PENRITH
CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA19/0757
Proposed development:	Demolition of Existing Dwelling and Construction of 22 x Multi-Housing Units (1 and 2 Storey) for Seniors Living, with Strata Subdivision and associated Tree Removal, Earthworks and Landscaping
Property address:	103 - 109 Laycock Street, CRANEBROOK NSW 2749
Property description:	Lot 23 DP 700376
Date received:	30 October 2019
Assessing officer	Jake Bentley
Zoning:	Zone R2 Low Density Residential - LEP 2010
Class of building:	Class 1a
Recommendations:	Refuse

Executive Summary

Council is in receipt of a development application for the demolition of existing structures including tree removal and the construction of 22 seniors living units including associated earthworks, tree removal, landscaping, drainage infrastructure, communal open space, bus stop, waste storage area, paths and ramps, internal driveway and 22 lot Strata Title subdivision at 103-109 Laycock Street, Cranebrook.

The proposed development is defined as *'seniors housing'* which is prohibited in the site's R2 Low Density Residential under the provisions of Penrith Local Environmental Plan 2010 (PLEP). Notwithstanding, the proposed seniors housing development is permissible with consent under the provisions of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.

The issues associated with the proposal are listed below:

- Extent of earthworks resulting in large retaining walls and site suitability concerns for a seniors living development,
- Site planning issues concerning setbacks, density and landscaping,
- Internal amenity impacts,
- Vehicle circulation,
- Stormwater conveyance and capacity,
- Extent of tree removal and biodiversity impacts, and
- Location and access to facilities

In accordance with Clause 4.4 of Appendix F4 in the Penrith Development Control Plan (DCP) 2014 the application was advertised within the Western Weekender newspaper issue date 7 November, 2019 and notified to surrounding property owners between 15 November and 29 November, 2019. A total of 14 submissions were received in response. The issues/concerns highlighted in the submission are summarised as follows; traffic generation, response to neighbourhood character, tree removal, fencing, debris management, solar access, view loss and privacy.

The proposal has received 10 unique submissions objecting to the development. In this regard, the development application is to be determined by the Local Planning Panel in accordance with the Local Planning Panels direction issued by the Minister of Planning dated 23 February, 2018.

An assessment under Section 4.15 of the Environmental Planning and Assessment Act 1979 has been undertaken and the application is recommended for refusal.

Site & Surrounds

The site is located on the north-western side of Laycock Street with a rectangular shape and 7974m² lot size. A total of 89 trees occupy the site including a large narrow leaved ironbark identified as a hollow bearing tree. The site has a large slope of 8.93m from north to south including a level area toward the rear of the site which is occupied by a single storey dwelling. The site is accessible by a gravel driveway and open style fencing primarily borders the property. The Cranebrook Village shopping centre is located approximately 630m to the north-east of the site.

The Laycock Street road reserve immediately to the south of the site is occupied by 5 street trees, overhead power lines and a bus stop with a concrete pad. The site is identified as being impacted by overland flow flooding. The site is also identified as being burdened by a restriction as to user which states 'No paling fences are to be erected along road frontages or along the side boundaries of any allotment in front of the building alignment'. The name of the person empowered to release vary or modify the restriction above referred to is the Council of the City of Penrith.

The adjoining site's to the north, east and west are also zoned R2 under the PLEP with the site's to the north and west being larger lots with a configuration similar to a rural setting and the site's to the east being battle-axe allotments and a low density configuration. The site to the south is zoned RE1 Public Recreation under the PLEP with its presentation to the subject site being vacant land.

Site History:

- PL19/0040 - Seniors Housing (the proposal) dated 13 June, 2019.

The following initial planning concerns were raised with the preliminary proposal and issued to applicant via correspondence dated 25 June, 2019:

- Slope of the land noting the use for seniors living,
- The amount of paths and ramps required (noting the proposed earthworks) and the associated impacts with legibility and maneuverability within the site,
- Front setback areas occupied by hardstand limiting deep soil planting opportunities,
- Rear setback encroachments,
- Gaps between buildings to provide a green outlook,
- Construction of bus shelters,
- Front fencing presentation,
- Location of communal open space,
- Width of the western side setback,
- Retention of existing boundary trees,
- Similarity of built form and contemporary roof design,
- Presentation of units fronting Laycock Street, and
- Potential building height encroachment

The applicant submitted amended plans dated 17 July, 2019 where the following further concerns were raised and issued to the applicant dated 18 July, 2019:

- Access paths remain long and convoluted with no separation from the roadway, and
- Consistency with the R2 low density character

It is noted that the majority of these concerns remain as the proposal is substantially the same.

Proposal

The proposed development involves the demolition of existing structures and removal of 79 trees on-site to facilitate the construction of 22 seniors living units and a 22 lot Strata Title subdivision; with the following components:

- 8 single storey units (2 bedrooms)
- 14 two storey units (3 bedrooms)
- Earthworks and associated retaining walls
- Internal driveway and ramps
- Footpath within the road reserve
- 48 parking spaces (5 nominated visitor spaces)
- Communal open space area
- Bin and bulky waste storage area
- Bench seat and accessible waiting bays associated with the bus stop
- 1.2m high front fencing
- Retention of 10 trees on-site and 4 trees off-site
- Associated stormwater works including an in-ground on-site detention (OSD) tank and above ground bio-retention basin

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy No 55—Remediation of Land
- Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

Planning Assessment

- ### Section 4.15 - Evaluation

  The development has been assessed in accordance with the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration.

Section 79C(1)(a)(i) The provisions of any environmental planning instrument

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

This Policy ensures the implementation of the BASIX scheme which encourages sustainable residential development. It requires certain kinds of residential development to be accompanied by a list of commitments to be carried out by applicants.

This application is subject to these requirements as it involves the construction of 22 seniors living units.

BASIX Certificate No. 1037458M was submitted with the development application demonstrating compliance with set sustainability targets for water and energy efficiency and thermal comfort.

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

The proposal has been assessed against State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (SEPP) and is found to be non-compliant with the provisions of this policy as discussed below:

The SEPP permits, with consent, development for the purposes of any form of seniors housing on land zoned primarily for urban purposes in which dwelling houses are permissible. The proposed development is categorised as 'in-fill self care housing' therefore, the proposal is permissible with consent under the provisions of the SEPP considering the site is zoned R2 being primarily for urban purposes in which dwelling houses are permissible with consent.

It is noted that the proposed 22 lot Strata Title subdivision is permissible with consent under the provisions of *Clause 21 Subdivision.*

Clause 26 Location and access to facilities

A bus stop is located in front of the subject site and provides regular bus services to the Cranebrook Village Shopping Centre. The centre provides services that comply with Clause 26 of the SEPP. A footpath is proposed to be constructed along the frontage of the development to provide an accessible path of travel from the development to the departing bus stop. Footpaths and pram ramps with a pedestrian refuge are available at the Cranebrook Village Shopping Centre. It is however identified that the return movement by bus transport relies on a bus stop on the opposite side of Laycock Street. While there is a footpath on this side of the road, there are no pram ramps or a controlled crossing mechanism proposed. To comply with Clause 26 of the SEPP, the application (by written evidence) must demonstrate that a "suitable access pathway" is provided. To be suitable, the definition within Clause 26 states:-

(a) a suitable access pathway is a path of travel by means of a sealed footpath or other similar and safe means that is suitable for access by means of an electric wheelchair, motorised cart or the like, and

(b) distances that are specified for the purposes of that subclause are to be measured by reference to the length of any such pathway.

To enable compliance with this clause, pram ramps and a safe controlled crossing would be required to be included within the application or addressed as conditions of consent. This would require works at the intersection of Camelot Drive and Laycock Street however as the application is not supported, the capability of these works to be accommodated within the road network, to comply with the SEPP provisions, have not been requested of the applicant.

Clause 27 Bush fire prone land

The subject site is not mapped as being bushfire prone land however the northern adjoining property is mapped as being bush fire prone as well as the properties further north.

It is noted that the access/egress to the site is located away from bush fire prone land with Laycock Street and the nearby Grey Gums Road providing access to Andrews Road should the need to evacuate the property occur.

The proposed dwellings and internal driveway are setback 4m from the northern boundary providing a buffer from the adjoining bush fire prone land. It is noted that the proposal has been referred to the New South Wales Rural Fire Service which provided a response dated 29 January, 2020 raising no issues relating to bush fire. In this regard, there are no issues with the proposal concerning bush fire.

Clause 28 Water and Sewer

A review of Council's mapping system identifies that a reticulated water supply is located within Laycock Street and a sewer main intersects the northern corner of the site. In this regard, the proposed development could be connected to a reticulated water supply and has capability for adequate facilities for the removal or disposal of sewage. If the application was supported, requirements for a Section 73 Certificate would be recommended as conditions of consent.

Clause 29 Consent authority to consider certain site compatibility criteria for development applications to which clause 24 does not apply

Clause 29 requires consideration of provisions within Clauses 25 (5) (b) (i), (iii) and (v) which has been considered as discussed below.

(b) is of the opinion that the proposed development is compatible with the surrounding land uses having regard to (at least) the following criteria:

(i) the natural environment (including known significant environmental values, resources or hazards) and the existing uses and approved uses of land in the vicinity of the proposed development.

Issues associated with the proposal regarding topography impacts, setbacks, tree removal, biodiversity and character impacts are discussed later within this report under the title *Clause 31 Design of in-fill self-care housing* and have been deemed unsatisfactory.

(iii) the services and infrastructure that are or will be available to meet the demands arising from the proposed development (particularly, retail, community, medical and transport services having regard to the location and access requirements set out in clause 26) and any proposed financial arrangements for infrastructure provision.

There have been issues identified with the proposal's compliance with Clause 26 discussed earlier within this report.

(v) without limiting any other criteria, the impact that the bulk, scale, built form and character of the proposed development is likely to have on the existing uses, approved uses and future uses of land in the vicinity of the development.

Issues regarding the proposal's bulk, scale, built form and character impacts are discussed later within this report under the title *Clause 31 Design of in-sill self-care housing* and have been deemed unsatisfactory.

Clause 30 Site analysis

A site analysis plan has been submitted in support of the application however it is noted that the detail identified relating to adjoining built form does not extent to all adjoining boundaries of the site. Dwelling locations on adjoining properties are identified to the east, however this detail terminates prior to the north eastern corner of the subject site. Further, building and existing tree locations are not identified on the site analysis plan (for the western adjoining site). While they are identified on other plans within the application, the site analysis plan should include all building locations on adjoining lots and tree locations in close proximity to the subject site boundaries, to then inform the spatial arrangement and design response for the proposed development.

It is also noted that the proposal provides a two storey building form and no information has been submitted, in the form of a view impact assessment, that demonstrates that existing views towards the escarpment are retained or not adversely impacted. The spatial arrangement of the built form as proposed, provides built form separation that does not extend from east to west through the site and as such, has the potential to impede views from the eastern adjoining properties.

Clause 31 Design of in-fill self-care housing

The proposal is for the purposes of in-fill self care housing and has been assessed against the provisions of the *Seniors Living Policy: Urban Design Guideline for Infill Development* as discussed below:

a) Responding to context and c) Impacts on streetscape

Earthworks/Setbacks

The proposal is not considered to have appropriately responded to the large lot landscape context of the immediate surrounding area noting the extent of earthworks, retaining wall heights, density and setbacks provided. The proposed earthworks results in a large expanse of retaining walls throughout the site which are not considered to be site responsive or contextually appropriate. The retaining walls along the western boundary reach a height of 1.25m and in excess of 1m along the eastern boundary. Coupled with a boundary fence for private open space at 1.8m, the effective wall height as viewed from the neighbouring property would be 3.0m in effective height.. The dwellings adjacent to the western boundary are elevated above the retaining walls and provide for significant rear setback encroachments noting their orientation to

the internal driveway.

The combination of large retaining walls and fencing atop, elevated built forms and minimal setbacks along the western boundary results in an unsatisfactory response to neighbourhood character, especially considering the site is in a location which should be providing a transition between the larger and established residential lots. It is noted that the density proposed has not been envisaged considering the 10,000m² minimum lot size applicable to the site under the PLEP.

The proposal provides for numerous encroachments and structures within the front setback, eroding landscaping potential which is not consistent with the garden and landscaped street settingof the surrounds which is typical for low density residential zoned lots. The following non-compatible features within the front setback include; private open space fencing associated with units 1 & 22, front fencing adjacent to the front boundary, ramps with railing and a covered entrance point, driveway with gate mechanism, covered bin store area with bus stop forward and a bio-retention basin occupied by a perimeter wall. It is noted that the area forward of Unit 14 is occupied by an internal driveway, private open space (POS) fencing and a retaining wall.

Additionally, the street front elevation of the ramp within the front setback does not show the ramp extent or the size of the associated railings in this regard, the prominence of the garden bed will be minimal.

Built Form

The proposed built form visible from the street provide for projections, dominant first floors and colours which do not respond to the neighbourhood character. All two storey units provide for a projection within the first floor beyond the building line of the ground floor which is not in accordance with the guideline or the built form arrangement for low density residential zoned lots.

The street front elevation of Units 1, 14 & 22 present a dominance of brick work within the ground floor, Units 1 & 22 provide internal elevations which are first floor dominant and Unit 14's first floor on the western side projects beyond the ground floor which is visible from the street and does not provide for a traditional presentation. The proposal includes contemporary colours with a dominance of black and white which is not considered to be harmonious with the surrounds.

b) Site Planning and Design

The proposal has not demonstrated that sensitive site planning principles have been utilised to retain existing trees on-site nor has a suitable amount of replacement trees been proposed. Council's Biodiversity Officer has advised that the existing trees along the eastern boundary form a vegetation corridor providing vegetation links and faunal movement and therefore should be retained.

The amount of replacement trees proposed is well below the amount being removed and the landscaped areas and deep soil zones have not been increased in accordance with the guideline noting the size of the site and its high proportion of open space/plantings. In addition, Council's Tree Management Officer has raised significant concerns with the survivability of the hollow bearing tree numbered (2) given the major encroachments within the protection area and structural root zone.

d) Impacts on neighbours

The proposed development has not incorporated suitable measures to address impacts on neighbours relating to vegetation buffers, potential solar access issues and privacy. Further a view impact analysis does not appear to have informed the spatial arrangement of the development to retain and protect views from neighbouring properties to the escarpment. The central building module (Units 9-14) have not included any mature planting to provide for a building break and relief from the internal driveway and pathways. The solar diagrams do not include overshadowing from adjoining properties and proposed fencing which could be problematic considering the elevated nature of adjoining eastern properties, the scope of proposed excavation and location of the proposed boundary fencing.

The first floor rear elevations for Units 1 & 22 have an unrelieved presentation to the street resulting in a blank appearance.

Some examples of privacy impacts are noted below:

- The first floor of Unit 13 provides for overlooking opportunities to the communal open space (COS) and the COS on both levels provides for overlooking opportunities to Unit 13's kitchen window and private open space area.

- Unit 12's private open space area is bordered by a low wall and open fence atop which overlooks the COS. Additionally, the first floor provides a bedroom window directly overlooking the COS.

- The positioning of rear located verandahs for Units 9-12 provide for looking opportunities into the living areas of these units from adjacent dwellings to the west and the internal pathway.

- Unit 21's private open space area is located inline with the dividing fence between Unit 22. In this regard, overlooking opportunities into unit 22's rear yard are evident.

e) Internal site amenity

The cumulative impacts associated with the extent of hardstand, lack of landscaping, retaining walls as a result of earthworks and minimal building breaks with the built form results in poor internal site amenity.

A combination of large internal retaining walls to tackle level changes and a lack of building separation within the central building module exacerbates the amount of hardstand within the site and limits internal landscaping opportunities to provide a relief from the building and hardstand mass. As a result green outlooks are not provided and hard stand surfaces in the form of pathways, driveways, built form and retaining walls remain uninterrupted.

Some examples of amenity impacts are noted below:

- The single storey dwellings provide for symmetrical internal elevations from their building blocks resulting in uniform designs.

- The COS requires maneuvering over grassed areas which may not be accessible to all users. The eastern barbeque area is not provided with any seating opportunities.

- Unit 10's POS area abuts the wall of Unit 11 which may result in amenity impacts.

- The space between Units 2-3, 4-5, 18-19 and 20-21 results in blank two storey walls between corridors addressing each other.

- The single storey dwellings provide an extended garage height which adds to the perceivable building mass.

Clause 32 Design of residential development

Neighbourhood amenity and streetscape

As discussed above the proposed setbacks, earthworks, built form and lack of landscaping does not respond to the neighbourhood character and does not provide for a suitable level of residential amenity within the proposed development.

Visual and acoustic privacy

Privacy impacts have been identified and are highlighted within commentary under Clause 31 Design of in-fill self-care housing.

The centrally located communal open space and internal driveway are not envisioned to generate significant noise impacts. It is noted that the air conditioning units for each dwelling have the potential to generate noise impacts. This issue would have been dealt with via conditions of consent however, the proposal is being recommended for refusal.

Solar access and design for climate

As mentioned previously the site analysis did not include overshadowing diagrams of adjoining buildings or the elevated proposed fencing. In this regard, solar access impacts cannot be determined.

Stormwater

The proposal has not sufficiently demonstrated how surface water runoff from the adjoining residential developments to the north is captured and conveyed safely through the site.

It is noted that the proposal drains outside from the natural catchment therefore, it cannot be determined if the capacity of the existing road drainage network will be adversely affected.

Crime prevention

The design of the proposal provides for glimpses of entrances from inside dwellings and numerous entries have been provided. Further conditions would be imposed to enhance safety and crime prevention however, the application is being recommend for refusal.

Accessibility

The following access issues have been identified with the proposal:

- The communal open space is covered in grass providing limited access between the eastern and western communal open space areas given the intended residents.

- The internal driveway has not provided for passing opportunities in accordance with the relevant sections of AS 2890.

- The proposal has not demonstrated that car parking spaces have been provided with the requirements for parking for persons with a disability set out in AS 2890.

- Issues regarding access to bus stops are discussed earlier within this report.

- The siting of the rainwater tank for Unit 8 restricts side access to the private open space.

- Issues associated with access to the bin storage location are mentioned later within this report.

Waste Management

The area of the bin and bulky goods storage area is supported.

Clause 40 Development standards - minimum sizes and building heights

Requirement	Complies
Site size: The size of the site must be at least 1,000 square metres	Yes, the site has an area of 7,974m²
Site frontage: The site frontage must be at least 20 metres wide measured at the building line	Yes, the site at its narrowest width is 73.105m

Height in zones where residential flat buildings are not permitted: (a) the height of all buildings in the proposed development must be 8 metres or less, and (b) a building that is adjacent to a boundary of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) must be not more than 2 storeys in height, and (c) a building located in the rear 25% area of the site must not exceed 1 storey in height.	Yes, (a) There are inconsistencies in the architectural planning package relating to roof forms along the western boundary. It is therefore unclear as to whether the development complies with this requirement. It is unclear whether the proposal complies with this standard, therefore consent must not be granted, and (b) no buildings are more than 2 storeys in height (c) no buildings in the rear 25% area of the site exceed 1 storey in height
Development applications to which clause does not apply: Sub-clauses (2), (3) and (4) (c) do not apply to a development application made by any of the following (a) the Department of Housing, (b) any other social housing provider.	The development application has not been made by the Department of Housing or any other social housing provider therefore, the relevant sub-clauses apply.

Clause 41 Standards for hostels and self-contained dwellings

The proposal has been accompanied by an Access Review Report and Traffic Management Report prepared by Loka Consulting Engineers which states the proposal can comply with the standards specified within Schedule 3 Standards concerning accessibility and useability for hostels and self-contained dwellings.

However, it is noted that there is a long convoluted path of travel to the proposed bin storage area which involves residents travelling down a ramp within the front setback then up a ramp to cross the driveway. Further, it is unclear whether the driveway gate swings outward therefore, blocking the access to the bin storage area. If this is the case then residents will need to exit the site to access the bin storage area. In this regard, the garbage storage area is not considered to be in an accessible location which is required by *Clause 21 Garbage.*

Clause 5 private car accommodation of Schedule 3 requires car parking spaces to comply with the requirements for parking for persons with a disability set out in AS 2890. The submitted Traffic Report has not referenced this Australian Standard.

Based on our assessment, the development has not demonstrated compliance with the standards specified in Schedule 3 and therefore development consent cannot be granted.

Clause 50 Standards that cannot be used to refuse development consent for self-contained dwellings

The proposal cannot be refused on any of the following grounds.

Ground	**Comment**

Building height: if all proposed buildings are 8 metres or less in height (and regardless of any other standard specified by another environmental planning instrument limiting development to 2 storeys),	All buildings are less than 8m in height. See previous comments under title Clause 40 for further comments. The proposal is not being recommended for refusal on this basis.
Density and scale: if the density and scale of the buildings when expressed as a floor space ratio is 0.5:1 or less,	The proposal when reflected as a floor space ratio is 0.39:1 being below 0.50:1. The proposal is not being recommended for refusal on this basis.
Landscaped area: if a minimum of 30% of the area of the site is to be landscaped,	The proposed landscaped area is 31% of the site. The proposal is not being recommended for refusal on this basis.
Deep soil zones: if, in relation to that part of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) that is not built on, paved or otherwise sealed, there is soil of a sufficient depth to support the growth of trees and shrubs on an area of not less than 15% of the area of the site (the deep soil zone). Two-thirds of the deep soil zone should preferably be located at the rear of the site and each area forming part of the zone should have a minimum dimension of 3 metres,	The deep soil zones are 15% in accordance with the 15% requirement (it is noted that the applicant's deep soil zone calculation did not exclude some sealed areas and rainwater tank locations as shown on the landscape plan). The proposal is not being recommended for refusal on this basis.
Solar access: if living rooms and private open spaces for a minimum of 70% of the dwellings of the development receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter,	The mid winter solar diagrams accompanying the proposal demonstrates that the living areas and private open space for over 70% of dwellings receive direct sunlight between 9am and 3pm. However, the solar diagrams have not included the overshadowing of dwellings on adjoining sites nor the proposed fencing which have the potential to cause further overshadowing. In this regard, it cannot be confirmed whether suitable solar access has been provided.

