PRINCIPAL HEALTHCARE FINANCE PTY LIMITED ATF PRINCIPAL HEALTHCARE FINANCE TRUST

TRANSPORT AND ACCESSIBILITY IMPACT ASSESSMENT FOR PROPOSED RESIDENTIAL CARE FACILITY, 59-67 KARNE STREET NORTH, NARWEE

DECEMBER 2022

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REF: 12087

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1 INTRODUCTION

1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Principal Healthcare Finance Pty Limited to prepare a traffic and accessibility impact assessment for the state significant development application (SSDA) for the proposed residential care facility at 59-67 Karne Street North, Narwee. The site location is shown on Figure 1.

1.2 The site is occupied by two detached dwellings at 65 and 67 Karne Street North, and is otherwise generally vacant. It is proposed to demolish the existing buildings and construct a new residential care facility with 165 beds. Vehicular access is proposed from Karne Street North.

1.3 The Planning Secretary's Environmental Assessment Requirements for seniors housing include traffic, transport and accessibility matters. Table 1.1 includes the SEARs and the relevant sections of the report in which they are addressed.

Table 1.1: SEARs

SEARs requirement	Section of report
Traffic, Transport and Accessibility • *Provide a transport and accessibility impact assessment, which includes:* o *an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.*	Chapters 3, 6
o *details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height*	Chapters 2, 4, 5, Appendix A

clearances, and an explanation of how residents will access facilities and services), parking arrangements and rates (including bicycle and end of trip facilities), drop-off/pick-up-zones(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.	
○ *analysis of the impacts of the proposed development (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (including industry standard modelling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments.*	Chapter 6
○ *measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms of delivery (including proposed arrangements with local councils or government agencies) of any infrastructure improvements in accordance with relevant standards.*	Chapter 6
○ *proposals to promote sustainable travel choices for employees, residents, guests and visitors, such as connections into existing walking and cycling networks, minimizing car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.*	Chapter 3
• *Provide a Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking*	Chapter 7

arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	

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; and
- Chapter 7 - construction traffic management plan.

2 PROPOSED DEVELOPMENT

2.1 The site is occupied by two detached dwellings at 65 and 67 Karne Street North, and is otherwise generally vacant. It is proposed to demolish the existing buildings and construct a new residential care facility with 165 beds. Vehicular access is proposed from Karne Street North.

3 PUBLIC AND ACTIVE TRANSPORT

Public Transport Services

3.1 Local bus services are provided by Punchbowl Bus Company. Services operate along Grove Avenue, Shorter Avenue and Karne Street North, just north of the site. There are stops on these roads, close to the site. Services include:

- route 941: Hurstville and Greenacre to Bankstown via Penshurst, Narwee, Roselands, Punchbowl and Mt Lewis;

- route 944: Mortdale to Bankstown via Peakhurst Heights, Riverwood, Narwee, Roselands and Punchbowl.

3.2 There are footpaths on both sides of Karne Street North, connecting to and from the bus stops. There are also numerous bus services which connect to Roselands shopping centre, north of the site.

3.3 A mini-bus service will be provided at the site, for residents. This will provide regular transport to local shops and services.

3.4 There is an off-road cycleway south of the M5 Motorway which connects underneath the motorway via Bonds Road, west of the site. This connects to bicycle paths in Wise Reserve which adjoins Arilla Avenue, adjacent to the site. Bicycle spaces will be provided for employees. The facility will also include shower and change facilities for employees.

3.5 The proposed development is therefore consistent with government objectives and the planning principles of:

(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 (Green) Travel Plan

3.6 A work place travel plan will be prepared prior to occupation, which will include the following:

- identify existing bus routes which stop on Grove Avenue, Shorter Avenue and Karne Street North, including the location of bus stops;
- 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 secure bicycle parking for employees.

4 PARKING

Car Parking

4.1 The Housing SEPP indicates that the development can not be refused on parking grounds if a minimum of one space per 15 beds is provided, plus one space per two employees on duty at one time.

4.2 The development will provide 165 beds and there will be a maximum of 32 employees on duty at one time. The development would therefore require 27 spaces to satisfy this provision of the SEPP. 30 spaces, including two disabled parking spaces, are proposed in accordance with the SEPP.

Bicycle Parking

4.3 The development is not expected to generate significant demand for travel by bicycles. Five bicycle parking spaces will be provided in the development, for employees and visitors. Employees will also have access to shower and change facilities.

5 ACCESS, SERVICING AND INTERNAL LAYOUT

5.1 Vehicular access is proposed to be provided from Karne Street north, at the northern end of the site. Driveways will be provided to the basement car park and service area, and to a porte cochere at the front of the facility. The proposed driveways will replace a number of existing driveways to the site.

5.2 The porte cochere will provide for setting down and picking up of residents, as well as an ambulance.

5.3 The ramp to the basement will provide a maximum grade of 1:20 for six metres inside the property line, in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking), AS 2890.1:2004. The ramp will also provide grades and transitions suitable for cars and service vehicles, to prevent vehicles scraping.

5.4 A loading area will be provided in the basement, suitable for rigid trucks ranging in size up to 10 metres long, for garbage collection and deliveries. 3.9 metres height clearance will be provided in all areas used by service vehicles (suitable for the largest service vehicle used by the operator, for garbage collection). Service vehicles will be able to enter and exit the site in a forward direction. Vehicle swept paths are provided in Appendix A.

5.5 Within the basement parking area, spaces will be a minimum of 5.4 metres long by 2.5 metres wide, with 5.8 metre wide circulation aisles. The accessible parking space will be 2.4 metres wide, with a 2.4 metre wide adjacent area for wheelchairs. Columns will be set back 750mm from the front of spaces. Height clearance in the car park will be 2.2 metres generally, with 2.5 metres above the disabled parking space and higher in the area used by service vehicles, as discussed above. These dimensions are considered appropriate, being in accordance with AS 2890.1:2004 and AS 2890.6:2009.

5.6 Following DA approval, access arrangements, parking layout, servicing and vehicle swept paths should be reviewed and confirmed for compliance certification.

6 TRAFFIC EFFECTS

Road Network

6.1 The site is at 59-67 Karne Street North, on the eastern side of the road, as shown in Figure 1. It is occupied by two detached dwellings at 65 and 67 Karne Street North, and is otherwise generally vacant. There was previously a nursing home on the site. Surrounding land use includes residential dwellings, playing fields and open space. There are industrial areas west of the site.

6.2 Karne Street North connects to Martin Street north of the site. There is a roundabout at the intersection. Martin Street forms part of a route connecting King Georges Road in the east with Bonds Road in the west.

6.3 In the vicinity of the site, Karne Street North provides for one traffic lane and one parking lane in each direction, clear of intersections. It is a dead-end just south of the site, at the M5 Motorway. Arilla Avenue runs west from Karne Street North at its southern end, providing access to residential properties. Arilla Avenue is also a dead-end.

6.4 North of the site, Karne Street North intersects with Shorter Avenue at a roundabout. Shorter Avenue connects, to the east, to King Georges Road, and provides for one traffic lane and one parking lane in each direction, clear of intersections. It provides access to residential properties.

Traffic Flows

6.5 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, turning movement counts have been undertaken at these times (19 July 2022) at the following intersections:

- Martin Street/Karne Street North; and
- Karne Street North/Shorter Avenue.

6.6 The results of the surveys are shown in Figures 2 and 3, and summarized in Table 6.1.

Table 6.1: Existing two-way (sum of both directions) peak hour traffic flows

Road	Location	AM peak hour (8:15 – 9:15 am)	PM peak hour (3:15 – 4:15 pm)
Martin Street	East of Karne Street North	705	810
	West of Karne Street North	605	630
Karne Street North	South of Martin Street	450	520
	North of Shorter Avenue	455	490
	South of Shorter Avenue	110	115
Shorter Avenue	East of Karne Street North	385	405

6.7 Table 6.1 shows that Martin Street carried some 605 to 810 vehicles per hour two-way during the surveyed morning and afternoon peak hours. Karne Street North (north of Shorter Avenue) and Shorter Avenue carried lower flows of some 385 to 520 vehicles per hour two-way. South of Shorter Avenue, Karne Street north carried some 110 to 115 vehicles per hour two-way.

Intersection Operations

6.8 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.

6.9 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.

6.10 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 delay/(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:

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

6.11 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.

6.12 The analysis found that the roundabouts at the intersections of Karne Street North with Martin Street and Shorter Avenue 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.

Traffic Generation of Proposed Residential Care Facility

6.13 Surveys undertaken by Transport for NSW of residential care facilities in Sydney found traffic generation rates of 0.18 vehicles per hour per bed during a weekday afternoon peak hours. The proposed residential care facility would therefore have a traffic generation of some 30 vehicles per hour two-way during weekday peak hours.

Traffic Effects

6.14 The additional traffic has been assigned to the surrounding road network. Existing peak hour traffic flows plus the additional development traffic are shown in Figures 2 and 3, and summarised on Table 6.2.

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
Martin Street	East of Karne Street North	705	+10	810	+10
	West of Karne Street North	605	+10	630	+10
Karne Street North	South of Martin Street	450	+20	520	+20
	North of Shorter Avenue	455	+20	490	+20
	South of Shorter Avenue	110	+30	115	+30
Shorter Avenue	East of Karne Street North	385	+10	405	+10

6.15 Table 6.2 shows that traffic increases on Martin Street, Shorter Avenue and Karne Street North would be some 10 to 30 vehicles per hour two-way at peak times.

6.16 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 Karne Street North with Martin Street and Shorter Avenue 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.

6.17 Therefore, the road network will be able to cater for the traffic from the proposed development.

7 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.

<u>Overall Principles for Traffic Management</u>

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 At this stage, it is anticipated that an on-street works zone will be required on Karne Street North, adjacent to the site. A separate application will be made to Canterbury Bankstown Council at the appropriate time.

Hours of Work

7.4 Subject to conditions of consent, work associated with construction activities will generally 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 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 Canterbury Bankstown 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 transporting material to the site will be accommodated on the site and in the adjacent on-street works zone. Vehicular access to and from the site will be provided from Karne Street North, via the existing access points.

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.

7.8 Trucks would travel to and from the site along the following designated routes, as shown in Figure 4:

- approach routes:
  - King Georges Road, Shorter Avenue, Karne Street North;
  - King Georges Road, Roselands Drive, Martin Street, Karne Street North;
  - Canterbury Road, Bonds Road, Martin Street, Karne Street North;

- departure routes:
  - Karne Street North, Shorter Avenue, King Georges Road;
  - Karne Street North, Martin Street, Roselands Drive, King Georges Road; and
  - Karne Street North, Martin Street, Bonds Road, Canterbury Road.

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 and in the on-street works zone adjacent to the site. 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 will provide appropriate sight lines for construction vehicle access, with regards to the number, type and size of construction vehicles. Warning signs will be erected adjacent to the driveways and on pedestrian paths adjacent to the construction activity, in accordance with SafeWork NSW requirements.

Traffic and Parking Effects

7.12 As noted above, a builder has not yet been appointed. The construction traffic management plan will be refined once a builder has been appointed and the detailed construction methodology and staging are confirmed. However, based on other projects of this scale, the number of vehicles generated during the various stages of construction is likely to be up to some 30 to 40 construction vehicles per day two-way at peak times. Construction vehicles would include rigid trucks and articulated vehicles.

7.13 This is low traffic generation, equivalent to an average of five trucks per hour over a nine – 11 hour working day. The road network will readily cater for these vehicles. Vehicles will access the site from Karne Street North, via the existing driveways. Construction vehicles will enter and exit in a forward direction.

7.14 Construction worker numbers will vary over the construction period, but would generally be some 10 to 30 workers. Construction employees will be able to park on the site and in Karne Street North, adjacent to the site.

7.15 Construction workers would generally travel to and from the facility outside the on-road peak hours (starting earlier and with finish times staggered over the day, depending on the work being undertaken). Their effects during the busiest times for the surrounding road network would therefore not be significant.

Construction Traffic Management Plan

7.16 The 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.

7.17 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.

7.18 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.

