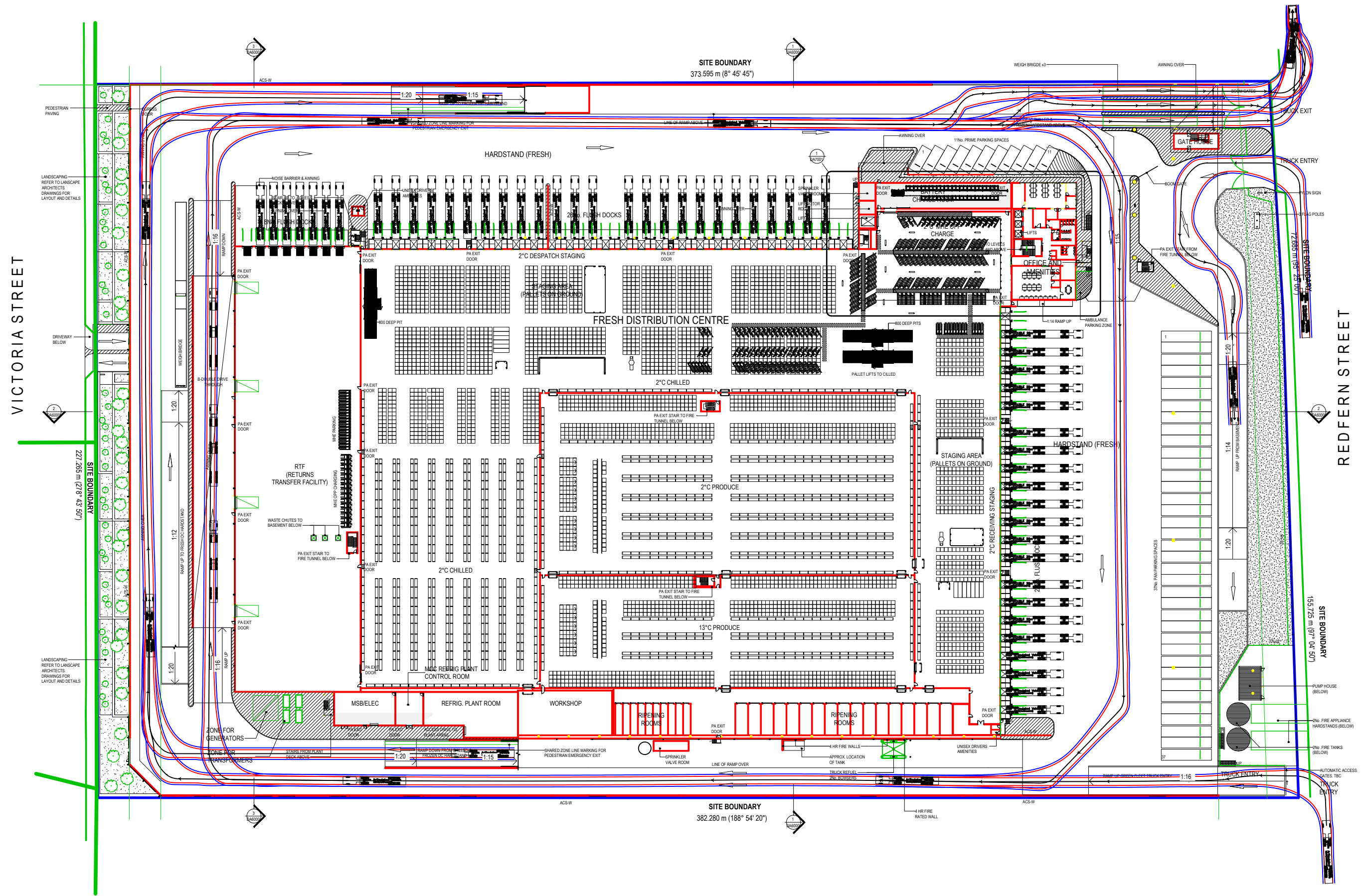
3C FISH AND DRAGONS PROJECT

4A CABRAMATTA HISTORY WALL

5A LANSVALE PARK - ROAD SAFETY & ACTIVITY CIRCUIT

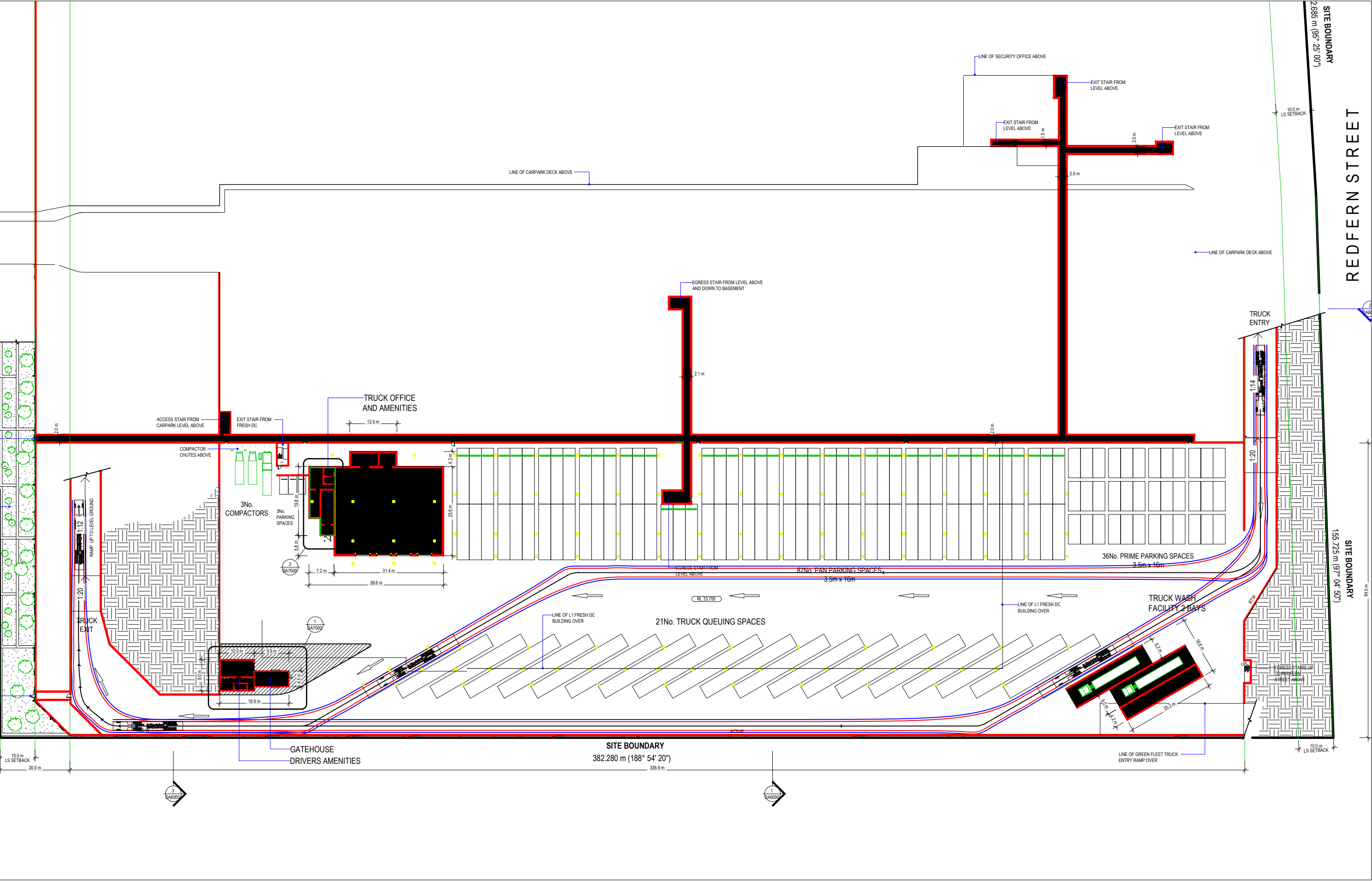
APPENDIX B

VEHICLE SWEPT PATHS



— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

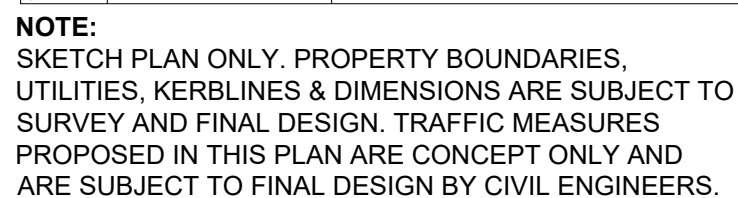
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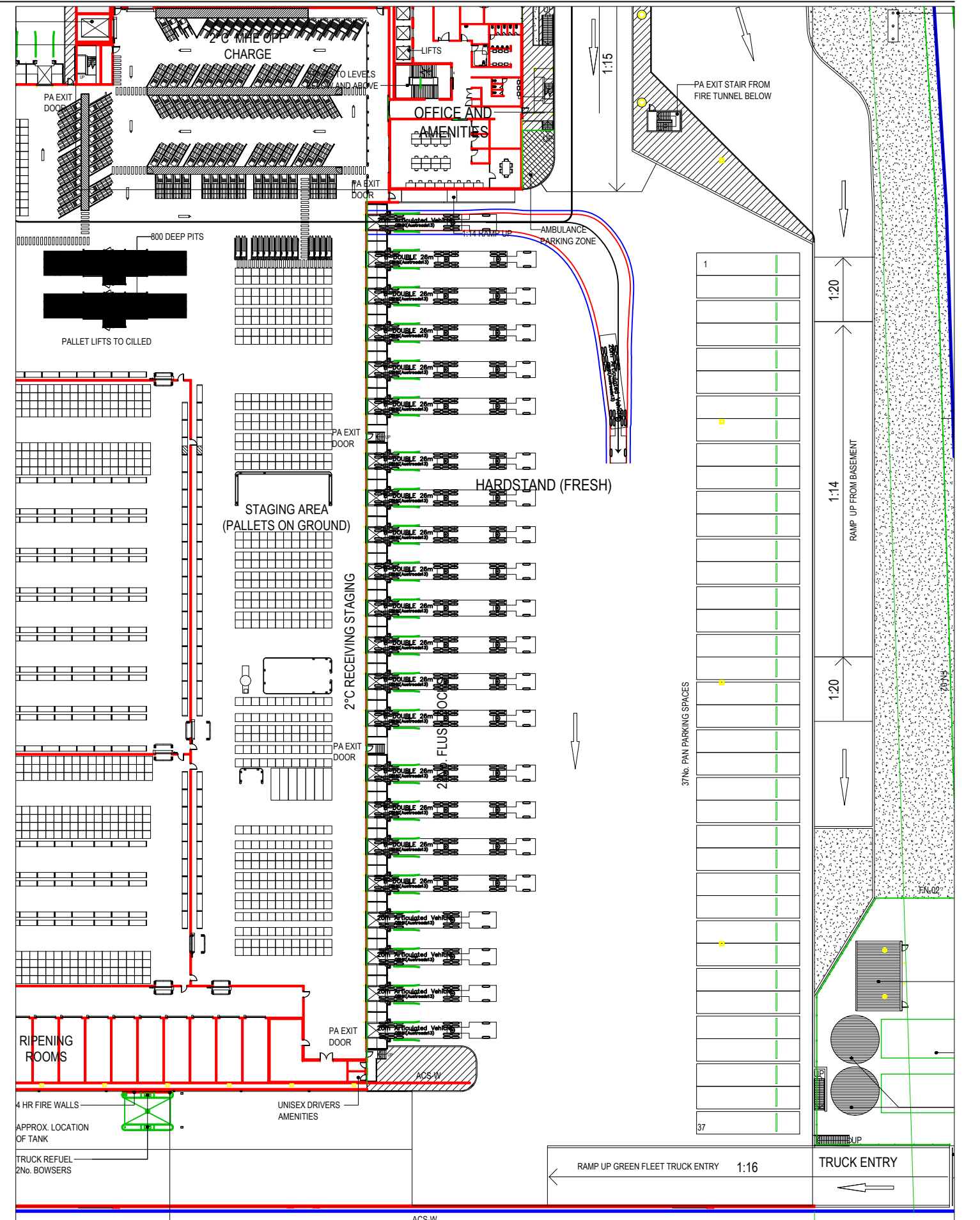
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— Swept Path of Clearance to Vehicle Body

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VEHICLE SWEEP PATHS

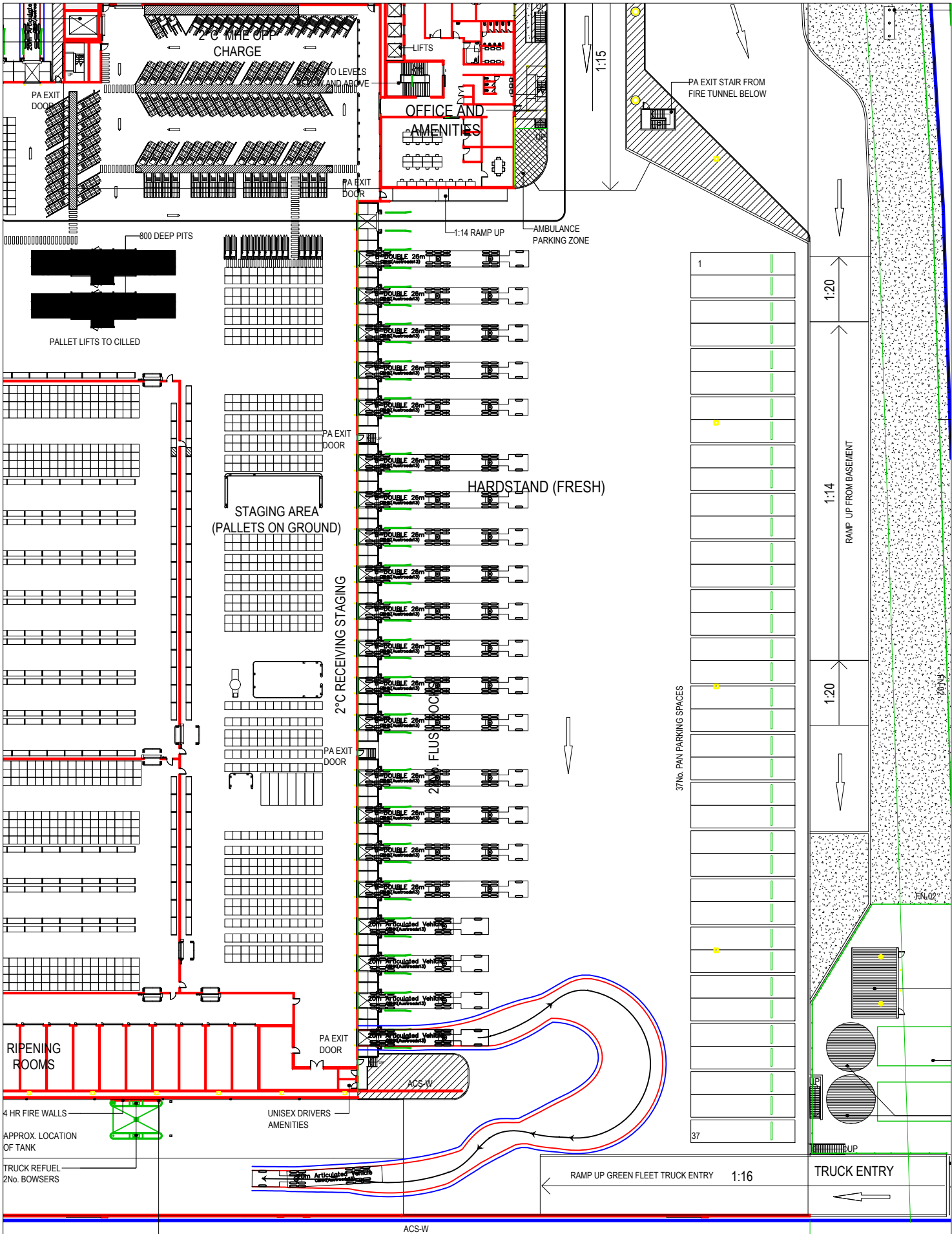
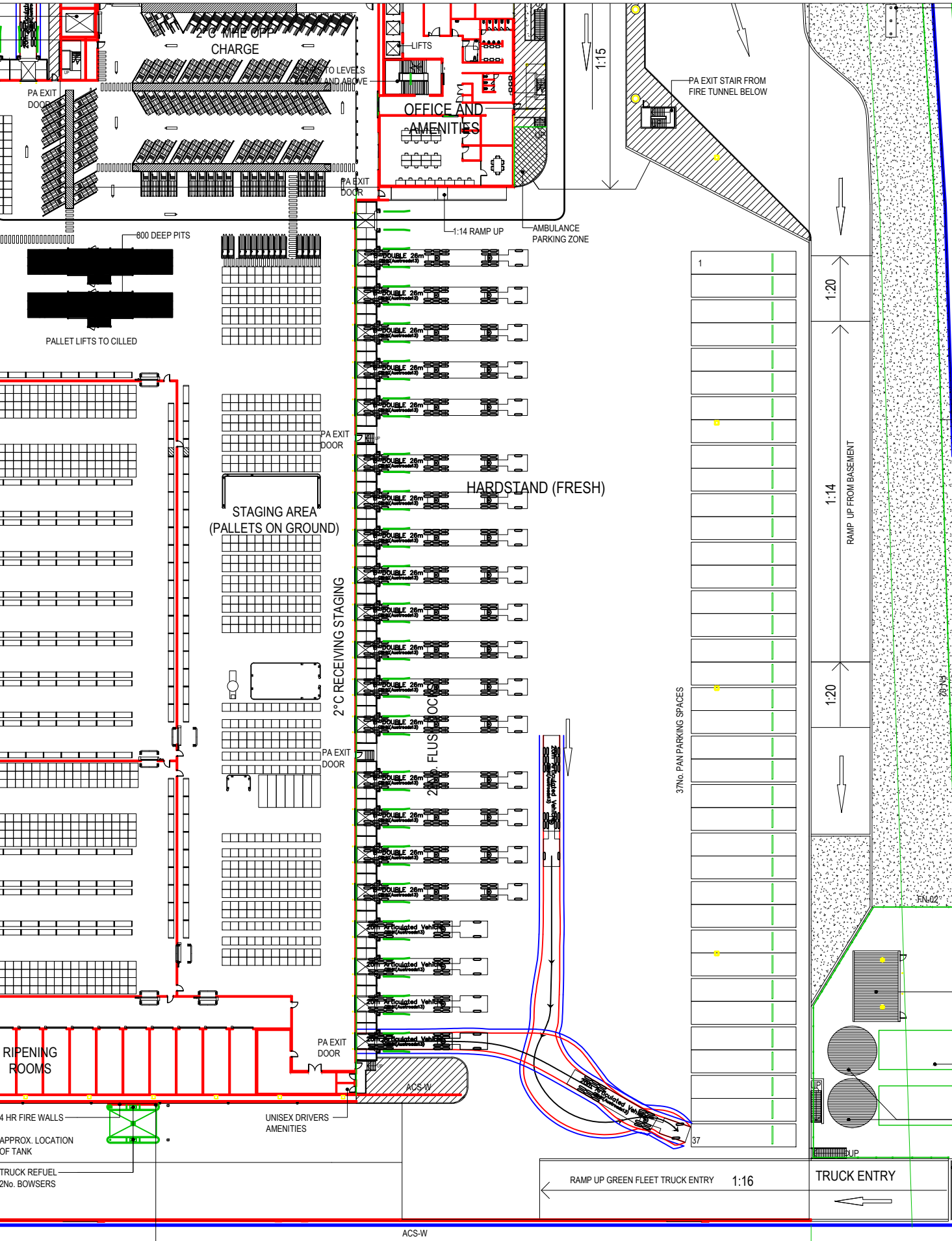


