**APPLICATION ON NOTIFICATION – Category 2 Public Notification**

| | |
|---|---|
| **Applicant:** | Carrington Collaborative C/- PBA |
| **Development Number:** | 020/A014/19 |
| **Nature of Development:** | Demolition of existing structures and construction of a mixed-used building (6 levels plus roof services) comprising; residential apartments, cafe, consulting rooms, ancillary car parking, landscaping, and associated building works |
| **Development Type:** | Merit |
| **Subject Land:** | 125 – 129 Carrington Street, Adelaide |
| **Development Plan:** | Adelaide (City) Development Plan [Consolidated 7 June 2018] |
| **Zone / Policy Area:** | City Living Zone – South Central Policy Area 32 |
| **Contact Officer:** | Karl Woehle |
| **Phone Number:** | 7109 7169 |
| **Consultation Start Date:** | 13 March 2019 |
| **Consultation Close Date:** | 27 March 2019 |
| **During the notification period, hard copies of the application documentation can be viewed at the Department of Planning, Transport and Infrastructure, Level 5, 50 Flinders St, Adelaide, during normal business hours. Application documentation may also be viewed during normal business hours at the local Council office (if identified on the public notice).** | |

Written representations must be received by the close date (indicated above) and can either be posted, hand-delivered or emailed to the State Commission Assessment Panel.

**Any representations received after the close date will not be considered.**

Postal Address:
The Secretary
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Street Address:
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
ADELAIDE

Email Address: scapreps@sa.gov.au
Fax Number: (08) 8303 0753

**South Australian**
**DEVELOPMENT ACT, 1993**
**REPRESENTATION ON APPLICATION – CATEGORY 2**

| | |
|---|---|
| **Applicant:** | Carrington Collaborative C/- PBA |
| **Development Number:** | 020/A014/19 |
| **Nature of Development:** | Demolition of existing structures and construction of a mixed-used building (6 levels plus roof services) comprising; residential apartments, cafe, consulting rooms, ancillary car parking, landscaping, and associated building works |
| **Development Type:** | Merit |
| **Zone / Policy Area:** | City Living Zone – South Central Policy Area 32 |
| **Subject Land:** | 125 – 129 Carrington Street, Adelaide |
| **Contact Officer:** | Karl Woehle |
| **Phone Number:** | 7109 7169 |
| **Close Date:** | 27 March 2019 |

My Name: _____ My phone number: _____

**Primary method(s) of contact**:

**Email:** _____

**Postal Address:** _____ **Postcode:** _____

**You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard by the State Commission Assessment Panel in support of your submission.**

**My interests are:**
*(please tick one)*

- ☐ owner of local property
- ☐ occupier of local property
- ☐ a representative of a company/other organisation affected by the proposal
- ☐ a private citizen

**The address of the property affected is:** _____

_____ **Postcode** _____

My interests are:
*(please tick one)*

- ☐ I support the development
- ☐ I support the development with some concerns
- ☐ I oppose the development

**The specific aspects of the application to which I make comment on are:** _____

_____

_____

_____

**I:**
*(please tick one)*

- ☐ wish to be heard in support of my submission
- ☐ do not wish to be heard in support of my submission
  *(Please tick one)*

**By:**
*(please tick one)*

- ☐ appearing personally
- ☐ being represented by the following person
  *(Please tick one)*

**Signature:** _____

**Date:** _____

**Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide, SA 5001** /or
**Email: scapreps@sa.gov.au**

# DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

**COUNCIL:** CITY OF ADELAIDE

**APPLICANT:** CARRINGTON COLLABORATIVE

Postal Address: C/- PBA 26 WAKEHAM STREET

ADELAIDE SA 5000

**Owner:** CHANCIE PTY LTD

Postal Address: PO BOX 174

HINDMARSH SA 5007

**BUILDER:** TO BE ADVISED

Postal Address: _____

_____ Licence No: _____

**CONTACT PERSON FOR FURTHER INFORMATION**

Name: PHILLIP BRUNNING

Telephone: 82325686 [work] 0407019748 [Ah]

Fax: _____ [work] _____ [Ah]

**EXISTING USE:** OFFICES

**FOR OFFICE USE**

Development No: _____

Previous Development No: _____

Assessment No: _____

| | |
|---|---|
| ☐ Complying | Application forwarded to DA |
| ☐ Non Complying | Commission/Council on |
| ☐ Notification Cat 2 | / / |
| ☐ Notification Cat 3 | Decision: _____ |
| ☐ Referrals/Concurrences | Type: _____ |
| ☐ DA Commission | Date: / / |

| | Decision required | Fees | Receipt No | Date |
|---|---|---|---|---|
| Planning: | | | | |
| Building: | | | | |
| Land Division: | | | | |
| Additional: | | | | |
| **Development Approval** | | | | |

**DESCRIPTION OF PROPOSED DEVELOPMENT:** MIXED USE DEVELOPMENT

**LOCATION OF PROPOSED DEVELOPMENT:** _____

House No: 125-129 Lot No: 756&757 Street: CARRINGTON STREET Town/Suburb: ADELAIDE

Section No [full/part] _____ Hundred: ADELAIDE Volume: 5362 Folio: 251

Section No [full/part] _____ Hundred: ADELAIDE Volume: 5362 Folio: 109

**LAND DIVISION:**

Site Area [$m^2$] _____ Reserve Area [$m^2$] _____ No of existing allotments _____

Number of additional allotments [excluding road and reserve]: _____ Lease: **YES** ☐ **NO** ☐

**BUILDING RULES CLASSIFICATION SOUGHT:** _____ Present classification: _____

If Class 5,6,78 or 9 classification is sought, state the proposed number of employees: Male: _____ Female: _____

If Class 9a classification is sought, state the number o persons for whom accommodation is provided: _____

If Class 9b classification is sought, state the proposed number of occupants of the various spaces at the premises: _____

**DOES EITHER SCHEDULE 21 OR 22 OF THE DEVELOPMENT REGULATIONS 2008 APPLY?** **YES** ☐ **NO** ☒

**HAS THE CONSTRUCTION INDUSTRY TRAINING FUND ACT 2008 LEVY BEEN PAID?** **YES** ☐ **NO** ☒

**DEVELOPMENT COST** [do not include any fit-out costs]: $ 11,879,102.00

I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.

**SIGNATURE:** _____ Dated: 2 / 2 / 2019

pba

Town Planning
Development Advice
Strategic Management

# PROPOSED MIXED USE DEVELOPMENT COMPRISING OFFICE & CONSULTING ROOMS RESIDENTIAL DWELLINGS, CAFÉ AND GROUND LEVEL CAR PARKING

## 125-129 CARRINGTON STREET, ADELAIDE

# DEVELOPMENT REPORT

PREPARED FOR THE CARRINGTON COLLABORATIVE
ARCHITECTURE BY STALLARD MEEK

Phillip Brunning
& Associates

26 Wakeham Street
Adelaide SA 5000
Telephone 08 8232 5686
Mobile 0407 019 748
phil@phillipbrunning.com

1 FEBRUARY 2019

CONTENTS Page

# 1. INTRODUCTION

This report has been prepared as an assessment of the proposed mixed use development having regard to the existing condition of the land, the pattern and form of surrounding development within the locality and the relevant provisions of the Adelaide (City) Development Plan.

This development is proposed by The Carrington Collaborative. The vision is to create an inspired community comprising curated art, residential apartments and integrated health and lifestyle businesses that collectively contribute greater value to the public realm. This vision expands on that of the key tenant of the development, The International Spine Centre ®.

The International Spine Centre, established in 2013, is an interdisciplinary specialist medical practice whose philosophical foundation is the 3C Approach™. This operating model enables the delivery of Coordinated Collaborative Care, with a focus on people not problems. This approach has resonated with the community resulting in significant market share and patient demand increasing by approximately 100% per annum.

This site on Carrington Street was chosen given its proximity to and functional relationship with the new Calvary Hospital on Angas Street, which has a gravity that attracts complementary and supporting medical practices and related businesses to this precinct.

The aggregation of supporting medical uses within this precinct supports and leverages the significant capital investment made to date and will give rise to certain efficiencies and economies within a strategically important sector of the South Australian economy and community life.

Whilst close to the new Calvary Hospital, it is sufficient distance away and of a form that assists in 'de-institutionalising' the patient experience within a high quality and engaging built form environment. Proximity to the green space of Hurtle Square has also been a key consideration.

For the reasons that I shall outline in this report, I am of the opinion that the proposal is an appropriate form of development that suitably accords with the relevant provisions of the Development Plan, with no serious impacts anticipated such that may unreasonably prejudice existing or desired uses.

This site has a capacity for a robust form of development. The position at the periphery of the City Living Zone adjacent to developments of significantly greater scale provides capacity for a taller building form, as a transition down to lower scale development to the west.

Accordingly, I am of the view that Development Plan Consent is warranted.

# 2. BACKGROUND

The Applicant secured this site for the express purpose of establishing the proposed facility. It did so with the confidence that the proposal would be assessed on its particular planning merits having regard to the practical reality of the situation as guided by Development Plan policy.

As discussed below, it is appropriate to have regard to the recent changes within the locality. This includes the current and future influence of the largest new private hospital development in Australia, the Calvary Hospital. This practical reality is not necessarily reflected in current Development Plan policy.

In light of this, it is my view that Development Plan policy ought not be applied in a punitive manner such that may unreasonably retard the development potential of this location and the public benefit arising from investment that will magnify the synergies derived from this cluster of mutually reinforcing uses.

The planning authority enjoys a level of discretion in respect to the application of Development Plan policy, and while it may not approve development which is seriously at variance with these policies, reasonable departure from various quantitative measures may be considered in appropriate circumstance.

The Applicant has a strong commitment to architectural excellence as manifested by the pre-lodgement assessment process with the Government Architect according to Section 37AA of the Development Act, 1993, as facilitated by officers from the Department of Planning, Transport and Infrastructure.

This pre-lodgement assessment process was most rewarding and added significant value to the design exercise, resulting in a higher quality form of development that has received strong support from the Government Architect.

The Government Architect strongly supports the project team's aspiration to deliver a mixed use development in this part of the City for an interdisciplinary and collaborative centre that focuses on an informed patient approach to care, and that there is a responsibility to deliver a high benchmark for design.

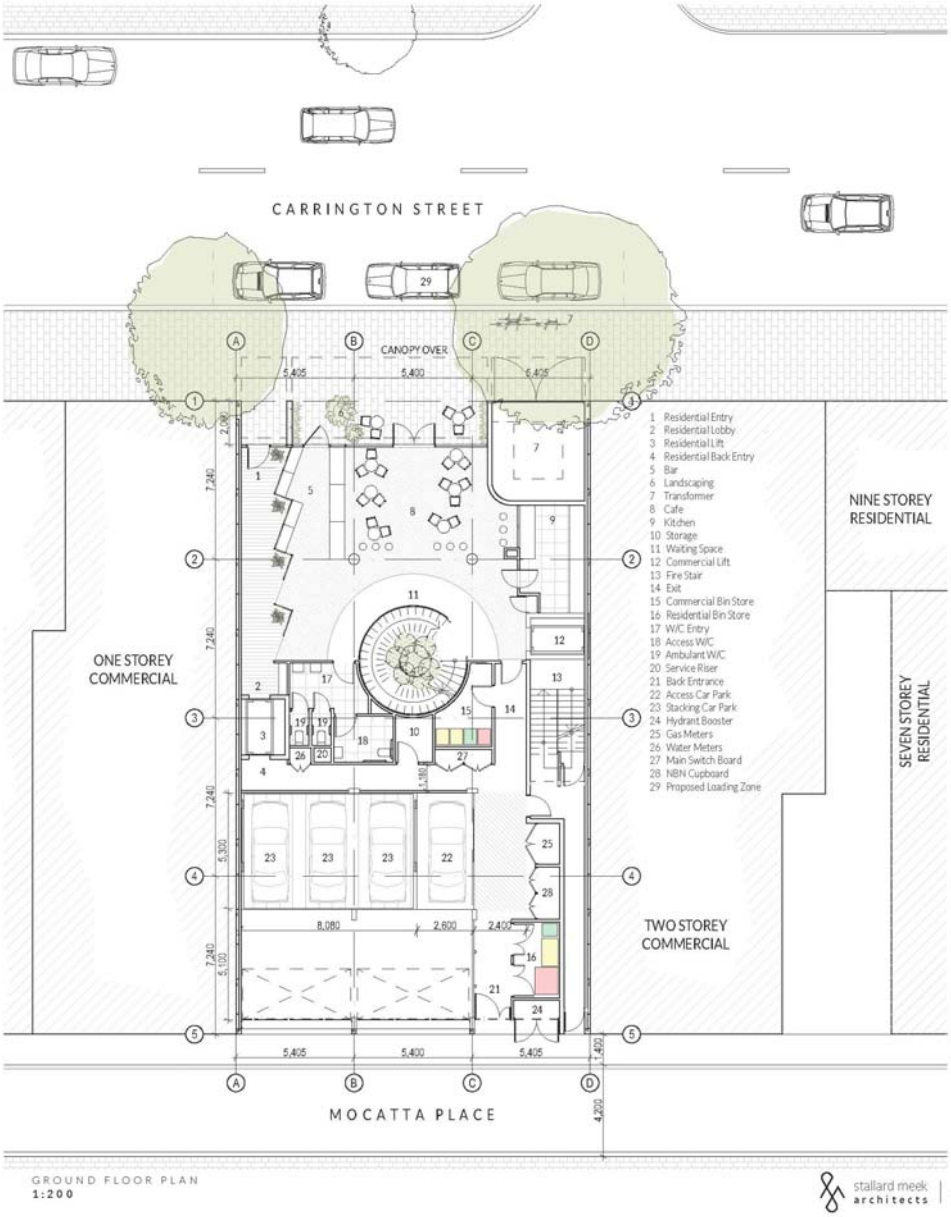
More specifically, the Government Architect is of the view that the building as presented is considered to be an appropriate transition element from the eight storey Hurtle Square apartment building to the four level height limit along Carrington Street otherwise sought by the Development Plan.

The recommendations provided have been acted on and the drawings now presented, reflect the enhancements sought. Alignment with this pre-lodgement advice will no doubt be reflected in the formal response to be provided by the Government Architect as part of the statutory referral process.

# 3. PROPOSAL

The proposal plans on which this report is based, are provided at Appendix 1.

The proposal is in the form of a six storey building that occupies the majority of the site, having an overall height of 25 metres to the roof line and 27.8 metres to the top of the services enclosure which is set in from the respective building facades, more centrally within the floor plate.




The building is composed and presented in a modernist style, with simple geometric forms that balance the vertical and horizontal elements, resulting in comfortable proportions and the avoidance of large expanses of uninterrupted walling in favour of fine detailing that adds visual interest.

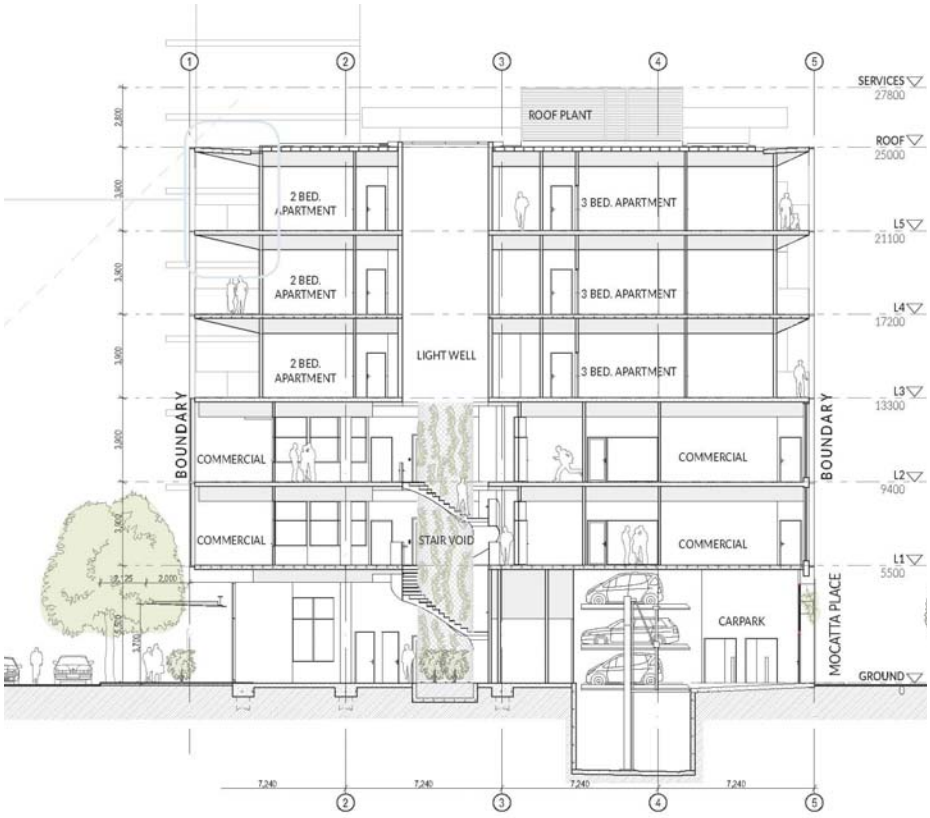
The design philosophy guiding the proposed development is more particularly articulated on drawing sheet 6 of the proposal plans at Appendix 1. In addition to the proposal plans, the Architect has prepared a board providing samples of the key materials and finishes to be utilised.

At ground floor to Carrington Street is a café and community space which provides an open level of presentation to the public realm, with a small recess to the glazing line and entry doors that is to be landscaped in the manner shown. Provision is made in the north east corner for the required electrical transformer.

In the north west corner of the building, a secure entry from Carrington Street is provided to a lift lobby that serves the dwellings on the upper levels of the building. Provision is made for users of this secure entry to move into the adjacent café while this business is operating.

Located more centrally within the building is a spiral staircase and atrium which are significant design features of this development, adding amenity and function in terms of the entry of natural light into the floor plates at the lower three levels.

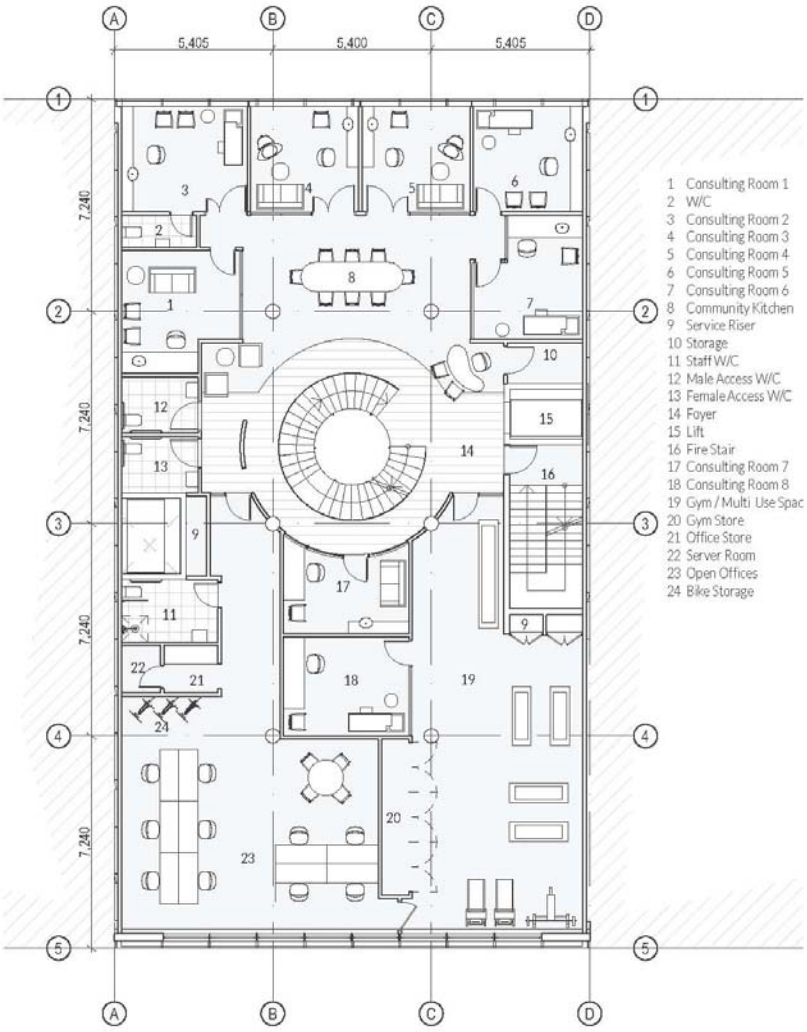
To the rear of the building at ground floor is a parking area providing space for 10 cars (9 in a mechanical stacker system and 1 disabled space) accessed from Mocatta Place. The adequacy and function of this parking arrangement is reviewed by Mr Phil Weaver, Traffic Engineer in his advice provided at Appendix 2.



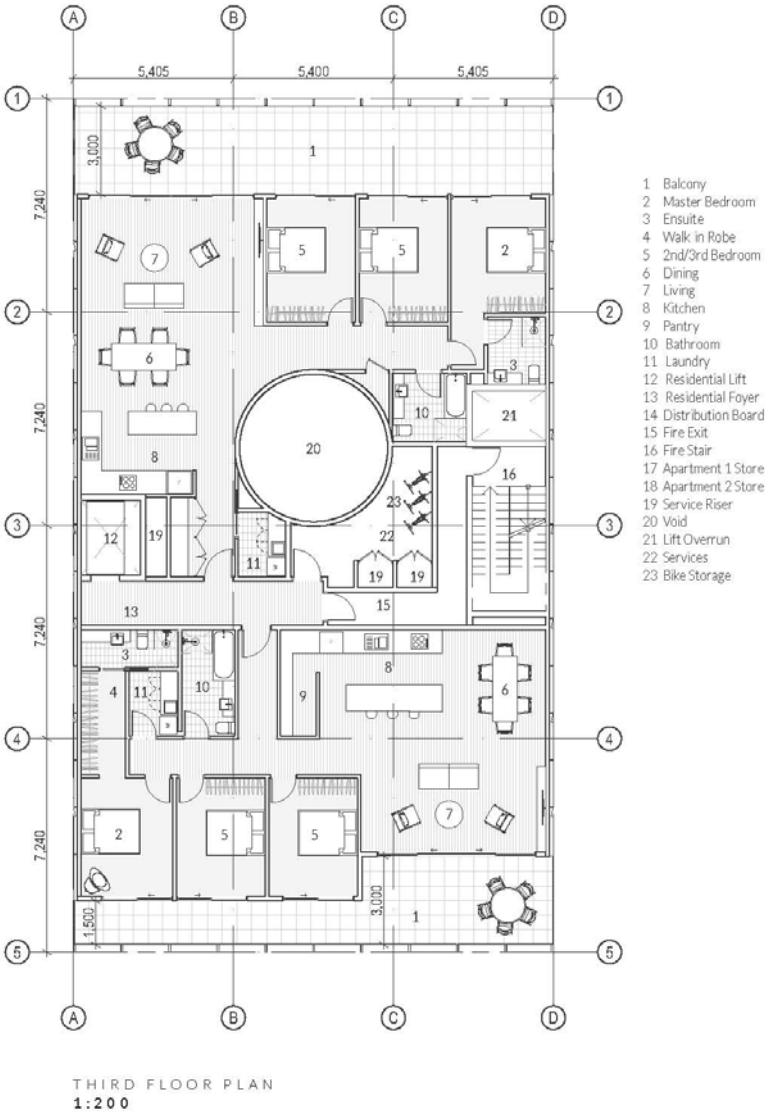
The building section shows the set down or part basement space which is required in order to install and operate the automated car parking system. It is understood that a Wohr Parklift 413 system is to be installed, further details of which can be viewed at Appendix 3.

Provision is also made for waste management within this area for not only the commercial uses at ground floor, first and second floor, but the residential dwellings on the levels above. A secure fire stair is also provided for the safe exit for users of the commercial space and residents above.

Consulting rooms and office accommodation is to be provided at first and second floor, with a combination of open plan and offices space. A 'community kitchen table' is to be provided at the first floor. The spiral stair case will provide both access and light to these levels, affording a high level of amenity for users.




FIRST & SECOND FLOOR PLAN
1:200

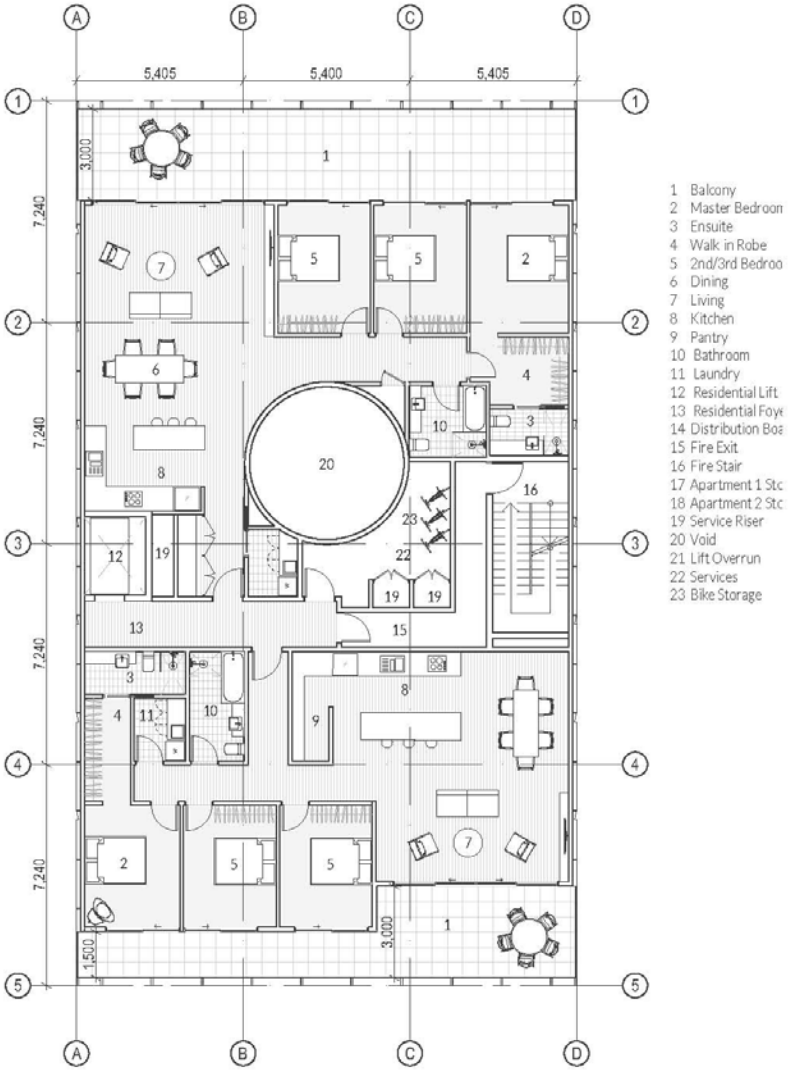



THIRD FLOOR PLAN
1:200

Two dwellings per level are to be provided at the third, fourth and fifth floor. Access is via the separate entry lobby and lift from Carrington Street discussed above. The shared fire stair may also be used by residents to gain access to their dwellings on the upper levels should they wish.

Dwellings are to be provided with three bedrooms, an open plan kitchen, living and dining area, bathrooms (including a walk in robe and en-suite for the master bedroom), laundry and storage area. A balcony is provided to each dwelling accessed from the open plan living area.

A service room, storage and bike parking facility is to be provided at each of the residential levels to be managed by the body corporate. As outlined in the waste management plan (Appendix 5) residents will place their general rubbish, recycling and green waste within the dedicated waste storage room at ground floor.




FOURTH & FIFTH FLOOR PLAN
1:200

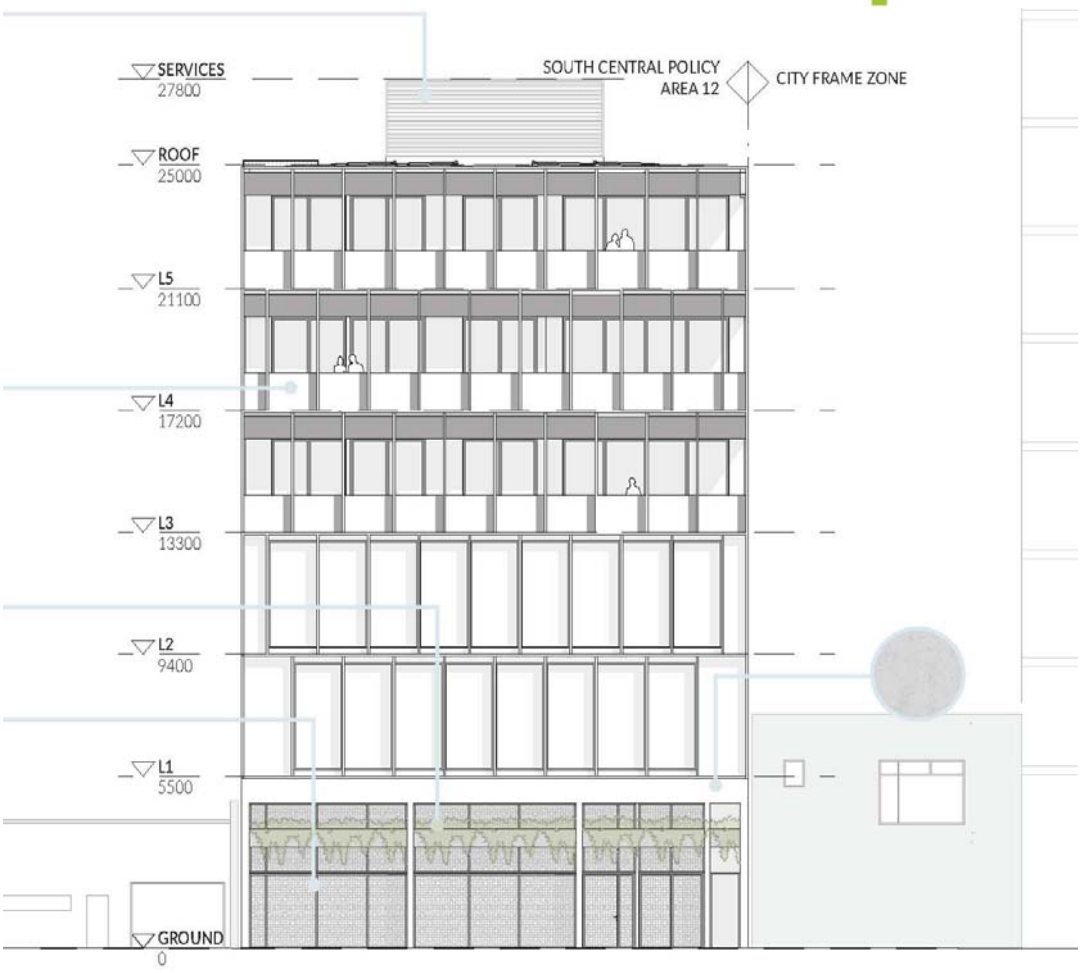
At roof level, it is proposed to install photovoltaic power generation cells, a plant platform accommodating air-conditioning condenser units and other services which will be screened from view. The small lift overrun and skylight to the central stair case are also shown on the proposal plans.

Landscaping is proposed to the front of the property at ground level at the entry to the café space, below and through the central spiral stair case and to the rear of the building above the garage from Mocatta Place in the form of a planter box or similar, as detailed by Oxigen Landscape Architects at Appendix 4.

As described within the Architects statement, the front facade to Carrington Street is composed such that a first floor podium effect is achieved, with a simple awning projection over the public footpath beneath, with suitable set back to protect the street trees and damage from larger commercial vehicles.


CARRINGTON STREET ELEVATION RENDER

A similar approach is taken to facade composition to the rear of the building (facing south) with simple geometric forms and detailing between floors. The planter box detail shown above the garage doors will assist in enhancing the visual presentation and amenity of this narrow access street.




MOCATTA PLACE PERSPECTIVE

The following schedule of areas is provided for ease of reference.

| BUILDING FLOOR AREA SCHEDULE | |
|---|---|
| SITE | 472m² |
| BASEMENT | |
| Circulation | 22m² |
| Sub Total | 22m² |
| GROUND FLOOR | |
| Amenity | 16m² |
| Circulation | 153m² |
| Cafe | 93m² |
| Sub Total | 262m² |
| LEVEL 1 | |
| Amenity | 18m² |
| Circulation | 78m² |
| Communal | 52m² |
| Gym | 79m² |
| Consulting Rooms | 90m² |
| Open Plan Office | 102m² |
| Sub Total | 419m² |
| LEVEL 2 | |
| Amenity | 18m² |
| Circulation | 78m² |
| Communal | 52m² |
| Gym | 79m² |
| Consulting Rooms | 90m² |
| Open Plan Office | 102m² |
| Sub Total | 419m² |
| LEVEL 3 | |
| Circulation | 48m² |
| Apartment 1 GFA | 133m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 313m² |
| LEVEL 4 | |
| Circulation | 48m² |
| Apartment 1 GFA | 139m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 319m² |
| LEVEL 5 | |
| Circulation | 48m² |
| Apartment 1 GFA | 139m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 319m² |
| TOTAL BUILDING AREA | 2357m² |
| FSR | 5:1 |

A preliminary cost estimate for the construction of this building has been prepared by Rider Levett Bucknall (Appendix 6). Relevant inclusions and exclusions are specified in this cost opinion, including provision for contingencies and escalation.

The proposed building is expected to have a development cost of $11,879,102

# 4. LAND & LOCALITY

The land is located at 125 to 129 Carrington Street, Adelaide.

The land is comprised of two allotments, more particularly described as:

- Allotment 756 in Filed Plan 182408, within the Hundred of Adelaide, as recorded in Certificate of Title Volume 5362 Folio 251; and
- Allotment 757 in Filed Plan 182409, within the Hundred of Adelaide, as recorded in Certificate of Title Volume 5362 Folio 109.

A copy of these Certificates of Title is provided at Appendix 7.


ONE
WAY


charlton | rowley
charlton | rowley

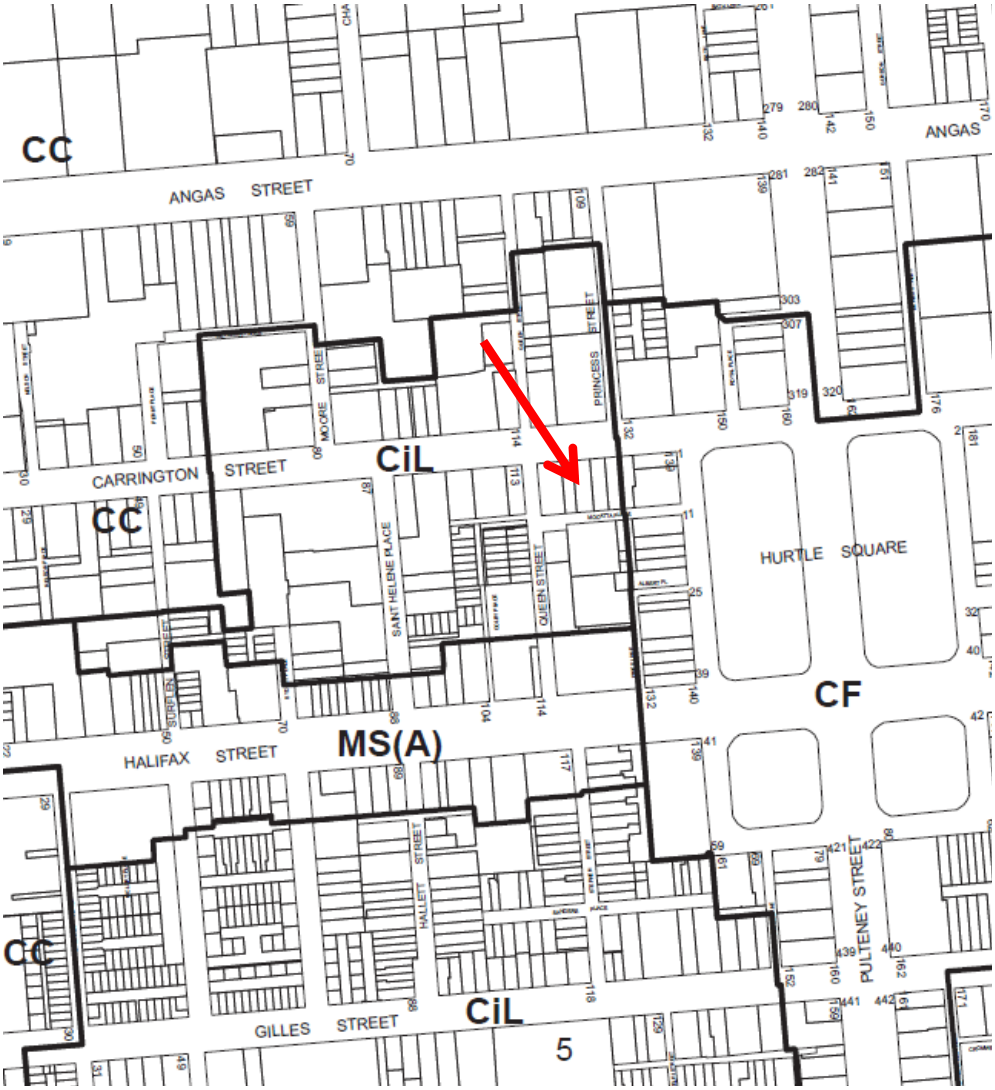
As can be seen from the photographs on the previous page, the locality is characterised by a mix of building forms and land uses. Building forms range from one to eight levels in height, the most notable being the recently completed residential building adjacent Hurtle Square.

Existing development along Carrington Street heading west ranges in scale from two to four levels, with building sited on the street alignment, and in a number of instances with balconies and/or verandahs over the public footpath beneath. The period of construction ranges from prior to last century to the early 1980's.

As will be discussed more particularly within the assessment section of this report, there are a number of heritage places within the locality including Victorian two storey terraces opposite on the north side of Carrington Street and the two storey row cottages on the southern side of Mocatta Place.

# 5. DEVELOPMENT PLAN

The land on which this development is proposed is located within the City Living Zone and more particularly the South Central Policy Area 32 of the Adelaide (City) Development Plan, the version of which is relevant to the assessment of this proposal being that consolidated on 7 June 2018.




**NOTE : For Policy Areas See MAP Adel/57**

| | |
|---|---|
| **AH(C)** | Adelaide Historic (Conservation) Zone |
| **CC** | Capital City Zone |
| **CiL** | City Living Zone |
| **I1** | Institutional (St Andrews) Zone |
| **MS(H)** | Main Street (Hutt) Zone |
| **PL** | Park Lands Zone |

**ADELAIDE (CITY)**
**ZONES**
**MAP Adel/26**

Zone Boundary
Development Plan Boundary

Consolidated - 7 June 2018


13 Central Business Policy Area
30 South Terrace Policy Area
31 South East Policy Area
32 South Central Policy Area

Maximum height of 2 storeys
State Heritage Place
Local Heritage Place
Significant Tree

Policy Area Boundary
Existing Pedestrian Link
Proposed Pedestrian Link

**ADELAIDE (CITY)**
**POLICY AREAS**
**MAP Adel/56**

Consolidated - 7 June 2018

The following provisions of the Development Plan are relevant in the assessment of this proposal.

COUNCIL WIDE

Living Culture

Objectives: 1, 3
Principles of Development Control: 1

City Living

Housing Choice
Objectives: 6, 7
Principles of Development Control: 5, 7, 9

Medium to High Scale Residential
Objectives: 22
Principles of Development Control: 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 66, 67, 68, 69, 70, 71, 72, 73,
On site Parking & Fencing
Objectives: 23
Principles of Development Control: 75, 76

Storage Areas
Principles of Development Control: 80, 81

Environmental

Crime Prevention Through Urban Design
Objectives: 24
Principles of Development Control: 82, 83, 84, 85

Waste Management
Objectives: 28
Principles of Development Control: 101, 102, 103, 104

Energy Efficiency
Objectives: 30
Principles of Development Control: 106, 107, 108, 109, 111, 112, 113, 114, 115

Micro-climate & Sunlight
Objectives: 33, 34,
Principles of Development Control: 119, 120, 121, 122, 124, 125,

Stormwater Management
Objectives: 35,
Principles of Development Control: 128,

Infrastructure
Objectives: 40, 41
Principles of Development Control: 132, 133, 135

Heritage & Conservation

Objectives: 42, 43,
Principles of Development Control: 140, 141,

Built Form & Townscape
Objectives: 46, 47, 48
Principles of Development Control: 167

Height, Bulk & Scale
Principles of Development Control: 168, 170, 172,

Plot Ratio
Principles of Development Control: 175

Maximum Dwelling Density & Floor Space
Principles of Development Control: 176

Landscape Open Space
Principles of Development Control: 177

Building Set Backs
Principles of Development Control: 178

Composition & Proportion
Principles of Development Control: 180, 181,

Articulation & Modulation
Principles of Development Control: 182, 183, 184, 186,

Materials, Colours & Finishes
Principles of Development Control: 187, 188, 189, 190

Sky & Roof Lines
Objectives: 49
Principles of Development Control: 192, 193, 194, 195

Active Street Frontages
Objectives: 50, 51
Principles of Development Control: 196, 198, 199,

Demolition
Objectives: 53
Principles of Development Control: 203

Transport & Access

Access & Movement
Objectives: 60
Principles of Development Control: 224

Pedestrian Access
Objectives: 61, 62, 63
Principles of Development Control: 230, 231, 232

Bicycle Access
Objectives: 64, 65
Principles of Development Control: 234, 235, 236, 237, 238

Public Transport
Objectives: 66

Traffic & Vehicle Access
Objectives: 68, 69, 70
Principles of Development Control: 241, 243, 246

Car Parking
Objectives: 71, 72
Principles of Development Control: 251, 252, 253, 254, 255

Economic Growth & Land Use

Objectives: 73, 74, 75, 76
Principles of Development Control: 266, 270, 271

CITY LIVING ZONE

Objectives: 1, 2, 3, 4
Principles of Development Control: 1, 2, 3, 5, 6, 7, 8, 9, 10, 11,

South Central Policy Area

Objectives:
Principles of Development Control: 1, 2, 3, 4, 5, 6

# 6. ASSESSMENT

The following matters are most relevant in the assessment of this proposal.

## 6.1 Relevant Authority

Schedule 10 of the Development Regulations 2008 identifies that for development proposed in the City of Adelaide, where the total amount to be applied to any work when all stages of the development are completed exceeds $10M, the Development Assessment Commission is the relevant authority.

I am instructed by the Applicant that the cost of the proposed development will be $11.8 M based on advice provided by Rider Levett Bucknall (Appendix 6).

Accordingly, the Development Assessment Commission (now constituted as the State Commission Planning Authority) is the relevant authority for the purposes of assessing and determining this development application under Section 32 and 33 of the Development Act, 1993.

## 6.2 Nature of Development

The proposed development is mixed use in nature and is comprised of a café (shop) at ground level, office and consulting rooms at levels 1 and 2, and residential dwellings at level 3, 4 and 5, all of which are forms of development requiring consent for assessment on merit in the City Living Zone.

