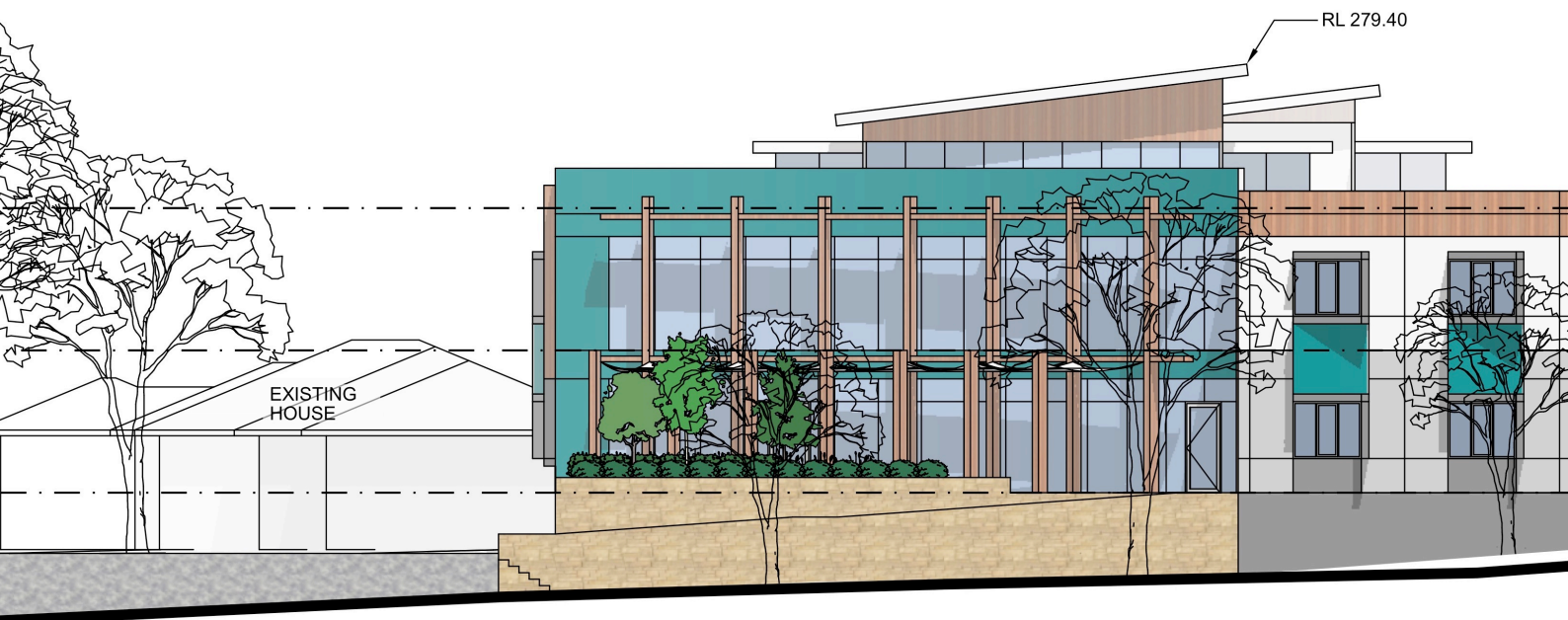


PROPOSED EXTENSION

VALENCIA NURSING CARE

Planning Report - October 2017

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Introduction	2
Accommodation Requirements	2
Building Quality	2
Budget Requirements	2
Site Restrictions and Limitations	3
Site Topography	3
Local Planning Policy	3
Site Requirements	3
Car Parking Requirements	4
Impact of Bushfire	4
Fire Compartmentalisation/Separation	4
Building Permit Limitations	5
Sewerage Disposal System	5
Building Entry Identification	5
Utility and Loading Zones	5
Architectural Design Response	6
Site Location & Layout	6
Forward/Enabling Works	6
Building Form & Streetscape Requirements	6
Boundary Setbacks & Plot Ratio	7
General Floor Layout	7
Privacy Requirements	8
Materials	8
Landscaping	8
Sewerage Disposal	8
Bushfire Assessment	8
Traffic Management, Access & Parking	8
APPENDIX A - Planning Analysis Drawings	9
APPENDIX B - Architectural Drawings	10
APPENDIX C - Landscape Plan	11
APPENDIX D - Hydraulic Design Drawings & Approval Letter	12
APPENDIX E - Bushfire Assessment Report & Evacuation Plan	13
APPENDIX F - Traffic Management Report	14
APPENDIX G - Land Survey	15
APPENDIX H - Certificate of Title	16

Introduction

There is a shortage of aged care facilities in the Kalamunda Shire area and Burswood Care Pty Ltd is seeking to reduce this shortfall by extending its aged care operations at 24 Valencia Road Carmel, with a new aged care facility accommodating 80 additional beds. The proposed development is a state-of-the-art facility that provide a high level of amenity for the anticipated residents while providing a respectful presence in the semi-rural locale and surrounding neighbours.