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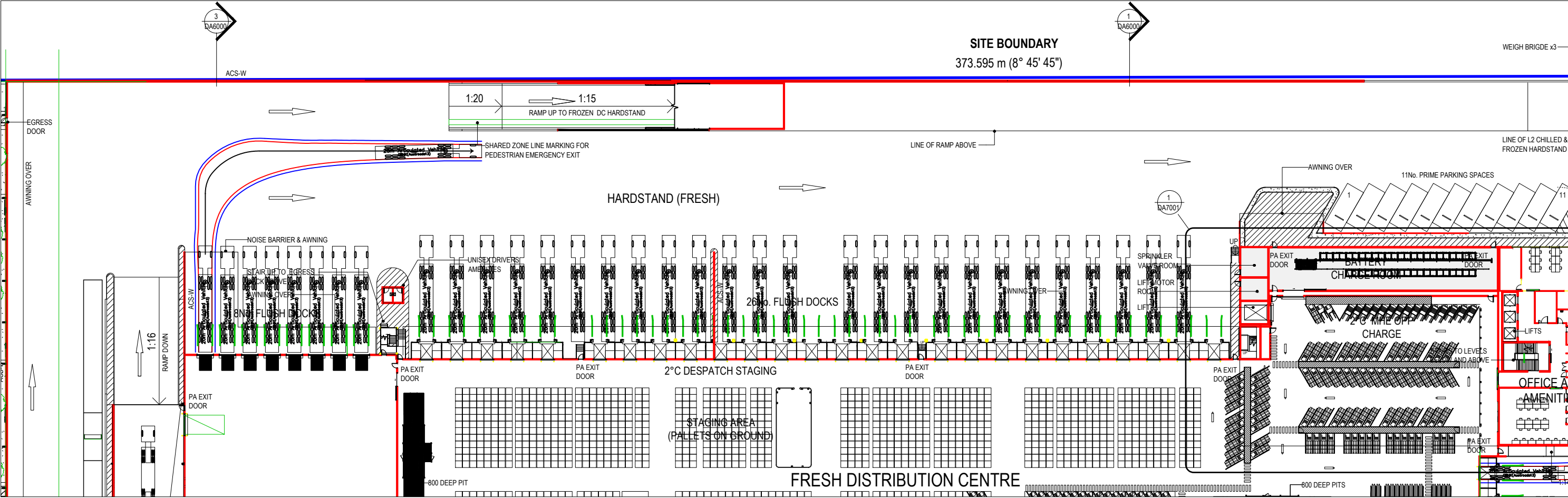
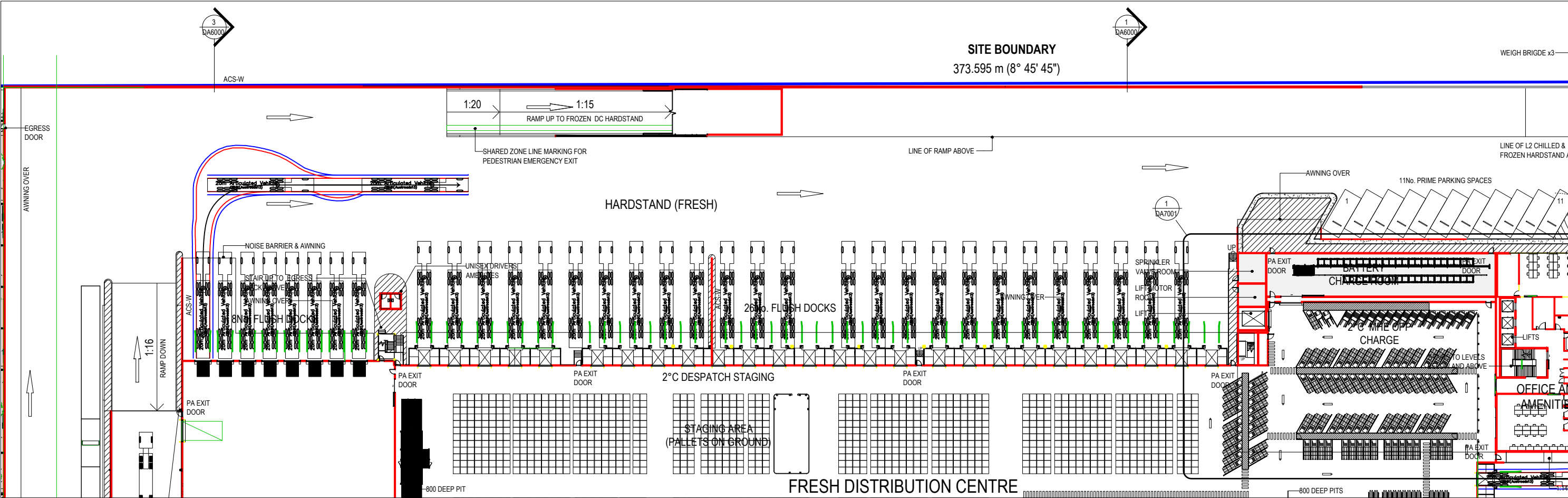
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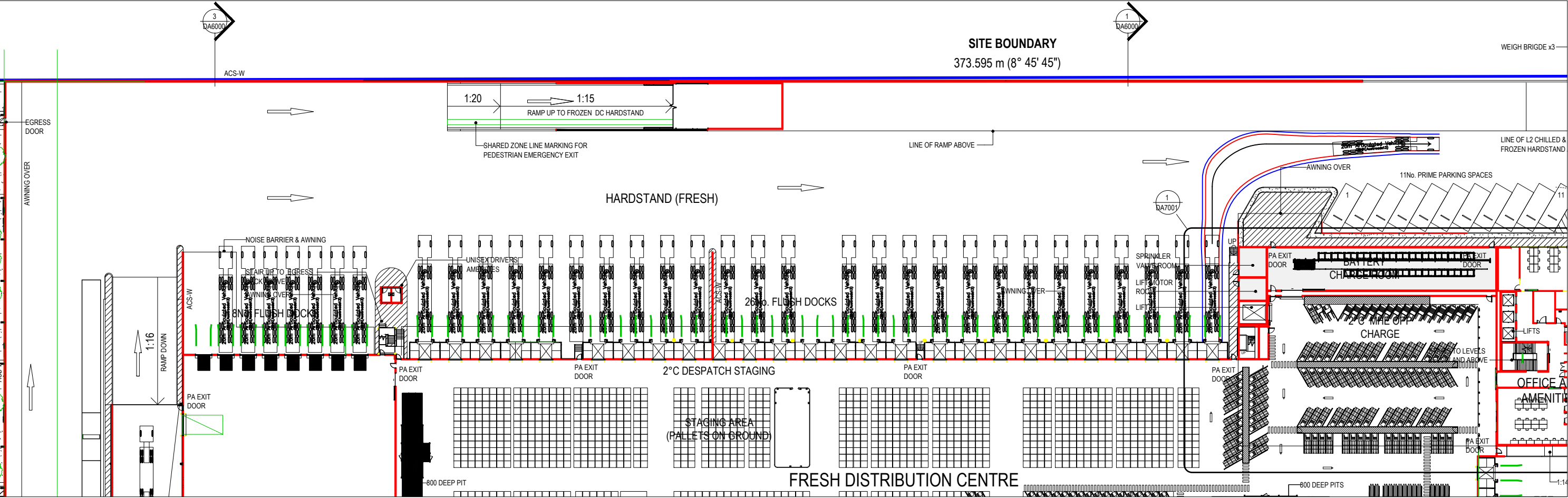
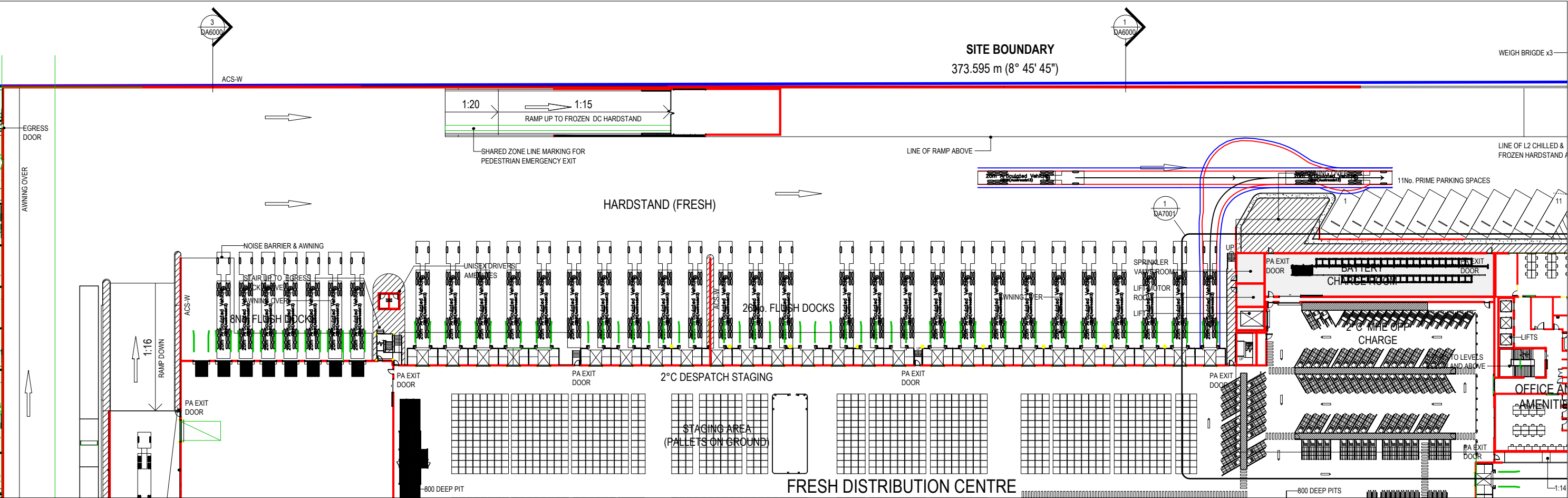
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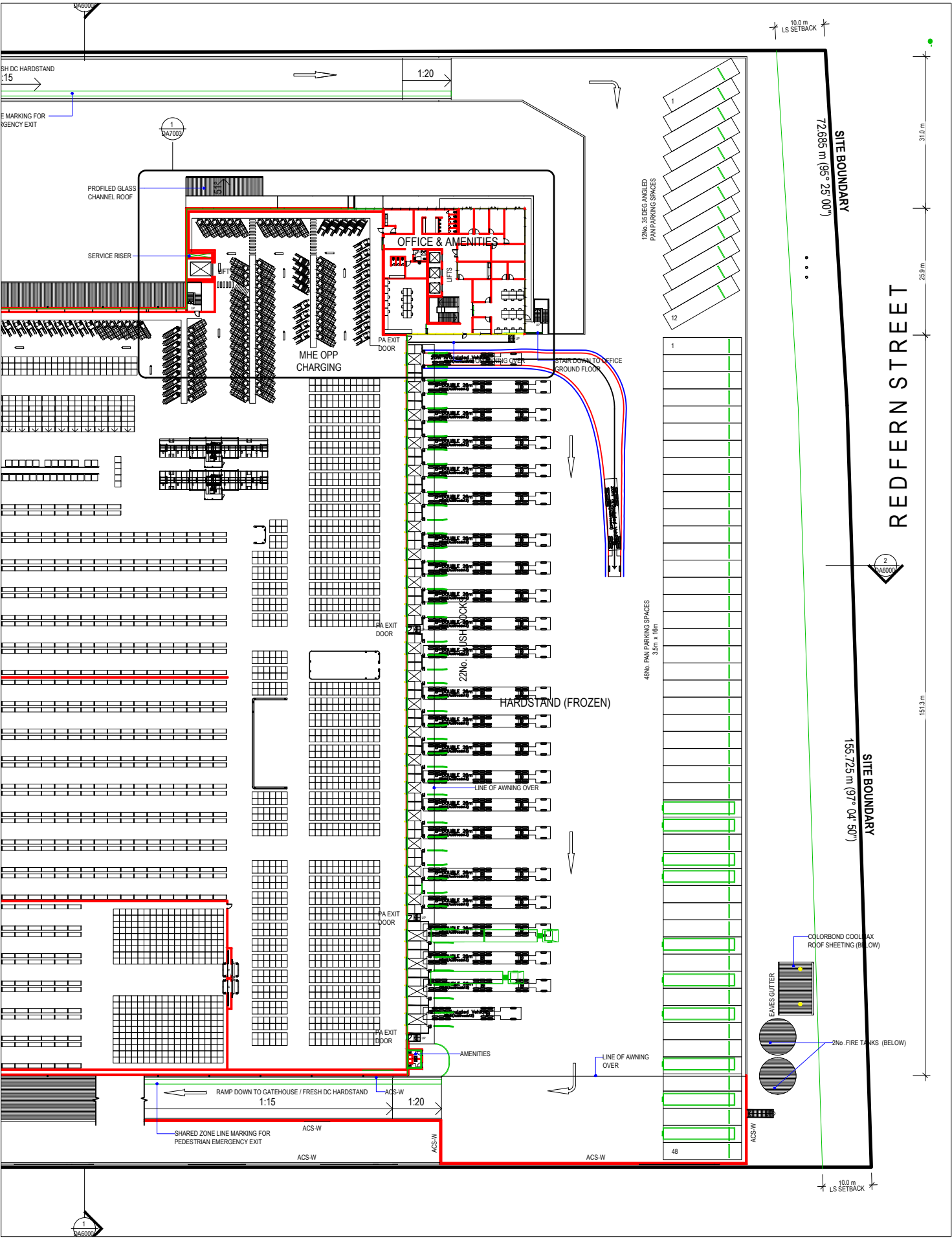
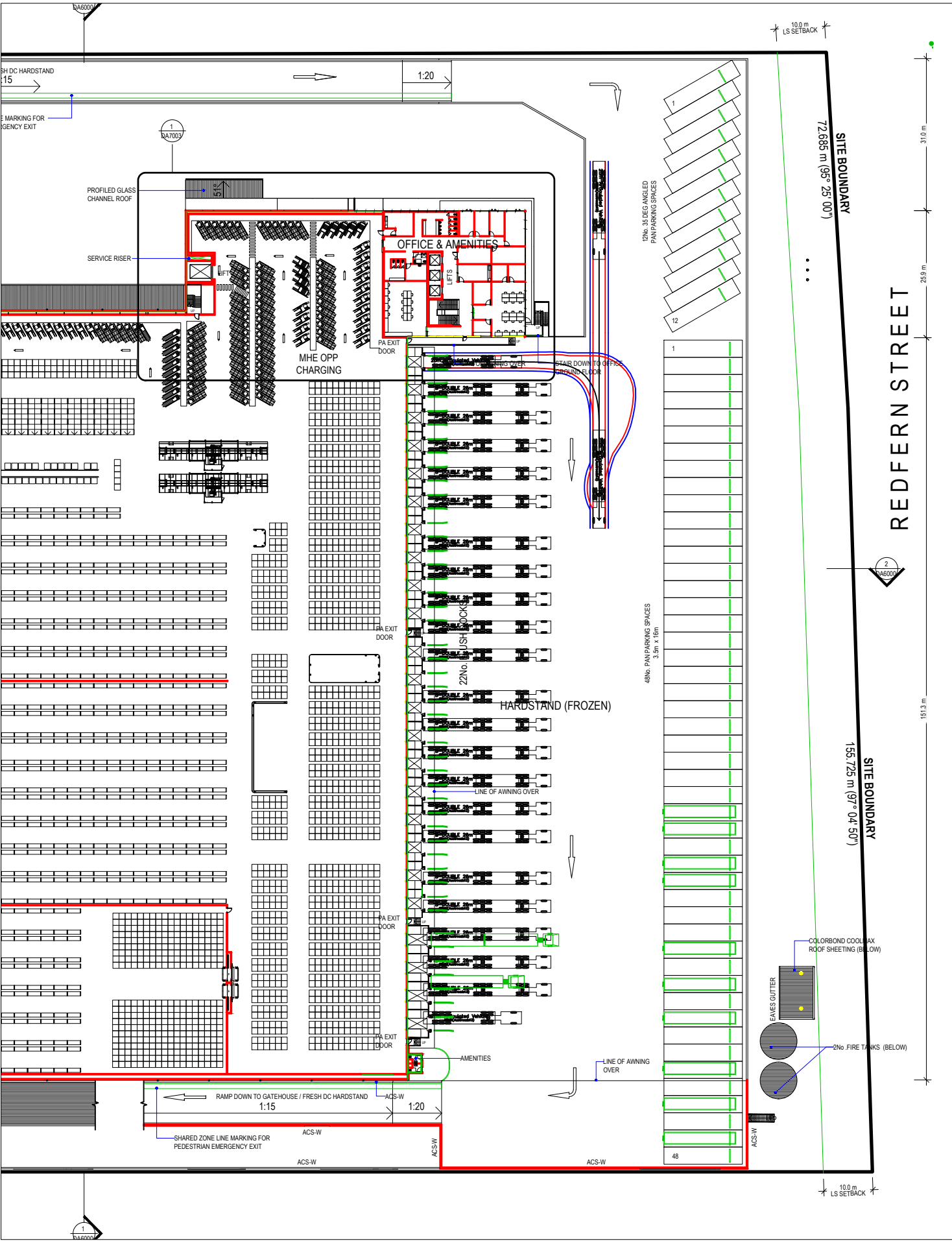
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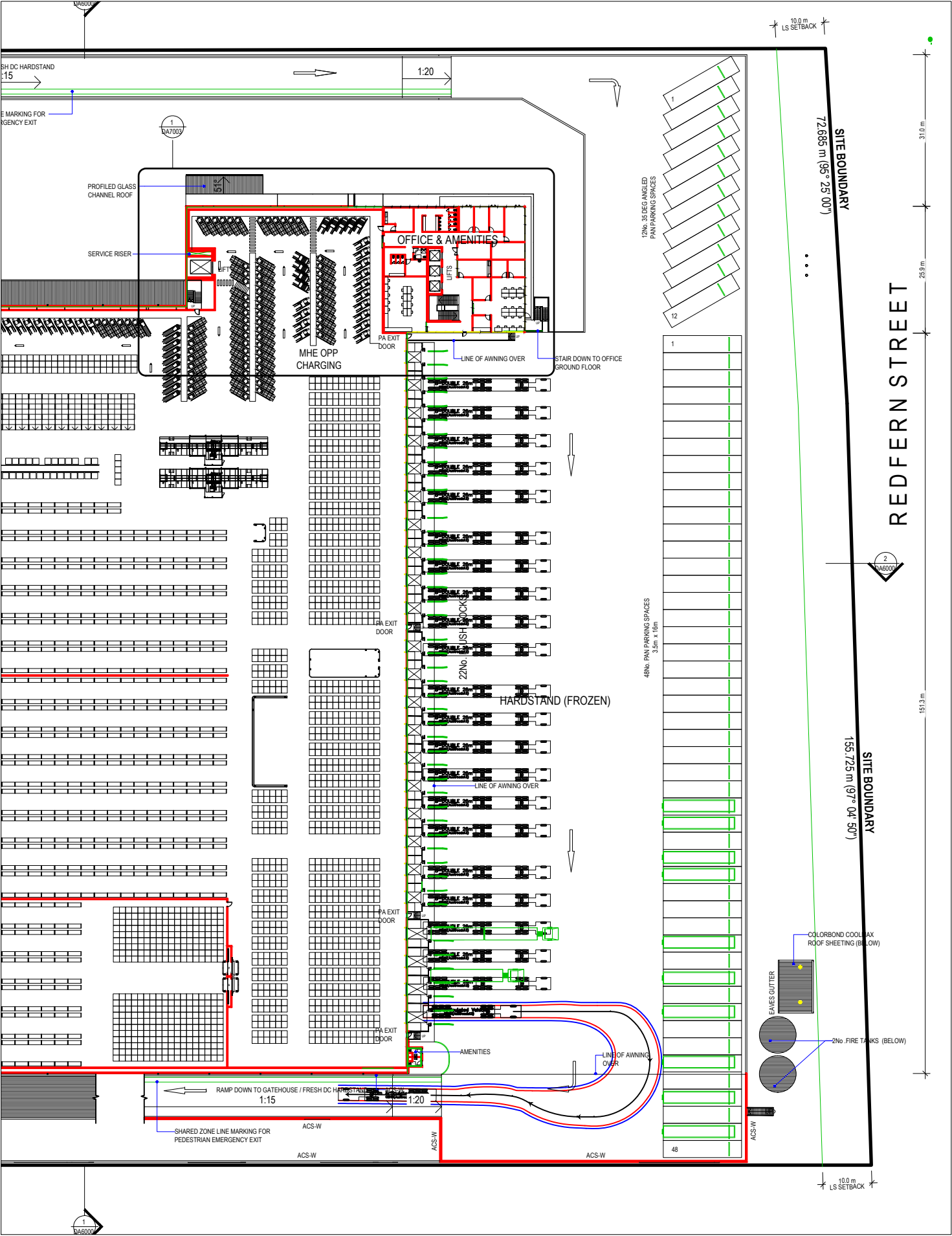
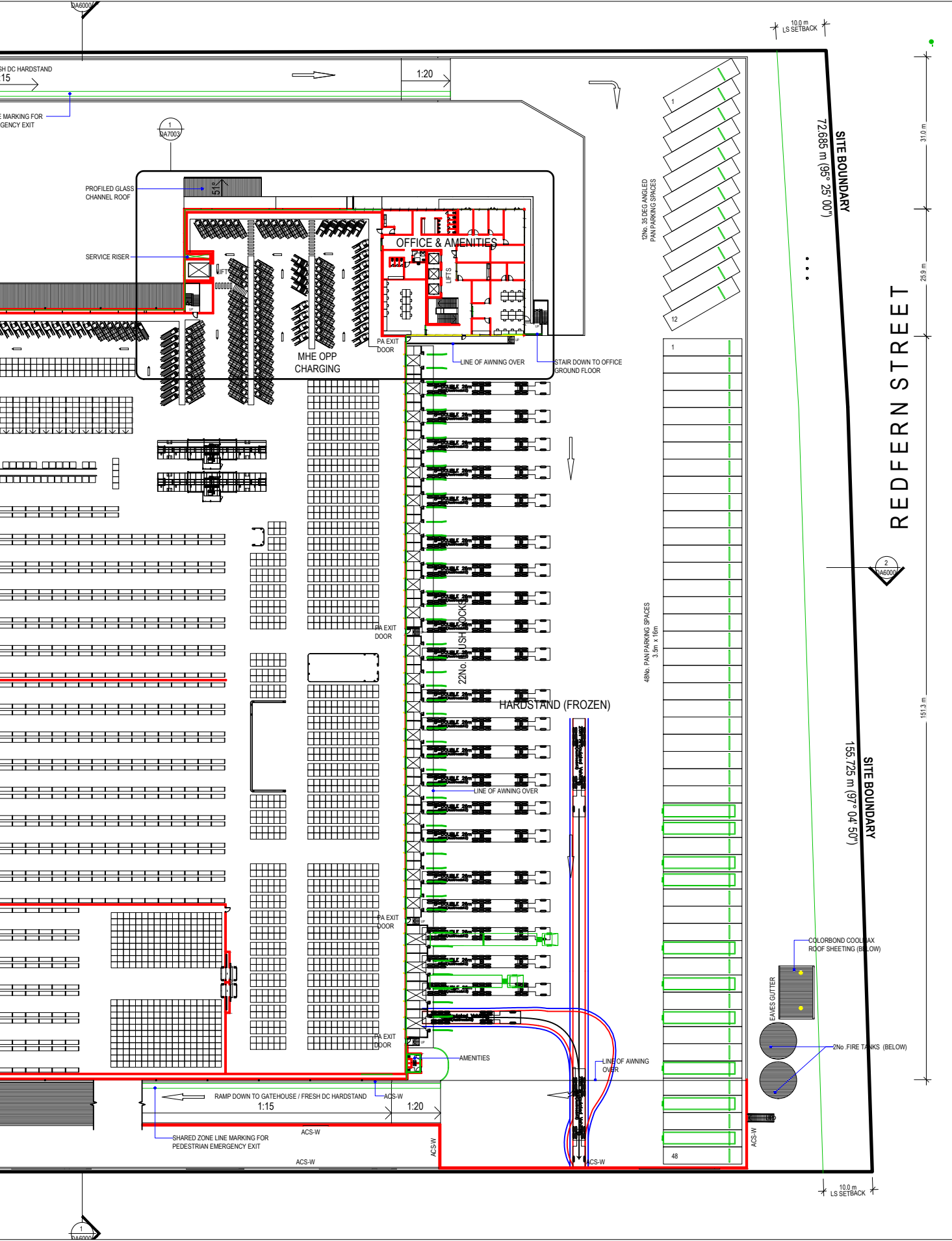
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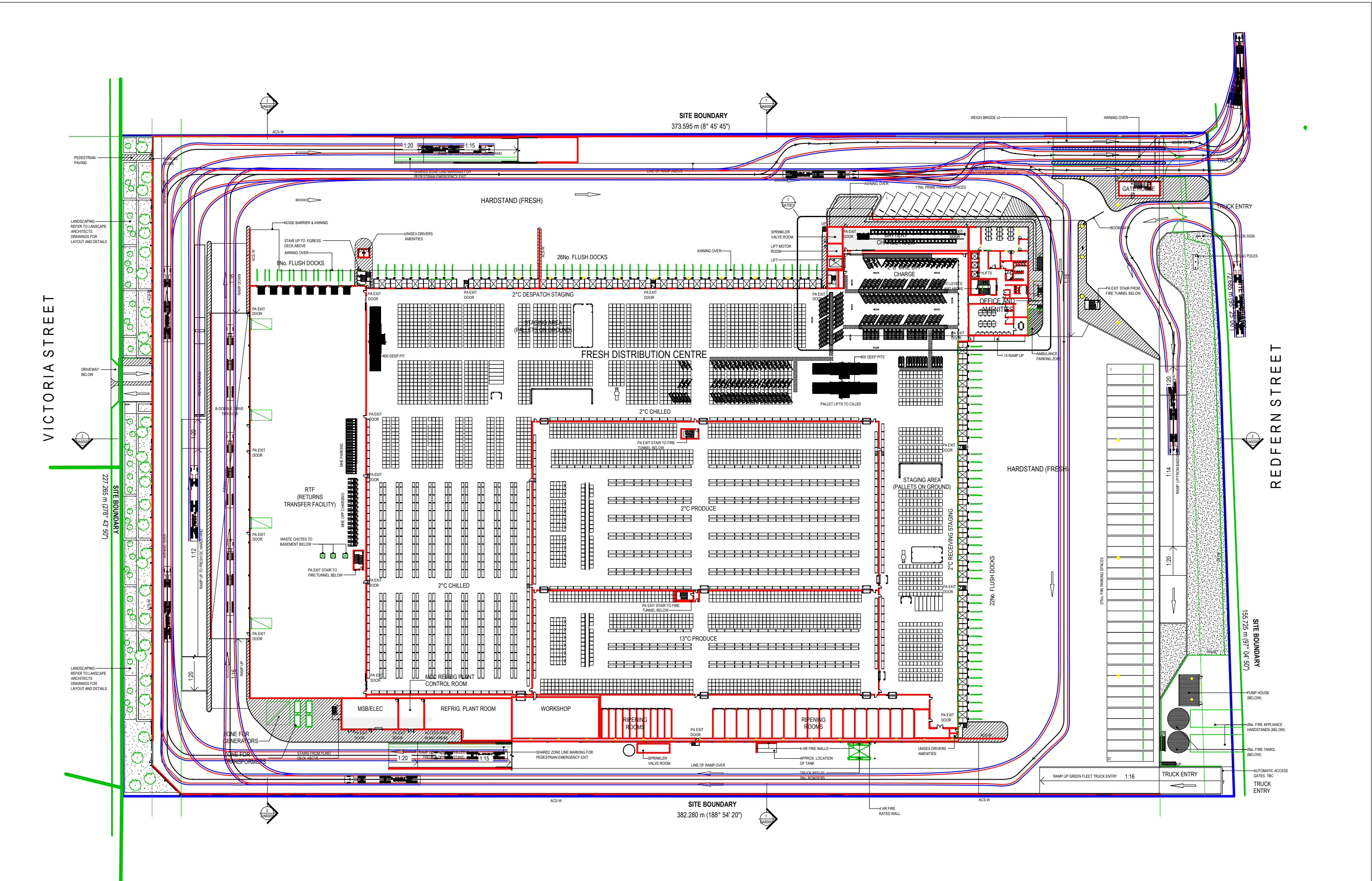
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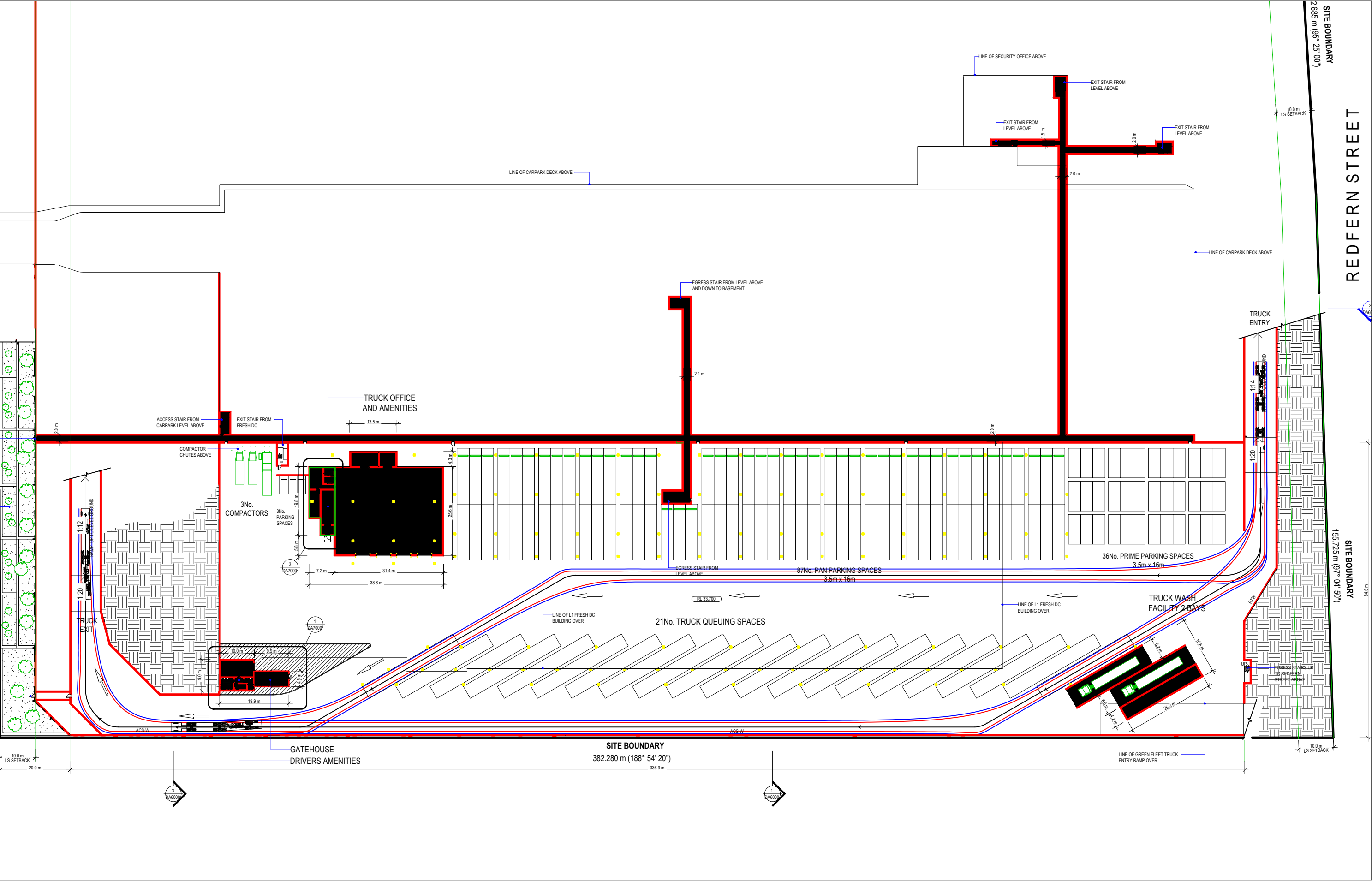
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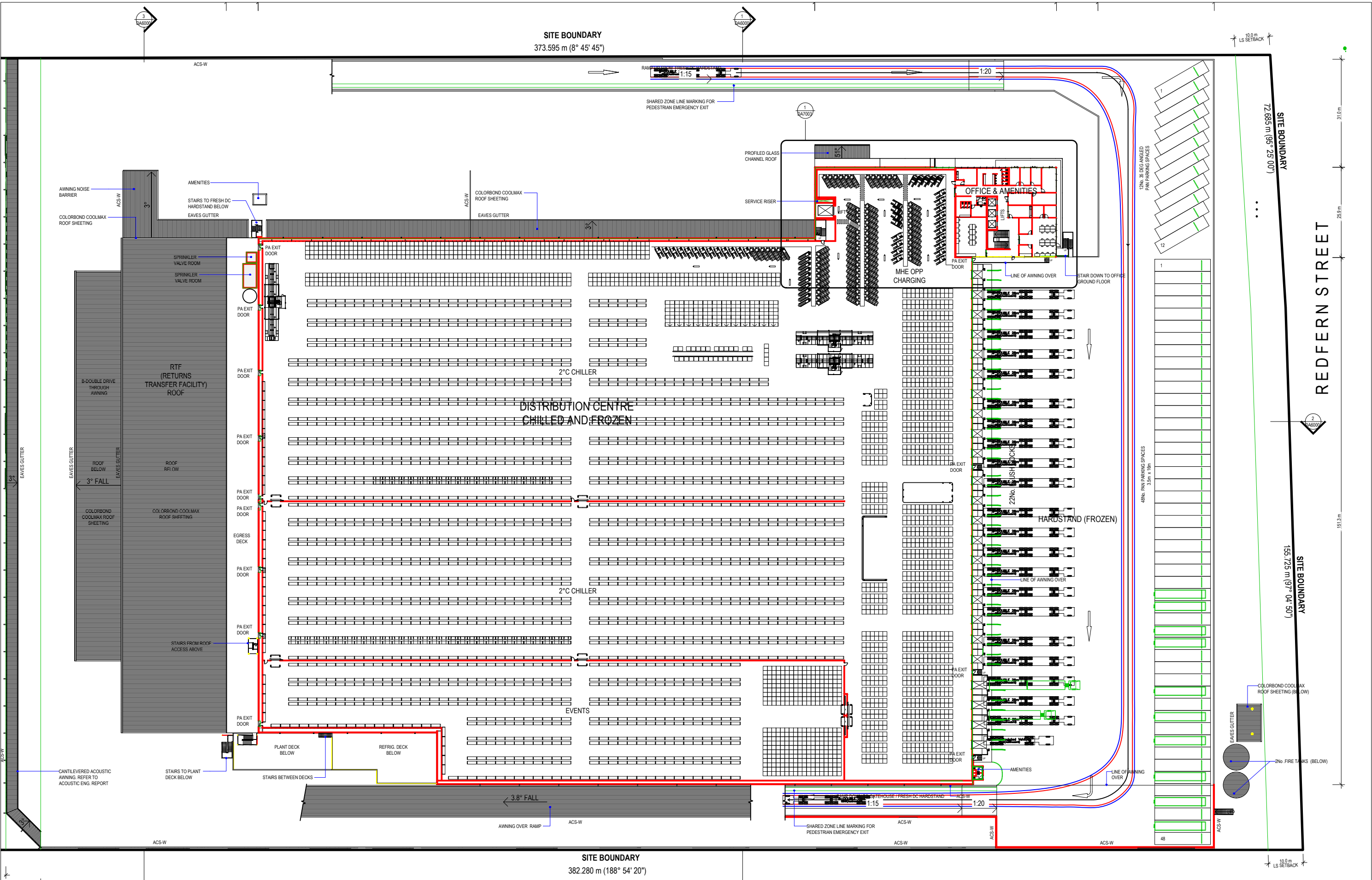
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SWEPT PATHS



