Graythwaite Rehabilitation Centre, Ryde

Transport & Accessibility Study

16th September 2011

Prepared for

NSW Health Infrastructure

Halcrow

Graythwaite Rehabilitation Centre, Ryde
Traffic and Parking Report

Prepared for
NSW Health Infrastructure

This report has been issued and amended as follows:

Rev	Description	Date	Prepared by	Approved by
0	Draft Issue	18/03/11	KY	KJH
1	Final	06/06/11	KY	KJH
2	Final	29/07/11	KY	KJH
3	Amended FTE Numbers	15/09/11	KY	KJH

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Contents

1 Introduction

This report has been prepared on behalf of NSW Health Infrastructure to prepare the traffic report to accompany the Part 3A application to the Department of Planning for the proposed development of Graythwaite Rehabilitation Centre (GRC) at the Ryde Hospital.

The Director-Generals Requirements issued on 1st December 2010 for the proposed development required a number of transport / traffic issues to be addressed. In particular, it required a Transport & Accessibility Study which would include consideration of the issues raised by Director-General, which are outlined in Table 1.1.

This report therefore provides an overview of the traffic and transport implications for the proposed GRC development at the Ryde Hospital.

The proposal will involve construction of a three-storey building to accommodate 64-bed inpatient unit.

The remainder of the report is set out as follows:

- Chapter 2 discusses the existing traffic and parking conditions of the site;
- Chapter 3 describes the proposed development;
- Chapter 4 examines the traffic and parking impacts; and
- Chapter 5 presents the summary and conclusions of the investigation.

The Director-Generals Requirements have been addressed in the following sections of the report as shown in Table 1.1.

Table 1.1 – Director-Generals Requirements on Transport & Accessibility Impacts

Key Issues	Addressed in
Demonstrate how users of the development will be able to make travel choices that support the achievement of relevant State Plan targets	Section 5
Detail the existing pedestrian and cycle movements within the vicinity of the site and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access	Section 2.7, 2.8 & 4.5
Identify potential traffic impacts during the construction stage of the project, and measures to mitigate these impacts	Section 4.3
Describe the measures to be implemented to promote sustainable means of transport including public transport usage and pedestrian and bicycle linkages in addition to addressing the potential for implementing a Workplace Travel Plan	Section 5
Daily and peak traffic movements likely to be generated by the proposed development, including the impact on nearby intersections including Florence Avenue/Blaxland Road and any proposed access to the development, and the need / associated funding for upgrading or road improvement works (if required). The traffic impact assessment should consider base models with future traffic generated by the Graythwaite Rehabilitation Centre	Section 4
Details of the proposed access, parking provisions, loading facilities and service vehicle movements associated with the proposed development including compliance with Australian Standards	Section 4.4 & 4.6
Provision of appropriate levels of on site car parking for the proposed development having regard to the high public transport accessibility of the site, opportunities for car sharing, local planning controls and RTA guidelines (note: The Department supports reduced parking provisions, if adequate public transport is available to access the site)	Section 4.4 & 5

2 Existing Conditions

2.1 Site Location

The Ryde Hospital site bounded by Denistone Road to the east, Fourth Avenue to the north, Ryedale Road to the west and Florence Avenue to the south.

The site is shown in **Figure 1**.

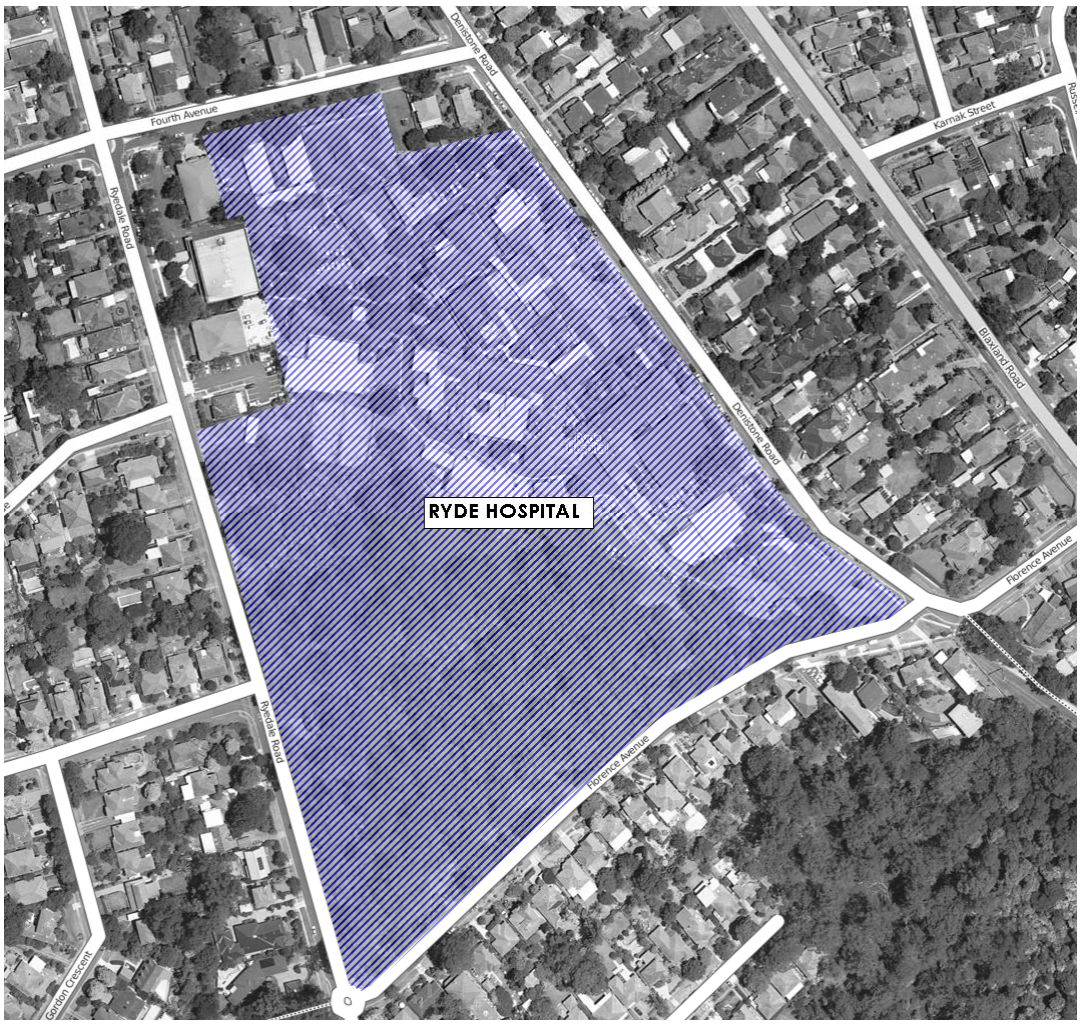


Figure 1 – Site Plan

2.2 Road Network

Blaxland Road is an arterial road which provides a connection between Epping Road and Lane Cove Road. It has posted speed limit of 60km/hr and generally has two travelling lanes in each direction in the vicinity of the site during the commuter peak periods. Blaxland Road forms a signalised intersection with Florence Avenue.