7.19 The construction traffic management plan is shown in Figure 5 and includes the following:

- all construction activity to be provided for on-site or within on-street work zones;

- the construction activity to be coordinated with the construction of other developments in the vicinity of the site where required;

- construction vehicle access to be provided from Karne Street North, via the existing site 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 Canterbury Bankstown Council;

- the movement of trucks on and off the site to be managed and controlled in accordance with a safe work method statement and appropriate traffic control plans;

- construction vehicles will include rigid trucks, 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;

- access to other adjacent properties in the vicinity of the site to be maintained at all times during construction;

- construction access driveways to be managed and controlled by qualified traffic controllers where required;

- the management of the site works will be the responsibility of the site contractor/builder;

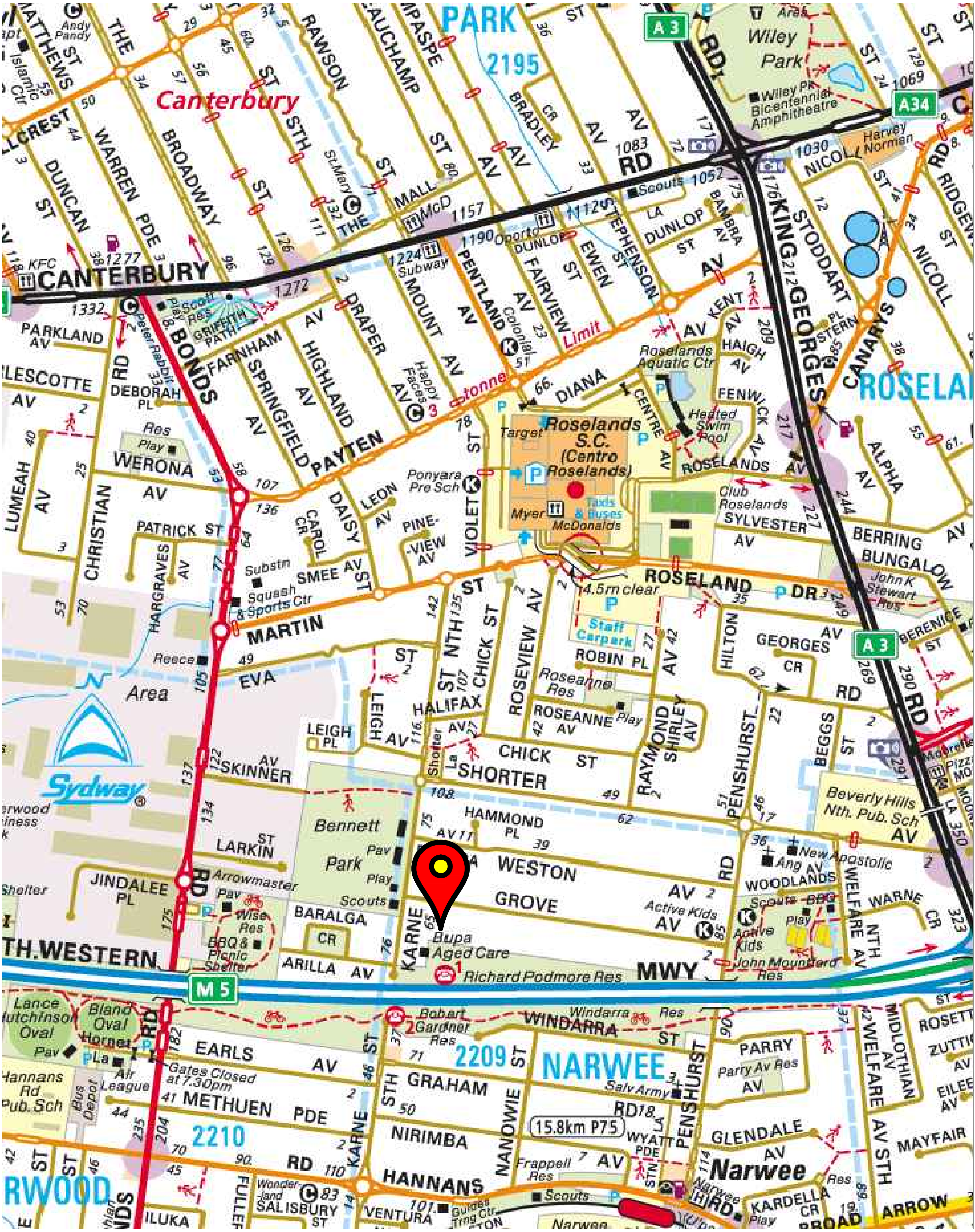
- pedestrian activity across the site access driveways will be managed and controlled by traffic controllers where required;

- 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.



Location Plan

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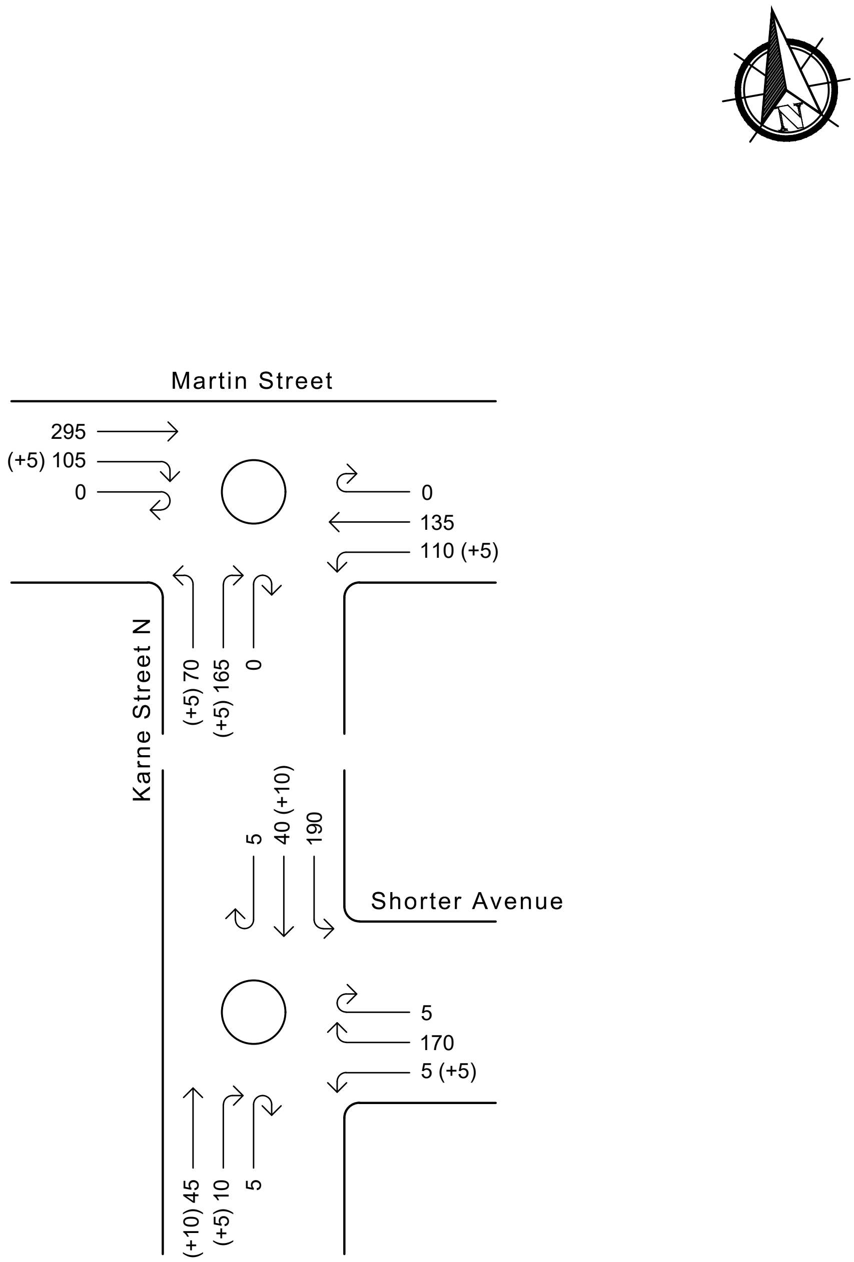
Figure 1



LEGEND

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

Existing weekday morning peak hour traffic flows plus development traffic

Figure 2

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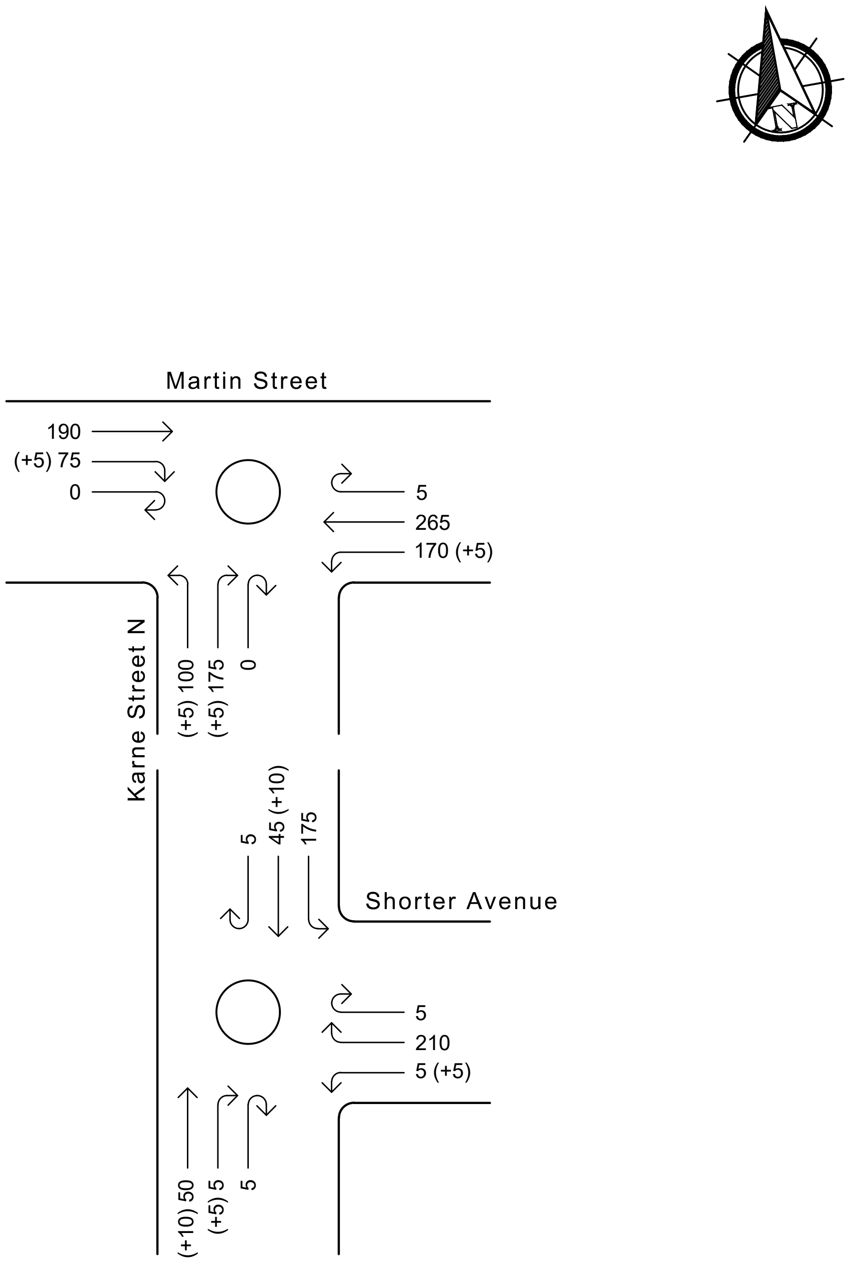

LEGEND

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

Existing weekday afternoon peak hour traffic flows plus development traffic

Figure 3

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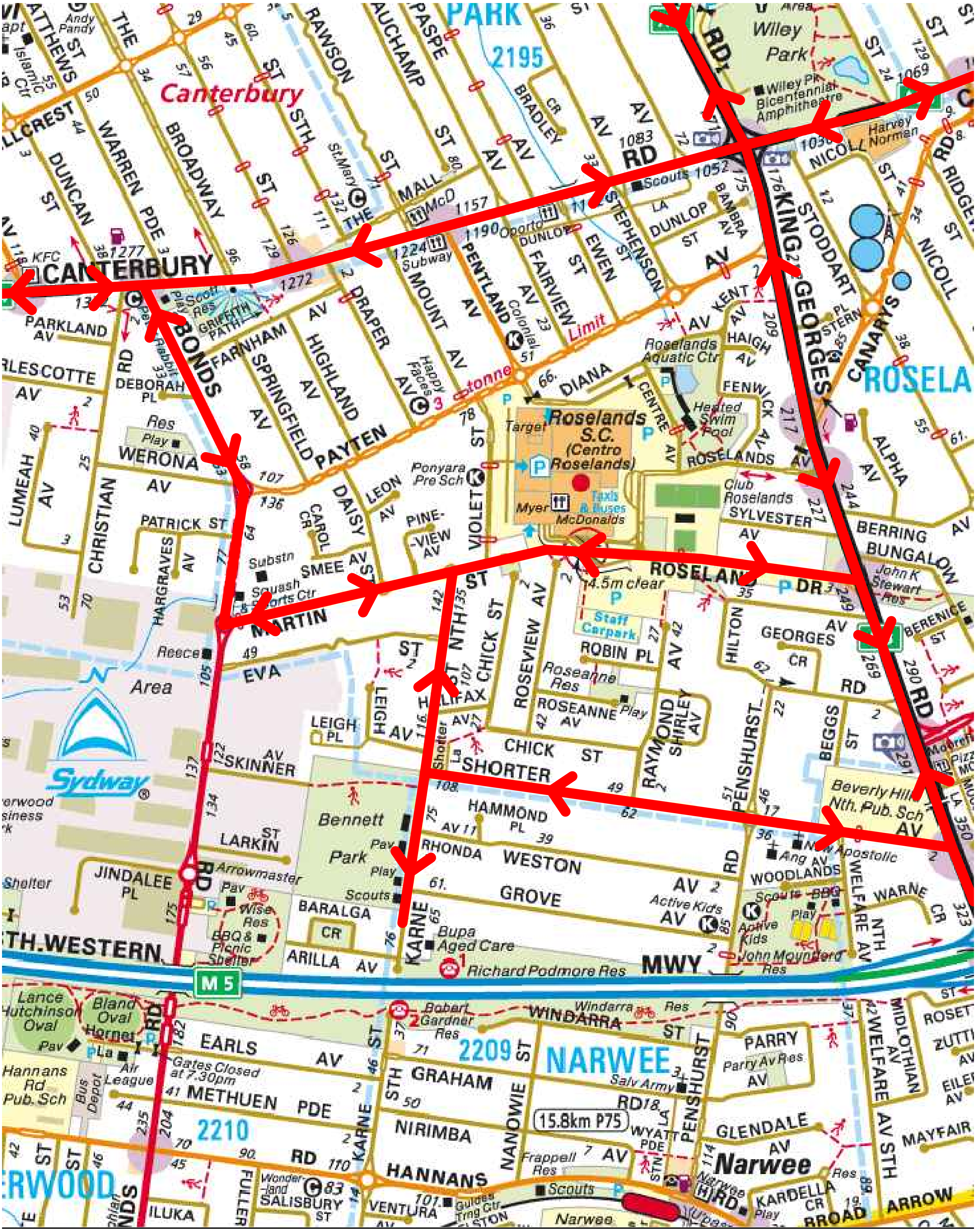

Truck Routes

Colston Budd Rogers & Kafes Pty Ltd

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Figure 4

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.