Private open space for in-fill self-care housing: in the case of a single storey dwelling or a dwelling that is located, wholly or in part, on the ground floor of a multi-storey building, not less than 15 square metres of private open space per dwelling is provided and, of this open space, one area is not less than 3 metres wide and 3 metres long and is accessible from a living area located on the ground floor,	All private open space areas are in accordance with this requirement. The proposal is not being recommended for refusal on this basis.
Parking: if at least the following is provided, 0.5 car spaces for each bedroom where the development application is made by a person other than a social housing provider.	The proposal provides for car parking well above 0.5 spaces per bedroom. The proposal is not being recommended for refusal on this basis.

State Environmental Planning Policy (Infrastructure) 2007

Clause 45 Determination of development applications - other development

The proposed development involves works within close proximity to overhead power lines in the road reserve of Laycock Street. In this regard, a written notice was provided to Endeavor Energy dated 16 December, 2019. A response was received dated 24 December, 2019 raising no objections with the proposal subject to recommendations and comments. It is noted that the response included commentary regarding safety clearances of the proposal from the overhead power lines considering the location of built forms to the front boundary.

State Environmental Planning Policy No 55—Remediation of Land

In accordance with Clause 7 Contamination and remediation to be considered in determining development application *"a consent authority must not consent to the carrying out of any development on land unless:*

(a) it has considered whether the land is contaminated, and

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose."

The proposal has been accompanied by a Phase 1 Preliminary Environmental Site Assessment (PESA) prepared by Envirotech which has been reviewed by Council's Environmental Management Team. The PESA suggests that there is a risk contaminants associated with underlying soils on-site have the potential to be comprised of unknown fill material given the age of the site, and there is a risk that contaminants associated with the existing residential house and associated structures are comprised of hazardous building materials given their age. It is noted that the PESA did not identify any areas of concern or visible areas of impacted soil, contamination or imported fill.

In order to address the potential hazardous building materials within the structures to be demolished the PESA recommends that a licensed HAZMAT inspector assess the buildings prior to demolition. If hazardous materials are encountered the PESA provides recommendations relating to how the removal process is conducted.

Given the history of the site and based upon findings and recommendations within the PESA it has been considered appropriate that an Unexpected Finds Protocol (UFP) be required. The UFP will be required to provide a clear protocol should foreign material/contamination be identified during earthworks. This approach has been considered suitable noting that there is no known contamination on-site and no indication that the site is likely to be contaminated. Should contamination be identified during construction works, then further investigation would be required as part of the remediation process.

The proposal relies upon conditions of consent to address potential hazardous materials within structures to be demolished and potential contaminates during earthworks. Considering the application is being recommended for refusal the required conditions of consent will not be imposed should the recommendation be supported. It is noted that the works will not occur if the recommendation is supported however, given that conditions to address potential contamination will not be imposed, it is unclear whether the site is suitable for the proposal regarding land contamination.

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the application against relevant criteria with Sydney Regional Environmental Plan No. 20—Hawkesbury-Nepean River (No. 2—1997) and is found to be compliant with the general planning considerations of the Policy. Notwithstanding, the proposal has not demonstrated that the subject site can adequately accommodate the proposed development without providing for the impacts mentioned within this report and is therefore recommended for refusal.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 2.3 Permissibility	Does not comply - See discussion
Clause 2.3 Zone objectives	Does not comply - See discussion
Clause 2.6 Subdivision - consent requirements	Complies
Clause 2.7 Demolition requires development consent	Complies
Clause 4.1 - Minimum subdivision lot size	N/A
Clause 4.3 Height of buildings	Complies
Clause 7.1 Earthworks	Does not comply - See discussion
Clause 7.2 Flood planning	Complies
Clause 7.4 Sustainable development	Complies
Clause 7.6 Salinity	Complies
Clause 7.7 Servicing	Complies

Clause 2.3 Permissibility

The proposal is defined as *'seniors housing'* which is prohibited in the site's R2 zoning under the PLEP. It is noted that the proposal relies upon the provisions of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 for permissibility as discussed earlier within this report.

Clause 2.3 Zone objectives

The proposal does not comply with the objectives of the site's R2 Low Density Residential zoning. In particular the following:

- *To promote the desired future character by ensuring that development reflects features or qualities of traditional detached dwelling houses that are surrounded by private gardens.*
- *To enhance the essential character and identity of established residential areas.*
- *To ensure a high level of residential amenity is achieved and maintained.*

Clause 7.1 Earthworks

As mentioned previously within this report the proposed earthworks results in a large expanse of retaining walls throughout the site resulting in unsatisfactory amenity impacts to proposed and existing residents.

Section 79C(1)(a)(ii) The provisions of any draft environmental planning instrument

Draft Environmental SEPP

The Draft Environment SEPP was exhibited from 31 October 2017 to 31 January 2018. This consolidated SEPP proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. Changes proposed include consolidating a total of seven existing SEPPs being:

• *State Environmental Planning Policy No. 19 – Bushland in Urban Areas*
• *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
• *State Environmental Planning Policy No. 50 – Canal Estate Development*
• *Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment*
• *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2-1997)*
• *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005*
• *Willandra Lakes Regional Environmental Plan No. 1 – World Heritage Property.*

It is noted that the amendments to Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No. 2 – 1997) do not impact the proposed development. In this regard, the proposal is not inconsistent with the provisions of this Draft Instrument.

Draft Remediation of Land SEPP

The Department of Planning and Environment has announced a Draft Remediation of Land SEPP, which will repeal and replace the current State Environmental Planning Policy No 55—Remediation of Land.

The proposed new land remediation SEPP will:

- provide a state-wide planning framework for the remediation of land,
- maintain the objectives and reinforce those aspects of the existing framework that have worked well,
- require planning authorities to consider the potential for land to be contaminated when determining development applications and rezoning land,
- clearly list the remediation works that require development consent, and
- introduce certification and operational requirements for remediation works that can be undertaken without development consent.

It is also proposed that it will transfer the requirements to consider contamination when rezoning land to a direction under Section 9.1 of the Environmental Planning and Assessment Act 1979. Whilst the proposed SEPP will retain the key operational framework of SEPP 55, it will adopt a more modern approach to the management of contaminated land. Noting the above, the Draft SEPP will not alter or affect the findings in respect to contamination of the site.

Section 79C(1)(a)(iii) The provisions of any development control plan

Development Control Plan 2014

Provision	Compliance
C1 Site Planning and Design Principles	Does not comply - see Appendix - Development Control Plan Compliance
C2 Vegetation Management	Does not comply - see Appendix - Development Control Plan Compliance
C3 Water Management	Does not comply - see Appendix - Development Control Plan Compliance
C4 Land Management	Does not comply - see Appendix - Development Control Plan Compliance
C5 Waste Management	Does not comply - see Appendix - Development Control Plan Compliance
C6 Landscape Design	Does not comply - see Appendix - Development Control Plan Compliance
C7 Culture and Heritage	N/A
C8 Public Domain	Does not comply - see Appendix - Development Control Plan Compliance
C9 Advertising and Signage	N/A
C10 Transport, Access and Parking	Does not comply - see Appendix - Development Control Plan Compliance
C11 Subdivision	Complies
C12 Noise and Vibration	Complies
C13 Infrastructure and Services	Does not comply - see Appendix - Development Control Plan Compliance
D2.1 Single Dwellings	N/A
D2.2. Dual Occupancies	N/A
D2.3 Secondary Dwellings	N/A
D2.4 Multi Dwelling Housing	Does not comply - see Appendix - Development Control Plan Compliance
D2.5 Residential Flat Buildings	N/A
D2.6 Non Residential Developments	N/A

Section 79C(1)(a)(iv) The provisions of the regulations

The proposal was referred to Council's Building Surveying Team which raised no objections to the proposal subject to recommended conditions of consent. The proposal is being recommended for refusal therefore, such conditions have not been recommended.

Clause 50 How must a development application be made? states that a development application must contain information, and be accompanied by the documents, specified in Part 1 of Schedule 1. The following issues relating to the information and documents submitted are highlighted below:

- The typical floor, roof, elevations and section plans for the units do not accurately represent the proposal as the units have different orientations to those shown on the typical plans.

Section 79C(1)(b)The likely impacts of the development

The proposed earthworks, built form, setbacks and lack of mature landscaping results in an unsatisfactory response to the low density residential character of the area and provides for adverse internal amenity and streetscape impacts. The proposal has not incorporated site planning principles to retain significant trees on-site and suitable connections to essential facilities/services has not been demonstrated. The proposal has not demonstrated suitable vehicle maneuvering in accordance with relevant standards.

In light of the above, and the commentary in this report, the proposed development is considered to provide for significant adverse impacts and therefore, is being recommended for refusal.

Section 79C(1)(c)The suitability of the site for the development

The subject site is not considered to be suitable for this form/scale of development for the principle reason of existing topography and contextual integration. The slope of the site provides a cross fall gradient of approximately 1:8 and while the SEPP permits development of this nature on sites with a cross fall less than 1:10, the slope and necessity for suitable access is resulting in significant earthworks and large retaining walls throughout the site. These works and the outcomes that result are not contextually appropriate or site responsive. These works also contribute to further cumulative impacts regarding the extent of site coverage vs landscape area, inappropriate scale and built form presentations, and inadequate internal amenity.

In addition, the following other considerations are contributing to the concerns raised regarding site suitability:-

- A suitable access pathway to the bus stop on the southern side of Laycock Street is not existent.
- The surrounding area is characterised by low density residential development.
- The amount of vegetation on-site is a constraint considering the extent of vegetation to be removed is not supported.

Section 79C(1)(d) Any Submissions

Community Consultation

In accordance with Clause 4.4 of Appendix F4 in the Penrith Development Control Plan (DCP) 2014 the application was advertised within the Western Weekender newspaper issue date 7 November, 2019 and notified to surrounding property owners between 15 November and 29 November, 2019. A total of 14 submissions were received in response, 10 of which were unique in nature.

The issued raised are addressed below:

Objection	Consideration

Noise and disruption as a result of increased population in the street	The proposal has been accompanied by a Traffic Report which has been reviewed by Council's Traffic Engineering Department which determined the traffic generation as a result of the proposal to be satisfactory. The proposal has been provided with a single width internal driveway entrance which is not considered satisfactory and may lead to adverse vehicle queuing impacts. Council's Environmental Management Team have reviewed the proposal and determined that no adverse noise impacts are envisioned considering the internal location of the driveway and communal open space areas. Noise generated by air conditioning units would have been dealt with via conditions of consent however, the application is recommended for refusal.
Visual eye saw when viewed from the street	The proposals streetscape appearance is not considered to respond to the low-density residential character and streetscape of the area noting the proposed earthworks/retaining walls, setbacks and built form.
Construction debris	If the application was being recommended for approval appropriate conditions would be imposed requiring suitable demolition and construction methods to ensure adverse impacts and nuisance to surrounding properties relating to the distribution of debris are not being provided.
Tree location, species and height to protect privacy	The proposal has been accompanied by a Landscape Plan which details the proposed location, height and species of vegetation on-site. It is noted that proposed vegetation is not the principle means of ensuring privacy to surrounding property owners.
Height and location of replacement fence line	The accompanying Architectural and Landscape Plans details the proposed location and height of boundary fencing. Further details regarding the type and colour of fencing would have been requested if the application has not being recommended for refusal.
Solar impacts	The application has been accompanied by Solar Diagrams which details that no adverse overshadowing impacts would be experienced by existing residents considering the orientation of the site and the location of the northern sun.
View loss	The application has not detailed how the proposal will impact the ability for adjoining residents to view the Blue Mountains. The proposal is required to identify views enjoyed by neighbouring properties and explain how the proposal has given regard to this aspect.

Hours of work	If the application was being recommended for approval the following condition of consent would be imposed: *"Construction and demolition works that are carried out in accordance with an approved consent that involve the use of heavy vehicles, heavy machinery and other equipment likely to cause offence to adjoining properties shall be restricted to the following hours in accordance with the NSW Environment Protection Authority Noise Control Guidelines:* • *Mondays to Fridays, 7am to 6pm* • *Saturdays, 7am to 1pm if inaudible on neighbouring residential premises, otherwise 8am to 1pm* • *No work is permitted on Sundays and Public Holidays.* *Other construction works carried out inside a building/tenancy and do not involve the use of equipment that emits noise are not restricted to the construction hours stated above.* *The provisions of the Protection of the Environment Operations Act, 1997 in regulating offensive noise also apply to all construction works."*
Disruption to power supply	If the application was being recommended for approval a condition of consent would be imposed to ensure a written clearance is to be obtained from Endeavour Energy stating that electrical services have been made available to the development or that arrangements have been entered into for the provision of services to the development.
Vegetation removal	The proposal has not retained the strand of existing vegetation on the western boundary which has been identified as an important vegetation corridor for faunal movement. It is noted that the large narrow leaved ironbark within the front of the property is proposed to be retained however, concerns have been raised with the survivability of this tree given the significant encroachments within the tree protection and structural root zones. In this regard, the extent of vegetation removal is unsatisfactory.

Location of bus shelter	The facilities and services intended residents are required to have access to have been nominated at the Cranebrook Village Shopping Centre. In this regard, the proposed bus shelter in its current location is considered to be satisfactory.
Traffic increase and potential safety impacts	The proposal has been accompanied by a Traffic Report which has been reviewed by Council's Traffic Engineering Department which determined the traffic generation as a result of the proposal to be satisfactory. The application has not demonstrated that a suitable access pathway has been provided from the proposal to the bus stop located on the southern side of Laycock Street. In this regard, access and safety issues have been identified.
Seniors housing in Penrith already at capacity	The proposed development is permissible with consent in site's R2 Low Density Residential zoning under the provisions of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004. It is noted that there are no planning provisions which prohibit the proposal based upon proximity and number of seniors living developments within a certain area.
Lack of mature landscaping	The proposal has not provided for suitable mature plantings within the site which contribute to the perceivable building mass and hardstand extent providing for unsatisfactory internal amenity impacts.
Safety of ducks	The proposed traffic generation has been deemed suitable. The safety of ducks due to traffic movements cannot be assured via planning matters and therefore, is not an applicable consideration.
Impacts to nearby wetland	The proposal is suitably distanced from the nearby wetland and if the application was to be recommended for approval conditions of consent would ensure construction debris, mud and soil would be appropriately disposed of and managed to limit impacts on the surrounds including the wetland.
Character and streetscape impacts	The proposed development is not considered to have appropriately responded to the neighbourhood character or streetscape as a result of earthworks/retaining walls, setbacks, built form and vegetation removal.

Social impacts	The proposed seniors housing development would be used for the accommodation of seniors or people with a disability and people living with seniors or people with a disability. In addition, the proposal has incorporated crime prevention through environmental design principles such as secure entrance/exit points and providing windows which overlook the street and common areas. It is noted that if the application was being recommended for approval conditions of consent would be imposed to further enhance safety and security. In light of the above, no adverse social impacts are envisioned.
Overlooking from two storey dwellings	The two storey dwellings on the perimeter of the site are suitably setback from the eastern and western boundaries and are occupied by small bathroom windows. In this regard, adverse overlooking impacts are not envisioned.
Replacement fencing	The Architectural and Landscape Plans have identified the location and height of boundary fencing. If the application was recommended for approval information regarding the type and colour of fencing would be requested.
Existing trees foliage on border	The existing vegetation along the eastern boundary is identified as an important vegetation corridor for faunal movement and is therefore requested to be retained.
Setbacks to boundaries	The orientation of perimeter units provide for a rear setback to the eastern and western boundaries. The typical rear setback in low density residential areas is 4m for any single storey component. The western units provide for setback encroachments and issues relating to the proposal providing a transition between larger open lots to the established low density residential area have been identified. It is noted that the eastern units provide setbacks in excess of the typical rear setback requirement with the exception of Unit 6. The lowered siting of Unit 6 is envisioned to enhance the perceivable setback and the minor encroachment of 0.552m is not envisioned to generate any adverse impacts.

Natural ventilation	The Architects Design Statement mentions that a maximum of two buildings are provided to allow access to prevailing winds for existing adjoining residents. It is noted that some of the building blocks are located forward of adjoining lot boundaries. The proposal provides single storey dwellings to the rear of the site with the dwellings on the eastern side being lower then the adjoining eastern residents as a result of proposed earthworks. In this regard, winds from above the lowered single storey dwellings are not blocked and winds can traverse the side of building blocks to benefit existing eastern residents.
Community needs	There are no planning provisions which require the proposal to demonstrate a need for seniors living in the area.
Block size	There are no minimum lot size provisions applicable to proposed Strata Title subdivision. It is noted that the proposal has not demonstrated a satisfactory response to the character of the area as mentioned previously
Landscaped area	The State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 provides for a definition of landscaped area and provides for grounds regarding landscaping to which the application cannot be refused against. The entire site provides a landscaped area of 31% therefore, the application cannot be refused based upon the landscaped area provided. Issues regarding vegetation removal have been raised previously and it is noted that issues with a lack of mature plantings within the site have been identified.
Clarity regarding replacement plantings height, ability to provide shade and habitat value	The Landscape Plan accompanying the proposal details the height of proposed planting which informs their ability to provide shade. Issues regarding the number of mature plantings, replacement trees and habitat loss have been identified.
Minimal width of internal driveway for emergency services	Issues regarding the driveway width and requirement for passing bays have been previously identified. It is noted that the proposal was referred to the New South Wales Rural Fire Service which raised no objections to the proposal including the internal driveway.
Proximity to services for seniors	Issues regarding access to facilities and services for intended residents have been identified.

Potential for other seniors living developments on neighbouring sites and the associated cumulative impacts	Seniors living developments on nearby sites will be subject to their own development application. The impact associated with that development and its surrounds would be considered against the relevant provisions during that process.
Maintain rural outlook	It is noted that the site is zoned R2 Low Density Residential Development which is not identified as a rural zone. It is noted that proposal has been considered against the relevant provisions and is not considered to maintain reasonable neighbourhood amenity and appropriate residential character.
Privacy	The location of boundary fencing identified on the accompanying plans and setback of second storey-built forms show that adverse privacy impacts to adjoining existing residents are not envisioned.

Referrals

The application was referred to the following stakeholders and their comments have formed part of the assessment:

Referral Body	Comments Received
Building Surveyor	No objections - subject to conditions
Development Engineer	Not supported
Environmental - Environmental management	No objections - subject to conditions
Environmental - Waterways	Not supported
Environmental - Biodiversity	Not supported
Waste Services	No objections - subject to conditions
Traffic Engineer	Not supported
Community Safety Officer	No objections - subject to conditions
Social Planning	Not supported

Traffic Engineer

Section 79C(1)(e)The public interest

The proposed development has been assessed to be contrary to the primary aims, objectives and controls of the applicable planning instruments and will result in negative and unacceptable impacts in the locality and as such, support of the proposal would not be in the public interest.

Section 94 - Developer Contributions Plans

The proposal is being recommended for refusal therefore, developer contributions are not applicable.

Conclusion

The development application has been assessed against the applicable plans and policies including the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, Penrith Local Environmental Plan 2010 and Penrith Development Control Plan 2014 and is found to be unacceptable. The design of the development provides adverse amenity impacts and is incompatible with the character of the local area having particular regard to the extent of earthworks/retaining walls, setbacks, built form, landscaping and vegetation removal. Further, the proposal has not demonstrated compliance with the relevant policies and is therefore not worthy of support. The development application is recommended for refusal.

Recommendation

- That the proposed 22 seniors living units with associated works and 22 lot Strata Title subdivision at 103-109 Laycock Street, Cranebrook be refused based on the contents of this report and the attached reasons of refusal,
- The application be determined by the Local Planning Panel in accordance with the Local Planning Panels direction issued by the Minister of Planning dated 23 February, 2018, and
- Those making submissions are notified of the determination.

Refusal

1 X Special 02 (Refusal under Section 4.15(1)(a)(i) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act as the proposal is inconsistent with the following:

State Environmental Planning Policy (Housing for Seniors of People with a Disability) 2004

- Clause 26 Location and access to facilities
- Clause 29 Consent authority to consider certain site compatibility criteria for development applications to which clause 24 does not apply
- Clause 30 Site analysis
- Clause 31 Design of in-fill self-care housing
- Clause 32 Design of residential development
- Clause 33 Neighbourhood amenity and streetscape
- Clause 34 Visual and acoustic privacy
- Clause 35 Solar access and design for climate
- Clause 36 Stormwater
- Clause 38 Accessibility
-Clause 40 Development standards—minimum sizes and building height
- Clause 41 Standards for hostels and self-contained dwellings

Penrith Local Environmental Plan 2010

- Clause 2.3 Zone objectives and Land Use Table
- Clause 7.1 Earthworks

2 X Special 04 (Refusal under Section 4.15(1)(a)(iii) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act as the proposal is inconsistent with the following provisions of ***Penrith Development Control Plan 2014:***

- C1 Site Planning and Design Principles
- C2 Vegetation Management
- C3 Water Management
- C4 Land Management
- C5 Waste Management
- C6 Landscape Design
- C8 Public Domain
- C10 Transport, Access and Parking
- C13 Infrastructure and Services
- D2 Residential Development

3 X Special 07 (Refusal under Section 4.15(1)(b) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(b) of the Environmental Planning and Assessment Act in terms of following matters identified during the assessment process and which are likely to result in likely adverse impacts:

- Site responsiveness and impacts on neighbourhood and streetscape character
- Bulk, scale, massing and building design
- Internal amenity
- Access to facilities
- Vehicle maneuvering
- Tree removal and biodiversity impacts

4 X Special 08 (Refusal under Section 4.15(1)(c) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(c) of the Environmental Planning and Assessment Act as the site is not suitable for the scale of the proposed development including the extent of earthworks and tree removal associated with the proposal.