Ryedale Road is a collector road providing a link between Eastwood and West Ryde. It has one travel lane in each direction with posted speed limit of 50km/hr. It has "No Parking" and time restricted parking zones along the frontage of the site but apart from there, unrestricted parking is generally allowed on both side of the road. Ryedale Road forms a roundabout intersection with Fourth Avenue. It has a steep down slope from south of Fifth Avenue.

Fourth Avenue is a local road with one travel lane in each direction. Parking is generally allowed on both sides of the road with some of the spaces along the southern side of the road restricted to 3 hour parking. About four accessible parking spaces are also provided along the front of the site. At east of the site, Fourth Avenue forms a sign controlled intersection with Denistone Road with priority given to traffic on Denistone Road.

Denistone Road is also a two-lane, two-way local road with parking generally permitted on both sides of the road. About seven parking spaces along the western side of the road are designated for "Visiting Medical Officers". Along the frontage of the site, it has approximately 1.5m wide painted median along the centre of the road. Denistone Road forms a sign controlled intersection with Florence Avenue with priority given to traffic on Denistone Road.

2.3 Existing Traffic Flows

Peak hour intersection turning movement flow surveys were conducted at Blaxland Road-Florence Avenue intersection.

The surveys were conducted on a Wednesday, 8th December 2010 during 6:30-9:30AM and 3:30-6:30PM. The surveys indicated that the peak hours were 7:15-8:15AM and 5-6PM.

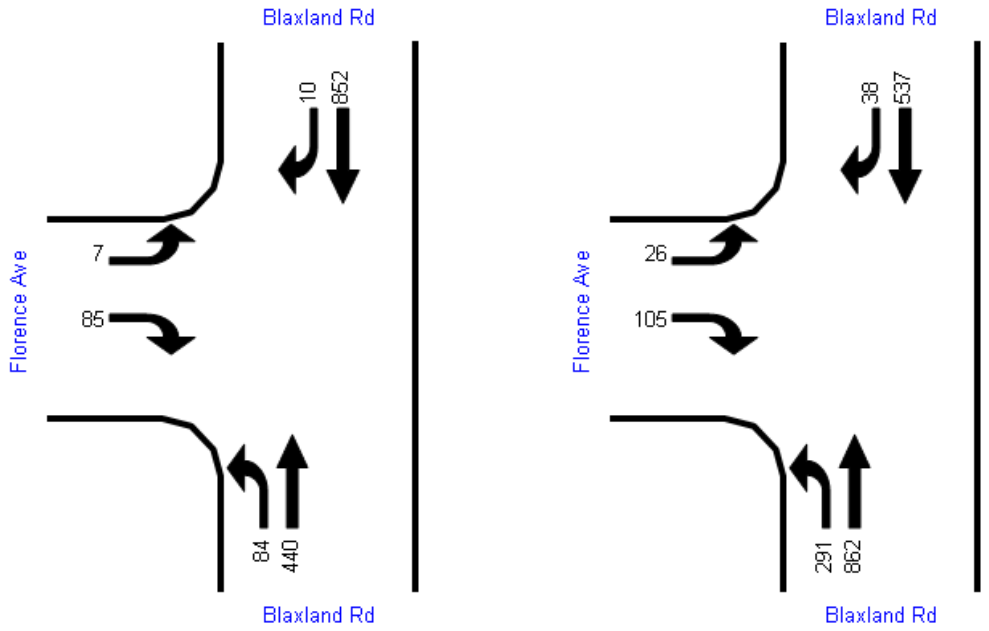
The mid block two-way peak hour flows are summarised in Table 2.1 and intersection turning movement flows are presented in **Figure 2**.

Table 2.1 – Existing Two-way Peak Hour Flows

Locations	AM Peak Hour	PM Peak Hour
Blaxland Rd, south of Florence Ave	1,461	1,795
Blaxland Rd, north of Florence Ave	1,309	1,463
Florence Ave, west of Blaxland Rd	186	460

Blaxland Road in the vicinity of the site currently carries peak hour flows in order of 1,800 vehicles per hour (vph) during the morning period and about 1,500 vph during the evening peak period.

Florence Avenue currently carries about 500 vph during the evening peak hour.



AM Peak Hour **PM Peak Hour**

Figure 2 – Existing Peak Hour Intersection Flows

2.4 Existing Intersection Operation

The existing operation of the surveyed intersections were analysed using the SIDRA intersection analysis programme.

SIDRA determines the average delay that vehicles encounter, the degree of saturation of the intersection, and the level of service. For roundabouts and sign posted intersections, the intersection delay is the delay for the worst movement at the intersection.

SIDRA provides analysis of the operating conditions which can be compared to the performance criteria set out in Table 2.2.

Table 2.2 – Level of Service Criteria

Level of Service	Average Delay per Vehicle (secs/veh)	Signals & Roundabouts	Give Way & Stop Signs
A	less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & Spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode
F	> 70	Extra capacity required	Extreme delay, traffic signals or other major treatment required

Adapted from RTA Guide to Traffic Generating Developments, 2002.

The results of the existing intersection performances are presented in Table 2.3.

Table 2.3 – Existing Operating Conditions at Blaxland Rd-Florence Ave Intersection

Peak Periods	Control Type	Level of Service	Average Delay (sec)
AM Peak Hour	Signals	A	12
PM Peak Hour	Signals	B	21

From Table 2.3, it can be seen that the Blaxland Road-Florence Avenue intersection currently operate at a good Level of Service (LoS) B, or better during both morning and evening peak periods with acceptable delays.

2.5 Parking

As part of a traffic and parking assessment survey of the site, Halcrow commissioned parking utilisation survey of the existing on-site and on-street parking spaces. The surveys were conducted in December 2010.

According to the survey results, Ryde Hospital has some 251 parking spaces on the site *(about 200 being marked out but around 51 being ad-hoc spaces adjacent to buildings – this does not include the parking allocated to Ryde Medical Centre)* plus about 240 on-street spaces surrounding the hospital within a 250m walking distance to the entrance on Fourth Avenue. A sketch plan of the existing parking on and off site is shown in **Appendix A**.

