MIXED USE DEVELOPMENT

ANZAC HIGHWAY & MARION ROAD - PLYMPTON

RETAIL COMMERCIAL ACCOMMODATION

The Palmer Group

DEVELOPMENT REPORT

MAY 2009

QEDptyltd

The Palmer Group

Mixed Use Development
Retail, Commercial and Accommodation – Anzac Highway and Marion Road, Plympton

Development Report

QED Pty Ltd
GHD Architecture Pty Ltd

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Summary

This Development Report has been prepared by the Palmer Group in response to the Guidelines dated July 2007 for a mixed use development located on the corner of Anzac Highway and Marion Road, North Plympton, Neighbourhood (Plympton) Centre Zone. The Guidelines were issued following the major development declaration by the Minister on the 24 May 2007. The Development Report process and requirements are specified within section 46D of the Development Act, 1993.

The process described under s46D requires the preparation of a Development Report in accord with the Guidelines, including:

- a statement of the expected environmental, social and economic effects of the development
- the extent of consistency with the relevant Development Plan and Planning Strategy

The Development Report must be referred to the relevant council and agencies, and made available for public inspection (and purchase) for at least 15 business days and invite interested persons to make submissions to the Minister.

The Minister must give to the proponent copies of all the submissions and the proponent may provide a written response to the Minister. The Minister must prepare an Assessment Report taking into account the submissions, the proponent and agency responses, and must make copies of the Development Report and Assessment Report available for inspection and or purchase.

This Development Report is structured as follows.

- Introduction - provides an overview of the project, staging and timing and s46D process
- Need For Proposal – prescribes the project objectives and summarises expected project benefits
- Description of the Proposal - details existing conditions, the proposed land uses and built form as detailed in the proposal plans
- Assessment of the expected Environmental, Economic and Social Effects – provides an assessment of the development from a transit oriented development, urban design, sustainability, height, noise, services, retail demand, traffic and parking, and construction management
- Planning and Environmental Legislation and Policies - provides an analysis of consistency with relevant government policy
- Conclusion - concluding statement
- Appendices - including Declaration Notice, Plans, Traffic Impact Statement, Reference sources, Project Team, relevant Development Plan extracts and Site History Report

The proposal will create a mixed use development (in 2 stages) comprising ground level retail shopping complex with supermarket and speciality shops, first level commercial floor space, 6 levels of serviced accommodation (120 apartments) and car parking in a basement, at ground level and on level one. In total there are eight

levels above ground with a maximum height of 33.8 metres. The site is strategically located and benefits from excellent access to public transport (bus and tram) and the arterial road network. It will make a positive contribution to transit oriented development and is consistent with the intent of government policy.

1 Introduction

1.1 Overview

This Development Report has been prepared on behalf of The Palmer Group in response to the Guidelines issued by the Development Assessment Commission following declaration pursuant to Section 46 of the Development Act, 1993. The development site is located on the corner of Anzac Highway and Marion Road, as shown in Figure 1 and details of the site titles are contained in Appendix A. Figure 2 provides a context for the site using an aerial photograph sourced from Nature Maps (DEH).

This proposal will provide the impetus for revitalising the Plympton Neighbourhood Centre (and adjacent residential areas) and provide a demonstration on how strategic sites can be developed.

The site has been created through the amalgamation of multiple properties. The proposal will result in creating an 'urban lifestyle' mixed use development known as Transit Oriented Development (TOD) on a highly prominent location at the intersection of Anzac Highway and Marion Road. (The Highway Hotel on the corner was established as a hotel 1839 and has undergone significant change over the years).

The development will require significant capital investment in the order of $80m constructed in 2 stages. The development will create jobs, wealth and prosperity for the local economy.

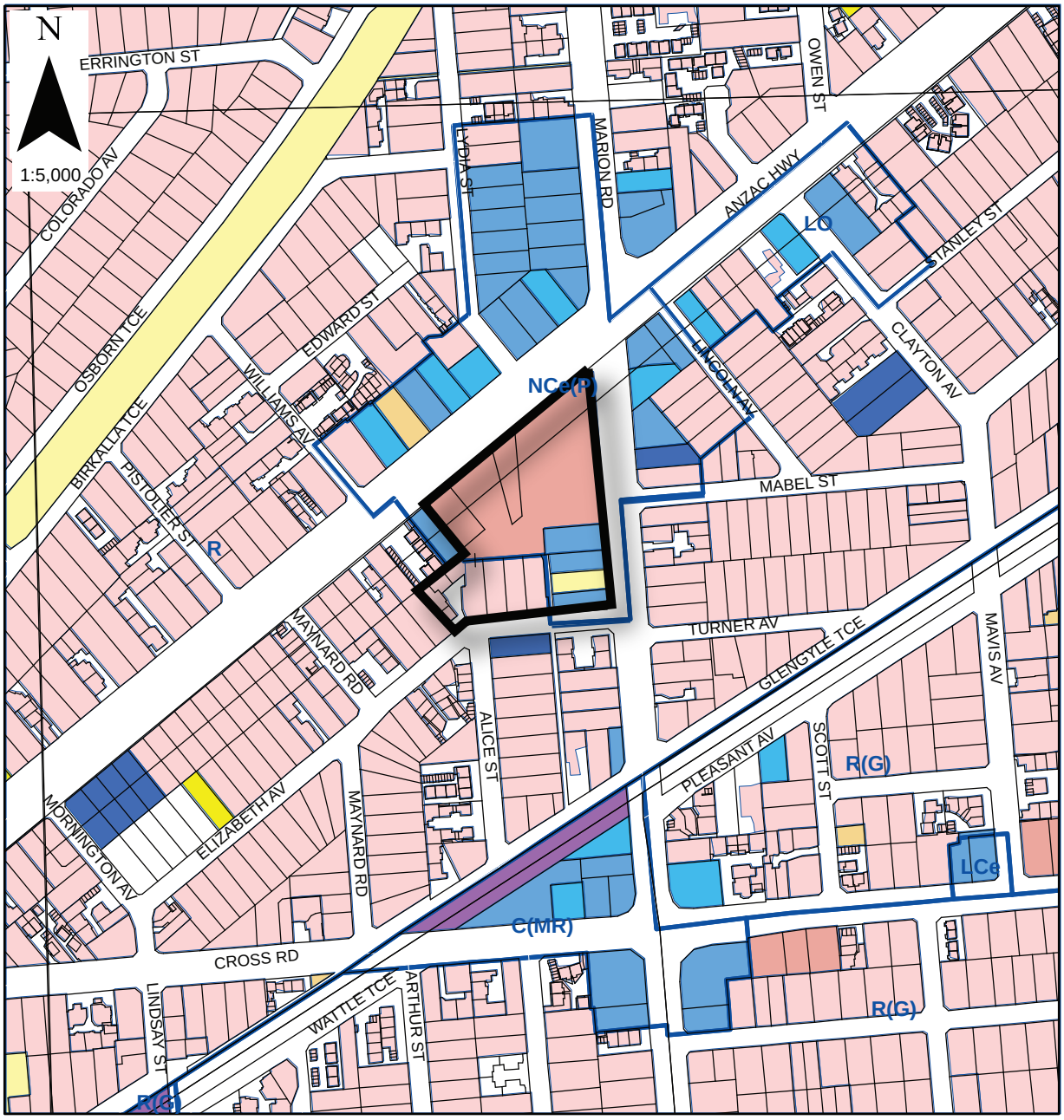
The proposal will combine a range of uses and activities on a large amalgamated site. The proposal is consistent with the principles of 'Transit Oriented Development' with easy access to bus and tram routes, shops, restaurants, entertainment, post office facilities and financial facilities. The development has potential to be a cycling and walking destination given connectivity to public transport, the proposed tramway linear park and the mix of lifestyle activities proposed.

The development will incorporate Ecological Sustainable Development (ESD) principles to deliver appropriate green star rating for the retail and the accommodation development.

The development concept has evolved over a four-year period and has involved consultation with architects, urban planners, traffic engineers, property, retail consultants, City of West Torrens Council staff, the Department for Transport, Energy and Infrastructure and Department of Planning and Local Government (DPLG).

Situated half way between the Adelaide CBD and the coast, future users of the proposed development will have easy access to these locations as well as a range of centre facilities and nearby public transport infrastructure. The proposed design strengthens pedestrian connectivity and access through the site.

Providing high quality accommodation will make an important contribution to increasing development density in strategic locations while the provision of new retail facilities will add to the vibrancy of the locality including the Neighbourhood Centre as a whole. Demand for improved retail facilities has been identified within the existing community, and this will be further enhanced by passing traffic on Anzac Highway and Marion Road.



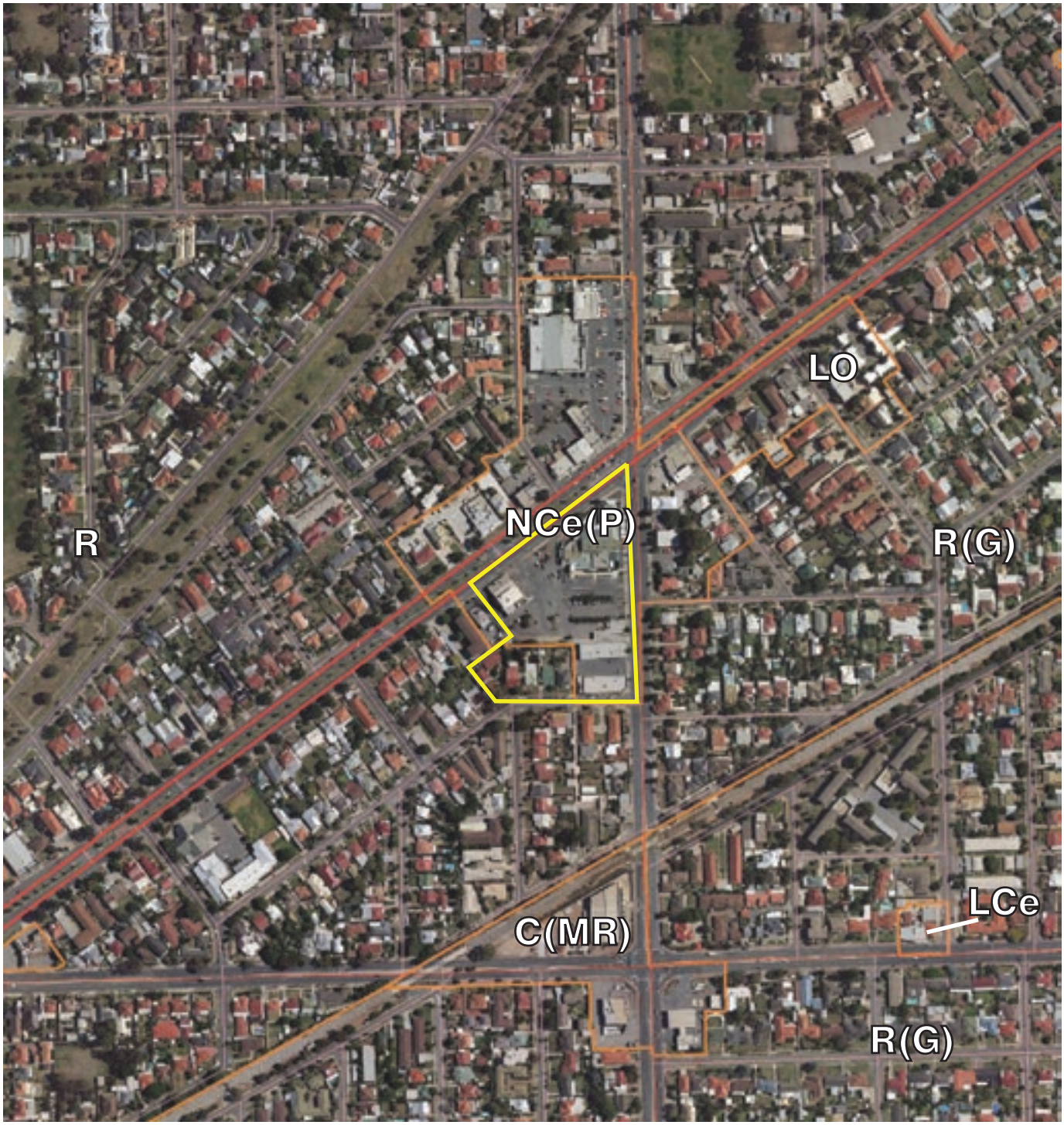
Legend

Planning Zones	Retail Commercial	Recreation	Forestry
Residential	Utilities / Industry	Golf	Agriculture
Non Private Residential	Food Industry	Rural Residential	Livestock
Vacant Residential	Public Institution	Vacant	Mining / Quarrying
Commercial	Education	Horticulture	

Source: Department of Planning & Local Government

Site Locality

Site Location
Figure 1



Legend

Zones

C(MR)	Commercial (Main Road)
R	Residential
R(G)	Residential (General)
LCe	Local Centre
LO	Local Office
NCe(P)	Neighbourhood Centre (Plympton)

Zone Boundary

Subject Site

Source: Department of Planning & Local Government

Site Zoning
Figure 2

In short this proposal will promote urban renewal/Transit Oriented Development supporting the optimal use of this prime site and public transport infrastructure and supporting the government (and Council) strategies desire for high density in and mixed use development strategic locations.

The proposal is entirely consistent with the governments desire to encourage TOD's comprising a mix of high density development.

1.2 Details of the Proponent

The proponent is the privately owned 'Palmer Group'. This group holds a number of high quality commercial investments throughout metropolitan and regional South Australia.

1.3 Staging and Timing of the Proposal

Construction is expected to commence with Stage 1 in early 2010, with substantial completion of Stage 1 anticipated for 2010.

Stage 2 will be commenced as soon as feasible. With strong market demand it is possible that construction of Stage 2 will be continuous and follow on directly from Stage 1.

Stage 1 comprises all development up to level 5 which includes the basement car park, ground floor retail with commercial above and three levels of accommodation units above the commercial. The accommodation units are proposed as services apartments.

Stage 2 comprises the remaining 3 levels of accommodation units and roof structure. Should market demand drive owner occupied "residential apartments", Stage 2 accommodation units may then be sold individually.

The staging is shown on the elevation plans contained within Appendix B.

This timing is of course dependant on variable factors including market demand and resource availability.

Prior to any formal works occurring on-site, existing tenancies will be vacated and demolition of buildings will be undertaken.

Excavation will be required and the construction sequence will be based on the most effective project management advice to ensure hotel operations can be maintained during construction.

1.4 Purpose and Description of the Development Report Assessment Process Having Regard to the Relevant Legislation

The proposed development was declared a major development on the 24th May, 2007 and *The Guidelines* were forwarded to the proponent on 1st August, 2007. The

Guidelines specified that a Development Report is required and this Report fulfils that requirement. The site was further enlarged through acquisition of additional properties and the expanded boundary was gazetted Thursday, 29th January 2009.

The purpose of the Development Report is to provide a description of the proposal, a statement of the expected environmental, social and economics effects, comments on consistency with the relevant Development Plan provisions and Planning Strategy and related management measures. It is intended to provide the community and assessment agencies with a clear understanding of the proposal to enable an effective assessment process.

Pursuant to Section 46D of the Development Act, 1993, the legislative process is as follows (edited to delete the elements not relevant to the site e.g.: River Murray Act):

DEVELOPMENT ACT 1993 - SECT 46D

46D—DR process—Specific provisions

(1) This section applies if a DR must be prepared for a proposed development.

(2) The Minister will, after consultation with the proponent—

(a) require the proponent to prepare the DR; or

(b) determine that the Minister will arrange for the preparation of the DR.

(3) The DR must be prepared in accordance with guidelines determined by the Development Assessment Commission under this Subdivision.

(4) The DR must include a statement of—

(a) the expected environmental, social and economic effects of the development;

(b) the extent to which the expected effects of the development are consistent with the provisions of—

(i) any relevant Development Plan; and

(ii) the Planning Strategy; and

(iii) any matters prescribed by the regulations;

(c) if the development involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the Environment Protection Act 1993 , the extent to which the expected effects of the development are consistent with—

(i) the objects of the Environment Protection Act 1993; and

(ii) the general environmental duty under that Act; and

(iii) relevant environment protection policies under that Act;

(d) the proponent's commitments to meet conditions (if any) that should be observed in order to avoid, mitigate or satisfactorily manage and control any potentially adverse effects of the development on the environment;

(e) other particulars in relation to the development required—

(i) by the regulations; or

(ii) by the Minister.

(5) After the DR has been prepared, the Minister—

(a) —

(i) must, if the DR relates to a development that involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the Environment Protection Act 1993 , refer the DR to the Environment Protection Authority;

(ia) must, if the DR relates to a development that is to be undertaken within the Murray-Darling Basin, refer the DR to the Minister for the River Murray;

(ib) must, if the DR relates to a development that is to be undertaken within, or is likely to have a direct impact on, the Adelaide Dolphin Sanctuary, refer the DR to the Minister for the Adelaide Dolphin Sanctuary;

(ii) must refer the DR to the relevant council (or councils), and to any prescribed authority or body; and

(iii) may refer the DR to such other authorities or bodies as the Minister thinks fit,

for comment and report within the time prescribed by the regulations; and

(b) must ensure that copies of the DR are available for public inspection and purchase (during normal office hours) for at least 15 business days at a place or places determined by the Minister and, by public advertisement, give notice of the availability of copies of the DR and invite interested persons to make submissions to the Minister on the DR within the time determined by the Minister for the purposes of this paragraph.

(6) The Minister must, after the expiration of the time period that applies under subsection (5)(b), give to the proponent copies of all submissions made within time under that subsection.

(7) The proponent may then prepare a written response to—

(a) matters raised by a Minister, the Environment Protection Authority, any council or any prescribed or specified authority or body, for consideration by the proponent; and

(b) all submissions referred to the proponent under subsection (6),

and provide a copy of that response to the Minister within the time prescribed by the regulations.

(8) The Minister must then prepare a report (an "Assessment Report) on the matter taking into account—

(a) any submissions made under subsection (5); and

(b) the proponent's response (if any) under subsection (7); and

(c) comments provided by the Environment Protection Authority, a council or other authority or body; and

(d) other comments or matter as the Minister thinks fit.

(9) Copies of the DR, any response under subsection (7) and the Assessment Report must be kept available for inspection and purchase at a place determined by the Minister for a period determined by the Minister.

(10)If a proposed development to which a DR relates will, if the development proceeds, be situated wholly or partly within the area of a council, the Minister must give a copy of the DR, any response under subsection (7) and the Assessment Report to the council.

2 Need for the Proposal

2.1 Specific Objectives of the Proposal

The proposed major development has been created with inputs from architects, town planners, traffic engineers, retail and commercial advisors, structural and services engineers, and the client. The need for the proposal is based on the following objectives:

- To maximise the Transit Oriented Development (TOD) opportunities for this strategic site given the proximity to bus and tram stops
- To create an urban lifestyle development with mixed uses comprising – retail, commercial and accommodation that can co-exist with the redeveloped hotel
- To provide retail facilities that responds to the local demand, together with an enhanced restaurant/café experience for the local and wider community
- To create significant built form, density and development amenity that reinforces the prominence of the site and its exposure to Anzac Highway and Marion Road
- To stimulate further urban renewal along Anzac Highway and Marion Road with other key transport corridors in Adelaide

The proposed development supports sustainability through the use of Transit Oriented Development (TOD) and Ecological Sustainable Development (ESD) principles. The benefits derived from this approach include reduced energy consumption, potential for reduced vehicle usage and increased public transport patronage. The new tram rolling stock and upgraded stations has already triggered increased patronage and interest in transport corridors and activities particularly within 500 metres of stations.

The new supermarket, specialty shopping and commercial opportunities will assist in revitalising the Plympton Neighbourhood Centre. At the same time the provision of additional facilities improves local access and dampens the need for the local community to travel further for their shopping needs. A survey of households in the immediate retail catchment area undertaken by QED in 2006 (for the Palmer Group) found that there was significant demand for improved shopping facilities in this area. Some 20% of people in adjoining suburbs (North Plympton, Plympton, Plympton Park, South Plympton, Marleston, Netley, Camden Park, and Glandore) indicated that they currently never shop at the existing Neighbourhood Centre facilities. When asked what improvements would make the centre more attractive as a retail destination, the most frequently cited responses were:

- Additional / better quality supermarket;
- Improved accessibility;
- More cafés.

The proposed development will meet these aspirations. More recent retail modelling has been undertaken by Alistair Tutte confirming the demand and potential for additional retailing facilities.

The proposed development will provide accommodation in the form of serviced apartments providing 1 and 2 bedroom accommodation units. This location, close to the airport and midway between the CBD and the coast is expected to provide attractive short/medium term accommodation for tourists, students and visitors. The concept of mixed use development clearly aligns with State Government objectives.

West Torrens Council has identified a target population of 70,000 to be achieved by 2025. Council has previously indicated that in order to get close to this target there will need to be an increase in housing density (and associated population growth) in key locations within the Council area. The Anzac Highway Corridor represents the best opportunity for this to occur and this site provides a key opportunity to support increased density in a strategically important location close to transport infrastructure. This outcome has been recognised with Council's recent Section 30 Review.

2.2 Summary of Economic, Social and Environmental Benefits

The proposed development will deliver significant economic, social and environmental benefits at a local and regional level. The applicant has a track record in the management of commercial development and will draw upon this experience to ensure the successful ongoing operation and management of the proposed mixed use development.

The following summary provides an overview of the economic, social and environmental issues and benefits resulting from the proposed major development.

Economic

There are a number of economic parameters that arise including:

- As a landmark development in a prominent location it will demonstrate TOD principles and contribute significantly to revitalisation of the locality and the Neighbourhood Centre
- Retail floor space within the Plympton Neighbourhood Centre Zone does not meet all the needs of the local catchment in terms of choice and retail range
- Recent retail modelling undertaken by Alistair Tutte confirms there is an unmet demand for shopping facilities in the area for both food and non food items
- An increase in urban lifestyle facilities including cafés and restaurants will contribute significantly to economic vitality of the area that is midway between the coast and the CBD
- It will provide increased economic activity choice and diversity for the area
- It will create additional employment (including construction employment) and investment in the locality contributing to both direct and indirect economic benefits
- The development provides for urban consolidation that optimises efficient economic service provision including transport efficiencies.

Social

The social factors that have influenced the design thinking of the proposed major development, include:

- The opportunity to create a focal point for the local community presently lacking in this locality by creating interactive lifestyle retailing
- Providing accommodation with serviced apartments for short term and medium term rental (1 and 2 bedroom apartments)
- Enhancing car and bicycle parking
- Enhancing retail and leisure opportunities with the careful selection of specialist retail providers focussing on interactive involvement and coffee "meeting place" facilities
- Improving surveillance and security to address crime prevention through environmental design (CPTED)
- Creating a visionary prominent development that defines the site and locality as the focal centre for Plympton, and
- The provision of an attractive sheltered mall space and environment to encourage for retail browsing and alfresco dining.
- The mall design effectively creates an internal street which enhances community connectivity and will provide an active community space given the retail/restaurant trading hours.

Environment

The environmental features of the proposal include :

- Management of potential noise effects through building design, orientation materials and treatments as required for plant, service areas and the like
- Using Ecologically Sustainable Development (ESD) techniques accentuated in the design, construction detail and materials used
- Enhance pedestrian and bicycle activity given the proximity to public transport and through at grade access through the development to allow easy connection to the nearby tram stop
- Incorporate best practice energy efficiency and design, water capture and reuse, zero waste principles, passive lighting, heating and cooling features and minimise heat and glare reflection
- Provision of landscaping and roof top garden
- A constructed development that incorporates best practice building design, and
- A development that is constructed and managed using the ISO 14001 Environmental Management System accreditation and thereby be compatible with the general duty of care required by the Environment Protection Act, 1993.

3 Description of Existing Conditions, Proposed Land Uses, Built Form, Infrastructure, Access and Car Parking

The following description of existing conditions provides some context for the site and environs.

The site is located on the south west corner of Anzac Highway and Marion Road. It is located within 5 kilometres of the Adelaide CBD, Glenelg and Adelaide Airport.

The site has a triangular shape with the apex to the north at the corner. The size of the site enables north facing orientation to optimise solar access.

The site is bordered to the north and east sides by important arterial roads. The southern boundary fronts Elizabeth Street whilst the western boundary abuts a take away food restaurant and a residential flat building to the north of Anzac Highway and east of Marion Road there is a diverse mix of commercial, retail, office and services facilities. The following photographs illustrate conditions on the site and adjacent areas.

The actual site has an area of approximately 2 hectares. Existing uses on the site include the following:

- Highway (Hotel) – in the northern corner;
- Bottle shop - 630 sq m fronting Anzac Highway;
- Retail tenancies (3 shops in total) fronting Marion Road – 1,370 sq m;
- Four residential dwellings fronting Elizabeth Avenue.
- Four residential dwellings (strata units).
- The remainder of the site is used for grade car parking, storage and access.

The proposed development is detailed on the plans and elevations contained in Appendix B.

The key features of the development include:

- Demolition of existing low amenity retail tenancies comprising approximately 1,370m^2 of retail floor space fronting Marion Road;
- Demolition of four residential dwellings and four residential dwelling units on Elizabeth Avenue;
- Demolition of the existing drive through bottle shop fronting Anzac Highway;
- Construction of a landmark high quality/large scale building with eight levels above ground providing accommodation units (serviced apartments) above retail and commercial development;
- Construction of a supermarket ‘anchor’ tenancy with associated storage and administration offices;

Photographs of Site Location

Photographs of Site Location

Photographs of Site Location

- Specialty retail shopping tenancies incorporating cafes and restaurants at ground level;
- Bottle shop with drive through facilities replacing the existing drive through bottleshop and integrated as part of the proposed retail complex
- An internal pedestrian mall at ground level and linking with Elizabeth Street;
- Commercial (office or similar) space on level one and linking with Elizabeth Street;
- High quality contemporary architecture using articulated balconies and setbacks to create an interesting built form with some roof top landscaping;
- Enhanced development and streetscaping with improved public safety and security through passive surveillance and increased activity;
- The provision for car parking dispersed at street level, basement level and with accommodation unit car parking on level one;
- Bicycle racks at street level and secure bike storage associated with the accommodated storage;
- Service vehicle access via Anzac Highway and exit via Elizabeth Street; and
- Service courtyard enclosed within building.

The Palmer Group is committed to building on the further opportunities to enhance pedestrian connectivity between the site and surrounding public transport networks and would work with the relevant authorities to ensure an integrated solution.

3.1 Urban Design (including Scale, Bulk and Height), Architectural and Landscape Approach

The urban design outcome responds to:

- the prominence of this site;
- the effective separation from the hotel activities;
- the location of site with frontage to Anzac Highway, Marion Road and Elizabeth Street;
- the proximity to the tram (and bus) stops (TOD potential);
- service access being separated from public access and parking; and
- the adjacent land uses and built form character.

The design solution consolidates the new development primarily to the south side of the site with a shared at grade car park between the existing hotel and the new building.

The built form compromises a two storey podium component incorporating commercial, retail, and car parking accommodation with a medium rise (serviced accommodation) tower over the northern portion of the retail centre.

The building maximises its north-south orientation with a roof garden over portion of the podium above the second level commercial and accommodation car parking. The building's height and bulk represents a balanced approach to development optimising the use of this strategic site. Elizabeth Avenue comprises units on the corner with Marion Road that primarily are inward facing whilst the existing church building faces Alice Street. The proposed building whilst significant has minimal direct effects.

The building form has been provided with significant articulation using balconies, balustrades, materials, glazing and muted colours to moderate the overall scale. The active ground floor level retail, commercial frontage and canopies will create a vibrant and inviting facility that will facilitate successful trading and social interaction and enhance the urban lifestyle desired. The north-south link through the building will provide direct and easy access to the tram and bus stops on either side of the site.

Marion Road will have appropriate lighting levels and is intended to be an active street frontage but will depend on final retail mix. Design solution is committed to the CPTED principles

Pedestrian movement to and through the site is strongly influenced by the location of the light controlled crossings at the corner of Marion Road and Anzac Highway, the location of the bus stops and the lane through to the tram stop (south of Elizabeth Street). The proposal reinforces these movement patterns and provides safe and convenient access to existing transit stops.

Existing landscaping includes the new areas immediately south of the hotel that was undertaken as part of the hotel renovation. It comprises low level planting including native grasses and some young specimen trees. Several established Ash trees (in poor condition) and a row of 'olive' trees exist within the car park.