## 6.3 Referrals

Pursuant to Section 37 of the Development Act, 1993, the relevant authority must refer an application for consent that relates to a class of development prescribed body under Schedule 8 of the Development Regulations, 2008 to the relevant body for a response within the prescribed period, i.e.

**Development Regulations 2008—27.1.2017**
Schedule 8—Referrals and concurrences

| Development | Body | Period | Conditions |
|---|---|---|---|
| | *Arrangements) Act 1995* | | |
| **24—Certain development in City of Adelaide** | | | |
| Development in the area of the Corporation of the City of Adelaide for which the Development Assessment Commission is the relevant authority under Schedule 10 clause 4B (excluding variations of applications—see clause 1(5a) of this Schedule) | Government Architect or Associate Government Architect | 8 weeks | Regard |

As discussed above, the Applicant has engaged with the Government Architect ahead of formal lodgement, with the advice provided being generally supportive subject to specific matters being addressed and resolved. It is anticipated that this preliminary advice will form the basis for the formal response.

## 6.4 Public Notice Category

Principle of Development Control 17 for the City Living Zone assigns all development as Category 2 for the purposes of Section 38 public notification procedures, other than that classified as *non-complying* (which this is not) and those specific forms of development that are assigned Category 1.

Category 2 provides that notice must be given to an owner or occupier of each piece of adjacent land. Adjacent land, as defined by Section 4 of the Development Act means land which abuts or is within 60 metres directly separated by a road or street, watercourse or reserve.

A representation under Section 38 of the Development Act must be lodged within 10 business days and may be heard by the relevant authority. The Applicant is to be provided with the right of reply both in writing and before the authority, if the representor is heard, when the matter is being determined

## 6.5 Desired Character

As described in the statement of desired character, the City Living Zone is spread across the southern half of Adelaide, flanked to the north by the City's central business area, with mixed use apartment and commercial corridors framing the southern and western margins of the Zone.

The Zone covers an extensive area and comprises the City of Adelaide's main residential living districts. The City Living Zone will provide a high quality residential living environment along with related non-residential uses compatible with residential amenity, as articulated in the Policy Areas.

The statement of desired character for the South Central Policy Area 32 is more specific in this regard, providing for medium scale residential development supported by a range of uses that provide valued local services including shops, offices and consulting rooms.

More specifically, non-residential land uses such as shops, consulting rooms and offices area appropriate at the ground level of buildings, with dwellings provided above at increased density so as to increase residential population. There is a strong emphasis on maintaining the area's residential amenity.

In terms of building form and urban design, the statement for the policy area seeks buildings that have a strong horizontal emphasis with clearly defined and segmented vertical elements. Facades will be well articulated with finer details that contribute positively to the public realm.

At street level, visual interest and activity will be enhanced through considered design approaches, including buildings that contribute towards activating the street, by the careful treatment of driveways and access areas, and by avoiding blank walls at street level.

The high quality of landscaping, of both public and private space, will provide the Policy Area a high level of amenity. Vehicle movement within the Policy Area will be primarily for local and visitor traffic, with an increasing promotion of pedestrian and cycling links through the City.

On my review, I find the proposed development to be generally compatible with the respective statements of desired character. To the extent that the proposal may not be consistent with specific elements of these statements, I am of the view that such would not erode or frustrate the achievement of such.

In saying this, I do not read the Development Plan as saying that developments may not include non-residential uses above the ground floor. Rather, I interpret this statement as saying that non-residential uses are appropriate at ground level, acknowledging the varied nature of development in this policy area.

This interpretation is informed and supported by Policy Area Principle of Development Control 1 which states that '*the Policy Area will primarily comprise residential development or mixed use buildings where non-residential development is appropriate at the ground or first floor*'.

## 6.6 Land Use & Economic Growth

As noted above, this Zone and Policy Area provides for residential development together with a range of uses including shops, offices and consulting rooms. It is important to note that the South Central Policy Areas is somewhat more specific in relation to its support for non-residential uses than the other policy areas.

It should also be acknowledged that this land has a frontage to Carrington Street which is increasingly non-residential in nature as one moves towards the west. Carrington Street plays an important role in the economy of the City providing small scale accommodation for a range of businesses that benefit from this location.

These land uses have historically included offices, consulting rooms and legal chambers, together with small retail and service based uses that provide efficient access to a limited range of goods and services. I expect that there will continue to be a need for such uses in this locality.

In this regard, residential dwellings ought not be viewed as the preeminent or primary land use to the detriment of other economic activities that may support both an increasing residential population within the policy area, and the function and role of the City more generally.

That said, the proposal is effectively half residential and half non-residential.

The Adelaide (City) Development Plan unlike others for the greater metropolitan area, more specifically expresses policies that promote the economic role and function of the City in the broader State context. There is a clear call for investment and activity within the City so as to bolster this function.

I also note Objective 75 which seeks development that reinforces clusters and nodes of activity, with Principle of Development Control 266 speaking to maximising opportunities for co-location, multiple use and sharing of facilities, such that as proposed by this development.

In providing the opportunity for the proposed non-residential uses, it should not detract from or conflict with the continued use of existing and the development of new residential dwellings in terms of giving rise to undesirable externalities or impacts such that may unreasonably erode the current level of amenity enjoyed.

## 6.7 Built Form & Townscape

The Council wide section of the Development Plan provides a comprehensive suite of policies that speak to the design and appearance of new buildings, having regard to the context in which they are proposed and the desired character sought for particular areas.

While I defer to the expert opinion to be expressed by the Government Architect as part of the formal referral process to be observed, I am of the view that the proposal will result in a high quality design outcome for this site and will make a positive contribution to the public realm and townscape of this locality.

The proposed building is appropriate having regard to:

- the height, scale and massing of adjoining and nearby buildings;
- the site's position relative to taller development in the adjacent zone;
- the alignment of existing development along Carrington Street;
- contribution to pedestrian comfort and weather protection;
- crime prevention through urban design;
- active frontages that provides visual interest at street level;
- the composition and proportion of facades, including the use of balconies;
- fine detailing, articulation and modelling of facades;
- the manner by which vertical and horizontal proportions are balanced;
- high quality materials will provide a durable finish in the longer term;
- the manner by which plant and equipment is screened at roof top; and
- the commitment to landscape planting as part of this development.

Zone provisions speak of new buildings taking reference from building heights within the locality. Where a building higher than the prevailing is proposed, the taller elements should be set back from street frontages to avoid detrimental impact on the prevailing character.

I note that the highly modelled nature of the front facade to Carrington Street combined with a strong horizontal element in the form of a projecting canopy provides a podium effect that references the scale of existing development without having to set the upper levels further back.

The proposal is clearly beyond the plot ratio of 2.0 expressed from the Policy Area and is taller than the four storeys or 14 metres provided for. In this regard, the proposal represents a departure from the quantitative measures expressed by the Development Plan.

As to the effect or impact arising from this departure, I am not so concerned in so far as this site displays characteristics that are somewhat different from other locations within the Policy Area, noting its frontage to Carrington Street and position adjacent to the City Frame Zone.

The additional floor area and building height, both individually and in combination do not contribute to an over development of the land which clearly has capacity for a more robust form of development that may otherwise be appropriate elsewhere within the heart of the Zone and Policy Area.

I note in this regard, Council wide Objective 47 (a) which states that '*buildings should be designed to provide for a transition of building heights between Zones and Policy Areas where buildings height guidelines differ*'. The adjacent City Frame Zone to the east provides for buildings up to 29 metres (eight storeys).

The proposal provides for a suitable transition in building scale between the recently completed eight storey residential apartment building fronting Hurtle Square and the lower scale development anticipated for the balance of the City Living Zone and Carrington Street further to the west.

Can I respectfully suggest that it would serve no practical planning purpose to artificially limit or reduce the height of development on this land to four levels or 14 metres so as to satisfy the quantitative measure expressed, and that the planning authority may reasonably accept the proposal in its current form.

The extent of departure does not render the proposal seriously at variance.

## 6.8 Heritage Adjacency

As noted above, the site is adjacent to two heritage places:

- 132-140 Carrington Street, Adelaide (State Heritage Place)
- 5-11 Mocatta Place, Adelaide (Local Heritage Place – Townscape)

The Development Plan sets out a number of policies that seek to ensure that development undertaken on adjacent land ought not compromise the heritage values and setting of these places. Specific reference is made to heights, set backs, materials and finishes.

While technically adjacent (within 60 metres directly separated by a road or street) the site of proposed development is well removed from the immediate context of these heritage places, and is rather opposite rather than adjacent in the ordinary meaning of the word.

Accordingly, I am of the view that the proposed development would have no material effect on the heritage value or setting of these places which would continue to display the attributes and characteristics that gave rise to their respective listing in the first place.

## 6.9 Transport & Access

While I defer to the expert advice provided by Mr Phil Weaver, Traffic Engineer in the first instance, I outline my views from a town planning perspective in relation to the provision of on-site car parking and safe access from the public road frontage.

It is first appropriate to note that at a strategic level the Development Plan seeks to promote the use of sustainable transport consistent with State Government objectives and development that supports a shift towards active modes of movement including public transport, cycling and walking.

As an aside, I note the City of Adelaide's Smart Move transport and movement strategy which sets out a long-term plan of providing choice whether it be by foot, bike, car or public transport. A reduction in the use of and reliance upon passenger vehicles is a central focus of this strategy.

In as much as there will continue to be a need for adequate on site car parking, public policy is seeking to reduce the current focus of investment and infrastructure on this element, and that it ought not dominate new development as has been the practice in the past.

This is as much changing behaviour as it is the supply of parking.

In this context, the Development Plan identifies a maximum and minimum provision for on site car parking according to nominated land uses, having regard to location within the City and the availability of public car parking opportunities including on street and parking stations.

Having regard to the rates specified by Table Adel/7, the proposal on my calculation would generate a theoretical requirement for 25 car parking spaces. However, taking into account the existing shortfall in car parking associated with the current use of land, there would be slight improvement (one space).

Mr Weaver analyses the likely effects of such a shortfall having regard to not only public parking opportunities within the near and wider locality, but also the efficiencies and economies derived from the manner in which the uses on site and that within the surrounding locality complement each other.

That is, the car parking demand generated by this development is not a linear equation such that the demand arising from each land use compounds. Rather, there needs to be an allowance factored in for shared or complementary use such that reduces the overall demand profile.

As discussed by Mr Weaver in his advice, a significant proportion of practitioners that will occupy office and consulting room accommodation within the proposed facility also provide services at nearby hospitals including Calvary, St Andrew's and the new Royal Adelaide.

In most instances practitioners and staff will travel between facilities by means other than personal vehicles thereby reducing the reliance on such vehicles during business hours. The parking demand profile for this development is expected to be very much different to that which may occur in a more remote location.

The proximity of this land to the nearby Capital City Zone should also be considered (approximately 100 metres to the north) where there is no express requirement for the provision of on site parking. This small and isolated pocket of the City Living Zone is removed from the balance to the south.

Furthermore, this is not a predominantly residential neighbourhood that may be impacted by an increase in demand for on street parking. The parking regime in this locality provides for an equitable turnover of parking resources during business hours for use by visitors to the area.

To the extent that the proposed development may give rise to a demand for car parking beyond that provided on site, I am confident that such demand will be satisfied by the short term parking opportunities available on street and within nearby public parking stations including that on Angas Street.

## 6.10 Environmental

Environmental considerations in relation to development of the nature proposed range from crime prevention through urban design, waste management, energy efficiency and stormwater management. Policies within the Development Plan in this regard are expressed in an aspirational rather than prescriptive manner.

In respect to crime prevention the proposed development would present to the public realm in a positive manner that provides for a high level of passive surveillance of adjacent streets at both ground level and from upper level windows and balconies over a 24 hour period given its mixed use nature.

The proposal provides an appropriate address and entry lobby for residents and visitors accessing the building by foot from Carrington Street, with secure entry for residents from the car parking area to the rear accessed from Mocatta Place. Secure access will be managed by key card technology or similar.

A comprehensive waste management plan has been commissioned by the Applicant from Colby Phillips which has more than adequately established the manner by which users of this building may hold waste and recyclable materials ahead of regular collection by either private contractor or the Council service.

The proposal has been designed to perform efficiently in respect to energy use, with natural light penetrating deep into floor plates such that reduces the reliance on artificial lighting sources. The extensive use of glass in the front and rear facade maximises the opportunity for natural ventilation.

Appropriate shading of glazed facades during summer months has been incorporated, with high performance glass to be specified for northern orientation. Solid concrete panel boundary walls will limit heat gain from the east and west during the morning and afternoon periods.

An extensive array of photovoltaic panels are to be placed on the roof of the proposed building in order to supplement electrical power use, with common areas within the building such as the ground floor entry lobby, café and parking garage illuminated using this energy source.

Further details regarding the energy performance of this building is provided on the proposal plans and within the summary provided by the Architect. It is proposed to achieve an energy performance rating equivalent to 6 stars or better under the Nabers measurement tool.

A Construction Environment Management Plan will be prepared and observed.

# 7. CONCLUSION

Having regard to the above matters, I am of the opinion that the proposal is an acceptable form of development that sufficiently accords with the relevant provisions of the Development Plan such that it warrants consent. To the extent that it may depart from certain provisions, no serious impacts are anticipated.

The Applicant has a strong commitment to achieving a high level of design quality, with the resultant proposal presented by Stallard Meek Architects setting a new benchmark for mixed use development along Carrington Street, as supported by the Government Architect.

The building presents as a suitable transition from the taller development within the adjacent City Frame Zone to the east down to the lower scale development further to the west along Carrington Street, making a very positive contribution to streetscape character and function.

This is a true mixed use form of development, as encouraged by the Development Plan, but rarely seen in the City. The complementary mix of land uses will leverage the synergies arising from co-location resulting a highly efficient building form and function.

Uses such as The International Spine Centre are of strategic importance to the South Australian economy, with this development providing an environment conducive to collaboration with complementary uses, further enhancing this emerging cluster of mutually reinforcing uses around Calvary Hospital.

Accordingly, I comment this development to the Panel.

PHILLIP BRUNNING & ASSOCIATES PTY LTD

PHILLIP BRUNNING RPIA
Registered Planner

# APPENDIX 1

The Carrington
COLLABORATIVE
AN INSPIRED COMMUNITY

# APPLICATION TO THE STATE PLANNING COMMISSION FOR MIXED USE DEVELOPMENT 125-129 CARRINGTON STREET, ADELAIDE

## CONTENTS



stallard meek
architects

## THE PROBLEM WITH HEALTHCARE

## ARCHITECTURAL SCOPE

**INFLUENCES**

3CA Foundation

International inspiration

Emotional connection

Humanistic approach

**COLLABORATION**

Integrated health and lifestyle businesses

Community kitchen table

Transitional spaces

Spiral staircase

Integrated research

**A BEAUTIFUL UNIQUE SPACE**

Hurtle Square greenery

Curated art with artist in residence

De-medicalisation

Natural light

**COMMUNITY IMPACT**

A place people want to visit & connect

Visitor experience

Sustainability

Economic growth

## COMMUNITY KITCHEN TABLE

## OUR RESPONSE

THE INTERNATIONAL SPINE CENTRE®
LIFE BEYOND PAIN

CONNECTIVITY

# The Carrington COLLABORATIVE

AN INSPIRED COMMUNITY

**COLLABORATION NOT JUST COHABITATION**

**PEOPLE, NOT PROBLEMS**

**TOTAL TRANSPARENCY**

**PERSON POINT-OF-VIEW DESIGN**

**BUILD COMMUNITY KITCHEN TABLE**

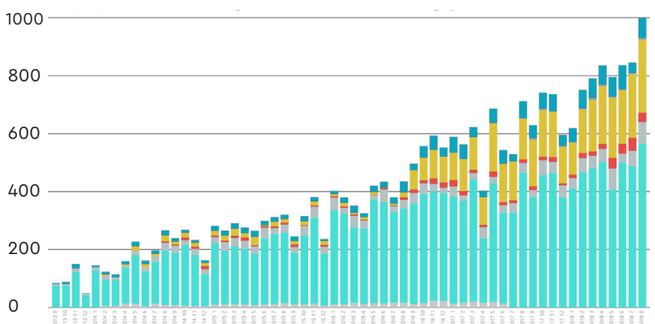
**ENVIRONMENT MATTERS**

**FOREVER PIONEERING**

## THE 3C APPROACH™

The philosophical foundations that deliver Coordinated Collaborative Care.

## PROVEN RESULTS




## EXTERNAL COLLABORATORS

**RETURN TO WORK SA/COMPENSABLE**

SISA: Wesfarmers Group, Coca Cola Amatil, SA Power Networks, Thomas Foods, Pernod-Ricard, Treasury Wines, Accolade Wines, Adelaide Brighton Cement

Corporate Health Group (CHG)

Jobfit

Lifetime Support Agency (LSA)

Unified Health Care Group

Gallagher Basset

Employers Mutual Ltd (EML)

Allianz

SGIC

TAC

Hampstead Spinal Injuries Unit

Griffiths Rehabilitation

Calvary Rehabilitation

SA Health

**RESEARCH & EDUCATION**

AO Spine

World Spine Summit

Edinburgh University

Napier University

SAHMRI

UniSA

University of Adelaide

SA Divisions of General Practice (SAPMEA)

Royal District Nursing Society

Chinese Medical Association

Australian Medical Association (AMA)

Pakistani Medical Association

Indian Medical Association

Sri-Lankan Medical Association

Physiotherapy Association & Practices

Practice Nurses and Managers

Local Government Association (LGASA)

**GOVERNMENT**

Government Organisations & Departments

SA Health

AHPRA

Department of Veteran Affairs (DVA)

Defence Force

Helping Heroes

SA Power Networks

**ASSOCIATIONS**

Paraquad SA

MS Society

Parkinson's Association

Muscular Dystrophy Association

Disability SA

Arthritis SA

Continence Association

Anglicare

**FIRST RESPONDERS**

SAPOL

Star Forces/Group

Fire Brigade

SA Fire & Emergency Service

SA Ambulance Service

**EXTERNAL COLLABORATIONS**

Various medical & non-medical businesses

Uniting Communities

Miss Gladys Sym Choon

The Executive Connection (TEC)

Luigi's Delicatessen

**EMERGENCY**

Emergency on call (private and public)

Calvary Wakefield

St Andrew's

**AGED CARE**

Kylari

ACH

ECH

Helping Hand

BUPA

**"Unity is strength... when there is teamwork and collaboration, wonderful things can be achieved"** MATTIE STEPANEK

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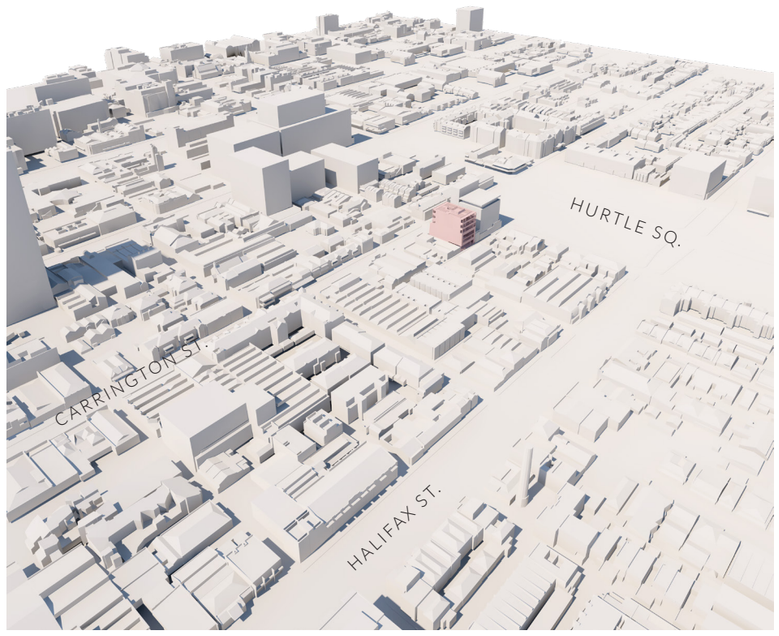
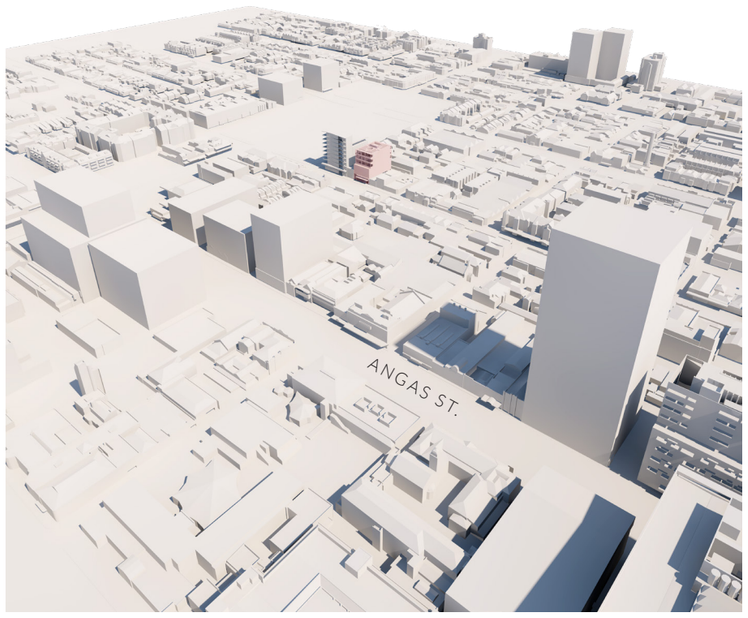
# URBAN CONTEXT

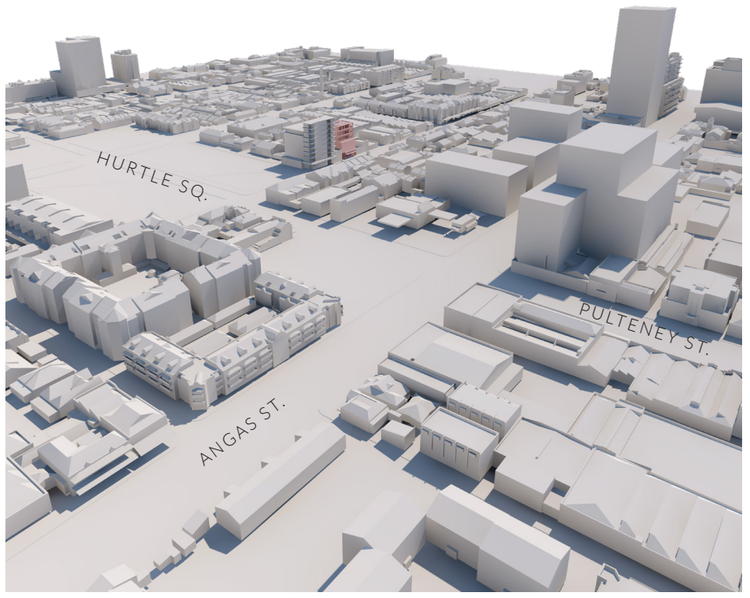

LOCATION PLAN
1:10000




NORTH EAST MASSING PERSPECTIVE




SOUTH EAST MASSING PERSPECTIVE

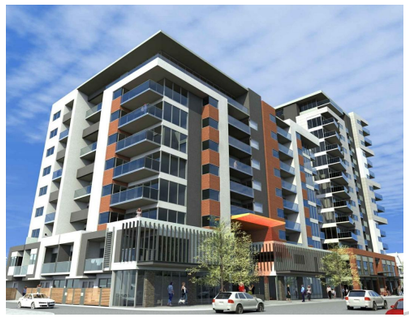



SOUTH WEST MASSING PERSPECTIVE


CARRINGTON ST NORTH STREET MONTAGE

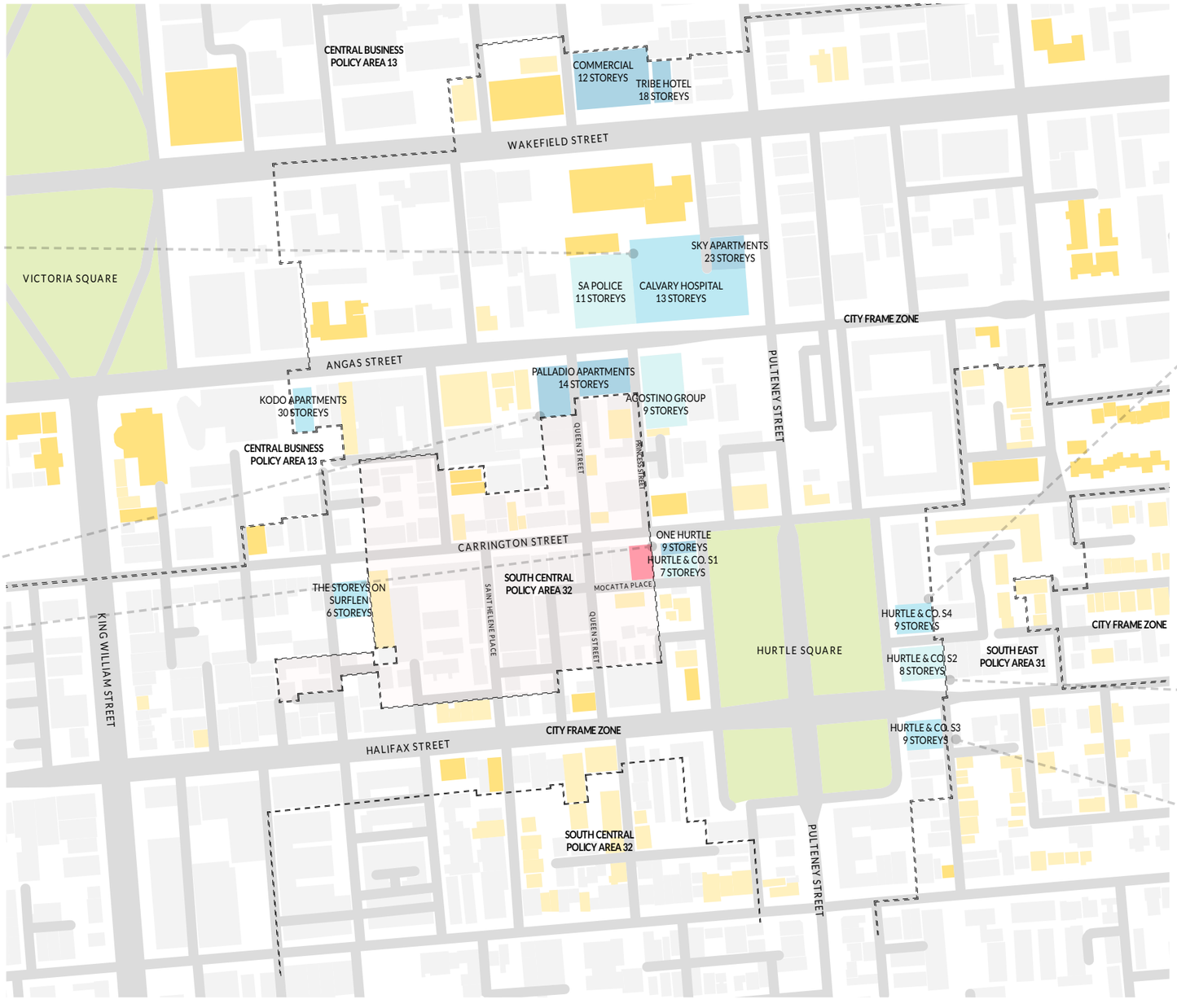
CARRINGTON ST SOUTH STREET MONTAGE


CALVARY HOSPITAL REDEVELOPMENT
UNDER CONSTRUCTION



PALLADIO APARTMENTS
PLANNING APPROVED

ONE HURTLE
PLANNING APPROVED




SITE ANALYSIS PLAN
1:4000

HURTLE & CO STAGE 4
PROPOSED

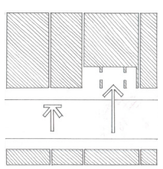
HURTLE & CO STAGE 3
UNDER CONSTRUCTION

HURTLE & CO STAGE 2
COMPLETED JUNE 2018

# DESIGN AND CONCEPT DEVELOPMENT / FRAMEWORK

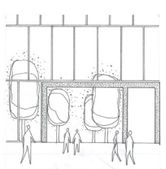
The project design development executes on the philosophical foundations of Coordinated, Collaborative Care - The 3C Approach™. Specifically the critical drivers are:

**1.** PEOPLE, NOT PROBLEMS



- All aspects of the building shall facilitate collaboration and strengthen the sense of community.
- Residents shall have the choice of public or private entry.
- There shall be a transitional space between the building and Carrington Street, a space for the public realm.

**2.** PERSON POINT-OF-VIEW DESIGN

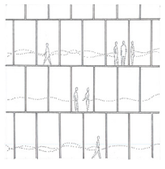


- The building shall relate to the form and proportion of the surrounding building stock whilst delivering a statement.
- The welcoming entrance shall draw people into the mixed-use building.
- The ground floor shall facilitate a sense of community and provide a central hub for all visitors.

**3.** COLLABORATION NOT JUST COHABITATION

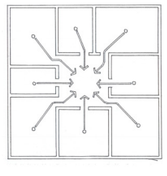
- The site sits between two frontages and has a deep floor plate. There shall be a central void to maximise natural light.
- The focal feature of the building shall be a spiral staircase, a beautiful transitional space that facilitates collaboration.

**4.** TOTAL TRANSPARENCY



- There shall be transparency to the commercial podium to generate an active façade.
- The building shall balance privacy and transparency.

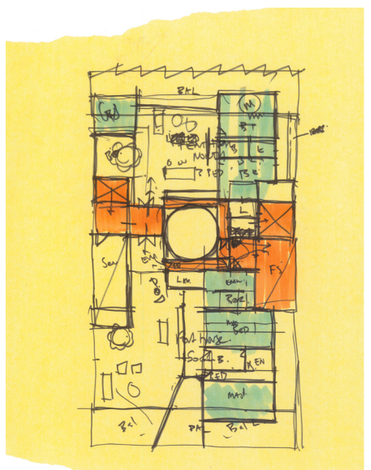
**5.** BUILD COMMUNITY KITCHEN TABLE

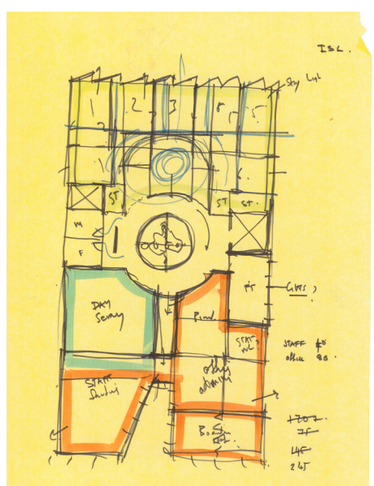


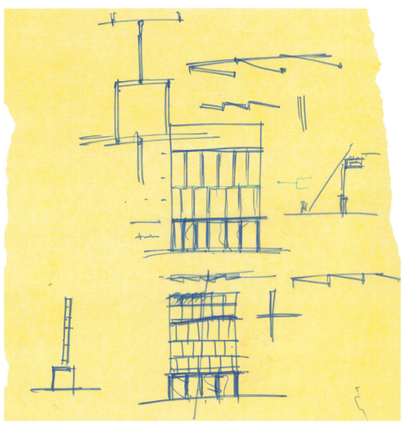
- The transitional spaces shall facilitate human interaction and teamwork.
- The spiral staircase shall allow for easy movement though commercial levels without utilising vertical transport.

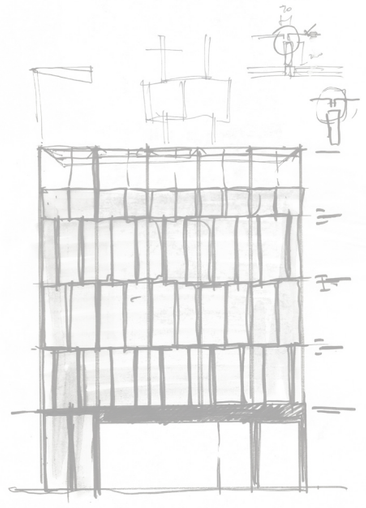
**6.** ENVIRONMENT MATTERS

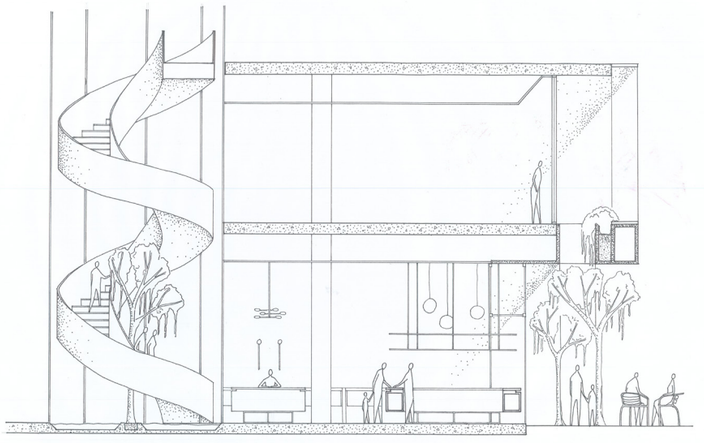
- The building shall draw on the proximity to the adjacent square and embody natural elements, creating a therapeutic space.
- Integrated art and sculpture shall enable a full sensory experience.
- The ground floor configuration shall be flexible to facilitate community meetings and educational events.
- The central spine shall provide ESD benefits including natural light, ventilation, non-mechanical movement and vegetation.

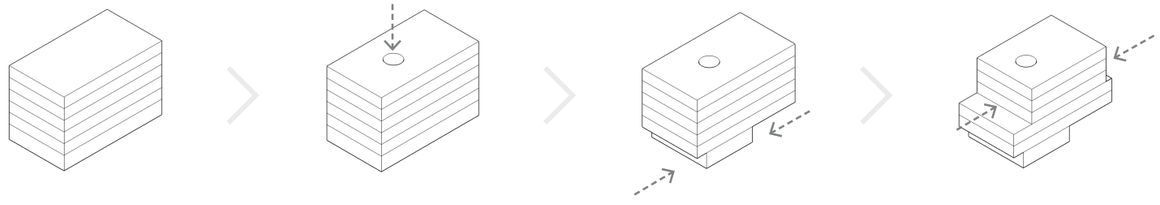












The Carrington
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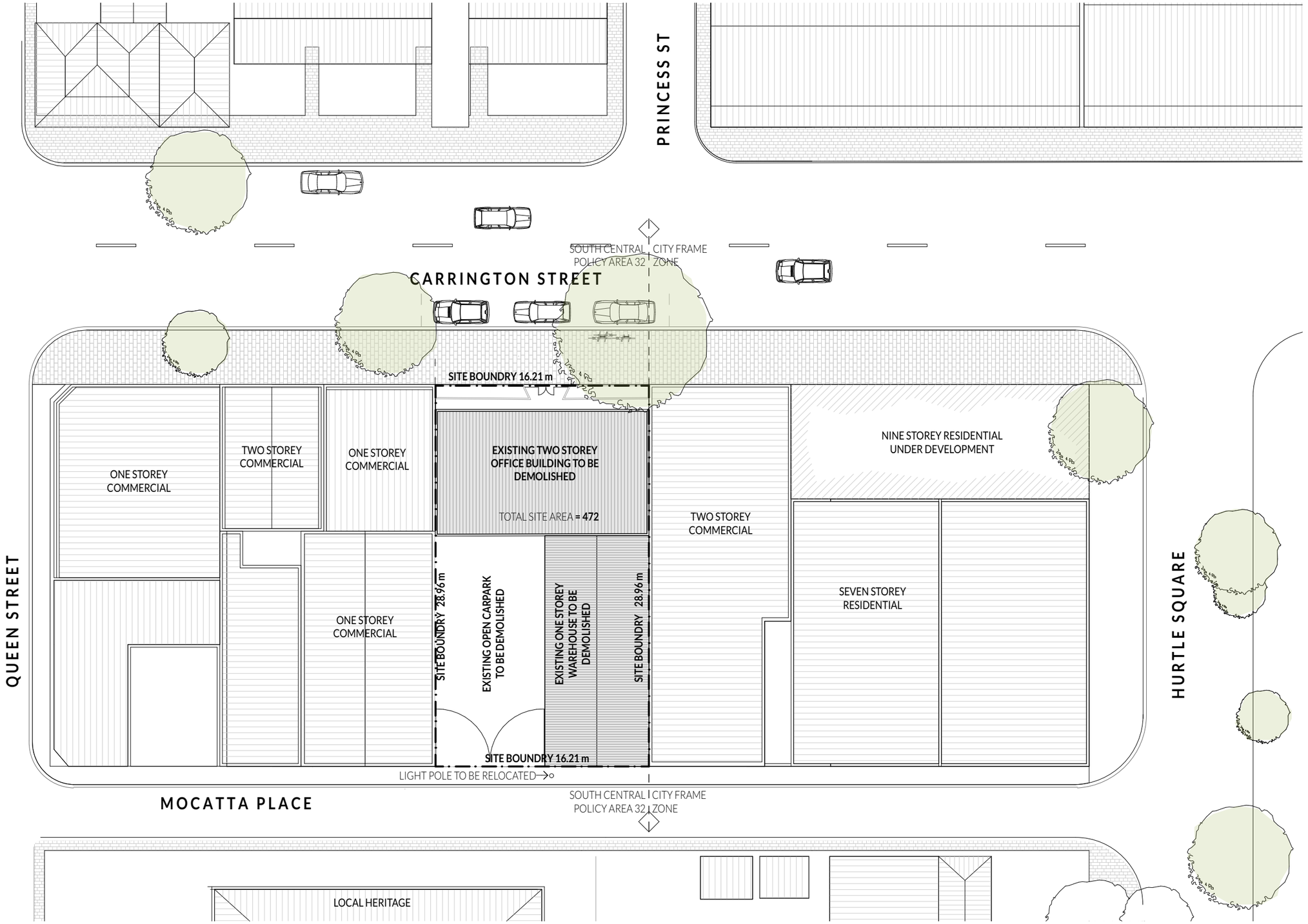
# SITE DEMOLITION PLAN




SITE DEMOLITION PLAN
1:300

The Carrington COLLABORATIVE
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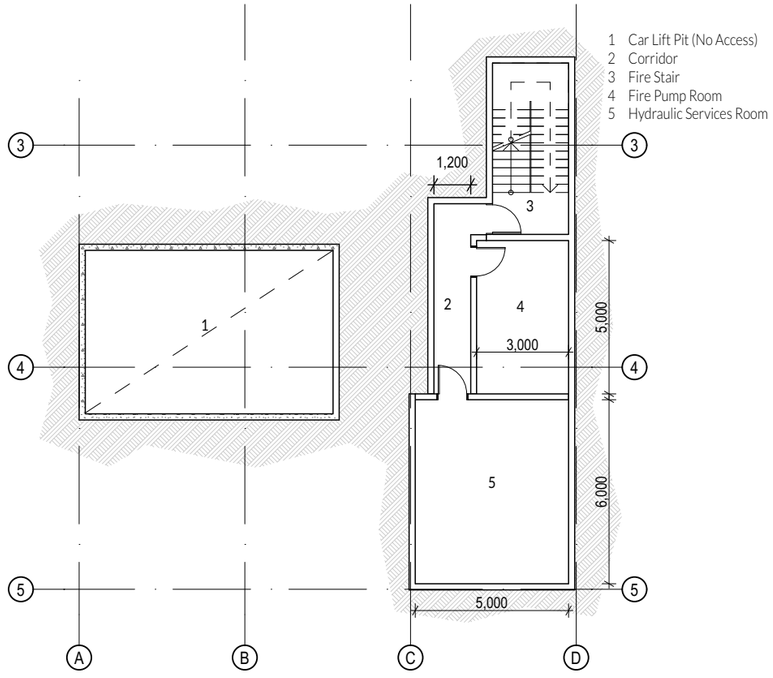
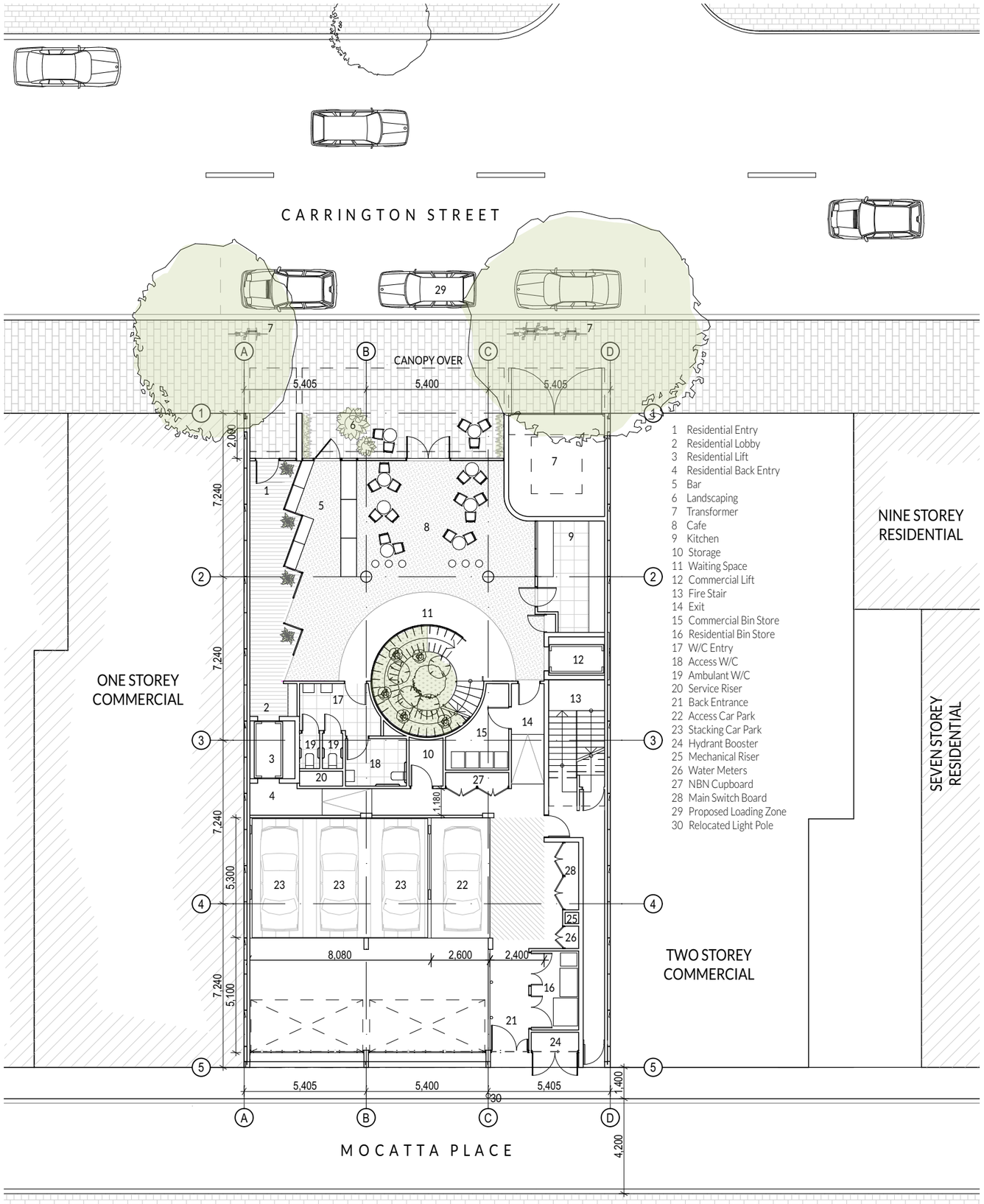
# GROUND FLOOR & BASEMENT PLAN

