PART C – SHIRE OF MUNDARING

1. Declarations of Due Consideration

2. Disclosure of Interests

3. Form 1 DAP Applications

3.1 Lot No. 9 (No. 22) Coongan Avenue, Greenmount - Proposed Aged Care Facility Building – DAP/25/02941

4. Form 2 DAP Applications

Nil

5. Section 31 SAT Reconsiderations

Nil

PART B - ITEM 3.1 – LOT NO. 9 (NO. 22) COONGAN AVENUE, GREENMOUNT – PROPOSED AGED CARE FACILITY BUILDING

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer DAP
Local Government Area:	Shire of Mundaring
Applicant:	Element Advisory
Owner:	Regis Aged Care Pty Ltd
Value of Development:	$24 million
Responsible Authority:	Shire of Mundaring
Authorising Officer:	Megan Griffiths – Director Place and Community
LG Reference:	CO 9.22
DAP File No:	DAP/25/02941
Application Received Date:	25 June 2025
Report Due Date:	1 October 2025
Application Statutory Process Timeframe:	90 Days
Attachment(s):	1. Location Plan. 2. Applicant's Town Planning Statement. 3. Development Plans. 4. Landscape Concept. 5. Heritage Impact Statement 6. Conservation Management Strategy 7. Design Principles Assessment. 8. Traffic Impact Assessment 9. Waste Management Plan 10. Acoustic Report. 11. Schedule of Submissions.

Responsible Authority Recommendation

That the Metro Outer DAP resolves to:

1. **Accept** that the DAP Application reference DAP/25/02941 is appropriate for consideration as a "Nursing Home" land use and is compliant with the Special Uses stated under item 4 Schedule 4 of the Shire of Mundaring Local Planning Scheme No. 4;

2. **Approve** DAP Application reference DAP/25/02941 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the Shire of Mundaring Local Planning Scheme No. 4, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of four years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.

2. The development shall comply with the approved plans unless approval is granted by the Shire of Mundaring for any minor variation made necessary by detailed design.

3. The landowner(s) shall either:

   i) Provide public art on the subject site, with a minimum value of $240,000 [Option 1]; OR

   ii) Pay $240,000, which equates to 1% of the construction cost for the overall development, in lieu of providing public art on the subject site [Option 2].

   If Option 1 is elected, the public art design shall be submitted to and approved by the Shire prior to lodgement of the Building Permit application.

   The public art shall be installed prior to commencement of use/occupation of any part of the development and thereafter maintained for the life of the development to the satisfaction of the Shire.

   If Option 2 is elected, the cash-in-lieu amount shall be paid in full to the Shire prior to lodgement of the Building Permit application.

4. Prior to obtaining a building permit or commencing site works, the landowner/applicant shall submit a construction management plan to the satisfaction of the Shire of Mundaring. The construction management plan shall detail measures to minimise nuisance to neighbours (including dust, noise, waste and vehicle parking), and also protect the significant trees mentioned in the Shire's Local Heritage Survey, during site works and construction. Works shall thereafter be completed in accordance with the approved construction management plan.

5. Prior to commencement of use, all car parking bays and manoeuvring/circulation areas shown on the approved plans shall be sealed/paved, surface marked in accordance with Australian Standard 2890.1 - Off-street car parking and Australian Standard 2890.6 - Off-street parking for people with disabilities (where relevant), kerbed and drained and thereafter maintained by the landowner(s) for the life of the development to the satisfaction of the Shire of Mundaring.

6. Prior to the practicable completion of the aged care facility development, all landscaping shall be planted in accordance with the approved landscaping plan and be maintained thereafter by the owner of the subject site, for the life of the development to the satisfaction of the Shire of Mundaring.

7. All stormwater must be managed onsite to prevent erosion and transportation of water borne pollutants, to the satisfaction of the Shire of Mundaring.

8. No street trees on the verge are to be removed, relocated or replaced, except with the prior written consent of the Shire.

9. All significant trees shown on the site plan shall be retained.

10. Measures to protect the significant trees during construction works shall include Tree Protection Zones (TPZs) in accordance with AS 4970-2007. Protection of trees on development sites require the TPZs to be fenced, creating a physical barrier from construction impacts.

11. All staff and visitor vehicle access to the site to be via Coongan Avenue once the proposed undercroft basement parking area becomes available for non-building related activity.

12. No vehicle access to the site via Wortley Road after demolition works are finalised.

13. No vehicle access to the site via Chiraz Street.

14. Prior to the practicable completion of the proposed aged care facility building, the proposed drop off bays being marked and/or sign posted as being 'drop off/pick up bays only', and be maintained thereafter, by the owner of the subject site for the life of the development to the satisfaction of the Shire of Mundaring.

15. Prior to the practicable completion of the proposed aged care facility building, the conservation and maintenance works recommended in the Undercliffe Conservation Management Strategy dated January 2024 be undertaken, and Undercliffe House be maintained thereafter, by the owner of the subject site to the satisfaction of the Shire of Mundaring.

16. This noise sensitive development adjacent to a major transport corridor must implement measures to ameliorate the impact of transport noise. The development is to comply and implement the Acoustic Report prepared by Lloyd George Acoustics dated 9 May 2025 (ref 25019799-01A), revision A with the following amendment:

    a) The report must provide detailed construction specifications for the northern units (as shown in Figure 5-3) demonstrating that all internal noise levels meet the targets outlined in State Planning Policy 5.4 – Road and Rail Noise.

17. Prior to occupation of the development, certification from a qualified acoustic consultant being submitted, confirming that the recommendations of the approved acoustic report prepared by Lloyd George Acoustics have been implemented is to be provided to the satisfaction of the Shire of Mundaring.

18. A notification, pursuant to Section 70A of the *Transfer of Land Act 1893* is to be placed on the Certificate(s) of Title of the proposed development. The notification is to state:

    "The lots are situated in the vicinity of a transport corridor and are currently affected, or may in the future be affected by transport noise."

19. No vehicle access shall be permitted onto Great Eastern Highway.

20. Stormwater discharge shall not exceed pre-development discharge to the Great Eastern Highway Road Reserve.

21. All waste collection is to be onsite.

Advice Notes

a) Prior to undertaking any works within the Great Eastern Highway Road Reserve, a Working on Roads Permit must be obtained from Main Roads.

b) The applicant is required to submit an Application form to undertake works within the road reserve prior to undertaking any works within the road reserve. Application forms and supporting information about the procedure can be found on the Main Roads website > Technical & Commercial > Working on Roads.

c) The upgrading/widening of Great Eastern Highway is not in Main Roads current 4-year forward estimated construction program and all projects not listed are subject to change without notice, and Main Roads assumes no liability for the information provided.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	Local Planning Scheme No.4 (LPS4)
Local Planning Scheme - Zone/Reserve	Special Use – SU4
Structure Plan/Precinct Plan	N/A - The subject site falls within Special Design Area No.1 under LPS4 which is bounded by Coongan Avenue, Great Eastern Highway and Scott Street, Greenmount. In accordance with Special Design Area No.1 provisions under LPS4, a Structure Plan is required for this area as a prerequisite to subdivision. This Structure Plan is to: a) avoid or minimise additional direct vehicular access onto Great Eastern Highway or Scott Street; and b) maximise the opportunities for landowners to subdivide independent of other landowners, and minimise the number of landowners who must subdivide as a prerequisite to other landowners subdividing. There is no requirement for a Structure Plan to be prepared prior to this development application being determined.

Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	Nursing Home - Development at the Shire's discretion in accordance with item 4 Schedule 4 of LPS4.
Lot Size:	2.67ha
Existing Land Use:	Nursing Home
State Heritage Register	Yes
Local Heritage	☐ N/A ☒ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

Development approval is sought for a proposed aged care facility building which is to be used as part of the current approved 'Nursing Home' land use on the subject site. Such a use is defined to be the following under the Shire's LPS4:

> *"**Nursing Home**" means premises in which persons who do not require constant medical attention are received as patients and lodged for the purposes of medical supervision and nursing care."*

Details of the proposal are the following:

a) A two-storey building up to 10.6m in height above natural ground level is proposed.

b) The proposed building will be located towards the south-western portion of the subject site, and replace an existing aged care facility building on the north-eastern portion of the subject site. The existing building will be demolished once the new build is complete so residents can transfer directly to the new building on the site. The applicant has advised:

   "The older portion is reaching the end of its economic life and no longer provides the quality of accommodation desired by Regis or its residents."

c) The existing heritage listed Undercliffe House shall remain. Restoration works are proposed.

d) The existing aged care facility building which is proposed to be demolished contains 47 units. The proposed building will contain 48 units.

e) Up to 39 staff will be on site at any one time.

f) A total of 72 car parking bays are proposed on site.

Background:

Description of Site and Locality

The subject land is 2.6ha in area and moderately slopes from north to south. The lot is largely square in shape, and has two battle-axe access legs of varying widths. Vehicle access to the subject site is obtained from Coongan Avenue. Wortley Road and Chiraz Street are not currently used for vehicle access to the subject site.

The eastern portion of the subject land contains two buildings used for nursing home purposes. Towards the centre of the site is a heritage listed residence known as 'Undercliffe House'.

The site contains various trees, both exotic (non-native) and native types.

The site is bounded by Residential zoned lots coded R12.5, R20 and R40. Residential properties to the south fall within the City of Swan and are coded R20/35.

A Regional Reserve for Parks and Recreation purposes adjoins the southern boundary of the subject site. This Reserve is commonly known as the Heritage or Bridle Trail.

According to the current Department of Fire and Emergency Services mapping of bushfire prone areas, the subject site is not identified as being bushfire prone.

Below – Existing aged care building in south-eastern portion of the site (to remain)

Below – ‘Undercliffe House’ (to remain)

Site History

The original ‘Undercliffe’ residence on site, and several trees, are circa 1902 and are on the Shire’s Heritage List.

During the first and second world wars the owners welcomed groups of returned soldiers to use the residence and grounds as a ‘rest home’ and it was used as a Nursing Home since 1953.

In the 1980’s, a 42 bed hospital, nursing home and maternity ward were constructed.

In 2001, the Shire approved a development application for the former hospital to be used as a nursing home, and the internal upgrade of two buildings.

In 2008, the Shire approved a development application for additions to, and the refurbishment of, the two-storey nursing home and an administration centre.

On 13 March 2012, the Metro East JDAP conditionally approved a development application for the demolition of a building in the northern portion of the subject site, and the construction of a new two storey high care nursing home (ref: DP/11/02661).

On 29 April 2014, the Metro East JDAP approved an application to extend the term of the 2012 development approval (ref: DP/11/02661) for a further 2 years.

In 2015, the unoccupied former hospital was severely damaged by fire and was subsequently demolished.

On 4 July 2016, the Metro East JDAP approved an application to extend the term of the 2012 development approval (ref: DP/11/02661) for a further 2 years.

On 22 December 2022, the Metro Outer DAP approved an application to extend the term of the above development approval to 29 April 2025 (ref: DAP/16/01023). The approved development has not substantially commenced.

Heritage Importance of the Site

The subject site is listed under the Shire's Local Heritage Survey (LHS) and its Heritage List.

The building used as an administration building on the site is listed on the Shire's LHS as the 'Undercliffe House'. It is recognised for its 'very high aesthetic, social and historic' value for the community and as a prime example of a large early residence to the area.

The following Statement of Significance has been taken from the Shire's LHS Place Record for the site"

> *'Undercliffe' House has very high aesthetic, social and historic significance for the community as an example of a large, early residence in the area; its associations with prominent people active in the development of the district; and for its role in providing hospital/nursing care in the region for a substantial part of its existence.*

The building has been attributed a Management Category of 2 on the Shire's Heritage List which requires the following considerations:

> *"High degree of integrity/ authenticity; very important to the heritage of the locality Expectations: Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place."*

Three significant trees on the site are also mentioned as part of the listing. They are the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary.

The Moreton Bay Fig tree and the South American Cypress tree have been placed on the Shire's LHS in order to preserve the rarity and uniqueness of the trees. The Moreton Bay Fig tree is over one hundred years old, and the South American Cypress tree is only one of two known in Australia.

These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant.

Legislation and Policy:

Legislation

- *Planning and Development Act 2005;*
- *Heritage Act 2018;*
- *Planning and Development (Local Planning Schemes) Regulations 2015* (LPS Regulations);
- *Environmental Protection (Noise) Regulations 1997;*
- Metropolitan Region Scheme (MRS); and
- Shire of Mundaring Local Planning Scheme No.4 (LPS4).

State Government Policies

- State Planning Policy 3.5 – Historic Heritage Conservation;
- State Planning Policy 5.4 – Road and Rail Noise (SPP5.4);
- State Planning Policy 7.0 - Design of the Built Environment (SPP7.0); and
- Development Control Policy 1.2 – Development Control (General Principles) (DCP 1.2).

Structure Plans/Activity Centre Plans

N/A

Local Policies

- Advertising Planning Applications (PS-01);
- Public Art Policy – 3.1 (LPP3.1); and
- Heritage Requirements for Planning Proposals – 3.3 (LPP3.3).

Consultation:

Public Consultation

The proposal was advertised by the Shire for a period of 28 days (25 July 2025 to 22 August 2025) in accordance with its PS-01 Advertising Planning Proposals policy.

The consultation process included the following:

- Notification being sent to landowners/occupants within 200m of the subject site, the Swan View Community Association, Mundaring and Hills Historical Society, and Midland and Districts Historical Society;
- Copies of the plans and supporting documentation being made available at the Shire Administration office, and on the Shire website and its Engage Mundaring website for viewing; and
- A sign being placed adjacent to all street frontages of the subject site.

During the public consultation period 17 submissions were received. The following table summarises the issues raised, which are outlined in detail in the Schedule of Submissions under **Attachment 11**.

Issue Raised	Officer comments
Vehicle access to the subject site being proposed from Wortley Road or Chiraz Street	The development of the site is planned to occur in five stages as shown on Figures D1 to D5 in Appendix D of the applicant's Traffic Impact Assessment (**Attachment 8**). Temporary vehicle access via Wortley Road, in addition to Coongan Avenue, is proposed during the construction of the proposed building and demolition of the existing building in the north-eastern portion of the site. No vehicle access is proposed via Chiraz Street. The Shire's Infrastructure Services advised that whilst an increase in traffic volume would be expected as a result of the proposal, the traffic volumes and road design meet the relevant safety and design standards. This matter is discussed further in the Planning Assessment section of this report.
Existing trees being impacted	No habitat trees are proposed to be removed as part of the proposal. The Shire's Environment Services has advised that only non-native species will be impacted based upon the proposed plans. Three significant trees on the site are mentioned in the Shire's Local Heritage Survey (LHS). They are the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary. These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant.
Potential impact on nearby property values	The potential impact proposed development may have on property values is not a matter the Shire and the DAP are required to have regard to when considering development applications in accordance with the State planning framework.
The building being proposed to be multi-storey	Shire Officers consider the proposal to be consistent with forms of development that can be considered within the locality under the Shire's current planning framework. The proposed built form and site layout are discussed further in the Planning Assessment section of this report.

Referrals/consultation with Government/Service Agencies

- Main Roads Western Australia; and
- Heritage Council Western Australia.

Refer to the schedule of submissions (**Attachment 11**) for the comments received, and responses provided by Shire Officers.

With regard to the comments in the schedule of submissions which have been 'noted', Shire Officers have had regard to them (as well as the other comments) as part of the assessment process in accordance with the LPS Regulations.

Design Review Panel Advice

N/A

Planning Assessment:

In accordance with the LPS Regulations, regard is to be given to the potential impact the proposal may have in terms of the area's amenity and character, traffic, car parking, noise, and its relationship to development on adjoining land or on other land in the locality.

These matters, amongst others, are discussed in the following sub-sections.

The Nature of the Proposed Land Use

A key performance area of the Shire's 'Council Plan 2024-2034' is to have sustainable communities; an objective for which is to (with emphasis added) *"advance opportunities, community participation and* ***quality of life for people of all ages and abilities****"*.

While the Shire generally supports the provision of necessary services and facilities, it is important to emphasise that the need for such uses does not justify development in inappropriate locations.

The subject site is zoned 'Special Use – No.4', and the following is stipulated under Schedule 4 (Special Use Zones) of LPS4:

No.	Description of Land	Special Use	Conditions
4	Lot 9 Coongan Avenue, Greenmount	• Aged persons village; • Aged or dependent; persons' dwellings • Nursing home; • Uses incidental to the above.	1. All development shall be at the Shire's discretion.

Special Use zones are referred to under Clause 4.7.2 of LPS4 as follows:

> *"4.7.2 A person must not use any land, or any structure or buildings on land, in a Special Use zone except for the purpose or purposes set out against that land*

in Schedule 4 and subject to compliance with any conditions set out in Schedule 4 with respect to that land."

The intended use of the proposed building is consistent with the Schedule 4 provisions above. However, whether the proposed development is compatible or complementary within its setting requires a more detailed assessment that will be discussed below.

The Compatibility of the Proposal

In considering the compatibility (suitability) of the proposal, the DAP is required to have regard to the following relevant planning considerations in making decisions on this development application in accordance with DCP1.2:

- Compatibility with relevant planning policies, strategies and development control criteria;
- Integration of development into the site and its surroundings;
- Traffic impacts;
- Relevant factors of amenity and suitability.

In addition, the DAP is required to have regard to the following aims of LPS4:

"(a) promote and safeguard the health, safety and general welfare of the residents of the Shire;"

"(b) preserve and enhance the amenity of the Shire and to manage land uses so as to minimise conflicts between potentially incompatible land uses;"

"(g) provide adequate supply of suitable and appropriately located land for housing, employment, commercial activities, community facilities, recreation and open space to meet the needs of the community;"

"(j) provide for variety and choice in housing to meet the changing needs of the community, in particular the need for housing for aged or dependent persons;"

"(l) recognise and protect places of cultural heritage significance;"

"(m) assist in the implementation of regional plans and policies and other elements of the State Planning Framework."

The term 'amenity' is defined in clause 1 of the LPS Regulations to mean 'all those factors which combine to form the character of an area and include the present and likely future amenity'.

<u>The Area's Character</u>

Zoning and Land Uses

The site is surrounded by what is a predominately medium density Residential zoned area, with a small area of lower density residential development, consisting of single and grouped dwellings.

The subject site has been used as a nursing home since 1953.

The subject area is currently not identified as potentially being rezoned under any State and/or local planning-related strategy.

Built Form

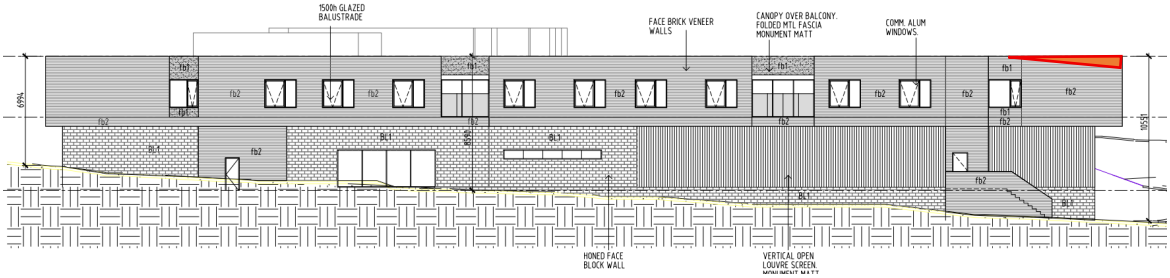
Double storey development is not common in the locality generally, however, multi-storey buildings have existed on the subject site for several years. The proposed building will be up to 60cm higher than what is stipulated under the Shire's LPS4 (10.6m in lieu of 10m). In this circumstance such a variation is considered acceptable for the following reasons:

- Considering the extent of the variation and the setback distance of the building from the nearest lot boundary, being 9m from the western lot boundary, it will allow for adequate access to sunlight into buildings and appurtenant open spaces. Also, adequate daylight to major openings and open spaces on adjoining residential sites would not be significantly impacted upon in the event that the proposed building form is approved and developed.

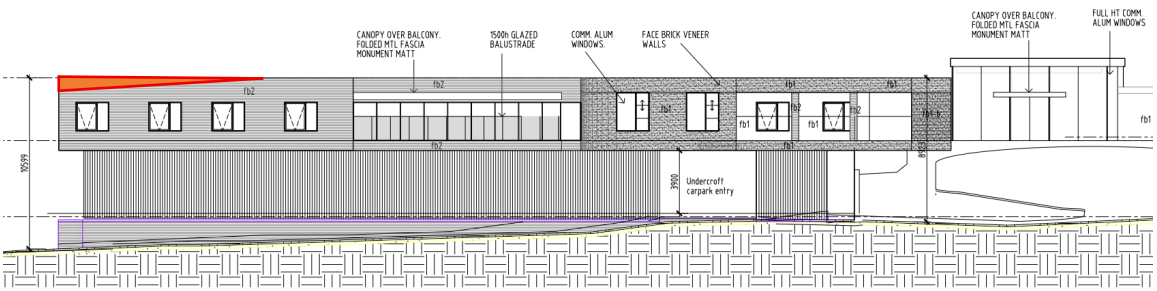
- The topography of the land slopes south-westward, but there are no views of significance which will be impacted by the proposal.

- As shown on the annotated elevations which follow, only a relatively small portion of the building will be over height (shown in red), this being the south-western corner where the topography of the land slopes down towards. The majority of the building will be below the maximum 10m height stipulated in LPS4, its lowest portion (on the northern side) being 6.9m high (3.1m lower than the maximum allowed).

West Elevation



South Elevation



Site Layout

There are no lot boundary setback requirements for Special Use zoned properties stipulated under LPS4, therefore, they are at the Shire's discretion. In such circumstances regard is given to the matters listed under clause 67 of the LPS Regulations, SPP7.0 and DCP1.2. This includes matters such as the context and character of the area, built form and scale, and local amenity.

The site is bounded by Residential zoned lots coded R12.5, R20 or R40. Residential properties to the south fall within the City of Swan and are coded R20/35.

The applicant has provided a design principles assessment (**Attachment 7**) which demonstrates how the proposal satisfies the applicable R-Code provisions if they were to be applied.

For a building of this scale, the R-Codes (if applied) would require a 9m setback from a lot boundary adjacent to a residential site. The proposal would comply with this requirement if such provisions were applied to the development.

If the development had been for residential purposes (e.g. dwellings) it would have been permitted to overshadow up to 25% of any adjoining residential sites to the south (based upon the shadow cast at midday on 21 June as per the R-Codes). It would also have been required to have visual privacy (overlooking) setbacks of 4.5m from its upper storey bedroom windows and 7.5m from its balconies. The proposal would comply with all of these requirements if applied. Notwithstanding this, no concerns regarding potential overlooking and/or overshadowing were received during the advertising period.

Considering all of the above, in this circumstance Shire Officers consider the proposal to be consistent with forms of development able to be considered within the locality.

Car Parking and Traffic

In accordance with LPS4, the following car parking requirements apply to the proposal:

LPS4 Provision	Car Parking Bays Proposed
Nursing Home 1 space per 4 beds, plus 1 space per employee or staff member on premises at any one time	Proposed number of beds (units) for entire site – 127 Proposed number of staff at any one time - 39
Total:	Required number of car bays – 71 Proposed number of car bays (once the proposed facility is constructed) – 72 A surplus of 1 car bay is proposed

Considering the above, a compliant amount of on- site car parking bays is proposed.

In accordance with the proposed development plans and the applicant's Traffic Impact Assessment (TIA), a compliant amount of on-site car parking bays will also be available

during the construction of the proposed building and the demolition of the existing building.

During the advertising period, concerns were raised regarding potential impacts associated with increased traffic as a result of the proposal. As outlined in the TIA found under **Attachment 8**, the development of the site is planned to occur in the following five stages (with emphasis added).

- ***"Stage 1**: Development work commences. Staff, visitor and builder access and parking to be provided via Coongan Avenue. **Traffic access to be prevented from both Chiraz Street and Wortley Road as per the current situation**. During this stage, which is likely to be about **6 months in duration**, there will be **no** additional traffic impacts on Chiraz Street and Wortley Road.*

- ***Stage 2**: Demolition of 'Central Road' will occur. A **temporary connection to Wortley Road** will be created for staff access to parking at the rear of the Site and for builder/logistics access. Some staff and builder access will occur from Coongan Avenue. Visitor access and parking will be provided from Coongan Avenue. **No direct access will be provided from Chiraz Street**. The length of this stage will depend on builder activities but is **likely to be less than 12 months in duration**.*

- ***Stage 3**: Undercroft car park will be completed allowing the relocation of **all staff access via Coongan Avenue**. Access for builder and logistics vehicles to **temporarily** occur via Wortley Road. **All** visitor access and parking will continue to occur via Coongan Avenue. There will be **no direct access to the Site from Chiraz Street**.*

- ***Stage 4**: Demolition of the existing residential facility on the rear of the Site. Demolition and logistics access will **temporarily be provided via Wortley Road**. **All** staff and visitor access and parking will occur via Coongan Avenue. Direct access from Chiraz Street will continue to be prevented. **This stage is likely to be quite short, i.e. 1 month**.*

- ***Stage 5**: This is the post development stage after construction and demolition works are complete. **Wortley Road will be physically blocked after demolition works are finalised**. Access to the rear of the Site will then be completely restricted. Chiraz Street will remain closed to the Site.*

  *Chiraz Street will not be used for direct Site access at **any** stage of the proposed development."*

The applicant's TIA was prepared in accordance with the WAPC's *Transport Impact Assessment Guidelines for Developments: Volume 4 - Individual Developments* (Guidelines) which outlines a three-level assessment process, where the required level of assessment is dependent on the likely level of impact, as follows:

- Low impact – less than 10 peak hour trips, no assessment required,
- Moderate impact – between 10 and 100 peak hour trips, Transport Impact Statement required, and
- High Impact – more than 100 peak hour trips, full Transport Impact Assessment

The traffic generated has been determined by the TIA to be less than 10 additional vehicle trips in the peak hour (forecast to be around 2.00pm), which equates to a low impact under the Guidelines. While no assessment is typically required where the impact is assessed as low, the TIA was prepared to demonstrate whether the proposal is safe and functional.

The TIA advises the following:

> *"An analysis of the parking requirements confirmed that the development proposal will provide adequate parking capacity to satisfy the demands of residents, staff, and visitors for all parts of the day while not encouraging more traffic than necessary into the surrounding area. The use of other transport modes like public transport, cycling and walking is encouraged where it is safe and effective to use them.*
>
> *The access and manoeuvring of service vehicles was checked and found to comply with the requirements of the Australian Standards. Service vehicles can safely access and manoeuvre through the Site to the loading area.*
>
> *Finally, a road safety assessment was undertaken that indicates that the proposals are safe and appropriate. The analysis also confirmed compliance with all relevant design standards.*
>
> *In summary, this Transport Impact Statement has not identified any traffic or parking-related issues that would prevent the proposed development from being approved in its current form."*

With regard to traffic and car parking matters generally, the following is advised:

- Wortley Road is a 20m wide road reserve with a 6m wide carriageway providing lawful access to the subject site. The road is considered to be a low speed environment and is wide enough to allow for the two way movement of vehicles.

- The proposed car park is designed in accordance with AS2890.1. Provision has been made for vehicles to enter and leave the site in forward gear.

- Only one additional unit in total is proposed compared to the existing facility which will be demolished. Therefore, no significant increase in resident numbers is proposed.

- Based upon the details outlined in the TIA, the peak visitation time is on weekdays at 2.00pm, which is outside the peak operating times of the adjacent road network.

- The amount of on-site car parking bays proposed exceeds the parking demand of 66 bays forecast during the peak period for the subject site according to the TIA.

- No direct vehicle access from Great Eastern Highway is proposed. No concerns were raised by Main Roads WA regarding the anticipated traffic movements and volumes.

- Drop off bays are proposed along a new driveway adjacent to the main entrance to the proposed facility. These bays will be only occupied for short amounts of time and therefore will be vacant on a regular basis. If the application is approved, it is recommended that a condition be included requiring them to be marked and/or sign posted accordingly.

- Staff and visitors to the subject site will have the option to use public transport as bus stops currently exist nearby on Great Eastern Highway.

Considering all of the above, the Shire's Infrastructure Services does not foresee the development having a significant adverse impact on the local street network. Based upon details provided as part of the development application, it is expected the development would likely result in traffic volumes which would be manageable.

If the application is approved, it is recommended that a construction management plan be required as a condition. The construction management plan shall detail measures to minimise nuisance to neighbours (including vehicle parking) during site works and construction.

In addition, if the application is approved, it is recommended that conditions be included to ensure that the proposed vehicle access arrangements to the subject site (as outlined in the applicant's TIA) are complied with.

The applicant's Stage 5 plan in the TIA indicates that the northern portion of the site will be subject to future planning. Any building(s) proposed in the location will require a separate development approval to be obtained, which would be assessed on its individual merits having regard to the matters listed under clause 67 of the LPS Regulations. In accordance with the Special Design Area No.1 provisions under LPS4, a Structure Plan for the area would need to be endorsed prior to considering (if applicable) any subdivision and/or grouped dwellings.

Noise

An acoustic report (**Attachment 10**) provided as part of the application demonstrates that the proposal will comply with the *Environmental Protection (Noise) Regulations 1997*.

The subject site falls within the trigger distance for SPP 5.4 as it is within 300 metres from a Strategic freight/major traffic route (Great Eastern Highway).

The application of SPP 5.4 is to consider anticipated traffic volumes for the next 20 years from when the noise assessment was undertaken. Where outdoor and indoor noise levels received by a noise-sensitive land-use and/or development exceed the policy's noise target, implementation of quiet house requirements outlined in SPP5.4 are an acceptable solution.

North-facing units will exceed noise targets under SPP 5.4 due to their proximity to Great Eastern Highway, therefore, they are required to incorporate 'Quiet House Design 'Package A'' construction requirements to achieve compliance. These requirements are outlined under SPP5.4.

The acoustic report provided outlines numerous recommendations so that any external noise does not have a significant impact on those residing and working at the proposed

building, in order to comply with SPP5.4. If the application is approved, it is recommended that a condition be included to ensure that these measures are implemented.

Heritage

The Shire's Local Planning Policy 3.3 - Heritage Requirements for Planning Proposals (LPP3.3) was adopted for the following purpose:

> *"To provide guidance on the assessment of planning proposals involving works affecting a local heritage place(s) and/or a heritage-protected place(s)."*

LPP3.3 stipulates the following, amongst other provisions:

> *"4.2.3 External additions to heritage buildings must reflect and respect the scale and character of the original structure.*
>
> *4.2.4. Internal modifications to heritage buildings should be designed to minimise disturbance to the original structure and fabric, and leave visible traces of the original floor plan and function."*

In accordance with the Shire's Heritage List, the subject site is listed as Category 2 for heritage significance due to the presence of Undercliffe House. Category 2 is reserved for sites of 'Considerable Significance', and carries the following expectations from the Shire:

> *"Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place."*

In line with the above expectations, Undercliffe House is being conserved, incorporated into the proposed development, and is to be a fully functional part of the facility to ensure its ongoing maintenance and protection. In terms of the proposal's impact from a heritage perspective, the following is advised in the applicant's heritage impact statement:

- *"The proposal seeks not only development of a new residential care wing, but extensive conservation works designed to enable reoccupation of the heritage place.*
- *The new development is contemporary in its design, in keeping with other later development around the site. It seeks to maintain a low scale within the landscape being partially embedded into the landscape.*
- *The new wing has been intentionally sited to the west of the heritage place to ensure that key views of the primary facade are retained on approach to the property. The new development links in from the lower significance facade to the north and ensures the proposed linking structure is set back from the projecting bay windows and wings to the east, south and west.*
- *The proposed development significantly enhances opportunities to utilise and occupy the site, providing it with an active and ongoing use as part of the broader residential aged care facility. In its current form the place is utilised only for storage and is in a poor state of repair and the works set out within this proposal will assist in rectifying this condition."*

The proposed development plans also show the three significant trees remaining on the site which are mentioned in the Shire's Local Heritage Survey. These being the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary.

The proposal was referred to the Heritage Council of Western Australia, Mundaring and Hills Historical Society, and Midland and Districts Historical Society for comment. No concerns were raised.

Based upon the details provided as part of the application, and having had regard to the comments received during the advertising period, the Shire has no concerns that the proposal may have a significant impact on the cultural heritage significance of the subject site.

If the application is approved, it is recommended that a condition be included to ensure that the conservation and maintenance works recommended in the Conservation Management Strategy are undertaken. Also, conditions be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.

Public Art Requirement

In accordance with the Shire's Local Planning Policy 3.1 - Public Art (LPP3.1):

> *"If a development generates a planning need for public art, a contribution for public art should be provided if the development is valued over $2 million ex GST. The value of the contribution is one percent (1%) of the total estimated cost of development (including the budgeted costs for contingencies)."*

At the discretion of the Shire the proponent is required to meet their public art contribution in one or more of the following ways:

a) By providing public art on-site or in the public realm in the vicinity of the site; or
b) Providing a cash-in-lieu to the amount specified within the development approval condition.

The applicant has advised that they will be engaging a public art Consultant to *"scope and procure a physical public art contribution"* to address the requirements of LPP3.1.

If the application is approved by the DAP it is recommended that a condition be included requiring public art to be provided or payment of a cash-in-lieu amount in order to comply with the Shire's LPP3.1.

Conclusion:

The proposal is considered to be an important opportunity to provide improved aged care facilities within the Shire, whilst also maintaining the heritage significance of the subject site.

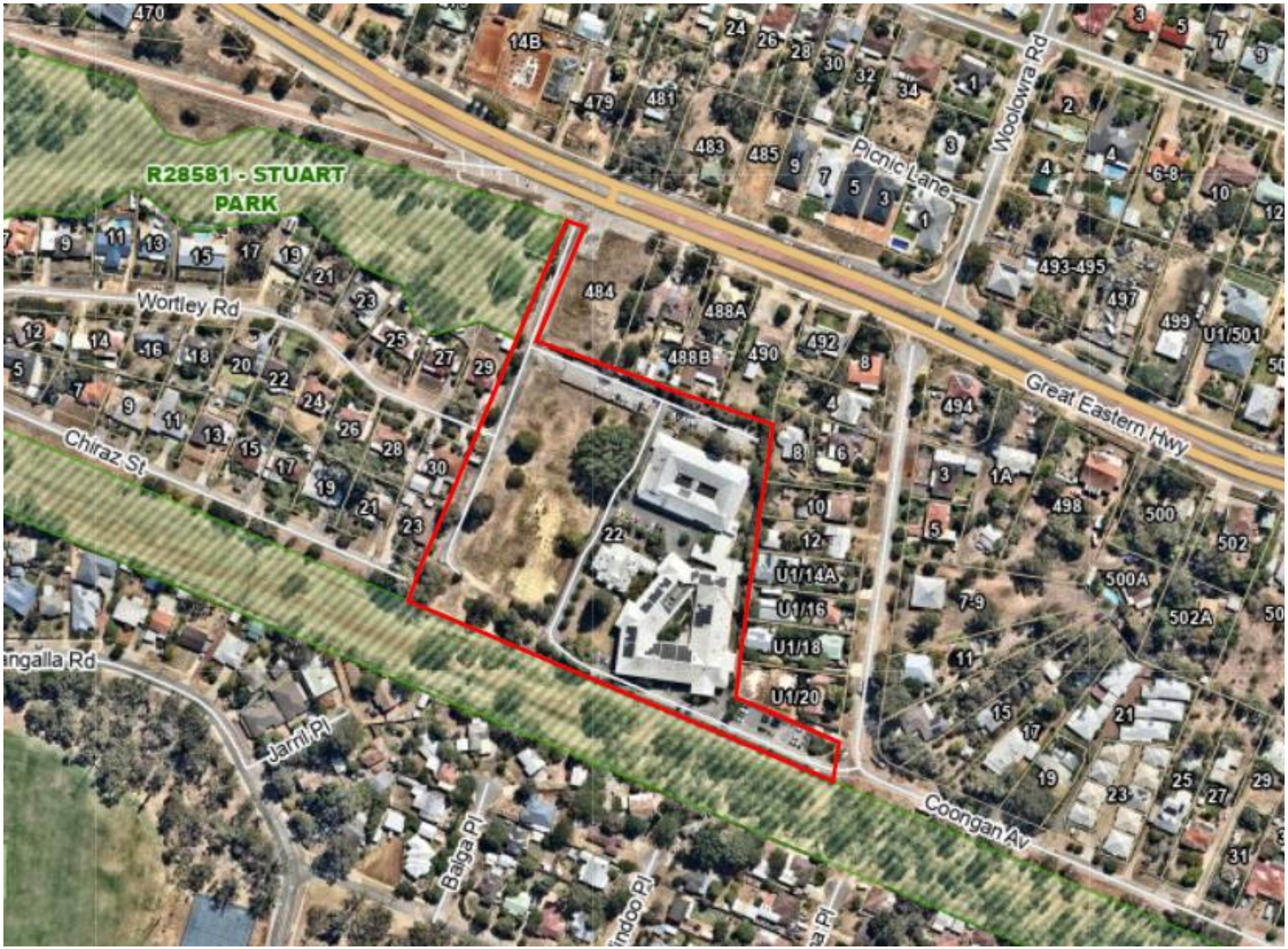
Having had regard to the various matters listed under the LPS Regulations, Shire Officers are of the opinion that the proposal will not have a significant impact on the local amenity and character.

Shire Officers consider the proposal to be consistent with forms of development able to be considered within the locality.

Based upon details provided as part of the development application, it is expected the development would likely generate a minor increase in traffic volume which would be manageable.

On balance, the scale of the proposed development and its location on the subject site are considered to be acceptable in this circumstance. It is therefore recommended that the application be approved.

Location Plan



Regis Greenmount Residential Aged Care Facility

Development Application

June 2025 | 24-202

element. | PART OF SLR

Acknowledgment of Country

We acknowledge the Whadjuk people of the Noongar nation as Traditional Custodians of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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Consultant Team

Discipline	Consultant
Architect	LW Architects
Planning	Element Advisory (Part of SLR)
Landscape Design	Plan E
Traffic	Level 5 Design
Waste	Talis
Acoustic	Lloyd George Acoustics

Introduction

This report has been prepared by Element Advisory, part of SLR ('Element Advisory'), on behalf of Regis Aged Care Pty Ltd ('Regis') for a residential aged care (Nursing Home) development located at Lot 9 (No. 22) Coongan Avenue, Greenmount.

The subject site is located within the Shire of Mundaring local government area ('Shire'). The subject site obtains primary vehicular access from Coongan Avenue via a battleaxe leg to the east, as well as pedestrian access to Great Eastern Highway via a path to the north.

The development seeks to deliver an architecturally designed and modern aged care facility to house and care for 48 residents. The application also includes the incorporation and upgrading of the heritage building 'Undercliffe House' as a central and key part of the development.

The application also seek approval for the demolition of a portion of the existing facility housing 47 beds in the older northeast portion of the site. Ultimately, the subject site will provide a single additional bed after completion, for a total of 127 units.

Requirement for Planning Approval

The development application requires determination under the requirements of the Shire of Mundaring's Local Planning Scheme No. 4 (LPS 4). As the cost of development is over $2 million, it meets the criteria for voluntary determination by a Development Assessment Panel (DAP). In this case the relevant DAP is the Metro-Outer Joint Development Assessment Panel (MOAP). The applicant requests that this application be lodged with the Shire and determined by the MODAP.

1. Site Details

Subject Site Description and Context

Site Description

The subject site is located within the Shire of Mundaring and provides a total site area of 26,797m² (2.68 ha). The subject site does not provide a primary frontage to main or local roads. The subject site features two (2) minor access roads which connect the subject site to Coongan Avenue and Great Eastern Highway. Vehicle access is obtained via Coongan Avenue in the south-eastern corner of the subject site, and pedestrian access to Great Eastern Highway from the north-western corner.

There is an existing residential aged care facility on the eastern portion of the subject site that comprises a newer two-storey building in the south-eastern corner of the site, with a smaller, older wing located immediately north. The older portion is reaching the end of its economic life and no longer provides the quality of accommodation desired by Regis or its residents. It is intended that this component will be demolished once the new build is complete so residents can transfer directly to the new building on the site.

Located centrally on the subject site is the heritage listed 'Undercliffe House' which has been onsite since 1902 and is in need of some further restoration works.

The western portion of the subject site is vacant since the old Undercliffe Hospital was closed and subsequently destroyed by fire. This is the location of the proposed development.

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Cadastre boundaries (linework only)

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0 0.03 0.05 0.1 mi

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Figure 1. Aerial Photo

Local Context

The site is located in Greenmount, in the Shire of Mundaring and is surrounded by low-density housing ranging in residential density codes from R20-R40 on the, north, east and west, with the Railway Walk Trail abutting the southern boundary. The Greenmount locality is largely characterised by similar residential development with minimal commercial centres and pockets of industrial land within a 2km radius of the subject site.

The site is separated from Great Eastern Highway via existing single residential development to the north and north-east, but is provided with a pedestrian connection where staff and visitors can access the bus stops on Great Eastern Highway.

Whilst access to the site is provided from Coongan Avenue to the east, the site does also connect to two road reserves to the west of the site. Whilst the road reserves Chiraz Street to the south west and Wortley Road to the west, mid-block, both connect to the south, physical access is not currently provided, albeit is readily possible from Wortley Road, whereas Chiraz Street would need significant upgrades and tree removal.

Regional Context

Great Eastern Highway provides the main connection from Midland Town Centre, some 3km to the west, to the Perth Hills and regions. This also connects the site with the Midland Line, providing a major public transport route via a bus, then train to the rest of the metropolitan Perth Metronet rail network.

The proposed development will provide an enhanced residential aged care service and employment opportunities on the site and provides an essential community benefit for the wider residential catchment.

Environment

Topography

The topography of the subject site is sloping with the southern point lower at approximately 41m AHD while the northern-most part of the subject site ranges from 52m and 56m AHD in the north-west and north-east corners, respectively.

The slope of the land means that the access needs careful consideration given the need for a highly accessible environment

Bushfire

According to the Department of Fire and Emergency Services (DFES) mapping of bushfire prone areas, the subject site is not identified as being bushfire prone.

Contaminated Sites

The subject site has no report of site contamination.

Acid Sulphate Soils

The subject site is not identified as posing any threat of acid sulphate soils.

Heritage

Aboriginal Cultural Heritage

The subject site is identified as being located within two (2) areas of aboriginal heritage significance. These areas are Helena River (Place ID 3758) and Blackadder & Woodbridge Creek (Place ID 3720). Noting that the primary zone of development has been previously disturbed with the construction (c.1981) and later demolition (c.2016) of a previous hospital wing (refer also to historical aerials included within the HIS at appendix G), the likely potential for impact on these Registered Sites is deemed to be low, however no further survey of the subject site has been undertaken to date to inform this application..

Historic Heritage

The following Statement of Significance has been taken from the Place Record for the site, prepared by Bruce Callow & Associates Pty Ltd in 1995 as part of the then Municipal Inventory review (now Local Heritage Survey).

> *'Undercliffe' House has very high aesthetic, social and historic significance for the community as an example of a large, early residence in the area; its associations with prominent people active in the development of the district; and for its role in providing hospital/nursing care in the region for a substantial part of its existence.*

A recommendation of this review was that the subject site also be considered for State Registration, however subsequent nomination, and assessment in 2004 deemed the property below threshold for state listing.

The building has been included on the Shire of Mundaring's Heritage List and attributed a Management Category of 2 which requires the following considerations:

> *High degree of integrity/ authenticity; very important to the heritage of the locality Expectations: Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place.*

The following place specific recommendations were also provided as part of the place record review in 1995:

> *'Undercliffe' House requires the highest level of protection under the Municipal Inventory and the owners be provided with the maximum encouragement to conserve the significance of the place. The owners are to be commended for finding a compatible use for the place and not resorting to a pragmatic demolition option. Future alterations and adaptations should attempt, wherever possible, to re-establish the integrity and fabric of the original residence.*

A review of the 1995 Municipal Inventory was undertaken by Hocking Heritage and Architecture with the resulting Local Heritage Survey review adopted by the Shire of Mundaring in 2025. The LHS review did not propose any change to the previous Statement of Significance or recommendations outlined above and it is unclear if any updated inspections were undertaken to inform this review, with place record images of the property only referencing Google Streetview (2010).

Element Advisory prepared a Conservation Management Strategy (CMS)to develop an understanding of condition and conservation requirements for the subject place in 2023. The findings of the CMS should be considered and conservation requirements incorporated as part of any proposed development of the adjacent landholding.

Refer to Appendix I – Conservation Management Strategy

2. Proposed Development

Development Summary

Table 1 (below) provides a summary of the proposed Residential Aged Care development.

Table 1. Development Details Summary

Development Aspect	Response
Proposed Land Use (Local Planning Scheme No. 4)	Residential Aged Care (Nursing Home)
Land Use Permissibility (Special Use Zone)	Discretionary
Proposed No. of Storeys	2
Proposed Max. Building Height	10.6m
Proposed Min. Setback	9m
No. of Demolished Units	47 units
Proposed No. of Units	48 new (127 total)
Proposed No. of Staff (total site)	39 staff
Proposed No. of Parking Bay (total site)	72 bays

This development application report is also accompanied by the following specialist inputs appended to this report:

- Appendix A: Certificate of Title;
- Appendix B: Development Plans;
- Appendix C: Landscape Plan;
- Appendix D: Acoustic Report;
- Appendix E: Traffic Impact Assessment;
- Appendix F: Waste Management Plan;
- Appendix G: Heritage Impact Statement;
- Appendix H: Part C Design Principles Assessment, and;
- Appendix I: Conservation Management Strategy.

Architect Perspective

Specialist Inputs

2.0.1 Landscaping

This development proposal is accompanied by a Landscape Concept, prepared by Plan E. The Landscape Concept illustrates the retention of existing significant trees which contribute to the heritage fabric of the subject site. The Landscape Concept proposes a wide-open and winding pathway surrounded by a variety of species of medium-sized trees and lower-level shrubbery. The implementation of raised planters with seating contributes to a peaceful amenity for the proposed development. The proposed landscaping values the retention of hardy native plants and the facilitation of social interaction. The landscaping contributes to the care of residents through providing familiar and 'homely' elements which foster memories.

The proposed landscaping has been designed in accordance with the following key design objectives:

- Retention of significant trees and protecting those valuable to the heritage fabric of the site;
- Creation of a highly legible landscape design which is complementary to the building's architecture;
- Facilitate social engagement and outdoor movement through inviting design;
- Provide the opportunities for residents to 'personalise' their own landscaping through planting of their own plants and seasonal varieties;
- Promote the use of hardy, native plant species which require less water usage than introduced species;
- Utilise high-amenity landscaped areas to contribute to the care of residents, especially those suffering with dementia, and;
- Facilitate outdoor areas designed in accordance with Crime Prevention through Environmental Design principles.

Refer to Appendix C – Landscape Plan

2.0.2 Acoustics

An Acoustic Report has been prepared by Lloyd George Acoustics. The Acoustic Report addresses the main acoustic considerations of the development, being reduced noise emissions, adequate noise separation and mitigating against noise intrusion.

The Acoustic Report makes the following recommendations in response to the major considerations:

Noise Emissions

- Noise emissions from the mechanical plant in the development is to be modelled and assessed prior to the issue of a Building Permit;
- Attenuators are to be allowed for on ground level fan systems;
- Internal air conditioning is to utilise 'day' and 'night' modes to reduce noise at night times;
- Mechanical plant is to be treated with acoustic screening where required, and;
- All mechanical plant infrastructure is to be at least 95% vibration isolated between other material.
- Service and Waste vehicle noise such as reversing alarms will be limited in operation to between 7am and 7pm in accordance with the *Environmental Protection (Noise) Regulations 1997*. It is understood any operations outside of these hours will require further assessment and a noise management plan to the satisfaction of the Shire.

Noise Separation

- All separating walls and floors between sole-occupancy units to comply with NCC acoustic performance requirements;
- Avoid services being chased into masonry, and ensure proper treatment of penetrations and flanking paths, and;
- Careful placement of services and use of discontinuous construction in certain areas.

Noise Intrusion

- North-facing units which exceed noise targets under SPP 5.4 due to proximity to Great Eastern Highway are required to incorporate Quiet House Design Package A construction requirements to achieve compliance.
- The proposed development site is located outside of the Australian Noise Exposure Forecast (ANEF) contours for Perth airport.

The Acoustic Report concludes all above noise considerations can be managed effectively by the development, with only minimal construction considerations required during detailed design of north-facing units.

Refer to Appendix D – Acoustic Report

2.0.3 Traffic and Transport

This development application is accompanied by a Transport Impact Statement (TIS) prepared by Level 5 Design. The TIS conducts a review of access, anticipated traffic generation, local road network capacity, on-site parking requirements and alternative modes of transport. The TIS makes the following conclusions and recommendations for the proposal:

- The proposed 72-bay on-site parking provision is compliant with the parking requirements stipulated in the Shire of Mundaring Local Planning Scheme. Additionally, the 72-bay provision exceeds the anticipated peak parking demand detailed in the TIS of 66 bays in the peak hour.
- Proximity to public transport will reduce demand on private vehicle use for staff, with the subject site being directly connected to bus routes Great Eastern Highway via a pedestrian path to the north;
- Service, waste and emergency vehicles are able to manoeuvre safely in the basement carpark and access the loading dock in accordance with the Australian Standards. This is demonstrated through swept path analyses of all vehicles proposed to be used;
- The additional traffic generation caused by the proposed development can safely be accommodated on the existing road network.

Refer to Appendix E – Transport Impact Assessment

2.0.4 Waste

A Waste Management Plan (WMP) has been prepared by Talis Consultants to summarise and provide recommendations for the method of waste management and disposal for the proposed development. Waste collection will be conducted by a private contractor, according to Talis, the minimum waste storage requirements for the development are below:

Rear Lift Waste Collection Vehicle:

- Three 1.5m3 refuse bins, collected three times each week; and
- Seven 240L recycling bins, collected two times each week.

Front Lift Waste Collection Vehicle:

- One 3.0m3 refuse bin, collected five times each week.

Specialist/Controlled Medical Waste Collection Vehicles:

- Two 240L secure document bins, collected as required;
- Thirty-three 120L clinical waste bins, collected weekly;
- Four 1.4L and two 6.5L sharps bins, collected fortnightly; and
- Three 120L cytotoxic bins, collected as required.

The WMP confirms that the proposed 50m^2 bin storage area in the basement level is of sufficient size to accommodate the above waste requirements. The bin store can be efficiently accessed by waste collection trucks entering and exiting the site in forward gear.

Refer to Appendix F – Waste Management Plan

3. Planning Framework and Assessment

State Planning Framework

Directions 2031 and Beyond and Perth and Peel @ 3.5 Million

The Perth and Peel @ 3.5 Million framework is an overarching suite of documents which builds on the vision established under Directions 2031. The Perth and Peel @ 3.5 Million document aims to achieve a more consolidated urban form to meet long term housing needs and strengthen key activity centres and employment nodes as the Perth and Peel population grows to 3.5 Million. The framework guides infill development and advocates for greater use of activity centres, transport corridors and station precincts to support a diversity of higher density accommodation.

The subject site is located within the 'North-East sub-region' under the Perth and Peel @3.5 million framework. The following objectives outlined for the North-East sub-region are relevant to development within the subject site:

- Achieve more consolidated urban form and development within the sub-region;
- Meet long-term housing requirements;
- Identify requirements for key community and social infrastructure such as those required for health and tertiary education; and
- Guide the staging and sequencing of future urban development.

The proposed development directly responds to the above strategic aspirations by providing infill opportunities at an underutilised site and increased housing options for aged residents within the locality. Development in this manner will enable increased ageing-in-place within the Shire of Mundaring, whilst contributing to long-term housing needs within the North-East Sub-region.

Metropolitan Region Scheme

The Metropolitan Region Scheme (MRS) is the overarching statutory land use planning scheme for the Perth Metropolitan Region. The purpose of the MRS is to reserve and zone land for specific purposes, and to provide a framework for development control. The MRS reflects the agreed strategic direction for land within the Perth Metropolitan Region, with all local planning schemes required to align with the MRS in terms of planning controls at the local level.

Under the provisions of the MRS, the subject site is appropriately zoned 'Urban', which is suitable for residential aged care development.

Planning and Development (Local Planning Schemes) Regulations 2015

Clause 67(2) of Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Deemed Provisions), specifies matters which are to be given due regard when determining applications for approval.

An assessment of the proposal against the relevant matters outlined in Clause 67(2) of the Deemed Provisions has been undertaken. A summary of the assessment is provided in Table 2.

Table 2. Clause 67(2) assessment

Provision	Applicant response	
a. the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area	The proposal has been assessed against the Shire of Mundaring Local Planning Scheme No.4 Special Use Zone requirements.	✓
b. the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving	The development is consistent with orderly and proper planning principles applicable to the site as discussed in this report.	✓
c. any approved State planning policy	The proposal has been assessed against and considered to comply with the relevant provisions of the following State Planning Policies – State Planning Policy 7.0 – Design of the Built Environment Residential Design Codes Volume 1	✓
d. any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d)	N/A	
e. any policy of the Commission	The proposal has considered the Commission's March 2024 'Position Statement: Residential Accommodation for ageing persons' and assessed the development in accordance with this document.	✓
f. any policy of the State	N/A	
fa. any local planning strategy for this Scheme endorsed by the Commission	The proposal has been assessed against the Shire of Mundaring's 2013 Local Planning Strategy.	✓
g. any local planning policy for the Scheme area	The development has been assessed against the following Shire of Mundaring Local Planning Policies: LPP 3.3 – Heritage Requirements for Planning Proposals	✓
h. any structure plan or local development plan that relates to the development	N/A	
i. any report of the review of the local planning scheme that has been published under the Planning and Development (Local Planning Schemes) Regulations 2015	N/A	

Provision	Applicant response	
j. in the case of land reserved under this Scheme, the objectives of the reserve and the additional and permitted uses identified in this Scheme for the reserve	N/A	
k. the built heritage conservation of any place that is of cultural significance	The subject site has been identified as heritage listed with Category 2 significance on the local heritage list. This application is in accordance with an approved Conservation Management Strategy and is accompanied by a Heritage Impact Statement. Refer to Appendix G – Heritage Impact Statement	✓
l. the effect of the proposal on the cultural heritage significance of the area in which the development is located	Refer to Appendix G – Heritage Impact Statement	✓
m. the compatibility of the development with its setting, including – i. the compatibility of the development with the desired future character of its setting; and ii. the relationship of the development to development on adjoining land or on other land in the locality, but not limited to, the likely effect of the height, bulk, scale orientation and appearance of the development.	The proposed development complies with the desired future character of the area through alignment with the Shire's Special Use Zone No.4. Bulk and scale of the proposed building has been considered and set back in excess of 9m to reduce impact on surrounding residential land. The proposed development contributes to the community through provided housing and care for an ageing population.	✓
n. the amenity of the locality including the following – i. environmental impacts of the development ii. the character of the locality iii. social impacts of the development	The proposed development contributes greatly to the amenity of the locality through providing extensive landscaping and preserving heritage fabric. Potential amenity impacts of the development have been managed appropriately. Refer to Appendix G – Heritage Impact Statement Refer to Appendix D – Acoustic Report Refer to Appendix E – Traffic Impact Statement	✓
o. the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or mitigate impacts on the natural environment or the water resource	There is no impact on the natural environment caused by the proposed development.	✓

Provision	Applicant response	
p. whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved	Refer to Appendix C – Landscape Plan	✓
q. the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk	N/A – the subject site is not identified as being in environmentally sensitive areas	✓
r. the suitability of the land for the development taking into account the possible risk to human health or safety	The proposed development poses no risk to human health or safety	✓
s. the adequacy of – i. the proposed means of access and egress from the site; and ii. arrangements for the loading, unloading, manoeuvring and parking of vehicles	Refer to Appendix E – Traffic Impact Statement	✓
t. the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety	Refer to Appendix E – Traffic Impact Statement	✓
u. the availability and adequacy for the development of the following – i. public transport services ii. public utility services iii. storage, management and collection of waste iv. access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities) v. access by older people and people with disability	Refer to Appendix E – Traffic Impact Statement	✓
v. the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses	N/A	
w. the history of the site where the development is to be located	Refer to Appendix G – Heritage Impact Statement	✓

Provision	Applicant response	
x. the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals	The proposed development facilitates a net positive outcome for the community through provision of housing and care for the elderly. The proposed development does not compromise residential amenity or views of significance.	✓
y. any submissions received on the application	This proposal will be subject to advertising and public comments will be given due regard by the MODAP.	✓
za. the comments or submissions received from any authority consulted under clause 66		
zb. any other planning consideration the local government considers appropriate		

State Planning Policy No. 7.0 Design of the Built Environment

State Planning Policy No. 7.0 – Design of the Built Environment (SPP 7.0) generally guides development through implementing 10 principles of good urban design to be given regard by development applications. The following section provides a brief design response to each of the design principles under SPP 7.0.

Context and Character

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.

- The proposed development is respectful to the context of the site through following the natural contour of the land and providing a bulk and scale commensurate with the existing buildings and heritage fabric.
- The proposal protects the Undercliffe House heritage fabric through respectful building separation and protection and significant enhancement of surrounding landscaped gardens.
- The proposed building respects the surrounding low-density residential context through adequate setbacks and landscaping to avoid visual privacy and noise amenity concerns.

Landscape Quality

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.

- The proposed development provides extensive landscaped gardens which surround the new building, as well as a 767m^2 central courtyard accessible to all residents.
- Landscaping along the western boundary of the subject site allows for adequate separation from single-residential properties and protection of natural amenity.
- Significant trees are to be retained, including the Moreton Bay Fig Tree and American Cypress which are significant heritage aspects.
- A detailed landscaping plan has been prepared by Plan E to accommodate the development proposal which demonstrates a variety species of trees and shrubs dispersed throughout the development.

Built Form and Scale

Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.

- Universal design and access are key consideration of the proposed development as a residential aged care facility. Regis are a highly experienced aged care provider and ensure their facilities efficiently meet the needs of its residents.
- Given the need for a highly accessible development on a sloping site, the development has been kept largely at single storey at the rear of the development and extends to only two storeys on the southern side due to the fall of the land.
- All care units are designed to have access to high-amenity views, ventilation and solar access while also achieving equitable access to communal open spaces.
- The central drop-off and driveway loop are designed to make the servicing of residents and the development significantly more efficient.
- The central loop is also designed to maximise the efficiency of ambulances in the case of a medical emergency.

Functionality and Build Quality

Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.

- Universal design and access are key consideration of the proposed development as a residential aged care facility as reflected in the proposed development.
- The asset is to be retained by Regis where therefore there is a high level of regard for building durability and low maintenance materials;
- All care units are designed to have access to high-amenity views, ventilation and solar access while also achieving equitable access to communal open spaces.
- The central drop-off and driveway loop are designed to make the servicing of residents and the development significantly more efficient.
- The central loop is also designed to maximise the efficiency of ambulances in the case of a medical emergency.

Sustainability

Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.

- The facility is sustainably designed to maximise natural ventilation and solar access to reduce the reliance on energy consumption for artificial climate control.
- The significant landscaping of the proposed development supports water-sensitive urban design through managing stormwater onsite within the gardens.
- Social sustainability is a significant priority of all Regis aged care developments. Allowing ageing in-place within a modern and accessible high-amenity facility.
- The proposed development incorporates a 40Kw solar panel system located on the northern aspect of the roof of the proposed building to maximise energy efficiency.

Amenity

Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.

- The modernised residential aged care facility provides a high-amenity outcome for all residents.
- The development prioritises fostering social cohesion and comfort to assist in provision of care for the elderly.
- The development includes sprawling gardens, large outdoor areas and internal social spaces where residents can interact.
- The development is also highly inviting to visitors, encouraging family and friends to visit residents and sustain mental health.
- There is also a high regard for the amenity of neighbours, being overly compliant with privacy setbacks and retaining access from existing driveways.

Legibility

Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.

- The proposed development is highly legible for the intended visitors. There is a single access way in and out of the development for vehicles which connects to the servicing area and central loop.
- The subject site includes a pedestrian path to the north which connects to public transport infrastructure on Great Eastern Highway.

Safety

Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.

- The aged care nature of the proposed development prioritises the safety of residents.
- Communal open spaces are designed to be viewed and accessible by all residents and staff to protect passive surveillance and welfare of residents.
- There is a high level of visibility and passive surveillance provided over the more public domains.
- The proposed development also maintains regular visiting hours, with the development not generally open to non-residents outside of these hours.

Community

Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.

- The development will provide a high quality care facility to the local aged care community.
- Urban design of the development facilitates ample opportunities for enhanced social interaction and the creation of an internal facility community.
- Social interaction is facilitated between residents through the abundant internal amenities, outdoor living areas and central landscaped courtyard.

Aesthetics

Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.

- The architectural plans and landscape concept designs prepared by LW Architects and Plan E create a modern built form nestled in visually pleasing natural gardens.
- The heritage fabric of the subject site has been protect and conserved, while the new development remains respectful in terms of building bulk and enhances the site through landscaping.

State Planning Policy No. 7.3 Residential Design Codes

State Planning Policy No. 7.3 Residential Design Codes (R-Codes) seeks to facilitate an appropriate standard of housing, promote sustainability and outline assessment pathways to achieve better residential outcomes for occupants. The Western Australian Planning Commission (WAPC) has recently published 'Position Statement: Residential Accommodation for Ageing Persons' in March 2024 which directly relates to the application of SPP 7.3 when assessing aged care facilities.

The WAPC Position Statement outlines the WAPC's requirements to support the provision of residential accommodation for ageing persons, encouraging an appropriate supply and diversity of housing options for ageing populations.

The WAPC Position Statement lists a variety of considerations to be given regard by development applications for residential aged care facilities. This list includes *'the relevant provisions of the R-Codes'*.

In accordance with this consideration requirement and in recognition of the typical residential aged care facility providing a different outcome to the traditional residential development, the proposal has been assessed against the Design Principles of Part C of the R-Codes Volume 1.

It was determined through consultation with the Shire that R40 would be considered the most appropriate applied R-Code for the purposes of assessment in lieu of an R-Code being placed over the subject site via the Local Planning Scheme. Given the proposed aged care units most closely align with the definition of grouped dwellings as there are no dwellings above or below each other, Part C of the R-Codes are the most relevant provisions.

Accordingly, a full assessment of the relevant Part C design principles is attached at Appendix H.

Local Planning Framework

Shire of Mundaring Local Planning Strategy

The Shire of Mundaring Local Planning Strategy (Strategy) was endorsed by the West Australian Planning Commission (WAPC) in May of 2013. The Strategy intended to set out the long-term planning directions for the Shire and to guide land-use planning for the coming decade.

Section 3 of the Strategy includes various Strategic Directions which provide strategic recommendations to the future planning of the Shire in response to identified planning issues. The Strategic Direction most relevant to the proposed development is listed below:

> ***Community facilities, recreation and open space***
>
> *The level of community facilities and service provided in the Shire is generally sufficient at the time of writing, however the level of provision will need to be reviewed over time to accommodate changing demographics and community needs, notably the aging population and anticipated population growth in new development areas. Aged care facilities and low-order medical facilities need to be encouraged. Community facilities and recreation needs will be generated by urban development of proposed townsite development areas in North Parkerville and North Stoneville. It is proposed to separate local recreation reserves into Local Reserves for Conservation or Recreation under Local Planning Scheme No. 4 to indicate the primary emphasis for each reserve.*

Given the above strategic direction, it is understood that the proposed Residential Aged Care development would contribute positively to addressing a shortage of aged care facilities and supporting an ageing population.

Shire of Mundaring Local Planning Scheme No.4

Zoning and Land Use

The Shire of Mundaring Local Planning Scheme No. 4 (LPS4) is the predominant statutory mechanism guiding development within the Shire.

Under LPS4, the subject site is zoned 'Special Use' and is subject to the Special Use requirements listed in Schedule 4 of LPS4. Within Schedule 4, the following land uses are permissible within the subject site:

- Aged persons' village;
- Aged or dependent persons' dwellings;
- Nursing home; and
- Uses incidental to the above.

A 'nursing home' is defined by LPS4 as the following:

> *"means premises in which persons who do not require constant medical attention are received as patients and lodged for the purposes of medical supervision and nursing care."*

The proposed development residential aged care development is consistent with the above definition and therefore is consistent with the objectives of the Special Use Zone.

Additionally, the proposed development includes aspects used for administrative office purposes and an café open only to residents, staff and visitors. As these additional uses are not public-facing uses, they are therefore considered incidental to the proposed uses and consistent with the provisions of the Special Use Zone.

LPS4 Built Form Requirements

Schedule 4 of LPS4 further states that 'all development should be at the Shire's discretion'. No further development requirements or density codes pertaining to the R-Codes are provided under Schedule 4.

The appropriate density code for the purposes of built form assessment has been determined in the above R-Codes section. An assessment of the development against the relevant R-Codes provisions is attached at Appendix H.

Car Parking

Table 2 of LPS4 lists the carparking requirements for different land uses within the scheme. For the 'Nursing Home' land use, the following parking ratio is applied:

> *1 space per 4 beds, plus 1 space per employee or staff member on premises at any one time*

Across the entire subject site and inclusive of the proposed expansion, the site will provide a total of 127 aged care units and accommodate a maximum of 39 staff on the premises at any time. In accordance with LPS4, this requires 32 bays for the resident units and 39 bays for staff, for a total of 71 required parking bays.

The proposed development provides a total of 72 parking bays, including 45 new bays in the under croft, 5 new bays located centrally and 22 bays retained onsite.

This parking provision is compliant with the LPS4 requirements and the anticipated peak parking demand detailed in the TIS.

The proximity of the subject site to public transport on Great Eastern Highway and the connection of Great Eastern Highway to the proposed facility via a pedestrian access leg further reduces demand on private vehicle parking.

Given the above, no parking or access issues are anticipated to be caused by the proposed development.

Refer to Appendix E – Traffic Impact Statement

Local Planning Policy 3.3 – Heritage Requirements for Planning Proposals

Local Planning Policy 3.3 – Heritage Requirements for Planning Proposals (LPP 3.3) was adopted by the Shire Council in September 2024 for the following purpose:

> *To provide guidance on the assessment of planning proposals involving works affecting a local heritage place(s) and/or a heritage-protected place(s).*

In accordance with the Shire's local heritage list, the subject site is listed as Category 2 for heritage significance due to the presence of Undercliffe House. Category 2 is reserved for sites of 'Considerable Significance', and carries the following expectations from the Shire:

> *Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place.*

Pursuant to LPP 3.3, development must demonstrate compliance with general assessment criteria under section 4.2 of LPP 3.3 as well as provide a Heritage Impact Statement in accordance with section 4.4.2 of LPP 3.3, summarised below:

> ***4.4.2.*** *A development application, subdivision application or a structure plan likely to have a negative and/or significant impact on a heritage-protected place must be accompanied by a heritage impact assessment consistent with the guidelines produced by the Heritage Council of Western Australia.*

In line with this expectation, Undercliffe House is being proactively conserved, incorporated into the proposed development and is to be a fully functional part of the facility to ensure its ongoing maintenance and protection.

Consequently, Element Advisory have prepared a Heritage Impact Statement (HIS) in accordance with Heritage Council guidelines which summarises the works and conducts an assessment pursuant to LPP 3.3. The HIS is attached at Appendix G

4. Orderly and Proper Planning

In addition to the assessment and justification provided in the planning assessment above and in the R-Codes assessment at Appendix H, the principles of orderly and proper planning require that new development is consistent with the planning vision and strategic direction for the locality.

The key matters relating to orderly and proper planning are outlined as follows:

- The application seeks approval for a Residential Aged Care Facility (Nursing Home) on a site that is specifically zoned for aged persons under LPS4 and has been used as such for decades;
- The proposed development will demolish an ageing facility and facilitate a modern and high amenity facility in a location on the site that has been previously approved for this use;
- The proposed development will provide a new facility for the housing and care of an ageing population, responding to the demand for higher quality housing and care for the elderly;
- The proposed development is consistent with the design principles of residential development under Part C of the R-Codes and has demonstrated compliance with built form requirements at a worse-case scenario;
- The proposed development is accompanied by detailed reports ensuring acoustic, traffic, heritage and landscape amenity are appropriately managed;
- The accompanying acoustic and traffic reports demonstrate that vehicles can enter and exit the subject site in forward gear, without compromising safety or residential amenity;
- The accompanying traffic report demonstrates that the amount of on-site parking provided is adequate to satisfy generated parking demand;
- The built form of the proposed development responds to the topography of the site and does not compromise any views of significance;

5. Conclusion

This report has been prepared by Element Advisory, on behalf of Regis for a Residential Aged Care (Nursing Home) at Lot 9 (No. 22) Coongan Avenue, Greenmount (the "subject site"). The development proposal seeks approval to demolish a portion of the existing building and construct a 48-bed facility in the south-western corner of the subject site. Ultimately, the entire site will provide a total of 127 single-bed units for elderly assisted living.

This report sets out how the development addresses and complies with the relevant planning framework as per the detailed assessment of the proposal against the relevant aspects of the framework, including LPS4, R-Codes and Local Planning Policies. The proposal is shown to be clearly in accordance with the built form and land use expectations of the subject site and surrounding locality.

This report is accompanied by a variety of specialist inputs prepared by sub-consultants to support the proposal and demonstrate potential amenity concerns are managed.

The proposal is therefore consistent with the principles of orderly and proper planning. It is respectfully requested that the Shire support and recommend approval of the proposed development to the MODAP, subject to appropriate conditions.