The landscape approach will be to create an attractive tree canopy and understorey planting within the car park, adjacent the new buildings and the site perimeter. The structure over the basement car park will limit the range and scale of trees, however the effective use of large container planting and landscape beds will provide a significant improvement to current conditions. Detailed landscape plans will be developed at the design development stage following the Development Report application process.

There will be no vegetation planted on the eastern service road boundary as a solid wall will be provided. Generally the wall is full height where the building is above and 3m high elsewhere. Construction will be a tilt-up slab of appropriate design to mitigate noise.

3.2 Traffic and Car Parking

A separate Traffic Impact Assessment is contained in Appendix C.

The car park layout (including basement, at grade and level 1) and site access arrangements are shown on the relevant plans in Appendix B.

3.3 Construction and Management

A detailed Construction Environmental Management Plan CEMP will be prepared. An outline of this is provided in Section 4. This CEMP will ensure construction effects are minimised and effective authority, response-corrective actions are in place should day to day construction related issues arise.

In addition ongoing management will be maintained within the Environmental Management Plan.

Retail and commercial trading hours would largely be determined by the traders assessing market community demand. However it is expected that the trading hours would largely be consistent with similar neighbourhood centre trading hours where cafes and restaurants compliment speciality retailing – supermarket trading late night, retailing could extend to 9.00pm whilst cafes and restaurant could trade to midnight subject to license approvals where required.

Waste and servicing management will use to service courtyard in the south western corner of the development with access from Anzac Highway. Accommodation waste and recycling wheelie bins will be collected and transferred to the street level by onsite management staff.

4 Assessment of Expected Environmental, Economic and Social Effects

4.1 Urban Design Assessment (including TOD principles height, bulk and scale)

4.1.1 Transit Oriented Development [TOD] Principles

State government initiatives such as the upgrading the transport network through the electrification (an extension) of the rail network, the tram extension, the policies within the Metropolitan Planning Strategy the purchase/(TOD) master planning for the former Clipsal site at Bowden and activities with other key sites demonstrate the strong desire for urban rejuvenation along transit corridors, and, support for TOD's.

The transit principles of TOD are demonstrated by this development's location close to bus and tram stops either abutting the site or within 150 metres. Further this large site (under single ownership) demands considerable development density to reinforce and support this transit opportunity.

The mix of uses supports vibrancy and use diversity and provides opportunities for short term accommodation, entertainment, shopping, recreation and socialising. These outcomes are entirely consistent with TOD principles. The north south access through the building provides convenient linkage from the tram stop through the site and the ANZAC Highway transport corridor.

Notwithstanding the convenient location, car parking is still required particularly for supermarket shopping trips and car parking has been provided. The bulk of parking occurs within the basement level. Bicycle parking is provided further supporting the TOD principles.

4.1.2 Urban Design, Visual Effects and Lighting

The urban design approach has sought to facilitate access and connectivity, creating a visually prominent development, create a vibrant pedestrian place, provide separation from the hotel and respond to the sites locational benefits.

Anzac Highway, Marion Road and Elizabeth Street bound the proposed development. Properties adjacent the western boundary compromise residential apartments, a dwelling and a fast food retail outlet. The proposed commercial and retail components will be substantially screened by the existing hotel when approaching from the east along Anzac Highway and north along Marion Road. The existing streetscape of retail, residential and street landscaping will screen approaches from the south and west along Marion Road and Anzac Highway respectively.

The ground floor shopping layout provides easy and effective connection with the adjacent footpath network and transit stops together with linkage through the site to the south. The street level car park further supports safe and convenient pedestrian linkages through the site and particularly for north-south movement.

The internal "street" (shopping mall) provides a linkage to the North and south transport corridors. It is considered that this will be life style centre with cafes and restaurants complimenting the hotel. Significant effort will be made ensure that the north and western frontages have a "street appeal". Community interaction does occur within such centres even though it is "privately owned". Public open space is generally not used by the community outside shopping hours in any event.

The accommodation tower located over northern part of the retail mall will be visually prominent when viewed Anzac Highway in either direction. This new building together with the existing hotel will provide a focal point for this important intersection of two major arterial roads.

The proposed development will also be visually prominent when approaching from both the north and south along Marion Road. The height and scale of the tower will provide a substantial increase over the existing built form to the south and south west. However, even with a building of the proposed scale, it is not anticipated that there will be significant adverse effects south of Elizabeth Street given the stepped podium design.

Shadow modelling indicates that there will be minimal shadowing of adjoining properties during the winter solstice; weather statistics indicating the likely number of cloudy days either side of the winter solstice further reduces the effect of overshadowing.

The shadow diagrams are located in Appendix B.

The development is not anticipated to have a significant adverse effect on the surrounding microclimate, particularly with respect to wind turbulence due to the orientation of the residential tower in relation to the prevailing wind direction. The careful selection of external finishes will minimize the potential for reflection glare.

Proposed materials palette for the building will include precast concrete panels, stone facings and glass. These primary materials will be softened with the use of timber slatted screens to accommodation units, and landscaping to the on grade pedestrian and parking areas. It is intended that the accommodation unit occupants will use the roof to the first level carpark as a green roof with access.

Air-conditioning units on accommodation unit balconies will be carefully screened to minimize interference to other occupants.

Privacy between the accommodation units will be achieved by vertical articulation of the units and careful location of balconies. The use of sliding screens will also assist in providing additional privacy to occupants and visual separation from existing properties.

Perimeter landscaping and landscaping within the car parking will assist in softening the ground level areas whilst the roof top garden above the first floor commercial areas will contribute to occupant amenity.

All lighting design will conform with the relevant Australian Standards. Light spillage particularly from security lighting has been considered and will be managed to avoid adverse impacts. Enclosure of the service yard and the provision of a 'control' gate will enhance security. A grade car park lighting will also be managed with down cast lighting to avoid light spill to nearby residential properties. Street lighting on Anzac Highway and Marion Road already creates a well lit public environment.

4.1.3 Sustainability (ESD) Principles

The proposed design has been developed with sustainability principles as fundamental drivers.

At present there is no assessment tool available at this time from the Green Building Council of Australia (GBCA) for a mixed use development such as the Highway Redevelopment.

In order to bring some rigour to the design, a methodology shall be employed whereby every element of the project is tested/challenged for "Best Practice" from a sustainability standpoint.

Each element of the project will be reviewed for performance under four separate categories. These being:-

- Energy Cycle – *(both embodied and operational energy)*
- Resource Consumption – *(this would consider material selection as well as other resources such as water, power etc.)*
- Waste Generation – *(this would include construction waste, operational waste as well as pollution generation of all types including noise, water, air etc)*
- Community Impact – *(this would consider the local and wider communities)*

These four tenets shall each individually be acceptable in their effects and be sustainable in the long term. Sustainability in this respect having a simple definition that the consequences of the project will improve human well being without compromising the local or global environment over the long term.

The building's form, material selection, insulation and shading will be modelled and optimised to provide the best value for money solution. Essentially this process determines the best passive elements that will contribute to the building's ability to maintain comfortable conditions for the occupants and tenants.

The development outcomes will deliver a substantially reduced carbon footprint, reduced energy and water consumption, minimised pollution and enhanced community acceptance over conventional development models.

Particular elements of the design to ensure delivery of a reduced carbon footprint shall include:-

- Air quality sensors throughout the underground car park to regulate the exhaust fan speed to maintain acceptable environment within the area.
- Movement detectors in the car park area will allow the fluorescent lighting to dim when there is no movement sensed within the location.

- Indirect evaporative cooling to the retail spaces, delivering savings in the order of 40% over a conventional refrigerated air conditioning system.
- CO2 detectors throughout the retail area to regulate the quantity of outside air to suit the occupancy levels experienced by the shopping areas.
- Dependent upon the eventual anchor tenant, it is intended to link the exhaust from the main cold and freezer store condensers to provide free heating to the retail spaces.
- Ventilated glazed atrium will provide daylighting and enhanced ventilation to the retail Mall area, allowing the mall air conditioning to be disengaged at times of the year.
- Domestic hot water for both the retail and residential spaces shall be sourced from solar systems, with gas boosters.
- Movement detectors in the common residential area will allow the fluorescent lighting to dim when there is no movement sensed within the location.
- Cross flow ventilation will be provided to the apartments utilising the external stair at the end of the corridors as a chimney to enhance the ventilation rate through the corridors and from each apartment. Connection to the common area corridors shall be by means of acoustic, fire rated and dampered transfer ducts.
- Increased thermal mass is to be provided with the apartments by selective use of masonry walling particularly around the wet areas.
- High performance glazing is to be used to the apartments, with occupant controlled external shading.
- Additional shading to be provided by the external balconies to the north and south fenestration.
- All apartments are oriented north/south, providing good solar penetration control.

The design incorporate passive design solutions including provision of waterless urinals, use of recycled water for flushing, high performance glazing and occupant controlled external shading.

The individual components of the development shall be assessed against the appropriate Green Star tool if and when available. Hence the retail area can be assessed against the Green Building Council's Shopping Centre Design Pilot Tool.

Particular emphasis shall be given to achieving maximum credit points under the assessment tool for low potable water use, low energy consumption and minimised maximum demand.

There is presently no GBCA rating tool for residential applications, but a pilot tool is expected to be released some time in the middle of this year.

All accommodation elements will achieve compliance with a 5 star First Rate or Accurate energy assessment The principles described above will be employed to ensure high outcomes are achieved, with an expectation that it will fall comfortably inside a Residential 5 Star GBCA assessment when it is released.

The inclusion of a green roof to the podium is very much in keeping with the sustainable design principals outlined above. Not only does it minimise run off of

storm water, it provides high levels of thermal mass and insulation to the spaces immediately beneath the roof level.

The beneficial community impact of the green roof is very high, providing a naturally cool, highly oxygenated space that occupants will enjoy using.

4.1.4 Crime Prevention (CPTED) including Community Social Interaction

Pedestrian and cycle access and movement around and through the site will be highly visible given the retail, accommodation unit balconies outlook and adjacent hotel management. Car parking areas will be well lit and security will be provided by security personnel and video cameras located in the car park, basement and shopping complex. Improved access through the site with easy access to the tram and bus stops ensures the CPTED principles will be achieved.

The building design shall exceed the "Deemed to Satisfy" provision of Section J of the BCA in the following regards:

- Minimum total R-values shall be better than identified in Table J1.3, J1.4, J1.5 and J1.6
- High performance glass shall be used throughout
- The illumination power density shall be less than identified in Table J6.2b
- Hot water generation shall be the means of a solar hot water generator

Enhanced community social interaction will be encouraged within the mall and cafes with sheltered seating (and outdoor seating) opportunities.

It is important to note that the Neighbourhood Centre Zone also exists north of Anzac Highway where other services exist including a post office, bank, specialty shops and restaurant. These all combine to provide vibrancy and a high level of visual observation.

Safe pedestrian crossing on Anzac Highway and Marion Road is available at the traffic lights ensuring easy pedestrian linkage north and south to the from and bus stops.

4.1.5 Airport Operational Height Restrictions

Based on an assessment of the Civil Aviation Safety Authority Manual of Standards (MOS) Part 139 the inner horizontal surface of the Obstacle Limitation Surface (OLS) for a Precision Approach Category 1 Airfield is 45m above the runway height and extends for a radius of 4000m. With a runway height of nominally 3.5m AHD (Adelaide Airport), the inner horizontal surface height is 48.5m AHD. PANS-OPS surface at the location of the proposed development is 62.5m AHD.

With a site level of 15m AHD at the proposed construction location, the permissible maximum height to not breach the OLS is 33.5m whilst the PANS-OPS surface criteria allows a height of 47.5m.

The development satisfies OLS requirement and is well below the PAN-OPS surface criteria. The strategic location of the site and its size demands development of scale and density as proposed.

The Palmer Group has liaised with the relevant agencies to determine likely formal agency responses.

4.2 Environment

4.2.1 Noise Effects

The development design will effectively manage noise generated from onsite activities because the enclosed nature of the shopping mall and the enclosed and covered services court. Plant and equipment will similarly be enclosed and noise from plant will be mitigated through noise attenuation design measures.

Whilst some outdoor dining is possible, this will not generate noise above the background traffic noise.

Patrons exiting the development at night will be under surveillance and with much of the parking contained within the basement minimal potential noise generation is likely.

Service vehicle access is located between the adjacent and existing take away fish food/restaurant and proposed retailing and the service court is fully enclosed.

Occupant amenity at night will be maintained by managing the at grade car park with security personnel and after hours video surveillance.

Further, accommodation unit design will achieve a high level of noise attenuation so that low internal noise levels are achieved. These treatments may include enhanced ceilings and floors to minimise noise transmission, double glazing and enclosed or low noise air conditioning equipment. The level one commercial component is likely to comprise office related activities that will not create adverse noise effects. Commercial operating hours would typically occur between 8.00am and 6.00pm during weekdays and possibly Saturday depending on final tenant(s).

The eastern service road boundary will have 3 metre high (full height where the building is above). Construction will be a tilt-up slab of appropriate design to mitigate noise.

There is not expected to be any adverse noise effects from aircraft noise. The Australian Standard in relation to Acoustics – Aircraft Noise Instruction – Building Siting and Construction provides the relevant Guidelines. The Australian Noise Exposure Forecast (ANEF) system is a method of predicting exposure to aircraft noise.

Housing including serviced apartments is acceptable uses in a zone less than 20 ANEF. The subject site (whilst located in proximity to the flight path for the 12/30 runway) falls outside the ANEF 20 – 25 contour requiring no special treatment measures for such housing. External walls and windows will be designed and constructed with appropriate levels of noise attenuation to ensure the accommodation units enjoy a ‘residential’ quality amenity.

4.2.2 Wind Effects

The proposed development provides a two storey podium with a medium rise tower with a slender aspect ratio towards the prevailing south-west to westerly wind direction.

The two storey podium approximates to the scale of the adjoining hotel and is not anticipated to increase adverse wind effects.

The orientation of the tower with the narrow elevation towards the prevailing wind direction is anticipated to produce limited wind effects impact to adjoining properties whilst providing a degree of screening to the space between the new development and the hotel. The proposal is not expected to create significant changes to the current climatic conditions.

4.2.3 Ventilation of Basement Car Park and Kitchens

The basement car park will be provided with mechanical ventilation, the exhaust shafts are shown on the drawings.

Café exhaust will be provides with exhaust shafts to roof level in accordance with the relevant standards. The exact location of shafts will be determined during detailed design stage. The approach will be the same as mixed use development where café/restaurants and apartments above is very common. Correct ventilation and odour exhausting will ensure odour is disbursed and not creating adverse effects.

4.3 Traffic, Parking and Vehicle Movements

For the movement of traffic, parking and movement reference should be made to the Traffic Impact Statement contained within Appendix C.

4.4 Infrastructure

4.4.1 Services

Existing services will be accessed as described below.

Gas

The southern side of Anzac Highway has a 50 mm PH (Plastic) pipe along the boundary, and on the Northern side of Anzac Highway has a 150 mm S (Steel) pipe.

Three natural gas pipes run along Marion Road, which include a 300 mm CI (Cast Iron) pipe, 50 mm PMT in 100 mm S (Plastic pipe within Steel pipe) and 40 mm S pipe. A 50 mm PMT in 80 mm CI (Plastic pipe within Cast Iron pipe), branches off the 300 mm CI pipe towards the site 75.5 m from the Anzac Highway / Marion Road Intersection. A 50 mm S pipe branches off the 300 mm CI pipe towards the site 66m from Elizabeth Avenue.

Elizabeth Avenue has a 100 mm MCI (Cast Iron) pipe on the Southern side of the road.

A new gas connection from either Elizabeth Ave or Marion road is proposed for the new development

Water

A 200 mm CICL (Cast Iron Concrete Lined) water pipe runs along the Anzac Highway southern boundary with several water hydrants along the development area. The northern side of Anzac Highway has a 150 mm pipe of unknown material, with three water hydrants points.

Marion Road has a 750 mm pipe of unknown material along the centre of the road, and a 150 mm pipe of unknown material towards the eastern side of the street with several water hydrant points

A new metered domestic water connection from Marion Road is proposed for the new development

A separate un-metered water connection. From Marion Road will serve the fire services

Sewer

A 150 mm VC (Viteous Clay) sewer pipe runs along the majority of the lot along Anzac Highway, and connects onto a 150 mm RC (Reinforced Concrete) pipe travelling further South.

Marion Road has a 150 mm VC sewer pipe along the centre of the road.

Sewer disposal is likely to be to Marion Road.

Electricity

The site supply would usually require a padmount transformer supply fed from either Marion Road or Anzac Highway and located just inside the property boundary. The spatial requirements of the padmount transformer will depend on the configuration and use of the site being developed. Please note that there may be restrictions placed on the final position of the padmount substation based on ETSA network requirements, which have not been made available to us at the time of preparing this report.

The effect of the development on the existing services infrastructure can only be determined by discussions with the Authority once the site needs have been determined. At this stage, with the information that we have available about the development, the availability of services from Marion Road and Anzac Highway should be sufficient without major alterations to supply the development. It should be noted that there may be costs to the Client associated with the supply of power to the development.

Communications (including Copper Telephone and Broadband Internet services)

The existing Highway Inn building, which will be retained has a connection to Telstra from Anzac Highway. Any new Telstra incoming services required to the new development would come from either Anzac Highway or the south eastern corner of the site fed from Marion Road. The capacity of these two options to supply the site will need to be determined by communication with the Authority once the sites copper and fibre telecommunication service requirements have been determined.

The effect of the development on the existing services infrastructure can only be determined by discussions with the Authority once the site needs have been determined. At this stage, with the information that we have available about the development, the availability of services from Marion Road and Anzac Highway should be sufficient without major alterations to supply the development. It should be noted that there may be costs to the Client associated with the supply of telephone services to the development.

4.4.2 Water Collection and Management (including Water Sensitive Urban Design)

The design of stormwater collection will acknowledge Water Sensitive Urban Design principles and will encompass all aspects of integrated urban water cycle management including water supply, sewage and stormwater management and address the sustainability of the water environment.

Council requirements relating to flooding will be carefully considered to ensure that the development will not be subject to the inflow of floodwaters. This is a key requirement given the development has a basement level.

Capturing and discharging of external floodwaters is not a viable option. The best way to ensure that this is not a problem is careful grading of the external areas, to create “bunds”, and stop the inflow of stormwater (an example of this system being adopted is the RAA Building at Mile End. The entry points off Richmond Road were treated by the creation of levee’s and bunds).

Council policy seeks to limit the post development 100-year ARI stormwater discharge to, the equivalent 5-year ARI pre development discharge. The development will be designed to address these requirements.

Due to the built form of the proposed development, which results on almost 100% of the site being classed as impervious, stormwater detention by itself will not suffice, and will need supplementation by other means as discussed below.

The initial stormwater flows may be taken out the street kerb and water table. It is estimated that four will be allowed, with two fronting Anzac Highway and two fronting Marion Road. These will probably be limited to a peak discharge of 20 l/s. The balance of the stormwater will need to be contained, and released at a rate not exceeding the 5-year ARI pre development discharge.

Potential stormwater treatments that will be examined, and implemented in varying degrees include:

- The use of permeable paving.
- Underground Storage tanks (capacity in order of 100,000 litres). These tanks can act as a temporary storage buffer, and a permanent storage buffer for water reuse. The stormwater that is collected from the pavements will require some quality treatment, to reduce the levels of rubbish and oils (water collected from the roof areas will not require any treatment). This only applies to stormwater that is for irrigation re-use. Stormwater re-use for internal building usage will require treatment to satisfy the requirements of the EPA Class 2 standards.
- The use of swales can act as conduits, and to some extent stormwater retention / detention. Swales can be further enhanced by introducing selected planting that act as natural filters.
- It is acknowledged that there may be insufficient space for the creation of formal swales. However, all external landscaping beds and general garden areas have the potential to become swales, simply by depressing the central point of these areas.

Water quality treatment will be carefully considered to ensure that all stormwater for re use, and excess stormwater exiting the site, is clean and treated to appropriate levels.

Options that are considered appropriate for this development (in addition to the above) include:

- Gross Pollutant Traps. These devices may be installed at the outlet end of the stormwater discharge lines. Whilst these devices may not remove oils and fine sediments, whey do remove 98% of hard refuse.
- Oil and plate separators. These devises, as the name suggest, remove oils and fine suspended solids.
- Design of all paved areas shall be undertaken to ensure “first flush” principles are considered.
- This design principle is based on the premise that the majority of pollutants contained within paved areas are washed away with the first 5mm of any rainfall event.

With the practices the development will achieve best practice water sensitive design outcomes.

4.4.3 Waste Management

The Palmer Group will seek advice from Zero Waste SA on best practice to reduce waste in both the accommodation and commercial tenancies. Use Zero Waste SA to survey and audit kerbside waste to identify brand owners of packaging disposed of in kerbside collection systems (a requirement under the National Packaging Covenant).

Waste removal for business will be via rubbish skips located in the service area. These skips will be removed daily. All paper and cardboard will be recycled and placed in the on site compactus. Material will be bailed and removed as required but generally weekly as a minimum.

Waste removal for the accommodation units will be through the use of council refuse bins located on level one. Separate recycle bins will be similarly located in this area and occupants will be encouraged to maximise recycling.

Recycling will be encouraged in the residential area by the identification of special bins for glass, plastic and paper/cardboard. These bins will be emptied as part of the local council refuse collection.

Businesses will be encouraged to promote green purchasing that avoids unnecessary packaging; and give preference to products with recycled content.

Recycling for the business area will be enforced with all paper and cardboard to be placed in the compactus. Glass and plastic will be separated.

4.4.4 Site History

A separate Phase 1 Site History Report dated May 2009 has been prepared by GHD Pty Ltd (GHD) and this has been provided separately via compact disc.

4.5 Construction and Operational – Effects (Draft Construction Plan Environment Management Plan – CPEMP)

A Construction Environmental Management Plan (CEMP) will be prepared as part of the construction contract. Construction management together with ongoing operational management will be undertaken within this framework as outlined below.

There are three existing retail shops four detached dwellings and four residential units will be demolished on the site. No obvious asbestos is contained in these buildings, however construction drawings and specifications will contain appropriate clauses for the identification and safe removal and disposal of hazardous material discovered on site during demolition.

No asbestos has been identified on the site; however any discovered will be removed in accord with the Construction Environmental Management Plan.

All materials transported to site will be done so with minimal packaging required for safe transportation to site. All goods will have unnecessary packaging removed at the point of pick-up. Materials transported to site will be done on an as required basis to ensure minimal storage at the construction site.

On site waste will be segregated and reused at the point of generation where practical. Segregated waste will be transported to a resource recovery/recycling facility.

Normal construction hours will be 7.00 am to 5.00 pm Monday to Saturday. Any noise generating activities will take place during these times. Overtime may be worked during the construction programme but will be subject to approval of the superintendent and all noise generation activities must be within the above time zones.

The site will have safety hoardings (solid fencing) around the construction zone (particularly around the excavations) with safe footpath access maintained at all times. During times of vehicle access to the site, the contractor will maintain traffic controls during those periods.

As site construction plan will be developed with the successful contractor to minimise the impact of noise and traffic impacts.

The contractor will observe and comply with all the environmental requirements that apply to the area in which the contractor's activities are to be carried out, including (without limitation) dust control, noise and vibration, waste management and storage of chemicals as detailed below.

Dust Control and Sediment Management

The contractor must take all steps to prevent nuisance caused by dust. Watering must be used where necessary to reduce dust created by the works. Generally water shall be recycled suitable for use in dust suppression. Where possible stormwater on the site shall be collected and used for this purpose.

Stormwater collection and storage is described in Section 4.4. Managing dust during ongoing operations will probably be undertaken by a contractor using street sweeping machinery. Water can be drawn from the storage tanks to fill the street sweeper tanks as part of normal cleaning/sweeping dust suppression process used around the world in such car parks.

Sediment management would occur through straw bales, geotech fabric and physical barriers. These techniques would be specified in the CPEMP.

Noise and Vibration

The contractor will take all practicable precautions to minimise noise and vibration arising out of or resulting from the activity associated with the work. The contractor must ensure that noise producing equipment used on the job utilises the most advanced technology applicable to minimise noise levels, and that the use of noisy equipment is limited to only necessary application in the performance of the construction task. Construction noise will be managed under the CMEMP in accordance with all the relevant standards.

The site will have safety hoardings around the construction zone with safe footpath access maintained at all times. During times of vehicle access to the site, the contractor will maintain traffic controls during those periods.

Except as otherwise advised, delivery of materials to the site, space for storage of such materials and for site offices - workshops and other temporary structures will be allowed only in accordance with the arrangements agreed or determined by the superintendent. No fires shall be lit on site or rubbish burnt on site.

Waste Management

The contractor will be responsible for the removal and proper disposal of all solid, liquid, gaseous wastes and related material including asbestos in accordance with all statutory requirements and EPA guidelines.

Refuse arising from the execution of work (including food scraps and the like) must be removed from the site. Refuse must not be dropped free, but hoppers and shutters, chutes or refuse buckets must be used. All hoppers, chutes or buckets for refuse must be covered or be of such design as to fully confine the material and prevent dissemination of dust.

No motor vehicles must leave the site laden with any material unless it is loaded in a manner that will prevent the discharge or dropping of any materials. The contractor must ensure that the wheels, tracks and body of all parts and equipment leaving the site are free of mud and contaminates.

Hazardous Materials, Storage of Chemicals, Fuel and Site Contamination

If at any time the contractor discovers the presence on site of any material containing or likely to contain a substance defined or listed in the National Occupational Health and Safety Commission Guidance Note for Determining and Classifying a Hazardous Substance [NOHSC:30011 (1991)] it must:

a) not disturb the material under any circumstance
b) contact the Superintendent and inform the Superintendent of the existence of the material on site; and
c) ensure that all persons are protected from exposure to the material until the nature of the material has been competently determined

The Superintendent must inspect the site and must issue directions to the contractor in respect to further action to be taken.

All such materials upon the site must if so directed by the Superintendent be treated or removed in accordance with the requirements of Worksafe Australia “Code of Practice” for the safe removal of such materials and any other Act or Ordinance in South Australia that relate to the removal of such materials.

Virtually the whole site will be excavated to create the basement car park and excavated material will be removed. The contractor will be responsible in ensuring disposal in accordance with EPA guidelines.

The nature of the development has evolved during the process with the proposal replacing existing residential, car parking and retail development. The construction process requires careful management however the approach adopted will be determined by the contractor. Geotechnical analysis will be undertaken as part of the detail design stage and will address construction and potential contamination management.

4.6 Economic and Social Effects

4.6.1 Retail and Commercial Development

The 2007 Adelaide Retail Database records a total of 101 retail centres within a 5 kilometre radius of the Highway site, with 28 of those within a 2½ kilometre radius. Only 9 of these centres contain substantial supermarkets of over 1,500m², as shown in Table 1, which also lists (in bold) Anzac Highway Plympton, within which the Highway site is located. Figure 3 shows the location of retail centres and the Highway site.

Table 1 : Centres with supermarkets greater than 1,500m², within 5 kilometres of Highway Site

Distance (km)	Centre code	Centre name	Food m²	Nonfood m²	Total m²	Supermarket size	m²	Brand
1.4	847007	Anzac Highway, Kurralta Park	3,085	7,682	10,767	>1,500m²	2,386	Coles
0	**847008**	**Anzac Highway Plympton**	**2,561**	**1,842**	**4,403**	**< 1,500m²**	**1,470**	**Coles**
2	406005	Marion Road, Ascot Park	2,223	1,376	3,599	>1,500m²	1,553	Foodland
4.5	777002	Henley Beach Rd, Torrensville	6,466	12,301	18,767	>1,500m²	2,400	Foodland
3.7	847011	Burbridge Road, Hilton	4,180	7,065	11,245	>1,500m²	3,082	Woolworths
3.2	434004	Goodwood Rd, Westbourne Park	3,506	11,169	14,675	>1,500m²	2,126	Woolworths
3.6	224002	Jetty Road And Environs	17,923	18,764	36,687	1 @ (< 1,500m²), 2 @ (>1,500m²)	6,502	IGA Express, Coles, Woolworths
r3.7	434017	Goodwood Road, Colonel Light Gardens	3,915	2,935	6,850	1 @ (< 1,500m²), 1 @ (>1,500m²)	2,202	Coles, 7 Day Supermarket
2.4	406003	Castle Plaza - Edwardstown	8,492	13,173	21,665	2 @ (>1,500m²)	2,569	Foodland, Coles
3.3	406008	Park Holme Shopping Centre	2,984	1,437	4,421	>1,500m²	2,140	Coles
		Totals	**55,335**	**77,744**	**133,079**			

Source: 2007 Adelaide Retail Database (Planning SA, 2008)

Table 2 lists the tenancies within the Anzac Highway Plympton centre, with tenancies on the Highway site (with a total floorspace of 1,374 m²) marked with an asterisk.