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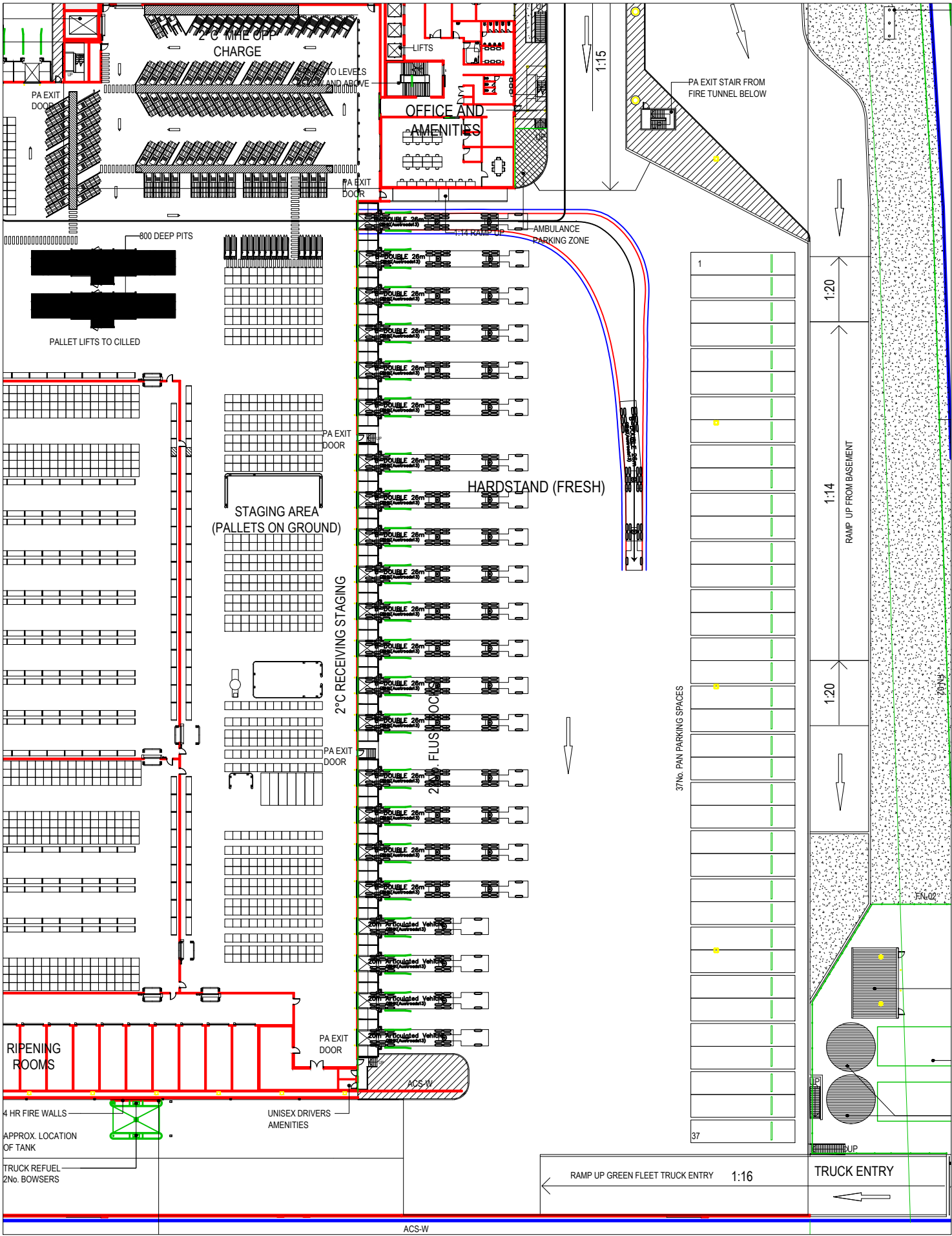
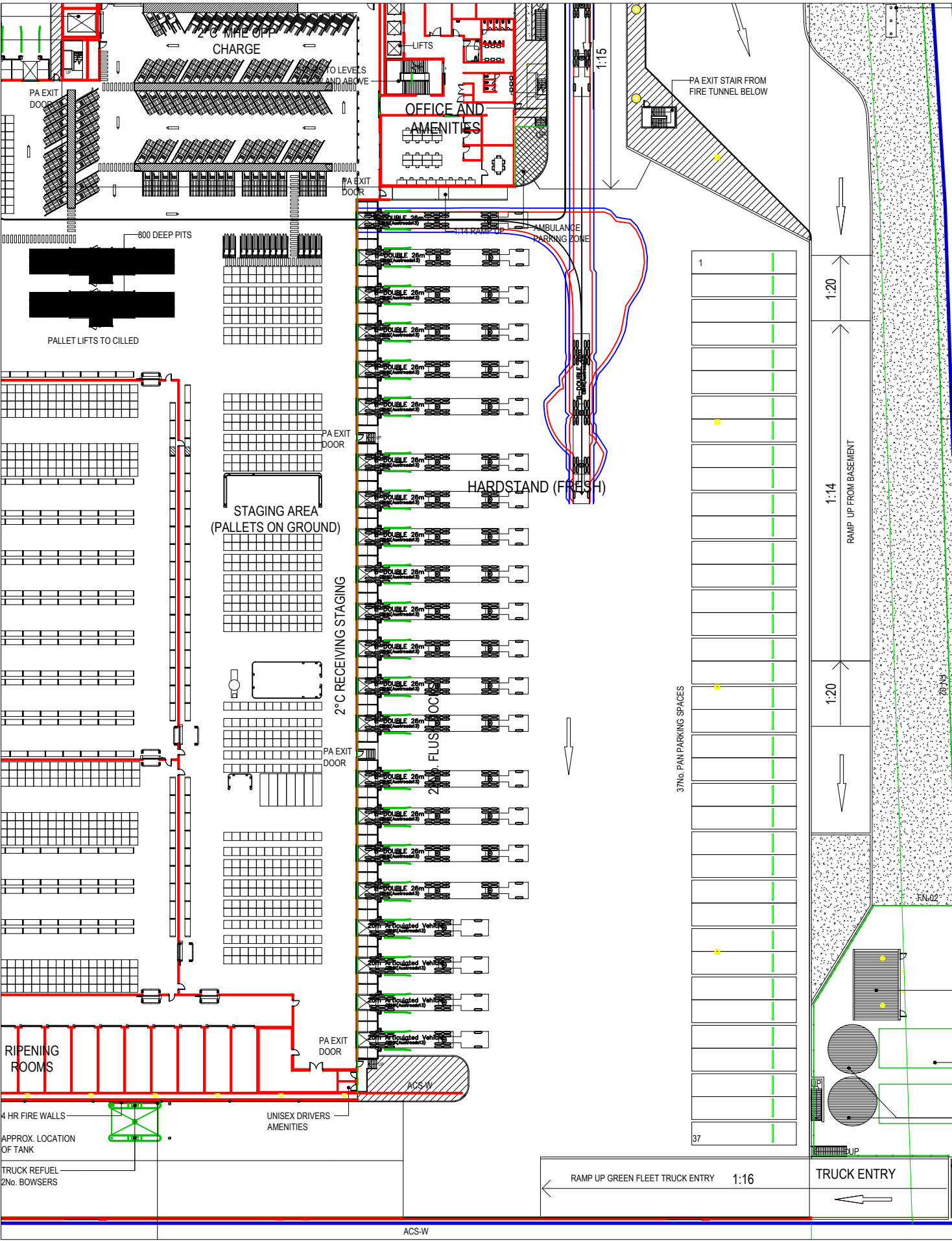
26.0m B-DOUBLE VEHICLE
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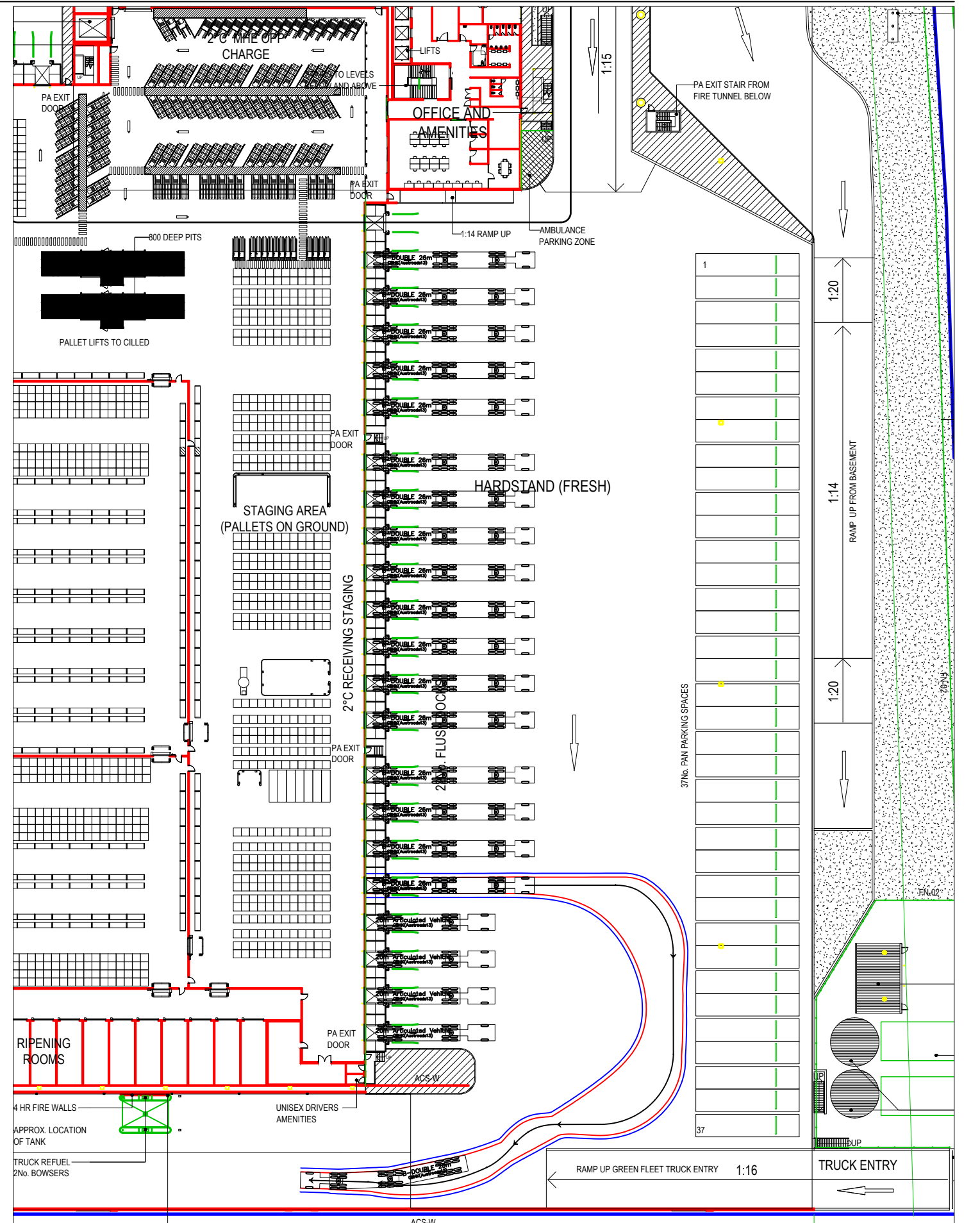
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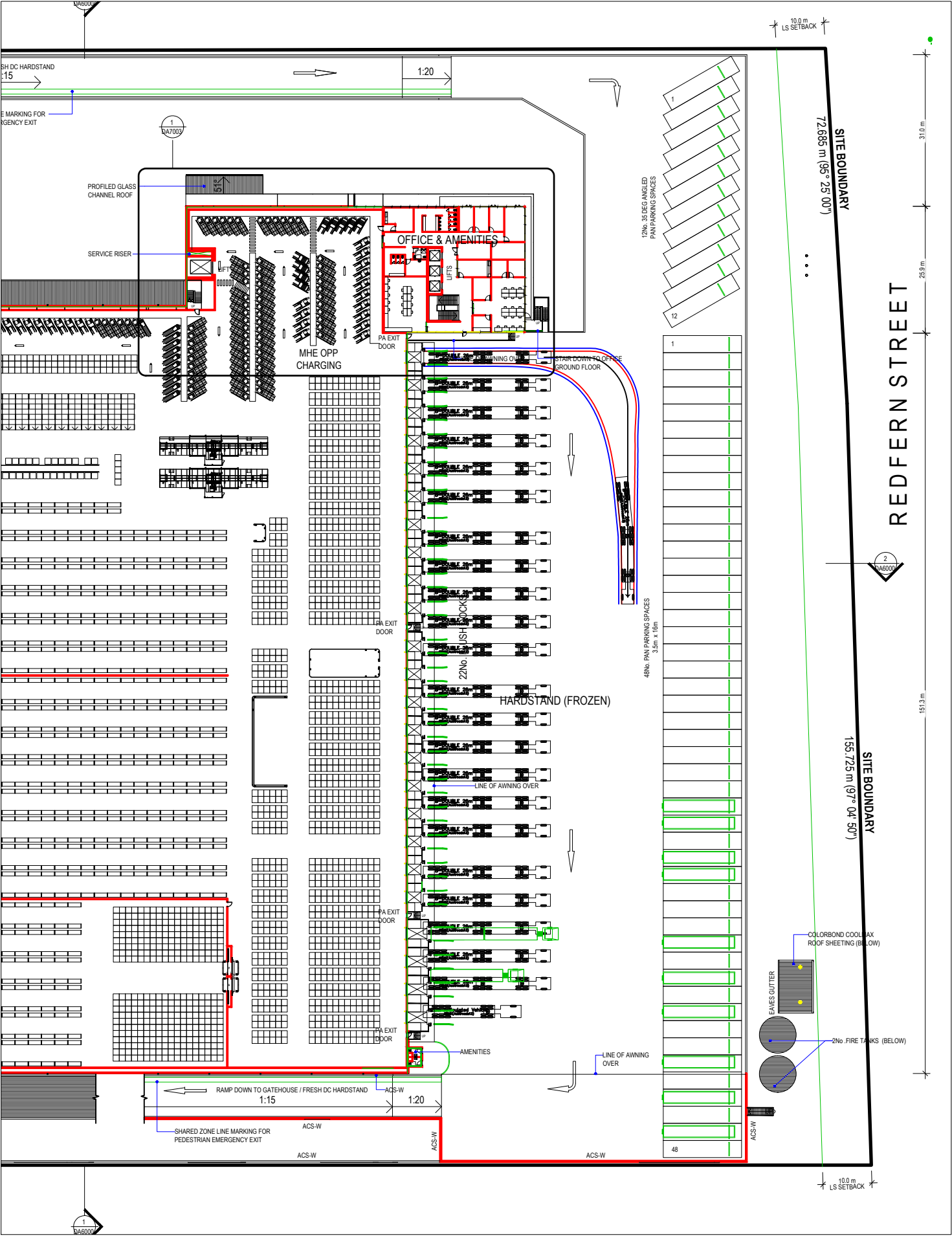
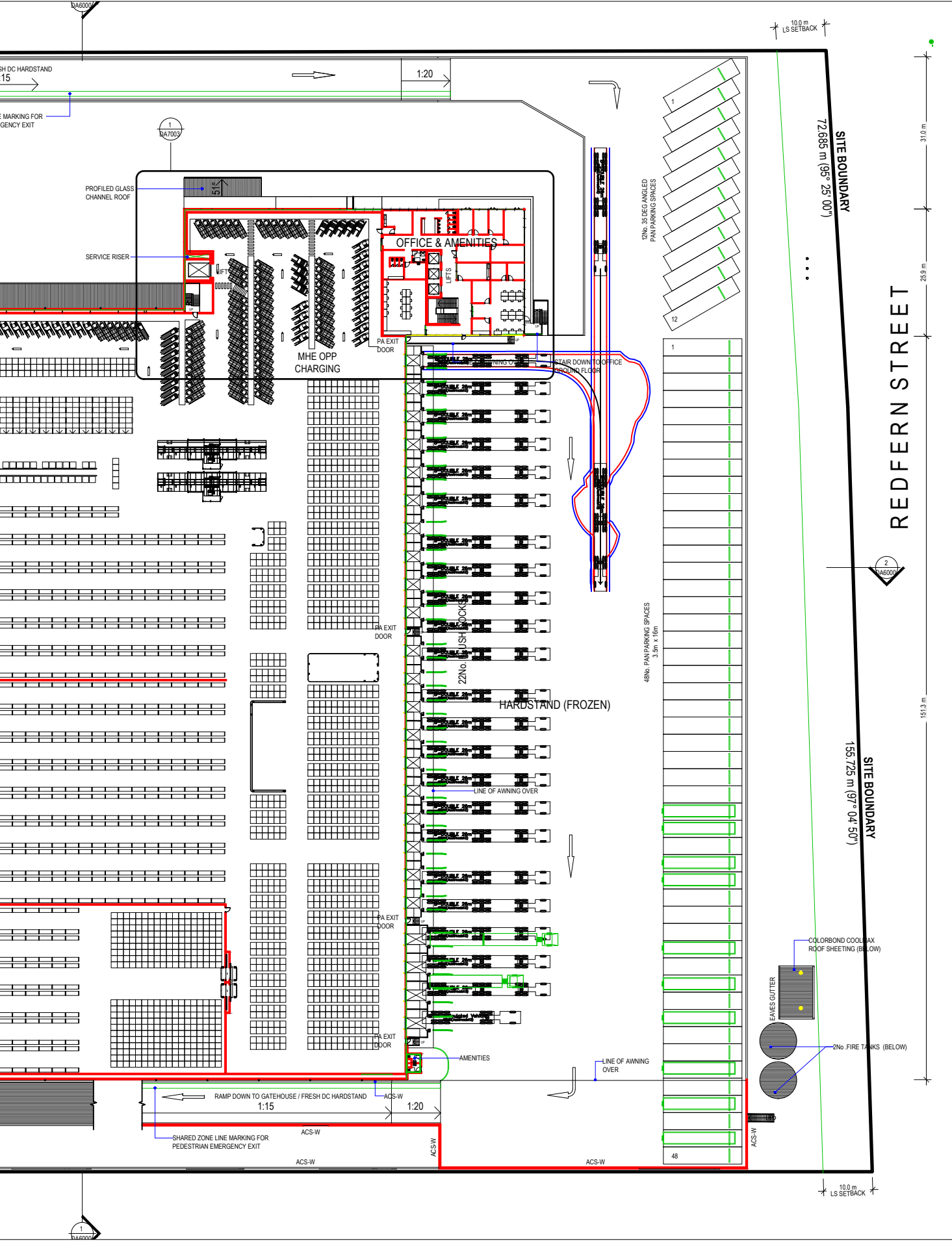
— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