## BUILDING FLOOR AREA SCHEDULE

| | |
|---|---|
| SITE | 472m² |
| BASEMENT | |
| Circulation | 22m² |
| Sub Total | 22m² |
| GROUND FLOOR | |
| Amenity | 16m² |
| Circulation | 153m² |
| Cafe | 93m² |
| Sub Total | 262m² |
| LEVEL 1 | |
| Amenity | 18m² |
| Circulation | 78m² |
| Communal | 52m² |
| Gym | 79m² |
| Consulting Rooms | 90m² |
| Open Plan Office | 102m² |
| Sub Total | 419m² |
| LEVEL 2 | |
| Amenity | 18m² |
| Circulation | 78m² |
| Communal | 52m² |
| Gym | 79m² |
| Consulting Rooms | 90m² |
| Open Plan Office | 102m² |
| Sub Total | 419m² |
| LEVEL 3 | |
| Circulation | 48m² |
| Apartment 1 GFA | 133m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 313m² |
| LEVEL 4 | |
| Circulation | 48m² |
| Apartment 1 GFA | 139m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 319m² |
| LEVEL 5 | |
| Circulation | 48m² |
| Apartment 1 GFA | 139m² |
| Apartment 1 Balcony | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Balcony | 34m² |
| Sub Total (excl. balcony) | 319m² |
| **TOTAL BUILDING AREA** | **2357m²** |
| **FSR** | **5 : 1** |

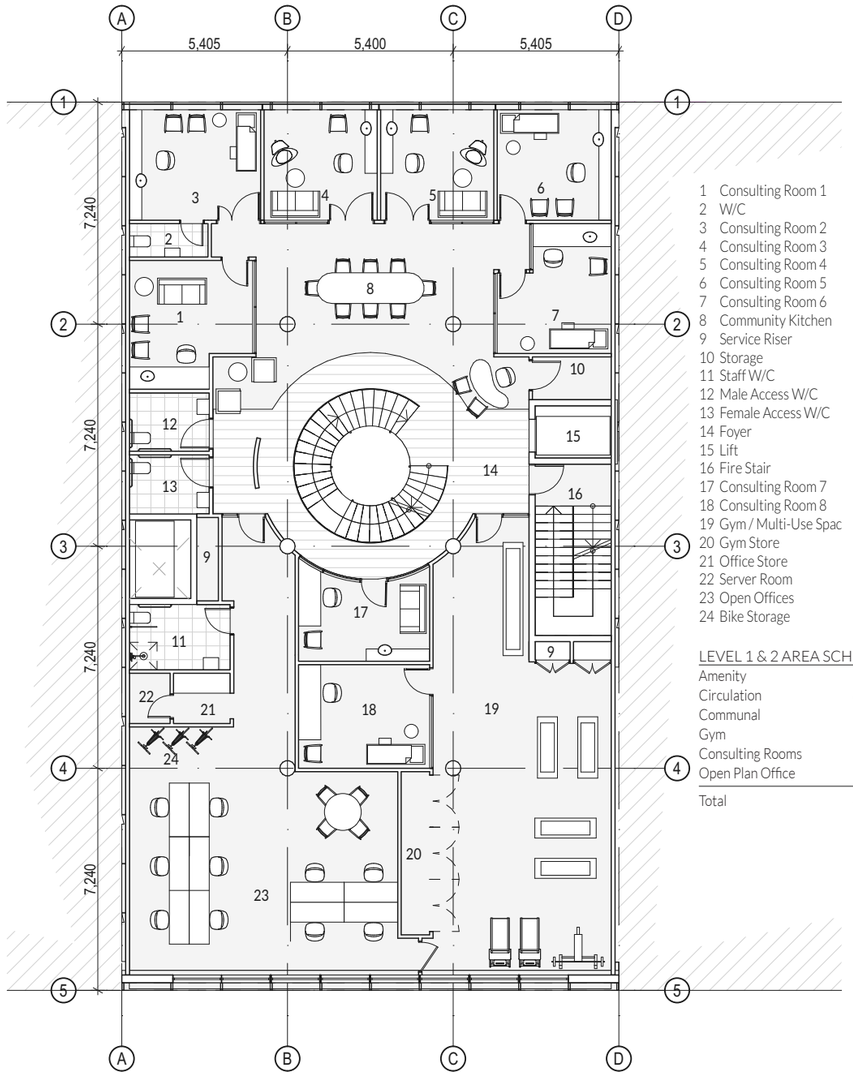



BASEMENT PLAN
1:200




GROUND FLOOR PLAN
1:200

# COMMERCIAL AND RESIDENTIAL PLAN

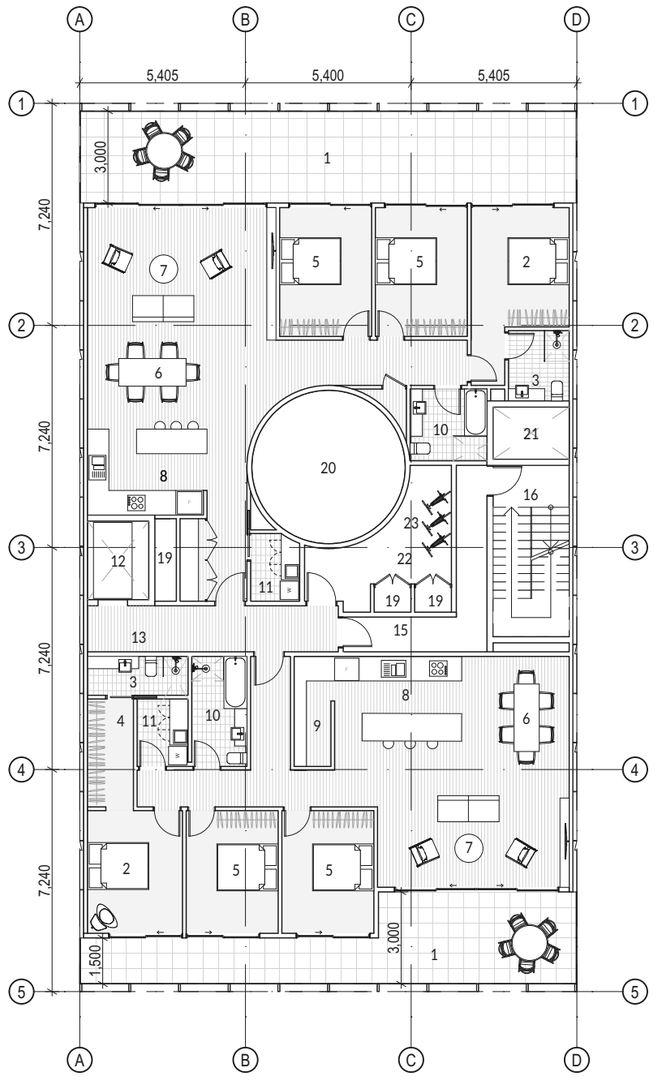



1 Consulting Room 1
2 W/C
3 Consulting Room 2
4 Consulting Room 3
5 Consulting Room 4
6 Consulting Room 5
7 Consulting Room 6
8 Community Kitchen
9 Service Riser
10 Storage
11 Staff W/C
12 Male Access W/C
13 Female Access W/C
14 Foyer
15 Lift
16 Fire Stair
17 Consulting Room 7
18 Consulting Room 8
19 Gym / Multi-Use Spac
20 Gym Store
21 Office Store
22 Server Room
23 Open Offices
24 Bike Storage

LEVEL 1 & 2 AREA SCHEDULE

| | |
|---|---|
| Amenity | 24m² |
| Circulation | 83m² |
| Communal | 52m² |
| Gym | 79m² |
| Consulting Rooms | 90m² |
| Open Plan Office | 102m² |
| Total | 430m² |

FIRST & SECOND FLOOR PLAN
1:200




1 Balcony
2 Master Bedroom
3 Ensuite
4 Walk-in Robe
5 2nd/3rd Bedroom
6 Dining
7 Living
8 Kitchen
9 Pantry
10 Bathroom
11 Laundry
12 Residential Lift
13 Residential Foyer
14 Distribution Board
15 Fire Exit
16 Fire Stair
17 Apartment 1 Store
18 Apartment 2 Store
19 Service Riser
20 Void
21 Lift Overrun
22 Services
23 Bike Storage

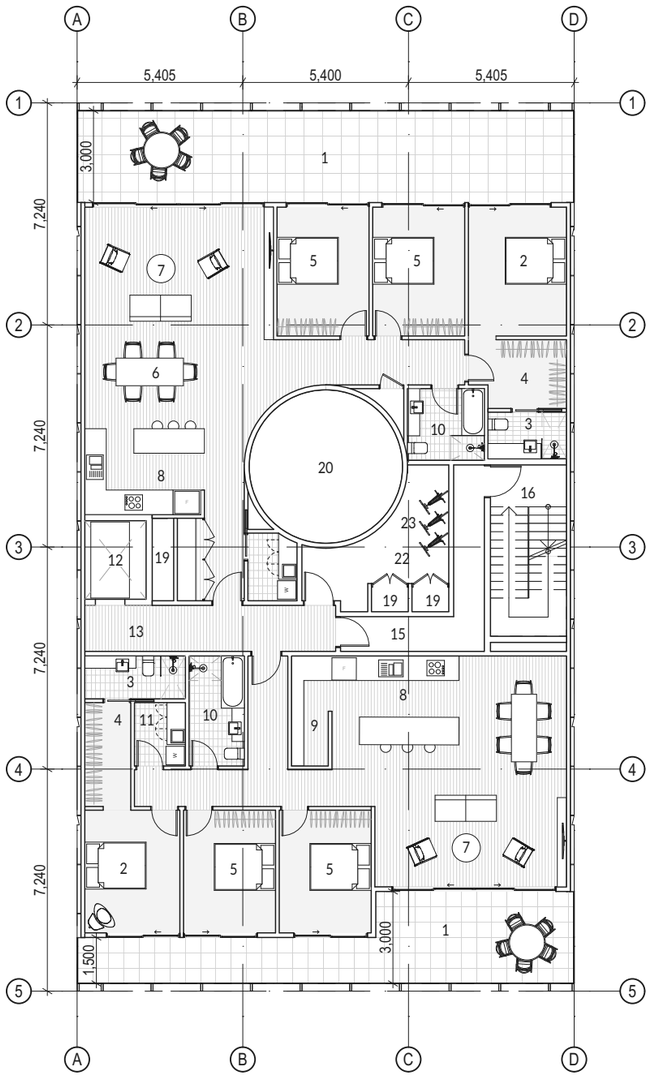
LEVEL 3 AREA SCHEDULE

| | |
|---|---|
| Amenity | 17m² |
| Circulation | 48m² |
| Apartment 1 GFA | 133m² |
| Apartment 1 Outdoor Living | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Outdoor Living | 34m² |
| Total | 412m² |

THIRD FLOOR PLAN
1:200

The Carrington COLLABORATIVE
AN INSPIRED COMMUNITY

# RESIDENTIAL AND ROOF PLAN

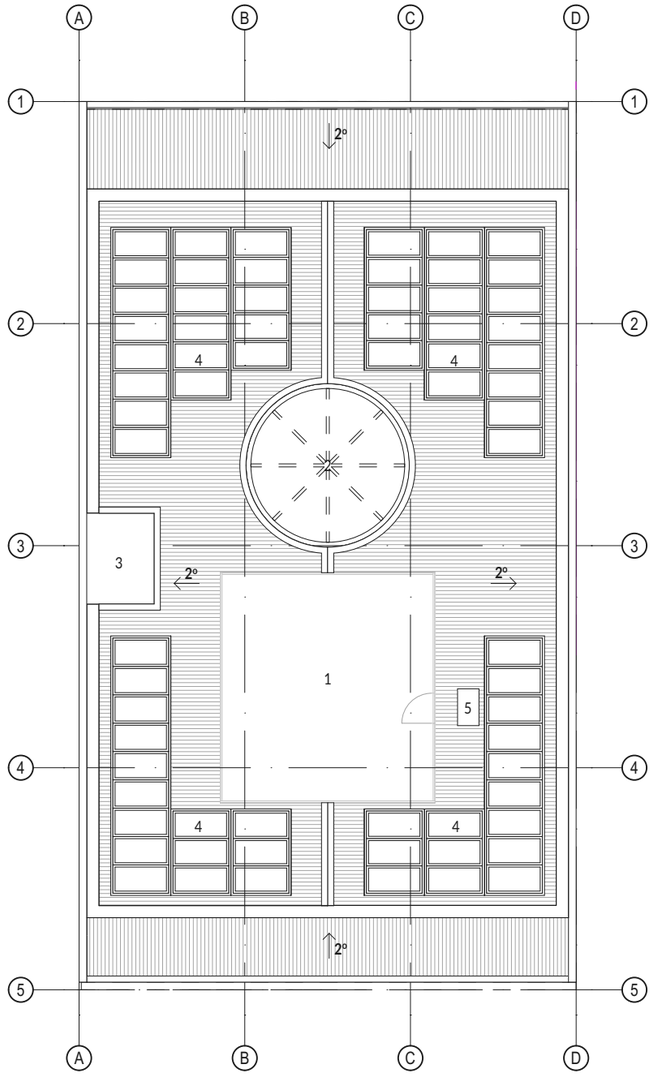



1 Balcony
2 Master Bedroon
3 Ensuite
4 Walk-in Robe
5 2nd/3rd Bedroo
6 Dining
7 Living
8 Kitchen
9 Pantry
10 Bathroom
11 Laundry
12 Residential Lift
13 Residential Foye
14 Distribution Boa
15 Fire Exit
16 Fire Stair
17 Apartment 1 Sto
18 Apartment 2 Sto
19 Service Riser
20 Void
21 Lift Overrun
22 Services
23 Bike Storage

LEVEL 4 & 5 AREA SCHEDULE

| | |
|---|---|
| Amenity | 17m² |
| Circulation | 48m² |
| Apartment 1 GFA | 138m² |
| Apartment 1 Outdoor Living | 48m² |
| Apartment 2 GFA | 132m² |
| Apartment 2 Outdoor Living | 34m² |
| Total | 417m² |

FOURTH & FIFTH FLOOR PLAN
1:200

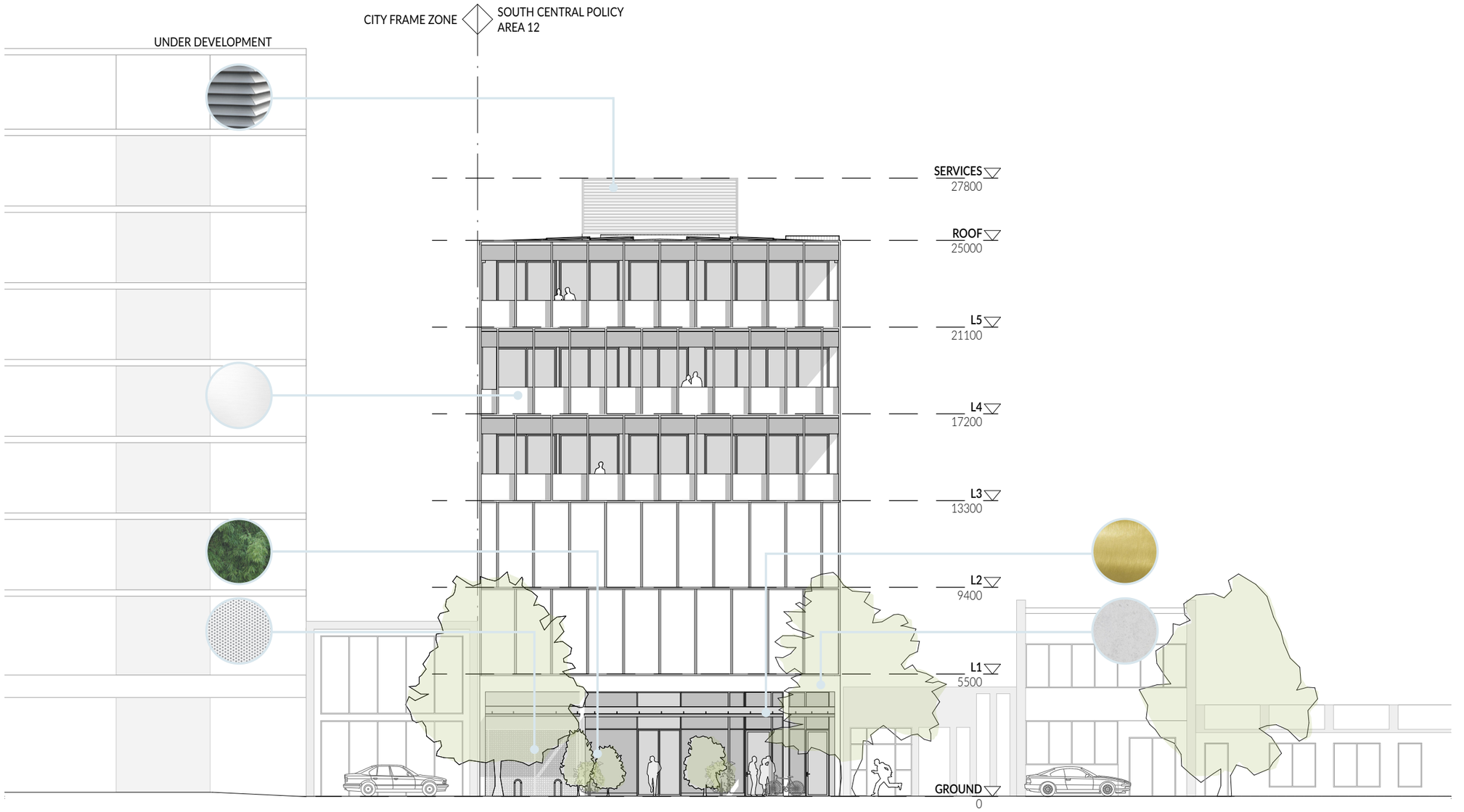



1 Plant Platform
2 Skylight
3 Lift Overrun
4 Solar Cells
5 Roof Access

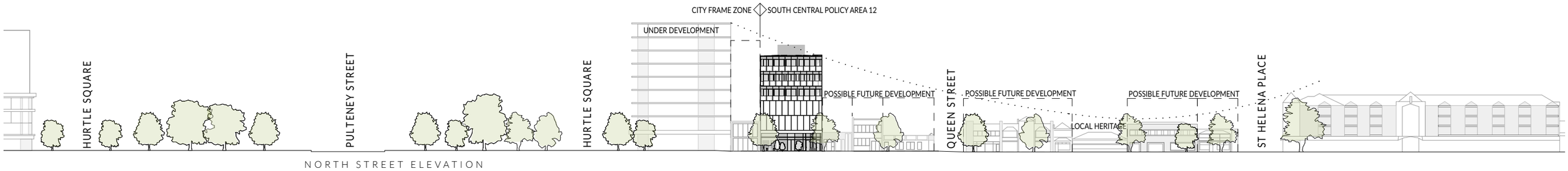
ROOF PLAN
1:200

The Carrington COLLABORATIVE
AN INSPIRED COMMUNITY

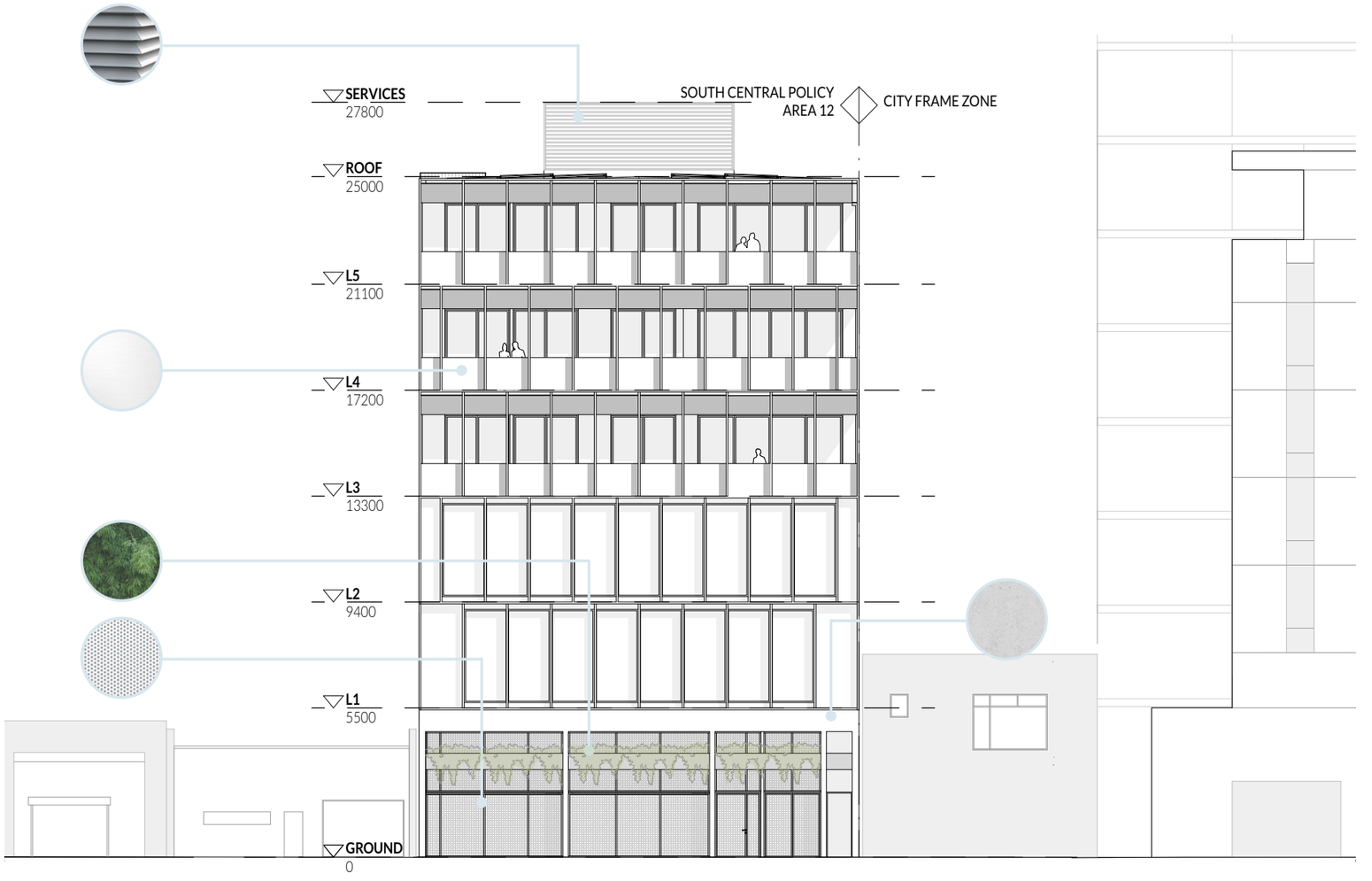
# ELEVATIONS



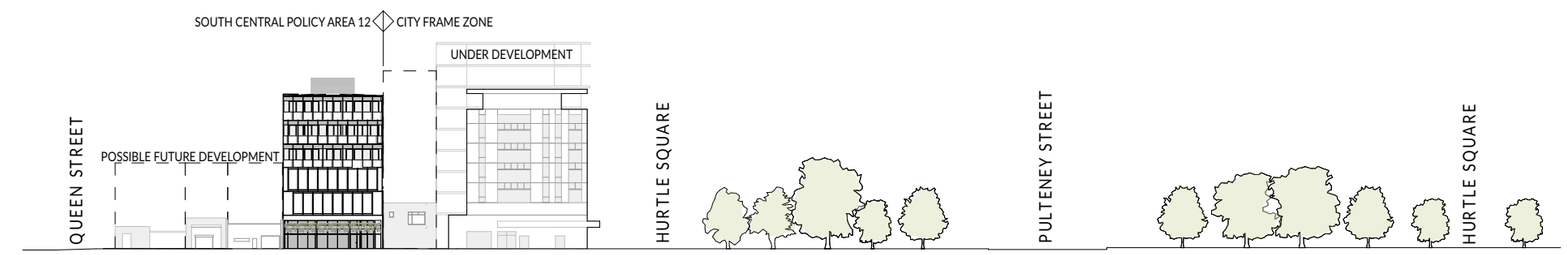

NORTH ELEVATION
1:200



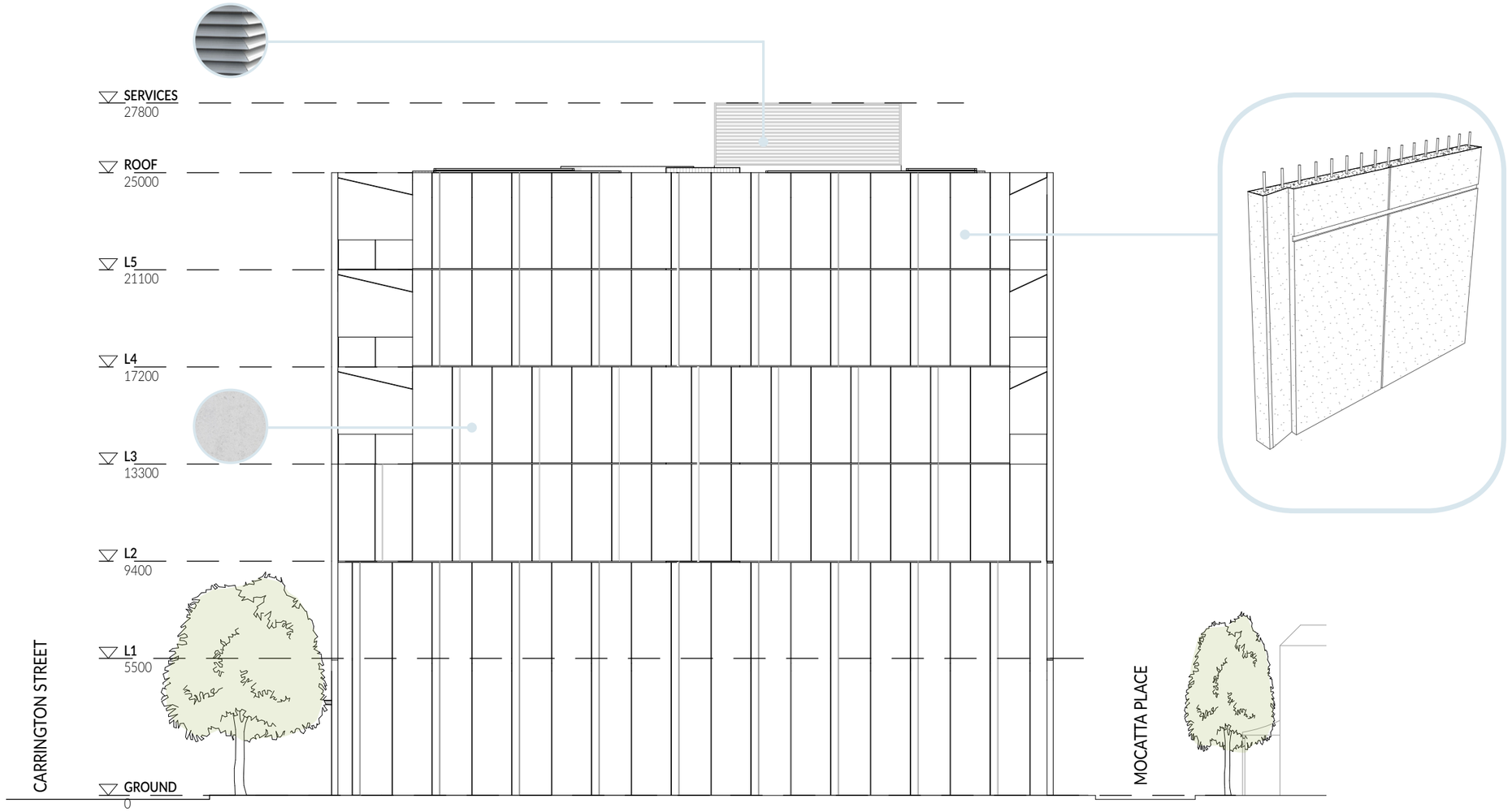

NORTH STREET ELEVATION
1:1000




SOUTH ELEVATION
1:200




SOUTH STREET ELEVATION
1:1000




WEST ELEVATION
1:200

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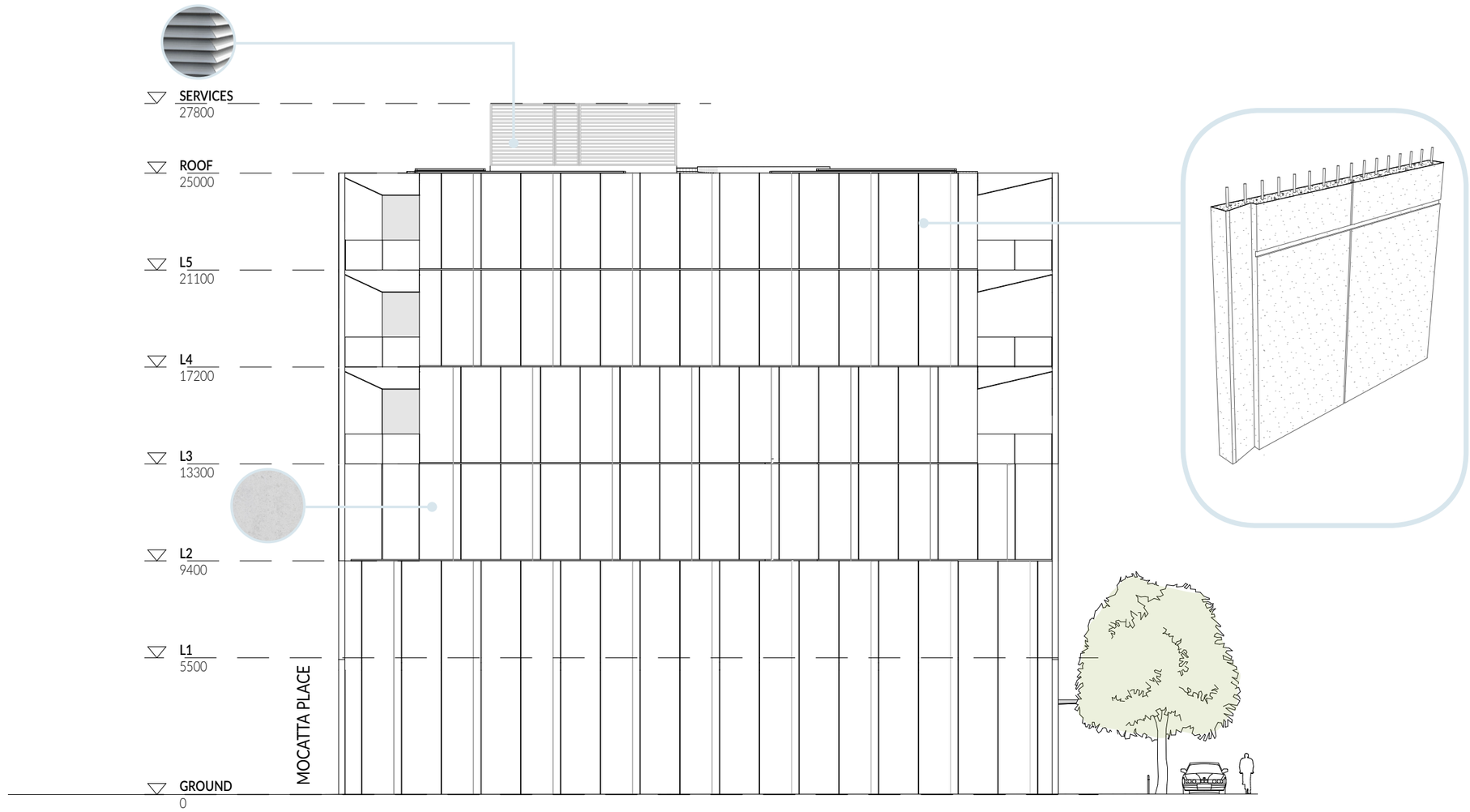
AN INSPIRED COMMUNITY

# ELEVATIONS




EAST ELEVATION
1:200







FLOAT GLASS

CONCRETE
Pre-cast concrete

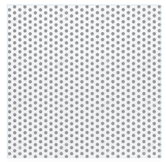
BRASS
Entry canopy & planters



WHITE ALUMINIUM
White aluminum framing to all external windows

VEGETATION
Throughout ground floor and void

PLANT ROOM
Con-form surface mounted platform with Standard Louvre

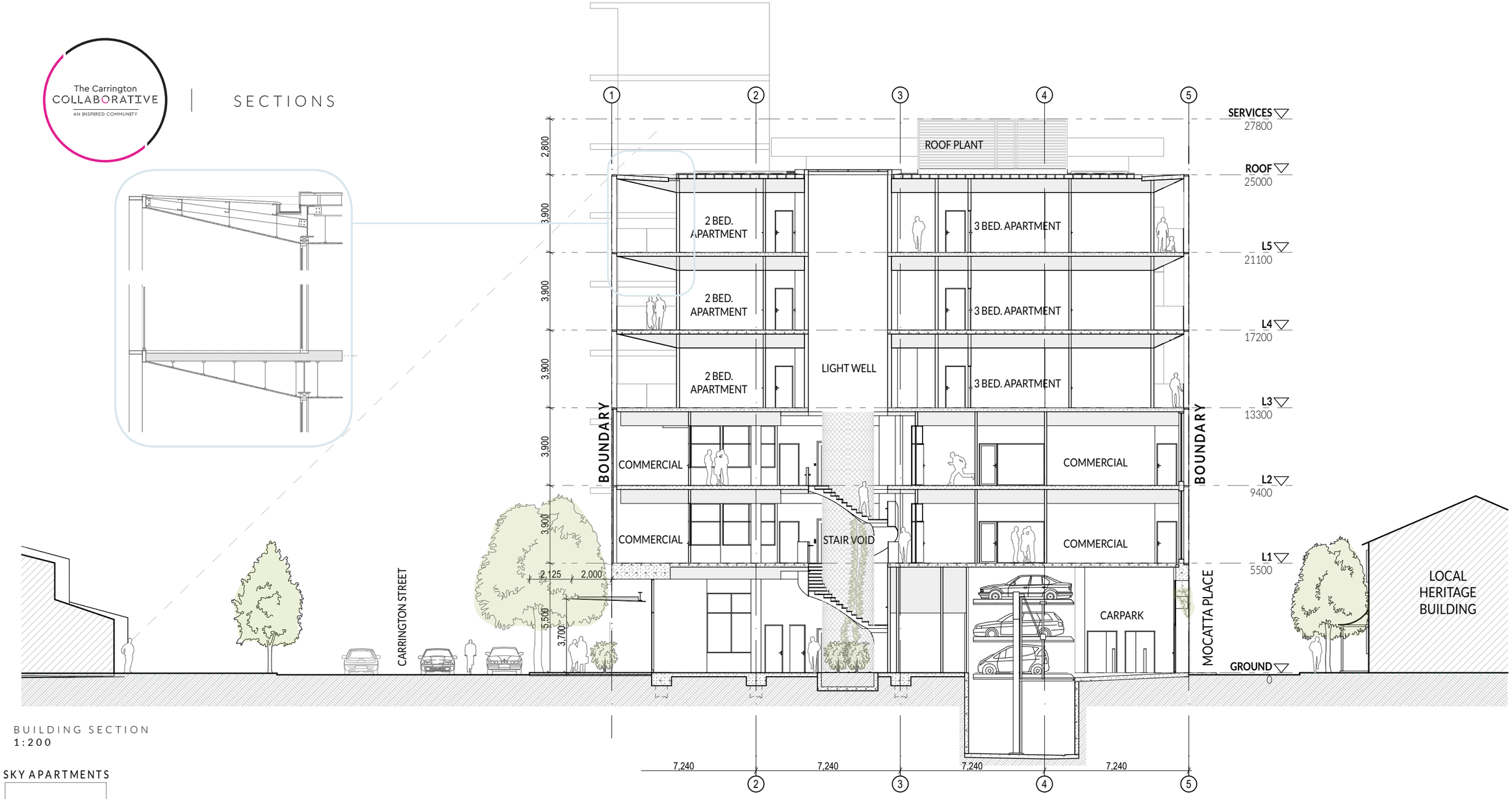


METAL SCREEN
Perforated metal screen with white finish

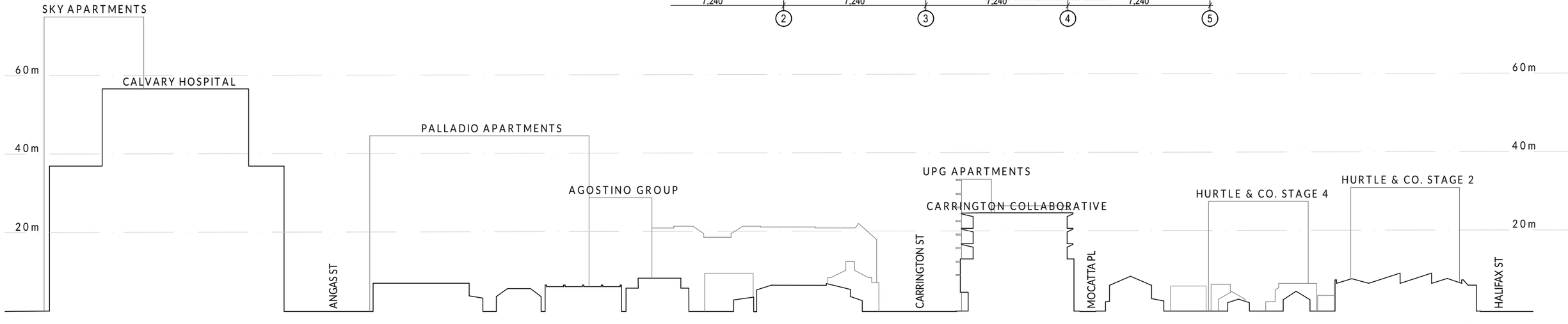
The Carrington COLLABORATIVE
AN INSPIRED COMMUNITY

# SECTIONS






BUILDING SECTION
1:200




PARTIAL CBD SECTION
1:1000

# ESD PRINCIPLES

1

## FLEXIBLE PROGRAM

- Open floor plates allow for adaptability in tenancy layouts into the future
- Adapts to changes in technologies (equipment), occupation and demographics

2

## HEALTH STRATEGIES

- Design prioritises use of the central stair
- Health and wellbeing encouraged through circulation + serendipitous encounters

3

## GREEN THRESHOLD

- Ground floor set back from street to draw in green space from Hurtle Square
- Use of Australian native species which are low maintenance and support local micro ecosystems

4

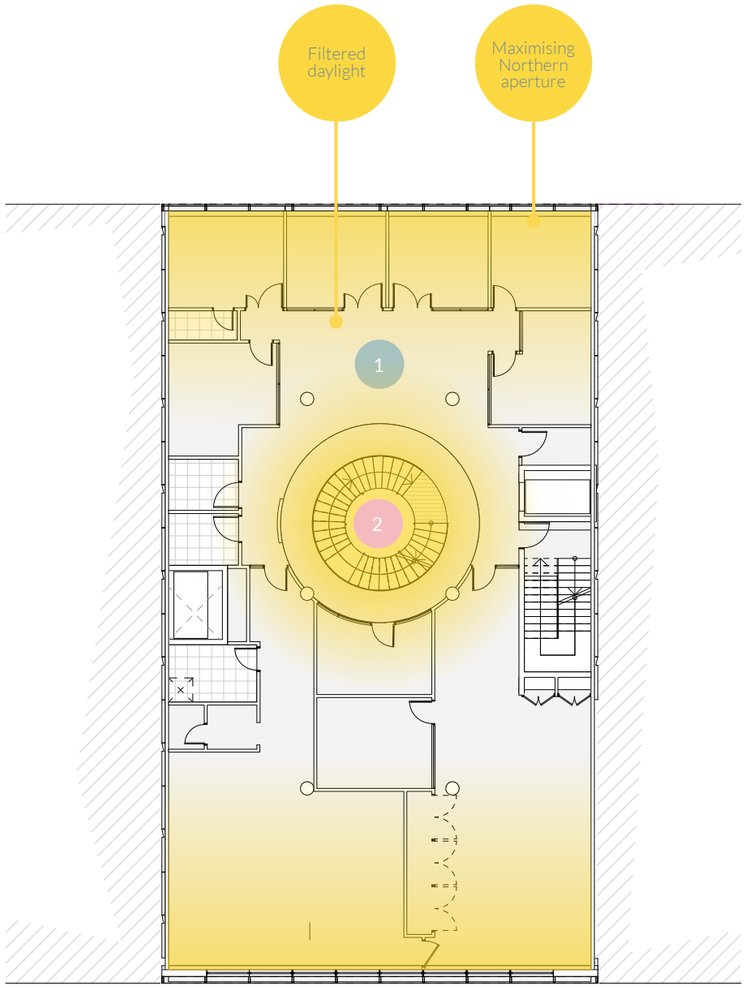
## COMMUNITY CREDIT

- Supports a growing health precinct in the South Eastern quadrant of the city
- Provides benefits to local businesses and residence in the area