5 X Special 10 (Refusal under Section 4.15(1)(e) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(e) of the Environmental Planning and Assessment Act as the proposal is not in the public interest given the deficiencies in the design and submissions received.

6 X Special 9 (Refusal under Section 4.15(1)(d) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(d) of the Environmental Planning and Assessment Act due to matters raised in submissions relating to:

- The proposals response to the local character
- Vegetation removal
- Lack of consideration regarding impacts to views

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part C - City-wide Controls

C1 Site Planning and Design Principles

As mentioned previously the extent of earthworks and retaining walls, provided setbacks (in particular the front and western boundary) and built form provide for an unsatisfactory response to the neighbourhood character.

In order to comply with access requirements the proposal results in retaining walls over 1m in height bordering the site and at one point 2.974m in height internally. In this regard, the proposal has not responded to the natural topography of the site.

C2 Vegetation Management

The proposal has not demonstrated that sensitive site planning principles have been utilised to retain existing trees on-site nor has a suitable amount of replacement trees been proposed. Council's Biodiversity Officer has stated that the existing trees along the eastern boundary form a vegetation corridor providing vegetation links and faunal movement and therefore should be retained.

The amount of replacement trees proposed is well below the amount being removed and the landscaped areas and deep soil zones have not been increased in accordance with the guideline noting the size of the site and its high proportion of open space/plantings. In addition, Council's Tree Management Officer has raised significant concerns with the survivability of the hollow bearing tree numbered (2) given the major encroachments (both built forms and stormwater infrastructure) within the protection area and structural root zone.

C3 Water Management

The proposal has not demonstrated how surface water runoff from the adjoining residential developments to the north is captured and conveyed through the site.

It is noted that the proposal drains outside from the natural catchment therefore, it cannot be determined if the capacity of the existing road drainage network will be adversely affected. In order to confirm an adverse impact is not provided a hydraulic grade line analysis of the capacity of the existing Council drainage system is to be undertaken and provided to Council for review. A hydraulic grade line analysis has not been provided.

An electronic version of the MUSIC Modelling, details of vegetation proposed in the bio-retention system (shown on the bio-retention system section plan) and an operation and maintenance manual was not submitted in support of the application. In this regard, the proposal's compliance with Council's Water Sensitive Urban Design (WSUD) Policy cannot be confirmed.

C4 Land Management

The extent of earthworks is considered to be excessive and provides for cumulative impacts as mentioned within other sections of this report.

C5 Waste Management

Commentary regarding access to the proposed bin storage areas has been discussed earlier within this report.

C6 Landscape Design

The central building module is not provided with any canopy planting addressing the internal driveway resulting in the dominance of hard stand surfaces and minimal green outlooks which

provides unacceptable internal amenity impacts.

The height and location of retaining walls/fencing on the western boundary results in vegetation maintenance impacts and presents the western boundary as being further to the east which limits the perceivable setback.

The height of replacement trees within Laycock Street are 10m which are envisioned to impact the overhead power lines.

C8 Public Domain

The application has not demonstrated how members of the public will legally access the portions of the bus stop within the site.

The proposal has not demonstrated that a Disability Discrimination Act complying bus shelter is being provided. It is noted that issues relating to a suitable access pathway being provided to the bus stop on the southern side of Laycock Street have been expressed earlier within this report.

C10 Transport, Access and Parking

As mentioned previously the proposal has not demonstrated that car parking spaces have been provided with the requirements for parking for persons with a disability set out in AS 2890 as required by State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004. The internal driveway has not provided for passing opportunities in accordance with the relevant sections of AS 2890. In this regard, vehicle maneuverability is considered unsatisfactory.

The application has not detailed how the proposed gate mechanism will function therefore, potential traffic and accessibility impacts cannot be determined as a result of potential queuing and path blockages.

C13 Infrastructure and Services

As mentioned previously within this report the proposal has not demonstrated that the development can dispose stormwater and meet WSUD requirements in accordance with Council's Stormwater Drainage Specification for Building Developments and Council's WSUD Technical Guidelines.

D2 Residential Development

2.4.4 Urban Form

The central building module does not provide a built form integrated with garden areas as minimal landscaped areas and elevated built forms are provided offering inadequate relief from the building mass.

2.4.5 Front and Rear Setbacks

As mentioned previously the front setback encroachments and location of structures up against the front boundary provides a setback which does not reflect the low density residential character of the area.

The minimal western boundary setback results in an unsatisfactory response to neighbourhood character, especially considering the site is in a location which should be providing a transition between the larger and established residential lots.

2.4.12 Building Design

As mentioned earlier within this report the proposal provides for projections with the first floor for all two storey units which adds to the building bulk.

2.4.18 Fences and Retaining Walls

The proposal includes large retaining walls throughout the site which provide for unacceptable cumulative impacts relevant to hardstand mass, building bulk and lack of landscaping as discussed previously within this report.

It is noted that the proposal's non-compliance with controls specified in this chapter of the DCP has been discussed earlier within this report considering the provisions under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 are similar or override these controls.

GENERAL NOTES:

ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRINCIPAL CERTIFYING AUTHORITY AND BCA 2019.

ALL DEMOLITION WORK TO BE CARRIED OUT IN ACCORDANCE WITH AS 2601-1991

SILT SEDIMENT CONTROL MEASURES TO BE IN PLACE PRIOR EXCAVATION OR CONSTRUCTION WORK.

PEDESTRIAN ACCESS, INCLUDING DISABLED AND PRAM ACCESS DURING ROAD WORK TO BE MAINTAINED AS PER AS 17423. 'PART 3 - TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS'.

BUILDER SHALL MAKE GOOD ALL DISTURBED AREAS ADJACENT TO THE WORKS ON COUNCILS ROAD. FOOTPATH ARE TO BE RESTORED TO THE SATISFACTION OF THE PRINCIPAL CERTIFYING AUTHORITY.

ALL CONCRETE FOOTINGS, FLOOR SLABS AND TIMBER ROOF FRAMING TO STRUCTURAL ENGINEERS DETAILS.

THE REFLECTIVITY INDEX OF GLASS USED IN THE EXTERNAL FACADE OF THE BUILDING IS NOT TO EXCEED 20%.

ONGOING WASTE FROM THE PROPOSED DEVELOPMENT IS TO BE ADDED TO THE EXISTING WASTE COLLECTION SYSTEM CURRENTLY IN USE BY THE EXISTING DEVELOPMENT ON SITE.

SAFETY GLASS SHALL BE USED IN EVERY GLASS DOOR OR PANEL ENCLOSING OR PARTLY ENCLOSING A SHOWER OR BATH.

ALL BATHROOM AND WC WINDOWS SHALL BE FITTED AND MAINTAINED WITH OBSCURE GLASS.

BCA COMPLIANCE:

SECTION A GENERAL PROVISIONS
PART A3 CLASSIFICATION OF BUILDINGS AND STRUCTURES
-CLASS 1
ONE OR MORE BUILDINGS WHICH IN ASSOCIATION CONSTITUTE—
(A) CLASS 1A — A SINGLE DWELLING BEING—
(I) A DETACHED HOUSE; OR
(II) ONE OF A GROUP OF TWO OR MORE ATTACHED DWELLINGS, EACH BEING A BUILDING, SEPARATED BY A FIRE-RESISTING WALL, INCLUDING A ROW HOUSE, TERRACE HOUSE, TOWN HOUSE OR VILLA UNIT; OR

SECTION B STRUCTURE
PART B1 STRUCTURAL PROVISIONS
— SEE ENGINEERS PLANS

SECTION C FIRE RESISTANCE
PART C1 FIRE RESISTANCE AND STABILITY
–C1.1 TYPE OF CONSTRUCTION REQUIRED
TYPE C CONSTRUCTION FOR 1 STOREY CLASS 6 BUILDING
–C1.12 NON–COMBUSTIBLE MATERIALS
THE FOLLOWING MATERIALS, THOUGH COMBUSTIBLE OR CONTAINING COMBUSTIBLE FIBRES, MAY BE USED WHEREVER A NON–COMBUSTIBLE MATERIAL IS REQUIRED:
(A) PLASTERBOARD.
(B) PERFORATED GYPSUM LATH WITH A NORMAL PAPER FINISH.
(C) FIBROUS–PLASTER SHEET;
(D) FIBRE–REINFORCED CEMENT SHEETING.
(E) PRE–FINISHED METAL SHEETING HAVING A COMBUSTIBLE SURFACE FINISH NOT EXCEEDING 1 MM THICKNESS AND WHERE THE SPREAD–OF–FLAME INDEX OF THE PRODUCT IS NOT GREATER THAN 0.
(F) BONDED LAMINATED MATERIALS WHERE—
(I) EACH LAMINATE IS NON–COMBUSTIBLE; AND
(II) EACH ADHESIVE LAYER DOES NOT EXCEED 1 MM IN THICKNESS; AND
(III) THE TOTAL THICKNESS OF THE ADHESIVE LAYERS DOES NOT EXCEED 2 MM; AND
(IV) THE SPREAD–OF–FLAME INDEX AND THE SMOKE–DEVELOPED INDEX OF THE LAMINATED MATERIAL AS A WHOLE DOES NOT EXCEED 0 AND 3 RESPECTIVELY
3.7.1.3 EXTERNAL WALLS OF CLASS 1 BUILDINGS
AN EXTERNAL WALL OF A CLASS 1 BUILDING, AND ANY OPENINGS IN THAT WALL, MUST COMPLY WITH 3.7.1.5 IF THE WALL IS LESS THAN—
(A) 900MM FROM THE ALLOTMENT BOUNDARY OTHER THAN THE BOUNDARY ADJOINING A ROAD ALIGNMENT OR OTHER PUBLIC SPACE, OR
(B) 1.8M FROM ANOTHER BUILDING ON THE SAME ALLOTMENT OTHER THAN AN APPURTENANT CLASS 10 BUILDING OR A DETACHED PART OF THE SAME CLASS 1 BUILDING.
3.7.1.4 MEASUREMENT OF DISTANCES
(A) THE DISTANCE FROM ANY POINT ON A EXTERNAL WALL OF A BUILDING TO AN ALLOTMENT BOUNDARY OR TO ANOTHER BUILDING IS THE DISTANCE TO THAT POINT MEASURED ALONG A LINE AT RIGHT ANGLES FROM THE ALLOTMENT BOUNDARY OR EXTERNAL WALL OF THE OTHER BUILDING WHICH INTERSECTS THAT POINT WITHOUT OBSTRUCTED BY A WALL COMPLYING WITH 3.7.1.5.
(B) WHERE A WALL WITHIN A SPECIFIED DISTANCE IS REQUIRED TO BE CONSTRUCTED IN A CERTAIN MANNER, ONLY THAT PART OF THE WALL (INCLUDING ANY OPENINGS) WITHIN THE SPECIFIED DISTANCE NEED BE CONSTRUCTED IN THAT MANNER.
3.7.1.5 CONSTRUCTION OF EXTERNAL WALLS
(A) EXTERNAL WALLS (INCLUDING GABLES) REQUIRED TO BE FIRE RESISTING (REFERRED TO IN 3.7.1.3 OR 3.7.1.6) MUST EXTEND TO THE UNDERSIDE OF A NON COMBUSTIBLE ROOF COVERING OR NON COMBUSTIBLE EAVES LINING AND MUST:
(I) HAVE AN FRL OF NOT LESS THAN 60/60/60 WHEN TESTED FROM THE OUTSIDE, OR
(2) BE OF MASONRY VENEER CONSTRUCTION IN WHICH THE EXTERNAL MASONRY VENEER IS NOT LESS THAN 90MM THICK, OR
(3) BE OF MASONRY CONSTRUCTION NOT LESS THAN 90MM THICK.
(B) OPENINGS IN EXTERNAL WALLS REQUIRED TO BE FIRE RESISTING (REFERRED TO IN 3.7.1.3 OR 3.7.1.6) MUST BE PROTECTED BY–
(I) NON-OPERABLE FIRE WINDOWS OR OTHER CONSTRUCTION WITH AN FRL OF NOT LESS THAN –/60/–, OR
(2) SELF–CLOSING SOLID CORE DOORS NOT LESS THAN 35MM THICK.
(C) SUB-FLOOR VENTS, ROOF VENTS, WEEPHOLES AND PENETRATIONS FOR PIPES, CONDUITS AND THE LIKE NEED NOT COMPLY WITH (B)
(D) CONCESSIONS FOR NON-HABITABLE ROOM WINDOWS CONDUITS AND THE
DESPITE THE REQUIREMENTS IN (B), IN A NON HABITABLE ROOM, A WINDOW THAT FACES THE BOUNDARY OF AN ADJOINING ALLOTMENT MAY BE NOT LESS THAN 600MM FROM THAT BOUNDARY OR, WHERE THE WINDOW FACES ANOTHER BUILDING ON THE SAME ALLOTMENT, NOT LESS THAN 1200MM FROM THAT BUILDING PROVIDED THAT–
(1) IN A BATHROOM, LAUNDRY OR TOILET, THE OPENING HAS AN AREA OF NOT MORE THAN 1.25SQM, OR
(2) IN A ROOM OTHER THAN REFERRED TO IN (1), OPENING HAS AN AREA OF NOT MORE THAN 0.545QM AND–
(A) THE WINDOW IS STEEL FRAMED, THERE ARE NO OPENING SASHES AND IT IS GLAZED IN WIRED GLASS, OR
(B) THE OPENING IS ENCLOSED WITH TRANSLUCENT HALLOW GLASS BLOCKS.
3.7.1.8 SEPARATING WALLS
(A) A WALL THAT SEPERATES CLASS 1 DWELLINGS, OR SEPARATES A CLASS 1 BUILDING FROM A CLASS 10A BUILDING WHICH IS NOT APPURTENANT TO THAT CLASS 1 BUILDING MUST HAVE AN FRL OF NOT LESS THAN 60/60/60 AND–
(1) COMMENCE AT THE FOOTINGS OR GROUND SLAB
(2) EXTEND–
(A) IF THE BUILDING HAS A NON COMBUSTIBLE ROOF COVERING, TO THE UNDERSIDE OF THE ROOF COVERING, OR
(B) IF THE BUILDING HAS A COMBUSTIBLE ROOF COVERING, TO NOT LESS THAT 450MM ABOVE THE ROOF COVERING.
SPECIFICATION C1.10: FIRE HAZARD PROPERTIES–
MATERIALS USED IN THE BUILDING HAVING FLAMMABILITY, SMOKE DEVELOPED AND SPREAD OF FLAME INDICES AS SET OUT IN SPECIFICATION C1.10.
PART 3.7.2 : SMOKE ALARMS
- AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO BE PROVIDED IN ACCORDANCE WITH PART 3.7.2.2 REQUIREMENTS FORSMOKE ALARMS
(A) SMOKE ALARMS MUST BE INSTALLED IN–
(1) ANY STOREY CONTAINING BEDROOMS–
PART 3.8 : HEALTH AND AMENITY
- WET AREAS WITHIN THE PROPOSED BUILDING TO COMPLY WITH THE REQUIREMENTS OF PART 3.8.1 (Wet areas).
PART 3.8.5 : VENTILATION
3.8.5.0 PERFORMANCE REQUIREMENT P2.4.5 IS SATISFIED FOR A MECHANICAL VENTILATION SYSTEM IF IT IS INSTALLED IN ACCORDANCE WITH AS 1668.2
3.8.5.1 APPLICATION
3.8.5.2 VENTILATION REQUIREMENT
PART 3.8.6 SOUND INSULATION
3.8.6.1 APPLICATION
COMPLIANCE WITH THIS PART SATISFIES PERFORMANCE REQUIREMENT P2.4.6 FOR SOUND INSULATION.
3.8.6.2 SOUND INSULATION REQUIREMENTS
(A) TO PROVIDE INSULATION FROM AIRBORNE AND IMPACT SOUND, A SEPARATING WALL BETWEEN 2 OR MORE CLASS 1 BUILDING MUST–
(D) ACHIEVE THE WEIGHTED SOUND REDUCTION INDEX WITH SPECTRUM ADAPTION TERM (RW+CTR) AND DISCONTINUOUS CONSTRUCTION REQUIREMENTS, AS REQUIRED BY TABLE 3.8.6.1, AND
(2) BE INSTALLED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS OF 3.8.6.3 AND 3.8.6.4.
(B) FOR THE PURPOSE OF THIS PART, THE RW + CTR MUST BE DETERMINED IN ACCORDANCE WITH AS/NZS 1276.2 OR ISO717.1, USING RESULTS FROM LABORATORY MEASUREMENTS.

PART 3.9 : SAFE MOVEMENT AND ACCESS
- THE TREADS AND RISERS OF THE PROPOSED STAIRS ARE TO COMPLY WITH PART 3.9.1.2 (GENERAL REQUIREMENTS).
SECTION E (SERVICES AND EQUIPMENT)
BUILDING TO COMPLY WITH THE CATEGORY 1 FIRE SAFETY PROVISIONS. THIS TO BE ACHIEVED BY MEETING THOSE PERFORMANCE REQUIREMENTS OF THE BCA APPLICABLE TO THE BUILDING CLASSIFICATION, FROM THE FOLLOWING LIST:
EP1.3 (FIRE HYDRANTS), EP1.4 (SPRINKLER SYSTEMS), EP1.6(FIRE CONTROL CENTERS), EP2.1 (AUTOMATIC SMOKE DETECTION AND WARNING), EP2.2 (EVACUATION ROUTES), EP3.2 (FIRE FIGHTING LIFT) P2.3.2(FIRE DETECTION IN SINGLE DWELLING)
PART E1 : FIRE FIGHTING EQUIPMENT–
- SEE FINAL ESSENTIAL SERVICES PLAN FOR FIRE FIGHTING EQUIPMENT WHICH IS TO COMPLY WITH E1.3 (FIRE HYDRANTS) , E1.4 (HOSE REELS), E1.6 (PORTABLE FIRE EXTINGUISHERS).
E1.7 (FIRE AND SMOKE ALARMS).
SPECIFICATION E1.17 (FIRE DETECTION AND ALARM SYSTEM) AND E1.9 (FIRE PRECAUTIONS DURING CONSTRUCTION).
SECTION F (HEALTH AND AMENITY)
PART F1: DAMP AND WEATHERPROOFING–
- STORMWATER DRAINAGE MUST COMPLY WITH AS/NZS 3500.3.2.
-ROOF COVERING TO COMPLY WITH F1.5.
- SARKING MUST COMPLY WITH AS/NZS 4200 PARTS 1 AND 2
-WATER PROOFING OF WET AREAS IN BUILDINGS, TO COMPLY WITH F1.7.
-DAMP PROOFING OF FLOORS ON GROUND, TO COMPLY WITH F1.10.
-PROVISION OF FLOOR WASTES, TO COMPLY WITH F1.11.
PART F4: LIGHT AND VENTILATION–
VENTILATION OF BASEMENT CARPARK TO COMPLY WITH F4.11 (PUBLIC CARPARKS).
-OTHER PORTION OF BUILDING NOT RECEIVING NATURAL VENTILATION TO THE STANDARDS SET OUT IN PART F4, SHALL BE PROVIDED WITH A SYSTEM OF MECHANICAL VENTILATION COMPLYING WITH F4.5 (VENTILATION OF ROOMS).

STANDARDS AUSTRALIA COMPLIANCE

THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH BUT NOT LIMITED TO THE FOLLOWING AUSTRALIAN STANDARDS.