26.0m B-DOUBLE VEHICLE
SWEPT PATHS



— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

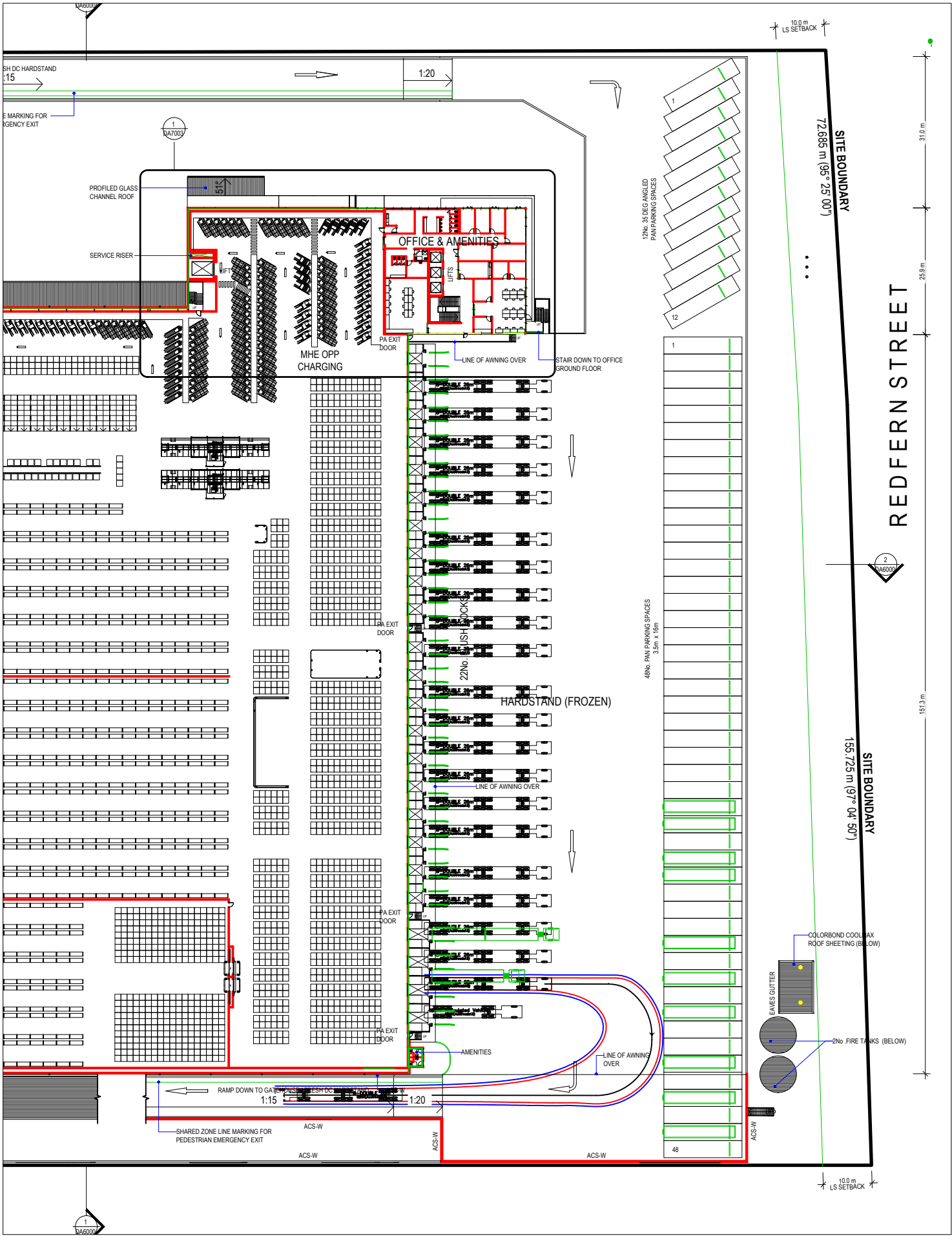
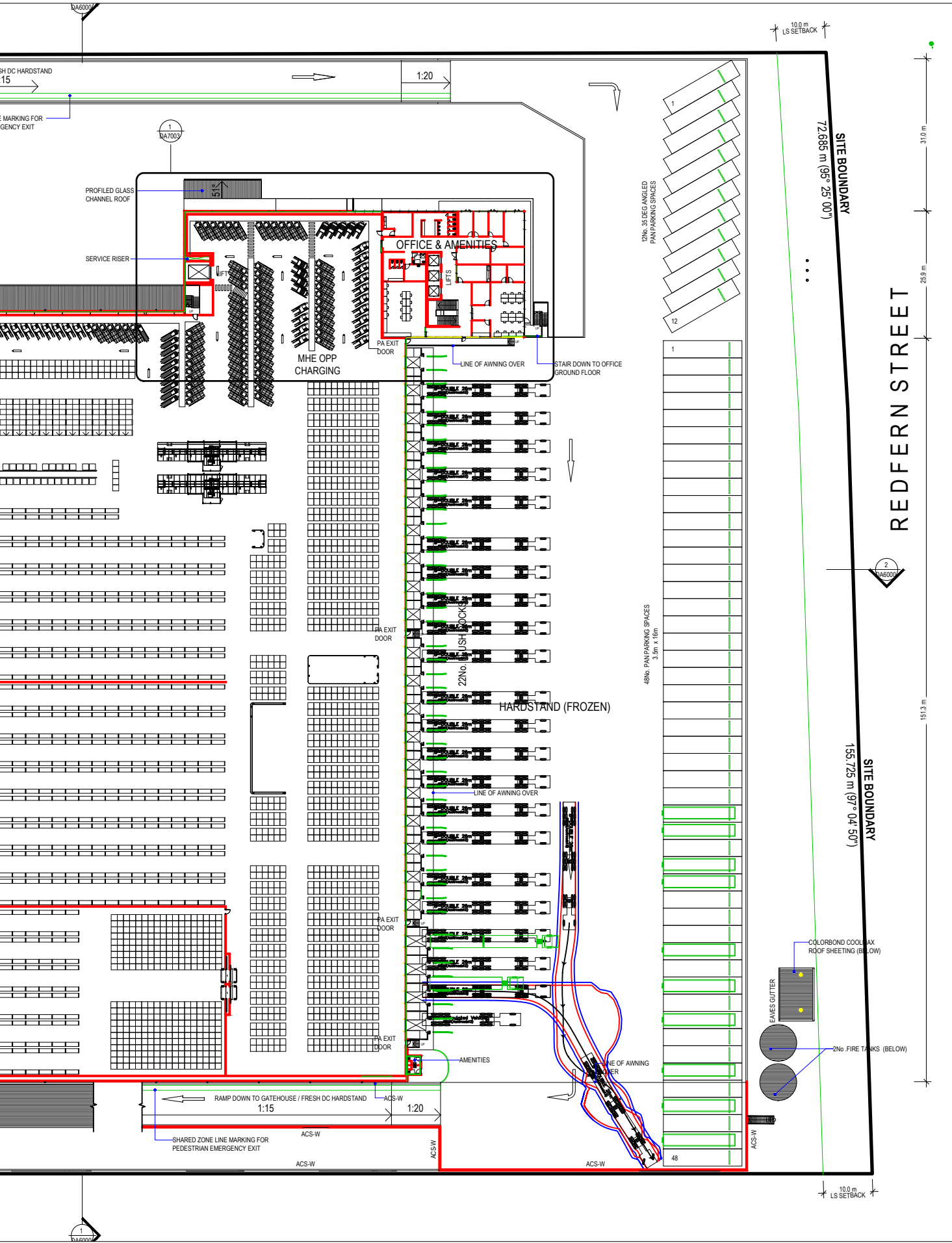
B14



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— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

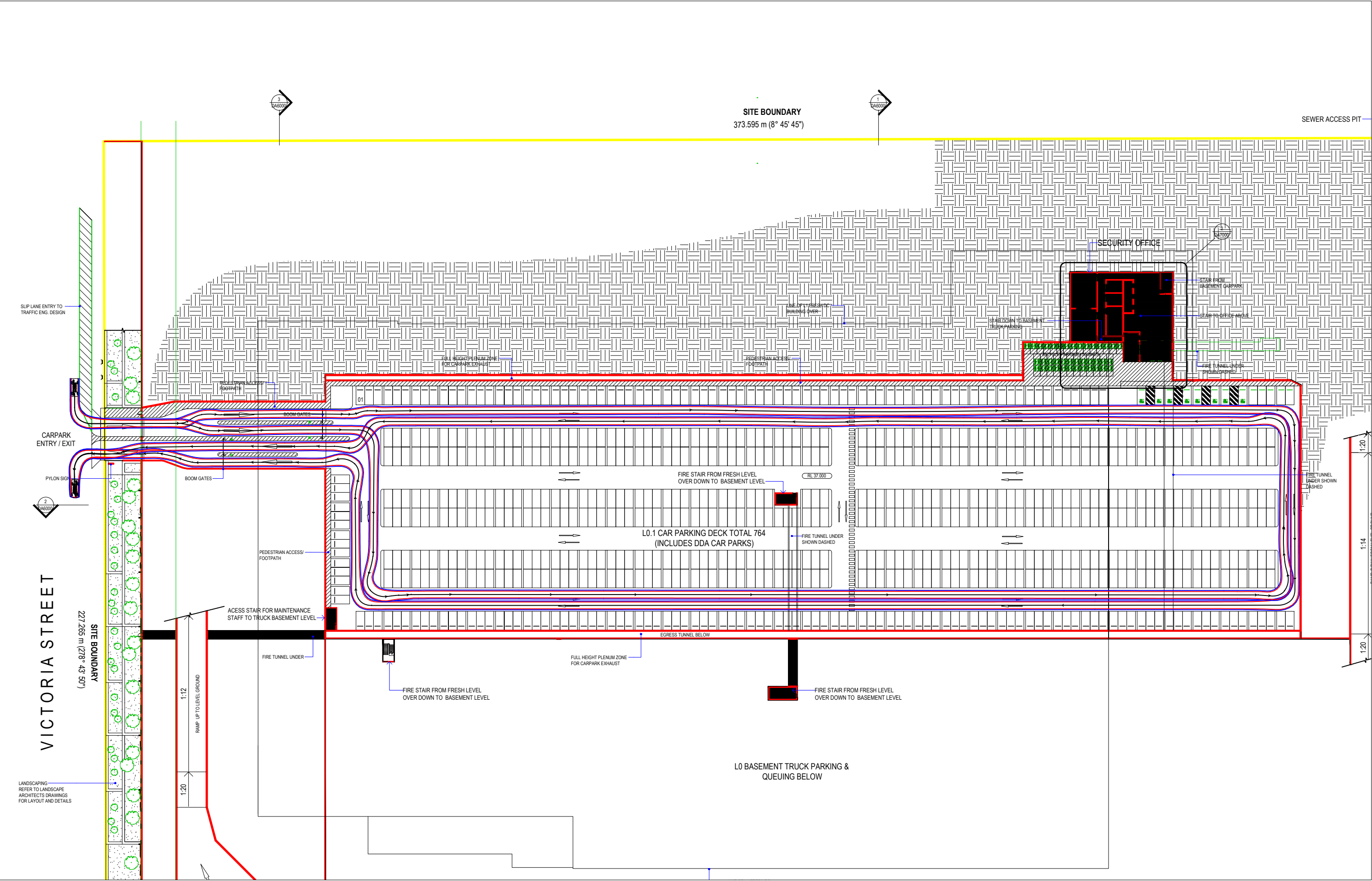
26.0m B-DOUBLE VEHICLE
SWEPT PATHS



NOTE:
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— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