Accommodation Requirements

Burswood Care Pty Ltd have specified that the new age care facility extension is to include 80 bedrooms in a double storey configuration. Each bedroom is to have its own ensuite and some of the rooms will be configured for couples.

The new facility is to include supporting patient and staffing areas. The room schedule and required spaces have been established in consultation with the client, end users and relevant design guideline documentation in order to inform the design. Of particular note are the following inclusions: cafe, hairdressing salon, gym, commercial kitchen to replace current facility (120sqm) and commercial laundry also to replace current facility (120sqm). Under building storage is also desirable.

Burswood Care Pty Ltd have also specified that the building is to have the aesthetic feel of an upmarket residential building, that is both modern and has character. In terms of internal spacial quality, the client has requested high ceilings, lots of natural light and open living spaces as important selling points for the building.

Building Quality

Burswood Care Pty Ltd has requested attention to detail in terms of facility functionality, while promoting the building as a quality lifestyle choice with height ceilings, spacious living areas, recreational facilities and modern conveniences. Interior design quality is an important requirement for marketing the new building and attracting new residents.

Burswood Care Pty Ltd has also requested the investigation and inclusion of sustainability initiatives to reduce long term running costs including:

- passive solar design
- energy efficient electrical design
- rainwater collection and potential recycling of grey water
- low embodied energy materials
- other initiatives where appropriate

Budget Requirements

Burswood Care Pty Ltd has not specified a fixed budget however preliminary estimates from cost consultants comparing the projected building area to other similar facilities indicate a total building cost of between \$12-15 million. It is also expected that the architect will be open to cost saving initiatives that can reduce the overall cost of the building where possible. Note that there is a considerable amount of infrastructure upgrading required top the site in general which may also affect the overall building cost and until solutions are developed, their cost remains unknown.

Site Restrictions and Limitations

Initial area calculations indicate that the client's desired area requirements and the area available on the site for the building are achievable however some concessions may be required in order to achieve a reasonable outcome.

Site Topography

The site has a moderate fall to the East. The area allocated for the new building is approximately 1.5m lower than the area bounding the existing building. This has the potential to create some complications with the likely outcome being that the floor levels between the two buildings will not match.

The site also has a number of mature native trees and while preserving the natural environment as much as possible is desirable, a considerable number of trees will need to be removed where they clash with the proposed building footprint and internal access roads.

Local Planning Policy

The site is located within the Shire of Kalamunda and the new building is to follow the guidelines published in their Local Planning Policy available on the website. This document contains information about site requirements, car parking and other design information.

The nursing home site is zoned for commercial use. The state published Residential Design Codes of WA are not specifically applicable (the property does not have an R-code classification) however the good design principles that they represent should be followed where possible in order to protect streetscape and neighbouring property amenity.

Site Requirements

Under the Shire of Kalamunda's Local Planning Policy, using the classification "private clubs and institutions", the following planning rules apply (total area of the site is 12,142sqm):

- Front Setback - 15m
- Side Setback - 3m
- Rear Setback - 7.5m
- Site coverage - 50%

Maximum building footprint is 6,070sqm

- Plot Ratio - 0.5

The development floor area can be a maximum of 6,070sqm (existing buildings 1890sqm)

- Landscaping Strip (Road Frontage) - 3m

Please note that there is no information pertaining to height limitation/restriction in the Local Planning Policy which means that plot ratio may be the governing factor in the overall development height. Refer to Appendix A for visual representation of these requirements.

Car Parking Requirements

Under the Shire of Kalamunda's Local Planning Policy's car parking provisions, for the classification "Aged Residential Care", the following planning rule applies:

- 1 car parking bay per employee plus 1 car parking bay for every 10 beds.

For 140 beds (66 existing, 80 new), a total of 14 car parking bays plus a single parking bay for each staff member is required. The expected staff ratio is 1:5 meaning staff numbers will total 28. This means that an aggregate total of 43 parking bays on site will be required. There are currently 28 existing car parking bays on site.

A traffic management consultant, Apex Engineers, has been engaged to advise and provide comment regarding the management of vehicular traffic on the site, carparking, emergency vehicle access, as well as traffic impact on the local road system.

Impact of Bushfire

The Valencia Road site is in an active bushfire zone and the proposed building and landscaping needs to address this concern. A specialist bushfire consultant, RUIC Fire, has been engaged to provide comment and advice to address the various factors and mitigating strategies in the event of a bushfire.

