# ST BASILS HOMES
# PROPOSED PLANNING PROPOSAL
# 62-82 HARROW ROAD, BEXLEY

## *Assessment of Traffic and Parking Implications*

November 2013

Reference 13049

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# 1. INTRODUCTION

This report has been prepared on behalf of St Basils Homes to accompany a Planning Proposal to Rockdale City Council for a proposed Residential Age Care Facilities (RACF) at 62-82 Harrow Road in Bexley (Figure 1).

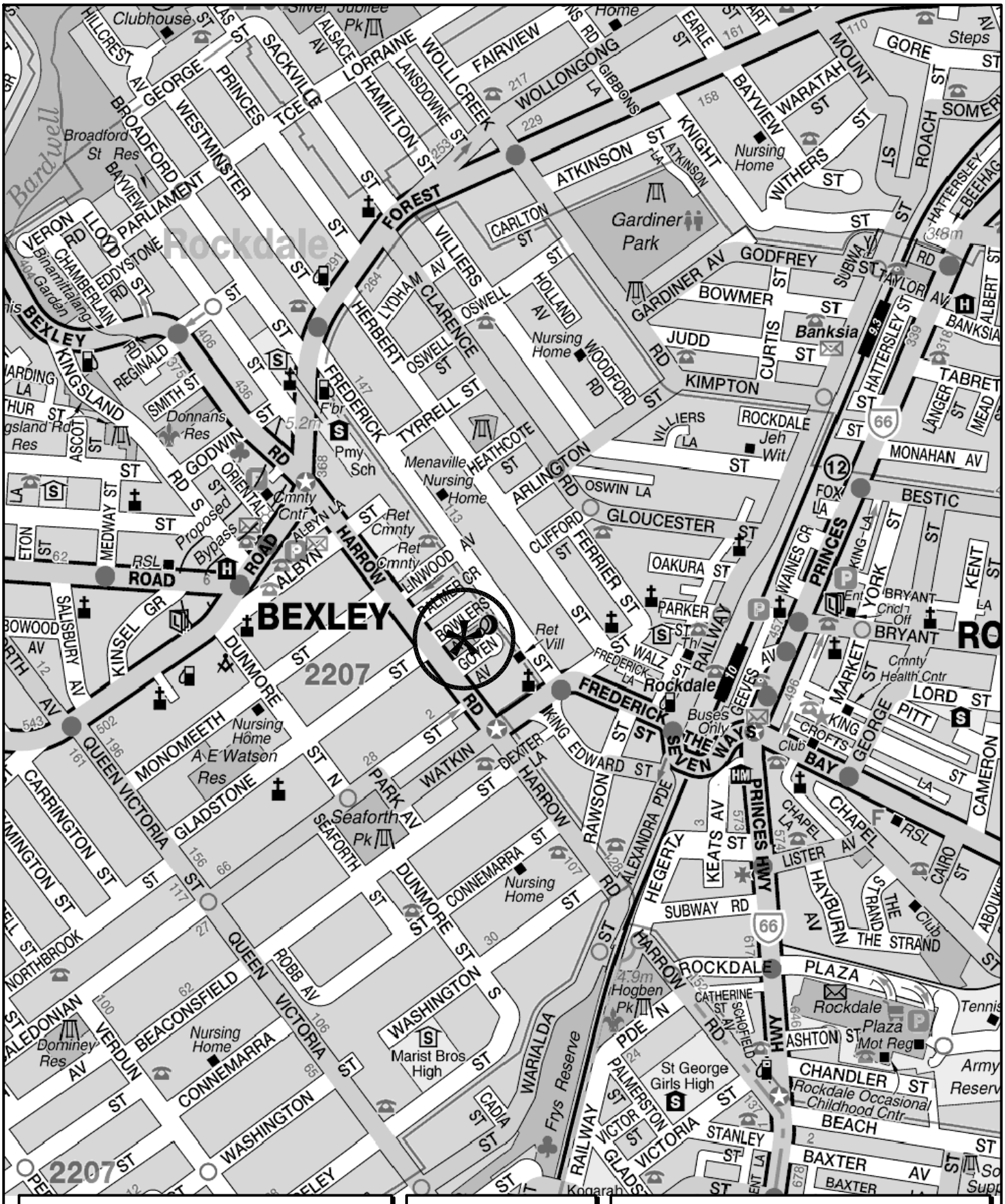
The property, which was formerly the site of the St George Bowling Club, is located between the Rockdale and Bexley centres in a predominantly residential area.