DRAINAGE
- GRATED PIT
- SIDE EDNTRY PIT
- DRAINAGE MANHOLE
- DOWN PIPE

ELECTRICITY
- ELECTRIC MANHOLE
- POWER POLE
- LIGHT POLE
- SUPPLY POLE
- STAY POLE
- POWER LINE
- POWER DOME
- ELECTRIC PIT
- RETIC CTRL BOX

SEWER
- SEWER MANHOLE
- SEWER VENT
- SEWER SHAFT

COMMS
- COMMS MANHOLE
- TELSTRA PIT
- COMMS MARKER

GAS
- GAS MANHOLE
- GAS MARKER
- GAS VALVE
- GAS METER

WATER
- HYDRANT
- HYDRANT PILAR
- STOP VALVE
- WATER METER
- WATER MARKER
- WATER TAP

MISCEL
- SIGN
- MULTI POLE SIGN
- ANTENNA
- BOLLARD
- BOLLARD LIGHT
- FLAG POLE
- UNDEFINED MANHOLE
- TREE TRUNK

PCG2020-AHD (GPS RTK)
Height adjusted to SSM MAIDA VALE 5

P.No	X	Y	Z
G1	71411.308	359130.276	54.988
G2	71462.193	359129.881	51.332
G3	71562.404	358981.933	45.444
G15	71471.383	359049.815	47.513
G16	71451.508	359091.276	51.492
G5	71562.404	358981.933	45.444
G13	71471.383	359049.815	47.513
G14	71505.455	358701.533	44.497
G12	71337.928	358920.704	42.585
G11	71572.408	358877.167	42.142
G1	71555.306	358870.818	50.733
G2	71458.758	358848.428	45.769
G6	71505.812	358879.345	43.812
G7	71428.404	358853.759	43.388
G8	71442.862	358816.414	43.747
G9	71407.535	359023.546	51.864
G10	71501.396	358986.292	55.326
G11	71474.552	358934.395	50.388

IMPORTANT PLAN NOTES

1. Boundaries shown on this plan are approximate only and have not been re-established. These boundaries should be verified by a boundary re-establishment survey prior to demolition, excavation and/or construction.
2. The plan shows visible services only. The location of underground services should be verified prior to demolition, excavation and/or construction. Developed takes no responsibility for the location of services shown on this plan.
3. All dimensions shown are subject to final survey calculations.
4. Check title for easements / covenants or any other limitations.
5. Check with council for any other limitations to the land or zoning.
6. Soil type has not been confirmed as part of this survey.
7. The information shown on this plan is current only for the date of survey.
8. Developed accepts no responsibility for any physical on site changes for the area shown on this plan after the date of survey.
9. Extent and limit of survey completed as per the agreed scope between Developed and the client.
10. This note, company logo and information below is an integral part of this plan and must not be removed.

PLAN OF
CONTOUR & FEATURE SURVEY OF
LOT 9 ON DIAGRAM 11004

PROJECTION
HORIZONTAL: PCG 2020
VERTICAL: AHD
(BASED OF RTK GPS)

LGA
SHIRE OF MUNDARING
ZONING
CHECK WITH LGA

SHEET
1 of 1

PLAN No.
PN24386 01

REVISION
A

PARCEL ADDRESS
22 COONGAN AVENUE,
GREENMOUNT

REV.	DATE	DESCRIPTION	SURVEYOR	DRAWN	APPROVED
A	02/10/2024	CONTOUR & FEATURE SURVEY	ST	LF	PS

CLIENT
REGIS

0 10 20 30 40 50m
1:1000 @ A3

Developed
PLANNING | SPATIAL | DELIVERY
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Notes:

Client:

regis aged care

Architect:

LW

LW PLUM SACKETT ARCHITECTS PTY LTD

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DA/ TOWN PLANNING

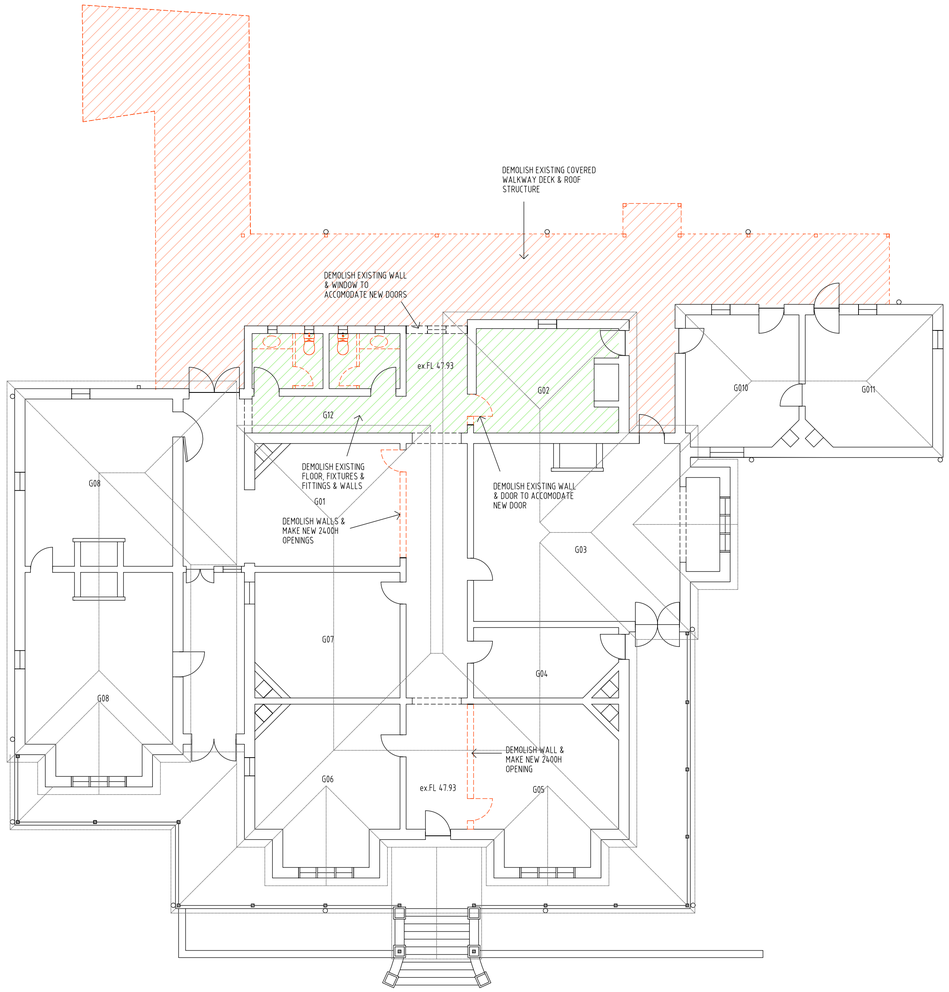
REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025

Layout:

EXISTING SITE

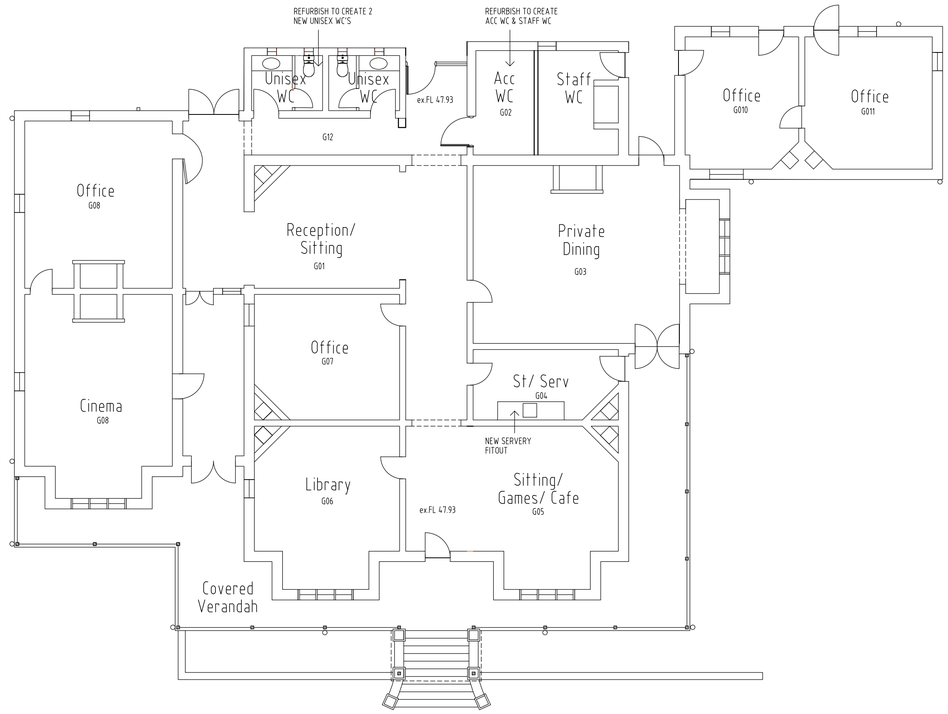
Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
1. 400	A1	AL/FX	PL

Drawing No:	Revision:
TP1.001	TP0



DEMOLITION PLAN

1.100



PROPOSED FLOOR PLAN

1.100

Proposed Undercliffe Restoration & Maintenance Works

- Review roof cladding, flashings, eaves and chimneys to identify all points of pigeon ingress, repair and block access points and prevent ongoing occupation of roof spaces
- Remove pigeon droppings from all roof spaces to reduce loading to ceilings
- Following removal of pigeons and droppings, prop and restrap ornate ceilings to G-03, G-05 and G-06, bolstering with additional ceiling joist members between support points if required. Refix cornices before making good finishes like- for-like
- Refix and refinish ornate pressed metal ceilings to G-08 and G-09. Brush back areas of corrosion and make good finishes like-for-like. Allow to repaint both sides
- Survey foundations and identify areas of subsidence. Subsidence should be stabilised via resin injection in targeted locations following the detailed survey. Significant subsidence may require underpinning or the installation of new foundations. Monitor all walls for movement during works and to ensure action is corrective
- Replace corroded and missing downpipes and ensure water is directed away from the building
- Clean all gutters of organic material and replace all rusted out or deteriorated sections
- South elevation - Repair minor cracking using Helifix bars and refinish to match existing.
- South elevation - Significant cracks will require some masonry replacement. Repoint masonry with suitable mortar and refinish to match existing.
- Undertake detailed termite inspection, remove significantly deteriorated decking boards to western end of verandah to facilitate underfloor access, replace to match existing like-for-lie following repairs to rainwater drainage system
- Known plumbing leak within garden bed adjacent to the eastern edge of the heritage building. Isolate and repair plumbing issues before undertaking any repairs to damp affected areas of brickwork or internal finishes
- North elevation - Repair cracking using Helifix bars and refinish to match existing
- North elevation - Repair low level brickwork and pointing decay to match like-for-like
- East elevation - Repair low level brickwork and pointing decay to match like-for-like
- East elevation and G-03 internal - Clean back organic growth and repair rendered window sill to match. Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- South elevation - Remove loose or drummy render around corroded window lintels. Brush back paint coatings and areas of corrosion. Apply two coats of zinc rich protective coating and refinish to match like-for-like
- West elevation - Repair cracking using Helifix bars and refinish to match existing
- Undertake detailed structural inspection of all chimneys as part of roofing repairs. Clean back organic growth and repair any cracked, loose, or drummy render to match. Repoint masonry like-for-like and consider removal of paint from all face brick surfaces. Ensure all chimneys are adequately blocked to prevent water ingress
- Replace fascias and bargeboards deteriorated beyond repair to match like-for-like. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on original finishes
- Repair timber verandah columns to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match
- Retain and refinish timbers to southern decking, if any elements are found to be deteriorated beyond repair undertake like for like replacement before sanding decking timbers back to sound face and oiling
- Install rainwater sump boxes at all downpipes connected to a piped sub-soil drainage system to ensure all roof runoff is taken away from the building to avoid soil saturation. Undertake a CCTV pipe inspection to confirm drainage pathway and rectify blockages and outflow locations as required.
- **Undercliffe** Conservation Management Strategy **32**
- Repair internal cracking using Helifix bars where noted in structural report, repoint and refinish to match existing.
- Refix and refinish plain plasterboard ceilings and cornices to G-01, G-02, G-04, G-07, G-10, G-11 and G-12
- Remove and dispose of all carpet and linoleum floor coverings. Inspect all timber floors and underfloor areas, allowing for installation of three floor inspection hatches if required. Repair like-for-like and refinish timber floors
- Repair cracked glazing to one sash window in G-02
- Repair cracked glazing and deterioration to front entry door and feature surrounds, ensure protection during any structural works
- Install smoke alarms throughout
- Replace corroded ridge flashing fixtures
- Once roof space is clear undertake further detailed inspection of all structural framing. Bolster or replace defective members like-for-like as required
- East elevation - Repair cracking using Helifix bars and refinish to match existing.
- Prepare and repaint all downpipes, with colour to match or based on original finishes
- Refix and make good soffits and eaves. Prepare and repaint, with colour to match or based on original finishes
- Make good windows to ensure watertightness. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- Make good doors externally and internally. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- Brush back corrosion to external breezeway gates, Apply two coats of zinc rich protective coating and refinish to match like-for-like
- Provide breathing strip/air drain between external wall face and any areas of hardscaping or landscaping
- Repoint and refinish low level render spalling to G-02
- Repoint minor internal cracking as identified in structural report and refinish like-for-like
- Undertake detailed electrical inspection and replace all light fittings to match
- Reinstate and refinish timber hearth surrounds to G-01
- Replace deteriorated kitchenette fitout to G-02
- Reposition masonry stair turn out and fix into position N10 dowel bars against existing masonry piers. Alternatively, tooth in new stair turnouts to ensure appropriate connection between masonry elements in place of apparent vertical joint.
- Excavate around in ground verandah stirrups to expose steelwork and confirm no corrosion is present to steel fixing. Repair if required
- Undertake detailed inspection of verandah structure and replace or reinforce as required
- Recast and replace missing corbel moulding to G-01
- Remove timber stud wall to G-05 and make good finishes
- Replace worn bathroom fitout to G-12
- Remove boarding and reinstate chimney functionality
- Remove airconditioning wall units and make good
- Remove wall sinks to G-04 and G-09 and make good
- Remove space heaters

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Client:

regis aged care

Architect:

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11 PULLMAN ST ST ARMADALE WA 6112

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Status:
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REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025

Layout:

UNDERCLIFFE HOUSE DEMOLITION & PROPOSED FLOOR PLANS

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
AS	A1	AL/FX	PL

Drawing No: TP1.201

Revision: TP0

PEDESTRIAN ENTRY
ACCESS TO
G E HWY

131.19

101°52'30"

TRUNK OVER FENCE

29

EXISTING
SIGNIFICANT TREE

EXISTING
SIGNIFICANT TREE
MORETAN BAY FIG

Cleared site.
Grade to match
existing levels

49.04

214.79

WORTLEY
ROAD

NEW VEHICLE
ACCESS

A
TP1.10

46.87

50.8 Floor Level

retaining wall over

GF Level Over

RL 45.0

Service
Lobby

Lift
Lobby

Main Entry/
Admin Over

STAFF
85m2

LAUNDRY
90m2

Undercliffe
House Over

Existing Aged Care
Building Over

50.8 Floor Level
47.2 Floor Level

Landscaped
Gardens

KITCHEN
100m2

MAINTENANCE
STORE 40m2

LOGISTICS
STORES
56m2

BINS
50m2

Loading
Bay

RL 47.2

planter

Carpark
Lobby

43.0

30

Carpark
Ambulant
Exit

RL 42.9

RL 43.00

Undercroft Carpark
45 Carbays
(3 Accessible)
FL 43.0

Min. 3.8m
head height clearance to
loading bay

105°21'

Landscaped
Gardens

GRASS

Landscaped
Gardens

RL 42.00

CHIRAZ
STREET

GF Level Over

RL 43.0

PAVEMENT

Landscaped
Gardens

EXISTING
SIGNIFICANT TREE

EXISTING
CARPARK

Landscaped
Gardens

RL 42.8

Trafficable
paving

RL 43.0

A
TP1.10

Carpark
Entry

driveway

EXISTING DRIVEWAY

EXISTING
CARPARK

90°

138.20

WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL DIMENSIONS BEFORE WORK STARTS.

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Notes:

Client:

regis aged care

Architect:

LW

LW ARCHITECTS
ARNOLD LEE PTY LTD

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DA/ TOWN PLANNING

REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025
TP1	NOTES REMOVED	19/8/2025

Layout:

PROPOSED FLOOR PLAN LOWER GROUND LEVEL (UNDERCROFT)

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
1.300	A1	AL/FX	PL

Drawing No: TP2.101

Revision: TP1

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9 COONGAN AVE
GREENMOUNT WA 6056

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REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025

Layout:

PROPOSED FLOOR PLAN GROUND LEVEL

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
1:350	A1	AL/FX	PL

Drawing No: TP2.102

Revision: TP0

PEDESTRIAN ENTRY ACCESS TO G E HWY

WORTLEY ROAD

NEW VEHICLE ACCESS

CHIRAZ STREET

TRUNK OVER FENCE

131.19

101°52'30"

105°21'

90°

138.20

214.79

EXISTING DRIVEWAY & CARBAYS

EXISTING SIGNIFICANT TREE

EXISTING SIGNIFICANT TREE MORETAN BAY FIG

Landscaped Gardens

EXISTING AGED CARE BUILDING 53.04 Floor Level

TEMPORARY ACCESS DRIVEWAY (BITUMEN)

EXISTING DROP-OFF DRIVEWAY

EXISTING ENTRY RECEPTION & ADMIN 50.8 Floor Level

Retaining wall

RL 47.55

PROPOSED 96 BED RAC ON 2 LEVELS (GF FFL 47.7)

UNDERCROFT KITCHEN/ LAUNDRY & CARPARK (FFL 43.0)

Landscaped Courtyard 767m2

767m2

pv array

plant deck 2.1m high acoustic scrn

2° FALLS

2° PITCH METAL DECK ROOF

Main Entry

Carpark Entry

Garden

Office

EXISTING HERITAGE UNDERCLIFFE HOUSE 47.93 Floor Level

EXISTING AGED CARE BUILDING 50.8 Floor Level 47.2 Floor Level

3 Beds

12 Beds

6 Beds (or 8 of doubles)

11 Beds

8 Beds

10 Beds (or 14 if doubles)

EXISTING TREES

EXISTING TREE

EXISTING SIGNIFICANT TREE

EXISTING SIGNIFICANT TREE

EXISTING DRIVEWAY

Landscaped Gardens

GRASS

BITUMEN CARPARK

CLEARANCE 4.5m

29

30

41

42

43

44

48

49

50

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REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DA/ TOWN PLANNING

REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025
TP1	NOTES REMOVED	19/8/2025

Layout:

PROPOSED ROOF PLAN

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
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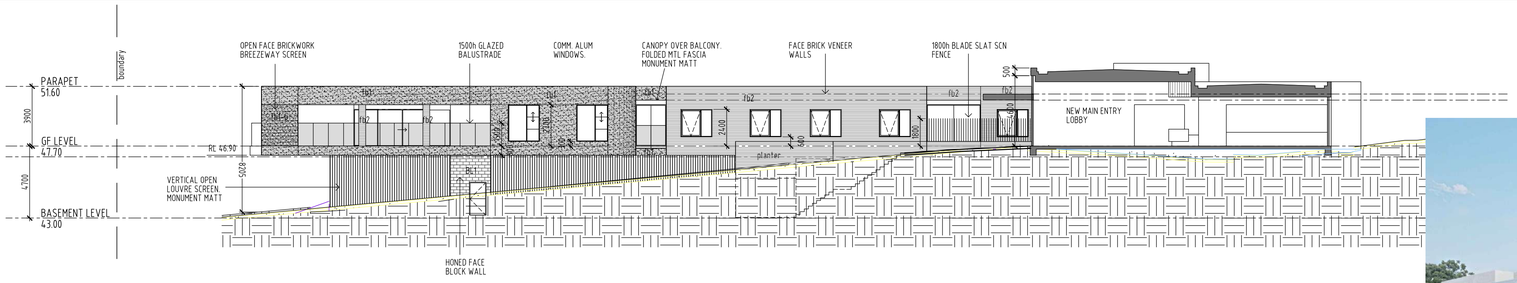
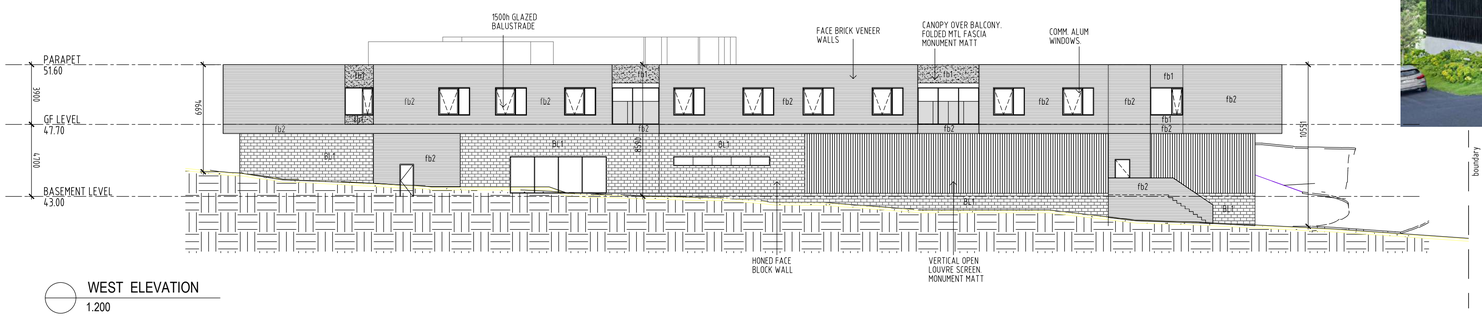
Drawing No: TP2.103

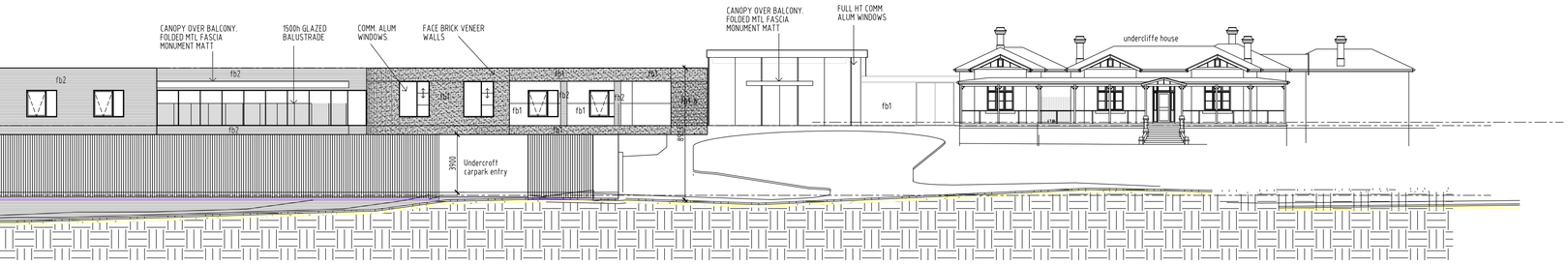
Revision: TP1



EAST ELEVATION
1.200



WEST ELEVATION
1.200



SOUTH ELEVATION
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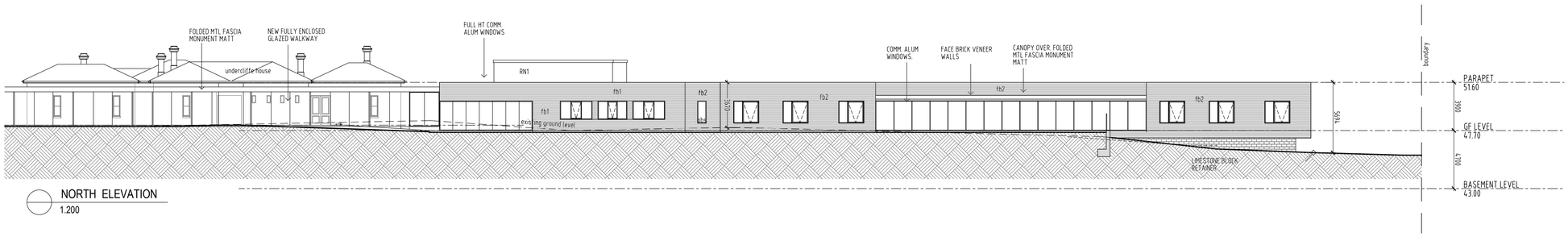
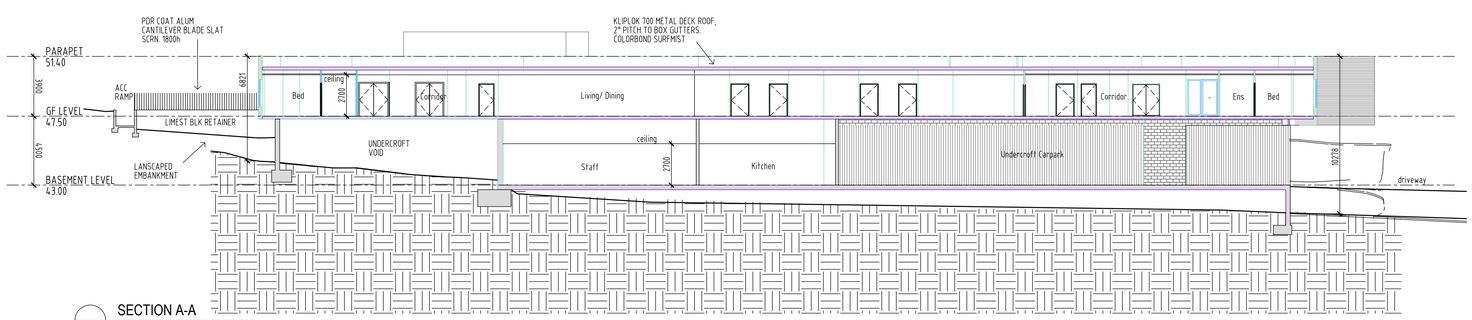


NORTH ELEVATION
1.200



SECTION A-A
1.200

Artists Impression

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Notes:

Client:

regis aged care

Architect:

LW

LL 2 ELIZABETH ST
ARMADALE WA 6112

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DA/ TOWN PLANNING

REV.	DESCRIPTION	DATE
TP0	DA/ TOWNPLANNING	16/6/2025

Layout:

ELEVATIONS & SECTIONS

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
a.s	A1	AL/FX	PL

Drawing No: TP5.001

Revision: TP0

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REGIS GREENMOUNT

landscape concept | JUNE 2025 [C]

01 SPATIAL PLAN
STRATEGY

LEGEND

- SECURE FENCELINE BETWEEN COURTYARDS
- PERIMETER ENTRY PLANTING
- ENTRY LANDSCAPE FEATURE GARDEN - COMBINATION OF TURF, NATIVE PLANTING, WALK TRAILS AND SEATING AREAS
- FORECOURT ENTRY LANDSCAPE - COMBINATION OF PAVING AND PLANTING
- FAMILY AND COMMUNITY AREA (RESTRICTED RESIDENT ACCESS)
- CAFE ALFRESCO SPILL OUT
- RESIDENT COURTYARD AREAS
- RAISED PLANTER
- TERRACED/ RAMPED LANDSCAPE AREA (ACCESS AND VISUAL - STAFF ONLY, NO RESIDENT OR FAMILY ACCESS)
- STAFF COURTYARD AREA (ADJACENT STAFF ROOM ON LOWER GROUND LEVEL)
- LANDSCAPE AREAS TO REAR OF BUILDING AND INTERFACE WITH NORTH DEVELOPMENT\
- HERITAGE BUILDING LANDSCAPE UPGRADES
- 01 EXISTING SIGNIFICANT TREE RETAINED
- 02 EXISTING TREES TO PERIMETER RETAINED

PLAN E

LANDSCAPE ARCHITECTS

LEVEL 1 278 RAILWAY PDE WEST LEEDERVILLE WA 6007
T: (08) 9388 9566 E: mail@plane.com.au

REGIS GREENMOUNT

PREPARED FOR REGIS
JUNE 2025

C1.102

REV C
1:500 @ A3

0 3 6 12 18 30

2412301 REGIS GREENMOUNT - landscape concept

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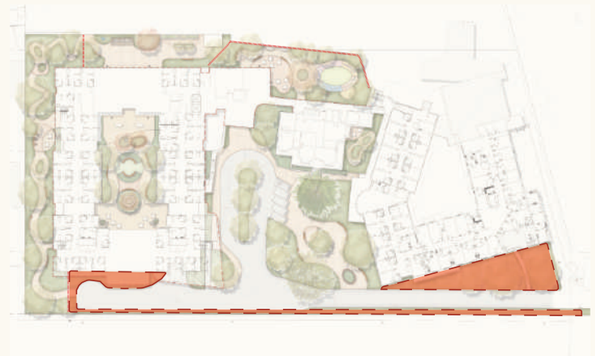
01 LANDSCAPE IMAGERY - PERIMETER ENTRY PLANTING

PERIMETER ENTRY PLANTING



KEY PLAN / NTS

PLAN E

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02 | LANDSCAPE IMAGERY - ENTRY LANDSCAPE FEATURE GARDEN

ENTRY LANDSCAPE FEATURE GARDEN - COMBINATION OF TURF, NATIVE PLANTING, WALK TRAILS AND SEATING AREAS

KEY PLAN / NTS

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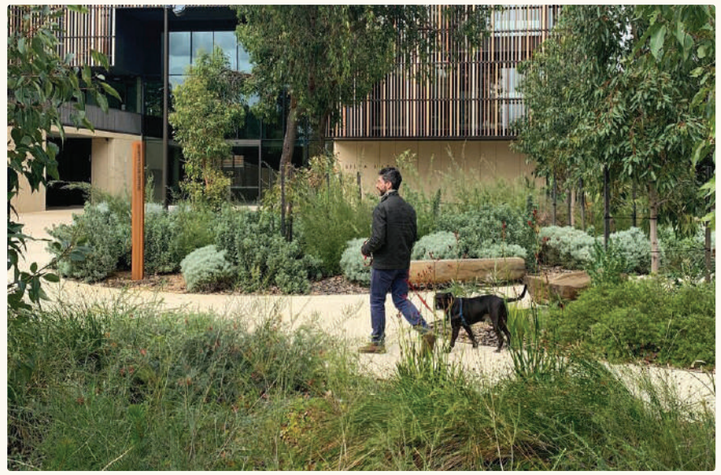
03 | LANDSCAPE IMAGERY - FORECOURT ENTRY LANDSCAPE



FORECOURT ENTRY LANDSCAPE - COMBINATION OF PAVING AND PLANTING

KEY PLAN / NTS

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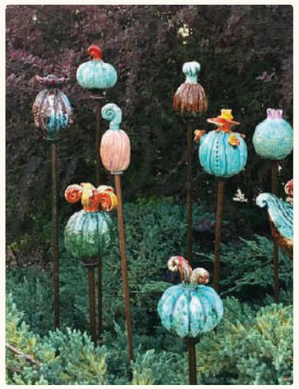
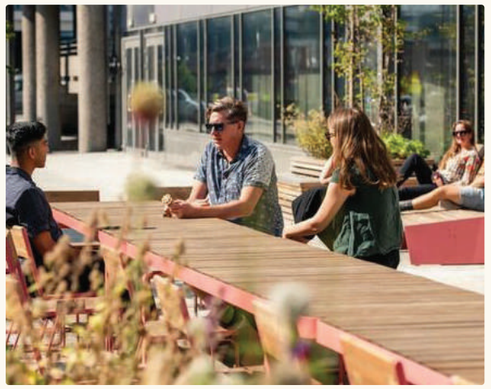
04 | LANDSCAPE IMAGERY - FAMILY AND COMMUNITY AREA & CAFE ALFRESCO SPILL OUT

FAMILY AND COMMUNITY AREA



CAFE ALFRESCO SPILL OUT



FAMILY AND COMMUNITY AREA (RESTRICTED RESIDENT ACCESS)

CAFE ALFRESCO SPILL OUT

KEY PLAN / NTS

PLAN E

LANDSCAPE ARCHITECTS

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REGIS GREENMOUNT

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05 | LANDSCAPE IMAGERY - RESIDENT COURTYARD

RESIDENT COURTYARD

KEY PLAN / NTS

PLAN E

LANDSCAPE ARCHITECTS

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06 | LANDSCAPE IMAGERY - TERRACED/ RAMPED LANDSCAPE AREA (ACCESS AND VISUAL - STAFF ONLY, NO RESIDENT OR FAMILY ACCESS)

TERRACED/ RAMPED LANDSCAPE AREA (ACCESS AND VISUAL - STAFF ONLY, NO RESIDENT OR FAMILY ACCESS)

KEY PLAN / NTS

PLAN E

LANDSCAPE ARCHITECTS

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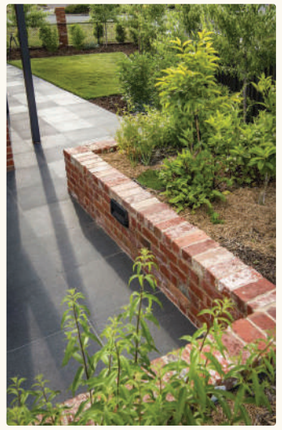
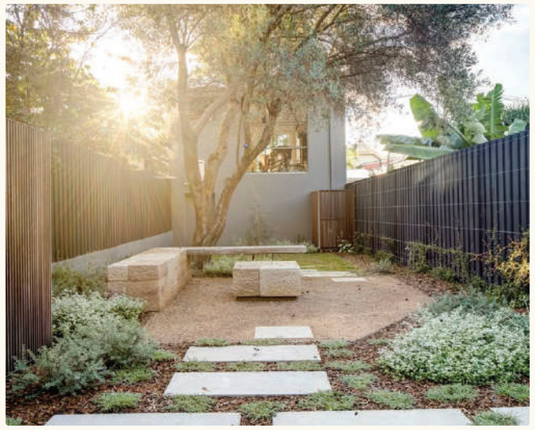
07 LANDSCAPE IMAGERY - RAISED PLANTERS & STAFF COURTYARD

RAISED PLANTER



STAFF COURTYARD



RAISED PLANTER

STAFF COURTYARD

KEY PLAN / NTS

PLAN / E

LANDSCAPE ARCHITECTS

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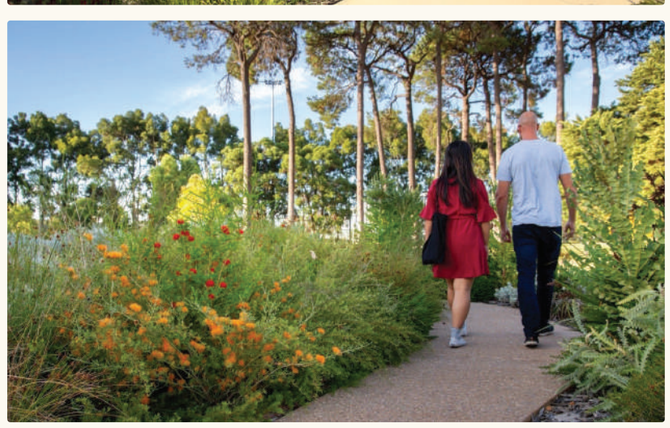
08 LANDSCAPE IMAGERY - LANDSCAPE AREAS TO REAR OF BUILDING AND INTERFACE WITH NORTH DEVELOPMENT



LANDSCAPE AREAS TO REAR OF BUILDING AND INTERFACE WITH NORTH DEVELOPMENT

KEY PLAN / NTS

PLAN E

LANDSCAPE ARCHITECTS

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JUNE 2025

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09 LANDSCAPE CONCEPT PLAN

01 LOW MAINTENANCE ENTRY LANDSCAPE

02 WALKING LOOP, SEATING AREAS AND NATIVE PLANTING AT ENTRY BENEATH EXISTING RETAINED TREES PROVIDING AN EXTERNAL GATHERING SPACE FOR FAMILIES AND BUFFER TO EXISTING FACILITY

03 UPGRADE COURTYARD TO EXISTING HOUSE, REMOVE EXISTING SHRUBS

04 ENTRY FORECOURT

05 FAMILY AREA ADJACENT FOYER AND CAFE PROVIDES ALFRESCO SEATING AND SMALL PLAY AREA FOR FAMILIES INC. TACTILE PATH, OPEN TURF, SENSORY PANELS AND SMALL SAND PIT

06 VEGETABLE GARDENS, GARDENING SHED/ POTTING BENCH

07 RESIDENT COURTYARD WITH MEANDERING PATH, SEATING NODES AND SHADE ARBOURS,

08 ALFRESCO SPILL OUT SPACE, PROPOSED FIXED SHADE OVER

09 RAISED PLANTERS WITH INTEGRATED SEATING

10 ARTIFICIAL TURF AND RAISED PLANTERS TO CENTRAL COURTYARD ON STRUCTURE

11 MEANDERING RAMPED ACCESS (MAINTENANCE AND STAFF ONLY)

12 STAFF COURTYARD ADJACENT STAFF ROOM ON GROUND FLOOR

13 MEANDERING MAINTENANCE AND STAFF ACCESS PATH. NATIVE BUFFER PLANTING TO ADJACENT HOUSING

14 RAISED PLANTER INTEGRATED INTO BUILDING FACADE

15 EXISTING RETAINED SIGNIFICANT TREES

PLAN E

LANDSCAPE ARCHITECTS

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JUNE 2025

C1.1011

REV C
1:400 @ A3

0 4 8 12 20m

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10 PLANTING PALETTE

Conostylis candicans

Grevillea 'Ella Bella

Acacia lasiocarpa prostrate

Grevillea 'Green Carpet'

Westringia 'Blue Gem'

Westringia 'Low Horizon'

Casuarina 'Cousin It'

Calistemon 'Great Balls of Fire'

Lomandra 'Lime Tuff'

Anigozanthos 'Gold Velvet'

Adenanthos sericeus 'Compact'

HIbbertia scandens

Westringia 'Low Horizon'

Grevillea 'RSL Spirit of Anzac'

Rosmarinus Officinalis 'prostratus'

Liriope 'Just RIght'

Dianella 'Streetscape'

ALL TREES ARE NOT PREFERRED REPRODUCTIVE HOST OR SUSCEPTIBLE TO POLYPHAGOUS SHOT-HOLE BORER

(DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT - JUNE 2024)

Pistacia chinensis

Agonis flexuosa

Cupaniopsis anacaroides

Citrus 'Lemon eureka'

PLAN E

LANDSCAPE ARCHITECTS

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REGIS GREENMOUNT

PREPARED FOR REGIS
JUNE 2025

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REGIS GREENMOUNT

SCHEMATIC LANDSAPE DESIGN REPORT – JUNE 2025

Landscape Design Philosophy

The overall Landscape Philosophy for Regis Greenmount is to present a holistic landscape treatment for the project that addresses all aspects of access and circulation to and around the site. Various external spaces with their own identifiable character provide opportunities for both passive and semi-active recreation for residents and visitors, all within an environmentally sustainable ethos.

The following key objectives for the Landscape Design include:

- Retain two significant heritage trees within the entry landscape. (1 x *Agonis flexuosa* and 1 x *Norfolk Island Pine*)
- Retain other existing trees to the perimeter of the site where possible.
- To create sustainable, comfortable, outdoor spaces which are relevant and welcoming to the whole Regis Greenmount Aged Care facility, including visitors and staff, and to encourage social interaction and a sense of community through good design;
- To create a landscape setting that is complimentary to the building architecture, highly legible to users and accommodates for the different levels of mobility across the site;
- Provide landscape spaces which incorporate familiar "homely" elements and plantings which trigger and stimulate memories;
- Incorporate features and wayfinding to encourage residents to explore the courtyard spaces and gain benefits, social engagement, and movement outdoors;
- To provide spaces that encourage gathering and interaction of residents and visitors, and promote a socially inclusive ethos where residents can "personalise" or "take ownership" of the external spaces through landscape maintenance and planting of seasonal fruiting / flowering species;
- To introduce and establish plant species that are known to tolerate the local conditions, are adaptable to the local soil types and climatic characteristics, and provide seasonal colour, smell and texture to enhance the outdoor areas. To use low-water use plants, with a preference for hardy native and exotic species to ensure that the proposed landscape reaches its full potential;
- Provide areas for herbs, vegies, and fruit trees to encourage residents to engage with the landscape and foster a connection to the outdoors;
- To use materials that complement the colours, textures and forms of the architectural style adopted for the development, and are robust in terms of ongoing maintenance and longevity, and;
  Refer to Crime Prevention through Environmental Design (CPTED) principles for the public realm of the site to ensure safety of residents and public is fully considered. Key aspects of the strategy include no obstructions to lines of sight, low level planting with upper canopy trees, use of robust materials and detailing, and well-lit spaces

Key Facilities

Entry Landscape

The predominant features of the site are the two significant retained trees located within the entry landscape. A series of garden beds and lawn areas, together with new tree plantings provide a strong landscape setting for the building and create a strong sense of arrival. Meandering paths with seating create passive recreation opportunities for visitors and staff and provide connection to surrounding facilities. Feature paved entries with decorative plantings and feature pots help define major pedestrian access to the facility. New feature shade trees to carpark areas further enhances the overall landscape setting for the project.

Café and Family Area

Adjacent the main entry and administration is a café with alfresco dining area. This open courtyard provides opportunities for family gathering and supervised resident activities. A small accessible play space designed to be intergeneration encourages residents and visiting families to explore the courtyard spaces and gain benefits, social engagement and movement outdoors.

Northern Resident Courtyard

The northern resident courtyard includes shaded passive seating areas, meandering paths as well as an interactive garden space for the residents complete with raised garden sheds, pottery bench, fruit trees and tool shed. Raised planters are incorporated as they are easier for residents to maintain when raised off the ground and provide resting opportunities. It is anticipated these garden beds will be planted with seasonal garden produce and "adopted" by resident's keen to establish community gardens.

Central Resident Courtyard

Partially over structure, this central courtyard incorporates a combination of raised planters and planting on ground to create a shaded and inviting landscape. An open artificial turf area, together with a meandering loop path network and low-level lighting, connects all areas of the garden under the canopy of feature shade trees. Evergreen screen planting provides privacy and screens the paths from bedrooms, whilst providing a lush backdrop. A combination of varying materials such a stone tiles elements and smooth exposed aggregate concrete create a richness of colour and texture. Plants with contrasting foliage colour and texture are used throughout, and together with aromatic flower / leaf species, herbs, vegetables and shade trees, creates a contemplative and restful environment. Species selection focuses on reasonably common species to ensure that a sense of familiarity is created. Introduction of bird baths, a water feature and potted plants throughout, enhances the experience for the courtyard.

Western Perimeter Landscape

The perimeter landscape to the facility is predominantly visual landscape and maintenance access. Small seating areas and staff courtyard space is proposed set amongst new and retained trees. The perimeter landscape aims to create a vegetated buffer to the adjacent residential lots.

Heritage building

Upgrades to the existing heritage building landscape will create more accessible space and enhance the heritage aesthetic of this existing building. This space will be accessible to all users, including staff, visitors and residents.

Sustainability

As part of the overall sustainability measures adopted for this project, the landscape proposal considers materials, water consumption and maintenance from a life cycle costing viewpoint with the aim of reducing overall resource consumption during the life of the landscape. Trees, shrubs and groundcovers with low water use and minimal maintenance characteristics have been selected for use in the landscape, while ground plane, wall and seating materials, together with the street furniture fixtures and fittings should be hard wearing, durable and long-lasting.

Irrigation

The source for irrigation water will be provided from a scheme water connection. The proposed irrigation regime will be designed to minimise the amount of water of usage required. This will include phasing out some irrigation over an appropriate period following establishment, where possible. Low volume irrigation fittings will be incorporated into the design, with night-time watering occurring throughout to minimise evaporation and wastage. Water-wise planting will generally be followed throughout the site to further minimise water usage on site. The existing ground water has a high iron content causing staining on the existing facility. The installation of an iron filter will be investigated to assist in minimising staining on hard surfaces.

Maintenance

As part of an overall philosophy to minimise ongoing maintenance costs for this project, plant and turf types with appropriate physical form and growth habit at maturity, longevity and reliability within the site soils will be selected. In addition, specific attention to micro-climatic factors will be considered in the selection of plant species, in order to reduce watering, pruning and fertilising requirements. Water conservation techniques such as both in-organic and organic mulching to increase water retention in the soil and to reduce weed growth will be promoted.

Universal Access

Comply with all the requirements of the current Australian Standard AS 1428.4.1:2009 'Design for Access & Mobility' for all paths, ramps, stairs, courtyards, external spaces and carpark areas associated with the development.
Any hazard or directional Tactiles (TGSI's) to be a minimum of P4 / P5 rated, in accordance with Australian Standard AS 4663: 2013 [1].

Undercliffe
22 Coongan Avenue, Greenmount
Heritage Impact Statement

June 2025 | 24-202

element. | PART OF SLR

Acknowledgment of Country

We acknowledge the Whadjuk people of the Noongar nation as Traditional Custodians of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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1. Introduction

This Heritage Impact Statement (HIS) has been prepared by Element Advisory Pty Ltd (part of SLR) (Element Advisory) on behalf of Regis Aged Care as part of a submission to the Shire of Mundaring (the Shire) to assess the heritage impact of proposed development works to Undercliffe House, located at 22 Coongan Avenue, Greenmount (the subject place). This HIS considers the potential cultural heritage values of the subject place in accordance with the requirements of the *Heritage Act 2018* only. No review of values or sites in relation to the *Aboriginal Heritage Act 1972* has been undertaken as part of this body of work.

1.1 Background

LW Architects on behalf of aged care providers Regis Aged Care, have developed a proposal for the expansion of residential aged care facilities at the existing Undercliffe Nursing Home site, located at 22 Coongan Avenue, Greenmount. The proposed works seek to expand and upgrade existing residential aged care facilities with the addition of a new, modern facility to the west of the existing development area. The site includes the locally heritage listed *Undercliffe* house, which the applicants also seek to conserve and reactivate as part of the development proposal. *Undercliffe* is individually included on the Shire of Mundaring Local Heritage List (inherit place no. 8547) as a category 2 place. It has been previously considered for State Heritage Registration but was assessed as below threshold for listing.

Element Advisory have been assisting the client and design team led by LW Architects with heritage advice throughout the design development process. This process has included the preparation of a Conservation Management Strategy (CMS) to develop an understanding of the current condition and necessary actions to be undertaken to ensure the significance of the heritage place is not lost or compromised through further deterioration of the fabric. The CMS has subsequently informed the priority scope of conservation works outlined necessary for delivery as part of any proposed reactivation of the heritage place. This report provides an overview of the proposed development and conservation outcomes, and assesses its potential to impact upon the cultural heritage significance of the place to assist the Shire in its consideration of the proposal.

1.2 Subject Site

This application relates to the former residential property *Undercliffe* located within the centre of Lot 9, 22 Coongan Avenue Greenmount within the municipality of the Shire of Mundaring. The lot encompasses an area of around 2.7 hectares between Great Eastern Highway and the green space reserve to the south of the property. It is bounded by residential lots to the north, east and west, and the former rail line now reserved for parks and recreation to the south. The site formerly served as a private hospital known as 'Undercliffe Hospital' but in recent years has operated solely as a residential aged care facility operated by Regis Aged Care.

The site is heavily sloping with primary access from Coongan Avenue at the south-east corner, while secondary service access to Great Eastern Highway is also present to the north-west. The subject building is surrounded by multi-storey aged care facilities to the direct north and east, all of which were developed subsequent to the original Undercliffe house.

The western portion of the lot subject to the proposed new wing addition is currently separated from the heritage place by a dividing boundary fence which runs the length of the lot, bisecting it into two halves. *Undercliffe* addresses the south of the lot with an open grassed area and several mature trees, some of which have also been identified having heritage significance, providing an open and picturesque setting to the house. The primary building subject to this review is a single-story former residential rendered masonry structure known as *Undercliffe* or the 'Pink House' (Place Number 08547). The building was formerly used for medical consulting offices but has been largely vacant and utilised only for storage purposes in recent years.

Figure 1. Site Plan indicating the subject building within its broader curtilage (MNG Maps with Element Advisory overlay, December 2023)

1.3 Methodology

Element Advisory's multi-disciplinary team is well grounded by a solid understanding and experience of best practice in heritage conservation and Western Australia's heritage planning framework.

A detailed inspection of the place was undertaken by the Element Advisory heritage team in 2023 in conjunction with structural specialists from Acor Consultants to prepare a building condition assessment and inform the CMS. The CMS notes the condition of general elements and areas of the building as identifiable by visual inspection. Where the condition of the building fabric is described, this refers to the condition of significant architectural elements that can be ascertained by visual inspection. It is not a statement of structural condition other than where specialist engineering advice has been provided by Acor Consultants. It is in no way a certification of the inspected structure to the requirements of any Acts or regulations. It is a reasonable attempt to identify any significant defects apparent at the time of inspection which does not include areas that are concealed or obstructed.

A preliminary pre-lodgement meeting to discuss the proposed design approach was also held with the Shire's planning team on Monday the 12th of May 2025.

The overarching aim of this report is to assess the potential impact of the adaptive reuse proposal on the cultural heritage significance of the *Undercliffe* site. The proposal has been assessed in accordance with the guiding document prepared by the Department of Planning, Lands and Heritage (DPLH) entitled Heritage Impact Statement – A Guide (Heritage Council of WA, 2012) to address the following questions:

- How will the proposed works affect the heritage significance of the place?
- What measures (if any) are proposed to ameliorate any adverse impacts?
- Will the proposal result in any heritage conservation benefits that may offset any adverse impacts?

1.4 Supporting Documentation

This HIS has been informed by the following:

- 'Australia ICOMOS Burra Charter, 2013.' Australia ICOMOS. Available from https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
- Bruce Callow & Associates on behalf of the Shire of Mundaring, Undercliffe Place Record, 1995
- Development Application Drawings, LW Architects, May 2025
- Element Advisory (operating as the Town Planning Group), Heritage Impact Statement for Cypress Gardens, 2015
- Element Advisory (operating as the Town Planning Group), Greenmount Gardens Nursing Centre Development Application, 2007
- Heritage Impact Statement – A Guide, Heritage Council of WA, 2012
- LW Architects, Development Application Drawings,
- Shire of Mundaring, Local Heritage survey – Site No.42 Place Record, 2025
- Additional archival research courtesy of Trove, the State Library of WA and the State Records Office

1.5 Heritage Listings

Places of cultural heritage value in Western Australia are identified through a range of different heritage listings. Some of these listings give statutory protection to heritage places, through requirements for heritage related approvals or referrals. Other listings are unofficial or quasi-official designations, often arising from local, community-based or thematic surveys.

Undercliffe, Greenmount is recognised as a place of cultural heritage significance on the following heritage lists:

Table 1. Statutory Listings

Place Name (No.)	Type	Responsible Organisation	Status	Date of Listing
Undercliffe Hospital (P08547)	Local Heritage List	Shire of Mundaring	Adopted	08 March 2016

Table 2. Non-Statutory Listings and Surveys

Place Name (No.)	Type	Responsible Organisation	Status	Date of Listing
Undercliffe Hospital (P08547)	Local Heritage Survey	Shire of Mundaring	Completed-Category 2	08 March 2016

The Aboriginal Cultural Heritage Inquiry System (ACHIS) also identifies the following registered sites which intersect within the subject lot boundary. Both sites relate to waterways and associated floodplains in the surrounding area. No review of values or sites in relation to the *Aboriginal Heritage Act 1972* has been undertaken as part of this body of work.

Name	ACHIS Ref	Type
Helena River	3758	Registered Site (Ritual / Ceremonial; Creation / Dreaming Narrative; Repository / Storage Place)
Blackadder & Woodbridge Creek	3720	Registered Site (Creation / Dreaming Narrative)

1.6 Statement of Significance

The following Statement of Significance has been taken from the Place Record for the site, prepared by Bruce Callow & Associates Pty Ltd in 1995 as part of the then Municipal Inventory review (now Local Heritage Survey).

> *'Undercliffe' House has very high aesthetic, social and historic significance for the community as an example of a large, early residence in the area; its associations with prominent people active in the development of the district; and for its role in providing hospital/nursing care in the region for a substantial part of its existence.*

A recommendation of this review was that the subject site also be considered for State Registration, however subsequent nomination, and assessment in 2004 deemed the property below threshold for state listing.

The building has been included on the Shire of Mundaring's Heritage List and attributed a Management Category of 2 which requires the following considerations:

> *High degree of integrity/ authenticity; very important to the heritage of the locality Expectations: Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place.*

The following place specific recommendations were also provided as part of the place record review in 1995:

> *'Undercliffe' House requires the highest level of protection under the Municipal Inventory and the owners be provided with the maximum encouragement to conserve the significance of the place. The owners are to be commended for finding a compatible use for the place and not resorting to a pragmatic demolition option. Future alterations and adaptations should attempt, wherever possible, to re-establish the integrity and fabric of the original residence.*

A review of the 1995 Municipal Inventory was undertaken by Hocking Heritage and Architecture with the resulting Local Heritage Survey review adopted by the Shire of Mundaring in 2025. The LHS review did not propose any change to the previous Statement of Significance or recommendations outlined above and it is unclear if any updated inspections were undertaken to inform this review, with place record images of the property only referencing Google Streetview (2010).

1.7 Findings

The detailed findings of this HIS are contained in sections 5.0 and 6.0. In summary, it is concluded that while the final design approach seeks the introduction of an additional large contemporary residential aged care wing, it also enables the active conservation and reuse of the heritage place. The design retains key views and landscape connections to the primary frontage, and offers significant conservation benefit by retaining, conserving, and reactivating the former residence which is currently in poor condition due to an extended period of vacancy. The design approach has incorporated extensive heritage guidance around the conservation requirements for the subject place, improving design relationships with the proposed new additions and ensuring demolition of original fabric is minimised throughout. Following review of the proposal against the individual place listing the proposal is determined to have an overall positive impact on the cultural heritage significance of the place and its ongoing use into the future.

2. Brief Historical Background

The following history, indicated in italics, has been reproduced in its entirety from the Place Record for the place, prepared in 1995. No update of this historical data was provided within the 2025 LHS review, however supplementary research has been undertaken by Element Advisory to substantiate components of this earlier history and to provide recent historical context to the property.

Some anecdotal evidence suggests that sometime before he died in 1901, Edmund Gilyard Lacey may have built 'Undercliffe', although Percy Ford Robinson's initials are incorporated in the stained glass around the entry door. In 1880, at the age of 37, E.G. Lacey came to Western Australia after a successful career in the Eastern States and set up the Enterprise Sawmill at Mahogany Creek and later at Sawyers Valley (Site 153). Sawn timber from Lacey's mill supplied his timber yards at Perth, Fremantle, York and later, Guildford.

Whilst his business interests were extensive, he is recorded as having recovered from bankruptcy in 1888, to the extent that by 1897, he had acquired land south of the York Road (Great Eastern Highway) and near what is now Wortley Road. Here he operated a brickworks and granite quarry until his death in 1901. It has been suggested that the bricks used to build Undercliffe came from Lacey's nearby brick yard. In 1995, part of Lacey's former quarry and brickworks (most of which had been filled) was utilized to build a truck arrester bed off Great Eastern Highway.

In 1902, the house (or land?) was purchased by 36-year-old Percy Ford Robinson, who had married E.G. Lacey's daughter Clara in January of that year. Like his uncle, Edward Robinson of nearby 'Belle View' (Site 213), Percy had extensive north-west pastoral interests including Coongan Station near Roebourne. Both men were active in lobbying for the abattoir which was eventually built at Midland in 1914. Again, like his uncle, Percy Robinson was involved in local government. He was a member of the Greenmount Road Board from 1906 to 1909, and simultaneously Mayor of Midland Junction from 1907 to 1911. He unsuccessfully stood as a 'Liberal' candidate for the state seat of Guildford. In 1910, he became the owner of the Cardup Brick Company and about this time he became the inaugural President of the Midland Guildford Cricket Club.

Undercliffe's grounds and garden not only caused interest to train travellers on the nearly Eastern Railway, but were featured in the May 1917 edition of the Motorist & Wheelman magazine. A Moreton Bay fig tree in the grounds is said to be over 100 years old.

During the depression, Undercliffe was vacated by the Robinsons and used as a parish poor-house. In 1937, the house was donated to Rev. Bell, the rector of Christ Church Claremont from 1932-1943, for the continuing use by the poor. During World War II, Undercliffe housed convalescing soldiers. In February 1953, after some 8 years of trying, Undercliffe was recognized as a "C" Class nursing home. Its first 10 patients were from the former sanatorium at Wooroloo (site 194). In 1964, the license was extended to 18 beds, and further increased in October 1971, to 20 beds. Over the years, some of the property was subdivided by the Rev. Bell, to provide additional funds and after the nursing home was taken over he remained as a resident/patient until his death.

> *The property was purchased by the Miles family in 1979, following which upgrading of facilities began. Redevelopment of the site commenced in October 1980, with the addition of a 42 bed general hospital which was finished in October and opened in November 1981. May 1981 also saw commencement of the new nursing home or geriatric wing. During the mid 1980's a maternity section was opened on the site to complete the overall hospital facilities. Restoration of the original 'Undercliffe' residence was then undertaken to provide specialist consultants rooms for the complex*.

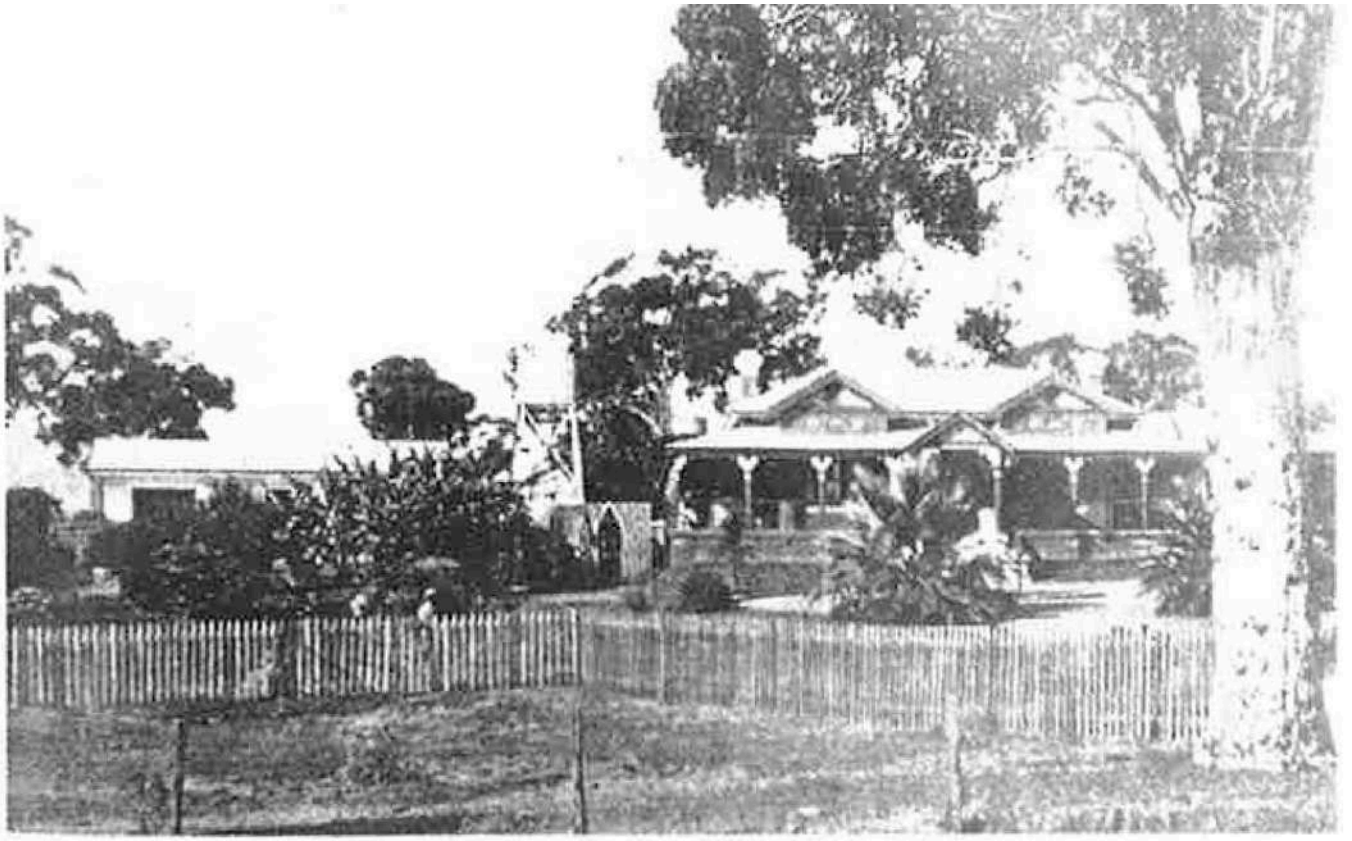
In 2000, the property was transferred to the Moran Health Care Group (Victoria) Pty Ltd. In 2005, Retirement Care Australia (Greenmount Gardens) Pty Ltd (now Regis Aged Care) purchased the property. In 2008 Element Advisory (operating as the Town Planning Group), assisted the owners in seeking development approval for several new wings and additions to the former hospital site. This was followed by several supplementary proposals to facilitate the ongoing use of the site as an aged care facility. *Undercliffe* is currently vacant and is understood to have remained this way for an extended period. In 2013, Regis commenced upgrading the property with the construction of new facilities including a significant addition to the eastern wing. This construction was followed with demolition of the former western wing c.2015. The property has operated largely in the same manner since this time with some clearing occurring to the western half of the lot for potential future subdivision and redevelopment.

Subsequent investigations into the construction timeline for Undercliffe House have yielded the following results:

- An obituary notice from 1901 provides confirmation that the house was originally the residence of Edmund Gilyard Lacey.[1] Probate documents from the estate of Edmund Lacey detail Undercliffe House as part of the "estate and effects" designated for sale and further distribution to the trustees, James Gill, Robert Thompson, and Lacey's daughters Clara, Elizabeth, and Mary Ann.[2]
- The Place record for Undercliffe House details that Clara married Percy Ford Robinson in January 1902.[3] No registration of the sale of Undercliffe House has been located, though the advertised distribution of assets from the deceased estate of E G Lacey is also advertised in January 1902.[4] Clara Lacey was recorded as one of the trustees of the estate.
- The official use of Undercliffe House as a Convalescent Depot/Home during World War II is not confirmed with the Australian War Memorial, or the Virtual War Memorial sites. The National Archives has no building plans, site plans, or military records pertaining to Undercliffe House during WWII.
- Investigations through the State Records Office of Western Australia have revealed no building plans or site plans, or construction plans for Undercliffe House as a hospital, or as a nursing home.

Historical aerials provide a general understanding of the site's development from the early 1950's through to today but reveal little about any extent of physical change to the subject place itself. Aerial imagery identifying key development points during this period have been included below.

1 Western Mail (Perth, WA : 1885 – 1954), Saturday 28 September 1901, page 20.
2 West Australian (Perth, WA : 1879 – 1954), Thursday 24 October 1901, page 4
3 Shire of Mundaring Local Heritage Survey, https://www.mundaring.wa.gov.au/documents/426/local-heritage-survey
4 West Australian (Perth, WA : 1879 – 1954), Saturday 25 January 1902, page 2 (7)



P. F. Robinson's home, 'Undercliffe', at Greenmount from *The Motorist and Wheelman*, 20th May 1917.

Figure 2. Photograph of 'Undercliffe' in 1917 (reproduced in Mundaring: A History of the Shire, Ian Elliot, 1983)

Figure 3. Undercliffe Nursing Home, Coongan Avenue, Greenmount, March 1986
(Source: State Library of Western Australia, taken by Betty Smith, BA1530/6255)

Figure 4. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities. (Source: MNG, November 1953)

Figure 5. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities, some ancillary structures are noted to the rear garden. (Source: MNG, March 1965)

Figure 6. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities, some ancillary structures are noted to the rear garden. (Source: MNG, September 1979)

Figure 7. The northern wing has been completed and the former western wing is under construction around the subject house. (Source: MNG, August 1981)

Figure 8. The northern wing and the former western wings have both been completed around the subject house. (Source: MNG, May 1985)

Figure 9. The eastern wing has been constructed adjacent to the subject house. (Source: MNG, February 1995)

Figure 10. Minimal change appears to have occurred since 1995. (Source: MNG, February 2011)

Figure 11. Construction of the new eastern wing addition is underway. (Source: MNG, February 2012)

Figure 12. Additions to the eastern wing have been completed and the western wing has been demolished. (Source: MNG, August 2016)

Figure 13. Recent aerial capture demonstrating the site largely in its current arrangement (Source: MNG, February 2021)

While these supplementary details have assisted with an understanding of the ownership and likely periods of change, it has not yielded any documentary data which pinpoints exact periods of physical change to the heritage building. As such, this report has primarily relied upon inspection of the physical fabric undertaken to inform the CMS to determine elements of significance and sensitivity to future works.

3. Description of the Place

3.1 Site and Context

The physical evidence has been prepared by Element Advisory incorporating evidence recorded for earlier assessments, impact statements and condition reviews by various parties. The following text describes the place as observed in November 2023 during the condition inspection undertaken in conjunction with Acor Consultants.

Undercliffe sits on an elevated site looking south over the former railway reserve and towards the Helena Valley. The large site originally had extensive gardens which now accommodate two major nursing home buildings to the north and the east of the original house. Gardens remain in the spaces between buildings, together with some significant trees from the original gardens. These include an enormous Moreton Bay Fig (Ficus Macrophylla) behind the house and, at the front, a rare Southern Cypress (Taxodium Distichum). Also at the front of the heritage house is a Norfolk Island Pine (Araucaria Heterophylla) and several old Date Palms (Phoenix Dactylifera). Extensive lawns also add to the setting of the site. Undercliffe, is located roughly in the centre of the Lot with the surrounding later wings overlooking and generally orientating towards the heritage building as a central feature of the site. Access to the site is via Coongan Avenue to the south-west with the road wrapping around the heritage property and positioning it as a key entry statement to the aged care facility.

Figure 14. *Undercliffe* on approach from the south noting the landscaped frontage and large mature plantings (Element Advisory, 2023)

Figure 15. *Undercliffe* viewed from the balcony of the adjacent residential aged care wing noting the landscaped frontage and large mature plantings surrounding (Element Advisory, 2023)

3.2 Function

Documentation from 2015 notes the property being utilised for medical and administration purposes at this time and it is understood that this remained its most recent function up until its current vacancy, however the exact date of its closure is unknown at this time. As of 2025 the former residential house is utilised only for storage purposes and is in a relatively poor condition due to a combination of structural issues, pest ingress, and a lack of ongoing maintenance.

3.3 Fabric

Undercliffe is a Federation era, single storey brick and iron former residential property. While some sense of the garden setting remains, the external presentation has been largely altered by the construction of later surrounding built form. The house presents an asymmetric primary frontage to the south containing an original central form which is symmetrically designed around a centrally located entry door and circulation corridor, and a western wing which is connected at the front with an open vestibule from the veranda. The western wing is understood to be a later, though early addition to the main house, and does not appear to be extant in archival imagery from 1917 (refer to figure 2). The roof form reflects this asymmetrical design with three gable ends presenting to the southern elevation.

The house is constructed on a sloping site with access to the rear being on grade, while the main front entry is accessed by a formal staircase. This staircase has sweeping masonry balustrades to each edge leading to a timber framed verandah. The verandah includes a feature entry portico and decking which runs the full length of the southern elevation and wraps partially around the exterior to the east. The original verandas, across the front of the house, had previously been extended and enclosed with asbestos sheeting to provide additional accommodation. These were removed by the previous landowners who restored the verandas and interiors to give the building an ongoing life as specialist consulting rooms for the hospital. All external facades of the building have been fully rendered and painted pink with white painted joinery to the doors, windows and verandah columns and balustrading. The front (south) elevation features three sets of feature triple sash windows with highlight transoms above to each of the projecting bays. The main timber pannelled entry door is surrounded by feature leadlighting to the side and highlight windows. The highlight incorporates "Undercliffe" into its design and the side panels contain the initials of Percy Ford Robinson plus an acknowledgement to Barnett Bros. as the supplier.

The west and north elevations are generally utilitarian in their design with simple openings and surface treatments. A covered walkway has been connected to the verandah at the rear (north) of the property understood to be a later addition along with the paving treatments and general landscaping elements. The north elevation has been heavily altered with the addition of bathroom facilities along the northern face of the building, and a two room addition to the north-east. The exact date of construction for these elements is unknown however their simple detailing and form suggests they are of a much later construction date than the central built form.

The eastern elevation faces a small remnant area of landscaping and the new eastern nursing wing. Another feature triple bay window is located to this facade along with the verandah return which provides additional external access from the side of the house.

Figure 16. Stair to main entry (Element Advisory, 2023)

Figure 17. Portion of the central and the western wing viewed from the south (Element Advisory, 2023)

Figure 18. Covered vestibule connecting the central and western wings of the house noting wall beyond proposed for removal (Element Advisory, 2023)

Figure 19. Western elevation (Element Advisory, 2023)

Figure 20. Northern elevation and covered walkway (Element Advisory , 2023)

Figure 21. Covered walkway proposed for removal to rear entry door (Element Advisory, 2023)

Figure 22. Northern covered verandah proposed for removal (Element Advisory, 2023)

Figure 23. Wrap around portion of verandah to eastern facade (Element Advisory, 2023)

The front entrance opens on to a central corridor which runs the length of the house. A lightweight stud wall has been added to the east of the entry way, extending the corridor through what would otherwise form the primary reception room facing south to the eastern lawned setting. To the western side of the corridor a secondary reception room is found also addressing the south, however secondary outlook is also provided to the verandah vestibule and western extension beyond. Both rooms contain projecting bays with triple sash windows and highlight transoms above, fireplaces, and ornate plaster glass ceilings. Decorative moulding motifs suggest that these ceilings may have seen some circa 1930's alterations, however without clear access to the internal roof space it is difficult to ascertain the likely extent of these changes.