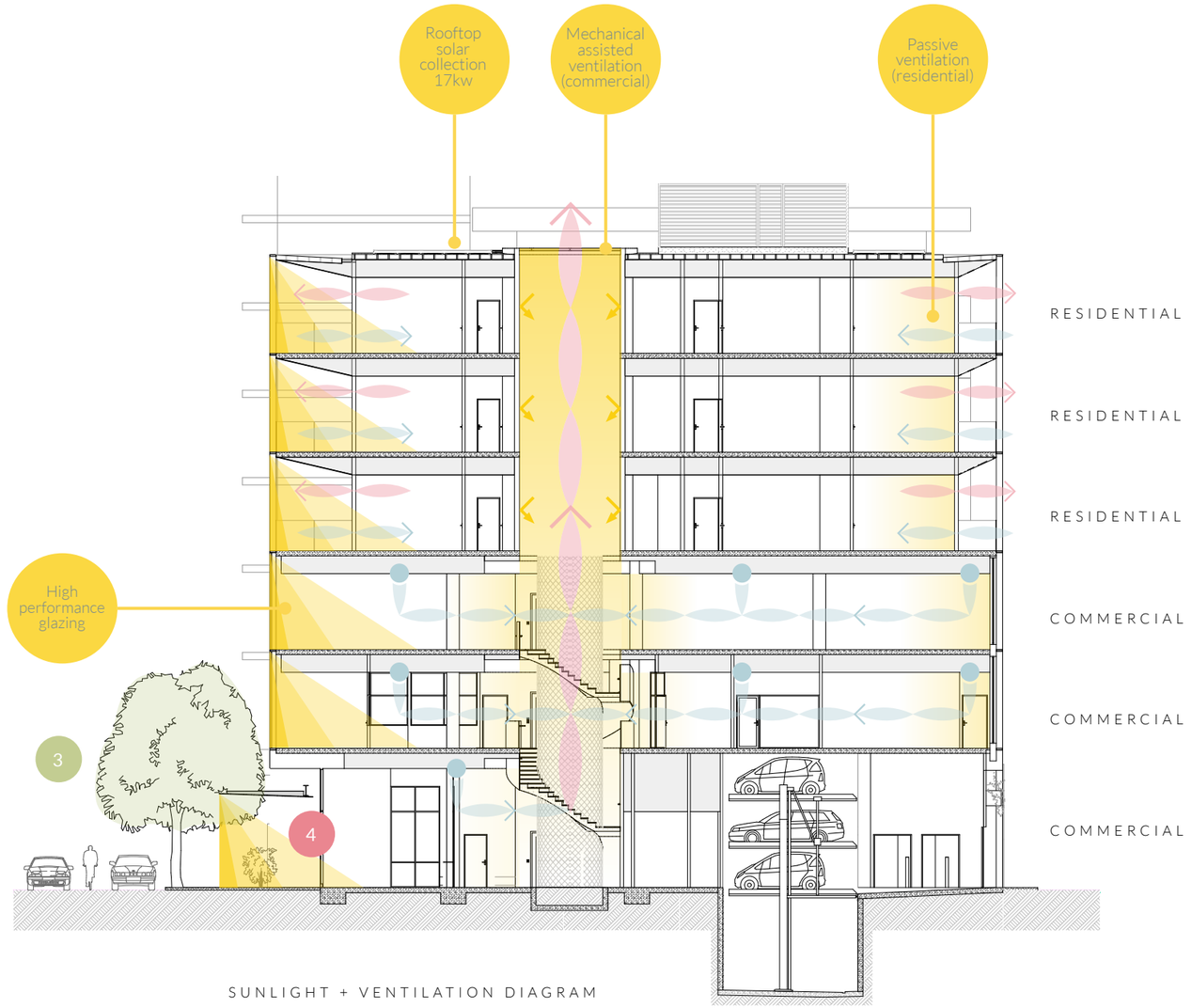
5

## PASSIVE SYSTEMS

- Utilises central void to ventilate building
- Capitalises on solar gain and ventilation through the North and South facades




DAYLIGHTING DIAGRAM




SUNLIGHT + VENTILATION DIAGRAM

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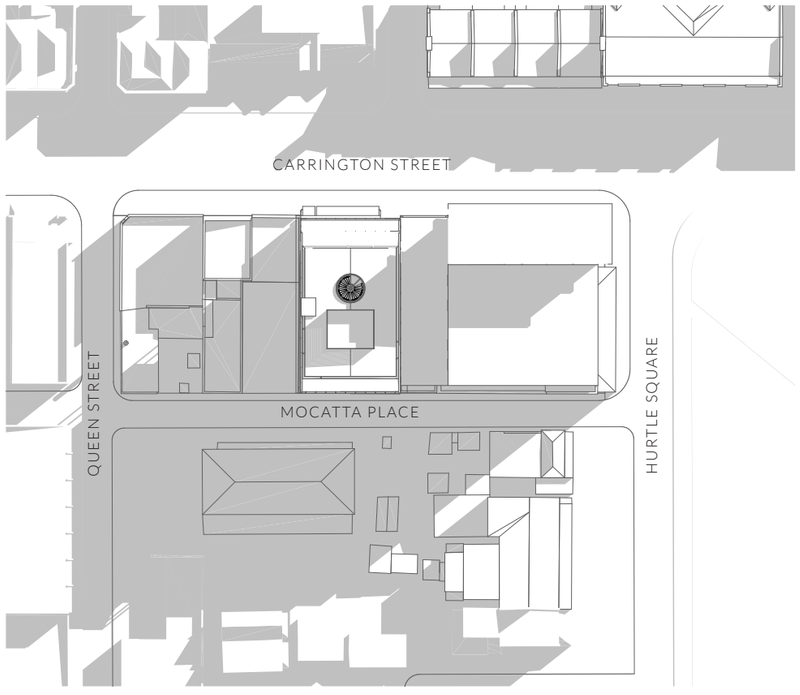
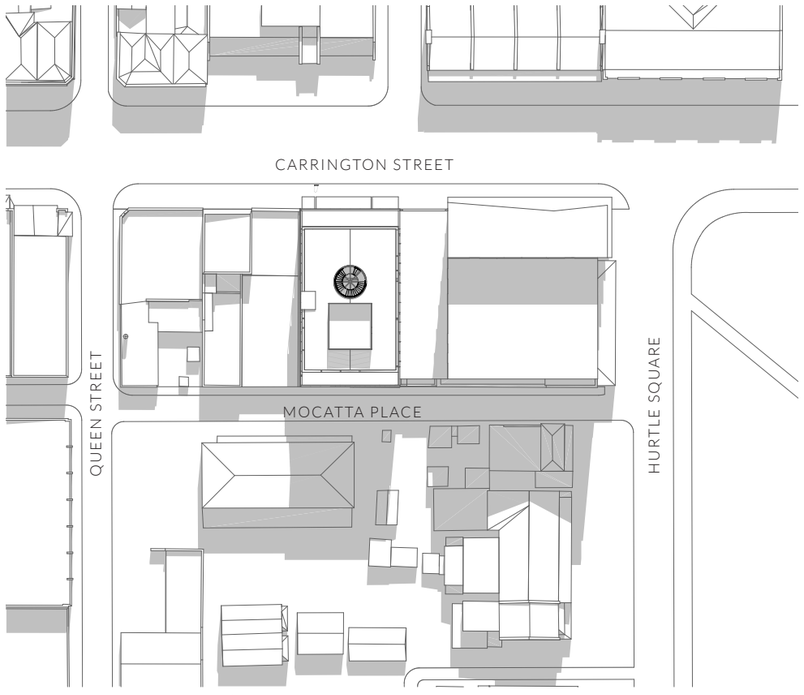
AN INSPIRED COMMUNITY

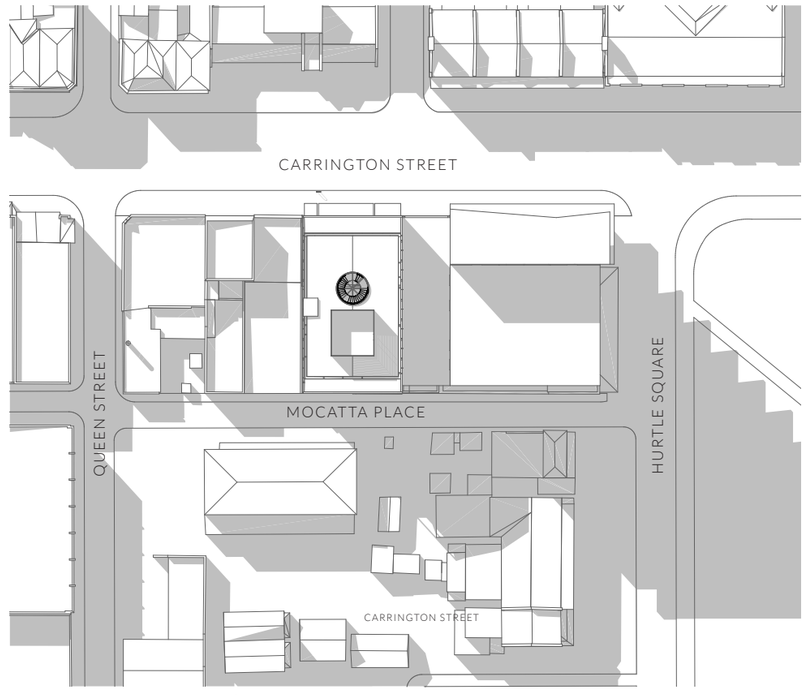
# SHADOW DIAGRAMS




SHADOW DIAGRAMS | 9AM JUNE 21
**1:1000**




SHADOW DIAGRAMS | 12PM JUNE 21
**1:1000**




SHADOW DIAGRAMS | 3PM JUNE 21
**1:2000**

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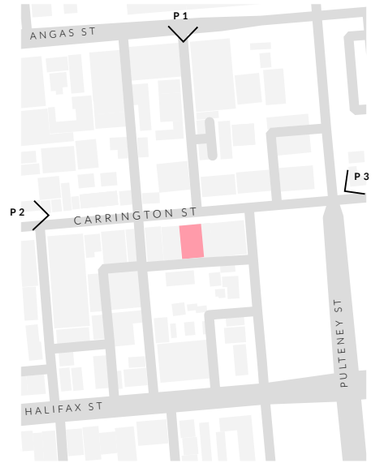
AN INSPIRED COMMUNITY

# LONG VIEW VISUALISATIONS




LONG VIEW
LOCATION PLAN

LONG VIEW P1


LONG VIEW P2

LONG VIEW P3

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AN INSPIRED COMMUNITY

# LONG VIEW VISUALISATIONS


LONG VIEW
LOCATION PLAN


LONG VIEW P4

LONG VIEW P5


LONG VIEW P6

PRINCESS STREET DAY PERSPECTIVE

PRINCESS STREET NIGHT PERSPECTIVE


CARRINGTON STREET ELEVATION RENDER

REAR LANE PERSPECTIVE

MOCATTA PLACE PERSPECTIVE

The Carrington COLLABORATIVE
AN INSPIRED COMMUNITY

# VISUALISATIONS

RESIDENTIAL LOBBY PERSPECTIVE

RESIDENTIAL LOBBY OPEN PERSPECTIVE

COMMERCIAL LEVEL PERSPECTIVE

# APPENDIX 2

PHIL WEAVER & ASSOCIATES

Consultant Traffic Engineers
ABN 67 093 665 680

204 Young Street
Unley SA 5061

P: 08 8271 5999
F: 08 8271 5666
E: mail@philweaver.com.au

File: 18-197

1 February 2019

Mr Phillip Brunning
Director
Phillip Brunning & Associates
26 Wakeham Street
ADELAIDE SA 5000

Dear Phil,

**PROPOSED MIXED USE DEVELOPMENT – 125-129 CARRINGTON STREET, ADELAIDE - TRAFFIC AND PARKING ASSESSMENT**

I refer to our recent discussions with respect to the proposed redevelopment of the subject site. This proposed development will provide a multi-level, mixed use building (comprising consulting rooms, offices and dwellings) with associated car parking and landscaping on the above site.

Consequently, I have prepared the following assessment of the traffic and parking related aspects of the proposed development.

## 1.0 EXISTING SITUATION

The subject site is located on the southern side of Carrington Street, mid-way between Queen Street and Hurtle Square, Adelaide. The site extends in a southerly direction to Mocatta Place, at the rear of the site. The subject land is located within a 'City Living Zone' as identified on *Zone Map Adel/25* within the Adelaide (City) Development Plan as consolidated 7th June 2018.

The subject site currently accommodates a two-storey commercial building fronting Carrington Street and a single-storey building at the rear of the site. The two-storey building currently accommodates Hurtle Chambers and a variety of health-related facilities. The single-storey building accommodates office and storage areas.

The subject site has frontages of 16.2m to both Carrington Street and Mocatta Place and has a depth of approximately 29m.

There are existing access points along most of the rear of the subject site off Mocatta Place into both an at-grade car parking area and a roller door at the rear of the single storey building.

Carrington Street, adjacent to the subject site, provides a single traffic lane in each direction with a speed limit of 50km/h.

Short term parking is generally permitted within Carrington Street in the vicinity of the site. Parking within the area on the southern side of this roadway, between Queen Street and Hurtle Square (10 spaces) is restricted to one-hour periods between 9:00am and 5:30pm Monday to Friday. Most of these spaces are also restricted to one-hour periods between 9:00am and 12 noon Saturday. However, the two spaces closest to Hurtle Square are reserved for permit parking at all times, other than the period between 9:00am and 5:00pm on weekdays.

It is also noted the subject site is located within close proximity of a GoGet car parking space, located on the north-western corner of Hurtle Square within a proximately 50m of the subject site.

Mocatta Place, to the rear of the site, provides a road pavement width of approximately 4.2m with narrow footpaths along both sides of this roadway. The width of the footpath on the northern side of this roadway is approximately 1.4m. The southern footpath has a width of approximately 850mm. A 'No Stopping Anytime' restriction applies to both sides of this laneway between Queen Street and Hurtle Square with the exception of a No Parking area located on the southern side of Mocatta Place.

Currently there are a number of mixed use / residential developments under construction within the locality, including developments located on the western side of Hurtle Square between Carrington Street and Mocatta Place and on the eastern side of Queen Street, south of Mocatta Place. The subject site and surrounding locality is identified in *Figure 1* below.

***Figure 1: 125-129 Carrington Street and surrounding locality***

## 2.0 PROPOSED DEVELOPMENT

The proposed development is identified on a series of plans prepared by Stallard Meek Architects including:

- A Ground Floor Plan; and
- Levels 1 to 5 Floor Plans.

I note that the proposed development will include:

- Demolition of the existing on-site buildings; and
- Construction of a multi-level building comprising:

Ground Floor

- Café with a capacity of 24 seats; and
- 10 car parking spaces accessed via Mocatta Place, comprising:
  - A 3-level car stacker with a capacity to accommodate 3 cars on each level, i.e. 9 cars in total; and
  - An at-grade accessible (disability) parking space with adjacent shared area.

Levels 1 & 2

- Consulting rooms with an area of 90m² on each level; and
- 102m$^2$ of open plan office space on each level.

Levels 3, 4 & 5

- Two 3-bedroom apartments on each level.

It is anticipated that the numbers of staff / patients at the above facilities will be:

- Café - 2 staff and up to a maximum of 24 customers at any one time;
- Offices – 12 staff; and
- Consulting rooms – 7 staff and 6 patients at any one time.

A number of the medical specialists and other health practitioners to be accommodated by the subject development will continue to provide services to both the Calvary Hospital and St Andrew's Hospital. I am advised that at least 3 of these practitioners currently park at St. Andrews Hospital, and therefore will not require on-site car parking at the subject site.

The proposed consulting facilities within the subject development will be operated by the International Spine Centre. Many of the patients associated with this facility will be dropped off and picked up from the clinic given the specific nature of this facility. Hence the car parking demand associated with this component would be less than anticipated by a conventional medical practice with patients driving to and from the facility.

The car stackers are designed to operate with three vehicles parked on each platform. It is understood that a Wohr Parklift 413 stacker system will be used. This system would include use of a combination of a single and a double stacker side by side and would provide:

- Platform lengths of 5.3m or 5.4m; and
- Platform widths of 2.4m and 4.8m for the single and double width systems, respectively.

*Figure 2* below identifies a similar stacker arrangement to that proposed on-site.

***Figure 2: Parklift 413 three-level stacker system (Source: Wohr website)***

The proposed car parking area will be accessed from Mocatta Place via an overall driveway crossover of approximately 10.4m in width controlled by two adjacent 5.1m wide roller doors. A 5.4m long waiting area will be provided between the proposed car stackers and the Mocatta Place property boundary so that vehicles waiting for stacker movements can queue on-site and not block the footpath on the northern side of Mocatta Place.

The design of the disability (accessible) space and associated shared area will each provide:

- Lengths of 5.4m; and
- Widths of 2.4m.

Turning path drawings attached to this report have identified that it would be possible for the driver of a B85 design vehicle to enter and exit all on-site car parking spaces in single movements from either direction on Mocatta Place whilst providing 300mm clearance to all hard surfaces.

As such, I consider that the design of the on-site car parking spaces would satisfy the requirements of the relevant off-street car parking standards (*AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*) in respect to access and manoeuvrability within the car parking area. In a similar manner to the existing development, drivers would be required to reverse out of the rear car park onto Mocatta Place. Given the small number of traffic movements to be generated to and from the car park and the low of level of existing traffic on Mocatta Place, I consider that the proposed access arrangements to and from the rear car park are acceptable.

## 3.0 PARKING SURVEYS

In order to determine the level of on-street car parking available in the locality of the subject site, assessments of car parking availability and demand have been undertaken on three separate days between February and November 2018.

The first such assessment was conducted between 12:45pm and 1:15pm on Wednesday 14th February 2018.

The above parking assessment was conducted within 100m to 150m of the subject site in the following areas:

- Both sides of Carrington Street between Pulteney Street and St Helena Place;
- Both sides of Queen Street between Carrington Street and Halifax Street;
- Both sides of Hurtle Square between Carrington Street and Halifax Street;
- Both sides of Queen Street between Carrington Street and Angas Street;
- Both sides of Princess Street between Carrington Street and Angas Street; and
- The western side of Pulteney Street between Carrington Street and Angas Street.

For the purpose of this assessment, car parking within only those spaces with a duration of one hour or longer was recorded since these were considered to be suitable for patient parking. The capacity and use of these spaces within the above areas is summarised within an appendix to this report.

The results of the above assessment identified that there were at least 16 short term spaces available within the study area, including 10 spaces on the western side of Pulteney Street, which provides four-hour metred car parking.

While it is noted that the two-hour car parking spaces on the western side of the central roadway (Pultney Street) of Hurtle Square are unavailable between 7:30am and 9:00am, on weekdays, the peak parking demands associated with a development accommodating medical and office facilities would occur well after this period, i.e. between 9:00am and 5:00pm when these spaces would be available. Notwithstanding this, car parking is available on the eastern side of this roadway during the period between 7:30am and 9:00am Monday to Friday.

This is notwithstanding the impact on parking availability generated by building works being undertaken in February 2018, which:

- Created a high level of parking demand associated with short term contractor parking; and

- Reduced the level of parking in the locality compared to the pre and post-construction periods. In particular, this includes a significant area of car parking on the western side of Hurtle Square, the southern side of Carrington Street and the eastern side of Queen Street between Carrington Street and Halifax Street. These areas are within very close proximity to the subject site and could potentially support the parking demand of the subject site.

A second survey of parking demand in the locality was undertaken during both morning and afternoon periods between 11:00 am and 11:30 am, and between 3:00 pm and 3:30 pm on Friday 4th May 2018, i.e. a typical weekday. From these surveys it was identified that there with 65 spaces with durations of stay of at least one-hour parking during weekday periods within the above study area.

The slight increase in the car parking capacity in this area was a result of the removal of hoardings / changes to crossovers associated with the completion of a number of building projects in the locality, including a residential development located at 5 Hurtle Square.

The assessments conducted in May 2018 identified that there was a total of 45 cars parked within the above study area in the am period and 46 cars in the pm period. Hence there were a minimum of 19 spaces which could potentially be used by clients / patients of the proposed development. This included all 12 of the spaces along the western side of Pulteney Street, between Carrington Street and Halifax Street. These spaces are available for two-hour parking during weekday periods and would be appropriate for use by clients / patients of the subject development.

A further (third) parking assessment was conducted on Monday 12th November 2018 in the same on-street areas. This assessment identified there are now 64 parking spaces with durations of stay of at least one-hour during the period between 9.00am and 5.00pm with a demand for only 34 spaces in the surveyed areas at approximately 11:30am.

In summary, the results of the second parking review correlate very closely to that of the original assessment undertaken in February 2018. The third survey identified an even greater capacity of available short-term parking with 30 on-street spaces vacant during the late morning period, which I consider would be representative of the peak parking demand in the locality.

## 4.0 PARKING ASSESSMENT

### 4.1 Detailed Parking Assessment

The subject site is located within the ***City Living Zone***. Consequently, ***Table Adel/7*** within the Adelaide City Development Plan identifies car parking provisions relevant to the proposed development in respect to both the residential and non-residential components. More particularly I note that the following car parking rates would apply:

| **Type of Development** | **Minimum Provision of Car Park Spaces** |
|---|---|
| Offices/Ancillary Retail Services | 3 per 100 square metres building floor area |
| Medium to High Scale Residential | 1 space per dwelling up to 200 square metres building floor area. At least 2 spaces per dwelling greater than 200 square metres building floor area. |
| Non-residential development (excluding hotel/licensed premises, offices/ancillary retail services and restaurant/café) | 5 spaces per 100 square metres of gross leasable floor area |
| Restaurant/Cafe | 1 space for every 3 restaurant/café seats. |

Based on the floor areas of the non-residential land use and long-term occupation of the Level 4 dwellings there would be a theoretical requirement to provide in the order of 29 spaces based upon the following calculations:

| **Land use component** | **Area / units** | **Car parking rate** | **Required number of spaces** |
|---|---|---|---|
| Café | 24 seats | 1 space / 3 seats | 4.0 spaces * |
| Consulting | 180m² | 5 spaces / 100m² | 9.0 spaces |
| Office | 204m² | 3 spaces / 100m² | 6.1 spaces |
| Residential | 6 dwellings | 1 spaces / dwelling | 6.0 spaces |
| **Total** | | | **25 spaces (rounded)** |
| Less proposed on-site car parking provision | | | 10 spaces |
| **Theoretical shortfall of parking on-site** | | | **15 spaces** |
| Less existing off-site car parking spaces | | | 3 spaces |
| **Net shortfall** | | | **12 spaces** |

*Assumes a 50% discount based upon the potential use of this facility by tenants and customers of the other land uses components / patrons currently employed or visiting within the immediate locality

However, it should also be noted that the existing use of the site results in a car parking shortfall of 13 spaces, based on the area of the current buildings and the existing parking supply. My calculations on the existing parking shortfall are as summarized as follows:-

| Land use component | Area / units | Car parking rate | Required number of spaces |
|---|---|---|---|
| Consulting* | 300m² | 5 spaces / 100m² | 15.0 spaces |
| Warehouse (office) | 132m² | 3 spaces / 100m² | 4.0 spaces* |
| Total | | | **19 spaces (rounded up)** |
| Less practical on-site car parking provision | | | 6 spaces |
| Current on-site shortfall | | | **13 spaces** |

***Subject to review***

On the basis of the above calculations, there will be a slight improvement in the current shortfall of on-site car parking as a result of the proposed development.

Furthermore, I consider that the actual car parking demand, and hence shortfall in car parking provision associated with the proposed development, would be even less than the above calculations, given that:-

- The proposed café area will be used by patrons who are already in the locality;
- The café component is also likely to be used by people currently within the building. Hence there will be a level of shared car parking between the various land use components. As the proposed Café area will be predominantly used by patrons currently within the locality or directly associated with the proposed building, it is anticipated that the Café component of the subject development would generate a peak parking demand equivalent to only approximately 50% of the rate required by Council's Development Plan provisions,
- A significant proportion of both staff and patients will use public transport to access the development;
- Some consulting staff are currently provided with car parking at either Wakefield or St Andrews Hospitals (understood to be at least 3 staff). These staff will not require car parking within the locality of the proposed development;
- There are opportunities for both staff and patients to use existing public off-street car parking facilities within the locality, including the Wilson car park at 111 Angas Street. Other public parking facilities within close proximity of the subject site including commercial car parking areas located at:-
  - 58 to 60 Carrington Street, Adelaide, and
  - 22 Moore Street, Adelaide,

- The results of the above car parking surveys that there would be an opportunity for visitors / patients to use the available short-term on-street car parking within the locality of the subject site. The majority of patients would be on-site for less than one-hour and these patients would be able to use the on-street areas to meet their parking requirements when attending the subject development.

As previously identified the subject development is also located within convenient proximity of a GoGet parking area located on the north-western corner of Hurtle Square. The GoGet scheme provides members with an opportunity to conveniently access a car for personal use without the need to own a car. This scheme would potentially appeal to occupants of the building and could consequently reduce the need to park on site, thereby further reducing the overall parking demand associated with the subject development.

Long-term parking associated with staff would generally not be accommodated on-street but it is identified that long-term parking opportunities to occur within the locality, i.e. the Wilson car park on Angas Street.

In undertaking this parking assessment, I have had regard to *'Principle of Development Control 253(c)'* in Council's Development Plan:

*c) car parking rates lower than the minimum in Table Adel/7 may be appropriate where there is readily accessible and frequent public transport in the locality or it can be demonstrated that a lower provision is warranted, such as for the following reasons:*

*(i) the nature of development;*

*(ii) existing heritage places on or adjacent to the development site which dictates the development of the site in a manner which hampers the provision of on-site parking;*

*(iii) the opportunity to exploit shared car parking areas between uses based upon compatible hours of peak operation;*

*(iv) use of a car share scheme; or*

(v) *suitable arrangements for any parking shortfall to be met elsewhere or by other means*.

I consider that both parts (iii) and (v) are relevant, noting that there are clearly complementary land uses to be provided on the subject site and that the proposed 3 existing off-site parking spaces are to be provided for use by consultants.

In assessing the car parking demands associated with the proposed development I have had consideration to Council's transport strategy document (Smart Move: The City of Adelaide Transport and Movement Strategy). I consider that the potential use of public transport, cycling and walking to access the subject development is consistent with the aims of the strategy i.e. to reduce demand for use of private transport given the alternative modes of transport that would be available for both staff and clients/customers of the proposed development.

Significantly, the subject development will be conveniently located to the north-south pedestrian and bicycle quotation marks active cross city links and is located within close proximity to major public transport routes along both King William Street and particularly Pulteney Street.

I also note that the subject development is located within close proximity of the Capital City Zone and it is noted that there is no specific car parking requirement for such development within this adjoining zone.

The car parking demand associated with the residential component of the proposed development will be accommodated by use of six of the spaces provided within the car stackers.

**4.2 Parking for People with a Disability - Minimum Rate for Reserved Spaces**

The Development Plan suggests the following relevant rate:

> *"A General Requirement of 1 car parking space in every 15 spaces provided with any form of development should function as a car parking space suitable for use by people with disabilities and other people with small children and prams so they can easily be loaded/unloaded from vehicle side doors."*

Given the provision of a total of 10 car parking spaces on-site including one specifically designed for use by the disabled, the above requirement will be met.

**4.3 Bicycle Parking Provisions**

| **Type of Development** | **Bicycle parking space standard for employees and/or residents** | **Bicycle parking space standard for customers, visitors and/or shoppers** |
|---|---|---|
| Café/Restaurant | 1 per 20 employees | 1 per 50 seats |
| Consulting Rooms | 1 per 20 employees | 1 per 20 consulting rooms |
| Offices | 1 per 200 square metres of gross leasable floor area | 2, plus 1 per 1000 square metres of gross leasable floor area |
| All Low, Medium, and High Scale Residential | 1 for every dwelling/apartment with a total floor area less than 150 square metres.<br>2 for every dwelling/apartment with a total floor area greater than 150 square metres. | 1 for every 10 dwellings |

On the above basis, the subject development would require provision of approximately 12 bicycle parking spaces, including 6 spaces for use by residents. However, there would be an opportunity for complementary use of bicycle parking spaces associated with customers / visitors to the subject site.

The plans identify that the above bicycle parking requirement will be significantly exceeded by provision for 21 bicycle parking spaces as identified on the plans including:-

- Ground Floor – 6 on street parks, and
- Levels 1 & 5 – 3 bike racks per level i.e. 15 spaces

Is it also noted that end-of-trip facilities are provided for the commercial floors with a centrally located shower and access to lockers.

Hence, it is considered that the proposed development will provide cyclists with both convenient and comfortable cycling opportunities.

### 4.4 Summary

The relevant parking requirements and provisions associated with the proposed development are summarised in the table below:

| | **Parking Attribute** | **Number of spaces provided (shortfall)** |
|---|---|---|
| 1. | Development Plan Parking Requirement | 29 spaces |
| 2. | Proposed on-site parking supply | 10 spaces |
| 3. | Theoretical shortfall | 19 spaces (1. less 2.) |
| 4. | Shortfall of the existing land use | 13 spaces |
| 5. | Net car parking shortfall based upon Development Plan rates | 6 spaces (3. less 4.) |
| 6. | Less discount of 3 spaces to account for existing parking arrangements for staff at other city hospitals | 3 space shortfall |

On the above basis, I consider that the proposed development will result in a minor increase in car parking shortfall compared to the existing land use. However, the surveys of parking demand in the locality has identified that such a shortfall could be readily accommodated by the number of on-street parking spaces within close and convenient walking distance of the locality. I therefore consider the proposed development would therefore be appropriate from a parking supply perspective.

## 5.0 TRAFFIC ASSESSMENT

Given the nature of the proposed development, with only a relatively small car parking area at the rear of the site, the subject development will generate few trips within the immediate locality.

An assessment of the car parking layout has been undertaken in respect to vehicle accessibility. This assessment has identified that a driver of a B85 design vehicle would be able to access each parking space on-site as per the relevant requirements as identified in *AS/NZS 2890.1:2004*.

Deliveries to the subject development will be undertaken by vans or other small commercial vehicles, similar in size to the B99 design vehicle. These vehicles would be able to access the car parking driveway area at the rear of the site but would also be accommodated within the various on-street loading zones within the immediate locality of the subject site, in a similar manner to that used to accommodate the existing development.

A Waste Management plan has been prepared by *Colby Industries* dated 19th November 2018. Waste collection for the separate land use components will occur at separate locations.

For the residential component, waste / recycling will be collected at the rear of the site by Council's waste contractor. It is proposed that waste collection vehicles will stop in Mocatta Place with bins emptied into the rear of the vehicle. This would essentially reflect the practice currently provided for the existing development on site.

In respect to the commercial components of the subject development, waste will be collected directly in front of the site on the southern side of Carrington Street by private waste contractor. These vehicles would need to use a length of approximately 14 metres of kerb space during collection periods. It is anticipated that this could be provided in the form of a loading zone operating for limited time periods on Monday to Friday with this area reverting to kerbside parking outside of these periods.

While such an arrangement will be subject to consultation with Council, a concept design for this area is identified within *Figure 3* (below). This figure identifies that it would be possible for an MRV design vehicle to pull into the area in front of the subject site and to proceed to travel along this roadway to the west on completion of collection waste and recyclables in this area.

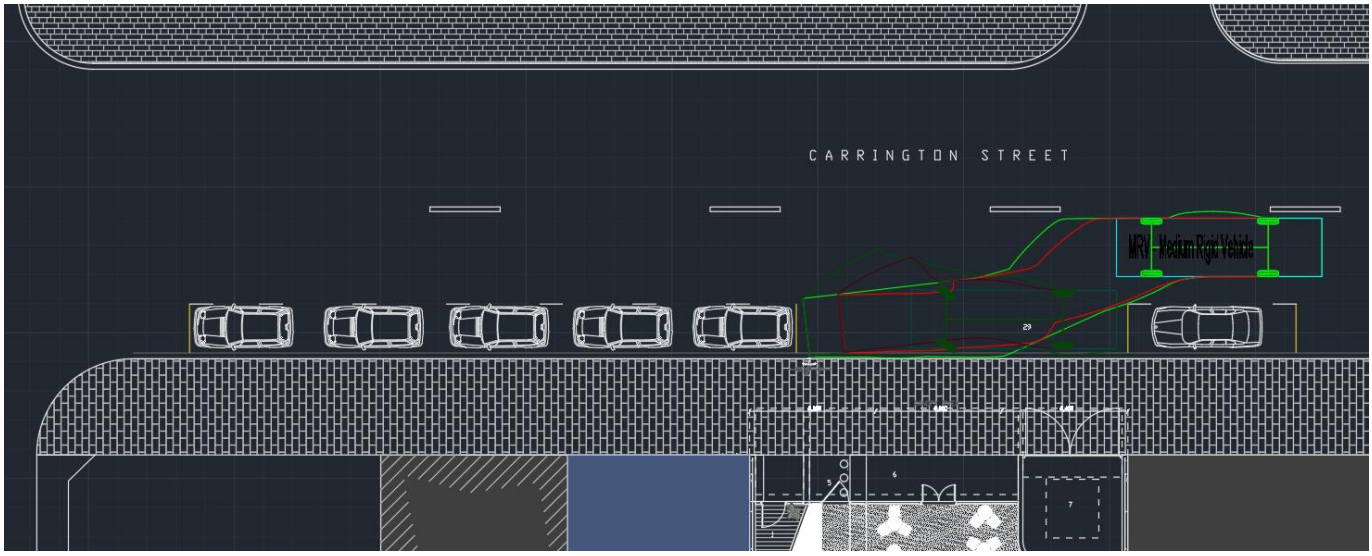



***Figure 3: MRV access into proposed 14m long time restricted loading area on the southern side of Carrington Street in front of the subject site***

These collections would take approximately 15 minutes and would presumably occur in morning periods. The on-street parking spaces directly in front of the site would need to be restricted during waste collection periods to allow this vehicle to service the subject development. It is anticipated that this would require the provision of a loading zone between the hours of approximately 7:00 am to 10:00 am on weekdays, with these spaces being available for parking outside of these periods. There will be a total of at most 3 collections of waste / recycling at this location on a weekday with each collection requiring only a short duration given the relatively small volume of material needing to be collected.(to be confirmed by Colby Industries).

Approximately 2 to 3 on-street car parking spaces would be lost adjacent to the subject site during the restricted times in weekday morning periods. Such times would be prior to peak parking periods, i.e. before 11:00am, and would therefore not have a detrimental effect on parking demand in the locality during these times. For example, the most recent parking survey undertaken at 11:30am on a weekday identified a vacancy of 30 on-street parking spaces within the locality of the subject site.

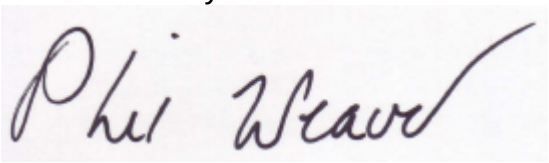
The provision of a loading zone directly in front of the site would also be suitable for both the set-down and collection of patients arriving at the centre by either private car or taxi.

## 6.0 SUMMARY AND CONCLUSIONS

In summary, I consider that the proposed amended development will:

- Provide a car parking area at the rear of the site with a capacity to accommodate 10 cars, including one space for use by the disabled and an adjacent shared area;
- Not result in adverse traffic impacts on the adjacent road network given the number of car parking spaces specifically provided at the rear of the site the proposed development;
- Provide a design standard which is appropriate and essentially meets the intent of the relevant Australian / New Zealand Standard for off-street car parking areas;
- Accommodate sufficient on-site car parking to meet the car parking requirements of residents associated with the long-term residential dwellings within the subject development;
- Provide sufficient combined on-site and off-site parking to meet the increased parking demand generated by the proposal;
- Provide 12 bicycle parking spaces, satisfying Council's relevant Development Plan provisions in respect to adequacy of bicycle parking; and
- Be accessible to surplus on-street car parking, which would be available to address customer, patient and client parking demands, with significant levels of available short-term spaces identified within the study area during the various inspections of existing on-street car parking demands.

Yours sincerely



Phil Weaver
Phil Weaver and Associates Pty Ltd

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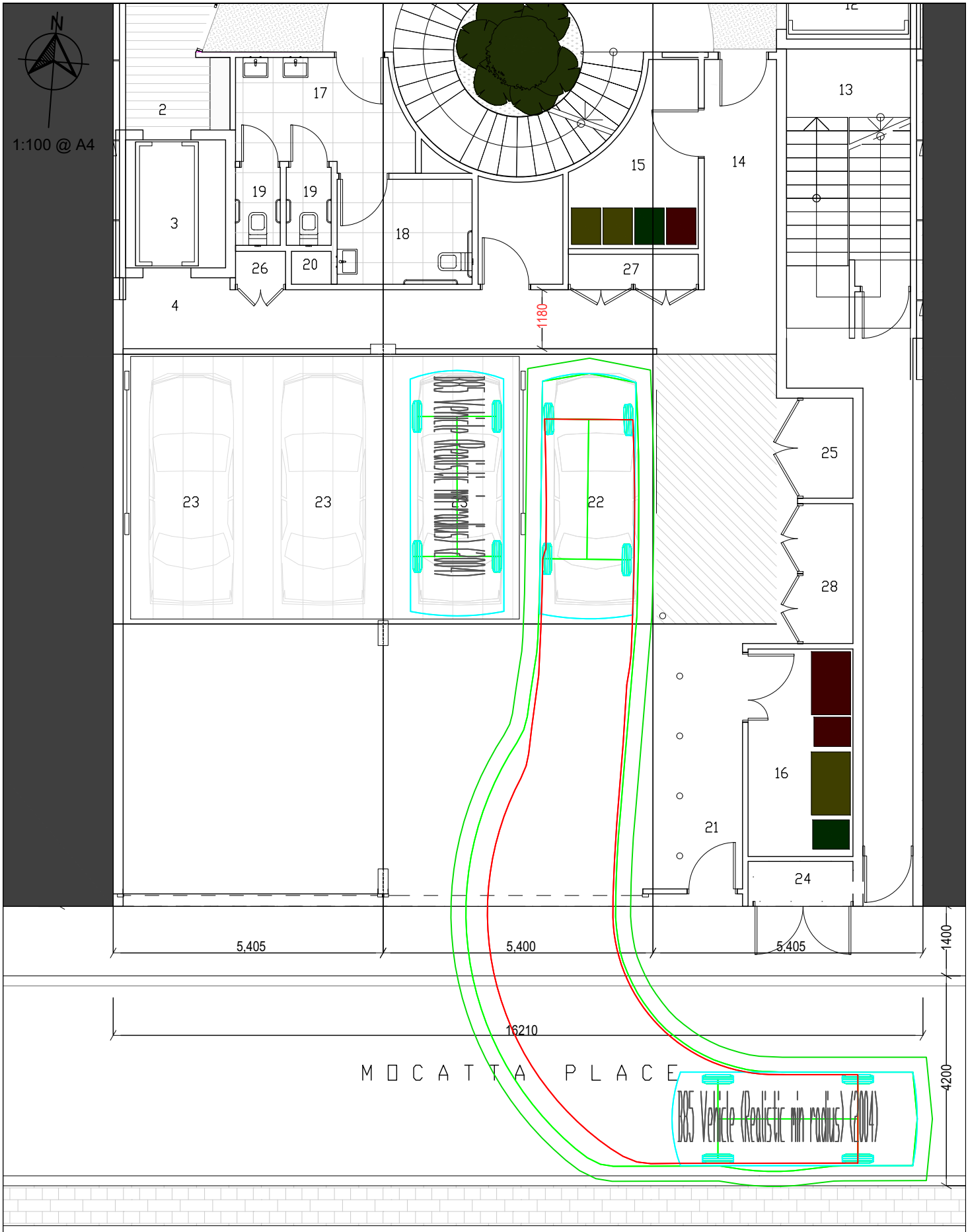


FIGURE 1: ACCESSIBLE SPACE ENTRY

PHIL WEAVER & ASSOCIATES
TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

204 Young Street
UNLEY SA 5061
P: 08 8271 5999
E: mail@philweaver.com.au

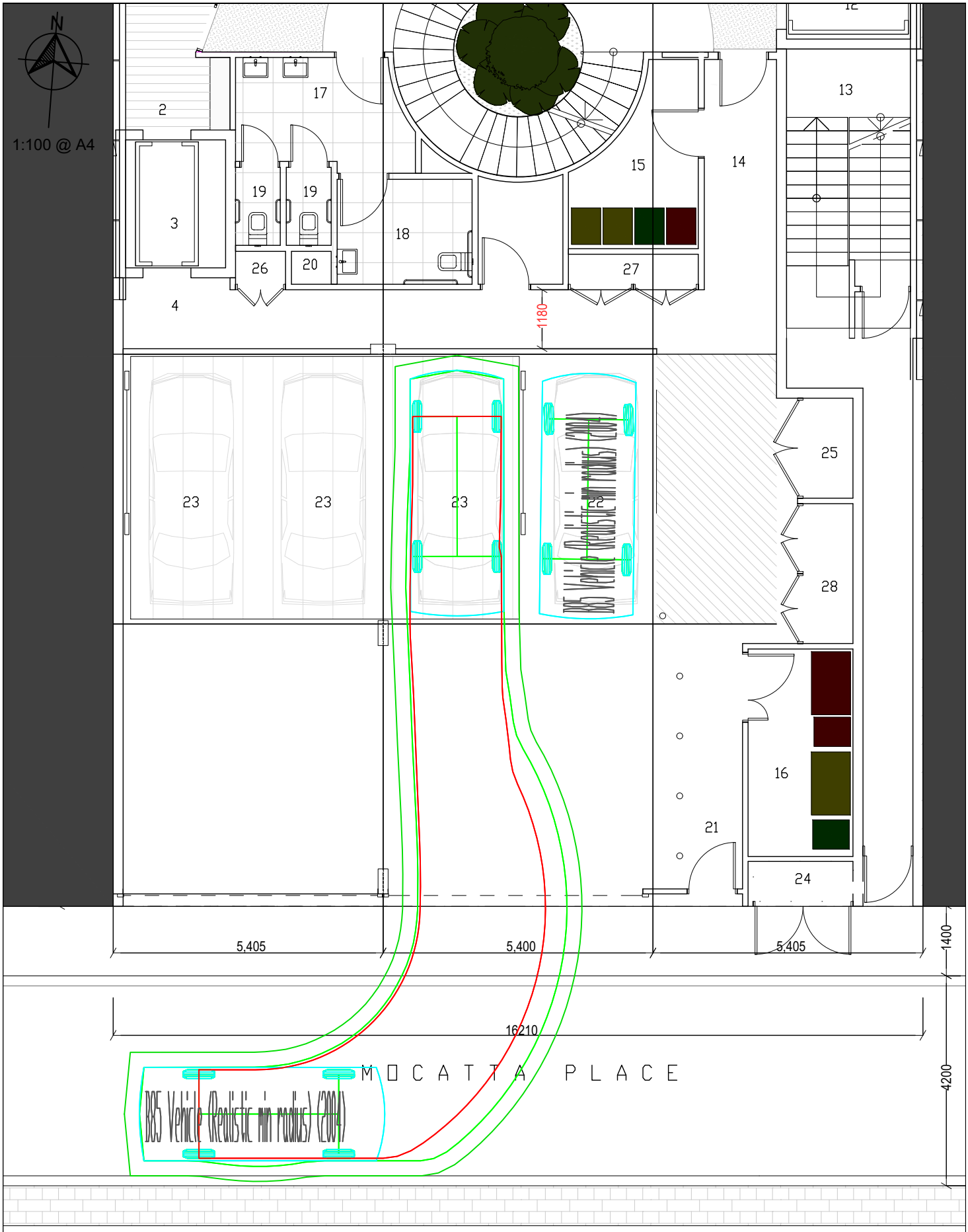


FIGURE 2: EASTERN STACKER SPACE ENTRY

PHIL WEAVER & ASSOCIATES
TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

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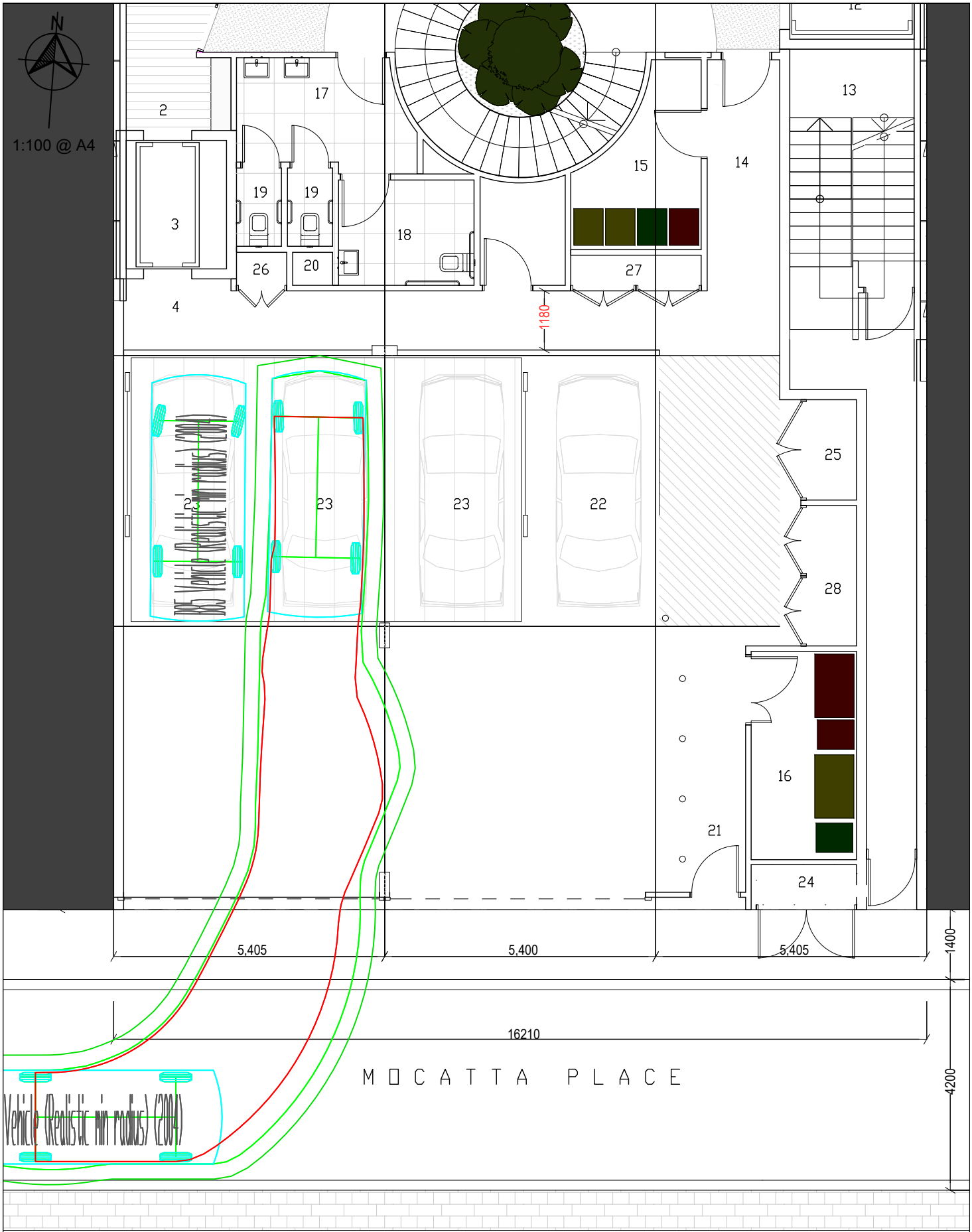