NOTE:

Sketch Plan only. Property boundaries, utilities kerblines, dimensions and traffic measures proposed are subject to survey and final design of a Traffic Control Plan.

This Traffic Management Plan presents the principles of traffic management. Traffic measures proposed are concept only and are subject to final design and approval by Work Cover. This Traffic Management Plan should not be used as the Traffic Control Plan.

Signs to be located in accordance with the Traffic Control Plan and Australian Standards AS1742.1, AS1742.2, AS1742.3, and AS1742.10.

Construction Traffic Management Plan

Colston Budd Rogers & Kafes Pty Ltd

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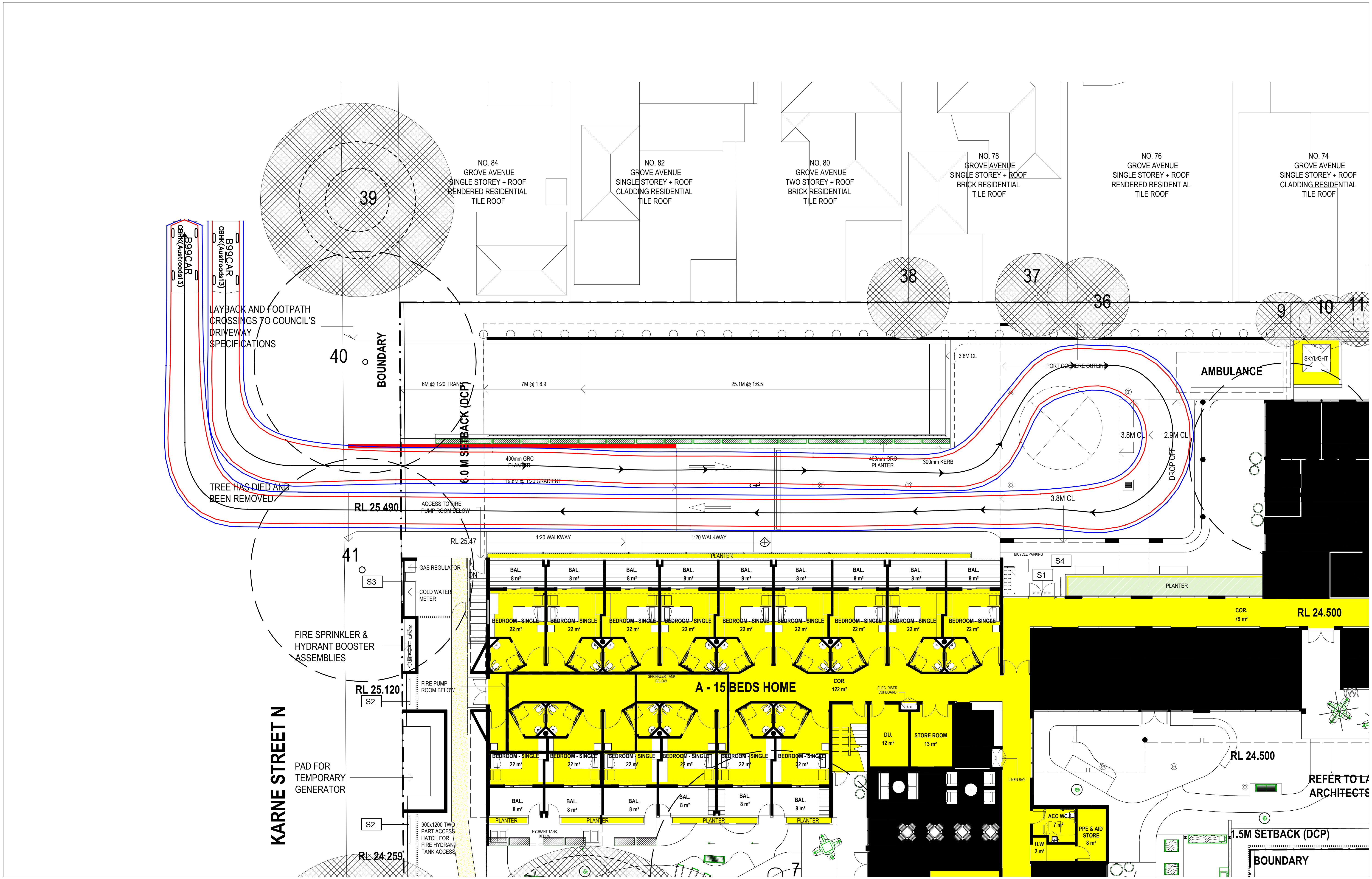
Figure 5

APPENDIX A

VEHICLE SWEPT PATHS



NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, 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

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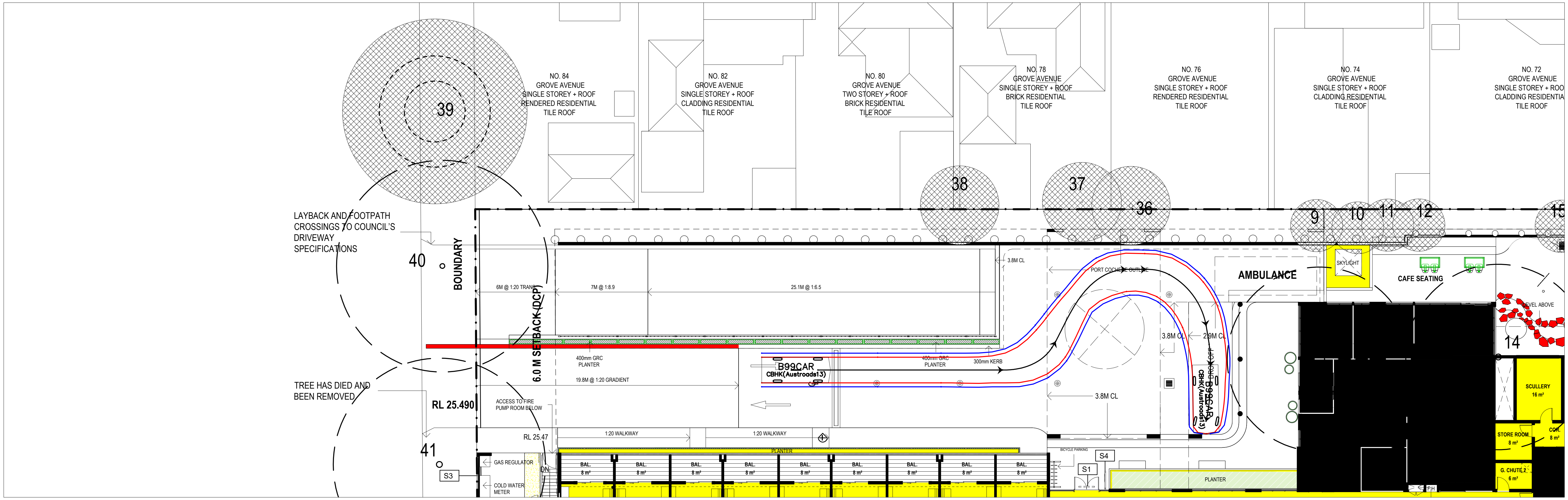
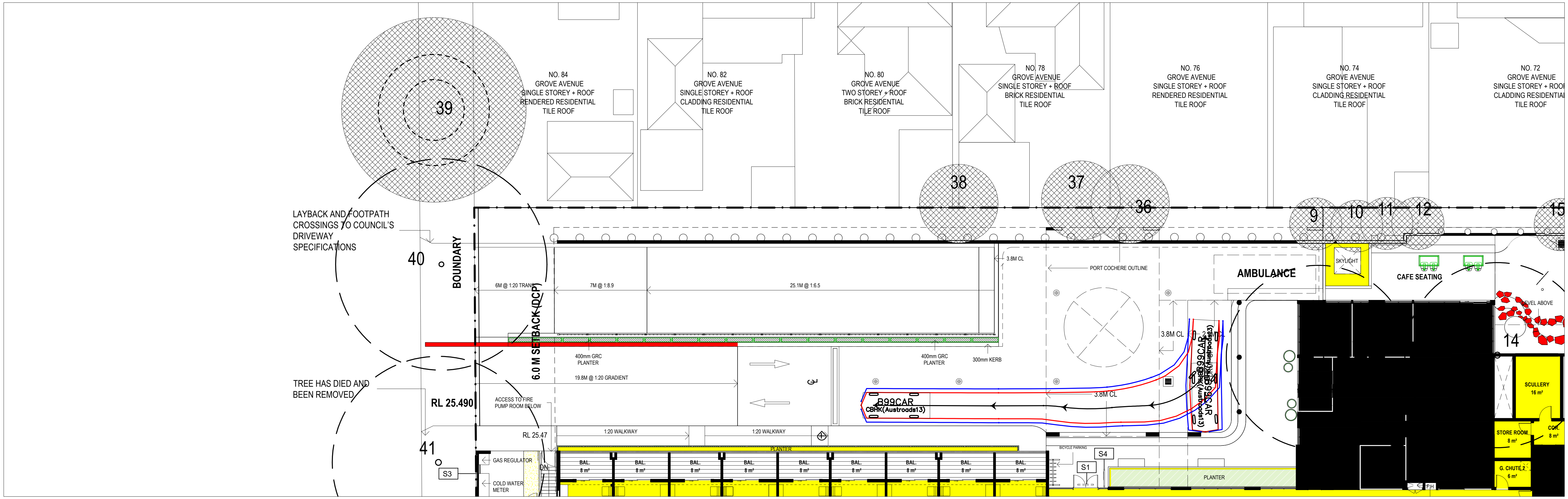
A1