Table 2: Tenancy details for RDB 847008 Anzac Highway Plympton

Tenant	Floorspace (m²)	Retail Code	Retail Description	Zone
Southern Style Meats *	44	102	Butcher	NCe(P)
Liquor Smart *	399	114	Liquor Store	NCe(P)
Coles	1,470	116	Supermarket (< 1,500m²)	NCe(P)

Tenant	Floorspace (m^2)	Retail Code	Retail Description	Zone
Barnacle Bill	180	117	Take Away Foods	NCe(P)
Plympton Pizza House *	75	117	Take Away Foods	NCe(P)
Cafe Primo	220	419	Restaurant/Cafe	NCe(P)
Cake Esa	73	419	Restaurant/Cafe	NCe(P)
BP Shop	100	120	Service Station Foodmarts	R
Heidi Louise Bootmaker *	48	207	General Shoes	NCe(P)
Intimode	76	216	Womens Wear	NCe(P)
Paddys Book Exchange	150	306	Book Exchange/Second Hand Book	NCe(P)
Priceline Pharmacy	325	310	Chemist	NCe(P)
Plympton Newsagency	105	337	Newsagent	NCe(P)
Marion Road Disposals	215	347	Second Hand Household	NCe(P)
Network Video *	552	359	Video Library	NCe(P)
Ninettes Hair City	75	416	Unisex Hairdresser	NCe(P)
Shiney Bright Laundry	148	417	Laundrette	NCe(P)
Hertz	42	425	Personal Services NEC/ Hire Household/Massage	NCe(P)
Vacant *	52	901	Vacant	NCe(P)
Vacant *	54	901	Vacant	NCe(P)
Total	4,403			

* Shops on the Highway Site

Source: 2007 Adelaide Retail Database (Planning SA, 2008)

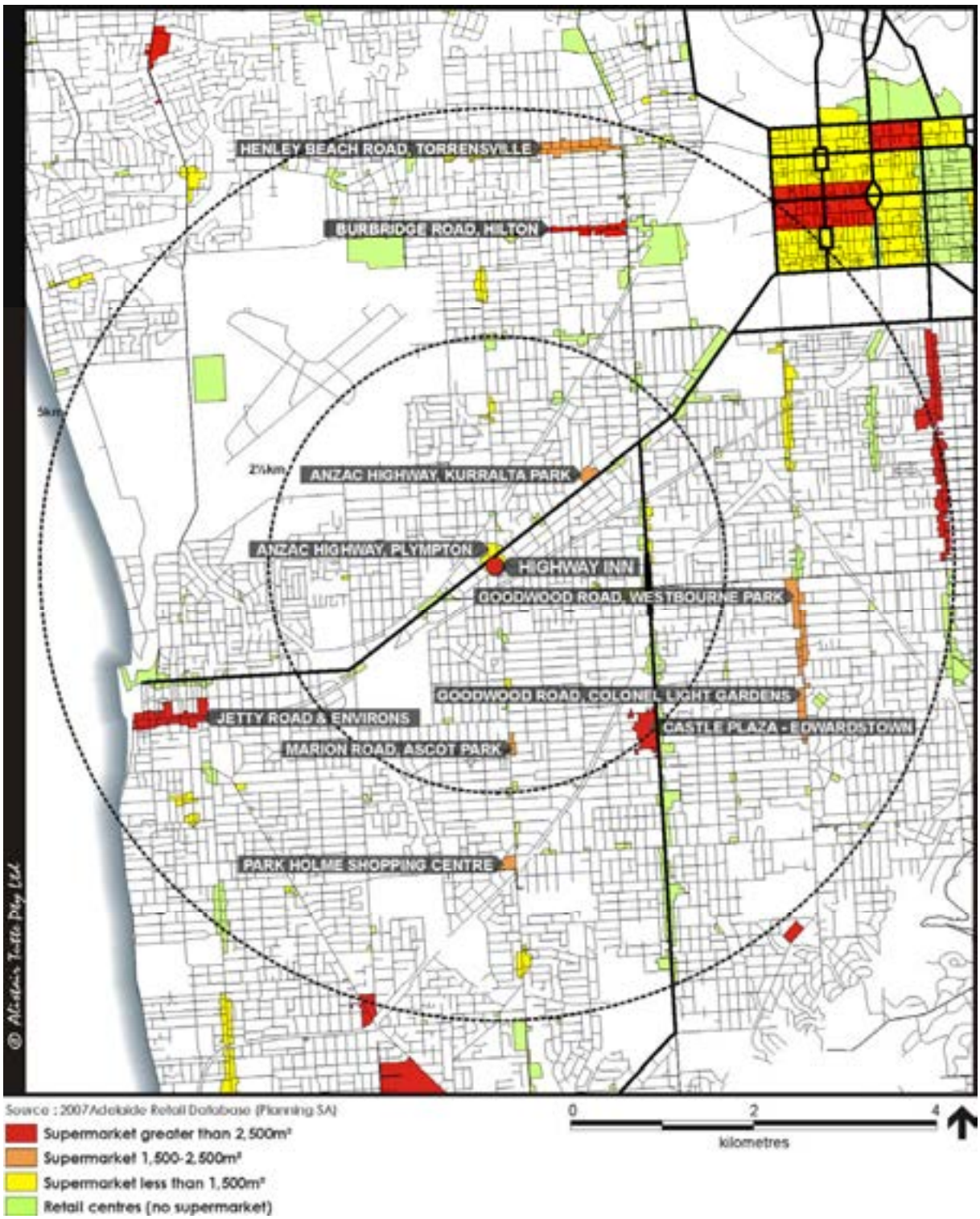


Figure 3: The Highway site and competing retail centres

Table 3 shows socio-economic indicators for 2½ and 5 kilometre radii around the Highway site compared to the Adelaide Statistical Division (ASD).

Table 3: Key socio-economic characteristics for Highway site & Adelaide Statistical Division

Characteristics	Highway 2½km radius	Highway 2½-5km radius	ASD
Average per capita income	$23,318	$25,655	$23,385
Average household size	2.1	2.2	2.4
Number of households	17,458	41,645	430,852
Population (2006)	39,360	97,448	1,105,730
Projected population (2011)[1]	39,524	98,085	1,142,428
Projected population (2016)[1]	39,630	98,608	1,171,105
Projected population (2021)[1]	39,845	99,358	1,199,118
Age Distribution			
0-14 years	14.4%	14.9%	17.8%
15-24 years	14.1%	13.9%	14.0%
25-39 years	22.2%	21.3%	20.0%
40-59 years	25.3%	26.6%	27.9%
60 years+	24.0%	23.3%	20.2%
Average Age	40.2	40.3	38.9
Dependency Ratio	38.4%	38.1%	38.1%
Housing Status			
Owner/purchaser	60.0%	62.8%	69.1%
Renter	34.6%	32.4%	26.7%
Labour Force			
Managers	10.7%	13.1%	11.4%
Professionals	21.7%	25.8%	20.5%
Technicians & trades workers	13.7%	11.8%	14.1%
Community & personal service workers	9.9%	9.7%	9.6%
Clerical & administrative workers	17.5%	16.1%	15.9%
Sales workers	10.1%	10.0%	10.2%
Machinery operators & drivers	5.2%	4.0%	6.0%
Labourers	9.5%	8.1%	10.9%
% unemployed	5.6%	4.9%	5.3%
Birthplace			
Australian	73.0%	72.1%	70.7%
Europe	5.0%	4.2%	3.6%
Asia	10.7%	11.7%	14.5%
Other	6.4%	6.3%	5.6%

Characteristics	Highway 2½km radius	Highway 2½-5km radius	ASD
Motor vehicles/household			
0	15.2%	14.0%	10.6%
1	44.0%	42.2%	38.7%
2	28.1%	30.4%	34.4%
3	6.5%	7.2%	9.3%
4 or more	2.6%	2.6%	3.8%
Journey to work by car	74.7%	73.8%	79.2%
Household income quintiles			
1st quintile	22.5%	18.4%	20.0%
2nd quintile	29.9%	24.0%	20.0%
3rd quintile	31.9%	23.5%	20.0%
4th quintile	14.7%	18.8%	20.0%
5th quintile	1.0%	15.3%	20.0%
Household retail expenditure[2]			
Food	$161,288,000	$448,639,000	$4,812,640,000
Non-food	$151,742,000	$438,627,000	$4,753,755,000
Total retail expenditure	$313,030,000	$887,266,000	$9,566,395,000

Sources : 2006 Census (ABS, 2007); [1] Population projections by SLA (Planning SA, 2007); [2] 2003-04 Household Expenditure Survey (ABS, 2005)

Table 4 household projections for Statistical Local Areas (SLA) within 5 kilometres of the Highway site shows that the number of households is expected to increase by 3.0% over the 15 years from 2006 to 2021. The household projections are based on Planning SA population projections, with allowance made for declining household occupancy rates.

Table 4 : Household projections for Highway catchment SLA's

SLA code	SLA name	2006	2011	2016	2021	% change 2006-2021
405108411	West Torrens (C) - East	11,186	11,240	11,278	11,345	1.42%
405108414	West Torrens (C) - West	12,751	12,970	13,015	13,006	2.00%
405157984	Unley (C) - West	7,376	7,536	7,614	7,722	4.69%
405202601	Holdfast Bay (C) - North	9,584	9,792	9,830	9,838	2.65%
405204064	Marion (C) - North	11,957	12,118	12,275	12,441	4.05%
405204345	Mitcham (C) - West	9,379	9,428	9,567	9,745	3.90%
	Totals	**62,233**	**63,084**	**63,579**	**64,097**	**3.00%**

Source: Planning SA, July, 2007 & Alistair Tutte Pty Ltd

The effects of the proposed Highway development were investigated using a retail gravity model developed by Alistair Tutte Pty Ltd, with the following data sources:

- 2006 Census data on number of households and Planning SA population/household projections for 2011, 2016 and 2021 by statistical local areas for the Adelaide and Outer Adelaide Statistical Divisions;
- 2006 household income by quintile group and household retail expenditure on food and non-food retailing by quintile group (from ABS 2006 Housing and Population Census and ABS 2003-04 Household Expenditure Survey adjusted to 2007 $). Household expenditure on bulky goods was derived by sub-setting appropriate expenditure categories for home-maker goods;
- 2007 Adelaide Retail Database (Planning SA) with food and non-food floorspace for 694 metropolitan and outer metropolitan retail centres;
- In preparing household projections, it was assumed that Collector Districts with occupancy rates greater than 2.2 persons per dwelling would decline by 0.1 for each intercensal period; and
- That the redevelopment of Highway site with 4,400m^2 of food and 2,100m^2 would result in a net increase from 4,403m^2 to 9,610m^2 for Anzac Highway Plympton.

Table 5 : Scenario 1 – Turnover/m^2 with centres at existing floorspace

	Food turnover/m^2				Nonfood turnover/m^2			
Centre	2006	2011	2016	2021	2006	2011	2016	2021
Anzac Highway Plympton	6,177	6,334	6,478	6,618	2,546	2,613	2,674	2,734
Anzac Highway, Kurralta Park	6,329	6,491	6,639	6,783	2,587	2,655	2,718	2,779
Burbridge Road, Hilton	6,083	6,245	6,392	6,539	2,490	2,557	2,620	2,682
Castle Plaza - Edwardstown	6,164	6,322	6,470	6,616	2,567	2,635	2,698	2,760
Goodwood Rd, Colonel Light Gardens	6,457	6,619	6,775	6,931	2,730	2,800	2,867	2,935
Goodwood Road, Westbourne Park	6,536	6,700	6,857	7,014	2,752	2,823	2,890	2,958
Henley Beach Road, Torrensville	5,985	6,146	6,296	6,444	2,460	2,528	2,591	2,654
Jetty Road and environs	5,694	5,840	5,971	6,099	2,454	2,518	2,574	2,629
Marion Road, Ascot Park	6,089	6,247	6,393	6,536	2,527	2,594	2,656	2,717
Park Holme Shopping Centre	5,983	6,142	6,289	6,434	2,486	2,553	2,615	2,677

benchmark turnover

Table 5 shows the food and non food turnover/m^2 for existing centres, which increases over time in response to growth in catchment households. The turnover/m^2 for Anzac Highway Plympton is slightly below the average for the other centres modelled. The 2006 turnovers/m^2 marked in yellow are taken as "benchmark" figures used to compare turnover for Scenario 2.

Table 6 : Scenario 2 - Turnover/m² with Highway development of Anzac Highway Plympton

	Food turnover/m²				Nonfood turnover/m²			
Centre	2006	2011	2016	2021	2006	2011	2016	2021
Anzac Highway Plympton	6,177	6,015	6,151	6,284	2,546	2,583	2,643	2,703
Anzac Highway, Kurralta Park	6,329	6,185	6,326	6,463	2,587	2,626	2,688	2,749
Burbridge Road, Hilton	6,083	5,963	6,104	6,244	2,490	2,530	2,591	2,653
Castle Plaza - Edwardstown	6,164	6,031	6,171	6,311	2,567	2,606	2,668	2,730
Goodwood Rd, Colonel Light Gardens	6,457	6,318	6,467	6,616	2,730	2,769	2,836	2,903
Goodwood Road, Westbourne Park	6,536	6,395	6,545	6,695	2,752	2,792	2,859	2,926
Henley Beach Road, Torrensville	5,985	5,871	6,014	6,156	2,460	2,500	2,563	2,625
Jetty Road and environs	5,694	5,573	5,698	5,820	2,454	2,490	2,546	2,600
Marion Road, Ascot Park	6,089	5,956	6,094	6,231	2,527	2,565	2,626	2,687
Park Holme Shopping Centre	5,983	5,860	6,001	6,138	2,486	2,525	2,586	2,648

decreased turnover increased turnover

Table 7 : % change in turnover/m² from Scenario 1 to Scenario 2

	Food turnover/m²				Nonfood turnover/m²			
Centre	2006	2011	2016	2021	2006	2011	2016	2021
Anzac Highway Plympton	-	-2.6%	-0.4%	1.7%	-	1.4%	3.8%	6.1%
Anzac Highway, Kurralta Park	-	-2.3%	-0.1%	2.1%	-	1.5%	3.9%	6.2%
Burbridge Road, Hilton	-	-2.0%	0.3%	2.6%	-	1.6%	4.1%	6.5%
Castle Plaza - Edwardstown	-	-2.2%	0.1%	2.4%	-	1.5%	3.9%	6.3%
Goodwood Rd, Colonel Light Gardens	-	-2.2%	0.1%	2.5%	-	1.4%	3.9%	6.3%
Goodwood Road, Westbourne Park	-	-2.2%	0.1%	2.4%	-	1.4%	3.9%	6.3%
Henley Beach Road, Torrensville	-	-1.9%	0.5%	2.9%	-	1.7%	4.2%	6.7%
Jetty Road and environs	-	-2.1%	0.1%	2.2%	-	1.5%	3.7%	6.0%
Marion Road, Ascot Park	-	-2.2%	0.1%	2.3%	-	1.5%	3.9%	6.3%
Park Holme Shopping Centre	-	-2.1%	0.3%	2.6%	-	1.6%	4.0%	6.5%

decreased turnover increased turnover

Table 6 shows the modelled turnover/m² for all centres after the redevelopment in 2011 of the Highway site. All of the centres modelled experience a minor decrease in food turnover/m² (indicated by pink shading) in 2011, with an insignificant decrease continuing in food turnover/m² in Anzac Highway, Kurralta Park in 2016, but by 2021 turnover/m² for all centres shows positive growth (green shading) when compared to the 2006 "benchmark" figure. Non-food turnover/m² remains positive for all centres. Turnover/m² for Anzac Highway Plympton is again slightly below the average for the other centres modelled.

Table 7 shows the changes in turnover/m^2 before and after the redevelopment of the Highway site.

It is generally accepted in retail analysis that a negative impact on other centres of less than 5% is not significant, whereas impacts between 5-10%, would give rise for some concern, and impacts above 10% might affect the viability and functioning of retail centres.

The redevelopment of the Highway site will result in insignificant negative effects on other centres of less than -2.3%. Moreover, the relatively small decline in turnover/m^2 for the Anzac Highway Plympton Centre after the Highway site redevelopment indicates that the new retail development is economically viable and that there is there demand for the proposed new retail facilities.

The Highway site redevelopment will benefit the residents of Camden Park, Glandore, Kurralta Park, Netley, North Plympton, Plympton, Plympton Park and South Plympton by:

- improving access to a full-range supermarket;
- providing greater choice of shopping locations;
- increasing competition between shopping centres;
- reducing travel times and greenhouse emissions by improving residents' proximity to higher order shopping facilities;
- providing 322 full time job equivalents from the net increase in retail floorspace (based on 3,900m^2 supermarket at 40.8 jobs/1,000m^2 plus 2,700 of specialty shops at 60.7 jobs/1,000m^2); and
- help to promote increased densities around the Plympton Neighbourhood Centre.

4.6.2 Employment and Other Effects

The effects are expected to be beneficial to the community by providing greater diversity, choice and form of shopping experience, and providing additional employment opportunities. There will be increased competition, however it is expected that future redevelopment adjacent convenient transport routes will continue to emerge thereby increasing trade capacity.

Other economic benefits include construction employment, new investment, increased Council rate revenue, land tax and stamp duty to name a few. It is expected that up to 300 permanent and part time jobs would be created as a result of the development (in addition to the construction employment). These jobs would be spread across retails sales, management, storage activities, waste management, office workers, gardeners, security staff, maintenance, cleaners and the like.

4.6.3 Demand for Community Facilities as a Result of Development

No public community facilities are proposed although toilets within the shopping complex will be available to the public during trading hours. The demand for communal facilities resulting from the development is expected to be minor given the nature of accommodation units. On site recreational facilities include a roof garden

and pool . The convenience to public transport facilitates easy access to a wide range of community facilities, medical services and local government services. Easy access to the CBD and Glenelg also exists where higher order services are available.

The scale of the development is unlikely to create demands that cannot be provided using established facilities and services. It has been previously noted that improved opportunities for social interaction is likely as with increased surveillance resulting in a safer community environment.

The proposal will create an activity hub. A retail demand survey confirmed the need for additional retail services, the provision of cafes will encourage community lifestyle activity. (It is noted The Highway Hotel already operates as a community focal point).

5 Description of Planning and Environmental Legislation and Policies

5.1 City of West Torrens Development Plan

The West Torrens (City) Development Plan contains a large number of Objectives and Principles of Development Control relating to the residential, retail, commercial development, shopping centres, transport, parking and related matters. Provision also define a range of measures and policies for managing development including acoustic treatments, privacy, stormwater management, private open space, car parking amongst others.

A summarised assessment against each of the relevant Council wide objectives and principles is provided below there is a high degree of consistency with these individual provisions and the proposed development. There is however a number of principles where various occurs including for example, building height and building set backs. The degree of variance is not considered significant. The following Objectives and Principles of Development Control are considered relevant.

Form of Development

Council Wide

Objectives	1, 2, 4, 5 (a, b), 6, 7
Principles of Development Control	2, 3,

Transportation (Movement of Peoples and Goods)

Council Wide

Objective	15 (a-b), 16 (b-e), 17, (a-e), 18 (a)
Principle of Development Control	21, 23, 24, 26, 27, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39 (a-b), 40

Public Utilities

Council Wide

Objective	19
Principle of Development Control	44

Residential

Council Wide

Objective	25
Principle of Development Control	79, 99 (a-e), 119, 121 (a-c), 122 (a-c), 137,

Centres and Shops

Council Wide

Objective	31, 32, 33, 37, 41, 42, 43, 44
Principle of Development Control	143, 144(a), 146 (a, b, c, d, e, f,g, h, l, k), 147 (a, c, d, e, f), 148 (a, c, d, e, f, g, h), 149 (a, b, d, e, f g, l, j, k l), 150, 151, 152, 153 (a-b), 154 (a-b), 155, 158, 161, 162

Commercial Development

Council Wide

Objective	45
Principle of Development Control	166, 167

Appearance of Land and Buildings, and Set-Backs

Council Wide

Objective	95
Principle of Development Control	271, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284 (a, b, c, e, f) 285 (c)

Objective 1 refers to 'orderly and economic development' and is supported by text and Principles of Development Control relating to the appropriate allocation of land uses relating to the infrastructure, demographics and economic activities. In addition Objective 5 refers to the 'intensification of residential and employment generating development' in certain areas of West Torrens Council to increase density in suitable locations along designated transport route to ensure the value of existing facilities can be fully realised and increased employment occurs within the Council area. The proposed mixed use development clearly supports these Objectives and Principles reinforcing orderly development and the intensification of urban development in such a strategic location that has frontage to Anzac Highway and Marion Road.

Objective 15 refers to the desire for a more 'beneficial and compatible relationship between land use and transport' that seeks to reinforce and focus service and employment intensive activities in suitable locations along designated transport routes and arterial roads. The proposed site is significant and has substantial frontages to two main metropolitan arterial roads at a midpoint between the Adelaide Central Business District and the Glenelg District Centre. The sites proximity to the airport (and other regional infrastructure) illustrates its strategic location. By optimising land the land use mix and intensity adjacent existing transport, beneficial outcomes will clearly be derived.

Objective 17 and 18 relates to development adjacent main roads. It also refers to traffic efficiency and safety, discouraging commercial ribbon style development preventing large traffic generating uses outside Centre Zones, providing for adequate off-street parking and providing appropriate safe access, egress and movement. Clearly the proposal will satisfy these provisions. The design has evolved through an iterative process, informed by experienced traffic engineers advice.

Principles of Development Control 21, 23, 36 and 38 (to select some) relates to adequate and appropriate car parking, the provision of shared parking, pedestrian and cycle movement, minimising hazards and potentially reducing the amount of car parking where shared used arrangements may allow based on likely hours of

operation. The proposal clearly provides substantial car parking, bicycle parking and facilitates safe and convenient pedestrian linkages. Shared parking as discussed within the Traffic Impact Statement (Appendix C) has taken into account the shared parking potential, the mix of uses and the operating hours. The existing hotel facility trading hours will predominantly occur outside the retail and commercial trading hours thereby minimising overlap.

Whilst there are many provisions relating to 'residential' development, these are primarily focussed on permanent residential development as opposed to serviced accommodation. Nevertheless many of the provisions remain relevant including for example Principle of Development Control 99 relating to privacy from potential direct overlooking, site storage, aircraft noise and the like. The proposal has been designed to provide some flexibility with respect to the future Stage 2 development which could be residential apartments (should market conditions determine) as opposed to serviced accommodation. The design has taken into account management of privacy by avoiding overlooking into nearby residential areas given the setback of nearly 60 metres from properties from Elizabeth Street. The proposal provides for adequate storage and landscaping. Accordingly the development responds to the spirit and intent of the Development Plan provisions in relation to residential amenity.

Objectives 31, 32, 33 and 37 relate to retailing with 'shopping development' occurring in designated centres providing convenience to the local population, and occurring in an integrated manner. Clearly the proposal includes shopping and is located within a Neighbourhood Centre. The layout, the nature of facilities includes servicing arrangements, and the mix of uses have been purpose designed having regard to community demand (based on research and survey) as well as relevant operator requirements.

In addition Objectives 41, 42, 43 and 44 and Principle of Development Control 143 all relate to orderly redevelopment, investment encouragement, creation of an attractive environment and provision of a range of shopping and entertainment facilities within a Neighbourhood Centre Zone. The proposal satisfies these requirements.

Similarly Principles of Development Control 146, 147, 148, 149 and 151 relate to specific design details particularly the built form, parking and access, pedestrian movement, open space, overshadowing and amenity related conditions. The design has been carefully conceived through the use of a wide range of professionals, operators, property advisors, architects, urban planners, retail consultants, traffic engineers and the like. The proposal does address all of the sub-provisions in relation to these requirements either in full or to the extent appropriate for the site.

Principle of Development Control 155 refers to minimizing adverse impacts on residential areas. The proposed scheme has enclosed a serviced court and does enclose the retailing development adjacent the residential development in locality. Although service vehicles will exit via Elizabeth Street (to Marion Road) there is only one property on the corner of Marion Road and Elizabeth Street comprising group dwellings that service vehicles would exit pass. On balance, it is not expected that adverse impacts would arise on the residential areas from the development or its operations.

Shadow diagrams are contained within the plans in Appendix B. Mid winter morning shadowing will occur to some dwellings to the east on Elizabeth Street. The extent of

shadowing has been minimised by the orientation and setback of the high rise component.

Principle of Development Control 161 refers to a two storey height limit. The proposal exceeds this limit. Having regard to the various Objective and Principles seeking to increase density in strategic locations (particular adjacent transport routes) this two storey height limit seems at odds with the sprit and intent of the higher level Objectives for the Council area. In any event, the proposed building height is not considered out of character with other developments along the Anzac Highway to the northeast.

Objective 45 indicates commercial development should occur in suitable areas and this is supported by Principles of Development Control 166 and 167. The proposal does include some commercial development (expected to be office related) which will occur above the retail component as an integral part of the built form. This commercial space is suitably located, has convenient access to the transport infrastructure and has been designed to a high architectural standard. It provides an effective transition between the retail and accommodation components. These principles are clearly satisfied by this proposal.

Objective 95 and Principles of Development Control 271 and 274 relate to amenity, appearance and management of activities. In addition Principles of Development Control 279, 280, 281 and 282 refer to noise generating activities. The proposal fully encloses the service court and provides a wall on the western boundary for the driveway section (adjacent the existing Barnacle Bill takeaway food restaurant). The proposal has been designed to mitigate any potential adverse effects and this will be further reinforced by onsite management.

Principles of Development Control 283, 284 and 285 relate to landscaping. Landscaping is provided within the car park and portion of the roof top area creating a roof top garden as illustrated on the plans in Appendix B. This landscaping is considered appropriate given the nature of the requirement for basement parking and the need to manage the weight of landscaping (and water management) above the basement.

The key area of variance relate to the Zone specific provisions discussed below.

The West Torrens (City) Development Plan identifies the site as a Commercial Policy Area 11 within the Neighbourhood Centre (Plympton) Zone. Residential properties on the south western corner of the site are contained within the abutting Residential Zone.

The Neighbourhood Centre (Plympton) Zone provisions include the following:

- Retail floor space should be limited to 3,500 sq m and should be located in Policy Area 10 on the northern side of Anzac Highway;
- Retail floor space with a combined floor space in excess of 500 sq metre is non-complying in Policy Area 11 (the proposal clearly exceeds this amount of floor space);
- Activities that are envisaged for the site include take-away food outlets, restaurants, banks, commercial facilities, retail showrooms and small-scale low traffic generating retail uses;
- Development should be set back a minimum of 5 metres from all roads;

- Development facing arterial roads should not exceed 3 storeys (12.5 metres) in height, development elsewhere in the centre should not exceed 2 storeys (8.5 metres)

The Development Plan identifies three corner sites within the Neighbourhood Centre (Plympton) Zone. However there is currently no integration between any of these sites due to the separation caused by Anzac Highway and Marion Road. The proposal does not alter this arrangement but will concentrate development on the subject site.

The Development Plan enables for mixed use development as a merit application. The existing floor space provisions would constrain the amount of retailing on site to 500 sq m (although with existing retail floor space 1,370m^2/development rights, it may be feasible to reconfigure the existing on-site retailing without triggering non-complying status). The provisions relating to the Residential Zone would impede redevelopment of the residential allotments for retail use (unless the amount of floor area was less than 500 sq m). In addition, the height restrictions in Principles of Development Control 9 and 10, do not support higher density, and specifically, buildings in excess of 3 storeys that are proposed.

The Development Plan does consider the possibility for residential development above non-residential development. Overall, the proposed retail floor area and heights clearly exceed the provisions. There is strong logic for encouraging a substantial mixed use development on this strategically located site and it is clear that the current policies do not reflect current market trends and desires nor the direction encouraged within the Metropolitan Planning Strategy. The proposal can readily be accommodation on this site without causing adverse effects with regard to the retail floor space (based on the retail impact analysis provided in Section 4.6) and the proposed built form, parking and operational activities can co-exist on the site to create a medium density form of development suited to this locality. On balance the proposal is suited to this site, and is consistent with most Development Plan provisions and the variance with respect to retail floor space and building heights is acceptable.

The existing Development Plan Zoning and relevant provisions are shown in Appendix F.