The initial BAL contour map provided by RUIC Fire informs where building is not possible and is indicated in Appendix A.

Fire Compartmentalisation/Separation

The proposed 80 bed extension is a class 9c building which requires significant smoke and fire compartmentalisation to inhibit the spread of fire throughout the building. As the residences are considered to be particularly venerable in this class of building and less mobile in emergency escape type situations. The BCA requires fire compartment sizes to be no greater than 3000m² (type C construction) and smoke compartments of no greater than 500m².

It should also be noted that to minimise the need to install external sprinklers to protect the openings of existing buildings, the new building must maintain a 6 metre perimeter distance from any of the existing buildings. Where new and existing buildings meet, there will need to be a fire wall to separate the compartments. Refer to Appendix A for a visual representation of the fire separation setbacks from the existing building.

Building surveyors, Russell Building Approvals, have been engaged to provide consultation advice regarding the BCA requirements for the building, including egress distances, compartmentation and other relevant building code matters.

Building Permit Limitations

The client has requested that the new building not join the existing building in order to avoid the mandatory updating of the existing building to current code requirements (where 50% or more area is added to an existing building). Views & Room Amenity

All bedrooms and habitable living spaces must be given access to views and natural light as a matter of making the environment feel liveable and friendly. Workspaces for staff and utility zones are secondary to the comfort of inpatients and thus access to views and natural light do not require the same priority. At the same time, staff retreat zones such as the offices and staffroom should have access to natural light and even access to private external areas. Many studies have shown that a pleasant working environment encourages staff retention.

The new building, due to its size and proximity, will impact significantly on the amenity of the existing facility. Rooms and living areas that have views to the NE boundary will be affected and it important to consider that these rooms maintain some access to natural light and views once the new building is constructed.

Sewerage Disposal System

The site is not currently connected to town sewerage systems so a new onsite disposal system will need to be constructed to cater for the increased sewerage output associated with the extra residents and staff on the site. A hydraulic engineer, Peritas, has designed a flat bed leech drain disposal system to process all sewerage from the building on-site which was submitted and approved by the Department of Health.

Building Entry Identification

An important issue is the identification of the entry into the new facility. The new building will be built behind the existing building. For visitors to be able to understand where to enter the building, clear directional indicators or buildings forms are necessary to provide clear visual indication of the main building entrance.

Utility and Loading Zones

A new commercial kitchen and laundry need to be included as part of the project works. Both of these functions require regular external deliveries. Ideally it would be preferred that deliveries are made at a separate service entry away from the main entry to the building and located so that it does not impact on the amenity of the residents' bedrooms. The existing building currently utilises a loading area that branches off the main front carpark which is where the proposed new building entrance will be located.

There is a service road along the SE boundary which provides access to the rear of the site and it is proposed that this road will be used as a new service road that can drive to a loading dock at the rear of the laundry and kitchen for deliveries.

Architectural Design Response

Burswood Care has commissioned Ferhan Design to design and document a new 80 bed facility on the existing semi-rural Valencia Nursing Care site in Carmel WA. The new facility is to be an example of a modern aged care home that features a high level of comfort and amenity, while delivering functionality that is expected in a high care facility.

Site Location & Layout

Due to the many planning restrictions on the site, the new building has been located directly behind the existing facility building as this is the only area available on the site large enough to contain the required area in a double storey setup without demolishing the existing building.

As the building is towards the back of the site, the building is extended forward towards Valencia Road on the East side of the site so that there is an entry that is visible and accessible from the road. After client consultation, it was proposed that the administration building at the front of the site be demolished to allow for better visibility to the new building entry for visitors to the site. It was proposed that administration functions be moved to the currently unoccupied house at the rear of the site.

Forward/Enabling Works

To prepare the site for the construction of the new building, some enabling or forward works will be required. This is not a complete list, however covers the main points:

- demolition or relocation of existing buildings within the proposed building zone including the maintenance shed, gas tank, existing laundry, administration building.
- demolition of the existing leach drain and construction of the new larger capacity leach drain at the rear of the property. The drain must be commissioned and the existing facility connected into it in order for existing nursing home operations to continue during the construction period.
- removal of trees to the rear of the property in order to achieve the projected bushfire attack levels indicated and clear space for the new building and roads.

Building Form & Streetscape Requirements

The proposed building is double storey with the main entry setback from the street and the majority of the building sits behind the existing nursing home building. The building has negligible impact on the Valencia Road streetscape.

In order to achieve the other spacial requirements, the building form follows perimeter limitations formed by the bushfire BAL ratings, shire planning setbacks and fire separation from the existing buildings. (Refer to Appendix A) The building is double storey with a number of high level clerestory windows punctuating the roof to allow natural light into the central spaces of the building. In order to maintain a flat floor level that is easy for residents to traverse, the building is built up on a plinth that allows single level access from the front entry through to the rear of the building.