Rooms continue to be laid out along the central corridor with two more found to both the eastern and western sides of the hallway. Most of these spaces have seen a relatively extensive level of change to fixtures and finishes to suit later use as consulting rooms. While structural components such as fireplaces remain they have been boarded up internally and replacement flat plasterboard ceilings installed to all rear rooms other than one to the northeast. This room also contains a projecting bay window to the east with triple sash windows and highlight transoms above to match the southern reception rooms. Walls to all central corridor rooms are painted a light green.

With access via either the verandah vestibule, rear double entry doors or internally via the north west room off the central corridor, the western wing sits relatively separate to the central portion of the house. It consists of two rooms with central fireplaces between them. These rooms contain pressed metal ceilings believed to be original and another set of triple sash windows with highlight transoms fronting the southern outlook. Walls to all western wing rooms are painted in shades of purple.

Later extensions have been added along the northern facade including male and female bathrooms, a kitchen area and a two-room extension which can only be accessed externally from the main house to the north east. All of these spaces feature later detailing and fitouts including flat plaster ceilings and simple cornices and skirtings where extant. Fireplaces are also found to all but the bathrooms. Walls to these spaces are painted a mix of light green, and neutral beiges.

Several corbelled arches survive along with original fireplace surrounds, deep skirtings, and architraves throughout the earlier portions of the house. Carpets have been added over timber floors throughout other than to two rooms which have later linoleum coverings. Lighting fixtures are new throughout however some early hardware remains extant to doors and windows.

Figure 24. Looking south down central corridor through feature archway towards entry door noting infill stud wall to the left proposed for removal (Element Advisory, 2023)

Figure 25. Projecting bay and feature windows to southern elevation (Element Advisory, 2023)

Figure 26. Moulded ceilings and fireplace to northeast room (Element Advisory, 2023)

Figure 27. Projecting bay window and feature arch to northeast room (Element Advisory, 2023)

Figure 28. Pressed metal ceilings and fireplace to western wing (Element Advisory, 2023)

Figure 29. Retained fireplace surrounds and later floor finishes (Element Advisory, 2023)

Figure 30. Later fitout to rear kitchen extension proposed for removal and upgrade (Element Advisory, 2023)

Figure 31. Later two room extension to north east (Element Advisory, 2023)

Figure 32. Existing bathrooms proposed for removal and upgrade (Element Advisory, 2023)

4. Proposal

4.1 Discussion of the Proposal

Undercliffe sits within the heart of a large landholding in the Perth foothills which has been successively developed over time to support medical and aged care functions. The former house has been largely encompassed by multi-storey contemporary development to the north, east and formerly the west, however its presentation and landscape connection is still evident to the primary southern frontage and in the retention of significant mature plantings throughout the site. While the broader site has continued to operate as a care facility, the heritage building has been largely neglected in recent history, being solely utilised for storage.

The proposed development seeks the addition of a new, residential aged care wing to the west of the heritage place, and removal of the existing contemporary aged care development to the north of the site. The existing use of the broader site is intended to continue, with the new wing integrating and activating the heritage building as a communal hub within the site. The proposal utilises the heritage place to provide supporting services to the residents such as dining, office space, library, cinema and café/gamesroom functions.

4.2 Scope of New Works

- Provision of a new 48 bed residential aged care wing inclusive of 45 car bays, service areas including kitchen, laundry and maintenance facilities to the undercroft with individual living units above. It is noted that this will require some excavation adjacent to the heritage building and given the current extent of structural cracking evident, vibration monitoring and stabilisation of the heritage structure during any works is recommended.
- New reception entry linking structure between the proposed new wing and the heritage building enabling enclosed internal access from the north of the site
- Conservation and make good works to the heritage property in accordance with the advice of the CMS to enable active reuse of the former residential building
- New retaining and landscaped gardens to the north of the heritage building
- New entry drive and on-grade parking to the south of the heritage place

4.3 Demolition

- Removal of the existing contemporary residential wing to the north of the site
- Removal of the existing contemporary verandah canopy to the north of the heritage place
- Minor internal demolition of elements of little/no significance to remove one later infill stud wall and replace contemporary bathroom and kitchen fit out elements with new compliant wet areas
- Removal of one internal wall to facilitate open access between the new reception area to the heritage place

4.4 Conservation Works and Retention of Fabric

- Retention and adaptive reuse of the heritage place
- Retention of all heritage fabric other than one internal wall and urgnet repair requirements where fabric is damaged beyond repair (refer to appendix I, CMS)
- Retention of all mature plantings of significance and open landscaping to the primary frontage of the heritage place
- Delivery of urgent and immediate conservation works items as outlined within drawing TP1.201 in accordance with the guidance of the CMS

5. Assessment of Heritage Impact

This section addresses the potential impact of the proposed development to Undercliffe. This includes an assessment against the following questions, which have been addressed separately in each table within this section:

- How will the proposal affect the significance of the subject site?
- What measures (if any) are proposed to ameliorate any adverse impacts?
- Will the proposal result in any heritage conservation benefits that might offset any adverse impacts?

To assist in assessing the impact of the proposal the following seven tier system for assessing and evaluating impact has been adopted from the 'Guidance on Heritage Impact Assessments for Cultural World Heritage Properties' (ICOMOS, 2011) and the Heritage Council of Western Australia's 'Impact Matrix' (2009).

Note: The Heritage Council considers whether a proposed action has either a Major, Moderate, Minor Impact or No Impact. It does not formally assess the Beneficial Ratings set out in the table below.

Rating	Impact Definition
Major Impact	The proposed action would involve permanent changes to, or destruction of an element of significant fabric or values. There would be a substantial or long-term adverse effect on the heritage value or integrity of the place. There would be a major reduction in the understanding of the heritage value of the place. The impact of the action could be reduced through appropriate mitigation measures but cannot be fully ameliorated.
Moderate Impact	The proposed action would involve permanent changes to, or destruction of an element of significant fabric or values. There would be a moderate reduction in the understanding of the heritage value of the place. The impact of the action could be reduced through appropriate mitigation measures.
Minor Impact	The proposal would have a temporary effect on and/or involve minor damage or changes to element of significant fabric or values. There would be a minor or temporary reduction in the understanding of the item or place.
Negligible or No impact	The proposed action respects the heritage value and integrity of the items. There is no change or impact as a result of the proposed action.
Minor Beneficial	The proposed action would have a minor temporary benefit on the heritage value or integrity of the item or place through conservation of its significant fabric or values. There would be a minor or temporary improvement in understanding the heritage value of the item or place.
Moderate Beneficial	The proposed action would benefit the heritage value or integrity of the item or place through conservation of its significant fabric or values. There would be an improvement in understanding the heritage value of the item or place.
Major Beneficial	The proposed action would substantially enhance the heritage value or integrity of the item by improved conservation of its important fabric or values There would be a major long term improvement in understanding the heritage value of the item or place.

5.1 Heritage Impact Assessment against the Cultural Heritage Significance of *Undercliffe*

The assessment draws on the statements of significance as listed under section 1.6.

Undercliffe. Place No. P08547	Potential Impacts	Amelioration of adverse impacts	Conservation benefits
Shire of Mundaring Heritage List			
'Undercliffe' House has very high aesthetic, social and historic significance for the community as an example of a large, early residence in the area; its associations with prominent people active in the development of the district; and for its role in providing hospital/nursing care in the region for a substantial part of its existence.	**Major beneficial** In its current form, the heritage place is underutilised, in poor condition, and at significant risk of accelerated deterioration due to an extended period of lack of maintenance, pest ingress and neglect. The proposed works enable adaptive reuse of the heritage place as an active and integral part of the surrounding residential aged care facility, providing opportunities to conserve and appreciate the place within the heart of the development site. The works proposed extensive and vital conservation works to ensure the long-term protection of the heritage place, and provide it with an active use beyond its current storage functions in line with its historic role in providing hospital/nursing care for a substantial part of its existence.	The new development has been located to the west of the heritage place to enable its landscaped frontage and visual prominence to be retained on approach from the main entry point of Coongan Avenue. The new development integrates from the north of the heritage building, replacing an existing canopy of little significance, and connecting into the site in a manner which retains the existing presentation of the primary facade. Alteration of the building internally is prioritised to elements of later infill including contemporary bathrooms and kitchen, and removal of one infill stud wall to reinstate the original front room of the house. The proposal only seeks demolition of one original internal wall to open up the new proposed reception area for ease of access and use. All other works to the house are of an urgent conservation nature and are guided by the CMS for the site, attached at appendix I. The proposal also maintains all significant mature plantings.	The application proposes delivery of extensive conservation works to the heritage place to enable its reoccupation and ongoing protection as a significant heritage place. This includes, but is not limited to: – removal of pest birds and repair of roof cladding – propping and repair of existing significant ceilings – structural review and repair of subsidence and cracking – extensive timber repairs and treatment of termite attack to the external verandah – repair and reinstatement of broken rainwater goods, glazing and other missine elements – repainting and make good works throughout The proposal also retains all mature plantings and key views to the primary frontage from the south of the Lot.

5.2 New Development Adjacent to a Heritage Place

The following questions have been drawn from the Heritage Council document 'Heritage Impact Statement: A Guide' when reviewing proposed development adjacent to a heritage place and have been considered in the context of the proposed development of the *Undercliffe* site.

Outline Questions	Discussion on Impact
How is the impact of the new development on the heritage significance of the place or area to be minimised?	The proposal seeks not only development of a new residential care wing, but extensive conservation works designed to enable reoccupation of the heritage place in accordance with the CMS prepared in 2023. The collective delivery of this significant package of works is assessed as having a major beneficial impact on the cultural heritage significance of the place, ensuring its protection into the future.
Why is the new development required to be adjacent to a heritage place?	The development forms part of an existing residential aged care facility with an earlier wing having previously been located within the proposed development area.
How does the new development affect views to, and from, the heritage place? What has been done to minimise negative effects?	The new wing has been intentionally sited to the west of the heritage place to ensure that key views of the primary facade are retained on approach to the property. The new development links in from the lower significance facade to the north and ensures the proposed linking structure is set back from the projecting bay windows and wings to the east, south and west.
Is the new development sympathetic to the heritage place? In what way (e.g. form, siting, proportions, design, materials)?	The new development is contemporary in its design, in keeping with other later development around the site. It seeks to maintain a low scale within the landscape being partially embedded into the landscape.
Will the new building(s) visually dominate the heritage place? How has this been minimised?	Refer to line item three.
Will the public and users of the place, still be able to view and appreciate its significance?	The proposed development significantly enhances opportunities to utilise and occupy the site, providing it with an active and ongoing use as part of the broader residential aged care facility. In its current form the place is utilised only for storage and is in a poor state of repair and the works set out within this proposal will assist in rectifying this condition.

6. Analysis and Conclusion

The proposed development seeks the development of a new 48 bed residential aged care wing and removal of an existing residential wing to support the ongoing use of the former Undercliffe Hospital site as a residential aged care facility. The design approach seeks to integrate the new wing with the existing heritage place, enabling it to become an active and central part of the broader site once more. In order to enable this adaptive reuse, the application proposes extensive conservation works to the heritage property in line with the guidance of the CMS included at appendix I. The proposal seeks minor removal of original internal fabric in order to enable reuse, but otherwise largely retains all elements identified as being of considerable or some significance within the CMS. The proposal also retains all mature plantings, as well as the landscaped frontage to the property, ensuring key views of the primary frontage remain integral to the understanding of the place.

In summary, it is concluded that while the final design approach seeks the introduction of an additional large contemporary residential aged care wing, it also enables the active conservation and reuse of the heritage place. The design retains key views and landscape connections to the primary frontage, and offers significant conservation benefit by retaining, conserving, and reactivating the former residence which is currently in poor condition due to an extended period of vacancy. The design approach has incorporated extensive heritage guidance around the conservation requirements for the subject place, improving design relationships with the proposed new additions and ensuring demolition of original fabric is minimised throughout. It is recommended that vibration monitoring is undertaken throughout any development works to ensure they do not result in further detrimental impact on the structural condition of the heritage building, however following review of the proposal against the individual place listing the proposal is determined to have an overall major beneficial impact on the cultural heritage significance of the place and ensures its ongoing protection and use into the future.

7. References

'Australia ICOMOS Burra Charter, 2013.' Australia ICOMOS. Available from https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013Adopted-31.10.2013.pdf

Bruce Callow & Associates on behalf of the Shire of Mundaring, Undercliffe Place Record, 1995

Development Application Drawings, LW Architects, May 2025

Element Advisory (operating as the Town Planning Group), Heritage Impact Statement for Cypress Gardens, 2015

Element Advisory (operating as the Town Planning Group), Greenmount Gardens Nursing Centre Development Application, 2007

Heritage Impact Statement – A Guide, Heritage Council of WA, 2012

LW Architects, Development Application Drawings,

Shire of Mundaring, Local Heritage survey – Site No.42 Place Record, 2025

Additional archival research courtesy of Trove, the State Library of WA and the State Records Office

Undercliffe
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Heritage Impact Statement
June 2025

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Undercliffe
Conservation Management Strategy

January 2024 | 23-378

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the art and science of place

We acknowledge the Whadjuk people of the Noongar nation as traditional owners of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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1. Introduction

1.1 Purpose of the CMS

A Conservation Management Strategy (CMS) is a property management tool prepared for the owner of a heritage place. It provides a practical maintenance guide to give the owner an understanding of the place's current condition and the necessary actions to be undertaken to ensure that the significance of the place is not lost or compromised.

This CMS has been prepared by **element** for Bateup Consulting on behalf of Regis Aged Care, as the owner of 22 Coongan Avenue (Undercliffe). The CMS presents an understanding of priority works in the context of the cultural heritage significance of the place, with a view to arresting deterioration and facilitating future reoccupation of the property by the owner. The property has been vacant for an extensive period of time and this report aims to assist in identifying the urgent works items that must be carried out to stabilise the building and prevent accelerated deterioration while future reuse opportunities are developed.

This report notes the condition of general elements and areas of the building as identifiable by visual inspection. Where the condition of the building fabric is described, this refers to the condition of significant architectural elements that can be ascertained by visual inspection. It is not a statement of structural condition other than where specialist engineering advice has been provided by Acor Consultants as included at Appendix B. It is in no way a certification of the inspected structure to the requirements of any Acts or regulations. It is a reasonable attempt to identify any significant defects apparent at the time of inspection which does not include areas that are concealed or obstructed.

1.2 Subject Site

Undercliffe sits within the centre of Lot 9, 22 Coongan Avenue Greenmount within the municipality of the Shire of Mundaring. The lot encompasses an area of around 2.7 hectares between Great Eastern Highway and the green space reserve to the south of the property. Other surrounding lots are primarily residential in nature. The site formerly served as a private hospital known as 'Undercliffe Hospital' but in recent years has operated solely as an aged care facility operated by Regis.

The primary building subject to this review is a single-story former residential rendered masonry structure known as Undercliffe or the 'Pink House' (Place Number 08547). Several mature plantings found on the site are also recognised by the heritage place listing as being of significance, but the treatment of these elements is not considered as part of this report.

*Refer to Figure 1 – Location Plan (MNG with **element** overlay)*

1.3 Description of the place

Undercliffe is located in the Perth foothills east of Midland along the Great Eastern Highway, within the municipality of the Shire of Mundaring. It is bounded by residential lots to the north, east and west, and the former rail line now reserved for parks and recreation to the south.

The site is heavily sloping with primary access from Coongan Avenue at the south-east corner, while secondary service access to Great Eastern Highway is also present to the north-west. The subject building is surrounded by multi-storey aged care facilities to the direct north and east, all of which were developed subsequent to the original Undercliffe house. The western portion of the lot is subject to potential subdivision, with a dividing boundary fence currently in place, running the length of the lot and bisecting it into two halves. Undercliffe addresses the south of the lot with an open grassed area and several mature trees, some of which have also been identified having heritage significance, providing an open and picturesque setting to the house.

A detailed description of the place has been provided in Section 2.2 of this report.

Figure 1. Location Plan (MNG with **element** overlay)

1.4 Statement of Significance

The following Statement of Significance has been taken from the Place Record for the site, prepared by Bruce Callow & Associates Pty Ltd in 1995 as part of the then Municipal Inventory review (no Local Heritage Survey).

'Undercliffe' House has very high aesthetic, social and historic significance for the community as an example of a large, early residence in the area; its associations with prominent people active in the development of the district; and for its role in providing hospital/nursing care in the region for a substantial part of its existence.

A recommendation of this review was that the subject site also be considered for State Registration, however subsequent nomination, and assessment in 2004 deemed the property below threshold for state listing.

The building has been included on the Shire of Mundaring's Heritage List and attributed a Management Category of 2 which requires the following considerations:

> *High degree of integrity/ authenticity; very important to the heritage of the locality Expectations: Conservation of the place is highly desirable. Any alterations or extensions should minimise impacts on the original site or building and reinforce the significance of the place.*

The following place specific recommendations were also provided as part of the place record review in 1995:

> *'Undercliffe' House requires the highest level of protection under the Municipal Inventory and the owners be provided with the maximum encouragement to conserve the significance of the place. The owners are to be commended for finding a compatible use for the place and not resorting to a pragmatic demolition option. Future alterations and adaptations should attempt, wherever possible, to re-establish the integrity and fabric of the original residence.*

1.5 Current Heritage Listings

Places of cultural heritage value in Western Australia are identified through a range of different heritage listings. Some of these listings give statutory protection to heritage places, through requirements for heritage related approvals or referrals. Other listings are unofficial or quasi-official designations, often arising from local, community-based or thematic surveys.

Undercliffe, Greenmount is recognised as a place of cultural heritage significance on the following heritage lists:

1.5.1 Historic Heritage

Statutory listings

Type	Responsible Organisation	Relevant Legislation
Shire of Mundaring Heritage List, Shire of Mundaring	Shire of Mundaring	Planning and Development Act (2005) Shire of Mundaring Local Planning Scheme 4 (LPS4)

Other listings and Surveys

Type	Responsible Organisation	Relevant Legislation
Shire of Mundaring Municipal Heritage Inventory	Shire of Mundaring	Mandated under the Heritage Act (2018) however controlled by the Shire of Mundaring.

1.5.2 Aboriginal Heritage

The Aboriginal Cultural Heritage Inquiry System (ACHIS) identifies the following registered sites within the subject lot boundary. Both sites relate to waterways and associated floodplains in the surrounding area.

Name	ACHIS Ref	Type
Helena River	3758	Registered Site (Ritual / Ceremonial; Creation / Dreaming Narrative; Repository / Storage Place)
Blackadder & Woodbridge Creek	3720	Registered Site (Creation / Dreaming Narrative)

1.6 Acknowledgements

The following reports and studies were utilised to provide background information to this report:

- Bruce Callow & Associates on behalf of the Shire of Mundaring, Undercliffe Place Record, 1995
- **element** (operating as the Town Planning Group), Heritage Impact Statement for Cypress Gardens, 2015
- **element** (operating as the Town Planning Group), Greenmount Gardens Nursing Centre Development Application, 2007
- Shape, Building Condition Report, 2021

The guiding documents for methodology and process are as follows:

- Australia ICOMOS Burra Charter, 2013. https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
- 'An Information Guide to Conservation Management Strategy,' Heritage Council of Western Australia, 2019

Special thanks are extended to the following personnel for their assistance in preparing this report:

- Ray Gurney, Project Manager, Bateup Consulting
- Darren Lowden, Facilities and Maintenance Officer, Regis Aged Care

2. Background Information

2.1 Brief History

The following history, indicated in italics, has been reproduced in its entirety from the Place Record for the place, prepared in 1995. Supplementary research has been undertaken by **element** to substantiate components of this earlier history and to provide recent historical context to the property.

> *Some anecdotal evidence suggests that sometime before he died in 1901, Edmund Gilyard Lacey may have built 'Undercliffe', although Percy Ford Robinson's initials are incorporated in the stained glass around the entry door. In 1880, at the age of 37, E.G. Lacey came to Western Australia after a successful career in the Eastern States and set up the Enterprise Sawmill at Mahogany Creek and later at Sawyers Valley (Site 153). Sawn timber from Lacey's mill supplied his timber yards at Perth, Fremantle, York and later, Guildford.*
>
> *Whilst his business interests were extensive, he is recorded as having recovered from bankruptcy in 1888, to the extent that by 1897, he had acquired land south of the York Road (Great Eastern Highway) and near what is now Wortley Road. Here he operated a brickworks and granite quarry until his death in 1901. It has been suggested that the bricks used to build Undercliffe came from Lacey's nearby brick yard. In 1995, part of Lacey's former quarry and brickworks (most of which had been filled) was utilized to build a truck arrester bed off Great Eastern Highway.*
>
> *In 1902, the house (or land?) was purchased by 36-year-old Percy Ford Robinson, who had married E.G. Lacey's daughter Clara in January of that year. Like his uncle, Edward Robinson of nearby 'Belle View' (Site 213), Percy had extensive north-west pastoral interests including Coongan Station near Roebourne. Both men were active in lobbying for the abattoir which was eventually built at Midland in 1914. Again, like his uncle, Percy Robinson was involved in local government. He was a member of the Greenmount Road Board from 1906 to 1909, and simultaneously Mayor of Midland Junction from 1907 to 1911. He unsuccessfully stood as a 'Liberal' candidate for the state seat of Guildford. In 1910, he became the owner of the Cardup Brick Company and about this time he became the inaugural President of the Midland Guildford Cricket Club.*
>
> *Undercliffe's grounds and garden not only caused interest to train travellers on the nearly Eastern Railway, but were featured in the May 1917 edition of the Motorist & Wheelman magazine. A Moreton Bay fig tree in the grounds is said to be over 100 years old.*
>
> *During the depression, Undercliffe was vacated by the Robinsons and used as a parish poor-house. In 1937, the house was donated to Rev. Bell, the rector of Christ Church Claremont from 1932-1943, for the continuing use by the poor. During World War II, Undercliffe housed convalescing soldiers. In February 1953, after some 8 years of trying, Undercliffe was recognized as a "C" Class nursing home. Its first 10 patients were from the former sanatorium at Wooroloo (site 194). In 1964, the license was extended to 18 beds, and further increased in October 1971, to 20 beds. Over the years, some of the property was subdivided by the Rev. Bell, to provide additional funds and after the nursing home was taken over he remained as a resident/patient until his death.*
>
> *The property was purchased by the Miles family in 1979, following which upgrading of facilities began. Re-development of the site commenced in October 1980, with the addition of a 42 bed general hospital which was finished in October and opened in November 1981. May 1981 also saw commencement of the new nursing home or geriatric wing. During the mid 1980's a maternity section was opened on the site to complete the overall hospital facilities. Restoration of the original 'Undercliffe' residence was then undertaken to provide specialist consultants rooms for the complex.*

In 2000, the property was transferred to the Moran Health Care Group (Victoria) Pty Ltd. In 2005, Retirement Care Australia (Greenmount Gardens) Pty Ltd (now Regis Aged Care) purchased the property. In 2008 **element** (operating as the Town Planning Group), assisted the owners in seeking development approval for several new wings and additions to the former hospital site. This was followed by several supplementary proposals to facilitate the ongoing use of the site as an aged care facility. Undercliffe House is currently vacant and is understood to have remained this way for an extended period. In 2013, Regis commenced upgrading the property with the construction of new facilities including a significant

addition to the eastern wing. This construction was followed with demolition of the former western wing c.2015. The property has operated largely in the same manner since this time with some clearing occurring to the western half of the lot for potential future subdivision and redevelopment.

Subsequent investigations into the construction timeline for Undercliffe House have yielded the following results:

- An obituary notice from 1901 provides confirmation that the house was originally the residence of Edmund Gilyard Lacey.[1] Probate documents from the estate of Edmund Lacey detail Undercliffe House as part of the "estate and effects" designated for sale and further distribution to the trustees, James Gill, Robert Thompson, and Lacey's daughters Clara, Elizabeth, and Mary Ann.[2]
- The Place record for Undercliffe House details that Clara married Percy Ford Robinson in January 1902.[3] No registration of the sale of Undercliffe House has been located, though the advertised distribution of assets from the deceased estate of E G Lacey is also advertised in January 1902.[4] Clara Lacey was recorded as one of the trustees of the estate.
- The official use of Undercliffe House as a Convalescent Depot/Home during World War II is not confirmed with the Australian War Memorial, or the Virtual War Memorial sites. The National Archives has no building plans, site plans, or military records pertaining to Undercliffe House during WWII.
- Investigations through the State Records Office of Western Australia have revealed no building plans or site plans, or construction plans for Undercliffe House as a hospital, or as a nursing home.

Historical aerials provide a general understanding of the site's development from the early 1950's through to today but reveal little about any extent of physical change to the subject place itself. Aerial imagery identifying key development points during this period have been included below.

P. F. Robinson's home, 'Undercliffe', at Greenmount from *The Motorist and Wheelman*, 20th May 1917.

Figure 2. Photograph of 'Undercliffe' in 1917 (reproduced in Mundaring: A History of the Shire, Ian Elliot, 1983)

1 Western Mail (Perth, WA : 1885 - 1954), Saturday 28 September 1901, page 20.
2 West Australian (Perth, WA : 1879 - 1954), Thursday 24 October 1901, page 4
3 Shire of Mundaring Local Heritage Survey, https://www.mundaring.wa.gov.au/documents/426/local-heritage-survey
4 West Australian (Perth, WA : 1879 - 1954), Saturday 25 January 1902, page 2 (7)

Figure 3. Undercliffe Nursing Home, Coongan Avenue, Greenmount, March 1986 (Source: State Library of Western Australia, taken by Betty Smith, BA1530/6255)

Figure 4. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities. (Source: MNG, November 1953)

Figure 5. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities, some ancillary structures are noted to the rear garden. (Source: MNG, March 1965)

Figure 6. The subject house and its garden surrounds in situ prior to development of the surrounding medical facilities, some ancillary structures are noted to the rear garden. (Source: MNG, September 1979)

Figure 7. The northern wing has been completed and the former western wing is under construction around the subject house. (Source: MNG, August 1981)

Figure 8. The northern wing and the former western wings have both been completed around the subject house. (Source: MNG, May 1985)

Figure 10. The eastern wing has been constructed adjacent to the subject house. (Source: MNG, February 1995)

Figure 9. Minimal change appears to have occurred since 1995. (Source: MNG, February 2011)

Figure 11. Construction of the new eastern wing addition is underway. (Source: MNG, February 2012)

Figure 12. Additions to the eastern wing have been completed and the western wing has been demolished. (Source: MNG, August 2016)

Figure 13. Most recent aerial capture demonstrating the site largely in its current arrangement (Source: MNG, February 2021)

Documentation from 2015 notes the property being utilised for medical and administration purposes at this time and it is understood that this remained its most recent function up until its current vacancy, however the exact date of its closure is unknown at this time. While these supplementary details have assisted with an understanding of the ownership and likely periods of change, it has not yielded any documentary data which pinpoints exact periods of physical change to the heritage building. As such, this report has primarily relied upon inspection of the physical fabric to determine elements of significance and sensitivity to future works.

2.2 Physical Description

The physical evidence has been prepared by **element** incorporating evidence recorded for earlier assessments, impact statements and condition reviews by various parties. The following text describes the place as observed in November 2023 during the condition inspection undertaken in conjunction with Acor Consultants who have provided structural input to this report.

A general summary of the external and internal condition of the property is provided below, however this is not a statement of structural condition. It is a reasonable attempt to identify any significant defects apparent at the time of the inspection which does not include areas that are concealed or obstructed. A supplementary summary of structural condition is subsequently provided by Acor Consultants at section 4.2. The condition of Undercliffe House is generally fair to poor and significant deterioration was found of both a structural and general deteriorative nature. This deterioration is increasing and presents a number of safety risks when accessing the site. Areas of notable risk include the south-west corner of the entry verandah where the timber boarding and structure has significantly decayed. Extensive bird infestation has also limited safe access to the roof space and is likely to result in localised ceiling collapse in the future if not dealt with in a timely manner. Fabric condition, risk to future occupants and accelerated decay of significant fabric have all been considered as key factors when determining the recommended prioritisation of conservation works for the property. For a full description of condition, refer to the Building Condition Assessment Report at Appendix A

2.2.1 Description of the Fabric

Undercliffe sits on an elevated site looking south over the former railway reserve and towards the Helena Valley. The large site originally had extensive gardens which now accommodate two major nursing home buildings to the north and the east of the original house. Gardens remain in the spaces between buildings, together with some significant trees from the original gardens. These include an enormous Moreton Bay Fig (Ficus Macrophylla) behind the house and, at the front, a rare Southern Cypress (Taxodium Distichum). Also at the front of the heritage house is a Norfolk Island Pine (Araucaria Heterophylla) and several old Date Palms (Phoenix Dactylifera). Extensive lawns also add to the setting of the site. Undercliffe, is located roughly in the centre of the Lot with the surrounding later wings overlooking and generally orientating towards the heritage building as a central feature of the site. Access to the site is via Coongan Avenue to the south-west with the road wrapping around the heritage property, and positioning it as a key entry statement to the aged care facility.

External

Undercliffe House is a Federation era, single storey brick and iron former residential property. While some sense of the garden setting remains, the external presentation has been largely altered by the construction of later surrounding built form. The house presents an asymmetric primary frontage to the south containing an original central form which is symmetrically designed around a centrally located entry door and circulation corridor, and a western wing which is connected at the front with an open vestibule from the veranda. The western wing is understood to be a later, though early addition to the main house, and does not appear to be extant in archival imagery from 1917 (refer to figure 2). The roof form reflects this asymmetrical design with three gable ends presenting to the southern elevation.

The house is constructed on a sloping site with access to the rear being on grade, while the main front entry is accessed by a formal staircase. This staircase has sweeping masonry balustrades to each edge leading to a timber framed verandah. The verandah includes a feature entry portico and decking which runs the full length of the southern elevation and wraps partially around the exterior to the east. The original verandas, across the front of the house, had previously been extended and enclosed with asbestos sheeting to provide additional accommodation. These were removed by the previous landowners who restored the verandas and interiors to give the building an ongoing life as specialist consulting rooms for the hospital. All external facades of the building have been fully rendered and painted pink with white painted joinery to the doors, windows and verandah columns and balustrading. The front (south) elevation features three sets of feature triple sash windows with highlight transoms above to each of the projecting bays. The main timber pannelled entry door is surrounded by feature leadlighting to the side and highlight windows. The highlight incorporates “Undercliffe” into its design and the side panels contain the initials of Percy Ford Robinson plus an acknowledgement to Barnett Bros. as the supplier.

The west and north elevations are generally utilitarian in their design with simple openings and surface treatments. A covered walkway has been connected to the verandah at the rear (north) of the property understood to be a later addition along with the paving treatments and general landscaping elements. The north elevation has been heavily altered with the addition of bathroom facilities along the northern face of the building, and a two room addition to the north-east. The exact date of construction for these elements is unknown however their simple detailing and form suggests they are of a much later construction date than the central built form.

The eastern elevation faces a small remnant area of landscaping and the new eastern nursing wing. Another feature triple bay window is located to this facade along with the verandah return which provides additional external access from the side of the house.

Figure 14. View of Undercliffe primary frontage from adjacent wing (element, 2023)

Figure 15. Stair to main entry (element, 2023)

Figure 16. Portion of the central and the western wing viewed from the south (element, 2023)

Figure 17. Covered vestibule connecting the central and western wings of the house (element, 2023)

Figure 18. Western elevation (element, 2023)

Figure 19. Northern elevation and covered walkway (element, 2023)

Figure 20. Covered walkway to rear entry door (element, 2023)

Figure 21. Northern covered verandah (element, 2023)

Figure 22. Wrap around portion of verandah to eastern facade (element, 2023)

Internal

The front entrance opens on to a central corridor which runs the length of the house. A lightweight stud wall has been added to the east of the entry way, extending the corridor through what would otherwise form the primary reception room facing south to the eastern lawned setting. To the western side of the corridor a secondary reception room is found also addressing the south, however secondary outlook is also provided to the verandah vestibule and western extension beyond. Both rooms contain projecting bays with triple sash windows and highlight transoms above, fireplaces, and ornate plaster glass ceilings. Decorative moulding motifs suggest that these ceilings may have seen some circa 1930's alterations, however without clear access to the internal roof space it is difficult to ascertain the likely extent of these changes.

Rooms continue to be laid out along the central corridor with two more found to both the eastern and western sides of the hallway. Most of these spaces have seen a relatively extensive level of change to fixtures and finishes to suit later use as consulting rooms. While structural components such as fireplaces remain they have been boarded up internally and replacement flat plasterboard ceilings installed to all rear rooms other than one to the northeast. This room also contains a projecting bay window to the east with triple sash windows and highlight transoms above to match the southern reception rooms. Walls to all central corridor rooms are painted a light green.

With access via either the verandah vestibule, rear double entry doors or internally via the north west room off the central corridor, the western wing sits relatively separate to the central portion of the house. It consists of two rooms with central fireplaces between them. These rooms contain pressed metal ceilings believed to be original and another set of triple sash windows with highlight transoms fronting the southern outlook. Walls to all western wing rooms are painted in shades of purple.

Later extensions have been added along the northern facade including male and female bathrooms, a kitchen area and a two-room extension which can only be accessed externally from the main house to the north east. All of these spaces feature later detailing and fitouts including flat plaster ceilings and simple cornices and skirtings where extant. Fireplaces are also found to all but the bathrooms. Walls to these spaces are painted a mix of light green, and neutral beiges.

Several corbelled arches survive along with original fireplace surrounds, deep skirtings, and architraves throughout the earlier portions of the house. Carpets have been added over timber floors throughout other than to two rooms which have later linoleum coverings. Lighting fixtures are new throughout however some early hardware remains extant to doors and windows.

Figure 23. Looking south down central corridor through feature archway towards entry door (element, 2023)

Figure 24. Projecting bay and feature windows to southern elevation (element, 2023)

Figure 25. Moulded ceilings and fireplace to northeast room (element, 2023)

Figure 26. Projecting bay window and feature arch to northeast room (element, 2023)

Figure 27. Pressed metal ceilings and fireplace to western wing (element, 2023)

Figure 28. Retained fireplace surrounds and later floor finishes (element, 2023)

Figure 29. Later fitout to rear kitchen extension (element, 2023)

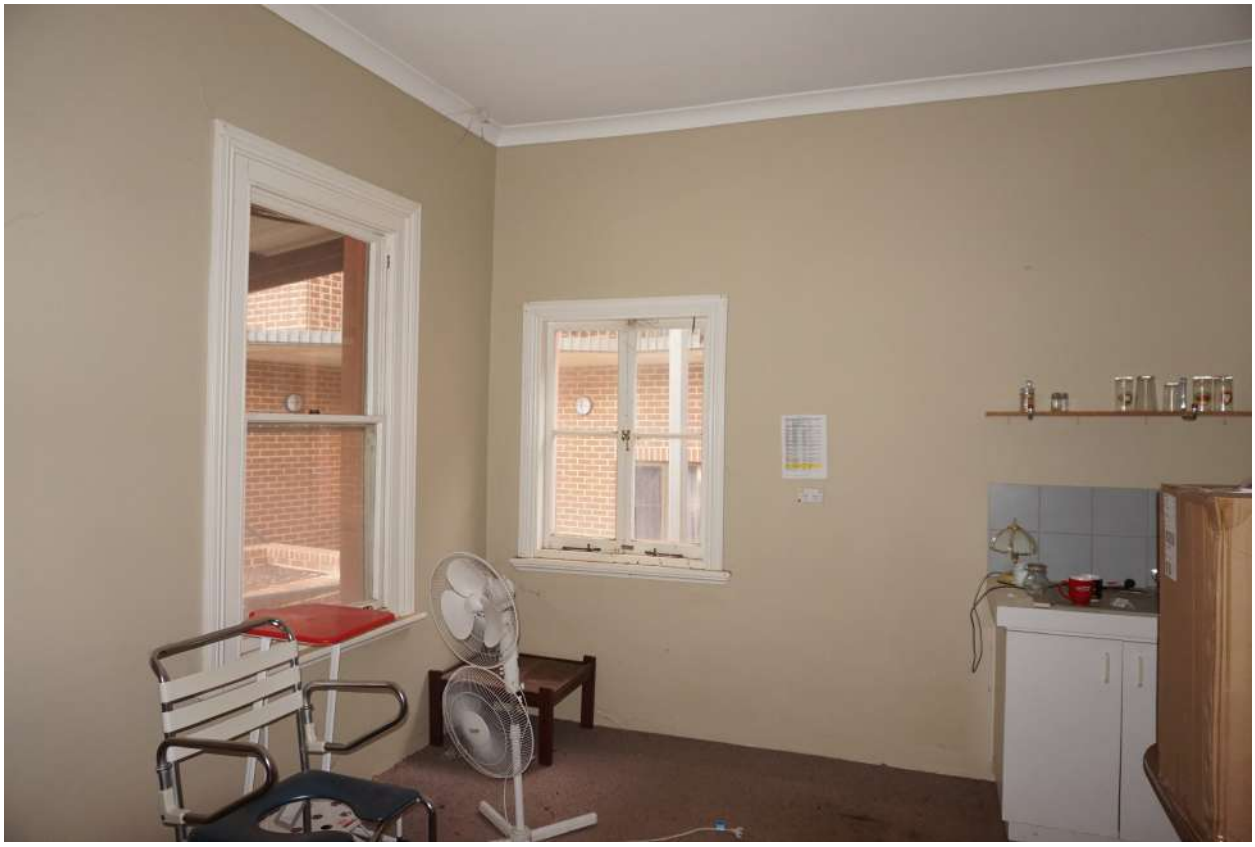


Figure 30. Later two room extension to north east (element, 2023)

3. Graded Zones and Elements of Significance

The following figures present the zones, sections and elements of the place that have varying degrees of significance. The purpose of this section is to identify the place's significant spaces and component elements. The elements are considered within their historical and physical context and in relation to the significance of the place as a whole. This assists in making decisions about the appropriate care and management of the place.

3.1 Overall Significance of the Place

A five-tier grading system is used to identify the level of significance of the place as a whole. In general, the higher the level of significance of the place, the greater the care needs to be taken in determining actions which may affect its heritage values.

- **exceptional significance** - would warrant consideration for entry on State and/or National heritage lists. Fabric that is of exceptional significance has a very high sensitivity to change and conservation is essential
- **considerable significance** - would warrant consideration for inclusion on the Heritage Council's (WA) Register of Heritage Places or the City's local heritage list. Fabric that is of considerable significance has a high sensitivity to change and conservation is essential.
- **some significance** – are at the threshold for entry onto the Heritage Council's (WA) Register of Heritage Places or the City's local heritage list. These areas are important in terms of the property's history, and should be conserved if the property is to retain its meaning and significance; conservation is recommended but adaptation to suit modern requirements is acceptable if undertaken in a sensitive manner that considers the buildings cultural heritage value holistically.
- **little significance** - below threshold for any heritage list (neither contributes nor detracts to the significance of the place). The zone or elements neither contribute to nor detracts from the significance of the place. Sensitivity to change is low. Items of little significance tend to be non-original and their value to the place ranges from neutral to moderately intrusive. Where necessary, they can be altered for adaptive reuse; conservation is optional.
- **Intrusive** - items are those, which, in their present form, have an adverse effect upon the significance of the property. These elements should be removed when the opportunity arises, or when the element is no longer required, unless their removal is identified as an urgent matter.

Given the existing heritage listing pertinent to the place and extent of its associated heritage values, degree of integrity and authenticity, Undercliffe House generally has considerable to some level of cultural heritage significance.

3.2 Zones and Elements of Significance

In addition to the above, a similar tiered grading system is used to identify the various zones and component elements of Undercliffe House. In general, the more significant the zone or element is, the greater the care needs to be taken in determining actions which may impact its overall significance.

Refer to Drawings SK01 and SK02 for illustration of the Zones and Elements of significance.

3.2.1 Exceptional Significance

Zones of Exceptional Significance

- No zones of exceptional significance

Elements of Exceptional Significance

- No elements of exceptional significance

3.2.2 Considerable Significance

Zones of Considerable Significance

- The overall form and arrangement of the primary house and western wing including roof form and internal composition of spaces prior to consulting room adaptions

Elements of Considerable Significance

- All original fabric
- Frontage to southern entry including position, setback and setting, general form including projecting gable ends, feature windows and doors, entry stairs, form of reconstructed raised verandah
- Chimneys and roof structure
- Heirarchy of internal spaces including reception rooms to southern and eastern frontages and functional spaces to rear
- Walls and structural form to main house and western wing including southern low level retaining walls
- Pressed metal and moulded plaster ceilings including ceiling mouldings and cornices
- All original access points and openings including door and window fabric and associated original hardware
- Timber floors throughout
- Fireplaces, hearths and original mantle surrounds
- Timber detailing including skirtings and architraves
- Significant mature plantings

Zones of Some Significance

- Later two room addition to the northeast of the house
- Front garden design

Elements of Some Significance

- All fabric associated with later two room addition to the northeast of the house
- Later reconstruction based on original arrangements including the southern verandah (noting its form is of considerable significance)
- Plantings to garden surrounds other than where they have been noted as significant mature plantings in their own right

Zones of Little Significance

- External rendering and paint finishes throughout (to be confirmed via paint scrape analysis)
- Rear bathroom and kitchen extension
- Northern landscaping and hardscaping including extension of covered walkway

Elements of Little Significance

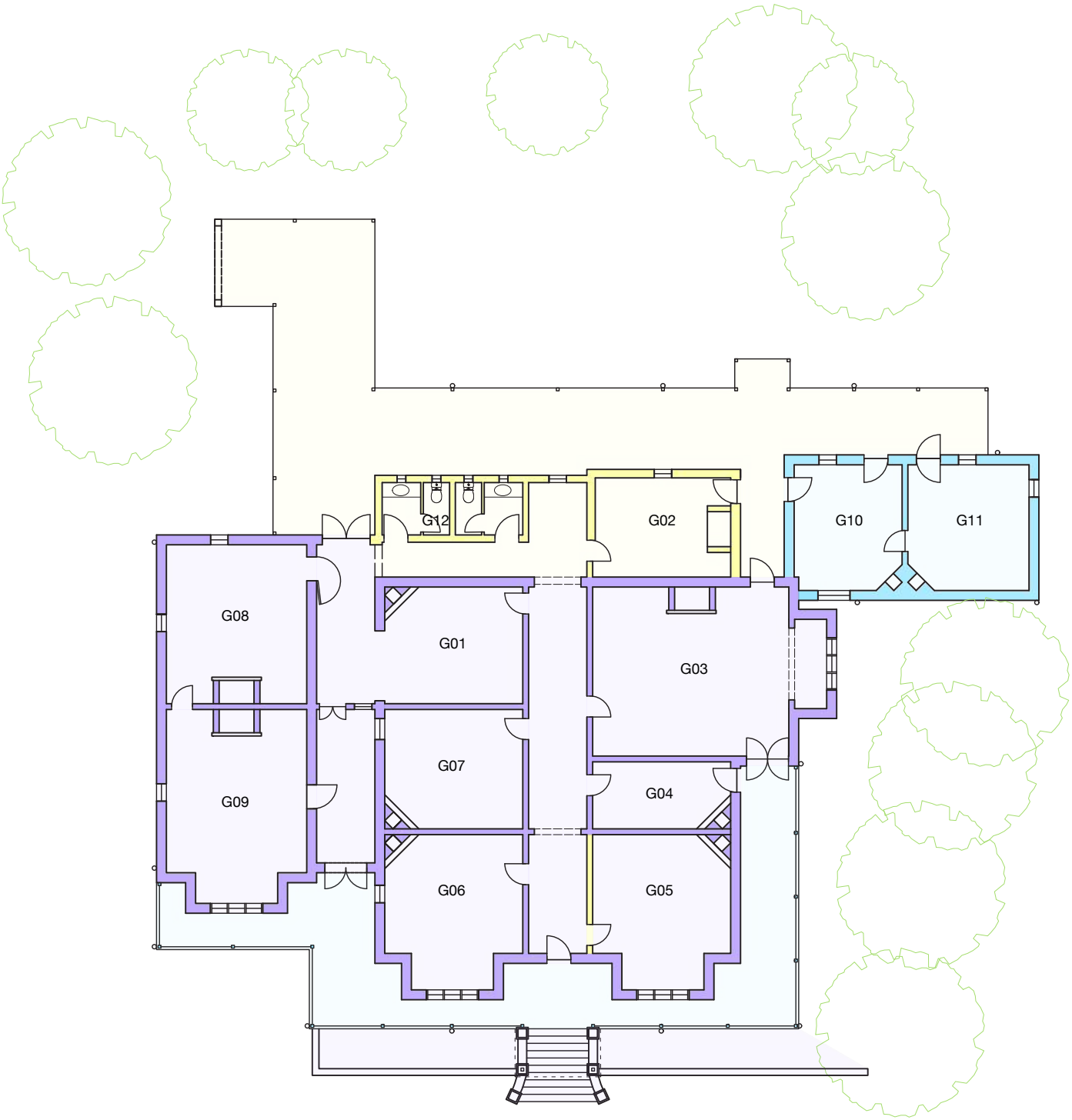
- Bathroom and kitchen fitouts throughout
- Later roof covering material and rainwater goods, however form is considerable
- Floor coverings including carpets and linoleum
- Internal stud wall
- Lighting fixtures and electrical upgrades
- Northern covered walkway and paving

Intrusive Zones

- Driveway and raised parking area
- Eastern hospital wing extension

Intrusive Elements

- Airconditioning units
- Later sink fixtures main house and western wing



SIGNIFICANCE LEGEND

- EXCEPTIONAL
- CONSIDERABLE
- SOME
- LITTLE
- INTRUSIVE

SIGNIFICANCE FLOOR PLAN

1:200

N

0 1 2 3 4 5

UNDERCLIFFE

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

Project:	UNDERCLIFFE	Drawing No:	SK01
Drawing Title:	SIGNIFICANCE FLOOR PLAN	Scale@A4:	1:200
Date:	DECEMBER 2023	Drawn:	AP
Client:	REGIS AGED CARE PTY LTD	Checked:	AJ
Job No:	23-378	Revision:	A

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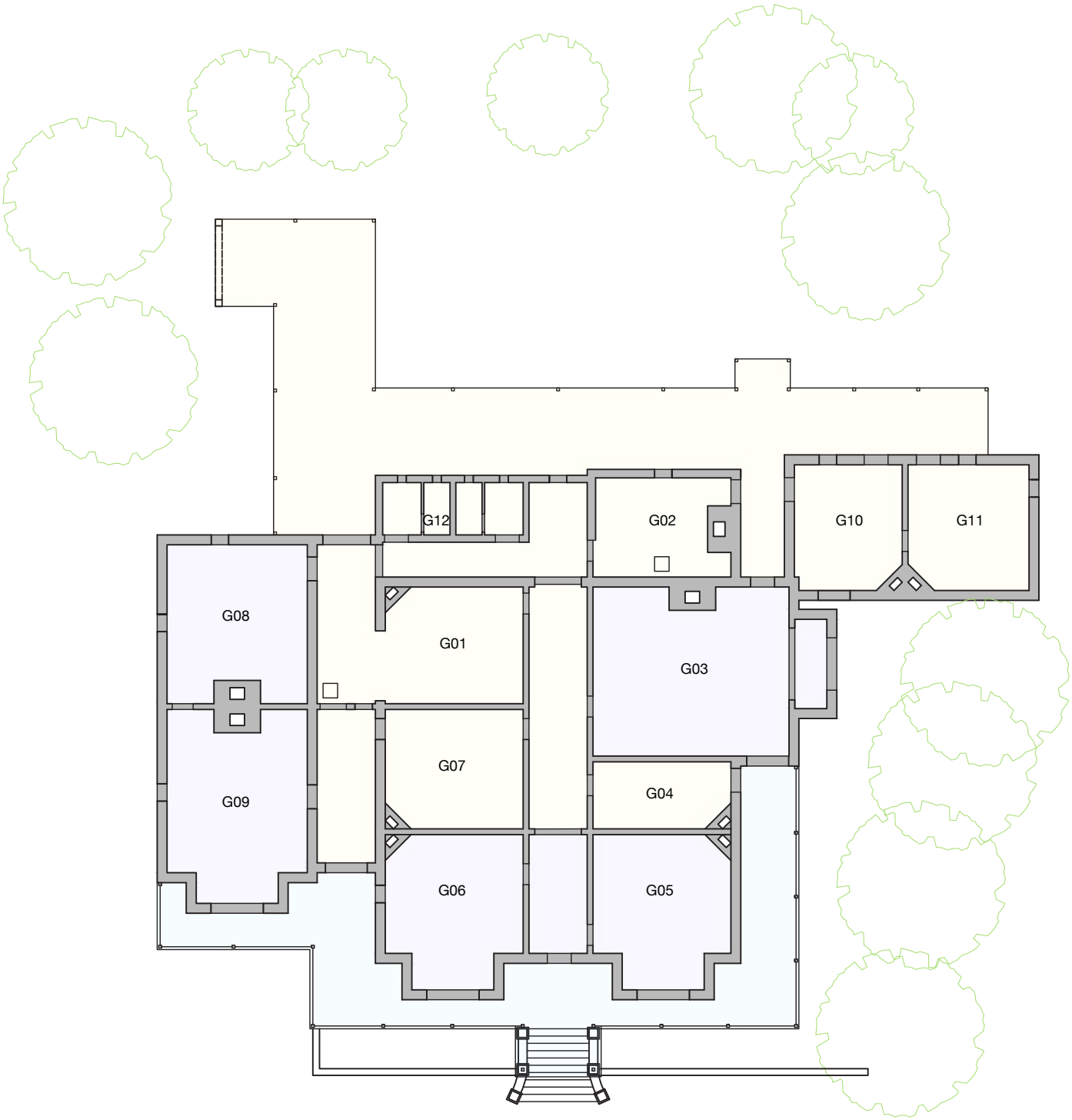

SIGNIFICANCE LEGEND

- EXCEPTIONAL
- CONSIDERABLE
- SOME
- LITTLE
- INTRUSIVE

SIGNIFICANCE REFLECTED CEILING PLAN

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0 1 2 3 4 5

UNDERCLIFFE

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

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4. Conservation Works and Maintenance Schedules

The recommended conservation works have been produced using the condition rating codes outlined in the HCWA publication 'Information Guide to Conservation Management Strategy'.

The condition rating codes are as follows:

Priority Rating	Status	Definition of Rating
1	Immediate attention	Works required to prevent serious disruption of activities and/or may incur higher costs if not addressed within 1 year.
2	Urgent	Works that need to be addressed between 1-2 years to prevent serious deterioration.
3	Medium Term	Works likely to require rectification within 3 years.
4	Long Term	Works that can be safely and economically deferred beyond 3 years.
5	Desirable Works	Works that are not necessary to the ongoing retention of the condition of the place
M	Maintenance	Ongoing maintenance item

Rating	Status	Definition of Rating
A	Excellent	• No defects. • As new condition and appearance.
B	Good	• Minor deterioration. • Superficial wear and tear. • Major maintenance not required
C	Fair	• Damaged. • Worn finishes require maintenance. • Services are functional but need attention.
D	Poor	• Failed but retrievable. • Badly deteriorated. • Potential structural problems.
E	Very Poor	• Failed and not retrievable. • Not operational. • Unfit for occupancy or normal use.

4.1 Summary of Condition

Generally, Undercliffe House is in a fair to poor condition having been vacant and without active maintenance for an extended period of time. Several issues were noted which are likely to result in significantly accelerated decay, and a continuous and targeted program of remedial work is required in order to bring the property up to an inhabitable state. Of most immediate concern is the requirement to address ongoing pigeon ingress and prevent further build-up of detritus within the roof space to prevent ceiling collapse. Further structural investigation of foundations and a likely program of targeted injection to stabilise footing movement is also recommended followed by crack stitching and masonry repairs. Refer also to section 4.2. Repairs to rainwater goods and stormwater management upgrades are also recommended to arrest ongoing fabric deterioration. Inspection by specialist plumbing and termite contractors are also recommended as items of urgent priority.

The property is relatively original, aside from changes to internal arrangements, fitouts and finishes to suit later functional use. Original features form an integral part of the story of the place and every effort should be main to retain and protect them through any program of works. The rear northern spaces are generally of some to little significance, but provide significant functional benefit to the place and have a lower sensitivity to change. It is not proposed as part of this works schedule that any of these later interventions be removed. However, these spaces should be prioritised to contain higher impact functions such as wet areas and kitchens to support retention of significant fabric in other zones.

While gardens have been heavily altered from the original arrangement, some sense of setting to the house remains. It is not recommended that any additional new construction be considered within the southern setback to the house or encroach further on the remaining three facades.

4.2 Summary of Structural Condition

The following summary has been drawn directly from the structural report prepared by Acor Consultants and included in full at Appendix B

ACOR Consultants was engaged to undertake a high-level structural condition report for Undercliffe house located at 22 Coongan Ave, Greenmount. The purpose of the inspection was to identify structural issues which may affect the heritage conservation of the structure and provide high-level remedial methodologies that will form the basis of a detailed remediation and conservation scope of works. The scope of the inspection was limited to the elements that were visible and safely accessible at the time of inspection. No sampling, testing or invasive inspections were undertaken as part of the works.

The principal observations of the structural inspection were as follows:

- Cracking was present throughout much of the internal and external masonry walls. The cracking was generally stepped or diagonal through a masonry panel or from the corner of a window or door. Some cracks were vertical or horizontal and located at the ends of a masonry panel or at the eave level.
- Diagonal cracking can generally be attributed to soil movement, either through heave, shrinkage, or subsidence. The structure is located on clayey soil and is likely to undergo a significant amount of seasonal movement.
- Vertical cracking can be attributed to temperature variations; however, may also be caused by soil movement.
- Horizontal cracking may be caused by thermal effects or masonry creep; however, may also be caused by foundation settlement.
- There have been new developments to the site surrounding the structure; including a new two storey structure to the east of the building and a new road to the west of the structure. The construction activities may have created vibration through the soil which may have created or exacerbated cracking in the brickwork.
- Another risk from development around the existing structure is the draining of soil moisture and the alteration of soil moisture movement around the structure. Soil which may previously have been wet will have drained under the load of the new construction and affected the soil moisture around Undercliffe house. This may have created new subsidence or consolidation in the structure which led to new stress developing in the masonry walls.
- The building is also located on a slope which may create differential moisture conditions across the building during wet seasons when the soil may be saturated. The stormwater drainage system must be reviewed and revised to ensure that stormwater runoff from the roof is suitably piped away from the building to limit localised saturation close to building foundations.
- The foundations will require a survey to confirm areas most suitable for resin injection. Foundation resin injection will be needed to correct footing positions prior to the completion of masonry repairs.
- Diagonal and vertical masonry cracking has likely occurred due to foundation movement. Following the repair of the foundations and the stormwater drainage system, the masonry cracking is recommended to be repaired with Helifix bars or a similar approved masonry tie system. This is intended to protect against the reopening of cracking at existing weak points due to seasonal soil movement or soil consolidations. Horizontal cracking may be repointed as required.
- Termite damage was found on the southern decking structure. Damaged decking boards and members will require replacement.

4.3 Recommended Conservation Works Summary

Refer to both Appendix A and B (Building Condition Assessments) for detailed survey findings.

It is noted that no allowance has been made within the scope of works or costing breakdown in relation to the relocation, storage or disposal of the existing loose furniture and equipment currently stored within the property. It is assumed that these items will generally be retained for future use by the landowner in an alternative location prior to conservation works commencing, however time and cost considerations relating to this under taking have not been considered at this time.

Immediate Attention

- Review roof cladding, flashings, eaves and chimneys to identify all points of pigeon ingress, repair and block access points and prevent ongoing occupation of roof spaces
- Remove pigeon droppings from all roof spaces to reduce loading to ceilings
- Following removal of pigeons and droppings, prop and restrap ornate ceilings to G-03, G-05 and G-06, bolstering with additional ceiling joist members between support points if required. Refix cornices before making good finishes like-for-like
- Refix and refinish ornate pressed metal ceilings to G-08 and G-09. Brush back areas of corrosion and make good finishes like-for-like. Allow to repaint both sides
- Survey foundations and identify areas of subsidence. Subsidence should be stabilised via resin injection in targeted locations following the detailed survey. Significant subsidence may require underpinning or the installation of new foundations. Monitor all walls for movement during works and to ensure action is corrective
- Replace corroded and missing downpipes and ensure water is directed away from the building
- Clean all gutters of organic material and replace all rusted out or deteriorated sections
- South elevation - Repair minor cracking using Helifix bars and refinish to match existing.
- South elevation - Significant cracks will require some masonry replacement. Repoint masonry with suitable mortar and refinish to match existing.
- Undertake detailed termite inspection, remove significantly deteriorated decking boards to western end of verandah to facilitate underfloor access, replace to match existing like-for-lie following repairs to rainwater drainage system
- Known plumbing leak within garden bed adjacent to the eastern edge of the heritage building. Isolate and repair plumbing issues before undertaking any repairs to damp affected areas of brickwork or internal finishes

Urgent

- North elevation - Repair cracking using Helifix bars and refinish to match existing
- North elevation - Repair low level brickwork and pointing decay to match like-for-like
- East elevation - Repair low level brickwork and pointing decay to match like-for-like
- East elevation and G-03 internal - Clean back organic growth and repair rendered window sill to match. Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- South elevation - Remove loose or drummy render around corroded window lintels. Brush back paint coatings and areas of corrosion. Apply two coats of zinc rich protective coating and refinish to match like-for-like
- West elevation - Repair cracking using Helifix bars and refinish to match existing
- Undertake detailed structural inspection of all chimneys as part of roofing repairs. Clean back organic growth and repair any cracked, loose, or drummy render to match. Repoint masonry like-for-like and consider removal of paint from all face brick surfaces. Ensure all chimneys are adequately blocked to prevent water ingress
- Replace fascias and bargeboards deteriorated beyond repair to match like-for-like. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on original finishes
- Repair timber verandah columns to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match
- Retain and refinish timbers to southern decking, if any elements are found to be deteriorated beyond repair undertake like for like replacement before sanding decking timbers back to sound face and oiling
- Install rainwater sump boxes at all downpipes connected to a piped sub-soil drainage system to ensure all roof runoff is taken away from the building to avoid soil saturation. Undertake a CCTV pipe inspection to confirm drainage pathway and rectify blockages and outflow locations as required.

- Repair internal cracking using Helifix bars where noted in structural report, repoint and refinish to match existing.
- Refix and refinish plain plasterboard ceilings and cornices to G-01, G-02, G-04, G-07, G-10, G-11 and G-12
- Remove and dispose of all carpet and linoleum floor coverings. Inspect all timber floors and underfloor areas, allowing for installation of three floor inspection hatches if required. Repair like-for-like and refinish timber floors
- Repair cracked glazing to one sash window in G-02
- Repair cracked glazing and deterioration to front entry door and feature surrounds, ensure protection during any structural works
- Install smoke alarms throughout

Medium Term

- Replace corroded ridge flashing fixtures
- Once roof space is clear undertake further detailed inspection of all structural framing. Bolster or replace defective members like-for-like as required
- East elevation - Repair cracking using Helifix bars and refinish to match existing.
- Prepare and repaint all downpipes, with colour to match or based on original finishes
- Refix and make good soffits and eaves. Prepare and repaint, with colour to match or based on original finishes
- Make good windows to ensure watertightness. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- Make good doors externally and internally. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes
- Brush back corrosion to external breezeway gates, Apply two coats of zinc rich protective coating and refinish to match like-for-like
- Provide breathing strip/air drain between external wall face and any areas of hardscaping or landscaping
- Repoint and refinish low level render spalling to G-02
- Repoint minor internal cracking as identified in structural report and refinish like-for-like
- Undertake detailed electrical inspection and replace all light fittings to match
- Reinstate and refinish timber hearth surrounds to G-01
- Replace deteriorated kitchenette fitout to G-02

Long Term

- Reposition masonry stair turn out and fix into position N10 dowel bars against existing masonry piers. Alternatively, tooth in new stair turnouts to ensure appropriate connection between masonry elements in place of apparent vertical joint.
- Excavate around in ground verandah stirrups to expose steelwork and confirm no corrosion is present to steel fixing. Repair if required
- Undertake detailed inspection of verandah structure and replace or reinforce as required
- Recast and replace missing corbel moulding to G-01
- Remove timber stud wall to G-05 and make good finishes
- Replace worn bathroom fitout to G-12

Desirable

- Remove boarding and reinstate chimney functionality
- Remove airconditioning wall units and make good
- Remove wall sinks to G-04 and G-09 and make good
- Remove space heaters

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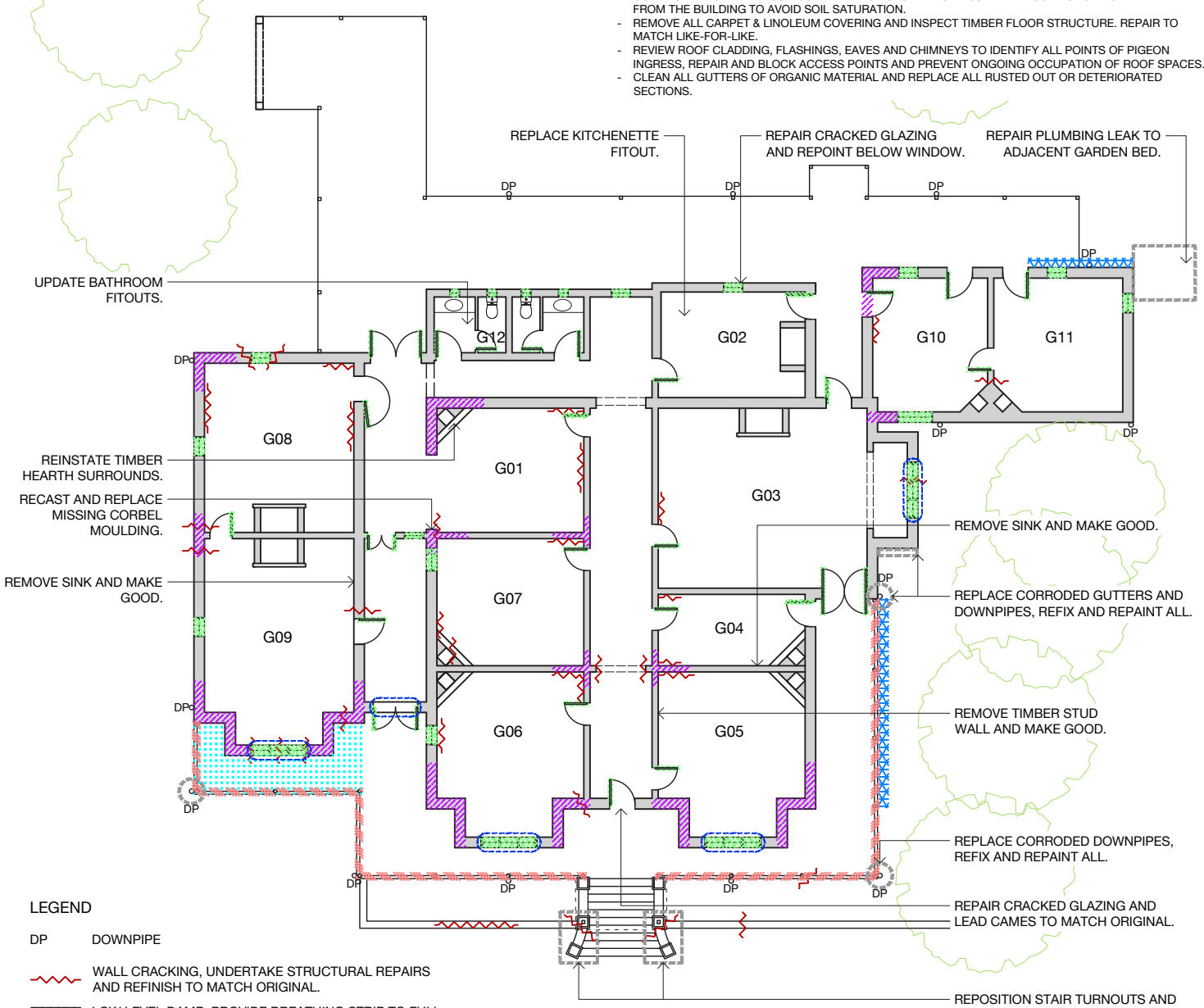
- WHERE THE CONDITION OF BUILDING FABRIC IS DESCRIBED, THIS REFERS TO THE CONDITION OF SIGNIFICANT ARCHITECTURAL ELEMENTS THAT CAN BE ASCERTAINED BY VISUAL INSPECTION, IT IS NOT A STATEMENT OF STRUCTURAL CONDITION. REFER TO STRUCTURAL REPORT FOR STRUCTURAL CONDITION.
- UNDERTAKE A CCTV PIPE INSPECTION TO CONFIRM DRAINAGE PATHWAY AND RECTIFY BLOCKAGES & OUTFLOW LOCATIONS AS REQUIRED. INSTALL RAINWATER SUMP BOXES AT ALL DOWNPIPES CONNECTED TO A PIPED SUB-SOIL DRAINAGE SYSTEM TO ENSURE ALL ROOF RUNOFF IS TAKEN AWAY FROM THE BUILDING TO AVOID SOIL SATURATION.
- REMOVE ALL CARPET & LINOLEUM COVERING AND INSPECT TIMBER FLOOR STRUCTURE. REPAIR TO MATCH LIKE-FOR-LIKE.
- REVIEW ROOF CLADDING, FLASHINGS, EAVES AND CHIMNEYS TO IDENTIFY ALL POINTS OF PIGEON INGRESS, REPAIR AND BLOCK ACCESS POINTS AND PREVENT ONGOING OCCUPATION OF ROOF SPACES.
- CLEAN ALL GUTTERS OF ORGANIC MATERIAL AND REPLACE ALL RUSTED OUT OR DETERIORATED SECTIONS.



LEGEND

DP DOWNPIPE

WALL CRACKING, UNDERTAKE STRUCTURAL REPAIRS AND REFINISH TO MATCH ORIGINAL.

LOW LEVEL DAMP, PROVIDE BREATHING STRIP TO FULL EXTENT OF LANDSCAPED AREAS BEFORE REPOINTING.

FLOOR BOARDS DAMAGED BEYOND REPAIR, UNDERTAKE TERMITE INSPECTION TO FULL STRUCTURE AND REPAIR TO MATCH ORIGINAL DETAILS.

LIKELY EXTENT OF STRUCTURAL GROUT INJECTIONS, REFER TO STRUCTURAL MARKUPS.

MAKE GOOD AND REPAINT ALL DOORS AND WINDOWS.

REPAIR VERANDAH JOINERY TO EXISTING DETAIL, REPAINT TO MATCH.

TREAT CORRODED LINTELS & METALWORK AND MAKE GOOD WINDOW FABRIC, REPAINT TO MATCH.

CONDITION FLOOR PLAN

1:200

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UNDERCLIFFE

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

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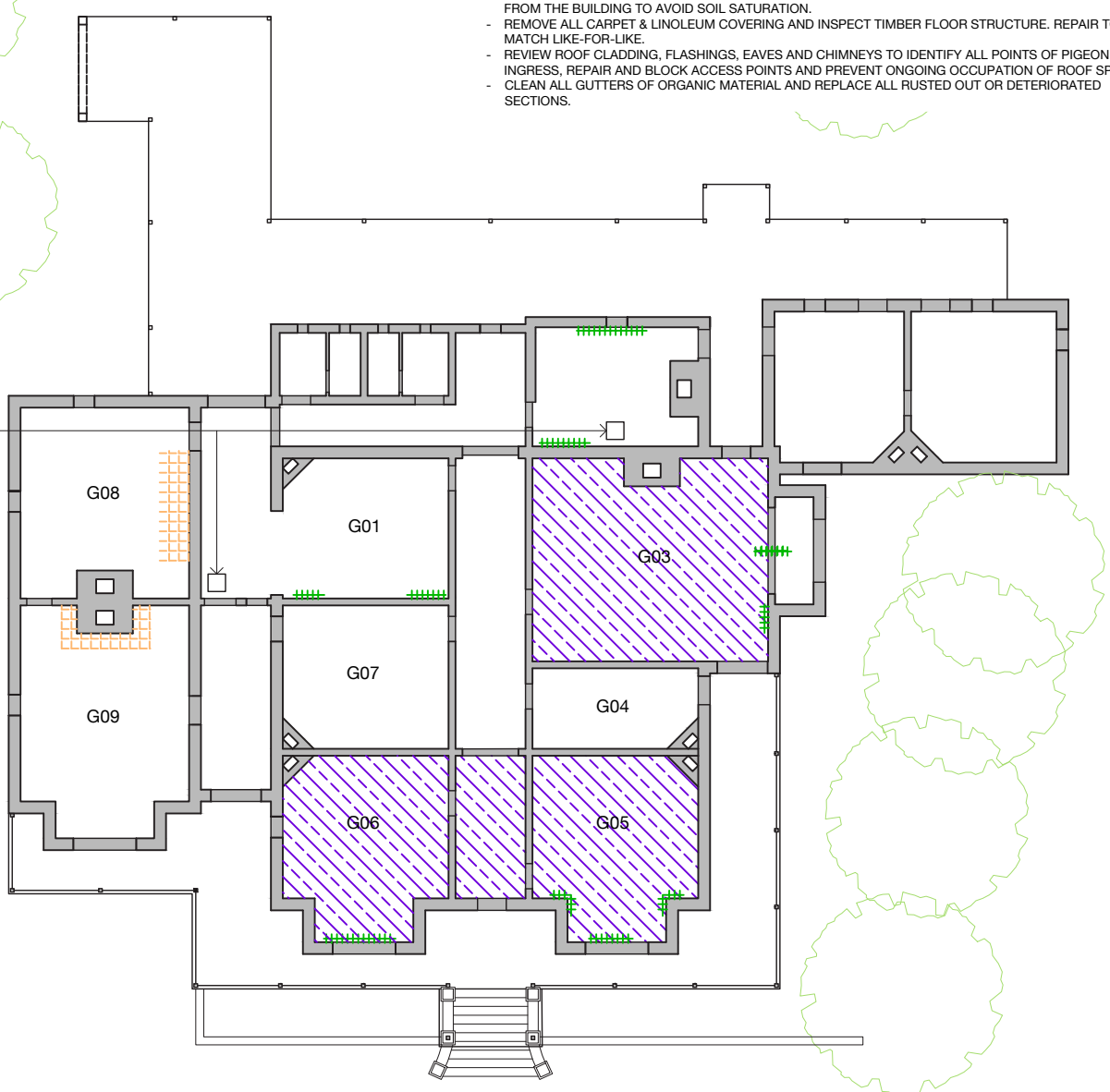
- UNDERTAKE A CCTV PIPE INSPECTION TO CONFIRM DRAINAGE PATHWAY AND RECTIFY BLOCKAGES & OUTFLOW LOCATIONS AS REQUIRED. INSTALL RAINWATER SUMP BOXES AT ALL DOWNPIPES CONNECTED TO A PIPED SUB-SOIL DRAINAGE SYSTEM TO ENSURE ALL ROOF RUNOFF IS TAKEN AWAY FROM THE BUILDING TO AVOID SOIL SATURATION.
- REMOVE ALL CARPET & LINOLEUM COVERING AND INSPECT TIMBER FLOOR STRUCTURE. REPAIR TO MATCH LIKE-FOR-LIKE.
- REVIEW ROOF CLADDING, FLASHINGS, EAVES AND CHIMNEYS TO IDENTIFY ALL POINTS OF PIGEON INGRESS, REPAIR AND BLOCK ACCESS POINTS AND PREVENT ONGOING OCCUPATION OF ROOF SPACES.
- CLEAN ALL GUTTERS OF ORGANIC MATERIAL AND REPLACE ALL RUSTED OUT OR DETERIORATED SECTIONS.