5.2 Planning Strategy for Metropolitan Adelaide

The State Government's Planning Strategy for Metropolitan Adelaide champions the principle of increasing the vitality and viability of existing centres by increasing the range of compatible activities that are able to be accommodated. The Draft Planning Strategy for Metropolitan Adelaide is based on:

1. Urban containment;
2. Integrated energy provision, transport planning and land use planning; and
3. Integrated land and water use planning and development.

Essentially, the Strategy seeks a sustainable future for Metropolitan Adelaide. In parallel with State Government Policy to reverse the current trend of low and declining population growth, with the aim of accelerating population growth state-wide. The Strategy seeks to plan a sustainable future for Adelaide which aims to deliver and integrate:

- Significant household growth and a range of housing options;
- Sustained economic growth, and growth in the export market in particular;
- Sustainable use of energy and water resources; and
- Providing opportunity for all.

Inherent within all of these issues is the need to brand and sell Adelaide, both domestically and globally, as a clean, well-connected and diverse City. It is encouraging that strategic planning objectives are being integrated with Statewide population growth objectives. It will be critical for Metropolitan Adelaide to focus on meeting population growth and retention targets in order to remain competitive and continue to provide the necessary services and infrastructure to meet the needs of an ageing population.

Within the context of the metropolitan growth boundary and the existing low density of the metropolitan areas, it will be essential to increase the density of development in future and to further the process of urban renewal in areas that would benefit from investment.

The Strategy's aim of creating transit-focused neighbourhoods and activity centres is therefore a sensible and essential approach to future sustainable development within Metropolitan Adelaide.

In parallel, the Metropolitan Spatial Plan aims to target increased densities:

- Within urban regeneration areas;
- Within a walkable distance of frequent public transport services (transit-focused neighbourhoods); and
- Within and around activity centres.

The Planning Strategy sets out a range of considered strategies and objectives in relation to urban regeneration, activity centres and transit orientated development. It is clear that in order to make Adelaide an attractive and competitive destination for residents, migrants and visitors in future it will be necessary to provide a broader range of living, working and recreational opportunities than are currently available. The increased provision of higher density neighbourhood communities, supported by a complete range of services and linked to other parts of the city by efficient public transport, is a desirable and achievable objective.

In this context the capacity of 'Activity Centres' to deliver these outcomes will be critical and the Highway Inn site provides a unique opportunity in this regard.

The strengthening of the multi-functional and transit-focused role of centres is critical to the successful development of 'Activity Centres'.

In metropolitan areas around Australia, as well as around the world, mixed use development has delivered a range of social, environmental and economic benefits to centres. The key to successful mixed use development is ensuring that compatibility issues between developments, neighbouring land uses and public spaces are sensitively managed.

In older towns and cities it has long been recognised that the character of a place is defined as much by the environmental quality, derived from the chance aggregation of different activities, as it is by meticulous city planning and design. A complementary

mix of uses and activities makes for more efficient and enjoyable places. This in turn can have a positive impact on the vitality and viability of a centre.

The trend towards mixed use development has increased in Australian cities in recent years. Aside from the flagship developments in Sydney and Melbourne CBD's, Newcastle NSW, and in particular Inner Newcastle is already a mixed use area and it, together with traditional mixed use centres like New Lambton and Wallsend, hold important keys to the city's future prosperity and quality of life. Subiaco in Perth and the inner suburbs of Melbourne and Sydney all contain highly successful mixed-use developments.

There is clearly scope to improve the vitality and viability of centres within Metropolitan Adelaide. This will be dependant upon factors such as:

- Successful integration of complementary retail and commercial facilities with medium-high density residential development;
- Built form complementing surrounding environs;
- Providing a high degree of pedestrian connectivity between uses; and
- Delivering a 'critical mass' of activities from a commercial perspective.

These principles have been embraced with the proposed development and the site clearly has the potential to support such a development and deliver a demonstration of TOD principles consistent with the Planning Strategy.

5.3 South Australia's Strategic Plan

South Australia's Strategic Plan (January 2007) (SASP) is the principal document outlining the State Government's vision for the future of South Australia. It sets out a number of key targets to facilitate South Australia in becoming prosperous, environmentally rich, and culturally stimulating.

The SASP prescribes key themes to enhance South Australia's economy, without prejudicing the lifestyle, well-being and creativity of a culturally eclectic, unique population. These principles are underpinned by the notion of expanding opportunity, through building specific communities to enhance the liveability of the State and project the overall population to 2 million by the year 2050.

SASP sets various targets prescribed within six interrelated objectives, as follows:

- Growing Prosperity
- Improving Wellbeing
- Attaining Sustainability
- Fostering Creativity
- Building Community
- Expanding Opportunity

In order to achieve the objectives of the SASP, the optimal redevelopment of key sites within the metropolitan area is a priority. The Palmer Group has embraced these principles with the proposed major development.

The proposed development will also serve to assist the government to achieve a number of the targets contained within the SASP under the objectives of Growing Prosperity and Attaining Sustainability. These specific objectives are discussed below.

Growing Prosperity

The Growing Prosperity objective relates to the economic development of South Australia. The SASP sets a vision for South Australia as a *prosperous and confident community, with an outward oriented economy, competing strongly on the basis of the skills, capabilities and innovation of its people*.

A key focus of the objective is creating and maintaining a competitive business environment. To do this, targets for growth in areas such as business investment, jobs and the tourist industry have been identified as a part of the plan. The SASP targets having relevance to this project are detailed below.

T 1.1	Economic Growth: Exceed the national economic growth rate by 2014.
T 1.5	Business Investment: Exceed Australia's ratio of business investment as a percentage of the economy by 2014.
T 1.10	Jobs: Better than the Australian Average employment growth rate by 2014.
T1.15	Tourism industry: Increase visitor expenditure in South Australia's tourism industry from $3.7 billion in 2002 to $6.3 billion by 2014.
T1.21	Strategic Infrastructure: Match the National Average in terms of investment in key economic and social infrastructure.

Attaining Sustainability

The objective 'Attaining Sustainability' focuses on securing a positive, environment for today's citizens, without prejudicing the liveability of future generations. The key area of concern within this section of the plan is climate change. The plan seeks to set South Australia apart as a world leader in climate change policy and uptake in renewable technologies.

Water is also identified as being an important issue to the State with particular mention given to the River Murray.

The proposed major development provides the opportunity to contribute to these goals by creating a development with water and energy efficiency principles embedded within the design.

Further, the construction of medium density residential apartments with an activity centre and adjacent to key transport infrastructure ensures less dependence on private vehicle use. This dependence on cars is further reduced by the mixed use nature of the development. The location of the development on a high usage public transport route also encourages visitors to the site to utilise public transport rather than private vehicles. The design premise has embraced transit orientated development principles.

Specific targets within the SASP relating to 'Attaining Sustainability' with relevance to this project are detailed below.

Climate Change

T3.5 **Greenhouse gas emissions reduction:** Achieve the Kyoto target by limiting the State's greenhouse gas emissions to 108% of 1990 levels during 2008-2012, as a first step towards reducing emissions by 60% (to 40% of 1990 levels by 2050.

T3.6 **Use of public transport:** Increase the use of public transport to 10% of metropolitan weekday passenger vehicle kilometres travelled by 2018.

Ecological Footprint

T3.7 **Ecological footprint:** Reduce South Australia's ecological footprint by 30% by 2050.

Energy

T3.14 **Energy efficiency – dwellings:** Increase the energy efficiency of dwellings by 10% by 2014.

5.4 Changes to Development Plan Zone Policies

To facilitate successful mixed-use activity centre development upon the site it is desirable that amendments to existing Zone provisions are made.

The Neighbourhood Centre (Plympton) Zone needs to be amended and the suggested changes are summarised as follows:

- Define the Zone as a 'Neighbourhood Activity Centre' with TOD based objectives;
- Amend the Zone boundary to incorporate the residential properties on Elizabeth Avenue that form part of the overall site;
- Include a revised structure plan that supports high density mixed use development;
- Include principles supporting mixed-use development (Transit Orientated Development) including visitor accommodation as well as retail, commercial and entertainment facilities;
- Remove the height limits within Policy Area 11
- Remove the non-complying retail floor space trigger for Policy Area 11.
- Provide enhanced urban design and green star rating principles.

5.5 Environment Protection Act, 1993

The proposed development will be managed during construction and ongoing operations to ensure compliance with all requirements under the Environment Protection Act, 1993. This will include noise, emissions, materials, waste, stormwater, air quality and site contamination. Construction will be undertaken in accord with a Construction Plan Environmental Management Plan whilst ongoing operations will be managed by the relevant operations in accord with all statutory requirements including the duty of care principles prescribed by the Environment Protection Act, 1993.

6 Conclusion

The proposed major development will comprise of a land mark mixed use retail, commercial and accommodation development that embraces TOD principles. The development has been tailored to this strategic site. The development will:

- strengthen retailing and complement existing land uses within the neighbourhood generally;
- provide a range of tourist accommodation units that will enhance the liveability and diversity of accommodation for Plympton;
- respond to the size and strategic location of the subject land with a significant, quality development;
- create a development that has scale, height and bulk with materials and articulation to ensure its compatibility with surrounding built form
- exceed the height/storey restrictions within the Development Plan (however, the development has been designed to optimise site development potential given its strategic location and size);
- be constructed and managed using best practice CEMP and EMP principles;
- incorporate ESD principles by providing energy design, provision of solar access and roof garden;
- provide substantial car parking and bicycle parking, that is safe and convenient and accordance with relevant Australian Standards;
- benefit the broader locality and metropolitan area through increased employment, investment and facilities;

The proposal is significant and appropriate for the site. It will demonstrate the key principles of TOD development and ESD for this strategic location and clearly merits support.

Appendix A

Legal Description of Subject Land

The proposed development site has frontages to Anzac Highway, Marion Road and Elizabeth Avenue, Plympton. The site incorporates the Highway Inn, existing retail tenancies and eight existing residential properties fronting Elizabeth Avenue as shown of the SA Gazette Notice attached. All of these properties are owned by the applicant

The legal description of the suggested land to be involved is:

- Allotment 88 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5104 Folio 701;
- Allotment 87 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5104 Folio 702;
- Allotment 86 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: 5104 Folio 700;
- Allotment 89 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5490 Folio 453;
- Allotment 90 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5457 Folio 209;
- Allotment 91 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5104 Folio 703;
- Allotment 93 Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5374 Folio 188;
- Allotment 94 in Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5427 Folio 767;
- Allotment 95 in Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5077 Folio 46;
- Allotment 96 in Filed Plan 8107 in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5560 Folio 492; and
- Allotment 281 in Community Plan 71863 parcel number 10, in the Area named Plympton in the Hundred of Adelaide, Certificate of Title: Volume 5486 Folio 281.
- Unit 1 Strata Plan 42 Certificate of Title Volume 5043 Folio 137
- Unit 2 Strata Plan 42 Certificate of Title Volume 5043 Folio 138
- Unit 3 Strata Plan 42 Certificate of Title Volume 5043 Folio 139
- Unit 4 Strata Plan 42 Certificate of Title Volume 5043 Folio 140

Appendix B

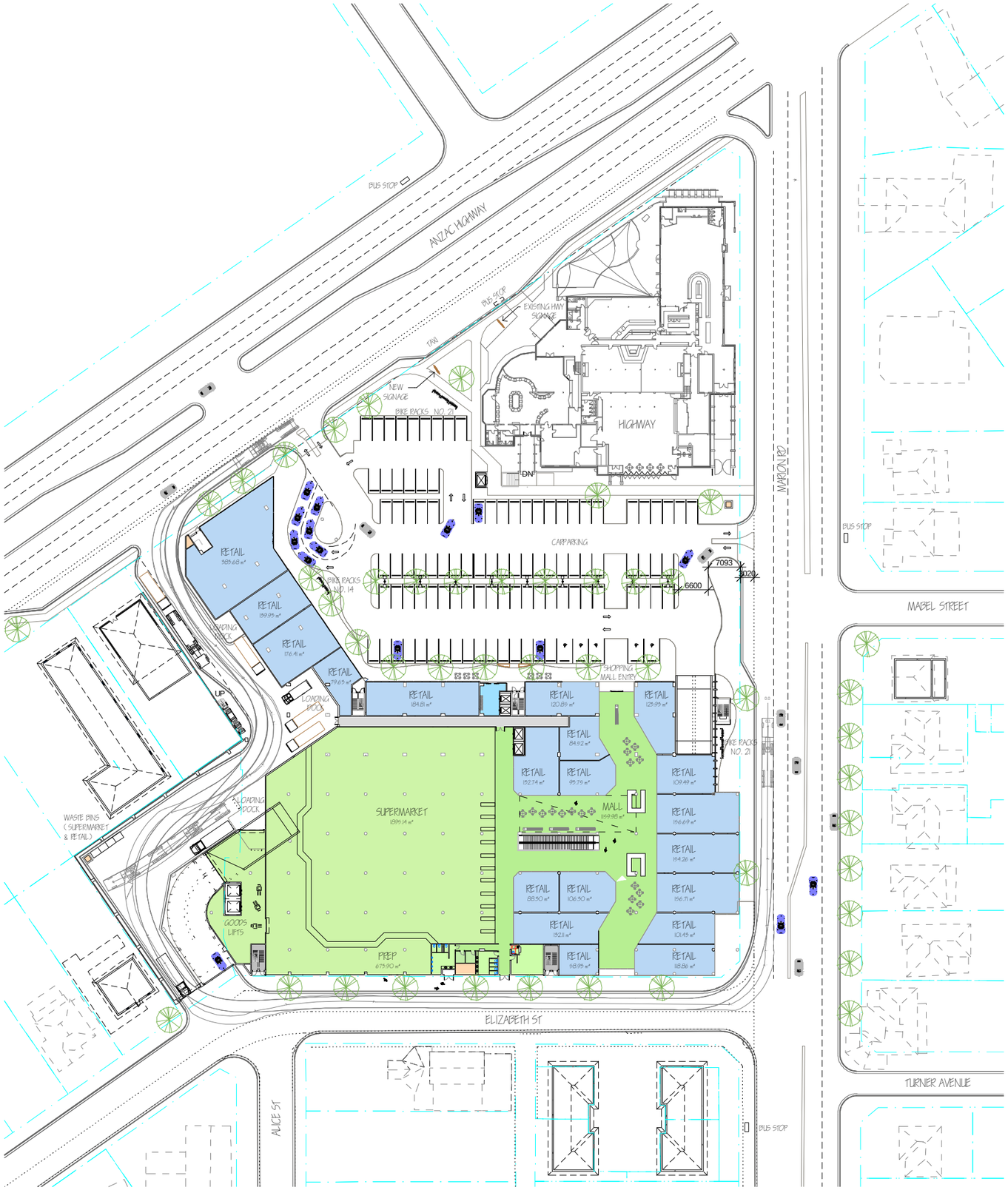
Plans

ROOM SCHEDULE		
AREA	Occupancy	Level
99.95	AMENITIES	GROUND FLOOR
99.95		
12668.60	B1 CARPARK	B1
12668.60		
1844.82	COMMERCIAL	LEVEL 1
1844.82		
557.52	COMMERCIAL CIRCULATION	LEVEL 1
557.52		
33.27	FOYER	GROUND FLOOR
123.69	FOYER	LEVEL 1
156.96		
6.76	LIFTS	B1
6.76		
1159.98	MALL	GROUND FLOOR
1159.98		
83.99	PLANT	B1
16.51	PLANT	GROUND FLOOR
455.45	PLANT	LEVEL 1
555.95		
5158.73	RESIDENTIAL PARKING	LEVEL 1
5158.73		

ROOM SCHEDULE		
AREA	Occupancy	Level
2686.13	RETAIL	GROUND FLOOR
2686.13		
112.42	SERVICE	GROUND FLOOR
112.42		
111.13	STAFF CHANGE	GROUND FLOOR
111.13		
33.59	STAIRS	GROUND FLOOR
33.59		
323.83	STORE	B1
544.37	STORE	LEVEL 1
868.20		
2854.79	SUPERMARKET	GROUND FLOOR
2854.79		
258.56	SUPERMARKET ADMIN	LEVEL 1
258.56		
819.37	SUPERMARKET STORE	LEVEL 1
27591.25		

TYPICAL APARTMENT PLAN SCHEDULE			
Name	AREA	Level	Occupancy
TYPE 1	978.92	LEVEL 2	APARTMENT
TYPE 2	156.66	LEVEL 2	APARTMENT
TYPE 3	38.49	LEVEL 2	APARTMENT
	1174.07		
BALCONY	278.01	LEVEL 2	BALCONY
	278.01		
CORRIDOR	154.45	LEVEL 2	CORE / CIRCULATION
LIFT FOYER	70.75	LEVEL 2	CORE / CIRCULATION
LIFTS	12.44	LEVEL 2	CORE / CIRCULATION
RECYCL	14.20	LEVEL 2	CORE / CIRCULATION
STORE	14.64	LEVEL 2	CORE / CIRCULATION
	246.48		
	1698.57		

Parking Schedule		
Count	Type	Level
69	5400 x 2600	B1
295	5400 x 2700	B1
364		
100	5400 x 2600	GROUND FLOOR
5	5500 x 3500 (Access)	GROUND FLOOR
105		
25	5400 x 2500 (Residential)	LEVEL 1
55	5400 x 2700 (Residential)	LEVEL 1
80		
Grand total: 549		


ANZAC HIGHWAY
BUS STOP
TAXI
EXISTING HWY SIGNAGE
NEW SIGNAGE
BIKE RACKS NO. 2
HIGHWAY
DN
MARION RD
CARPARKING
7093
2020
6600
BIKE RACKS NO. 14
RETAIL 385.68 m²
RETAIL 159.95 m²
RETAIL 176.41 m²
RETAIL 79.65 m²
LOADING DOCK
UP
SHOPPING MALL ENTRY
RETAIL 184.81 m²
RETAIL 120.89 m²
RETAIL 125.95 m²
RETAIL 84.92 m²
RETAIL 152.74 m²
RETAIL 95.75 m²
RETAIL 109.49 m²
BIKE RACKS NO. 21
SUPERMARKET 1899.14 m²
MALL 1959.98 m²
RETAIL 196.69 m²
RETAIL 154.26 m²
RETAIL 88.50 m²
RETAIL 106.50 m²
RETAIL 196.71 m²
RETAIL 192.11 m²
RETAIL 101.45 m²
RETAIL 68.99 m²
RETAIL 88.86 m²
LOADING DOCK
WASTE BINS (SUPERMARKET & RETAIL)
GOODS LIFTS
PREP 675.90 m²
ELIZABETH ST
ALICE ST
BUS STOP
MABEL STREET
TURNER AVENUE

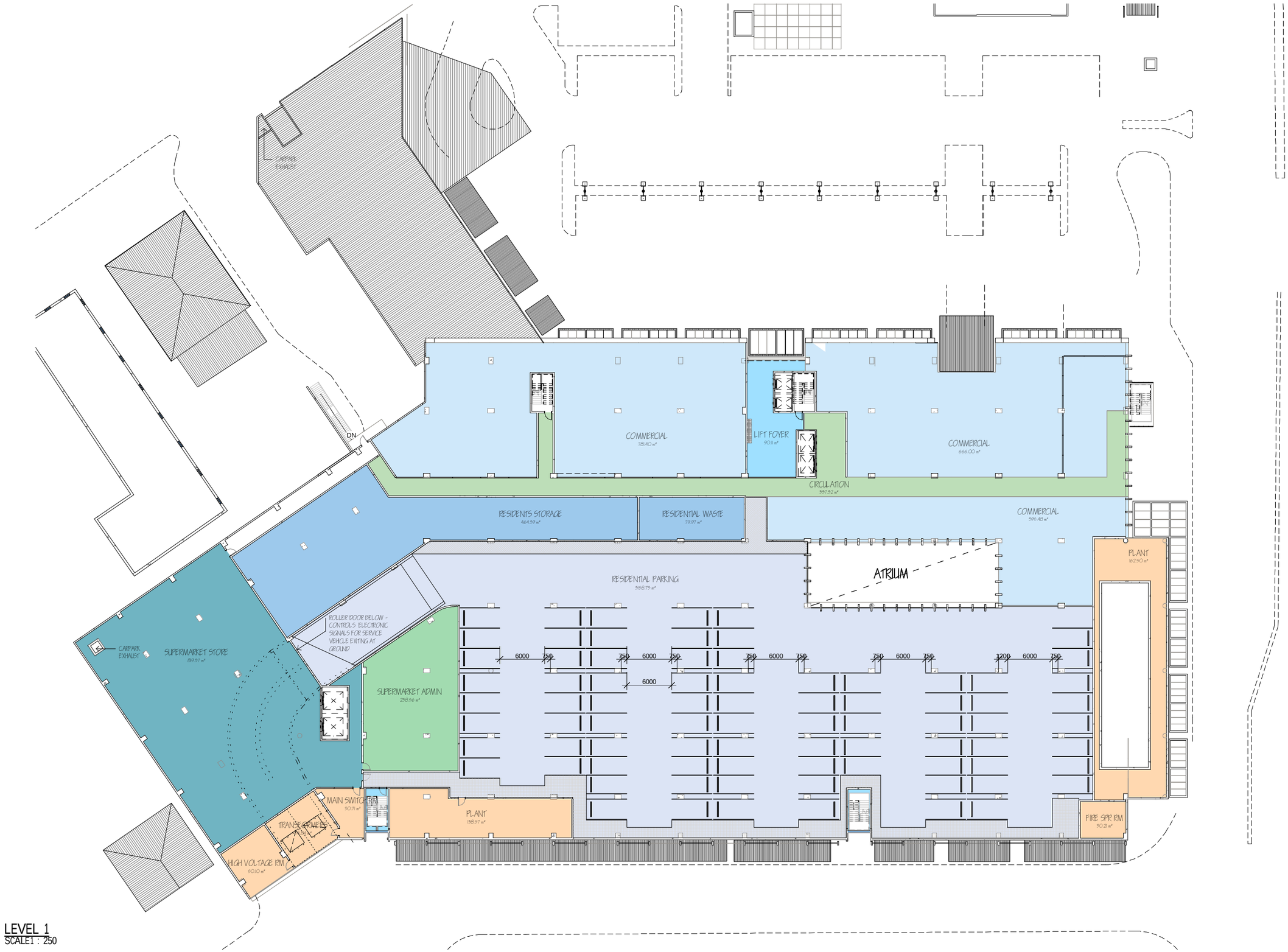
A003 Highway Development - Development Report

May 2009 - Rev A

LOWER LEVEL 1

GHD CLIENTS|PEOPLE|PERFORMANCE

ANZAC HIGHWAY
CARPARKING
MARION RD
ELIZABETH ST
SUPERMARKET
PREP
STORE
MALL
SERVICE
FOYER
RETAIL
CARPARK EXHAUST
WAITING BAY
BIKE RACKS NO. 14
BIKE RACKS NO. 21
WASTE BINS (SUPERMARKET & RETAIL)
ATRIUM OVER
STAFF CHANGE
STAIRS



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LEVEL 2
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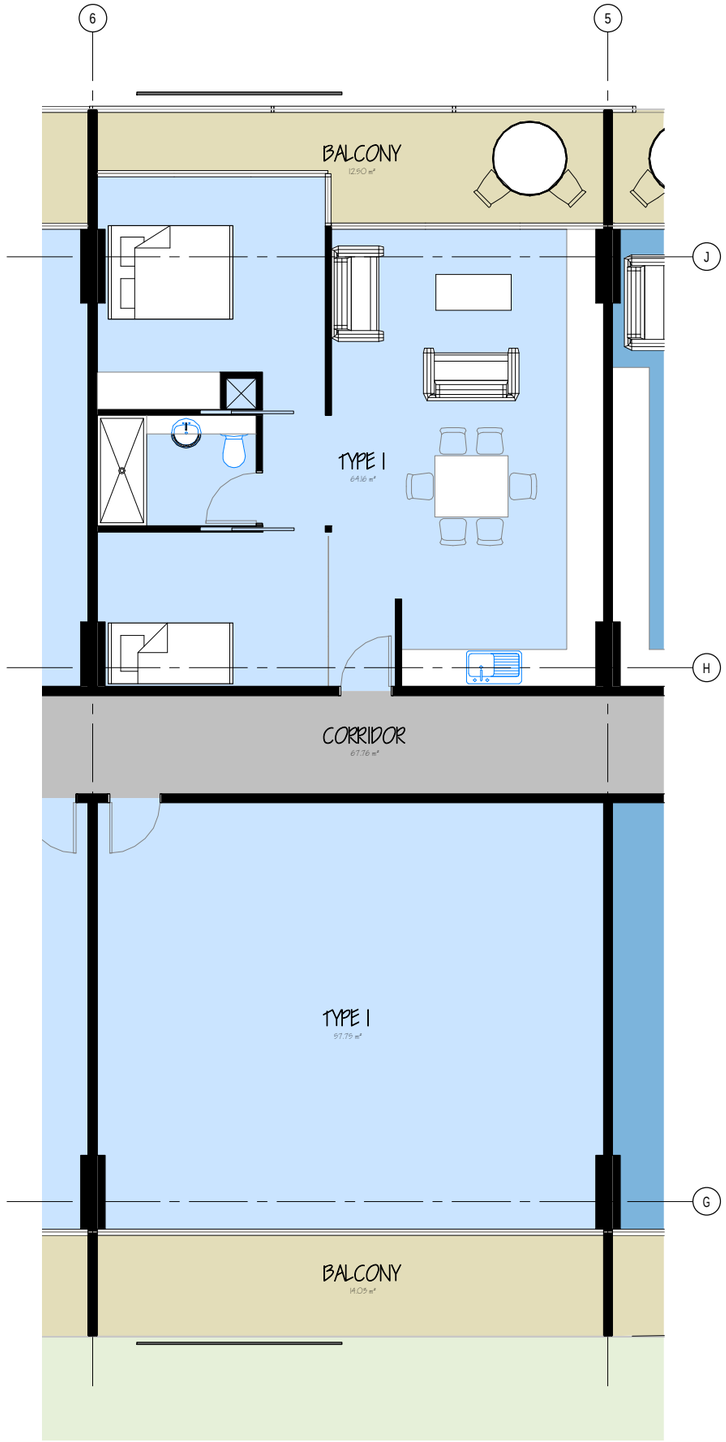

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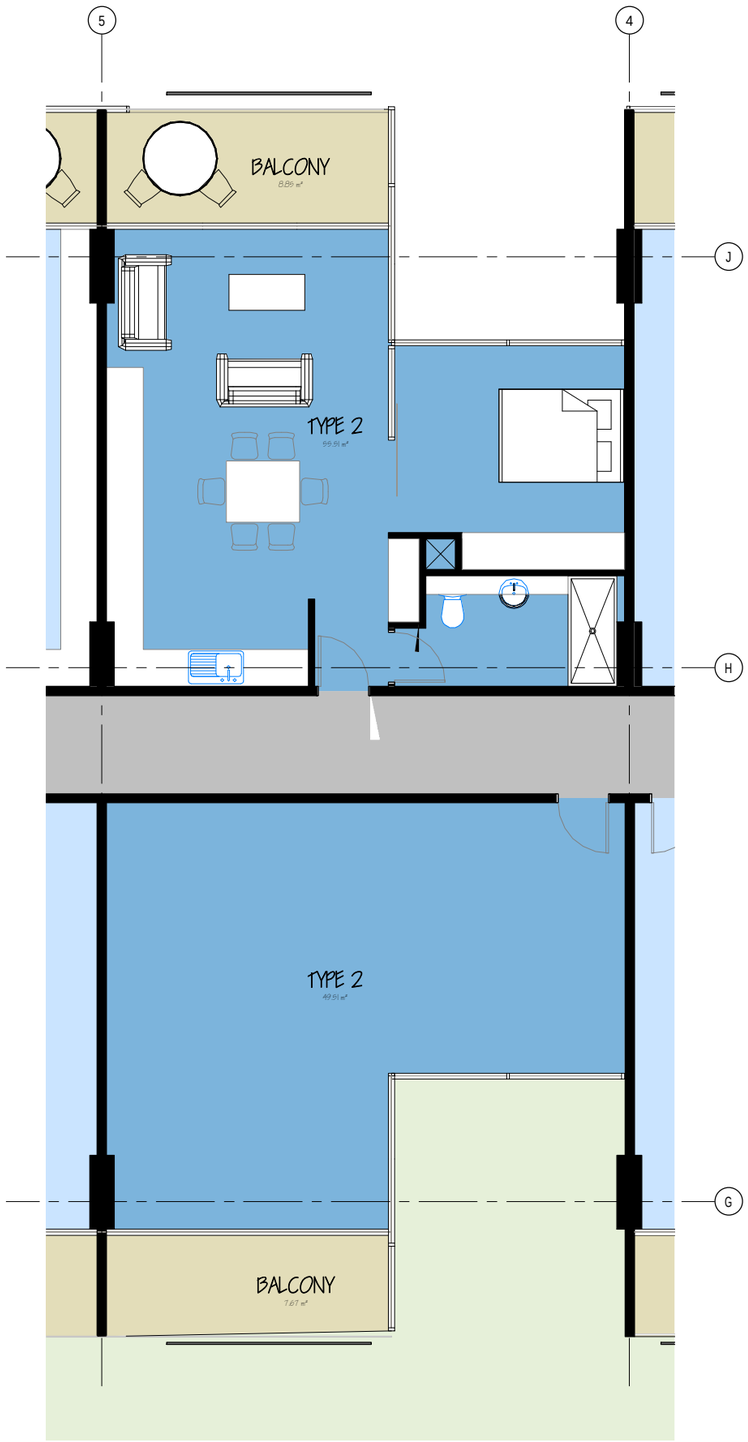