AS2293 EMERGENCY EVACUATION LIGHTING IN BUILDINGS
AS3700 MASONRY STRUCTURES
AS1670 FIRE DETECTION, WARNING, CONTROL AND INTERCOM SYSTEMS–SYSTEM DESIGN, INSTALLATION AND COMMISSIONING
AS1668 THE USE OF MECHANICAL VENTILATION AND AIR CONDITIONING IN BUILDINGS
AS1428 GENERAL REQUIREMENTS FOR ACCESS - NEW BUILDING WORK
AS2293 EMERGENCY ESCAPE LIGHTING AND EXIT SIGNS FOR BUILDINGS
AS3500 PLUMBING AND DRAINAGE: PART 3 STORMWATER DRAINAGE
ANSZS1664 ALUMINUM STRUCTURES
ANSZS1905 COMPONENTS FOR THE PROTECTION OF OPENINGS IN FIRE RESISTANT WALLS
AS2050 INSTALLATION OF ROOF TILES
AS2047 WINDOWS IN BUILDINGS - SELECTION AND INSTALLATION
AS2327 COMPOSITE STRUCTURES
AS2870 RESIDENTIAL SLABS AND FOOTINGS CONSTRUCTION
AS1684 RESIDENTIAL TIMBER-FRAMED CONSTRUCTION
AS3700 MASONRY STRUCTURES
AS3013 ELECTRICAL INSTALLATIONS
AS1668 THE USE OF MECHANICAL VENTILATION AND AIR CONDITIONING IN BUILDINGS
AS2444 PORTABLE FIRE EXTINGUISHERS AND FIRE BLANKETS-SELECTION AND LOCATION
AS3786 SMOKE ALARMS
ANSZS1905 COMPONENTS FOR THE PROTECTION OF OPENINGS IN FIRE-RESISTANT WALLS
AS1288 GLASS IN BUILDINGS- SELECTION AND INSTALLATION
AS2107 ACOUSTICS- RECOMMENDED DESIGN SOUND LEVELS AND REVERBERATION TIMES FOR BUILDING INTERIORS
AS3660.1 TERMITE MANAGEMENT-NEW BUILDING WORK
AS3740 WATERPROOFING OF WET AREAS IN RESIDENTIAL BUILDING.
AS1926.1 SAFETY BARRIERS FOR SWIMMING POOLS
AS1926.2 LOCATION OF SAFETY BARRIERS FOR SWIMMING POOLS

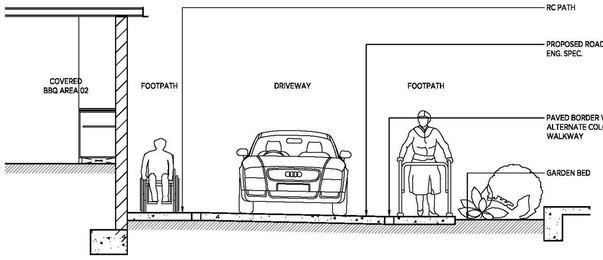
ADDITIONAL NOTES
-PROVIDE SIGNAL MASTER TV ANTENNA
-PROVIDE FIXED OUTDOOR CLOTHES DRYER
-ALL WALL FIXTURES TO BE INSTALLED ARE TO BE RATED AAA STANDARD
-ANY NEW HOT WATER SYSTEM IS TO ACHIEVE A MINIMUM 4 STARS
-ALL EXTERNAL TILES ARE TO BE SLIP RESISTANT

Proposed Seniors Housing & Housing for People with a Disability & Strata Subdivision

103-109 Laycock Street, Cranebrook NSW 2749 - LOT 23 DP700376



LOCATION MAP
NTS



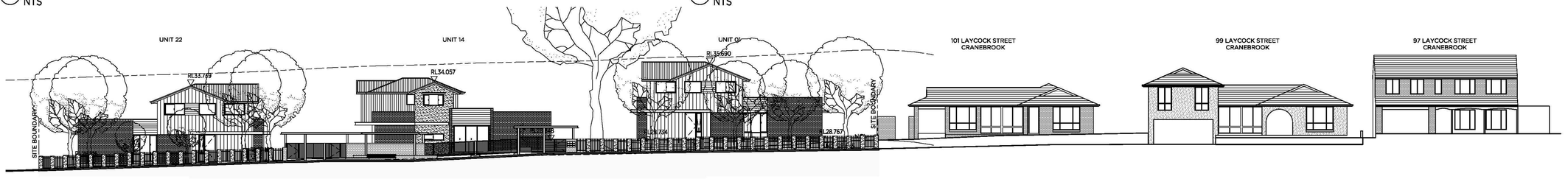
TYPICAL FOOTPATH DETAIL
1:50



STREET 3D PERSPECTIVE
NTS



INTERNAL 3D PERSPECTIVE
NTS



STREET ELEVATION
1:200

UNIT NO.	GROUND FLOOR (m²)	FIRST FLOOR (m²)	TOTAL (m²)	GARAGE (m²)	P.O.S. (m²)	NO. BEDS	ROOF
1	96.9	45.1	142	27.9	106.3	3	164
2	102.1	43.1	145.2	25.6	93.9	3	166.7
3	102.1	43.1	145.2	25.6	91.1	3	166
4	102.1	43.1	145.2	25.6	88.3	3	166.7
5	102.1	43.1	145.2	25.6	85.5	3	166
6	104.5	N/A	104.5	25.6	80.4	2	166.7
7	104.5	N/A	104.5	25.6	86.1	2	166.7
8	104.5	N/A	104.5	25.6	121.2	2	166.7
9	91.5	N/A	91.5	25.1	40.5	2	158.9
10	91.5	N/A	91.5	25.1	42.8	2	158.9
11	88.7	36.2	124.9	25.1	31.7	3	155.1
12	88.7	36.2	124.9	25.1	43.2	3	155.1
13	88.7	36.2	124.9	25.1	33.6	3	155.1
14	88.7	36.2	124.9	25.1	34.5	3	155.1
15	104.5	N/A	104.5	25.6	98.1	2	166.7
16	104.5	N/A	104.5	25.6	68.5	2	166.7
17	104.5	N/A	104.5	25.6	76.7	2	166.7
18	102.1	43.1	145.2	25.6	73.2	3	166
19	102.1	43.1	145.2	25.6	73.2	3	166.7
20	102.1	43.1	145.2	25.6	73.2	3	166
21	102.1	43.1	145.2	25.6	73.2	3	166.7
22	96.9	45.1	142	27.9	99.4	3	164
TOTALS	2175.4	579.8	2755.2	564.8	1614.6	58	3597

AREA SCHEDULE OF UNITS

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

DESIGN FACTS

SITE AREA	7974m²
NO. OF DWELLINGS	22

CONTROL	SEPP HSPD 2004 COMPLIANCE PROPOSED	REQUIRED
FSR	0.35:1	0.5:1
LANDSCAPED AREA	33%	30%
DEEP SOIL ZONE	27%	15%
SOLAR ACCESS	77%	70%
PRIVATE OPEN SPACE	MIN 31.7m²	15m²
RESIDENT PARKING SPACES	43	29
VISITOR SPACES	5	0
COMMUNAL OPEN SPACE	269m²	0m²
MAX. BUILDING HEIGHT	7.95m	8m
TOTAL ROOF AREA	3597m²	

**MAXIMUM BUILDING HEIGHT TAKEN FROM UNIT 21 - HIGHEST STRUCTURE ABOVE NGL

DRAWING SCHEDULE

SHEET NO.	TITLE	SCALE	REV
DA000	COVER SHEET	1:50, 1:200	00
DA100	SITE ANALYSIS & DEMOLITION PLAN	1:200	00
DA101	CONTEXT MAP	NTS	00
DA102	SITE PLAN - GROUND FLOOR	1:200	00
DA103	SITE PLAN - FIRST FLOOR	1:200	00
DA104	SITE PLAN - ROOF	1:200	00
DA301	SITE SECTIONS	1:200	00
DA302	SITE SECTIONS	1:200	00
DA303	SITE ELEVATIONS	1:200	00
DA304	SITE INTERNAL ELEVATIONS	1:200	00
DA305	SITE INTERNAL ELEVATIONS	1:200	00
DA306	SITE INTERNAL ELEVATIONS	1:200	00
DA307	RETAINING WALL & BOUNDARY FENCE ELEVATIONS	1:200	00
DA401	SEPP AREA SCHEDULE	1:200	00
DA402	DEMOLITION PLAN & PRELIM. SITE WORKS	1:200	00
DA403	CUT & FILL PLAN	1:200	00
DA501	WINDOW SCHEDULE - UNITS 01-12	NTS	00
DA502	WINDOW SCHEDULE - UNITS 13-22	NTS	00
DA503	HEIGHT LIMIT DIAGRAM	NTS	00
DA601	SHADOW DIAGRAM - 22 MAR 9AM	1:200	00
DA602	SHADOW DIAGRAM - 22 MAR 12PM	1:200	00
DA603	SHADOW DIAGRAM - 22 MAR 3PM	1:200	00
DA604	SHADOW DIAGRAM - 22 JUN 9AM	1:200	00
DA605	SHADOW DIAGRAM - 22 JUN 12PM	1:200	00
DA606	SHADOW DIAGRAM - 22 JUN 3PM	1:200	00
DA607	SHADOW DIAGRAM - 22 SEP 9AM	1:200	00
DA608	SHADOW DIAGRAM - 22 SEP 12PM	1:200	00
DA609	SHADOW DIAGRAM - 22 SEP 3PM	1:200	00
DA610	SHADOW DIAGRAM - 22 DEC 9AM	1:200	00
DA611	SHADOW DIAGRAM - 22 DEC 12PM	1:200	00
DA612	SHADOW DIAGRAM - 22 DEC 3PM	1:200	00
DA613	SOLAR ACCESS DIAGRAM - 22 JUN	1:200	00
DA701	TYP. PLANS, SECTIONS & ELEVATIONS - UNITS 01 & 22	1:100	00
DA702	TYP. PLANS, SECTIONS & ELEVATIONS - UNITS 02, 04, 19 & 21	1:100	00
DA703	TYP. PLANS & SECTIONS & ELEVATIONS - UNITS 03, 05, 08 & 20	1:100	00
DA704	TYP. PLANS, SECTIONS & ELEVATIONS - UNITS 06-08, 15-17	1:100	00
DA705	TYP. PLANS, SECTIONS & ELEVATIONS - UNITS 09-10	1:100	00
DA706	TYP. PLANS, SECTIONS & ELEVATIONS - UNITS 11-14	1:100	00
DA720	DRIVEWAY SECTIONS	1:250	00
DA731	BIN STORE DETAIL	1:50	00
DA732	ENTRANCE DETAIL	1:50	00
DA733	BBQ AREA 01 DETAIL	1:50	00
DA734	BBQ AREA 02 & 03 DETAIL - FLOOR PLAN	1:50	00
DA735	BBQ AREA 02 & 03 DETAIL - ELEVATIONS	1:50	00

CLIENT
Greater Western Group (NSW)
P/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9121
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH

DRAWN	DRAWING TITLE
EF	COVER SHEET
CHECKED	SCALE @A2 / JOB NUMBER
RA	1:50, 1:200 / 0246
APPROVED	DRAWING NO. / REV
RA	DA000 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES

LEGEND
- VIEWS AND VISTAS
- NOISE
- PREVAILING WINDS
- DRIVEWAY / VEHICULAR ACCESS POINT
- EXISTING NEIGHBOURING STRUCTURES
- VIEW NO. FROM IMAGES
- ROCK OUTCROPS
- BUILDING SETBACKS
- OVERLOOKING OF NEIGHBOURING SITES
- POTENTIAL FOR OVERSHADOWING OF NEIGHBOURING OPEN SPACE
- NO. OF STOREYS
- NEIGHBOURING GARAGES
- NEIGHBOURING PRIVATE OPEN SPACE
- NEIGHBOURING WINDOW FACING SITE
- EXISTING/SIGNIFICANT TREES
- EXISTING TREES TO BE REMOVED
- CORRESPONDING NO. TO STREET ANALYSIS ELEVATIONS

LOT 1216 DP261988
LOT 1212 DP261988
LOT 1209 DP261988
LOT 1208 DP261988
LOT 1204 DP261988
1240 DP749603
1212 DP263023
1209 DP263023
1208 DP263023
1204 DP263023
No. 101 SINGLE STOREY BRICK RESIDENCE TILE ROOF
PAVED DRIVEWAY
SOUTH WESTERLY
POST
WIRE
FENCE
CH329°49'10" 23.840
R438.0 A23.843
328°15'40" 84.73
VEGETATION TO BE RETAINED SUBJECT TO ARBORISTS RECOMMENDATIONS
VEGETATION TO BE REMOVED SUBJECT TO ARBORISTS RECOMMENDATIONS
STRUCTURES TO BE DEMOLISHED SHOWN RED
SUN PATH
7AM JUNE 21
12PM JUNE 21
7AM DEC 21
12PM DEC 21
3PM JUNE 21
3PM DEC 21
LOT 23 DP700376 7,974m²
23 DP 700376 7974m²
22 DP 700376
24 DP 700376
RIDGE 37.48
No. 103-109 SINGLE STOREY BRICK RESIDENCE TILE ROOF
METAL AWNING
CONCRETE
GT 35.71
RIDGE 37.5
RIDGE 37.63
RIDGE 37.50
RIDGE 37.48
RIDGE 37.38
RIDGE 37.25
RIDGE 37.13
RIDGE 37.00
RIDGE 36.88
RIDGE 36.75
RIDGE 36.63
RIDGE 36.50
RIDGE 36.38
RIDGE 36.25
RIDGE 36.13
RIDGE 36.00
RIDGE 35.88
RIDGE 35.75
RIDGE 35.63
RIDGE 35.50
RIDGE 35.38
RIDGE 35.25
RIDGE 35.13
RIDGE 35.00
RIDGE 34.88
RIDGE 34.75
RIDGE 34.63
RIDGE 34.50
RIDGE 34.38
RIDGE 34.25
RIDGE 34.13
RIDGE 34.00
RIDGE 33.88
RIDGE 33.75
RIDGE 33.63
RIDGE 33.50
RIDGE 33.38
RIDGE 33.25
RIDGE 33.13
RIDGE 33.00
RIDGE 32.88
RIDGE 32.75
RIDGE 32.63
RIDGE 32.50
RIDGE 32.38
RIDGE 32.25
RIDGE 32.13
RIDGE 32.00
RIDGE 31.88
RIDGE 31.75
RIDGE 31.63
RIDGE 31.50
RIDGE 31.38
RIDGE 31.25
RIDGE 31.13
RIDGE 31.00
RIDGE 30.88
RIDGE 30.75
RIDGE 30.63
RIDGE 30.50
RIDGE 30.38
RIDGE 30.25
RIDGE 30.13
RIDGE 30.00
RIDGE 29.88
RIDGE 29.75
RIDGE 29.63
RIDGE 29.50
RIDGE 29.38
RIDGE 29.25
RIDGE 29.13
RIDGE 29.00
RIDGE 28.88
RIDGE 28.75
RIDGE 28.63
RIDGE 28.50
RIDGE 28.38
RIDGE 28.25
RIDGE 28.13
RIDGE 28.00
RIDGE 27.88
RIDGE 27.75
RIDGE 27.63
RIDGE 27.50
RIDGE 27.38
RIDGE 27.25
RIDGE 27.13
RIDGE 27.00
RIDGE 26.88
RIDGE 26.75
RIDGE 26.63
RIDGE 26.50
RIDGE 26.38
RIDGE 26.25
RIDGE 26.13
RIDGE 26.00
RIDGE 25.88
RIDGE 25.75
RIDGE 25.63
RIDGE 25.50
RIDGE 25.38
RIDGE 25.25
RIDGE 25.13
RIDGE 25.00
RIDGE 24.88
RIDGE 24.75
RIDGE 24.63
RIDGE 24.50
RIDGE 24.38
RIDGE 24.25
RIDGE 24.13
RIDGE 24.00
RIDGE 23.88
RIDGE 23.75
RIDGE 23.63
RIDGE 23.50
RIDGE 23.38
RIDGE 23.25
RIDGE 23.13
RIDGE 23.00
RIDGE 22.88
RIDGE 22.75
RIDGE 22.63
RIDGE 22.50
RIDGE 22.38
RIDGE 22.25
RIDGE 22.13
RIDGE 22.00
RIDGE 21.88
RIDGE 21.75
RIDGE 21.63
RIDGE 21.50
RIDGE 21.38
RIDGE 21.25
RIDGE 21.13
RIDGE 21.00
RIDGE 20.88
RIDGE 20.75
RIDGE 20.63
RIDGE 20.50
RIDGE 20.38
RIDGE 20.25
RIDGE 20.13
RIDGE 20.00
RIDGE 19.88
RIDGE 19.75
RIDGE 19.63
RIDGE 19.50
RIDGE 19.38
RIDGE 19.25
RIDGE 19.13
RIDGE 19.00
RIDGE 18.88
RIDGE 18.75
RIDGE 18.63
RIDGE 18.50
RIDGE 18.38
RIDGE 18.25
RIDGE 18.13
RIDGE 18.00
RIDGE 17.88
RIDGE 17.75
RIDGE 17.63
RIDGE 17.50
RIDGE 17.38
RIDGE 17.25
RIDGE 17.13
RIDGE 17.00
RIDGE 16.88
RIDGE 16.75
RIDGE 16.63
RIDGE 16.50
RIDGE 16.38
RIDGE 16.25
RIDGE 16.13
RIDGE 16.00
RIDGE 15.88
RIDGE 15.75
RIDGE 15.63
RIDGE 15.50
RIDGE 15.38
RIDGE 15.25
RIDGE 15.13
RIDGE 15.00
RIDGE 14.88
RIDGE 14.75
RIDGE 14.63
RIDGE 14.50
RIDGE 14.38
RIDGE 14.25
RIDGE 14.13
RIDGE 14.00
RIDGE 13.88
RIDGE 13.75
RIDGE 13.63
RIDGE 13.50
RIDGE 13.38
RIDGE 13.25
RIDGE 13.13
RIDGE 13.00
RIDGE 12.88
RIDGE 12.75
RIDGE 12.63
RIDGE 12.50
RIDGE 12.38
RIDGE 12.25
RIDGE 12.13
RIDGE 12.00
RIDGE 11.88
RIDGE 11.75
RIDGE 11.63
RIDGE 11.50
RIDGE 11.38
RIDGE 11.25
RIDGE 11.13
RIDGE 11.00
RIDGE 10.88
RIDGE 10.75
RIDGE 10.63
RIDGE 10.50
RIDGE 10.38
RIDGE 10.25
RIDGE 10.13
RIDGE 10.00
RIDGE 9.88
RIDGE 9.75
RIDGE 9.63
RIDGE 9.50
RIDGE 9.38
RIDGE 9.25
RIDGE 9.13
RIDGE 9.00
RIDGE 8.88
RIDGE 8.75
RIDGE 8.63
RIDGE 8.50
RIDGE 8.38
RIDGE 8.25
RIDGE 8.13
RIDGE 8.00
RIDGE 7.88
RIDGE 7.75
RIDGE 7.63
RIDGE 7.50
RIDGE 7.38
RIDGE 7.25
RIDGE 7.13
RIDGE 7.00
RIDGE 6.88
RIDGE 6.75
RIDGE 6.63
RIDGE 6.50
RIDGE 6.38
RIDGE 6.25
RIDGE 6.13
RIDGE 6.00
RIDGE 5.88
RIDGE 5.75
RIDGE 5.63
RIDGE 5.50
RIDGE 5.38
RIDGE 5.25
RIDGE 5.13
RIDGE 5.00
RIDGE 4.88
RIDGE 4.75
RIDGE 4.63
RIDGE 4.50
RIDGE 4.38
RIDGE 4.25
RIDGE 4.13
RIDGE 4.00
RIDGE 3.88
RIDGE 3.75
RIDGE 3.63
RIDGE 3.50
RIDGE 3.38
RIDGE 3.25
RIDGE 3.13
RIDGE 3.00
RIDGE 2.88
RIDGE 2.75
RIDGE 2.63
RIDGE 2.50
RIDGE 2.38
RIDGE 2.25
RIDGE 2.13
RIDGE 2.00
RIDGE 1.88
RIDGE 1.75
RIDGE 1.63
RIDGE 1.50
RIDGE 1.38
RIDGE 1.25
RIDGE 1.13
RIDGE 1.00
RIDGE 0.88
RIDGE 0.75
RIDGE 0.63
RIDGE 0.50
RIDGE 0.38
RIDGE 0.25
RIDGE 0.13
RIDGE 0.00
G.L. 33.22
RIDGE 34.26
G.L. 35.71
RIDGE 37.5
RIDGE 37.63
RIDGE 37.50
RIDGE 37.48
RIDGE 37.38
RIDGE 37.25
RIDGE 37.13
RIDGE 37.00
RIDGE 36.88
RIDGE 36.75
RIDGE 36.63
RIDGE 36.50
RIDGE 36.38
RIDGE 36.25
RIDGE 36.13
RIDGE 36.00
RIDGE 35.88
RIDGE 35.75
RIDGE 35.63
RIDGE 35.50
RIDGE 35.38
RIDGE 35.25
RIDGE 35.13
RIDGE 35.00
RIDGE 34.88
RIDGE 34.75
RIDGE 34.63
RIDGE 34.50
RIDGE 34.38
RIDGE 34.25
RIDGE 34.13
RIDGE 34.00
RIDGE 33.88
RIDGE 33.75
RIDGE 33.63
RIDGE 33.50
RIDGE 33.38
RIDGE 33.25
RIDGE 33.13
RIDGE 33.00
RIDGE 32.88
RIDGE 32.75
RIDGE 32.63
RIDGE 32.50
RIDGE 32.38
RIDGE 32.25
RIDGE 32.13
RIDGE 32.00
RIDGE 31.88
RIDGE 31.75
RIDGE 31.63
RIDGE 31.50
RIDGE 31.38
RIDGE 31.25
RIDGE 31.13
RIDGE 31.00
RIDGE 30.88
RIDGE 30.75
RIDGE 30.63
RIDGE 30.50
RIDGE 30.38
RIDGE 30.25
RIDGE 30.13
RIDGE 30.00
RIDGE 29.88
RIDGE 29.75
RIDGE 29.63
RIDGE 29.50
RIDGE 29.38
RIDGE 29.25
RIDGE 29.13
RIDGE 29.00
RIDGE 28.88
RIDGE 28.75
RIDGE 28.63
RIDGE 28.50
RIDGE 28.38
RIDGE 28.25
RIDGE 28.13
RIDGE 28.00
RIDGE 27.88
RIDGE 27.75
RIDGE 27.63
RIDGE 27.50
RIDGE 27.38
RIDGE 27.25
RIDGE 27.13
RIDGE 27.00
RIDGE 26.88
RIDGE 26.75
RIDGE 26.63
RIDGE 26.50
RIDGE 26.38
RIDGE 26.25
RIDGE 26.13
RIDGE 26.00
RIDGE 25.88
RIDGE 25.75
RIDGE 25.63
RIDGE 25.50
RIDGE 25.38
RIDGE 25.25
RIDGE 25.13
RIDGE 25.00
RIDGE 24.88
RIDGE 24.75
RIDGE 24.63
RIDGE 24.50
RIDGE 24.38
RIDGE 24.25
RIDGE 24.13
RIDGE 24.00
RIDGE 23.88
RIDGE 23.75
RIDGE 23.63
RIDGE 23.50
RIDGE 23.38
RIDGE 23.25
RIDGE 23.13
RIDGE 23.00
RIDGE 22.88
RIDGE 22.75
RIDGE 22.63
RIDGE 22.50
RIDGE 22.38
RIDGE 22.25
RIDGE 22.13
RIDGE 22.00
RIDGE 21.88
RIDGE 21.75
RIDGE 21.63
RIDGE 21.50
RIDGE 21.38
RIDGE 21.25
RIDGE 21.13
RIDGE 21.00
RIDGE 20.88
RIDGE 20.75
RIDGE 20.63
RIDGE 20.50
RIDGE 20.38
RIDGE 20.25
RIDGE 20.13
RIDGE 20.00
RIDGE 19.88
RIDGE 19.75
RIDGE 19.63
RIDGE 19.50
RIDGE 19.38
RIDGE 19.25
RIDGE 19.13
RIDGE 19.00
RIDGE 18.88
RIDGE 18.75
RIDGE 18.63
RIDGE 18.50
RIDGE 18.38
RIDGE 18.25
RIDGE 18.13
RIDGE 18.00
RIDGE 17.88
RIDGE 17.75
RIDGE 17.63
RIDGE 17.50
RIDGE 17.38
RIDGE 17.25
RIDGE 17.13
RIDGE 17.00
RIDGE 16.88
RIDGE 16.75
RIDGE 16.63
RIDGE 16.50
RIDGE 16.38
RIDGE 16.25
RIDGE 16.13
RIDGE 16.00
RIDGE 15.88
RIDGE 15.75
RIDGE 15.63
RIDGE 15.50
RIDGE 15.38
RIDGE 15.25
RIDGE 15.13
RIDGE 15.00
RIDGE 14.88
RIDGE 14.75
RIDGE 14.63
RIDGE 14.50
RIDGE 14.38
RIDGE 14.25
RIDGE 14.13
RIDGE 14.00
RIDGE 13.88
RIDGE 13.75
RIDGE 13.63
RIDGE 13.50
RIDGE 13.38
RIDGE 13.25
RIDGE 13.13
RIDGE 13.00
RIDGE 12.88
RIDGE 12.75
RIDGE 12.63
RIDGE 12.50
RIDGE 12.38
RIDGE 12.25
RIDGE 12.13
RIDGE 12.00
RIDGE 11.88
RIDGE 11.75
RIDGE 11.63
RIDGE 11.50
RIDGE 11.38
RIDGE 11.25
RIDGE 11.13
RIDGE 11.00
RIDGE 10.88
RIDGE 10.75
RIDGE 10.63
RIDGE 10.50
RIDGE 10.38
RIDGE 10.25
RIDGE 10.13
RIDGE 10.00
RIDGE 9.88
RIDGE 9.75
RIDGE 9.63
RIDGE 9.50
RIDGE 9.38
RIDGE 9.25
RIDGE 9.13
RIDGE 9.00
RIDGE 8.88
RIDGE 8.75
RIDGE 8.63
RIDGE 8.50
RIDGE 8.38
RIDGE 8.25
RIDGE 8.13
RIDGE 8.00
RIDGE 7.88
RIDGE 7.75
RIDGE 7.63
RIDGE 7.50
RIDGE 7.38
RIDGE 7.25
RIDGE 7.13
RIDGE 7.00
RIDGE 6.88
RIDGE 6.75
RIDGE 6.63
RIDGE 6.50
RIDGE 6.38
RIDGE 6.25
RIDGE 6.13
RIDGE 6.00
RIDGE 5.88
RIDGE 5.75
RIDGE 5.63
RIDGE 5.50
RIDGE 5.38
RIDGE 5.25
RIDGE 5.13
RIDGE 5.00
RIDGE 4.88
RIDGE 4.75
RIDGE 4.63
RIDGE 4.50
RIDGE 4.38
RIDGE 4.25
RIDGE 4.13
RIDGE 4.00
RIDGE 3.88
RIDGE 3.75
RIDGE 3.63
RIDGE 3.50
RIDGE 3.38
RIDGE 3.25
RIDGE 3.13
RIDGE 3.00
RIDGE 2.88
RIDGE 2.75
RIDGE 2.63
RIDGE 2.50
RIDGE 2.38
RIDGE 2.25
RIDGE 2.13
RIDGE 2.00
RIDGE 1.88
RIDGE 1.75
RIDGE 1.63
RIDGE 1.50
RIDGE 1.38
RIDGE 1.25
RIDGE 1.13
RIDGE 1.00
RIDGE 0.88
RIDGE 0.75
RIDGE 0.63
RIDGE 0.50
RIDGE 0.38
RIDGE 0.25
RIDGE 0.13
RIDGE 0.00
TOP 34.51
58°16'50" 73.105
108.55
329°16'50"
59°16'50" 74.385
BBQ
EXISTING RAISED SITEWORKS TO BE LEVELLED
EXISTING CONTOURS SHOWN RED
METAL
MESH
FENCE
DRIVEWAY
GRAVEL
CONC. DRIVEWAY
No. 111 ONE & TWO STOREY BRICK RESIDENCE TILE ROOF
BENCHMARK DH IN TOP KERB R.L. = 27.265
"BUS STOP"
DRAINAGE PIT TOP:26.65 INV:25.28
LAYCOCK STREET
STREET
01
02
03
04
05
06
07