INDICATIVE LOCATIONS OF CEILING ACCESS HATCHES. UNDERTAKE DETAILED ROOF STRUCTURE INSPECTION FOLLOWING PIGEON REMEDIATION.



LEGEND

- CEILING CRACKING / CORNICE SEPARATION. REFIX AND REFINISH TO MATCH.
- RUSTING TO CEILINGS. BRUSH BACK CORROSION AND MAKE GOOD, PAINT BOTH FACES.
- CEILING DEFLECTION. REMEDIATE PIGEON INGRESS, CLEAR ROOFSPACE DEBRIS, PROP AND MAKE GOOD.

CONDITION REFLECTED CEILING PLAN

1:200

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UNDERCLIFFE

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

Project:	UNDERCLIFFE	Drawing No:	SK04
Drawing Title:	CONDITION RCP	Scale@A4:	1:200
Date:	DECEMBER 2023	Drawn:	AP
Client:	REGIS AGED CARE PTY LTD	Checked:	AJ
Job No:	23-378	Revision:	A

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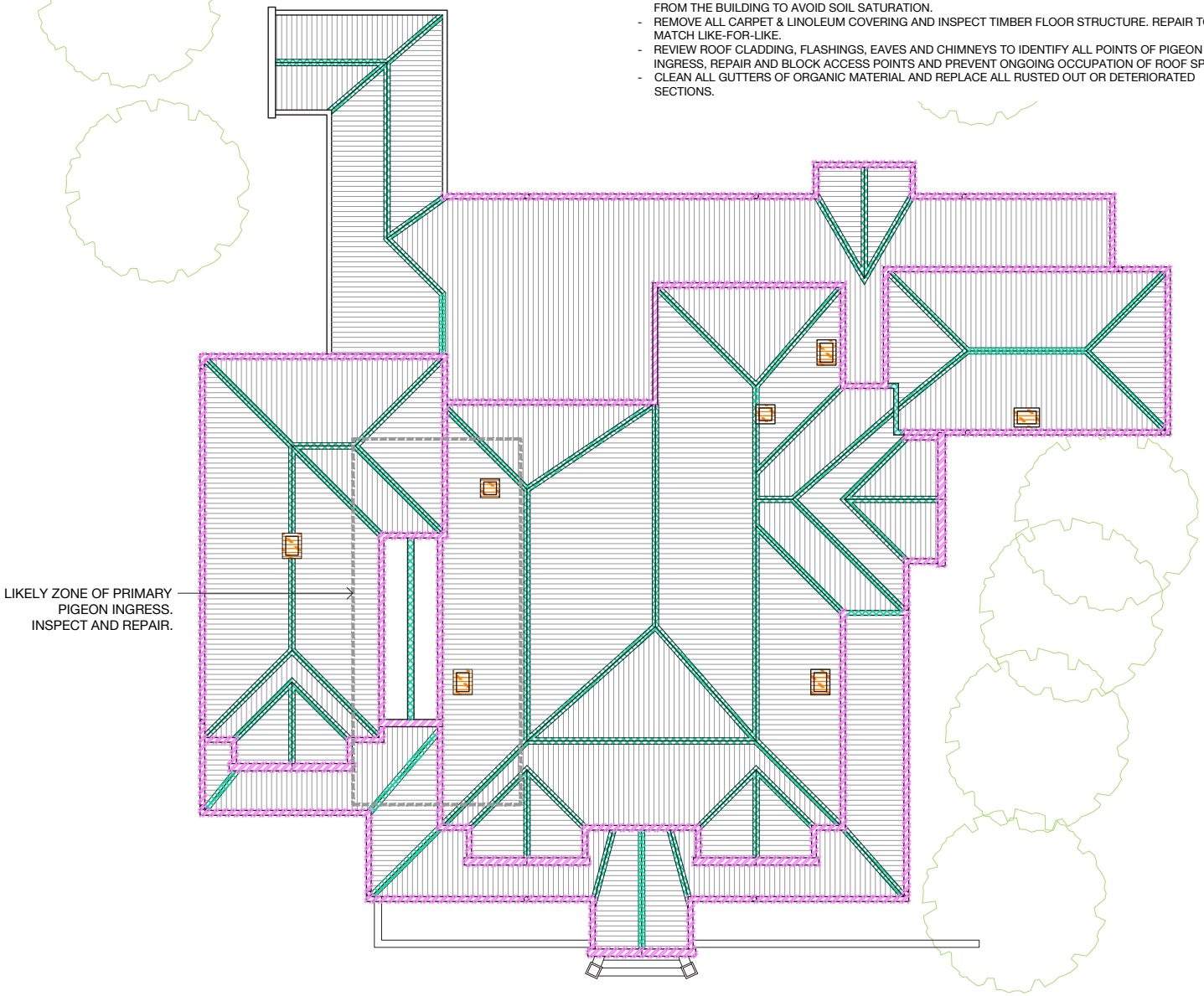
- REMOVE ALL CARPET & LINOLEUM COVERING AND INSPECT TIMBER FLOOR STRUCTURE. REPAIR TO MATCH LIKE-FOR-LIKE.
- REVIEW ROOF CLADDING, FLASHINGS, EAVES AND CHIMNEYS TO IDENTIFY ALL POINTS OF PIGEON INGRESS, REPAIR AND BLOCK ACCESS POINTS AND PREVENT ONGOING OCCUPATION OF ROOF SPACES.
- CLEAN ALL GUTTERS OF ORGANIC MATERIAL AND REPLACE ALL RUSTED OUT OR DETERIORATED SECTIONS.



LEGEND

UNDERTAKE DETAILED STRUCTURAL INSPECTION OF ALL CHIMNEYS AS PART OF ROOFING REPAIRS. CLEAN BACK ORGANIC GROWTH AND REPAIR ANY CRACKED, LOOSE, OR DRUMMY RENDER TO MATCH. REPOINT MASONRY TO MATCH EXISTING.

REPLACE FASCIAS AND BARGEBOARDS DETERIORATED BEYOND REPAIR. REFIX AND MAKE GOOD SOFFITS AND EAVES. PREPARE AND REPAINT TO MATCH LIKE-FOR-LIKE.

REPLACE CORRODED FLASHING FIXTURES TO MATCH.

CONDITION ROOF PLAN

1:200

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0 1 2 3 4 5

UNDERCLIFFE

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

Project:	UNDERCLIFFE	Drawing No:	SK05
Drawing Title:	CONDITION ROOF PLAN	Scale@A4:	1:200
Date:	DECEMBER 2023	Drawn:	AP
Client:	REGIS AGED CARE PTY LTD	Checked:	AJ
Job No:	23-378	Revision:	A

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4.4 Recommended Maintenance Works

This schedule of maintenance works is drawn up to ensure that maintenance of the place is programmed.

Building Element	Maintenance Task	Responsibility (generally all responsibility sits with the owner with input as required)	Frequency
Roofs			
Roof areas generally	Inspect areas from the ground and note any damage to the roof cladding	Owner	After storms but generally annually
Sheet metal roofs	Inspect condition of panels, joints, connections and fixings. Replace roof sheets that are corroded beyond reuse with example to match original roof covering.	Contractor with specification from Heritage Architect	Annually
Flashing and ridges	Inspect condition of all flashing and ridges. Make repairs as required (e.g. dress back flashing and make good joints in a like for like fashion)	Heritage Architect/contractor	Annually
Rainwater Disposal			
Rainwater goods generally	Inspect rainwater goods from the ground and accessible high points and repair damage	Owner	After storms but generally annually
Gutters	Clear all gutters of debris and ensure they are functioning. Cover with mesh if necessary. Inspect any cracks, corrosion or sections that do not over lap and make good	Owner/ contractor	During rain is best time or annually as minimum
Downpipes	Clear down pipes and as necessary. Inspect downpipes for cracking and corrosion and make good.	Contractor	Annually
Below ground drainage	Open up for inspection at foot of downpipes. Check to ensure gullies and gratings are free twice per year from silt and debris and that stormwater discharges to main sewerage soakaway.	Contractor	Annually
External Areas			
External Walls Generally	Inspect walls from the ground and accessible high points and report any damage and signs of movement, particularly to areas where repairs have been undertaken (i.e. widening mortar joints, cracking of render or masonry units)	Owner	After storms but generally annually
External walls, wall heads and parapets	Inspect with high level access and identify any cracks or damage that may allow water penetration. Inspect render for cracking.	Heritage Architect/contractor	Annually
Masonry Walls	Masonry walls should be inspected for decayed mortar and repointed as necessary with suitable repair mortar If salts appear on the brick face action should be taken immediately to remediate dampness and/or source of salts	Heritage contractor	Annually
Render or Stucco	External render or stucco should be checked for cracking and delamination from the substrate. Where cracks are over 0.3mm they should be repaired like for like.	Heritage Architect/contractor	Annually
Paint	Repaint the building as appropriate to the original design including verandah elements, windows and door frames and rainwater goods. Do not repaint face brick or any other areas where there is no evidence that it was painted originally	Contractor	Repaint building every 5 years or as often as required
Ventilation	Ensure that ventilation grilles, vents are free from obstruction	Contractor	Annually

Building Element	Maintenance Task	Responsibility (generally all responsibility sits with the owner with input as required)	Frequency
Windows and glazed doors	Inspect windows for damage to frames and glazing. Check to ensure they are in working condition and are wind and watertight	Owners/ contractor	Annually
Doors	Check all external doors to ensure they are operating in a secure and functional manner. i.e. locks, hinges and handles should all be in good order and the door should be hung correctly. Hardware can be oiled.	Owners	Bi annually
Ground levels	Inspect ground levels around the building and remove any build ups of soil and other pollutants that can trap moisture. Ensure any hard surfaces slope away from building and do not look to install garden beds directly against the heritage fabric	Owners/ contractor	Annually
Chimneys			
Inspect stability	Chimneys should be inspected for cracking and instability	Structural engineer/contractor	Annually
Functionality of flues	Even if the chimneys are not functional they should be regularly checked to ensure they are not blocked and causing dampness. If they become functional then more regular checks are required.	Chimney sweep	If used they should be swept biannually or annually checked for blockage otherwise
Internal Areas			
Internal Spaces generally	Inspect roof voids, under floors and all internal rooms and report on any water ingress, rising damp or other damage. Clean regularly.	Owners	Monthly
Internal structure and fabric	Inspect internal structure and fabric including roof timbers and floor joists, wall, floor and ceiling finishes including timber architraves and skirtings. Report on any fungal growth, dampness, insect damage or cracking.	Owners	Annually
Staircases	Check stairs for damage or uneven treads and repair as needed.	Owners	Annually
Floors	Clean historic floors and maintain breathable historic finishes i.e. natural oils and bees wax. Avoid applying polyurethane finishes except in very high traffic areas.	Owners	Weekly
Building Services			
Electrical	Check defective bulbs and fuses and attend to minor faults. For switch boards and wiring these should be regularly checked by a qualified electrician	Owners/electrician	Weekly/quarterly
Water	Regularly inspect water tanks and pipes for leaks and that waste water is draining effectively. Plumbers should be called on to carry out repairs.	Owners/Plumber	Quarterly
Fire alarm and suppression	Check fire alarms and fire suppression systems are in fully functional working order. This includes portable extinguishers.	Owners/hydraulic consultant	Monthly
Miscellaneous			
Vermin and pest control	Check for white ants and vermin regularly. If noted then appropriate action should be taken. Regular inspection is preferred to the installation of potentially impactful physical barrier systems.	Owners/pest control	Bi annually

Appendices

Appendix A: Building Condition Assessment Report

Undercliffe House

Building Condition Assessment Report

Place name:				Place Number:	
Address:	**22 Coongan Ave, Greenmount**	**Inspection Date:**	13 Nov 2023	**Inspection By:**	Alana Jennings

This Building Condition Assessment Report notes the condition of general elements and areas of the buildings as identifiable by visual inspection. It has been limited to those areas and sections of the property fully accessible and/or visible to the authors on the dates of inspection. Where the condition of building fabric is described, this refers to the condition of significant architectural elements that can be ascertained by visual inspection. It is not a statement of structural condition other than where specialist input has been provided courtesy of Acor Consultants as the specialist structural engineer. For any works where structural input is noted, refer also to report NA231598 by Acor Consultants.

This document is in no way a certification of the inspected structure to the requirements of any acts or regulations. It is a reasonable attempt to identify any significant defects apparent at the time of the inspection which does not include areas that are concealed or obstructed. Certain condition items identified within this report may have arisen as the result of pest infestation, however this document should not be treated as specialist advice in relation to pest management or treatment approaches. Pest inspections and control measures should be considered by a qualified professional in accordance with any conservation methodologies, as required. A general inspection of electrical items was undertaken to understand operability; however this report does not constitute a detailed electrical report or include review of any wiring, capacity or faults.

While this was not a compliance review for the purposes of any occupancy codes or standards, it was noted that no smoke alarms were present in any of the rooms surveyed.

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element.

Key:

Priority Rating	Status	Definition of Rating
1	Immediate attention	Works required to prevent serious disruption of activities and/or may incur higher costs if not addressed within 1 year.
2	Urgent	Works that need to be addressed between 1-2 years to prevent serious deterioration.
3	Medium Term	Works likely to require rectification within 3 years.
4	Long Term	Works that can be safely and economically deferred beyond 3 years.
5	Desirable Works	Works that are not necessary to the ongoing retention of the condition of the place

Rating	Status	Definition of Rating
A	Excellent	• No defects. • As new condition and appearance.
B	Good	• Minor deterioration. • Superficial wear and tear. • Major maintenance not required
C	Fair	• Damaged. • Worn finishes require maintenance. • Services are functional but need attention.
D	Poor	• Failed but retrievable. • Badly deteriorated. • Potential structural problems.
E	Very Poor	• Failed and not retrievable. • Not operational. • Unfit for occupancy or normal use.

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Location: SITE & SETTING							
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
Site	The heritage house sits within the context of a large scale multi storey nursing home development. One residential wing sits within close proximity to the eastern facade of the heritage building An access road passes close to the western facade of the heritage building, wrapping around the property to an open carparking area which is sited approximately 1m above the floor level of the heritage house	The condition of new development does not form part of this review	The condition of the heritage building prior to construction of the adjacent residential wing, access road and raised carparking area is not known, however there is potential that adjacent excavation and construction works may have contributed to the structural issues noted today.	Dilapidation surveys and vibration monitoring of the heritage building must be undertaken as part of any further development on the site	N/A	N/A	 General site aerial noting lot extents in purple and subject building in red circle
Landscaping	There are garden beds to the east, south and west of the heritage building as well as an extensive lawned area to the south Mature plantings are found throughout the site including to the east and south of the heritage building. Several of the mature trees on the site are also noted as significant Sprinkler/reticulation systems not inspected as part of this review	N/A	Defects noted to rainwater goods and outlets in several locations	Ensure water is directed away from the building. Refer to Location: Roof	N/A	N/A	N/A
			Known plumbing leak within garden bed adjacent to the eastern edge of the heritage building	Isolate and repair plumbing issues before undertaking like-for-like repairs to brickwork and internal finishes Ensure any watering systems are operational and not spraying or allowing water to pool directly onto the structure	100%	1	

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B-01 Undercliffe House (c1890) Additions c.1920

Location: EXTERNAL: ROOF			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Images
Roof covering	Custom orb zincalume corrugated metal. Hipped roofs with three gable ends to the southern facade	B – Good Where visible	Roof covering appears sound from all available vantage points	Detailed inspection should be undertaken as part of any noted roofing repairs. Inspect for lifted or degraded sheets and refix and reseal as required. Roofing material is not original and may be replaced like-for-like as required	Inspect 100%	1	
Flashings	Rolled top ridge capping to match sheeting finish Apron flashing to chimney base surrounds	B – Good Where visible	Flashings appear sound from all available vantage points, however level of pigeon activity suggests there is likely to be a point of weakness located centrally within the roof area which may be related to flashing failure. Evidence of corroded fixings to ridge capping	Detailed inspection should be undertaken as part of any noted roofing repairs. Inspect for lifted or degraded flashings and refix and reseal as required. Roofing material is not original and may be replaced like-for-like as required	Assume 10% flashing and 100% ridge fixings to be replaced	3	
Chimneys	Seven masonry chimneys (four double flue and three sing). Chimneys feature sections of rendered banding and painted masonry with terracotta chimney pots. Review only available from ground, adjacent verandah and one ceiling hatch at the time of inspection	C – Fair Where visible	Significant organic build up and deterioration to rendered banding likely facilitating water ingress. Unknown if chimney pots have been blocked externally	Undertake detailed structural inspection of all chimneys as part of any noted roofing repairs. Clean back organic growth and repair any cracked, loose, or drummy render to match. Repoint masonry like-for-like and consider removal of paint from all face brick surfaces	7	2	
			Roof space review of chimneys only possible to partial surfaces of G-02 and G-03 due to access and pigeon activity, minor pointing deterioration noted	Undertake detailed structural inspection of all chimneys following removal of pigeon infestation. Repoint and repair like-for-like as required	7	2	
			Pigeon activity appears to be concentrated around the chimney to room G-06 and G-07	Review area for likely pigeon access points and repair to prevent re-entry	1	1	

Location: EXTERNAL: ROOF			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Images
Rafters, purlins and battens	Access only possible above room G-02 due to pigeon activity. In these areas structure consisted of Jarrah roof framing members. Coupled roof framing layout with jarrah ceiling battens and collar ties	B – Good Where visible	None noted	Refer to structural engineer's advice Ensure repairs or replacement is like-for-like wherever possible	-	-	
Gutters	Metal half round profile gutters assumed replacement fabric. Not all areas visible due to available roof access on day of inspection	D – Poor	All gutters significantly blocked with organic material	Clear all gutters of organic material	100%	1	
			Rusted out guttering to eastern bay window Guttering detached above main entry door	Replace all rusted out and deteriorated sections of guttering. Consider long term replacement of all guttering with profile to match original	10%		
Downpipes	Circular profile metal downpipes, generally painted to match adjacent wall or column. Downpipes generally expel to in ground sumps but some expel directly to ground. Splitters noted from upper roofs dispelling to lower roof surfaces	C/D – Fair/Poor	Splitter outlet detached from roof	Replace all rusted out, deteriorated or missing sections of downpipe	30%	1	
			Downpipe to western corner partially missing				
			Downpipe to eastern corner corroded				

Location: EXTERNAL: ROOF			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Images
			Downpipe sumps generally blocked with organic material, others have no sump and expel to bricks or garden beds	Install rainwater sump boxes at all downpipes connected to a piped sub-soil drainage system to ensure all roof runoff is taken away from the building and prevents soil saturation. Refer also to structural	100%	2	
			Paint to all downpipes is significantly deteriorated	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on original finishes	100%	3	
Verandah roof structure	Timber hardwood framing	B – Good	None noted	Refer to structural engineer's advice Ensure repairs or replacement is like-for-like wherever possible	100%	4	
Fascia, bargebords and trims	Timber, painted white	D – Poor	Significant timber deterioration noted to gable ends, paintwork deteriorated to all timber roof finishing elements	Remove paint that is loose and friable back to sound face to allow repainting Where timbers are deteriorated beyond repair, replace to match like-for-like Prepare and repaint, with colour to match or based on original finishes	Painting 100% Replace 10%	2	
Soffits and eaves	Timber slats, painted white	C/D – Fair/Poor	Minor instances of detached or deteriorated timbers noted paint finish deteriorated to all	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on original finishes	100%	3	

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Location: NORTH EXTERNAL ELEVATION			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
Walls	Rendered masonry painted pink	C – Fair	Cracking noted at north west corner	Refer to structural Following structural repairs, make good finishes to match like-for-like or consider return to original finishes where possible	15%	2	
			Low level brickwork decay noted to north east corner near known plumbing leak to adjacent garden bed. Deterioration appears to be isolated below visible DPC	Isolate and repair plumbing issues before undertaking like-for-like repairs to brickwork and pointing	10%	2	
Windows	Timber framed painted white. Four fixed panel obscured glazing windows to bathrooms, four double hung sash windows to other rooms	C – Fair	Paintwork to windows is worn but generally sound.	Repair where necessary to ensure windows are watertight. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	8	3	
Doors	Four single leaf timber doors, all painted white One double leaf timber door with inset glazed panels, painted white	B – Good	Paintwork to doors is worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	
Floors	External brick paving (not original) hard set against building to full length other than where a garden bed is situated to the easternmost corner	B – Good	Low level moisture noted to base of walls generally	Provide breathing strip between external wall face and any areas of hardscaping or landscaping	100%	3	

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Other Features	Timber framed verandah with decorative timber columns painted white	C – Fair	Paintwork to timber is significantly deteriorated.	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes Stirrups to column bases appear sound but should be inspected as part of any surrounding paving or earthworks	100%	2	
Footings	Not visible	Unknown	Refer to structural	Refer to structural engineer's advice	100%	1	N/A

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Location: EAST EXTERNAL ELEVATION			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
Walls	Rendered masonry painted pink	C – Fair	Cracking noted to external wall of G-03	Refer to structural Following structural repairs, make good finishes to match like-for-like or consider return to original finishes where possible	>10%	3	
			Low level damp and brickwork decay noted below verandah structure	Repair rainwater disposal issues before undertaking like-for-like repairs to brickwork and pointing Provide breathing strip between external wall face and any areas of hardscaping or landscaping	10%	2	
Windows	One double hung timber framed sash window to G-11 Three bay timber frame sash windows with fixed panel transoms above to G-03. All framing painted white	E – Very Poor	Evidence of water ingress and significant deterioration of timber joinery and paint finishes Cracking to rendered sill	Clean back organic growth and repair any cracked, loose, or drummy render to match. Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes No obvious evidence of termite activity however closer inspection should be undertaken when closer access is available	100%	2	
Doors	One single leaf timber door, painted white Hardware remains in situ and is a mix of new and old	B – Good	Paintwork to doors is worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	N/A
Floors	Timber decking to southern vernadah	C – Fair	Timber is deteriorated but appears to be generally sound and trafficable	Undertake detailed underfloor inspection as part of any repair works. Termite activity was noted to the western end of the verandah and all elements should be checked and treated accordingly	100%	1	

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				Retain and refinish timbers to decking, if any elements are found to be deteriorated beyond repair undertake like for like replacement before sanding decking timbers back to sound face and oiling	100%	2	
Other Features	Timber verandah structure to southern end of elevation	D – Poor	Timber deterioration to base of columns and significant deterioration of paint finishes	Repair rainwater disposal issues before repairing and refinishing timber work like-for-like Repair columns to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match Undertake termite inspection to all elements	100%	2	
Footings	Not visible	Unknown	Refer to structural	Refer to structural	100%	1	N/A

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Location: SOUTH EXTERNAL ELEVATION			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
Walls	Rendered masonry painted pink	E – Very Poor	Significant cracking noted throughout, particularly to low height masonry walls supporting verandah structure	Refer to structural Following structural repairs, make good finishes to match like-for-like or consider return to original finishes where possible	50%	1	
Windows	Three sets of three bay timber frame sash windows with fixed panel transoms above, one to each gable end. All framing painted white. Fly screening attached externally to all windows	C – Fair	Paintwork to windows is worn but generally sound.	Repair where necessary to ensure windows are watertight. Remove broken flyscreens Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	3	3	
			Corroded lintels over bay windows	Remove loose or drummy render. Brush back paint coatings and areas of corrosion. Apply zinc rich protective coating and refinish to match like-for-like	3	2	
Doors	One double timber door with glazed inset panels to verandah, painted white One single leaf timber door, painted white with feature glass panels to sidelights and transom	C – Fair	Minor chips and cracking to feature glazing sidelight panels	Glazing panels are highly significant, investigate ability to remove and refurbish offsite during corrective structural works to ensure they are protected. Replace cracked glass panels like-for-like and reinstate	1	3	
			Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	

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	One set of double metal gates to verandah breezeway		Corrosion to breezeway gates	Brush back paint coatings and areas of corrosion. Apply zinc rich protective coating and refinish to match like-for-like	1	3	
Floors	Timber decking to vernadah	Varied E – Very Poor to western end to C – Fair at eastern end	Timber to western end has failed with evidence of termite attack and water damage. Timber elsewhere is deteriorated but appears to be generally sound and trafficable	Undertake detailed underfloor inspection as part of any repair works. Termite activity was noted to the western end of the verandah and all elements should be checked and treated accordingly	100%	1	
				Replace decking and structural timbers to western end of verandah like for like	20%	1	
				Retain and refinish remaining timbers to decking, if any elements are found to be deteriorated beyond repair undertake like for like replacement before sanding decking timbers back to sound face and oiling	100%	2	
Other Features	Timber verandah structure to southern end of elevation	D – Poor	Timber deterioration to base of columns and significant deterioration of paint finishes	Repair rainwater disposal issues before repairing and refinishing timber work like-for-like Make columns to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match Undertake termite inspection to all elements	100%	2	
	Masonry and cement entry staircase	C – Fair	Stairs appear sound however masonry piers are detached with significant cracking noted	Refer to structural Following structural repairs, make good finishes to match like-for-like or consider return to original finishes where possible	2	4	
Footings	Not visible	Unknown	Refer to structural	Refer to structural	100%	1	N/A

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Location: WEST EXTERNAL ELEVATION			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
Walls	Rendered masonry painted pink	C – Fair	Cracking noted at north west corner	Refer to structural Following structural repairs, make good finishes to match like-for-like or consider return to original finishes where possible	15%	2	
Windows	Two double hung timber framed sash windows. All framing painted white	C – Fair	Paintwork to windows is worn but generally sound.	Repair where necessary to ensure windows are watertight. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	N/A
Doors	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Floors	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other Features	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Footings	Not visible	Unknown	Refer to structural	Refer to structural	100%	1	N/A

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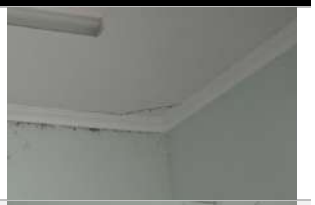
Location: Undercliffe House			Room Number: G-01				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	C – Fair	Cracking to corridor corner adjacent to external door Cornice cracking to south wall	Isolate pigeon entry point and remove active infestation and associated debris from roof space Repair and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted light green Timber skirting, painted white	C – Fair	Cracking from door to south corner ceiling Cracking from door to fireplace Vertical cracking from missing corbel to floor	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	One timber framed double hung sash window to external breezeway, painted white Hardware remains in situ Operability unknown	B – Good	Damage to framing likely relating to former blinds Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Fill holes to joinery, prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	
Doors	Double timber doors, painted white Hardware remains in situ Operability unknown	B – Good	Paintwork to doors is worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	As above
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Location: Undercliffe House			Room Number: G-01				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Electricals	Two fluorescent lights – not original	D - Poor	Lights are not operational	Review electrical circuits to the entire property Replace with new light fittings in keeping with the original design of the house	2	3	N/A
Other	Timber fireplace mantle, unpainted. Concrete hearth	C – Fair	Timber hearth surrounds are detached, and timberwork is worn but generally sound	Reinstate timber hearth surrounds. Clean dirt and debris from mantle surrounds and refinish to match existing	1	3	
	Corbel detail to corridor	E – Very Poor	One of the two corbel details is missing	Reinstate to match remaining detail	1	4	

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Location: Undercliffe House			Room Number: G-02				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	B – Good	Cornice is partially detached to the north and south walls, with debris settlement below from pigeon movement in the roofspace	Isolate pigeon entry point and remove active infestation and associated debris from roof space Repair and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted light green	C – Fair	Minor cracking to south wall and at juncture with door Evidence of efflorescence and render deterioration below northern window	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	One timber framed double hung sash window to external breezeway, painted white Hardware remains in situ Not operable	C – Fair	Minor glazing cracking Paintwork to window framing worn but generally sound.	Replace cracked glazing and ensure window is watertight. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	2	
Doors	Two single leaf timber doors, both painted white Hardware remains in situ. Hardware to external door is new	B – Good	Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	
Floors	Linoleum over concrete	D - Poor	Floor covering is worn and close to end of life	Remove linoleum and inspect floor condition Recover floor to suit functionality of the space	100%	3	

Location: Undercliffe House			Room Number: G-02				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Fixtures and Fittings	Kitchen fitout – not original	D - Poor	Fitout is worn and reaching end of life	Kitchen may be removed or replaced as required to suit the use	100%	3	
Electricals	One fluorescent light – not original Two GPOs above kitchen	B – Good	Appear operational	N/A	N/A	N/A	
Other	Fireplace, no mantle or visible hearth, chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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Location: Undercliffe House			Room Number: G-03				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Moulded plasterglass, painted	D – Poor	Ceilings are visibly bowing out from the centre Cornices have separated and dropped to the eastern corners of the room	Isolate pigeon entry point and remove active infestation and associated debris from roof space Retain existing ornate ceiling. Prop, restrap ceilings and refix cornices before making good finishes like-for-like	100%	1	
Walls	Rendered masonry, painted light green	D – Poor	Significant cracking to western wall and around juncture with door Cracking over arch to bay window	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	Three bay timber frame sash windows with fixed panel transoms above, painted white	D – Poor	Evidence of water ingress and significant deterioration of timber joinery	Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes No obvious evidence of termite activity however closer inspection should be undertaken when closer access is available	100%	2	
Doors	One double timber door with glazed inset panels to verandah, painted white Two single leaf internal timber doors, both painted white Hardware remains in situ and is a mix of new and old	C – Fair	Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	3	3	

Location: Undercliffe House			Room Number: G-03				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Electricals	One fluorescent light – not original One GPOs visible near fireplace	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	Timber fireplace mantle, painted white. Tiled hearth. Chimney boarded up	C – Fair	Streaking to rear face of fireplace suggests there is some level of water ingress occurring from the chimney above	Consider reinstatement of chimney function, if this does not suit intended future function then ensure chimney is adequately blocked externally to ensure water ingress does not occur	1	2	

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Location: Undercliffe House			Room Number: G-04				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	B – Good	Minor separation noted to cornices	Isolate pigeon entry point and remove active infestation and associated debris from roof space Repair and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted light green	C – Fair	Cracking to western wall to internal corridor	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Doors	One single leaf timber door with glazed inset panels to verandah, painted white One single leaf internal timber door, painted white Hardware remains in situ	C – Fair	Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	3	3	
Floors	Linoleum over timber	C – Fair	No major defects noted however linoleum finishes impede detailed inspection of the floorboards and underfloor area	Remove linoleum and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	Sink installed to the southern wall – not original	B – Good	N/A	Remove intrusive fabrc	1	5	

Location: Undercliffe House			Room Number: G-04				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Electricals	One fluorescent light – not original Two GPOs visible to north wall	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	Timber fireplace mantle, painted white. Tiled hearth. Chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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Location: Undercliffe House			Room Number: G-05				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Moulded plasterglass, painted	C – Fair	Some deflection noted to moulded feature elements Cracking and deflection to cornices particularly around the bay windows	Isolate pigeon entry point and remove active infestation and associated debris from roof space Retain existing ornate ceiling. Prop, restrap ceilings and refix cornices before making good finishes like-for-like	100%	1	
Walls	Rendered masonry, painted light green	C – Fair	Cracking to north wall with significant render loss	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
	Timber stud wall to internal corridor (west wall)	B – Good	N/A	Not original, consider removal and reinstatement of open entry reception room	1	4	
Windows	Three bay timber frame sash windows with fixed panel transoms above, painted white Hardware in situ, not operable	C – Fair	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	100%	3	
Doors	One single leaf internal timber door, painted white Hardware remains in situ	C – Fair	Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	

Location: Undercliffe House			Room Number: G-05				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	Airconditioning unit to east wall – intrusive element	Unknown	Not tested	Remove redundant services where possible and make good finishes	1	5	
Electricals	One fluorescent light – not original Switchboard One GPOs visible to south wall	B – Good	Lights operational, switchboard not tested	N/A	N/A	N/A	N/A
Other	Timber fireplace mantle, painted white. Tiled hearth. Chimney boarded up	B – Good	Debris within fireplace suggests there is some level of ongoing water ingress occurring from the chimney above	Consider reinstatement of chimney function, if this does not suit intended future function then ensure chimney is adequately blocked externally to ensure water ingress does not occur	1	2	
Central Corridor	One single leaf timber door, painted white with feature glass panels to sidelights and transom Hardware remains in situ	C – Fair	Minor chips and cracking to feature glazing sidelight panels	Glazing panels are highly significant, investigate ability to remove and refurbish offsite during corrective structural works to ensure they are protected. Replace cracked glass panels like-for-like and reinstate	1	2	
			Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	2	

Location: Undercliffe House			Room Number: G-05				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
	Archways with moulded capitals	B – Good	N/A	Monitor condition and detailing during corrective structural works	2	N/A	

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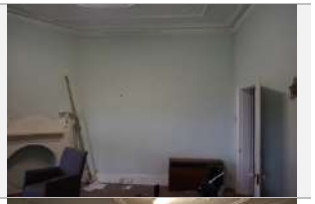
Location: Undercliffe House			Room Number: G-06				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Moulded plasterglass, painted	C – Fair	Ceilings are visibly bowing out from the centre, deflection noted to moulded feature elements Cracking and deflection to cornices particularly over windows	Isolate pigeon entry point and remove active infestation and associated debris from roof space Retain existing ornate ceiling. Prop, restrap ceilings and refix cornices before making good finishes like-for-like	100%	1	
Walls	Rendered masonry, painted light green	C – Fair	Cracking near bay window and to eastern wall	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	Three bay timber frame sash windows with fixed panel transoms above, painted white Full height sash window to external verandah Hardware in situ, not operable	C – Fair	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	100%	3	
Doors	One single leaf internal timber door, painted white Hardware remains in situ	C – Fair	Paintwork to doors are worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	N/A
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	Space heater	Unknown	Not tested	Remove redundant services where possible and make good finishes	1	5	N/A

Location: Undercliffe House			Room Number: G-06				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Electricals	One fluorescent light – not original Multiple GPOs visible	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	Timber fireplace mantle, painted white. Tiled hearth. Chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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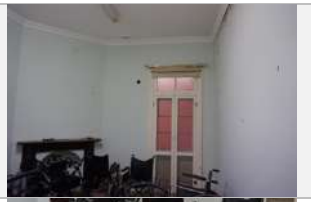
Location: Undercliffe House			Room Number: G-07				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	C – Fair	Minor separation noted to cornices	Isolate pigeon entry point and remove active infestation and associated debris from roof space Repair and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted light green	C – Fair	Cracking to south wall and above fireplace	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	N/A	N/A	N/A	N/A	N/A	N/A	
Doors	One double timber door with glazed inset panels to verandah, painted white One single leaf internal timber door, painted white	C – Fair	Missing hardware Paintwork to door is worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes Reinstate hardware to match original	2	3	
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	N/A	N/A	N/A	N/A N/A	N/A	N/A	
Electricals	One fluorescent light – not original No visible GPOs	B – Good	Appear operational	N/A	N/A	N/A	

Location: Undercliffe House			Room Number: G-07				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Other	Timber fireplace mantle, unpainted. Tiled hearth. Chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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Location: Undercliffe House			Room Number: G-08				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Pressed metal panels, painted white	B – Good	Isolated rusting to eastern side of ceiling	Isolate pigeon entry point and remove active infestation and associated debris from roof space Retain existing ornate ceiling. Prop and refix ceilings, brush back areas of corrosion and make good finishes like-for-like	100%	1	
Walls	Rendered masonry, painted light purple	C – Fair	Cracking noted throughout	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	Two timber framed double hung sash windows, painted white Hardware remains in situ Not operable	C – Fair	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	1	3	
Doors	One single leaf internal timber door, painted white Hardware remains in situ	C – Fair	Paintwork to door is worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	
Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	Space heater Built in cabinetry	Unknown	Not tested	Remove redundant services where possible and make good finishes	1	5	

Location: Undercliffe House			Room Number: G-08				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Electricals	Two fluorescent lights – not original GPOs visible to cabinetry	B – Good	Appear operational	N/A	N/A	N/A	
Other	Timber fireplace mantle, painted white. Chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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Location: Undercliffe House			Room Number: G-09				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Pressed metal panels, painted white	B – Good	Isolated rusting to ceiling around fireplace	Isolate pigeon entry point and remove active infestation and associated debris from roof space Retain existing ornate ceiling. Prop and refix ceilings, brush back areas of corrosion and make good finishes like-for-like	100%	1	
Walls	Rendered masonry, painted light purple	C – Fair	Cracking noted throughout	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	
Windows	Three bay timber frame sash windows with fixed panel transoms above, painted white Full height sash window to external verandah Hardware in situ, not operable	C – Fair	Evidence of water ingress and minor joinery deterioration Paintwork to window framing worn but generally sound.	Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes No obvious evidence of termite activity however closer inspection should be undertaken when closer access is available	100%	3	
Doors	Two single leaf internal timber doors, painted white Hardware remains in situ	C – Fair	Paintwork to door is worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	

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Floors	Timber floors, carpeted	C – Fair	No major defects noted however carpet finishes and stored materials impede detailed inspection of the floorboards and underfloor area	Remove deteriorated carpets and inspect floor finishes and underfloor structure Install floor inspection hatches if none are present and review condition of underfloor structure including presence of pest and deterioration, treat and make good any issues noted Reinstate original timber floor finishes	100%	2	
Fixtures and Fittings	Sink to southern wall	N/A	Element is intrusive	Removal and making good of finishes recommended	1	5	
Electricals	One fluorescent light – not original Multiple GPOs visible	B – Good	Appear operational	N/A	N/A	N/A	
Other	Timber fireplace mantle with feature tiled surrounds, unpainted. Chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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Location: Undercliffe House			Room Number: G-010				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	C – Fair	Minor deflection of cornices	Isolate pigeon entry point and remove active infestation and associated debris from roof space Refix and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted light green Timber skirting, painted white	C – Fair	Minor cracking noted	Refer to structural advice Following structural repairs, make good finishes to match like-for-like or based on paint scrape analysis of original finishes	20%	2	N/A
Windows	Two timber framed double hung sash windows, painted white Hardware remains in situ Operability unknown	B – Good	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	
Doors	Two single leaf internal timber doors, painted white Hardware remains in situ	B – Good	Paintwork to door is worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	
Floors	Concrete floors, carpeted	C – Fair	Floor covering is worn and close to end of life	Remove carpet and inspect floor condition Recover floor to suit functionality of the space	100%	3	
Fixtures and Fittings	Airconditioning unit	Unknown	Not tested	Remove redundant services where possible and make good finishes	1	5	

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Location: Undercliffe House			Room Number: G-010				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Electricals	One fluorescent light – not original Multiple GPOs visible	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	Fireplace, no mantle or visible hearth, chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	

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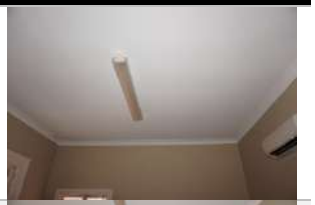
Location: Undercliffe House			Room Number: G-011				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	B – Good	No defects noted	Isolate pigeon entry point and remove active infestation and associated debris from roof space Refix and refinish ceilings. If necessary following removal of pigeons, ceilings in this room may be replaced to match existing	100%	2	
Walls	Rendered masonry, painted beige Timber skirting, painted white	B – Good	Minor paint bubbling and indications of low level damp noted to northern and eastern walls. Known water leak to adjacent eastern garden bed and visible brickwork deterioration externally.	Isolate and repair plumbing issues before undertaking like-for-like repairs to brickwork and internal finishes	10%	2	
Windows	Two timber framed double hung sash windows, painted white Hardware remains in situ Operability unknown	B – Good	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	
Doors	Two single leaf timber doors, painted white Hardware remains in situ	B – Good	Paintwork to door is worn but generally sound	Remove paint that is loose and friable back to sound face to allow repainting Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	2	3	
Floors	Concrete floors, carpeted	C – Fair	Floor covering is worn and close to end of life	Remove carpet and inspect floor condition Recover floor to suit functionality of the space	100%	3	

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Fixtures and Fittings	Airconditioning unit Built in sink and tiled splashback	Unknown	Not tested	Remove redundant services where possible and make good finishes	1	5	
Electricals	One fluorescent light – not original Multiple GPOs visible	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	Fireplace, no mantle or visible hearth, chimney boarded up	B – Good	N/A	Consider reinstatement of chimney function	1	5	N/A

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Location: Undercliffe House			Room Number: G-012				
Area	Description	Condition	Defect Location	Work to Rectify defect	Extent	Priority Ranking	Typical Images
Ceiling	Plain plasterboard with simple moulded cornices, painted white	C – Fair	Water ingress noted above sink	Clear external gutters and ensure rainwater systems are performing adequately. Repair and make good damage to ceilings Ceilings in this area are not significant and may be replaced or refinished as required	20%	2	
Walls	Rendered masonry, painted grey	B – Good	No defects noted	N/A – Fabric in this area is not significant and may be replaced or refinished as required	-	-	N/A
Windows	One timber framed double hung sash window, painted white Four timber framed fixed panel obscured glazing windows, painted white	C – Fair	Paintwork to window framing worn but generally sound.	Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to suit areas of significant fabric	2	3	
Doors	Two single leaf timber doors, painted white Hardware remains in situ	B – Good	No defects noted	N/A	-	-	N/A
Floors	Bathroom fitout	B – Good	No defects noted	N/A	-	-	N/A
Fixtures and Fittings	Bathroom fitout and fixtures	C – Fair	Fixtures are worn	Bathroom fitout is not significant, replace to suit future occupation	100%	4	N/A
Electricals	Fluorescent lights to each cubicle area – not original	B – Good	Appear operational	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B: Structural Condition Assessment Report.

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1 Observation Summary

ACOR Consultants was engaged to undertake a high-level structural condition report for Undercliffe house located at 22 Coongan Ave, Greenmount. The purpose of the inspection was to identify structural issues which may affect the heritage conservation of the structure and provide high-level remedial methodologies that will form the basis of a detailed remediation and conservation scope of works. The scope of the inspection was limited to the elements that were visible and safely accessible at the time of inspection. No sampling, testing or invasive inspections were undertaken as part of the works.

The principal observations of the structural inspection were as follows:

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

All specifications in the remediation section are based on current information, which is observed and inferred from the recent site inspection and shall be confirmed after a comprehensive structural design. The remediation methodology may be changed due to updated information once the removal of damaged elements or invasive investigations have been carried out.

This report shall not be construed as a design assessment of the existing structure and does not relieve the original designers of their responsibility to align to the requirements of the standards relevant at the time of construction.

2 Inspection Observations

Location: GENERAL POINTS			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Images**
Roof Cladding	“Colorbond Custom Orb” or						
Roof Structure							

Location: GENERAL POINTS			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Images**
Ceiling Structure		D					
Floor structure							
Foundations		D					

Location: NORTH ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Walls	M D		2	 			
Roof Plumbing	d D						

Location: NORTH ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Storm water drainage							See above.

Location: EAST ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Walls	M r d d r p r		r R d r p r d d r p r d r pp r d R p r r r				p
Roof Plumbing	r		r d r d r r	r			
Storm water drainage	D p p r d d r r p dr p p p p r dr d		dr	d r p p p p r d			Not accessible

Location: SOUTH ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Walls	M r d r r d d d r d pp d r	D	r r d r r d r d d d d r r r d r r r r pp d r	R p r r p r d d p r d R d r p r d d r r p r d R p r r			
Windows	r d d d		pp r r r r d r d d	R p r d p r r d r p r r pr r	d		

Location: SOUTH ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Roof Plumbing							
Storm water drainage							

Location: WEST ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Walls	M r d r p r d d p p r d d p r d d p r d d

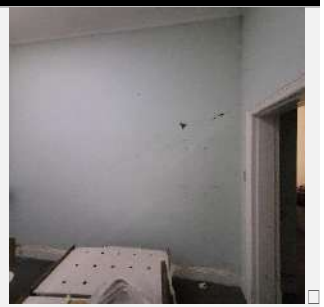
Location: WEST ELEVATION			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Storm water drainage							See above

Location: SOUTHERN VERANDAH			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Structural Framing							
Walls							
Decking boards							

Location: SOUTHERN VERANDAH			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Decking Structure							
Other Features							
Footings	Footings were not visible for low height wall or garden bed wall. Assumed shallow concrete strip footings						

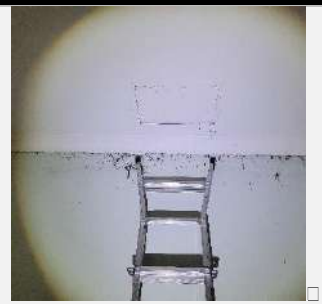
Location: SOUTHERN VERANDAH			Building Number: B-01 Undercliffe House				
Area	Description	Condition	Defect Location	Work to Rectify Defect	Extent	Priority Ranking	Typical Image
				R p d d r r p r d rd d			

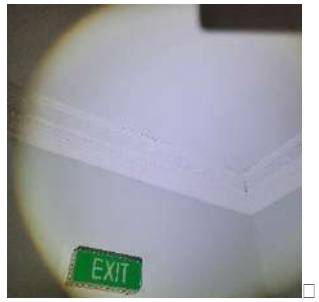
Location: NORTHERN VERANDAH			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Structural Framing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Footings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Location: ROOM G01			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M	D		R			
East Wall	M	D		R			
South Wall	M	D		R			

Location: ROOM G01			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall							

Location: ROOM G02			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M		D				
East Wall	M			M			

Location: ROOM G02			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
South Wall	M			M			
West Wall	M		D M				

Location: ROOM G03			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Ceiling	P[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
North Wall	M[illegible]	[illegible]	[illegible]	R[illegible]	[illegible]	[illegible]	

Location: ROOM G03			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
East Wall	M			R			
South Wall	M	D		R			

Location: ROOM G03			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall	M	D		R		2	

Location: ROOM G04			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M	D		R			
East Wall	M			M			
South Wall	M	D		R			

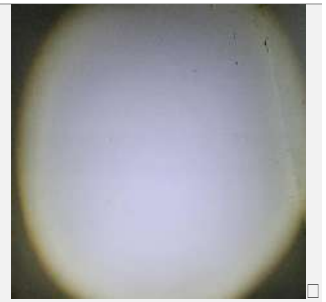
Location: ROOM G04			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall	M	D		R			

Location: ROOM G05			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M r r	D	r r d p r r	R p r r d r p r d d R p r r d r p r d R p r r M r r d r r d			
East Wall	M r r		r r d	M r r r r d			
South Wall	M r r		r d	R r d r r r r R p r r r r p r d r r r r p r d r r p M r r d r r d			

Location: ROOM G05			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall							

Location: ROOM G06			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M	D		R			
East Wall	M	D		R			

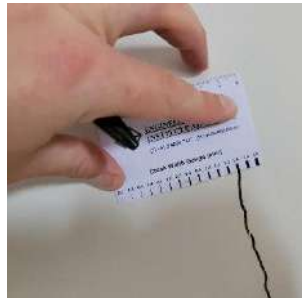
Location: ROOM G06			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
South Wall	M			M			
West Wall	M		R				

Location: ROOM G07			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M			M			
East Wall	M	D	D	R			
South Wall	M	D		R			

Location: ROOM G07			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall	M	D					

Location: ROOM G08			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M	D					
East Wall	M	D					

Location: ROOM G08			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
South Wall	M	D	D	R			

Location: ROOM G08			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall	M	D		R			

Location: ROOM G09			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
Ceiling	Pr[illegible]d[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
North Wall	M[illegible]r[illegible]	D[illegible]	[illegible]	R[illegible] M[illegible]	[illegible]	[illegible]	

Location: ROOM G09			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
East Wall	M r r	D	r r r r d r r pp d d d d r d r r r r

Location: ROOM G09			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
West Wall	M	D		R			

Location: ROOM G10			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M□□□□r□□□ □□□□	□□	□ □□□□□

Location: ROOM G11			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M□□□□r□□□ □□□□	□□	□ □□□□□

Location: ROOM G12			Building Number: B-01 Undercliffe House				
Area	**Description**	**Condition**	**Defect Location**	**Work to Rectify Defect**	**Extent**	**Priority Ranking**	**Typical Image**
North Wall	M□□□□r□□□ □□□□	□□	□ □□□□□

Appendix A General Arrangement and Site Notes

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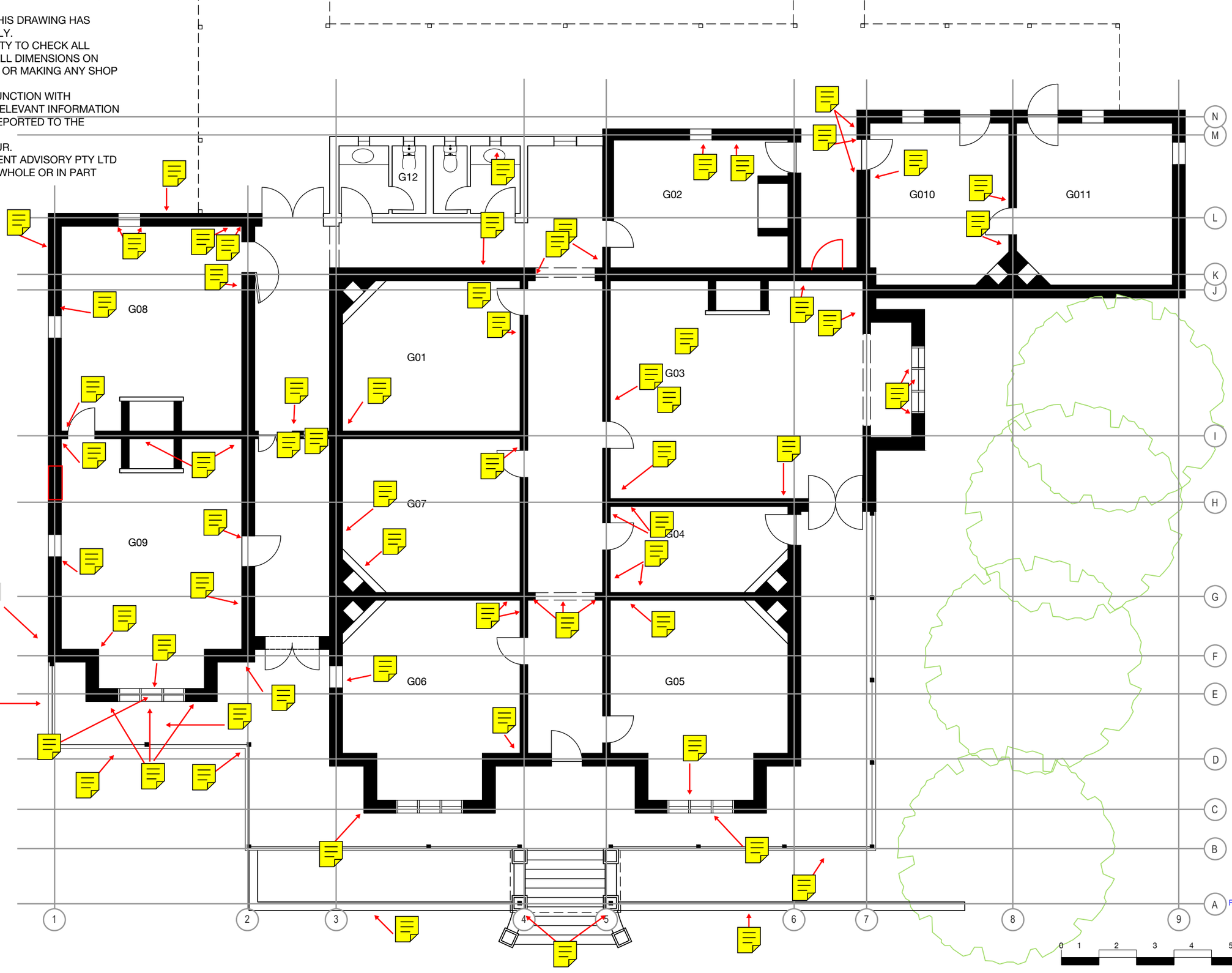

SKETCH PLAN
NOT TO SCALE

"UNDERCLIFFE"

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

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DRAWING NUMBER: SK 01

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ISSUED FOR SITE MARKUP

Project:	"UNDERCLIFFE"	Drawing No:	SK 01
Drawing Title:	SKETCH PLAN	Scale@A3:	NTS
Date:	NOV 2023	Drawn:	KH
Client:	REGIS AGED CARE PTY LTD	Checked:	NM
Job No:	23-378	Revision:	A

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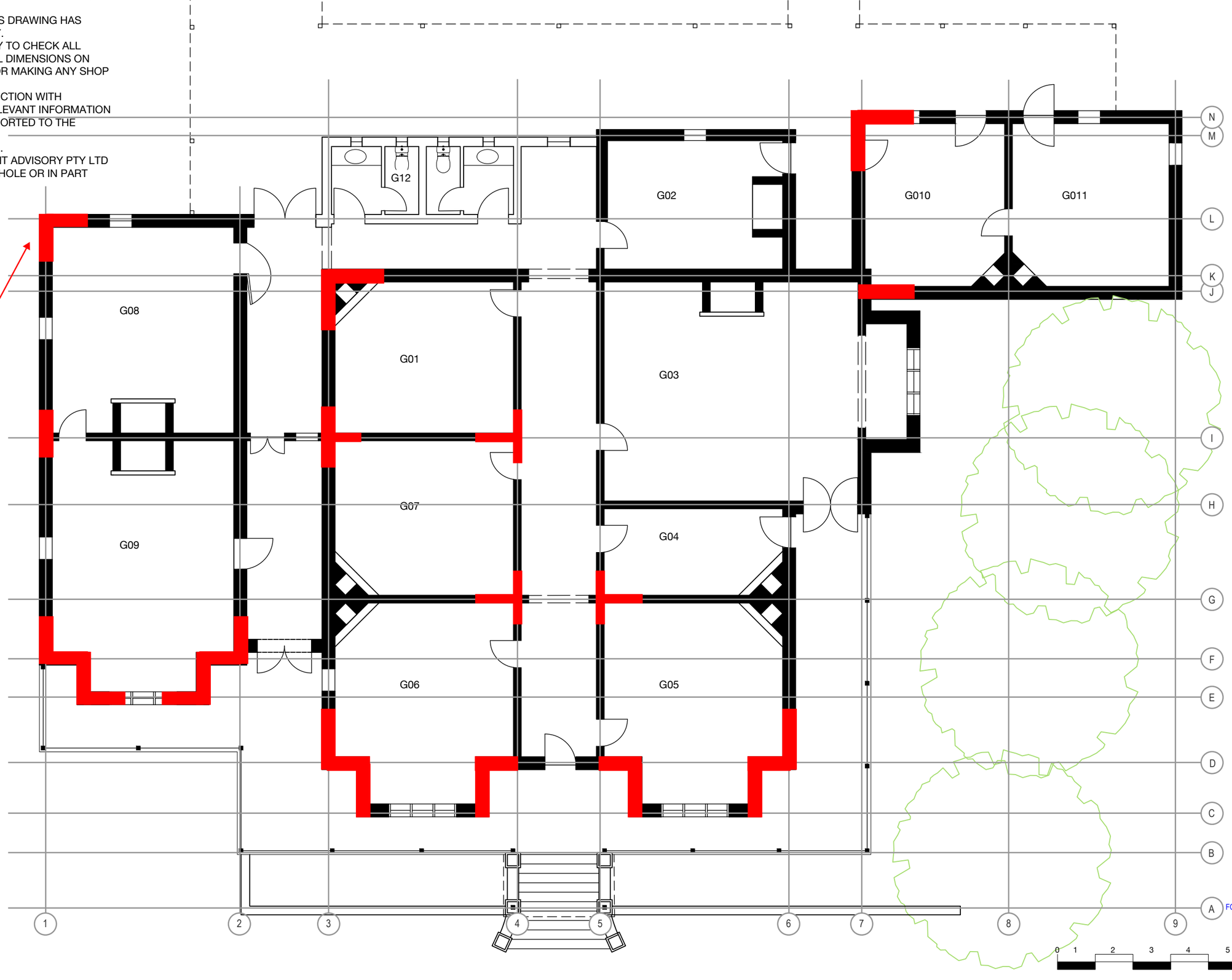
RED AREAS DENOTE ESTIMATED LOCATIONS OF GROUT INJECTION.

A DETAILED FOUNDATION SURVEY IS REQUIRED PRIOR TO WORKS COMMENCING.

MONITOR WALLS FOR CRACKING DURING RESIN INJECTION AND HALT WORK IF CRACKING IS FOUND TO BE WIDENING OR NEW CRACKING FORMS.



SKETCH PLAN
NOT TO SCALE

"UNDERCLIFFE"

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

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Drawing Title:	SKETCH PLAN
Date:	NOV 2023
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Job No:	23-378
Drawing No:	SK 01
Scale@A3:	NTS
Drawn:	KH
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SKETCH PLAN
NOT TO SCALE

"UNDERCLIFFE"

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

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Project:	"UNDERCLIFFE"
Drawing Title:	SKETCH PLAN
Date:	NOV 2023
Client:	REGIS AGED CARE PTY LTD
Job No:	23-378
Drawing No:	SK 01
Scale@A3:	NTS
Drawn:	KH
Checked:	NM
Revision:	A

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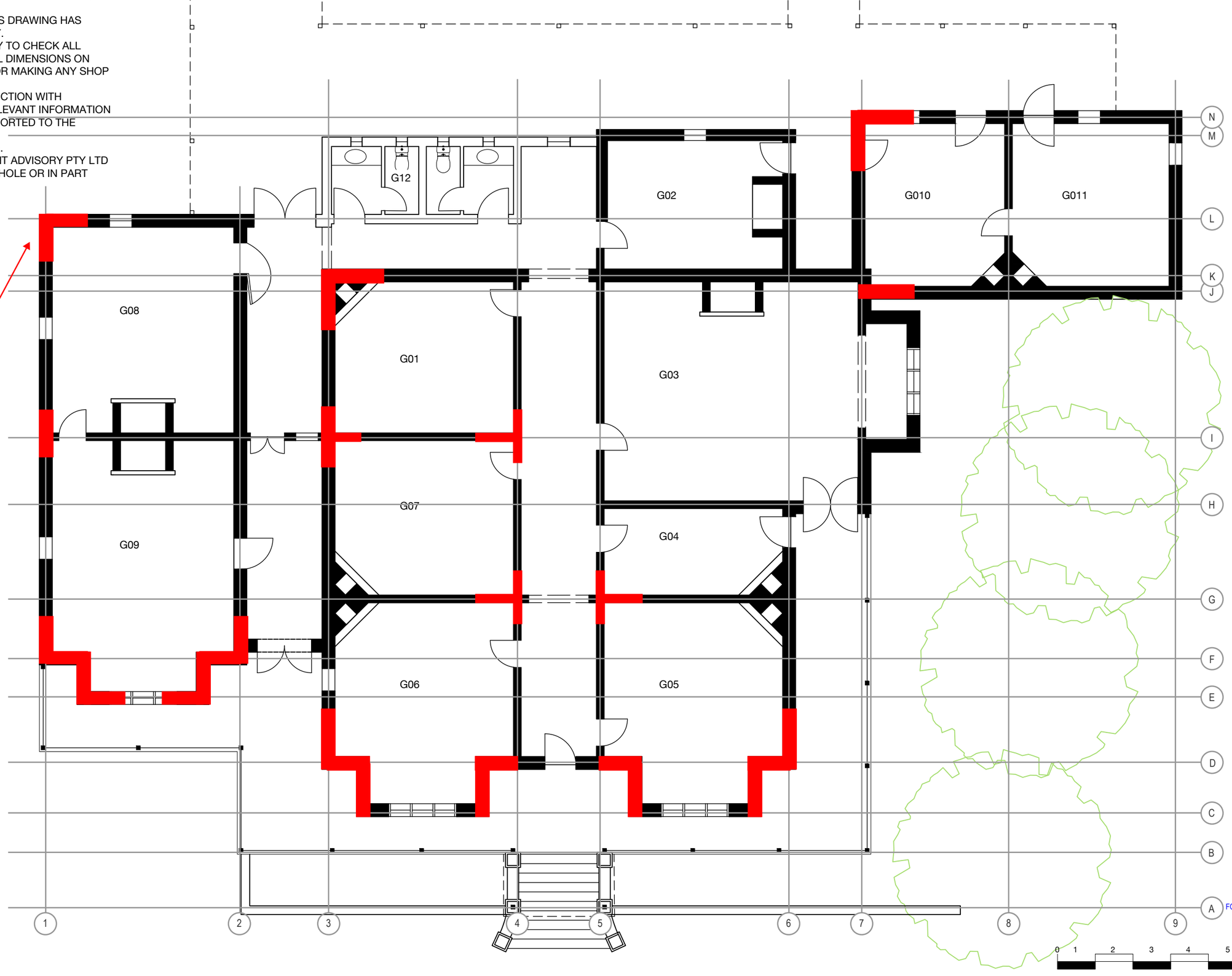
A DETAILED FOUNDATION SURVEY IS REQUIRED PRIOR TO WORKS COMMENCING.

MONITOR WALLS FOR CRACKING DURING RESIN INJECTION AND HALT WORK IF CRACKING IS FOUND TO BE WIDENING OR NEW CRACKING FORMS.



SKETCH PLAN
NOT TO SCALE

"UNDERCLIFFE"

REGIS GREENMOUNT

22 COONGAN AVE, GREENMOUNT

© Element Advisory WA Pty Ltd

DRAWING NUMBER: SK 01

DRAFT

ISSUED FOR SITE MARKUP

Project:	"UNDERCLIFFE"
Drawing Title:	SKETCH PLAN
Date:	NOV 2023
Client:	REGIS AGED CARE PTY LTD
Job No:	23-378
Drawing No:	SK 01
Scale@A3:	NTS
Drawn:	KH
Checked:	NM
Revision:	A

AC OR CONSULTANTS

KJ - Sketch 17/11/2023

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Appendix C: Quantity Surveyor Costing

QUANTITY SURVEYORS

HW & Associates
ABN 62 650 513 410
Suite 88
City West Centre
102 Railway Parade
WEST PERTH WA 6005
Ph: (08) 9321 0102

23084380.002

20 December 2023

Element
L18, 191 St Georges Terrace
Perth WA 6000

Attention: Alana Jennings

Dear Alana,

UNDERCLIFFE HOUSE – CONSERVATION WORKS
INDICATIVE COST ESTIMATE – ITEMISED COST ESTIMATE

We have reviewed the drawings and scope for the proposed conservation works outlined in the conservation management strategy completed by Element and the structural condition assessment completed by Acor for the Undercliffe House at 22 Coongan Avenue, Greenmount. Please find attached a copy of the Priority Scope Breakdown Cost Schedule and detailed estimate.

The following cost summary outlines all works identified within each of the Priority Rankings (1-5), as outlined within the CMS and Structural reports. These values are inclusive of proportional preliminaries, and associated project costs:

Conservation Management Strategy

Priority Schedule

Urgent	$285,000
Short Term – External	$217,000
Short Term – Internal	$378,000
Medium Term – External	$173,000
Medium Term – Internal	$188,000
Long Term – External	$66,000
Long Term – Internal	$128,000
Desirable	$86,000

The following contractor and project costs have been applied, with escalation applicable based upon proposed implementation period:

- Preliminaries 25%
- Design Contingency 15%
- Construction Contingency 15%
- Authority Costs 0.5%
- Professional Fees 12%
- Management Fees/Client Costs 7 %
- Escalation Urgent 2.4% (6 months), Short Term 4.8% (1 year), Medium Term 9.3% (2 years), Long Term 13.2% (3 years), Desirable 16.2% (4 years)

Liam Tomlin M: 0434 611 782 E: LiamTomlin@HWAssociates.com.au
Brad Bell M: 0408 896 666 E: BradBell@HWAssociates.com.au

No advice has been received from electrical, hydraulic, and mechanical consultants, and as such we have priced theses trades base upon similar projects.

We also note the following qualifications;

- Relocation and storage of the existing loose furniture and equipment has been excluded and assumed to be completed by the client prior to conservation works commencing.
- The estimate has been complied with the assumption that all conservation management strategy work items within each of the implementation periods being completed as one package, should this not be the case and work items are completed separately or in smaller packages additional contractor and project costs would be applicable.
- The measurement are based upon the quantities and percentages given in the Scope of Works excel spreadsheet.
- Due to the high level nature of this investigation, our estimate is based upon assumptions of scope, generally outlined withing the detailed estimate.
- Escalation has been calculated based upon the AIQS forecast indices.
- Loose furniture & equipment, computing service & equipment, commissioning, relocation costs & disbursements and GST have all been excluded.

Whilst every effort has been made to produce an estimate that reflects fair and current market pricing, the industry is currently highly volatile. Shortages of tradesman and materials are creating significant fluctuations and may impact subcontractor pricing.

We trust this meets with your current needs.

Yours sincerely,

Liam Tomlin

UNDERCLIFFE HOUSE
CONSERVATION MANAGEMENT
STRATEGY

APPENDIX A

PRIORITY SCOPE BREAKDOWN

Undercliffe House, Conservation Management Strategy

Priority Scope Breakdown

The following recommended conservation works for the place are presented in priority order. The schedule was prepared based a visual inspection of the place carried out by element and Acor structural consultants in november 2023.

Where the condition of building fabric is described, this refers to the condition of significant architectural elements that can be ascertained by visual inspection. It is not a statement of structural condition other than where specialist advice has been provided by the structural engineer. It is in no way a certification of the inspected structure to the requirements of any acts or regulations. It is a reasonable attempt to identify any significant defects apparent at the time of the inspection which does not include areas that are concealed or obstructed.