The purpose of this report is to:

* describe the site and the proposed development scheme

* describe the road network serving the site and the prevailing traffic conditions

* assess the potential traffic implications




**LEGEND**

**LOCATION**

**FIG 1**

# 2. PROPOSED DEVELOPMENT SCHEME

## 2.1 SITE, CONTEXT AND EXISTING USE

The site (Figure 2) is located at 62-82 Harrow Road in Bexley and is the site of the former St George Bowling Club. The property is located between Bowlers Avenue and Goyen Avenue and occupies an area of 8,305 $m^2$. The rectangular shaped allotment has frontages of some 70 metres to the eastern side of Harrow Road, 115 metres to Bowlers Avenue and 95 metres to Goyen Avenue.

The area surrounding the property comprises predominantly residential dwellings which occupies the areas between the Bexley and Rockdale Centres. The property is located to the south-east of the Bexley retail hub and north-west of the Rockdale commercial centre. Rockdale railway station is located some 600 metres south east of the site.

The former bowling club includes a Clubhouse, three bowling greens and on-site car park accommodating up to 30 vehicles and accessed from a driveway located along the Harrow Road frontage at the northern corner of Goyen Avenue. When operational the Clubhouse accommodated a lounge and bar with some 50 seats, a dining/function room for up to 110 patrons, a gaming area with some 15 machines and ancillary kitchen and amenities. It is understood that the Club hosted functions including weddings and birthdays in the function room, which also accommodated dancing on Friday and Saturday nights.

## 2.2 PROPOSED DEVELOPMENT SCHEME

The planning proposal seeks to rezone the site from private recreation to residential to support a future residential age care facility development. Massing diagrams have been prepared to assist in the consideration of the proposal and to establish an envelope for future Development and Applications. Access for vehicles and servicing vehicles/ambulance to the future basement parking would be provided off Goyen Avenue.


**LEGEND**

N

**SITE**

**FIG 2**

# 3. ROAD NETWORK AND TRAFFIC CONDITIONS

## 3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

* *M5 Motorway* – a State Road and arterial route connecting across the Central Sydney Region and linking other major arterial routes

* *Princes Highway* – a principal north-south State Highway and arterial route linking between Sydney and Wollongong and beyond

* *Forest Road* – a State Road and sub-arterial route linking between Arncliffe and Lugarno

* *Bexley Road and Harrow Road* – State Roads and sub-arterial routes linking between General Holmes Drive and Canterbury Road

* *Watkin Street and Caledonian Street* – Collector routes linking Queen Victoria Street and Harrow Road in east-west direction