The survey results are shown in **Figures 3** and **4**.

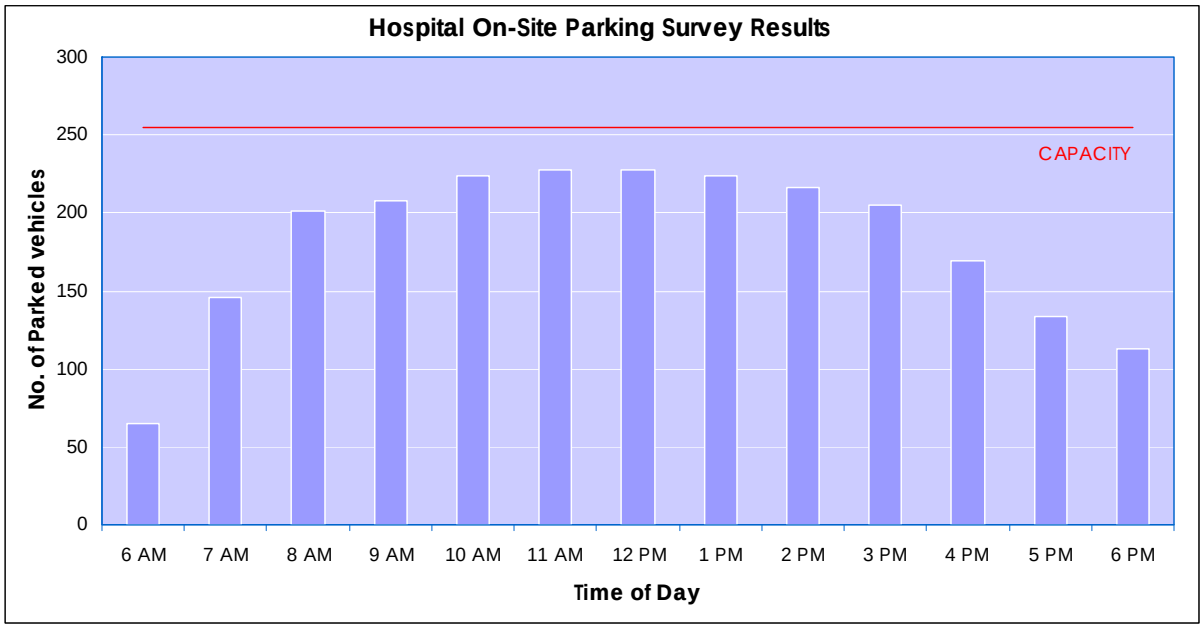


Figure 3 – On-Site Parking Survey Results

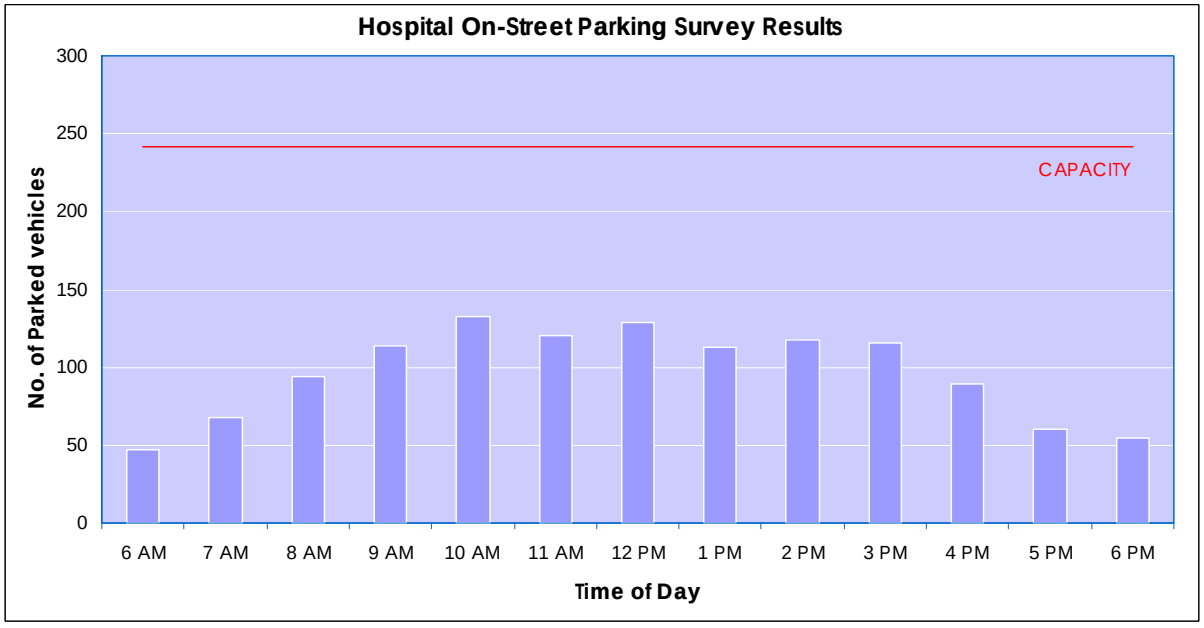


Figure 4 – On-Street Parking Survey Results

The parking surveys also indicate that the car parking spaces on the hospital site have a peak demand of about 90 percent of the total available parking spaces. This suggests that there are around 23 parking spaces available on the site even at the peak time.

The peak parking demand lasted for about five hours starting from 10AM. The parking demand during the off peak periods was in the order of about 20 to 50 per cent.

The nearby on-street parking spaces had a peak demand of about 50 percent. This lasted for about seven hours starting at around 9AM. This suggests that there are around 90 parking spaces available within 250m of the site.

The parking surveys therefore indicate that there is some spare parking capacity available both on the site as well as nearby streets surrounding the hospital.

2.6 Public Transport

Rail

The subject site is located approximately 650m (walking distance) from Denistone Railway Station. Table 2.4 summaries the train frequencies.

Table 2.4 – Train Frequencies at Denistone Railway Station

	To City	From City
Morning Peak Hour	4	4-7
Off-Peak Hour	2	2
Evening Peak Hour	4-5	4

During the peak commuting periods, the service frequency of a train to/from the city is at least one every 15 minutes in each direction.

Bus

Sydney Buses provide services along Ryedale Road-Fourth Avenue-Denistone Road-Blaxland Road. Bus route 515/X15 provides services between Eastwood and City. Service frequency is about one every 30 minutes during the day in each direction.