26.0m B-DOUBLE VEHICLE
SWEPT PATHS



NOTE:
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UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO
SURVEY AND FINAL DESIGN. TRAFFIC MEASURES
PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND
ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

— Swept Path of Vehicle Body
— Swept Path of Clearance to Vehicle Body

B99 VEHICLE SWEPT PATHS

APPENDIX C

SIDRA MOVEMENT SUMMARIES

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: 11725 Wetherill Park Distribution Centre Network

Template: Movement Summaries

 Site: 101 [AM EX - Walter Street - Redfern Street (Site Folder: AM Existing)]

 Network: 1 [AM Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Walter Street														
2	T1	300	3.0	300	3.0	0.290	0.7	LOS A	1.2	8.9	0.25	0.23	0.25	56.8
3	R2	179	6.0	179	6.0	0.290	6.7	LOS A	1.2	8.9	0.25	0.23	0.25	54.5
Approach		479	4.1	479	4.1	0.290	2.9	NA	1.2	8.9	0.25	0.23	0.25	55.9
East: Redfern Street														
4	L2	132	6.0	132	6.0	0.096	6.2	LOS A	0.4	2.9	0.27	0.56	0.27	49.4
6	R2	42	6.0	42	6.0	0.065	8.9	LOS A	0.2	1.6	0.51	0.76	0.51	50.4
Approach		174	6.0	174	6.0	0.096	6.8	LOS A	0.4	2.9	0.33	0.61	0.33	49.8
North: Walter Street														
7	L2	74	6.0	74	6.0	0.127	5.6	LOS A	0.0	0.0	0.00	0.18	0.00	56.5
8	T1	163	3.0	163	3.0	0.127	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	56.8
Approach		237	3.9	237	3.9	0.127	1.8	NA	0.0	0.0	0.00	0.18	0.00	56.7
All Vehicles		889	4.4	889	4.4	0.290	3.4	NA	1.2	8.9	0.20	0.29	0.20	55.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [AM EX - Victoria Road - Walter Street (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV] veh/h	%				[Veh. veh	Dist] m				
East: Victoria Road														
5	T1	853	3.0	853	3.0	0.378	11.5	LOS A	10.8	77.7	0.57	0.50	0.57	52.6
6	R2	205	3.0	205	3.0	* 0.368	27.9	LOS B	7.5	53.7	0.81	0.79	0.81	39.0
Approach		1058	3.0	1058	3.0	0.378	14.7	LOS B	10.8	77.7	0.61	0.56	0.61	50.3
North: Walter Street														
7	L2	100	3.0	100	3.0	0.138	14.3	LOS A	1.8	12.7	0.57	0.68	0.57	38.0
9	R2	242	3.0	242	3.0	* 0.555	42.0	LOS C	10.5	75.6	0.93	0.82	0.93	33.0
Approach		342	3.0	342	3.0	0.555	33.9	LOS C	10.5	75.6	0.82	0.78	0.82	33.7
West: Victoria Road														
10	L2	274	3.0	274	3.0	0.545	35.4	LOS C	12.7	91.3	0.87	0.81	0.87	28.3
11	T1	379	3.0	379	3.0	* 0.545	30.2	LOS C	13.5	96.7	0.88	0.76	0.88	30.0
Approach		653	3.0	653	3.0	0.545	32.4	LOS C	13.5	96.7	0.87	0.78	0.87	29.3
All Vehicles		2053	3.0	2053	3.0	0.555	23.5	LOS B	13.5	96.7	0.73	0.66	0.73	42.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [AM EX - Victoria Road - Wetherill Street (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	432	3.0	432	3.0	0.368	5.4	LOS A	1.7	12.4	0.40	0.59	0.40	44.8
3	R2	237	3.0	237	3.0	0.254	11.3	LOS A	1.0	7.3	0.39	0.73	0.39	38.0
3u	U	1	3.0	1	3.0	0.254	13.7	LOS A	1.0	7.3	0.39	0.73	0.39	38.0
Approach		669	3.0	669	3.0	0.368	7.5	LOS A	1.7	12.4	0.39	0.64	0.39	41.8
East: Victoria Road														
4	L2	47	3.0	47	3.0	0.226	4.0	LOS A	1.0	7.5	0.20	0.38	0.20	50.0
5	T1	568	3.0	568	3.0	0.226	3.9	LOS A	1.0	7.5	0.21	0.38	0.21	49.9
6u	U	5	3.0	5	3.0	0.226	12.0	LOS A	1.0	7.3	0.21	0.39	0.21	49.8
Approach		621	3.0	621	3.0	0.226	4.0	LOS A	1.0	7.5	0.21	0.38	0.21	49.9
West: Victoria Road														
11	T1	374	3.0	374	3.0	0.196	4.6	LOS A	1.1	8.2	0.38	0.47	0.38	53.4
12	R2	84	3.0	84	3.0	0.196	10.3	LOS A	1.1	8.0	0.38	0.56	0.38	52.1
12u	U	21	3.0	21	3.0	0.196	12.7	LOS A	1.1	8.0	0.38	0.56	0.38	52.1
Approach		479	3.0	479	3.0	0.196	5.9	LOS A	1.1	8.2	0.38	0.49	0.38	53.1
All Vehicles		1769	3.0	1769	3.0	0.368	5.9	LOS A	1.7	12.4	0.32	0.51	0.32	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [AM EX - Victoria Street - Hassall Street (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C, E

Output Phase Sequence: A, B, C, E

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	42	3.0	42	3.0	* 0.708	32.0	LOS C	22.1	158.6	0.89	0.80	0.89	32.2
2	T1	1058	3.0	1058	3.0	0.708	26.4	LOS B	22.5	161.8	0.89	0.80	0.89	32.4
Approach		1100	3.0	1100	3.0	0.708	26.6	LOS B	22.5	161.8	0.89	0.80	0.89	32.4
East: Victoria Street														
4	L2	37	3.0	37	3.0	0.373	33.2	LOS C	8.7	62.5	0.81	0.70	0.81	40.1
5	T1	432	3.0	432	3.0	0.373	27.6	LOS B	8.8	63.0	0.81	0.69	0.81	31.5
6	R2	132	3.0	132	3.0	* 0.588	36.6	LOS C	5.0	35.7	1.00	0.79	1.01	27.5
Approach		600	3.0	600	3.0	0.588	29.9	LOS C	8.8	63.0	0.85	0.71	0.85	31.3
North: Hassall Street														
7	L2	147	3.0	147	3.0	0.571	23.1	LOS B	21.4	153.6	0.80	0.74	0.80	43.3
8	T1	453	3.0	453	3.0	0.571	17.5	LOS B	21.4	153.6	0.80	0.74	0.80	44.4
9	R2	105	3.0	105	3.0	0.724	53.8	LOS D	5.3	37.9	0.99	0.82	1.09	18.3
Approach		705	3.0	705	3.0	0.724	24.1	LOS B	21.4	153.6	0.83	0.76	0.84	40.0
West: Victoria Street														
10	L2	368	3.0	368	3.0	* 0.724	41.9	LOS C	16.8	120.4	0.96	0.87	1.00	21.0
11	T1	253	3.0	253	3.0	0.695	42.5	LOS C	12.0	86.0	0.99	0.85	1.03	33.2
12	R2	5	3.0	5	3.0	0.034	46.9	LOS D	0.2	1.6	0.89	0.66	0.89	31.1
Approach		626	3.0	626	3.0	0.724	42.2	LOS C	16.8	120.4	0.97	0.86	1.01	27.2
All Vehicles		3032	3.0	3032	3.0	0.724	29.9	LOS C	22.5	161.8	0.89	0.78	0.90	32.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [AM EX - Hassall Street - Redfern Street (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	137	6.0	137	6.0	0.627	23.6	LOS B	21.7	156.7	0.79	0.74	0.79	42.9
2	T1	1100	3.0	1100	3.0	* 0.627	10.9	LOS A	21.7	156.7	0.53	0.49	0.53	49.4
Approach		1237	3.3	1237	3.3	0.627	12.3	LOS A	21.7	156.7	0.56	0.52	0.56	48.6
North: Hassall Street														
8	T1	684	3.0	684	3.0	0.381	6.0	LOS A	8.7	62.7	0.42	0.38	0.42	49.5
9	R2	116	6.0	116	6.0	* 0.381	21.0	LOS B	7.7	55.9	0.72	0.69	0.72	45.1
Approach		800	3.4	800	3.4	0.381	8.2	LOS A	8.7	62.7	0.46	0.43	0.46	48.3
West: Redfern Street														
10	L2	100	6.0	100	6.0	0.156	28.9	LOS C	3.3	24.2	0.71	0.74	0.71	39.9
12	R2	42	6.0	42	6.0	* 0.394	58.0	LOS E	2.1	15.7	1.00	0.73	1.00	20.8
Approach		142	6.0	142	6.0	0.394	37.5	LOS C	3.3	24.2	0.80	0.74	0.80	34.3
All Vehicles		2179	3.5	2179	3.5	0.627	12.4	LOS A	21.7	156.7	0.54	0.50	0.54	47.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [AM EX - Wetherill Street - The Horsely Drive (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F*, G

Output Phase Sequence: A, D, E, G

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
						v/c	sec							km/h
South: Wetherill Street														
1	L2	395	2.0	395	2.0	0.362	12.3	LOS A	7.9	56.3	0.51	0.71	0.51	49.3
2	T1	537	2.0	537	2.0	* 0.930	63.4	LOS E	16.2	115.4	1.00	1.11	1.50	19.8
3	R2	137	2.0	137	2.0	0.934	72.7	LOS F	8.2	58.7	1.00	1.07	1.66	27.1
Approach		1068	2.0	1068	2.0	0.934	45.7	LOS D	16.2	115.4	0.82	0.96	1.15	30.0
East: The Horsely Drive														
4	L2	111	2.0	111	2.0	0.805	37.2	LOS C	23.8	169.6	0.91	0.86	0.97	38.4
5	T1	942	2.0	942	2.0	0.805	31.9	LOS C	23.8	169.6	0.90	0.84	0.96	39.3
6	R2	63	2.0	63	2.0	0.192	43.7	LOS D	2.7	18.9	0.89	0.75	0.89	25.0
Approach		1116	2.0	1116	2.0	0.805	33.1	LOS C	23.8	169.6	0.90	0.84	0.95	38.5
North: Wetherill Street														
7	L2	26	2.0	26	2.0	0.157	35.9	LOS C	2.1	15.3	0.87	0.71	0.87	34.6
8	T1	74	2.0	74	2.0	0.157	36.6	LOS C	2.1	15.3	0.89	0.69	0.89	33.1
9	R2	32	2.0	32	2.0	0.216	54.3	LOS D	1.5	10.8	0.97	0.72	0.97	27.1
Approach		132	2.0	132	2.0	0.216	40.7	LOS C	2.1	15.3	0.91	0.70	0.91	31.7
West: The Horsely Drive														
10	L2	68	2.0	68	2.0	* 0.940	55.5	LOS D	37.5	266.9	1.00	1.12	1.29	23.0
11	T1	1116	2.0	1116	2.0	0.940	50.0	LOS D	37.5	266.9	0.96	1.09	1.27	33.0
12	R2	300	2.0	300	2.0	* 0.910	64.4	LOS E	17.6	125.4	1.00	1.03	1.41	29.0
Approach		1484	2.0	1484	2.0	0.940	53.2	LOS D	37.5	266.9	0.97	1.08	1.30	31.7
All Vehicles		3800	2.0	3800	2.0	0.940	44.7	LOS D	37.5	266.9	0.90	0.96	1.14	33.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\11725 Wetherill Park Distribution Centre Network.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: Cowpasture Road Networks

Template: Movement Summaries

 Site: 101 [AM EX - The Horsley Drive - Cowpasture Road (Site Folder: AM Existing)]

 Network: 1 [AM Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cowpasture Road														
1	L2	11	2.0	11	2.0	0.859	8.0	LOS A	12.2	86.6	0.79	1.00	1.20	51.1
2	T1	1279	2.0	1279	2.0	0.859	10.9	LOS A	12.5	88.9	0.82	1.02	1.24	44.2
3	R2	589	2.0	589	2.0	0.859	16.2	LOS B	12.5	88.9	0.90	1.07	1.32	52.0
3u	U	5	2.0	5	2.0	0.859	18.8	LOS B	12.5	88.9	0.90	1.07	1.32	53.7
Approach		1884	2.0	1884	2.0	0.859	12.6	LOS A	12.5	88.9	0.85	1.04	1.27	47.6
East: The Horsley Drive														
4	L2	284	2.0	284	2.0	0.285	4.0	LOS A	2.2	15.8	0.50	0.54	0.50	53.9
5	T1	11	2.0	11	2.0	0.285	3.7	LOS A	2.2	15.8	0.50	0.54	0.50	55.9
6	R2	489	2.0	489	2.0	0.285	10.6	LOS A	2.2	15.8	0.51	0.61	0.51	45.8
6u	U	5	2.0	5	2.0	0.285	13.2	LOS A	2.1	14.7	0.52	0.64	0.52	54.8
Approach		789	2.0	789	2.0	0.285	8.2	LOS A	2.2	15.8	0.51	0.59	0.51	49.8
North: The Horsley Drive														
7	L2	1095	2.0	1095	2.0	0.679	8.8	LOS A	8.0	56.7	0.74	0.82	0.90	49.8
8	T1	237	2.0	237	2.0	0.679	9.6	LOS A	7.0	49.5	0.76	0.87	0.96	51.3
9	R2	5	2.0	5	2.0	0.679	16.4	LOS B	7.0	49.5	0.76	0.87	0.96	52.3
Approach		1337	2.0	1337	2.0	0.679	9.0	LOS A	8.0	56.7	0.74	0.83	0.91	50.1
West: Park Access														
10	L2	5	2.0	5	2.0	0.014	13.0	LOS A	0.1	0.6	0.96	0.76	0.96	42.4
11	T1	1	2.0	1	2.0	0.007	14.3	LOS A	0.0	0.3	0.91	0.76	0.91	48.8
12	R2	1	2.0	1	2.0	0.007	20.9	LOS B	0.0	0.3	0.91	0.76	0.91	49.4
Approach		7	2.0	7	2.0	0.014	14.3	LOS A	0.1	0.6	0.95	0.76	0.95	45.2
All Vehicles		4018	2.0	4018	2.0	0.859	10.5	LOS A	12.5	88.9	0.75	0.88	1.00	48.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [AM EX - The Horsley Drive - Cowpasture Road (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Horsley Drive														
2	T1	1168	2.0	1168	2.0	0.422	6.0	LOS A	11.3	80.1	0.43	0.39	0.43	52.4
3	R2	611	2.0	611	2.0	* 0.725	45.9	LOS D	14.4	102.4	0.98	0.87	1.04	27.7
Approach		1779	2.0	1779	2.0	0.725	19.7	LOS B	14.4	102.4	0.62	0.55	0.64	40.1
East: Cowpasture Road														
4	L2	163	2.0	163	2.0	0.193	11.6	LOS A	2.8	19.9	0.44	0.68	0.44	43.8
6	R2	374	2.0	374	2.0	* 0.638	49.6	LOS D	8.9	63.1	0.99	0.82	1.01	32.8
Approach		537	2.0	537	2.0	0.638	38.0	LOS C	8.9	63.1	0.82	0.78	0.83	34.4
North: The Horsley Drive														
7	L2	705	2.0	705	2.0	0.287	9.1	LOS A	4.9	34.6	0.37	0.67	0.37	51.5
8	T1	1174	2.0	1174	2.0	* 0.709	25.1	LOS B	23.4	166.8	0.88	0.79	0.88	33.2
Approach		1879	2.0	1879	2.0	0.709	19.1	LOS B	23.4	166.8	0.69	0.74	0.69	41.2
All Vehicles		4195	2.0	4195	2.0	0.725	21.8	LOS B	23.4	166.8	0.68	0.67	0.69	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cowpasture Road Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes



Project: Cumberland Highway Networks

Template: Movement Summaries



Site: 101 [AM EX - Cumberland Highway - The Horsely Drive (Site Folder: AM Existing)]

Network: 1 [AM Existing (Network Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, B1*, C, D, E, F1*, F2*

Output Phase Sequence: A, B1*, C, D, E

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist] m	km/h				
South: Cumberland Highway														
1	L2	110	2.0	110	2.0	0.829	33.4	LOS C	26.9	191.5	0.83	0.83	0.88	42.9
2	T1	1745	2.0	1745	2.0	0.829	22.4	LOS B	26.9	191.5	0.81	0.78	0.86	37.8
3	R2	70	2.0	70	2.0	* 0.247	30.0	LOS C	1.9	13.2	0.92	0.75	0.92	41.8
Approach		1925	2.0	1925	2.0	0.829	23.3	LOS B	26.9	191.5	0.82	0.78	0.86	38.5
East: The Horsely Drive														
4	L2	30	2.0	30	2.0	0.803	42.5	LOS C	27.3	194.2	0.97	0.91	1.03	37.8
5	T1	590	2.0	590	2.0	0.803	39.6	LOS C	27.3	194.2	0.97	0.91	1.05	36.3
6	R2	285	2.0	285	2.0	* 0.803	62.0	LOS E	11.2	80.0	1.00	0.92	1.21	20.4
Approach		905	2.0	905	2.0	0.803	46.7	LOS D	27.3	194.2	0.98	0.91	1.10	31.7
North: Cumberland Highway														
7	L2	425	2.0	425	2.0	0.334	11.3	LOS A	8.1	58.0	0.48	0.73	0.48	49.0
8	T1	1320	2.0	1320	2.0	* 0.852	33.3	LOS C	23.4	166.9	0.92	0.86	1.01	37.6
9	R2	145	2.0	145	2.0	0.792	64.6	LOS E	8.4	59.5	1.00	0.89	1.23	24.8
Approach		1890	2.0	1890	2.0	0.852	30.7	LOS C	23.4	166.9	0.83	0.83	0.91	38.1
West: The Horsely Drive														
10	L2	195	2.0	195	2.0	* 0.828	46.7	LOS D	14.9	105.8	1.00	0.96	1.18	24.7
11	T1	390	2.0	390	2.0	* 0.828	50.0	LOS D	15.7	111.9	1.00	0.96	1.19	32.8
Approach		585	2.0	585	2.0	0.828	48.9	LOS D	15.7	111.9	1.00	0.96	1.19	30.8
All Vehicles		5305	2.0	5305	2.0	0.852	32.8	LOS C	27.3	194.2	0.87	0.84	0.95	35.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [AM EX - Cumberland Highway - Victoria Street (Site Folder: AM Existing)]**