FIGURE 3: CENTRAL STACKER SPACE ENTRY

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TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

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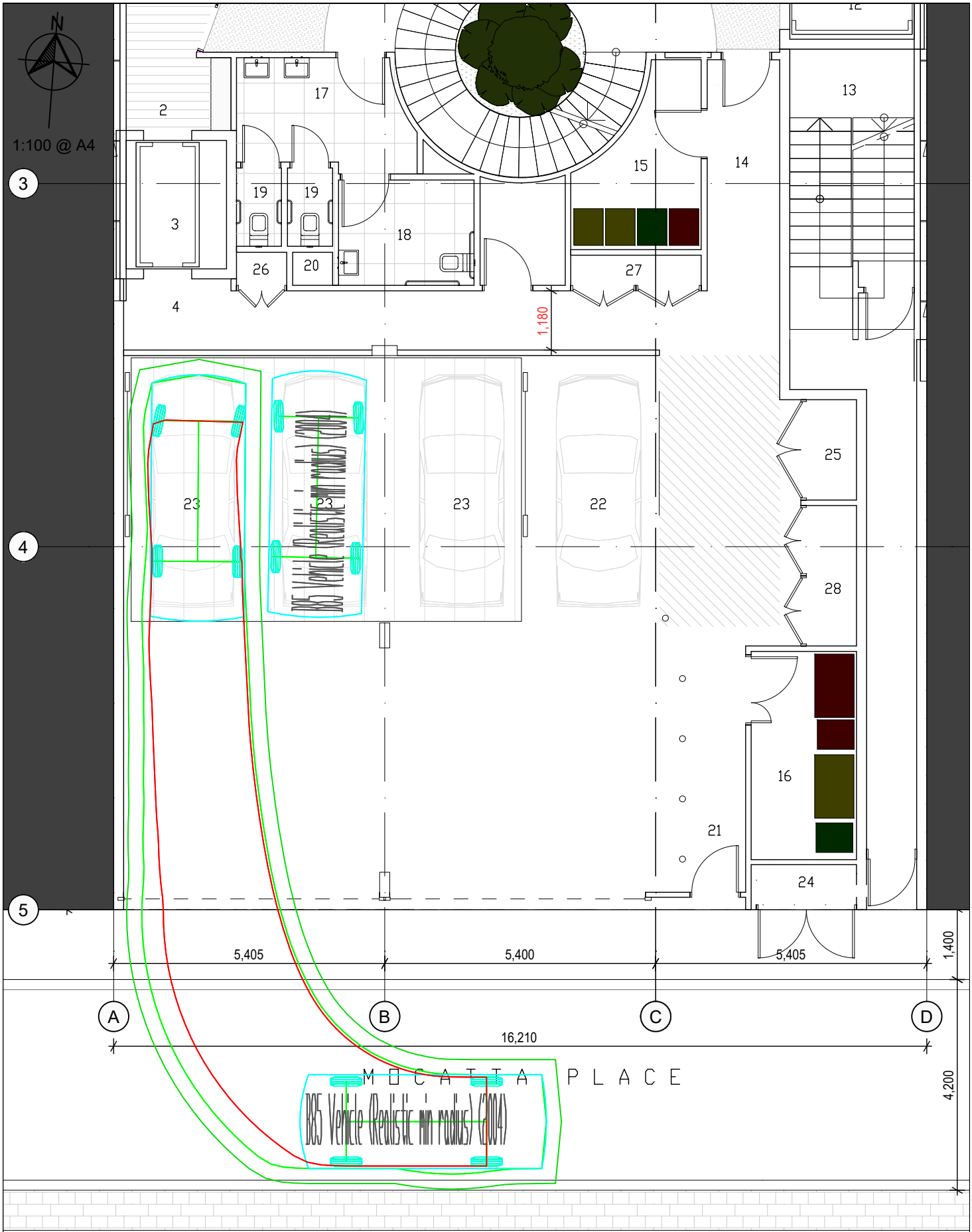


FIGURE 4: WESTERN STACKER SPACE ENTRY

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TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

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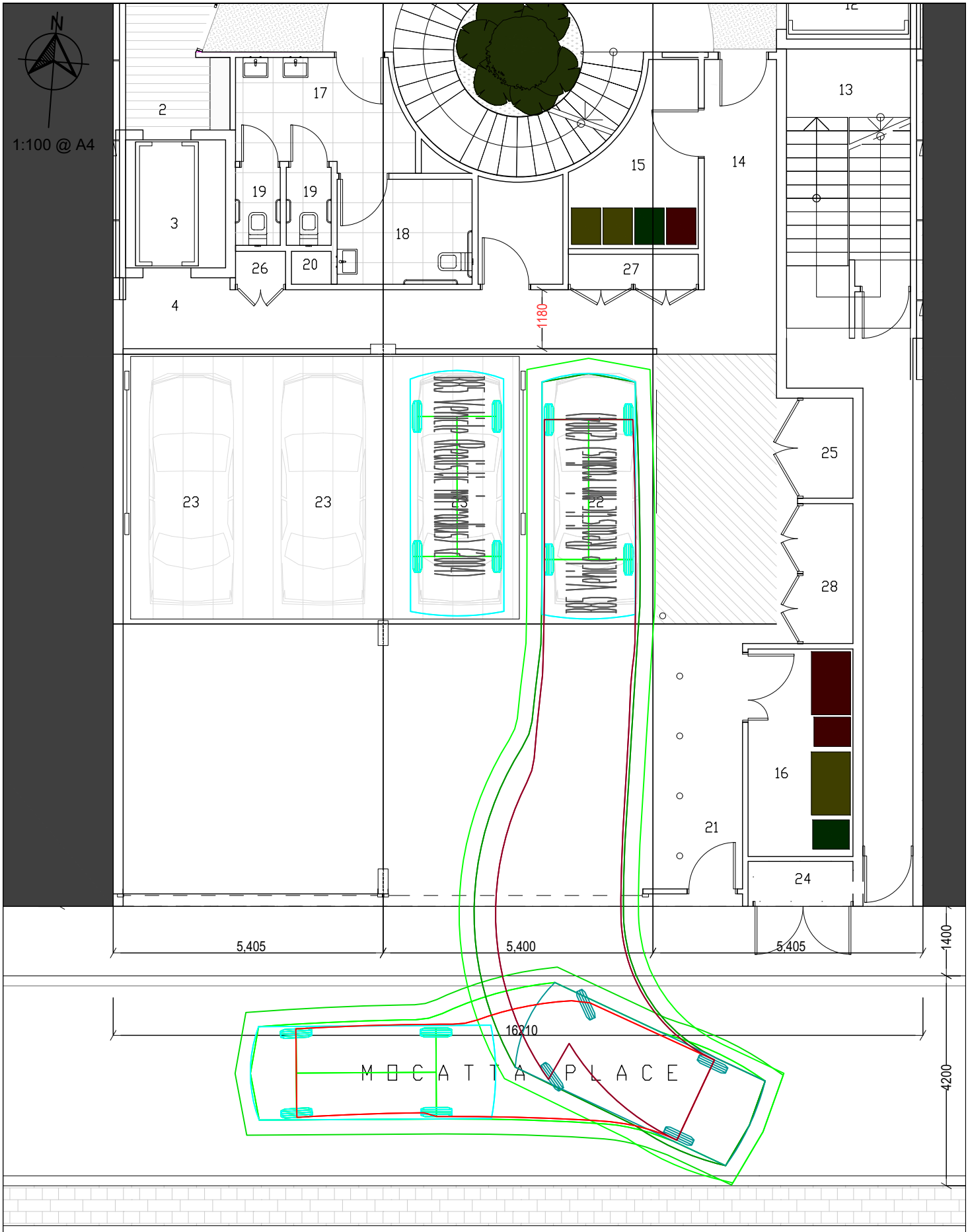


FIGURE 5: ACCESSIBLE SPACE EXIT

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TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

204 Young Street
UNLEY SA 5061
P: 08 8271 5999
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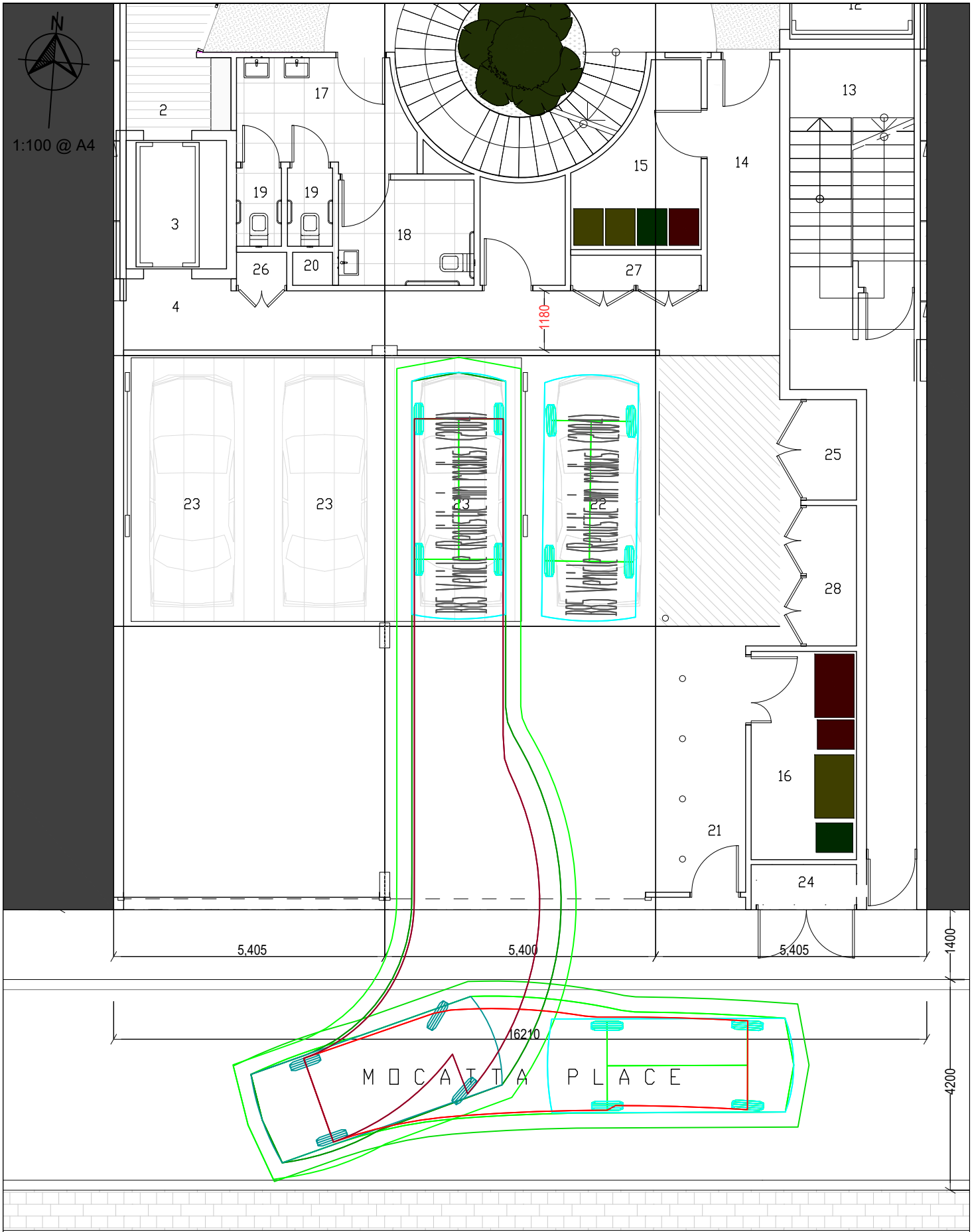


FIGURE 6: EASTERN SPACE EXIT

PHIL WEAVER & ASSOCIATES
TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

204 Young Street
UNLEY SA 5061
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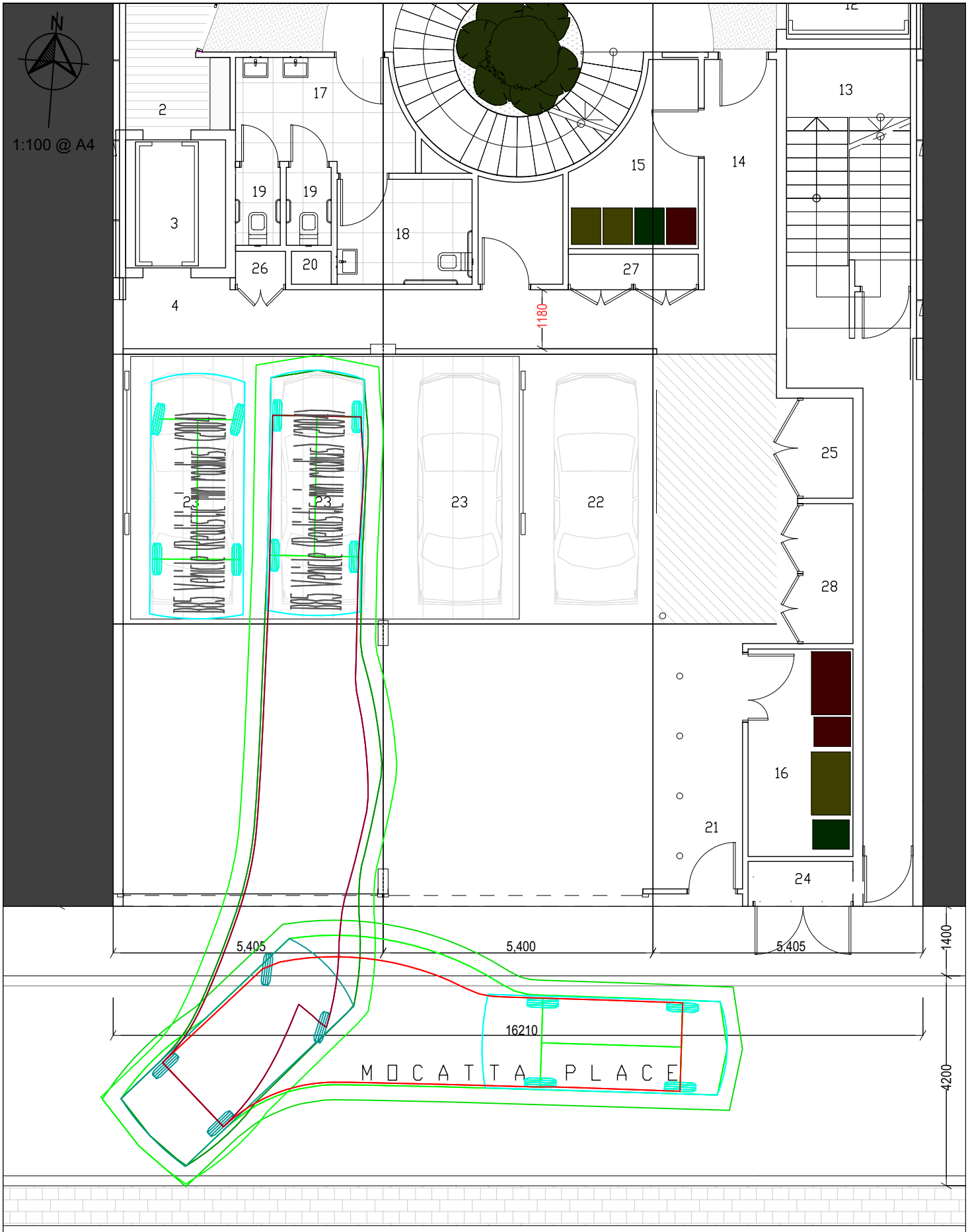


FIGURE 7: STACKER CENTRAL SPACE EXIT

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TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

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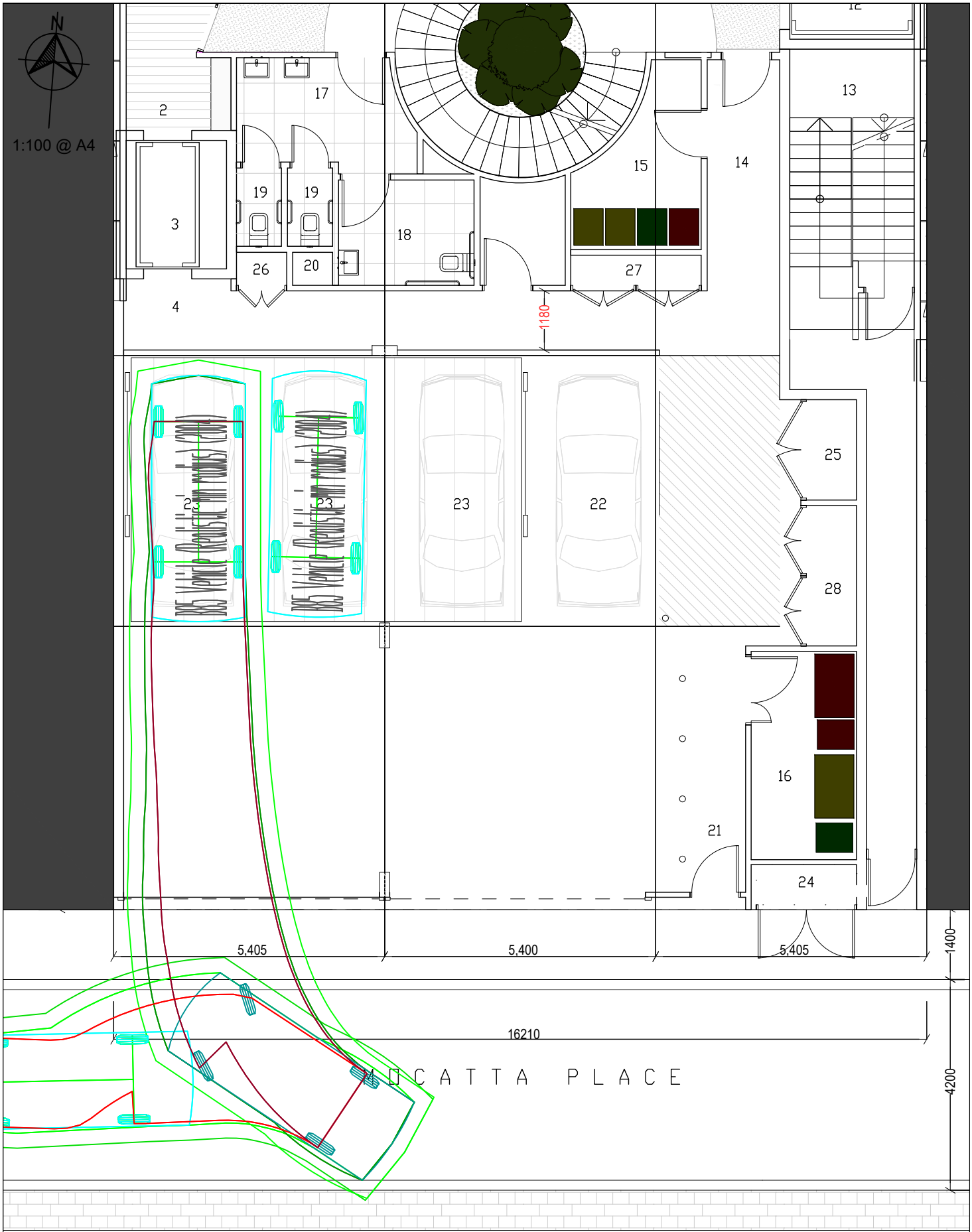


FIGURE 8: STACKER WESTERN SPACE EXIT

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TRAFFIC ENGINEERING CONSULTANTS

**125-129 Carrington Street, Adelaide**

204 Young Street
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# APPENDIX 3

# Data Sheet
# WÖHR PARKLIFT 413

Single unit = 3 cars
Double unit = 6 cars

Suitable for condominium and office buildings.
For permanent use only!*

* In case of short time user – only possible on upper platform and only if technically adjusted, ask WÖHR!
Or with attendant or valet parking all levels are possible for short time user.

All platforms are in a horizontal position to drive on.

The execution of the installation can only be done with a roofing provided from the customer side or within a building.

**Load per platform max. 2000 kg (load per wheel max. 500 kg)**

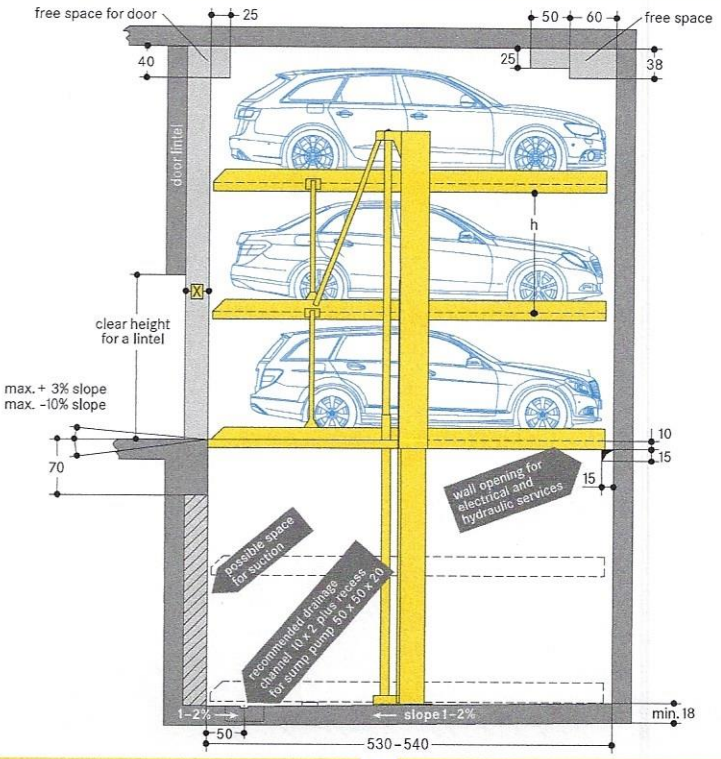
X = only applicable if garage doors are to be fitted

Roller doors:
X = 15

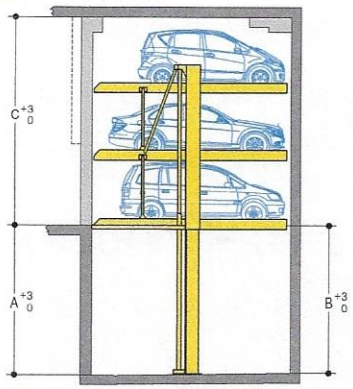
Sectional doors:
X = 25 (single doors)
X = 30 (double doors)

X = to be clarified with door supplier

Dimensions in cm



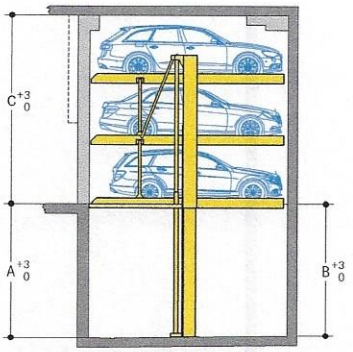

## Standard type




| | A | B | C | h | car height* |
|---|---|---|---|---|---|
| **PARKLIFT 413-385/380:** | 385 | 380 | 555 | 180 | 175 |
| **PARKLIFT 413-375/370:** | 375 | 370 | 540 | 175 | 170 |

* upper level, entrance level and lower level for cars and station wagons

## Compact type

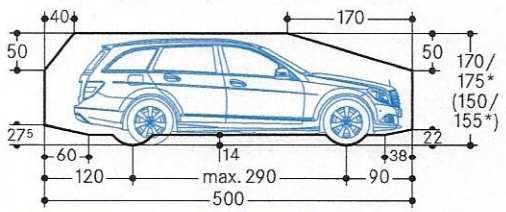



Please attend to restricted car- and platform distance height!

| | A | B | C | h | car height* |
|---|---|---|---|---|---|
| **PARKLIFT 413-345/340:** | 345 | 340 | 495 | 160 | 155 |
| **PARKLIFT 413-335/330:** | 335 | 330 | 480 | 155 | 150 |

* upper level, entrance level and lower level for cars and station wagons

## Clearance profile (car/station wagon)




*The total car height includes roof rail and antenna fixture and must not exceed the mentioned max. height dimension.

## Notes

1. Clear platform width of 250 cm for car widths of 190 cm (see width dimensions stated on page 2). For large touring sedans we recommend a clear platform width of at least 260–270 cm for single and 500 cm for double systems.
2. Due to recent increases in car length dimensions, and potential future developments, a pit length of 540 cm is advisable. This offers bigger safety distances also for future cars.
3. At the edge of the pit a 10cm wide, yellow-black marking according to ISO 3864 has to be provided by the purchaser (see "statics and construction requirements" on page 3).
4. It is not possible to have channels or undercuts and/or concrete haunches along the pit floor-to-wall joints. In the event that channels or undercuts are necessary, the system width needs to be reduced or the pit needs to be wider.
5. The manufacturer reserves the right to construction or model modifications and/or alterations. Furthermore, the right to any subsequent part modification and/or variations and amendments in procedures and standards due to technical and engineering progresses in the art or due to environmental regulation changes, are also hereby reserved.

**WÖHR Autoparksysteme GmbH** | Ölgrabenstr. 14 | 71292 Friolzheim | Germany
+49 [0] 7044 46-0 | +49 [0] 7044 46-149 | info@woehr.de | www.woehr.de

## Width dimensions · Underground garages

**All dimensions shown are minimum.** Construction tolerances must be taken into consideration.
All dimensions in cm.

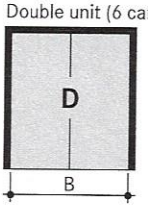
**The access to the Parklift is possible with max. 3% declination and max. 10% inclination.**

## Wall to wall

Single unit (3 cars)

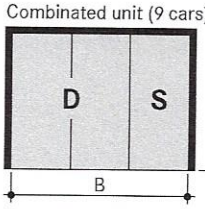

| Space required B | gives clear platform width |
|---|---|
| 270 | 230 |
| 280 | 240 |
| **290** | **250** |
| **300** | **260** |
| **310** | **270** |

Double unit (6 cars)




| Space required B | gives clear platform width |
|---|---|
| 500 | 460 |
| 520 | 480 |
| **540** | **500** |

Combinated unit (9 cars)




| Space required B | gives clear platform width |
|---|---|
| 765 | 460+230 |
| 795 | 480+240 |
| **825** | **500+250** |
| **835** | **500+260** |
| **845** | **500+270** |

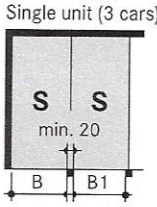
Other width combinations as well as smaller widths are possible.

Wall openings required between partitions for electrical and hydraulic conduits must be provided where applicable. Wall openings may not be closed after installation.

**The driving aisle width to be compliant with country regulations locally in force.**

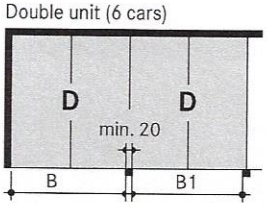
## Pillars outside pit

Single unit (3 cars)



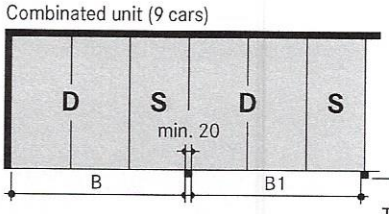

| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 260 | 245 | 230 |
| 270 | 255 | 240 |
| **280** | **265** | **250** |
| **290** | **275** | **260** |
| **300** | **285** | **270** |

Double unit (6 cars)




| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 490 | 475 | 460 |
| 510 | 495 | 480 |
| **530** | **515** | **500** |

Combinated unit (9 cars)



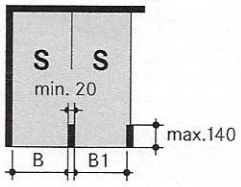

| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 750 | 740 | 460+230 |
| 780 | 770 | 480+240 |
| **810** | **800** | **500+250** |
| **820** | **810** | **500+260** |
| **830** | **820** | **500+270** |

Other width combinations as well as smaller widths are possible.

**The driving aisle width to be compliant with country regulations locally in force.**

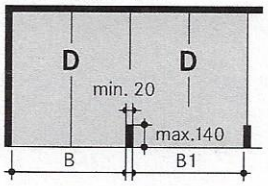
## Pillars inside pit

Single unit (3 cars)



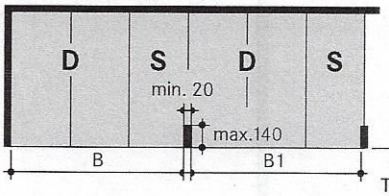

| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 260 | 245 | 230 |
| 270 | 255 | 240 |
| **280** | **265** | **250** |
| **290** | **275** | **260** |
| **300** | **285** | **270** |

Double unit (6 cars)




| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 490 | 475 | 460 |
| 510 | 495 | 480 |
| **530** | **515** | **500** |

Combinated unit (9 cars)




| Space required wall-pillar B | pillar-pillar B1 | gives clear platform width |
|---|---|---|
| 750 | 740 | 460+230 |
| 780 | 770 | 480+240 |
| **810** | **800** | **500+250** |
| **820** | **810** | **500+260** |
| **830** | **820** | **500+270** |

Other width combinations as well as smaller widths are possible.

**The driving aisle width to be compliant with country regulations locally in force.**

## Important notes

If maximum platform widths are not installed, difficulties might arise when entering or exiting the cars on the parking units. This depends on the car type, the access and the individual driving behaviour.

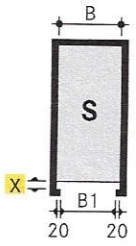
**For parking slots at edges or between walls, we recommend going for our maximum platform widths.**
**For cars wider than 190 cm, platform width of 270/500 cm is required to enter and exit the car at drivers-side.**

## Width dimensions · Garages with doors

**All dimensions shown are minimum.** Construction tolerances must be taken into consideration.
All dimensions in cm.

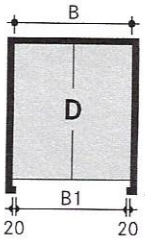
**The access to the Parklift is possible with max. 3% declination and max. 10% inclination.**

### Single garages (3 cars)




| Space required B | B1 | gives clear platform width |
|---|---|---|
| 270 | 230 | 230 |
| 280 | 240 | 240 |
| **290** | **250** | **250** |
| **300** | **260** | **260** |
| **310** | **270** | **270** |

### Double garages (6 v)



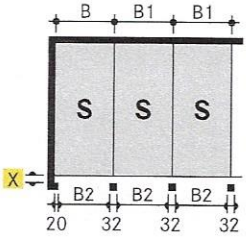

| Space required B | B1 | gives clear platform width |
|---|---|---|
| 500 | 460 | 460 |
| 520 | 480 | 480 |
| **540** | **500** | **500** |

x = for doors. See page 1

Wall openings required between partitions for electrical and hydraulic conduits must be provided where applicable. Wall openings may not be closed after installation.

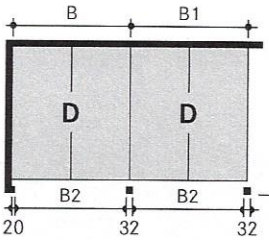
**The driving aisle width to be compliant with country regulations locally in force.**

### Serial garages with single doors (3 cars)




| Space required B | B1 | B2 | gives clear platform width |
|---|---|---|---|
| 266 | 262 | 230 | 230 |
| 276 | 272 | 240 | 240 |
| **286** | **282** | **250** | **250** |
| **296** | **292** | **260** | **260** |
| **306** | **302** | **270** | **270** |

### Serial garages with double doors (6 cars)

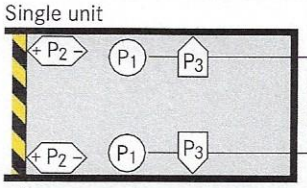



| Space required B | B1 | B2 | gives clear platform width |
|---|---|---|---|
| 496 | 492 | 460 | 460 |
| 516 | 512 | 480 | 480 |
| **536** | **532** | **500** | **500** |

**The driving aisle width to be compliant with country regulations locally in force.**

## Statics and construction requirements

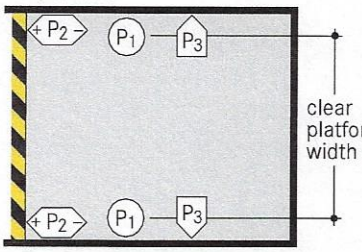
Single unit




Marking according to ISO 3864

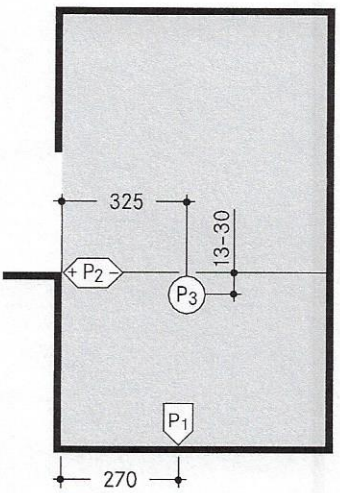
P1 = +60 kN *
P2 = + 9 kN / − 3 kN
P3 = + 3 kN

Double unit




P1 = +100 kN *
P2 = +12 kN / − 6 kN
P3 = + 3 kN

*all static loadings include the weight of the car




Bearing loads are transmitted to the pit floor by base plates of approximately 700 cm², fixed by heavy duty anchor bolts to a depth of approximately 10–12 cm. Base plate thickness min. 18 cm. Concrete quality according to the static requirements of the building, but for the dowel fastening we require a concrete quality of min. C20/25. When fixing to waterproof concrete floors chemical anchors are employed (to be advised by WÖHR).

The walls of the pit must be formed of concrete and must be perfectly flat and vertical without any protrusions.

The specified lengths to the support points are mean values. Please contact us for exact positions for any variations on the standard units.

## Hydraulic power pack

The location of the hydraulic power pack is determined according to your plan – space requirements are as follows:

| Dimensions in cm | 1 single unit or 1 double unit | 2–5 single units or 2–3 double units |
|---|---|---|
| Length: | 100 | 200 |
| Height: | 140 | 140 |
| Depth: | 30 | 30 |

## Electrical datas

| Item | Performance | Quantity | Designation | Position | Frequency |
|---|---|---|---|---|---|
| 1 | by customer | 1 unit | electric meter | in the feed cable | |
| 2 | by customer | 1 unit | fuse or automatic circuit breaker 3 x 25 A slow blow acc. to DIN VDE 0100 p. 430 | in the feed cable | 1 per power pack |
| 3 | by customer | as locally required | acc. to local power supply regulations 3 Ph + N + PE* | feed cable to main switch | 1 per power pack |
| 4 | by customer | each 10 m | equipotential bonding safety lead-out connection | corner pit floor/ rear wall | |
| 5 | by customer | 1 unit | equipotential bonding safety compliant to the DIN EN 60204 standard | from the lead-out connection to the system | 1 per Parklift |
| 6 | by customer | 1 unit | marked main switch, lockable to prevent unauthorized switching on | above operating device | 1 per power pack |
| 7 | by customer | 10 m | PVC control cable with marked strands and protective conductor 5 x 2,5² | from main switch to hydraulic power pack | 1 per power pack |

Items 8–14 are included in WÖHR's scope of delivery unless otherwise specified in the offer/order.

* DIN VDE 0100 part 410 + 430 (not under permanent load) 3PH+N+PE (three-phase current) Note: Where a door is used to close the garage, the manufacturer of the door must be consulted before the electric cable is laid.

The electrical components suppliedbythemanufacturer must be connected in accordance with the appropriate wiring diagram and local regulations. German VDE electrical requirements must be adhered to, in order to validate the TÜV tested circuit.

The electrical supply to the power pack(s) must be provided prior to or during installation to enable our fitters to complete their work satisfactorily and to check the correct functioning of the units.

In compliance with the DIN EN 60204 standard provisions, all systems must be connected directly on site with an earthed equipotential bonding. The lead-out connection must be at a 10 m distance!

## Noise protection

Basis is the German DIN 4109 "Noise protection in buildings".

With the following conditions required 30 dB (A) in rooms can be provided:

- noise protection package from our accessory
- insulation figure of the construction of min. $R'_w = 57$ dB
- walls which are bordering the parking systems must be done as single wall and deflection resistant with min. m'= 300 kg/m²
- solid ceiling above the parking systems with min. m'= 400 kg/m²

At differing constructional conditions additional sound absorbing measures are to be provided by the customer.

The best results are reached by separated sole plates from the construction.

Increased noise protection:

If increased noise protection must be provided planning has to be confirmed on a project basis by WÖHR.

## Temperature

The installation is designed to operate between +5°and +40°C. Atmospheric Humidity: 50% at +40°C. If the local circumstances differ from the above please contact WÖHR.

## Drainage

We recommend the provision of a drainage channel at the front of the pit which can either incorporate a pump sump 50 x 50 x 20 cm, or a connection into the storm water sewerage system via a petrol/oil interceptor. If the pump sump is not accessible for manual drainage, the client must provide a pump on site to empty the pump sump. To prevent any possibility of contamination of the groundwater we recommend that the pit floor is coated with an oil proof paint.

## Conformity test

All our systems are checked according to EC machinery directive 2006/42/EC and EN 14010.

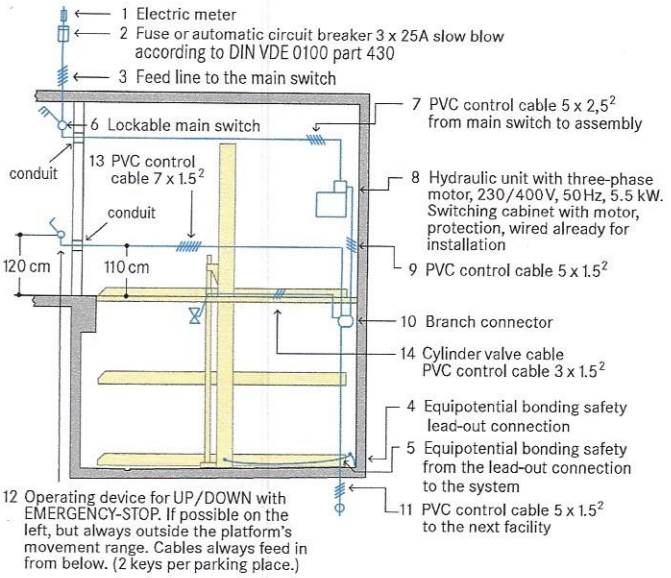
## Illumination

Illumination has to be considered acc. to local requirements by client.

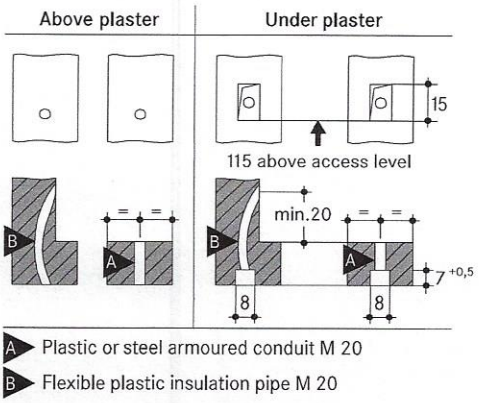
## Free spaces

Special drawings for free spaces to accommodate air ducts or other pipes can be requested at WÖHR Agent!

## Installation diagram




## Recesses and conduits for rotary switches with rolling and sectional gates




## Railings

The units need to be provided acc. EN ISO 13857 with safety railings if the gap between unit and wall exceeds 20 cm. If walkways are arranged directly to the side or behind the systems, railings have to be provided by client acc. to local requirements, height min. 200 cm – this is applicable during the construction phase too.

## Parking place width

We recommend a clear platform width of at least 250 cm and/or of at least 500 cm for double systems.

## Maintenance

WÖHR and our foreign partners have an assembly and customer network. Annual maintenance is performed at conclusion of a maintenance contract.

## Protection against corrosion

Independent of a maintenance workings has to be carried out acc. to WÖHR Cleaning and Maintenance Instruction regularly.

Clean up galvanized parts and platforms of dirt and road salt as well as other pollution (corrosion danger)!

Pit must be always ventilated and dearated well.

## Dimensions

All dimensions shown are minimum. Construction tolerances must be taken into consideration. All dimensions in cm.

## Fire safety

Each and every fire safety requirement and all possible mandatory item(s) and equipment(s) (fire extinguishing systems and fire alarm systems, etc.) are to be provided by the customer.