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

B99 VEHICLE SWEPT PATHS

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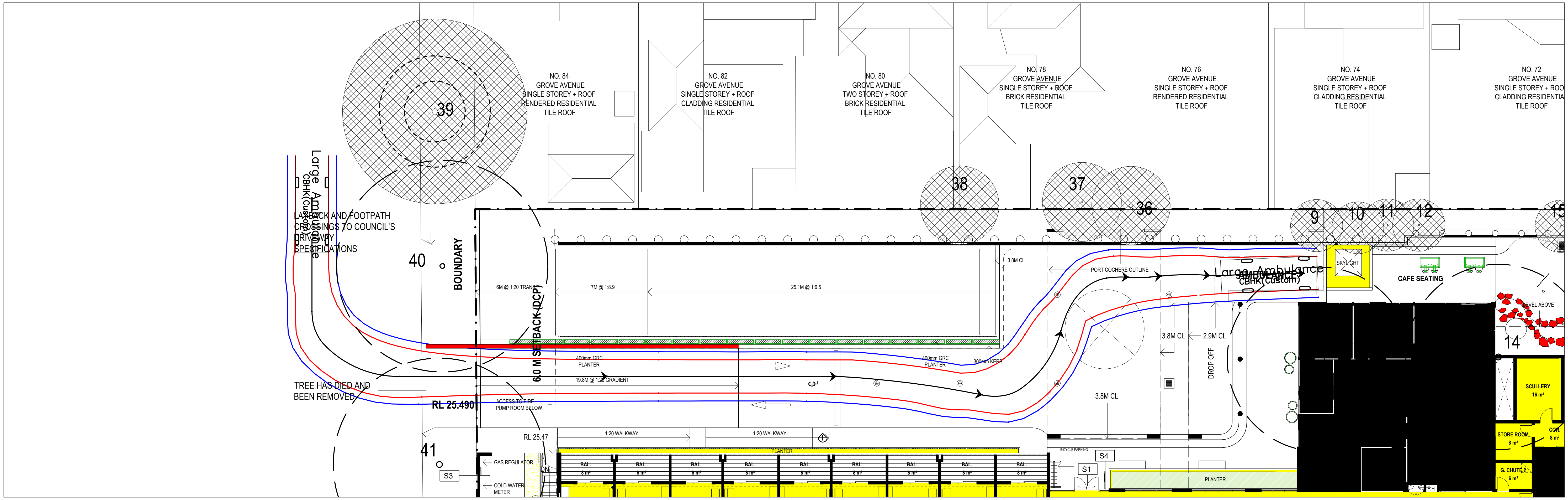
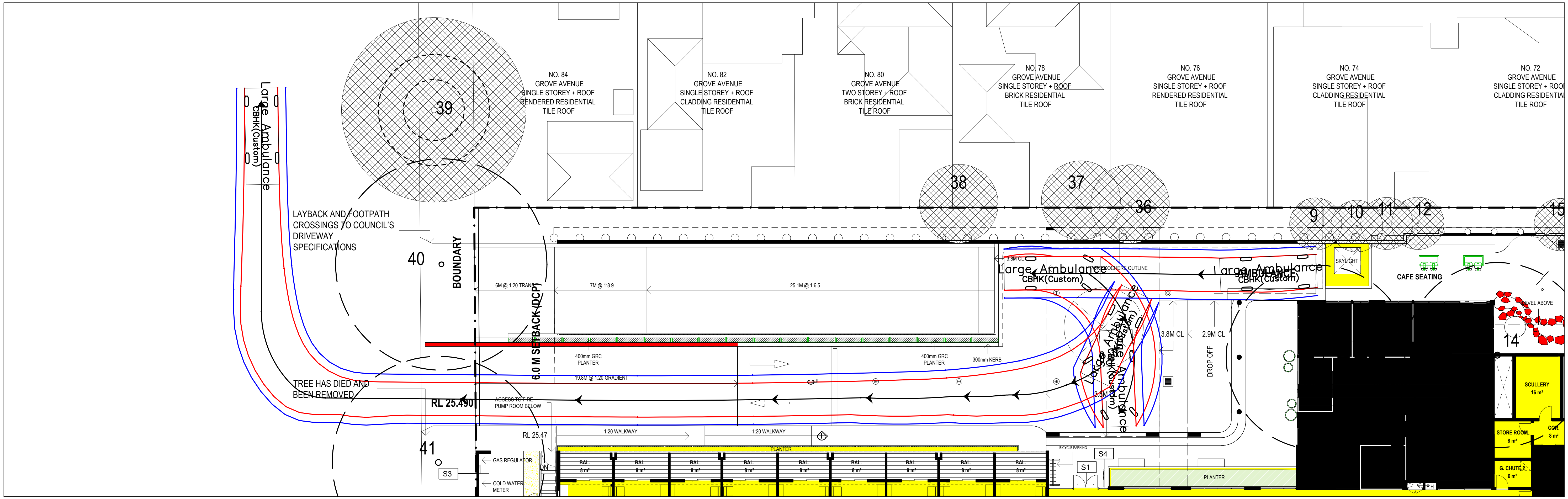
A2





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

7.3m AMBULANCE VEHICLE SWEPT PATHS

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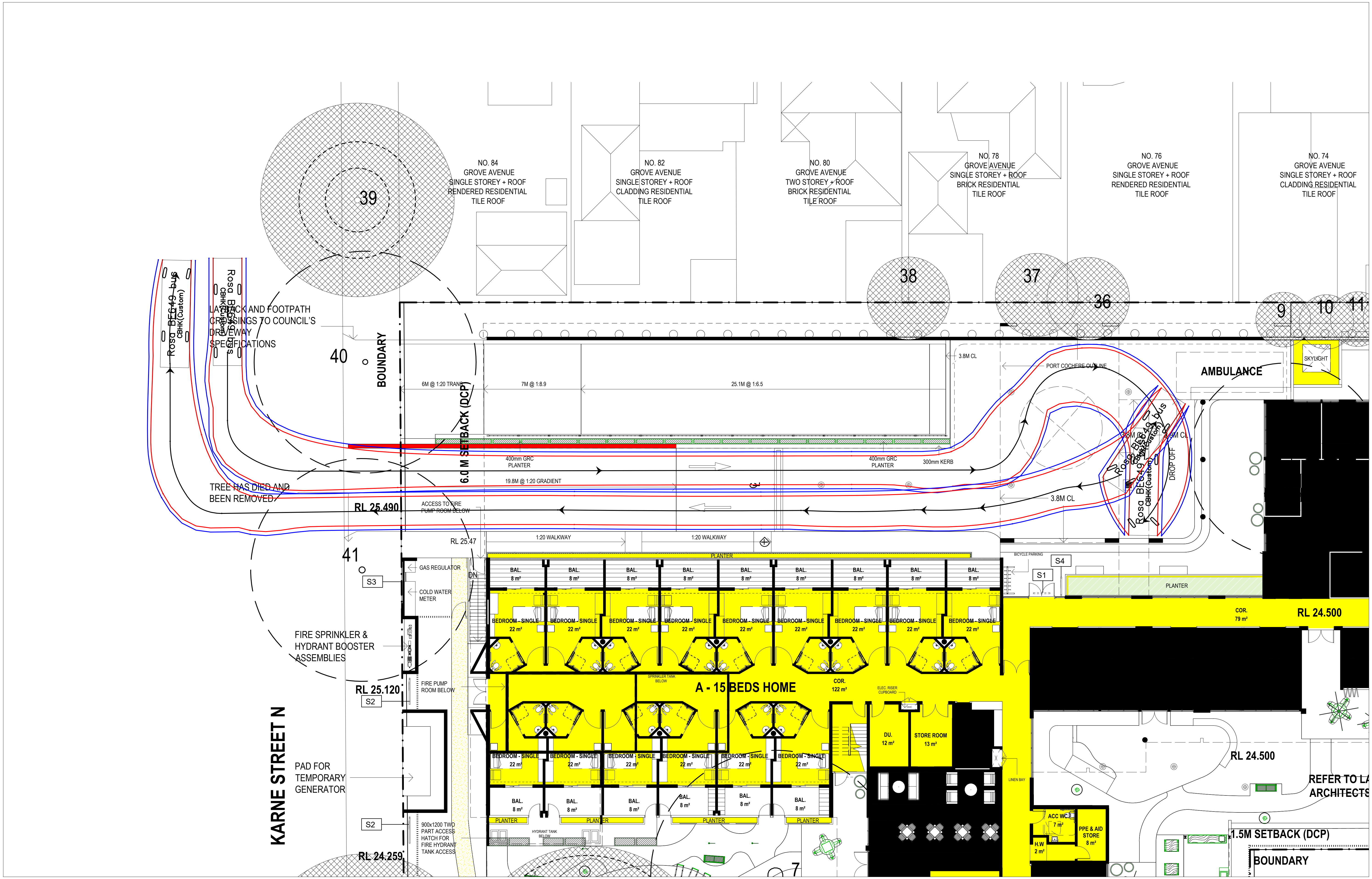
A3



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

7.7m MINI BUS SWEPT PATHS

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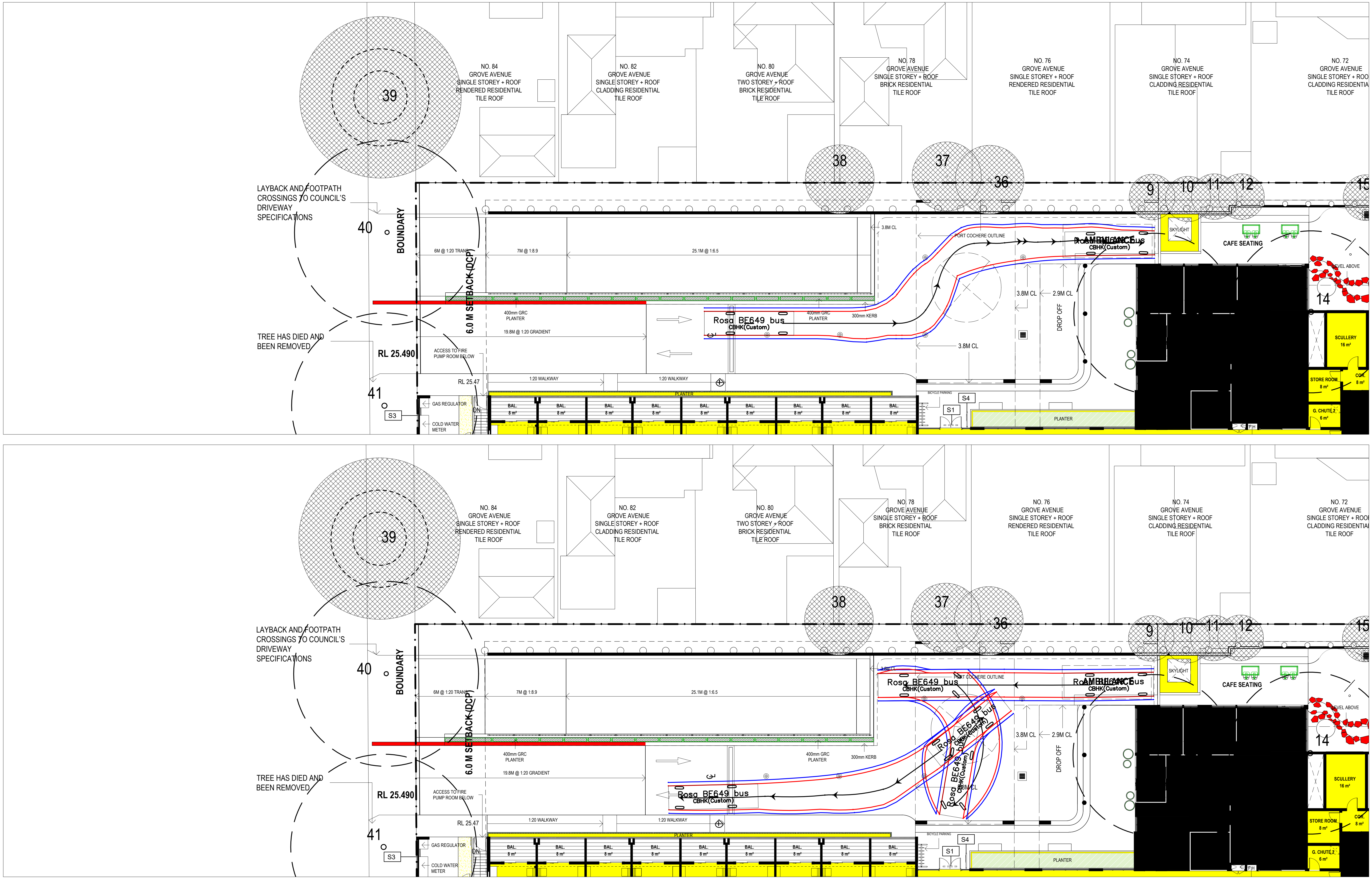
A4