 **Network: 1 [AM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C, D, F1*

Output Phase Sequence: A, C, D, F1*

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cumberland Highway														
1	L2	190	2.0	190	2.0	0.865	23.4	LOS B	30.5	217.0	0.76	0.78	0.82	36.9
2	T1	2035	2.0	2035	2.0	* 0.865	17.2	LOS B	30.7	218.7	0.77	0.76	0.83	48.0
Approach		2225	2.0	2225	2.0	0.865	17.7	LOS B	30.7	218.7	0.77	0.76	0.83	47.2
East: Victoria Street														
4	L2	15	2.0	15	2.0	0.173	62.3	LOS E	0.9	6.7	0.98	0.69	0.98	20.1
5	T1	10	2.0	10	2.0	* 0.173	56.7	LOS E	1.0	6.8	0.98	0.69	0.98	26.1
6	R2	10	2.0	10	2.0	0.173	62.3	LOS E	1.0	6.8	0.98	0.69	0.98	30.9
Approach		35	2.0	35	2.0	0.173	60.7	LOS E	1.0	6.8	0.98	0.69	0.98	25.4
North: Cumberland Highway														
7	L2	5	2.0	5	2.0	0.404	6.9	LOS A	1.0	7.5	0.04	0.04	0.04	62.1
8	T1	1630	2.0	1630	2.0	0.404	0.5	LOS A	1.0	7.5	0.04	0.04	0.04	68.7
9	R2	655	2.0	655	2.0	* 0.894	65.9	LOS E	20.3	144.6	1.00	0.98	1.32	25.4
Approach		2290	2.0	2290	2.0	0.894	19.2	LOS B	20.3	144.6	0.31	0.30	0.40	42.1
West: Victoria Street														
10	L2	205	2.0	205	2.0	0.397	29.8	LOS C	7.3	52.3	0.85	0.78	0.85	37.6
11	T1	5	2.0	5	2.0	* 0.884	65.3	LOS E	8.2	58.2	1.00	0.99	1.45	23.7
12	R2	260	2.0	260	2.0	0.884	70.9	LOS F	8.2	58.2	1.00	0.99	1.45	11.2
Approach		470	2.0	470	2.0	0.884	52.9	LOS D	8.2	58.2	0.94	0.90	1.19	21.8
All Vehicles		5020	2.0	5020	2.0	0.894	22.0	LOS B	30.7	218.7	0.58	0.56	0.67	41.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cumberland Highway Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: 11725 Wetherill Park Distribution Centre Network

Template: Movement Summaries

 Site: 101 [PM EX - Walter Street - Redfern Street (Site Folder: PM Existing)]

 Network: 2 [PM Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Walter Street														
2	T1	137	3.0	137	3.0	0.178	1.5	LOS A	0.8	5.6	0.36	0.31	0.36	55.6
3	R2	116	6.0	116	6.0	0.178	7.6	LOS A	0.8	5.6	0.36	0.31	0.36	53.5
Approach		253	4.4	253	4.4	0.178	4.3	NA	0.8	5.6	0.36	0.31	0.36	54.6
East: Redfern Street														
4	L2	221	6.0	221	6.0	0.203	7.3	LOS A	0.9	6.3	0.46	0.69	0.46	48.4
6	R2	42	6.0	42	6.0	0.065	8.9	LOS A	0.2	1.5	0.51	0.76	0.51	50.4
Approach		263	6.0	263	6.0	0.203	7.6	LOS A	0.9	6.3	0.47	0.70	0.47	48.9
North: Walter Street														
7	L2	47	6.0	47	6.0	0.227	5.7	LOS A	0.0	0.0	0.00	0.07	0.00	57.4
8	T1	384	3.0	384	3.0	0.227	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	58.8
Approach		432	3.3	432	3.3	0.227	0.7	NA	0.0	0.0	0.00	0.07	0.00	58.5
All Vehicles		947	4.4	947	4.4	0.227	3.6	NA	0.9	6.3	0.23	0.31	0.23	54.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [PM EX - Victoria Road - Walter Street (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Victoria Road														
5	T1	600	3.0	600	3.0	0.314	20.4	LOS B	11.1	79.5	0.63	0.55	0.63	48.0
6	R2	58	3.0	58	3.0	* 0.272	46.7	LOS D	3.0	21.8	0.87	0.77	0.87	31.6
Approach		658	3.0	658	3.0	0.314	22.7	LOS B	11.1	79.5	0.65	0.57	0.65	46.6
North: Walter Street														
7	L2	226	3.0	226	3.0	0.599	34.6	LOS C	7.6	54.4	0.87	0.85	0.87	25.0
9	R2	442	3.0	442	3.0	* 0.659	42.1	LOS C	23.2	166.9	0.89	0.85	0.89	32.9
Approach		668	3.0	668	3.0	0.659	39.6	LOS C	23.2	166.9	0.88	0.85	0.88	31.1
West: Victoria Road														
10	L2	205	3.0	205	3.0	0.651	38.2	LOS C	24.8	178.2	0.85	0.79	0.85	28.2
11	T1	800	3.0	800	3.0	* 0.651	32.9	LOS C	25.7	184.8	0.86	0.78	0.86	28.6
Approach		1005	3.0	1005	3.0	0.651	34.0	LOS C	25.7	184.8	0.86	0.78	0.86	28.5
All Vehicles		2332	3.0	2332	3.0	0.659	32.4	LOS C	25.7	184.8	0.81	0.74	0.81	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX - Victoria Road - Wetherill Street (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	205	3.0	205	3.0	0.175	4.9	LOS A	0.7	5.2	0.35	0.54	0.35	45.3
3	R2	126	3.0	126	3.0	0.132	10.8	LOS A	0.5	3.6	0.35	0.69	0.35	38.4
3u	U	2	3.0	2	3.0	0.132	13.2	LOS A	0.5	3.6	0.35	0.69	0.35	38.4
Approach		334	3.0	334	3.0	0.175	7.2	LOS A	0.7	5.2	0.35	0.60	0.35	42.1
East: Victoria Road														
4	L2	132	3.0	132	3.0	0.261	5.3	LOS A	1.3	9.6	0.41	0.52	0.41	48.0
5	T1	442	3.0	442	3.0	0.261	5.3	LOS A	1.3	9.6	0.41	0.52	0.41	47.8
6u	U	5	3.0	5	3.0	0.261	13.5	LOS A	1.3	9.2	0.41	0.52	0.41	47.6
Approach		579	3.0	579	3.0	0.261	5.4	LOS A	1.3	9.6	0.41	0.52	0.41	47.8
West: Victoria Road														
11	T1	595	3.0	595	3.0	0.359	4.2	LOS A	2.3	16.4	0.30	0.42	0.30	53.9
12	R2	358	3.0	358	3.0	0.359	9.9	LOS A	2.2	16.0	0.31	0.59	0.31	51.0
12u	U	26	3.0	26	3.0	0.359	12.3	LOS A	2.2	16.0	0.31	0.59	0.31	51.0
Approach		979	3.0	979	3.0	0.359	6.5	LOS A	2.3	16.4	0.30	0.49	0.30	52.7
All Vehicles		1892	3.0	1892	3.0	0.359	6.3	LOS A	2.3	16.4	0.34	0.52	0.34	50.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [PM EX - Victoria Street - Hassall Street (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C, E

Output Phase Sequence: A, B, C, E

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	11	3.0	11	3.0	* 0.823	67.1	LOS E	18.1	130.2	1.00	0.95	1.16	20.1
2	T1	542	3.0	542	3.0	0.823	61.5	LOS E	18.4	132.2	1.00	0.95	1.15	20.2
Approach		553	3.0	553	3.0	0.823	61.6	LOS E	18.4	132.2	1.00	0.95	1.15	20.2
East: Victoria Street														
4	L2	53	3.0	53	3.0	0.392	39.9	LOS C	12.2	87.6	0.81	0.71	0.81	37.2
5	T1	463	3.0	463	3.0	0.392	34.3	LOS C	12.3	88.5	0.81	0.70	0.81	28.3
6	R2	153	3.0	153	3.0	* 0.856	52.0	LOS D	8.0	57.4	1.00	0.90	1.30	22.4
Approach		668	3.0	668	3.0	0.856	38.8	LOS C	12.3	88.5	0.85	0.74	0.92	27.7
North: Hassall Street														
7	L2	242	3.0	242	3.0	0.834	30.1	LOS C	45.9	329.6	0.89	0.84	0.89	39.5
8	T1	1168	3.0	1168	3.0	0.834	30.9	LOS C	45.9	329.6	0.91	0.86	0.93	37.5
9	R2	116	3.0	116	3.0	0.834	44.5	LOS D	35.9	257.7	0.93	0.87	0.97	22.3
Approach		1526	3.0	1526	3.0	0.834	31.8	LOS C	45.9	329.6	0.91	0.86	0.92	36.9
West: Victoria Street														
10	L2	253	3.0	253	3.0	* 0.837	62.9	LOS E	23.8	170.6	1.00	0.94	1.14	16.2
11	T1	474	3.0	474	3.0	0.837	57.4	LOS E	23.9	171.9	1.00	0.96	1.14	28.5
12	R2	11	3.0	11	3.0	0.056	52.6	LOS D	0.6	4.0	0.84	0.69	0.84	29.5
Approach		737	3.0	737	3.0	0.837	59.2	LOS E	23.9	171.9	1.00	0.95	1.13	25.0
All Vehicles		3484	3.0	3484	3.0	0.856	43.7	LOS D	45.9	329.6	0.93	0.87	1.00	29.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX - Hassall Street - Redfern Street (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	53	6.0	53	6.0	0.679	46.9	LOS D	21.8	157.2	0.91	0.80	0.91	32.9
2	T1	763	3.0	763	3.0	* 0.679	30.4	LOS C	21.8	157.2	0.78	0.68	0.78	38.0
Approach		816	3.2	816	3.2	0.679	31.5	LOS C	21.8	157.2	0.79	0.69	0.79	37.7
North: Hassall Street														
8	T1	1237	3.0	1237	3.0	0.513	8.6	LOS A	20.6	148.6	0.48	0.45	0.48	46.3
9	R2	111	6.0	111	6.0	* 0.513	19.0	LOS B	20.6	148.6	0.61	0.57	0.61	47.1
Approach		1347	3.2	1347	3.2	0.513	9.5	LOS A	20.6	148.6	0.49	0.46	0.49	46.5
West: Redfern Street														
10	L2	168	6.0	168	6.0	0.160	18.2	LOS B	4.7	34.6	0.48	0.70	0.48	45.1
12	R2	111	6.0	111	6.0	* 0.672	70.6	LOS F	7.2	52.8	1.00	0.82	1.08	18.2
Approach		279	6.0	279	6.0	0.672	39.0	LOS C	7.2	52.8	0.69	0.75	0.72	33.0
All Vehicles		2442	3.5	2442	3.5	0.679	20.2	LOS B	21.8	157.2	0.61	0.57	0.62	40.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX - Wetherill Street - The Horsely Drive (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F*, G

Output Phase Sequence: A, D, E, G

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	147	2.0	147	2.0	0.187	25.5	LOS B	5.3	38.1	0.63	0.72	0.63	41.9
2	T1	258	2.0	258	2.0	0.512	58.0	LOS E	7.8	55.5	0.98	0.78	0.98	21.0
3	R2	105	2.0	105	2.0	0.747	74.3	LOS F	7.1	50.2	1.00	0.86	1.17	26.8
Approach		511	2.0	511	2.0	0.747	52.0	LOS D	7.8	55.5	0.88	0.78	0.92	28.0
East: The Horsely Drive														
4	L2	253	2.0	253	2.0	* 0.948	54.1	LOS D	60.5	430.5	1.00	1.05	1.19	32.4
5	T1	1411	2.0	1411	2.0	0.948	48.8	LOS D	60.5	430.5	0.98	1.04	1.17	33.2
6	R2	26	2.0	26	2.0	0.098	57.7	LOS E	1.5	10.4	0.90	0.71	0.90	21.0
Approach		1689	2.0	1689	2.0	0.948	49.8	LOS D	60.5	430.5	0.98	1.04	1.17	32.9
North: Wetherill Street														
7	L2	26	2.0	26	2.0	0.711	70.7	LOS F	11.4	80.8	1.00	0.89	1.06	24.5
8	T1	337	2.0	337	2.0	* 0.711	62.9	LOS E	11.4	80.8	1.00	0.87	1.06	25.3
9	R2	126	2.0	126	2.0	0.897	83.0	LOS F	9.2	65.3	1.00	0.98	1.44	21.2
Approach		489	2.0	489	2.0	0.897	68.5	LOS E	11.4	80.8	1.00	0.90	1.16	24.1
West: The Horsely Drive														
10	L2	47	2.0	47	2.0	0.409	25.1	LOS B	11.4	81.2	0.54	0.51	0.54	36.5
11	T1	679	2.0	679	2.0	0.409	19.9	LOS B	11.7	83.1	0.55	0.49	0.55	45.1
12	R2	258	2.0	258	2.0	* 0.964	94.8	LOS F	21.0	149.5	1.00	1.07	1.52	23.4
Approach		984	2.0	984	2.0	0.964	39.8	LOS C	21.0	149.5	0.66	0.65	0.80	35.9
All Vehicles		3674	2.0	3674	2.0	0.964	49.9	LOS D	60.5	430.5	0.89	0.88	1.04	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\11725 Wetherill Park Distribution Centre Network.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: Cowpasture Road Networks

Template: Movement Summaries

 Site: 101 [PM EX - The Horsley Drive - Cowpasture Road (Site Folder: PM Existing)]

 Network: 2 [PM Existing (Network Folder: Existing)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cowpasture Road														
1	L2	21	2.0	21	2.0	0.733	5.8	LOS A	7.1	50.2	0.50	0.70	0.66	52.8
2	T1	747	2.0	747	2.0	0.733	8.8	LOS A	7.6	54.4	0.58	0.76	0.76	46.4
3	R2	589	2.0	589	2.0	0.733	14.3	LOS A	7.6	54.4	0.88	1.00	1.13	52.2
3u	U	5	2.0	5	2.0	0.733	16.9	LOS B	7.6	54.4	0.88	1.00	1.13	53.9
Approach		1363	2.0	1363	2.0	0.733	11.2	LOS A	7.6	54.4	0.71	0.87	0.92	49.9
East: The Horsley Drive														
4	L2	505	2.0	505	2.0	0.701	14.8	LOS B	12.0	85.8	1.00	1.03	1.39	47.8
5	T1	5	2.0	5	2.0	0.701	14.5	LOS B	12.0	85.8	1.00	1.03	1.39	49.4
6	R2	621	2.0	621	2.0	0.701	23.6	LOS B	12.0	85.8	1.00	1.10	1.45	36.5
6u	U	5	2.0	5	2.0	0.701	26.9	LOS B	10.3	73.2	1.00	1.13	1.46	46.8
Approach		1137	2.0	1137	2.0	0.701	19.6	LOS B	12.0	85.8	1.00	1.07	1.42	42.5
North: The Horsley Drive														
7	L2	668	2.0	668	2.0	0.743	11.7	LOS A	10.0	71.5	0.80	0.95	1.10	47.0
8	T1	784	2.0	784	2.0	0.743	9.1	LOS A	10.0	71.5	0.77	0.84	1.01	52.3
9	R2	5	2.0	5	2.0	0.743	16.0	LOS B	10.0	71.5	0.77	0.84	1.01	53.2
Approach		1458	2.0	1458	2.0	0.743	10.4	LOS A	10.0	71.5	0.78	0.89	1.05	49.8
West: Park Access														
10	L2	11	2.0	11	2.0	0.027	9.5	LOS A	0.2	1.1	0.86	0.76	0.86	46.4
11	T1	5	2.0	5	2.0	0.027	9.0	LOS A	0.2	1.1	0.86	0.76	0.86	54.2
12	R2	11	2.0	11	2.0	0.027	17.9	LOS B	0.1	1.0	0.82	0.85	0.82	49.3
Approach		26	2.0	26	2.0	0.027	12.8	LOS A	0.2	1.1	0.85	0.80	0.85	49.7
All Vehicles		3984	2.0	3984	2.0	0.743	13.3	LOS A	12.0	85.8	0.82	0.93	1.11	47.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

 **Site: 101 [PM EX - The Horsley Drive - Cowpasture Road (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Horsley Drive														
2	T1	1200	2.0	1200	2.0	0.628	17.9	LOS B	21.7	154.3	0.75	0.67	0.75	41.7
3	R2	168	2.0	168	2.0	* 0.657	58.7	LOS E	4.4	31.0	1.00	0.81	1.12	24.2
Approach		1368	2.0	1368	2.0	0.657	22.9	LOS B	21.7	154.3	0.78	0.69	0.80	38.3
East: Cowpasture Road														
4	L2	442	2.0	442	2.0	0.479	12.8	LOS A	10.1	71.6	0.57	0.74	0.57	42.6
6	R2	895	2.0	895	2.0	* 0.679	34.9	LOS C	18.6	132.2	0.91	0.85	0.91	37.8
Approach		1337	2.0	1337	2.0	0.679	27.6	LOS B	18.6	132.2	0.80	0.81	0.80	38.7
North: The Horsley Drive														
7	L2	200	2.0	200	2.0	0.071	6.4	LOS A	0.5	3.7	0.18	0.60	0.18	53.5
8	T1	1011	2.0	1011	2.0	* 0.673	27.2	LOS B	20.4	145.2	0.89	0.78	0.89	32.1
Approach		1211	2.0	1211	2.0	0.673	23.7	LOS B	20.4	145.2	0.77	0.75	0.77	36.1
All Vehicles		3916	2.0	3916	2.0	0.679	24.8	LOS B	21.7	154.3	0.78	0.75	0.79	37.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cowpasture Road Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes



Project: Cumberland Highway Networks

Template: Movement Summaries



Site: 101 [PM EX - Cumberland Highway - The Horsely Drive (Site Folder: PM Existing)]

Network: 2 [PM Existing (Network Folder: Existing)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, B1*, C, D, E, F1*, F2*

Output Phase Sequence: A, B*, C, D, E

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cumberland Highway														
1	L2	50	2.0	50	2.0	0.657	33.6	LOS C	15.3	109.0	0.75	0.71	0.75	42.9
2	T1	1180	2.0	1180	2.0	0.657	23.7	LOS B	15.4	109.4	0.75	0.67	0.75	37.0
3	R2	115	2.0	115	2.0	0.864	70.8	LOS F	7.0	49.7	1.00	0.94	1.42	28.5
Approach		1345	2.0	1345	2.0	0.864	28.1	LOS B	15.4	109.4	0.77	0.69	0.80	35.7
East: The Horsely Drive														
4	L2	45	2.0	45	2.0	0.794	46.9	LOS D	23.3	165.7	0.98	0.92	1.06	36.1
5	T1	455	2.0	455	2.0	0.794	43.3	LOS D	23.3	165.7	0.99	0.92	1.08	34.9
6	R2	220	2.0	220	2.0	* 0.794	64.3	LOS E	8.5	60.4	1.00	0.91	1.24	19.9
Approach		720	2.0	720	2.0	0.794	49.9	LOS D	23.3	165.7	0.99	0.92	1.13	30.8
North: Cumberland Highway														
7	L2	705	2.0	705	2.0	0.536	10.7	LOS A	10.4	74.3	0.36	0.70	0.36	49.5
8	T1	2280	2.0	2280	2.0	* 0.904	18.4	LOS B	36.7	261.5	0.68	0.70	0.78	47.4
9	R2	195	2.0	195	2.0	0.689	32.8	LOS C	5.8	41.0	1.00	0.83	1.05	35.0
Approach		3180	2.0	3180	2.0	0.904	17.6	LOS B	36.7	261.5	0.63	0.71	0.71	46.8
West: The Horsely Drive														
10	L2	75	2.0	75	2.0	* 0.846	58.8	LOS E	14.1	100.4	1.00	0.99	1.25	21.9
11	T1	415	2.0	415	2.0	* 0.846	55.5	LOS D	14.1	100.4	1.00	0.98	1.25	31.4
Approach		490	2.0	490	2.0	0.846	56.0	LOS D	14.1	100.4	1.00	0.98	1.25	30.3
All Vehicles		5735	2.0	5735	2.0	0.904	27.4	LOS B	36.7	261.5	0.74	0.75	0.83	39.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX - Cumberland Highway - Victoria Street (Site Folder: PM Existing)]**

 **Network: 2 [PM Existing (Network Folder: Existing)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C, D, F1*

Output Phase Sequence: A, C, D, F1*

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cumberland Highway														
1	L2	140	2.0	140	2.0	* 0.965	57.8	LOS E	32.1	228.8	1.00	1.08	1.30	21.7
2	T1	1335	2.0	1335	2.0	0.965	51.9	LOS D	32.1	228.8	1.00	1.07	1.30	29.8
Approach		1475	2.0	1475	2.0	0.965	52.5	LOS D	32.1	228.8	1.00	1.07	1.30	29.1
East: Victoria Street														
4	L2	15	2.0	15	2.0	0.173	62.3	LOS E	0.9	6.7	0.98	0.69	0.98	20.1
5	T1	10	2.0	10	2.0	* 0.173	56.7	LOS E	1.0	6.8	0.98	0.69	0.98	26.1
6	R2	10	2.0	10	2.0	0.173	62.3	LOS E	1.0	6.8	0.98	0.69	0.98	30.9
Approach		35	2.0	35	2.0	0.173	60.7	LOS E	1.0	6.8	0.98	0.69	0.98	25.4
North: Cumberland Highway														
7	L2	5	2.0	5	2.0	0.738	7.3	LOS A	3.3	23.8	0.08	0.08	0.08	61.7
8	T1	2475	2.0	2475	2.0	0.738	1.2	LOS A	4.6	33.1	0.10	0.10	0.10	67.0
9	R2	910	2.0	910	2.0	* 0.971	84.3	LOS F	33.6	239.5	1.00	1.08	1.52	21.8
Approach		3390	2.0	3390	2.0	0.971	23.5	LOS B	33.6	239.5	0.34	0.36	0.48	38.8
West: Victoria Street														
10	L2	460	2.0	460	2.0	0.542	19.5	LOS B	12.6	89.8	0.77	0.81	0.77	43.8
11	T1	5	2.0	5	2.0	0.949	71.9	LOS F	24.1	171.3	1.00	1.07	1.48	22.4
12	R2	690	2.0	690	2.0	0.949	77.5	LOS F	24.1	171.3	1.00	1.07	1.48	10.4
Approach		1155	2.0	1155	2.0	0.949	54.4	LOS D	24.1	171.3	0.91	0.97	1.20	20.7
All Vehicles		6055	2.0	6055	2.0	0.971	36.7	LOS C	33.6	239.5	0.62	0.65	0.82	31.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cumberland Highway Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 **Project: 11725 Wetherill Park Distribution Centre Network**
(Sent to TfNSW) 210806