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect S. Alvaro 9221
0402 529 840
Unit 24, 2-8 Daniel Street,
Wetherill Park, NSW 2164
info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright * All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SITE ANALYSIS & DEMOLITION PLAN
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA100 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020





R1 GENERAL RESIDENTIAL
R2 LOW DENSITY RESIDENTIAL
R2 MEDIUM DENSITY RESIDENTIAL
B2 LOCAL CENTRE
IN2 LIGHT INDUSTRIAL
B4 MIXED USE
RE1 PUBLIC RECREATION
E2 ENVIRONMENTAL CONSERVATION
HERITAGE
SITE

0 25 50 100 200 N

LAND ZONING, HEIGHT AND HERITAGE MAP
NTS

ARTERIAL ROAD
MAIN ROAD
SCHOOL
SHOPS
PUBLIC OPEN SPACE
BUS STOP
SITE

0 25 50 100 200 N

PROXIMITY TO AMENITIES MAP
NTS

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect N. Alvaro 9221
0402 529 840
A Unit 24, 2-8 Darcil Street,
Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

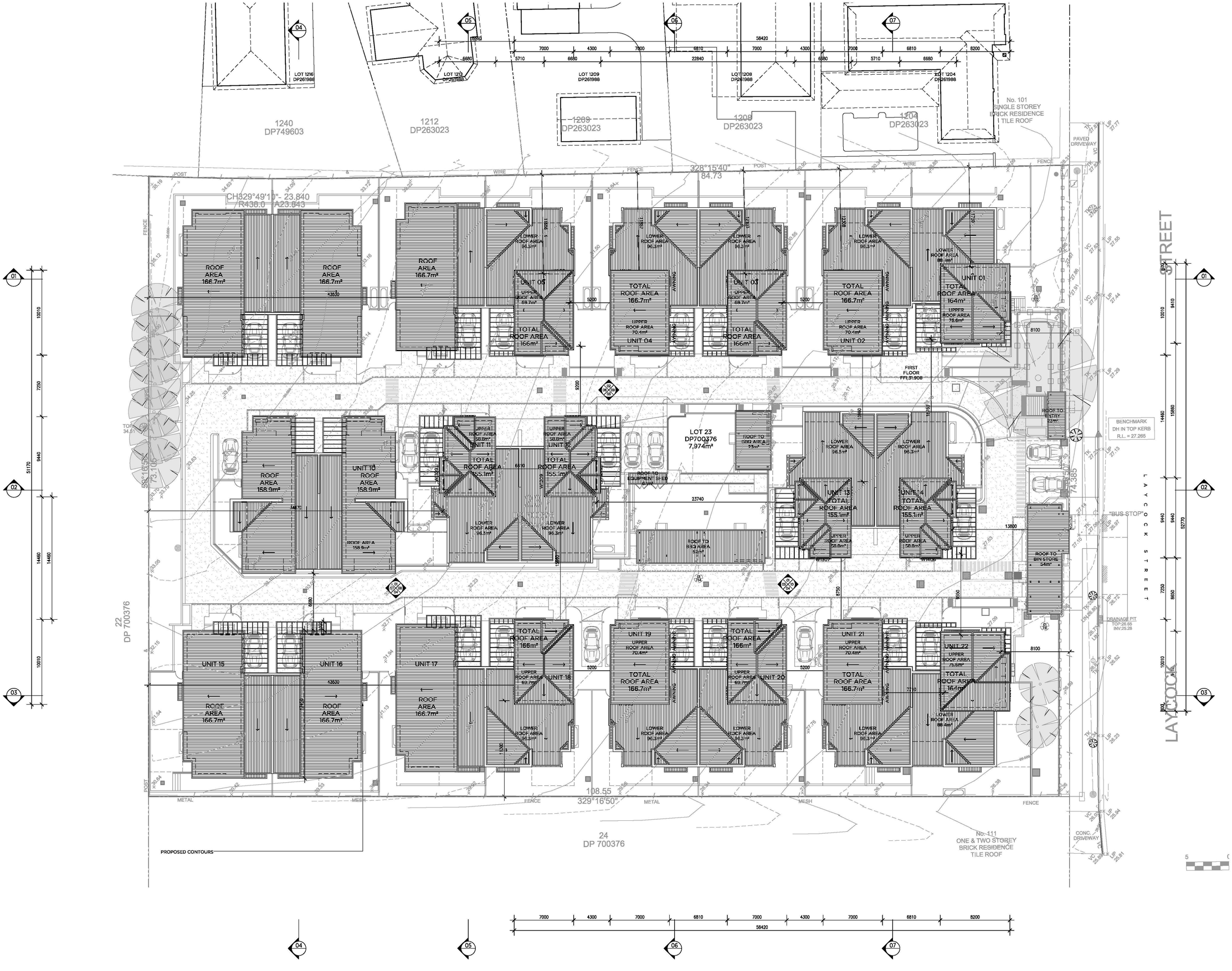
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE	
	EF	CONTEXT MAP	
	CHECKED	SCALE @A2	JOB NUMBER
	RA	NTS	0246
	APPROVED	DRAWING NO.	REV
	RA	DA101	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTE: REFER TO COVER SHEET DA000 FOR FLOOR AREAS

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
Unit 24, 2-8 Daniel Street,
Wetherill Park, NSW 2164
info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

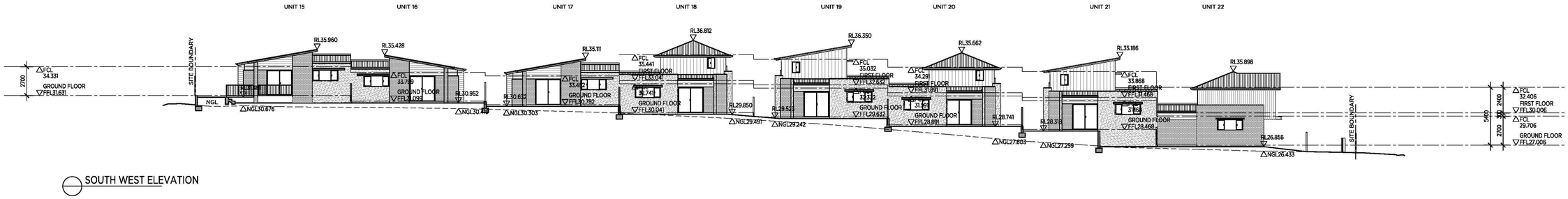
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright * All rights reserved.

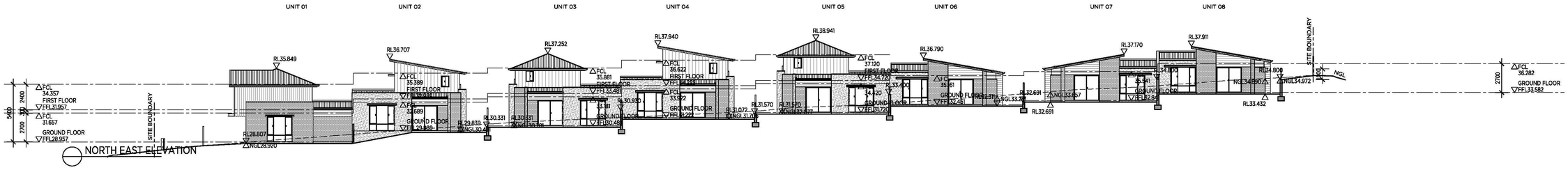
DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SITE PLAN - ROOF
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA104 / 00

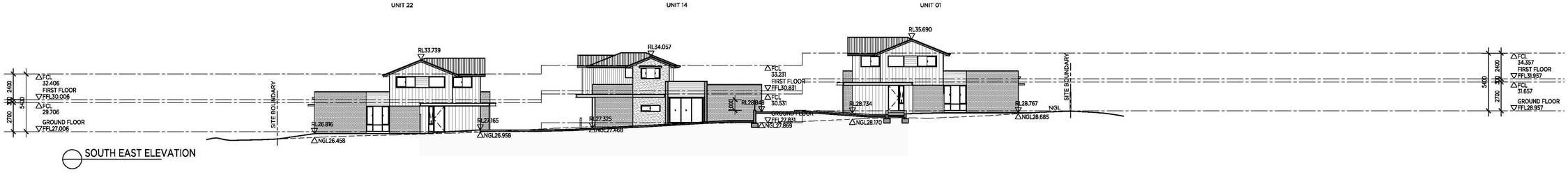
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



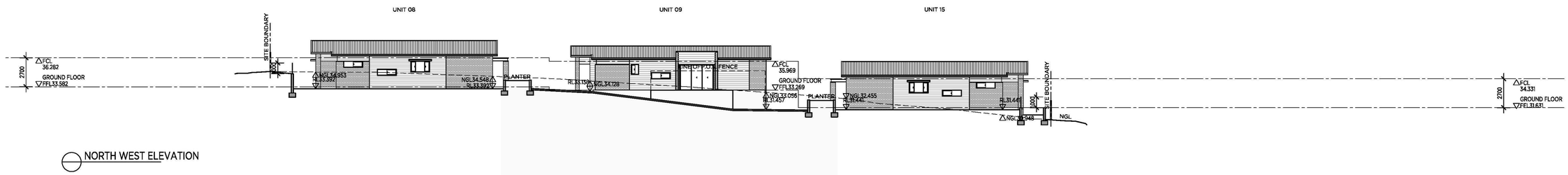
SOUTH WEST ELEVATION



NORTH EAST ELEVATION



SOUTH EAST ELEVATION



NORTH WEST ELEVATION

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG
U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 359
Nom. Architect 9, Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

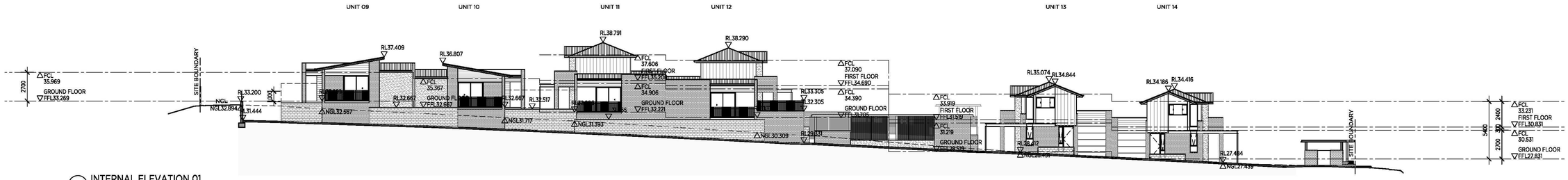
DA ISSUE

DRAWN	DRAWING TITLE
EF	SITE ELEVATIONS

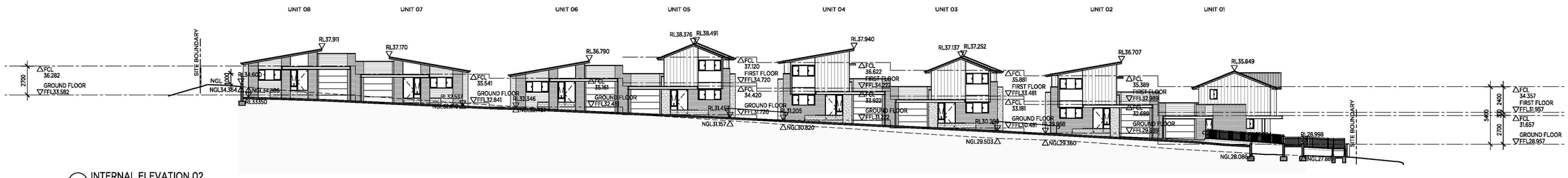
CHECKED	SCALE @A2	JOB NUMBER
RA	1:200	0246
APPROVED	DRAWING NO.	REV
RA	DA303	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

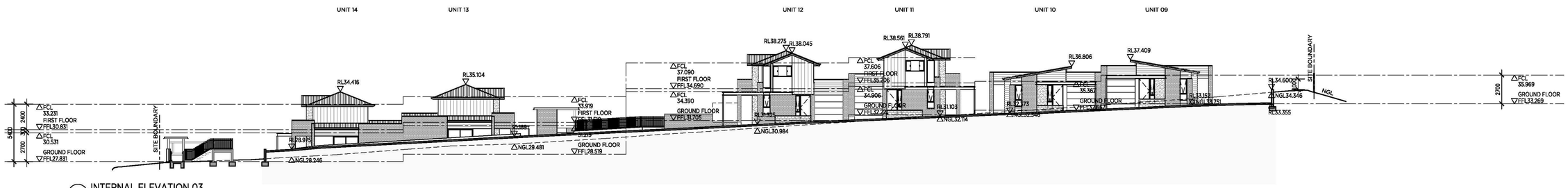
REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



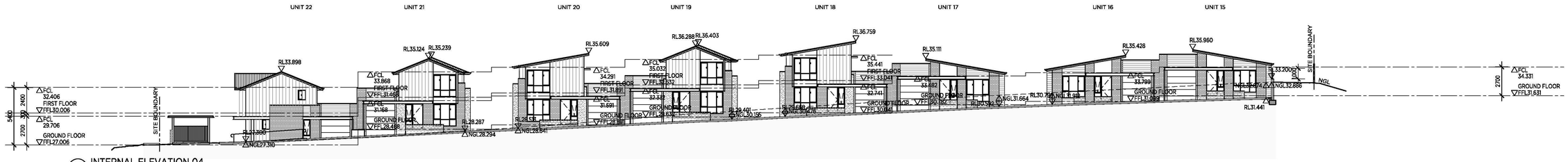
INTERNAL ELEVATION 01



INTERNAL ELEVATION 02



INTERNAL ELEVATION 03



INTERNAL ELEVATION 04

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG
U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 359
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

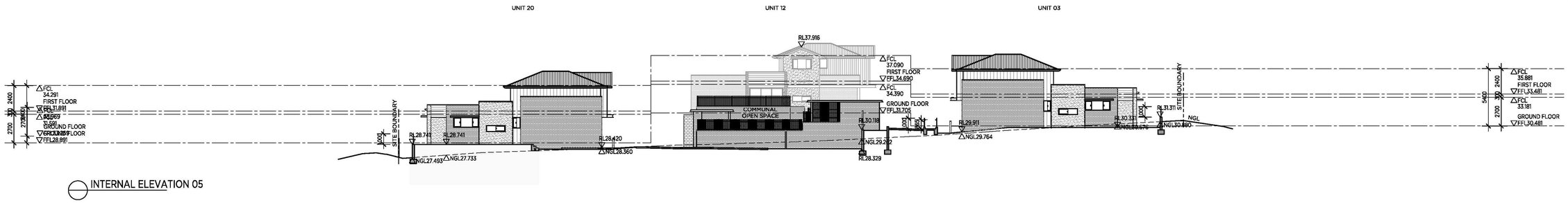
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

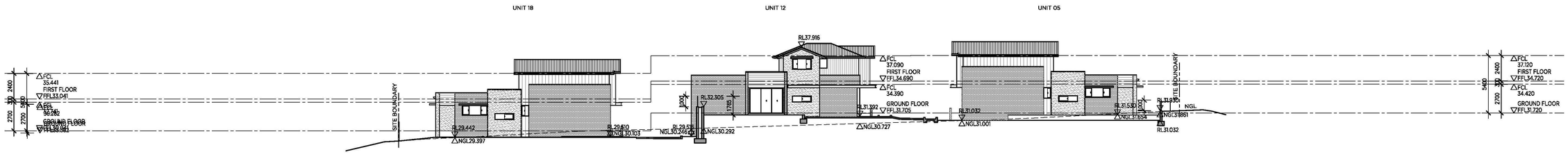
DRAWN	DRAWING TITLE
EF	SITE INTERNAL ELEVATIONS

CHECKED	SCALE @A2	JOB NUMBER
RA	1:200	0246
APPROVED	DRAWING NO.	REV
RA	DA304	00

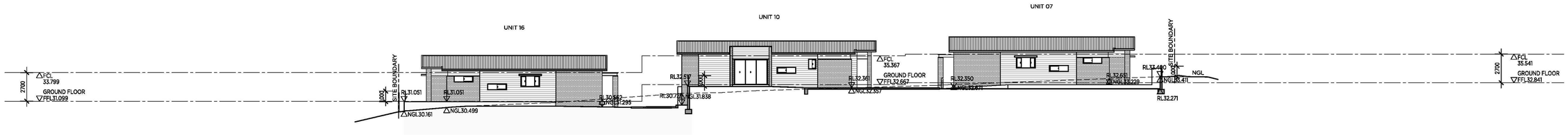
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



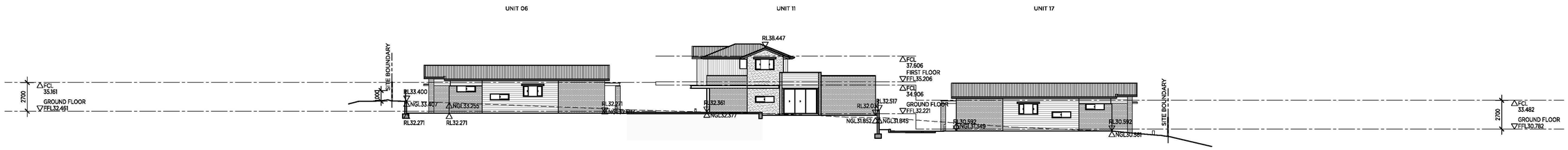
INTERNAL ELEVATION 05



INTERNAL ELEVATION 06



INTERNAL ELEVATION 07



INTERNAL ELEVATION 08

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG
U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
P/B6 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9221
0402 529 840
Unit 24, 2-8 Daniel Street,
Wetherill Park, NSW 2164
info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