# APPENDIX 4

Issue —
D

Date —
31 January 2019

Project —
18-057

# Carrington Collaborative

## Landscape Concept Design

FOR DEVELOPMENT APPROVAL

oxigen

Oxigen Pty Ltd
98–100 Halifax Steet
Adelaide SA 5000

T +61 (08) 7324 9600
design@oxigen.net.au
oxigen.net.au

# Design Intent

## Introduction

The landscape concept design for Carrington Collaborative provides guiding principles for the development of the external public space frontage at street level on Carrington Street, rear entry planting integrated into the building at Mocatta Place,  and internal stairwell garden treatments.

## Landscape Approach

The new development at Carrington Collaborative maximises the opportunities for engaging pedestrian-scale treatments to the ground floor interface on Carrington Street and Mocatta Place that are open and approachable.

Connected directly to the street frontage of Carrington Street, the combination of high-quality paving on the ground plane with vertical planters and seating invites activity. Planting softens the scale of the building at street level adding texture, colour and seasonality.

Key design initiatives include:

— Creating an open and active presentation to the street utilising high-quality paving, planting, landscape elements and flexible space for outdoor seating;
— Defining and inviting entry points to the building on Carrington Street and
— Providing amenity through greening to Mocatta Place;
— Integration of vertical greening with the architectural form of the building;
— Use of plant species that provide variety, structure and interest to the public and private realm; and
— Consideration and protection of existing established street trees on Carrington Street.

## Planting Design

Plant species for the new development have proven reliability in urban settings and are able to withstand the site specific microclimates at both at ground level and in vertical planting situations.

The planting design incorporates the following initiatives:

— Plant structure and form to create interest and variety;
— Use of plants to provide amenity and seasonality;
— Provision for irrigation and drainage to suit varied planter applications
— Species tolerance of individual micro-climates - varying from deep shade (southern side), to part sun (northern side) and internal spaces (light well);
— Distinct planting styles to each landscape zone.
— Consideration of planting that is complimentary to the surrounding neighbouring gardens and Hurtle Square.
— Consideration of establishment and maintenance of planting.

## Planting within planters

Raised planter beds are established utilising minimum 400mm depth of appropriate growing medium.  Plant species selection and automatic irrigations systems will ensure successful establishment and long-term viability with associated drainage installed as required.

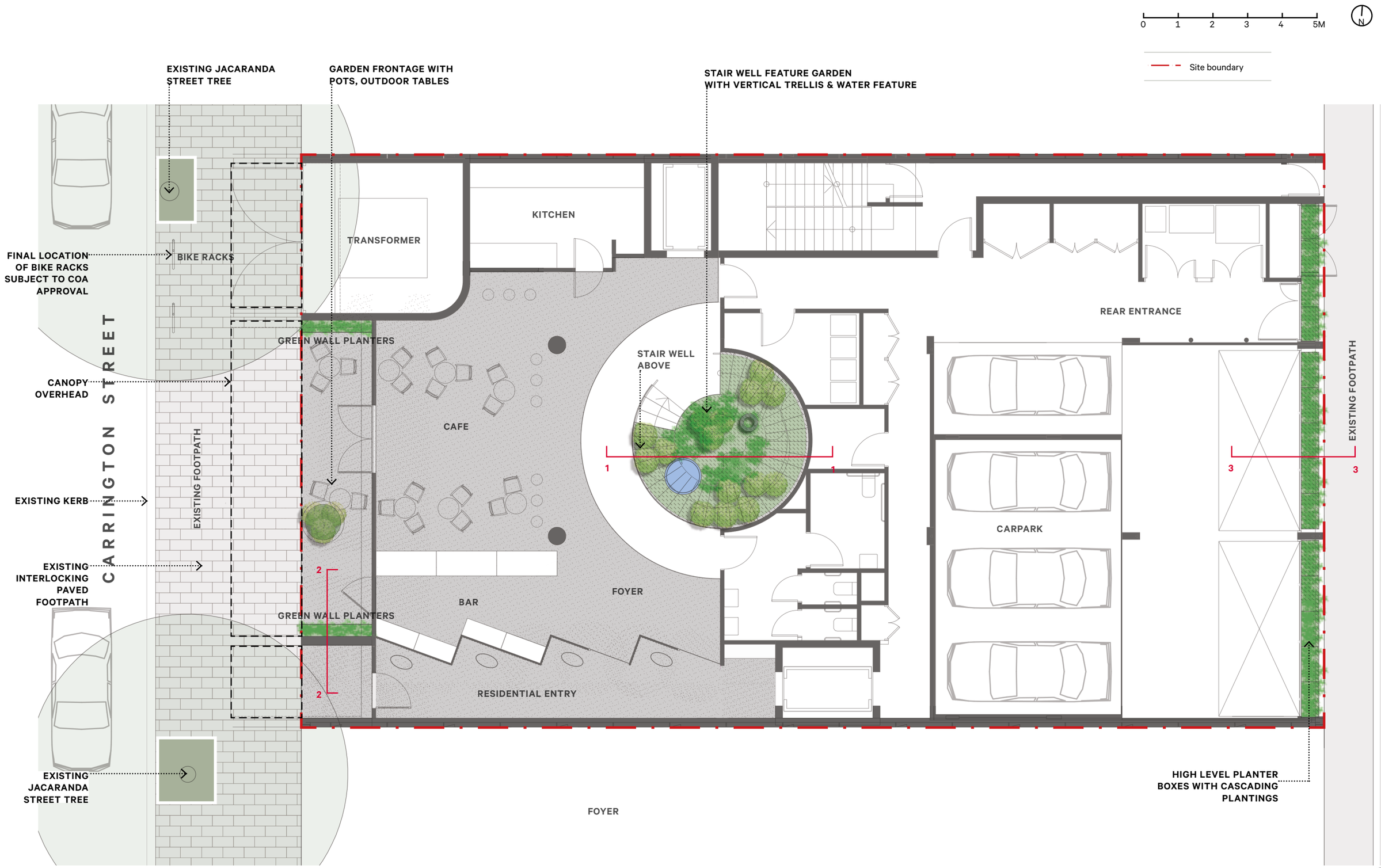
## Maintenance of Design

Hard landscape elements such paving and planters are designed and selected for their amenity, usability and robust, low-maintenance requirements.

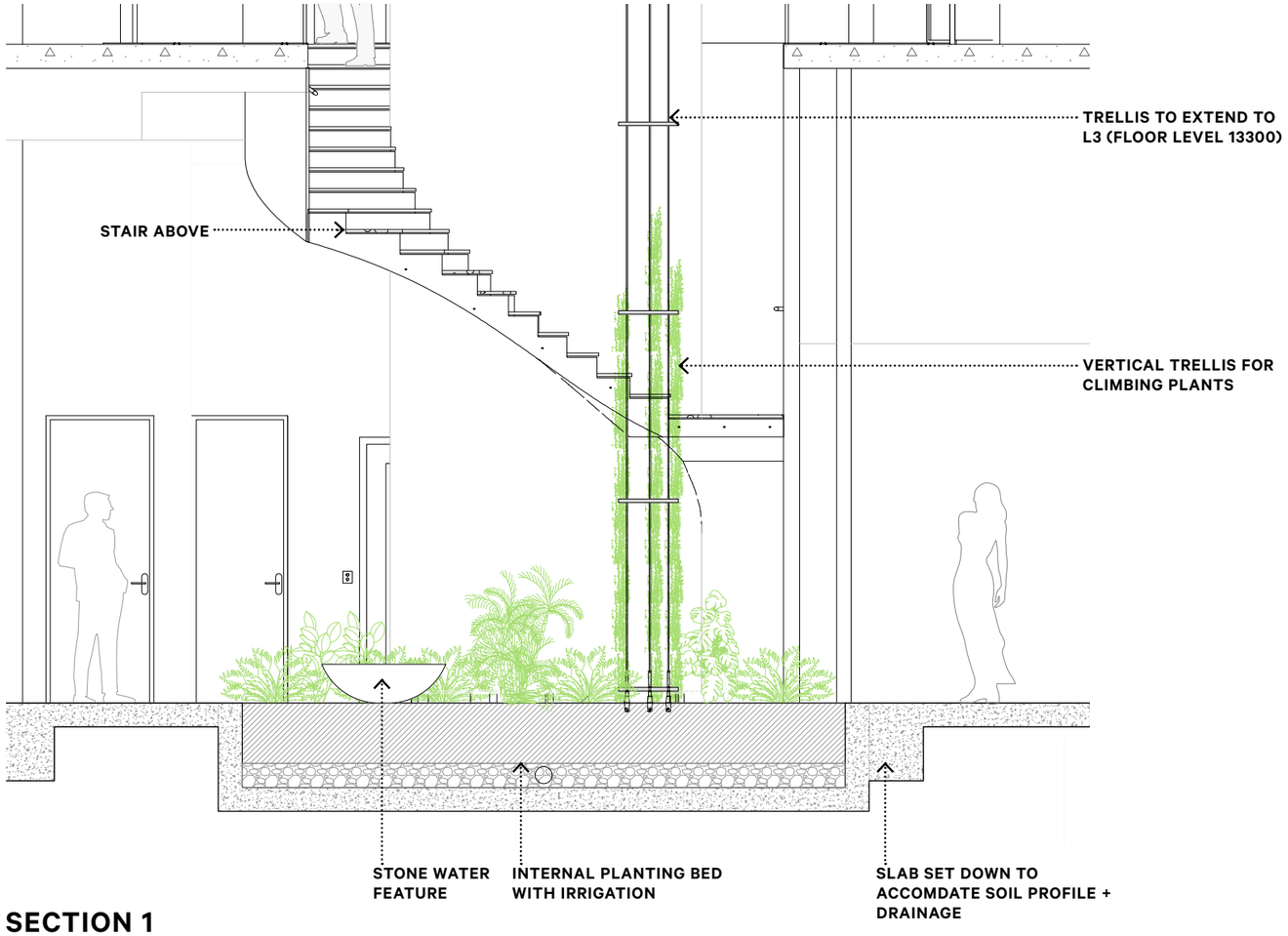
To ensure reliability and longevity, the plant species selection is tailored to each individual zone and includes:

— Proven groundcover and climber species tolerant of both low light levels, north and south facing streetscape settings;
— Planting zone-specific irrigation systems to provide appropriate levels of water to different plant types.
— Heights of planters are easily accessible for ongoing maintenance post installation.

# Landscape Plan



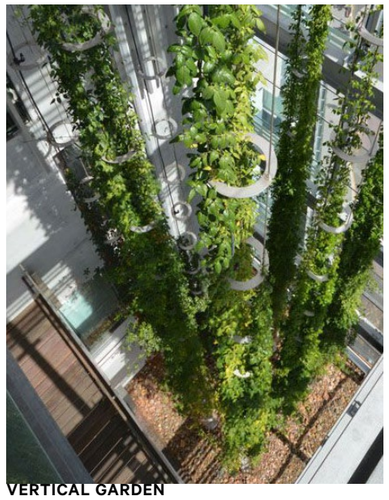
# Sections



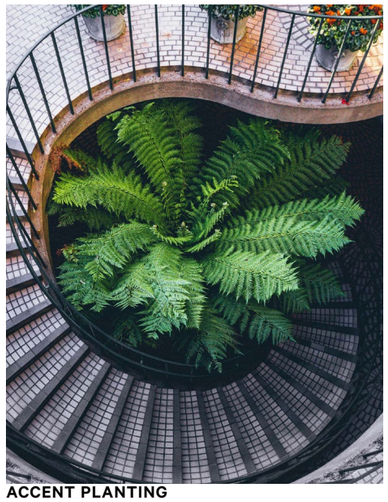

**SECTION 1**

LOCAL STONE MULCH

STONE WATER FEATURE



VERTICAL GARDEN

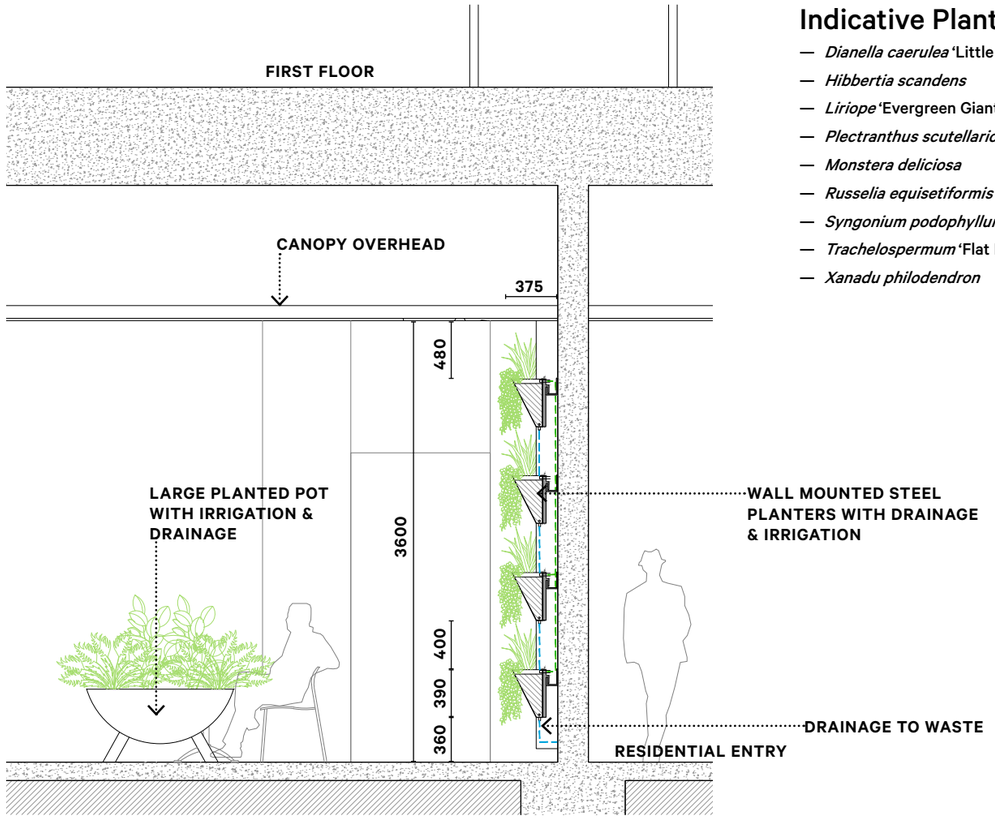


ACCENT PLANTING

## Indicative Plant List

- *Asplenium australasicum*
- *Begonia beleaf* 'Evening Glow'
- *Bromeliad aechmea*
- *Calathea louisae* 'Freddy'
- *Liriope* 'Evergreen Giant'
- *Plectranthus scutellarioides*
- *Monstera deliciosa*
- *Nephrolepis exaltata*
- *Xanadu philodendron*

# Sections



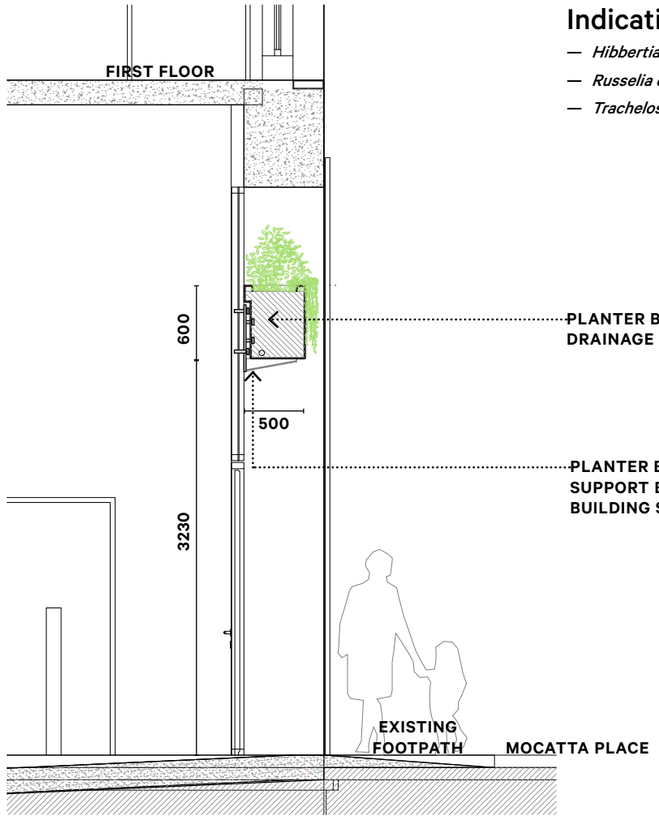

## Indicative Plant List

- *Dianella caerulea* 'Little Jess'
- *Hibbertia scandens*
- *Liriope* 'Evergreen Giant'
- *Plectranthus scutellarioides*
- *Monstera deliciosa*
- *Russelia equisetiformis* 'Lemon Falls'
- *Syngonium podophyllum* 'Robusta'
- *Trachelospermum* 'Flat Mat'
- *Xanadu philodendron*

## SECTION 2

WALL MOUNTED STEEL PLANTERS

LARGE PLANTED POT

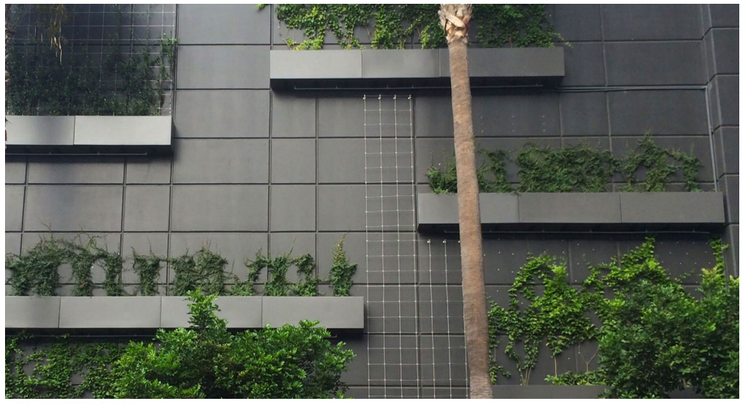



## Indicative Plant List

- *Hibbertia scandens*
- *Russelia equisetiformis* 'Lemon Falls'
- *Trachelospermum* 'Flat Mat'

## SECTION 3

CARPARK



PLANTER BOX

# Indicative Plant Species

*Asplenium australasicum*

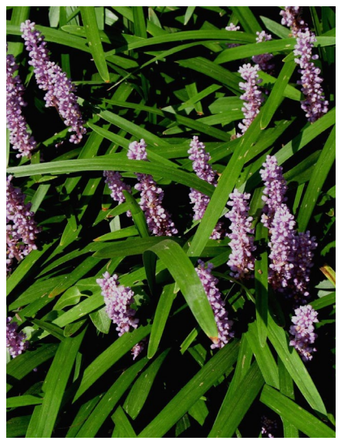
*Begonia beleaf* ‘Evening Glow’

*Bromeliad aechmea*

*Calathea louisae* ‘Freddy’

*Dianella caerulea* ‘Little Jess’

*Hibbertia scandens*



*Liriope* ‘evergreen giant’

*Plectranthus scutellarioides*

*Monstera deliciosa*

*Nephrolepis exaltata*

*Russelia equisetiformis* ‘Lemon Falls’

*Syngonium podophyllum* ‘Robusta’

*Trachelospermum* ‘Flat Mat’

*Xanadu philodendron*

# APPENDIX 5

**(Soon to be Colby Phillips Advisory)**
**ABN 34 122 507 920**
Level 1/ 60 Hindmarsh Square
Adelaide, SA 5000
p +61 8 8297 2385
www.colbyindustries.com.au

*125-129 Carrington Street St Mixed Use Building*

*(Residential High-density Mixed-Use Development)*

# Waste Management Plan

*Prepared for: Stallard Meek Architects*

November 2018

## *- IMPORTANT NOTES -*

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*The information contained within this document is based upon sources, experimentation and methodology which at the time of preparing this document were believed to be reasonably reliable and the accuracy of this information after this date may not necessarily be valid. This information is not to be relied upon or extrapolated beyond its intended purpose by the client or a third party unless it is confirmed in writing by Colby Industries that it is permissible and appropriate to do so.*

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### Document verification

| | | | |
|---|---|---|---|
| **Description** | 125-129 Carrington St Mixed Use Building WMP | | |
| **Version** | FINAL | | |
| **Issued** | 19/11/2018 | | |
| **Verification** | Prepared by | Checked by | Approved by |
| **Name** | C. Colby | Client | C Colby |
| **Signature** | | | |

# Contents

# 1 Introduction

This document presents a waste management plan (WMP) for the 125-129 Carrington St Mixed Use Building (Residential High-density Mixed Use) Development (the "Development"). The Project Architect is Stallard Meek Architects, and Traffic Engineer is Phil Weaver & Associates

The WMP explains how the Development can manage waste effectively to achieve regulatory requirements and desired design and operating objectives, including those recommended by the South Australian Better Practice Guide (State Guideline) (Zero Waste SA, 2014) and Council expectations for waste management in these types of development. The WMP should be read in conjunction with other planning approval documentation for the Development referenced herein.

# 2 Development Description

The Development is at 125-129 Carrington St, Adelaide, in the City of Adelaide (Council). Per plans provided (DPR04 and DPR05, received 13 November 2018), the Development is a six-storey building on a *ca.* 470m$^2$ site, with *ca.* 16.3m frontage onto Carrington St and rear access via Mocatta Place – see Figure 2-1 overleaf which reproduces the Ground Level plan for the site. *[This figure illustrates proposed waste system features for the Development at Ground Level which will be discussed later in this WMP.]* Table 2-1 below gives the Development's land use metrics (used for waste system design). In summary, the Development comprises:

- *Residential*
  - *Levels 3 to 5 – Six (6) 3-bedroom apartments;*
  - *Ground Level – Access Lobby to Lift*
- *Commercial –*
  - *Ground Level – Light Café*
  - *Levels 1 to 2 – Offices & Consulting Rooms*

*Table 2-1 below includes the recommended Waste Resource Generation Rate (WRGR) classification (for each land use) based on the State Guideline (Zero Waste SA, 2014), which are used for estimation of waste and recycling volumes to assess waste storage required for the site.*

**Table 2-1 – Summary of land uses for the Development, their WRGR Description(s) and relevant Development Metric(s)**

| Land Use | Description | Location | Land Use Type* | Development Metric(s) | |
|---|---|---|---|---|---|
| **Residential** | Apartments | Levels 3-5 | High Density Residential Dwelling | 6 | Apartments |
| | | | | 18 | Bedrooms |
| | Common Space / Lobby | Ground Level & Levels 3-5 | Showroom | 50 | m$^2$ GFA Active Space** |
| **Commercial** | Café: Single Tenancy | Ground Level | Light Café* | 25 | m$^2$ GFA Active Space**, 6-day operation |
| | Commercial Offices: At least (2) tenancies, or at least one per level | Levels 1 & 2 | Offices & Consulting Rooms (Medical)** | 500 | m$^2$ NLA, 5-day operation per week |

* Derated Café/Restaurants WRGR used to reflect Light Café scenario: General Waste - 40% discount; Recycling - 20% discount; Food waste - 50% discount

** Active space estimate used for waste volume calculations

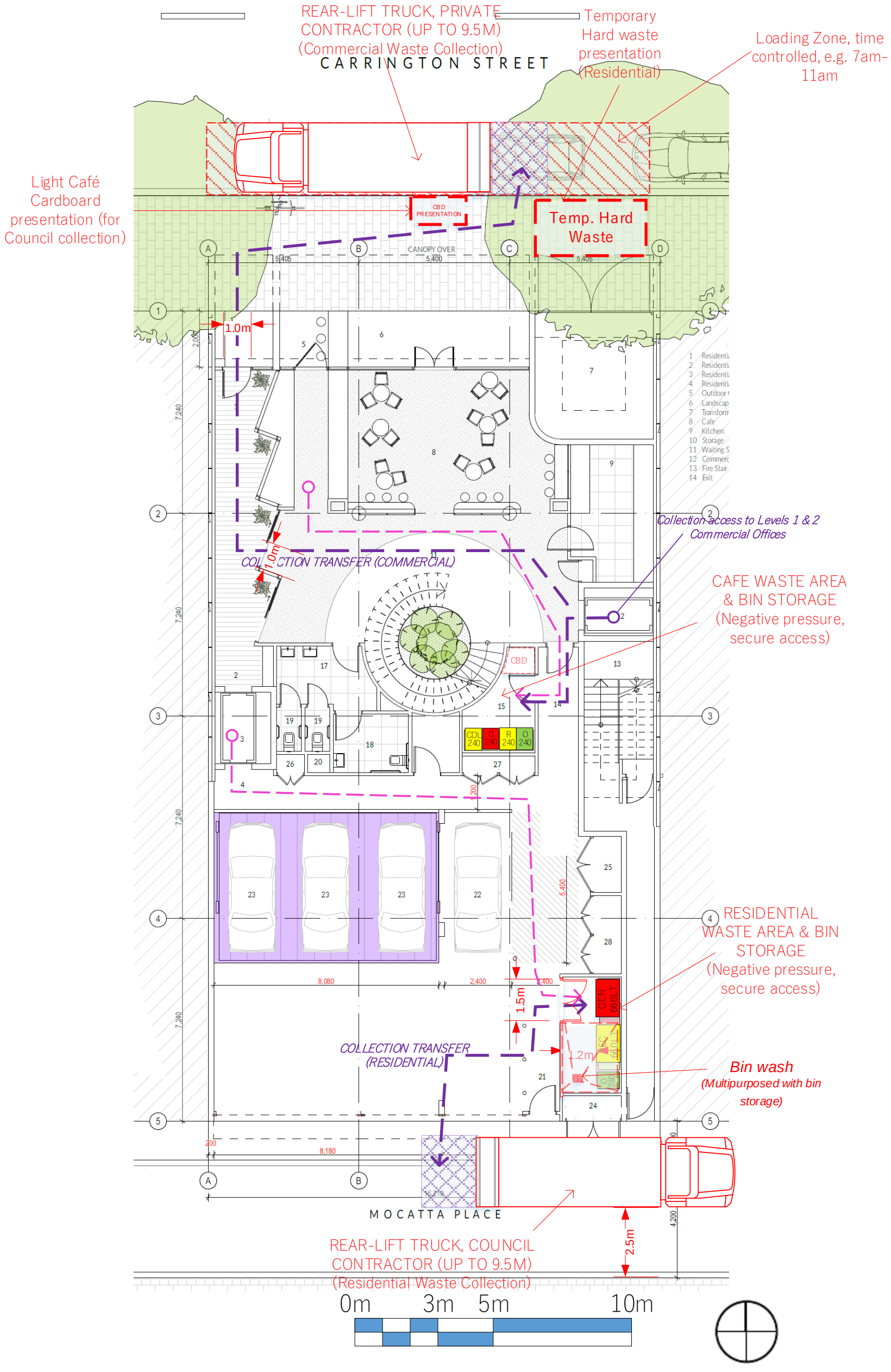



**Figure 2-1 – Ground Level plan and site boundary for Development, reproduced from the Drawings.** *This figure illustrates proposed waste system features which will be discussed later in this WMP.*

# 3 Design Assumptions

## 3.1 Stakeholder Engagement (Council)

Discussions were held with the Architect and Traffic Consultant to confirm most appropriate types of waste storage, the location and space available for this storage, and how waste and recycling bins could be collected, including accessing the Council rear-lift skip bin collection service for high density residential dwellings that is available.

Based on these discussions, a proposed waste system arrangement/scheme for the building was put to Council (via David Bland, Waste Management & Operational Support) by email (on 15 November 2018) for their consideration. This proposed waste system included a separation of collection points for commercial and Council collections as follows.

- *Council bulk bin collection could occur from the rear via Mocatta Place because collections would only be weekly and occur over a short period (e.g. up to 5 min) and Council felt comfortable they could manage these collection arrangements without negative impact on traffic and resident access to other properties along this street (like their existing kerbside collection).*
- *Commercial collections, however, would occur from Carrington St as they could be more frequent (up to 3 times a week), would involve pull-in, pull-out arrangements where trucks could be parked for up to 15-20 minutes.*
    - *Such commercial arrangements could be perceived as not suitable for Mocatta place (which is a narrow street with no on-street parking) and best located on Carrington St where a temporary on-street loading zone could be established for this purpose.*

Following review, the proposed system arrangement/scheme Council confirmed by via email (Adelaide City Council, 16 November 2018) that:

- *"From reviewing the drawings, I don't see any fundamental issues."*

This proposed waste system arrangement/scheme proposed to Council and confirmed above is therefore outlined and expanded on in this WMP.

## 3.2 Waste & Recycling Service Provision

Table 3-1 overleaf outlines the recommended waste services by land use per Table 2-1. The different waste service classifications listed in Table 2 are explained below.

- ***Routine Services –*** These require on-site waste storage and routine and regular collections, and would include services for general waste, dry (comingled) recyclables and food waste.
- ***At-call services –*** These involve non-frequent collections, such as Hard waste and are organised and provided on an as-needed basis.
- ***Maintenance services –*** Some waste items (e.g. lighting in common areas or commercial tenancies) would be removed and disposed of (off-site) by the contractor providing the related maintenance service (and hence on-site waste storage is not usually needed or provided).
- ***External Services –*** These are where waste items (e.g. printer cartridges, lighting) that can be dropped off by tenants/residents at external locations (e.g. Officeworks, waste depot) (and thus, separate on-site waste storage is not usually needed or provided).

For the Routine and Hard Waste services for residential apartments, these would be provided by Council (via their waste contractor).

The Routine and Hard Waste services for commercial tenancies would be provided by a commercial or private waste contractor, except where the commercial tenancies (e.g. Light Café) took advantage of the Council weekly cardboard collection service available to businesses in the Council area (see: https://www.cityofadelaide.com.au/city-business/business-responsibilities/waste-recycling/collections-for-businesses/).

*{Cont. overleaf below Table 3-1}*

**Table 3-1 – Expected or recommended waste & recycling services for the Development**

| Service Type | Residential | | Commercial | |
|---|---|---|---|---|
| | **Apartment** | *Public Space* | *Offices & Consulting Rooms* | *Light Café** |
| ***Routine (regularly scheduled)*** | · General Waste<br>· Recycling<br>· Food Organics | · General Waste | · General Waste<br>· Recycling<br>· Paper (only)<br>· Confidential Paper<br>· Medical/Pharmaceutical Waste (if applicable) | · General Waste<br>· Recycling<br>· Cardboard (Flatpack, Council collection)<br>· Food Waste<br>· Recycle Deposit Containers (OPTIONAL) |
| ***At-call (as needed)*** | · Hard/E-waste (Council) | | · Hard/E-waste (Private) | · Cooking Oil (OPTIONAL) |
| ***Maintenance (waste removed by contractor)*** | · Lighting (where applicable) | | | |
| ***External (by tenant off-site)*** | · Lighting<br>· Printer Cartridges<br>· Batteries | | | |

## 3.3 Waste & Recycling Volumes

Table 3-2 below estimates expected waste and recycling volumes for the Development (in Litres/week).

- *WRGRs (in the State Guideline) do not exist for sanitary, lighting, printer cartridge or battery waste.*
    - *Volumes of these waste items, however, are relatively small, and thus, have not been estimated.*
- *The Light Café tenancy WRGRs are derated Café / Restaurant WRGRs (to reflect the fact a Light Café is not a full-service restaurant, which the WRGRs in the State Guidelines are based on – refer to Table note).*
- *The Light Café and Offices & Consulting Rooms' WRGRs for Recycling and General Waste were split based on published data and consultant experience to reflect likely volumes generated for different recyclable items.*

**Table 3-2 – Estimated waste & recycling volumes (Litres/week) for Development**. *Greyed out, N/A – Not Applicable; NE – Not estimated*

| Waste/Recycling Service | Residential | | Commercial | |
|---|---|---|---|---|
| | *Apartments* | *Public Space* | *Offices & Consulting Rooms *** | *Light Café#,*** |
| | *L/week* | *L/week* | *L/week* | *L/week* |
| General Waste | 540 | 92 | 800 | 517 |
| Dry Comingled Recycling | 450 | | 156 | 92 |
| Paper | | | 469 | |
| Cardboard | | | | 187 |
| Recycled Deposit Container | | | | 86 |
| Confidential Paper | | | 125 | |
| Food/Garden Organics | 180 | | | 574 |
| Clinical Waste | | | 50 | |
| Hard waste | 126 | 4 | 13 | 14 |
| E-waste | 23 | 0.4 | 1 | 1 |
| Lighting waste | Not Estimated (Minimal Volumes) | | | |
| Printer Cartridges/Batteries | Not Estimated (Minimal Volumes) | | | |
| Sanitary | | | Not Estimated (Minimal Volumes) | |
| TOTAL | 1,319 | 193 | 1,614 | 2,130 |

# Modified Café / Restaurant WRGR to reflect Light Café tenant: General waste WRGR derated by 30%, recycling/cardboard by 25%, and food waste by 50%.

** Splits are made to Recycling and General waste WRGRs based on published data and consultant experience to reflect likely volumes generated

# 4 Waste Management System

## 4.1 Waste Storage Area(s)

There would be the following waste bin storages (Waste Storage Areas) at the Development, which are also shown in Figure 2-1 and Figure 4-1 (overleaf).

**1) Apartment (Residential) Waste Area & Bin Storage –** *see Figure 2-1*

- *This shared waste storage would be a separate room at the Ground Level.*
- *Residents would access the room from their apartments via Lift to Ground Level.*
- *Collection access (by Council contractor) would be via the Garage door at rear of property.*

*2)* **Commercial Office & Consulting Rooms' Bin Storage areas** *– see Figure 4-1*

- *These waste storages would include:*
    - *General waste and recycling bins in a cleaner's store rooms at Levels 1 and 2;*
    - *Paper and confidential paper bins in stationery rooms of each commercial tenancy; and/or*
    - *Clinical waste receptacles or bins (if required for medical consulting) in secure storage areas in each commercial tenancy.*
- *For commercial collections, the commercial waste contractor would park in proposed Loading Zone on Carrington St and pull-in pull-out bins via the Residential Lobby, Ground Level Waiting Area, and commercial lift to Levels 1 and 2.*

**3) Commercial Light Cafe Tenancy Waste Area & Bin Storage –** *see Figure 2-1*

- *The Café would have its own waste room at Ground Level and may also store smaller waste/recycling items in-tenancy (e.g. cooking oil).*
- *Café staff would access this room via Ground Level Waiting Space area for Levels 1 and 2 and rear corridor.*
- *Like the Office & Consulting Rooms above, collection would be pull-in pull-out service by the commercial waste contractor using the Loading Zone on Carrington St except for Cardboard which would be presented kerbside (in flat pack format) for Council weekly collection*

Table 4-1 two pages overleaf gives a schedule of recommended bin storage in each of these Waste Storage Areas for Routine Services. This Table includes for each land use and service:

- *Number and type of bins;*
- *Collection frequency (expected or proposed); and*
- *Service provider.*

Potential bin configurations in these Waste Storage Areas for the recommended bin storage (per Table 4-1) are shown in Figure 2-1 and Figure 4-1.

- *These illustrations demonstrate that adequate space is or can be provided in these Waste Storage Areas to meet the site's waste management requirements.*
- *For the commercial offices on Levels 1 and 2 they would have the same set of bins on each level (i.e. one set = halve the number indicated in Table 4-1)*

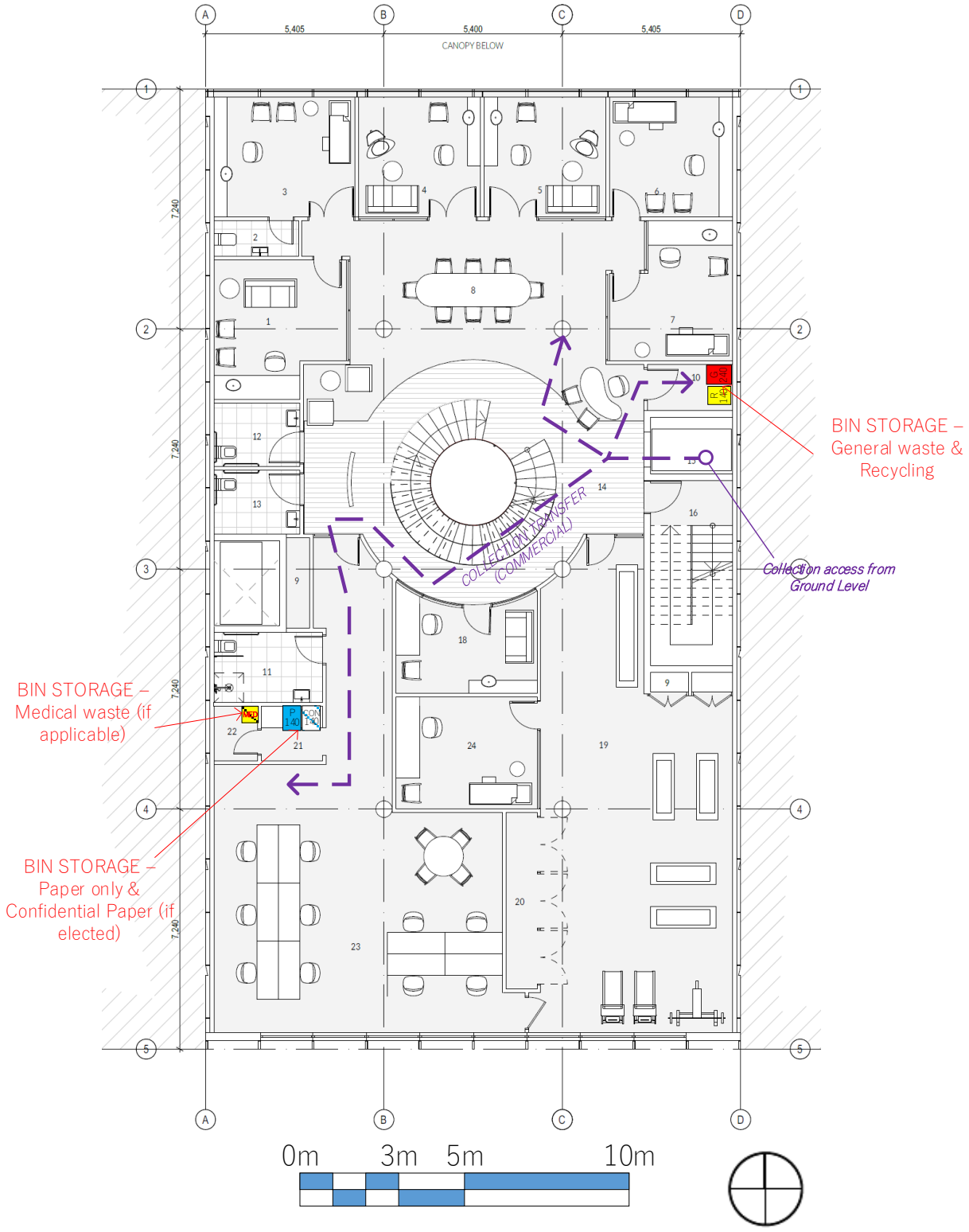



**Figure 4-1 – Example illustration of how commercial waste storage on Levels 1 and 2 could be organised.** *Final configuration to be decided at time of tenancy fit-out*

**Table 4-1 – Waste storage and bin schedule for Routine Services, including collection frequency and collection service provider.** *The type and size of bins for some commercial services (e.g. medical, confidential) may be refined in consultation with the commercial waste contractor when the building becomes operational*

| Waste Storage Area(s) | Location | Routine Service | Estimated Waste / Recycling Volumes (L/week) | Provider | Collection Frequency (Up to Events/week) | Max. Bins/Items Stored & Collected (per Event) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | *No.* | *Size (L)* | *Type* |
| ***1. Residential*** | *Ground Level Waste Room (Residential)* | General Waste | 632 | Council residential skip bin | Weekly | 1 | 660 | Skip |
| | | | | | | 1 | 240 | MGB |
| | | Dry Comingled Recycling | 450 | | | 1 | 660 | Skip |
| | | Food/Garden Organics | 180 | | | 1 | 240 | MGB |
| ***2. Café*** | *Ground Level Waste Room (Café)* | General Waste | 517 | Private | 3 | 1 | 240 | MGB |
| | | Dry Comingled Recycling | 92 | | 1 | 1 | 240 | MGB |
| | | Cardboard (Flat-pack) | 107 | Council Business Cardboard | 1 | 1 | 107 | Flat-pack |
| | | Recycled Deposit Container | 86 | Private | 1 | 1 | 240 | MGB |
| | | Food/Garden Organics | 574 | | 3 | 1 | 240 | MGB |
| ***3. Office & Consulting Rooms (4 tenancies)*** | *Cleaners Rooms on Levels 1 & 2* | General Waste | 800 | | 2 | 2 | 240 | MGB |
| | | Dry Comingled Recycling | 156 | | 1 | 2 | 140 | MGB |
| | *Stationery room within each tenancy* | Paper | 469 | | 2 | 2 | 140 | MGB |
| | | Confidential Paper | 125 | | Fortnightly | 2 | 140 | MGB |
| | *Secure area within each tenancy* | Clinical Waste | 50 | | 1 | 2 | 25 | Pail |

## 4.2 System Operation

### 4.2.1 Routine Services

The following summarise how the waste systems would operate for each land use at the Development.

#### *4.2.1.1 Residential Apartments*

**User Storage** – Residents would be provided with suitable kitchen bins with handles to enable easy carriage from their dwellings to their Local Disposal Area, e.g. Figure 4-2 below:

a) *General waste bin – at least 20L in size (bag lined)*
b) *Commingled recycling waste bin - at least 20L in size*
c) *Food organics bin (as specified or otherwise agreed with Council) (compostable bag lined)*

*Note: City of Adelaide residents who receive the Green Organics collection can pick-up a free Kitchen Organics Basket and ongoing supply of compostable bags from Council's Community centres, libraries or Colonel Light Customer Centre. See: https://www.cityofadelaide.com.au/city-living/home-property-management/waste-recycling/food-waste/*


(a)

(b)

**Figure 4-2 – Examples of suitable waste and recycling kitchen bins:** *(a) General waste & recycling - 2×20L Buckets with carry-handles in pull-our draw* **(Adelaide City Council, 2016 )***; and (b): Bench-top food waste kitchen caddy with handles (Source: https://www.cityofadelaide.com.au/city-living/home-property-management/waste-recycling/food-waste/ )*

**Local Disposal –** The residents would carry waste in their kitchen bins via corridors and Lift to the Ground Level Waste Room – see Figure 2-1 – and empty it into the skip bins and/or MGBs provided.

**Waste Storage** – These would be skip bins and/or MGBs in Ground Level waste room, size and number per Table 4-1 and illustrated in Figure 2-1.

**Presentation/Collection Transfer** –

- The Ground Level waste room would be the presentation area for collection.
- The Council waste contractor would open (using key or secure access code) the rear garage access door from Mocatta Place to Ground level car park area and pull bins out from the Waste Storage Area, empty them, then return empty bins back to this waste room.

**Collection –**

- Would be the Council contractor (rear-lift and/or kerbside), parking in Mocatta Place (per Figure 2-1)

- The Council contractor would access this Loading Area from Queen St or Hurtle Square park at rear of the property, and after collection, exit in a forward direction onto Hurtle Square or Queen St (respectively).
    - *Council has already confirmed it can deliver this service to the development in this way (Adelaide City Council, 16 November 2018).*
- Collections would be weekly, and the time required for collection events should be less than 5min (per service) to park, collect and empty bins.