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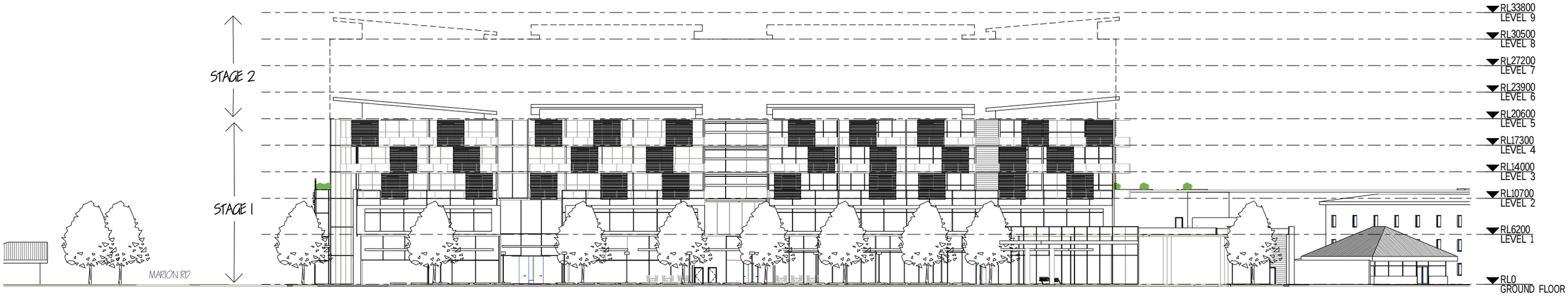
TYPICAL APARTMENT PLAN - TYPE 3
SCALE 1 : 50



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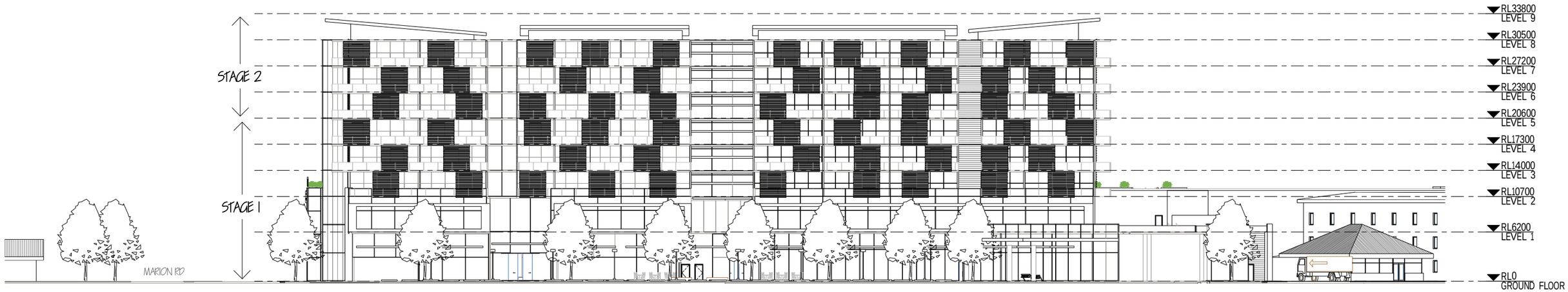

NORTH ELEVATION - STAGE 2
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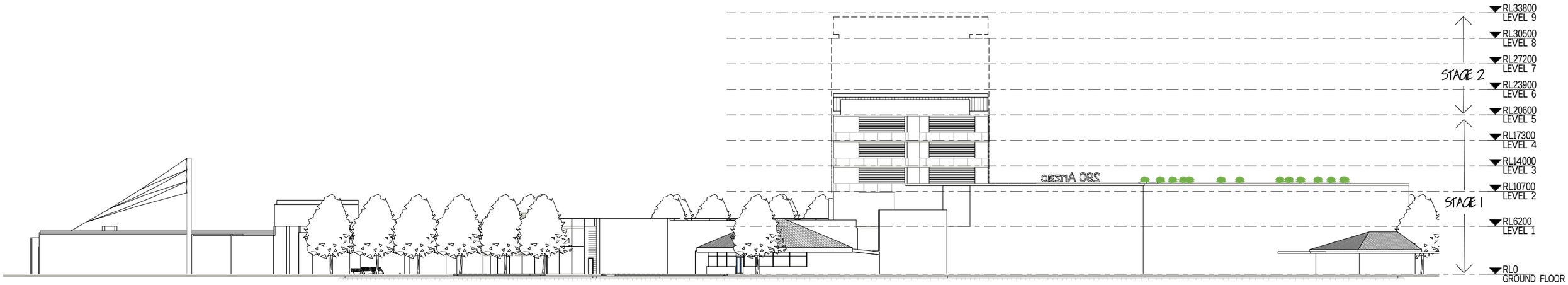
SOUTH ELEVATION - STAGE 1
SCALE1 : 250

SOUTH ELEVATION - STAGE 2
SCALE1 : 250

EAST ELEVATION - STAGE 1
SCALE1 : 250

EAST ELEVATION - STAGE 2
SCALE1 : 250



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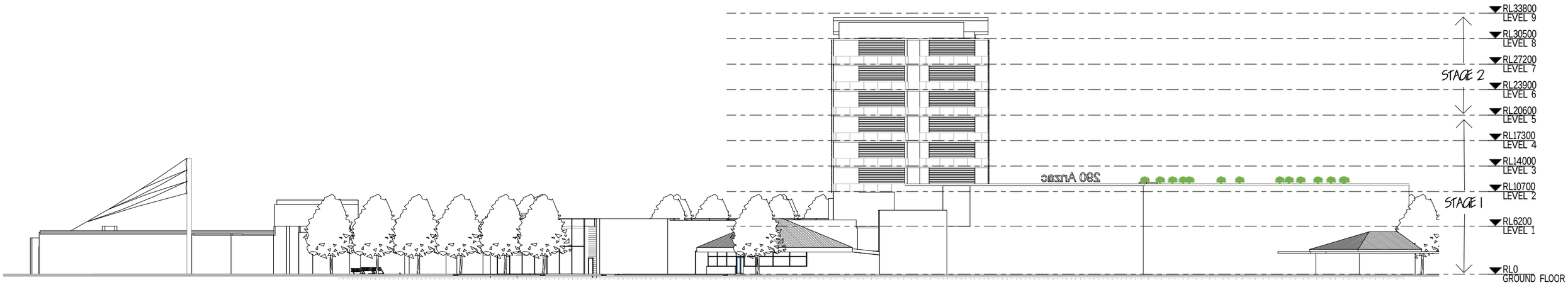

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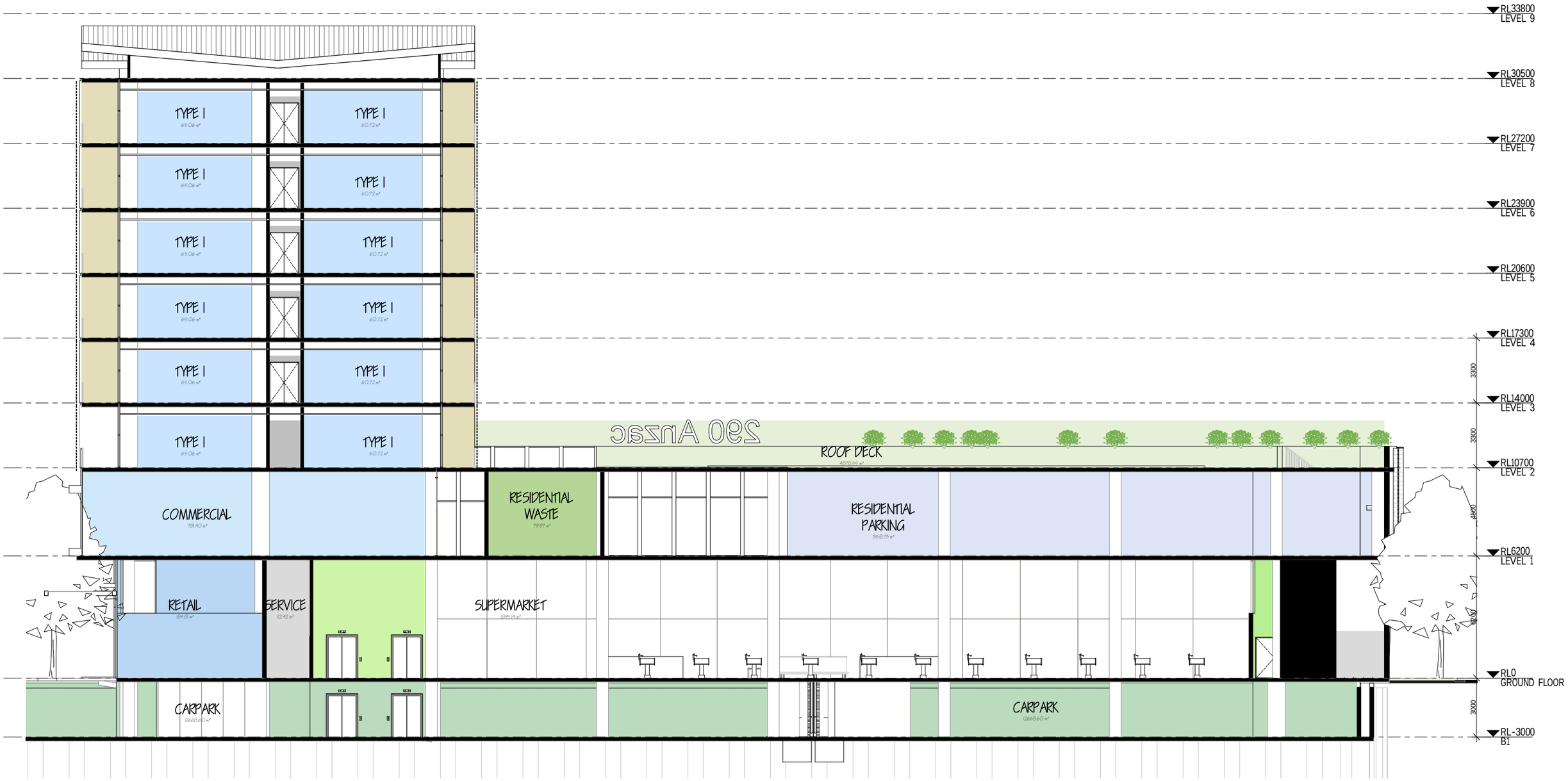
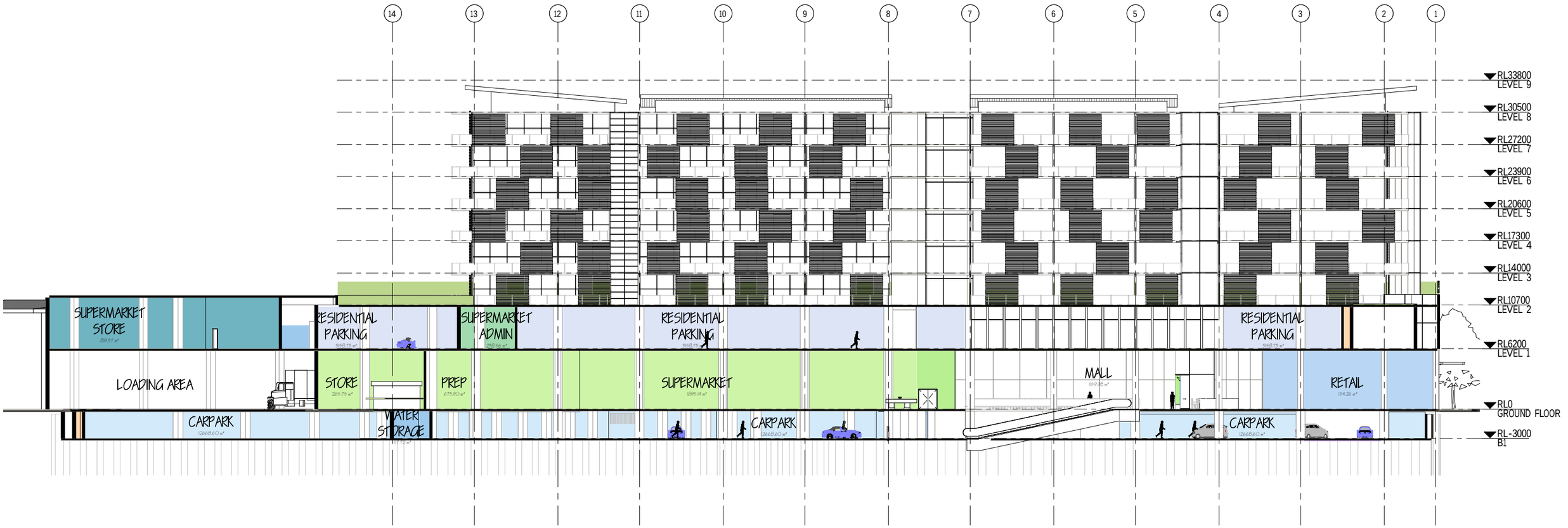

RL33800
LEVEL 9
RL30500
LEVEL 8
RL27200
LEVEL 7
RL23900
LEVEL 6
RL20600
LEVEL 5
RL17300
LEVEL 4
RL14000
LEVEL 3
RL10700
LEVEL 2
RL6200
LEVEL 1
RL0
GROUND FLOOR
RL-3000
B1
3300
3300
4500
3200
3000
TYPE I
69.06 m²
TYPE I
60.72 m²
ROOF DECK
COMMERCIAL
781.40 m²
RESIDENTIAL
WASTE
79.91 m²
RESIDENTIAL
PARKING
598.75 m²
RETAIL
184.81 m²
SERVICE
112.42 m²
SUPERMARKET
1999.14 m²
CARPARK
12665.60 m²
CARPARK
12665.60 m²


14
13
12
11
10
9
8
7
6
5
4
3
2
1
RL33800
LEVEL 9
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LEVEL 7
RL23900
LEVEL 6
RL20600
LEVEL 5
RL17300
LEVEL 4
RL14000
LEVEL 3
RL10700
LEVEL 2
RL6200
LEVEL 1
RL0
GROUND FLOOR
RL-3000
B1
SUPERMARKET STORE
RESIDENTIAL PARKING
SUPERMARKET ADMIN
RESIDENTIAL PARKING
RESIDENTIAL PARKING
LOADING AREA
STORE
PREP
SUPERMARKET
MALL
RETAIL
CARPARK
WATER STORAGE
CARPARK
CARPARK

- SHADOWS - JUNE 22 - 9 AM
SCALE 1 : 2000

- SHADOWS - SEPT 22 - 9 AM
SCALE 1 : 2000

- SHADOWS - DEC 22 - 9 AM
SCALE 1 : 2000

- SHADOWS - JUNE 22 - 12 NOON
SCALE 1 : 2000

- SHADOWS - SEPT 22 - 12 NOON
SCALE 1 : 2000

- SHADOWS - DEC 22 - 12 NOON
SCALE 1 : 2000

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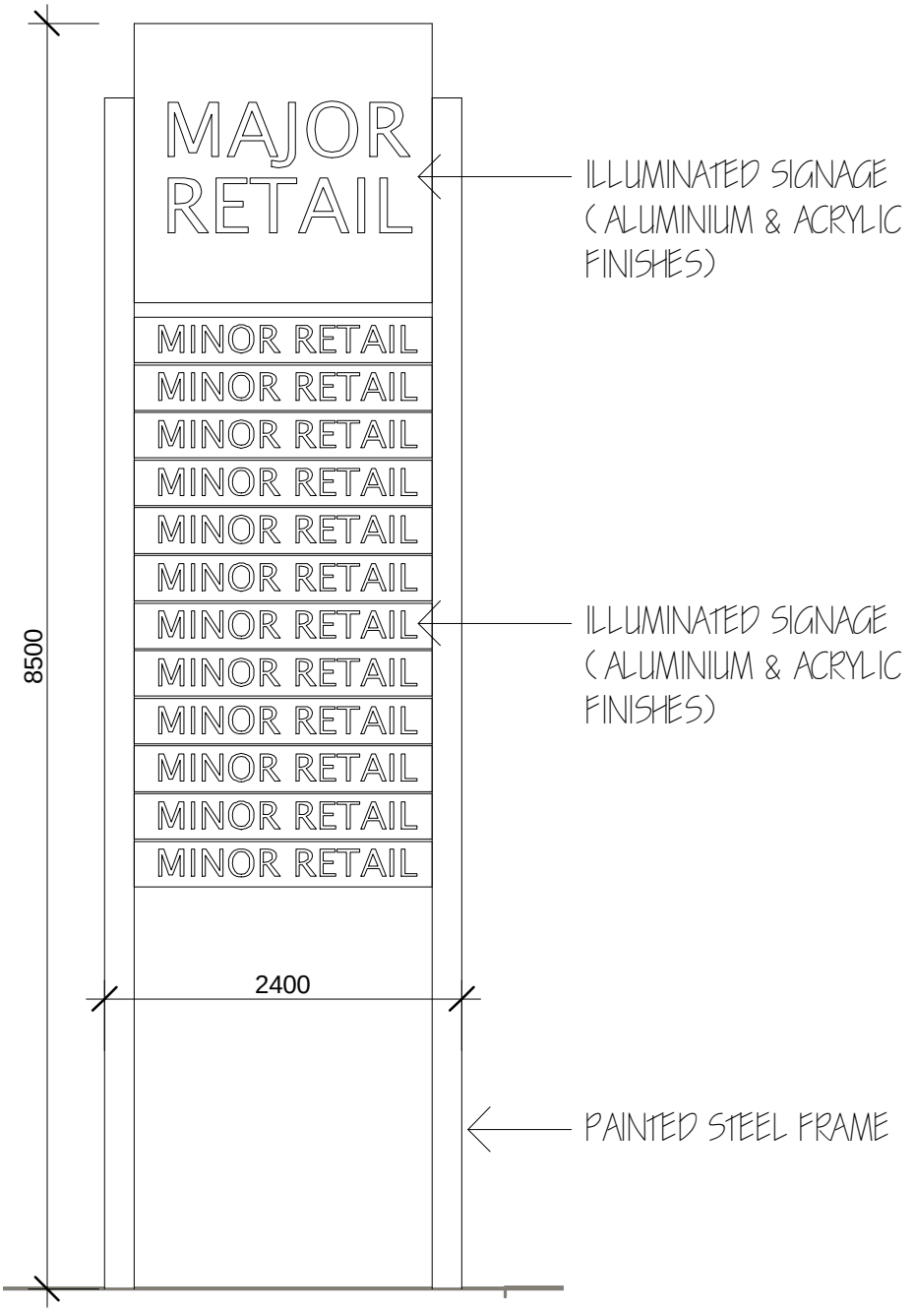
SCALE 1 : 2000

- SHADOWS - SEPT 22 - 3 PM
SCALE 1 : 2000

- SHADOWS - DEC 22 - 3 PM
SCALE 1 : 2000



ANZAC HIGHWAY PYLON SIGNAGE

QEDptyltd

Highway Development

development application

landscape concept

Drawing Number - P001

scale - 1:250 @ A1

Highway Development - Plant Schedule

Note species selection subject to furthur research & design

Scientific Name	**Common Name**	**Height**	**Spread**
Small Trees			
Banksia oblongifolia	Fern leaved banksia	to 3m	1-2.5m
Xanthorrhoea quadrangulata	Mount lofty grass tree	1-2.5m	0.5-1.5m
Shrubs/Groundcovers			
Correa sp	Native fuchsia	varies	varies
Dianella revoluta	Black anther flax-lily	0.3-1m	0.5-2m
Dichondra repens	Kidney Weed	0.1m	1-2m
Disphyma crassifolium	Round leaved pig face	0.1m	1-2m
Enchylaena tomentosa	Ruby saltbush	0.3-1m	0.5-1.5m
Eremophilla sp	Emu bush	varies	varies
Grevillea sp	Grevillea	varies	varies
Isolepsis nodosa	Knobby club-rush	0.5-1.5m	0.5-2m
Myoporum parvifolium	Creeping boobialla	0.2m	2m
Plectranthus argentatus	Silver Spurflower	1m	0.4m
Grasses			
Poa labillardieri	Blue tussock grass	0.3-1m	0.3-0.7m
Green Wall			
Adiantum sp	Maiden hair fern	varies	varies
Asplenium sp	Spleenwort/ Birds nest fern	varies	varies
Blenchum sp	Ferns	varies	varies
Dendrobium sp	Orchid	varies	varies
Platycerium sp	Elkhorn fern	varies	varies
Psilotum nudum	Skelliton fork fern	0.6m	0.6m
Pyrrosia sp	Felt fern	varies	varies
Car Park			
Trees			
Koelreuteria paniculata	Golden Rain Tree	7-10m	5-7m
Shrubs			
Dianella revoluta	Black-anther Flax lily	0.3-1m	0.5-2m
Ficinia nodosa	Knobby Club-rush	0.5-1.5m	0.5-2m
Poa poiformis	Blue tussock grass	0.6-1.2m	0.5-1.5m

Appendix C

Traffic Impact Statement

QEDptyltd

The Palmer Group

Mixed Use Development

Retail, Commercial and Accommodation
Anzac Highway and Marion Road, Plympton

Traffic Impact Assessment

QED pty ltd

309 Angas Street
Adelaide SA 5000

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f 08 8227 0271
e qed@qedecisions.com.au
w www.qedecisions.com.au

May 2009

Job No: 07-137Y
Report No: 08-064

Contents

Page No.

Appendices

Appendix A Traffic turning volumes- Intersection of Anzac Highway / Marion Road, 2004 :

Figures

1 Introduction

QED Pty Ltd has been engaged by The Palmer Group to undertake a traffic impact assessment as part of the development application for a major development at 270 Anzac Highway, Plympton, on the corner of Marion Road.

The proposed development consists of mixed uses comprising:

- 120 accommodation units
- 6,580 square metres of retail including supermarket, speciality shops and a bottle shop
- 1,844 square metres of commercial facilities
- 549 car parks across three levels, ground level and basement (retail) and first level (accommodation units)

This report describes the findings of an assessment of the traffic and parking impacts of the proposed development on the site and adjacent road network. The assessment undertaken responds at a minimum to the "Guidelines for the preparation of a development report Shopping Centre and Residential Apartment Complex at the corner of Anzac Highway and Marion Road, North Plympton" as set out by the Development Assessment Commission.

2 Existing conditions

2.1 Existing Site

The proposed development is bounded by Anzac Highway, Marion Road and Elizabeth Avenue. The subject site is located in a Neighbourhood Centre (Plympton) Zone and is part of Policy Area 11 of the West Torrens (City) Development Plan.

The subject site is currently occupied by The Highway (hotel) and drive-through bottle shop, as well as residences, retail uses and car parking. Currently part of the existing site development is unused.

The site is adjacent to retail and commercial uses areas along Anzac Highway and Marion Road with residential uses south of Elizabeth Avenue and to the west of the site.

2.2 Access

The existing site is situated between the south eastern side kerb line of Anzac Highway, the western side kerb line of Marion Road and the northern side kerb line of Elizabeth Avenue, with direct vehicular access and egress from these roads. There are three existing access points on Anzac Highway, one on Marion Road, and several on Elizabeth Avenue (including to residential properties).

2.3 Adjacent Road network

Anzac Highway and Marion Roads are strategic arterial roads under the care and control of the Department for Transport, Energy and Infrastructure (DTEI). They intersect adjacent to the site at a major signalised intersection, including pedestrian crossing facilities on each approach. Anzac Highway is a six lane divided road and Marion Road a four lane divided road, with carriageways separated by a raised central median.

An opening in the median on Anzac Highway opposite the subject site allows U-turns, but not right turns into the site although these can be made. There are three access points on Anzac Highway connecting to the existing acceleration lane running from the Marion Road intersection to the south western end of the bottle shop.

Access to the site (via a separate entry and exit) off Marion Road is located opposite Mabel Street, and an opening in the median of Marion Road allows full movements. The access points connect to the left hand side through lane at the Anzac Highway intersection.

Elizabeth Avenue is a two lane Local Street connecting Marion Road with Cross Road and Anzac Highway (via Maynard Road (not to Cross Road) and Mornington Avenue), providing access for residents. It connects with Marion Road at a priority controlled T-junction allowing full movements.

2.4 Traffic Volumes

Traffic volumes for each of the adjacent roads have been collected from the Department for Transport, Energy and Infrastructure (DTEI) and estimated.

Table 1: Existing Traffic Volumes on the Adjacent Road Network

Road	*Existing 2-way Daily Traffic Volume (AADT)*
Anzac Highway	30,000
Marion Road	33,100
Elizabeth Avenue	Estimated 500

2.5 On-site Parking

The existing off-street car parking facilities on the site comprise: 230 ground level spaces (excluding the residences). Access is described in Section 2.1 above.

Usage of the existing car parks is described in Section 3 below.

2.6 On-street Parking

The existing on-street parking arrangement for the streets that bound this development is as follows:

Anzac Highway south east kerb line – No Stopping anytime, a bus stop, a taxi zone and a 30 minute parking zone

Marion Road west kerb line – No Stopping anytime.

Elizabeth Avenue north kerb line – no restrictions.

2.7 Intersection Turning Movements

The DTEI turning count data for the intersection of Anzac Highway/Marion Road recorded in 2004 is given in Appendix A.

2.8 Crash History

Crash data for a 3-year period from 2004 to 2006, inclusive was obtained from the Department for Transport, Energy and Infrastructure (DTEI). Crashes by type are shown on Figure 1 and by severity on Figure 2. Excluding the intersection of Anzac Highway and Marion Road but including the junction of Elizabeth Avenue and Marion Road, the data shows that on Anzac Highway and Marion Road adjacent to the site (including access points) there have been 17 crashes, seven of which involved injury. Eight crashes occurred on Anzac Highway and nine on Marion Road.

Nine of these crashes involved rear end collisions which generally occur at or close to signalised intersections. From the data at hand it is not possible to determine precisely which were involved in manouevres associated with the development site, but it was probably less than half. This is not at significant variance with other metropolitan locations on arterial roads.

2.9 Sustainable Transport Modes

Bus Routes

Anzac Highway is a main metro ticket bus route that provides access to and from the City and the southern and south western suburbs. North east of Marion Road it is a 15 minute Go Zone whereby there is a bus at least every 15 minutes between 7.30 am and 6.30 pm and every 30 minutes thereafter. A bus stop is located on Anzac Highway directly in front of The Highway Hotel (transit stops are generally 300 – 400 metres apart).

Marion Road is a main metro ticket bus route that provides access to and from the City and the western and southern suburbs. South of Anzac Highway, it is a 15 minute Go Zone similar to Anzac Highway. The Circle Line bus route also services this stop. A bus stop is located on Marion Road just south of Elizabeth Street (50 metres from the southern mall entry).

Tram Line

The site is within easy walking distance (150 metres) of Stop 14 of the Glenelg to City tram line, itself a 20 minute Go Zone. This stop is earmarked as a "Convenient Transfer Point to other services" on the Adelaide Metro maps. It is also a "Timed Stop" on the timetable.

The westbound tram stop is located on the west side of Marion Road and the eastbound stop on the east side. There is a signalised pedestrian and cyclist crossing at Marion Road to access the eastside stop from the site.

The Glenelg Park Tramway is a proposed Linear Park that will run along the south side of the Glenelg Tram Line from South Terrace Adelaide to Brighton Road Glenelg. The proposed linear park includes a sealed shared-use path, for pedestrians, wheelchairs, cyclists, aged, skateboards, gophers and in-line skaters. The concept includes linking the path to adjacent pathways, footpaths and Sturt River Linear Park, as well as to each tram platform. It will provide the backbone of a network that links a wide range of destinations such as schools, residential areas, Morphettville Racecourse, Jetty Road, Keswick Route and the Coast Park shared path.