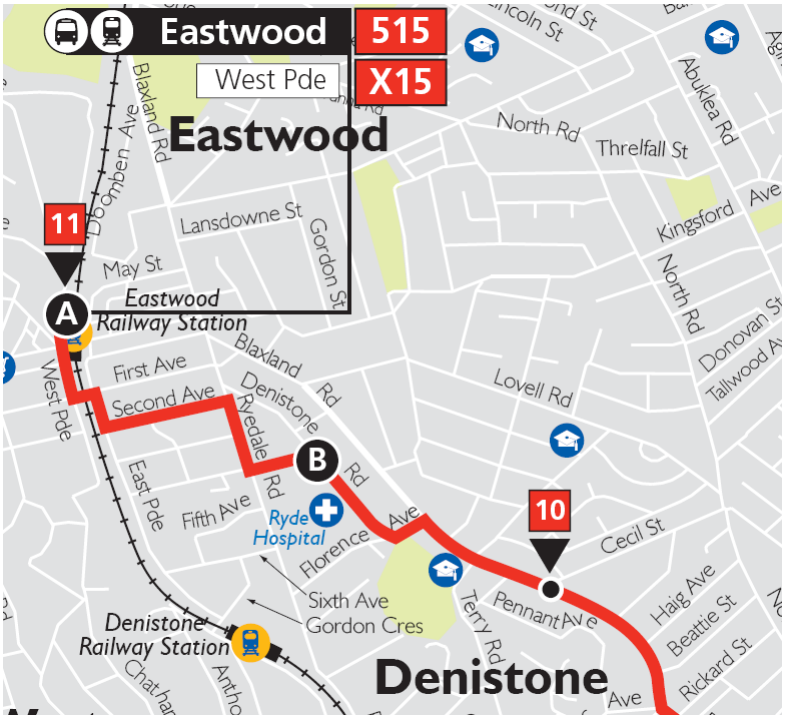


Figure 5 – 515/X15 Bus Route

2.7 Pedestrian Facilities

Fourth Avenue

A pedestrian footpath is located on either sides of Fourth Avenue between Denistone Road and Ryedale Road.

Ryedale Road

A footpath is located on either sides of Ryedale Road along the frontage of the site. However between Fifth Avenue and Florence Avenue, a footpath is installed only along the western side of the road.

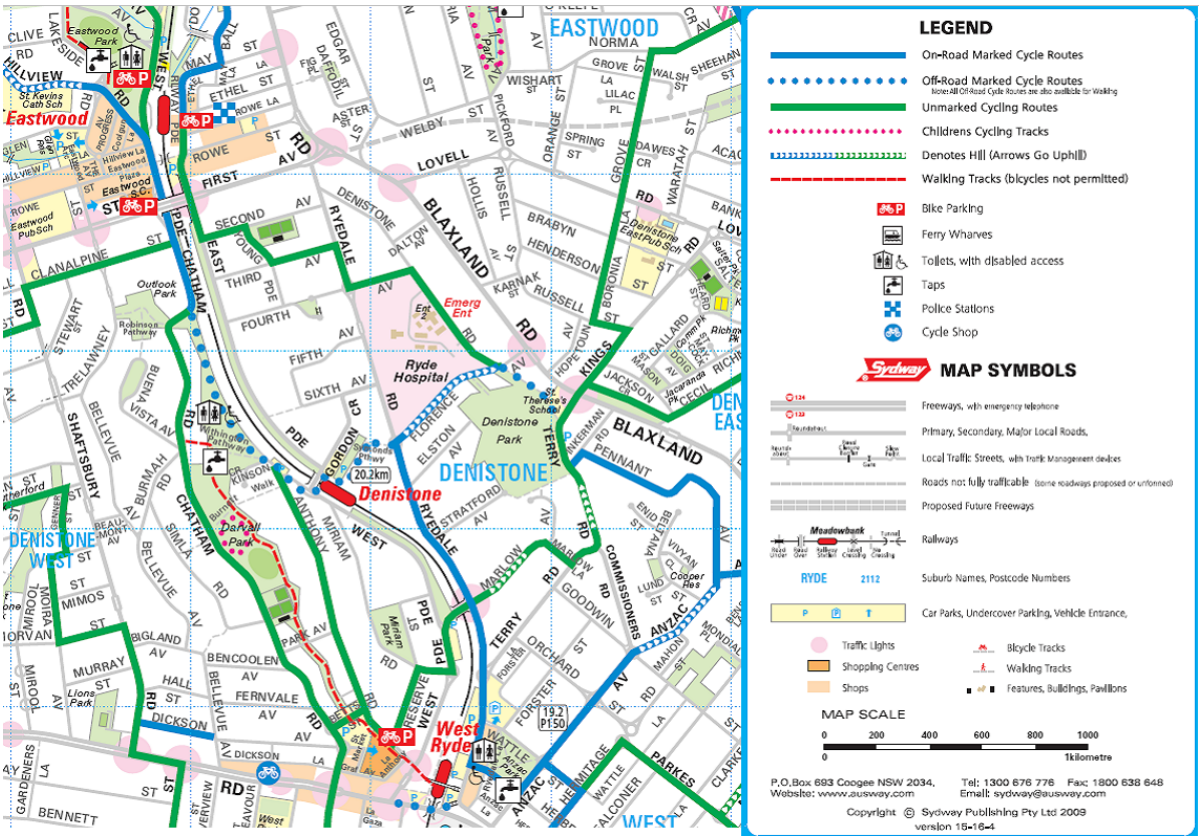
Denistone Road

A footpath is located on either sides of Denistone Road along the frontage and in vicinity of the site. Between Fourth Avenue and Florence Avenue, it has approximately 1.5m wide painted median along the centre of the road.

These roads are managed by City of Ryde Council.

2.8 Cycle Facilities

The existing bicycle path network in the vicinity of the site is shown in **Figure 6**.



Source: City of Ryde Bike Map

Figure 6 – Existing Cycle Map

Unmarked cycle path exists on Fourth Avenue and Denistone Road along the frontage of the site. There is also marked cycle path on Florence Avenue between Ryedale Road and Denistone Road.

3 Overview of Proposed Development

3.1 Graythwaite Facility

It is proposed to construct a new 64-bed inpatient unit, Graythwaite Rehabilitation Centre at Ryde Hospital.

The proposed facility will be situated on a parcel of land within the Ryde Hospital campus and adjacent to Fourth Avenue. The proposal will involve construction of a three-storey (plus basement car park level) building.