#### *4.2.1.2 Commercial tenancies – Offices and Consulting Rooms & Light Cafe*

**User Storage** – These tenancies would have bins located in-tenancy for disposal of their waste and recycling. The types and size of bins would be decided during tenancy fit-out as they depend on type of commercial activity and services elected by the tenants.

**Local Disposal** –

- ***Light Café*** – Tenancy staff would transfer waste & recycling and/or bins via Ground Level Waiting Space area and rear corridor to their Ground Level waste storage area – per Figure 2-1 – and empty it into the bins provided.
- ***Offices & Consulting Rooms*** – Tenancy staff and/or cleaners would transfer waste & recycling and/or bins to waste storage areas in-tenancy or on their level – per Figure 4-1 – and empty it into the MGBs or receptacles provided.

**Waste Storage area** –

- ***Light Café*** – The Waste Storage area would at Ground Level as illustrated in Figure 2-1, some smaller waste items (e.g. cooking oil if required) may be stored in the tenancy.
- ***Offices & Consulting Rooms –*** Per Figure 4-1 there would be bins stored in several locations on each level:
    - *General waste and recycling bins in a cleaner's store rooms;*
    - *Paper and confidential paper bins (if elected) in stationery rooms in each commercial tenancy; and*
    - *Clinical waste receptacles or bins (if medical consulting rooms and elected) in secure storage areas in each commercial tenancy.*
- Table 4-1 gives a list of bin types and numbers to service the assumed tenancy configurations in Table 3-1, and Figure 2-1 and Figure 4-1 illustrate that these bins can be accommodated in these commercial waste storage areas.

**Presentation/Collection Transfer** –

- For commercial waste and recycling services, the Waste Storage Areas (Levels 1 and 2 for Offices & Consulting Rooms and Ground Level waste room or in-tenancy storage for Café) would be the presentation areas for collection.
    - *The waste contractor would use the Lobby, Ground Level Waiting area and/or Lift to transfer bins/items to the Carrington St collection point.*
- Cardboard collection for Light Café – If the Light Café elects to access the weekly cardboard collection service provided by Council, the bins(s) and/or waste items would be presented for collection at kerbside on Carrington St in line with Council requirements (per https://www.cityofadelaide.com.au/city-business/business-responsibilities/waste-recycling/).

**Collection –**

- For commercial waste and recycling services, these would be by a commercial (private) contractor, using the Carrington St collection point.
    - *We recommend that the Body Corporate engage a common waste contractor for all commercial tenancies at the site (to minimise collection events at the Development).*
- Cardboard collection for Light Café – If elected, the Council weekly cardboard collection service by kerbside presentation on Carrington St (as illustrated in Figure 2-1).

### 4.2.2 At-call services

#### *4.2.2.1 Hard/E-waste – Apartment Building residents*

- Residents can use the Council's at-call hard waste collection, where residential sites with 6 or less dwellings an access up to 2 collections per site per calendar year (see: https://www.cityofadelaide.com.au/city-living/home-property-management/waste-recycling/hard-refuse/).
    - *The Body Corporate or Building/Facilities Manager (on residents' behalf) should inquire with Council regarding how these residents can access the Council hard waste collection when the Development becomes operational, including establishing suitable arrangements and (kerbside) presentation location(s) for the service.*
    - *Subject to above review and confirmation with Council) the temporary hard waste presentation area(s) could be set up on Carrington St as illustrated in Figure 2-1.*
- The Council waste contractor(s) delivering hard waste collection services can use the Carrington St Loading area (in the same way as proposed for commercial collection services).

The Building User Manual(s) for residents at the Development would advise on availability and/or organizing the Council Hard /E-waste collection services.

#### *4.2.2.2 Hard/E-waste – Commercial Tenancies*

- Would organise for private hard/e-waste collection direct from their tenancies as needed.
- The waste contractor delivering the services would use the Carrington S loading area as proposed above for hard waste collection services to Apartment residents.

The Building User Manual(s) for commercial tenants at the Development would advise on availability and/or organizing Hard /E-waste collection services.

### 4.2.3 Maintenance Services

Waste would be generated by some maintenance services or activities in the building and commercial tenancies at the site (e.g. lighting, repair work, cleaning of commercial toilets, etc.). These maintenance-generated waste materials would be handled and disposed of by the contractor undertaking these services. [Dedicated on-site storage for these waste materials is therefore not needed.]

### 4.2.4 External

Residents and commercial tenants would be able to dispose of smaller waste items, such as printer cartridges, batteries and lighting, to publicly available external drop off points (e.g. supermarkets, Office works, telco retail stores, etc.), which accept these materials.

The Building User Manual(s) for residents and commercial tenants at the Development will include advice on external drop-off points for these waste items, which may include reference to Council advice available at their Web site.

### 4.2.5 Bin cleaning (& On-site Bin Wash Area)

A dedicated on-site bin cleaning area would be provided and multi-purposed with the bin storage area in the Residential Waste room at Ground Level – see Figure 2-1.

- *This bin wash area would require grading to a sewer drain with basket screen to remove gross solids, tiles or epoxy coating to water-proof adjacent walls and flooring, standard cold-water supply faucet and commercial-grade electrical power supply (if pressure washer system is to be used), plus bunds and screens for use during bin wash events.*
- *Bin washing activity for residential bins and access by commercial tenants would be managed by the Body Corporate.*
- *Bin washing would be timed to occur immediately after bins are emptied.*

Alternatively, bin cleaning at the Development could be outsourced to an external contractor (e.g. http://binforce.com.au/).

- *These external contractors generally have self-contained bin washing systems on back of ute or truck that enable them to clean bins on site – e.g. Figure 4-3 below.*
    - *Or some will remove bins from site, replacing them with an empty spare, clean the bins, then return them to site.*


**Figure 4-3 – On-site bin wash system for rear-lift trucks on back of ute.** *Source: http://binforce.com.au/*

### 4.2.6 Transfer pathways

There are range of transfer pathways for the waste systems at the Development, which were described in Sections 4.2.1 and 4.2.2. The following is provided as a guide for sizing and designing these transfer pathways.

- *Transfer pathways –*
    - *User disposal – less than 30m and free of steps, no grades greater than 1:15, and cater for mobility impaired users.*
    - *Local disposal points to central storage – enough width to accommodate relevant bins or waste loads being transferred, free of steps, no grades greater than 1:12*
    - *Collection – less than 30m with no steps or grades greater than 1:10*
- *Corridor widths –*
    - *240L MGBs or smaller bins / loads – min. 1,000 mm (1,200mm preferred)*
    - *660L skip bins – min. 1,200mm (1,400mm preferred)*
    - *1,100L skip skips and/or other waste loads – min. 1,500mm (1,600mm preferred)*
- *Doors –*
    - *Local disposal access – 800mm*
    - *Transfer pathways– Appropriate to the size of bin to be transported, e.g.*
        - *240L MGB (or smaller) – min. 800mm*
        - *660L skip – min. 1,200mm*
        - *1,100L skip – min 1,500mm*
- *Floors – Hard surfaces where bins and skips are to be carted*
- *Lifts – All lifts should be sized to allow for bulky hard waste items.*

Based on current plans, these requirements for transfer pathways in the Development appear to be generally satisfied. All relevant transfer pathways should be reviewed and confirmed at detailed design stage to ensure they are appropriate, including with Council for their residential collection services.

## 4.3 Collection & Traffic Issues

#### 4.3.1.1 Collection Point & Events

The waste collection points for the Development introduced above is reiterated below.

- There are several collection points – per Figure 2-1 – with likely collection frequency(ies) and times at these location as follows.
    - **Residential / Apartment Building (Council Service)–**
        - *Collection point – Mocatta Place at rear of property*
        - *Collections scheduled by Council*
        - *Weekly per Routine service or 3 collection events per week.*
        - *Up to 5 min per building per collection event.*
    - **Commercial (tenancy) waste and recycling bins (Commercial Service)**
        - *Collection point – Carrington St Loading zone, time controls to ensure access by collection trucks, e.g. 7-11am each day.*
        - *Collection frequency dependant on the service and type of tenancy and could be up to three times per week (but probably less frequent) for some services provided to the Light Cafe tenant – see Table 4-1.*
        - *We recommend the Body Corporate engage a common waste contractor across all commercial tenancies to minimise collection events.*
        - *Assuming a common waste contractor, services there could be between 8 and 14 collection events per week across all services to commercial tenancies depending on services elected and collection frequencies required.*
        - *Each collection event could be 5-10 min depending on number of bins emptied or collected (and where from).*
        - *The collections should be scheduled to fit in with agreed loading zone parking controls which should be during daytime hours (7am-7pm) on weekdays and Saturdays (and on 9am-7pm Sundays if required) to minimise impacts on residents, neighbours, site car parking access, and traffic in Carrington St.*

#### 4.3.1.2 Vehicles & Access

- **Rear-lift collections for Apartment Building –**
    - Council has previously indicated to Colby Industries for their rear-lift service that the minimum size truck to be accommodated must be an 8.8m MRV with 3.5m minimum clearance.
    - There should be no issues with these trucks accessing Mocatta Place as this is the current practice for Council kerbside collection for existing residents in Mocatta Place.
        - *Refer to Traffic Report by Traffic Engineer for additional discussion of collection truck access to the Mocatta Place proposed for the Development.*
- **Commercial collections –**
    - Collections from Carrington St –
        - *Collection trucks for services to commercial tenancies are typically 8-10m in length.*
        - *The proposed loading zone is 16m, which would be enough for these trucks to enter in forward direction and exit in forward direction (after a small reversing movement needed whilst in the loading area).*
            - *Refer to Traffic Report by Traffic Engineer for additional discussion of collection truck access to the Carrington St loading zone proposed for the Development.*
        - *The loading zone would have time and parking controls (as agreed with Council), e.g. 7am-11am, is recommended, to ensure it is available for commercial waste collections.*

- *The Developer should confirm these time and parking controls with Council and commercial waste contractor to ensure they are applied to the loading zone before the Development becomes operational.*

- Council cardboard collections from Carrington St –
  - *Council already provides these services to other businesses along Carrington St, and thus there should be no issues with the same services being provided for the commercial tenancies (i.e. Light Café) in this Development.*

#### *4.3.1.3 Traffic Issues*

As described above, the residential collection point would be at rear of property in Mocatta Place. The collection trucks would access the collection point by forward entry from Hurtle Square or Queen St, then exit in forward direction back to Queen St or Hurtle Square (respectively). This access arrangement is already performed by Council's existing kerbside collection services to residents in Mocatta Place. For these services, there would be 3 collection events per week (one per service).

For commercial services there could be between 8 and 14 collection events per week from the proposed loading zone in Carrington St. This loading zone would be 16m to enable forward entry and exit and parking of truck adjacent the kerb. These collections should be scheduled during early morning hours along Carrington St with parking controls for loading zone set accordingly, e.g. 7AM-11AM.

Under these proposed collection and site access arrangements, we do not anticipate that the waste and recycling collection services proposed for the Development should prove problematic for local traffic or cause any other significant traffic issues for Mocatta Place, Carrington St or on neighbouring streets.

*Refer to Traffic Report by Traffic Engineer for additional discussion of collection truck access to the Development.*

## 4.4 Management & Communication

### 4.4.1 Responsibilities

Table 4-2 overleaf summarises the responsibilities of different parties / stakeholders for proposed waste management and operational activities at the Development. In summary:

- ***Residential*** – The Body Corporate would be responsible for managing the waste system, but residents would play an important role in managing their local disposal activities and accessing the Council hard waste service, and Council (at its discretion) may support the Body Corporate with resident engagement and education to help drive good waste management outcomes; and
- ***Commercial tenancies*** – The Body Corporate would manage the waste system, including ensuring that good waste management outcomes by tenants were achieved.

Table 4-2 – Management & operational responsibilities for the waste systems at the Development

| Waste System | Activity | Responsible party |
|---|---|---|
| ***Residential*** | *Local Disposal & External Disposal* | Residents |
| | *Waste Storage Areas, Hygiene, Odour Management & Cleaning* | Body Corporate & their property management staff |
| | *Collection services – Standard Waste & Recycling* | Council |
| | *Collection services – Hard Waste by Council* | Council with residents booking it directly with Council |
| | *Management* | Body Corporate |
| | *Education, Training & Engagement (Residents)* | Body Corporate & Council |
| ***Commercial tenancies*** | *Local Disposal, Hard Waste & External Disposal* | Tenants |
| | *Waste Storage Areas, Hygiene, Odour Management & Cleaning* | Tenants |
| | *Collection services – Waste & Recycling* | Commercial / Private Contractor(s) |
| | *Collection services – Cardboard (Council)* | Council with presentation kerbside by residents |
| | *Management* | Body Corporate |
| | *Education, Training & Engagement (tenants)* | Body Corporate |

### 4.4.2 Implementation & Communication

#### *4.4.2.1 Apartment Building residential*

To successfully implement this WMP, the following may need to be considered or should be put in place.

- ***Mandated responsibilities for apartment residents –*** Obligations for residents to properly access, operate and use the waste systems provided should be written into any tenancy residency agreement and/or incorporated into the Community/Strata plan lodged with the Lands Titles Office.
- ***Resident Induction –*** Should include first-day guidance on how to correctly use the waste systems.
- ***Council engagement and involvement –*** Council should be engaged on waste system operation, management and performance and to provide on-going advice, review and support to the Body Corporate and residents.
- ***Building User Manual*** – Advice and instructions on waste management and using the waste systems should be included in the Building User Manual(s) developed for residents, including contact information for further information, questions and issues.
    - *Council should be consulted on this advice and instructions and may provide relevant information to include in the Building User Manual(s).*
    - *This may include advice to residents on how to properly dispose of other waste / recycling items including lighting, batteries and hazardous household waste*
- ***Emergency Response &/or Property Management Plan(s) –*** Should include response measures (or contingencies) for:
    - *Council collection services suspended or not available;*
    - *Incorrect use by residents of the waste systems; and*
    - *Illegal dumping on-site.*

#### *4.4.2.2 Commercial tenants*

Like the Apartment residential system above, the following should be put in place

- ***Community/Strata title arrangements for commercial property owners –*** Obligations for the commercial tenants and/or property owners to properly access, operate and use the waste systems would be written into any tenancy agreement and the Community/Strata plan lodged with the Lands Titles Office.
- ***Site Management System / Manual*** – Advice and instructions on waste management and using the waste systems should be provided for tenants, including contact information for further information, questions and issues.
- ***Tenant Induction –*** Should include guidance on how to correctly use waste /recycling bins as well as the site approach to waste and recycling.
- ***Car park Response or Site Management Plan(s) –*** Should include response measures (or contingencies) for:
    - *Waste collection services suspended or not available;*
    - *Incorrect use by tenants of the waste systems;*
    - *Illegal dumping on-site; and*
    - *Poor waste management outcomes (including cleanliness, odour and/or low diversion).*

## 4.5 Other Waste System Design or Management Issues

The following would be considered and/or implemented for waste systems at the Development. More details for some of these items can be resolved at detailed design stage with the waste contractor and/or Council.

1) **Bins** – These would align to Council bin colours or otherwise comply with Australian Standard for Mobile Waste Containers (AS 4213).
    - *For the Apartment Building residential system, Council would provide these bins.*
2) **Signage** –
    - Appropriate signage in all Local Disposal and Waste Storage Areas should be used to ensure correct disposal of waste and recycling.
    - This signage should conform to the signage requirements of Council and/or the State Guideline (Zero Waste SA, 2014).
        - *Council should be consulted on signage for the Apartment residential system and may supply signage to the Development for this purpose.*

**3) Vermin, hygiene & odour management (inc. ventilation)**

- ***Inspection & Cleaning*** –
    - An inspection and cleaning regime would be developed and implemented by Body Corporate for waste systems at the Development, including ensuring that surfaces and floors around disposal areas, transfer pathways and waste storage areas are kept clean and hygienic and free of loose waste and recycling materials.
        - *Where putrescible general waste or food waste is being stored, Local Disposal and Waste Storage areas should be graded to a sewer drain with tiling or epoxy coating to floors and adjacent walls to waterproof the area and for cleaning.*
- ***Odour Control*** –
    - All Local Disposal and Waste Storage Areas –
        - *Where putrescible general waste or food waste is being stored, these areas would be mechanically ventilated for control of odours.*
        - *The ventilation would extract to atmosphere, to prevent odour build up.*
        - *The extraction vent discharge location would be selected to avoid impact on residents, tenants and/or neighbours.*

- *It should be a requirement for food waste bins in Local Disposal and/or Waste Storage areas that lids are closed after use.*

4) **Access & security** –
   - All Local Disposal and Waste Storage Areas (residential and commercial) in the Building should be secure and only accessible by key or fob or access code.
     - *This key or fob or access codes would be provided to residents, tenants, property management staff and/or waste contractor(s) collecting from these areas.*
     - *CCTV is recommended to monitor waste disposal practices in all Local Disposal and Waste Storage Areas.*

# 5 References


Adelaide City Council. ( 2016 ). *Guide to waste & recycling bins.*

Adelaide City Council. (16 November 2018). *Email from D. Bland to C. Colby: RE: Carrington Street Apartment (proposed residential and commercial waste management).*

Zero Waste SA. (2014). South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments.

# APPENDIX 6

# CARRINGTON COLLABORATIVE

## ORDER OF COST ESTIMATE NO. 4 - JANUARY 2019

Rider Levett Bucknall

# Carrington Collaborative

## Order of Cost Estimate No. 4 - January 2019

Project Details

### Description

***Basis of Estimate***

This estimate is based upon measured quantities to which we have applied rates and conditions we currently believe applicable as at January 2019. We assumed that the project will be competitively tendered under standard industry conditions and form of contract.

This cost estimate is based on the documentation listed under the "Documents" section and does not at this stage provide a direct comparison with tenders received for the work at any future date. To enable monitoring of costs this estimate should be updated regularly during the design and documentation phases of this project.

***Items Specifically Included***

This estimate specifically includes the following:

Office Fitout

We have assumed the following fitout for Level 1 & 2:

- Carpet floor finish including skirtings
- Mineral fibre tiled grid ceiling
- Plaster wall linings to inside of external walls and cores
- Base building toilets complete
- Finish to lift face
- Electrical and Comms (Inclusive of boards, meters, cable trays, lighting, skirting duct, etc)
- Fire detection
- Air Conditioning and Ventilation complete

Contingencies & Escalation

The estimate includes the following contingency allowances:

- Design Development Contingency which allows for issues that will arise during the design and documentation period as the design team develops the design through to 100% documentation
- Construction Contingency which allows for issues that will arise during the construction period including for latent conditions, design errors and omissions, design changes, client changes, extension of time costs and provisional sum adjustments.

***Items Specifically Excluded***

The estimate **specifically excludes** the following which should be considered in an overall project feasibility study:

Project Scope Exclusions

- Building maintenance unit
- Stand-by power generator
- Work outside site boundaries

Scope Exclusions for works by others

- Tenant fitout (Levels 1 & 2)
- Retail area fitout
- Beer and post mix equipment, fonts, post mixes, beer and soft drinks pythons/lines, temprites etc.

# Carrington Collaborative
## Order of Cost Estimate No. 4 - January 2019

Project Details

**Description**

- Bar equipment including dishwashers, glass washers, coffee machines, etc.

Risk Exclusions

- Contaminated ground Removal and Reinstatement
- Asbestos and Hazardous Materials Removal
- Piled foundation systems (retention only)
- Rock excavation
- De-watering
- Staging / Phasing costs
- Underpinning of adjacent buildings
- Basement in existing building
- Gross Pollutant Trap to undercroft carpark

Other Project Cost Exclusions

- Land costs
- Legal fees
- Marketing, sales and leasing costs
- Sales/display Suite
- Development margin / profit
- Holding costs and finance charges
- Escalation in costs from to future construction period beyond Early 2019

***Documents***

The following documents have been used in preparing this estimate:

Date Received

ARCHITECTURAL Documents prepared *by Stallard Meek Architects*
*23/1/19*

# Carrington Collaborative

## Order of Cost Estimate No. 4 - January 2019

Location Summary

GFA: Gross Floor Area
Rates Current At January 2019

| Location | | GFA m² | Cost/m² | Total Cost |
|---|---|---|---|---|
| **A** | **DEMOLITION & SITE WORKS** | | | **71,776** |
| **B** | **SITE INFRASTRUCTURE** | | | **262,940** |
| **C** | **MAIN CONSTRUCTION WORKS** | | | |
| BL | Basement Level | 127 | 7,134 | 906,043 |
| GL | Ground Level | 469 | 4,206 | 1,972,627 |
| L1 | Level 1 - Office including Warm Shell Fitout | 462 | 2,786 | 1,287,170 |
| L2 | Level 2 - Office including Warm Shell Fitout | 462 | 2,824 | 1,304,685 |
| L3 | Level 3 - Residential | 462 | 3,332 | 1,539,509 |
| L4 | Level 4 - Residential | 471 | 3,153 | 1,485,281 |
| L5 | Level 5 - Residential | 471 | 3,154 | 1,485,550 |
| RF | Roof | | | 258,929 |
| | ***C - MAIN CONSTRUCTION WORKS*** | ***2,924*** | ***$3,502*** | ***$10,239,794*** |
| | **ESTIMATED NET COST** | **2,924** | **$3,616** | **$10,574,510** |
| **MARGINS & ADJUSTMENTS** | | | | |
| Design Development Contingency (5%) | 5.0 % | | | $463,937 |
| Statutory Fees and Charges | | | | Excl. |
| Allowance for SAPN augmentation and 750KVA transformer - services engineer to advise | 2.5 % | | | $275,000 |
| **CONSTRUCTION SUB-TOTAL** | | **2,924** | **$3,869** | **$11,313,447** |
| Construction Contingency (5% - based on a Lump Sum form of Procurement) | 5.0 % | | | $565,655 |
| Goods and Services Tax | | | | Excl. |
| | **ESTIMATED TOTAL COST** | **2,924** | **$4,063** | **$11,879,102** |

# APPENDIX 7

Government of South Australia
Department of Planning, Transport and Infrastructure

| | |
|---|---|
| **Product** | Register Search (CT 5362/251) |
| **Date/Time** | 01/02/2019 11:27AM |
| **Customer Reference** | 1731 |
| **Order ID** | 20190201003980 |
| **Cost** | $28.75 |

REAL PROPERTY ACT, 1886
South Australia

**The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.**

# Certificate of Title - Volume 5362 Folio 251

**Parent Title(s)** CT 4039/717

**Creating Dealing(s)** CONVERTED TITLE

**Title Issued** 17/09/1996 **Edition** 9 **Edition Issued** 19/09/2017

## Estate Type

FEE SIMPLE

## Registered Proprietor

CHANCIE PTY. LTD. (ACN: 618 405 566)
OF PO BOX 174 HINDMARSH SA 5007

## Description of Land

ALLOTMENT 756 FILED PLAN 182408
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

## Easements

NIL

## Schedule of Dealings

| Dealing Number | Description |
|---|---|
| 12793559 | MORTGAGE TO MEDFIN AUSTRALIA PTY. LTD. (ACN: 070 811 148) |

## Notations

**Dealings Affecting Title** NIL

**Priority Notices** NIL

**Notations on Plan** NIL

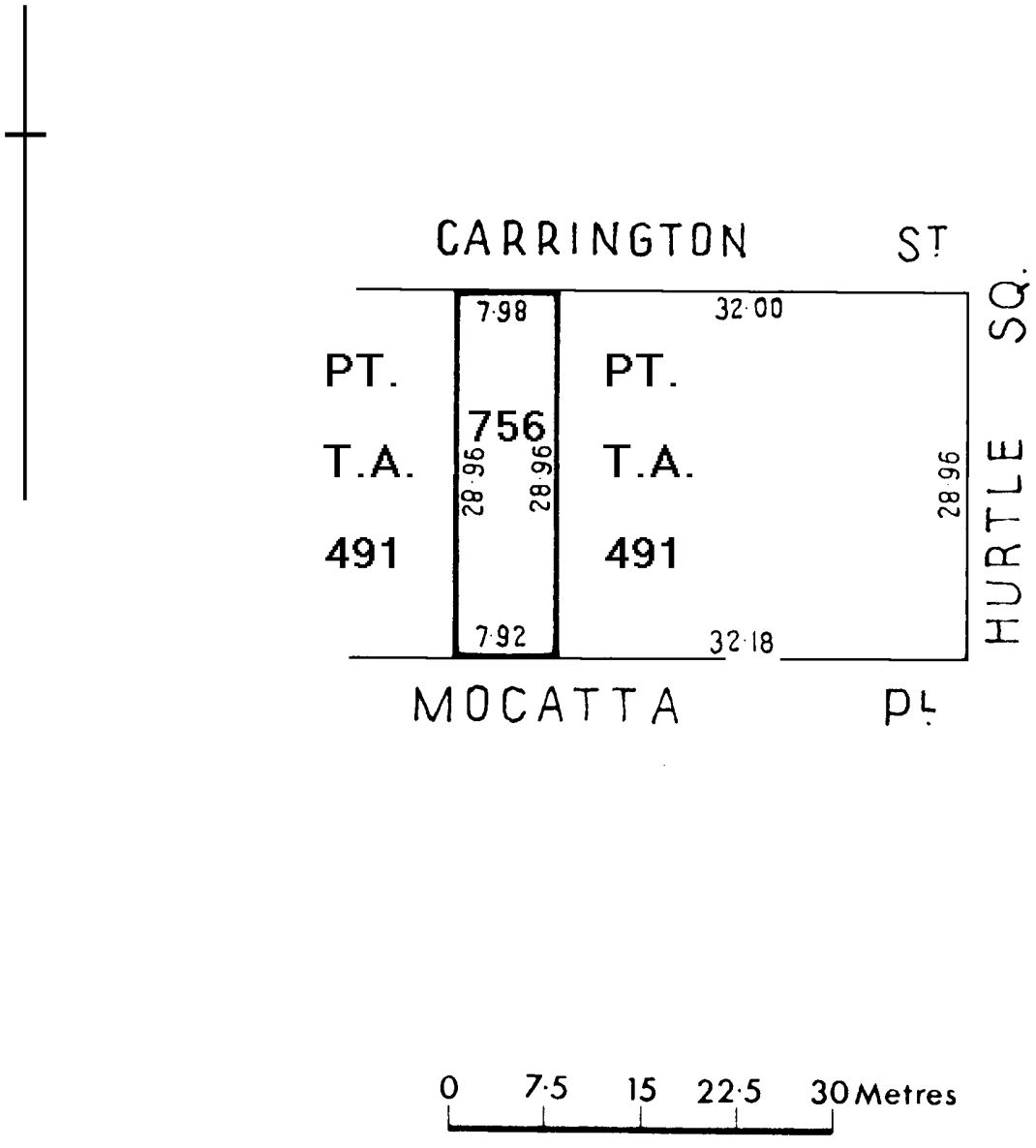
**Registrar-General's Notes**

PLAN FOR LEASE PURPOSES VIDE G175/1989

**Administrative Interests** NIL

| | |
|---|---|
| **Product** | Register Search (CT 5362/251) |
| **Date/Time** | 01/02/2019 11:27AM |
| **Customer Reference** | 1731 |
| **Order ID** | 20190201003980 |
| **Cost** | $28.75 |

THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 4039 / 717




NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

Government of South Australia
Department of Planning, Transport and Infrastructure

| | |
|---|---|
| **Product** | Register Search (CT 5362/109) |
| **Date/Time** | 01/02/2019 11:30AM |
| **Customer Reference** | 1731 |
| **Order ID** | 20190201004072 |
| **Cost** | $28.75 |

REAL PROPERTY ACT, 1886
South Australia

**The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.**

# Certificate of Title - Volume 5362 Folio 109

**Parent Title(s)** CT 1745/7

**Creating Dealing(s)** CONVERTED TITLE

**Title Issued** 17/09/1996 **Edition** 9 **Edition Issued** 19/09/2017

## Estate Type

FEE SIMPLE

## Registered Proprietor

CHANCIE PTY. LTD. (ACN: 618 405 566)
OF PO BOX 174 HINDMARSH SA 5007

## Description of Land

ALLOTMENT 757 FILED PLAN 182409
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

## Easements

NIL

## Schedule of Dealings

| Dealing Number | Description |
|---|---|
| 12793559 | MORTGAGE TO MEDFIN AUSTRALIA PTY. LTD. (ACN: 070 811 148) |

## Notations

**Dealings Affecting Title** NIL

**Priority Notices** NIL

**Notations on Plan** NIL

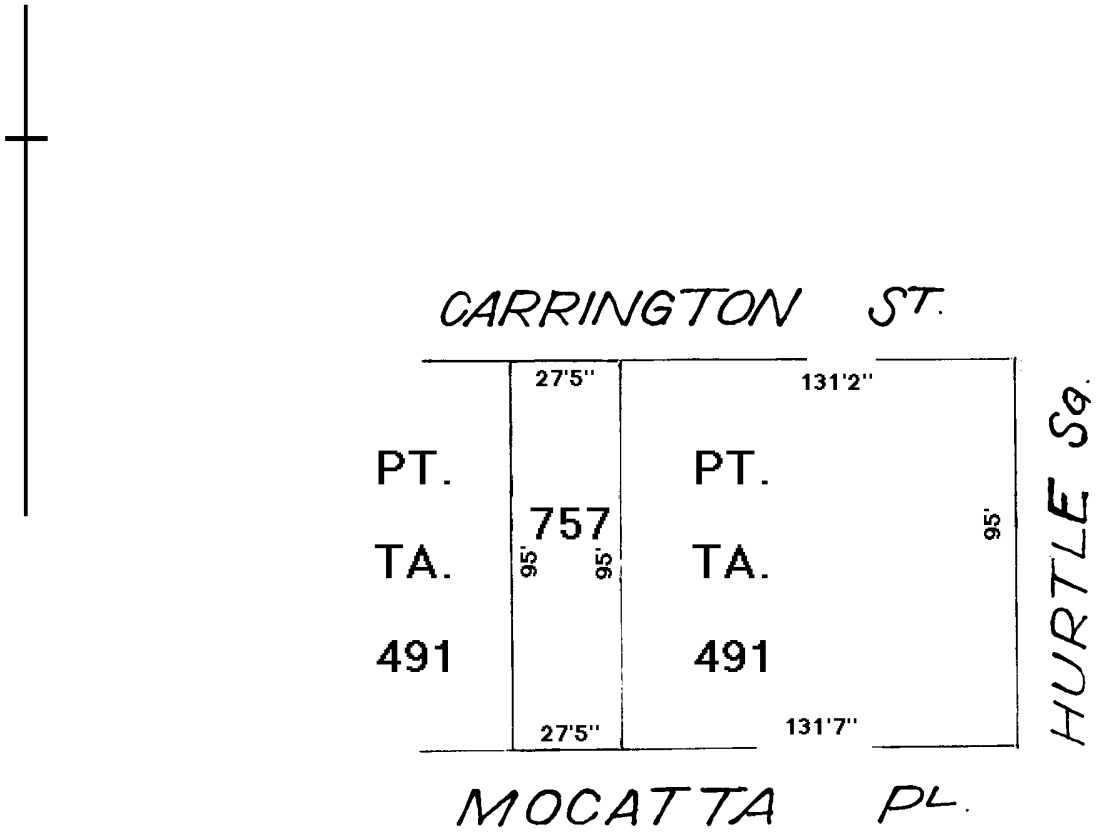
**Registrar-General's Notes**

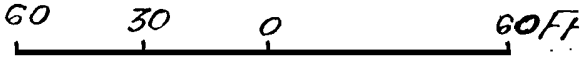
PLAN FOR LEASE PURPOSES VIDE G175/1989

**Administrative Interests** NIL

| | |
|---|---|
| **Product** | Register Search (CT 5362/109) |
| **Date/Time** | 01/02/2019 11:30AM |
| **Customer Reference** | 1731 |
| **Order ID** | 20190201004072 |
| **Cost** | $28.75 |

**THIS PLAN IS SCANNED FOR CERTIFICATE OF TITLE 1745/7**




| DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION | | |
|---|---|---|
| 1 FOOT | = | 0·3048 METRES |
| 1 INCH | = | 0·0254 METRES |

**NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION**

# APPENDIX 8

# RELEVANT DEVELOPMENT PLAN PROVISIONS

## COUNCIL WIDE

### Living Culture

#### OBJECTIVES

**Objective 1:** The City of Adelaide as the prime meeting place and cultural focus for the people of metropolitan Adelaide and the State.

**Objective 3:** Development that enhances the public environment and provides interest at street level.

#### PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should, where appropriate, integrate public art into the design of new or refurbished building sites in a manner which is integrated with and commensurate in scale with, the new or refurbished buildings. For the purpose of enhancing the public environment, public art should:

(a) demonstrate artistic excellence and innovation in design;

(b) be made of high quality materials;

(c) enhance the setting of new development;

(d) be integrated into the design of the building and the surrounding environment;

(e) consider any existing public art works; and

(f) not hinder sight lines or create entrapment spots.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

*1.1 Design solutions may include:*

*(a) treating the building as a piece of art in itself;*

*(b) locating art in publicly accessible locations such as near main entrances, lobbies and street frontages;*

*(c) using water as a landscaping element including animating spaces with fountains, pools and waterfalls, for which the re-use of stormwater is encouraged;*

*(d) designing paving so it becomes a piece of art in itself;*

*(e) using lighting to enhance the architectural characteristics of a building; or*

*(f) providing spaces within the development for accommodating temporary or outdoor gallery opportunities.*

### City Living

#### Housing Choice

#### OBJECTIVES

**Objective 6:** A variety of housing options which supplement existing types of housing and suit the widely differing social, cultural and economic needs of all existing and future residents.

**Objective 7:** A range of long and short term residential opportunities to increase the number and range of dwellings available whilst protecting identified areas of special character and improving the quality of the residential environment.

#### PRINCIPLES OF DEVELOPMENT CONTROL

5 Development should comprise of a range of housing types, tenures and cost, to meet the widely differing social and economic needs of residents.

7 Residential development should be designed to be adaptable to meet people's needs throughout their lifespan to ensure that changes associated with old age, special access and mobility can be accommodated.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

*7.1 Buildings constructed in accordance with the requirements set out in Australian Standard AS 4299: 'Adaptable Housing'.*

9 The City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone should develop as follows:

(a) Residential areas should comprise a wide range of housing alongside a diversity of community facilities, with many heritage places conserved. Residential amenity should be enhanced and attractive townscape qualities reinforced.

(b) Adelaide was once a predominantly residential City. The character in the south east corner continues to reflect this historical pattern with distinctive dwelling types and earlyshops from the mid to late 19th century. This historic importance is identified by the Adelaide Historic (Conservation) Zone within which development should complement and protect the historic character. In the south east and south west corners, groups of mid to late 19th housing remain amidst development from the 20th century. This early housing is identified within Historic (Conservation) Areas where development should complement and protect the historic character.

(e) The interface between established non-residential uses with neighbouring residential properties should be effectively managed, recognising the legitimate rights of commercial and community activities whilst protecting the amenity of residents.

(f) Small scale, small size, ancillary businesses and activities which provide a local service to residents may be appropriate provided compatible with the desired character of the locality, does not result in the net loss of residential floor space and do not threaten the envisaged development of non-residential zones.

#### Medium to High Scale Residential/Serviced Apartment

#### OBJECTIVE

**Objective 22:** Medium to high scale residential (including student accommodation) or serviced apartment development that:

(a) has a high standard of amenity and environmental performance;

(b) comprises functional internal layouts;

(c) is adaptable to meet a variety of accommodation and living needs; and

(d) includes well-designed and functional recreation and storage areas.

#### PRINCIPLES OF DEVELOPMENT CONTROL

#### Building Entrances

48 Entrances to medium to high scale residential or serviced apartment development should:

(a) be oriented towards the street;

(b) be visible and easily identifiable from the street; and

(c) provide shelter, a sense of personal address and transitional space around the entry.

49 Entrances to individual dwellings or apartments within medium to high scale residential or serviced apartment development should:

(a) be located as close as practical to the lift and/or lobby access and minimise the need for long access corridors;

(b) be clearly identifiable; and

avoid the creation of potential areas for entrapment.

**Daylight, Sunlight and Ventilation**

**50** Medium to high scale residential or serviced apartment development should be designed to maximise opportunities to facilitate natural ventilation and capitalise on natural daylight and minimise the need for artificial lighting during daylight hours.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***50.1*** *Design solutions may include:*

*(a) corner dwelling/apartment*

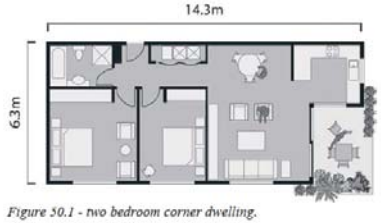



*Figure 50.1 - two bedroom corner dwelling.*

*(b) double aspect dwelling/apartment.*


*Figure 50.2 - two bedroom double aspect dwelling/apartment.*

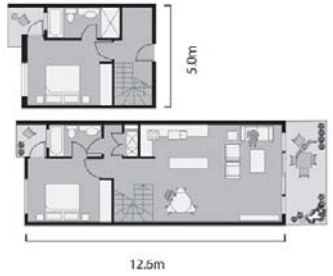



*Figure 50.3 - two bedroom double aspect dwelling/apartment.*


*Figure 50.4 - one bedroom double aspect dwelling/apartment.*

*(c) split level dwelling/apartment.*


*Figure 50.5 - one bedroom split level dwelling/apartment.*

*(d) shallow, single aspect dwelling/apartment limited in depth to 8 metres from a window*

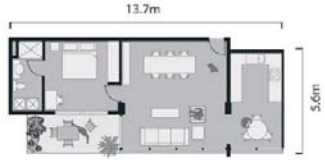



*Figure 50.6 - one bedroom single aspect dwelling/apartment.*

*Note: If over 15 metres deep, the width of the dwelling/apartment should be 4 metres or greater to ensure sufficient natural daylight.*

**51** Medium to high scale residential or serviced apartment development should be designed and located to maximise solar access to dwellings and communal open space on the norther facade.

**52** Ceiling heights that promote the use of taller windows, highlight windows, fan lights and light shelves should be utilised to facilitate access to natural light, improve daylight distribution and enhance air circulation, particularly in dwellings with limited light access and deep interiors.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***52.1*** *Design solutions may include:*

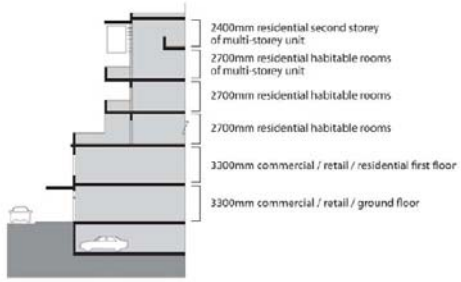



*Figure 52.1 - appropriate ceiling heights for mixed use buildings.*

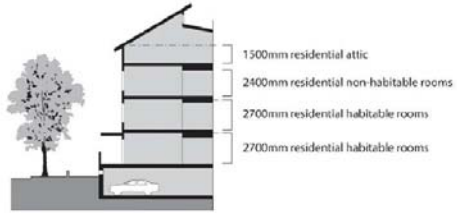



*Figure 52.2 - appropriate ceiling heights for medium to high scale residential or serviced apartment development.*

**53** All new medium to high scale residential or serviced apartment development should have direct ventilation and natural light.

**54** The maximum distance of a habitable room such as a living, dining, bedroom or kitchen from a window providing natural light and ventilation to that room is 8 metres.

**55** Light wells should not be used as the primary source of daylight for living rooms to ensure a sufficient level of outlook and daylight.

**56** Medium to high scale residential or serviced apartment development should be designed to ensure living areas, private open space or communal open space, where such communal open space provides the primary area of private open space, are the main recipients of sunlight.

**57** Medium to high scale residential or serviced apartment development should locate living areas, private open space and communal open space, where such communal open space provides the primary area of private open space, where they will receive sunlight and, where possible, should maintain at least two hours of direct sunlight solar time on 22 June to:

(a) at least one habitable room window (excluding bathroom, toilet, laundry or storage room windows);

(b) to at least 20 percent of the private open space; and

(c) communal open space, where such communal open space provides the primary private open space for any adjacent residential development.

**58** Natural cross ventilation of habitable rooms should be achieved by the following methods:

(a) positioning window and door openings in different directions to encourage cross ventilation from cooling summer breezes;

(b) installing small low level windows on the windward side and larger raised openings on the leeward side to maximise airspeed in the room;

(c) installing higher level casement or sash windows, clerestory windows or operable fanlight windows to facilitate convective currents;

(d) selecting windows which the occupants can reconfigure to funnel breezes such as vertical louvred, casement windows and externally opening doors;

(e) ensuring the internal layout minimises interruptions to airflow;

(f) limiting building depth to allow for ease of cross ventilation; and/or

(g) draught proofing doors, windows and other openings.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***58.1*** *In relation to Principle of Development Control 58(e):*

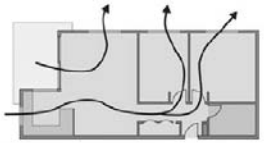


*Figure 58.1 - effective layout for an upper level corner dwelling/apartment.*

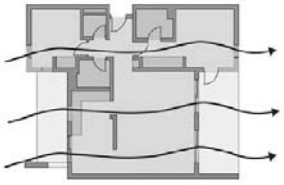


*Figure 58.2 - optimal layout allowing air flow directly from one side of a dwelling/apartment to the other.*

**Private Open Space**

**59** Medium to high scale residential development and serviced apartments should provide the following private open space:

(a) studio (where there is no separate bedroom): no minimum requirement but some provision is desirable.

(b) 1 bedroom dwelling/apartment: 8 square metres.

(c) 2 bedroom dwelling/apartment: 11 square metres.

(d) 3+ bedroom dwelling/apartment: 15 square metres.

A lesser amount of private open space may be considered appropriate in circumstances where the equivalent amount of open space is provided in a communal open space accessible to all occupants of the development.

Private open space for 2 or more bedroom dwellings/apartments may be divided into different areas whilst private open space for studios or 1 bedroom dwelling/apartments should be in a single area.

Areas used for parking of motor vehicles are not included as private open space.

*Note: In the City Living, Main Street and Institutional Zones, specific landscaped open space and private landscaped open space provisions apply.*

**60** Medium to high scale residential (other than student accommodation) or serviced apartment development should ensure direct access from living areas to private open space areas, which may take the form of balconies, terraces, decks or other elevated outdoor areas provided the amenity and visual privacy of adjacent properties is protected.