Bicycle Routes

Bike Direct Routes are a network of bicycle routes nominated by DTEI (Office of Cycling & Walking). Anzac Highway and Marion Road are designated as main road bicycle routes (except Marion Road has no bicycle lanes between Anzac Highway and Cross Road), and Elizabeth Avenue, Turner Avenue and Pleasant Avenue are local road routes. These local routes link the site with The Westside Bikeway and the tram line.

The future Glenelg Park Tramway (described above) will provide a major off-road bicycle link to the City and Glenelg.

The Westside Bikeway (Hilton – Camden Park) along a disused railway corridor is located approximately 800 metres north of the site. This can be accessed via the pedestrian actuated crossing west of the site on Anzac Highway.

Walking

The site is within easy walking distance (on the opposite side of Anzac Highway) of other shopping and commercial facilities, and the future Glenelg Park Tramway.

3 Traffic and Parking Surveys

Surveys were undertaken on Friday 31 August 2007 between 4.00pm – 9.00pm and Saturday 1 September between 10.00am – 2.00pm to capture the peak traffic movements and identify occupation of parking spaces at the existing Highway Hotel and bottle shop. A summary of the survey outcome is discussed below.

3.1 Friday 31 August, 2007

The peak traffic for the hotel was counted between 6.30pm and 7.30 pm with 291 vehicles entering and 233 vehicles leaving the site within this hour. This results in a traffic generation rate of 525 vehicles in the peak hour for hotel patronage. This is illustrated in Figure 3.

It is estimated that the peak hour for the proposed retail development would be on a Thursday between 5.00pm and 6.00 pm. This peak hour does not coincide with the peak hour for hotel patronage. The traffic generated for the hotel between 5.00pm and 6.00pm was 230 vehicles (147 vehicles entered the site and 82 vehicles exited the site). This is illustrated in Figure 4.

Of the traffic generated between 5.00pm and 6.00pm, the following distribution was recorded:

- 35% entered the site and 65% exited the site during this period
- Of the entering vehicles; 50% were from Anzac Hwy and 50% from Marion Road
- Of the exiting vehicles, 55% exited onto Anzac Hwy and 45% to Marion Road

During the survey period, the hotel car park was at full capacity by 6.30pm and parking spilled into the car park at the rear, near the Marion Road shops. During the estimated peak hour for the proposed development (5.00pm – 6.00pm), the maximum number of spaces occupied was 124 at any one time (60% capacity). The car park occupation rate is illustrated in Figure 5.

3.2 Saturday 1 September, 2007

The peak hour recorded on Saturday was between 1.00pm and 2.00pm. During this time, 80 vehicles entered and 70 vehicles exited the site, resulting in a traffic generation rate of 150 vehicles in the hour. This is illustrated in Figure 6.

The peak hour on a Saturday for a retail development is generally between 11.00am - 12.00pm. This did not coincide with the existing Saturday peak for the Hotel and bottle shop.

The car park did not reach full capacity during the period of the survey. The car parking occupation rate for Saturday is illustrated in Figure 7.

4 Proposed Development

The development proposal consists of retail, commercial and accommodation units, with multilevel car parking and bicycle parking facilities. The proposed development has the following components:

- 120 accommodation units (serviced apartments), of which 60 units will be constructed in Stage 1. Stage 1 will comprise 12 one bedroom and 48 two bedroom accommodation units. In Stage 2, 60 additional accommodation units will be constructed (12 one bedroom and 48 two bedrooms)
- Retail tenancies of 6,580m^2 of Gross Leasable Floor Area (including storage), comprising a supermarket, speciality shops and a drive through bottle shop
- 1,844 m^2 of commercial facilities
- Ground level parking of 105 spaces, with access from Anzac Highway and Marion Road, plus an underground parking area, with 364 spaces, accessed from the ground level car park. These car parking areas service the commercial, retail and hotel.
- Parking on the first floor, with 80 spaces, servicing the accommodation units, accessed from Elizabeth Avenue;
- Pedestrian access from Anzac Highway, Marion Road and Elizabeth Avenue.

The proposed development could be considered to be a transit oriented development (TOD) due to its proximity to major public transport routes (bus and tram Go-zones). Therefore a modified (reduced) traffic and parking generation can be applied for the proposed residential and commercial elements of the development. A reduction rate of 20% has been used as an option to illustrate a TOD type development applied to these uses.

5 Car Parking Requirements

5.1 Number of Car Parking Spaces

Table 2 shows the difference between the parking rates from the Development Plan and the RTA Guide. The RTA guide has been adopted because it is our opinion that it reflects the nature of a high density apartment building that is close to public transport. The Development Plan does not include rates for developments such as this.

Stage 1 of the development will include the provision of 60 accommodation units (serviced apartments), the retail and commercial areas. Stage 2 will include the provision of an additional 60 accommodation units to provide a total of 120.

Table 2: Car parking required for high density apartments at a sub-regional centre

Apartments	Rate RTA	Spaces RTA
Stage 1 –60 Serviced Apartments		
60 x Serviced Apartments	0.3/SA	18
+ visitors	1/5 apt.	12
TOTALS		30
Stage 2 –120 Serviced Apartment		
120 x Serviced Apartments	0.3/SA	36
+ visitors	1/5 apt.	24
TOTALS		60

Totals may not sum exactly due to rounding

Note that the first stage has been treated as a development of serviced apartments. If Stage 1 was built as residential accommodation the parking required would be 62 parking spaces (for residential) which also would be satisfied by the parking provision.

The RTA rates are also considered appropriate as a basis for the retail and commercial elements of this development given its size and location relative to public transport services. These are shown in Table 3, below.

Table 3: Car parking requirements

Car parking required (during retail peak hour)			
Land use	Square metres	Rate (RTA Guide)	No. required
Hotel		From survey of existing usage	160 maximum (at peak hour for retail)[1]
Retail, supermarket	3,893	4.2/100 sqm	164
Retail, speciality	2,686	4.5/100 sqm	121
Commercial	1,844	0.9/100sqm	17

[1] Although at the expected retail peak period of 6.00pm 120 cars were attributed to the hotel, the number increased significantly at 6.30pm (refer to Figure 5). 160 was taken as a conservative peak demand to cover the possible transition period.

Sub-Total	8,664		462
Serviced Apartments Including visitors Refer Table 2	120xSA	Apts: 0.3/dwelling Visitors: 1/5 apts	36 24
Sub-Total			60
Total			522

Totals may not sum exactly due to rounding.

The shopping centre and commercial produce a combined parking rate of 3.6 parks per 100 sq. metres. This combined rate takes account of shared use of parking.

The proposed development provides the following amount of car parking:

- Serviced apartments: 80 spaces (first level)
- Retail, commercial and hotel: 469 Spaces (ground and basement level)
- Total: 549 spaces of which 5 will be for persons with disabilities.

Therefore, the proposed development provides 57 (549-462-30) car park spaces more than the demand for Stage 1. Stage 2 provides 27 (549-462-60) car park spaces more than the demand if constructed. If Stage 2 accommodation units were provided as residential rather than service apartments the development would require 5 (549-462-92) extra spaces required for the accommodation units.

It is a requirement of the Australian Standard AS2890 Part 1 for retail and commercial developments that between 1 to 2 % of available car parks should be provided for persons with disabilities. In the proposed development, 5 car parks for persons with disabilities will be provided on the ground level. This satisfies the minimum requirement of 1% available parking.

Note additional space for trolley storage on the ground level will be provided within the wide path and outside the retail area.

As an option, a further reduction of 20% has been assessed for the commercial and the accommodation components due to the transit oriented development (TOD) status.

Applying the principles of a transit oriented development a 20% discount was allowed for commercial and accommodation, as shown in Table 4, the total parking requirements would be for 494 spaces – a reduction of 28 spaces meaning that the development is exceeds the peak demand for parking spaces by 55 (549-459-35) when Stage 2 is completed.

Table 4: Car parking requirements if development considered a TOD

Car parking required (during retail peak hour)			
Land use	Square metres	Rate (RTA Guide)	No. required
Hotel		Existing survey	160 maximum (at peak hour for retail)
Retail, supermarket	3,893	4.2/100 sqm	164
Retail, speciality	2,686	4.5/100 sqm	121

Commercial	1,844	(0.9/100) x 0.8	14
Sub-Total	8,664		459
Apartments Including visitors Refer Table 2	120xSA	Apts: (0.3/SA X 0.8): Visitors (as per Table SA/5 X 0.8):	15 20
Sub-Total			35
Total			494

Totals may not sum exactly due to rounding

5.2 Car Park Dimensions and Layout

The parking will be provided in basement, ground floor and first level car park areas.

To comply with the Australian Standard AS 2890 – 2004 Parking facilities: Part 1 Off-street car parking, the following car parking dimensions and layout are proposed as shown in Table 5.

Table 5: Car parking dimensions required

90 degree car parking – minimum dimensions				
	User Class	Space width metres	Aisle width metres	Space length metres
Accommodation & employee	1	2.4	6.2	5.4
Hotel	2	2.5	5.8	5.4
Retail short term Type 1 (short-term parking; less than 30 mins)	3A	2.6	6.6	5.4
Retail short term Type 2 (short-term parking; less than 30 mins)	3A	2.7	6.2	5.4
Parking for disabilities	4	Varies 3.6 – 4.8	Same as adjacent	5.4

Note: when various land-uses share parking, apply largest applicable dimension

In general, the layout of the various car park levels complies with Australian Standard AS2890 Part 1.

Other car park parameters

Based on the expected traffic generation and distribution of the proposed development, both access points at Anzac Highway and Marion Rd are class 4. They will be designed as intersections not driveways with a minimum 1 metre separator median. The Australian Standard requires that the entry and exit access should be separated and the width should be 6 – 8 m for entry and 6 – 8 m for exit. The separation median should be 1m wide.

5.3 Bicycle Parking

The Austroads Guide to Traffic Engineering Practice: Part 14 Bicycles recommends the following rates which are further detailed in Table 6.

Apartments: At least 1 parking space / apartment + 1 visitor space / 12 apart. = 132 bike parks

Hotel: 1/25 m^2 bar + 1 / 100 m^2 lounge/beer garden = 12 (-50%) = 6 bike parks

Retail: 25 secure spaces for employees + 11 convenient for shoppers = 37 bike parks

Office: 1/200 m^2 for employees + 1 per 750 m^2 over 1000 m^2 = 13 bike parks

Table 6: Bicycle Parking

Bicycle Parking (for 120 apartments)	No. required	Location
Apartments – residents	1/apartment = 120	Secure storage space (eg cage) – at front of each car park
Apartments - visitors	5 (with space left for 5 more in future if req'd)	2 rails near entry to apartment bldg
Retail - employees	23	Secure cage with parking rails in basement (showers & lockers also required)
Retail – visitors	14	6 rails near entry
Hotel employees	6	Secure space – combine in basement with retail employees
Hotel visitors	6	2 rails near entry
Office - employees	1/200 sqm for employees = 11 (provide less initially)	Provide secure space in basement with other employees
Office – visitors	1/750 sqm over 1000 sqm = 1	1 rail near offices
Total secured spaces in basement	40	
Total other short term spaces	25	
Total bicycle parking rails	33	

The serviced apartments have a large secure storage area on the first level car park. This area will be used to provide secure employee and residential bicycle parking. The development has provided 56 bicycle parking spaces across three locations adjacent to the ground level car park for visitors.

It is anticipated that residents, employees and visitors of the development will be encouraged to cycle with the provision of secure bicycle parking.

6 Traffic Generation

6.1 Predicted Traffic Generation

The existing hotel and bottle shop will continue to generate an amount of traffic on the road network. However the other existing residential and retail land uses will not.

The 'Guide to Traffic Generating Development' (Roads & Traffic Authority, New South Wales, 2002) provides a detailed assessment of traffic generation for residential and retail developments. The RTA Guide has developed models for daily and peak traffic generation for retail centres based on characteristics of different floor area types and has been used for the assessment of the various land uses proposed on the site. The trip rates provided in the RTA Guide are based on gross leasable floor area. The RTA Guide advises that:

> ***"As a general guide, 100 m^2 gross area equals 75 m^2 gross leasable floor area."***

The traffic generation trip rates and the gross leasable floor areas of the existing land uses are summarised in Table 7.

Table 7: Predicted trip rate generation for peak traffic day - Thursday

Land use; GLFA (sq m)	Daily trip rate	Peak hour trip rate
Supermarket 3,893 m^2	147.5 trips / 100 m^2	15.5 trips / 100 m^2
Speciality shops 2,686 m^2	55.5 trips /100 m^2	4.6 trips / 100 m^2
Commercial 1,844 m2	5.1 trips /100 m^2	2.2 trips /100 m^2
Accommodation (120 units)	N.A.	0.29 trips / unit

The calculations for traffic generated by the proposed development are shown in Table 8.

Table 8: Predicted traffic generation for peak traffic day – Thursday (1)

Land use; GLFA (sq m) (2)	Daily traffic (vpd)	Peak hour traffic (vph)
Supermarket 3,893 m^2	5,742	603
Speciality shops 2,686 m^2	1,491	124
Commercial 1,844 m2	94	41
Accommodation (120 units)	N.A.	35
Total	7,327 + residential (N.A.)	803

Notes

1: These are additional trips over and above those generated by the Hotel.

2: The retail/commercial trips would access the site from Anzac Highway and Marion Road, whereas the residential trips would access the site from Elizabeth Avenue only.

The trip rates can be reduced for the residential and commercial elements in a similar fashion to the discounts applied to the parking demand calculations if the development is considered a transit oriented development (TOD). To account for patrons, residents and visitors arriving by other modes of transport (including public transport, taxi, walking and cycling), the developments mix of residential and commercial use, and the close proximity to bus and tram stops and existing retail outlets, an estimated 20% discount could be applied. This is considered as an option. In this case, peak hour traffic reduction would be 15 trips ((803 from Table 8 less 788 shown in Table 9), compared to a development without a transit oriented focus.

Table 9: Predicted traffic generation for peak traffic day – Thursday if development considered a TOD (1)

Land use; GLFA (sq m) (2)	Daily traffic (vpd)	Peak hour traffic (vph)
Supermarket 3,893 m^2	5,742	603
Speciality shops 2,686 m^2	1,491	124
Commercial 1,844 m2	75	33
Accommodation (120 units)	N.A.	28
Total	7,664 + residential (N.A.)	788

Notes:

1: These are additional trips over and above the generation by the Hotel.

2: The retail/commercial trips would access Anzac Highway and Marion Road, whereas the residential trips would access Elizabeth Avenue only.

A development without TOD focus is considered the worst case for potential traffic impacts and has been assessed in the following sections.

The calculation of traffic generation is considered representative of the regular operation of the proposed development, and may vary according to seasonal peaks.

The above vehicle trips are two-way trips expected on a daily basis and during the peak hour. It is estimated that 60% of the trips will be to the development and 40% from the development during the evening peak period.

6.2 Traffic Distribution

An analysis of the distribution of traffic on adjacent roads has been undertaken with regard to the traffic generation and distribution anticipated to and from the proposed development to predict the daily traffic volumes on the surrounding road network.

The accesses to the car parks are divided between those servicing the accommodation units (from Elizabeth Avenue) and those servicing the retail and commercial elements (from Anzac Highway and Marion Road). Therefore, the traffic generation and impacts will be similarly distributed.

The impact of the traffic generated by the retail and commercial elements of the proposed development will be wholly distributed between Anzac Highway and Marion Road.

The impact of the traffic generated by the residential element of the proposed development will be wholly distributed to Elizabeth Avenue and then between Marion Road, Anzac Highway and Cross Road.

Of the retail/commercial traffic, it is assumed that 45% of the traffic accessing the site would arrive via Anzac Highway (30% from the north east and 15% from the south west) and 15% via Marion Road (from the south). It is assumed that 20% of traffic egressing the site would exit via Anzac Highway (to the south), and 20% to Marion Road (to the north).

Of the accommodation traffic (with access from Elizabeth Avenue only), it is assumed that 80% of the traffic accessing the site would arrive via Anzac Highway and Elizabeth Avenue and 20% via Marion Road (from the south and south west). It is assumed that 80% of traffic egressing the site would exit via Elizabeth Avenue and Marion Road (to the north and north east), 10% via Elizabeth Avenue and then Marion Road (to the south) and 10% via Elizabeth Avenue and then Anzac Highway (to the south west).

6.3 Traffic Impact Assessment

Access into and out of the site at Marion Road is currently inefficient with 4 driveways located closely together and an offset median that does not clearly indicate which turns are allowed. A 'No Right Turn (4.00pm – 6.00pm) sign is located in the median for southbound traffic that would enter the site. In addition, traffic regularly queues back to these access points from the traffic signals at Anzac Highway, prohibiting free-flow entry and exits.

During the evening Thursday peak hour the proposed development would add about 17% extra traffic on Marion Road in the northbound direction (compared to the existing traffic volume), about 16% on Anzac Highway southbound and about 23% on the current Elizabeth Avenue traffic volume.

Compared to the road capacities, these traffic volumes should not cause an adverse impact on the current traffic flow on these roads.

SIDRA models of the signalised intersection of Anzac Highway with Marion Road, and the two priority controlled access/egress points on Anzac Highway and Marion Road were run to determine potential effects of the proposed development.

6.3.1 Marion Road – Anzac Highway

Existing Situation

AM and PM peak periods were modelled using the existing intersection layout and existing volumes for May 2004 as provided by DTEI.

The AM and PM peak periods experienced a maximum level of service (LOS) of F and a degree of saturation in excess of 1.2. This indicates the intersection is operating above capacity with relatively high delays and queues.

Future Situation (with development)

Only the PM peak was analysed for this scenario. The maximum level of service recorded was LOS F and the maximum degree of saturation was 1.3. It operates similarly to the case without the development. This indicates the intersection is operating above capacity with relatively high delays and queues.

6.3.2 Marion Road – Elizabeth Avenue

Existing Situation

Both the AM and the PM peak periods were modelled with existing traffic volumes. The intersection performed poorly during each peak period with both scenarios exceeding a degree of saturation of 1.0, i.e. at capacity. This is due to the traffic volume on Marion Road and the resulting difficulty in turning right into, and left and right out of Elizabeth Avenue. In practice, though, gaps in the Marion Road traffic stream will occur due to the proximity to the Anzac Highway signalised intersection and these traffic movements will operate at an improved level of service than indicated by the SIDRA model.

Future Situation (with development)

Only the PM peak was analysed for this scenario. The intersection performed poorly during this period with a degree of saturation of 1.0, i.e. at capacity. The maximum level of the service recorded was LOS F. This is due to the high traffic volume on Marion Road and the resulting difficulty in turning right into, and left and right our of Elizabeth Avenue. In practice, though, gaps in the Marion Road traffic stream will occur due to the proximity of the Anzac Highway signalised intersection and these traffic movements will operate at an improved level of service than indicated by the SIDRA model. However, it will operate similarly to the case without the development.

The development will undertake kerb widening to increase the radius of the curve to allow semi trailers to negotiate the left turn out of Elizabeth Avenue.

7 Proposed Site access

7.1 Car Parks

There are two car park access points to the retail and commercial parts of the development, off Anzac Highway and Marion Road, about 110 and 90 metres, respectively from the main signalised intersection of these two roads. They will be located in existing No Stopping zones. The Anzac Highway access is located along an acceleration/auxiliary lane running from the signalised intersection and the Marion Road access in the northbound through lane.

These both operate adequately with little adverse impact on the two arterial roads in the peak (Thursday pm) period, and if widened to include a 1 metre median will comply with the Australian Standard.

The access to the accommodation units car park is located on Elizabeth Avenue, about 110 metres from the Marion Road junction. This situates the access opposite the Elizabeth Avenue and Alice Street junction. Both the accommodation ramp and delivery exit use this access creating a 5 leg intersection. To ensure this operates in a safe manner the exit from the loading facility will be electronically controlled as per drawing A004 Highway Development – Development Application which states "roller door exiting controlled via residential roller door control signals". The drivers of each vehicle will also be able to the other vehicle on the other ramp.

For the Anzac Highway access to the main retail/commercial car park the following design requirements are recommended:

- The U-turn gap in the median be relocated to allow right turn access into the development; this will require a tree removal (palms can be re-planted). We understand at present that this is not acceptable to DTEI
- The existing taxi zone adjacent the current bottle shop may need relocating, depending on the final position of the access on Anzac Highway
- The bus stop on Anzac Highway will need to be indented to minimise the impact on decelerating traffic proposing to enter the site
- Provide safe pedestrian path across access points.

For the Marion Road access to the main retail/commercial car park the following design requirements are recommended:

- Provide left-in and left-out only. Right-out is not appropriate with current queues from traffic signals, and right turn in is not appropriate in proximity to Mabel Street access – close median to prohibit 4-way intersection
- Consider location of bus stops – possibly provide indented bay on west side of Marion Road north of Elizabeth Avenue
- Provide safe pedestrian access across driveway.

7.2 Deliveries and Waste Collection

The service vehicle access point is a dedicated access for service and waste vehicles only and is located on Anzac Highway with the egress located on Elizabeth Avenue. The loading and waste areas are along the western side of the development.

The loading access and loading dock area have sufficient clearance for a 14 m long delivery semi-trailer. It is understood, from liaison with various supermarket delivery contractors that a 14 metre articulated vehicle would be the most appropriate vehicle for this site, due to the constrained site of the loading bay. Exiting trucks will be able to turn left onto Elizabeth Avenue within the lane provided. Most deliveries would be in the morning, many before opening trading hours with after trade hours deliveries not proposed.

The loading facility and loading dock have sufficient manoeuvring space for a 12.5m long waste collector from Anzac Highway to manoeuvre in towards the loading dock, reverse to the waste bin area, and exit onto Elizabeth Avenue.

It would be expected that 14 m semi-trailer vehicles would access the loading dock on at least a daily basis, but the frequency will depend upon the actual retail outlets in the development. Smaller rigid trucks would access the site several times a day.

Roller doors with automated controls will ensure that service vehicles will trigger control/warning signals to ensure any pedestrians are alerted that commercial vehicles are ready to exit the site into Elizabeth Street.

Auto-turn tests show the loading area has sufficient clearance for 14.0 m service vehicles and trucks to manoeuvre in and out of the designed loading docks. The second loading dock for the supermarket, adjacent to the accommodation ramp, has adequate clearance for a 9 metre service vehicle as required.

Deliveries would primarily occur in the morning commencing from 7.00am with no deliveries after trading hours. Enclosure of the service courtyard avoids noise effects of operations. The actual delivery time would be determined once the supermarket operations has been selected.

Waste collection facilities are proposed in the service / loading dock area, which are accessed from Anzac Highway. Large refuse collection vehicles will be able to manoeuvre into a position adjacent to the bin store only if the loading docks are clear of vehicles. The rubbish and waste will be removed via the loading dock, by a reputable waste contractor, when required.

For the accommodation units the waste will be collected in wheelie bins and weekly placed on Elizabeth Avenue by the service apartment management.

7.3 Pedestrians and Cyclists

Pedestrian access to the proposed development is from Anzac Highway, Marion Road and Elizabeth Avenue, where the footpath is wide enough to accommodate the expected number of pedestrians. The signalised intersection of Anzac Highway and

Marion Road has a signalised pedestrian crossing facility on all arms of the intersection.

Pedestrian access from the basement level car park to the retail level is provided by stairs and a travelator. Access from the upper level car parking areas to the apartments is provided by emergency stairs and lifts for the exclusive use of residents.

All requirements of the Disability Discrimination Act will be met by the proposal. The plans have been designed by the architects and reviewed by the traffic engineers to comply with these requirements.

7.4 Capacity of Internal Car Park Ramps

The underground retail and accommodation car park are both proposed to be accessed via 2-way ramp between the ground level and the parking areas. A free-flow ramp has a capacity of 600 vehicles/ lane/hour, therefore a single ramp is adequate to cater for this capacity. Both ramps should satisfy the maximum grades outlined in AS 2890.1.

8 Consultation

Some discussions have already been held with DTEI, Land Use Coordination section and the Metropolitan Region to determine their preliminary view of the development proposal. Following completion of this traffic impact assessment on the concept design further liaison with DTEI will be required, regarding:

- Entry/exits, proposed traffic movements and use of existing lanes as deceleration lanes
- Relocation of gap in median (Anzac Highway) for right turn entry traffic
- The location of bus stops (with the Public Transport Division).

9 Conclusions

An assessment of traffic and parking has been undertaken to consider the impact of the proposed development on the adjacent road network, and assess its operation in accordance with the relevant Standards and Guidelines.

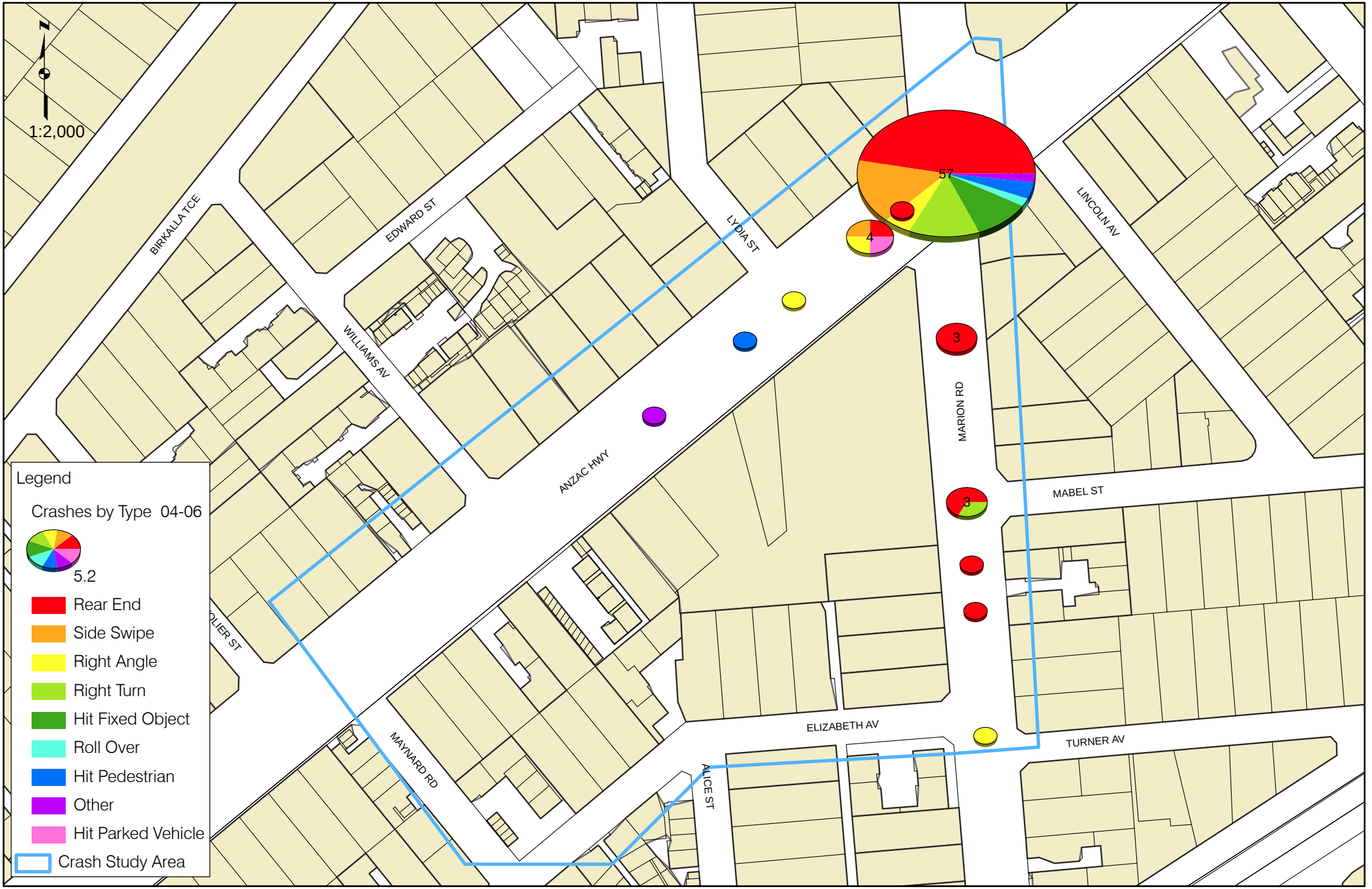
The proposed development will comprise a total of some 6,579 m^2 of gross leasable retail and 1,844 m^2 of gross leasable commercial use and up to 120 accommodation units, with 549 car parks spread over a basement, ground floor and one upper level, with internal pedestrian access via lifts and stair wells.