The proposed facility will include:

- 64 inpatient beds in two separate wards;
- therapy areas within each ward;
- swimming pool on lower ground level for hydrotherapy;
- enclosed high level link to Ryde Hospital; and
- basement car park accessed from Fourth Avenue.

As a result of the construction of the new GRC building, about 48 of the existing available parking spaces would be lost in Areas 1 and 2 as indicated on **Figure 7** below.

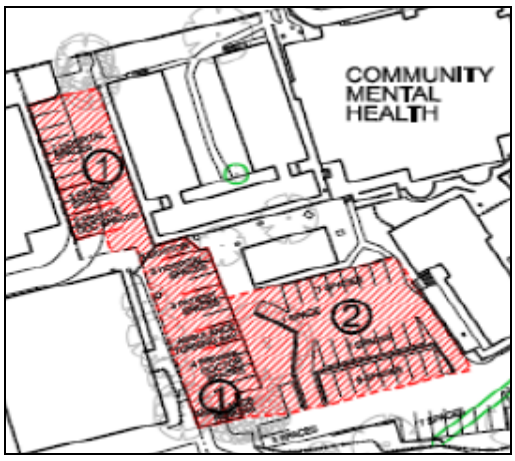


Figure 7 – Parking Lost as a result of new GRC Building

The following additional parking spaces will be provided as part of the proposal:

- 79 spaces in the basement car park of the new building accessed via Fourth Avenue;
- 4 external parking spaces near the proposed porte-cochere at Fourth Avenue;
- 2 additional parking spaces adjacent to the Ryde Medical Centre.

3.2 Staffing Levels

The approved staff profile contains a total of 148.22 FTE (full-time equivalent) staff comprising

- 74.67 FTE nurses (overall for three shifts)
- 13.29 FTE doctors - including 6 Junior Medical Officers (JMOs). Doctors typically working between 9am to 5pm, whereas typically 3 to 4 JMO's typically work after normal business hours.
- 37.22 FTE allied health
- 23.05 administration and service enhancements (who generally work 9am to 5pm staff)

We assumed in our calculations that

- the actual number of staff on site is approximately 90% of FTE for "9 to 5" staff, due to sick and holiday leaves, roster days off, etc.
- the number of nurses in the morning (busiest shift) is in the order of 55% of the daily total
- the total number of nurses on site increases to 80% of the daily total FTE for an hour or two in the afternoon, due to the shift changeover.

The maximum number of staff working on the hospital at any one time was therefore calculated as follows.

- Nursing AM peak = 74.67 x 55% = 41.07 nurses
- Nursing Shift changeover = 74.67 x 80% = 59.73 nurses
- Doctors during day = 9.3 doctors (About 70% of FTE)
- JOM's after hours = 3.99 JMOs working after hours
- Allied Staff = 37.22 x 90% = 33.49 allied health,
- Other = 23.05 x 90% = 20.74 administration/other staff

In summary, the maximum number of staff on site at any one time will be as follows.

Table 3.1 – Staffing Levels

	Total Staff	**Max Staff on Site**
Medical Staff (i.e. Doctors)	13.29	9.30
Nursing	74.67	59.73
Allied Health	37.22	33.49
Other	23.05	20.74
TOTAL	**148.22**	**123.27**

4 Impacts of Proposed Development

4.1 Potential Traffic Generation

Roads and Traffic Authority's Guide to Traffic Generating Developments, 2002 stipulates the following peak hour trip generation rates for private hospitals:

- Morning Peak Hour = -10.21 + 0.47B + 0.06ASDS
- Evening Peak Hour = -2.84 + 0.25B + 0.40ASDS

where "B" represents the number of beds and "ASDS" represents the number of staff per weekday day shift.

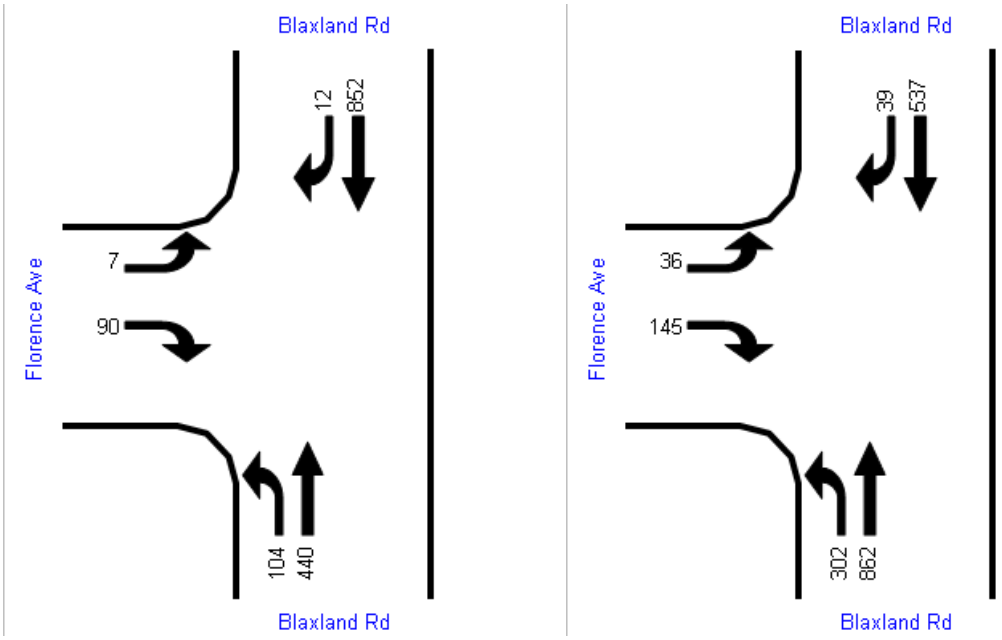
On the basis of a proposed 64-bed unit with maximum staffing level of 123.27 at any one time (see **Table 3.1**) the proposed development would generate about 27 and 62 vehicle trips during the morning and evening peak hours, respectively.

4.2 Intersection Operation with Development

It is assumed that all of the additional vehicle trips generated by the proposed development would access the site via the Blaxland Road-Florence Avenue intersection. It is assumed that about 80% of trips would be inbound and 20% would be outbound during the morning peak hour and reversed for the evening peak hour.

The additional trips have been distributed based on the existing intersection turning flows and superimposed on the existing flows shown in **Figure 2**.

The estimated post development intersection flows are shown in **Figure 8**.



AM Peak Hour **PM Peak Hour**

Figure 8 – Post Development Peak Hour Intersection Flows

The results of the post development intersection performances are presented in Table 4.1.