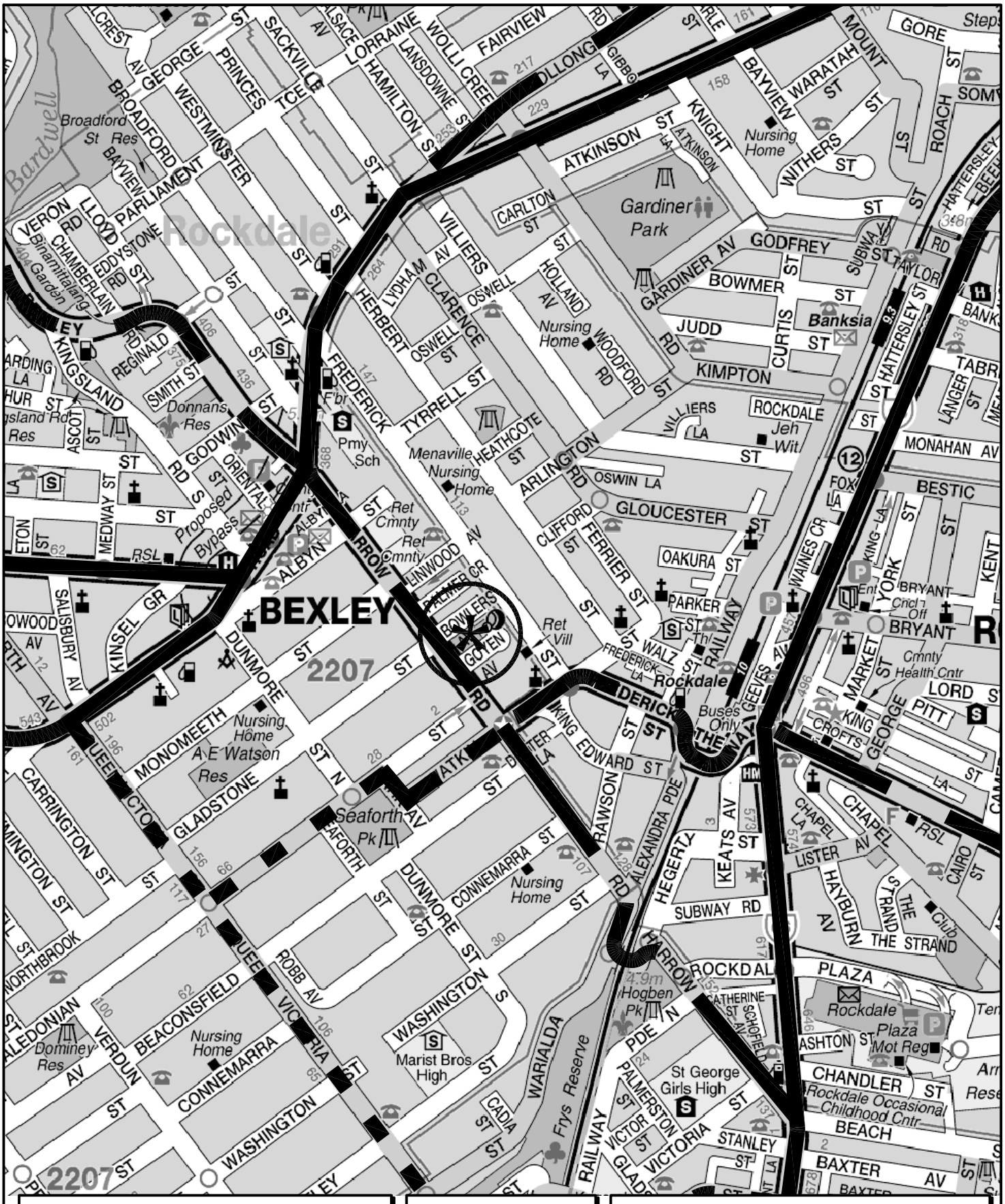
*Goyen Avenue and Bowlers Avenue are short 'dead end' and local access roads with some 7 to 8 metres of roadway widths.*

## 3.2 TRAFFIC CONTROLS

The existing traffic controls, which have been applied to the road system in the vicinity of the site (Figure 4), comprise:

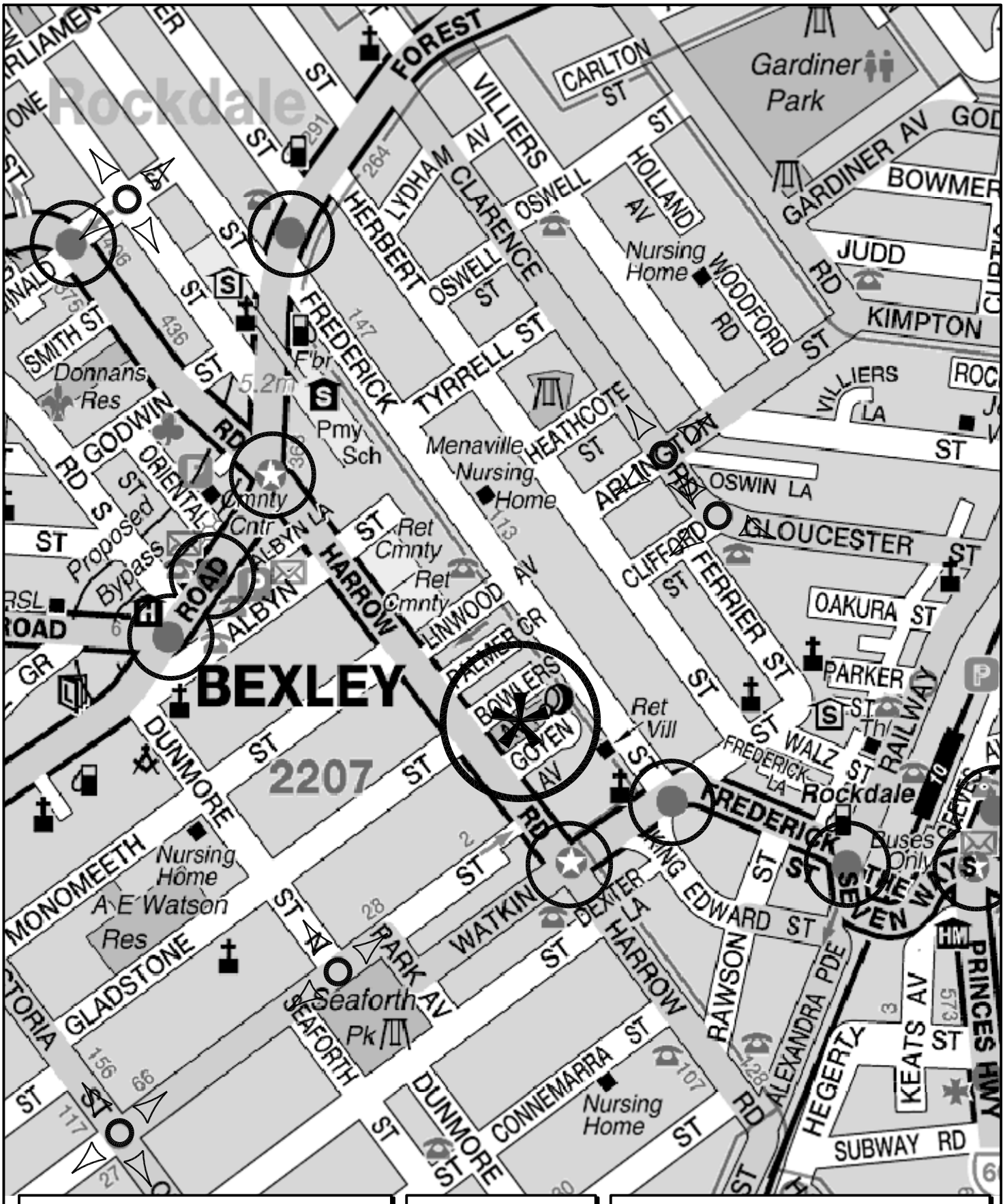
* the traffic signals at the intersection of Harrow Road and Watkin Street

* the traffic signals at the intersection of Harrow Road and Forest Road




# ROAD NETWORK

FIG 3




**LEGEND**

- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- RESTRICTED TURNING MOVEMENT

N

# TRAFFIC CONTROLS

**FIG 4**

* the 'LIGHT TRAFFIC' restrictions on numerous roads to the west of Harrow Road

* the 60 km/h speed restrictions on the major roads and 50 km/h restriction on the local roads.

## 3.3 TRAFFIC CONDITIONS

An indication of the prevailing traffic conditions on the road system in the vicinity of the site is provided by RMS data. The data published by the RMS is expressed in terms of Annual Average Daily Traffic (AADT) and the latest recordings in the vicinity of the site are provided in the following:

| **Location** | **AADT** |
|---|---|
| Harrow Road, South of Albyn Street | 22,625 |
| Forest Road, West of Harrow Road | 32,092 |

As part of the traffic assessment a survey was undertaken to ascertain the existing peak hour circumstance at the fronting Harrow Road. The traffic survey revealed the following existing peak hours traffic flows:

| | | **AM** | **PM** |
|---|---|---|---|
| **Harrow Road** | NB | 639 | 979 |
| | RT | 1 | 0 |
| | SB | 1018 | 673 |
| | LT | 0 | 2 |
| **Bowlers Avenue** | RT | 0 | 1 |
| | LT | 1 | 1 |
| **Harrow Road** | NB | 640 | 978 |
| | RT | 1 | 3 |

| | | | |
|---|---|---|---|
| | SB | 1018 | 672 |
| | LT | 1 | 2 |
| **Goyen Avenue** | RT | 2 | 1 |
| | LT | 3 | 1 |

The traffic operations along Harrow Road (a four traffic lane roadway) near the site are well within capacity and consistent with its function and classification, while there is some queuing at the intersection of Harrow Road and Forest Road during the peak periods traffic, conditions in the area are relatively satisfactory as apparent from the surveyed traffic flows.