The assessment has found:

- Both bus and trams provide easy access to the development
- The development proposal provides 549 spaces; 469 for the retail and commercial and 80 for the accommodation units. A total of 522 car parks are required for the whole development. The proposed development therefore provides 27 car park spaces more than the demand in advance of Stage 2 construction. However the other option for Stage 2 (60 serviced apartments and 60 residential apartments) option would require 5 extra spaces
- 56 bicycle racks have been provided across three locations this satisfies the requirement for at less 33 racks (Table 6). However secured bicycle parking spaces should be provided in the storage area on the first level for retail and commercial employees along with spaces allocated in the residential storage for residential bicycle parking.
- Most of the increased traffic generation will be to and from Anzac Highway and Marion Road. Traffic volumes are expected to increase on these roads and Elizabeth Avenue but will have a minimal effect on the operation and capacity of the road network.
- The predicted peak hour traffic volumes generated by this development will have a minimal impact on the adjacent roads and the signal controlled intersection of Anzac Highway and Marion Road. It is noted that the intersection of Anzac Highway / Marion Road is currently operating beyond capacity at peak times with long queues and delays.
- The two main vehicle access points should not cause an adverse impact on traffic flow. Service vehicles access the site from Anzac Highway and egress left into Elizabeth Avenue
- Further detail of the control system for the loading facility egress will be required at a later stage. The concept should ensure movements are safe at this location.
- Auto-turn tests show the proposed loading docks have sufficient clearance for service vehicles to access from Anzac Highway and manoeuvre in the loading area.
- Waste collection facilities are proposed for the service / loading area. Large refuse collection vehicles will be able to manoeuvre into a position adjacent to the bin store only if the loading docks are clear of vehicles.

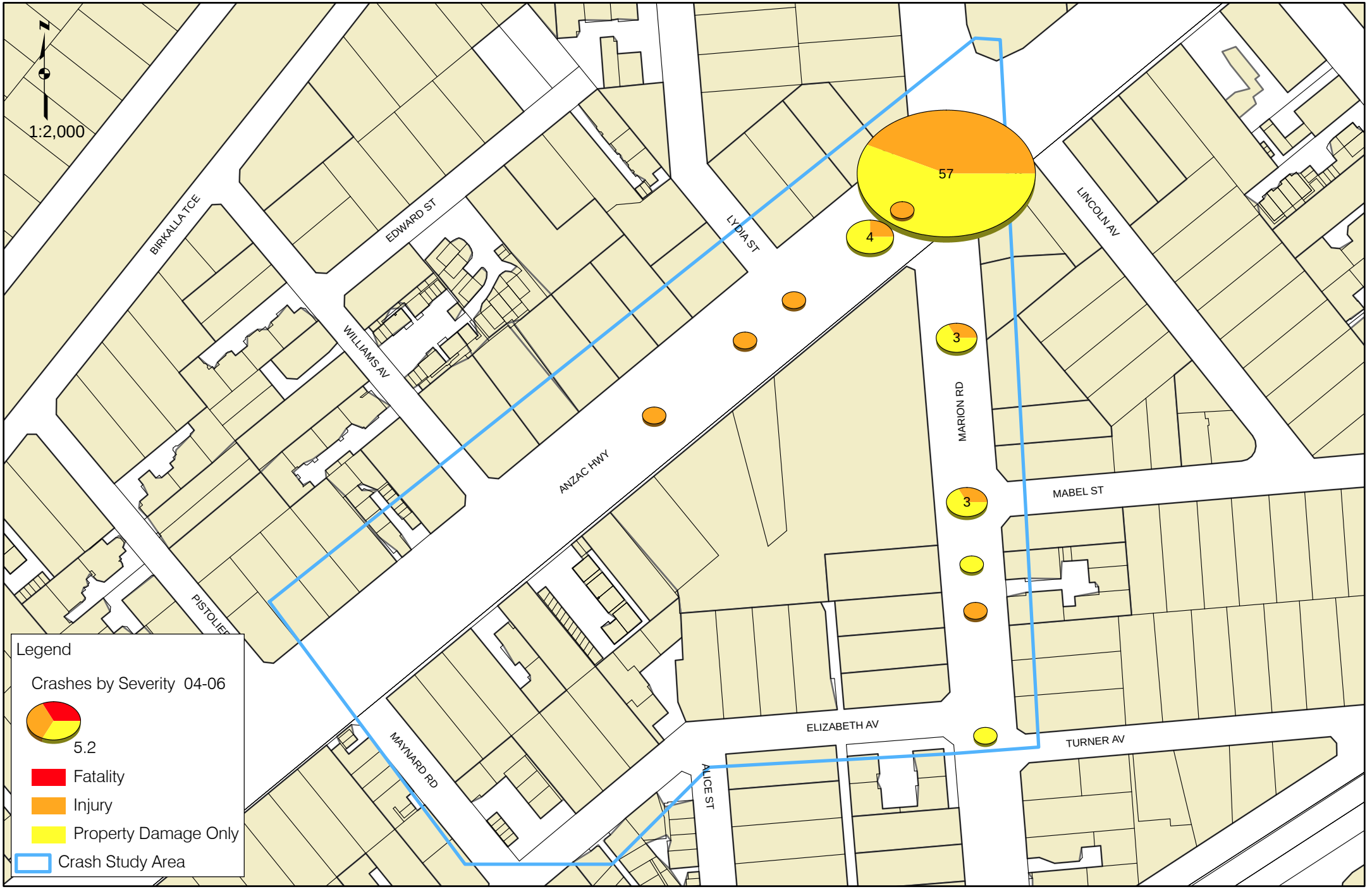
- Overall access to and from the proposed development should have minimal impact on the surrounding network.

Based on the traffic and parking assessment undertaken, compliance with the Australia Standard and the conclusions reached by this report, the proposed development is supported from a traffic engineering perspective.



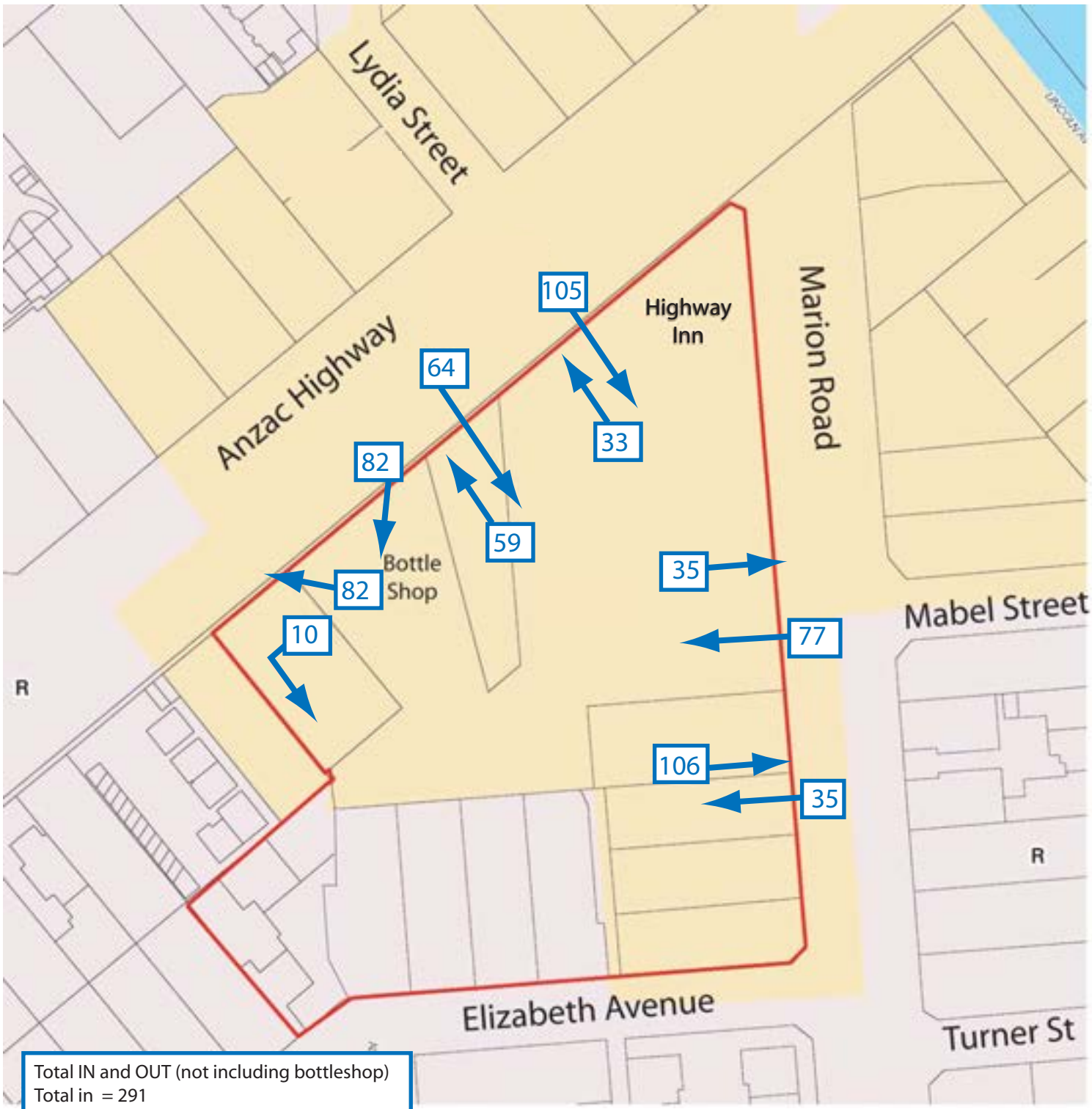
1 May 2008
MGA94 Zone 54
GDA94
Source: DTEI, DEH, QED pty ltd

Figure 1: Crashes by Type (2004 - 2006)



1 May 2008
MGA94 Zone 54
GDA94
Source: DTEI, DEH, QED pty ltd

Figure 2: Crashes by Severity (2004 - 2006)

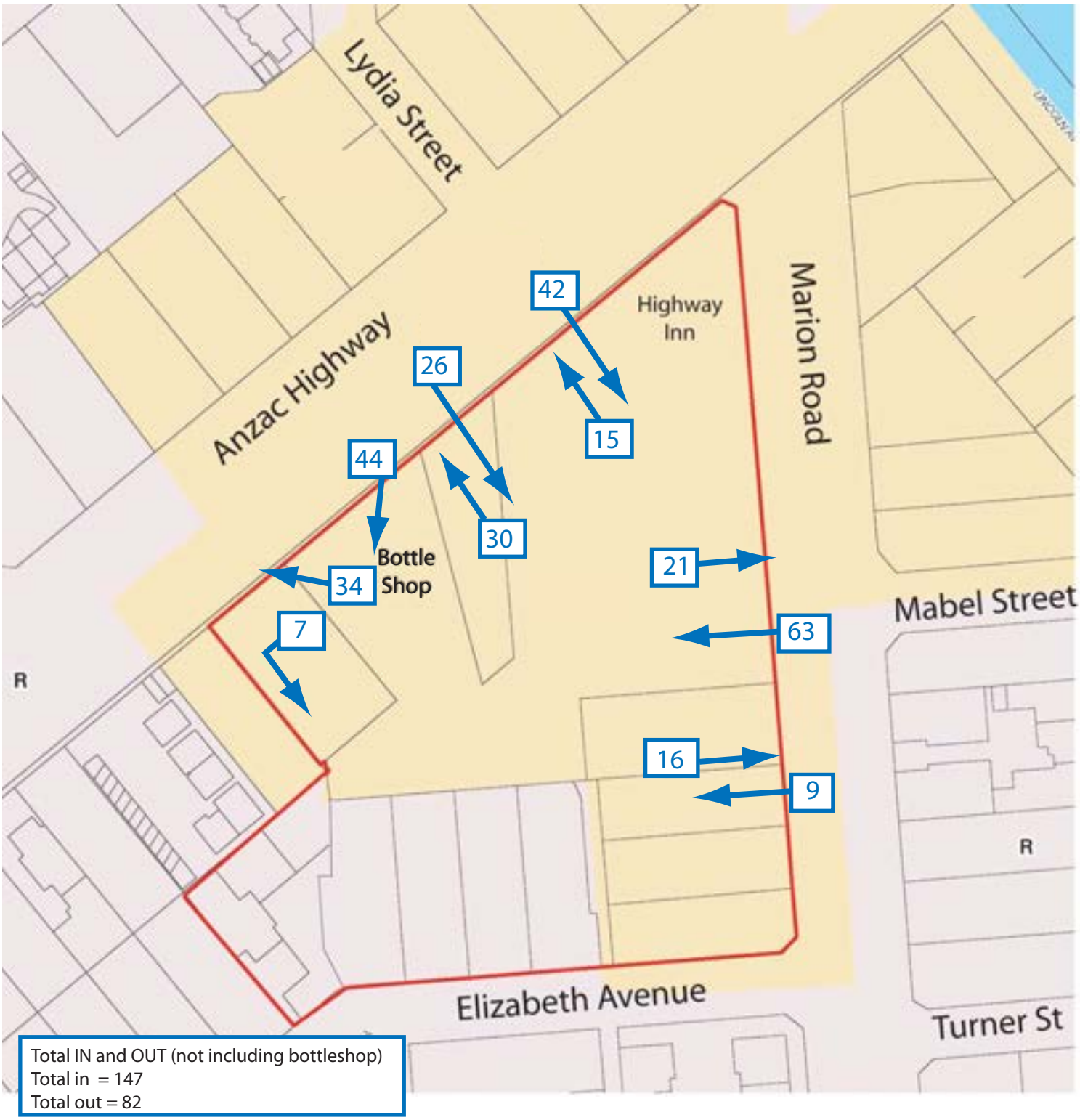


Legend

15 → No. of vehicles and direction

Traffic Generation at Highway Inn and Bottle Shop
6:30-7:30pm Friday 31 August, 2007
(Peak hour for hotel patrons-existing)

Figure 3

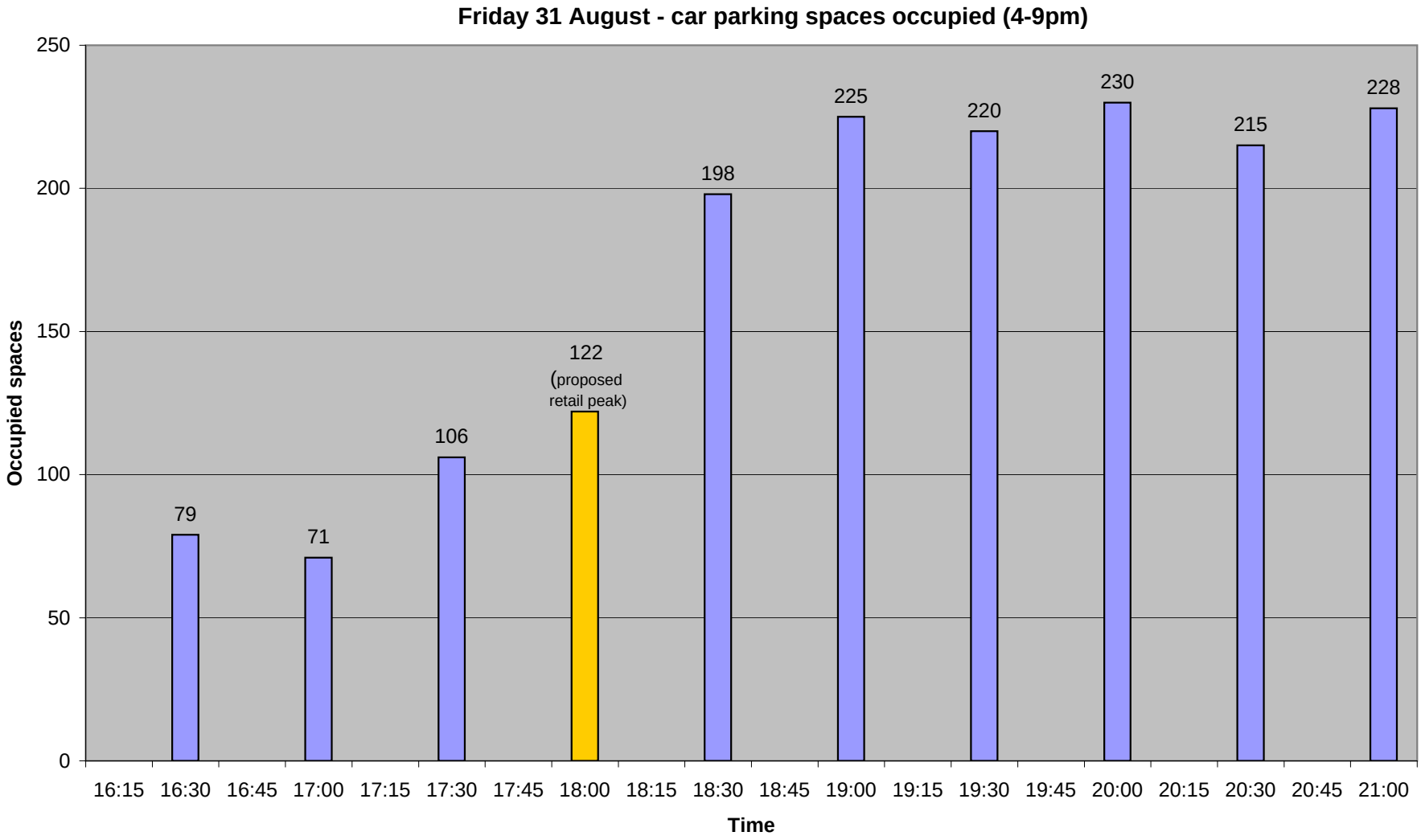


Legend

15 → No. of vehicles and direction

Traffic Generation at Highway Inn and Bottle Shop
5-6pm Friday 31 August, 2007
(Estimated Peak-time at proposed development and road network)

Figure 4


Friday 31 August - car parking spaces occupied (4-9pm)
Occupied spaces
250
200
150
100
50
0
79
71
106
122
(proposed
retail peak)
198
225
220
230
215
228
16:15
16:30
16:45
17:00
17:15
17:30
17:45
18:00
18:15
18:30
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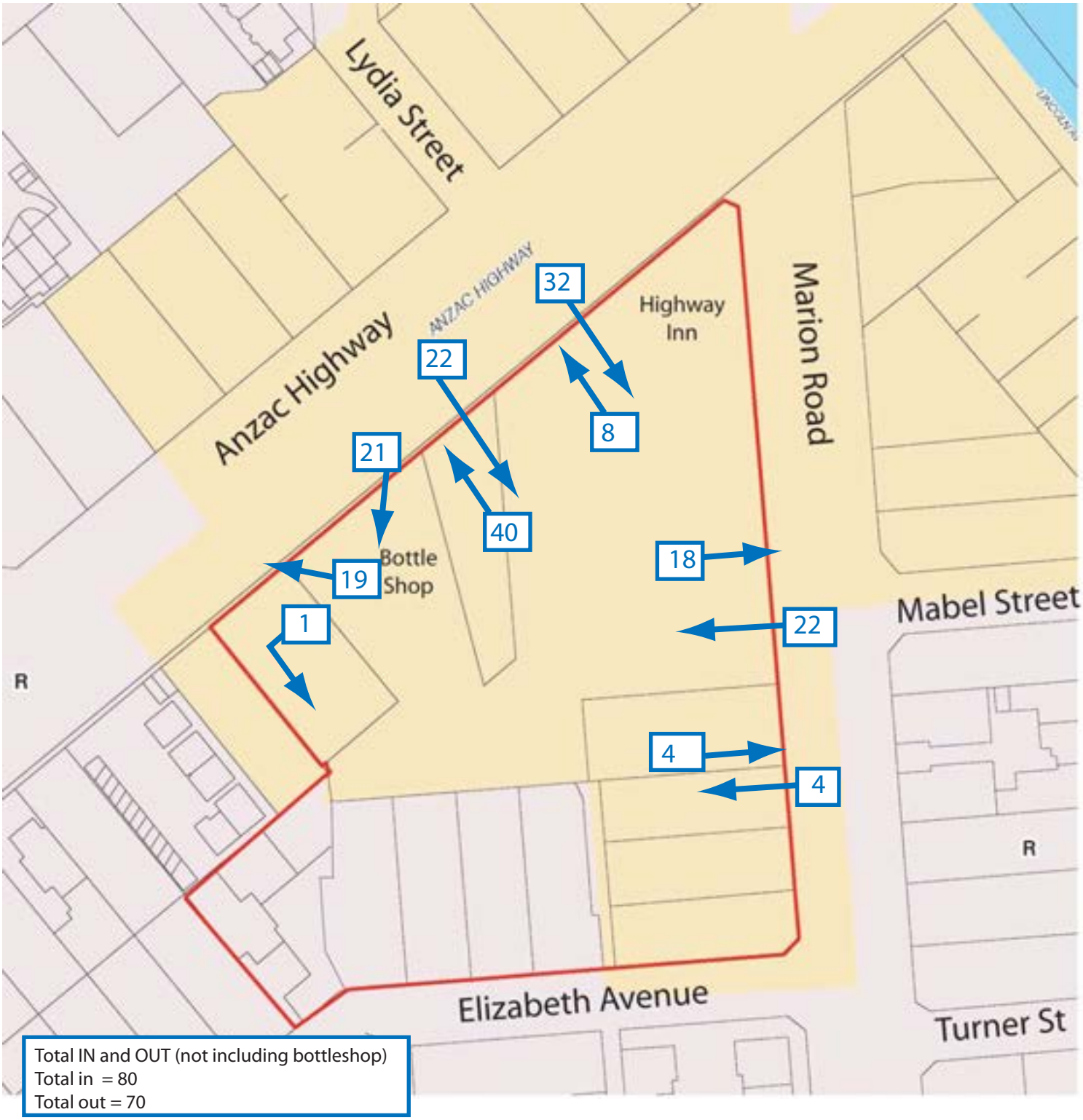
19:30
19:45
20:00
20:15
20:30
20:45
21:00
Time

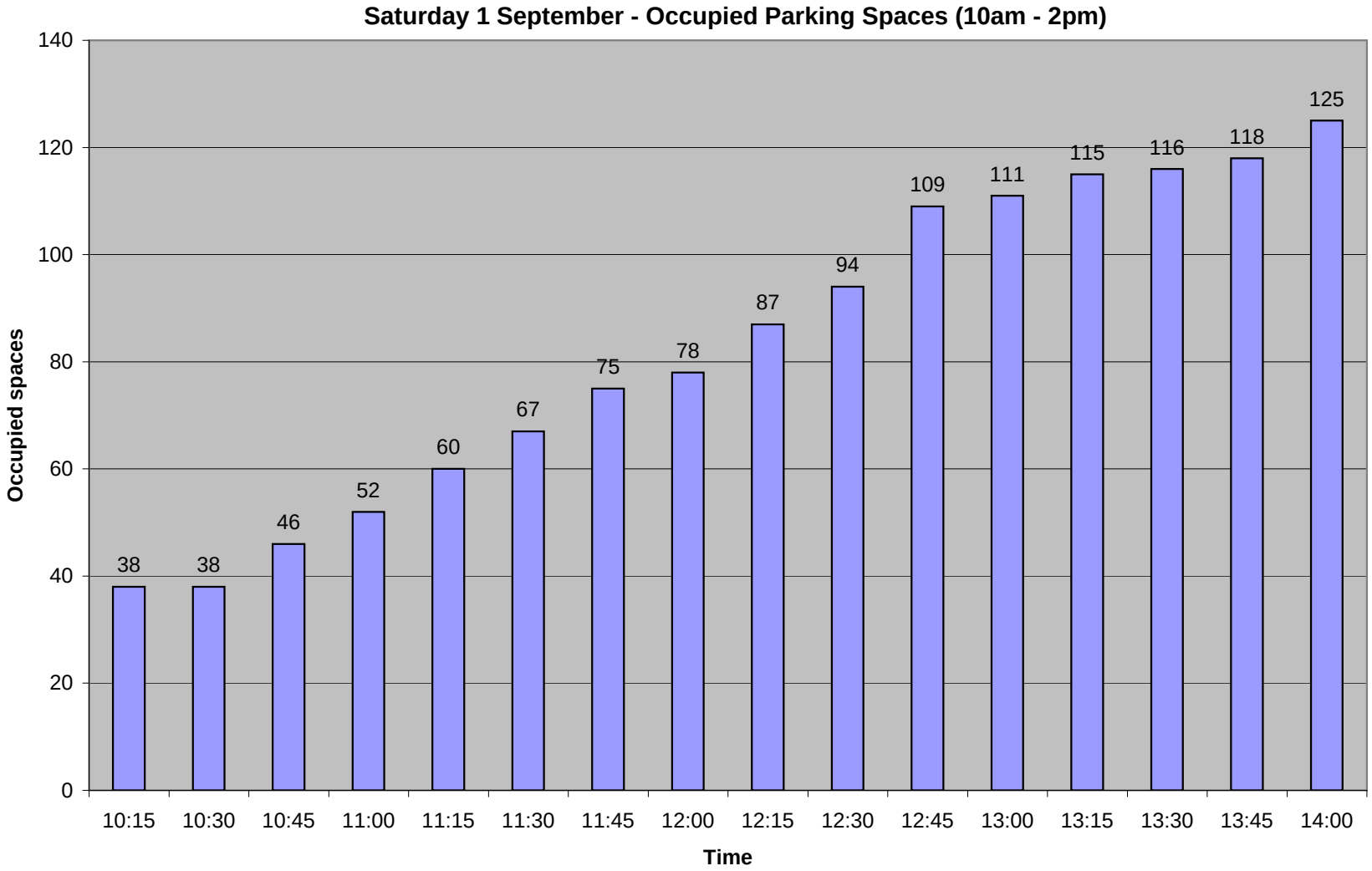


Legend

15 → No. of vehicles and direction

Traffic Generation at Highway Inn and Bottle Shop
1pm-2pm Saturday 1 September, 2007
(Saturday Peak hour for Hotel - existing)

Figure 6


Saturday 1 September - Occupied Parking Spaces (10am - 2pm)
Occupied spaces
140
120
100
80
60
40
20
0
38
38
46
52
60
67
75
78
87
94
109
111
115
116
118
125
10:15
10:30
10:45
11:00
11:15
11:30
11:45
12:00
12:15
12:30
12:45
13:00
13:15
13:30
13:45
14:00
Time

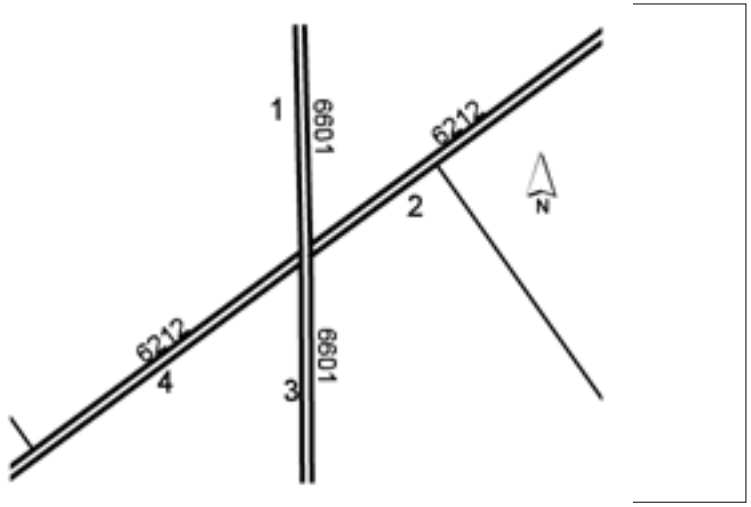
Appendix A

Traffic turning volumes- Intersection of Anzac Highway / Marion Road, 2004

(Source: DTEI)

Intersection of: MARION RD / ANZAC HWY
AMG Reference: TG766280 Locality: PLYMPTON PARK
Date of Count: 12/05/2004 Day: Wednesday
Weather: Dry Control: SIGNALS
Status:
Comments:

Arm	Road Number - Name
1	6601 - MARION ROAD
2	6212 - ANZAC HIGHWAY
3	6601 - MARION ROAD
4	6212 - ANZAC HIGHWAY