Template: Movement Summaries

 **Site: 101 [AM EX + Dev - Walter Street - Redfern Street (Site Folder: AM Existing + Development)]**

 **Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]**

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Walter Street														
2	T1	300	3.0	300	3.0	0.394	1.9	LOS A	2.5	21.6	0.35	0.27	0.39	55.7
3	R2	216	23.0	216	23.0	0.394	8.4	LOS A	2.5	21.6	0.35	0.27	0.39	52.3
Approach		516	11.4	516	11.4	0.394	4.6	NA	2.5	21.6	0.35	0.27	0.39	54.3
East: Redfern Street														
4	L2	184	26.0	184	26.0	0.188	7.2	LOS A	0.8	9.1	0.37	0.61	0.37	48.9
6	R2	42	6.0	42	6.0	0.074	9.9	LOS A	0.2	1.8	0.56	0.81	0.56	49.7
Approach		226	22.3	226	22.3	0.188	7.7	LOS A	0.8	9.1	0.41	0.65	0.41	49.1
North: Walter Street														
7	L2	74	6.0	74	6.0	0.143	5.6	LOS A	0.0	0.0	0.00	0.16	0.00	56.7
8	T1	195	3.0	195	3.0	0.143	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	57.2
Approach		268	3.8	268	3.8	0.143	1.6	NA	0.0	0.0	0.00	0.16	0.00	57.0
All Vehicles		1011	11.8	1011	11.8	0.394	4.5	NA	2.5	21.6	0.27	0.32	0.29	53.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [AM EX + Dev - Victoria Road - Walter Street (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Victoria Road														
5	T1	853	3.0	853	3.0	0.437	16.5	LOS B	13.0	93.3	0.68	0.59	0.68	49.9
6	R2	205	3.0	205	3.0	* 0.598	42.1	LOS C	9.0	64.8	0.96	0.90	0.96	33.1
Approach		1058	3.0	1058	3.0	0.598	21.4	LOS B	13.0	93.3	0.73	0.65	0.73	46.8
North: Walter Street														
7	L2	147	3.0	147	3.0	0.229	19.0	LOS B	3.3	24.0	0.71	0.72	0.71	33.9
9	R2	279	16.0	279	16.0	0.577	36.7	LOS C	11.5	109.6	0.89	0.83	0.89	34.5
Approach		426	11.5	426	11.5	0.577	30.6	LOS C	11.5	109.6	0.83	0.79	0.83	34.4
West: Victoria Road														
10	L2	416	15.0	416	15.0	* 0.528	38.3	LOS C	21.7	195.2	0.96	0.88	0.96	27.3
11	T1	411	3.0	411	3.0	0.528	30.0	LOS C	21.7	195.2	0.88	0.77	0.88	30.0
Approach		826	9.0	826	9.0	0.528	34.1	LOS C	21.7	195.2	0.92	0.83	0.92	28.6
All Vehicles		2311	6.7	2311	6.7	0.598	27.7	LOS B	21.7	195.2	0.82	0.74	0.82	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [AM EX + Dev - Victoria Road - Wetherill Street (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	432	3.0	432	3.0	0.368	5.4	LOS A	1.7	12.5	0.40	0.59	0.40	44.8
3	R2	237	3.0	237	3.0	0.254	11.3	LOS A	1.0	7.3	0.39	0.73	0.39	38.0
3u	U	1	3.0	1	3.0	0.254	13.7	LOS A	1.0	7.3	0.39	0.73	0.39	38.0
Approach		669	3.0	669	3.0	0.368	7.5	LOS A	1.7	12.5	0.40	0.64	0.40	41.8
East: Victoria Road														
4	L2	47	3.0	47	3.0	0.227	4.0	LOS A	1.1	7.6	0.21	0.39	0.21	50.0
5	T1	568	3.0	568	3.0	0.227	4.0	LOS A	1.1	7.6	0.21	0.39	0.21	49.8
6u	U	5	3.0	5	3.0	0.227	12.1	LOS A	1.0	7.4	0.22	0.39	0.22	49.7
Approach		621	3.0	621	3.0	0.227	4.0	LOS A	1.1	7.6	0.21	0.39	0.21	49.8
West: Victoria Road														
11	T1	395	3.0	395	3.0	0.206	4.6	LOS A	1.2	8.7	0.37	0.48	0.37	53.4
12	R2	89	3.0	89	3.0	0.206	10.3	LOS A	1.2	8.4	0.38	0.56	0.38	52.1
12u	U	21	3.0	21	3.0	0.206	12.7	LOS A	1.2	8.4	0.38	0.56	0.38	52.1
Approach		505	3.0	505	3.0	0.206	5.9	LOS A	1.2	8.7	0.38	0.49	0.38	53.1
All Vehicles		1796	3.0	1796	3.0	0.368	5.9	LOS A	1.7	12.5	0.33	0.51	0.33	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [AM EX + Dev - Victoria Street - Hassall Street (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C, E

Output Phase Sequence: A, B, C, E

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	42	3.0	42	3.0	* 0.715	32.1	LOS C	22.4	160.8	0.90	0.80	0.90	32.2
2	T1	1068	3.0	1068	3.0	0.715	26.5	LOS B	22.8	163.9	0.90	0.80	0.90	32.3
Approach		1111	3.0	1111	3.0	0.715	26.7	LOS B	22.8	163.9	0.90	0.80	0.90	32.3
East: Victoria Street														
4	L2	37	3.0	37	3.0	0.373	33.2	LOS C	8.7	62.5	0.81	0.70	0.81	40.1
5	T1	432	3.0	432	3.0	0.373	27.6	LOS B	8.8	63.0	0.81	0.69	0.81	31.5
6	R2	142	7.0	142	7.0	* 0.726	39.2	LOS C	5.7	44.9	1.00	0.84	1.14	26.5
Approach		611	3.9	611	3.9	0.726	30.6	LOS C	8.8	63.0	0.85	0.73	0.89	31.0
North: Hassall Street														
7	L2	153	6.0	153	6.0	0.583	24.1	LOS B	22.2	162.8	0.82	0.76	0.82	42.6
8	T1	453	3.0	453	3.0	0.583	18.4	LOS B	22.2	162.8	0.82	0.76	0.82	43.8
9	R2	105	3.0	105	3.0	0.724	58.4	LOS E	5.4	38.7	1.00	0.84	1.14	17.3
Approach		711	3.6	711	3.6	0.724	25.6	LOS B	22.2	162.8	0.85	0.78	0.87	39.3
West: Victoria Street														
10	L2	379	3.0	379	3.0	* 0.719	41.0	LOS C	17.0	122.3	0.96	0.86	0.98	21.3
11	T1	263	3.0	263	3.0	0.688	41.5	LOS C	12.3	88.5	0.98	0.84	1.02	33.6
12	R2	5	3.0	5	3.0	0.032	45.8	LOS D	0.2	1.6	0.88	0.66	0.88	31.5
Approach		647	3.0	647	3.0	0.719	41.2	LOS C	17.0	122.3	0.97	0.85	1.00	27.6
All Vehicles		3079	3.3	3079	3.3	0.726	30.3	LOS C	22.8	163.9	0.89	0.79	0.91	32.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [AM EX + Dev - Hassall Street - Redfern Street (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	158	9.0	158	9.0	0.635	23.0	LOS B	21.8	160.4	0.78	0.73	0.78	43.1
2	T1	1111	3.0	1111	3.0	* 0.635	9.9	LOS A	21.8	160.4	0.49	0.46	0.49	50.2
Approach		1268	3.7	1268	3.7	0.635	11.5	LOS A	21.8	160.4	0.53	0.49	0.53	49.2
North: Hassall Street														
8	T1	684	3.0	684	3.0	0.410	5.7	LOS A	9.7	69.7	0.41	0.38	0.41	50.1
9	R2	126	14.0	126	14.0	* 0.410	23.8	LOS B	7.6	62.4	0.80	0.76	0.80	43.0
Approach		811	4.7	811	4.7	0.410	8.5	LOS A	9.7	69.7	0.47	0.44	0.47	48.0
West: Redfern Street														
10	L2	111	16.0	111	16.0	0.204	30.3	LOS C	3.8	34.7	0.74	0.75	0.74	38.9
12	R2	47	17.0	47	17.0	* 0.518	59.5	LOS E	2.5	23.0	1.00	0.76	1.03	20.5
Approach		158	16.3	158	16.3	0.518	39.1	LOS C	3.8	34.7	0.82	0.75	0.83	33.6
All Vehicles		2237	5.0	2237	5.0	0.635	12.4	LOS A	21.8	160.4	0.53	0.49	0.53	47.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [AM EX + Dev - Wetherill Street - The Horsely Drive (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F*, G

Output Phase Sequence: A, D, E, G

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	395	2.0	395	2.0	0.355	12.4	LOS A	8.9	63.1	0.47	0.70	0.47	49.2
2	T1	537	2.0	537	2.0	* 0.881	64.2	LOS E	17.6	125.3	1.00	1.02	1.29	19.6
3	R2	137	2.0	137	2.0	0.897	77.4	LOS F	9.2	65.8	1.00	0.99	1.45	26.2
Approach		1068	2.0	1068	2.0	0.897	46.8	LOS D	17.6	125.3	0.80	0.90	1.01	29.6
East: The Horsely Drive														
4	L2	111	2.0	111	2.0	0.758	37.1	LOS C	25.5	181.4	0.86	0.78	0.86	38.4
5	T1	942	2.0	942	2.0	0.758	31.6	LOS C	25.5	181.4	0.84	0.76	0.85	39.4
6	R2	63	2.0	63	2.0	0.188	50.6	LOS D	3.2	22.5	0.88	0.75	0.88	22.9
Approach		1116	2.0	1116	2.0	0.758	33.2	LOS C	25.5	181.4	0.85	0.76	0.85	38.5
North: Wetherill Street														
7	L2	26	2.0	26	2.0	0.161	44.7	LOS D	2.6	18.8	0.87	0.74	0.87	31.2
8	T1	79	2.0	79	2.0	0.161	44.2	LOS D	2.6	18.8	0.89	0.70	0.89	30.3
9	R2	32	2.0	32	2.0	0.207	63.0	LOS E	1.8	12.8	0.97	0.72	0.97	25.0
Approach		137	2.0	137	2.0	0.207	48.6	LOS D	2.6	18.8	0.90	0.72	0.90	29.1
West: The Horsely Drive														
10	L2	68	2.0	68	2.0	* 0.905	50.7	LOS D	40.1	285.8	0.98	1.00	1.13	24.4
11	T1	1116	2.0	1116	2.0	0.905	45.1	LOS D	40.1	285.8	0.92	0.95	1.09	34.5
12	R2	300	2.0	300	2.0	* 0.894	70.4	LOS E	20.1	142.9	1.00	0.99	1.31	27.7
Approach		1484	2.0	1484	2.0	0.905	50.5	LOS D	40.1	285.8	0.94	0.96	1.13	32.5
All Vehicles		3805	2.0	3805	2.0	0.905	44.3	LOS D	40.1	285.8	0.87	0.87	1.01	33.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\11725 Wetherill Park Distribution Centre Network (Sent to TfNSW) 210806.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: Cowpasture Road Networks

Template: Movement Summaries

 Site: 101 [AM EX + Dev - The Horsley Drive - Cowpasture Road (Site Folder: AM Existing + Development)]

 Network: 5 [AM Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Cowpasture Road														
1	L2	11	2.0	11	2.0	0.870	8.5	LOS A	12.9	91.5	0.80	1.02	1.25	50.7
2	T1	1289	2.0	1289	2.0	0.870	11.4	LOS A	13.2	94.0	0.84	1.04	1.29	43.7
3	R2	600	2.0	600	2.0	0.870	16.7	LOS B	13.2	94.0	0.91	1.09	1.37	51.7
3u	U	5	2.0	5	2.0	0.870	19.2	LOS B	13.2	94.0	0.91	1.09	1.37	53.3
Approach		1905	2.0	1905	2.0	0.870	13.1	LOS A	13.2	94.0	0.86	1.06	1.31	47.2
East: The Horsley Drive														
4	L2	295	2.0	295	2.0	0.289	4.0	LOS A	2.3	16.1	0.50	0.54	0.50	53.9
5	T1	11	2.0	11	2.0	0.289	3.7	LOS A	2.3	16.1	0.50	0.54	0.50	55.9
6	R2	489	2.0	489	2.0	0.289	10.6	LOS A	2.3	16.1	0.52	0.61	0.52	45.8
6u	U	5	2.0	5	2.0	0.289	13.2	LOS A	2.1	15.0	0.52	0.64	0.52	54.8
Approach		800	2.0	800	2.0	0.289	8.1	LOS A	2.3	16.1	0.51	0.59	0.51	49.8
North: The Horsley Drive														
7	L2	1095	2.0	1095	2.0	0.690	9.1	LOS A	8.2	58.7	0.75	0.83	0.93	49.5
8	T1	237	2.0	237	2.0	0.690	9.9	LOS A	7.2	51.1	0.77	0.88	0.99	51.0
9	R2	5	2.0	5	2.0	0.690	16.8	LOS B	7.2	51.1	0.77	0.88	0.99	51.9
Approach		1337	2.0	1337	2.0	0.690	9.3	LOS A	8.2	58.7	0.75	0.84	0.94	49.8
West: Park Access														
10	L2	5	2.0	5	2.0	0.014	13.5	LOS A	0.1	0.7	0.97	0.76	0.97	42.0
11	T1	1	2.0	1	2.0	0.008	14.8	LOS B	0.0	0.3	0.91	0.76	0.91	48.5
12	R2	1	2.0	1	2.0	0.008	21.4	LOS B	0.0	0.3	0.91	0.76	0.91	49.1
Approach		7	2.0	7	2.0	0.014	14.8	LOS B	0.1	0.7	0.95	0.76	0.95	44.8
All Vehicles		4049	2.0	4049	2.0	0.870	10.8	LOS A	13.2	94.0	0.76	0.89	1.03	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [AM EX + Dev - The Horsley Drive - Cowpasture Road (Site Folder: AM Existing + Development)]

Network: 5 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Horsley Drive														
2	T1	1168	2.0	1168	2.0	0.422	6.0	LOS A	11.3	80.1	0.43	0.39	0.43	52.4
3	R2	621	2.0	621	2.0	* 0.707	44.5	LOS D	14.3	102.2	0.97	0.86	1.01	28.2
Approach		1789	2.0	1789	2.0	0.707	19.3	LOS B	14.3	102.2	0.62	0.55	0.63	40.4
East: Cowpasture Road														
4	L2	163	2.0	163	2.0	0.191	12.0	LOS A	2.9	20.4	0.45	0.68	0.45	43.5
6	R2	400	2.0	400	2.0	* 0.683	50.5	LOS D	9.7	68.8	1.00	0.85	1.05	32.6
Approach		563	2.0	563	2.0	0.683	39.3	LOS C	9.7	68.8	0.84	0.80	0.88	34.0
North: The Horsley Drive														
7	L2	753	2.0	753	2.0	0.309	9.1	LOS A	5.3	37.9	0.38	0.67	0.38	51.5
8	T1	1174	2.0	1174	2.0	* 0.726	26.0	LOS B	23.9	169.9	0.90	0.80	0.90	32.7
Approach		1926	2.0	1926	2.0	0.726	19.4	LOS B	23.9	169.9	0.70	0.75	0.70	41.1
All Vehicles		4279	2.0	4279	2.0	0.726	22.0	LOS B	23.9	169.9	0.68	0.67	0.69	39.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cowpasture Road Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes



Project: Cumberland Highway Networks

Template: Movement Summaries



Site: 101 [AM EX + Dev - Cumberland Highway - The Horsely Drive (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, B1*, C, D, E, F1*, F2*

Output Phase Sequence: A, C, D, E

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Cumberland Highway														
1	L2	110	2.0	110	2.0	0.881	37.4	LOS C	30.8	219.5	0.88	0.92	0.99	41.0
2	T1	1750	2.0	1750	2.0	* 0.881	25.9	LOS B	30.8	219.5	0.86	0.86	0.96	35.3
3	R2	70	2.0	70	2.0	0.421	59.9	LOS E	3.7	26.5	0.99	0.76	0.99	31.2
Approach		1930	2.0	1930	2.0	0.881	27.8	LOS B	30.8	219.5	0.87	0.86	0.96	35.5
East: The Horsely Drive														
4	L2	30	2.0	30	2.0	0.831	45.4	LOS D	29.4	209.5	0.98	0.95	1.08	36.7
5	T1	590	2.0	590	2.0	0.831	41.9	LOS C	29.4	209.5	0.98	0.95	1.10	35.5
6	R2	285	2.0	285	2.0	* 0.831	64.1	LOS E	11.0	78.4	1.00	0.95	1.28	20.0
Approach		905	2.0	905	2.0	0.831	49.0	LOS D	29.4	209.5	0.99	0.95	1.15	31.0
North: Cumberland Highway														
7	L2	430	2.0	430	2.0	0.333	10.9	LOS A	7.0	49.8	0.40	0.70	0.40	49.3
8	T1	1325	2.0	1325	2.0	0.574	15.3	LOS B	12.7	90.6	0.58	0.51	0.58	50.1
9	R2	145	2.0	145	2.0	0.871	69.8	LOS E	8.8	62.8	1.00	0.95	1.40	23.6
Approach		1900	2.0	1900	2.0	0.871	18.4	LOS B	12.7	90.6	0.57	0.58	0.60	46.0
West: The Horsely Drive														
10	L2	195	2.0	195	2.0	* 0.850	49.0	LOS D	15.0	106.9	1.00	0.98	1.23	24.0
11	T1	390	2.0	390	2.0	* 0.850	52.1	LOS D	16.5	117.4	1.00	0.98	1.23	32.2
Approach		585	2.0	585	2.0	0.850	51.1	LOS D	16.5	117.4	1.00	0.98	1.23	30.1
All Vehicles		5320	2.0	5320	2.0	0.881	30.6	LOS C	30.8	219.5	0.80	0.79	0.89	36.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [AM EX + Dev - Cumberland Highway - Victoria Street (Site Folder: AM Existing + Development)]

Network: 3 [AM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C, D, F1*

Output Phase Sequence: A, C, D, F1*

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cumberland Highway														
1	L2	195	2.0	195	2.0	0.885	26.3	LOS B	33.4	238.1	0.81	0.83	0.90	34.8
2	T1	2035	2.0	2035	2.0	* 0.885	19.9	LOS B	33.5	238.3	0.82	0.81	0.90	45.8
Approach		2230	2.0	2230	2.0	0.885	20.4	LOS B	33.5	238.3	0.82	0.82	0.90	45.0
East: Victoria Street														
4	L2	15	2.0	15	2.0	0.173	62.3	LOS E	0.9	6.7	0.98	0.69	0.98	20.1
5	T1	10	2.0	10	2.0	* 0.173	56.7	LOS E	1.0	6.8	0.98	0.69	0.98	26.1
6	R2	10	2.0	10	2.0	0.173	62.3	LOS E	1.0	6.8	0.98	0.69	0.98	30.9
Approach		35	2.0	35	2.0	0.173	60.7	LOS E	1.0	6.8	0.98	0.69	0.98	25.4
North: Cumberland Highway														
7	L2	5	2.0	5	2.0	0.404	6.9	LOS A	1.0	7.5	0.04	0.04	0.04	62.1
8	T1	1630	2.0	1630	2.0	0.404	0.5	LOS A	1.0	7.5	0.04	0.04	0.04	68.7
9	R2	670	2.0	670	2.0	* 0.875	62.5	LOS E	20.1	143.4	1.00	0.96	1.26	26.2
Approach		2305	2.0	2305	2.0	0.875	18.5	LOS B	20.1	143.4	0.32	0.30	0.39	42.7
West: Victoria Street														
10	L2	210	2.0	210	2.0	0.394	29.2	LOS C	7.4	52.9	0.84	0.78	0.84	38.0
11	T1	5	2.0	5	2.0	* 0.917	69.4	LOS E	8.8	62.6	1.00	1.04	1.55	22.9
12	R2	270	2.0	270	2.0	0.917	75.0	LOS F	8.8	62.6	1.00	1.04	1.55	10.7
Approach		485	2.0	485	2.0	0.917	55.1	LOS D	8.8	62.6	0.93	0.93	1.24	21.2
All Vehicles		5055	2.0	5055	2.0	0.917	23.2	LOS B	33.5	238.3	0.60	0.59	0.70	40.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cumberland Highway Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 **Project: 11725 Wetherill Park Distribution Centre Network**
(Sent to TfNSW) 210806