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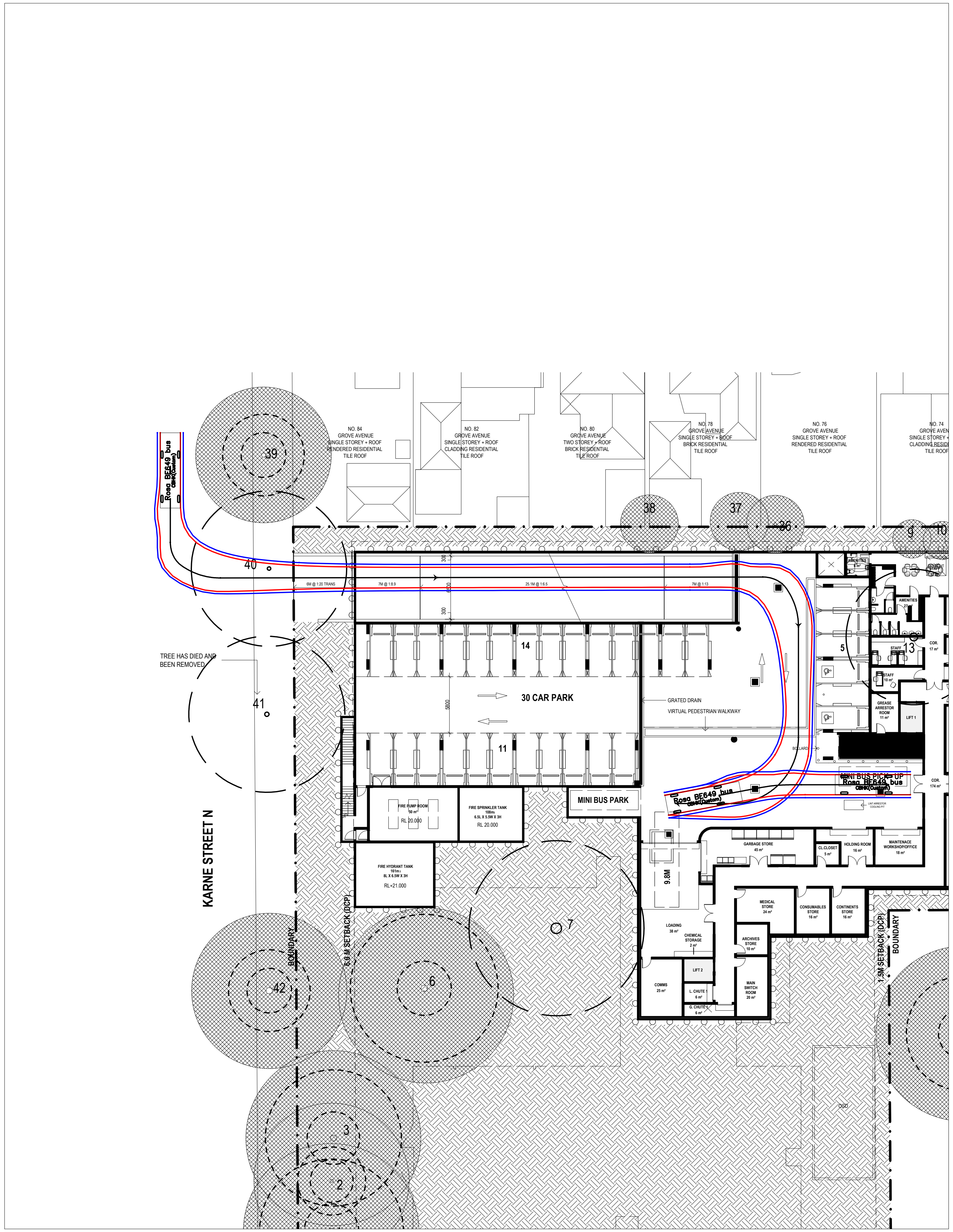
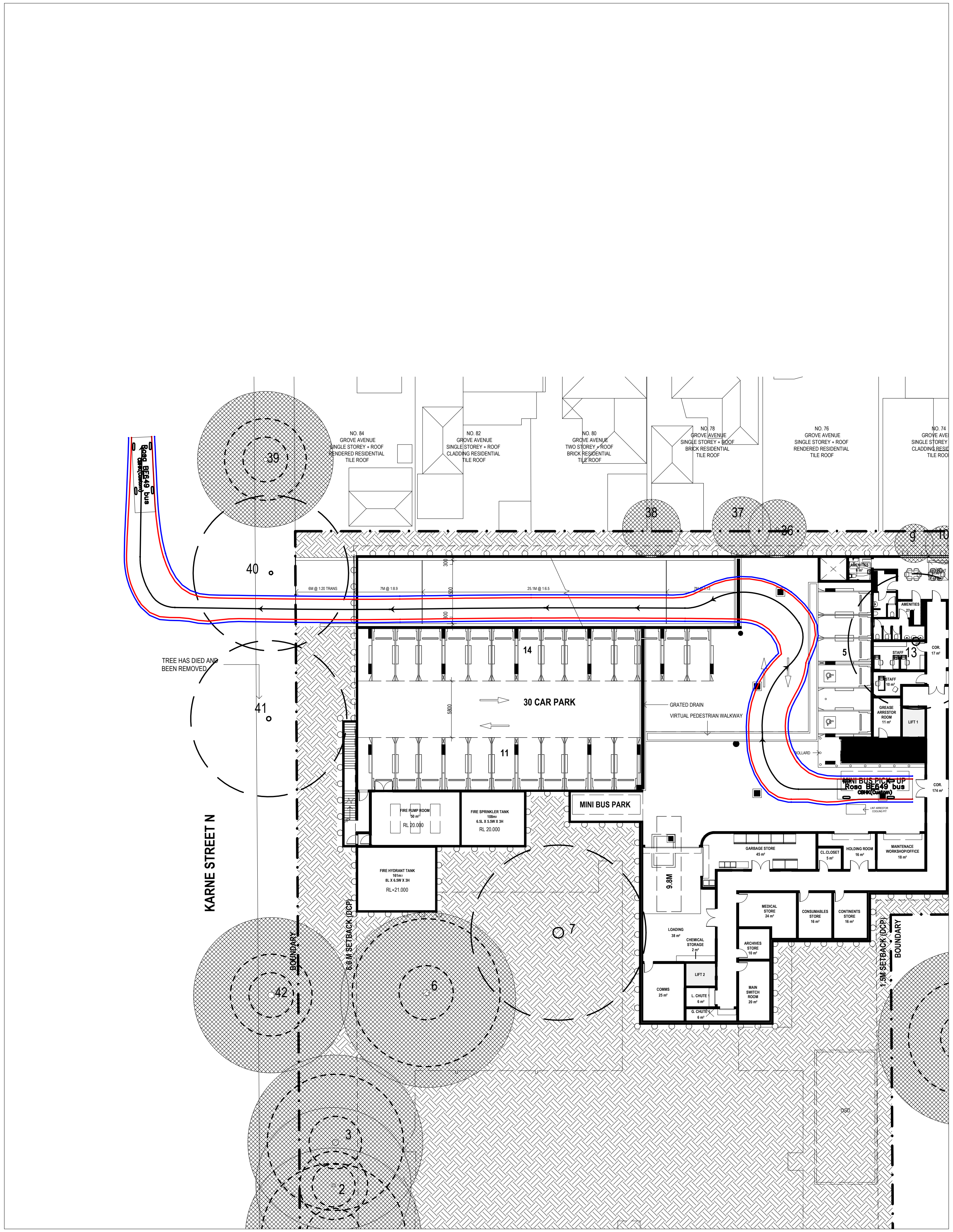
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

7.7m MINI BUS SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022

A5





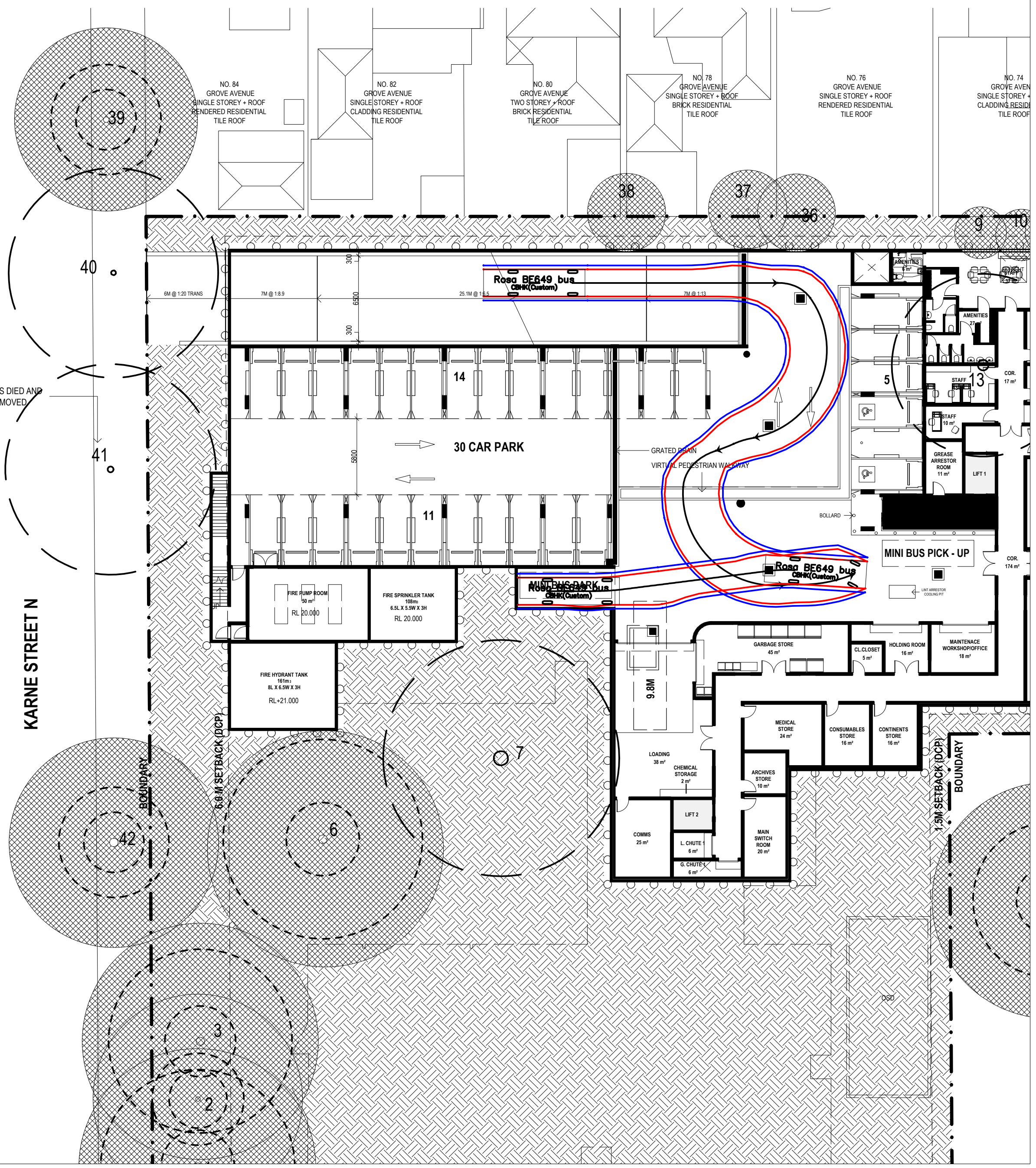
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

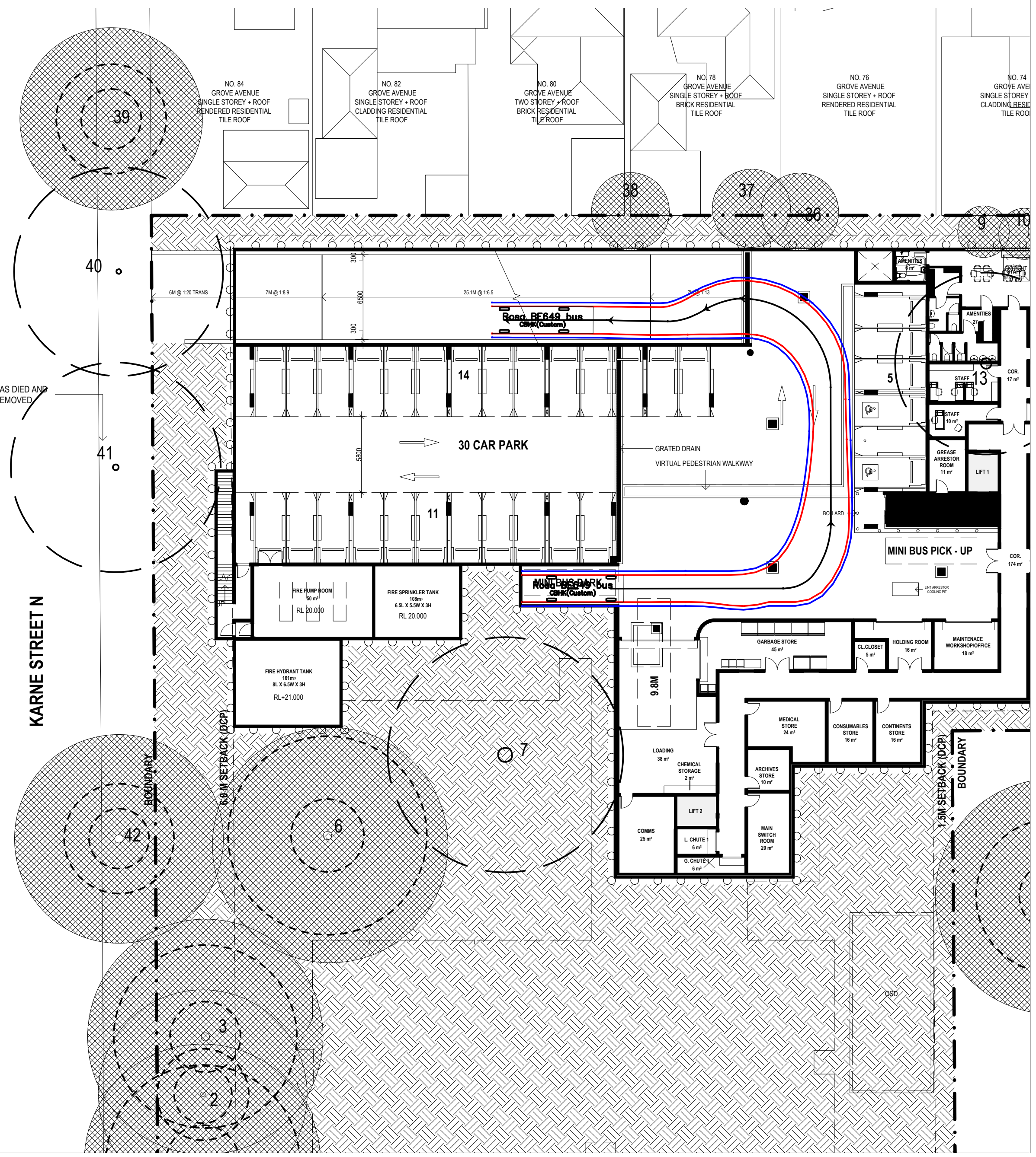
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