## 3.4 PUBLIC TRANSPORT SERVICES

The development site provides convenient access to various facilities within the Rockdale Town Centre located some 700 metres to the south. The local public transport services include the high frequency train and bus services which operate from Rockdale Railway Station (some 600 metres from the site) and Bus Interchange within the Town Centre. Buses no. 452 and 492 stop at the bus stops some 50 metres from the site at Harrow Road and Frederick Street and provide direct services to the Town Centre. The accessibility to public transport within vicinity of the site will encourage further utilisation of existing facilities/services and act to reduce further need for private vehicle transport thus minimising additional traffic generation as a result of development.

The Cityrail network map and bus route map for the local public transport services are reproduced overleaf.

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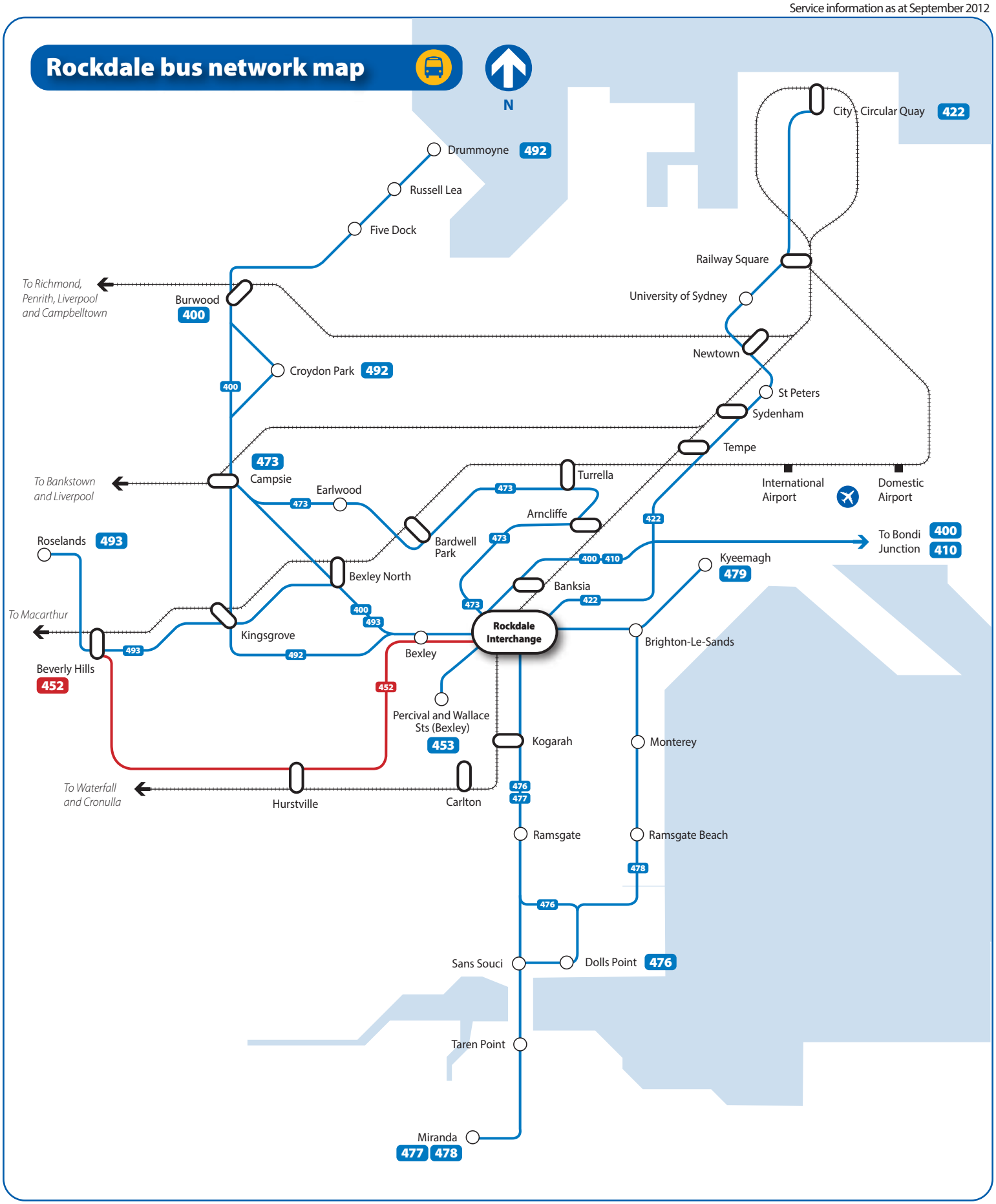
# Rockdale bus network map