Template: Movement Summaries

 **Site: 101 [PM EX + Dev - Walter Street - Redfern Street (Site Folder: PM Existing + Development)]**

 **Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]**

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Walter Street														
2	T1	137	3.0	137	3.0	0.310	4.4	LOS A	1.8	17.2	0.57	0.41	0.64	52.9
3	R2	153	24.0	153	24.0	0.310	10.8	LOS A	1.8	17.2	0.57	0.41	0.64	49.7
Approach		289	14.1	289	14.1	0.310	7.8	NA	1.8	17.2	0.57	0.41	0.64	51.1
East: Redfern Street														
4	L2	274	13.0	274	13.0	0.325	8.9	LOS A	1.6	15.2	0.56	0.80	0.62	46.8
6	R2	42	6.0	42	6.0	0.073	9.7	LOS A	0.2	1.7	0.55	0.81	0.55	49.8
Approach		316	12.1	316	12.1	0.325	9.1	LOS A	1.6	15.2	0.56	0.80	0.61	47.5
North: Walter Street														
7	L2	47	6.0	47	6.0	0.244	5.7	LOS A	0.0	0.0	0.00	0.06	0.00	57.5
8	T1	416	3.0	416	3.0	0.244	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	58.8
Approach		463	3.3	463	3.3	0.244	0.6	NA	0.0	0.0	0.00	0.06	0.00	58.6
All Vehicles		1068	8.8	1068	8.8	0.325	5.1	NA	1.8	17.2	0.32	0.37	0.35	52.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [PM EX + Dev - Victoria Road - Walter Street (Site Folder: PM Existing + Development)]

Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Victoria Road														
5	T1	642	3.0	642	3.0	0.357	18.0	LOS B	9.9	71.0	0.68	0.59	0.68	49.2
6	R2	58	3.0	58	3.0	* 0.287	45.7	LOS D	2.6	18.8	0.94	0.75	0.94	31.9
Approach		700	3.0	700	3.0	0.357	20.3	LOS B	9.9	71.0	0.70	0.60	0.70	47.8
North: Walter Street														
7	L2	274	3.0	274	3.0	0.747	35.3	LOS C	8.8	63.0	0.97	0.91	1.06	24.6
9	R2	479	8.0	479	8.0	0.836	43.8	LOS D	23.9	201.8	0.97	0.93	1.11	32.3
Approach		753	6.2	753	6.2	0.836	40.7	LOS C	23.9	201.8	0.97	0.92	1.10	30.3
West: Victoria Road														
10	L2	242	15.0	242	15.0	* 0.852	44.4	LOS D	24.7	207.5	0.94	0.95	1.11	25.7
11	T1	832	3.0	832	3.0	0.852	39.2	LOS C	29.0	208.5	0.98	0.98	1.13	26.1
Approach		1074	5.7	1074	5.7	0.852	40.3	LOS C	29.0	208.5	0.97	0.97	1.12	26.0
All Vehicles		2526	5.1	2526	5.1	0.852	34.9	LOS C	29.0	208.5	0.89	0.86	1.00	34.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX + Dev - Victoria Road - Wetherill Street (Site Folder: PM Existing + Development)]**

 **Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]**

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	205	3.0	205	3.0	0.178	5.1	LOS A	0.8	5.4	0.36	0.55	0.36	45.1
3	R2	126	3.0	126	3.0	0.135	11.0	LOS A	0.5	3.8	0.36	0.70	0.36	38.3
3u	U	2	3.0	2	3.0	0.135	13.3	LOS A	0.5	3.8	0.36	0.70	0.36	38.3
Approach		334	3.0	334	3.0	0.178	7.3	LOS A	0.8	5.4	0.36	0.61	0.36	41.9
East: Victoria Road														
4	L2	132	3.0	132	3.0	0.272	5.7	LOS A	1.5	10.9	0.45	0.54	0.45	47.6
5	T1	442	3.0	442	3.0	0.272	5.8	LOS A	1.5	10.9	0.45	0.54	0.45	47.3
6u	U	5	3.0	5	3.0	0.272	14.0	LOS A	1.4	10.3	0.46	0.54	0.46	47.1
Approach		579	3.0	579	3.0	0.272	5.9	LOS A	1.5	10.9	0.45	0.54	0.45	47.4
West: Victoria Road														
11	T1	684	3.0	684	3.0	0.413	4.2	LOS A	2.7	19.6	0.31	0.42	0.31	53.9
12	R2	379	3.0	379	3.0	0.413	10.0	LOS A	2.6	19.0	0.32	0.60	0.32	50.8
12u	U	68	3.0	68	3.0	0.413	12.3	LOS A	2.6	19.0	0.32	0.60	0.32	50.8
Approach		1132	3.0	1132	3.0	0.413	6.6	LOS A	2.7	19.6	0.31	0.49	0.31	52.6
All Vehicles		2044	3.0	2044	3.0	0.413	6.5	LOS A	2.7	19.6	0.36	0.53	0.36	50.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [PM EX + Dev - Victoria Street - Hassall Street (Site Folder: PM Existing + Development)]

Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B, C, E

Output Phase Sequence: A, B, C, E

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	11	3.0	11	3.0	0.875	59.6	LOS E	15.4	110.9	1.00	1.03	1.32	21.9
2	T1	553	3.0	553	3.0	0.875	53.9	LOS D	15.7	113.1	1.00	1.03	1.32	22.0
Approach		563	3.0	563	3.0	0.875	54.0	LOS D	15.7	113.1	1.00	1.03	1.32	22.0
East: Victoria Street														
4	L2	53	3.0	53	3.0	0.377	31.1	LOS C	9.3	66.5	0.79	0.69	0.79	40.9
5	T1	463	3.0	463	3.0	0.377	25.5	LOS B	9.4	67.2	0.79	0.68	0.79	32.6
6	R2	163	6.0	163	6.0	* 0.920	52.1	LOS D	7.3	59.4	1.00	1.02	1.56	22.4
Approach		679	3.7	679	3.7	0.920	32.3	LOS C	9.4	67.2	0.84	0.76	0.97	30.4
North: Hassall Street														
7	L2	247	3.0	247	3.0	0.910	47.1	LOS D	49.5	360.4	1.00	1.02	1.14	32.6
8	T1	1168	3.0	1168	3.0	* 0.910	43.9	LOS D	49.5	360.4	1.00	1.03	1.17	32.5
9	R2	116	3.0	116	3.0	0.910	52.5	LOS D	35.6	255.7	1.00	1.04	1.20	19.8
Approach		1532	3.0	1532	3.0	0.910	45.1	LOS D	49.5	360.4	1.00	1.03	1.17	31.9
West: Victoria Street														
10	L2	300	3.0	300	3.0	0.873	54.3	LOS D	22.2	159.7	1.00	1.00	1.25	18.0
11	T1	505	3.0	505	3.0	* 0.873	49.2	LOS D	22.2	159.7	1.00	1.02	1.25	30.7
12	R2	21	3.0	21	3.0	0.109	43.0	LOS D	0.9	6.3	0.86	0.71	0.86	32.4
Approach		826	3.0	826	3.0	0.873	50.9	LOS D	22.2	159.7	1.00	1.01	1.24	27.0
All Vehicles		3600	3.1	3600	3.1	0.920	45.4	LOS D	49.5	360.4	0.97	0.97	1.17	29.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

 **Site: 101 [PM EX + Dev - Hassall Street - Redfern Street (Site Folder: PM Existing + Development)]**

 **Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Hassall Street														
1	L2	74	7.0	74	7.0	0.731	46.6	LOS D	20.6	151.6	1.00	0.88	1.02	32.8
2	T1	811	3.0	811	3.0	* 0.731	37.8	LOS C	20.6	151.6	1.00	0.88	1.01	35.0
Approach		884	3.3	884	3.3	0.731	38.5	LOS C	20.6	151.6	1.00	0.88	1.01	34.8
North: Hassall Street														
8	T1	1237	3.0	1237	3.0	0.567	9.2	LOS A	17.0	122.1	0.56	0.53	0.56	45.6
9	R2	121	9.0	121	9.0	* 0.567	20.3	LOS B	16.9	126.3	0.70	0.68	0.70	46.1
Approach		1358	3.5	1358	3.5	0.567	10.2	LOS A	17.0	126.3	0.58	0.54	0.58	45.7
West: Redfern Street														
10	L2	179	6.0	179	6.0	0.189	17.1	LOS B	4.2	34.3	0.52	0.71	0.52	45.6
12	R2	116	6.0	116	6.0	* 0.759	59.1	LOS E	6.1	49.3	1.00	0.88	1.22	20.6
Approach		295	6.0	295	6.0	0.759	33.6	LOS C	6.1	49.3	0.71	0.78	0.80	35.1
All Vehicles		2537	3.8	2537	3.8	0.759	22.8	LOS B	20.6	151.6	0.74	0.69	0.75	38.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [PM EX + Dev - Wetherill Street - The Horsely Drive (Site Folder: PM Existing + Development)]

Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F*, G

Output Phase Sequence: A, D, E, G

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wetherill Street														
1	L2	147	2.0	147	2.0	0.183	25.7	LOS B	5.8	41.3	0.60	0.72	0.60	41.8
2	T1	258	2.0	258	2.0	0.558	68.4	LOS E	9.1	64.7	0.99	0.79	0.99	18.8
3	R2	105	2.0	105	2.0	0.719	82.7	LOS F	8.0	56.8	1.00	0.83	1.11	25.2
Approach		511	2.0	511	2.0	0.719	59.0	LOS E	9.1	64.7	0.88	0.78	0.90	26.2
East: The Horsely Drive														
4	L2	253	2.0	253	2.0	* 0.913	44.8	LOS D	58.7	417.7	0.94	0.93	1.02	35.4
5	T1	1411	2.0	1411	2.0	0.913	39.5	LOS C	58.7	417.7	0.92	0.91	1.00	36.2
6	R2	26	2.0	26	2.0	0.090	63.3	LOS E	1.6	11.7	0.89	0.71	0.89	19.8
Approach		1689	2.0	1689	2.0	0.913	40.7	LOS C	58.7	417.7	0.92	0.91	1.00	35.9
North: Wetherill Street														
7	L2	26	2.0	26	2.0	0.845	89.4	LOS F	15.4	109.6	1.00	0.99	1.21	21.1
8	T1	358	2.0	358	2.0	* 0.845	80.5	LOS F	15.4	109.6	1.00	0.97	1.22	21.8
9	R2	126	2.0	126	2.0	0.862	89.4	LOS F	10.2	72.3	1.00	0.93	1.31	20.2
Approach		511	2.0	511	2.0	0.862	83.1	LOS F	15.4	109.6	1.00	0.96	1.24	21.4
West: The Horsely Drive														
10	L2	47	2.0	47	2.0	0.394	25.9	LOS B	12.3	87.4	0.51	0.48	0.51	35.9
11	T1	679	2.0	679	2.0	0.394	20.7	LOS B	12.6	89.4	0.51	0.47	0.51	44.7
12	R2	258	2.0	258	2.0	* 0.880	83.4	LOS F	20.7	147.4	1.00	0.95	1.24	25.2
Approach		984	2.0	984	2.0	0.880	37.4	LOS C	20.7	147.4	0.64	0.59	0.70	36.8
All Vehicles		3695	2.0	3695	2.0	0.913	48.2	LOS D	58.7	417.7	0.85	0.82	0.94	32.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\11725 Wetherill Park Distribution Centre Network (Sent to TfNSW) 210806.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes

 Project: Cowpasture Road Networks

Template: Movement Summaries

 Site: 101 [PM EX + Dev - The Horsley Drive - Cowpasture Road (Site Folder: PM Existing + Development)]

 Network: 6 [PM Existing + Development (Network Folder: Existing + Development)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cowpasture Road														
1	L2	21	2.0	21	2.0	0.753	6.2	LOS A	7.3	52.0	0.50	0.71	0.68	52.5
2	T1	758	2.0	758	2.0	0.753	9.2	LOS A	8.2	58.3	0.59	0.78	0.79	46.0
3	R2	600	2.0	600	2.0	0.753	14.7	LOS B	8.2	58.3	0.90	1.02	1.17	52.1
3u	U	5	2.0	5	2.0	0.753	17.2	LOS B	8.2	58.3	0.90	1.02	1.17	53.7
Approach		1384	2.0	1384	2.0	0.753	11.6	LOS A	8.2	58.3	0.72	0.88	0.95	49.6
East: The Horsley Drive														
4	L2	511	2.0	511	2.0	0.736	17.2	LOS B	13.5	95.9	1.00	1.09	1.50	46.4
5	T1	5	2.0	5	2.0	0.736	16.8	LOS B	13.5	95.9	1.00	1.09	1.50	47.9
6	R2	621	2.0	621	2.0	0.736	26.1	LOS B	13.5	95.9	1.00	1.16	1.55	34.9
6u	U	5	2.0	5	2.0	0.736	29.5	LOS C	11.4	81.0	1.00	1.18	1.57	45.4
Approach		1142	2.0	1142	2.0	0.736	22.1	LOS B	13.5	95.9	1.00	1.13	1.53	41.0
North: The Horsley Drive														
7	L2	668	2.0	668	2.0	0.767	12.7	LOS A	10.9	77.9	0.82	0.98	1.17	46.1
8	T1	805	2.0	805	2.0	0.767	9.9	LOS A	10.9	77.9	0.80	0.88	1.08	51.5
9	R2	5	2.0	5	2.0	0.767	16.7	LOS B	10.9	77.9	0.80	0.88	1.08	52.4
Approach		1479	2.0	1479	2.0	0.767	11.2	LOS A	10.9	77.9	0.80	0.93	1.12	49.0
West: Park Access														
10	L2	11	2.0	11	2.0	0.029	9.8	LOS A	0.2	1.2	0.87	0.77	0.87	46.1
11	T1	5	2.0	5	2.0	0.029	9.3	LOS A	0.2	1.2	0.87	0.77	0.87	53.9
12	R2	11	2.0	11	2.0	0.029	18.3	LOS B	0.1	1.0	0.83	0.86	0.83	49.1
Approach		26	2.0	26	2.0	0.029	13.2	LOS A	0.2	1.2	0.85	0.80	0.85	49.4
All Vehicles		4032	2.0	4032	2.0	0.767	14.4	LOS A	13.5	95.9	0.83	0.97	1.18	46.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [PM EX + Dev - The Horsley Drive - Cowpasture Road (Site Folder: PM Existing + Development)]

Network: 6 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Horsley Drive														
2	T1	1200	2.0	1200	2.0	0.641	18.7	LOS B	22.2	158.1	0.77	0.69	0.77	41.2
3	R2	179	2.0	179	2.0	* 0.698	59.4	LOS E	4.7	33.3	1.00	0.84	1.16	24.0
Approach		1379	2.0	1379	2.0	0.698	23.9	LOS B	22.2	158.1	0.80	0.71	0.82	37.7
East: Cowpasture Road														
4	L2	442	2.0	442	2.0	0.475	13.1	LOS A	10.1	72.3	0.57	0.74	0.57	42.3
6	R2	953	2.0	953	2.0	* 0.703	34.6	LOS C	19.9	141.5	0.91	0.85	0.91	37.9
Approach		1395	2.0	1395	2.0	0.703	27.8	LOS B	19.9	141.5	0.81	0.82	0.81	38.7
North: The Horsley Drive														
7	L2	247	2.0	247	2.0	0.088	6.4	LOS A	0.7	4.6	0.18	0.60	0.18	53.5
8	T1	1011	2.0	1011	2.0	* 0.691	28.1	LOS B	20.7	147.7	0.90	0.80	0.90	31.6
Approach		1258	2.0	1258	2.0	0.691	23.8	LOS B	20.7	147.7	0.76	0.76	0.76	36.4
All Vehicles		4032	2.0	4032	2.0	0.703	25.2	LOS B	22.2	158.1	0.79	0.76	0.80	37.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

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Project: G:\Traffic\SIDRA 9.0\11725 Wetherill Park Distribution Centre\Cowpasture Road Networks.sip9

USER REPORT FOR NETWORK SITE

All Movement Classes



Project: Cumberland Highway Networks

Template: Movement Summaries



Site: 101 [PM EX + Dev - Cumberland Highway - The Horsely Drive (Site Folder: PM Existing + Development)]

Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, B1*, C, D, E, F1*, F2*

Output Phase Sequence: A, B*, C, D, E

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Cumberland Highway														
1	L2	50	2.0	50	2.0	0.767	36.2	LOS C	20.6	146.5	0.76	0.73	0.77	41.7
2	T1	1185	2.0	1185	2.0	* 0.767	25.4	LOS B	20.6	146.5	0.75	0.69	0.76	35.7
3	R2	115	2.0	115	2.0	0.879	87.7	LOS F	8.8	62.7	1.00	0.94	1.38	25.2
Approach		1350	2.0	1350	2.0	0.879	31.1	LOS C	20.6	146.5	0.77	0.71	0.82	33.9
East: The Horsely Drive														
4	L2	45	2.0	45	2.0	0.929	77.8	LOS F	40.0	285.0	1.00	1.08	1.26	27.7
5	T1	455	2.0	455	2.0	0.929	72.3	LOS F	40.0	285.0	1.00	1.08	1.26	27.5
6	R2	220	2.0	220	2.0	* 0.929	97.0	LOS F	9.3	66.6	1.00	1.05	1.55	14.7
Approach		720	2.0	720	2.0	0.929	80.2	LOS F	40.0	285.0	1.00	1.07	1.35	23.7
North: Cumberland Highway														
7	L2	715	2.0	715	2.0	0.533	10.9	LOS A	11.6	82.8	0.30	0.68	0.30	49.4
8	T1	2290	2.0	2290	2.0	0.804	7.7	LOS A	23.6	167.7	0.42	0.39	0.42	58.3
9	R2	195	2.0	195	2.0	0.678	39.0	LOS C	7.6	54.2	1.00	0.82	1.02	32.3
Approach		3200	2.0	3200	2.0	0.804	10.3	LOS A	23.6	167.7	0.43	0.48	0.43	53.6
West: The Horsely Drive														
10	L2	75	2.0	75	2.0	* 0.916	83.2	LOS F	18.4	130.9	1.00	1.07	1.36	17.0
11	T1	415	2.0	415	2.0	0.916	79.1	LOS F	19.9	141.4	1.00	1.06	1.35	26.2
Approach		490	2.0	490	2.0	0.916	79.8	LOS F	19.9	141.4	1.00	1.06	1.35	25.0
All Vehicles		5760	2.0	5760	2.0	0.929	29.8	LOS C	40.0	285.0	0.63	0.66	0.72	37.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Site: 101 [PM EX + Dev - Cumberland Highway - Victoria Street (Site Folder: PM Existing + Development)]

Network: 4 [PM Existing + Development (Network Folder: Existing + Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Network Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C, D, F1*

Output Phase Sequence: A, B*, C, D, F1*

(* Variable Phase)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Cumberland Highway														
1	L2	145	2.0	145	2.0	* 0.968	67.1	LOS E	38.9	276.9	1.00	1.06	1.25	19.5
2	T1	1335	2.0	1335	2.0	* 0.968	61.8	LOS E	39.3	279.7	1.00	1.06	1.25	26.8
Approach		1480	2.0	1480	2.0	0.968	62.3	LOS E	39.3	279.7	1.00	1.06	1.25	26.2
East: Victoria Street														
4	L2	15	2.0	15	2.0	0.220	79.6	LOS F	1.2	8.7	1.00	0.69	1.00	17.0
5	T1	10	2.0	10	2.0	* 0.220	74.0	LOS F	1.2	8.8	1.00	0.69	1.00	22.5
6	R2	10	2.0	10	2.0	0.220	79.6	LOS F	1.2	8.8	1.00	0.69	1.00	27.0
Approach		35	2.0	35	2.0	0.220	78.0	LOS F	1.2	8.8	1.00	0.69	1.00	21.8
North: Cumberland Highway														
7	L2	5	2.0	5	2.0	0.752	7.6	LOS A	4.7	33.4	0.09	0.08	0.09	61.5
8	T1	2475	2.0	2475	2.0	0.752	1.1	LOS A	4.7	33.4	0.08	0.08	0.08	67.2
9	R2	915	2.0	915	2.0	* 0.972	87.0	LOS F	34.9	248.4	1.00	1.10	1.41	21.3
Approach		3395	2.0	3395	2.0	0.972	24.3	LOS B	34.9	248.4	0.33	0.35	0.44	38.2
West: Victoria Street														
10	L2	475	2.0	475	2.0	0.498	20.2	LOS B	15.3	108.9	0.69	0.79	0.69	43.3
11	T1	5	2.0	5	2.0	0.968	93.9	LOS F	30.9	219.8	1.00	1.07	1.46	19.1
12	R2	710	2.0	710	2.0	0.968	98.8	LOS F	33.0	234.8	1.00	1.07	1.45	8.5
Approach		1190	2.0	1190	2.0	0.968	67.4	LOS E	33.0	234.8	0.88	0.96	1.15	17.9
All Vehicles		6100	2.0	6100	2.0	0.972	42.2	LOS C	39.3	279.7	0.60	0.64	0.78	29.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)