7.7m MINI BUS SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022

A6





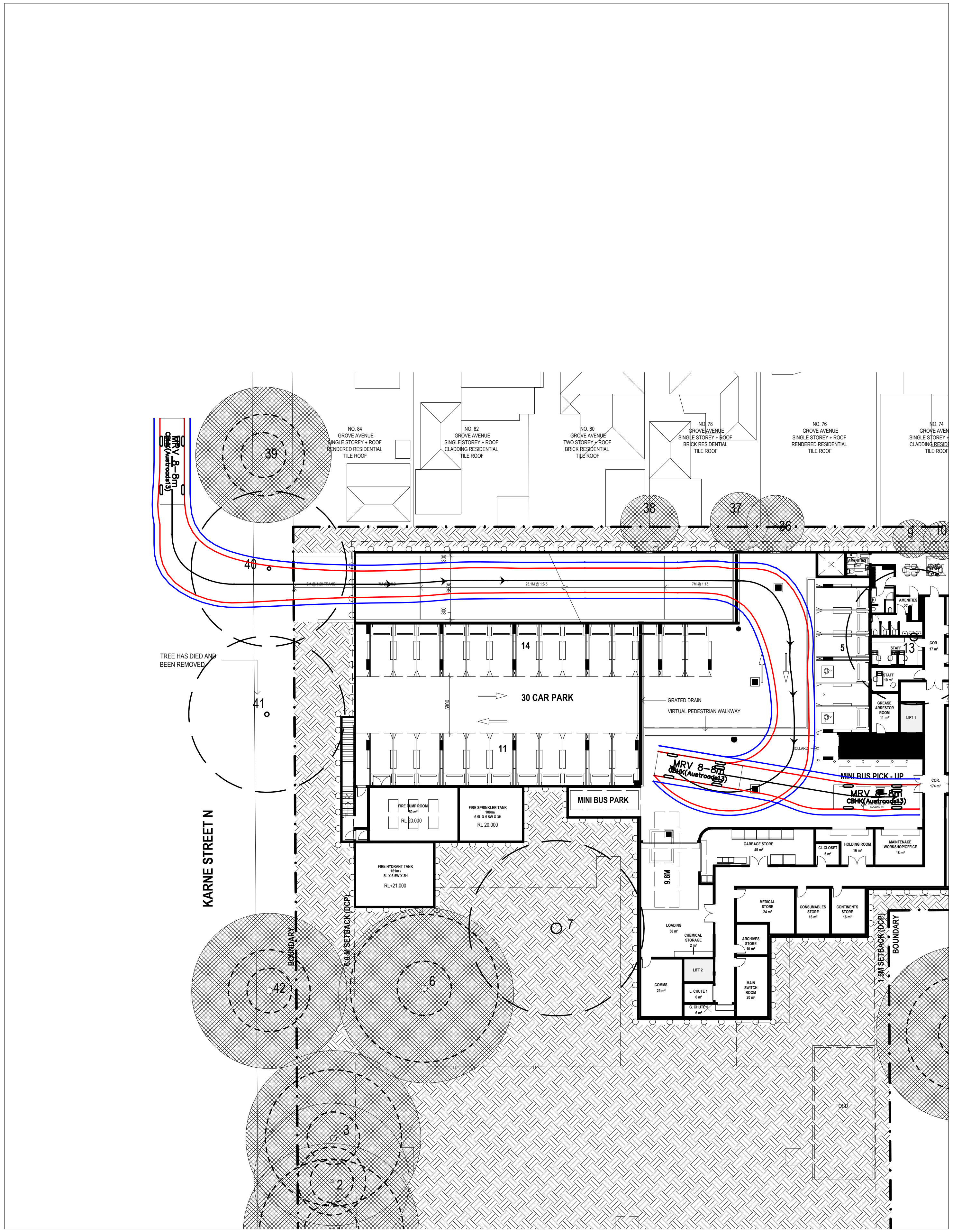
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

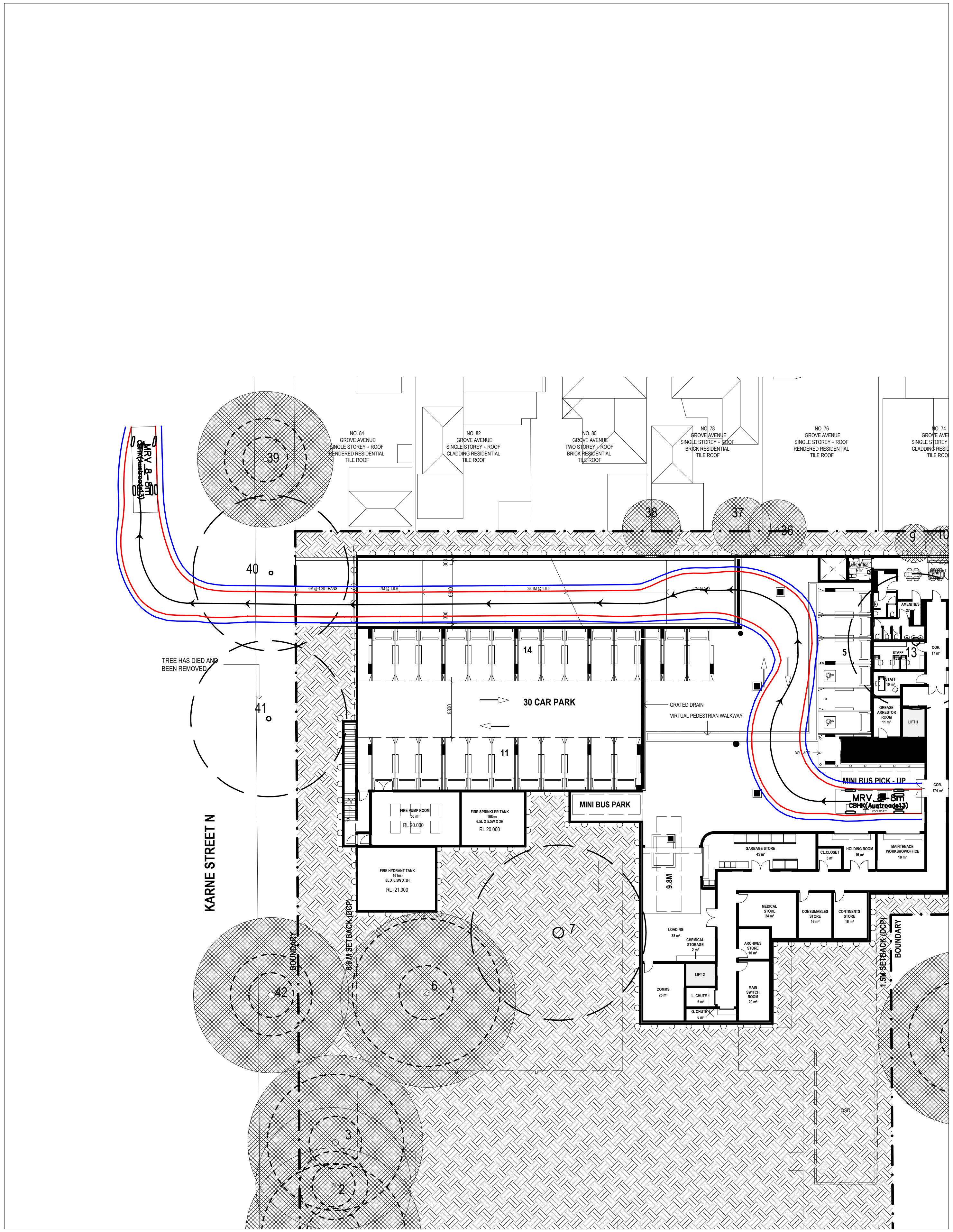
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