Table 4.1 – Future Operating Conditions at Blaxland Rd-Florence Ave Intersection

Peak Periods	Control Type	Level of Service	Average Delay (sec)
AM Peak Hour	Signals	A	13
PM Peak Hour	Signals	B	21

From Table 2.3, it can be seen that the Blaxland Road-Florence Avenue intersection would retain its current operating conditions with Level of Service (LoS) B, or better during both morning and evening peak periods.

Hence the proposed development would not necessitate any intersection upgrade or road improvement works.

4.3 Intersection Operation during Construction

It is considered that the number and frequency of trucks is estimated as relatively low and would not adversely impact the surrounding road network. Hence, the intersection performance of Blaxland Road-Florence Avenue would remain similar to its existing operating conditions.

As the site is located in close proximity to the arterial road, there would be minimal impact on local or collector roads.

In addition, the majority of the proposed construction routes would be via major arterial roads, which are designed to accommodate use of heavy vehicles.

4.4 Car Parking Requirements

Council's parking development control plan requires parking for a proposed hospital to be provided at the following rates:

- 1 space per doctor on the premises at any one time;
- 1 space per 2 employees; and
- 1 space per 4 beds for visitors.

On the basis of a proposed 64-bed unit with the maximum staffing levels shown in **Table 3.1**, the required parking is 83 car parking spaces as shown in **Table 3.2** below.

Table 3.1 – Required Parking Provision

Doctors	***9.3***	***1 space per doctor***	***9.3***
Nurses & Other Staff		***1 space per 2 employees***	
Nursing	*59.73*		
Allied Health	*33.29*		
Other	*20.74*		
Total	***113.76***		***56.88***
Beds	***64***	***1 space per 4 beds for visitors***	***16***
		TOTAL	***82.18***

As a result of the construction of the new GRC building, about 48 of the existing available parking spaces would be lost in Areas 1 and 2 as indicated on **Figure 7**.

It is noted as per DA Consent A 2822 24.7.80 and A 4727 12.3.86, 10 car parking spaces will be provided for the Ryde Medical Centre.

As indicated above, the Council's DCP requires that the proposed GRC building would need to provide 83 new car spaces and some 48 existing car spaces would be lost. Therefore, the net new parking which needs to be provided at the end of the scheme is 131 car spaces.

The following additional parking spaces are proposed to be provided:

- 79 spaces in the basement car park of the new building;
- 4 external parking spaces near the proposed porte-cochere at Fourth Avenue;
- 8 additional parking spaces in the new car park next to the Mental Health building;
- 2 additional parking spaces adjacent to the Ryde Medical Centre; and
- 38 spaces in car park provided on the site of the former tennis courts.

In total, there would be 131 additional parking spaces.

From the above analysis, the future parking provided (i.e. 131 spaces) would accord exactly with the parking requirement of 131 spaces.

In addition, the parking study has shown that there is some available parking capacity on site and there is some parking available on the adjacent streets even at the busiest times.

Furthermore a number of staff using the Graythwaite site will already be present at the site and would relocate from the existing buildings into the new buildings either on a full or part time basis and would therefore be unlikely to create any additional parking demand.

Consequently, the parking provision for the subject site will be able to meet its anticipated demand.

Accessible Parking Spaces

City of Ryde Council's car parking DCP stated that for access for people with disabilities, facilities should be generally in accordance with the standards laid down in Australian Standard 2890.1.

Council's DCP Part 9.2 – Access for People with Disabilities states that for a Class 9a building (i.e. a health-care building), it requires that 4% of total spaces to be designated as accessible parking spaces.

As discussed above, the new GRC building would provide 79 spaces in the basement car park and 4 external parking spaces near the proposed porte-cochere.

It is proposed to allocate 2 accessible parking spaces in the basement car park of the new building and 2 (external) accessible parking spaces near the proposed porte-cochere. Therefore there would be a total of 4 accessible parking spaces, which is equivalent to more than 4% of the total parking spaces provided in the GRC site.

Loss of Parking during Construction

The provision of 38 new parking spaces at the tennis courts will be provided prior to commencement of construction. When construction begins, up to 48 parking spaces will be lost which will result in a deficit of about 10 spaces. A review of the site indicated that there do not appear to be any areas on the site which could be used for temporary parking.

However, the results of parking surveys indicated that there is spare capacity of on-site parking and on-street parking could be used for this temporary shortfall throughout the duration of construction.

4.5 Future Public Transport Demand

The GRC site is located within walking distance to Denistone Railway Station, which provides regular train services to/from the city during the commuting periods.

Sydney Buses also provide regular services along Ryedale Road-Fourth Avenue-Denistone Road-Blaxland Road, which runs between Eastwood and City.

It is expected that the existing public transport services would be able to absorb a minor increase in train and bus patrons due to the proposed development.

4.6 Access and Internal Circulation

The vehicle access will be provided via a new porte-cochere off Fourth Avenue. Access to the basement car park would be provided via the porte-cochere.

No loading areas / refuse collection areas are to be provided as part of the Graythwaite scheme. All service and deliveries will continue to taken to the existing main hospital building and will be transported through to Graythwaite by means of the level 3 patient link.

The requirement of Australian Standard Class 3 (i.e. for hospital and medical centre) parking is:

- Space width: 2.6m
- Space length: 5.4m
- Aisle width: 5.8m

It is proposed that all spaces will exceed these requirements except for two "small car" bays, which will be 2.4m wide. A ground floor plan showing the car park layout is included in **Appendix B**.

Hence, the dimensions of the parking bays and aisles generally comply with the requirements of Australian Standard for car parking AS2890.1:2004 and are satisfactory.

5 Workplace Travel Plan

The aim of a Workplace Travel Plan for a development site is to discourage use of the private car and to encourage greater use of more sustainable modes such as walking, cycling and public transport.

Car sharing is encouraged where it is unlikely that sustainable modes will be attractive. It will enable all employees and visitors to have a greater choice and flexibility in how they travel to the site each day and how they travel during the day.