**61** Other than for student accommodation, private open space should have a minimum dimension of 2 metres and should be well proportioned to be functional and promote indoor/outdoor living.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***61.1*** *Design solutions for balconies may include:*

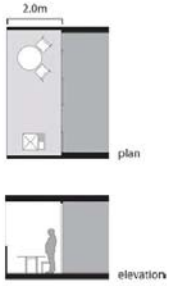



*Figure 61.1 - a minimum depth of 2 metres*

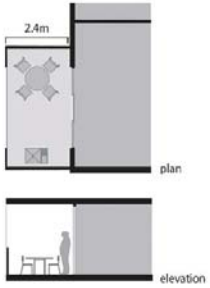



*Figure 61.2 - a 2.4 metre deep balcony is needed for a table and four chairs.*

**62** Balconies should be integrated into the overall architectural form and detail of the development and should:

(a) utilise sun screens, pergolas, shutters and openable walls to control sunlight and wind;

(b) be cantilevered, partially cantilevered and/or recessed in response to daylight, wind, acoustic and visual privacy;

(c) be of a depth that ensures sunlight can enter the dwelling below; and

(d) allow views and casual surveillance of the street while providing for safety and visual privacy.

**Visual Privacy**

**66** Medium to high scale residential or serviced apartment development should be designed and sited to minimise the potential overlooking of habitable rooms such as bedrooms and living areas of adjacent development.

**67** A habitable room window, balcony, roof garden, terrace or deck should be set-back from boundaries with adjacent sites at least three metres to provide an adequate level of amenity and privacy and to not restrict the reasonable development of adjacent sites.

**Noise and Internal Layout**

**68** Medium to high scale residential or serviced apartment development close to high noise sources (e.g. major roads, established places of entertainment and centres of activity) should be designed to locate noise sensitive rooms and private open space away from noise sources, or be protected by appropriate shielding techniques.

**69** Attached or abutting dwellings/apartments should be designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.

**Minimum Unit Sizes**

**70** Medium to high scale residential or serviced apartment development should provide a high quality living environment by ensuring the following minimum internal floor areas:

(a) studio (where there is no separate bedroom): 35 square metres.

(b) 1 bedroom dwelling/apartment: 50 square metres

(c) 2 bedroom dwelling/apartment: 65 square metres

(d) 3+ bedroom dwelling/apartment: 80 square metres plus an additional 15 square metres for every additional bedroom over 3 bedrooms.

*Note: Dwelling/apartment "unit size" includes internal storage areas but does not include balconies or car parking as part of the calculation.*

**71** Internal structural columns should correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.

**Adaptability**

**72** Within medium to high scale residential or serviced apartment development, dwelling/apartment layouts should be adaptable to accommodate:

(a) a range of activities and privacy levels between different spaces;

(b) flexible room sizes and proportions;

(c) efficient circulation to optimise the functionality of floor space within rooms; and

(d) the future reuse of student accommodation as residential apartments through a design and layout that allows individual apartments to be reconfigured into a larger dwelling or other alternative use.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***72.1*** *Design solutions may include:*

*(a) windows in all habitable rooms and to the maximum number of non-habitable rooms;*

*(b) adequate room sizes or open plan dwellings which provide a range of furniture layout options; and/or*

*(c) dual master bedrooms that can support two independent adults living together or a live/work situation.*

**Outlook**

**73** All medium to high scale residential or serviced apartment development should be designed to ensure the living rooms have a satisfactory external outlook. Living rooms that do not have an outlook or the only source of outlook is through high level windows or a skylight are not considered to provide an appropriate level of amenity for the occupiers.

*Note: Outlook is a short range prospect and is distinct from a view which is more extensive and long range to particular objects or geographic features.*

### On-Site Parking and Fencing

**OBJECTIVE**

**Objective 23:** Safe and convenient on-site car parking for resident and visitor vehicles.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**75** To ensure an adequate provision of on-site parking, car parking should be provided for medium to high scale residential (other than student accommodation) or serviced apartment development in accordance with Table Adel/7.

**76** Garages and parking structures associated with medium to high scale residential or serviced apartment development should be located so that they do not visually dominate the street frontage.

### Storage Areas

**80** Site facilities should be readily accessible to each dwelling/serviced apartment, complement the development and relevant desired character and should include:

(a) a common mail box structure located close to the main pedestrian entrance;

(b) areas for the storage and collection of goods, materials, refuse and waste including facilities to enable the separation of recyclable materials as appropriate to the size and nature of the development and screened from public view; and

(c) external clothes drying areas for residential dwellings that do not incorporate ground level open space.

**81** Medium to high scale residential (other than student accommodation) or serviced apartment development should provide adequate and accessible storage facilities for the occupants at the following minimum rates:

(a) studio: 6 cubic metres

(b) 1 bedroom dwelling/apartment: 8 cubic metres

(c) 2 bedroom dwelling/apartment: 10 cubic metres

(d) 3+ bedroom dwelling/apartment: 12 cubic metres

50 percent of the storage space should be provided within the dwelling/apartment with the remainder provided in the basement or other communal areas.

## Environmental

### Crime Prevention Through Urban Design

**OBJECTIVES**

**Objective 24:** A safe and secure, crime resistant environment that:

(a) ensures that land uses are integrated and designed to facilitate natural surveillance;

(b) promotes building and site security; and

(c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**82** Development should promote the safety and security of the community in the public realm and within development. Development should:

(a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:

(i) orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;

(ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;

(iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;

(iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;

(v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;

(vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;

(vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and

(viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.

(b) provide access control by facilitating communication, escape and path finding within development through legible design by:

(i) incorporating clear directional devices;

(ii) avoiding opportunities for concealment near well travelled routes;

(iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;

(iv) use of devices such as stainless steel mirrors where a passage has a bend;

(v) locating main entrances and exits at the front of a site and in view of a street;

(vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and

(vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.

(c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:

(i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;

(ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and

(iii) locating main entrances and exits at the front of a site and in view of a street.

(d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:

(i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;

(ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;

(iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;

(iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;

(v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and

(vi) use of robust and durable design features to discourage vandalism.

**83** Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***83.1*** *Residential development adjacent to public or communal open space or streets having at least one habitable room window facing such areas with a sill height no greater than 1.5 metres.*

**84** To maximise security and safety, buildings should be designed to minimise access between roofs, balconies and windows of adjacent buildings.

**85** Security features should be incorporated within the design of shop fronts to complement the design of the frontage and allow window shopping out of hours. If security grilles are provided, these should:

(a) be transparent and illuminated to complement the appearance of the frontage;

(b) provide for window shopping; and

(c) allow for the spill of light from the shop front onto the street.

Solid shutters with less than 75 percent permeability are not acceptable.

## Waste Management

**OBJECTIVE**

**Objective 28:** Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**101** A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.

**102** A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.

**103** Development greater than 2 000 square metres of total floor area should manage waste by:

(a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;

(b) on-site storage and management of waste;

(c) disposal of non-recyclable waste; and

(d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

**104** Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

(a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;

(b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and

(c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***104.1*** *Ventilation equipment built in accordance with Australian Standard 1668.2-2002: 'The Use of Ventilation and Airconditioning in Buildings - Ventilation Design for Indoor Air Contaminant Control'.*

## Energy Efficiency

**OBJECTIVE**

**Objective 30:** Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**All Development**

**106** Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:

(a) providing an internal day living area with a north-facing window, other than for minor additions', by:

(i) arranging and concentrating main activity areas of a building to the north for solar penetration; and

(ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.

(b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;

(c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;

(d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;

(e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;

(f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;

(g) providing an external clothes line for residential development; and

(h) use of landscaping.

***Design Techniques*** *(these are ONE WAY of meeting part of the above Principle)*

***106.1*** *In relation to Principle 106(a), facing the length of the development to the north to maximise solar access with day living areas incorporating a window that faces between $20^{0}$ west and $30^{0}$ east of true north; or*

***106.2*** *In relation to Principle 106(b):*

*(a) grouping rooms with similar uses and heating and cooling needs;*

*(b) incorporating doors between living areas and other rooms and corridors; and*

*(c) placing utility areas such as bathrooms, toilets and laundries as buffer zones to the west.*

***106.3*** *In relation to Principle 106(c):*

*(a) dwellings and additions (other than minor additions) having a total window area (including glass doors) of less than 30 percent of the total wall area of the dwelling;*

*(b) dwellings and additions (other than minor additions) having a total window area facing east and west not exceeding 50 percent of the total window area of the dwelling to avoid heat gain during the summer months and reduce heat loss during the winter months;*

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* Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

*(c) shading of north facing windows to allow winter sun access but providing complete shading during summer, such as by eaves overhang, awnings, adjustable louvres, pergola's, shutters or planting of deciduous trees and vines;*

*(d) external shading is provided to west facing windows; and*

*(e) designing skylights and high level windows with adjustable louvres, double glazing and shading to minimise heat gain or loss.*

***106.4*** *In relation to Principle 106(d):*

*(a) positioning windows and doors to encourage cross ventilation for summer cooling as illustrated below.*

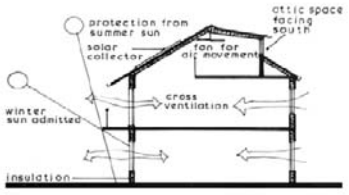


*Figure 106.1 - appropriate orientation and design for residential development*

***106.5*** *In relation to Principle 106(h):*

*(a) using appropriate landscaping to assist in microclimatic management of a site by:*

*(i) planting of evergreen trees along the eastern and western boundaries to protect from eastern and western sun providing it poses no undue risk of damage to footings; or*

*(ii) incorporating low shrubs, lawns, ponds and pools to cool summer breezes.*

**107** All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.

**108** Energy reductions should, where possible, be achieved by the following:

(a) appropriate orientation of the building by:

(i) maximising north/south facing facades;

(ii) designing and locating the building so the north facade receives good direct solar radiation;

(iii) minimising east/west facades to protect the building from summer sun and winter winds;

(iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or

(v) minimising the ratio of wall surface to floor area.

(b) window orientation and shading;

(c) adequate thermal mass including night time purging to cool thermal mass;

(d) appropriate insulation by:

(i) insulating windows, walls, floors and roofs; and

(ii) sealing of external openings to minimise infiltration.

(e) maximising natural ventilation including the provision of openable windows;

(f) appropriate selection of materials, colours and finishes; and

(g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.

***Design Techniques*** *(these are ONE WAY of meeting part of the above Principle)*

***108.1*** *In relation to Principle 108(b) (refer Figure 108.1):*

*(a) shading for all windows except for south facing elevation against summer sun penetration, by means such as vegetation, external louvres, external blinds, structural overhangs, low emittance glazing, spectrally-selective glazing and/or window films;*

*(b) maximising natural daylight while limiting glare through the incorporation of narrow floor plates, light shelves, shaded skylights, light shafts and/or atriums with daylight sensing control of electric lighting;*

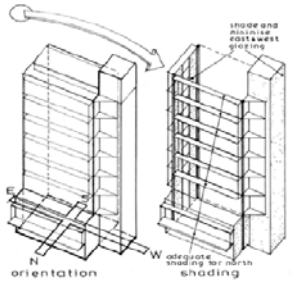


*Figure 108.1 - appropriate orientation and shading for commercial buildings.*

(c) *integration of solar shading with solar energy collection technology such as solar heat pumps and photovoltaic cells; and/or*

(d) *use of high performance glazing.*

***108.2*** *In relation to Principle 108(c):*

(a) *night purging and fan assisted thermal chimneys to remove heat stored in the building during the day and the recirculation of warm air during winter; and*

(b) *adjustable air flow rates for high, but variable, occupancy rates (ie office and conference areas).*

***108.3*** *In relation to Principle 108(f):*

(a) *use of materials and light colours that reflect rather than absorb solar radiation, whilst ensuring reflective material avoids transferring heat and glare to adjoining properties and/or the pedestrian environment;*

(b) *use of well insulated materials; and*

(c) *light coloured internal walls and ceilings to assist with effective distribution of daylight.*

***108.4*** *In relation to Principle 108(g), geoxchange heating and cooling systems including closed loop and open loop systems.*

**109** Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***109.1*** *A roof incorporating an area of at least 10 square metres which:*

(a) *faces between 30° east and 20° west of north respectively; and*

(b) *has a pitch of greater than 18°.*

**111** New buildings should be readily adaptable to future alternative uses.

***Design Techniques*** *(these are ONE WAY of meeting part of the above Principle)*

***111.1*** *Design solutions may include:*

(a) *a structural grid which accommodates car parking dimensions, retail, commercial and residential uses vertically throughout the building;*

(b) *the alignment of structural walls, columns and service cores between floor levels;*

(c) *minimisation of internal structural walls;*

(d) *higher floor to floor dimensions on the ground and first floor;*

(e) *knock-out panels between dwellings to allow two adjacent dwellings to be amalgamated;*

(f) *design for disassembly by selecting systems/materials that can be deconstructed at the end of the projects useful life; and/or*

(g) *the use of products with high post-consumer recyclable content.*

**112** Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

***Design Techniques*** *(these are ONE WAY of meeting part of the above Principle)*

***112.1*** *The use of:*

(a) *oil based floor sealers; and/or*

(b) *natural materials for floor linings such as plywood flooring, linoleum and wool carpet.*

**Residential Development**

**113** New residential development and residential extensions should be designed to minimise energy consumption and limit greenhouse gas emissions.

**114** Development is encouraged to avoid heat loss by incorporating treatments, such as double glazing of windows along the southern elevation, or by minimizing the extent of windows facing south.

**Office Development**

**115** The following principles of sustainable design and construction are required for new office development, and additions and refurbishments to existing office development, to minimise energy consumption and limit greenhouse gas emissions:

(a) passive solar consideration in the design, planning and placement of buildings;

(b) re-using and/or improving existing structures or buildings;

(c) designing for the life-cycle of the development to allow for future adaptation;

(d) considering low levels of embodied energy in the selection and use of materials;

(e) developing energy efficiency solutions including passive designs using natural light, solar control, air movement and thermal mass. Systems should be zoned to minimise use of energy;

(f) using low carbon and renewable energy sources, such as Combined Heat and Power (CHP) systems and photovoltaics; and

(g) preserving and enhancing local biodiversity, such as by incorporating roof top gardens.

***Design Techniques*** *(this is ONE WAY of meeting part of the above Principle)*

***115.1*** *In relation to Principle 115(d):*

(a) *re-using materials and recycled building materials such as:*

(i) *recycled and/or plantation timbers;*

(ii) *recycled content in steel reinforcing;*

(iii) *60 percent or more recycled aggregate in concrete; and*

(iv) *recycled cork and/or rubber flooring;*

(b) *materials derived from renewable resources; and*

(c) *durable and low-maintenance materials to minimise replacement intervals and maintenance requirements.*

***115.2*** *In relation to Principle 115(e):*

(a) *lighting management systems that employ both motion and lighting level sensors that can be updated;*

(b) *mixed mode or hybrid comfort control systems (natural and mechanical ventilation systems) which comprise both manually operable openings and automatically controlled openings, utilising temperature sensors and zoned heating areas;*

(c) *energy efficient fittings;*

## Micro-climate and Sunlight

**OBJECTIVES**

**Objective 33:** Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.

**Objective 34:** Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**119** Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.

**120** Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.

**121** Development should not significantly reduce daylight to private open space, communal open space, where such communal open space provides the primary private open space, and habitable rooms in adjacent City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone.

**122** Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***122.1*** *Design solutions may include:*

*(a) reducing the quantity of glass used by having a higher proportion of masonry or other non-reflective materials in the building exterior;*

*(b) recessing glass into the building;*

*(c) shading or angling the glass;*

*(d) selecting glass that has a low level of reflection; and/or*

*(e) avoiding the use of large expanses of highly reflective materials.*

**124** Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.

**125** Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***125.1*** *Methods to reduce the potential for a wind tunnel effect may include:*

*(a) a podium built at the base of a tall tower and aligned with the street to deflect wind away from the street;*

*(b) substantial verandahs around a building to deflect downward travelling wind flows; and/or*

*(c) placing one building windward of another building.*

## Stormwater Management

**OBJECTIVES**

**Objective 35:** Development which maximises the use of stormwater.

**PRINCIPLES OF DEVELOPMENT CONTROL**

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

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***128.1*** *For residential and non-residential development, rainfall run-off should be retained and used as much as possible through the application of an appropriate range of the following techniques:*

*(a) collection and use of roof run-off in rain saver gutters and rainwater tanks for irrigation (a 500 litre rainwater tank to irrigate 25 square metres of garden), and internal purposes (drinking when considered safe to do so, flushing toilets, washing, and bathing);*

*(b) use of on-site detention tank/s with an appropriately sized orifice;*

*(c) directing rainfall run-off onto landscaped areas;*

*(d) installing appropriate soakage devices (soakage trenches or wells) having regard to the availability of unbuilt upon or unsealed areas, the ability of soils to absorb and drain water, the potential impact on building foundations and footings on or adjacent to the site, and the ability to safely direct surplus flows to a public street without causing nuisance to adjoining properties; and*

*(e) use of permeable forms of paving for public and private parking areas, open storage, display, work areas, driveways, vehicle and pedestrian carriageways.*

## Infrastructure

**OBJECTIVES**

**Objective 40:** Minimisation of the visual impact of infrastructure facilities.

**Objective 41:** Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**132** Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.

**133** Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.

**135** Development should only occur where it has access to adequate utilities and services, including:

(a) electricity supply;

(b) water supply;

(c) drainage and stormwater systems;

(d) effluent disposal systems;

(e) formed all-weather public roads;

(f) telecommunications services; and

(g) gas services.

## Heritage and Conservation

**OBJECTIVES**

**Objective 42:** Acknowledge the diversity of Adelaide's cultural heritage from pre-European occupation to current time through the conservation of heritage places and retention of their heritage value.

**Objective 43:** Development that retains the heritage value and setting of a heritage place and its built form contribution to the locality.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**140** Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

(a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and

(b) is located no closer to the primary street frontage than the adjacent heritage place.

**141** Development in the City Living Zone or the Adelaide Historic (Conservation) Zone on land adjacent to a heritage place should incorporate design elements that complement the heritage place with regard to the following:

(a) the wall height and silhouette of the heritage place as well as the scale of elements comprising the principal facades;

(b) the frontage of land containing the heritage place, boundary setbacks to the sides and street face(s) of the place and the nature of vehicular and pedestrian egress;

(c) the nature of fencing, walling and gates to boundaries;

(d) the materials and finishes; and

(e) location of alterations (other than the conservation of heritage fabric) and additional construction behind the street face(s) of the heritage place, without necessarily replicating historical detailing.

## Built Form and Townscape

**OBJECTIVES**

**Objective 46:** Reinforcement of the city's grid pattern of streets through:

(a) high rise development framing city boulevards, the Squares and Park Lands

(b) vibrant main streets of a more intimate scale that help bring the city to life

(c) unique and interesting laneways that provide a sense of enclosure and intimacy.

**Objective 47:** Buildings should be designed to:

(a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;

(b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;

(c) contribute to pedestrian safety and comfort; and

(d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.

**Objective 48:** Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**167** Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

## Height, Bulk and Scale

**PRINCIPLES OF DEVELOPMENT CONTROL**

**168** Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:

(a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;

(b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;

(c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and

(d) the open landscape of the Park Lands Zone.

**169** The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on Map Adel/1 (Overlay 1).

**170** The height, scale and massing of buildings should reinforce:

(a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:

(i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;

(ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and

(iii) avoiding massive unbroken facades.

(b) a comfortable proportion of human scale at street level by:

(i) building ground level to the street frontage where zero set-backs prevail;

(ii) breaking up the building facade into distinct elements;

(iii) incorporating art work and wall and window detailing; and

(iv) including attractive planting, seating and pedestrian shelter.

**172** Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in Map Adel/1 (Overlay 5) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.

### Plot Ratio

**175** Plot ratios have been established for the City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone for the purpose of ensuring that intensity of development on land is consistent with the desired character. The amount of building floor area that may be permitted on the allotment(s) on which any development is situated should not exceed the area calculated by multiplying the area of the allotment(s) on which the development is situated by the plot ratio applicable to the allotment(s).

### Maximum Dwelling Density and Floor Space

**176** In the City Living Zone (other than in relation to sites greater than 1500 square metres in area), the Adelaide Historic (Conservation) Zone and the North Adelaide Historic (Conservation) Zone, the number of dwellings which will be appropriate on a site should not exceed the site area divided by the dwelling unit factor as set out in relevant Zone, and any fractions of the number so calculated should be disregarded.

### Landscaped Open Space

**177** Landscaped open space should be provided on the site of a development to at least the extent specified in the Principles of Development Control for the relevant Zone or Policy Area for siting, amenity and screening purposes. Where the existing amount of landscaped open space provided is less than the amount specified in the relevant Zone or Policy Area, development should not further reduce this amount. Where landscaped open space is not required, the provision of landscaped pedestrian spaces, planter boxes and in-ground planting is appropriate.

### Building Set-backs

**178** In the City Living Zone, the Adelaide Historic (Conservation) Zone and the North Adelaide Historic (Conservation) Zone, buildings should maintain the prevailing set-back established by adjoining buildings, provided the resultant character reinforces the desired character for the locality.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***178.1*** *Design solutions may include:*

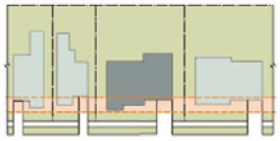

*Figure 178.1 - street setbacks located within a range defined by existing building setbacks.*

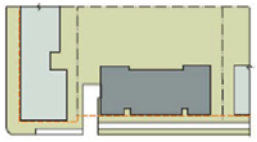

*Figure 178.2 - street setbacks consistent with the existing established building alignments.*

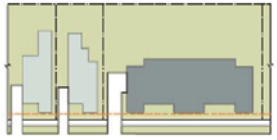

*Figure 178.3 - street setbacks modulated to break up long building facades.*

### Composition and Proportion

**180** Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:

(a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and

(b) clearly defining ground, middle and roof top levels.

**181** Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:

(a) frontages creating clearly defined edges;

(b) generating new compositions and points of interest;

(c) introducing elements for future neighbouring buildings; and

(d) emphasising the importance of the building according to the street hierarchy.

### Articulation and Modelling

**182** Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***182.1*** *Design solutions may include:*

*(a) defining a base, middle and top related to the overall proportion of the building;*

*(b) expressing key horizontal lines within the townscape by using cornices, a change in materials or building setback;*

*(c) expressing the internal layout of the building by using for example, vertical bays or its structure, such as party wall divisions;*

*(d) expressing the variation in floor to floor height, particularly at the lower levels;*

*(e) articulating building entries with awnings, porticos, recesses, blade walls and projecting bays;*

*(f) using a variety of window types to create a rhythm or express the use of the building;*

*(g) incorporating architectural features which give human scale to the design of the building at street level such as entrance porches, awnings and colonnades;*

*(h) designing facades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls;*

*(i) expressing important corners by giving visual prominence to parts of the facade, for example, a change of building articulation, material or colour, roof expression or increased height;*

*(j) using a variation of contrasting surface finishes, textures, colours or patterns; or*

*(k) avoiding unbroken building elevations of more than 15 metres on a vertical plan;*

*(l) using recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the facade;*

183 Balconies should be designed to give shelter to the street or public space at first floor levels.

184 Balconies should:

(a) respond to the street context and building orientation; and

(b) incorporate balustrade detailing to reflect the balcony type and location and the materials and detail of the building facade.

### Materials, Colours and Finishes

187 The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.

188 Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape

189 Materials and finishes that are easily maintained and do not readily stain, discolour or deteriorate should be utilised.

190 Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

### Sky and Roof Lines

**OBJECTIVE**

**Objective 49:** Innovative and interesting skylines which contribute to the overall design and performance of the building.

**PRINCIPLES OF DEVELOPMENT CONTROL**

192 Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.

193 Buildings should be designed to incorporate well designed roof tops that:

(a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;

(b) enhance the skyline and local views;

(c) contribute to the architectural quality of the building;

(d) provide a compositional relationship between the upper-most levels and the lower portions of the building;

(e) provide an expression of identity;

(f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;

(g) respond to the orientation of the site; and

(h) create minimal glare.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***193.1*** *Design solutions may include:*

*(a) articulating form and surface by large, simple features that can be recognised from a distant view point;*

*(b) tapering towers by stepping back floor plates;*

*(c) integrating plant and fixtures within the roof top design; and/or*

*(d) incorporating an architectural roof feature within the design of the building by:*

*(i) creating a feature that forms part of its overall architectural form and composition;*

*(ii) ensuring visual compatibility with nearby towers and other structures whilst maintaining architectural distinction;*

*(iii) providing sky line features capable of being viewed over great distances;*

*(iv) including modelled parapets;*

*(v) ensuring compatibility of podia height at street alignment; and/or*

*(vi) incorporating roof top gardens and terraces.*

194 Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:

(a) be designed to minimise the visual impact; and

(b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.

195 Roof design should facilitate future use for sustainable functions such as:

(a) rainwater tanks for water conservation;

(b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or

(c) "green" roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

### Active Street Frontages

**OBJECTIVES**

**Objective 50:** Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality's desired character.

**Objective 51:** Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:

(a) enlivening building edges;

(b) creating welcoming, safe and vibrant spaces;

(c) improving perceptions of public safety through passive surveillance; and

(d) creating interesting and lively pedestrian environments.

**PRINCIPLES OF DEVELOPMENT CONTROL**

196 Development should be designed to create active street frontages that provide activity and interest to passing pedestrians and contribute to the liveliness, vitality and security of the public realm.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***196.1*** *Design solutions may include:*

*(a) Well designed and legible entrances, lobbies and commercial uses at ground level.*

(a) *Well designed and legible entrances, lobbies and commercial uses at ground level.*

(b) *Window displays of merchandise or open shopfronts, well lit panel displays, corporate identity and/or artworks.*

(c) *Avoiding vast expanses of blank walls presenting flat surfaces without detailing, openings or activity.*

(d) *Orientating active parts of a building to the street frontage.*

(e) *Incorporating uses such as retailing, food and drink outlets, counter services and cafés/restaurants particularly with outdoor seating areas.*

**198** Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***198.1*** *Design solutions may include:*

(a) *Providing well designed legible entrances and lobbies that address the street.*

(b) *Creating richness and detail at street level through methods such as artwork (including animating spaces with water), use of high quality materials and variation in materials, wall and window detailing and decoration.*

(c) *Locating lively interior activities along street frontages so they are visible from outside e.g. employee canteens or reception areas oriented towards the street;*

(d) *Cafés and restaurants utilising footpath space; and/or*

(e) *Providing designs which incorporate places for people to sit and watch.*

**199** Residential development should be designed to create interesting pedestrian environments and resident surveillance of any street, accessway and driveway.

***Design Techniques*** *(these are ONE WAY of meeting the above Principle)*

***199.1*** *Design solutions may include:*

(a) *Using transparent glass along street frontages.*

(b) *Maximising the number of windows and doors.*

(c) *Enlivening building edges with balconies, bays, porches, awnings or other projections.*

(d) *Designing interesting and innovative fencing and walls.*

(e) *Incorporating transparent fencing and walls that enable presentation of the building to the street eg use of mesh fencing rather than blank solid walls.*

(f) *Avoiding blank high walls and elevations unbroken by architectural detail which prevents community interaction and resident surveillance of the street.*

(g) *Avoiding car parking in front of buildings.*

(h) *Addressing housing on corner sites to both street frontages by establishing prominent entrances and/or windows at the apex of buildings.*

(i) *Incorporating compatible non-residential uses such as home offices, art/craft workshops and galleries at ground floor level.*

### Demolition

**OBJECTIVE**

**Objective 53:** Where demolition of an existing building is proposed, the replacement building is designed and sited to achieve the purposes of the relevant Zone and Policy Area and to provide for quality urban design.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**203** The demolition of any building should not occur unless Development Approval for a replacement development has been granted. Exceptions may only be granted:

(a) for documented reasons of public health or safety agreed by the planning authority or alternatively agreed by a statutory order; or

(b) where located within the Park Lands Zone.

Should the replacement development not commence within 12 months of the granting of Development Approval, then landscaping of the site should be undertaken.

## Transport and Access

### Access and Movement

**OBJECTIVE**

**Objective 60:** Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**224** Development should provide safe, convenient and comfortable access and movement.

### Pedestrian Access

**OBJECTIVES**

**Objective 61:** Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

**Objective 62:** Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

**Objective 63:** Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities.

**230** Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.

**231** Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.

**232** Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

### Bicycle Access

**OBJECTIVES**

**Objective 64:** Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.

**Objective 65:** Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**234** An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in Table Adel/6.

**235** Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

(a) located in a prominent place;

(b) located at ground floor level;

(c) located undercover;

(d) located where passive surveillance is possible, or covered by CCTV;

(e) well lit and well signed;

(f) close to well used entrances;

(g) accessible by cycling along a safe, well lit route;

(h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and

(i) in the case of a cage have an access key/pass common to the building access key/pass.

**236** Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

(a) directly associated with the main entrance;

(b) located at ground floor level;

(c) located undercover;

(d) well lit and well signed;

(e) located where passive surveillance is possible, or covered by CCTV; and

(f) accessible by cycling along a safe, well lit route.

**237** Access to bicycle parking should be designed to:

(a) minimise conflict with motor vehicles and pedestrians;

(b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and

(c) ensure the route is unhindered by low roof heights.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***237.1*** *In relation to Principle 237(a):*

*(a) avoid unnecessary vehicular crossing points, particularly with potential reversing movements from motor vehicles; and*

*(b) utilise the shortest, most direct route for cycles to reach the destination bicycle parking*

***237.2*** *In relation to Principle 237(c), a minimum clearance of 2 metres for new, permanent structures.*

**238** To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

### Public Transport

**OBJECTIVES**

**Objective 66:** Development that promotes the use of sustainable transport consistent with State Government objectives and initiatives.

### Traffic and Vehicle Access

**OBJECTIVES**

**Objective 68:** Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).

**Objective 69:** An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.

**Objective 70:** Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**241** Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.

**243** Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment.

**246** There is no minimum setback required from a rear access way where the access way is wider than 6.5 metres. Where the access way is less than 6.5 metres in width, a setback distance equal to the additional width required to make the access way 6.5 metres or more, is required to provide adequate manoeuvrability for vehicles.

### Car Parking

**OBJECTIVES**

**Objective 71:** To meet community expectation for parking supply while supporting a shift toward active and sustainable transport modes.

**Objective 72:** An adequate supply of short-stay and long-stay parking to support desired growth in City activities without detrimental affect on traffic and pedestrian flows.

**PRINCIPLES OF DEVELOPMENT CONTROL**

**251** Car parking areas should be located and designed to:

(a) ensure safe and convenient pedestrian movement and traffic circulation through and within the car parking area;

(b) include adequate provision for manoeuvring and individually accessible car standing areas;

(c) enable, where practical, vehicles to enter and leave the site in a forward direction;

(d) minimise interruption to the pattern of built form along street frontages;

(e) provide for access off minor streets and for the screening from public view of such car parking areas by buildings on the site wherever possible;

(f) minimise adverse impacts on adjoining residential properties in relation to noise and access and egress;

(g) minimise loss of existing on-street parking spaces arising through crossovers and access;

(h) incorporate secure bicycle parking spaces and facilitate convenient, safe and comfortable access to these spaces by cyclists; and

(i) provide landscaping, such as semi-mature trees, to shade parked vehicles and reduce the visual impact of the car parking area while maintaining direct sight lines and informal visual surveillance.

***Design Technique*** *(this is ONE WAY of meeting the above Principle)*

***251.1*** *Car parking in compliance with the requirements recommended in Australian Standard AS 2890.1: 'Parking Facilities - Off-street Car Parking' and Australian Standard AS 2890.2: Off-Street Parking - Part 2: Commercial Vehicle Facilities.*

**252** All development should provide car parking spaces for people with disabilities in accordance with the requirements in the Building Code of Australia (BCA). For classes of buildings not covered by the requirements of the BCA, the number of spaces should be provided in accordance with Table Adel/7 and such car parking spaces should comply with Australian Standard 2890.1: 'Parking Facilities - Off-street Car Parking'.

**253** Within the City Living Zone, Adelaide Historic (Conservation) Zone, North Adelaide Historic (Conservation) Zone, Main Street, Mixed Use and Institutional Zones:

(a) adequate car parking should be provided within the site area of the development to meet the demand generated by the development;

(b) car parking should be provided in accordance with Table Adel/7; and

(c) car parking rates lower than the minimum in Table Adel/7 may be appropriate where there is readily accessible and frequent public transport in the locality or it can be demonstrated that a lower provision is warranted, such as for the following reasons:

(i) the nature of development;

(ii) existing heritage places on or adjacent to the development site which dictates the development of the site in a manner which hampers the provision of on-site parking;

(iii) the opportunity to exploit shared car parking areas between uses based upon compatible hours of peak operation;

(iv) use of a car share scheme; or

(v) suitable arrangements for any parking shortfall to be met elsewhere or by other means.

**254** Off-street parking should:

(a) be controlled in accordance with the provisions for the relevant Policy Area;

(b) be located away from street frontages or designed as an integral part of buildings on the site. Provision of parking at basement level is encouraged; and

(c) not include separate garages or carports in front of buildings within front set-backs.

**255** Garaging and parking structures (including the width of any support structure) provided on a public street frontage or on a laneway that functions as the dwellings primary frontage should be of a width less than 50 percent of the allotment width on that frontage.

## Economic Growth and Land Use

### OBJECTIVES

**Objective 73:** The role of the City enhanced as:

(a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;

(b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;

(c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;

(d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;

(e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;

(f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and

(g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

**Objective 74:** A business environment which encourages investment from domestic and foreign sources, business development and employment.

**Objective 75:** Development which reinforces clusters and nodes of activity and distinctive local character.

**Objective 76:** A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia.

### PRINCIPLES OF DEVELOPMENT CONTROL

**266** Development, particularly within the Capital City and Institutional Zones, is encouraged to:

(a) provide a range of shopping facilities in locations that are readily accessible;

(b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;

(c) maximise opportunities for co-location, multiple use and sharing of facilities;

(d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and

(e) have minimal impact on the amenity of residential areas.

**270** Development located either abutting, straddling or within 20 metres of a Zone or Policy Area boundary should provide for a transition and reasonable gradation from the character desired from one to the other.

**271** Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.

## CITY LIVING ZONE

### Introduction

The objective and principles of development control that follow apply in the City Living Zone shown in Maps Adel/20, 23 to 26 and 29 to 33. They are additional to those expressed for the whole of the Council area and in cases of apparent conflict, take precedence over the more general provisions. In the assessment of development, the greatest weight is to be applied to satisfying the desired character for the Zone.

### DESIRED CHARACTER

The Zone is spread across the southern half of Adelaide, flanked to the north by the City's central business area. Mixed use apartment and commercial corridors frame much of the southern and western margins of the Zone which is also bisected by the Hutt Street main street strip, and corridors of core business areas centred on the Squares and the City's main north-south axis roads, Morphett, King William and Pulteney Streets.

The Zone comprises Adelaide's main residential living districts which have developed with a range of stand-alone and paired cottages, terrace or row housing, and low to medium scale contemporary apartment buildings, and with remnant workshops, service trades, offices and mixed uses, particularly west of Hutt Street.

The City Living Zone will provide high amenity residential living environments along with related non-residential uses compatible with residential amenity, as articulated in the Policy Areas. Carefully executed high quality residential infill is envisaged and opportunities are presented for comprehensive redevelopment on larger, particularly non-residential sites, and also on catalyst sites fronting South Terrace and East Terrace. The desired increase in the City's resident population relies, in part, on realising infill housing opportunities with high regard to their context and achieving overall, higher dwelling densities in this Zone.

### OBJECTIVES

**Objective 1:** A Zone comprising a range of dwelling types and tenures, including affordable housing.

**Objective 2:** Increased dwelling densities in appropriate locations.

**Objective 3:** Non-residential activities that support city living and amenity with minimal impact on the environmental quality or amenity of living conditions.

**Objective 4:** Development having regard to the potential impacts of building height and activities from land in the adjoining zones.

### PRINCIPLES OF DEVELOPMENT CONTROL

#### Form of Development

1 Development should make a positive contribution to the desired character as expressed by its respective Policy Area.

2 The following types of development, or combinations thereof, are envisaged:

Affordable housing
Community Centre
Domestic outbuilding in association with a dwelling
Domestic structure
Dwelling
Dwelling addition
Residential Flat Building

3 Non-residential land uses should be limited to land lawfully used for non-residential purposes and should comprise land uses more in conformity with the intended residential amenity, except where envisaged in the relevant Policy Area. Non-residential land uses should be of a scale and role to not prejudice the envisaged development of non-residential zones.

5 The number of dwellings should be increased by:

(a) the redevelopment of poor quality and underutilised buildings or sites which are in discord with the desired character of the Policy Area, provided maintenance of residential amenity and the values of heritage places;

(b) the adaptation and conversion of non-residential buildings to residential uses; or

(c) development in upper levels of existing buildings, or by increasing the height of buildings or roof volumes, or on sites behind existing buildings.

6 Buildings or additions, including those of innovative and contemporary design, should reinforce the Policy Area and demonstrate a compatible visual relationship with adjacent heritage places or the Adelaide Historic (Conservation) Zone in terms of its:

(a) bulk, height and scale (i.e. the length and size of unbroken walling and the roof volume and form);

(b) width of frontage and the front and side boundary building set-back patterns;

(c) overall building proportions and massing (by maintaining the desired horizontal [and/or vertical] emphasis, exhibiting vertical openings and a high solid to void ratio);

(d) modelling and articulation of facades; and

(e) incorporation of key architectural elements and detailing where a particular construction era and building style prevails as expressed in the desired character (without excessive use or mimicry of decorative elements and ornamentation) i.e. with the inclusion of elements such as porches, verandahs, balconies and fences where appropriate.

7 Development should not exceed the height prescribed for each Policy Area. The height of new buildings, including the floor to ceiling clearances of each level, should take reference from the prevailing building heights within the locality, with particular reference to adjacent heritage places.

8 Where development proposes a building higher than the prevailing building heights that contribute to the desired character of a locality, the taller building elements should be setback from street frontages to avoid a detrimental impact on the prevailing character.

9 Where consistent building set-backs from front, side and rear allotment boundaries prevail in a locality, new development should be consistent with these setbacks.

10 The finished ground floor level of buildings should be at grade and/or level with the footpath to provide direct pedestrian access and street-level activation.

#### Car Parking

11 Access to parking and service areas should be located so as to minimise the interruption to built form on street frontages and to minimise conflict with pedestrians. Access, where possible, should be from minor streets, or side or rear lanes provided road width is suitable and the traffic generation does not unreasonably impact residential amenity.

#### Public Notification

17 For the purposes of public notification in accordance with the procedures and rights established by the *Development Act 1993*, development is assigned to the specified categories as follows:

(a) **Category 1**, public notification not required:

(i) The following forms of development:

Carport, domestic outbuilding, garage, pergola, shade sail (or the like) or verandah, in association with a dwelling
Domestic structure
Dwelling addition (single storey)
Dwelling (single storey)
Fence

(ii) Advertisements (except those classified as non-complying)

(iii) a kind of development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.

(b) **Category 2**, public notification required, third parties may, at the discretion of the relevant planning authority, appear before the relevant planning authority on the matter. Third parties do not have appeal rights:

(i) all development, other than development classified as non-complying or which falls within Part (a) of this provision.

*Note: For Category 3 development, public notification is required. Third parties may make written representations, appear before the relevant planning authority on the matter, and may appeal against a development consent. This includes any development not classified as either Category 1 or Category 2.*

## South Central Policy Area 32

### Introduction

The desired character, objectives and principles of development control that follow apply to the Policy Area as shown on Maps Adel/55, 56, 61 and 62. They are additional to those expressed for the Zone and in cases of apparent conflict, take precedence over the Zone provisions. In the assessment of development, the greatest weight is to be applied to satisfying the desired character for the Policy Area.

### DESIRED CHARACTER

The Policy Area will provide for medium scale residential development supported by a range of uses that provide valued local services, including shops, offices and consulting rooms, as well as community service and education, that maintain the area's residential amenity. Development will provide an increase in dwelling density in order to increase residential population.

Non-residential land uses such as shops, consulting rooms and offices are appropriate at the ground level of buildings. Education facilities will continue to be established. The Policy Area will gradually provide a shift in dwelling form from detached and semi-detached dwellings to moderately scaled residential flat buildings providing relief in scale from the adjoining Capital City, Main Street and City Frame Zones. Wholesale redevelopment of non-residential sites should be for ground level non-residential and with residential above.

Buildings will have a strong horizontal emphasis with clearly defined and segmented vertical elements. Façades will be well articulated with finer details that contribute positively to the public realm, including modelled façades, verandahs, fenestration and balconies that make use of light and shade.

At street level, visual interest and activity will be enhanced through considered design approaches, including buildings that contribute towards activating the street, by the careful treatment of driveways and access areas, and by avoiding blank walls at street level.

The high quality of landscaping, of both public and private space, will provide the Policy Area a high level of amenity. Vehicle movement within the Policy Area will be primarily for local and visitor traffic, with an increasing promotion of pedestrian and cycling links through the City.

### OBJECTIVE

**Objective 1:** Development that strengthens, achieves and is consistent with the desired character for the Policy Area.

### PRINCIPLES OF DEVELOPMENT CONTROL

#### Land Use

1 The Policy Area will primarily comprise residential development or mixed use buildings where non-residential development is appropriate at the ground or first floor.

#### Form and Character

2 Development should be consistent with the Desired Character for the Policy Area.

#### Design and Appearance

3 The plot ratio of development should not exceed 2.0.

4 Development should not exceed 4 storeys or 14 metres building height except where located within the areas indicated on Policy Area Maps Adel/56, 57, 61 and 63. Development within these areas should not exceed 2 storeys.

5 Buildings should have a minimum building height of 2 storeys except where located within the areas indicated on Policy Area Maps Adel/56, 57, 61 and 63.

6 A minimum of 10 percent landscaped open space should be provided on the site of any development.

## TABLE Adel/6

**Bicycle Parking Provisions**

| Type of Development | Bicycle parking space standard for employees and/or residents | Bicycle parking space standard for customers, visitors and/or shoppers |
|---|---|---|
| **Café/Restaurant**<br>Restaurant | 1 per 20 employees. | 1 per 50 seats |
| **Consulting Rooms**<br>Medical centre/day surgery | 1 per 20 employees. | 1 per 20 consulting rooms. |
| **Offices/Ancillary Retail Services**<br>Bank<br>Office<br>Service premises<br>Warehouse office<br>Civic Admin office | 1 per 200 square metres of gross leasable floor area. | 2, plus 1 per 1000 square metres of gross leasable floor area. |
| **All Low, Medium, and High Scale Residential** | 1 for every dwelling/apartment with a total floor area less than 150 square metres.<br>2 for every dwelling/apartment with a total floor area greater than 150 square metres. | 1 for every 10 dwellings |

## TABLE Adel/7

**On-site Car Parking Provisions**
**City Living, Adelaide Historic (Conservation) and North Adelaide Historic (Conservation) Zones**

| Type of Development | Minimum Provision of Car Park Spaces | Maximum Provision of Car Park Spaces |
|---|---|---|
| **Offices/Ancillary Retail Services** | 3 per 100 square metres building floor area | - |
| **Medium to High Scale Residential or Serviced Apartment** | 1 space per dwelling up to 200 square metres building floor area. At least 2 spaces per dwelling greater than 200 square metres building floor area | - |
| **Non-residential development (excluding hotel/licensed premises, offices/ancillary retail services and restaurant/café)** | 5 spaces per 100 square metres of gross leasable floor area | - |
| **Restaurant/Cafe** | 1 space for every 3 restaurant/café seats. | - |