## Legend

- Sydney Buses routes
- Veolia Transport routes

Diagrammatic Map - Not to Scale

- Rail line
- Railway station
- Bus route/suburb
- Bus/Rail interchange

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# Rockdale area map


## Legend

- Bus stop
- Bus stand
- NightRide
- Taxi rank
- Kiss & ride
- Bus zone
- Walking route
- Bicycle lockers
- Lift
- Parking
- Ramp gradient

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# 4. PARKING

The appropriate parking provision can be identified by reference to the SEPP 2004 (Housing for Seniors or People with a disability) criteria as follows:

| | | **Rate** |
|---|---|---|
| RACF | - | 1.0 space/ 10 beds |
| | - | 1.0 space/ 2 employees |
| | - | 1.0 Ambulance Bay |

On that basis, if it is assumed (conservatively) that a 200 bed, 80 staff RACF was to be proposed on the site, then the parking requirements in accordance with the above criteria would be in the order 60 spaces plus 1 ambulance bay. With a site area of 8305 $m^2$ it is apparent that a basement car park of sufficient capacity would be achievable on site.

# 4. TRAFFIC

The RMS Development Guidelines specify a generation rate for aged persons residential housing of 0.1 to 0.2 vtph per dwelling in the peak periods but have no specific criteria in relation to contemporary ILU's or an RACF. However RMS recently commissioned Halcrow to undertake surveys and assessment of Housing for Seniors and the average recorded vehicle trips per hour in the afternoon peak in the Sydney Metropolitan Area was 0.17.

The Institute of Transportation Engineers (ITE)* publication specifies a generation rate for nursing homes of 0.17 and 0.22 vtph per bed for the morning and afternoon peak periods respectively. Recent surveys of a number of Anglican Retirement Village (ARV) developments by TTPA revealed traffic generation characteristics as follows:

| | | |
|---|---|---|
| ILU | - | 0.20 vtph per dwelling |
| RACF | - | 0.18 vtph per bed |

These surveys were undertaken in outer 'suburban' locations whereas the Bexley location is likely to result in lower vehicle movements due to the proximity to shops and public transport services. Notwithstanding, application of the generic ARV characteristics would indicate the following peak traffic movements if the RACF was a 200 bed facility:

| | | |
|---|---|---|
| 200 x beds (RACF) | - | 36 vtph |

This should be assessed in comparison with the existing/former use of the site, which comprises 30 on site car parking spaces. Assuming a conservative 40% peak hour turnover of the parking spaces, the existing usage would generate vehicle activities of some 24 vtph (1 in and 1 out) during the peak periods which represents net additional

* *Institute of Transportation Engineers*
*Trip Generation Volume 3, 7th Edition*

development traffic of some 12 vtph. On that basis, the additional vehicle movements will likely be some 1 vehicle trip every 5 minutes during the peak periods. The regular gaps available along the Harrow Road traffic flows induced by the signals at the Forest Road and Watkin Street intersections provide ample opportunity for entering and exiting vehicles.

On that basis, it is apparent that the potential additional traffic movements will not be major and are not expected to present undue difficulties at the access or the local road systems.

# 5. ACCESS AND SERVICING

Access for vehicles and servicing vehicles/ambulance for the future basement parking would be provided off Goyen Avenue. The design of these elements will accord with the specifications of AS2890.1 and 6.

# 6. CONCLUSION

The proposal represents a valuable opportunity for a RACF development, which is compatible with the planning principles for the area. The traffic, transport and parking assessment provided in this report indicates that the envisaged development will:

- not present any unsatisfactory traffic capacity, safety or environmental related implications

- incorporate a suitable and appropriate parking provision for the use

- incorporate suitable vehicle access, internal circulation and servicing arrangements.