7.7m MINI BUS SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022

A7



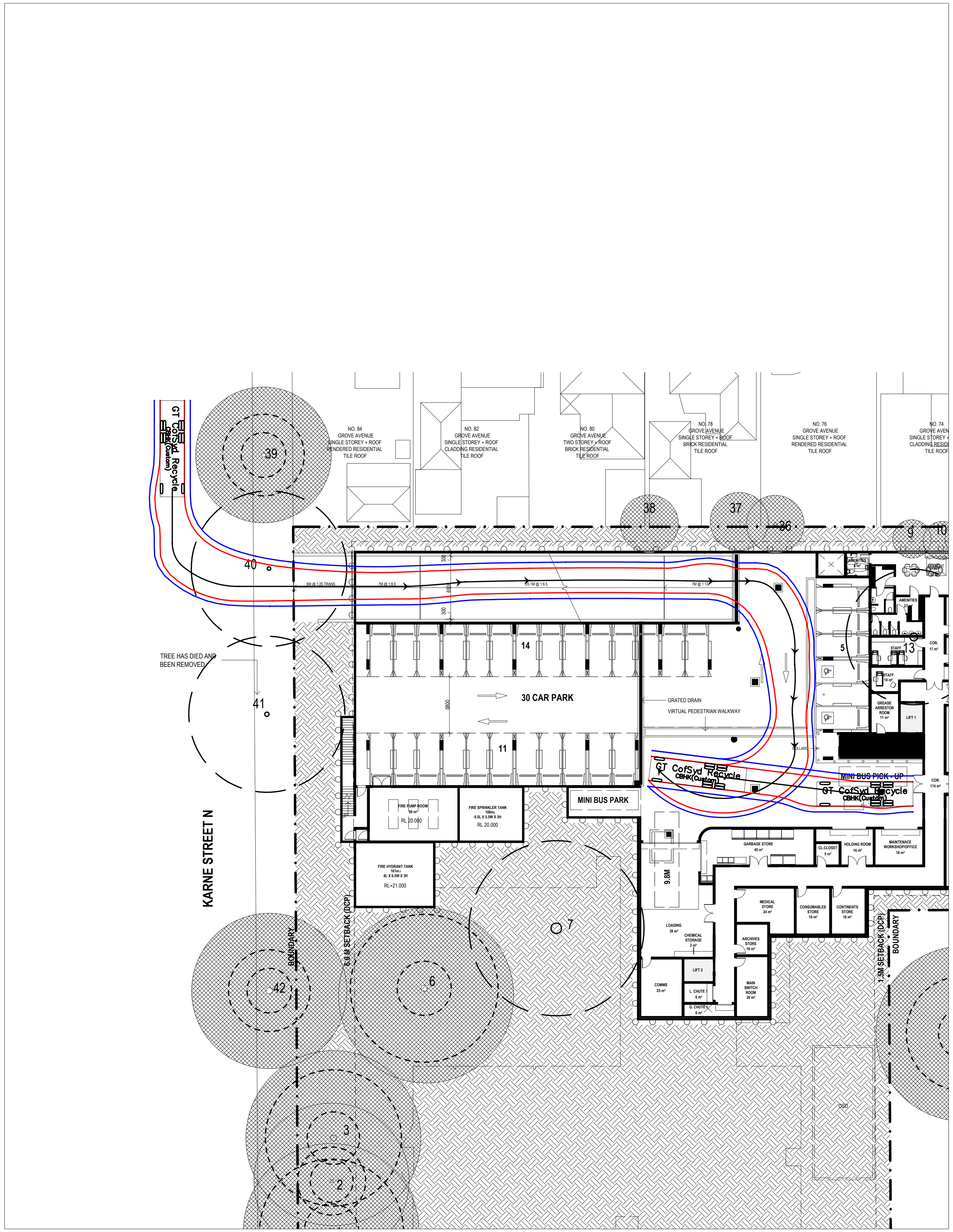


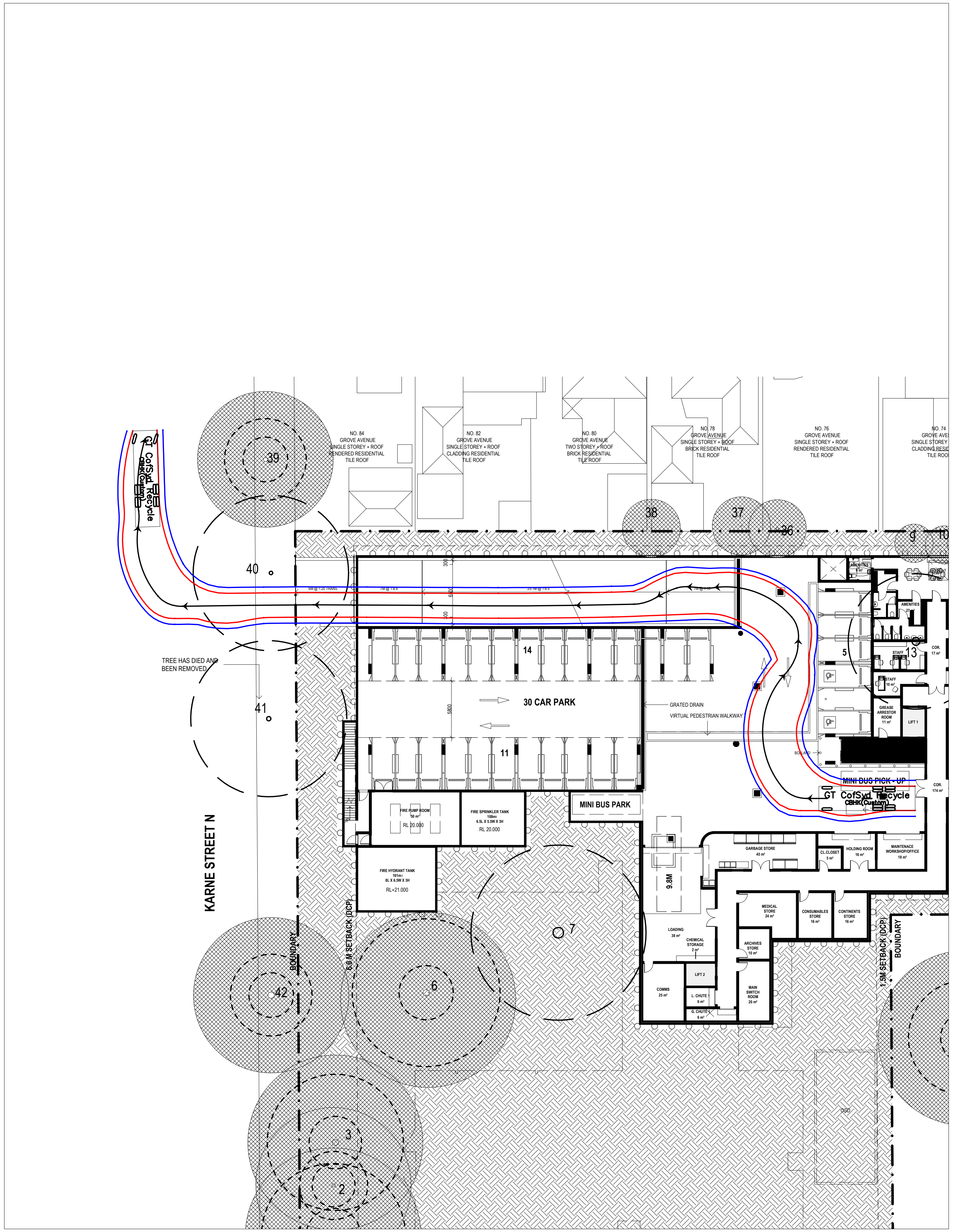
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

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

8.8m MEDIUM RIGID VEHICLE SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022





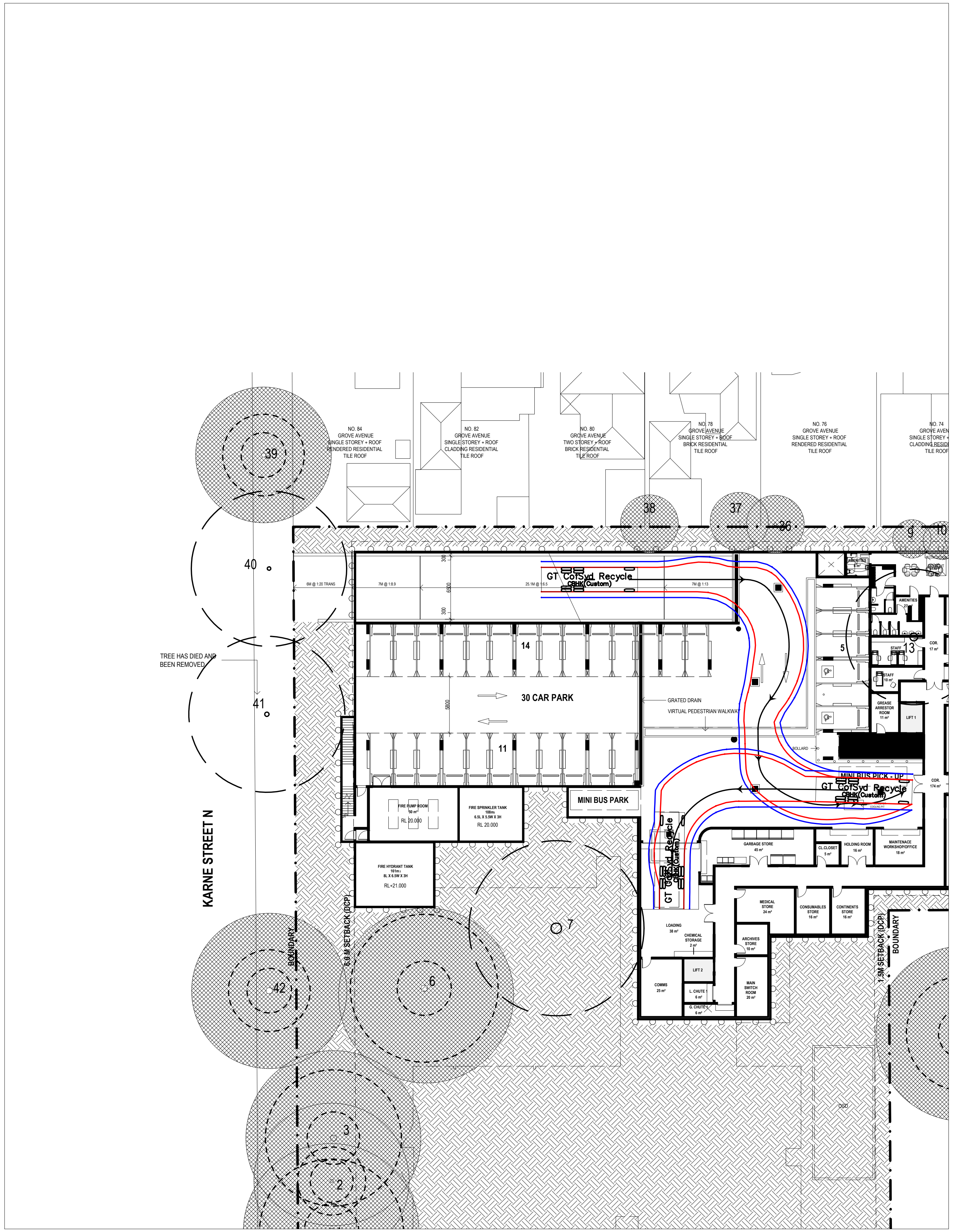
NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS.

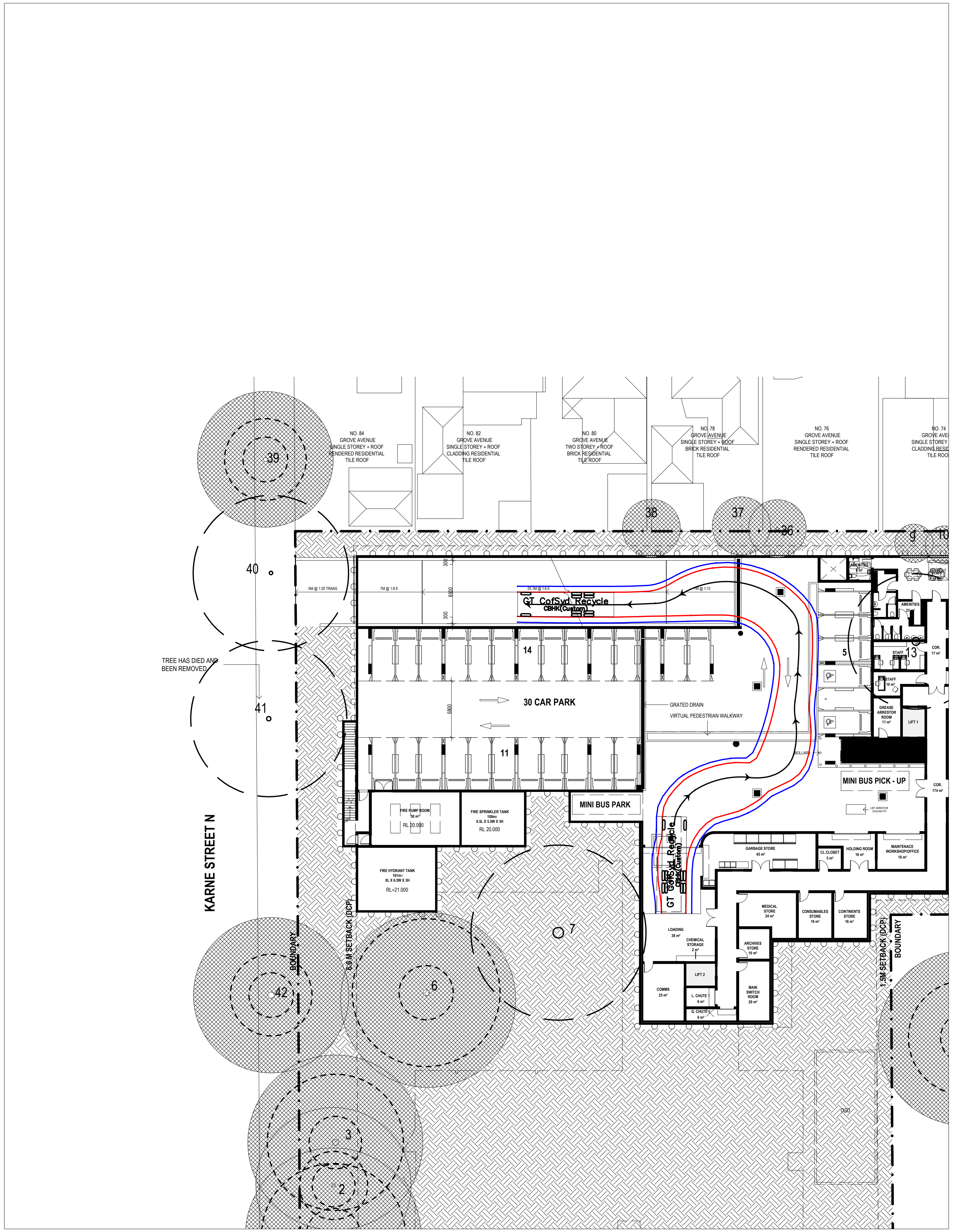
Swept Path of Vehicle Body
Swept Path of Clearance to Vehicle Body

9.9m GARBAGE TRUCK SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022

A9





NOTE:
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, 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

9.9m GARBAGE TRUCK SWEPT PATHS

DRAWN BY CBRK Pty Ltd_mc Ref: 12087 5.12.2022

A10

APPENDIX B

SIDRA MOVEMENT SUMMARIES

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: Karne Street Network

Template: Movement Summaries

Site: 101 [AM EX - Martin Street - Karne 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
1	L2	74	2.0	74	2.0	0.219	5.3	LOS A	1.3	9.0	0.36	0.61	0.36	44.0
3	R2	174	2.0	174	2.0	0.219	7.5	LOS A	1.3	9.0	0.36	0.61	0.36	44.4
3u	U	1	2.0	1	2.0	0.219	8.8	LOS A	1.3	9.0	0.36	0.61	0.36	39.5
Approach		248	2.0	248	2.0	0.219	6.8	LOS A	1.3	9.0	0.36	0.61	0.36	44.3
East: Martin Street														
4	L2	116	2.0	116	2.0	0.218	5.0	LOS A	1.3	9.3	0.33	0.50	0.33	43.6
5	T1	142	2.0	142	2.0	0.218	4.5	LOS A	1.3	9.3	0.33	0.50	0.33	46.4
6u	U	1	2.0	1	2.0	0.218	8.6	LOS A	1.3	9.3	0.33	0.50	0.33	49.5
Approach		259	2.0	259	2.0	0.218	4.7	LOS A	1.3	9.3	0.33	0.50	0.33	45.5
West: Martin Street														
11	T1	311	2.0	311	2.0	0.374	5.0	LOS A	2.5	18.0	0.46	0.58	0.46	45.8
12	R2	111	2.0	111	2.0	0.374	7.8	LOS A	2.5	18.0	0.46	0.58	0.46	42.7
12u	U	1	2.0	1	2.0	0.374	9.2	LOS A	2.5	18.0	0.46	0.58	0.46	48.9
Approach		422	2.0	422	2.0	0.374	5.8	LOS A	2.5	18.0	0.46	0.58	0.46	45.3
All Vehicles		929	2.0	929	2.0	0.374	5.8	LOS A	2.5	18.0	0.40	0.57	0.40	45.1