Scope of Works	Notes	Time (Year)	Unit	Qty	Rate	Cost
1. URGENT						
Review roof cladding, flashings, eaves and chimneys to identify all points of pigeon ingress, repair and block access points and prevent ongoing occupation of roof spaces	Assumed access points are somewhere within central roof valley and chimneys adjacent to rooms G-06 and G-07. Allow for inspection of entire roof but likely repair of 10% of roof covering/flashings	0	m2	440		$ 12,200
Remove pigeon droppings from all roof spaces to reduce loading to ceilings		0	%	100		$ 11,000
Following removal of pigeons and droppings, prop and restrap ornate ceilings to G-03, G-05 and G-06, bolstering with additional ceiling joist members between support points if required. Refix cornices before making good finishes like-for-like		0	Item	3		$ 31,150
Refix and refinish ornate pressed metal ceilings to G-08 and G-09. Brush back areas of corrosion and make good finishes like-for-like. Allow to repaint both sides		0	Item	2		$ 11,200
Survey foundations and identify areas of subsidence. Subsidence should be stabilised via resin injection in targeted locations following the detailed survey. Significant subsidence may require underpinning or the installation of new foundations. Monitor all walls for movement during works and to ensure action is corrective	Refer also to structural plan and footings line items	0	%	100		$ 21,500
Replace corroded and missing downpipes and ensure water is directed away from the building		0	%	30		$ 5,000
Clean all gutters of organic material and replace all rusted out or deteriorated sections	Inspect and clean 100% but allow for partial replacement	0	%	10		$ 9,000
South elevation - Repair cracking using Helifix bars and refi	Refer also to structural report - south elevation walls	0	%	20		$ 10,000
South elevation - Significant cracks will require some masonry replacement. Minor cracking may be repaired with Helifix bars . Repoint masonry with suitable mortar and refinish to match existing.	Refer also to structural report - south elevation verandah walls	0	%	50		$ 10,000
Undertake detailed termite inspection, remove significantly deteriorated decking boards to western end of verandah to facilitate underfloor access, replace to match existing like-for-lie following repairs to rainwater drainage system	Refer also to structural report - decking boards and verandah structure	0	%	15		$ 12,050
Known plumbing leak within garden bed adjacent to the eastern edge of the heritage building. Isolate and repair plumbing issues before undertaking any repairs to damp affected areas of brickwork or internal finishes		0	Item	1		$ 7,500
Preliminaries 25%						$ 35,400
Subtotal						**$ 176,000**
Design Contingency 15%			Item			$ 27,000
Construction Contingency 15%			Item			$ 27,000
Permits, fees & levys			Item			$ 1,000
Professional Fees			Item			$ 28,000
Client Costs 7%			Item			$ 19,000
Escalation 6 months, 2.4%			Item			$ 7,000
Total						**$ 285,000**
2a. SHORT TERM - EXTERNAL						
North elevation - Repair cracking using Helifix bars and refinish to match existing.	Refer also to structural report - north elevation walls	1	%	15		$ 9,000
North elevation - Repair low level brickwork and pointing decay to match like-for-like		1	%	10		$ 2,000
East elevation - Repair low level brickwork and pointing decay to match like-for-like		1	%	10		$ 6,000
East elevation - Clean back organic growth and repair rendered window sill to match.Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting.Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes		1	Item	3		$ 3,000
South elevation - Remove loose or drummy render around corroded window lintels. Brush back paint coatings and areas of corrosion. Apply two coats of zinc rich protective coating and refinish to match like-for-like		1	Item	3	$ 550	$ 1,650
West elevation - Repair cracking using Helifix bars and refinish to match existing.	Refer also to structural report - west elevation walls	1	%	40		$ 5,000
Undertake detailed structural inspection of all chimneys as part of roofing repairs. Clean back organic growth and repair any cracked, loose, or drummy render to match. Repoint masonry like-for-like and consider removal of paint from all face brick surfaces. Ensure all chimneys are adequately blocked to prevent water ingress		1	Item	7		$ 11,750
Replace fascias and bargeboards deteriorated beyond repair to match like-for-like. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on original finishes	10% replacement/repair 100% repainting	1	%	100		$ 15,000
Repair timber verandah columns to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match	10% replacement/repair 100% repainting	1	%	100		$ 11,500
Retain and refinish timbers to southern decking, if any elements are found to be deteriorated beyond repair undertake like for like replacement before sanding decking timbers back to sound face and oiling		1	%	100		$ 17,200
Install rainwater sump boxes at all downpipes connected to a piped sub-soil drainage system to ensure all roof runoff is taken away from the building to avoid soil saturation. Undertake a CCTV pipe inspection to confirm drainage pathway and rectify blockages and outflow locations as required.		1	%	100		$ 22,000
Preliminaries 25%			Item			$ 26,900
Subtotal						**$ 131,000**
Design Contingency 15%			Item			$ 20,000
Construction Contingency 15%			Item			$ 20,000
Permits, fees & levys			Item			$ 1,000
Professional Fees			Item			$ 21,000
Client Costs 7%			Item			$ 14,000
Escalation 12 months, 4.8%			Item			$ 10,000
Total						**$ 217,000**

2b. SHORT TERM - INTERNAL							
Repair cracking using Helifix bars, repoint and and refinish to match existing.	Refer to structural report for breakdown by room - percentage shown in column D is a general average of required repairs across all internal walls	1	%	20		$	80,000
Refix and refinish plain plasterboard ceilings and cornices to G-01, G-02, G-04, G-07, G-10, G-11 and G-12		1	Item	7		$	29,480
Remove and dispose of all carpet and linoleum floof coverings. Inspect all timber floors and underfloor areas, allowing for installation of three floor inspection hatches if required. Repair like-for-like and refinish timber floors	Provisional estimate for timber replacement 10%, allow to refinish all. Four rooms along northern edge are concrete floors and not included	1	%	100		$	62,850
Repair cracked glazing to one sash window in G-02		1	Item	1		$	600
Room G-03 (Also East elevation external) - Make good windows to match like-for-like. Where joinery is deteriorated beyond salvage, seek to utilise resin repairs or splice in new sections of timber rather than replacing. Remove paint that is loose and friable back to sound face to allow repainting.Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	See External 2.04	1	Item	3		$	-
Repair cracked glazing and deterioration to front entry door and feature surrounds	Glazing panels are highly significant, investigate ability to remove and refurbish offsite during corrective structural works to ensure they are protected. Replace cracked glass panels like-for-like and reinstate. Prepare and repaint framing to match	1	Item	1		$	5,000
Install smoke alarms throughout		1	%	100		$	4,000
Preliminaries 25%			Item			$	46,070
Subtotal						**$**	**228,000**
Design Contingency 15%			Item			$	35,000
Construction Contingency 15%			Item			$	35,000
Permits, fees & levys			Item			$	2,000
Professional Fees			Item			$	36,000
Client Costs 7%			Item			$	24,000
Escalation 12 months 4.8%			Item			$	18,000
Total						**$**	**378,000**
3a. MEDIUM TERM- EXTERNAL							
Replace corroded ridge flashing fixtures	Provisional 10% flashing and 100% ridge fixings to be replaced	3	%	100		$	2,700
Once roof space is clear undertake further detailed inspection of all structural framing. Bolster or replace defective members like-for-like as required	Provisional estimate of replacement	3	%	10		$	18,000
East elevation - Repair cracking using Helifix bars and refinish to match existing.	Refer also to structural report - east elevation walls	3	%	>10		$	1,500
Prepare and repaint all downpipes, with colour to match or based on original finishes		3	%	100		$	4,500
Refix and make good soffits and eaves. Prepare and repaint, with colour to match or based on original finishes		3	%	100		$	10,000
Make good windows to ensure watertightness. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	To all external windows not previously included under urgent or short term works	3	Item	15		$	14,500
Make good doors. Remove paint that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes	To all external doors	3	Item	10		$	7,000
Brush back corrosion to external breezeway gates, Apply two coats of zinc rich protective coating and refinish to match like-for-like		3	Item	1		$	1,500
Provide breathing strip between external wall face and any areas of hardscaping or landscaping		3	%	100		$	20,000
Preliminaries 25%						$	20,300
Subtotal						**$**	**100,000**
Design Contingency 15%			Item			$	15,000
Construction Contingency 15%			Item			$	15,000
Permits, fees & levys			Item			$	1,000
Professional Fees			Item			$	16,000
Client Costs 7%			Item			$	11,000
Escalation 2 years, 9.3%			Item			$	15,000
Total						**$**	**173,000**
3b. MEDIUM TERM- INTERNAL							
Repoint and refinish low level render spalling to G-02		3	%	10		$	750
Repoint minor cracking and refinish like-for-like	Refer to structural report for breakdown by room - percentage shown in column D is a general average of required repairs across all internal walls	3	%	10		$	11,000
Remove paint to all doors that is loose and friable back to sound face to allow repainting. Prepare and repaint, with colour to match or based on paint scrape analysis of original finishes		3	Item	11		$	7,600
Undertake detailed electrical inspection and replace all light fittings to match		3	%	100		$	48,000
Reinstate and refinish timber hearth surrounds to G-01		3	Item	1		$	500
Replace deteriorated kitchenette fitout to G-02		3	Item	1		$	10,000
Remove existing carpet/linoleum to concrete slab areas, allow to replace with like for like			Item	1		$	7,540
Preliminaries 25%			Item			$	21,610
Subtotal						**$**	**107,000**
Design Contingency 15%			Item			$	17,000
Construction Contingency 15%			Item			$	17,000
Permits, fees & levys			Item			$	1,000
Professional Fees			Item			$	18,000
Client Costs 7%			Item			$	12,000
Escalation 2 years, 9.3%			Item			$	16,000
Total						**$**	**188,000**
4a. LONG TERM- EXTERNAL							
Reposition masonry turn out and fix into position N10 dowel bars against existing masonry piers. Alternatively, tooth in new stair turnouts to ensure appropriate connection between masonry elements in place of apparent vertical joint.		4	Item	2		$	5,000
Excavate around in ground verandah stirrups to expose steelwork and confirm no corrosion is present to steel fixing. Repair if required		4	%	100		$	7,000
Undertake detailed inspection of verandah structure and replace or reinforce as required		**4**	%	100		$	16,000
Preliminaries 25%			Item			$	7,000
Subtotal						**$**	**35,000**
Design Contingency 15%			Item			$	6,000
Construction Contingency 15%			Item			$	6,000
Permits, fees & levys			Item			$	1,000
Professional Fees			Item			$	6,000
Client Costs 7%			Item			$	4,000
Escalation 3 years, 13.2%			Item			$	8,000
Total						**$**	**66,000**
4a. LONG TERM- INTERNAL							
Recast and replace missing corbel moulding to G-01		4	Item	1		$	800
Remove timber stud wall to G-05 and make good finishes		4	Item	1		$	5,000
Replace worn bathroom fitout to G-12		4	%	100		$	50,000
Preliminaries 25%			Item			$	14,200
Subtotal						**$**	**70,000**
Design Contingency 15%			Item			$	11,000
Construction Contingency 15%			Item			$	11,000
Permits, fees & levys			Item			$	1,000
Professional Fees			Item			$	12,000

Client Costs 7%			Item			$	8,000
Escalation 3 years, 13.2%			Item			$	15,000
Total						**$**	**128,000**
5. DESIRABLE							
Remove boarding and reinstate chimney functionality	To all - four double flue and three single		Item	7		$	32,000
Remove airconditioning wall units and make good			Item	3	$ 750	$	2,250
Remove wall sinks to G-04 and G-09 and make good			Item	2	$ 600	$	1,200
Remove space heaters			Item	2	$ 500	$	1,000
Preliminaries 25%			Item			$	9,550
Subtotal						**$**	**46,000**
Design Contingency 15%			Item			$	7,000
Construction Contingency 15%			Item			$	7,000
Permits, fees & levys			Item			$	1,000
Professional Fees			Item			$	8,000
Client Costs 7%			Item			$	5,000
Escalation 4 years 16.2%			Item			$	12,000
Total						**$**	**86,000**

UNDERCLIFFE HOUSE
CONSERVATION MANAGEMENT
STRATEGY

APPENDIX B

DETAILED BREAKUP

Full Estimate Summary

Job Name :	CAPEX COST ESTIMATE	**Job Description**	
Client's Name:	Element	Undercliffe House - Conservation Works	

Trd No.	Trade Description	Trade %	Cost/m2	Sub Total	Mark Up %	Trade Total
	1. URGENT	18.74		285,000		285,000
	2A. SHORT TERM - EXTERNAL	14.27		217,000		217,000
	2B. SHORT TERM - INTERNAL	24.85		378,000		378,000
	3A. MEDIUM TERM - EXTERNAL	11.37		173,000		173,000
	3B. MEDIUM TERM - INTERNAL	12.36		188,000		188,000
	4A. LONG TERM - EXTERNAL	4.34		66,000		66,000
	4B. LONG TERM - INTERNAL	8.42		128,000		128,000
	5. DESIRABLE	5.65		86,000		86,000
		100.00		**1,521,000**		**1,521,000**

Final Total : $ 1,521,000

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**1** ***1. URGENT***					
1	Removal of existing stored loose furniture and equipment - Excluded, assumed to be completed by the client prior to works comencing		Note			
	1.01					
2	1.01.1 - Inspection	1.00	Item	1,200.00		1,200.00
3	1.01.2 - Replace/repair 10% of roof coverings	44.00	m2	250.00		11,000.00
4						
	1.02					
5	1.02 - Pigeon droppings	1.00	m2	11,000.00		11,000.00
6						
	1.03					
7	1.03 - Repair ceilings and repaint (plasterglass)	89.00	m2	350.00		31,150.00
8						
	1.04					
9	1.04 - Pressed metal ceilings	56.00	m2	200.00		11,200.00
10						
	1.05					
11	1.05.1 - Detailed survey		Item			5,000.00
12	1.05.2 - Foundation stabilisation	1.00	Item	16,500.00		16,500.00
13						
	1.06					
14	1.06 - Replace downpipes - Assume welded galvanised downpipes, allow 30% replacement	1.00	Item	5,000.00		5,000.00
15						
	1.07					
16	1.07.01 - Clean and inspect gutters	1.00	Item	3,000.00		3,000.00
17	1.07.02 - Replace 10% of gutters	1.00	Item	6,000.00		6,000.00
18						
	1.08					
19	1.08 - Repair cracking south elevation walls, allow to repaint entire wall - Assume 3m high allow 20% of wall	1.00	Item	10,000.00		10,000.00
20						
	1.09					

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**1** ***1. URGENT***					*(Continued)*
21	1.09 - Repair cracking to south elevation verandah walls, allow to repaint entire wall - assume 1.2m high allow 50% of wall	1.00	Item	10,000.00		10,000.00
22						
	1.10					
23	1.10.1 - Termite inspection		Item			1,500.00
24	1.10.2 - Replace decking boards - allow 15%	13.00	m2	350.00		4,550.00
25	1.10.3 - Replace damaged sections of decking substructure	1.00	Item	6,000.00		6,000.00
26						
	1.11					
27	1.11 - Allow for invasive inspection to locate and repair plumbing leak		Item			7,500.00
28	Subtotal					*140,600.00*
29	Preliminaries 25%		Item			35,400.00
30	Subtotal - 1. Urgent					*176,000.00*
31	Design contingency 15%		Item			27,000.00
32	Construction contingency 15%		Item			27,000.00
33	Permits, fees & levys		Item			1,000.00
34	Loose furniture & equipment - Excluded		Note			
35	Commissioning, relocation costs & disbursements - Excluded		Note			
36	Computing services & equipment - Excluded		Note			
37	Professional fees 12%		Item			28,000.00
38	Client costs 7%		Item			19,000.00
39	Escalation 6 months, 2.4%		Item			7,000.00
40	GST - Excluded		Note			
41	Subtotal					*109,000.00*
42	Total - 1. Urgent					*285,000.00*
	1. URGENT				**Total :**	**285,000.00**
Trade :	**2** ***2A. SHORT TERM - EXTERNAL***					
	External					
	2.01					

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**2** ***2A. SHORT TERM - EXTERNAL***					*(Continued)*
1	2.01 - North elevation crack repair, allow to repaint entire wall - assume 3m high allow 15% of wall	1.00	Item	9,000.00		9,000.00
2						
	2.02					
3	2.02 - North elevation repoint low level brickwork, see 2.01 for painting - allow 10% of wall	1.00	Item	2,000.00		2,000.00
4						
	2.03					
5	2.03 - East elevation repoint low level brickwork, allow to repaint entire wall - allow 10% of wall	1.00	Item	6,000.00		6,000.00
6						
	2.04					
7	2.04 - East elevation clean, repair & repaint existing timber windows	1.00	Item	3,000.00		3,000.00
8						
	2.05					
9	2.05 - South elevation lintel repair	3.00	No	550.00		1,650.00
10						
	2.06					
11	2.06 - West elevation crack repair, allow to repaint entire wall - assume 3m high allow 40% of wall	1.00	Item	5,000.00		5,000.00
12						
	2.07					
13	2.07.01 - Structural inspection		Item			3,000.00
14	2.07.02 - Chimney repair	7.00	No	1,250.00		8,750.00
15						
	2.08					
16	2.08 - Repaint existing fascia and barge boards - allow 10% replacement	1.00	Item	15,000.00		15,000.00
17						
	2.09					
18	2.09 - Repaint existing verandah posts - allow 10% replacement	1.00	Item	11,500.00		11,500.00
19						
	2.10					
20	2.10.1 - Refinish existing southern verandah decking	65.00	m2	100.00		6,500.00

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**2** ***2A. SHORT TERM - EXTERNAL***					*(Continued)*
21	2.10.2 - Allow to replace damaged boards - assume 5% replacement	1.00	Item	1,200.00		1,200.00
22	2.10.3 - Patch and repair existing timber balustrade - allow to replace 20%	1.00	Item	7,000.00		7,000.00
23	2.10.4 - Patch and repaint existing decking fascia trim - allow to replace 20%	1.00	Item	2,500.00		2,500.00
24						
	2.11					
25	2.11.1 - Inspect existing sub-soil drainage system allow to remove blockages, allow to install new stormwater drainage as required	1.00	Item	20,000.00		20,000.00
26	2.11.2 - Install rainwater sump box to all downpipes	1.00	Item	2,000.00		2,000.00
27	Subtotal					*104,100.00*
28	Preliminaries 25%		Item			26,900.00
29	Subtotal - 2A Short Term External					*131,000.00*
30	Design contingency 15%		Item			20,000.00
31	Construction contingency 15%		Item			20,000.00
32	Permits, fees & levys		Item			1,000.00
33	Loose furniture & equipment - Excluded		Note			
34	Commissioning, relocation costs & disbursements - Excluded		Note			
35	Computing services & equipment - Excluded		Note			
36	Professional fees 12%		Item			21,000.00
37	Client costs 7%		Item			14,000.00
38	Escalation 12 months, 4.8%		Item			10,000.00
39	GST - Excluded		Note			
40	Subtotal					*86,000.00*
41	Total - 2A. Short Term External					*217,000.00*
	2A. SHORT TERM - EXTERNAL				**Total :**	**217,000.00**
Trade :	**3** ***2B. SHORT TERM - INTERNAL***					
	2.12					
1	2.12 - Repair cracking using helifix bars, repoint and refinish - allow 20% of all internal walls, repaint all walls	1.00	Item	80,000.00		80,000.00
2						

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**3** ***2B. SHORT TERM - INTERNAL***					*(Continued)*
	2.13					
3	2.13.01 - Refix & refinish existing plasterboard ceilings	132.00	m2	70.00		9,240.00
4	2.13.02 - Allow to replace 20% of plasterboard ceilings	34.00	m2	200.00		6,800.00
5	2.13.03 - Ceiling insulation to throughout	336.00	m2	40.00		13,440.00
6						
	2.14					
7	2.14.01 - Remove existing carpet/linoleum, inspect timber floors and refinish - allow 10% replacement	255.00	m2	180.00		45,900.00
8	2.14.02 - Inspect and repair subfloor structure as required	1.00	Item	15,000.00		15,000.00
9	2.14.03 - Install floor hatches for access to subfloor	3.00	No	650.00		1,950.00
10	2.14.04 - Remove existing carpet/linoleum to concrete slab areas, allow to replace with like for like - See 3.16 Medium Term - Internal		Note			
11						
	2.15					
12	2.15 - Repair cracked glazing	1.00	No	600.00		600.00
13						
	2.16					
14	2.16 - G-03 repair & repaint existing timber windows - See external 2.04		Note			
15						
	2.17					
16	2.17 - Repair cracked glazing to front entry door	1.00	Item	5,000.00		5,000.00
17						
	2.18					
18	2.18 - Install smoke alarms	1.00	Item	4,000.00		4,000.00
19	Subtotal					*181,930.00*
20	Preliminaries 25%		Item			46,070.00
21	Subtotal - 2B. Short Term Internal					*228,000.00*
22	Design contingency 15%		Item			35,000.00
23	Construction contingency 15%		Item			35,000.00
24	Permits, fees & levys		Item			2,000.00
25	Loose furniture & equipment - Excluded		Note			

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**3** ***2B. SHORT TERM - INTERNAL***					*(Continued)*
26	Commissioning, relocation costs & disbursements - Excluded		Note			
27	Computing services & equipment - Excluded		Note			
28	Professional fees 12%		Item			36,000.00
29	Client costs 7%		Item			24,000.00
30	Escalation 12 months, 4.8%		Item			18,000.00
31	GST - Excluded		Note			
32	Subtotal					*150,000.00*
33	Total - 2B. Short Term Internal					*378,000.00*
	2B. SHORT TERM - INTERNAL				**Total :**	**378,000.00**
Trade :	**4** ***3A. MEDIUM TERM - EXTERNAL***					
	3.01					
1	3.01 - Replace corroded roof cappings and fixings	1.00	Item	2,700.00		2,700.00
2						
	3.02					
3	3.02 - Repair/reinforce existing roof structure - allow for 10%	1.00	Item	18,000.00		18,000.00
4						
	3.03					
5	3.03 - East elevation crack repair - assume 3m high allow 10% of wall	1.00	Item	1,500.00		1,500.00
6						
	3.04					
7	3.04 - Prepare and paint existing downpipes	1.00	Item	4,500.00		4,500.00
8						
	3.05					
9	3.05 - Refix and repaint soffit	1.00	Item	10,000.00		10,000.00
10						
	3.06					
11	3.06 - Prepare, paint and make good remaining windows	1.00	Item	14,500.00		14,500.00
12						
	3.07					

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**4** ***3A. MEDIUM TERM - EXTERNAL***					*(Continued)*
13	3.07 - Make good existing external doors allow to paint	1.00	Item	7,000.00		7,000.00
14						
	3.08					
15	3.08 - Prepare and repaint existing breeezeway gates	1.00	No	1,500.00		1,500.00
16						
	3.09					
17	3.09 - Provide breathing strip between external walls and soft and hard landscaping	1.00	Item	20,000.00		20,000.00
18	Subtotal					*79,700.00*
19	Preliminaries 25%		Item			20,300.00
20	Subtotal - 3A. Medium Term					*100,000.00*
21	Design contingency 15%		Item			15,000.00
22	Construction contingency 15%		Item			15,000.00
23	Permits, fees & levys		Item			1,000.00
24	Loose furniture & equipment - Excluded		Note			
25	Commissioning, relocation costs & disbursements - Excluded		Note			
26	Computing services & equipment - Excluded		Note			
27	Professional fees 12%		Item			16,000.00
28	Client costs 7%		Note			11,000.00
29	Escalation 2 years, 9.3%		Item			15,000.00
30	GST - Excluded		Note			
31	Subtotal					*73,000.00*
32	Total - 3A. Medium Tedrm					*173,000.00*
	3A. MEDIUM TERM - EXTERNAL				**Total :**	**173,000.00**
Trade :	**5** ***3B. MEDIUM TERM - INTERNAL***					
	3.10					
1	3.10 - Repoint and refinish low level render spalling	1.00	Item	750.00		750.00
2						
	3.11					
3	3.11 - Repoint minor cracking and refinish	100.00	m2	110.00		11,000.00
4						

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**5** ***3B. MEDIUM TERM - INTERNAL***					*(Continued)*
	3.12					
5	3.12 - Make good existing internal doors allow to paint	1.00	Item	7,600.00		7,600.00
6						
	3.13					
7	3.13.01 - Undertake electrical inspection		Item			3,000.00
8	3.13.02 - Replace light fittings including rewiring	1.00	Item	45,000.00		45,000.00
9						
	3.14					
10	3.14 - Reinstate existing timber hearth G-01	1.00	No	500.00		500.00
11						
	3.15					
12	3.15 - Replace kitchenette fitout	1.00	Item	10,000.00		10,000.00
13						
	3.16					
14	3.16 - Remove existing carpet/linoleum to concrete slab areas, allow to replace with like for like	52.00	m2	145.00		7,540.00
15	Subtotal					*77,850.00*
16	Preliminaries 25%		Item			21,610.00
17	Subtotal - 3B. Medium Term Internal					*107,000.00*
18	Design contingency 15%		Item			17,000.00
19	Construction contingency 15%		Item			17,000.00
20	Permits, fees & levys		Item			1,000.00
21	Loose furniture & equipment - Excluded		Note			
22	Commissioning, relocation costs & disbursements - Excluded		Note			
23	Computing services & equipment - Excluded		Note			
24	Professional fees 12%		Item			18,000.00
25	Client costs 7%		Note			12,000.00
26	Escalation 2 years, 9.3%		Item			16,000.00
27	GST - Excluded		Note			
28	Subtotal					*81,000.00*
29	Total - 3B. Medium Term Internal					*188,000.00*

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
	3B. MEDIUM TERM - INTERNAL				**Total :**	**188,000.00**
Trade :	**6** ***4A. LONG TERM - EXTERNAL***					
	4.01					
1	4.01 - Refix masonry piers at stairs	1.00	Item	5,000.00		5,000.00
2						
	4.02					
3	4.02 - Expose/repair in-ground post stirups - Assume 20% replacement	1.00	Item	7,000.00		7,000.00
4						
	4.03					
5	4.03 - Inspect verandah roof, replace/repair as required - Assume minor replacement/repair	1.00	Item	16,000.00		16,000.00
6	Subtotal					*28,000.00*
7	Prelimiaries 25%		Item			7,000.00
8	Subtotal - 4A. Long Term - External					*35,000.00*
9	Design contingency 15%		Item			6,000.00
10	Construction contingency 15%		Item			6,000.00
11	Permits, fees & levys		Item			1,000.00
12	Loose furniture & equipment - Excluded		Note			
13	Commissioning, relocation costs & disbursements - Excluded		Note			
14	Computing services & equipment - Excluded		Note			
15	Professional fees 12%		Item			6,000.00
16	Client costs 7%		Item			4,000.00
17	Escalation 3 years, 13.2%		Item			8,000.00
18	GST - Excluded		Note			
19	Subtotal					*31,000.00*
20	Total - 4A. Long Term External					*66,000.00*
	4A. LONG TERM - EXTERNAL				**Total :**	**66,000.00**
Trade :	**7** ***4B. LONG TERM - INTERNAL***					
	4.04					
1	4.04 - Recast and replace corbel moulding - G-01	1.00	No	800.00		800.00
2						

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**7** ***4B. LONG TERM - INTERNAL***					*(Continued)*
	4.05					
3	4.05 - Remove stud framed wall allow to make good	1.00	Item	5,000.00		5,000.00
4						
	4.06					
5	4.06 - Refurbish existing bathroom fitout	1.00	Item	50,000.00		50,000.00
6	Subtotal					*55,800.00*
7	Preliminaries 25%		Item			14,200.00
8	Subtotal - 4B. Long Term Internal					*70,000.00*
9	Design contingency 15%		Item			11,000.00
10	Construction contingency 15%		Item			11,000.00
11	Permits, fees & levys		Item			1,000.00
12	Loose furniture & equipment - Excluded		Note			
13	Commissioning, relocation costs & disbursements - Excluded		Note			
14	Computing services & equipment - Excluded		Note			
15	Professional fees 12%		Item			12,000.00
16	Client costs 7%		Item			8,000.00
17	Escalation 3 years, 13.2%		Item			15,000.00
18	GST - Excluded		Note			
19	Subtotal					*58,000.00*
20	Total - 4B. Long Term Internal					*128,000.00*
	4B. LONG TERM - INTERNAL				**Total :**	**128,000.00**
Trade :	**8** ***5. DESIRABLE***					
	5.01					
1	5.01 - Reinstate chimney functionality	1.00	Item	32,000.00		32,000.00
2						
	5.02					
3	5.02 - Remove A/C wall units, allow to make good	3.00	No	750.00		2,250.00
4						
	5.03					
5	5.03 - Remove wall sinks, allow to make good	2.00	No	600.00		1,200.00

Trade Breakup

Job Name : CAPEX COST ESTIMATE **Job Description**

Client's Name: Element Undercliffe House - Conservation Works

Item No.	Item Description	Quantity	Unit	Rate	Mark Up %	Amount
Trade :	**8** ***5. DESIRABLE***					*(Continued)*
6						
	5.04					
7	5.04 - Remove space heaters, allow to make good	2.00	No	500.00		1,000.00
8	Subtotal					*36,450.00*
9	Preliminaries 25%		Item			9,550.00
10	Subtotal - 5. Desirable					*46,000.00*
11	Design contingency 15%		Item			7,000.00
12	Construction contingency 15%		Item			7,000.00
13	Permits, fees & levys		Item			1,000.00
14	Loose furniture & equipment - Excluded		Note			
15	Commissioning, relocation costs & disbursements - Excluded		Note			
16	Computing services & equipment - Excluded		Note			
17	Professional fees 12%		Item			8,000.00
18	Client costs - 7%		Item			5,000.00
19	Escalation 4 years, 16.2%		Note			12,000.00
20	GST - Excluded		Note			
21	Subtotal					*40,000.00*
22	Total - 5. Desirable					*86,000.00*
	5. DESIRABLE				**Total :**	**86,000.00**

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Design Principle No.	Design Principle Text	Applicant Response
The Garden		
1.1 Private Open Space		
P1.1.1	*Dwellings are designed to have direct access to private open space which provides for entertaining, leisure and connection to the outdoors that is:* *i. of sufficient size and dimension to be functional and usable for the intended number of dwelling occupants;* *ii. is sited, oriented and designed for occupant amenity, including consideration of solar access and natural ventilation appropriate to the climatic region; and* *iii. capable of use in conjunction with a primary living space of the dwelling.*	• All dwellings have access to an expansive central landscaped courtyard and smaller balcony areas to be used freely. • The outdoor spaces receive ample solar access year-round through being open to the northern, western and eastern aspects. • The central courtyard provides a generous 767m2 of landscaped area, in addition to landscaped gardens surrounding the proposed building • Balconies are appropriately setback for visual privacy considerations and screened where needed through landscaping. Acoustic impact on surrounding properties has also been duly considered in the acoustic assessment. • All open space in the proposed development is to be communal open space given the Residential Aged Care function of the building. The open spaces are high-amenity with quality landscaping and easily accessible by all dwellings. • The facilitation of social interaction and mental wellbeing through communal open spaces is a significant priority of the proposed development.
P1.1.2	*Private open space allows for sufficient uncovered area to:* *i. permit winter sun and natural ventilation into the dwelling; and* *ii. provide for soft landscaping, including the planting of a tree(s) and deep soil area.*	
P1.1.3	*Balconies balance the need for outlook, solar access and natural ventilation with:* *i. visual privacy considerations;* *ii. acoustic and noise impacts; and* *iii. local climatic considerations such as high winds.*	
P1.1.4	*Increasing the area of communal open space commensurate with a decrease in private open space may be appropriate where there is an explicit intent to facilitate communal living and it can be demonstrated that the communal open space:* *i. is of high amenity and provided with quality landscaping;* *ii. is easily accessible and equitable for all dwellings within the development; and* *iii. meets the needs of the occupants and provides opportunities for social interaction.*	
1.2 Trees and Landscaping		
P1.2.1	*Site planning allows for:* *i. site responsive and sustainable landscape design; and* *ii. the retention of existing trees on the subject site and adjoining properties.*	• The landscaped hardens significantly enhance the amenity and function of the proposed development, allowing residents to use a high-quality space while receiving care. • The landscaped gardens and courtyard receive significant planting in accordance with a detailed landscaping plan.
P1.2.2	*Provision of trees and high quality landscaping:* *i. enhances the built form, streetscape and pedestrian amenity, as viewed from the street;* *ii. provides shade and amenity for communal streets and parking areas; and* *iii. contributes to the visual appeal, comfort and amenity of the development, in particular private open space and communal open space and outlook from habitable rooms.*	
P1.2.3	*Development provides sufficient deep soil area to sustain healthy tree and plant growth, providing for an increase in urban tree canopy over time, and assist in managing the quantity and quality of stormwater.*	
1.3 Communal Open Space		
P1.3.1	*Communal open space provides:* *i. good quality landscaping, trees and deep soil areas;* *ii. safe, accessible and high amenity spaces for social interaction;* *iii. adequate space for its intended use and function, proportionate to the number of dwellings and number of occupants the dwellings are designed to accommodate; and* *iv. adequate measures to mitigate against adverse amenity impacts including visual, noise and odour.*	• The communal open space is provided as significantly high quality landscaping as detailed in the landscaping plan • Ample landscaped area is provided for the intended function of housing active social spaces for residents.
1.4 Water Management and Conservation		

P1.4.1	*Flooding risk is reduced to limit the impact of major rainfall events.*	• All stormwater is managed onsite through extensive landscaping and access to natural drainage to the south.
P1.4.2	*Stormwater is managed on site wherever possible either by containment or infiltration, as permitted by the soil and other site conditions, or otherwise appropriately treated to reduce the export of nutrients, sediments and other pollutants, prior to off site discharge.*	
P1.4.3	*Development incorporates water sensitive urban design mechanisms, including water conservation approaches and site appropriate stormwater collection, retention, treatment and reuse.*	
The Building		
2.1 Size and layout of dwellings		
P2.1.1	*Dwellings have a primary living space that:* *i. is proportionate to the type and size of the dwelling and intended number of occupants;* *ii. has a physical and visual relationship with the primary garden area, private open space and/ or public open space; and* *iii. incorporates environmental design principles, including passive solar design and appropriate daylighting and shading, appropriate for the climate.*	• All units are comprised of the same primary living space which provides a bedroom and personal storage connected to a private bathroom. This provides direct access for staff and ease of provision of care. • All units have access to nearby balconies for outdoor living and having direct viewing and access to the central landscaped courtyard • The units provide ample space for furniture to accommodate visitors, private entertainment and a bed • Dedicated storage units are not required for this development as the residents are unlikely to keep any large personal items. Storage space is provided inside the units for storage of small personal items. • Rooms are acoustically treated and setback to mitigate amenity impact from noise and overlooking towards neighbouring properties. • Residential units are appropriately separated from noise sources in accordance with the Acoustic Report prepared by Lloyd George Acoustics.
P2.1.2	*Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylighting.*	
P2.1.3	*The size and layout of dwellings:* *i. is functional with the ability to flexibly accommodate furniture;* *ii. is appropriate to the intended number of occupants; and* *iii. ensures functional, high amenity spaces.*	
P2.1.4	*Development provides a mix of dwelling types, sizes and configurations that cater for diverse household types and changing community demographics, appropriate to the existing and/or future context of the locality.*	
P2.1.5	*Each dwelling provides adequate, conveniently located storage for large items that are:* *i. proportionate to the size of the dwelling and intended number of occupants; and* *ii. integrated into the design of the building and/ or screened from view to ensure that it is not visually intrusive when viewed from the street.*	
P2.1.6	*The siting and layout of dwellings minimizes potential impacts on amenity and provide appropriate visual and acoustic privacy to habitable rooms by:* *i. locating, orienting or setting back habitable rooms;* *ii. providing adequate landscape screening as a buffer; and/or* *iii. providing acoustic treatments to reduce noise transfer.*	
2.2 Solar Access and Natural Ventilation		
P2.2.1	*In climate zones 4, 5 and 6 the development is sited, oriented and designed to optimise winter solar gain whilst limiting summer sunlight into:* *i. the primary living space and habitable rooms; and* *ii. private open spaces, including the primary garden area;* *while balancing site constraints, outlook and views of significance.*	• The majority of units are north, east and west facing. This allows for solar access to be maximised. • All dwellings are optimised to receive high-amenity outlooking to the central courtyard. • Major openings are openable, allowing natural ventilation in the units.
P2.2.2	*Windows to habitable rooms are designed and positioned to optimize daylight, natural ventilation and outlook, while maintaining a reasonable level of visual privacy.*	
P2.2.3	*Dwellings optimize natural ventilation to habitable rooms (and bathrooms where possible) that is responsive to site and local climatic conditions.*	
2.3 Parking		

P2.3.1	*Siting and the extent of parking does not dominate the development or streetscape and responds to the context and local character by:* *i. supporting the efficient use of the site; and* *ii. minimising the extent of paving for parking and vehicle access.*	• Ample parking is provided in the proposed development, as supported by the Traffic Impact Assessment prepared by Level 5 Design. • The majority of parking is provided via basement parking. • The proposed development is accessible via public transport, with a pedestrian leg connection the site northward directly to Great Eastern Highway • Provision of universal access bays is prioritised.
P2.3.2	*Adequate parking is provided for various modes of transport, including bicycles, motorcycles, scooters and cars, that has regard to the following considerations:* *i. the proximity of the proposed development to public transport, activity centres, areas of amenity and other facilities;* *ii. the type, size and number of dwellings; and* *iii. the availability of on-street and other offstreet parking.*	
P2.3.3	*Parking spaces are designed for flexibility and adaptability having regard for:* *i. the needs of occupants, including consideration of universally accessible parking spaces; and* *ii. the ability to use the space for alternative purposes.*	
2.4 Waste Management		
P2.4.1	*Sufficient space for waste storage is provided that:* *i. is convenient for residents;* *ii. has collection areas which can be accessed by service vehicles; and* *iii. can be secured and managed where required.*	• Proposed waste servicing is supported by a Waste Management Plan • A 50m2 bin store is provided in the basement areas and able to be serviced by bin trucks which are able to enter and exit the site in forward gear.
P2.4.2	*Waste management facilities are located and screened to minimise negative impacts on the streetscape, communal areas, building entries, major openings, and the local amenity.*	
2.5 Utilities		
P2.5.1	*The site is serviced with utilities that that are fit for purpose and meet current performance and access requirements of service providers, addressing access, maintenance and safety considerations.*	• All mechanical plant is screened from public view and acoustically treated to prevent noise pollution in accordance with the Acoustic Assessment prepared by Lloyd George Acoustics.
P2.5.2	*Utilities balance operational requirements with the need to minimise:* *i. visual, noise, heat and air quality impacts on habitable rooms and private open space both on the development site and adjoining properties; and* *ii. the visual impact on the streetscape*	
2.7 Universal design		
P2.7.1	*Development provides accessible housing or adaptable dwellings that are proportionate in number to the size of the development and intended occupancy.*	• Given the Residential Aged Care use of the proposed development, universal design is of paramount importance and is accounted for in all aspects of the development. • Disabled parking bays are provided at the closest point to building access areas in the basement and at-grade parking areas. • The proposed development provides a total of four (4) ACROD bays to maximise universal access, understanding that visitors to the development are more likely to be elderly or disabled.
P2.7.2	*Accessible housing and adaptable dwellings provide housing options for people with disabilities and/or limited or reduced mobility, facilitate ageing in place, and are designed in accordance with the universal design requirements:* *i. of the Livable Housing Design Guidelines;* *ii. of the Australian Building Codes Board Livable Housing Design Standard (2022);* *iii. of AS4299; and/or* *iv. to suit the specific needs of the occupant*	
Neighbourliness		
3.1 Site cover		
P3.1.1	*The site cover of the development is suitable for its context to:* *i. achieve appropriate building bulk on the site, consistent with the intent of the applicable density code and/or as outlined in the local planning framework;* *ii. ensure sufficient outdoor space for landscaping including trees and deep soil areas;* *iii. ensure adequate solar access and natural ventilation into the dwelling;* *iv. provide opportunities for residents to use space external to the dwelling for outdoor pursuits and access within and around the site;* *v. provide space for utilities and essential facilities; and*	• The proposed development covers less than half of the subject site and is commensurate with existing buildings onsite • Unocovered areas of the development site are treated with high-quality landscaping on all frontages • The building presents as single storey to neighbouring residential properties through being cut in to the subject site, significantly mitigating imposing building bulk and keeping within neighbourly character

	vi. be compatible with the existing and/or desired streetscape and local character.	
3.2 Building height		
P3.2.1	*Building height, bulk and scale is appropriate for the existing and/or desired future streetscape and local character of the area and nearby development.*	• The proposed development seeks a maximum building height of 10.5m at the southern frontage. However, the sloping topography of the subject site allows for a lesser building height of 7m at the northern frontage. • The proposed building does not step up with the sloping land and therefore does not impose on surrounding single-residential properties. • The proposed development is not positioned to block any views from surrounding properties given its position at the bottom of the existing hill.
P3.2.2	*Building height is considerate of the impact on the amenity of adjoining properties or the streetscape, including road reserves and public open space reserves, and where appropriate maintains:* *i. adequate solar access into indoor and outdoor active habitable space and solar collectors; and* *ii. access to views of significance.*	
3.3 Street setbacks		
P3.3.1	*Buildings are set back from street boundaries an appropriate distance to ensure they:* *i. are consistent with the existing or future streetscape and local character;* *ii. provide sufficient space for tree planting and other landscaping, as well as community interaction;* *iii. provide adequate privacy to the dwellings;* *iv. accommodate site planning requirements such as parking and utilities; and* *v. allow safety clearances for easements for essential service corridors and sightlines.*	• The proposed building does not directly front any streets. The development is significantly setback from any public roads.
P3.3.2	*Buildings mass and form that:* *i. uses design features to affect the size and scale of the building;* *ii. provide the opportunity for building articulation, such as well-defined entries, varying setbacks across the building width, verandahs, porches and balconies;* *iii. uses appropriate minor projections that do not detract from the character of the streetscape;* *iv. minimises the proportion of the façade at ground level taken up by building services, vehicle entries, parking supply, blank walls, servicing infrastructure access, meters and the like; and* *v. positively contributes to the prevailing or future development context and streetscape as outlined in the local planning framework.*	
P3.3.3	*Garages and/or carports are set back to:* *i. contribute positively to the streetscape and appearance of dwellings;* *ii. maintain clear sightlines along the street, to not obstruct views of dwellings from the street and vice versa; and* *iii. ensure vehicle parking on a driveway only occurs where space permits and does not impede on any existing or planned adjoining pedestrian, cycle, or dual-use path.*	
3.4 Lot boundary setbacks		
P3.4.1	*Lot boundary setbacks reinforce the location's streetscape character and are consistent with the existing or desired built form local character.*	• The proposed building envelope is appropriately setback to accommodate extensive landscaping and respect visual privacy considerations. • Proposed major opening setbacks are compliant with the Deemed-to-Comply requirements of Part C of the R-Codes. • The proposed building provides a minimum 9m setback to neighbouring residential properties. This is complaint with the worst-case scenario under Table 2b in the R-Codes Volume 1
P3.4.2	*The setback of development from lot boundaries provides a transition between sites with different land uses or intensity of development.*	
P3.4.3	*Buildings are set back from lot boundaries or adjacent buildings on the same lot to:* *i. provide adequate solar access and natural ventilation to the building and open spaces on the site and adjoining properties; and* *ii. address the potential for overlooking and resultant loss of privacy on adjoining properties.*	
P3.4.4	*Buildings are built up to lot boundaries where this:* *i. makes more effective use of space for primary garden areas and/or private open space;* *ii. maintains adequate solar access to major openings and private open space of adjoining properties; and*	

	iii. contributes positively to the prevailing or future development context and streetscape as outlined in the local planning framework.	
3.5 Site works and retaining walls		
P3.5.1	*Development that considers and responds to the natural features of the site and requires minimal excavation/fill.*	• The proposed development responds to the natural slope of the subject site by cutting in to the hill while allowing the basement entrance to be at-grade. • The building maintains a consistent roof line along the whole development, resulting in no change to building height across the development and preventing views from being blocked for development to the north. • The proposed site works do not alter the natural ground level at the lot boundary as viewed from the street. • The proposed retaining wall at the rear of the development is designed to separate the northern and southern portions of the subject site, maintaining amenity and visual privacy. • The retaining proposed onsite allows the building to be further sunken into the site, reducing building bulk impact. • The proposed retaining allows for the improvement of landscaped gardens at the rear and connectivity to the heritage building.
P3.5.2	*Where excavation/fill is necessary, all finished levels respect the natural ground level at the lot boundary of the site and as viewed from the street.*	
P3.5.3	*Retaining walls that result in land which can be effectively used for the benefit of residents, do not detrimentally affect the amenity of adjoining properties in the opinion of the decision-maker, and are designed, engineered and landscaped having due regard to the provisions of element 3.10 Visual privacy.*	
3.7 Access		
P3.7.1	*Access for each development site is to:* *i. balance pedestrian and cyclist safety while providing safe vehicle access;* *ii. minimise the extent of impervious surfaces;* *iii. provide legible access; and* *iv. include high quality landscaping features.*	• The proposed development is easily accessed by Coongan Avenue to the south where the existing driveway is located. • The proposed building will be accessed via an extension to the existing driveway. • The extension will include a central loop as well as a cul-de-sac in the south-western corner of the subject site, allowing trucks up to 19m in length to maneuverer and exit the site in forward gear.
P3.7.2	*Vehicle access is designed and located to:* *i. minimise the number and width of vehicle access points and the impact on the streetscape;* *ii. provide access to the street with the lowest volume of traffic; and* *iii. accommodate sloping sites and retaining walls.*	
P3.7.3	*The width of the communal street or battleaxe leg may be reduced where it is necessary to retain an existing dwelling provided:* *i. safe vehicle access, setbacks or clearances and sightlines are achieved; and* *ii. it is only reduced for the portion required to retain the dwelling.*	
P3.7.4	*Unobstructed sightlines provided at vehicle access points to ensure safety and visibility along vehicle access ways, streets, rights-of-way, communal streets, crossovers, and footpaths*	
P3.7.5	*Legible, safe, and direct access for residents and their visitors to move between communal car parking areas or public streets and individual dwellings.*	
P3.7.6	*Development with potential to be subdivided to create 20 or more green title lots, strata lots or survey-strata lots provides legible internal connections and access to streets and be designed to accommodate traffic movement and volume, visitor parking, pedestrian access, street shade trees, utility services and access for waste collection and emergency service vehicles.*	
3.9 Solar access for adjoining sites		
P3.9.1	*Development is designed to protect solar access for neighbouring sites taking into account the potential to overshadow:* *i. major openings to primary living spaces, in particular those oriented between north west, north and east;* *ii. private open space and communal open space; and* *iii. roof mounted solar collectors.*	• The proposed development is compliant with the Deemed-to-Comply requirements of Part C of the R-Codes for Solar Access to Adjoining Sites

3.10 Visual privacy		
P3.10.1	*Direct overlooking of major openings and active habitable spaces of adjacent dwellings and adjoining properties minimised through:* *i. building siting, layout and design;* *ii. design and location of major openings;* *iii. landscape screening of outdoor active habitable spaces; and/or* *iv. design and location of screening devices.*	• The proposed development is compliant with the Deemed-to-Comply requirements of Part C of the R-Codes for Visual Privacy
P3.10.2	*Adequate visual privacy achieved through appropriate interfaces between dwellings and adjoining properties including measures such as:* *i. offsetting the location of ground and first floor windows so that viewing is oblique rather than direct;* *ii. building boundary walls where appropriate;* *iii. setting back the upper storeys from the lot boundary;* *iv. providing higher or lower windows, or windows with obscure glazing; and/or* *v. screening (including landscaping, fencing, timber screens, external blinds, window hoods and shutters).*	
P3.10.3	*Visual privacy strategies maintain amenity of habitable rooms and active habitable space with regard to solar access, natural ventilation and external outlook both within the development and for adjoining properties.*	

Inspiring Innovation in Transport

Regis Aged Care Extension, Greenmount
Transport Impact Statement

Project number 11092

August 2025

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LEVEL 5 DESIGN

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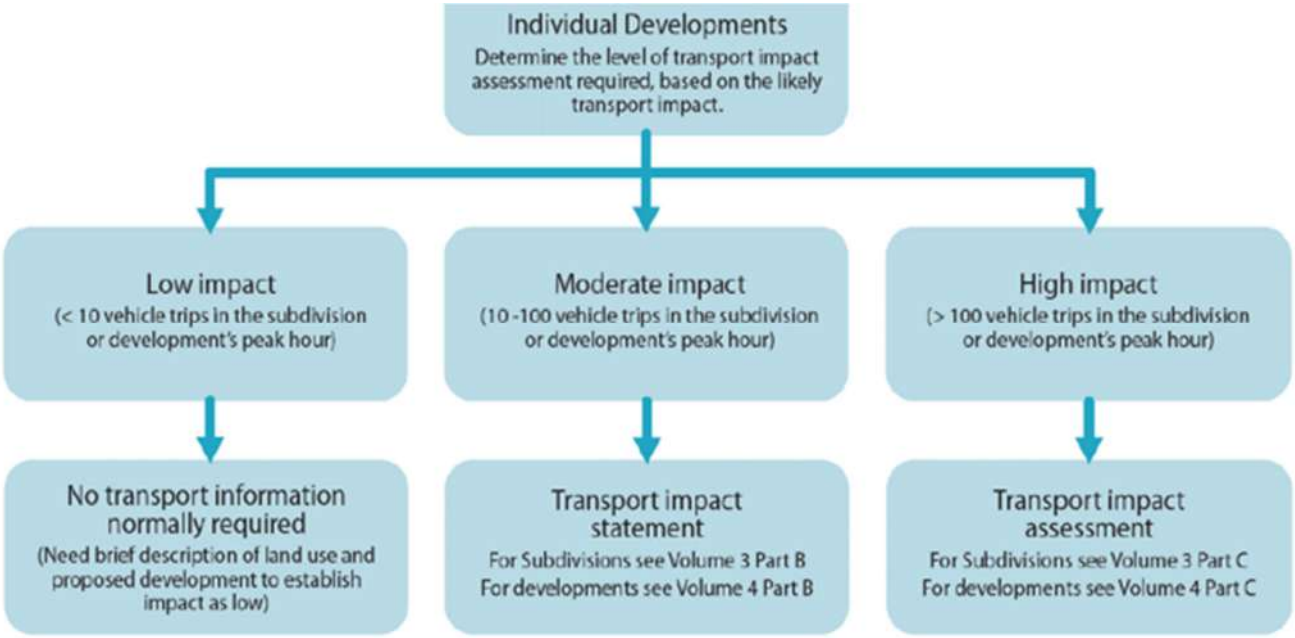
1 Introduction

Level5Design has been engaged by Regis Aged Care to prepare a Transport Impact Statement (TIS) of the proposed residential extension for Regis Greenmount in Greenmount in support of a Development Application (DA).

This TIS has been prepared in accordance with the Department of Planning, Lands and Heritage (DPLH) and Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines for Developments: Volume* 4 - Individual *Developments* (2016) and the checklist is included in Appendix A. The Guidelines promote a three-level assessment process, where the required level of assessment is dependent on the likely level of impact, as follows (and as shown in Figure 1.1):

- Low impact – less than 10 peak hour trips, no assessment required,
- Moderate impact – between 10 and 100 peak hour trips, Transport Impact Statement required, and
- High Impact – more than 100 peak hour trips, full Transport Impact Assessment required.

Figure 1.1 - Level of transport impact assessment required.



Source: WAPC Transport Impact Assessment Guidelines 2016

The traffic generated by the Site has been determined to be less than 10 additional vehicle trips in the peak hour, which equates to a low impact. While no assessment is typically required where the impact is assessed as low, a 'Transport Impact Statement' has been prepared to confirm the proposals are safe and functional to support the DA.

As part of the investigations, a site visit was conducted on 2 April 2025 to observe the site conditions and to identify any traffic and parking issues that may be associated with this development proposal.

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2 Background

2.1 Existing Site

The subject site (the 'Site') is located approximately 23 km northeast of the Perth CBD in the suburb of Greenmount within the Shire of Mundaring (see Figure 2.1). The adjacent parcel of land next to the existing Regis facility was previously developed but the aged care building on it has since been demolished. This plot of land has been fenced off and the formerly intersecting roads have been kerbed to restrict access to the land.

Figure 2.1 - Site location within the context of Greenmount

Source: Apple Maps 2025 (Annotated)

The Site is located south of the Great Eastern Highway (GEH) and west of a row of residential dwellings accessed of Coongan Avenue. Existing site access is via a driveway at 22 Coongan Avenue. Entry to Coongan avenue is from Scott Street and Great Eastern Highway to the north.

Figure 2.2 - Location of the Development Site,

Source: Apple Maps 2025 (Annotated)

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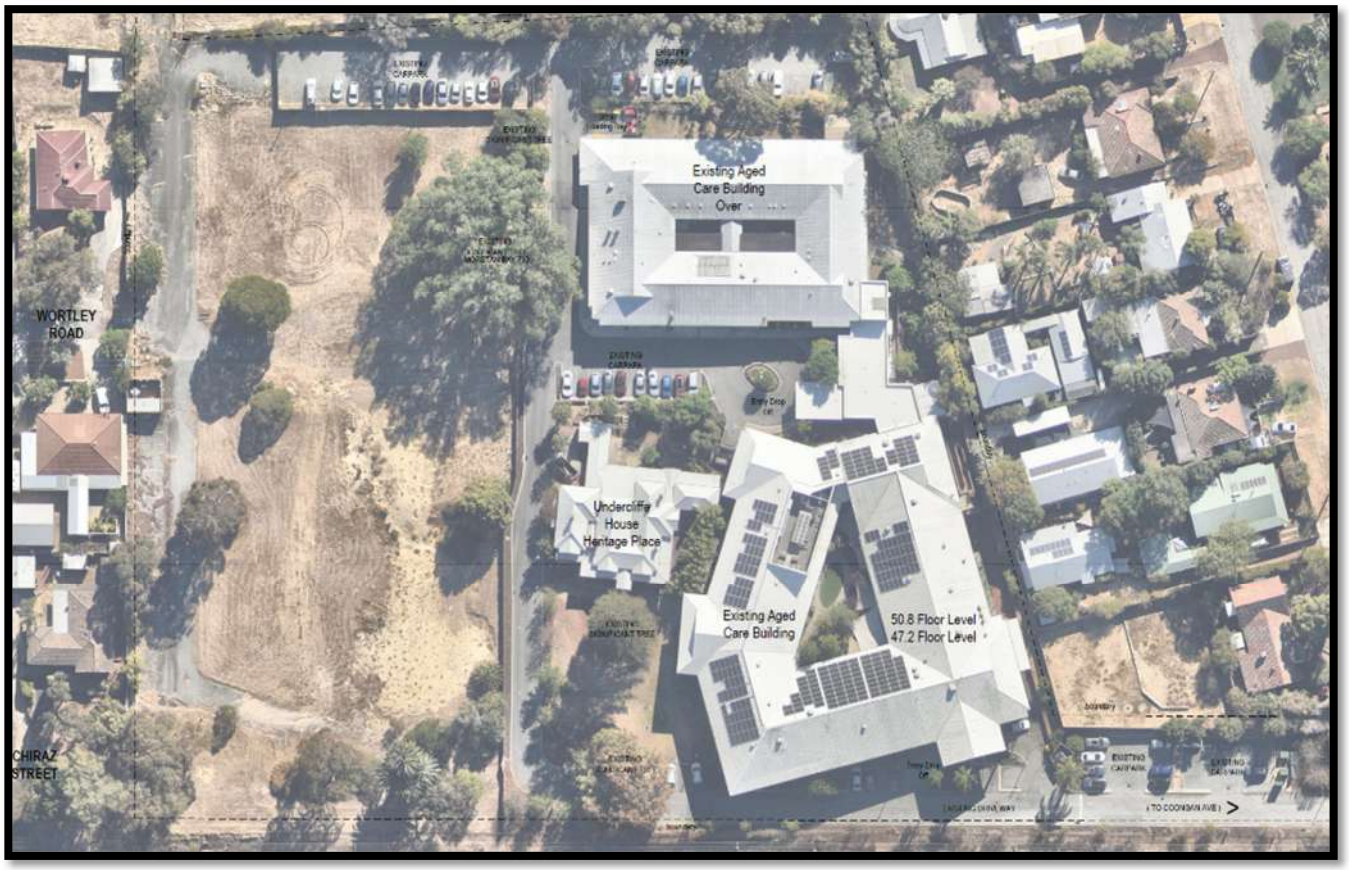
The Site is surrounded to the north, east and west with single detached residential dwellings and undeveloped land to the south (see Section 2.3). The undeveloped land to the south marks the borderline with the City of Swan.

Figure 2.3 – Roads Network in the Vicinity of the Existing Site



Source: LW Architects 2025

2.2 Shire of Mundaring Local Planning Scheme No 4

The Shire of Mundaring Local Planning Scheme No. 4 (LPS4) amended 9/9/2023, divides the district into zones to identify areas for particular land uses. The area depicted in Figure 2.4 includes the location of the Site, which has been zoned as Special Use.

Figure 2.4 – Mundaring Local Planning Scheme No.4 (Map 5 Excerpt, updated 10/12/2020)

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In Schedule 4 of LPS4, the Site location allows the following special uses, subject to the discretion of the Shire of Mundaring:

- aged persons' village
- aged or dependent persons' dwellings
- nursing home
- uses incidental to the above

An "aged persons' village" is defined as five or more aged or dependent persons' dwellings and may include buildings and parts of buildings used for communal facilities, food preparation, dining, recreation, laundry, or medical care. An "aged or dependent persons' dwelling" is defined as a dwelling, either in isolation or in a group, designed for the accommodation of aged persons or dependent persons, as defined in the Residential Design Codes, and used for the accommodation of one or more aged persons or dependent persons or the surviving spouse of such a person. Both of these uses relate to dwellings of 80 m^2 or more rather than single room bedrooms in a communal aged care facility.

A "nursing home" is defined as a premises in which persons who do not require constant medical attention are received as patients and lodged for the purposes of medical supervision and nursing care.

The proposed aged care extension most closely aligns with the LPS4 definition of a nursing home with its focus on beds rather than self-contained dwellings.

2.3 Other Nearby Developments

The Shire of Mundaring has confirmed that there are no new major developments currently proposed that are within close proximity to the Site that are likely to impact the findings of this traffic impact assessment.

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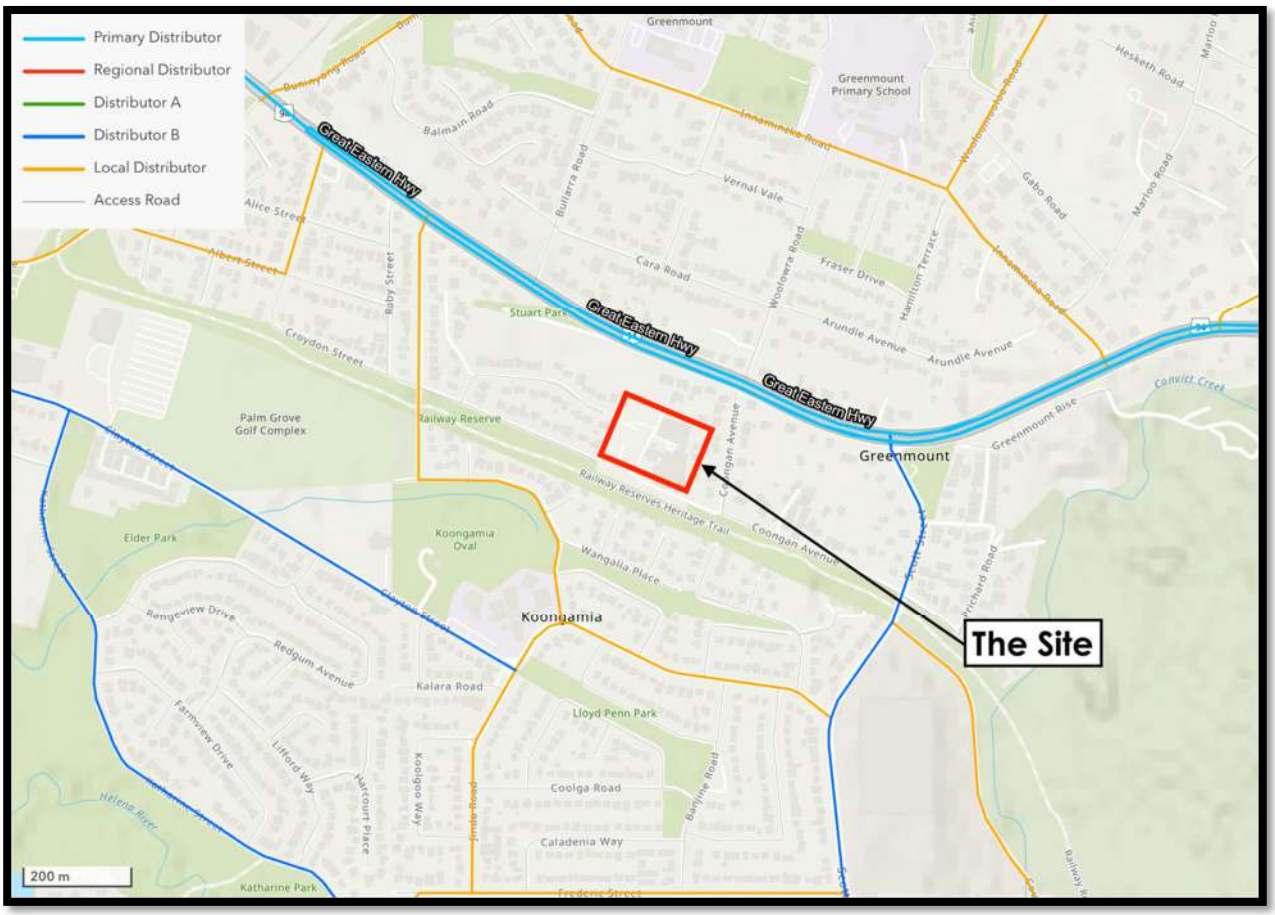
3 Existing Road Network Characteristics

3.1 Existing Road Network

Figure 3.1 illustrates the road classification in the vicinity of the Site as specified by the Main Roads WA Metropolitan Functional Road Hierarchy (MFRH).

Figure 3.1 - Connectivity within the broader road network



Source: Main Roads WA (annotated)

The Great Eastern Highway is the main traffic-carrying route through the area and is designated a Primary Distributor in the MFHR. The roads within the immediate proximity to the Site are Coongan Avenue (designated as an Access Road) and Scott Street (designated a Distributor B).

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Table 3.1 summarises the characteristics of the road network in the vicinity of the Site.

Table 3.1 - Road Network Characteristics

Road Name	Road Hierarchy			Road Network			
	Road Hierarchy	Jurisdiction	Capacity (2-way vph)[1]	No. of Lanes	No. of Footpaths	Carriageway type	Posted Speed (km/h)
Coongan Avenue	Access Road	Local Government	300	2	0	2-Lane Undivided	50
Scott Street	Distributor B	Local Government	1,200	2	1	2-Lane Marked	60
Great Eastern Highway	Primary Distributor	Local Government	3,600	4	2	4-Lane Divided	70
Coulston Road	Local Distributor	Local Government	1,200	2	0	2-Lane Marked	50
Stuart Street	Local Distributor	Local Government	1,200	2	0	2-Lane Undivided	50
Wangalla Road	Local Distributor	Local Government	1,200	2	0	2-Lane Marked	50
Jinda Road	Local Distributor	Local Government	1,200	2	0	2-Lane Marked	50

3.2 Existing Traffic Volumes (Cars)

Traffic volumes on roads in the vicinity of the Site as reported in the Main Roads' TrafficMap are given in Table 3.2. Observations indicate that traffic volumes are below the environmental traffic capacities for these roads.

Table 3.2: Existing Traffic Volume (Great Eastern Highway/Scott Street Intersection, 6/9/2023)

Road	Road classification	24 hr Total	Morning Peak Volume (7:45-8:45)	Evening Peak Volume (15:45-16:45)
Great Eastern Highway (West of Scott Street)	Primary Distributor	33,560	2,693	2,971
Great Eastern Highway (East of Scott Street)	Primary Distributor	32,535	2,574	2,863
Scott Street	Distributor B	7,443	729	636

The percentage of heavy vehicles travelling along the Great Eastern Highway ranges between 7% to 9%, and is 3% along Scott Street as shown in Appendix F.

Current traffic movements to the Site are listed in Table 3.3. The peak visitation time is on weekdays at 2 pm, which is outside the peak operating times of the adjacent road network.

[1] Based on Austroads Guide to Traffic Management Part 3 and the MFRH. For District Distributors it assumes 900 vehicles per hour per lane for a 2-lane carriageway with interrupted flow or where adjacent to a parking lane, and 600 vehicles per lane on a 2-lane carriageway with occasional parked vehicles. For a Local Distributor it assumes 6,000 vehicles per day two-way, and for a residential local Access Road it assumes 3,000 vehicles per day two-way with the peak hour being one tenth of the daily traffic volume.

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Table 3.3: Existing Site Two-Way Traffic Movements

Road	Daily Average (Mon-Sun)	Weekly Average
Resident Visitors	27	187
Staff (Morning Shift)[2]	27	186
Staff (Afternoon Shift)	16	109
Staff (Evening Shift)	5	32
Staff (Other)	6	40
Staff Movement Totals	**54**	**367**
TOTAL DAILY MOVEMENTS	**81**	**554**

3.3 Existing Traffic Volumes (Trucks and Vans)

The existing site is serviced by trucks and vans as follows:

- Articulated trucks (19 m long) – average 4.5 visits per week
- Large rigid trucks (12 m long) - average 10.25 visits per week
- Medium rigid trucks (8.8 m long) - average 2 visits per week
- Small rigid trucks / vans (up to 6.4 m long) - average 26 visits per week

The new extension is proposed to be serviced using the same volumes of service vehicles as per the existing situation. This can continue to be achieved as the facilities for all residential beds will remain common.

3.4 Existing Access Arrangements

The Site currently has a driveway off Coongan Avenue, providing direct access to the Development via a porte-cochere (at the low care ward), a drop-off loop (between the low care and high care wards) and three at-grade parking lots.

3.5 Existing Parking Arrangements

The existing parking arrangements for the Site comprise the following:

- A 16-bay parking lot close to the Coongan Ave entrance (see Figure 6.1),
- 1 ACROD bay and 5 perpendicular bays in front of the low care ward near the porte-cochere,
- 3 perpendicular bays south of the Heritage Undercliffe House,
- 11 bays adjacent the drop-off loop (including a delivery bay), and
- A 39-bay parking lot, bin area and waste collection bay adjacent the administration building.

The resulting total bays include 74 visitor car bays, 1 ACROD bay and 2 service bays.

[2] Each two-way traffic movement equates to two one-way staff movements

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4 The Proposed Development

4.1 Proposed Land Uses

The proposed development consists of the following:

1. A residential aged care extension located on the vacant plot to the west of the existing residential aged care building. The proposed extension shall have 48 one-bedroom one-bathroom assisted living residential beds with attached under croft kitchen, laundry, carpark and associated common assisted living service facilities.
2. A new entry/reception and drop-off area, integrating the heritage house for administrative use and linking the existing residential aged care building to the extension.
3. A total of 50 new car parking bays, including 4 new accessible parking bays, plus a loading bay. A total of 45 of these bays will be constructed in an undercroft area under the new building extension.
4. Removal of some existing at-grade parking areas. Retention of 22 existing car parking bays. The resulting total new parking on the Site is proposed to be 72 car bays.
5. Removal/demolition of an existing 39 bed aged care building (already completed).
6. Modifications to the existing driveway network:
    - The proposed entry/reception drop-off area cuts through the north-south section of the existing driveway. A new drop-off loop will be installed to the south of the proposed reception area.
    - Adjacent the new reception area drop-off loop, perpendicular car parking bays will be installed. The existing significant trees in this area will be preserved.
    - The existing car parking bays located adjacent to the existing drop-off loop near Heritage Undercliffe House (and the nearby delivery bay) will be removed to accommodate the new development.

The ground floor plan for the proposed development of the Site is shown in Figure 4.1. The lower ground floor plan is provided in Appendix B.

4.2 Proposed Operation of the Assisted Living Residential Accommodation

The Regis residential aged care facility in Greenmount is proposed to provide a 127-bedroom accommodation facility post development. That includes both the existing and newly extended residential buildings. It should be noted that the people living on-site will be residents with assisted living needs. This Site is not intended to be a medical or clinical facility. If the residents need medical care they will be taken to a doctor or a hospital.

4.3 Proposed Staging Context

The development of the Site is planned to occur in five discrete stages as shown on Figures D1 to D5 in Appendix D.

These five stages can be broadly categorised as follows:

- Stage 1: Development work commences. Staff, visitor and builder access and parking to be provided via Coongan Avenue. Traffic access to be prevented from both Chiraz Street and Wortley Road as per the current situation. During this stage, which is likely to be about 6 months in duration, there will be no additional traffic impacts on Chiraz Street and Wortley Road.

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- Stage 2: Demolition of 'Central Road' will occur. A temporary connection to Wortley Road will be created for staff access to parking at the rear of the Site and for builder/logistics access. Some staff and builder access will occur from Coongan Avenue. Visitor access and parking will be provided from Coongan Avenue. No direct access will be provided from Chiraz Street. The length of this stage will depend on builder activities but is likely to be less than 12 months in duration.
- Stage 3: Undercroft car park will be completed allowing the relocation of all staff access via Coongan Avenue. Access for builder and logistics vehicles to temporarily occur via Wortley Road. All visitor access and parking will continue to occur via Coongan Avenue. There will be no direct access to the Site from Chiraz Street.
- Stage 4: Demolition of the existing residential facility on the rear of the Site. Demolition and logistics access will temporarily be provided via Wortley Road. All staff and visitor access and parking will occur via Coongan Avenue. Direct access from Chiraz Street will continue to be prevented. This stage is likely to be quite short, i.e. 1 month.
- Stage 5: This is the post development stage after construction and demolition works are complete. Wortley Road will be physically blocked after demolition works are finalised. Access to the rear of the Site will then be completely restricted. Chiraz Street will remain closed to the Site.

Chiraz Street will not be used for direct Site access at any stage of the proposed development. The following screenshot shows Chiraz Street in its current blocked state.

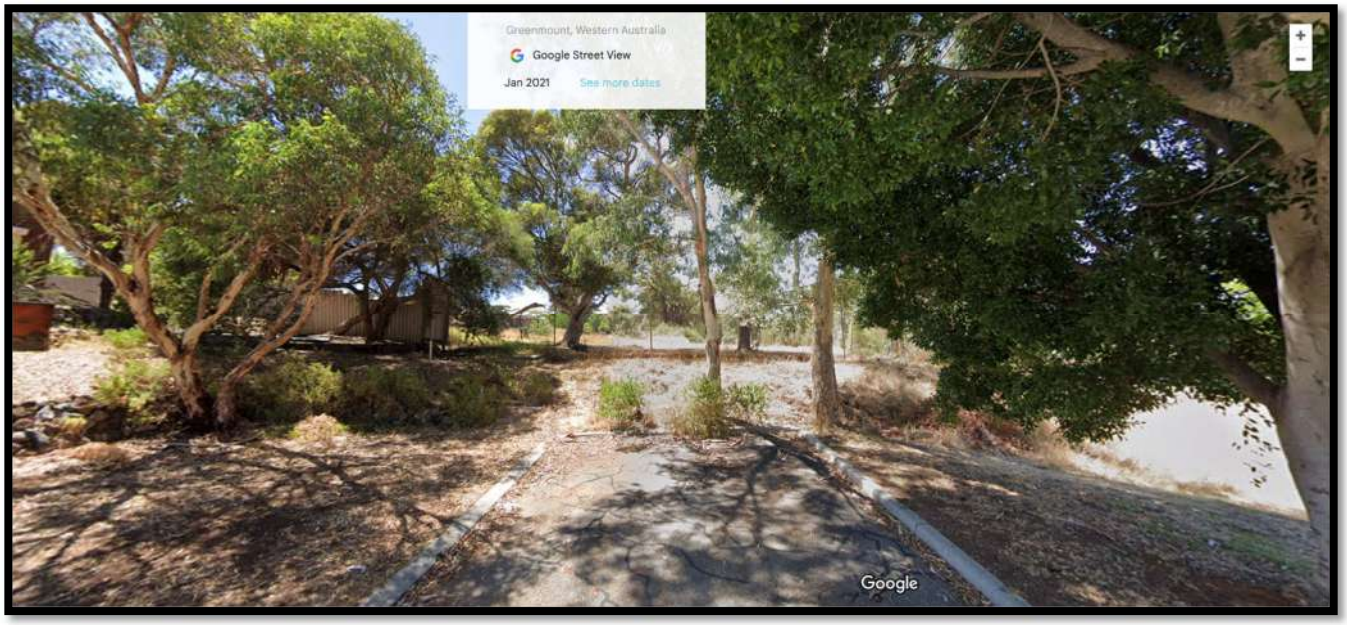

Figure 4-1: Chiraz Street Road Closure

Wortley Road (and the western end of Chiraz Street) will only be used temporarily during Stages 2 to 4 of construction and will not be used after demolition of the existing building on the rear of the Site is completed. A fence will be installed at the interface of Wortley Road and the Site after Stage 4 is completed.