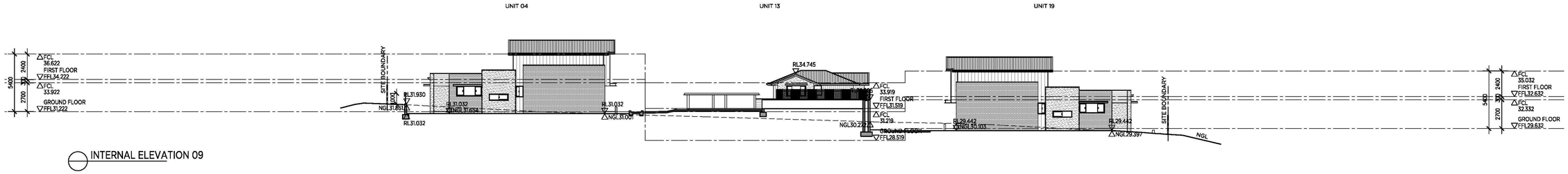
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

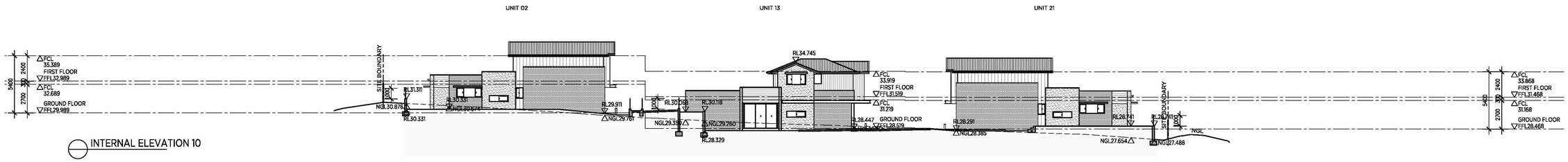
DRAWN	DRAWING TITLE
EF	SITE INTERNAL ELEVATIONS

CHECKED	SCALE @A2	JOB NUMBER
RA	1:200	0245
APPROVED	DRAWING NO.	REV
RA	DA305	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



INTERNAL ELEVATION 09



INTERNAL ELEVATION 10

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573		Assessor # BDAV/13/1521	
Thermal Load & NatHERS Spec			
House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6
Ceiling Insulation: R3.5			
External wall Insulation: R2.0			
Roof type / colour Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)			
External Glazing: ALM-002-01 A: Aluminium B SG U=6.7 SHGC= 0.70			
All External door & window to be weather sealed			
Exhaust fans / Downlights to be sealed (if any)			
Eaves / shading as per drawings			

CLIENT
Greater Western Group (NSW)
P/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect 9, Alvaro 9221
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

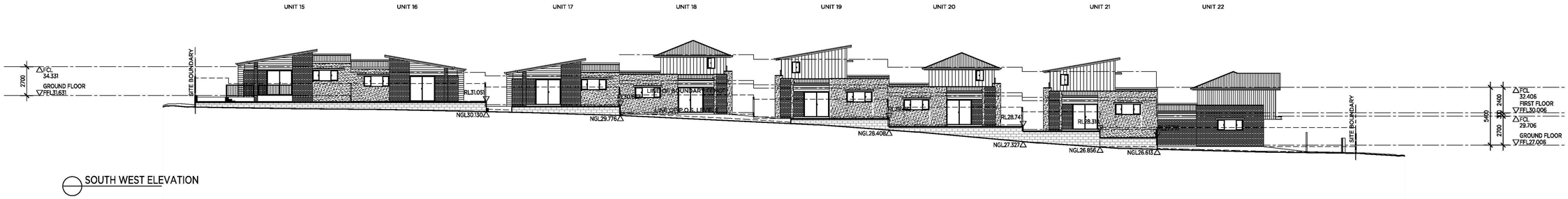
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

DRAWN	DRAWING TITLE
EF	SITE INTERNAL ELEVATIONS
CHECKED	SCALE @A2 / JOB NUMBER
RA	1:200 / 0246
APPROVED	DRAWING NO. / REV
RA	DA306 / 00

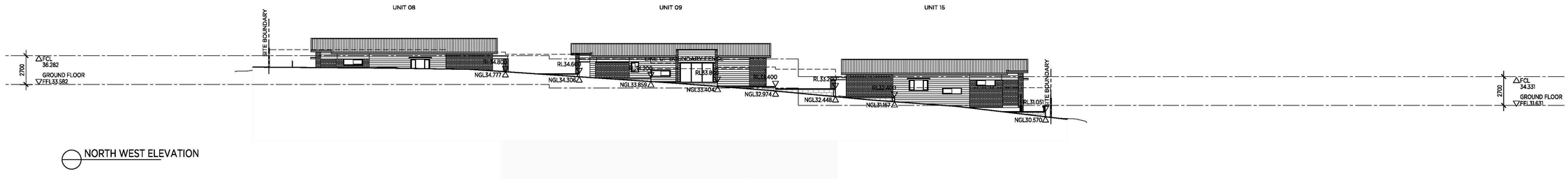
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



SOUTH WEST ELEVATION



NORTH EAST ELEVATION



NORTH WEST ELEVATION

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR I-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing: ALM-002-01 A: Aluminium B SG U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
101-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 359
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

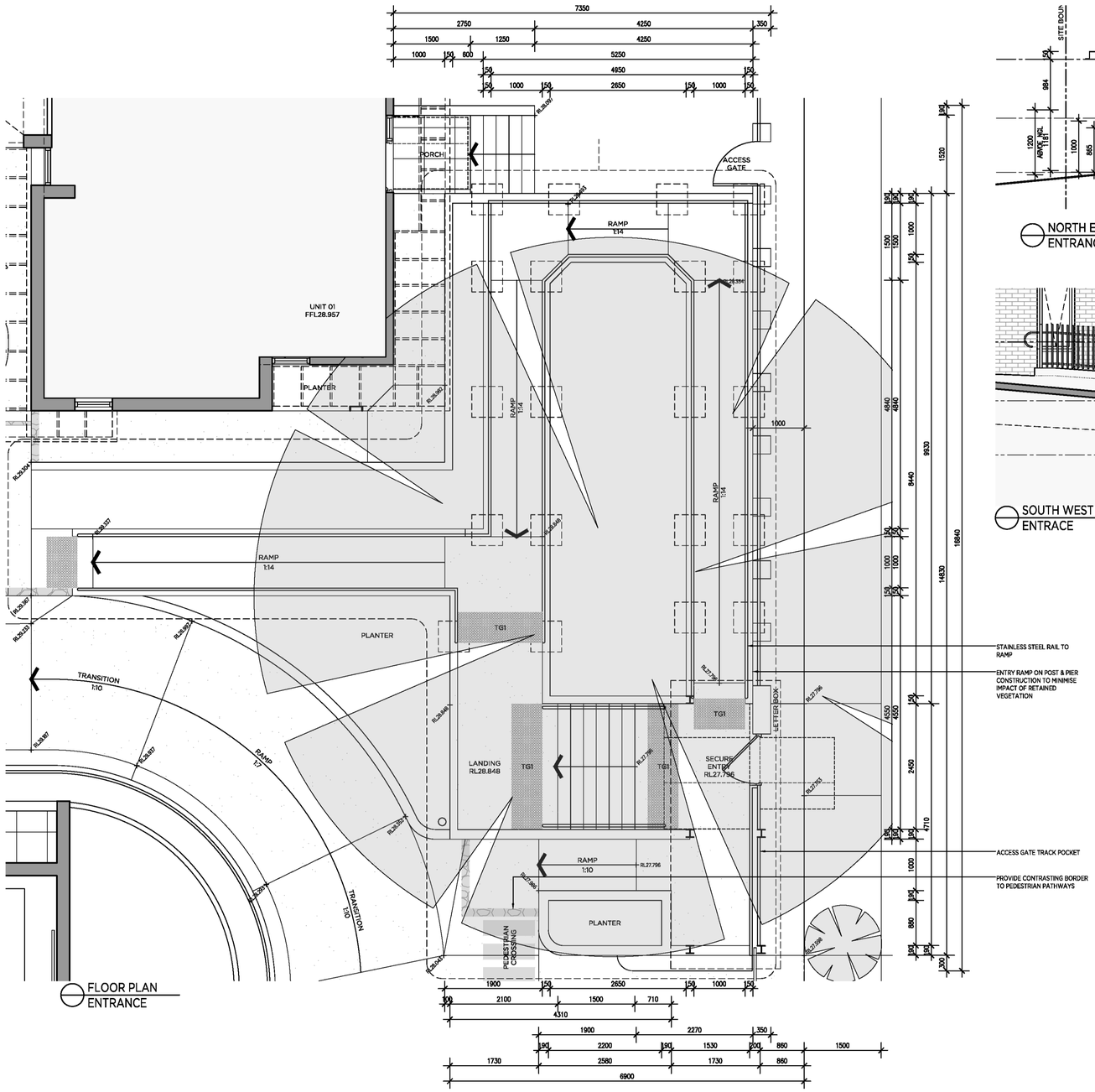
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

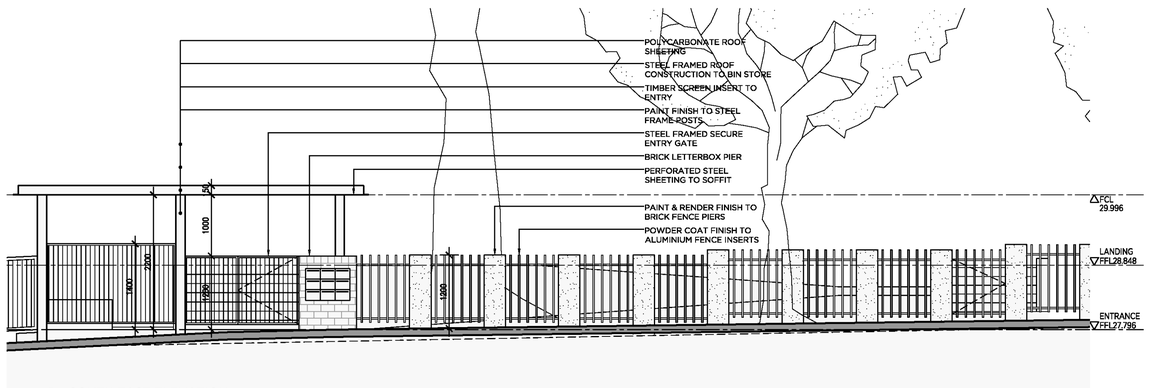
DA ISSUE

DRAWN	DRAWING TITLE
EF	RETAINING WALL & BOUNDARY FENCE ELEVATION
CHECKED	SCALE @A2 / JOB NUMBER
RA	1:200 / 0246
APPROVED	DRAWING NO. / REV
RA	DA307 / 00

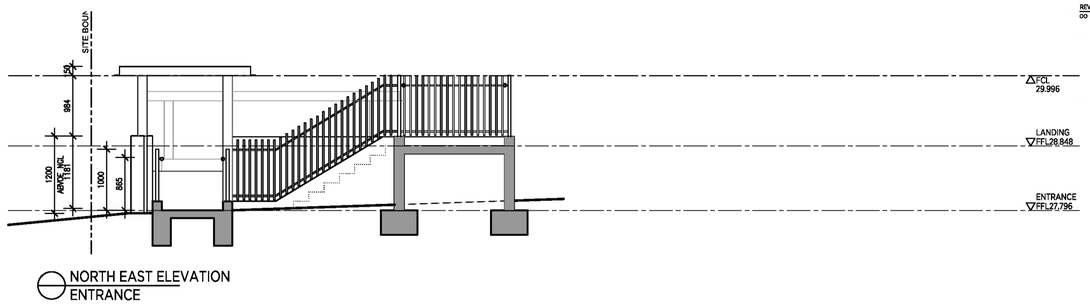
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



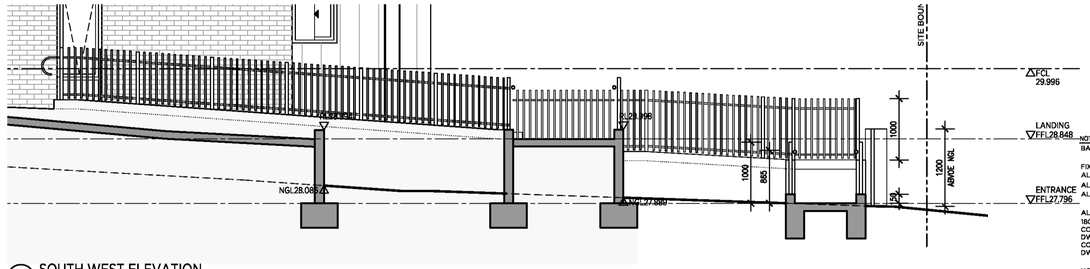
FLOOR PLAN
ENTRANCE



SOUTH EAST ELEVATION
ENTRANCE



NORTH EAST ELEVATION
ENTRANCE



SOUTH WEST ELEVATION
ENTRACE

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 870 309
Nom. Architect N. Alvaro 9221

0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

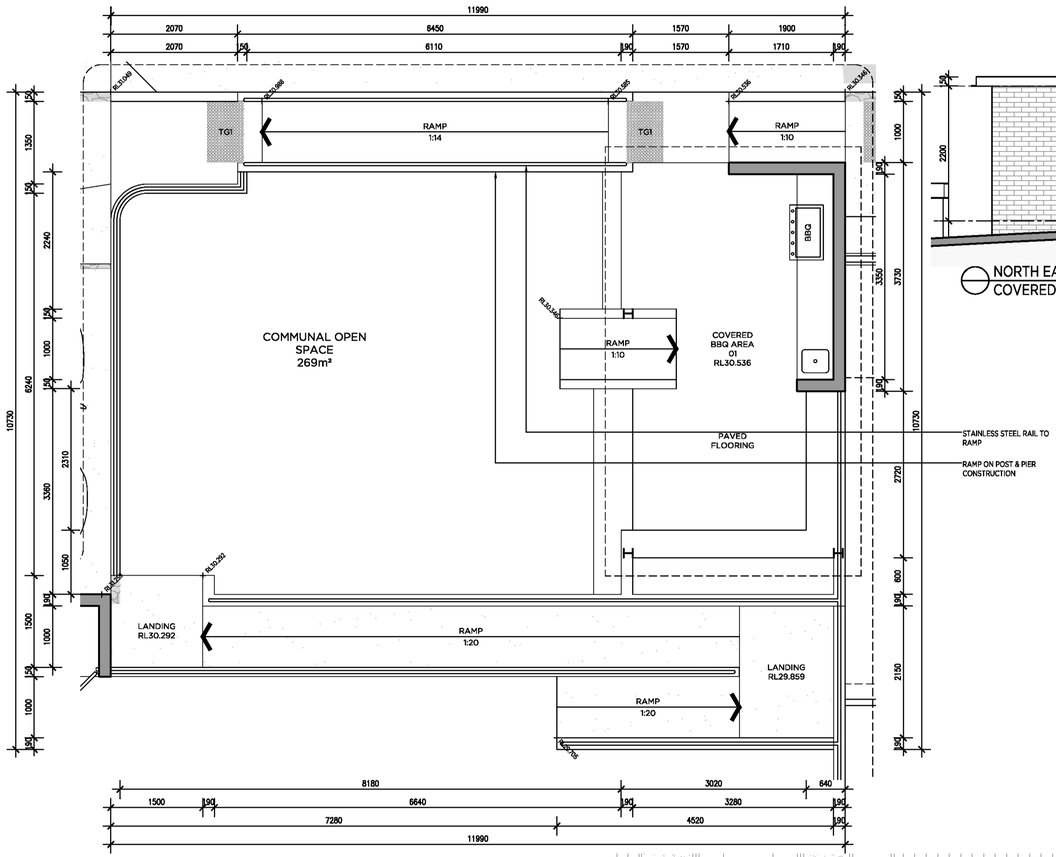
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

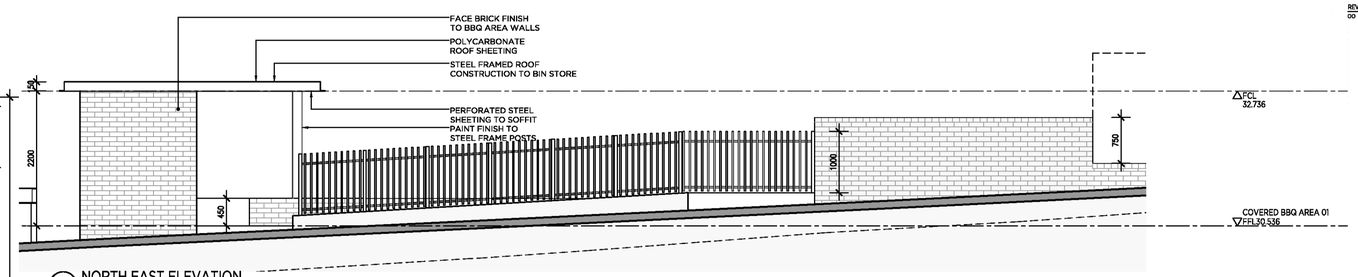
NORTH

DRAWN: EF
DRAWING TITLE: ENTRANCE DETAILS
CHECKED: RA
APPROVED: RA
SCALE @A2: 1:50
DRAWING NO.: DA732
JOB NUMBER: 0246
REV: 00

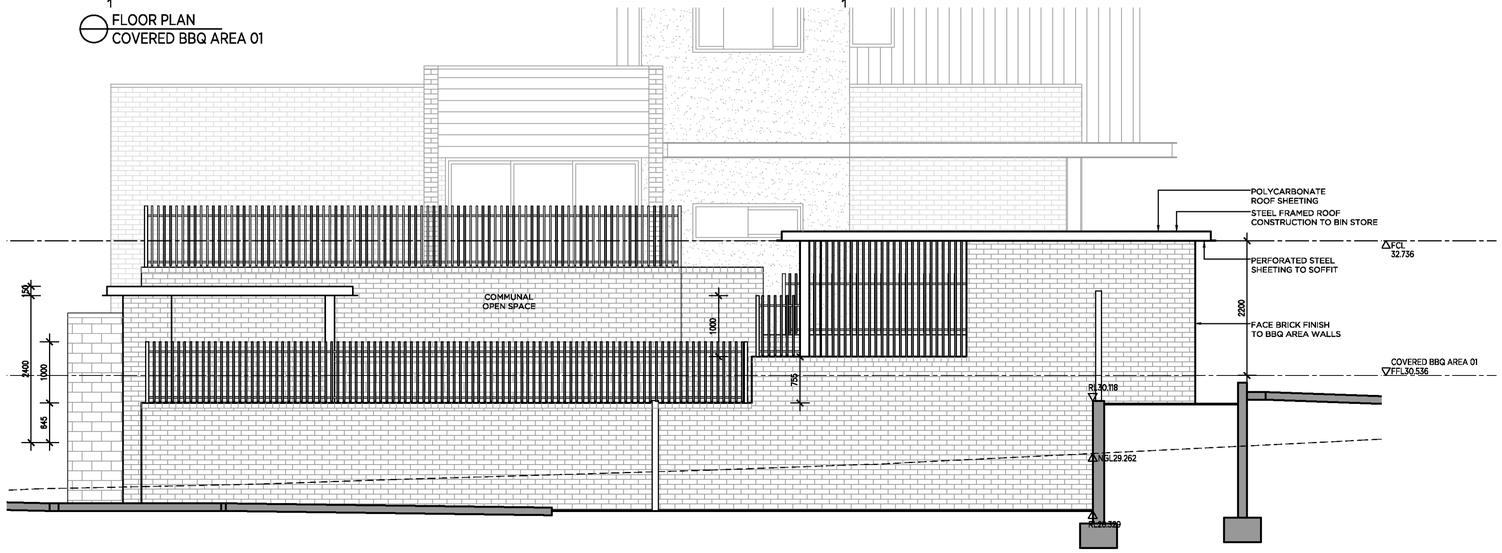
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



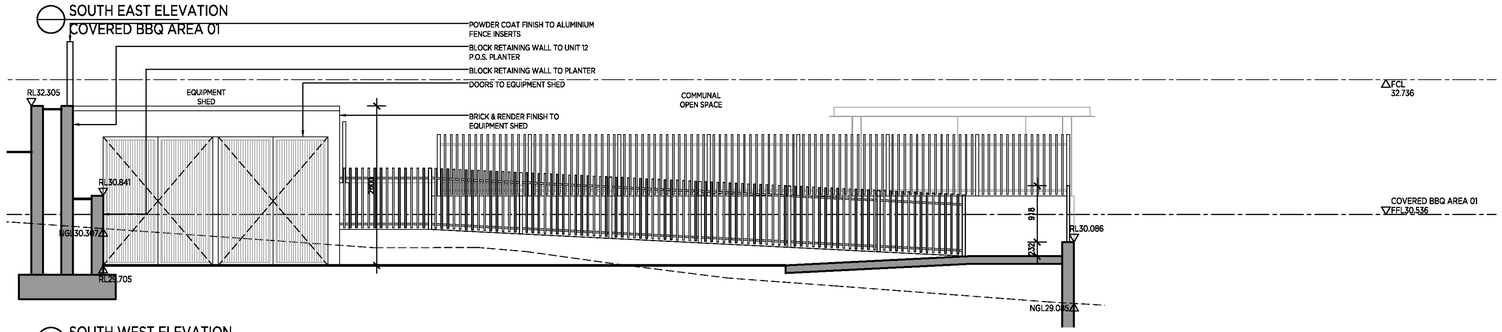
FLOOR PLAN
COVERED BBQ AREA 01



NORTH EAST ELEVATION
COVERED BBQ AREA 01



SOUTH EAST ELEVATION
COVERED BBQ AREA 01



SOUTH WEST ELEVATION
COVERED BBQ AREA 01

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 870 309
Nom. Architect N. Alvaro 9221
0402 529 840
Unit 24, 2-8 Daniel Street,
Wetherill Park, NSW 2164
info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