The framework for Workplace Travel Plan would be set out as follows:

- An appointment of a travel plan co-ordinator – this will not be a full time position but will become a responsibility for a designated member of staff
- Provision of secure cycle parking and shower facilities in the development layout so that cycle users have the benefit of facilities from day one.
- Investigation into potential car pooling – this will not realistically be possible until the site is occupied and the whereabouts of staff and workers is fully understood.
- Provision of a Transport access guide which shows all of the available means of transport which can be used to reach the site.
- Investigation into discounts / interest free loans to cyclists to purchase cycle
- Investigation into provision of discounted public transport tickets

As not of all of the initiatives can be implemented prior to the occupation of the office, it is proposed that two additional milestones are set:

- Within three months of the first occupation of site, a travel survey should be conducted. The results of the travel survey will be analysed and used to determine if measures are required to cater for existing demand and also encourage modal shift away from the private car. The measures will be dependent on the needs of the employees, that is, their journey to work.
- Within six months of occupation the full travel plan must be developed and include;

- Results of the Staff Travel Survey;
- Recommended travel plan measures including how they will be adopted;
- Agreed procedure and timescales for implementation; and
- Details of future TP monitoring and review.

Full implementation will then proceed. It is expected that the key to travel behaviour change, and therefore a decrease in vehicle trips, for the Graythwaite Rehabilitation Centre would be to initiate a car sharing scheme. In addition, the availability cycle path network in the vicinity of the site should be promoted.

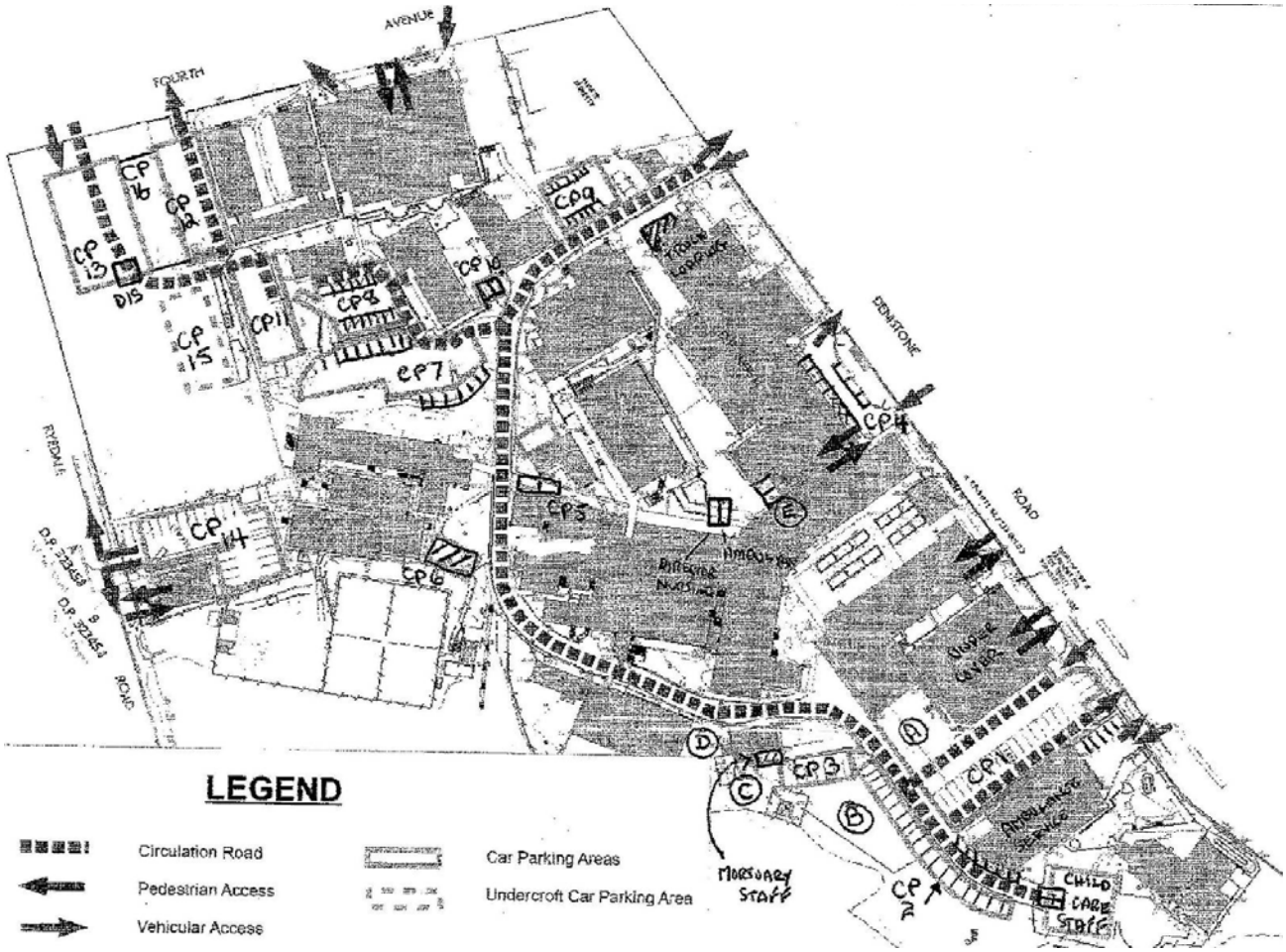
6 Conclusion

This report has examined the traffic and transport implications of proposed development of Graythwaite Rehabilitation Centre (GRC) at the Ryde Hospital. The findings of the investigation are summarised below:

- The proposal will involve construction of a three-storey building to accommodate 64-bed inpatient unit.
- The proposed development is expected to generate about 27 and 62 vehicle trips during the morning and evening peak hours, respectively.
- Analysis indicates that Blaxland Road-Florence Avenue intersection would retain its current operating conditions with Level of Service (LoS) B, or better during both morning and evening peak periods.
- As a result of the proposal, about 48 of the existing on-site parking spaces would be lost. It is proposed to provide 79 spaces in the new basement car park, 4 external parking spaces near the proposed new driveway at Fourth Avenue, 8 additional parking spaces in the new car park next to the Mental Health building, 2 additional parking spaces adjacent to the Ryde Medical Centre and 38 spaces are currently under construction on the existing tennis court to replace the majority of spaces lost during construction.
- The future parking provided (i.e. 131 spaces) would equate exactly with the likely demand (i.e. 131 spaces).
- The layout of the car park is proposed to comply with the Australian Standards for off-street car parking.

Overall, it is concluded that traffic and transport aspects of the proposed development would be satisfactory.