The primary point of access to the Site post development (Stage 5) including all parking areas is proposed to be via Coongan Avenue, which is consistent with the current traffic situation.

The proposed staging plan allows for the undercroft car park to be used pre-practical completion of the new building thereby facilitating earlier access for staff and visitors using the existing traffic arrangements via Coongan Avenue.

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Any future development of the rear of the Site is proposed to be subject to future planning processes outside the scope of this TIS. Nonetheless, it is recommended that due regard be given to the findings of this TIS, and the future traffic use of Chiraz Street and Wortley Road at that time, to ensure there is no undue amenity impacts caused by any future development on those local access roads.

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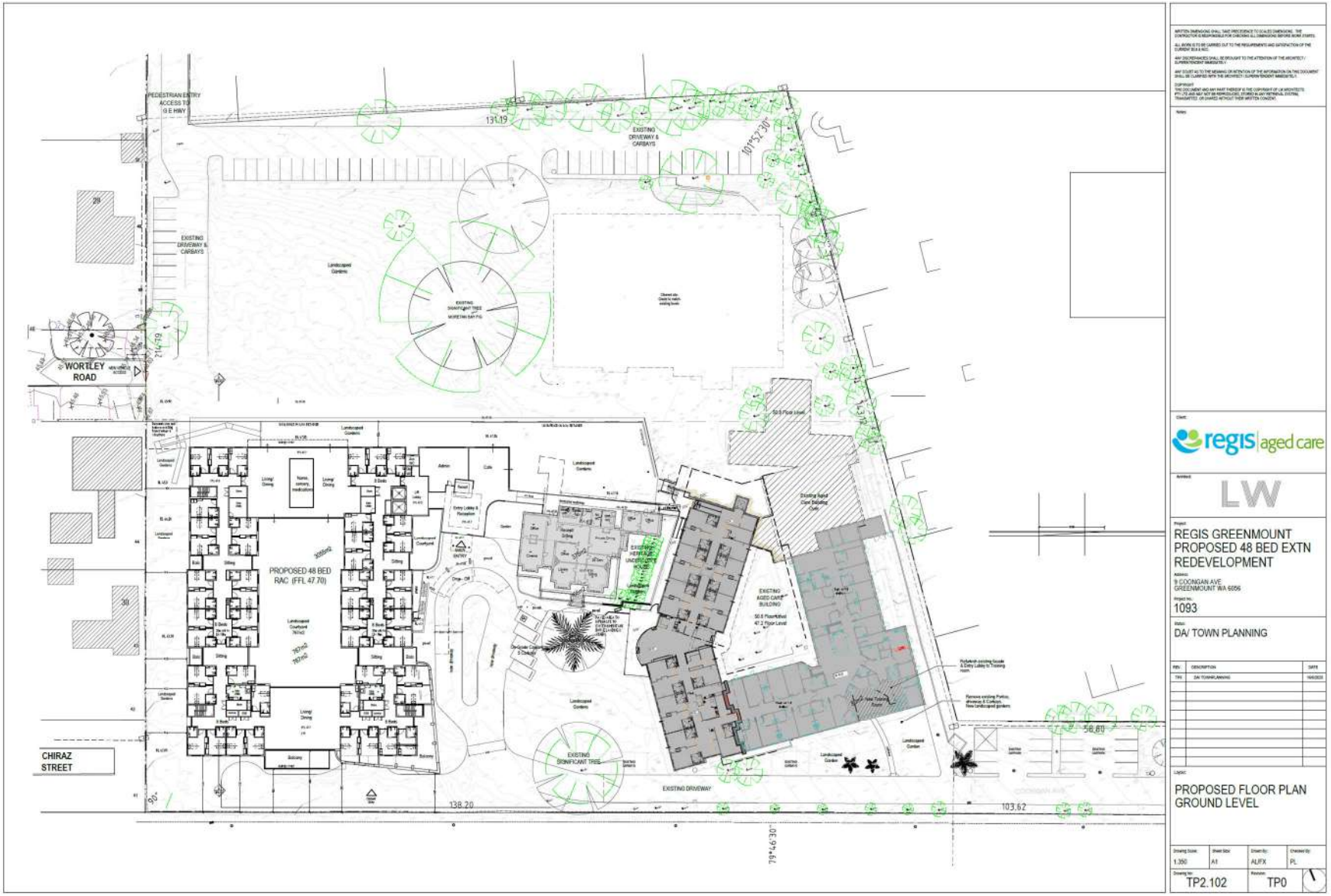
Figure 4.2 – Proposed Site Layout



Source: LW Architects

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5 Assessment of Traffic Generation and Impacts

5.1 Forecast Traffic Generation for the Development

It is noted that the peak hours for the Site and the surrounding road network are not coincident. The morning and afternoon peak hours for traffic on the surrounding road network is from 7:45 am to 8:45 am in the AM peak and 15:45 pm to 16:45 pm in the PM peak. Regis staff (shift workers) start and finish outside those peak hours, which reduces their impact.

Based on published traffic generation rates from the Institute of Transportation Engineers (ITE) (Trip Generation Manual 11th Edition 2021), the traffic generation from the Site was estimated. For this purpose, the ITE rates given in Table 5.1 were used. The trip generation results are shown in Table 5.2.

While the proposed new extension includes 48 beds, the existing traffic volumes quoted in this report include trip generation from the existing 39-bed facility on the rear of the Site. Consequently, the traffic generation associated with 9 additional beds is what adds to the existing traffic volumes to determine resulting traffic impacts. This approach accurately evaluates the incremental impact of the additional traffic introduced by the new development.

Table 5.1 - Trip Generation Rates for Peaks on the Adjacent Road Network

Land Use	Source	AM Peak hour	IN	OUT	PM Peak hour	IN	OUT
Assisted Living: 254	ITE 11th	0.18 trips per bed	60%	40%	0.24 trips per bed	39%	61%

Table 5.2 – Trip Generation for Peak Hours on the Adjacent Road Network

Land Use	Yield	AM Peak trips[3]	IN	OUT	PM Peak trips	IN	OUT
Assisted Living Accommodation (existing demolished)	39 beds	-7	-4	-3	-9	-4	-5
Assisted Living Accommodation (new extension)	48 beds	9	5	4	11	5	6
Assisted Living Accommodation (difference)	9 beds	2	1	1	2	1	1

Based on the ITE trip generation rates, it is forecast that assisted living residential accommodation on the Site will generate as much as 0.18 and 0.24 two-way trips per bed in the AM and PM peak hours of the surrounding road network, respectively. For an extra 9 residential beds, this amounts to a maximum of 2 two-way trips in the AM and PM peak hours of the surrounding road network (see Table 5.1). Even if the traffic generation from all 48 beds in the new extension were factored into the analysis, it would only add approximately 10 vehicles per hour to the existing situation. The impact from such a small increase in traffic volume is not likely to be very noticeable and is considered immaterial to the effective operation of the road network.

[3] Refers to the AM peak hour of the adjacent road network occurring between 7 am and 9 am on a weekday. The same situation applies for the PM peak hour, i.e., one hour between 4 pm to 6 pm.

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5.2 Traffic Distribution

A distribution of generated traffic consistent with the operation of the existing site was adopted. When applied to the local road network in the vicinity of the Site, the post development distribution has translated to 100% of vehicles entering and exiting via Coongan Avenue to and from Great Eastern Highway.

5.3 Forecast Traffic Impact on Surrounding Streets

The total trips generated from the proposals has been estimated at less than 10 vehicles in both the AM and PM peak hours of the adjacent road network. This amount is considered to be a relatively low impact noting the operation and capacity of existing surrounding streets and intersections.

Based on the traffic forecasts it can be concluded that:

- While the main impact of the Site will be on Coongan Avenue and Scott Street, it is not likely to have a material impact[4], and they will continue to operate well within their practical environmental traffic capacities.
- The increase in traffic on Great Eastern Highway is forecast to be negligible and not likely to have any material impact[4].
- There will be minimal impact on the operation of the Scott Street and Great Eastern Highway and Coongan Avenue and Scott Street intersections.
- Due to the relatively low number of vehicles entering and exiting the Site, the likelihood of vehicles queuing at the entrance and thus impacting traffic on Coongan Avenue and connecting streets is considered negligible.

5.4 Forecast Traffic During Construction Stage

During the construction and demolition stages of the development it is proposed that some staff and construction traffic will temporarily access the Site via a short-term connection from the rear of the Site to Wortley Road.

Based on the traffic generation exercise (refer Section 5.1) the total traffic generated by the existing assisted living residential accommodation has been estimated at a maximum of 9 two-way vehicles movements (4 in and 5 out) during the peak hour for the Site. This excludes construction related traffic. As a conservative estimate, if two-thirds of this Site generated traffic were to utilise Wortley Road during Stages 2-4 (and one third via Coongan Ave) it would only represent an increase of 6 two-way vehicle movements per hour on Wortley Road and the western end of Chiraz Street.

An estimate of construction (builder and logistics) traffic has been estimated based on the scale of the development and experience with other similar construction sites in Perth. The estimate allows for typical time-based fluctuations of traffic movements throughout the day with the majority of construction traffic occurring outside the peak hours of the adjacent road network. The construction traffic generation is forecast to be between 10 and 12 two-way vehicle movements per hour in the peak hour for the adjacent road network. This traffic is forecast to temporarily use Wortley Road (and the western end of Chiraz Street) to differing degrees during Stages 2 to 4 of the construction staging program described in Section 4.3.

[4] The WAPC Transport Impact Assessment Guidelines indicate that an increase in traffic of less than 10% of capacity would not normally be likely to have a material impact on any section or road.

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Collectively, the staff and construction traffic forecast to temporarily use Wortley Road and the western end of Chiraz Street during Stages 2 to 4 is estimated to be a maximum of 18 two-way vehicle movements per hour. This amount of traffic is considered negligible in the context of existing traffic levels in the area and noting that the environmental traffic capacity of Wortley Road and Chiraz Street is in the order of 3,000 vpd (300 vph based on the peak hour being 10% of the daily volume). It is noted that an increase of 18 two-way vehicle movements represents less than 10% of the 3,000 vpd environmental traffic capacity of a local access road as defined by the MFHR. This small increase can be considered immaterial in the context of the 10% threshold specified by the WAPC[4].

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6 Proposed Parking Arrangements

6.1 Assessment of Development Generated Parking Demand

It is forecast that there will be a reasonable demand for parking that will need to be satisfied on the Site.

The peak hour for the Site for parking is forecast to be around 2 pm in the early afternoon based on staff shift turnover requirements, site visitations schedules, and the movement of residents. Staff changeover times have taken as follows:

- Morning shift – begins at 6 am
- Afternoon shift – begins at 2 pm
- Evening shift – begins at 10 pm

Based on the proximity of public transport and other transport infrastructure nearby, it is forecast that some portion of the assisted living residents and associated staff will use other modes of transport to access the Site, i.e. not via a single occupancy private car, and therefore will not require parking on the Site.

Table 6.1 presents the forecast parking demand by time period in a tabular format. This demand has been estimated based on a first principles methodology using actual statistics for the existing Site. It also allows for a 50% shift changeover overlap from the two shifts.

Table 6.1: Forecast parking demand by time period

Time[5]	5.30 am	6.00 am	6.30 am	1.30 pm	2.00 pm	2.30 pm	9.30 pm	10.00 pm	10.30 pm
Support Staff	5	30	27	27	35	16	16	19	5
Admin / Management staff	-	-	2	4	4	4	-	-	-
Residents	19	19	19	15	15	15	19	19	19
Visitors / Ambulance / Maintenance Vehicles / Other	3	3	3	15	12	10	1	1	1
Totals	27	52	51	61	66	45	36	39	25

The peak parking demand taking all the above into consideration has been estimated at 66 parking bays allowing for the busiest period of the day for staff (admin, support, etc.) residents, and visitors (including maintenance staff).

[5] Assumes higher parking demand will occur at staff changeover times at 5.30-6 am, 1.30-2 pm and 9.30-10 pm. Admin staff start at 8.30 am and finish between 4-5 pm. It is assumed that approximately 75-80% of admin and management staff will be car drivers during the day (7 am to 5 pm). It is assumed that 100% of care staff will be car drivers. It is forecast that care staff will undertake two traffic movements per shift. It is estimated that 15% of residents will park a car. Estimates are based on data taken from Regis Greenmount and other similar sites.

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6.2 Assessment of Parking Provision Requirements

A total of 127 assisted living residential bedrooms and associated common service areas are proposed for the Site. This includes 79 existing beds and 48 new beds.

For a nursing home, Schedule 4 of LPS No. 4 defines a requirement of 1 car parking bay per 4 beds plus 1 space per employee or staff member on premises at any one time. This parking provision rate is considered reasonable noting the type of aged care facility proposed by Regis at Greenmount, the forecast level of car ownership and use, and the proximity of nearby high frequency public transport services and pedestrian infrastructure.

The maximum staff forecast to be on the Site at any one time is 39. This allows 4 site leadership team and regional support staff to be on Site at the same time as the busiest shift changeover period, i.e. at 2 pm when the morning shift changes over with the evening shift.

Based on these estimates, it is calculated that 32 car parking bays are required for residents and 39 car parking bays for staff. In total, this adds to Shire of Mundaring requirement to provide 71-car parking bays on the Site.

Based on first principles, it has been established (refer to Section 6.1) that there will be a demand for parking of up to 66-car parking bays in the peak hour of the Site. This parking demand covers the total requirements for staff, visitors and residents at the busiest period of the day. This peak demand estimate is slightly lower than the 71-car parking bay provision rate requirement to satisfy the planning requirements of the Shire of Mundaring.

6.3 Assessment of Proposed Parking Supply

It is proposed that a total of 72 off-street car parking bays be provided on the Site. This includes 4 accessible/ACROD bays for people with disabilities and a set down area near the main entry for parking of emergency vehicles/ambulances and mini-vans to transport wheelchair-bound residents to external venues.

This amount of parking supply exceeds the parking demand of 66 bays forecast during the peak period for the Site (see Section 6.1). The parking supply also satisfies the parking provision requirements of 71 bays (see Section 6.2) specified by the Shire of Mundaring.

The types of vehicles frequenting the Site post development will be mostly small to midsize cars driven by staff, visitors, and residents. On a less frequent basis, the Site will be visited by contractors and gardeners maintaining the site in utility vehicles. The proposed off-street parking areas have been designed to accommodate these sizes of vehicles.

It is our expert opinion that the size of the proposed car parking facility is well justified and will adequately meet the peak parking demand of residents, visitors, and staff. It will be the right size to satisfy the demand during the day while not encouraging more traffic than necessary into the adjacent area.

6.4 Assessment of Parking Needs During Construction Staging

Section 4.3 and Appendix D provide details on the proposed car parking arrangements during the different stages of construction.

The existing parking is proposed to be retained on the rear of the Site for use by staff and construction workers during Stages 1 to 3 of the development staging plan when the undercroft car park is scheduled to be completed. It will then be opened and made available for use by staff and visitors.

The existing 16 parking bays on the front of the Site located adjacent to the Coongan Avenue access leg are also proposed to be retained (see Figure 6.1) and made available

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for visitor use during construction staging. Another 6 existing car parking bays in two separate at-grade locations will also be retained for ongoing use.

On this basis, the development will remain compliant with the stipulated Shire of Mundaring parking provision requirements (71 car parking bays) throughout the full period of construction.

Figure 6-1: Car parking near Coongan Ave entry

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7 Assessment of Vehicular Access and Manoeuvrability

7.1 Access to the Site Post Development (Stage 5)

Regis Greenmount will be accessible via a 6 m wide crossover on Coongan Avenue, which is not a through-road connection to any major road and only carries local traffic.

The driveway is proposed to be extended to the west with localised widening to accommodate the largest service vehicle forecast to visit the Site.

Images of the street frontages and junctions in the vicinity of the Site are provided in Appendix C.

7.2 Vehicle Manoeuvring throughout the Site Post Development (Stage 5)

Vehicle manoeuvres within the Site were checked to ensure adequate manoeuvring space and clearances to fixed objects. In all cases, 300 mm clearance has been provided where parking spaces are adjacent to a wall or fence and other restrictions that prevent door openings as per the requirements of Australian Standard AS/NZS 2890.1.

Maxi-taxis, small mini-buses/vans, and patient transport will pick up and deliver residents and visitors in the area outside the main entry on the loop service road. Ambulances will make use of the main entry loop or the loading dock area in the undercroft parking area, which is of sufficient size to accommodate ambulances manoeuvring as shown on the swept path diagrams contained in Appendix E.

The undercroft car park is able to accommodate the safe manoeuvring in all directions of a small 6.4 m long truck, a large van, and an ambulance. For details on manoeuvring by larger vehicles refer to Sections 7.3 and 7.4.

7.3 Loading and Unloading Manoeuvres Post Development (Stage 5)

As defined in Section 3.3, a variety of sizes of different service vehicles are forecast to frequent the site. The largest of these will be a 19.0 m semi-trailer but the majority of service vehicles will be smaller.

A loading bay has been included in the design at the rear of the undercroft parking area. A total height clearance of 3.8 m has been provided between the driveway and the loading bay. The basis of the design is that trucks safely enter from Coongan Avenue in forward gear, drive past the undercroft parking entrance into the service road stub, reverse back into the loading bay, and then exit the Site to Coongan Avenue once again in forward gear.

Safe access for 19.0 m articulated vehicles and 12.0 m heavy rigid vehicles doing this manoeuvre was checked with the Autoturn vehicle path simulation software and it was found to comply with the requirements of Australian Standard AS/NZS 2890.1. The swept path drawings given in Appendix E illustrate these swept path vehicle manoeuvres. This includes a semi-trailer manoeuvring while retaining a minimum 300 mm clearance between any fixed objects like kerbs and walls.

The 3.8 m height clearance provided in the undercroft area allows for the requirements of most large trucks and vans, e.g. Pantech trucks, and large passenger vehicles with roof cargo attachments. In the rare cases where trucks more than 3.8 m in height enter the Site, allowance has been made for them to park in the service road stub west of the undercroft parking entrance and to be unloaded/loaded with pallet stackers/transporters. The design allows this to be done effectively without impacting on the operation of the entrance to the undercroft parking area.

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7.4 Commercial Waste Vehicle Access Post Development (Stage 5)

Commercial waste trucks will service the Site by entering from the south via the Coongan Road driveway and departing the Site in forward gear.

Allowance has been made for the largest size of commercial waste vehicle expected to service the Site. This is equivalent to a 12.0 m heavy rigid truck.

It is intended that commercial waste trucks shall collect waste from the development outside of peak hours and outside of major shift changes at the development in order to minimise interference with entering and exiting traffic.

Waste vehicle access during off-peak hours will significantly reduce the chances of any significant impact on:

- the operation of the driveway and the movement of vehicles entering and exiting the Site,
- the movement of traffic within the Site on circulating roads, and
- access to enter and exit visitor car parking bays.

7.5 Access During Construction and Demolition (Stages 1 to 4)

The proposed staging plan for access during construction is given in Section 4.3 and is illustrated in the figures contained in Appendix D.

Chiraz Street will continue to remain physically closed at the interface to the Site during construction.

Wortley Road will be connected to the rear of the Site temporarily to provide alternate facility access during a constrained window of construction activity (Stages 2 to 4). Once construction and demolition activities are finalised the temporary connection to Wortley Road is proposed to be permanently closed again. Access to the development for all traffic movements will then revert to Coongan Avenue as in the existing situation.

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8 Public Transport Access

The Site is located within 100 m of two bus stops on the Great Eastern Highway, served by the Transperth bus routes No. 320 and 321 in both directions. The stops comprise 14543 travelling eastward, and 14603 travelling westward. Both bus routes connect the Site to Midland Train Station (5 km west of the Site) and services in both directions run between 6 am and 6 pm. See Figure 8.1 for the locations of the bus stops.

Figure 8.1 - Walking route from Stop 26566 (South) to the Site

Source: Google Maps 2025

Walking distances of up to 400 m for bus stops and 800 m for train stations are considered the limit of what people will generally accept. As Midland Station is currently the nearest train station, it is necessary for public transport users from Perth City to catch the 320 or 321 bus routes to the Site. This makes the placement of the eastbound and westbound stops along the Great Eastern Highway near the Site ideally located.

As the services are restricted to daytime hours and do not run 24/7, the option to commute using public transport may be limited to shift workers arriving and departing during typical office hours. Outside of the stated public transport operating hours, workers will have no choice but to drive to the Site.

Carers are likely to be concerned with walking the streets after hours when it is dark to get to public transport, especially in Winter. Consequently, public transport in this scenario is unlikely to be a very attractive mode of transport for most people accessing the Site. Instead, secure off-street parking will be required to accommodate most staff and visitors. The map for route 558 has been provided in Figure 8.2 for greater context.

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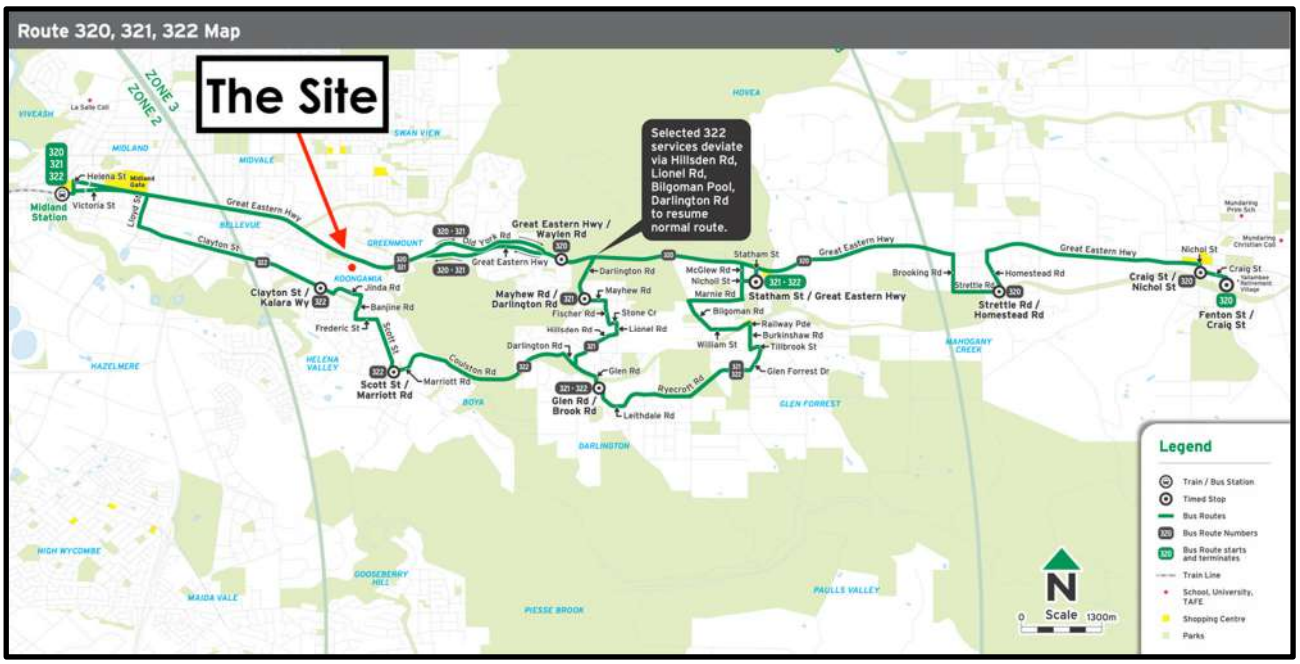
Figure 8.2 - Public Transport Connectivity



Source: Transperth 2025 (modified for presentation)

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9 Pedestrian and Cycling Facilities

The Site has limited access to high quality pedestrian and cycling connections. The only paths near the Site useable by commuting pedestrians and cyclists are those on Great Eastern Highway. None of the local access roads surrounding the Site offer sealed footpaths or designated cycle lanes.

The main pedestrian movements that will occur in the vicinity of the Site are expected to be to and from the bus stops on Great Eastern Highway via the development's proposed cut-through to the north of the Site.

An extract of the Department of Transport's Long-Term Cycle Network (Perth and Peel) has been provided in Figure 9.1. The nearest cycle path is a secondary route using a cut-through from Arundle Avenue to Great Eastern Highway and continuing southward along Scott Street. The Railway Reserves Heritage Trail, an offroad bike trail, runs across the south border of the Site.

Figure 9.1: Long-Term Cycle Network for Perth

Source: DoT via ArcGIS, 2025

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10 Road Safety Assessment

10.1 Crash Assessment

A search of the Main Roads WA Reporting Centre for traffic crash data was undertaken for reported crashes between the 1st of January 2019 and the 31st of December 2023 for the following sections:

- Stuart Street; from Great Eastern Highway to Wangalla Boulevard,
- Scott Street; from Great Eastern Highway to Coulston Road,
- The Great Eastern Highway; from Norman Street to Scott Street, and
- No crashes occurred on the following:
  - Coongan Avenue,
  - Chiraz Street, and
  - Wortley Road.

The analysis results are given in Tables 10.1 to 10.3.

Table 10.1 – Stuart St, from GEH to Wangalla Blvd

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Rear End	-	-	-	1	-	**1**
Right Angle	-	-	-	1	-	**1**
Right Turn Thru	1	-	-	-	-	**1**
Sideswipe	-	-	-	1	-	**1**
Total	**1**	**0**	**0**	**3**	**0**	**4**

Table 10.2 – Scott St, from GEH to Coulston Rd

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Rear End	-	-	1	17	6	**24**
Right Angle	-	1	1	9	1	**12**
Right Turn Thru	-	2	-	5	1	**8**
Not Specified	-	-	-	1	-	**1**
Total	**0**	**3**	**2**	**32**	**8**	**45**

Within the given data interval, both streets have recorded only one midblock incident; a rear-end collision on Stuart Street that resulted in significant property damage. All other incidents are concentrated near the intersections with the Great Eastern Highway.

Table 10.3 – GEH, from Stuart St to Scott St

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Rear End	-	-	4	27	9	**40**
Right Angle	-	1	2	11	-	**14**
Right Turn Thru	1	1	1	5	1	**9**
Hit Pedestrian	-	1	-	-	-	**1**
Sideswipe	-	-	1	1	3	**5**
Not Specified	-	-	-	1	-	**1**
Total	**1**	**3**	**8**	**45**	**13**	**70**

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On Great Eastern Highway, 19 crashes (27%) occurred midblock, including 1 that resulted in hospitalisation and 3 requiring medical treatment. The remaining 51 crashes (73%), which included 1 fatality, 2 hospitalisations, and 5 medical treatments, took place near street intersections, specifically at Stuart Street, Bullaburra Road, and Scott Street.

While crashes have been recorded on the Great Eastern Highway near the nearest turn-off streets to the Site, the crash data does not indicate any significant road safety concerns or major crash risks on the streets adjacent to or leading into the Site.

10.2 Assessment of Sight Distances

The visibility/sight line from the driveway locations was reviewed and it is deemed to meet the requirements of the Australian Standards in terms of required sight distances.

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11 Summary

Level5Design has prepared a Transport Impact Statement for the proposed residential extension to the Regis Aged Care development in Greenmount. The Transport Impact Statement has been prepared in accordance with *Guidelines for Development: Volume 4 – Individual Developments*, DPLH/WAPC.

As part of this review, a traffic generation exercise was conducted to qualify and quantify the impact of the Site on the surrounding road network post development. The results indicate that the traffic impacts will be relatively low (approx. 2 vehicle trips in the peak hour) and are unlikely to significantly impact the operation of surrounding road network.

A review of the traffic impacts during the different stages of construction staging was also undertaken. In particular, the traffic impact on Wortley Road and the western end of Chiraz Street was assessed during Stages 2 to 4 when Wortley Road is proposed to be temporarily connected to the rear of the Site to provide alternate access for some staff and construction traffic. It was estimated that the traffic on Wortley Road and the western end of Chiraz Street would increase by up to 18 additional two-way vehicle movements in the peak hour of the adjacent road network. This increase on Wortley Road and the western end of Chiraz Street represents less than 10% of their environmental traffic capacity. This small increase is considered negligible, and consistent with WAPC Guidelines, would not be expected to have a material impact on any section of these local access roads. Hence, the traffic generated by the development was assessed as being able to be adequately accommodated.

An analysis of the parking requirements confirmed that the development proposal will provide adequate parking capacity to satisfy the demands of residents, staff, and visitors for all parts of the day while not encouraging more traffic than necessary into the surrounding area. The use of other transport modes like public transport, cycling and walking is encouraged where it is safe and effective to use them.

The access and manoeuvring of service vehicles was checked and found to comply with the requirements of the Australian Standards. Service vehicles can safely access and manoeuvre through the Site to the loading area.

Finally, a road safety assessment was undertaken that indicates that the proposals are safe and appropriate. The analysis also confirmed compliance with all relevant design standards.

In summary, this Transport Impact Statement has not identified any traffic or parking-related issues that would prevent the proposed development from being approved in its current form.

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APPENDIX A: Transport Impact Statement Checklist

Item	Reference
Proposed development	
proposed land uses	Section 4
existing land uses	Section 2
context with surrounds	Section 2
Vehicular access and parking	
access arrangements	Section 3
public, private, disabled parking set down / pick up	Section 6
Service vehicles (non-residential)	
access arrangements	Section 7
on/off-site loading facilities	Section 7
Service vehicles (residential)	
rubbish collection and emergency vehicle access	Section 7
Hours of operation (non-residential only)	Section 3
Traffic volumes	
daily or peak traffic volumes	Sections 3 and 5
type of vehicles (e.g. cars, trucks)	Sections 3 and 5
Traffic management on frontage streets	Sections 5 and 7
Public transport access	
nearest bus/train routes	Section 8
nearest bus stops/train stations	Section 8
pedestrian/cycle links to bus stops/train stations	Sections 8 and 9
Pedestrian access/facilities	
existing pedestrian facilities within the development (if any)	Section 9
proposed pedestrian facilities within development	Section 9
existing pedestrian facilities on surrounding roads	Section 9
Cycle access/facilities	
existing cycle facilities within the development (if any)	Section 9
proposed cycle facilities within development	Section 9
existing cycle facilities on surrounding roads	Section 9
proposals to improve cycle access	Section 9
Site specific issues	
Safety issues	Section 10
identify issues	Section 10
remedial measures	Section 11

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APPENDIX B: Plans for the Proposed Development

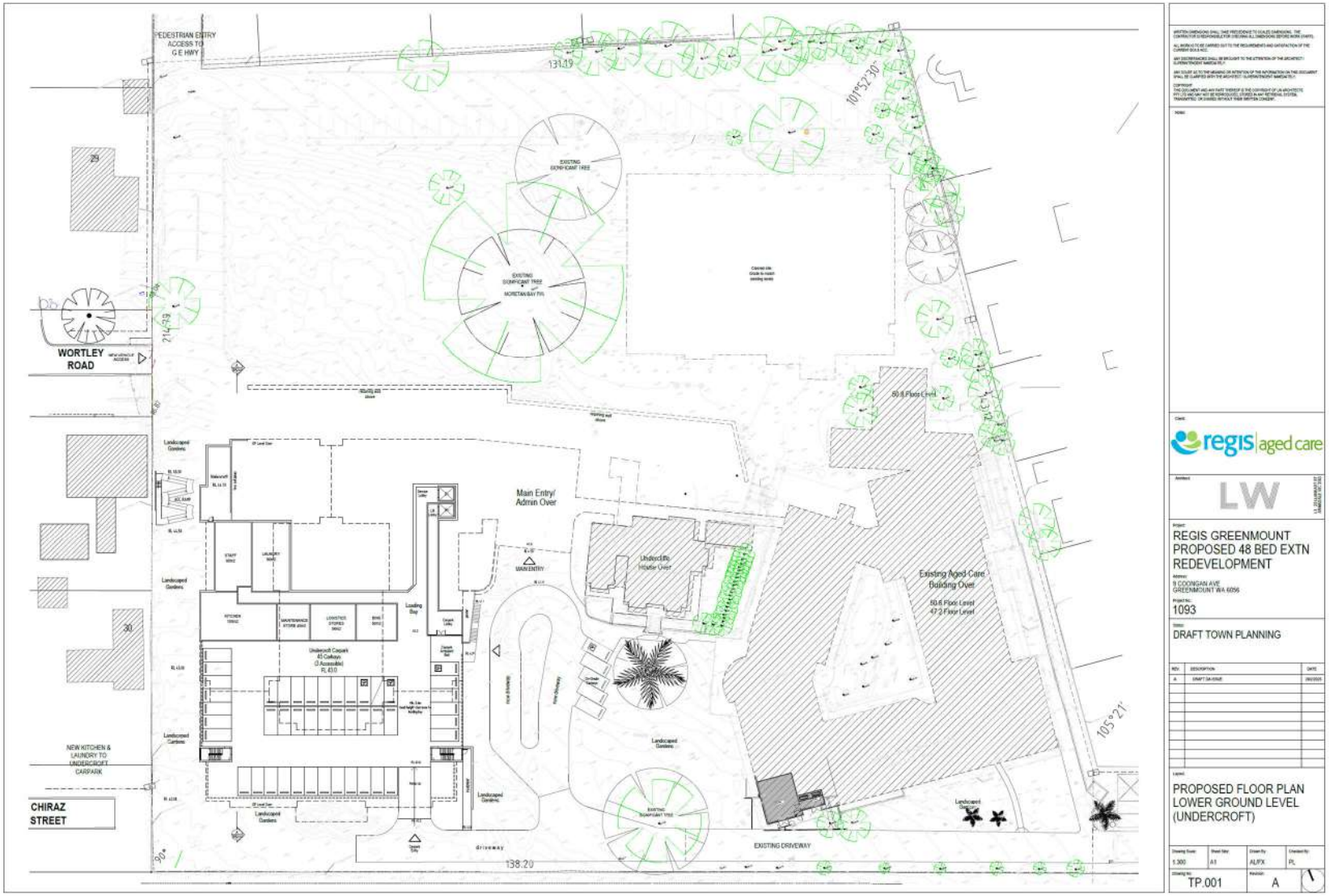

Figure B1 – Lower Ground Level Floor Plan (Source: LW Architects)

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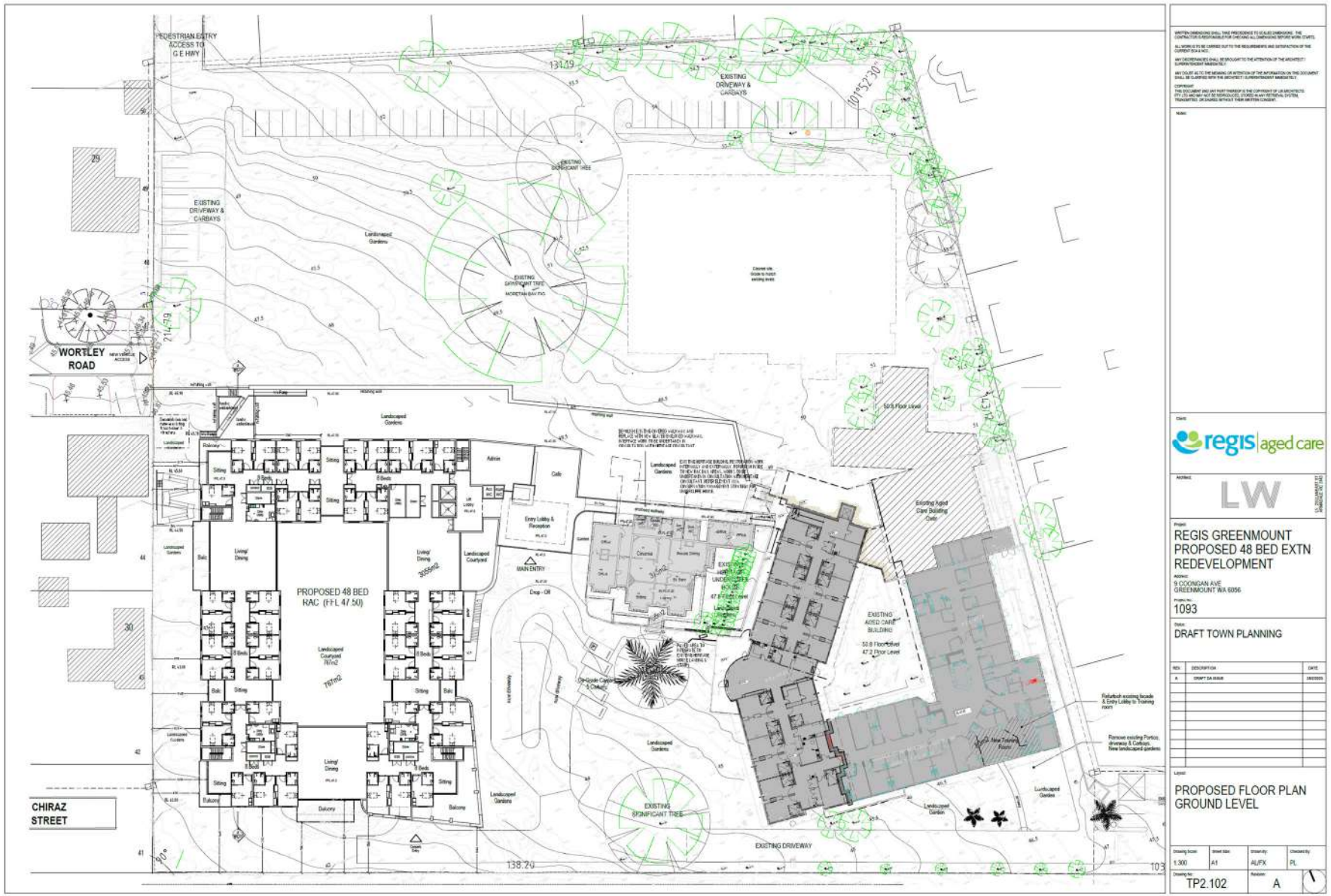

Figure B2 – Ground Level Floor Plan (Source: LW Architects)

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Appendix C: Images of the Site

Figure C1: Entry to Regis Greenmount via Coongan Avenue (looking Southeast)

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Figure C2: Entry to Regis Greenmount via Coongan Avenue (looking Northwest)

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Figure C3: Western end of Regis Greenmount at the end of Coongan Avenue (looking South)

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Figure C4: Regis Greenmount at the end of Coongan Avenue near Chiraz Street (looking Northwest)

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APPENDIX D: Proposed Staging Plans

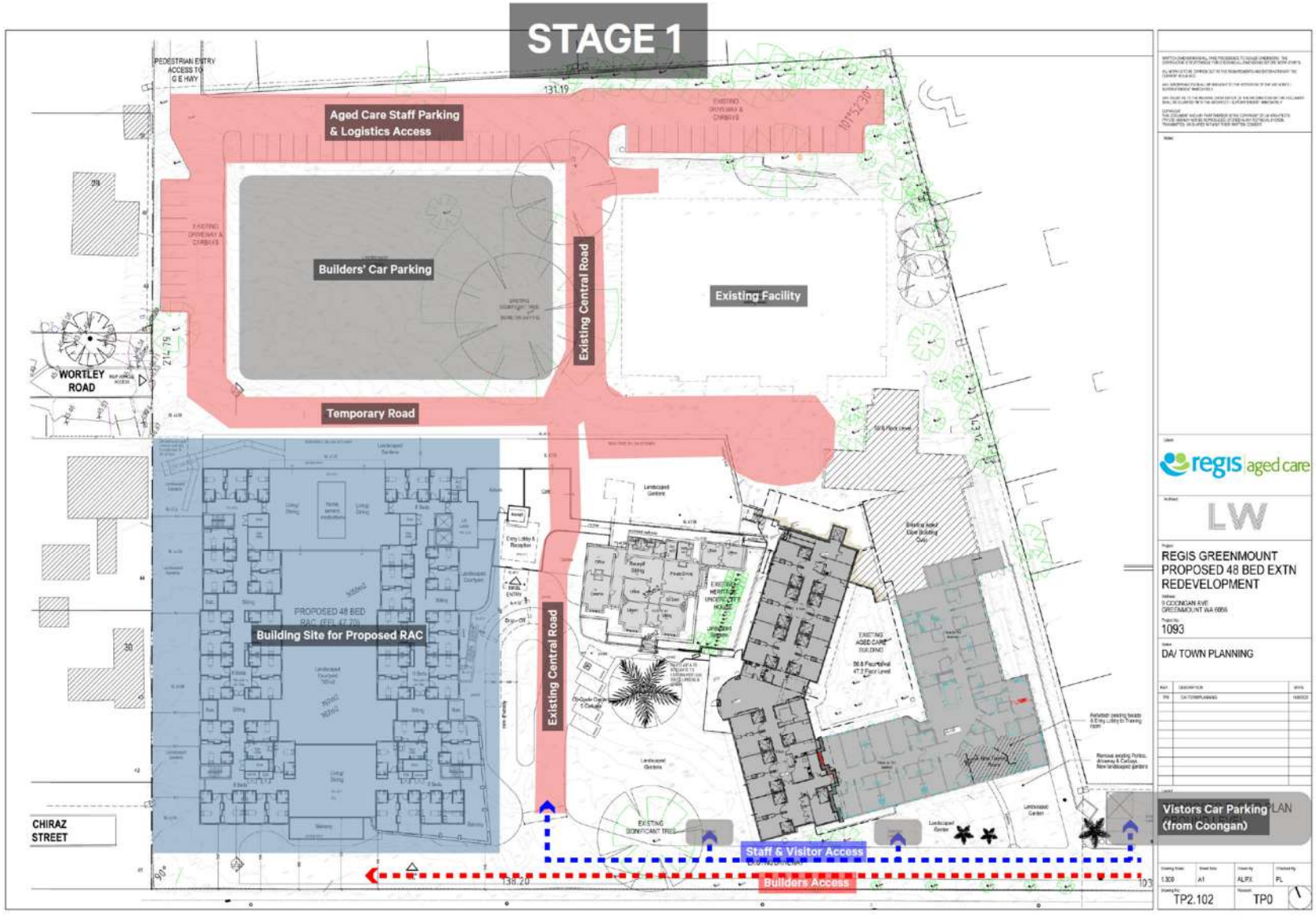

Figure D1: Proposed Stage 1 Access Arrangements

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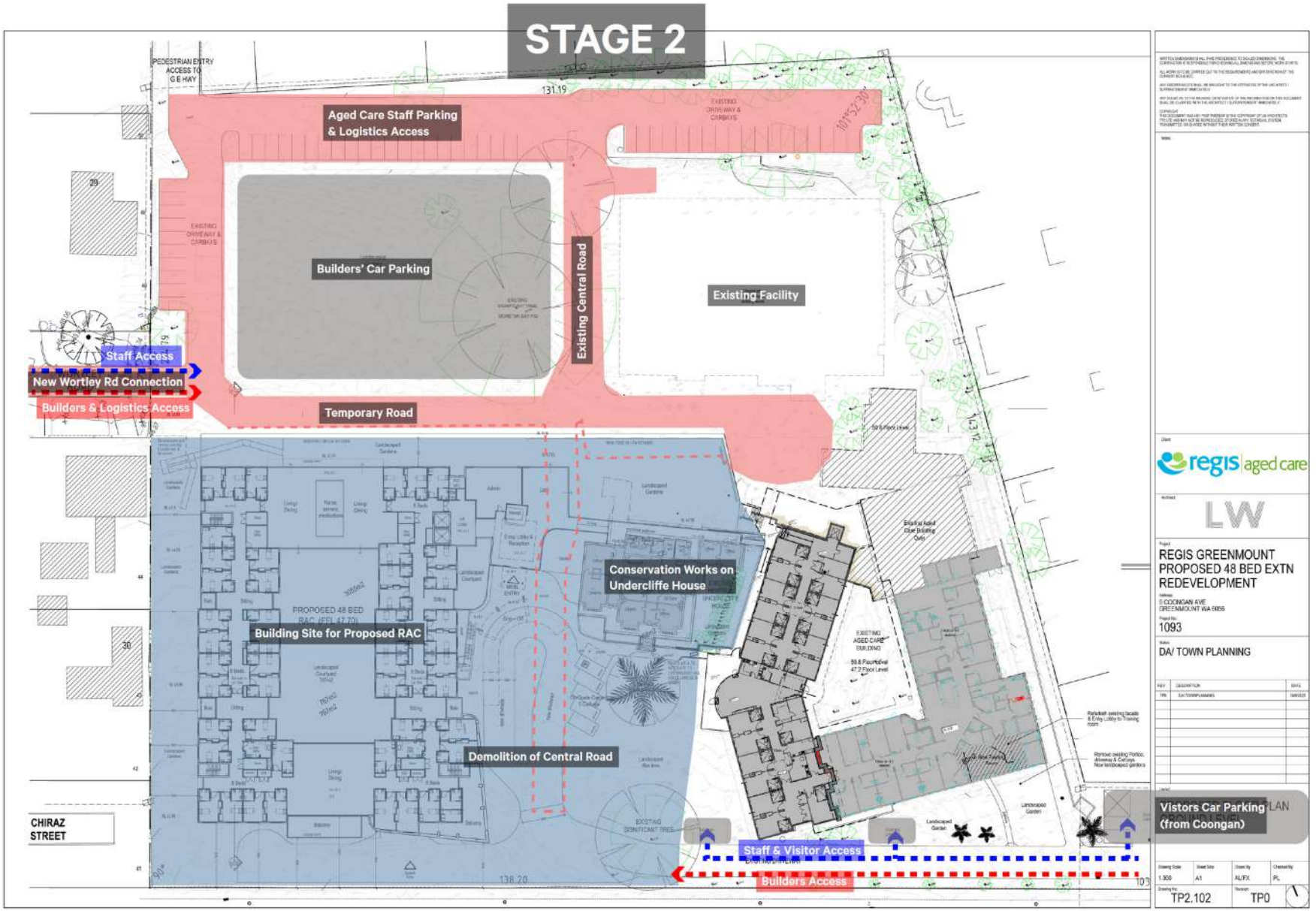

Figure D2: Proposed Stage 2 Access Arrangements

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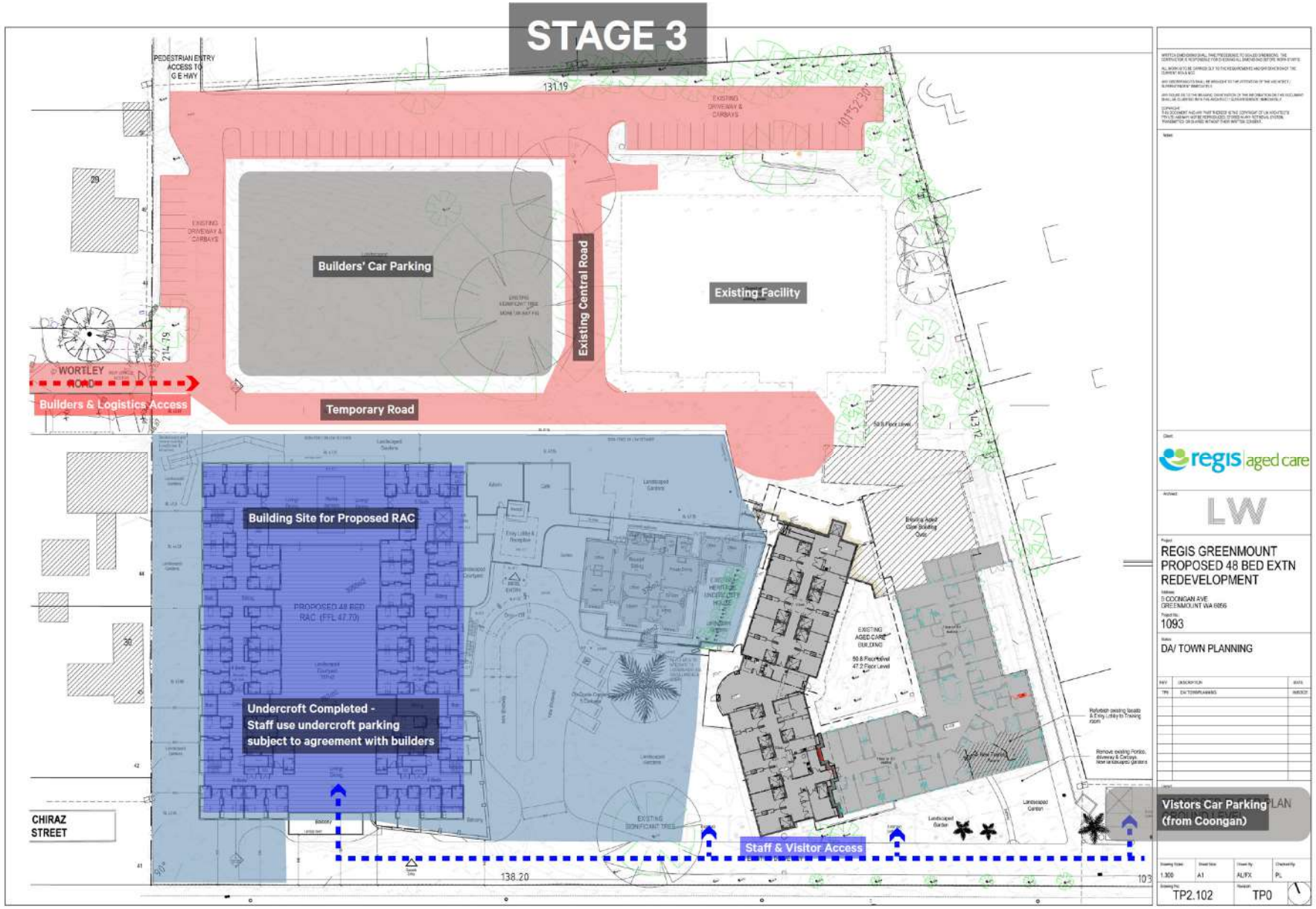

Figure D3: Proposed Stage 3 Access Arrangements

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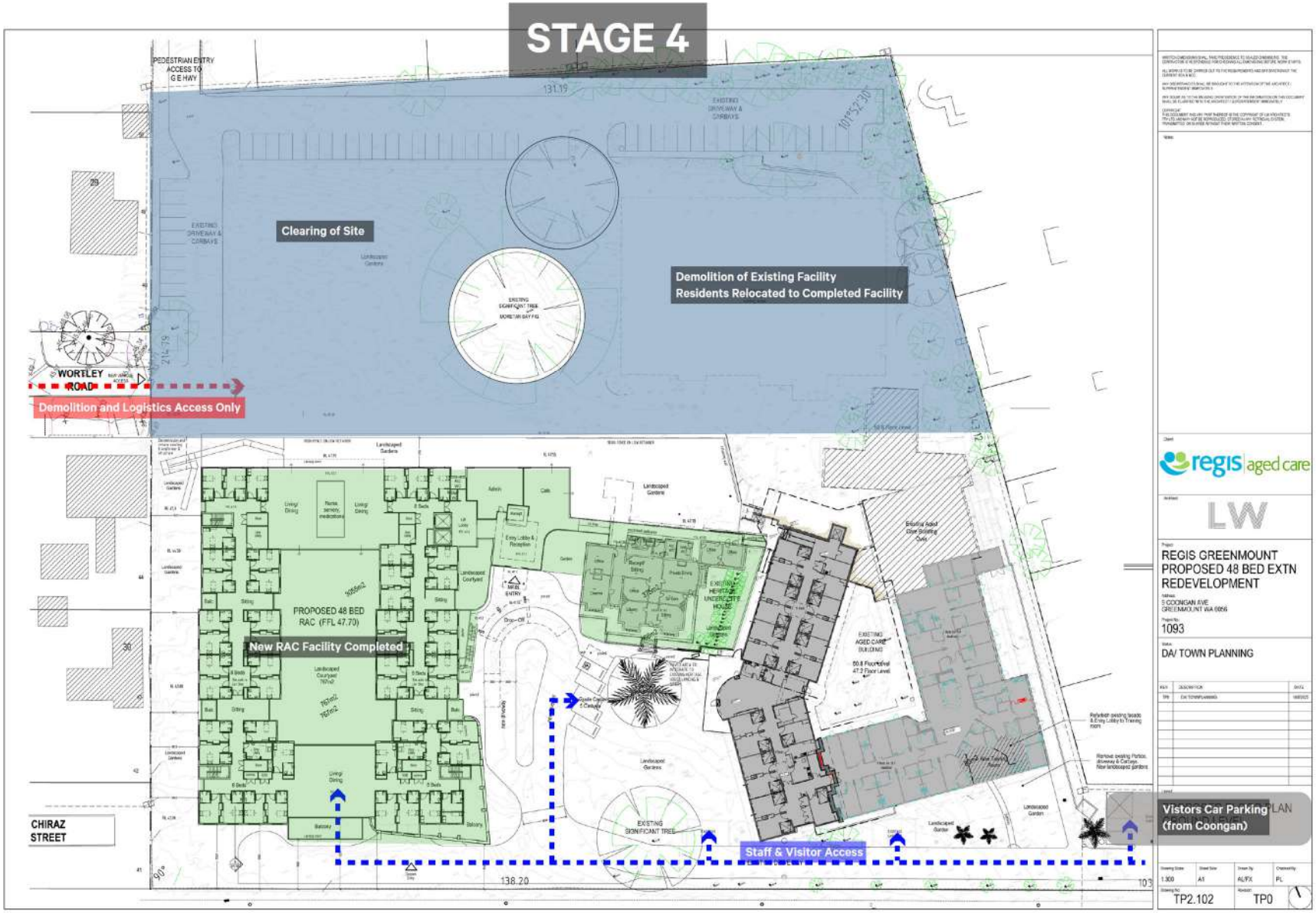

Figure D4: Proposed Stage 4 Access Arrangements

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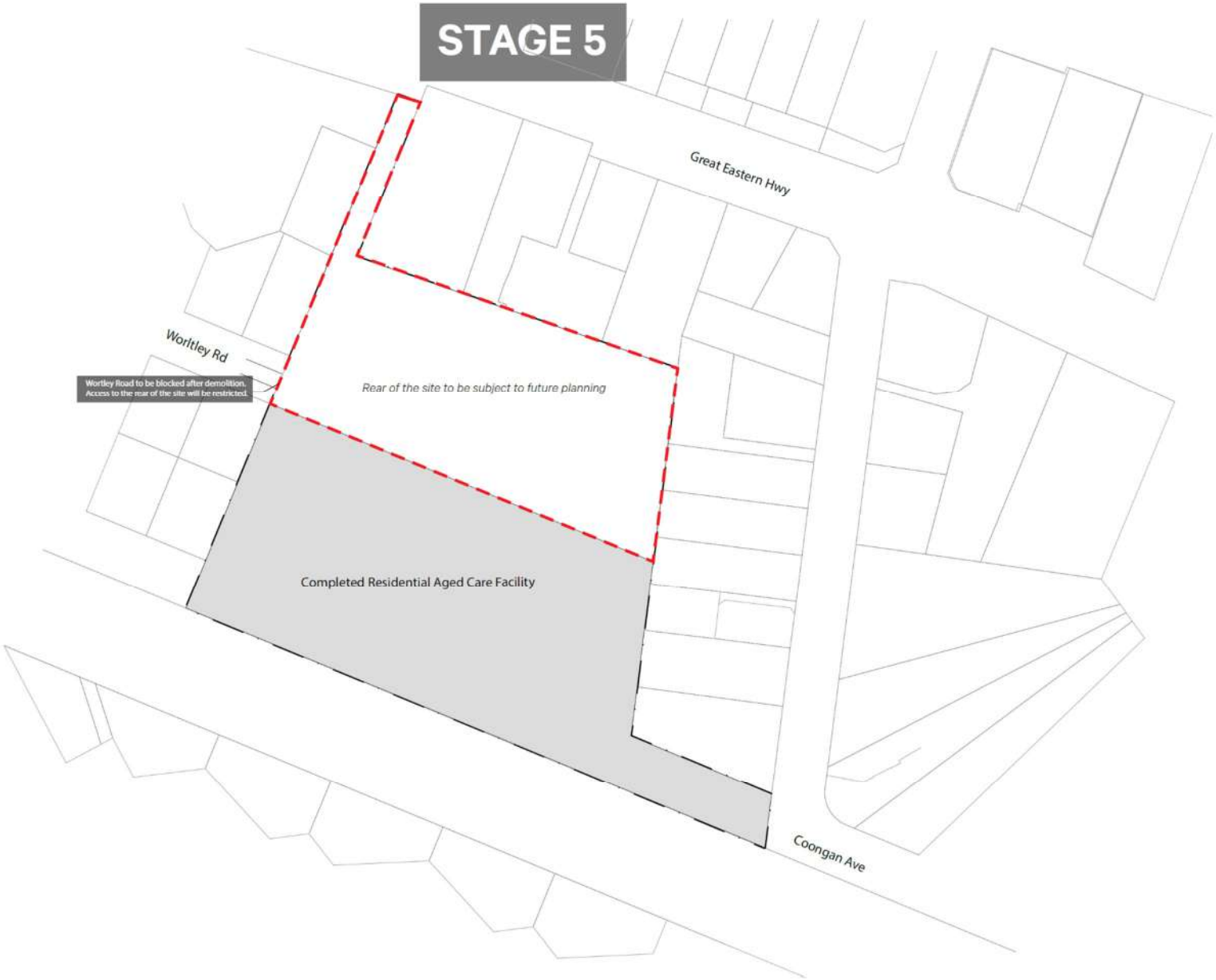

Figure D5: Proposed Stage 5 Access Arrangements

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APPENDIX E: Swept Path Diagrams

Figure E1 - Swept Path – 12.0 m Heavy Rigid Vehicle (HRV)

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Figure E2 - Swept Path – 19.0 m Articulated Vehicle (AV) Ingress

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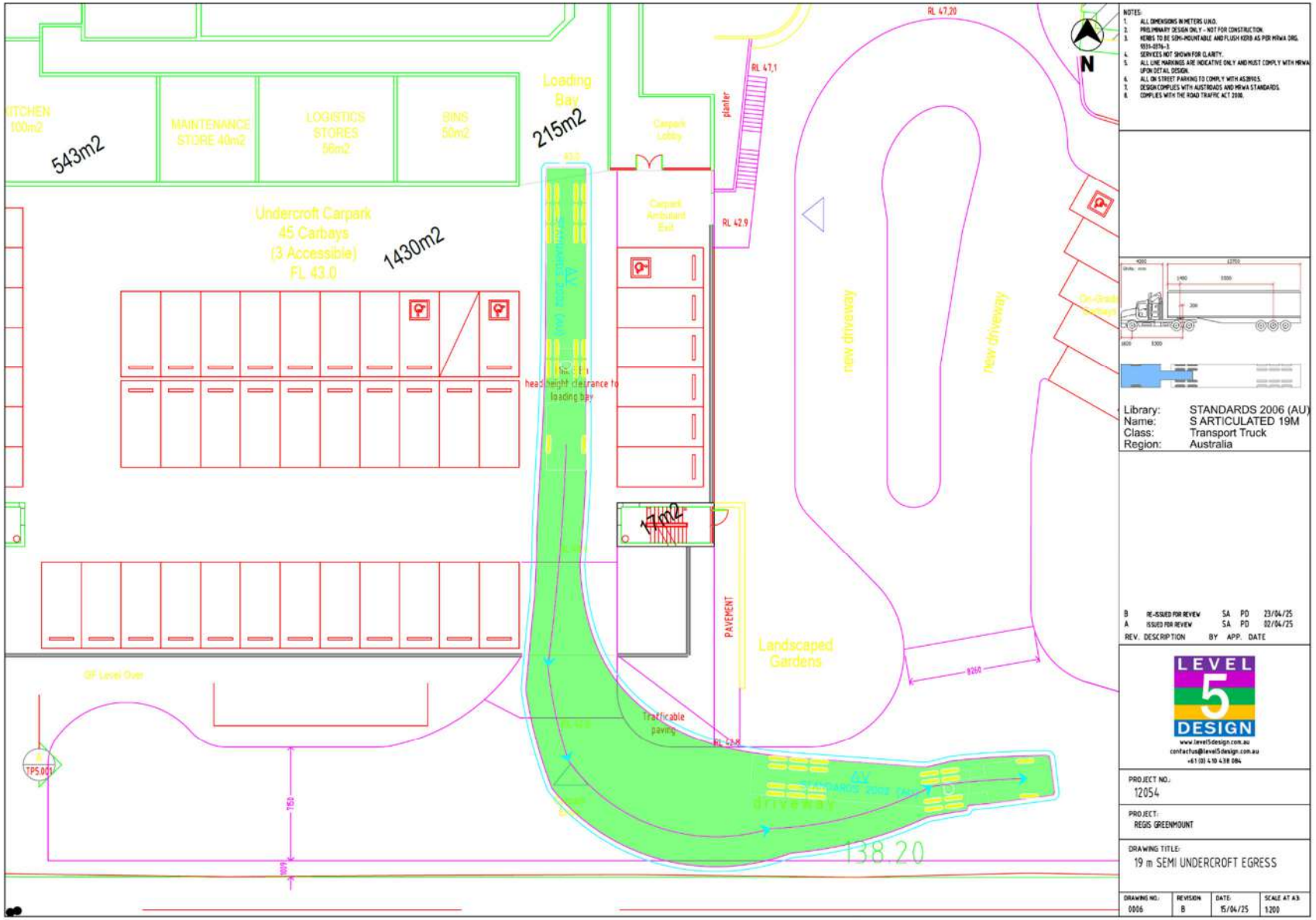

E3 - Swept Path – 19.0 m Articulated Vehicle (AV) Egress

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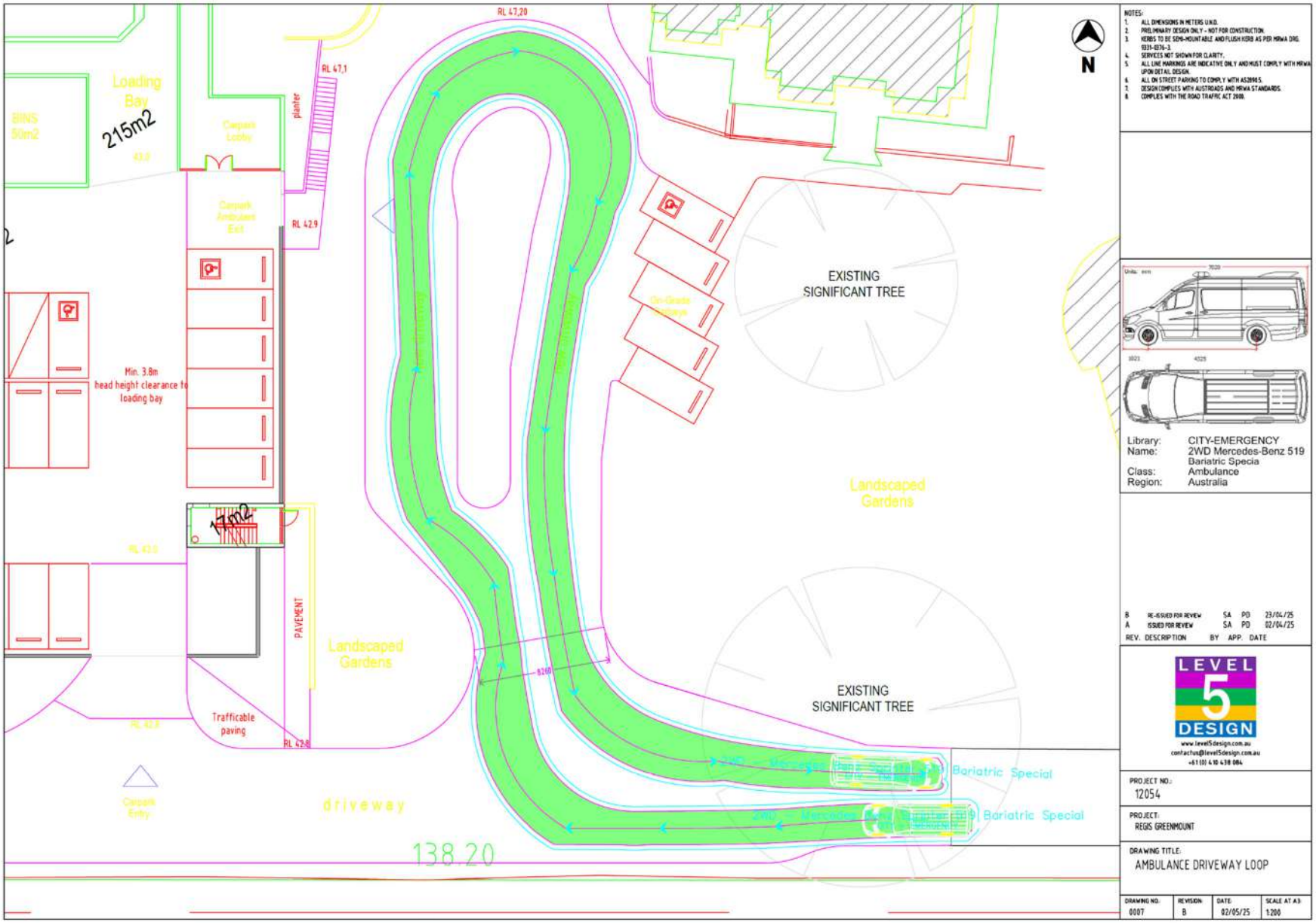

Figure E4 - Swept Path – Ambulance on Entry Loop Road

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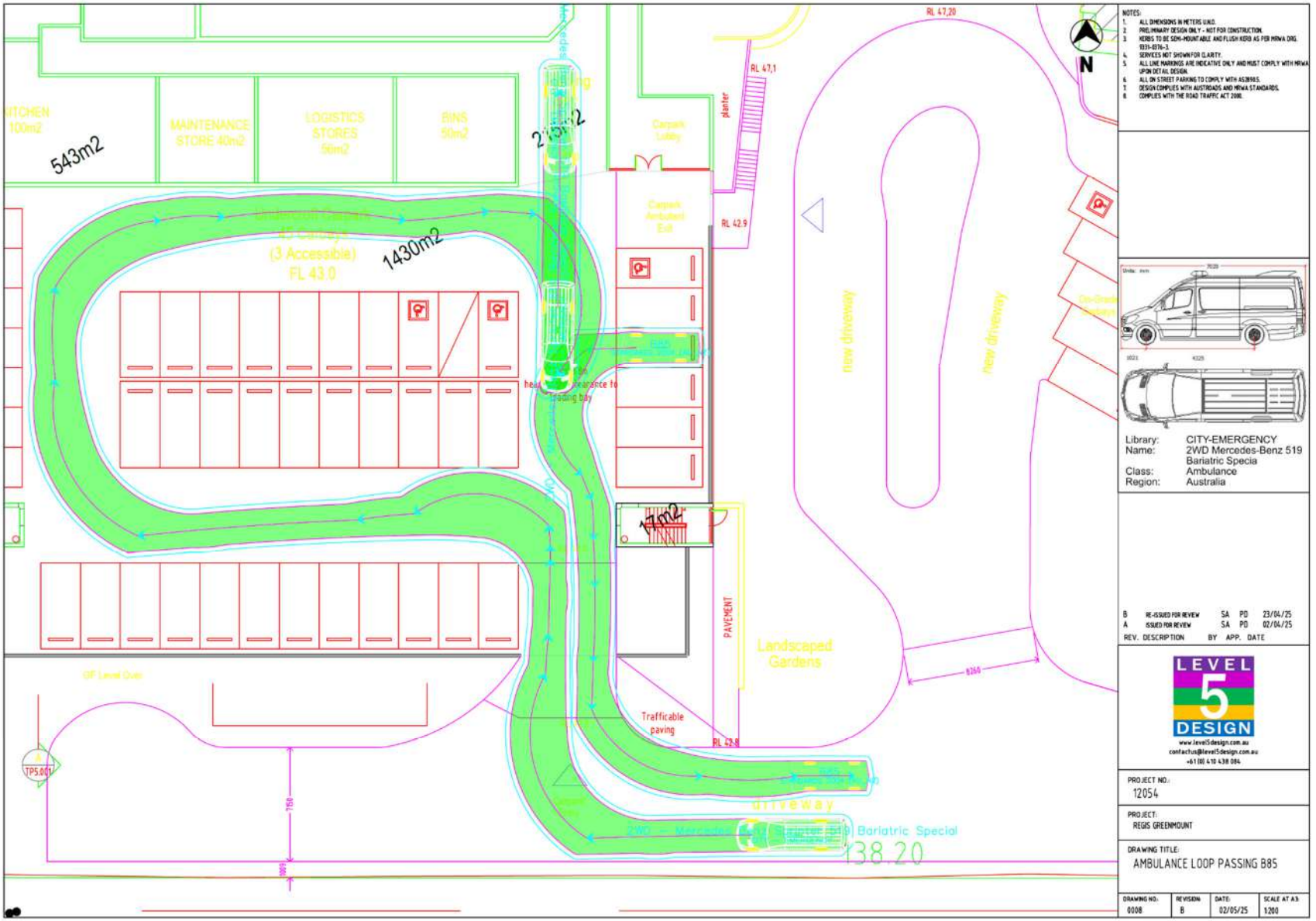