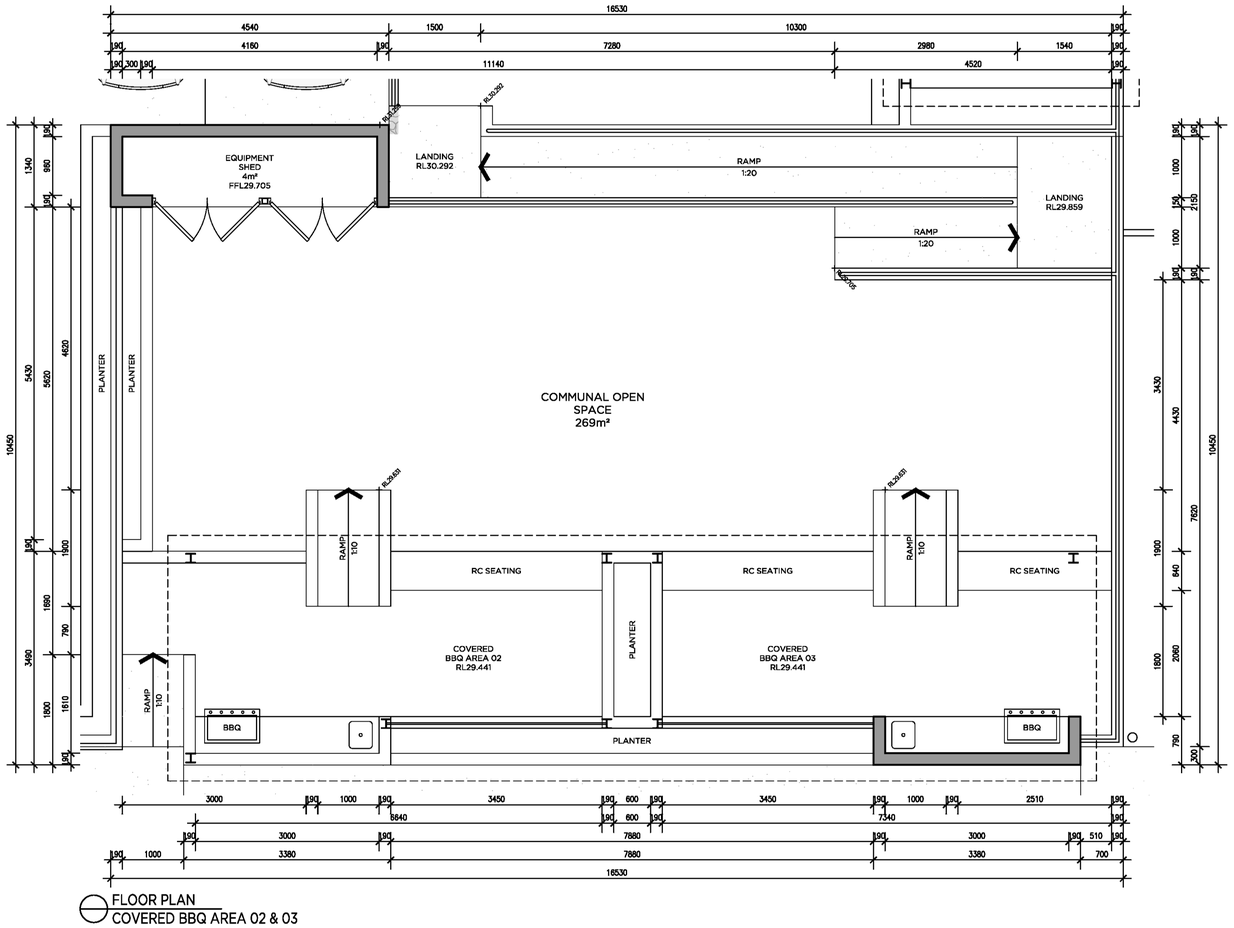
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	COVERED BBQ AREA 01 DETAILS
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:50 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA733 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



FLOOR PLAN
COVERED BBQ AREA 02 & 03

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 302
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

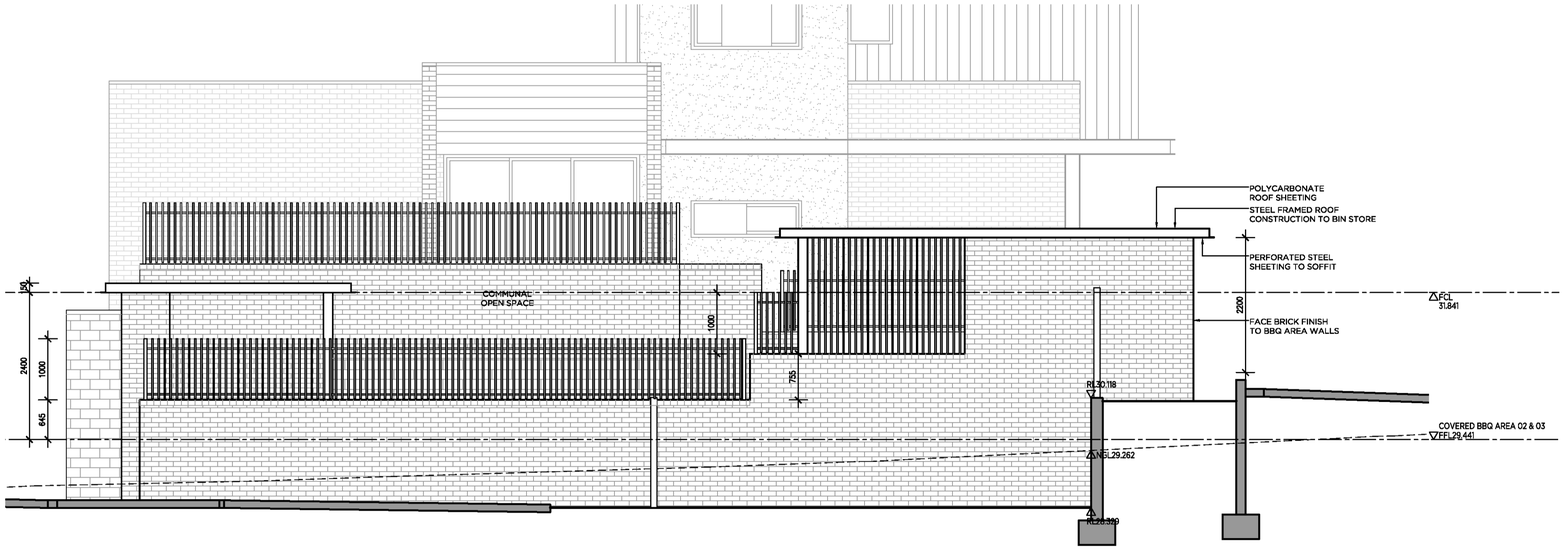
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

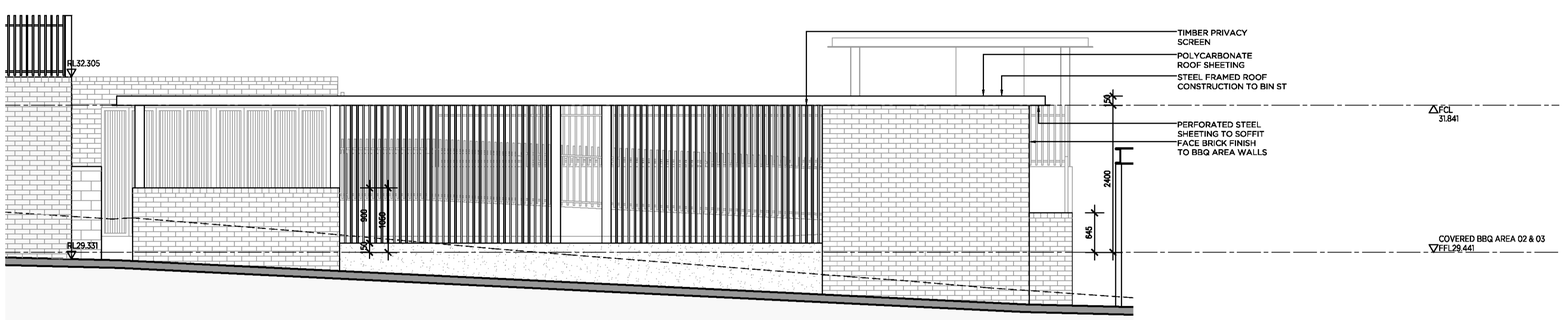
DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	COVERED BBQ AREA 02 & 03 DETAILS - FLOOR PLAN
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:50 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA734 / 00

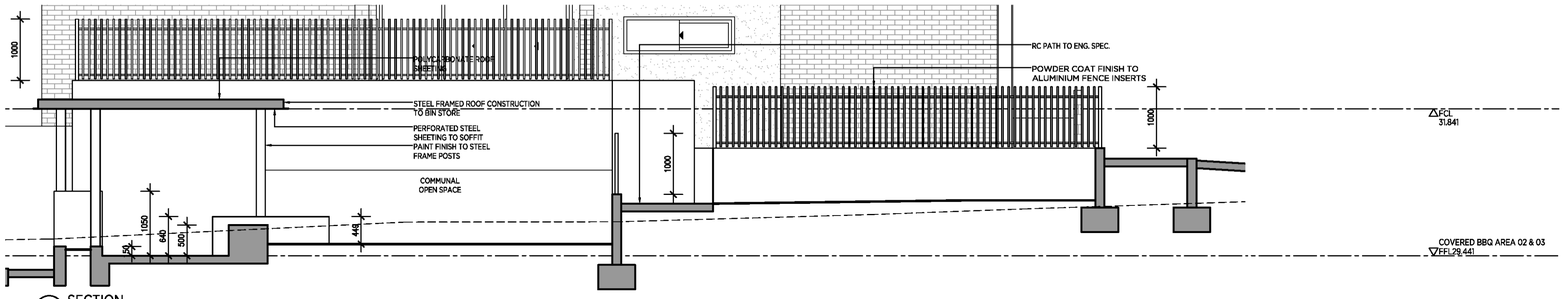
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



SOUTH EAST ELEVATION
COVERED BBQ AREA 02 & 03



SOUTH WEST ELEVATION
COVERED BBQ AREA 02 & 03



SECTION
COVERED BBQ AREA 02 & 03

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect 9, Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

	DRAWN	DRAWING TITLE
	EF	COVERED BBQ AREA 02 & 03 DETAILS - ELEVATIONS
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:50 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA735 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988
LOT 1213 DP261988
LOT 1209 DP261988
LOT 1208 DP261988
LOT 1204 DP261988

1240 DP749603
1212 DP263023
1209 DP263023
1208 DP263023
1204 DP263023

No. 101 SINGLE STOREY BRICK RESIDENCE TILE ROOF

STREET

POST
WIRE
FENCE
328°15'40" 84.73
CH329°49'10" 23.840 R438.0 A23.643
POST
WIRE
FENCE

PAVED DRIVEWAY

VEGETATION TO BE RETAINED SUBJECT TO ARBORISTS RECOMMENDATIONS

VEGETATION TO BE REMOVED SUBJECT TO ARBORISTS RECOMMENDATIONS

STRUCTURES TO BE DEMOLISHED SHOWN RED

TOP 34.51
FENCE
WIRE
59°16'50" 73.105

GT 35.71
RIDGE 37.48
No. 103-109 SINGLE STOREY BRICK RESIDENCE TILE ROOF
METAL AWNING
CONCRETE
RIDGE 37.5
RIDGE 37.3
RIDGE 33.34

23 DP 700376 7974m²

LOT 23 DP700376 7.974m²

DRIVEWAY

GRAVEL

59°16'50" 74.385

"BUS STOP"

LAYCOCK STREET

BENCHMARK
DH IN TOP KERB
R.L. = 27.265

DRAINAGE PIT
TOP:26.65
INV:25.28

22 DP 700376

BBQ

POST
METAL
MESH
FENCE
108.55
329°16'50"
METAL
MESH
FENCE

24 DP 700376

No. 111 ONE & TWO STOREY BRICK RESIDENCE TILE ROOF

CONC. DRIVEWAY

EXISTING RAISED SITEWORKS TO BE LEVELLED
EXISTING CONTOURS SHOWN RED
PROPOSED CONTOURS

LAYCOCK

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

COLOUR	HEIGHT (mm)
	1250
	1000
	750
	500
	250

PROPOSED CUT

CLIENT	PROJECT ADDRESS
Greater Western Group (NSW)	103-109 Laycock Street
9/86 Henry Street,	Cranebrook 2749
Penrith NSW 2750	

ALVARO ARCHITECTS PTY LTD
ABN 71 604 570 309
Nom. Architect 9, Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

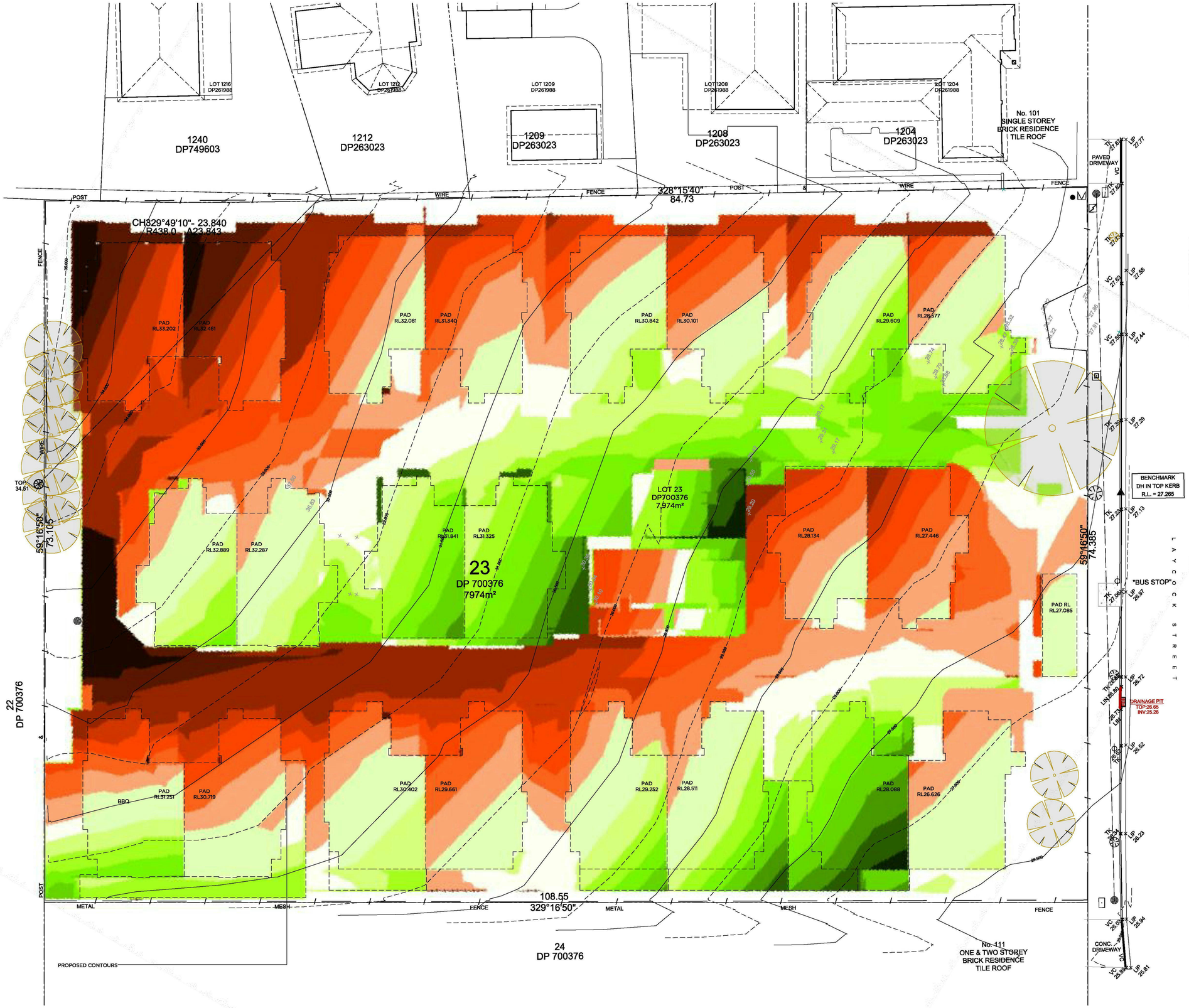
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	DEMOLITION PLAN & PRELIMINARY SITE WORKS
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA402 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

COLOUR	HEIGHT (mm)	% OF SITE AREA AFFECTED	ESTIMATED VOLUME - CUT (M3)	ESTIMATED VOLUME - FILL (M3)
	-1200	2%	236.52	
	-1000	6%	469.80	
	-800	4%	258.64	
	-600	6%	307.26	
	-400	9%	286.24	
	-200	17%	268.66	
	+200	15%		238.76
	+400	6%		202.60
	+600	7%		308.26
	+800	6%		361.36
	+1000	3%		204.10
	+1200	1.39%		133.44
	+1400	0.88%		98.70
	+1600	0.20%		25.12
		TOTAL (M3)	1827.12	1622.34
		TOTAL EARTHWORKS REMOVED FROM SITE (M3)		204.78

CUT/FILL TABLE

CLIENT
Greater Western Group (NSW)
P/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect N. Alvaro 8021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	CUT & FILL PLAN

CHECKED	SCALE @A2	JOB NUMBER
RA	1:200	0246
APPROVED	DRAWING NO.	REV
RA	DA403	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

UNIT 01

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W101	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	3155	0	300
W102	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SW	600	0	300
W103	OPAQUE AWNING WINDOW	730	944	0.69	PERGOLA ABOVE	SW	900	0	1456
W104	AWNING WINDOW	500	2400	1.20	UPPER FLOOR OVERHANG & PERGOLA	SE	1100	0	0
W105	AWNING WINDOW	2170	2400	5.21	PERGOLA ABOVE	SE	0	N/A	0
W106	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W107	OPAQUE AWNING WINDOW	730	944	0.69		SW	600	0	1156
W108	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W109	FIXED WNDOW	1500	1030	1.55		SE	1050	0	1070
W110	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W111	SLIDING WINDOW	1810	1030	1.86		NW	600	0	1070
D101	GLAZED SLIDING DOOR	2410	2400	5.78	COVERED	NW	0	3640	0

UNIT 02

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W201	SLIDING WINDOW	2170	1030	2.24	UPPER FLOOR OVERHANG	SW	500	0	1370
W202	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA	SW	1800	0	0
W203	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	3405	0	300
W204	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W205	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	NW	450	0	1456
W206	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W207	OPAQUE AWNING WINDOW	730	944	0.69		NW	600	3320	1456
W208	SLIDING WINDOW	2170	1030	2.24		SW	1200	0	1070
W209	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1070
W210	FIXED WINDOW	730	1030	0.75	AWNING ABOVE	SE	600	0	1070
W211	OPAQUE SLIDING WINDOW	730	1030	0.75		NE	600	MIN 400 MAX 530	1070
W212	AWNING WINDOW	730	2100	1.53	AWNING ABOVE	SE	600	0	0
D201	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1800	0	0

UNIT 03

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W301	AWNING WINDOW	730	1030	0.75	PERGOLA ABOVE	NW	3405	0	1370
W302	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA	SW	1800	0	0
W303	SLIDING WINDOW	2170	1030	2.24	UPPER FLOOR OVERHANG	SW	500	0	1370
W304	OPAQUE AWNING WINDOW	730	944	0.69		SE	600	3320	1456
W305	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W306	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SE	450	0	1456
W307	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W308	SLIDING WINDOW	2170	1030	2.24		SW	1200	0	1070
W309	OPAQUE SLIDING WINDOW	730	1030	0.75		NE	600	0	1070
W310	FIXED WINDOW	730	944	0.69	AWNING ABOVE	NW	600	0	1156
W311	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1070
W312	AWNING WINDOW	730	2100	1.53		NW	600	0	0
D301	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1800	0	0

UNIT 04

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W401	SLIDING WINDOW	2170	1030	2.24	UPPER FLOOR OVERHANG	SW	500	0	1370
W402	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA	SW	1800	0	0
W403	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	3405	0	300
W404	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W405	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	NW	450	0	1456
W406	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W407	OPAQUE AWNING WINDOW	730	944	0.69		NW	600	3320	1456
W408	SLIDING WINDOW	2170	1030	2.24		SW	1200	0	1070
W409	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1070
W410	FIXED WINDOW	730	1030	0.75	AWNING ABOVE	SE	600	0	1070
W411	OPAQUE SLIDING WINDOW	730	1030	0.75		NE	600	MIN 400 MAX 530	1070
W412	AWNING WINDOW	730	2100	1.53	AWNING ABOVE	SE	600	0	0
D401	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1800	0	0

UNIT 05

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W501	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	3405	0	300
W502	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA	SW	1800	0	0
W503	SLIDING WINDOW	2170	1030	2.24	UPPER FLOOR OVERHANG	SW	500	0	1370
W504	OPAQUE AWNING WINDOW	730	944	0.69		SE	600	3320	1456
W505	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W506	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SE	450	0	1456
W507	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W508	SLIDING WINDOW	2170	1030	2.24		SW	1200	0	1070
W509	OPAQUE SLIDING WINDOW	730	1030	0.75		NE	600	0	1070
W510	FIXED WINDOW	730	944	0.69	AWNING ABOVE	NW	600	0	1156
W511	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1070
W512	AWNING WINDOW	730	2100	1.53		NW	600	0	0
D501	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1800	0	0

UNIT 06

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W601	SLIDING WINDOW	2170	1030	2.24		SW	450	MIN 680 MAX 1070	1370
W602	AWNING WINDOW	660	2400	1.58	COVEER & PERGOLA ABOVE	SW	2170	0	0
W603	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	3305	0	300
W604	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W605	SLIDING WINDOW	1810	600	1.09		NW	650	465	1800
W606	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W607	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1370
D601	GLAZED SLIDING DOOR	2410	2400	5.78		NE	2520	0	0