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.
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 - Karne Street - Shorter 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
2	T1	47	2.0	47	2.0	0.058	4.7	LOS A	0.3	2.0	0.35	0.52	0.35	43.4
3	R2	11	2.0	11	2.0	0.058	7.8	LOS A	0.3	2.0	0.35	0.52	0.35	46.3
3u	U	5	2.0	5	2.0	0.058	10.5	LOS A	0.3	2.0	0.35	0.52	0.35	49.7
Approach		63	2.0	63	2.0	0.058	5.7	LOS A	0.3	2.0	0.35	0.52	0.35	44.9
East: RoadName														
4	L2	5	2.0	5	2.0	0.144	4.1	LOS A	0.7	5.3	0.18	0.60	0.18	44.9
6	R2	179	2.0	179	2.0	0.144	7.1	LOS A	0.7	5.3	0.18	0.60	0.18	42.0
6u	U	5	2.0	5	2.0	0.144	9.8	LOS A	0.7	5.3	0.18	0.60	0.18	48.7
Approach		189	2.0	189	2.0	0.144	7.1	LOS A	0.7	5.3	0.18	0.60	0.18	42.4
North: Karne Street														
7	L2	200	2.0	200	2.0	0.169	3.9	LOS A	0.9	6.8	0.11	0.47	0.11	46.1
8	T1	42	2.0	42	2.0	0.169	3.8	LOS A	0.9	6.8	0.11	0.47	0.11	47.0
9u	U	5	2.0	5	2.0	0.169	9.6	LOS A	0.9	6.8	0.11	0.47	0.11	43.1
Approach		247	2.0	247	2.0	0.169	4.0	LOS A	0.9	6.8	0.11	0.47	0.11	46.2
All Vehicles		500	2.0	500	2.0	0.169	5.4	LOS A	0.9	6.8	0.17	0.53	0.17	44.9

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.
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.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: Karne Street Network

Template: Movement Summaries

Site: 101 [PM EX - Martin Street - Karne 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
1	L2	105	2.0	105	2.0	0.298	6.4	LOS A	1.8	12.8	0.53	0.69	0.53	43.6
3	R2	184	2.0	184	2.0	0.298	8.6	LOS A	1.8	12.8	0.53	0.69	0.53	44.0
3u	U	1	2.0	1	2.0	0.298	9.9	LOS A	1.8	12.8	0.53	0.69	0.53	38.8
Approach		291	2.0	291	2.0	0.298	7.8	LOS A	1.8	12.8	0.53	0.69	0.53	43.9
East: Martin Street														
4	L2	179	2.0	179	2.0	0.358	4.9	LOS A	2.5	18.1	0.31	0.49	0.31	43.7
5	T1	279	2.0	279	2.0	0.358	4.3	LOS A	2.5	18.1	0.31	0.49	0.31	46.4
6u	U	5	2.0	5	2.0	0.358	8.4	LOS A	2.5	18.1	0.31	0.49	0.31	49.5
Approach		463	2.0	463	2.0	0.358	4.6	LOS A	2.5	18.1	0.31	0.49	0.31	45.7
West: Martin Street														
11	T1	200	2.0	200	2.0	0.263	5.0	LOS A	1.6	11.6	0.45	0.58	0.45	45.8
12	R2	79	2.0	79	2.0	0.263	7.8	LOS A	1.6	11.6	0.45	0.58	0.45	42.7
12u	U	1	2.0	1	2.0	0.263	9.2	LOS A	1.6	11.6	0.45	0.58	0.45	48.9
Approach		280	2.0	280	2.0	0.263	5.8	LOS A	1.6	11.6	0.45	0.58	0.45	45.3
All Vehicles		1034	2.0	1034	2.0	0.358	5.8	LOS A	2.5	18.1	0.41	0.57	0.41	45.1

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.
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 - Karne Street - Shorter 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
2	T1	53	2.0	53	2.0	0.060	4.9	LOS A	0.3	2.1	0.39	0.53	0.39	43.4
3	R2	5	2.0	5	2.0	0.060	8.0	LOS A	0.3	2.1	0.39	0.53	0.39	46.3
3u	U	5	2.0	5	2.0	0.060	10.7	LOS A	0.3	2.1	0.39	0.53	0.39	49.7
Approach		63	2.0	63	2.0	0.060	5.6	LOS A	0.3	2.1	0.39	0.53	0.39	44.6
East: RoadName														
4	L2	5	2.0	5	2.0	0.175	4.1	LOS A	0.9	6.6	0.20	0.60	0.20	44.9
6	R2	221	2.0	221	2.0	0.175	7.1	LOS A	0.9	6.6	0.20	0.60	0.20	41.9
6u	U	5	2.0	5	2.0	0.175	9.8	LOS A	0.9	6.6	0.20	0.60	0.20	48.7
Approach		232	2.0	232	2.0	0.175	7.1	LOS A	0.9	6.6	0.20	0.60	0.20	42.3
North: Karne Street														
7	L2	184	2.0	184	2.0	0.159	3.9	LOS A	0.9	6.3	0.09	0.47	0.09	46.1
8	T1	47	2.0	47	2.0	0.159	3.8	LOS A	0.9	6.3	0.09	0.47	0.09	47.0
9u	U	5	2.0	5	2.0	0.159	9.6	LOS A	0.9	6.3	0.09	0.47	0.09	43.2
Approach		237	2.0	237	2.0	0.159	4.0	LOS A	0.9	6.3	0.09	0.47	0.09	46.3
All Vehicles		532	2.0	532	2.0	0.175	5.5	LOS A	0.9	6.6	0.17	0.53	0.17	44.6

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.
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.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: Karne Street Network

Template: Movement Summaries

Site: 101 [AM EX + Dev - Martin Street - Karne 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
1	L2	79	2.0	79	2.0	0.228	5.3	LOS A	1.3	9.4	0.37	0.61	0.37	44.0
3	R2	179	2.0	179	2.0	0.228	7.5	LOS A	1.3	9.4	0.37	0.61	0.37	44.4
3u	U	1	2.0	1	2.0	0.228	8.8	LOS A	1.3	9.4	0.37	0.61	0.37	39.5
Approach		259	2.0	259	2.0	0.228	6.8	LOS A	1.3	9.4	0.37	0.61	0.37	44.3
East: Martin Street														
4	L2	121	2.0	121	2.0	0.224	5.1	LOS A	1.3	9.6	0.34	0.51	0.34	43.6
5	T1	142	2.0	142	2.0	0.224	4.5	LOS A	1.3	9.6	0.34	0.51	0.34	46.3
6u	U	1	2.0	1	2.0	0.224	8.6	LOS A	1.3	9.6	0.34	0.51	0.34	49.5
Approach		264	2.0	264	2.0	0.224	4.8	LOS A	1.3	9.6	0.34	0.51	0.34	45.5
West: Martin Street														
11	T1	311	2.0	311	2.0	0.381	5.1	LOS A	2.6	18.5	0.47	0.59	0.47	45.8
12	R2	116	2.0	116	2.0	0.381	7.9	LOS A	2.6	18.5	0.47	0.59	0.47	42.6
12u	U	1	2.0	1	2.0	0.381	9.2	LOS A	2.6	18.5	0.47	0.59	0.47	48.8
Approach		427	2.0	427	2.0	0.381	5.9	LOS A	2.6	18.5	0.47	0.59	0.47	45.2
All Vehicles		951	2.0	951	2.0	0.381	5.8	LOS A	2.6	18.5	0.41	0.57	0.41	45.0

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.
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 - Karne Street - Shorter 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
2	T1	58	2.0	58	2.0	0.073	4.7	LOS A	0.4	2.6	0.36	0.53	0.36	43.3
3	R2	16	2.0	16	2.0	0.073	7.8	LOS A	0.4	2.6	0.36	0.53	0.36	46.2
3u	U	5	2.0	5	2.0	0.073	10.5	LOS A	0.4	2.6	0.36	0.53	0.36	49.7
Approach		79	2.0	79	2.0	0.073	5.7	LOS A	0.4	2.6	0.36	0.53	0.36	44.8
East: RoadName														
4	L2	11	2.0	11	2.0	0.150	4.2	LOS A	0.8	5.6	0.21	0.59	0.21	44.9
6	R2	179	2.0	179	2.0	0.150	7.1	LOS A	0.8	5.6	0.21	0.59	0.21	42.0
6u	U	5	2.0	5	2.0	0.150	9.8	LOS A	0.8	5.6	0.21	0.59	0.21	48.7
Approach		195	2.0	195	2.0	0.150	7.0	LOS A	0.8	5.6	0.21	0.59	0.21	42.5
North: Karne Street														
7	L2	200	2.0	200	2.0	0.179	4.0	LOS A	1.0	7.3	0.13	0.47	0.13	46.0
8	T1	53	2.0	53	2.0	0.179	3.8	LOS A	1.0	7.3	0.13	0.47	0.13	46.9
9u	U	5	2.0	5	2.0	0.179	9.6	LOS A	1.0	7.3	0.13	0.47	0.13	43.0
Approach		258	2.0	258	2.0	0.179	4.0	LOS A	1.0	7.3	0.13	0.47	0.13	46.2
All Vehicles		532	2.0	532	2.0	0.179	5.4	LOS A	1.0	7.3	0.19	0.52	0.19	44.9

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.
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.

USER REPORT FOR NETWORK SITE

All Movement Classes

Project: Karne Street Network

Template: Movement Summaries

Site: 101 [PM EX + Dev - Martin Street - Karne 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
1	L2	111	2.0	111	2.0	0.309	6.4	LOS A	1.9	13.5	0.54	0.69	0.54	43.6
3	R2	189	2.0	189	2.0	0.309	8.6	LOS A	1.9	13.5	0.54	0.69	0.54	44.0
3u	U	1	2.0	1	2.0	0.309	9.9	LOS A	1.9	13.5	0.54	0.69	0.54	38.8
Approach		301	2.0	301	2.0	0.309	7.8	LOS A	1.9	13.5	0.54	0.69	0.54	43.9
East: Martin Street														
4	L2	184	2.0	184	2.0	0.365	4.9	LOS A	2.6	18.6	0.33	0.49	0.33	43.6
5	T1	279	2.0	279	2.0	0.365	4.4	LOS A	2.6	18.6	0.33	0.49	0.33	46.3
6u	U	5	2.0	5	2.0	0.365	8.5	LOS A	2.6	18.6	0.33	0.49	0.33	49.5
Approach		468	2.0	468	2.0	0.365	4.6	LOS A	2.6	18.6	0.33	0.49	0.33	45.7
West: Martin Street														
11	T1	200	2.0	200	2.0	0.270	5.1	LOS A	1.7	12.0	0.46	0.59	0.46	45.8
12	R2	84	2.0	84	2.0	0.270	7.9	LOS A	1.7	12.0	0.46	0.59	0.46	42.6
12u	U	1	2.0	1	2.0	0.270	9.2	LOS A	1.7	12.0	0.46	0.59	0.46	48.8
Approach		285	2.0	285	2.0	0.270	5.9	LOS A	1.7	12.0	0.46	0.59	0.46	45.2
All Vehicles		1055	2.0	1055	2.0	0.365	5.9	LOS A	2.6	18.6	0.42	0.57	0.42	45.0

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.
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 - Karne Street - Shorter 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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Karne Street														
2	T1	63	2.0	63	2.0	0.075	4.9	LOS A	0.4	2.7	0.40	0.54	0.40	43.2
3	R2	11	2.0	11	2.0	0.075	8.0	LOS A	0.4	2.7	0.40	0.54	0.40	46.2
3u	U	5	2.0	5	2.0	0.075	10.7	LOS A	0.4	2.7	0.40	0.54	0.40	49.6
Approach		79	2.0	79	2.0	0.075	5.7	LOS A	0.4	2.7	0.40	0.54	0.40	44.5
East: RoadName														
4	L2	11	2.0	11	2.0	0.182	4.2	LOS A	1.0	6.9	0.22	0.59	0.22	44.9
6	R2	221	2.0	221	2.0	0.182	7.2	LOS A	1.0	6.9	0.22	0.59	0.22	41.9
6u	U	5	2.0	5	2.0	0.182	9.9	LOS A	1.0	6.9	0.22	0.59	0.22	48.7
Approach		237	2.0	237	2.0	0.182	7.1	LOS A	1.0	6.9	0.22	0.59	0.22	42.4
North: Karne Street														
7	L2	184	2.0	184	2.0	0.169	3.9	LOS A	1.0	6.8	0.11	0.47	0.11	46.1
8	T1	58	2.0	58	2.0	0.169	3.8	LOS A	1.0	6.8	0.11	0.47	0.11	47.0
9u	U	5	2.0	5	2.0	0.169	9.6	LOS A	1.0	6.8	0.11	0.47	0.11	43.1
Approach		247	2.0	247	2.0	0.169	4.0	LOS A	1.0	6.8	0.11	0.47	0.11	46.2
All Vehicles		563	2.0	563	2.0	0.182	5.5	LOS A	1.0	6.9	0.20	0.53	0.20	44.6

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.
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.