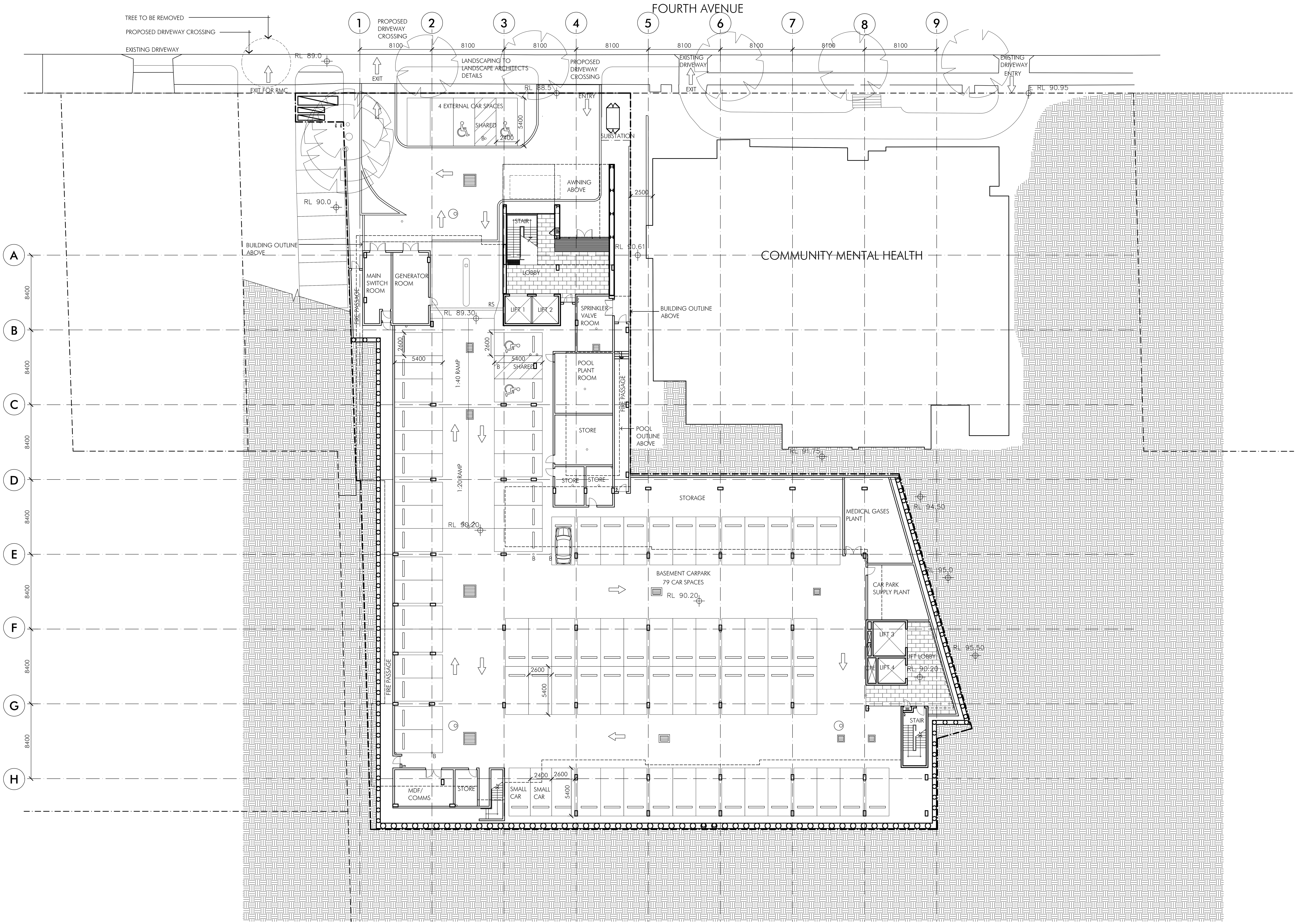
Appendix A Sketch Plan of Existing Parking On & Off Site



Sketch of existing on-site parking

Sketch of existing on-street parking

Appendix B Car Park Layout


FOURTH AVENUE
TREE TO BE REMOVED
PROPOSED DRIVEWAY CROSSING
EXISTING DRIVEWAY
PROPOSED DRIVEWAY CROSSING
LANDSCAPING TO LANDSCAPE ARCHITECTS DETAILS
PROPOSED DRIVEWAY CROSSING
EXISTING DRIVEWAY
EXIT
EXISTING DRIVEWAY
ENTRY
RL 90.95
EXIT FOR RMC
EXIT
RL 89.0
RL 88.5
ENTRY
4 EXTERNAL CAR SPACES
SHARED
5400
2400
SUBSTATION
AWNING ABOVE
2500
RL 90.0
STAIR
LOBBY
RL 90.61
BUILDING OUTLINE ABOVE
COMMUNITY MENTAL HEALTH
MAIN SWITCH ROOM
GENERATOR ROOM
FIRE PASSAGE
RL 89.30
RS
LIFT 1
LIFT 2
SPRINKLER VALVE ROOM
BUILDING OUTLINE ABOVE
2600
5400
1:40 RAMP
2600
5400
SHARED
POOL PLANT ROOM
FIRE PASSAGE
STORE
POOL OUTLINE ABOVE
RL 91.75
1:20 RAMP
STORE
STORE
STORAGE
MEDICAL GASES PLANT
RL 94.50
RL 90.20
BASEMENT CARPARK
79 CAR SPACES
RL 90.20
95.0
CAR PARK SUPPLY PLANT
LIFT 3
LIFT 4
LIFT LOBBY
RL 95.50
RL 90.20
FIRE PASSAGE
2600
5400
STAIR
MDF/ COMMS
STORE
SMALL CAR
SMALL CAR
2400
2600
5400
1
2
3
4
5
6
7
8
9
8100
A
B
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D
E
F
G
H
8400

Client

Project

Graythwaite Rehabilitation Centre
Ryde Hospital
Sydney, NSW

NSW GOVERNMENT Health Infrastructure

LEGEND	
ASHR	ACCESSIBLE SHOWER
AWC	ACCESSIBLE TOILET
B	BOLLARD
C	COMMUNICATIONS RISER
CPE	CARPARK EXHAUST
EDB	ELECTRICAL DISTRIBUTION BOARD
FHR	FIRE HOSE REEL
M	MECHANICAL RISER
PPE	PERSONAL PROTECTIVE EQUIPMENT BAY
SHR	SHOWER
TLB	TRANSITIONAL LIVING BEDROOM

Issue	Description	Date
P1	Preliminary Issue	21.04.11
P2	Plans Updated	05.05.11
P3	Plans Updated	20.05.11
P4	Plans Updated	27.05.11
P5	Plans Updated	06.06.11
A	Part 3A Issue	10.06.11
B	Carpark Update	13.09.11

Title: **Ground Floor Plan**
Scale: 1:200 @A1
Date: 13.09.11
Number: **3717-DA-011**

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25 50m

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