Refer to Appendix B for design elevations and perspective images of the proposed building.

Boundary Setbacks & Plot Ratio

The proposed building exceeds the prescribed setbacks from all boundaries as described in the Shire of Kalamunda's local planning policy. It is acknowledged that the building is closest to the boundary on the North-Western side of the site where the building setback is 4.4m.

The following table indicates the areas of the site, existing and proposed building:

	Area (Sqm)
Total Site Area	12142
Combined Existing Buildings Footprint - excludes demolished building areas	1685
Proposed Building Footprint	2285
Open Space	8070
Overall Floor Area - Ground, Upper Floor, Plantrooms	4598

Site coverage is 32.7%

Plot Ratio is .517 ****Note the total floor area exceeds the Shire's plot ratio requirements by .017 or 206sqm of floor area which is equivalent to the size of the plant rooms on the top level of the building.*

General Floor Layout

The general layout of the proposed building takes advantage of passive thermal factors and site views to provide the best amenity for the occupants. Bedrooms are located on the perimeter of the building so that they have access to natural light, views and ventilation. Clinical and utility zones are located inboard. An atrium in the middle of the building provides natural light into the internal corridors of the building.

The main lounge areas are located on the northern side of the building to take advantage of natural light while looking out to an outdoor paved area and garden. The lounges are located at the end of corridors making it easy for "wandering" patients to find.

The proposed building has a number of key entry points with the main one for visitors to the building accessed from the main carpark at the front of the site along Valencia Road. The entry of the building has a covered entrance canopy, external signage and easy access from the carpark. There is also a dedicated ambulance bay for emergencies. The entry area contains a reception and office, cafe, waiting area and security door to prevent residents from leaving the building without supervision.

The new commercial kitchen and laundry are located on the ground floor and have access to a dedicated vehicular loading zone for external deliveries via the service road on the south-east side of the site. The new kitchen and laundry will service the existing facility after the existing ones have been decommissioned.

Refer to Appendix B for detail floor plans of the proposed building.

With the demolition of the current administration building at the front of the site, it is expected that administration functions will be moved to the house at the rear.

Privacy Requirements

Privacy and overlooking of neighbouring properties has been taken into consideration in the design of the building layout with all building setbacks exceeding the local planning schemes minimum distances for “private clubs and institutions”. With reference to the Residential Design Codes of Western Australia, the closest setback follows the 4.5m cone of vision principle for all of the bedrooms along the north-western side of the building and a 6m cone of vision from the lounge and general living areas of the building. ****It is acknowledged that the setback is 100mm short of the 4.5m figure.*

Should further privacy measures be required, in particular for the upper level bedrooms, mitigating techniques such as obscure glazing film to eye level, vision obscuring external louvres to complement landscaping and external screens could be considered.

Materials

The building incorporates a number of classic and natural building material and colour selections that are harmonious with other buildings and the natural environment of the area.

Refer to drawing SD009 of Appendix B for a visual representation and labelling of the materials and finishes for the proposed building.

Landscaping

Careful consideration has been given to plant and tree selections to accord with the local area, bushfire fuel loading avoidance, and provision of an accessible garden for the elderly residents. Please refer to the landscape plan in Appendix C.

Sewerage Disposal

Disposal of sewerage from the new and existing facilities will be combined into a leach drain system that resides on the northern side of the site. The system which consists of underground culverts in a built up flat sand bed will act as the disposal system for the site.

Due to this feature being a critical component of the development, Peritas Hydraulics Engineers were engaged to produce a workable preliminary design to present to the state authorities for their approval. Refer to Appendix D for design drawings and approval letter from the state authorities.

The Peritas design features the siting of retaining walls along parts of the site boundary which could be detrimental to the amenity of the neighbouring properties. During consultation with the the Shire of Kalamunda, a solution to improve the visual amenity of this element was discussed to replace the walls with natural rock stabilised embankments with areas of plantings to create a softer visual impact. Refer to SD001 in Appendix A which indicates this feature.

Bushfire Assessment

RUIC Fire has prepared a Bushfire Assessment Report for the site. See Appendix E.

Traffic Management, Access & Parking

A traffic management report has been prepared by Apex Engineers. See Appendix F.

APPENDIX A - Planning Analysis Drawings

APPENDIX B - Architectural Drawings

APPENDIX C - Landscape Plan

APPENDIX D - Hydraulic Design Drawings & Approval Letter

APPENDIX E - Bushfire Assessment Report & Evacuation Plan

APPENDIX F - Traffic Management Report

APPENDIX G - Land Survey

APPENDIX H - Certificate of Title