Figure E5 - Swept Path – Ambulance and B85 Car in Undercroft Parking Area

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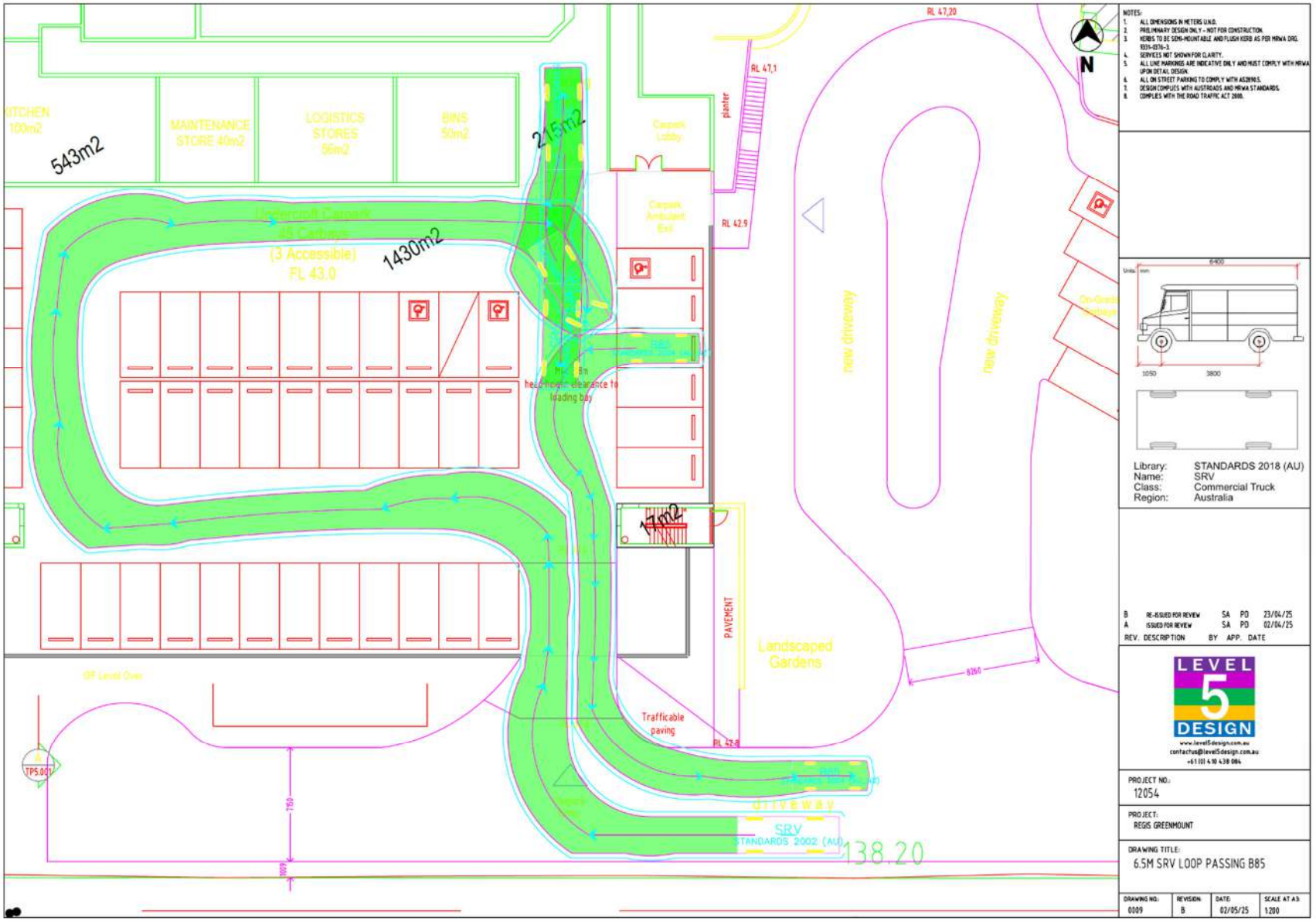

Figure E6 - Swept Path – Small 6.4m SRV Truck and B85 Car in Undercroft Parking Area

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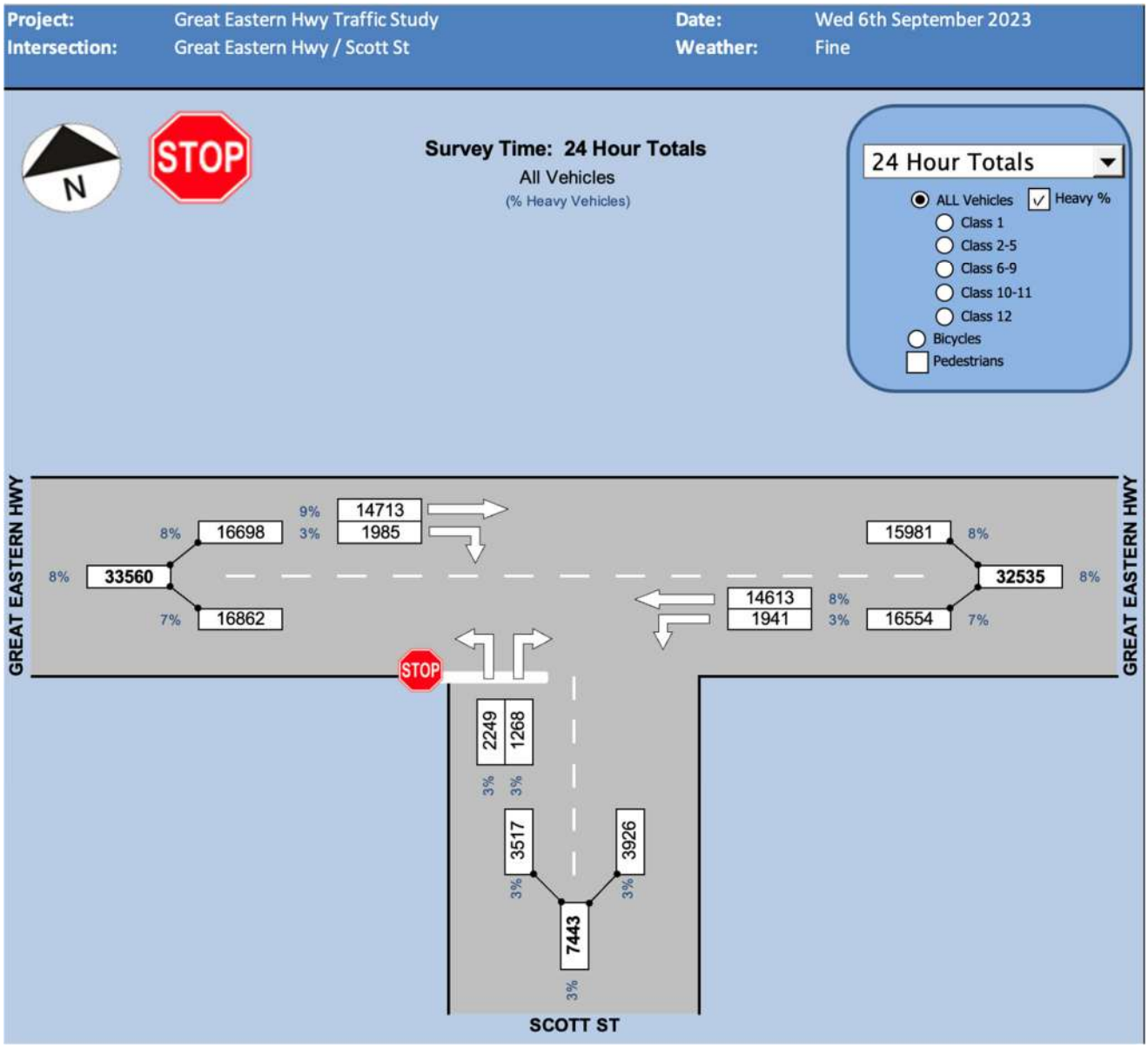
Appendix F: Great Eastern Highway/Scott Street Traffic Volumes (6/9/23)

Figure F1 – 24 Hour Totals



Source: MRWA 2025

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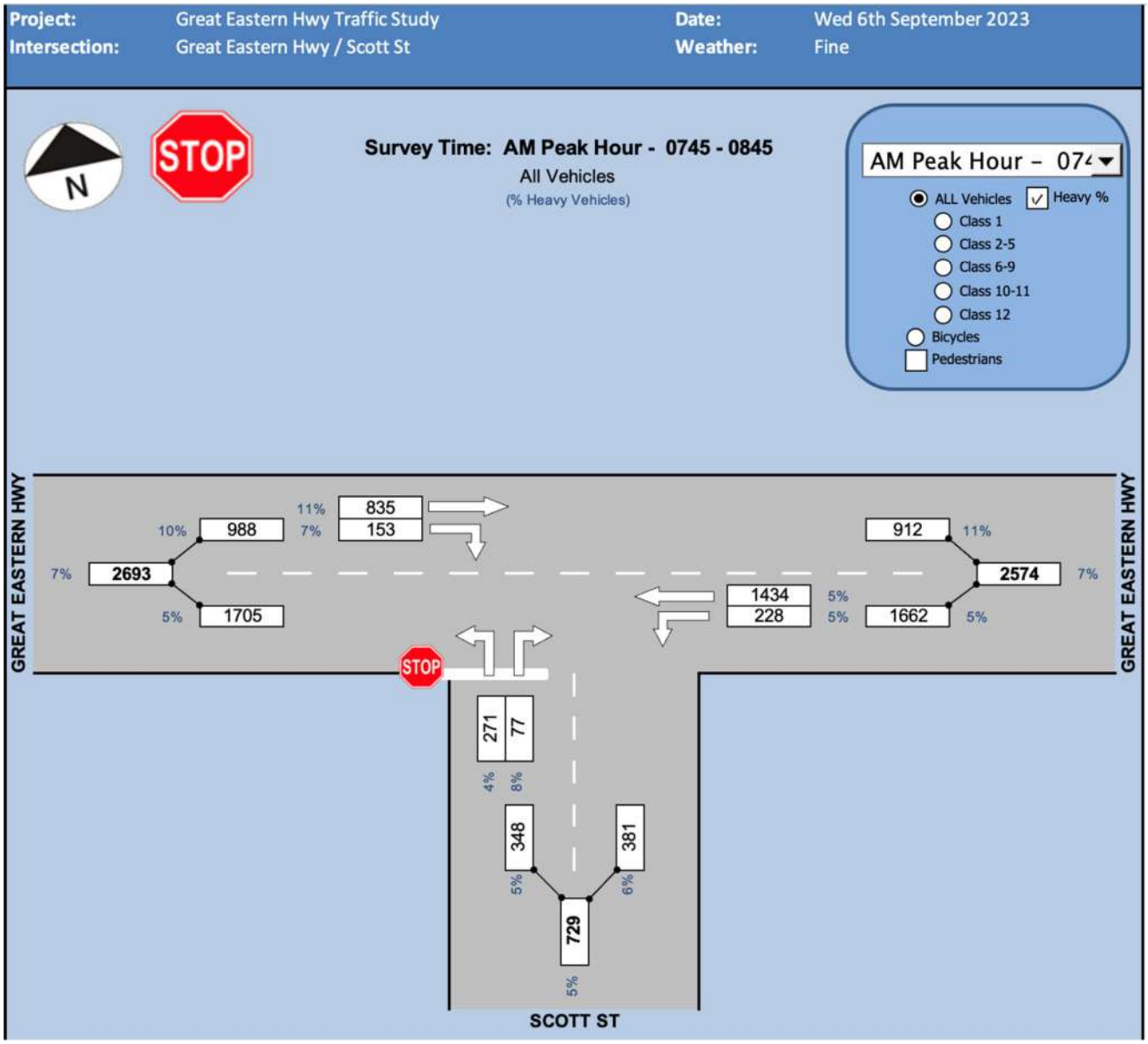
Figure F2 – AM Peak Hour Totals



Source: MRWA 2025

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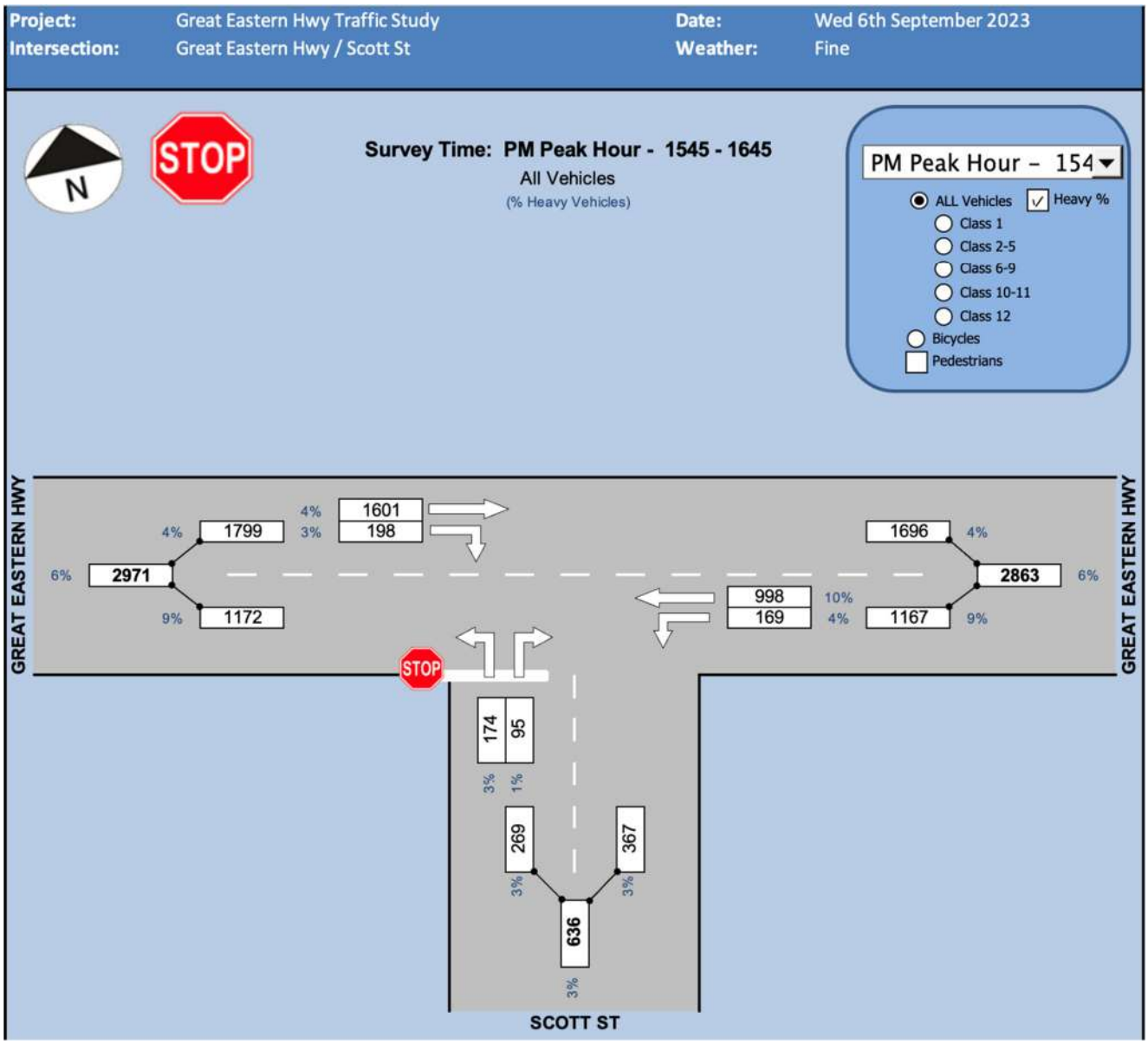
Figure F3 – AM Peak Hour Totals



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Waste Management Plan

Regis Greenmount Redevelopment

Prepared for Regis Aged Care Pty Ltd

28 May 2025

Project Number: WMP25004

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Name	Position	File Reference
Rachel Hayton	Project Manager – Senior Waste Strategy Consultant & Team Lead	WMP25004-01_Waste Management Plan_1.0
Signature		

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Executive Summary

Regis Aged Care Pty Ltd is seeking development approval for the proposed aged care redevelopment/additions located at 9 Coongan Avenue, Greenmount (the Proposal).

To satisfy the conditions of the development application the Shire of Mundaring (the Shire) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the Shire's requirements.

The anticipated volumes of waste generated from the Proposal can be stored and effectively collected from the Proposal in line with current operations.

A summary of the bin sizes, numbers, collection frequencies and collection method for the current operations is indicated below.

Rear Lift Waste Collection Vehicle:

- Three 1.5m^3 refuse bins, collected three times each week; and
- Seven 240L recycling bins, collected two times each week.

Front Lift Waste Collection Vehicle:

- One 3.0m^3 refuse bin, collected five times each week.

Specialist/Controlled Medical Waste Collection Vehicles:

- Two 240L secure document bins, collected as required;
- Thirty-three 120L clinical waste bins, collected weekly;
- Four 1.4L and two 6.5L sharps bins, collected fortnightly; and
- Three 120L cytotoxic bins, collected as required.

A private contractor will continue to service the Proposal onsite, directly from the Bin Storage Area/Waste Collection Areas, in line with current servicing arrangements. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Coongan Avenue.

Management/caretakers will oversee the relevant aspects of waste management at the Proposal.

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1 Introduction

Regis Aged Care Pty Ltd is seeking development approval for the proposed aged care redevelopment/additions located at 9 Coongan Avenue, Greenmount (the Proposal).

To satisfy the conditions of the development application the Shire of Mundaring (the Shire) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the Shire's requirements.

The Proposal is bordered by vacant land to the north and south, existing aged care buildings to the east and residential developments to the west, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: Conclusion.

2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the current and proposed number of aged care beds and the floor area (m^2) of the associated amenity areas, totalling an area of 1,042m^2. The Proposal consists of the following:

- Current and Proposed Aged Care – 144 beds;
- Existing Office/Cinema/Private Dining – 228m^2;
- Proposed Kitchen – 100m^2;
- Proposed Café – 75m^2;
- Proposed Living/Dining Areas – 315m^2;
- Proposed Staff Room and Admin Areas – 178m^2; and
- Proposed Entry Lobby and Reception – 146m^2.

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Melbourne's *Guidelines for Waste Management Plans* (2021).

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	City of Melbourne's Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Current and Proposed Aged Care	Retirement Village	60L/week	60L/week
Existing Office/Cinema/Private Dining	Office	10L/100m^2/day	10L/100m^2/day
Proposed Living/Dining Areas			
Proposed Staff Room and Admin Areas			
Proposed Entry Lobby and Reception			
Proposed Kitchen	Restaurant	660L/100m^2/day	200L/100m^2/day
Proposed Café	Café	300L/100m^2/day	200L/100m^2/day

As medical waste is highly dependent on the nature and scale of medical practices undertaken, there are currently no medical/clinical waste generation rates available within published waste management guidelines. Aged care facilities typically manage medical waste (i.e. sharps, infectious waste, pathological waste, pharmaceuticals, chemical waste and non-regulated medical waste) in-situ, therefore storage space is not required within the Bin Storage Area. Therefore, medical waste has not been included within this waste generation assessment.

2.3 Waste Generation Volumes

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering bin size, numbers and storage space required.

Waste generation volumes in litres per week (L/week) adopted for this waste assessment is shown Table 2-2. It is estimated that the Proposal will generate 15,442L of refuse and 11,697L of recyclables each week.

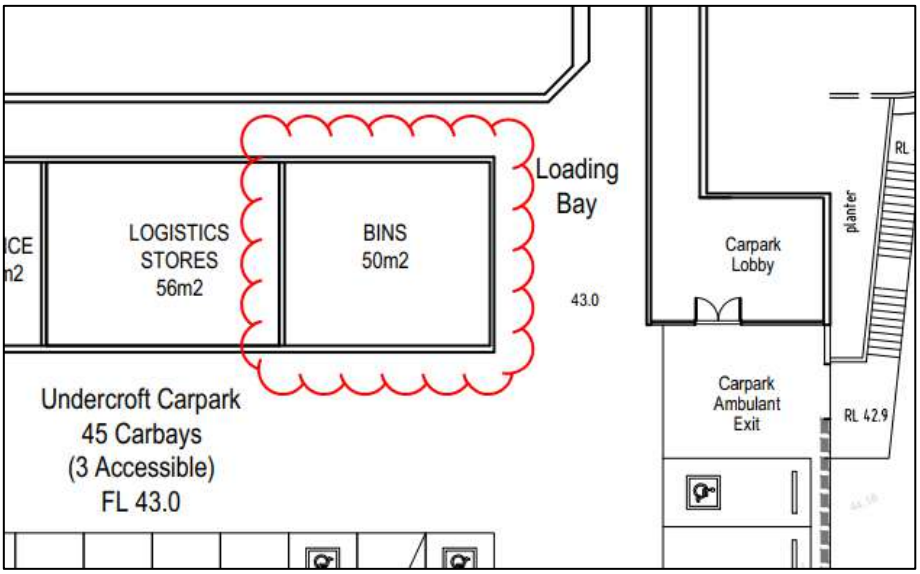
Table 2-2: Estimated Waste Generation

Tenancy Use Type	Number of Beds/Floor Area (m^2)	Waste Generation Rate	Waste Generation (L/week)
Refuse			
Current and Proposed Aged Care	144 beds	60L/week	8,640
Existing Office/Cinema/Private Dining, Proposed Living/Dining Areas, Proposed Staff Room and Admin Areas and Proposed Entry Lobby and Reception	867m^2	10L/100m^2/day	607
Proposed Kitchen	100m^2	660L/100m^2/day	4,620
Proposed Café	75m^2	300L/100m^2/day	1,575
		Total	**15,442**
Recyclables			
Current and Proposed Aged Care	144 beds	60L/week	8,640
Existing Office/Cinema/Private Dining, Proposed Living/Dining Areas, Proposed Staff Room and Admin Areas and Proposed Entry Lobby and Reception	867m^2	10L/100m^2/day	607
Proposed Kitchen	100m^2	200L/100m^2/day	1,400
Proposed Café	75m^2	200L/100m^2/day	1,050
		Total	**11,697**

3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, as shown in Diagram 1, and discussed in the following sub-sections.

Diagram 1: Bin Storage Area



3.1 Internal Transfer of Waste

To promote positive recycling behaviour and maximise diversion from landfill, internal bins will be available throughout the Proposal for the source separation of refuse and recycling.

These internal bins will be collected by the staff/cleaners as required and transferred to the Bin Storage Area for consolidation into the appropriate bins.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist staff, cleaners, tenants and visitors to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 3-1: Typical Bin Dimensions

Dimensions (m)	Bins Sizes					
	120L	240L	360L	660L	1,100L	3.0m^3
Depth	0.545	0.730	0.848	0.780	1.070	1.505
Width	0.480	0.585	0.680	1.260	1.240	1.805
Height	0.930	1.060	1.100	1.200	1.330	1.225

Reference: SULO and Veolia Bin Specification Data Sheets

3.3 Bin Storage Area Size

To ensure sufficient area is available for storage of waste generated from the redevelopment/additions, the amount of bins required for the new Bin Storage Area was modelled utilising the estimated waste generation in Table 2-2, bin sizes in Table 3-1 and based on collection of all waste in line with existing waste services.

The existing Bin Storage Areas and servicing arrangement has allowance for increased collection frequencies and additional bins to accommodate the waste generated from the redevelopment/additions, if required.

3.4 Bin Storage Area Design

The design of the Bin Storage Area will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Area;
- Adequate aisle width for easy manoeuvring of bins;
- No double stacking of bins;
- Doors to the Bin Storage Area self-closing and vermin proof;
- Doors to the Bin Storage Area wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter into the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Area will be monitored by management/caretakers during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

4 Waste Collection

A private contractor will continue to service the Proposal and their associated bins onsite, in line with current servicing arrangements.

The private contractor's waste collection vehicles will service the bins onsite, directly from the Bin Storage Area/Collection Points. The private contractor's waste collection vehicles will enter and exit the Proposal in forward gear via Coongan Avenue, in line with current servicing arrangements.

The private contractor will be provided with key/PIN code access to the Bin Storage Areas and security access gates to facilitate servicing, if required.

The current waste servicing arrangement based on collection vehicles is as follows:

Rear Lift Waste Collection Vehicle:

- Three 1.5m^3 refuse bins, collected three times each week from the Jacaranda Waste Collection Point;
- Seven 240L recycling bins, collected two times each week from the Jacaranda Waste Collection Point; and
- One 240L recycling bin, collected two times each week from the Banksia Waste Collection Point.

Front Lift Waste Collection Vehicle:

- One 3.0m^3 refuse bin, collected five times each week from the Banksia Waste Collection Point.

Specialty/Controlled Medical Waste Collection Vehicles:

- Two 240L secure document bins, collected as required from the Jacaranda Waste Collection Point;
- Thirty-three 120L clinical waste bins, collected weekly from the Jacaranda Waste Collection Point;
- Four 1.4L and two 6.5L sharps bins, collected fortnightly from the Jacaranda Waste Collection Point; and
- Three 120L cytotoxic bins, collected as required from the Jacaranda Waste Collection Point.

4.1 Controlled Medical Waste

The volume of controlled medical waste generated at the Proposal will be dependent on the nature and scale of the medical practises undertaken. Appropriate containers will be placed in all locations where particular categories of controlled medical waste may be generated. Instructions on identification and separation of controlled medical waste will be posted at each waste collection point to remind cleaners and staff of procedures. Collection of controlled medical waste will continue to be carried out in line with the current servicing arrangement.

4.2 Bulk and Speciality Waste

Bulk and speciality waste materials will continue to be removed from the Proposal as they are generated on an 'as required' basis.

These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal. Bulk and specialty waste collection will be monitored by management/caretakers who will organise on-call skip bins for removal as required, as per current operations.

5 Waste Management

Management/caretakers will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Areas;
- Cleaning of bins and Bin Storage Areas, when required;
- Ensure all staff, cleaners and tenants at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor staff, cleaners and tenant behaviour and identify requirements for further education and/or signage;
- Monitor controlled medical waste accumulation and assist with its removal, as required;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with staff, cleaners and tenants to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractors to ensure efficient and effective waste service is maintained.

6 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse, recyclables and specialty/controlled medical wastes based on the estimated waste generation volumes and suitable configuration of bins. This indicates that an adequately designed Bin Storage Area has been provided, and collection of refuse, recyclables and specialty/controlled medical wastes can be completed from the Proposal.

A summary of the bin sizes, numbers, collection frequencies and collection method for the current operations is indicated below.

Rear Lift Waste Collection Vehicle:

- Three 1.5m^3 refuse bins, collected three times each week; and
- Seven 240L recycling bins, collected two times each week.

Front Lift Waste Collection Vehicle:

- One 3.0m^3 refuse bin, collected five times each week.

Specialty/Controlled Medical Waste Collection Vehicles:

- Two 240L secure document bins, collected as required;
- Thirty-three 120L clinical waste bins, collected weekly;
- Four 1.4L and two 6.5L sharps bins, collected fortnightly; and
- Three 120L cytotoxic bins, collected as required.

A private contractor will continue to service the Proposal onsite, directly from the Bin Storage Area/Waste Collection Areas, in line with current servicing arrangements. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Coongan Avenue.

Management/caretakers will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan

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409,400 409,450 409,500 409,550 409,600 409,650

6,470,050 6,470,000 6,469,950 6,469,900 6,469,850

Great Eastern Hwy

Worley Rd

Chiraz St

Jarril Pl

Coongan Av

Data source: Roads, Cadastre - Landgate, 2025. Imagery: Nearmap, 2025.

LEGEND

- Site Boundary

Cadastre

- Crown Allotment
- Freehold
- Road
- Strata Plan or Lot
- Easement
- Reserve

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LOCALITY

0 5 10 15 20 km

LOCALITY

9 Coongan Avenue
Greenmount WA 6056

Regis Aged Care

N 0 10 20 30 40 m

Coordinate System: GDA2020 MGA Zone 50
Scale @ A3: 1:1,000

Prepared:	E Jackson	Date:	10/01/2025
Reviewed:	M Ang	Revision:	A
Project:	WMP25004		

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Figure 01

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Acoustic Report: Development Application

#9 Coongan Avenue, Greenmount

Reference: 25019799-01A

Prepared for:
Regis

Reference: 25019799-01A

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Date	Rev	Description	Author	Verified
18-Mar-25	0	Issued to Client	Matt Nolan	Terry George
9-May-25	A	Minor update to 2.1 and 3.2	Matt Nolan	-

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EXECUTIVE SUMMARY

An extension is proposed for the existing aged care facility at #9 Coongan Avenue, Greenmount. The proposed extension consists of:

- Lower Ground Level with carpark, kitchen, laundry and logistics stores;
- Ground Floor with 48 bedrooms, 5 sitting areas, 3 living/dining areas, as well as an admin room and a café.

The project is only at Development Application stage and therefore much of the detailed design is yet to occur, however this report discusses the acoustic requirements in relation to noise emissions, noise separation and noise intrusion.

Noise Emissions

Once mechanical plant has been designed and selected, an assessment will be undertaken to ensure compliance with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*. At this stage, the following is recommended:

- All exhaust fans shall be located inside the ceiling void and shall be axial fan type, allowing the incorporation of an attenuator if required;
- All fans shall be variable speed drive so that maximum speed is only occurring when necessary with demand;
- Air-conditioning shall have a 'night' / 'quiet' mode option, in case required for prior to 7.00am operation, subject to final detailed analysis;
- All plant shall be selected for quiet operation;
- All plant is to be appropriately vibration isolated to 95% isolation efficiency.

Compliance is expected from the waste collection and delivery vehicles if undertaken in the basement loading bay between 7am and 7pm Monday to Saturday in the quietest reasonable manner. This includes using reverse broadband alarms to minimise any disturbance.

Noise Separation

Separation of sole-occupancy units is a requirement under the *National Construction Code* for sound transmission and insulation. In this case, the relevant section is Volume One of the *Building Code of Australia* as well as Volume Three Plumbing Code of Australia.

At this stage, a number of acceptable forms of construction have been put forward. As the project progresses into detailed design, these will be refined along with greater detail to control penetrations and flanking paths, as well as suggestions for improved acoustic performance where considered warranted.

Noise Intrusion

With regard to road traffic noise impacts, the development was assessed against the *State Planning Policy No. 5.4 Road and Rail Noise* with the units on the north side calculated to be above the outdoor noise targets. Therefore, construction will need to be reviewed for these units during detailed design in order to achieve acceptable internal noise levels.

1. INTRODUCTION

An extension is proposed for the existing aged care facility at #9 Coongan Avenue, Greenmount as located in *Figure 1-1*. The proposed extension (refer *Appendix A* plans) consists of:

- Lower Ground Level with carpark, kitchen, laundry and logistics stores;
- Ground Floor with 48 bedrooms, 5 sitting areas, 3 living/dining areas, as well as an admin room and a café.

Figure 1-1: Site Locality

With regard to acoustics, the following will need to be addressed as the design progresses:

- Noise emissions – considering noise from the proposed mechanical plant against the requirements of the *Environmental Protection (Noise) Regulations 1997*;
- Noise separation – considering construction requirements to satisfy *National Construction Code* (NCC) *Volume One Building Code of Australia (BCA),* as well as *Volume Three Plumbing Code of Australia (PCA);* and
- Noise intrusion - in this case from road traffic addressing the requirements of *State Planning Policy No. 5.4 Road and Rail Noise Guidelines* (the SPP 5.4 Guidelines).

The project is only at Development Application (DA) stage and therefore much of the detailed design is yet to occur. For noise emissions, the criteria are provided with detailed modelling to occur at later stages once design has occurred. For compliance with the NCC, the focus is also on the criteria with broad advice provided until project specifics are known. For road traffic noise intrusion, the screening assessment procedure provided in the SPP 5.4 Guidelines has been followed.

Appendix C contains a description of some of the terminology used throughout this report.

2. CRITERIA

Each of the relevant criteria are discussed in the following sections. Compliance with these will be further worked through during detailed design.

2.1. Noise Emissions

2.1.1. Regulations 7, 8 & 9

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations or EPNR). This group of regulations provide the prescribed standard for noise as follows:

*"**7. Prescribed standard for noise emissions***

(1) Noise emitted from any premises or public place when received at other premises –

(a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and

(b) must be free of –

(i) tonality; and

(ii) impulsiveness; and

(iii) modulation,

when assessed under regulation 9.

(2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission … exceeds a value which is 5 dB below the assigned level at the point of reception."

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix C*). Under regulation 9(3), *"noise is to be taken to be free of these characteristics if:*

(a) *the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and*

(b) *the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] … are made to the noise emission as measured at the point of reception."*

Table 2-1: EPNR Adjustments Where Characteristics Cannot Be Removed

Where Noise Emission is Not Music*			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

* These adjustments are cumulative to a maximum of 15 dB.

The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2*. The L_{A10} assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to "steady-state" noise sources. The L_{A1} is for short-term noise sources

present for less than 10% and more than 1% of the time. The L_{Amax} assigned level is applicable for incidental noise sources, present for less than 1% of the time.

Table 2-2: EPNR Baseline Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor

1. ***highly sensitive area*** means that area (if any) of noise sensitive premises comprising —
   (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
   (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor (IF), in relation to noise received at noise sensitive premises, has been calculated as 2 dB, as determined in *Appendix B*. *Table 2-3* shows the assigned levels including the influencing factor at the receiving locations.

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as *"a period of time of not less than 15 minutes, and not exceeding 4 hours*, *determined by* an *inspector* or *authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission"*. An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

Table 2-3: EPNR Assigned Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
+2 dB IF Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	47	57	67
	0900 to 1900 hours Sunday and public holidays (Sunday)	42	52	67
	1900 to 2200 hours all days (Evening)	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	37	47	57

2.1.2. Regulation 14A

"14A. Waste Collection and Other Works

(1) Regulation 7 does not apply to noise emitted in the course of carrying out class 1 works if –

(a) The works are carried out in the quietest reasonable and practicable manner; and

(b) The equipment used to carry out the works is the quietest reasonably available;

class 1 works means specified works carried out between -

(a) 0700 hours and 1900 hours on any day that is not a Sunday or a public holiday; or

(b) 0900 hours and 1900 hours on a Sunday or public holiday.

specified works means -

(a) The collection of waste; or

(b) The cleaning of a road or the drains for a road; or

(c) The cleaning of public places, including footpaths, cycle paths, car parks and beaches;"

In the case where specified works are to be carried out outside of class 1, a noise management plan is to be prepared and approved by the CEO.

2.2. Noise Separation

National Construction Code (NCC) *Volume One Building Code of Australia* Part F7 provides the relevant minimum requirements for this project. The NCC separates the Performance Requirements into floors and walls for Class 9c buildings as follows:

F7P3 Sound Transmission Through Floors in a Residential Care Building

A floor separating sole-occupancy units must minimise the transmission of airborne and impact generated sound such that the separating floor, including the effect of services and their penetrations, has -

(a) A weighted standardise level difference ($D_{nT,w}$) not less than 40 for airborne sound; and
(b) A weighted standardised impact sound pressure level ($L_{nT,w}$) not more than 62 for impact generated sound.

F7P4 Sound Transmission Through Walls in a Residential Care Building

(1) A wall separating sole-occupancy units, or a sole-occupancy unit from a kitchen, bathroom, sanitary compartment (not being an associated Ensuite), laundry, plant room or utilities rooms, including the effect of services and their penetrations, must minimise the transmission of -

(a) Airborne sound such that the wall has a weighted standardised level difference ($D_{nT,w}$) not less than 40; and
(b) Impact generated sound, if the wall separates a sole-occupancy unit from a kitchen or laundry.

(2) Sound insulation required by (1) must be sufficient to prevent illness or loss of amenity to the occupants.

The following Deemed-to-Satisfy Provisions are provided:

F7D5 Sound insulation rating of floors

(2) A floor in a Class 9c building separating sole-occupancy units must have an R_w not less than 45.

F7D6 Sound insulation rating of walls

(3) A wall in a Class 9c building must have an R_w not less than 45 if it separates -

(a) sole-occupancy units; or

(b) a sole-occupancy from a kitchen, bathroom, sanitary compartment (not being an associated Ensuite), laundry, plant room or utilities room.

(4) In addition to (3), a wall separating a sole-occupancy unit in a Class 9c building from a kitchen or laundry must comply with F7D4(2).

For the purposes of F7D6(4):

(i) for other than masonry, be two or more separate leaves without rigis mechanical connection except at the periphery; or

(ii) be identical with a prototype that is no less resistant to the transmission of impact sound … than a wall listed in [Specification 28].

Table 2-4 provides a summary of the Performance Requirements and Deemed-to-Satisfy provisions.

Note - the NCC/BCA represents a minimum (statutory) acoustic amenity and may not be considered suitable for all types of developments (e.g. high end developments). Where the design aspiration is higher than the minimum amenity, Lloyd George Acoustics should be advised.

Table 2-4 NCC Deemed-to-Satisfy Provisions and Verification Methods

Description	Deemed-to-Satisfy (Laboratory)	Performance Requirement (On-Site)
F7P3 & F7D5 Sound Insulation Rating of Floors		
Separating SOU's	$R_w \geq 45$ $L_{n,w} \leq 62$	$D_{nT,w} \geq 40$ $L_{nT,w} \leq 62$
F7P4 & F7D6 Sound Insulation Rating of Walls		
Separating SOU's	$R_w \geq 45$	$D_{nT,w} \geq 40$
Separating SOU from kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room.	$R_w \geq 45$	$D_{nT,w} \geq 40$
Separating SOU from a kitchen or laundry	Discontinuous Construction	N/A
F7D7 Sound Insulation Rating of Internal Services		
SOU (Habitable) to duct, soil, waste, water supply or storm water (not associated with the SOU)	$R_w + C_{tr} \geq 40$	N/A
SOU (Non-Habitable) to duct, soil, waste, water supply or storm water (not associated with the SOU)	$R_w + C_{tr} \geq 25$	N/A

SOU – Sole-Occupancy Unit

2.3. Noise Intrusion

The criteria relevant to this project is provided in *State Planning Policy No. 5.4 Road and Rail Noise* (hereafter referred to as SPP 5.4) produced by the Western Australian Planning Commission (WAPC). SPP 5.4 is supported by the *Road and Rail Noise Guidelines* (the Guidelines) and the Department of Planning, Lands and Heritage mapping. The objectives of SPP 5.4 are to:

- Protect the community from unreasonable levels of transport noise;
- Protect strategic and other significant freight transport corridors from incompatible urban encroachment;
- Ensure transport infrastructure and land-use can mutually exist within urban corridors;
- Ensure that noise impacts are addressed as early as possible in the planning process; and
- Encourage best practice noise mitigation design and construction standards.

Table 2-5 sets out noise targets that are to be achieved by proposals under which SPP 5.4 applies. Where the targets are exceeded, an assessment is required to determine the likely level of transport noise and management/mitigation required.

Table 2-5: Noise Targets for Noise Sensitive Land-Use

Scenario	Outdoor Noise Target		Indoor Noise Target	
Noise-sensitive land-use and/or development	55 dB $L_{Aeq(Day)}$	50 dB $L_{Aeq(Night)}$	40 dB $L_{Aeq(Day)}$ (Living and Work Areas)	35 dB $L_{Aeq(Night)}$ (Bedrooms)

Notes:

- Day period is from 6am to 10pm and night period from 10pm to 6am.
- The outdoor noise target is to be measured at 1-metre from the most exposed, habitable[1] facade of a noise sensitive building.
- For all noise-sensitive land-use and/or development, indoor noise targets for other room usages may be reasonably drawn from Table 1 of Australian Standard/New Zealand Standard AS/NZS 2107:2016 *Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors* (as amended) for each relevant time period.
- Outdoor targets are to be met at all outdoor areas as far as is reasonable and practicable to do so using the various noise mitigation measures outlined in the Guidelines.

The application of SPP 5.4 is to consider anticipated traffic volumes for the next 20 years from when the noise assessment has been undertaken.

In the application of the noise targets, the objective is to achieve:

- Indoor noise levels as specified in *Table 2-5* in noise-sensitive areas (e.g. bedrooms and living rooms of houses); and
- A reasonable degree of acoustic amenity for outdoor living areas on each residential lot.

[1] *A habitable room is defined in State Planning Policy 3.1 as a room used for normal domestic activities that includes a bedroom, living room, lounge room, music room, sitting room, television room, kitchen, dining room, sewing room, study, playroom, sunroom, gymnasium, fully enclosed swimming pool or patio.*

3. NOISE EMISSIONS

3.1. Mechanical Plant

Noise from mechanical plant is required to comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997* at the nearest residences. With mechanical plant likely operating more than 10% of the time, the allowable levels are provided in *Table 2-3* and are as follows:

- 47 dB L_{A10} during the daytime, 7.00am to 7.00pm Mondays to Saturdays;
- 42 dB L_{A10} during the daytime on Sundays, 9.00am to 7.00pm and on the evening on all days, 7.00pm to 10.00pm;
- 37 dB L_{A10} during the night, being 10.00pm to 7.00am Mondays to Saturdays and through to 9.00am on Sundays.

For the most part, it is expected that any external mechanical plant will be located on the roof, which is advantageous for existing neighbouring buildings as the roof itself will screen the plant to the lower level neighbours. The exception is likely to be car park exhaust fans and other exhaust fans (fire pump and waste area). In these cases, allowance should be made for attenuators within ductwork, again to be assessed during detailed design.

Some general considerations are:

- Following mechanical plant selection, noise emissions are to be modelled and assessed prior to Building Permit;
- Supply/exhaust fans (e.g. for lower ground level) are to have an allowance for attenuators if required;
- All fans shall be variable speed drive so that maximum speed is only occurring when necessary with demand;
- Where car park fans are required, these shall incorporate CO_2 sensors so they only operate as required;
- Air-conditioning shall have a 'night' / 'quiet' mode option to minimise noise emissions at night;
- Consider acoustic screens around mechanical plant;
- All plant shall be selected for quiet operation;
- All plant is to be appropriately vibration isolated to 95% isolation efficiency.

3.2. Waste Collection and Deliveries

Regulation 14A provides requirements for the collection of waste, stating that this activity can be exempt from having to comply with *Regulation 7* prescribed standards, provided it is undertaken between 7am and 7pm Mondays to Saturdays and undertaken in the quietest reasonable manner. Collection outside of these hours will require a separate noise management plan.

Noise from delivery vehicles is required to comply with the *Regulation 7* prescribed standards at the nearest residences. As the Loading Bay located in the basement is shielded by nearby buildings, compliance is expected when undertaken between 7am and 7pm Mondays to Saturdays and in the quietest reasonable manner. This includes using reverse broadband alarms to minimise any disturbance.

4. NOISE SEPARATION

At this stage of the project, the construction materials are unknown and will be considered further at detailed design, however the following sections provide some broad information for key areas.

4.1. Separating Walls

The following sections show the minimum performance requirement in accordance with the NCC, however it should be noted that for higher end developments, these performances should be exceeded.

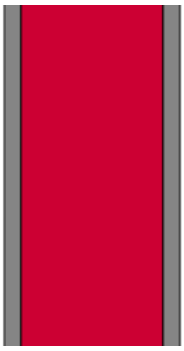
4.1.1. Walls Separating Sole-Occupancy Units

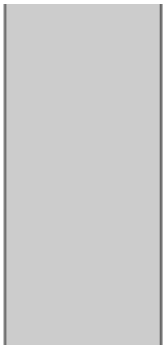
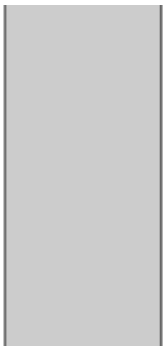
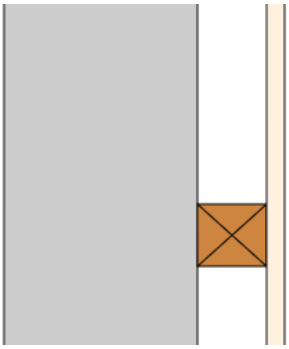
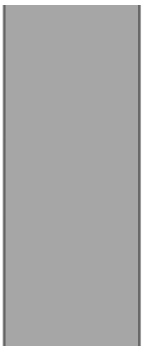
Table 4-1 provides various wall constructions suitable between SOU rooms (party walls) that can be used to achieve $R_w \geq 45$. These wall constructions can also be used between an SOU room and all other room types, except a kitchen or laundry where discontinuous construction must be provided. These serve as examples only until the project moves to detailed design.

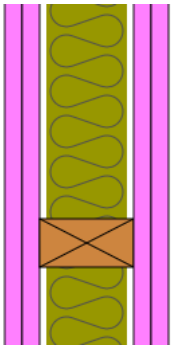
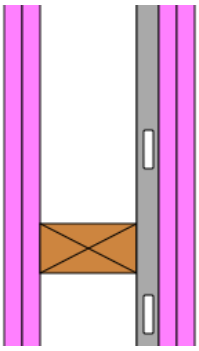
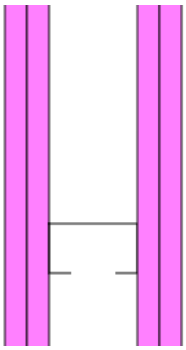
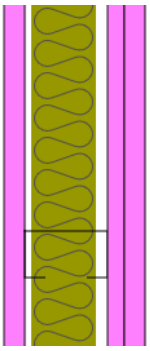
This same wall construction is also recommended between the admin room & café and Staff & Laundry, noting that the Code has no specific wall construction requirements between these areas.

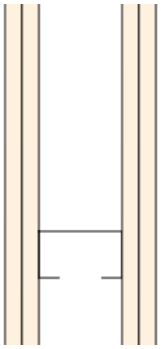
It should further be noted that locating services within lightweight walls is not preferred and ideally these should be located on intra-unit walls or within service risers. Where hydraulic services must be located in the lightweight party wall, the CSR Gyprock Silencer must be incorporated. Hydraulic services must not be chased in masonry walls.

Table 4-1 Indicative Party Wall Construction

Description	Image	Estimated Performance R_w
110mm thick brick masonry with – • 13mm cement render on each face.		45 **Not** Discontinuous Construction

Description	Image	Estimated Performance R_w
110mm thick concrete brickwork		45 **Not** Discontinuous Construction
190mm thick concrete blockwork		45 **Not** Discontinuous Construction
140mm thick concrete blockwork, the face shell thickness of the blocks being not less than 44mm and with – • 50mm x 50mm timber battens spaced at not more than 610mm centres screw-fixed on one face of the blocks into resilient plugs with rubber inserts between battens and the wall; and • The face of the battens clad with 13mm plasterboard.		45 **Not** Discontinuous Construction
100mm thick concrete panel		45 **Not** Discontinuous Construction

Description	Image	Estimated Performance R_w
One row of 70mm x 35mm timber studs at not less than 600mm centres with - • 75mm thick glass or mineral wool insulation with a minimum density of 8 kg/m^3 positioned between studs; and • Two layers of 13mm fire-protective plasterboard fixed on each face.		45 **Not** Discontinuous Construction
One row of 70mm x 35mm timber studs at not less than 450mm centres with - • 28mm furring channels installed horizontally on one side; and • Two layers of 13mm fire-protective plasterboard fixed on each face.		45 **Not** Discontinuous Construction
One row of 64mm steel studs with - • Two layers of 16mm fire-protective grade plasterboard fixed on each face.		45 **Not** Discontinuous Construction
One row of 64mm steel studs with - • One layer of 16mm fire-protective grade plasterboard fixed to one face; and • 50mm thick glass or mineral wool with a density of 11 kg/m^3 positioned between the studs; and • Two layers of fire-protective grade plasterboard fixed to the other face, the inner layer being 16mm thick and the outer layer being 13mm.		45 **Not** Discontinuous Construction

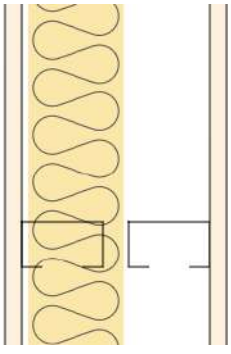
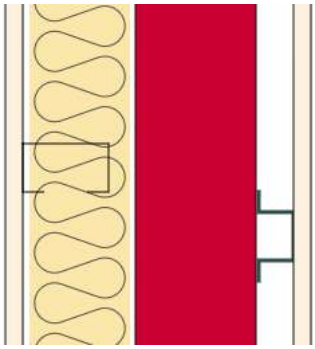
Description	Image	Estimated Performance R_w
One row of 64mm steel studs with - • Two layers of 13mm plasterboard fixed on each face.		45 **Not** Discontinuous Construction

4.1.2. Walls Separating Sole-Occupancy Unit to Stairs and Dirty Utility

Table 4-2 provides various wall constructions that can be used to achieve $R_w \geq 45$ and discontinuous construction, which is only required where an SOU room adjoins a kitchen or laundry. Although the Code specifically only requires discontinuous construction where an SOU room adjoins a kitchen or laundry, discontinuous construction is also recommended between the following areas:

- SOU room to stairs; and
- SOU room to Dirty Utility.

Table 4-2 Indicative Discontinuous Walls

Description	Image	Estimated Performance R_w
Two rows of 64 mm Studs with – • Minimum 20mm gap between studs; • 1x 13mm plasterboard on each side • 75mm, 14 kg/m^3 *Acoustigard* insulation (or equivalent) between one row of studs; • CSR 10029		52 Discontinuous Construction
90mm thick brick / blockwork with – • 13mm thick plasterboard on 28mm furring channels to on one side; • 13mm thick plasterboard to 64mm steel stud spaced 20mm from brick/block with 75mm thick, 14 kg/m^3 *Acoustigard* insulation (or equivalent). • CSR 4205 (sim)		52 Discontinuous Construction

4.1.2.1. Further Consideration for Stairs

To minimise the impact noise associated with stairs, the following is recommended:

- Handrails are to be connected to the internal wall or the stairs themselves rather than the adjoining unit walls;
- Handrails are to be flat bar types and possibly plastic covered in preference to hollow tube type; and
- Stairs are to be formed separate to structural elements so they are self-supporting and maintain a clear gap to any unit wall. Gaps can be filled with non-hardening mastic if necessary.

4.1.3. Doors of Sole Occupancy Units

There is no requirement for entry doors in Class 9c buildings. Unit entry doors in Class 2/3 buildings are to achieve minimum R_w 30 performance so this same approach can be taken.

Such performance is readily achievable with minimum 40mm thick, solid timber core doors with perimeter acoustic seals such as Raven RP10 (perimeter) and RP8Si (bottom).

4.1.4. Intra-unit Walls

The Code does not provide any acoustic rating requirements for internal walls. The exception to this is where a wall may also be separating the hydraulic services in the ceiling space above a wet area from an adjoining habitable space. In this instance, the only requirement is for the wet area walls to be constructed full height. Where a wall separates two wet areas, the wall does not need to be full height.

4.1.5. Wall Construction Deemed to Satisfy

Within S28C3, installation details are provided and these must also be followed to achieve the acoustic ratings as follows:

(a) Masonry units must be laid with all joints filled solid, including those between the masonry and any adjoining construction.

(b) Joints between concrete slabs or panels and any adjoining construction must be filled solid.

(c) For sheeting materials –

- *(i) If one layer is required on both sides of a wall, it must be fastened to the studs with joints staggered on opposite sides; and*
- *(ii) If two layers are required, the second layer must be fastened over the first layer so that the joints do not coincide with those of the first layer; and*
- *(iii) Joints between sheets or between sheets and any adjoining construction must be taped and filled solid.*

(d) Timber or steel-framed construction – perimeter framing members must be securely fixed to the adjoining structure and

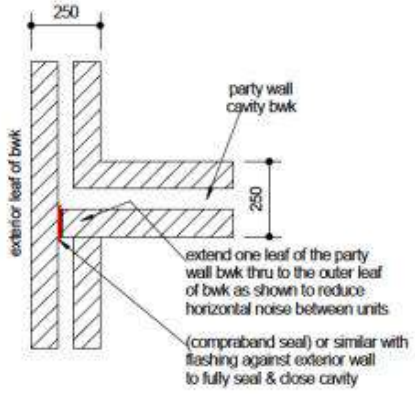
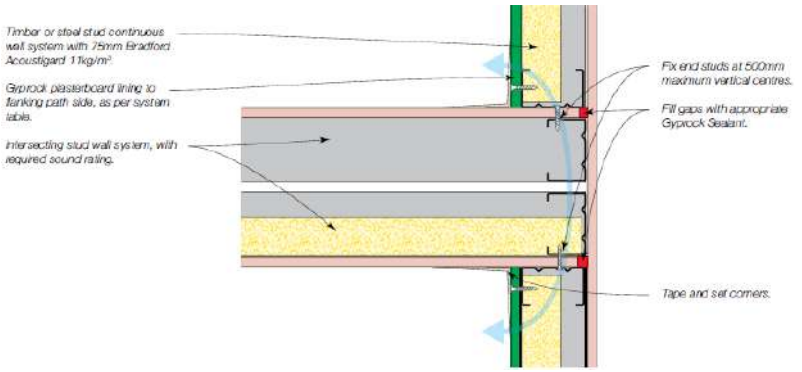
- *(i) Bedded in resilient compound; or*
- *(ii) The joints must be caulked so that there are no voids between the framing members and the adjoining structure.*

4.1.6. Wall Flanking Paths and Penetrations

Care is required to control flanking paths (see adjoining image), which can exist where a party wall meets an external wall for instance.

It is particularly important for the party wall to extend through the external wall and corridor walls where these have a cavity, with examples of how this is achieved shown in *Table 4-3* effectively requiring other wall cavities to be closed.

Table 4-3 Control of Flanking Path for Party Walls

Masonry	Lightweight
	

Where ties are used in the cavity, these must be kept clean of mortar (unlike that shown on the adjoining image). This is particularly important where anti-vibration ties are used, with the mortar droppings bridging the cavity.

Other controls that can be considered are:

- Glazing to be minimum 6mm thick, irrespective if required for control of ambient noise or not. Windows are to be awning style and both windows and sliding doors are to incorporate acoustic seals. This will assist in minimising noise transfer via windows, even when closed.
- Where box gutters exist, these should not align with party walls. Where this does occur, the box gutter is to be wrapped in 50mm thick, 11kg/m^3 fibrous insulation and boxed in with 9mm thick compressed fibre cement sheet.

As per F7D7, the following are provided as deemed to satisfy:

(5) Where a wall required to have sound insulation has a floor above, the wall must continue to –

(a) the underside of the floor above; or

(b) a ceiling that provides the sound insulation required for the wall.

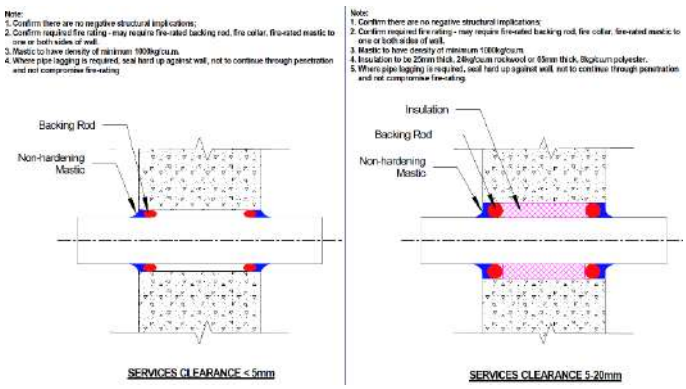
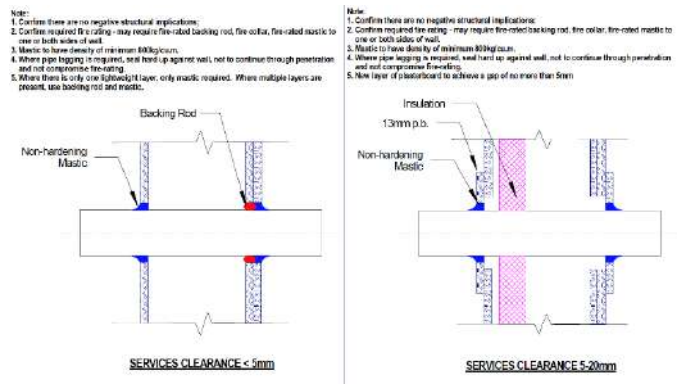
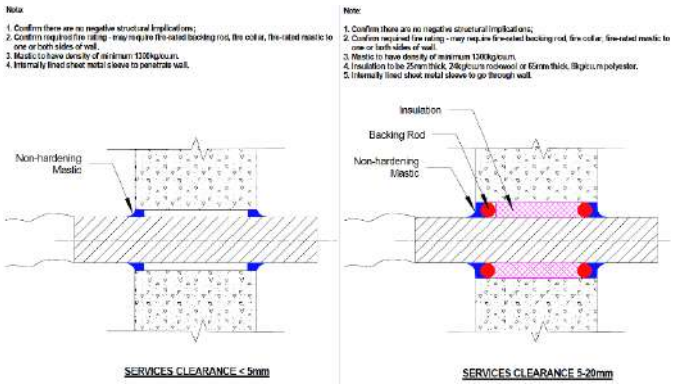
(6) Where a wall required to have sound insulation has a roof above, the wall must continue to –

(a) the underside of the roof above; or

(b) ceiling that provides the sound insulation required for the wall.

Where a pipe, duct or similar penetrates a sound-rated wall, these must be cut neatly with the size of the opening minimised and acoustically sealed with typical details shown in *Table 4-4* sealants such as fire-rated mastic.

Table 4-4 Typical Sealing for Wall Penetrations

Description	Detail
Pipe Through Concrete Sound-Rated Wall	
Pipe Through Plasterboard Sound-Rated Wall	
Mechanical Duct Through Sound-Rated Wall	

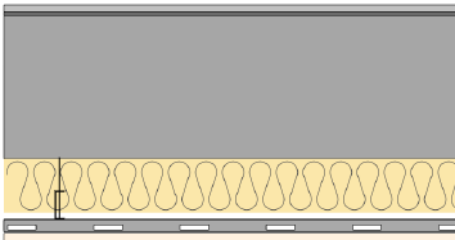
4.2. Separating Floors

Section 4.2.1 to *Section 4.2.4* discuss the proposed constructions for floors noting there is both a minimum airborne requirement ($R_w \geq 45$) and impact requirement ($L_{n,w} \leq 62$) where a room is located below, however this is not applicable in this instance.

4.2.1. Floors Separating Sole-Occupancy Units

Table 4-5 provides a review of the various proposed party floors.

Table 4-5 Indicative Floor Construction Between Units

Description	Image	Estimated Performance
100mm thick concrete slab with - • Carpet on underlay		R_w 45 $L_{n,w}$ 55
150mm thick concrete slab with - • 75mm thick, 14kg/m^3 fibrous insulation above ceiling; • One layer of 13mm plasterboard suspended minimum 150mm from slab on lightweight metal frame.		R_w 55 $L_{n,w}$ 55

4.2.2. SOU Above Car Park

Provided the slab is a minimum 100mm thick, $R_w \geq 45$ is achieved. Impact noise from the SOU to the car park is not a concern, however impact from the car park to the units must be considered as follows:

- Car Park Entry Gate:
  - Is to be a hinged type door, fitted with a 'slow-down device';
  - Is to be supported via its own structure;
  - Motors are to be vibration isolated to achieve minimum 97% isolation efficiency with guidance provided by a mount supplier such as Mason Mercer;
  - Stopping points are to be vibration isolated;
  - Closing latches to be quiet in operation; and
  - Noise levels must comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

- Car Park Floor
  - Shall be constructed so that there are no significant gaps in construction or where these exist, are to be filled with non-hardening mastic;
  - Drainage grates and other trafficable panels are to be plastic or metal with rubber gasket and secure to avoid excess banging;
  - Brushed concrete finish to avoid tyre squeal. Where the concrete is to be sealed, a product such as Aquron 1000 by Markham is understood to be suitable and not contribute to tyre squeal.

Similarly impact from the SOU to Laundry is not a concern, however vice versa is. It is recommended all plant and associated pipework be vibration isolated to minimum 95% isolation efficiency.

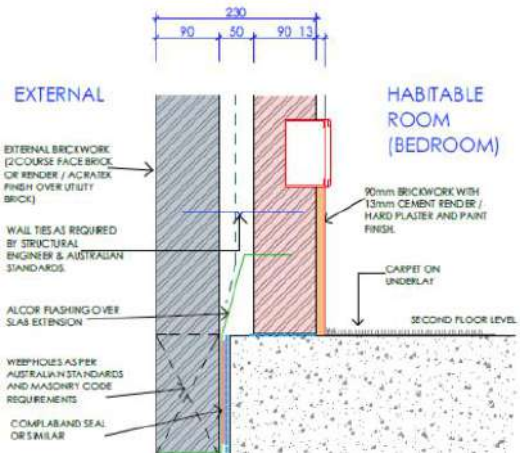
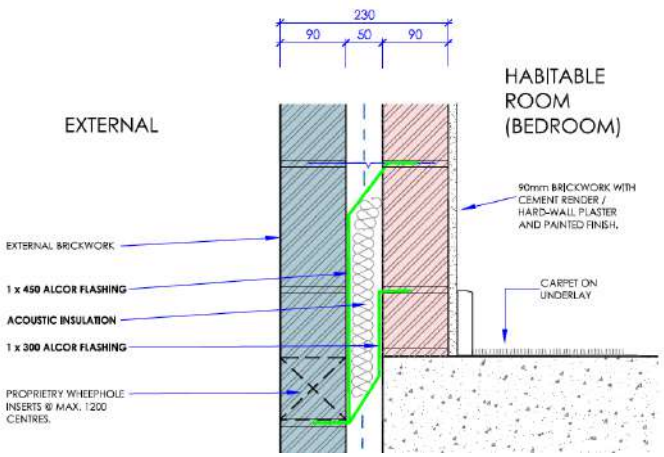
4.2.3. Floor Construction Deemed to Satisfy

The same Deemed to Satisfy provisions of *Section 4.1.5* are also relevant to floors.

4.2.4. Floor Flanking Paths and Penetrations

Similar to *Table 4-3* flanking via the floor slab must be controlled to close off the external cavity with two options provided in *Table 4-6*. This is critical where glazing exists above and below the floor as the noise can pass through the aluminium frames. Essentially, the floor slab is to extend to the inside of the outer leaf or the cavity be sealed in some other way. This naturally occurs where balconies exist such that it is not an issue in these circumstances.

Table 4-6 Floor Flanking Control

Extend Floor Slab	Seal Cavity (1200mm Either Side of Stacked Glazing)
	

4.3. Services

4.3.1. Deemed to Satisfy Requirements

F7D7 Sound insulation rating of internal services

(1) If a duct or soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_{tr}$ (airborne) not less than –

(a) 40 if the adjacent room is a habitable room (other than a kitchen); or

(b) 25 if the adjacent room is a kitchen or non-habitable room.

(2) If a stormwater pipe passes through a sole-occupancy unit, it must be separated in accordance with (1)(a) and (b).

F7D8 Sound isolation of pumps

A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump."

Specification 28C3 provides the following in relation to services:

(e) Services must not be chased into concrete or masonry elements.

(f) A door or panel required to have a certain $R_w + C_{tr}$ that provides access to a duct, pipe or other service must –

(i) Not open into any habitable room (other than a kitchen); and

(ii) Be firmly fixed so as to overlap the frame or rebate of the frame by not less than 10mm, be fitted with a sealing gasket along all edges and be constructed of –

(A) Wood, particleboard or blockboard not less than 33mm thick; or

(B) Compressed fibre-reinforced cement sheeting not less than 9mm thick; or

(C) Other suitable material with a mass per unit area not less than 24.4kg/m^2.

(g) A water supply pipe must –

(i) Only be installed in the cavity of discontinuous construction; and

(ii) In the case of a pipe that services only one sole-occupancy unit, not be fixed to the wall leaf on the side adjoining any other sole-occupancy unit and have a clearance not less than 10mm to the other wall leaf.

(h) Electrical outlets must be offset from each other –

(i) In masonry walling, not less than 100mm; and

(ii) In timber or steel-framed walling, not less than 300mm.

Section 4.3.2 to *Section 4.3.4* discuss the relevant requirements for hydraulic, electrical and mechanical services.

4.3.2. Hydraulic Services

To clarify *Section 4.3.1*, the NCC is only concerned with noise from a pipe, which is not associated with the SOU it adjoins. Therefore, water supply pipes only serving the SOU it is within, do not require any treatment for acoustic purposes. Also note that pipes include stormwater as well as soil, waste and water supply.

4.3.2.1. General Design Planning

The layout of units will in some cases dictate the path of the hydraulic services. However where practicable, the locations of hydraulic services should be in the least noise-sensitive space available (for instance run the main water supply in the corridor rather than a unit). Steps such as these will minimise the noise impacts and project costs by reducing the amount of lagging necessary.

Some general points to note are:

- Plumbing and drainage systems must be designed, constructed and installed in a manner that does not create undue noise.
  - Cold water, non-drinking water and fire-fighting water services must be installed in accordance with AS/NZS 3500.1;
  - Heated water services must be installed in accordance with AS/NZS 3500.4;
  - Sanitary plumbing and drainage systems must be installed in accordance with AS/NZS 3500.2.
- The preference should be for a person's pipework to be contained within their own room rather than penetrating the slab and running in the ceiling space of a room below. As well as minimising potential noise issues, this will also minimise the amount of lagging necessary and therefore result in cost savings. For instance:
  - Run pipes within cupboards or oversized skirting boards to service risers;
  - Use P trap type toilets where the wall behind is a service riser.
- Where pipe work must run in the ceiling space of another unit, preference is to be given to running above non-habitable areas;
- Pipework is not to be chased within common sound-rated walls;
- Plastic water supply pipes, such as those supplied by Rehau are to be used rather than copper pipes;
- The number of bends and elbows are to be minimised;
- Flow velocity in pipes is to be minimised;
- Avoid pipe work in the same ceiling space as ductwork. Where this is necessary, the distance between the pipe and the return air grille, supply air register or exhaust fan should be maximised;
- Ensure pipe work does not contact lightweight structures such as ceiling hangers;
- Wet area internal walls (excluding those between two wet areas) are to be from slab to slab where pipes are located within the ceiling space to minimise the transfer of hydraulic services noise from a wet area ceiling to an adjoining habitable room. Where these walls are of mass construction and not load bearing, they are to stop short of the slab by maximum 20mm with the gap being sealed by non-hardening mastic. This is to assist in minimising transfer of impact noise;
- Floor wastes should not be central to a room in order to minimise the length of pipe run;
- Tap fixtures should not be mounted on party walls but rather utilise the intra-unit walls and in the case of sinks be bench mounted. Taps should be selected for quiet operation, having soft closing action;

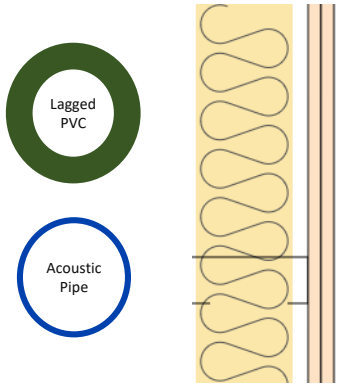
- Water hammer arresters installed where appropriate to limit the pressure on the delivery side to no more than 500kPa, particularly for dishwashers and washing machines and flexible hoses fitted to water supply and drainpipes for washing machines and dishwashers.
- Selection of quiet valves and cisterns should be given preference to noisier models. Toilets are to be installed on a silicone bed with a clear gap (can be covered in non-hardening mastic) between the pan and tiles.
- Where pipes are acoustically lagged, the lagging is to be pushed hard up to the underside of the slab. Where a fire collar is installed, it may not be permissible to lag right up to the collar.
- Pipes located within the side of the wall of discontinuous construction must not bridge the discontinuity.
- When selecting plant and comparing manufacturers, select equipment with lower noise levels.
- Hot water systems are to be selected for quiet operation and installed on isolation mounts. Consideration can be given to installing a timer on heat pump systems to minimise night-time operation.
- For treatment of penetrations, refer to *Section 4.1.6* and *Section 4.2.4*.

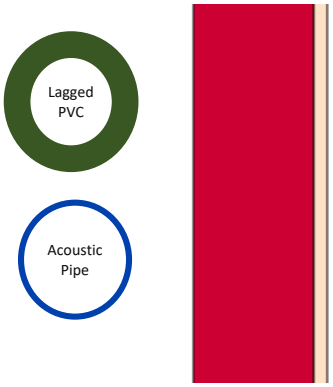
4.3.2.2. Hydraulic Service Risers

Table 4-7 provides the service riser construction to be used for the containment of hydraulic services.

Also of note is that the $R_w + C_{tr}$ performance is a combination of the surrounding construction as well as use of lagged pipe or acoustically rated pipe, which attenuates the pipe noise and therefore is considered to contribute to the $R_w + C_{tr}$ performance.