	Arm	1			2			3			4		
	Exit Arm	2 (L)	3	4 (R)	3 (L)	4	1 (R)	4 (L)	1	2 (R)	1 (L)	2	3 (R)
11 hour totals	Cars	**817**	**7918**	**1695**	**3409**	**8664**	**1163**	**213**	**9027**	**3421**	**1686**	**9649**	**497**
	CV	**54**	**457**	**113**	**145**	**299**	**47**	**9**	**403**	**169**	**120**	**323**	**6**
	Total	**871**	**8375**	**1808**	**3554**	**8963**	**1210**	**222**	**9430**	**3590**	**1806**	**9972**	**503**
AM Peak hour (08:00)	Cars	**63**	**656**	**93**	**228**	**598**	**60**	**5**	**1260**	**402**	**225**	**1548**	**20**
	CV	**9**	**49**	**11**	**17**	**37**	**4**	**0**	**28**	**14**	**15**	**30**	**0**
	Total	**72**	**705**	**104**	**245**	**635**	**64**	**5**	**1288**	**416**	**240**	**1578**	**20**
PM Peak hour (17:00)	Cars	**53**	**1141**	**220**	**540**	**1466**	**94**	**34**	**872**	**317**	**125**	**761**	**45**
	CV	**1**	**11**	**5**	**15**	**10**	**1**	**0**	**20**	**12**	**4**	**9**	**1**
	Total	**54**	**1152**	**225**	**555**	**1476**	**95**	**34**	**892**	**329**	**129**	**770**	**46**

		1	2	3	4
One-way Flows	11 Hour Totals	**(IN) 11054 (OUT) 12446**	**(IN) 13727 (OUT) 14433**	**(IN) 13242 (OUT) 12432**	**(IN) 12281 (OUT) 10993**
	AM Peak Hour	**08:00 881 07:15 1653**	**11:30 1142 07:30 2103**	**07:15 1978 07:45 983**	**08:00 1838 11:30 942**
	PM Peak Hour	**15:45 1547 13:45 1124**	**17:15 2143 15:00 1257**	**17:00 1255 15:45 1814**	**15:00 1124 17:15 1791**
Two-way Flows	AM Peak Hour	**08:00 2473**	**08:00 3010**	**07:15 2783**	**08:00 2582**
	PM Peak Hour	**15:45 2558**	**17:00 3279**	**17:00 3008**	**17:15 2718**
All Vehicles	11 Hour Totals	**23500 5.1% CV**	**28160 3.7% CV**	**25674 4.6% CV**	**23274 3.7% CV**
	Estimated AADT	**30300 SF(1.00) ZF(1.29)**	**36300 SF(1.00) ZF(1.29)**	**33100 SF(1.00) ZF(1.29)**	**30000 SF(1.00) ZF(1.29)**

AADT - Annual Average Daily Traffic SF - Seasonal Factor ZF - Zone Factor CV - Commercial Vehicl

Appendix D

Project Team

The Palmer Group

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GHD

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- Doug Wallace
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- Melissa Pinding
- Doris Peter

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- Cathy King

Appendix E

Sources of Information

- West Torrens (City) Development Plan (Consolidated – 30 August, 2007)
- Planning Strategy for Metropolitan Adelaide (January 2007)
- Development Act, 1993 and Development Regulations, as amended
- Environment Protection Act, 1993
- Environment Protection (Water Quality) Policy, 2003
- Environment Protection (Air Quality) Policy, 1994
- Environment Protection (Machine Noise) Policy, 1994
- Environment Protection (Waste Management) Policy, 1994
- Dangerous Substances Act, 1979
- Occupational Health and Welfare Act, 1986
- Petroleum Products Regulation Act, 1995
- Native Vegetation Act, 1991
- Animal and Plant Control (Agricultural Protection and Other Purposes) Act, 1986
- Pollution of Waters by Oil and Noxious Substances Act, 1987
- State Government of South Australia, Land Service Group
- Department of Environment and Heritage (DEH)
- State Library of South Australia
- Google Earth, 2007
- www.whereis.com
- www.myrp.com.au
- ABS (2006), 2003-04 Household Expenditure Survey Australia: Summary of Results, Catalogue No. 6530.0, ABS, Canberra.
- ABS (2006), 2003-04 Household Expenditure Survey Australia: Household Characteristics, Catalogue No. 6530.0, ABS, Canberra.
- ABS (2006), 2003-04 Household Expenditure Survey Australia: States and Territories, Catalogue No. 6530.0, ABS, Canberra.
- ABS (2006), 2003-04 Household Expenditure Survey Australia: Detailed Expenditure Items, Catalogue No. 6530.0, ABS, Canberra.
- ABS (2007), 2006 Census of Population and Housing, Catalogue No. 2069.0.30.001, ABS, Canberra.
- Planning SA (2007), Medium series population projections by SLA, Adelaide.
- Planning SA (2008), 2007 Adelaide Retail Database, Adelaide.
- Adelaide International Airport Runway Extension Environmental Impact Statement. SA Department of Transport, May 1996.

Appendix F

Relevant Development Plan Provisions

Form of Development

The relevant provisions of the Development Plan are considered to be as follows:

Form of Development

Objective 1: *Orderely and economic development*

Objective 2: *A proper distribution and segregation of living, working and recreational activities by the allocation of suitable areas of land for those purposes*

Objective 4: *Maintenance of the long-term operational, safety and commercial aviation requirements of Adelaide International Airport*

Objective 5: *Intensification of residential and employment generating development in the central and eastern areas of West Torrens achieved through:*

(a) an increased density of development in suitable locations along designated public transport routes; and
(b) an increase in the number of dwellings by allowing medium-density residential development in those parts of the council area which have the most potential for the erection of new dwellings and the replacement of existing housing stock.

(i) Intersected by a number of arterial roads of metropolitan significance.

Objective 6: *Environmental improvements throughout the council area, achieved through:*

Objective 7: *Maximisation of employment opportunities and service provision throughout the area, achieved through:*

PDC *Land should be suitable for its intended use and if there is any doubt on its suitability a report should be requested from an independent and qualified environmental auditor*

PDC2 *Development should be orderly and economic.*

Transportation (Movement of People and Goods)

Objective 15: *A more beneficial and compatible relationship between land use and transport, achieved through:*

(a) the focussing of service and employment intensive activities in suitable locations along designated transport routes;
(b) the design and location of development to improve the efficiency and safety of movement on arterial roads;

Objective 16: *A compatible arrangement between land uses and the transport system which will:*

(b) protect amenity of existing and future land uses;

(c) provide adequate access;

(d) ensure maximum safety; and

(e) ensure major traffic generating developments are located along key existing transport routes and nodes.

Objective 17: *A form of development adjoining main roads which will:*

(a) ensure traffic can move efficiently and safely;

(b) discourage commercial ribbon development;

(c) prevent large traffic-generating uses outside designated shopping/centre zones;

(d) provide for adequate off-street parking; and

(e) provide limited and safe points of access and egress.

Objective 18: *Safe and convenient movement within the council area with minimum congestion, and reduced levels of energy consumption and pollution, achieved through:*

(a) the creation of a safe and comfortable pedestrian environment in relation to all development;

Pedestrian and Cycle Movement

PDC21 Secure facilities for the parking of bicycles should be provided in association with all developments which provide services or employment

Vehicle Access

PDC23 Development should provide orderly, safe and convenient access for vehicles, cyclists and pedestrians.

PDC24 Vehicular access points onto public roads should be located and designed in such a way as to minimise traffic hazards and queuing on public roads.

PDC26 Where vehicular access onto arterial roads is provided, the number, location and design of the access points should be such as to minimise traffic hazards, queuing on the roads, right turn movements and interference with the function of intersections, junctions and traffic control devices.

PDC27 Where vehicular access onto the arterial roads is provided, provision should be made on site for the development to enable vehicles to turn so as to enter and leave the site in a forward direction; any gates across the vehicular way should be set back at least 5.5 metres from the alignment of the arterial road and should open away from the arterial road; any fence associated with the development and adjacent to the arterial road should be of a height and design such that a clear view of the arterial road is available to any driver leaving the site.

PDC29 Vehicle access and parking should conform with the standards specified in Australian Standard 2890.1-1993 and AS 2890.2-1989, titled "Off-street Parking".

PDC30 The number of vehicle access points onto arterial roads shown on Map WeTo/1 (Overlay 1) should be minimised, and where possible access points should be:

PDC32 Development and associated points of access and egress should not create conditions that cause interference with the free flow of traffic on adjoining roads and should be located as far as possible from road intersections.

PDC33 Vehicle access points should be clearly visible or be sign-posted.

PDC34 Development should include appropriate provision on the site to enable the parking, loading, unloading, turning and fuelling of vehicles.

PDC35 Wherever possible industrial or commercial development should not rely for access on a residential street and should, as far as possible, avoid, eliminate or reduce use of residential streets by heavy or service vehicles.

Car Parking

PDC36 Development should provide on-site parking to accommodate all vehicles which are expected to visit the site. This requirement may be reduced where:

PDC37 Subject to any reduced requirement resulting from the application of principle of development control numbered 36, parking should be provided at a rate as specified in Table WeTo/2.

PDC 38 Development should provide the opportunity for the shared use of car parking and integration of parking areas with adjacent development so as to reduce the total extent of parking areas. The potential for shared use of car parks should be determined on the basis of likely hours of operation.

PDC39 Parking for disabled drivers should be provided at a rate of not less than:

(a) one space for developments with a total of ten to 25 parking spaces; and

(b) one space per 25 spaces thereafter to a maximum of five spaces.

PDC40 Car parking spaces for disabled drivers should:

Public Utilities

Objective 19: Economy in the provision of public services.

Stormwater Management

PDC44 Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.

Residential

Objective 25: *A compact urban area.*

Residential Development

PDC79 *Residential development should be located in residential zones, except for:*

(a) higher density residential development in parts of the Commercial (Arterial Roads) Zone, as prescribed by the relevant principles of development control for the zone;

Visual Privacy

PDC99 *Direct overlooking from upper level habitable room windows(1) and external balconies, terraces and decks to habitable room windows and useable private open spaces of other dwellings should be minimised:*

(a) building layout;
(b) location and design of windows and balconies;
(c) screening devices;
(d) landscaping; or
(e) adequate separation.

Land Contamination

PDC119 *Where there is reasonable cause to suspect that land is, or may have been, contaminated or there is evidence of a potentially contaminating activity, development for residential or other sensitive uses should not occur until it is demonstrated that the land can be made suitable for its intended use prior to commencement of that use. This may involve preparation of a site history, or a site contamination report, or site remediation based on an assessment of risk to human health and the environment where necessary.*

Site Facilities and Storage

PDC121 *Site facilities for group dwellings and residential flat buildings should include:*

(a) mail box facilities located close to the major pedestrian entrance to the site;

(b) garbage and recyclable material storage areas; and

(c) for dwellings which do not incorporate ground level private open space, external clothes drying areas;

PDC122 *Dwellings should incorporate adequate areas for the storage of goods and chattels other than food and clothing either:*

(a) in the dwelling (but not including a habitable room);

(b) in a garage, carport or outbuilding; or

(c) within an on-site communal facility.

Areas Affected by Aircraft Noise

PDC137 *Development should be designed and located having regard to the flight paths, height restrictions and noise exposure forecasts issued by Adelaide Airport Limited.*

Centres and Shops

Objective 31: *Shopping, administrative, cultural, community, entertainment, educational, religious, and recreational, facilities located in integrated centres which are distributed rationally throughout the city, and in a manner which reflects the needs of the population served.*

Objective 32: *Centres established and developed in accordance with a hierarchy based on function, so that each type of centre provides a proportion of the total requirement of goods and services commensurate with its role and centres, for the convenience of the local population and work force.*

Objective 33: *A hierarchy of centres located in centre zones or areas.*

Objective 37: *Neighbourhood centres to include shopping facilities that provide mainly 'convenience' goods to serve the day-to-day needs of the neighbourhood, and a limited range of more frequently required 'comparison' goods as well as a narrow range of facilities. There are not likely to be administrative facilities in neighbourhood centres.*

Objective 41: *The orderly redevelopment of older centres along the lines of the desired future character of each centre.*

Objective 42: The encouragement of investment.

Objective 43: Safe access and convenient use of centres in an attractive environment.

Objective 44: The upgrading of present centre facilities to provide

PDC143 *Shopping, administrative, cultural, community, entertainment, educational, religious and recreational facilities should be located in centre and shopping zones.*

PDC144 *Shopping development should be located as follows:*

(a) *A shop, or group of shops, with a gross leasable area of greater than 250 square metres should be located in a centre or shopping zone or area.*

PDC146 *Development or redevelopment within centre and shopping zones or areas should meet the following criteria:*

(a) *Their location and assigned role in the centre hierarchy of designated centres and designated centre zones.*

(b) *The need to integrate facilities in the zone.*

(d) *Multiple use of facilities and sharing of utility spaces.*

(e) *Attractive development, with a unified design of buildings and produce a close relationship between shops in a lively setting.*

(f) *Materials compatible with the natural features of the site and adjacent buildings.*

(g) *Acceptable micro-climatic conditions and degree of exposure in designing and orienting buildings, and locating open space and car parking areas.*

(h) *Development and operation of facilities within a zone compatible with adjoining areas. This should be promoted through landscaping, screen walls, centre orientation, location of access ways, buffer strips and transitional use areas.*

(j) *Access and car parking for residential areas located within centres separate from the access and car parking areas serving the other centre facilities.*

(k) *Integration of public transport requirements.*

PDC147 *Development within centre and shopping zones should conform with the following design principles:*

(a) *Development should provide for the integration of existing and future facilities so as to promote ease of pedestrian movement and sharing of facilities as well as to retain the opportunity for any future expansion within the zone.*

(c) *Development should provide:*

(i) *off-street loading, service areas and service vehicle manoeuvring areas*

(ii) *lighting for buildings and ancillary areas, with no light spill causing nuisance or hazard; and*

(iii) *unobtrusive facilities for storage and removal of waste materials.*

(d) *Development should not cause nuisance or hazard arising from:*

(i) *microclimatic conditions;*

(ii) *excessive noise;*

(iii) *odours;*

(iv) *overlooking;*

(v) *overshadowing; or*

(vi) *visual intrusion.*

(e) *Where necessary, development should:*

(i) *provide parking, access and facilities for the physically handicapped;*

(ii) *minimise energy consumption for lighting, heating, cooling and ventilation;*

(iii) *provide public spaces such as malls, plazas and courtyards;*

(iv) *provide public facilities including toilets, infant changing facilities for parents, seating, telephones and community information boards; and*

(v) *provide access for public transport and sheltered waiting areas for passengers.*

(f) *Landscaping should be provided and maintained in order to:*

(i) *complement the landscaping provided by adjacent development and enhance the visual appearance and character of the zone;*

PDC148 *Provision for the movement of people and goods within centre and shopping zones or areas should comply with the following:*

(a) *Development should not cause inconvenient and unsafe traffic and pedestrian movements or be likely to result in the need for significant expenditure on transport and traffic works, or facilities within, or outside, the locality.*

(c) *The separation of pedestrian and vehicle movements within zones is most desirable to ensure safety and convenience.*

(d) *Access to car parking areas should be designed not to cause congestion or detract from the safety of traffic on abutting roads.*

(e) *Adequate and convenient provision should be made for service vehicles and the storage and removal of waste goods and materials.*

(f) *Parking areas should be consolidated and co-ordinated into convenient groups, rather than located individually, and the access points minimised.*

(g) *Car parks should be orientated so as to facilitate direct and convenient access of pedestrians between them and the facilities they serve.*

(h) *On-site parking shall be determined having regard to:*

(i) *the amount, type and timing of movement generated by the use;*

(ii) *the design, location and configuration of parking spaces;*

(iii) *the ability of the site to accommodate the parking spaces;*

(iv) *the potential for shared use of parking spaces;*

(v) *the effect on surrounding activities;*

(vi) *specific in requests of cyclists; and*

(vii) *the availability of appropriate on-street parking.*

PDC0149 *Development within centre and shopping zones should conform to the following access and car parking principles:*

(a) *Development should provide safe and convenient access for private cars, cyclists, pedestrians, service vehicles, emergency vehicles and public utility vehicles.*

(b) *Access points onto public roads should be located and designed in such a way as to minimise traffic hazards, queuing on public roads and intrusion into adjacent residential areas.*

(d) *Development should provide sufficient off-street parking to accommodate customer, employee and service vehicles.*

(e) *Car parking areas should be located and designed in such a way as to ensure safe and convenient pedestrian access from vehicles to facilities, safe and convenient traffic circulation, minimal conflict between customer and service vehicles and should include adequate provision for manoeuvring into and out of parking bays.*

(f) *The layout of all parking areas should be designed so as to obviate the necessity for vehicles to back onto public roads.*

(g) *Individual parking areas should, wherever possible, be so located and designed that:*

(i) *vehicular movement between them does not require the use of public roads;*

(i) *Shopping development should provide for separate parking spaces for the disabled.*

(j) *Opportunities for the shared use of car parking between developments should be exploited so as to reduce the total extent of car parking areas.*

(k) *Residential development located within centres should have access and parking areas separate from the access and car parking areas serving the other centre facilities.*

(l) *Landscaping should be provided and maintained in order to screen, shade and enhance the appearance of car parking areas.*

PDC150 *Landscaping should form an integral part of centre design, and be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas, and generally enhance the visual amenity of the area.*

PDC151 *Centres should be highly accessible to the population to be served, especially by public transport, where that applies.*

PDC152 *Centres should have a minimal adverse impact on traffic movements on primary, or primary arterial, roads.*

PDC153 *Centres should develop on one side of an arterial road, or one quadrant of an arterial road intersection. Where centre facilities, already straddle a primary, or primary arterial, road, or the intersection of two primary, or primary arterials, roads, development within them should:*

(a) *concentrate on one side of the primary, or primary arterial, road or one quadrant of the arterial road intersection; and*

(b) *minimise the need for pedestrian and vehicular movement across the arterial road, from one part of the centre to another.*

PDC154 *Development within centre and shopping zones should be located having regard to the following principles:*

(a) *Within zones which straddle arterial roads or intersections of arterial roads, the major shopping focus, defined by the gross leasable area and associated car parking, should be restricted to one side of the road or one quadrant of the intersection.*

(b) *Development should not generate pedestrian or vehicular traffic onto or across an arterial road in such a way as to materially impair the movement of traffic on that road or to cause safety hazards.*

PDC155 *Centres should have minimal adverse impacts on residential areas.*

PDC158 *The development of centres should not result in the physical deterioration of any designated centre.*

PDC161 *Development should not exceed two storeys in height.*

PDC162 *Residential development within centre zones should not jeopardize the orderly or integrated development of other centre development.*

Commercial Development

Objective 45: *Commercial development located in suitable areas.*

PDC166 *Employment intensive, economic activities should be located within reasonable walking distance of public transport services.*

PDC167 *Commercial development should be of a high architectural standard and be set-back from the road frontage to allow for landscaping.*

Appearance of Land and Buildings, and Set-Backs

Objective 95: *The amenity of localities not impaired by the appearance of land, buildings and objects.*

PDC271 *The appearance of land, buildings, and objects should not impair the amenity of the locality in which they are situated.*

PDC274 *Development should present a frontage to public roads which is of a high architectural standard.*

PDC275 *Non-residential buildings and structures should be set-back from side or rear boundaries with the residential zone:*

PDC276 *An intensively landscaped area of at least three metres width should be provided between non-residential development and the boundary of the residential zone, such area containing trees which have the capacity to grow to a height which screens development as viewed from the residential zone.*

PDC277 *The walls and roofs of buildings facing towards the residential zone should not incorporate highly reflective materials which will create glare.*

PDC278 *Solid fencing should be provided between development and the boundary of the residential zone which:*

PDC279 *Noise generating activities within a development which have the potential to cause annoyance to residents in the residential zone should be conducted as far as possible away from the boundary with the residential zone and be shielded from the residential zone by the building or major parts thereof.*

PDC280 *Air-compressors, pumps and similar noise generating plant and equipment should be designed and located to minimise noise intrusion into adjoining residential development.*

PDC281 *Development should be designed so as to minimise intrusion into the residential zone of:*

PDC282 *Refuse collection areas and all goods or materials which are stored outdoors should be screened by solid fencing and landscaping so that they are not readily visible from surrounding roads, public places or adjoining properties, and be set-back at least three metres from the boundary with the residential zone.*

Landscaping

PDC283 *A minimum of 10 percent of a development site should be landscaped.*

PDC284 *Landscaping should be provided to:*

(a) *add to the attractiveness of the site;*

(b) *assist in the control of temperatures within buildings to minimise energy requirements for heating and cooling;*

(c) *provide shade for parked cars;*

(d) *screen refuse collection areas;*

(e) *reduce the visual monotony of large blank wall areas; and*

(f) *provide a substantial visual screen between non-residential and residential developments.*

PDC285 *Landscaping should be located:*

(c) *between rows of parking spaces within parking areas.*

NEIGHBOURHOOD CENTRE (PLYMPTON) ZONE

Introduction

Area

The objectives and principles of development control that follow apply to the Neighbourhood Centre (Plympton) Zone shown on Maps WeTo/16 and 20. They are additional to those expressed for the whole of the council area.

OBJECTIVES

Objective 1: *Expansion of the centre to function as a neighbourhood centre and provide a range of retail, service, office, community, commercial and entertainment facilities to serve the daily and weekly needs of the surrounding population.*

Objective 2: *A desired character distinguished by the concentration of retailing, mixed commercial, and office uses in the north-western, south-western and south-eastern quadrants of the Anzac Highway and Marion Road intersection, respectively.*

The Neighbourhood Centre (Plympton) Zone is intended to provide a range of facilities and services to cater for the surrounding population. Retail facilities should be confined to the north-west quadrant of the intersection in Policy Area 10 and consist primarily of convenience goods outlets with a limited range of the more frequently required comparison goods and some service facilities. A gross leasable retail floor space limit of the order of 3500 square metres should apply to this area.

The south-western quadrant of the intersection (Policy Area 11) currently contains a hotel, take-away food outlets and some bulky good outlets. This area is intended to continue to accommodate these types of activities as well as other low traffic-generating commercial and low-intensity retail activities.

The south-eastern quadrant of the intersection is intended to contain small-scale office facilities accommodating a range of community, medical and service activities.

All development should address Anzac Highway and Marion Road and assist in defining the intersection. The interface between centre development and residential areas should be appropriately treated through a combination of set-backs and landscaping to ensure that potential impacts on the residential area are minimised.

PRINCIPLES OF DEVELOPMENT CONTROL

Appropriate Development

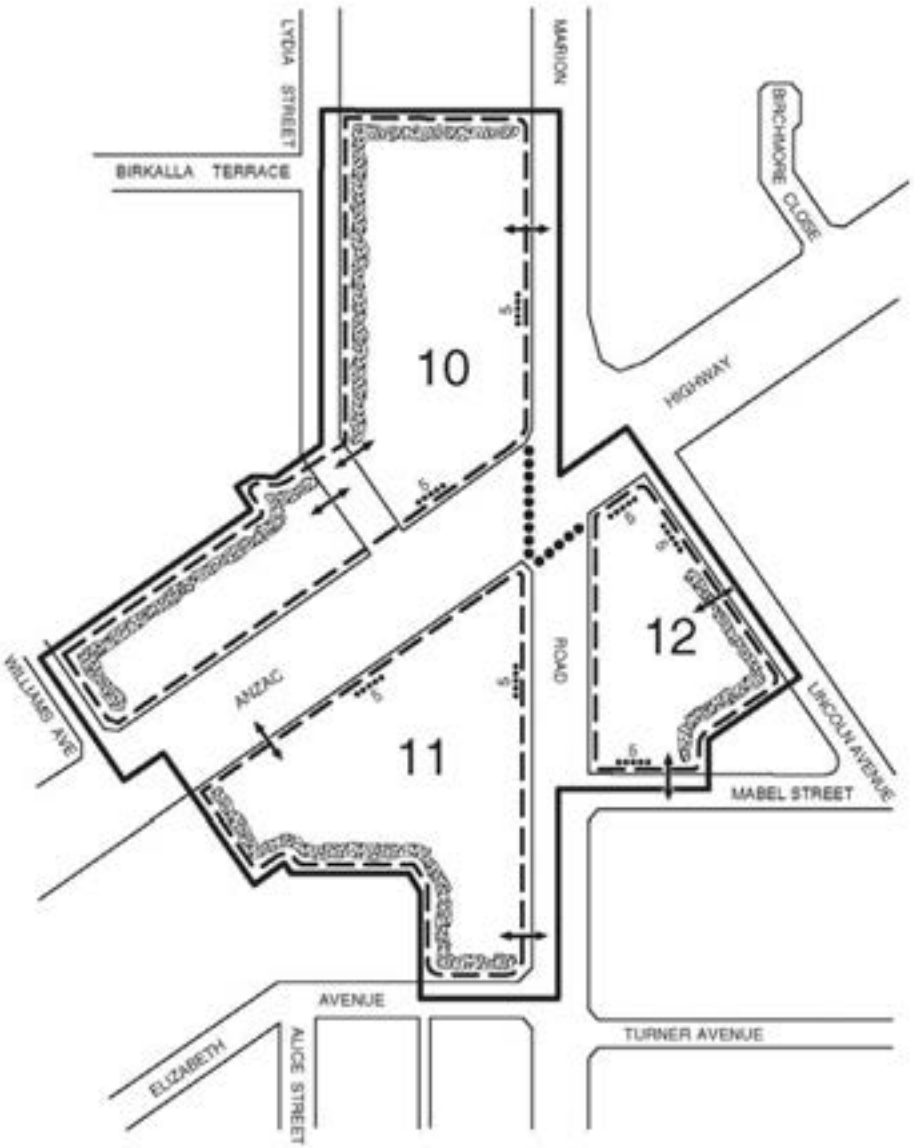
1 *Shops selling primarily food and other convenience goods, service facilities, offices, community, commercial and entertainment facilities should be the primary uses in this zone.*

2 *Development should generally locate in accord with the intended usage of each policy area defined on Policy Area Map WeTo/30 and Fig NCe(P)/1, and expressed below.*

3 *The gross leasable retail floor space of the centre may be extended to a maximum of 3500 square metres and should be located in Policy Area 10 shown on Policy Area Map WeTo/30 and Fig NCe(P)/1.*

4 *Other centre type developments such as take-away food outlets and restaurants, banks, commercial facilities, retail showrooms and small-scale, low traffic-generating retail uses should be located in Policy Area 11 shown on Policy Area Map WeTo/30 and Fig NCe(P)/1.*

5 *Office development should be located in Policy Area 12 shown on Policy Area Map WeTo/30 and Fig NCe(P)/1 and should accommodate a range of community, medical and service activities..*



Screen Landscaping
Vehicle Access
Road setback (metres)
Pedestrian Route
10 Shopping
11 Commercial
12 Office
Policy Area Boundary

0 metres 50 100 150

WEST TORRENS (CITY) NEIGHBOURHOOD CENTRE (Plympton) CONCEPT PLAN Fig NCe(P)/1

Consolidated - 2 October 2008

Form of Development

6 Development should be undertaken in accordance with Fig NCe(P)/1.

7 Development should assist in defining the four corners of the Anzac Highway and Marion Road intersection by: (a) having a primary orientation towards these roads; and (b) being located near the road frontages with parking areas to the side or rear. Set-backs

8 Development should be set-back a minimum of five metres from all roads. Height

9 Development facing onto the arterial roads should not exceed three storeys (12.5 metres) in height.

10 Development elsewhere in the centre should not exceed two storeys (8.5 metres) in height. Traffic

11 Vehicle access points from the arterial roads should be located as far as possible from the Anzac Highway and Marion Road intersection.

Landscaping

12 Landscaping of at least three metres in width should occur in accordance with Fig NCe(P)/1.

Complying Development

13 Except for developments listed in Schedule 4 – Complying Developments of the Development Regulations 1993, there are no complying developments in the Neighbourhood Centre (Plympton) Zone.

Non-complying Development

14 The following kinds of development (including combinations thereof, or more than one of a particular kind alterations, extensions and/or additions to existing buildings or structures) are non-complying in the Neighbourhood Centre (Plympton) Zone:

Demolition of all or part of a building comprising a State heritage place identified in Table WeTo/4
Dwelling, other than dwellings which are located above non-residential development
General Industry
Industry
Junk Yard
Light Industry
Motor Repair Station
Nursing Home
Plant Nursery
Road Transport Terminal
Service Industry
Service Trade Premises

Shop or group of shops:

(a) in Policy Area 11, excluding retail showrooms, with a combined leasable floor area of greater than 500 square metres; and

(b) in Policy Area 12

Special Industry
Warehouse

Public Notification

15 Categories of public notification are prescribed in schedule nine of the Development Regulations 1993.