Table 4-7 Indicative Hydraulic Service Riser Wall Construction

Description	Image	Estimated Performance $R_w + C_{tr}$
• PVC pipe wrapped in *Soundlag 4525* or Acoustic Pipe; • 92mm Steel Stud with 75mm Acoustigard, 14 kg/m^3; • CSR 7220(e); • Note: Can reduce to 1 layer of moisture resistant plasterboard in bathrooms.		$R_w + C_{tr}$ 42

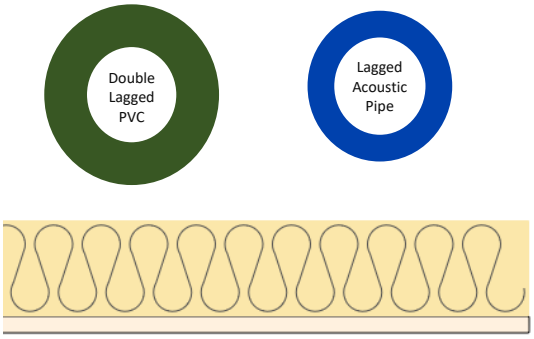
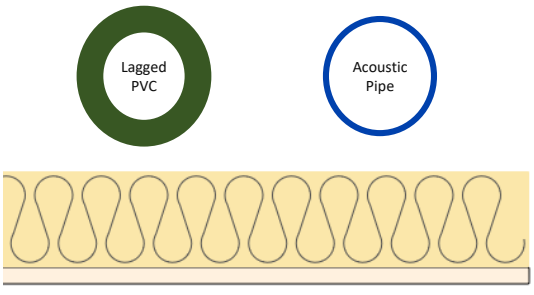
Description	Image	Estimated Performance $R_w + C_{tr}$
• PVC pipe wrapped in *Soundlag 4525* or Acoustic Pipe; • 90mm brick with 10mm plasterboard or cement render.		$R_w + C_{tr}$ 45

4.3.2.3. Hydraulic Services in Ceilings

Table 4-8 provides the construction requirements for hydraulic services within another SOU ceiling space. Again, the performance requirements are achieved by the surrounding construction as well as the use of pipe lagging or acoustic rated pipe.

Prior to closing off the ceiling space, it is imperative that the lagging installation is checked as this can become loose and/or damaged during the construction process.

Table 4-8 Indicative Treatment for Hydraulic Services in Ceilings

Description	Image	Estimated Performance $R_w + C_{tr}$
Above Habitable Areas (incl kitchens) 1 x 13mm thick plasterboard - • 75mm Glasswool *Acoustigard* 14kg/m^3 insulation above ceiling; • PVC pipe wrapped in 2 x *Soundlag 4525* or equivalent; or • Acoustic pipe (e.g. *Raupiano Plus*) wrapped in *Soundlag 4525* or equivalent; • No more than 1 downlight per 1m^2		$R_w + C_{tr} \geq 40$
Above Wet Areas 1 x 13mm thick plasterboard - • 75mm Glasswool *Acoustigard* 11kg/m^3 insulation above ceiling; • PVC pipe wrapped in *Soundlag 4525* or equivalent; or • Acoustic pipe (e.g. *Raupiano Plus*).		$R_w + C_{tr} \geq 25$

4.3.2.4. Fixing of Pipes

All pipes are to use acoustically rated clips with preference given to fixing to the least noise sensitive wall. For instance, where the pipe is within a service riser and adjoins a bathroom and a living room, clip the pipe to the bathroom wall. Where possible, pipes in service risers are to be clipped in line with the floor slab.

4.3.2.5. Pipe Lagging

Where pipes are to be lagged, this must be installed strictly in accordance with manufacturer's specifications. Lagging at both longitudinal and latitudinal joints are to overlap by a minimum of 50mm and taped. The circumference is to also be taped at a minimum of 500mm intervals to secure lagging. Wrapping is to be well sealed to the slab and wall penetrations. Proprietary products are to be used such as:

- *Nuwrap 5* by Thermotec;
- *Soundlag 4525* by Pyrotek.

Note that minor gaps in lagging can significantly downgrade their performance and as such, it is recommended lagging be installed by a specialist contractor such as Benz Industries or Watsons Noise Control.

4.3.2.6. Pipes Cast in Slabs

Once a pipe is cast into a slab, the noise can transfer in all directions throughout the structure and becomes uncontrolled. For instance, noise from a pipe cast into a slab may transfer horizontally to an adjoining unit. It is therefore generally not permissible to cast pipes into slabs, columns or walls that adjoin a unit. The exception is the waste pipe for vertically stacked balconies, where the pipe is solely contained in the balcony slab.

4.3.2.7. Access Panels

Access panels are to meet the minimum requirements specified by the NCC (refer *Section 4.3.1*). Proprietary panels are available to satisfy the $R_w + C_{tr}$ 25 requirement (considered equivalent to R_w 30 requirement, which relates to the older BCA) such as *Rondo SRAP FE/SB*. The Code does not permit panels to open into habitable spaces and as such this should be avoided. There are however some circumstances where this is unavoidable. In the case of a ceiling, the Trafalgar R_w 34 panel is appropriate and in the case of a service riser, the *Rondo Panther HP-51 Access Panel*, or approved equivalent, shall be used.

4.3.2.8. Toilets

To minimise pan noise, the acoustic underlay used between the tiles and slab is to be extended under the toilet and the toilet installed on a silicone bed with bolts holding the toilet in place being neoprene *Rawlnut* fixings or equivalent. There is to remain a gap between the tiles and pan, which is then filled with non-hardening mastic.

The cisterns are to be selected for quiet operation and fixed to the wall with neoprene *Rawlnut* fixings.

4.3.2.9. Vibration Isolation

A flexible coupling must be used at the point of connection between the service pipes and any circulating or other pump. If piping between the pump and flexible connection requires support, this is to be via anti-vibration hangers.

All plant (pumps, hot water systems etc) are to be mounted on anti-vibration mounts capable of 97% minimum isolation efficiency.

4.3.3. Electrical Services

4.3.3.1. Electrical Boxes

The preference should be for electrical boxes to be located on non-sound rated intra-unit walls and in these cases, there are no specific acoustic requirements. Where electrical boxes, including light switches, are located on a sound-rated wall, the following is to be undertaken:

- Where electrical boxes exist on either side, boxes are to be offset by a minimum 300mm and preferably on either side of a stud.
- Recessed electrical boxes are to be equivalent to Clipsal or Legrand Fire Rated Wall Boxes. If multiple boxes are required, these must be separated by a minimum of 100mm.
- Cabling is to run in the cavities and is not to be chased.
- Light switches should be selected for quiet operation.

4.3.3.2. Vibration Isolation

All equipment is to be mounted on anti-vibration mounts/hangers capable of 97% minimum isolation efficiency.

4.3.3.3. Further Electrical Items

In addition to the previous items:

- For treatment of penetrations, refer to *Section 4.1.6* and *Section 4.2.4*.
- Conduits located within the side of the wall of discontinuous construction must not bridge the discontinuity.
- When selecting plant and comparing manufacturers, select equipment with lower noise levels.
- Where a manufacturer can provide an acoustic enclosure (e.g. for a generator), this shall be selected.

4.3.4. Mechanical Services

Noise from mechanical services is assessed under a separate report with this section referring predominantly to NCC related aspects.

4.3.4.1. General Design Planning

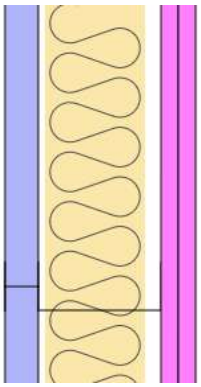
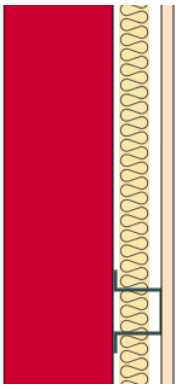
Below are general recommendations that relate to good mechanical design in order to minimise noise:

- Select equipment for quiet operation including condensers with a night-time 'quiet' mode;
- Program fans to only run when necessary (e.g. CO_2 sensors) and to incorporate variable speed drives;
- Flexible ductwork is to be neatly fitted to avoid misaligning or kinking the duct and shall not be squashed between other services (e.g. hydraulic pipes);
- In room air-conditioning shall comply with the maximum recommended design sound level of AS2107, with the design being the responsibility of the consultant and contractor;
- Grilles and registers are to be selected for quiet operation;
- Flow velocity in ducts to be minimised as per manufacturer's specifications and generally as follows:
  - Flexible ducts to bedrooms 2.5 m/s;
  - Metal ducts to bedrooms 3 m/s;
  - Flexible ducts to living areas 3 m/s; and
  - Metal ducts to living areas 4.5 m/s.
- Ductwork is not to touch lightweight structures such as ceiling hangers;
- Metal ductwork is not to directly touch the slab. Where the duct is pushed hard-up due to ceiling space restrictions, a 5mm neoprene mat is to be located between the duct and slab;
- Concealed fan coil units are to be located above the ceiling of a non-noise-sensitive room such as bathrooms or corridor;
- Supply and return air paths are to avoid passing through wet areas, where hydraulic services are contained in the ceiling space. Where this occurs, treatment to the grilles will be required to minimise noise from the hydraulic services into the adjoining space. Where either return or supply air must go through the wet area, preference should be given to the supply air;
- The ceiling insulation to be installed above the acoustic boots;
- Ducts are not to be connected to the slab above using folded sheet metal angles;
- For treatment of penetrations, refer to *Section 4.1.6* and *Section 4.2.4*.

4.3.4.2. Mechanical Service Risers

Table 4-9 provides the service riser construction to be used for the containment of mechanical services noting that in these cases, the service riser must provide the full performance requirement, unlike hydraulics where the pipes can be treated.

Table 4-9: Indicative Mechanical Service Riser Wall Construction

Description	Image	Estimated Performance $R_w + C_{tr}$
102mm Shaft wall C-H Stud system (Alternative Option to AFS) – • One side having 2x 13mm thick Fyrchek; • 75mm thick, 14 kg/m^3 *Acoustigard* between studs; and • Other side 25mm Shaft Liner. • CSR Ref: 7665(c).		46
90mm Brick with – • 13mm plasterboard on furring channel to create 40mm cavity; • Insulation to be 25mm thick, 24 kg/m^3 fibrous insulation.		43

4.3.4.3. Access Panels

Refer *Section 4.3.2.7*.

4.3.4.4. Vibration Isolation

- All plant (fans, air-conditioning etc.) are to be isolated in order to achieve 97% isolation efficiency;
- Flexible connections are to be used between fans and sheet metal ductwork. Flexible connection to be 4kg/m^2 loaded vinyl and must not be 'stretched' (i.e. must be oversized) or misaligned.

4.4. Other

Some other items that are worth considering for improved acoustic amenity are discussed below.

4.4.1. Doors

Unit entry doors are covered in *Section 4.1.3*, as these are required to have specific acoustic performance. To achieve this rating, perimeter acoustic door seals are required, which also has the benefit of minimising impact noise as the door closes.

Closing of cupboard doors, unit doors and stairwell doors can often be heard in nearby units and as such, there is benefit in providing felt pads or compressible seals in these cases also. Similarly, soft closing mechanisms shall be incorporated for all drawers.

Sliding doors and wardrobes should also be selected for quiet operation and soft rubber bumpers installed at the point of impact. A resilient mat such as 5mm Impactamat should also be set under the base tracks of these doors where there is a unit below.

4.4.2. Rain Noise

It is recommended 60mm thick, R1.3 *Anticon 60* be placed between any metal deck roof and the top of the purlins and minimum R3.5 insulation overlaid above the ceilings below the metal deck roof to minimise rain noise.

Box gutters can also be a significant source of rain noise and where these exist above an SOU, these are to have insulation to the underside and 6mm compressed cement sheeting to box around.

4.4.3. Enclosed Lobby

To minimise impact and airborne noise within enclosed lobby/corridor areas, it is recommended these have a carpeted floor finish. As well as satisfying the impact Code requirement, the carpet will assist in minimising reverberation within such spaces.

Where a hard floor finish is preferred, consideration can be given to acoustic absorption on walls and/or ceilings. Whilst it is recommended this be considered throughout, the main entry lobby is likely to be particularly reverberant that such treatment is strongly recommended in this area.

4.4.4. Wind and Thermal Noise

This aspect is to be considered by others such as a façade engineer with regard to wind induced noise around the structure, particularly perforated panels.

Thermal/structural expansion of the structure shall also be considered to minimise creaking and popping noises.

4.4.5. Aged Care Unit Living

Potential occupants of the units should be notified within the agreements that irrespective of the acoustic quality of units, some noise will always be audible between units. The strata agreement should include advice such as:

- Advise of time/use restrictions for common areas;
- All chairs on hard floor finishes, including external balconies are to be fitted with felt pads.
- Testing of emergency equipment (where relevant) are to be during agreed times with occupants and must be within the hours of Monday to Saturday 7am to 7pm.

5. NOISE INTRUSION

With regard to road traffic noise impacts, the proposed aged care extension is considered noise sensitive and the nearest units are located within approximately 145 metres from Great Eastern Highway (refer *Figure 5-2*). This road is considered a 'Strategic Freight/Major Traffic Route' in accordance with the PlanWA Maps and as such, a noise assessment is required against *State Planning Policy No. 5.4 Road and Rail Noise*.

The methodology used in this assessment is to follow the screening assessment procedure provided in the Guidelines. From Table 2 of the Guidelines (refer *Figure 5-1*), noise levels at the units on the north side of the proposed extension (as shown in *Figure 5-3*) are assessed as 56 dB $L_{Aeq(Day)}$, with Great Eastern Highway being a total of 4 lanes and at a distance of 145 metres from the proposed site. Therefore, the units on the north side of the proposed extension are considered to fall within Exposure A. All other units are located in an area below the outdoor noise target.

Transport Corridor Classification		Number of lanes (both directions), including bus/priority lanes and entrance/exit ramps	Forecast noise exposure category based on lot distance(m) from edge of nearest main road carriageway (not entrance/exit ramps)																				
			adjacent	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250	275	300
Strategic freight/major traffic route • 500 or more Class 7-12 Austroads vehicles per day, or • 50,000+ vehicles per day		2 to 4 lanes	72	68	66	65	62	62	61	61	60	59	59	58	57	57	56	55	54	53	52	51	50
		5 to 6 lanes	74	70	68	66	65	64	63	62	61	61	60	59	59	58	58	57	56	55	54	53	52
		7 to 8 lanes	74	72	69	68	66	65	64	64	63	62	62	61	60	60	59	58	57	56	55	54	53
		9 to 10 lanes	77	73	70	69	67	66	65	65	64	63	63	62	61	61	60	59	58	57	56	55	54
		10 or more lanes	78	74	71	70	68	67	66	66	65	64	64	63	62	62	61	60	59	58	57	56	56
Other significant freight / traffic routes • Any actual or planned future State Administered Road • Local Government Roads Carrying 100 or more Class 7 – 12 Austroads vehicles/day • 25,000+ vehicles per day: vehicles/day	Urban Region Scheme areas 60-80 km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	56	55	54	54	53	53	52	51	50	49	48	47
		3 to 6 lanes	69	66	64	63	62	61	60	59	58	58	57	56	56	55	55	54	53	52	51	50	49
	Urban Region Scheme areas 100+ km/hr	1 to 2 lanes	70	67	65	64	63	62	61	60	59	59	58	57	57	56	56	55	54	53	52	51	50
		3 to 6 lanes	74	70	68	66	65	64	63	62	61	61	60	60	59	59	58	57	56	55	54	53	52
	Rural areas 60-80 km/hr	1 to 2 lanes	62	59	57	56	55	54	53	52	51	51	50	49	49	48	48	46	45	44	43	42	41
		3 to 4 lanes	66	63	61	60	59	58	56	56	55	54	53	53	52	52	51	50	49	48	47	46	45
	Rural areas 100+ km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	55	54	54	53	53	52	51	50	49	48	47	46
		3 to 4 lanes	69	66	64	63	62	61	60	59	58	57	56	56	55	55	54	53	52	51	50	49	48

Forecast Excess Noise Level, dB	Exposure Category	Policy requirements for noise-sensitive land-use and/or development
0 or less	-	No further measures
1 to 3	A	Noise-sensitive land-use and/or development is acceptable, subject to: mitigation measures in accordance with an approved noise management plan; or quiet house package as specified
–	*A+	
4 to 7	B	
–	*B+	
8 to 11	C	
–	*C+	
12 to 15	D	Noise-sensitive land-use and/or development is not recommended. There is no default quiet house option due to excessive forecast noise; professional design input is required in order to achieve compliance with relevant criteria. If noise sensitive land-use and/or development is unavoidable, an approved noise management plan is required to demonstrate compliance with the noise target (see Table 1).
16 +	E	

* Applies to mitigate short-term noise events from freight rail.

Figure 5-1: Noise Exposure Forecast Table from Guidelines

As the units on the north side of the proposed extension are above the outdoor noise targets, construction shall be reviewed during detailed design in order to achieve acceptable internal noise levels.

Figure 5-2: Subject Site Locality in Relation to Road (Source: DPLH PlanWA)

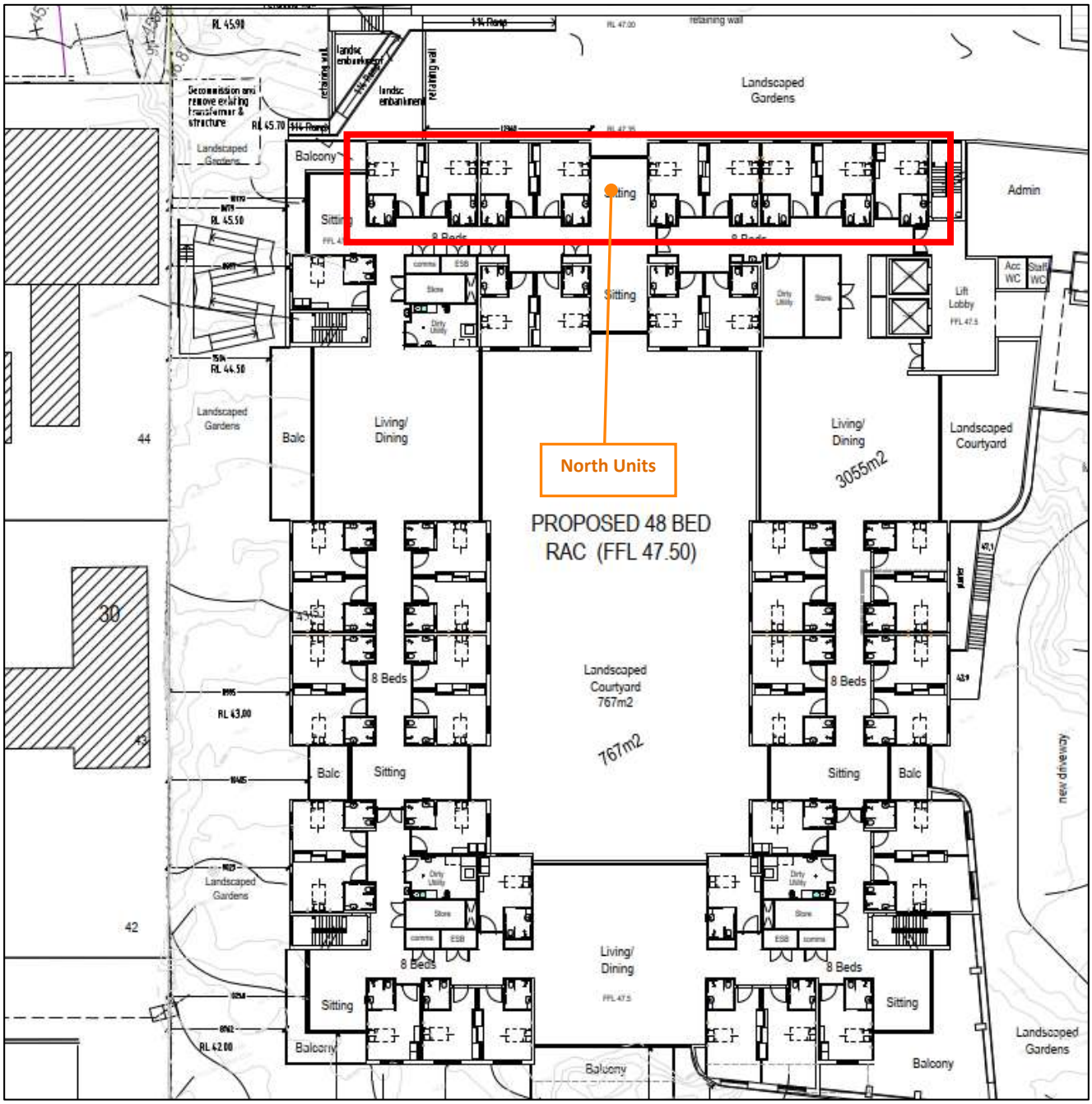


Figure 5-3: North Units

Appendix A – Development Plans

PEDESTRIAN ENTRY
ACCESS TO
G E HWY

131.19

TRUNK OVER FENCE

101°52'30"

29

EXISTING
SIGNIFICANT TREE

EXISTING
SIGNIFICANT TREE
MORETAN BAY FIG

Cleared site.
Grade to match
existing levels

WORTLEY
ROAD

NEW VEHICLE
ACCESS

214.79

retaining wall
above

retaining wall
above

50.8 Floor Level

112.12

Landscaped
Gardens

GF Level Over

RL 45.50

ACC. RAMP

RL 44.50

Undercroft
RL 44.70

low retaining wall

STAFF
85m2

LAUNDRY
90m2

KITCHEN
100m2

MAINTENANCE
STORE 40m2

LOGISTICS
STORES
56m2

BINS
50m2

Service
Lobby

Lift
Lobby

Loading
Bay

Carpark
Lobby

Carpark
Ambulent
Exit

Main Entry/
Admin Over

47.5
RL 47.50

MAIN ENTRY

RL 47.28

RL 47.1

RAMP

RL 42.9

43.0

Undercroft Carpark
45 Carbays
(3 Accessible)
FL 43.0

RL 43.00

Min. 3.8m
head height clearance to
loading bay

new driveway

new driveway

On-Grade
Carbays

Undercliffe
House Over

Existing Aged Care
Building Over

50.8 Floor Level
47.2 Floor Level

105°21'

30

NEW KITCHEN &
LAUNDRY TO
UNDERCROFT
CARPARK

RL 43.0

Ramp Up

RL 43.2

RL 42.8

PAVEMENT

Landscaped
Gardens

Landscaped
Gardens

Landscaped
Gardens

Landscaped
Gardens

Landscaped
Gardens

RL 42.00

GF Level Over

CHIRAZ
STREET

Carpark
Entry

driveway

EXISTING
SIGNIFICANT TREE

EXISTING DRIVEWAY

90°

138.20

WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL DIMENSIONS BEFORE WORK STARTS.

ALL WORK IS TO BE CARRIED OUT TO THE REQUIREMENTS AND SATISFACTION OF THE CURRENT BCA & NCC.

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Notes:

Client:

regis aged care

Architect:

LW

LL PELLAMEGETTE
ARNOULET 6134

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DRAFT TOWN PLANNING

REV.	DESCRIPTION	DATE
A	DRAFT DA ISSUE	28/2/2025

Layout:

PROPOSED FLOOR PLAN LOWER GROUND LEVEL (UNDERCROFT)

Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
1:300	A1	AL/FX	PL

Drawing No:	Revision:
TP.001	A

PEDESTRIAN ENTRY
ACCESS TO
G E HWY

WORTLEY
ROAD

NEW VEHICLE
ACCESS

CHIRAZ
STREET

EXISTING
DRIVEWAY &
CARBAYS

EXISTING
SIGNIFICANT TREE

EXISTING
SIGNIFICANT TREE
MORETAN BAY FIG

Landscaped
Gardens

Cleared site.
Grade to match
existing levels

PROPOSED 48 BED
RAC (FFL 47.50)

Balcony
Sitting
8 Beds
Balc
Living/
Dining
3055m2
Landscaped
Courtyard
767m2
Landscaped
Courtyard

Admin
Cafe
Entry Lobby &
Reception
MAIN ENTRY
Drop - Off
Lift
Lobby
Acc
WC
Staff
WC

DEMOLISH EZISTING COVERED WALKWAY AND
REPLACE WITH NEW GLAZED ENCLOSED WALKWAY.
INTERFACE WORK TO BE UNDERTAKEN IN
CONSULTATION WUTH HERITAGE CONSULTANT.

EXISTING HERITAGE BUILDING. RESTORATION WORK
INTERNALLY AND EXTERNALLY. REFURBISH INSIDE
TO NEW RAC DAY AREAS. WORKS TO BE
UNDERTAKEN IN CONSULTATION WITH HERITAGE
CONSULTANT. REFER ELEMENT 2021
CONSERVATION MANAGEMENT STRATEGY FOR
UNDERCLIFFE HOUSE.

EXISTING
HERITAGE
UNDERCLIFFE
HOUSE
47.8 Floor Level

Office
Cinema
Private Dining
St Serv
Library
Sitting
Garden

EXISTING
AGED CARE
BUILDING
50.8 Floor Level
47.2 Floor Level

Existing Aged
Care Building
Over

50.8 Floor Level

80m2 New Training
Room

Refurbish existing facade
& Entry Lobby to Training
room

Remove existing Portico,
driveway & Carbays.
New landscaped gardens

PAVED AREA TO
INTEGRATE TO
EXISTING HERITAGE
HOUSE LANDING &
STAIRS

On-Grade Carpark
6 Carbays

new driveway

EXISTING DRIVEWAY

EXISTING
SIGNIFICANT TREE

Carpark
Entry

Landscaped
Garden

Decommission and
remove existing
transformer &
structure

Retaining wall

1:14 Ramp

1:16 Ramps

Landscaped
Gardens

RL 47.50
RL 47.00
RL 47.35
RL 47.93
RL 47.5
RL 45.98
RL 45.70
RL 45.50
RL 44.50
RL 43.00
RL 42.00

138.20
103

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Notes:

Client:

regis | aged care

Architect:

LW

LT. BALAMEMEHT SE
ARN0A1E1C1343

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
DRAFT TOWN PLANNING

REV.	DESCRIPTION	DATE
A	DRAFT DA ISSUE	28/2/2025

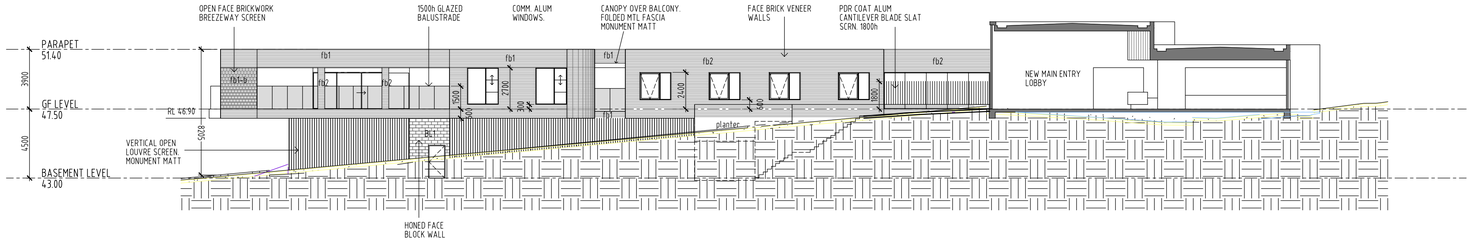
Layout:

PROPOSED FLOOR PLAN GROUND LEVEL

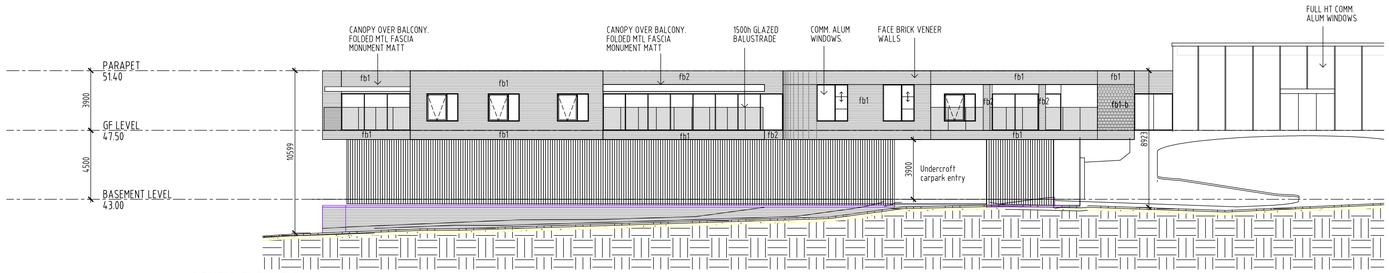
Drawing Scale:	Sheet Size:	Drawn By:	Checked By:
1:300	A1	AL/FX	PL

Drawing No: TP2.102

Revision: A

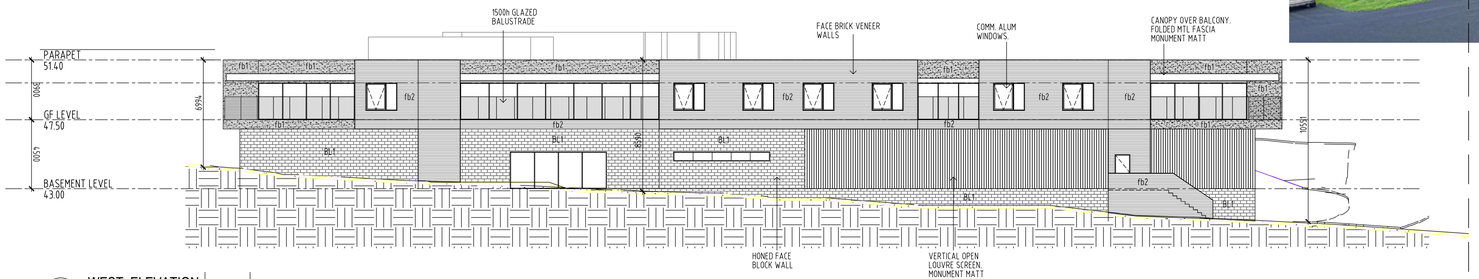


EAST ELEVATION
1.200

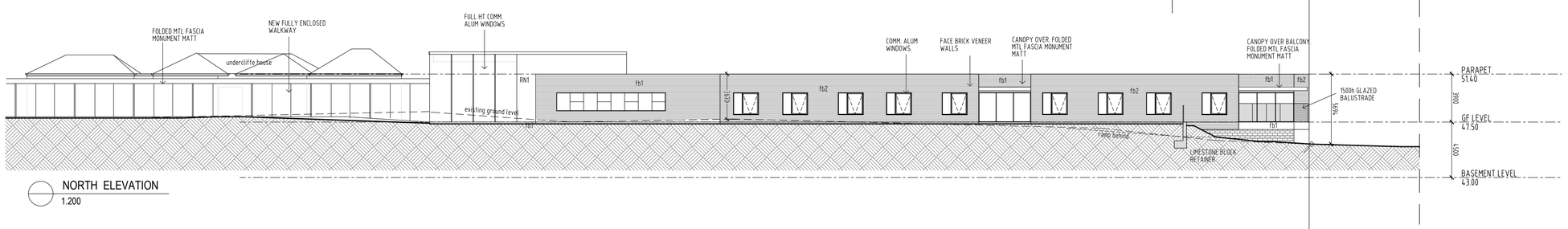


SOUTH ELEVATION
1.200

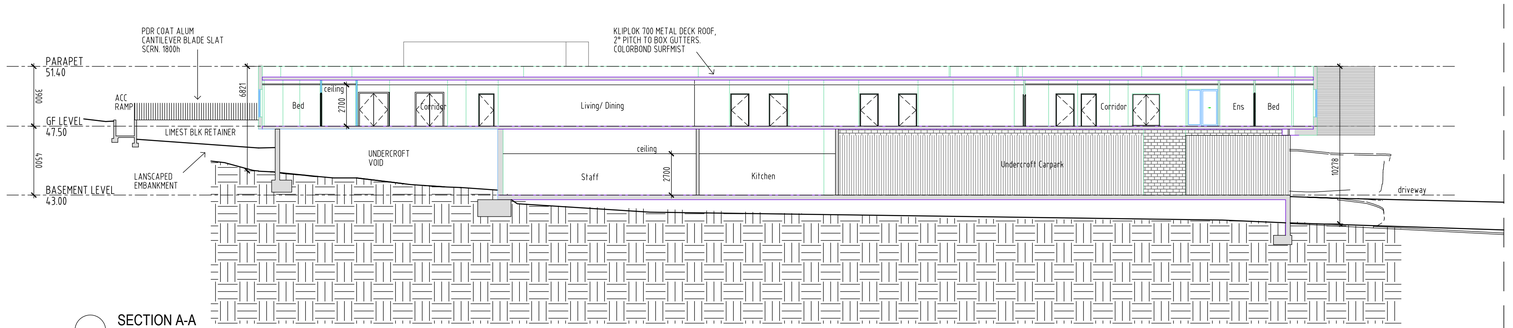
Artists Impression



WEST ELEVATION
1.200



NORTH ELEVATION
1.200



SECTION A-A
1.200

WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE TO SCALED DIMENSIONS. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL DIMENSIONS BEFORE WORK STARTS.

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Notes:

Client:

regis aged care

Architect:

LW

LW ARCHITECTS PTY LTD
ABN 44 676 013 181

Project:

REGIS GREENMOUNT PROPOSED 48 BED EXTN REDEVELOPMENT

Address:
9 COONGAN AVE
GREENMOUNT WA 6056

Project No.:
1093

Status:
TOWN PLANNING/ DA
DRAFT

REV.	DESCRIPTION	DATE
A	DRAFT DA ISSUE	28/2/2025

Layout:

ELEVATIONS & SECTIONS

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TP5.001	A

Appendix B – Influencing Factor Calculation

The assigned levels combine a baseline assigned level with an influencing factor, with the latter increasing the assigned level on the basis of the existence of significant roads and commercial or industrial zoned land within an inner circle (100 metre radius) and an outer circle (450 metre radius) of the noise sensitive premises. The calculation for the influencing factor is:

$$= \frac{1}{10}(\%\ \text{Type A}_{100} + \%\ \text{Type A}_{450}) + \frac{1}{20}(\%\ \text{Type B}_{100} + \%\ \text{Type B}_{450})$$

where:

$\%\ \text{Type A}_{100}$ = the percentage of industrial land within a 100m radius of the premises receiving the noise

$\%\ \text{Type A}_{450}$ = the percentage of industrial land within a 450m radius of the premises receiving the noise

$\%\ \text{Type B}_{100}$ = the percentage of commercial land within a 100m radius of the premises receiving the noise

$\%\ \text{Type B}_{450}$ = the percentage of commercial land within a 450m radius of the premises receiving the noise

+ Transport Factor (maximum of 6 dB)

= 2 for each secondary road (6,000 to 15,000 vpd) within 100m

= 2 for a major road (> 15,000 vpd) within 450m

= 6 for a major road within 100m

The nearest noise sensitive premises are identified as:

- 30 Wortley Rd, Greenmount
- 23 Chiraz St, Greenmount

From the Main Roads WA Traffic Map (refer *Figure B-4*), *Table B-1* shows the relevant roads and their traffic counts within the inner (100 metre radius) and outer (450 metre radius) circles.

Table B-1: Relevant Roads within 100m and 450m Radii

Receiver	Within 100m		Within 450m
	Major Road (+ 6 dB)	Secondary Road (+ 2 dB)	Major Road Not Within 100m (+ 2 dB)
Nearest noise sensitive premises	-	-	Great Eastern Highway (35,201 vpd 2024/25 #2015)

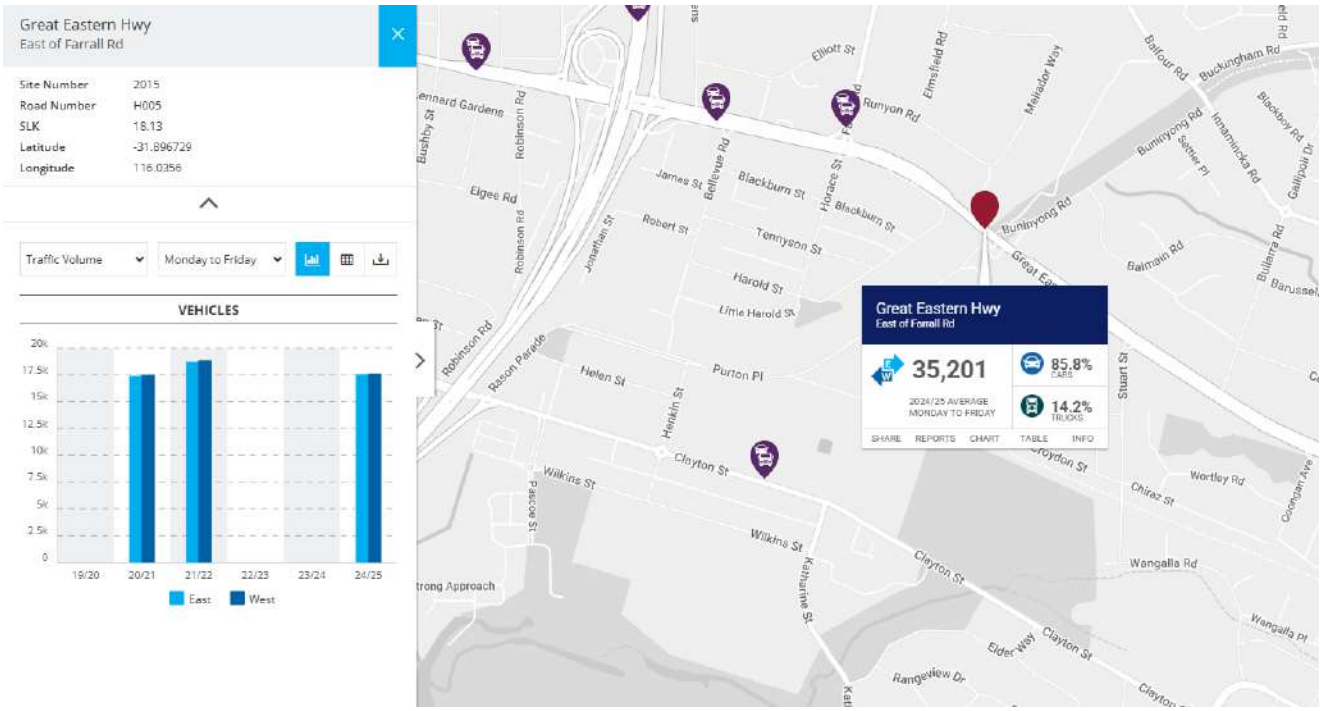

Figure B-4: MRWA Published Traffic Data

Table B-2 combines the percentage land types and transport factor to calculate the influencing factor, noting there is no industrial or commercial land within a 450 metre radius of the nearest noise sensitive premises.

Table B-2: Influencing Factor Calculation, dB

Receiver	Industrial Land	Commercial Land	Transport Factor	Total
Nearest noise sensitive premises	0	0	2	**2**

The influencing factor calculated in *Table B-2* is combined with those baseline assigned levels of *Table 2-2*, resulting in the project assigned levels provided in *Table 2-3*.

Appendix C – Terminology

The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A, dB.

- **R_w**

This is the weighted sound reduction index. It is a single number rating determined by moving a grading curve in integral steps against the laboratory measured transmission loss until the sum of the deficiencies at each one-third-octave band, between 100 Hz and 3.15 kHz, does not exceed 32 dB. The higher the R_w value, the better the acoustic performance.

- **C_{tr}**

This is a spectrum adaptation term for airborne noise and provides a correction to the R_w value to suit source sounds with significant low frequency content such as road traffic or home theatre systems. A wall that provides a relatively high level of low frequency attenuation (i.e. masonry) may have a value in the order of – 4 dB, whilst a wall with relatively poor attenuation at low frequencies (i.e. stud wall) may have a value in the order of -12 dB.

- **$L'_{n,w}$**

This is the weighted normalised impact sound pressure level, which is determined by measuring the sound pressure level in the receiving room in one-third-octave bands between 100 Hz and 3.15 kHz and moving a grading curve in integral steps, such that the curve is as high as possible without the sum of deficiencies exceeding 32 dB. The normalisation is to a receiving room sound absorption area of $10m^2$. The lower the $L'_{n,w}$ value the better the acoustic performance.

- **Assessment Method**

Means a method used for determining that a Building Solution complies with the Performance Requirements.

- **Verification Method**

Means a test, inspection, calculation or other method that determines whether a performance solution complies with the relevant performance requirements.

- **Performance Solution**

Means a method of complying with the performance requirements other than by a deemed to satisfy solution.

- **Deemed to Satisfy Provisions**

Means provisions which are deemed to satisfy the Performance Requirements.

- **Deemed to Satisfy Solution**

Means a method of satisfying the deemed to satisfy provisions.

- **Expert Judgement**

Means the judgement of an expert who has the qualifications and experience to determine whether a Performance Solution or Deemed to Satisfy Solution complies with the Performance Requirements.

- **Habitable Room**

Means a room used for normal domestic activities, and

a) includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room, home theatre and sunroom; but

b) excludes a bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods.

- **Public Corridor**

Means an enclosed corridor, hallway or the like which –

a) Serves as a means of egress from 2 or more sole-occupancy units to a required exit from the storey concerned; or

b) Is required to be provided as a means of egress from any part of a storey to a required exit.

- **Performance Requirement**

Means a requirement which states the level of performance which a Performance Solution or deemed to satisfy solution must meet.

- **Sole Occupancy Unit**

Means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes –

a) a dwelling; or

b) a room or suite of rooms in a Class 3 building which includes sleeping facilities; or

c) a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or

d) a room or suite of associated rooms in a Class 9c aged care building, which includes sleeping facilities and any area for the exclusive use of a resident.

- **Class 2 Building**

A building containing 2 or more sole occupancy units each being a separate dwelling.

- **Class 3**

A residential building, providing long term or transient accommodation for a number of unrelated persons, including –

a) a boarding house, guest house, hostel, lodging house or backpacker accommodation.

b) a residential part of a hotel or motel.

c) a residential part of a school.

d) accommodation for the aged, children or people with disability.

e) a residential part of a health-care building which accommodates members of staff.

f) a residential part of a detention centre

g) a residential care building.

22 Coongan Avenue, Greenmount – Proposed Aged Care Facility Building
Schedule of Submissions

Submitter's Comments	Shire's Comments
Thank you for your email requesting comment on the development proposal for P8547 Undercliffe Hospital. However, the place is not on the State Register of Heritage Places and not of interest to Heritage Council. We are therefore unable to provide advice on Development Applications that affect Local Heritage Survey (LHS) or heritage list places.	Noted
The MHHS Committee, and respected local heritage advisors, have been consulted on the proposed Aged Care Facility Building at 22 Coongan Ave, Greenmount. *The outcome of the discussions was that the proposal is supported providing the existing significant trees are neither removed or damaged.* *The MHHS appreciated the opportunity provided by the Shire of Mundaring to submit comments on the proposal.*	Noted. Matters relating to heritage are discussed under the Planning Assessment section in the report being presented to the DAP. If the application is approved, it is recommended that a condition be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.
I and other local residents are concerned about the possibility of access to the Regis site being relocated to Wortley Road or Chiraz Street. As a resident of Wortley Road this concerns me as just above our home is a blind bend in the road. Reversing onto the road already requires great caution and were traffic to the Regis facility to be diverted, to use this route, it would	Wortley Road will be physically blocked after demolition works are finalised. Access to the rear of the Site will then be completely restricted. Chiraz Street will remain closed to the Site.

increase traffic through the street. Although the reported regular volume of traffic is relatively small it would add considerably to the current traffic flow in the street. While this is not proposed currently this proposal has previously been floated.	Chiraz Street will not be used for direct Site access at any stage of the proposed development.
The only problem I have with this project is using Wortley Road as an exit/entry road. This road is quite narrow, with a blind corner near the Chiraz road end. *People on this road understand the dangers of cars backing up and backing down steep driveways, let alone dogs and children using the level surface the road provides to play on. A difficult little road to navigate, let alone for distracted visitors possibly grieving over sick or dying friends and relatives at regis.* *Chiraz road would be the most suitable for all exit and entry of traffic. It is straight, houses on one side, and the road can be widened.* *In the best interests of Regis, Mundaring Shire, and the local population, the Regis extension should be changed to reflect this, thank you.*	Wortley Road will be physically blocked after demolition works are finalised. Access to the rear of the Site will then be completely restricted. Chiraz Street will remain closed to the Site. Chiraz Street will not be used for direct Site access at any stage of the proposed development. The above outcomes are considered acceptable in terms of safety.
Thanks for the opportunity to comment on the development proposal. *I understand there's a strong demand for more nursing home beds and I am not opposed to the development in general.* *Two points I'd like to make:*	

1. That the development should not lead to an increase in traffic on Coongan Avenue. I'm already woken by trucks loading and unloading skip bins, often about 5.30am which is very early and annoying. I would really like to see trucks diverting to the turning lane off Great Eastern Highway and enter the site from the north eastern corner rather than via my residential street Coongan Ave. *2. The building looks to require removing of two mature trees which is very concerning and if at least one could be saved- my neighbour tells me they are nesting trees for cockatoos etc. -that is preferable. Only very mature trees are used for nesting. My trees are 10 years old and won't have nesting hollows for decades yet. So it's important we keep trees for the birds and of course for the cooling shade. If both trees must go there should be a requirement to plant local species to offset those that are lost.*	1. Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP. However, specific to the concern, no direct vehicle access from Great Eastern Highway is proposed. Main Roads WA is generally opposed to having additional access points from Great Eastern Highway due to traffic safety, particularly when vehicle access is possible from other roads. 2. No habitat trees are proposed to be removed as part of the proposal. The Shire's Environment Services has advised that only non-native species will be impacted based upon the proposed plans. Three significant trees on the site are mentioned in the Shire's Local Heritage Survey (LHS). They are the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary. These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant. If the application is approved, it is recommended that a condition be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.

I know Regis has applied before to expand and I opposed that because they wanted to use Stuart and Chiraz streets to access the site. This time it looks like my street is to be impacted unless the road access is opened at the highway on the north west corner. I know it's close to the truck arrester bed but it would involve less right hand turns than if Scott street and Coongan Avenue are the streets used for access.	Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP. Note that Chiraz Street will not be used for direct Site access at any stage of the proposed development.
Traffic *I am concerned about the increased heavy vehicle traffic that will be experienced on Scott Street and Coongan Avenue during construction. These are suburban streets surrounded by almost entirely residential properties. Increased heavy vehicle traffic will likely bring about increased noise and increased safety risks for residents and local wildlife. I strongly suggest that the Great Eastern Highway entrance to Coongan Avenue be re-opened so that construction traffic would have direct access to the site without having to transit through residential areas.*	Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP. No direct vehicle access from Great Eastern Highway is proposed. Main Roads WA is generally opposed to having additional access points from Great Eastern Highway due to traffic safety, particularly when vehicle access is possible from other roads. If the application is approved, it is recommended that a construction management plan be required as a condition. The construction management plan shall detail measures to minimise nuisance to neighbours (including vehicle parking) during site works and construction.

 Flora on the building site *There is a significant Moreton Bay Fig tree on the site which is used by much of the local birdlife. For the well being of the local birdlife, this tree should be retained.*	No habitat trees are proposed to be removed as part of the proposal. The Shire's Environment Services has advised that only non-native species will be impacted based upon the proposed plans. Three significant trees on the site are mentioned in the Shire's Local Heritage Survey (LHS). They are the; Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American

	Cypress, located south of the Norfolk Pine at the site's boundary. These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant. If the application is approved, it is recommended that a condition be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.
We write to today in general support of the proposed aged care facility building upgrades at 22 Coongan Ave Greenmount. *We are glad to see that there are restoration works proposed for the heritage building of Undercliffe Hospital as this has been in the local area for a very long time.* *Overall, the proposed building seems to be in line with the locale and should not inhibit the local resident's general neighbourhood ambience or amenity.* *Our main concern is for the building process itself and the traffic management plan - currently on our (closed, cul-de-sac) street we have 2 residences being built and 1 renovation. This has caused there to be a number of trucks and additional cars to be parked at the bend of Coongan - at the busiest part of the street as this bend also provides the entrance to the aged care facility - and visability can be very difficult leaving/arriving at the houses towards the end of the cul-de-sac. We would hope that there is a strong traffic management plan in place for this proposal (that*	Noted Noted If the application is approved, it is recommended that a construction management plan be required as a condition. The construction management plan shall detail measures to minimise nuisance to neighbours (including vehicle parking) during site works and construction. The submitter is advised to contact the Shire's Rangers should they believe that any vehicles associated with the proposed

is actually followed by the trades people who will be attending the site) including not having multiple trades vehicles parked along the road but have a dedicated parking area for them during construction.	development, or any other properties within the Shire, are being parked illegally. If the application is approved, it is recommended that a construction management plan be required as a condition. The construction management plan shall detail measures to minimise nuisance to neighbours (including vehicle parking) during site works and construction.
I am very concerned about the use of Wortley Rd as an access. At the Shiraz end of Wortley Rd there is an almost 90 degree bend. I have had several near misses on that bend mostly with the other car not being familiar with the road. *With construction workers and delivery trucks using this road it could be disastrous. The road is not wide enough for two trucks to pass safely let alone semi trailers. If two semi trailers block the road and there is any form of emergency this could be fatal.* *There are also a lot of young children living in the street and a lot of them walk to and from school on Wortley Rd, no footpaths. I feel for the safety of these children.* *If the proposed building was to be moved 8-10 metres north and 8-10 metres east, they could have full access from Chiraz Street and Coongan Avenue. If the demolition of the old buildings was started from the southern end they will have access from Coongan Avenue.*	. Components of user safety and general traffic implications have been assessed by the Shire's Design Services and deemed to be acceptable, alongside the findings of the applicant's Traffic Impact Assessment. Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP

I am very concerned that after the construction and demolition is completed that they will subdivide the site into two lots leaving the only access from Wortley Rd. I live at 30 Wortley Rd which is the last house on the right side. I purchased the house 23 years ago because of its location, a dead end street. I am almost 73 years old and do not want constant traffic going past my bedroom window. *If Wortley Rd is opened for permanent use which I think is their long term aim, it will devalue my property by up to $100,000.*	The applicant's Stage 5 plan in the traffic impact assessment indicates that the northern portion of the site will be subject to future planning. Any building(s) proposed in the location will require a separate development approval to be obtained. This will be assessed on its individual merit, which includes, amongst other matters, what impact traffic generated by the land use may have on the local roads. In accordance with the Special Design Area No.1 provisions under LPS4, a Structure Plan for the area would need to be endorsed prior to considering (if applicable) any subdivision and/or grouped dwellings. Any building(s) proposed in the location will require a separate development approval to be obtained. This will be assessed on its individual merit, which includes, amongst other matters, what impact traffic generated by the land use may have on the local roads. Wortley Road will be physically blocked after demolition works are finalised (Stage 4 in the traffic impact assessment). Access to the rear of the Site will then be completely restricted. The potential impact proposed development may have on property values is not a matter the Shire and the DAP are required to have regard to when considering development applications in accordance with the State planning framework.

I write to provide my and my family's strong objection to the development application at 22 Coongan Avenue.	
I have spoken with neighbours and we are all on the same page with objecting to this development. Whilst we understand the requirement for a better facility for an ageing population, the location proposed for the project is completely inappropriate and we wholeheartedly reject the application for development. Please, Shire of Mundaring, Councillors and Administrative Staff - please reject this application.	Noted.
We have major concerns as follows:	
- Noise impacts during construction We are foster carers and frequently have highly traumatised children in our care that are sensitive to loud noises, machinery, and sudden noises. Exactly the kind of noises we are going to experience with a construction project next door. We may not be able to safely look after kids in our home with the level of noise during construction. - Noise impacts once the facility is complete Bringing the facility over closer to us on the vacant land will bring the operations of the aged care facility right to our doorstep. We currently live on a nice quiet street and the biggest noise impact are planes flying overhead. This has limited impact because of how gradually the sound approaches and departs.	Matters relating to noise are discussed in further detail under the Planning Assessment section in the report being presented to the DAP. If the application is approved, it is recommended that a construction management plan be required as a condition. The construction management plan shall detail measures to minimise nuisance to neighbours (including noise) during site works and construction.
- Traffic impacts to Wortley Road (noting the traffic report findings that reckon the first 6 months there will be no impact - nobody follows the rules and we are still going to see plenty of lost trafffic coming into our street trying to find the entrance). Regardless of if there is a sign saying 'local traffic only' we are	Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP.

absolutely going to see an increase in traffic up to our street. An increase in traffic means our home is less safe, our kids that live on this street are less safe, our days are interrupted with more traffic noise, increased chance of car accidents with people unfamiliar with this road and very limited visibility as it is for coming and going out of our driveways.	
- Traffic impact in the following 12-18months. This is a crazy long time to have trucks and cars coming and going on our tiny little windy street. - Poor visibility turning corners on our street that non-local residents will not be aware of. As it is, our street is so skinny and windy, and there is hardly enough room for two standard size cars to pass. Residents on this street already drive up and down far below the standard 50km/hr limit for residential areas - I barely crack 25km/hr on this street because you have to be careful of kids playing and cars backing out of their homes. Non-local drivers won't know they need to be extra careful on our road until they have an accident. We don't want any period of time of our street being used for access.	Matters relating to traffic are discussed in further detail under the Planning Assessment section in the report being presented to the DAP.
- Removal of significant trees (noting proposal documents that explain one may be preserved) We can't afford to keep reducing our tree canopy. These trees are not going to be replaced, they may be offset elsewhere but they will increase heat in our area which is already roasting in Summer. We can't have any trees removed in our area - especially not to be replaced with a big hot heat-absorbing concrete mammoth.	No habitat trees are proposed to be removed as part of the proposal. The Shire's Environment Services has advised that only non-native species will be impacted based upon the proposed plans. Three significant trees on the site are mentioned in the Shire's Local Heritage Survey (LHS). They are the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary.

	These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant. If the application is approved, it is recommended that a condition be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.
- Visual impact of a multi storey building as you come into our street instead of what we see currently which is a nice big tree. When you drive down our road, you can see a magnificent big tree at the end of the road. It's part of the reason we bought this house only a year ago - because it feels remote, it doesn't feel tightly packed and over-developed. It has a nice open expanse at the end of the road. Breathing room. A giant building at the end of the road and ugly construction for 2 years isn't quite the same, is it?	Matters relating to the built form and site layout are discussed in further detail under the Planning Assessment section in the report being presented to the DAP, however the assessment contained in the report has deemed the building form and site layout to be of an acceptable nature
- Impact on children that live on Wortley Road that walk to and from school along our street - there is no footpath and our street is quiet enough that it's safe for kids currently. Kids that live on this street walk and play on this street. The blocks here are all a pretty good size but we need the space. That's why we all bought a home here. We can't have the road become so busy that we can't use that space any more.	Noted
- Devaluing of our property We only bought our home on Wortley Road a year ago. It's our first family home. Both growing up remotely, we love the space we have here. We have been working really hard on our old home to improve it, and we have more plans in the works to keep improving it. A huge	The potential impact proposed development may have on property values is not a matter the Shire and the DAP are required to have regard to when considering development applications in accordance with the State planning framework.

building almost next door to us will only have one impact on our property value - to push it down. No one wants to live next to a building right up against our fences, and certainly not a construction site. When the time comes we would struggle to sell our property at a gain because it's not going to be as nice a place to live as it was when we bought the place.	
- Verge impacts The carparks will fill up quickly and the next place for people to pull over is going to be my front verge, and along the side of the road on our street, blocking access and increasing the danger of the street with heaps of cars lined up.	Noted. The submitter is advised that the amount of on site car parking bays proposed is compliant with the local planning framework.
- Mitigation and compensation for nearby landowners No impact mitigation proposal has been offered to nearby landowners. We have not been informed of what Regis can do for our homes to reduce the impacts of construction and the open facility. Without providing this information to us, there is no way we can support the application because we must assume the worst. We haven't got any trust that we are going to have communication channels to report noise, dust and light impacts.	Noted. Such matters the Shire and the DAP are not required to have regard to when considering development applications in accordance with the State planning framework.
- Impacts on daily life of residents I work from home one or two days a week, one of my neighbours even closer to the site lives with a chronic illness and values their quiet time and peace at home while they deal with their pain. Other neighbours are retired and enjoying the quiet life in our quiet street, another neighbour works night shift so sleeps during the day - this will be impossible across the whole period of construction. Is Regis going to offer to replace all of our windows with double glazing? We sometimes have a baby in our care and I'm pretty confident that a jackhammer two doors down is not going to be conducive	Noted

to trying to get a traumatised baby who has just been taken away from his parents back to sleep. *- Nuisance We've just spent 6 months making a beautiful new front garden. We're really invested in this home financially and emotionally. We don't want to leave, but we really really don't want to live next to a construction site or an operating business, and if we did want to leave we aren't going to get as much for our home as we paid for it - because there is going to be an eyesore at the end of the road. Also, we're a bunch of people with other lives and jobs to do and Regis is a big company that have spent probably a few hundred thousand dollars on a proposal which we now have 5 minutes to respond to. It's a stitch up and literally designed to steamroll us over. What power do we really have?* *To be clear - we the residents absolutely do not support this proposal, outright. No amount of mitigation is going to be acceptable. We ask the Shire to respect the residents of Wortley Road and vote No to this proposal in its entirety. Thank you for your consideration.*	Noted Noted. The submitter is advised that the DAP is the determining authority for the application, not the Shire. Shortly before receiving this submission the Shire advised the submitter that applications required to be determined by the DAP are no longer able to be presented to a Council meeting for consideration.
My mother and myself actually met with Ken Wyatt years ago when this was first brought to our attention. We were concerned our Road would not be a Cul de sac anymore as that is the only reason we built in Wortley Road. We were assured that the gate would be put back up and there would be NO Access from Wortley Road.	Noted.

I am fine with the building as long as the main entry will still be from Coogan Avenue. *I would like to point out that I have phoned Regis on a number of occasions and complained about the gate being knocked over and people are camping in the grounds. I was told they would get onto maintenance but no action was taken.* *As usual nothing was actioned so I hope it will be organised when work commences.*	Matters relating to traffic are discussed in further detail under the Planning Assessment section in the report being presented to the DAP. The main entry to the aged care facility is proposed to be from Coongan Avenue once the proposed development is constructed. Noted. The applicant has been advised of this so they can inform the landowner.
Please be advised Main Roads supports the development proposal and recommends that if development approval is granted, the following conditions are imposed: ***Conditions*** *1. This noise sensitive development adjacent to a major transport corridor must implement measures to ameliorate the impact of transport noise. The development is to comply and implement the Acoustic Report prepared by Lloyd George Acoustics dated 9 May 2025 (ref 25019799-01A), revision A with the following amendment:* *a) The report must provide detailed construction specifications for the northern units (as shown in Figure 5-3) demonstrating that all internal noise levels meet the*	Noted. The Shire recommends that all of the conditions be included if the application is approved by the DAP.

targets outlined in State Planning Policy 5.4 – Road and Rail Noise. *The amended acoustic report shall be to the satisfaction of the Shire of Mundaring and must be implemented at all times.* *<u>Justification for Condition</u>* *To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – Road and Rail Noise.* *2. Prior to occupation of the development, certification from a qualified acoustic consultant being submitted, confirming that the recommendations of the approved acoustic report prepared by Lloyd George Acoustics have been implemented is to be provided to the satisfaction of the Shire of Mundaring.* *<u>Justification for Condition</u>* *To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – Road and Rail Noise.* *3. A notification, pursuant to Section 70A of the Transfer of Land Act 1893 is to be placed on the Certificate(s) of Title of the proposed development. The notification is to state:* *"The lots are situated in the vicinity of a transport corridor and are currently affected, or may in the future be affected by transport noise."*	

<u>Justification for Condition</u> *To ensure the acoustic requirements are implemented in accordance with State Planning Policy 5.4 – Road and Rail Noise.* *4. No vehicle access shall be permitted onto Great Eastern Highway.* *<u>Justification for Condition</u>* *This condition reflects the requirement of Development Control Policy 5.1 Regional Road (Vehicular Access) and Special Design Area No.1 under Cl 6.7.2 (a) of the Shire of Mundaring's Local Planning Scheme No.4.* *5. Stormwater discharge shall not exceed pre-development discharge to Great Eastern Highway Road Reserve.* *<u>Justification for Condition</u>* *To ensure there is sufficient capacity in the Great Eastern Highway stormwater network to accommodate its requirements. This is a standard requirement for development adjacent to a State Road.* *6. All waste collection is to be onsite.*	

<u>Justification for Condition</u> *Public safety. This condition reflects the requirement of Section 4 of the applicant's submitted Waste Management Plan.* ***Advice*** *a) All vehicle access for future development within the subject site is to be taken from Wortley Road, Chiraz Street and/or Coongan Avenue.* *b) Prior to undertaking any works within the Great Eastern Highway Road Reserve, a Working on Roads Permit must be obtained from Main Roads.* *c) The applicant is required to submit an Application form to undertake works within the road reserve prior to undertaking any works within the road reserve. Application forms and supporting information about the procedure can be found on the Main Roads website > Technical & Commercial > Working on Roads.* *d) The upgrading/widening of Great Eastern Highway is not in Main Roads current 4-year forward estimated construction program and all projects not listed are subject to change without notice, and Main Roads assumes no liability for the information provided.*	Noted. The Shire recommends that all of the advice notes be included if the application is approved by the DAP, except for advice note a). This being due to there being no vehicle access being proposed from Chiraz Street, and vehicle access from Wortley Road only being proposed to be temporary as outlined in the report to the DAP.
I am opposed to the development of the aged care site due to Wortley Rd being only site access for almost 2hrs.	Noted.

I am opposed to Wortley Road being used as a thoroughfare for any vehicles required in the development & service of the above. Access is already available direct from Great Eastern Highway.	Matters relating to traffic are further discussed under the Planning Assessment section in the report being presented to the DAP. No direct vehicle access from Great Eastern Highway is proposed. Main Roads WA is generally opposed to having additional access points from Great Eastern Highway due to traffic safety, particularly when vehicle access is possible from other roads.
In the past Regis Care has not taken responsibility to keep the already owned land secure and free from rubbish & debris.	Noted. The applicant has been advised of this so they can inform the landowner.
This is not the first time this development has been referred to the public and understand the Wortley Road home owners were against it at that time. Many Australian animals have sort refuge in this area due to constant development' of surrounding land and the old fig tree in the top left corner is nearly as old as "Undercliffe House" Will this also be saved?	No habitat trees are proposed to be removed as part of the proposal. The Shire's Environment Services has advised that only non-native species will be impacted based upon the proposed plans. Three significant trees on the site are mentioned in the Shire's Local Heritage Survey (LHS). They are the Moreton Bay Fig tree, to the rear of the 'Undercliffe House'; the Norfolk Pine, located directly in front of the House; and the South American Cypress, located south of the Norfolk Pine at the site's boundary. These trees are not impacted by the proposed works based upon the plans and supporting documents provided by the applicant. If the application is approved, it is recommended that a condition be included to ensure the protection of the significant trees mentioned in the Shire's Local Heritage Survey during and post the demolition and construction stages.

With all the above in mind, I confirm that I am opposed to a two-storey development.	Matters relating to the built form and site layout are further discussed under the Planning Assessment section in the report being presented to the DAP, however the building form and site layout is deemed to be supportable by the Shire.
Wortley Road is a no through road so everyone gets effected, so why I was not notified is a disgrace, surely entry into this site would be more appropriate from another entrance, Great Eastern Hwy there is already a lane way and will not affect Wortley Rd with this having houses both sides and quite dangerous at the bend near Chiraz St, so having trucks and more cars could cause an accident. You also have this street already with a gate and the already used Coongan Avenue.	The proposal was advertised by the Shire in accordance with its PS-01 Advertising Planning Proposals policy as outlined in the Consultation section in the report being presented to the DAP. This included notification being sent to landowners/occupants within 200m of the subject site and a sign being placed adjacent to all street frontages of the subject site. Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP. No direct vehicle access from Great Eastern Highway is proposed. Main Roads WA is generally opposed to having additional access points from Great Eastern Highway due to traffic safety, particularly when vehicle access is possible from other roads.
I would like to object to the use of Wortley Road Greenmount for access to building the proposed Aged care faciliy . Wortley Road has approx 26 houses with 3 bad bends. And also quite a few children who live close to direct access to the aged care entrance. Also silver chain visit a few residences during the week, Having trucks etc using Wortley for at least 2 years will be inconvenient . *We have been here 51 years and have a very steep drive which is difficult to exit at the best of times because we are on the*	Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP. Noted

bend and have extra traffic will make it more difficult, Also bin day there are 12 bins on the bend. Stuart Park also has access off Wortley Rd. *We hope you reconsider using Wortley Rd for access.*	The submitter is advised that the DAP is the determining authority for the application, not the Shire.
I am writing to raise objections regarding the use of Wortley Road, rather than Chiraz Street, in respect to accessing the proposed extension of the Regis Aged Care Facility (Site) in Greenmount, particularly its substantial safety and traffic impact on Wortley Road compared to Chiraz Street, and the lack of communication with some residents. While the Transport Impact Statement (TIS) concludes that the traffic impact will be minimal, it fails to provide reasons or explanations why the entry or exit point to the Site cannot be Chiraz Street, Coongan Avenue, and/or Great Eastern Highway. The specific characteristics of Wortley Road raise legitimate issues that have not been addressed. Here are some key points of our objections: ***1.** Blind Spot and Road Geometry: Wortley Road has a blind spot at its entrance, poor road geometry, and a lack of straight alignment, further exacerbated by the absence of footpaths (causing the use of the road by pedestrians, which has insufficient road lighting at night). These factors pose significant safety risks, particularly for children who walk to school daily, elderly individuals (including myself), and others who frequently visit Stuart Park (Reserve), bus stops, walk/exercise, etc. The TIS does not address these specific risks, raising serious concerns about the adequacy of safety measures for vulnerable road users.*	Matters relating to traffic are discussed under the Planning Assessment section in the report being presented to the DAP.

Chiraz Street (was previously used to access the Site). The straight alignment provides the optimal choice for construction and demolition access due to its favourable geometric layout. *The use of Chiraz Street would eliminate the above serious safety issues posed by the use of Wortley Road.* ***2.*** *5.5-meter width on Wortley Road and no road markings coupled with the above would cause articulated trucks, large, medium and small rigid trucks (19 m, 12 m, 8.8 m and 6.4 m long respectively) will have to transgress onto the on-coming vehicle side of the road to be able to take the right angle turns on Wortley Road (one being the above-mentioned blind spot). The absence of road markings and the speed limit of 50 Km per hour exacerbate safety concerns even further.* *Whereas Chiraz Street does not have this serious safety issue**.*** *3. The distance between the two right-angle turns on Wortley Road is approximately 30 meters. The distance between the access point at the end of Chiraz Street and the proposed Wortley Road access point at the Site is approximately 100 meters, which provides more than ample room to safely allow all the trucks to manoeuvre to and from the appropriate location to conduct their business at the Site.* *Thereby alleviating the inherent risk posed by the use of Wortley Road by trucks, etc., as explained above, to Wortley Road users.*	

4. *Wortley Road is a no-through road, with 29 residential homes, and Wortley Rise has five residential homes. Any increase in traffic—especially from construction vehicles and diverted traffic—would significantly disrupt the safety and peaceful quiet of its residents' lives and other users. The TIS estimates up to 18 additional two-way vehicle movements per hour during construction, which may seem small in isolation but could feel substantial in a quiet residential area.* *However, Chiraz Street has only 11 homes compared to 34 homes affected by the use of Wortley Road.* ***5.*** *Potential Diversion of Coongan Avenue Traffic: Coongan Avenue currently handles 300 vehicles per hour. Although the TIS states that some staff and all visitors to the Site will use Coogan Avenue, there is a risk that some vehicles may divert to Wortley Road during construction, which would increase the volume of traffic and further compromise the safety of residents and road users on Wortley Road.* ***6.*** *Cumulative Impact: The combination of increased traffic, large construction vehicles, and the existing limitations of Wortley Road (including blind spots, lack of footpaths, and inadequate road markings, poor street lighting) creates a higher risk of accidents and reduces safety for residents.* ***7.*** *Furthermore, it is concerning that the original proposal of works was not adequately communicated to all residents on Wortley Road or Wortley Rise. The Shire of Mundaring sent a letter and diagram to another Wortley Road resident (excluding the blind spot and right-angle turns) as part of the notification to residents within 200 meters of the Site (although a resident*	The proposal was advertised by the Shire in accordance with its PS-01 Advertising Planning Proposals policy as outlined in the Consultation section in the report being presented to the DAP. This included notification being sent to landowners/occupants within 200m of the subject site and a

opposite me also received notification). The diagram failed to specify Wortley Road as a primary access route during construction and was not fully representative of the planned traffic impact. The placement of the notification sign at the end of the street, near the entrance of the vacant land, rather than at the beginning of the street, where all residents would have seen it, significantly limited visibility and awareness. This approach failed to ensure that all affected residents, including those on Wortley Rise, were informed correctly. Furthermore, relying on informal communication from another resident highlights a lack of direct engagement and transparency in the consultation process, hence our delayed response. *Thank you for extending the time for Public Notice Comment by a very brief period.* ***8.** In conclusion, while the TIS downplays the traffic impact and fails to assess the unique characteristics of Wortley Road, its safety risk, residential nature, and infrastructure limitations. TIS further fails to provide reasons or explanations why the entry or exit point to the Site cannot be Chiraz Street, Coongan Avenue, and/or Great Eastern Highway.* *Without limiting my objections to the above, I object to Wortley Road being used to access the Site.*	sign being placed adjacent to all street frontages of the subject site. The advertising letters (which included a locality plan, the proposed site plan and elevations) and the signs, included information as to where further details of the proposal, including large copies of the proposed plans and copies of the supporting technical reports, were available to view, being at the Shire's Administration Building and on its website.
My main concern is the access to and exits from the proposed facility. *The exits from the facility are Coongan Avenue to Scott Street to Great Eastern Highway, then Scott Street to Jinda Road, and no other exit until Lloyd Street, Midland.*	The matters raised by the submitter are in relation to traffic associated with the subject site using Coongan Avenue. Vehicle access to the subject site is already obtained via Coongan Avenue, and this is to remain unchanged once the new facility is constructed and the existing aged care building is demolished.

With the City of Swan closing Robinson Road, Bellevue, and allowing a subdivision of approximately 1,000 houses, the traffic will be even more limited and at times utter chaos.	The existing aged care facility building which is proposed to be demolished contains 47 units. The proposed building will contain 48 units. One additional unit is unlikely to result in a significant increase in traffic.

PART D – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals

2. Meeting Closure