UNIT 07

		SIZE (mm)					EAVE (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W701	AWNING WINDOW	660	2400	1.58	COVERED & PERGOLA ABOVE	SW	2170	0	0
W702	SLIDING WINDOW	2170	1030	2.24		SW	600	MIN 680 MAX 1070	1370
W703	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1370
W704	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W705	SLIDING WINDOW	1810	600	1.09		SE	650	465	1800
W706	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W707	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	3305	0	300
D701	GLAZED SLIDING DOOR	2410	2400	5.78		NE	2520	0	0

UNIT 08

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W801	SLIDING WINDOW	2170	1030	2.24		SW	600	MIN 680 MAX 1070	1370
W802	AWNING WINDOW	660	2400	1.58	PERGOLA ABOVE	SW	1300	MIN 1380 MAX 1260	0
W803	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	500	1650	300
W804	AWNING WINDOW	2410	2400	5.78	AWNING ABOVE	NE	600	0	0
W805	SLIDING WINDOW	1810	600	1.09		NW	650	465	1800
W806	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W807	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1370
D801	GLAZED SLIDING DOOR	2410	2400	5.78		NE	2520	0	0

UNIT 09

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W902	AWNING WINDOW	730	2100	1.53	COVERED BY UPPER FLOOR	NW	N/A	N/A	300
W903	AWNING WINDOW	500	2400	1.20		NE	2400	0	0
W904	AWNING WINDOW	730	2100	1.53		NE	600	MIN 610 MAX 720	300
W905	OPAQUE AWNING WINDOW	730	944	0.69		NW	0	N/A	1456
W906	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
D901	GLAZED SLIDING DOOR	3200	2400	7.68		NW	1980	0	0
D902	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1870	0	0

UNIT 10

		SIZE (mm)					EAVE (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1001	AWNING WINDOW	730	2100	1.53	COVERED BY UPPER FLOOR	SE	N/A	N/A	300
W1003	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W1004	OPAQUE AWNING WINDOW	730	944	0.69		SE	0	N/A	1456
W1005	AWNING WINDOW	730	2100	1.53		NE	600	MIN 610 MAX 720	300
W1006	AWNING WINDOW	500	2400	1.20		NE	2400	0	0
D1001	GLAZED SLIDING DOOR	3200	2400	7.68		SE	1980	0	0
D1002	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1870	0	0

UNIT 11

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1102	AWNING WINDOW	730	2100	1.53	COVERED BY UPPER FLOOR	SE	N/A	N/A	300
W1103	AWNING WINDOW	470	2400	1.13		NE	1500	0	0
W1104	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NE	1550	0	300
W1105	SLIDING WINDOW	1810	600	1.09	PERGOLA ABOVE	NW	2790	750	1050
W1106	OPAQUE AWNING WINDOW	730	944	0.69		SE	600	0	1156
W1107	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NE	600	0	1070
W1108	FIXED WINDOW	730	2100	1.53		NE	600	0	0
W1109	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1070
W1110	FIXED WINDOW	730	944	0.69		NW	600	0	1156
D1101	GLAZED SLIDING DOOR	3200	2400	7.68		NW	1880	0	0
D1102	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1870	0	0

UNIT 12

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1201	AWNING WINDOW	730	2100	1.53	COVERED BY UPPER FLOOR	SE	N/A	N/A	300
W1203	SLIDING WINDOW	1810	600	1.09	PERGOLA ABOVE	SE	2790	750	1050
W1204	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	1550	0	300
W1205	AWNING WINDOW	470	2400	1.13		NE	1500	0	0
W1206	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1070
W1207	FIXED WINDOW	730	2100	1.53		NE	600	0	0
W1208	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NE	600	0	1070
W1209	OPAQUE AWNING WINDOW	730	944	0.69		NW	600	0	1156
W1210	FIXED WINDOW	730	944	0.69		SE	600	0	1156
D1201	GLAZED SLIDING DOOR	3200	2400	7.68		SE	1880	0	0
D1202	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1870	0	0

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE: TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212572 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG
U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9221
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

DRAWN	DRAWING TITLE
EF	WINDOW SCHEDULE - UNITS 01 -12
CHECKED	SCALE @A2 / JOB NUMBER
RA	NTS / 0246
APPROVED	DRAWING NO. / REV
RA	501 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

UNIT 13

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1301	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SW	1550	0	300
W1302	AWNING WINDOW	470	2400	1.13		SW	1500	0	0
W1303	AWNING WINDOW	730	2100	1.53	COVERED BY UPPER FLOOR	NW	N/A	N/A	300
W1305	SLIDING WINDOW	1810	600	1.09	PERGOLA ABOVE	NW	2790	750	1050
W1306	FIXED WINDOW	730	2100	1.53		SW	600	0	0
W1307	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SW	600	0	1070
W1308	OPAQUE AWNING WINDOW	730	944	0.69		SE	600	0	1156
W1309	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1070
W1310	FIXED WINDOW	730	944	0.69		NW	600	0	1156
D1301	GLAZED SLIDING DOOR	3200	2400	7.68		NW	1880	0	0
D1302	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1870	0	0

UNIT 14

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1401	AWNING WINDOW	470	2400	1.13		SW	1500	0	0
W1402	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SW	1550	0	300
W1403	SLIDING WINDOW	1810	600	1.09	PERGOLA ABOVE	SE	2790	0	1050
W1405	AWNING WINDOW	730	2100	1.53	COVERED	SE	0	N/A	300
W1406	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SW	600	0	1070
W1407	FIXED WINDOW	730	2100	1.53		SW	600	0	0
W1408	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W1409	OPAQUE AWNING WINDOW	730	944	0.69	AWNING ABOVE	NW	600	0	1156
W1410	FIXED WINDOW	730	944	0.69		SE	600	0	1156
D1401	GLAZED SLIDING DOOR	3200	2400	7.68		SE	1880	0	0
D1402	GLAZED SLIDING DOOR	2410	2400	5.78		NE	1870	0	0

UNIT 15

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1501	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W1502	AWNING WINDOW	730	2100	1.53	'	SE	3155	0	300
W1503	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	NE	1470	0	0
W1504	SLIDING WINDOW	2170	1030	2.24		NE	600	MIN 680 MAX 1070	1370
W1505	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1370
W1506	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W1507	SLIDING WINDOW	1810	600	1.09		NW	650	575	1800
D1501	GLAZED SLIDING DOOR	2410	2400	5.78		SW	2520	0	0

UNIT 16

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1601	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W1602	SLIDING WINDOW	1810	600	1.09		SE	650	575	1800
W1603	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W1604	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1370
W1605	SLIDING WINDOW	2170	1030	2.24		NE	600	MIN 680 MAX 1070	1370
W1606	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	NE	1470	0	0
W1607	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	3155	0	300
D1601	GLAZED SLIDING DOOR	2410	2400	5.78		SW	2520	0	0

UNIT 17

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1701	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W1702	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	3155	0	300
W1703	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	NE	1470	0	0
W1704	SLIDING WINDOW	2170	1030	2.24		NE	600	MIN 680 MAX 1070	1370
W1705	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	NW	600	0	1370
W1706	SLIDING WINDOW	1810	600	1.09		NW	0	N/A	1050
W1707	SLIDING WINDOW	1810	600	1.09		NW	650	575	1800
D1701	GLAZED SLIDING DOOR	2410	2400	5.78		SW	2520	0	0

UNIT 18

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1801	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W1802	SLIDING WINDOW	2410	944	2.28		SE	600	4390	1456
W1803	SLIDING WINDOW	1810	600	1.09		SE	1135	0	1050
W1804	OPAQUE AWNING WINDOW	730	1030	0.75		SE	500	2890	1370
W1805	AWNING WINDOW	2170	2400	5.21	UPPER FLOOR OVERHANG	NE	500	0	0
W1806	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	NE	1800	0	0
W1807	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	450	0	300
W1808	OPAQUE SLIDING WINDOW	730	1030	0.75	AWNING ABOVE	SW	600	MIN 615 MAX 750	1070
W1809	SLIDING WINDOW	2170	2100	4.56	AWNING ABOVE	NE	2100	0	0
W1810	SLIDING WINDOW	1810	1030	1.86		NW	600	0	1070
W1811	FIXED WINDOW	730	944	0.69		NW	600	0	1156
W1812	SLIDING WINDOW	730	1030	0.75		NW	600	0	1070
D1801	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1800	0	0

UNIT 19

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W1901	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W1902	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	600	0	300
W1903	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	SE	1800	0	0
W1904	AWNING WINDOW	2170	2400	5.21	UPPER FLOOR OVERHANG	SE	500	0	0
W1905	OPAQUE AWNING WINDOW	730	1030	0.75		NE	500	2890	1370
W1906	SLIDING WINDOW	1810	600	1.09		NE	0	N/A	1050
W1907	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	NW	450	0	1456
W1908	OPAQUE SLIDING WINDOW	730	1030	0.75		SW	600	MIN 400 MAX 530	1070
W1909	FIXED WINDOW	730	1030	0.75		SE	600	0	1070
W1910	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W1911	SLIDING WINDOW	2170	2100	4.56		NE	1200	0	0
W1912	SLIDING WINDOW	730	1030	0.75	AWNING ABOVE	SE	600	0	1070
D1901	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1800	0	0

UNIT 20

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W2001	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W2002	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SE	450	0	1456
W2003	SLIDING WINDOW	1810	600	1.09		SE	0	N/A	1050
W2004	OPAQUE AWNING WINDOW	730	1030	0.75		SE	500	2890	1370
W2005	AWNING WINDOW	2170	2400	5.21		NE	500	0	0
W2006	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	NE	1800	0	0
W2007	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	600	0	300
W2008	OPAQUE SLIDING WINDOW	730	1030	0.75		SW	600	0	1070
W2009	SLIDING WINDOW	2170	2100	4.56		NE	1200	0	0
W2010	SLIDING WINDOW	1810	1030	1.86		NW	600	0	1070
W2011	FIXED WINDOW	730	944	0.69		NW	600	0	1156
W2012	SLIDING WINDOW	730	1030	0.75		NW	600	0	1070
D2001	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1800	0	0

UNIT 21

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W2101	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W2102	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	SE	3155	0	300
W2103	AWNING WINDOW	660	2400	1.58	UPPER FLOOR OVERHANG & PERGOLA ABOVE	SE	1800	0	0
W2104	AWNING WINDOW	2170	2400	5.21		SE	500	0	0
W2105	OPAQUE AWNING WINDOW	730	1030	0.75		NE	500	2890	1370
W2106	SLIDING WINDOW	1810	600	1.09		NE	0	N/A	1050
W2107	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	NW	450	0	1456
W2108	OPAQUE SLIDING WINDOW	730	1030	0.75		SW	600	MIN 400 MAX 530	1070
W2109	FIXED WINDOW	730	1030	0.75	AWNING ABOVE	SE	600	0	1070
W2110	SLIDING WINDOW	1810	1030	1.86	AWNING ABOVE	SE	600	0	1070
W2111	SLIDING WINDOW	2170	2100	4.56		NE	1200	0	0
W2112	SLIDING WINDOW	730	1030	0.75	AWNING ABOVE	SE	600	0	1070
D2101	GLAZED SLIDING DOOR	2410	2400	5.78		SW	1800	0	0

UNIT 22

		SIZE (mm)					EAVE/PERGOLA/AWNING (mm)		
No.	STYLE	WIDTH	HEIGHT	AREA(m²)	REMARKS	ORIENTATION	WIDTH (INCL. GUTTER)	HEIGHT ABOVE WINDOW	WINDOW SILL HEIGHT
W2201	SLIDING WINDOW	2410	944	2.28	AWNING ABOVE	SW	600	0	1456
W2202	AWNING WINDOW	2170	2400	5.21	PERGOLA ABOVE	SE	0	N/A	0
W2203	AWNING WINDOW	500	2400	1.20	UPPER FLOOR OVERHANG & PERGOLA ABOVE	SE	1100	0	0
W2204	OPAQUE AWNING WINDOW	730	944	0.69	PERGOLA ABOVE	NE	900	0	1456
W2205	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NE	600	0	300
W2206	AWNING WINDOW	730	2100	1.53	PERGOLA ABOVE	NW	3155	0	300
W2207	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W2208	FIXED WINDOW	1500	1030	1.55		SE	1200	0	1070
W2209	SLIDING WINDOW	1810	1030	1.86		SE	600	0	1070
W2210	OPAQUE SLIDING WINDOW	730	944	0.69		NE	600	0	1156
W2211	SLIDING WINDOW	1810	1030	1.86		NW	600	0	1070
D2201	GLAZED SLIDING DOOR	2410	2400	5.78	COVERED	NW	0	N/A	0

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
NOTE TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

Assessor Certificate # 15212573 Assessor # BDAV/13/1521

Thermal Load & NatHERS Spec

House no.	Heating load MJ/m2/yr	Cooling load MJ/m2/yr	Star Rating
Unit-1	53	35	5.4
Unit-2	51	27	5.7
Unit-3	49	29	5.6
Unit-4	54	38	5.1
Unit-5	49	29	5.6
Unit-6	54	38	5.1
Unit-7	53	36	5.4
Unit-8	55	36	5.2
Unit-9	47	31	6.7
Unit-10	40	41	6.5
Unit-11	53	23	6.5
Unit-12	56	30	6.2
Unit-13	55	44	6.4
Unit-14	45	43	6.6
Unit-15	48	50	6.3
Unit-16	42	22	6.5
Unit-17	47	31	6.7
Unit-18	53	23	6.5
Unit-19	56	30	6.2
Unit-20	53	23	6.5
Unit-21	56	30	6.2
Unit-22	55	28	6.3
Total (22)	1124	717	133.2
Average	51.09	32.5	6

Ceiling Insulation: R3.5
External wall Insulation: R2.0
Roof type / colour
Metal Roof, medium colour (SA 0.475-0.7) + 55mm SS Foil blanket (R1.3)
External Glazing:
ALM-002-01 A: Aluminium B SG
U=6.7 SHGC= 0.70
All External door & window to be weather sealed
Exhaust fans / Downlights to be sealed (if any)
Eaves / shading as per drawings

CLIENT
Greater Western Group (NSW)
P/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 709
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

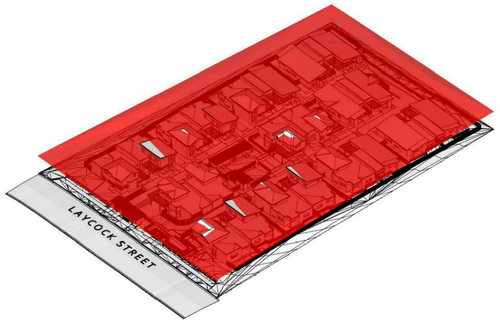
PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

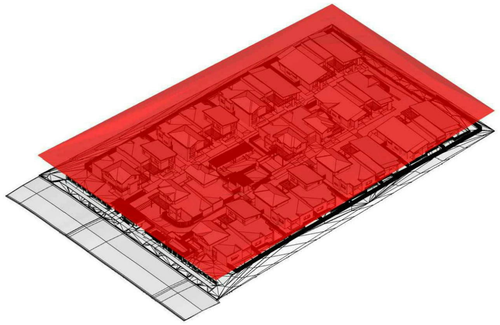
DA ISSUE

DRAWN	DRAWING TITLE
EF	WINDOW SCHEDULE - UNITS 13 - 22
CHECKED	SCALE @A2 / JOB NUMBER
RA	NTS / 0245
APPROVED	DRAWING NO. / REV
RA	502 / 00

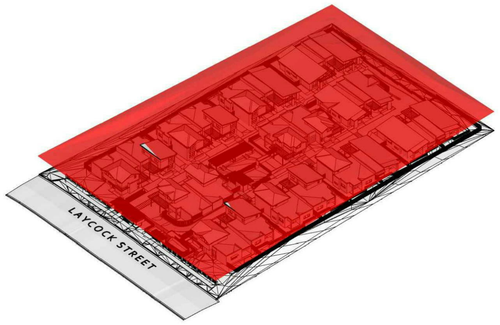
Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



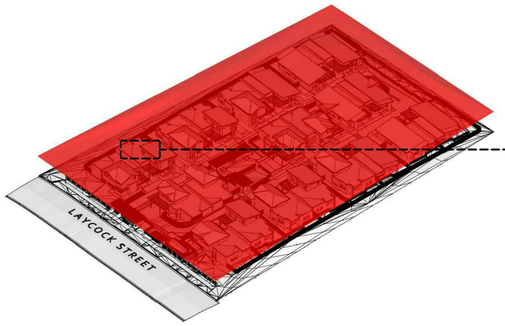
DEVELOPMENT @ 7.0M HEIGHT LINE



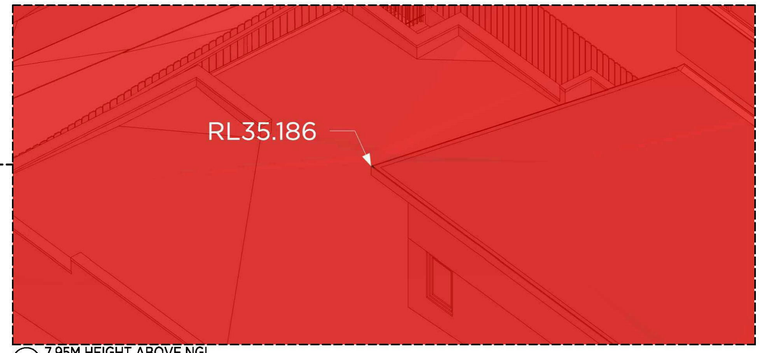
DEVELOPMENT @ 8.0M HEIGHT LIMIT



DEVELOPMENT @ 7.5M HEIGHT LINE



7.95M HEIGHT ABOVE NGL



7.95M HEIGHT ABOVE NGL

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 329
Nom. Architect 1L Alvaro 8021

0402 229 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

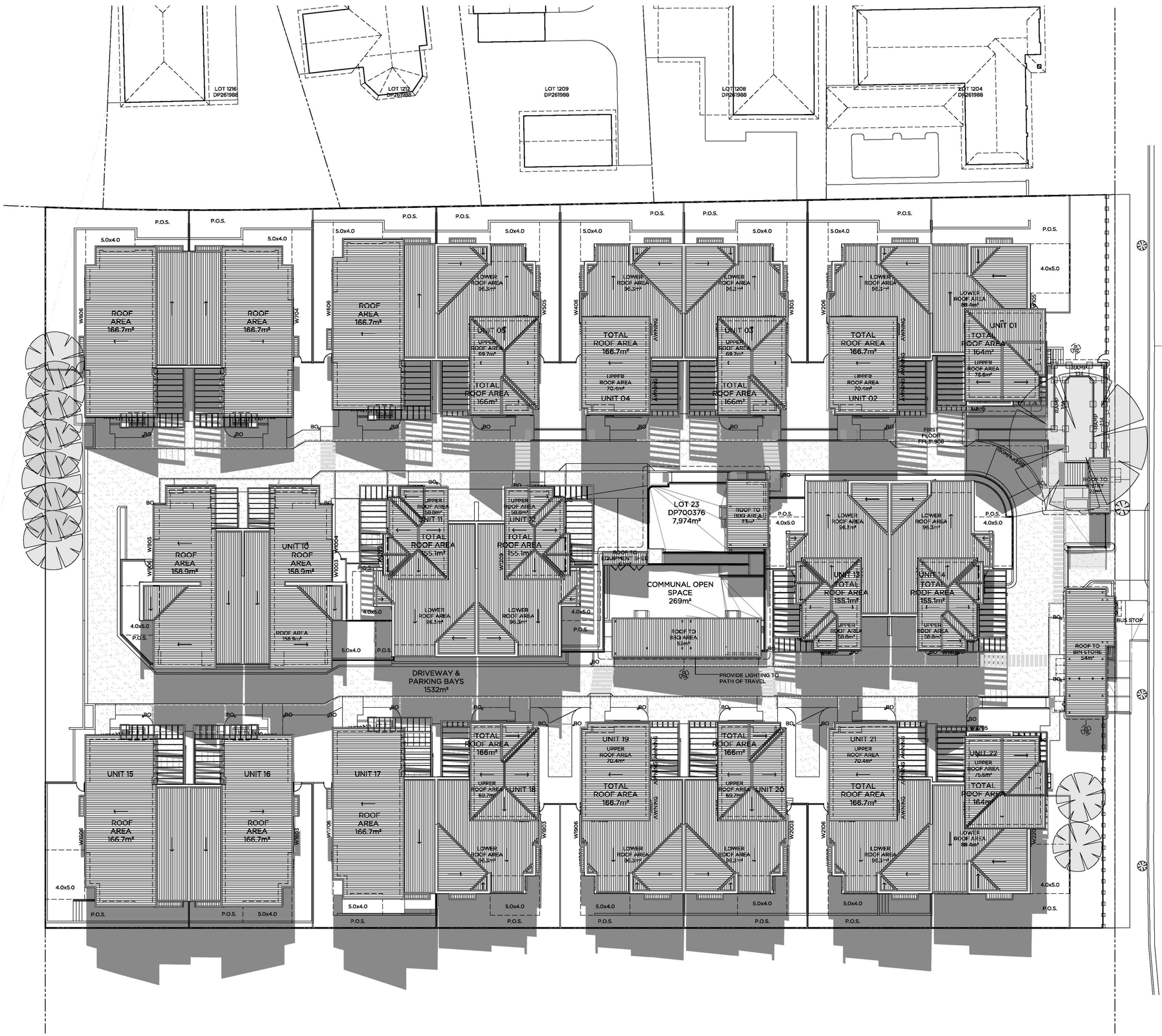
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

DRAWN	DRAWING TITLE
RA	HEIGHT LIMIT DIAGRAM

CHECKED	SCALE @A2	JOB NUMBER
RA	NTS	0246
APPROVED	DRAWING NO.	REV
RA	503	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 3 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

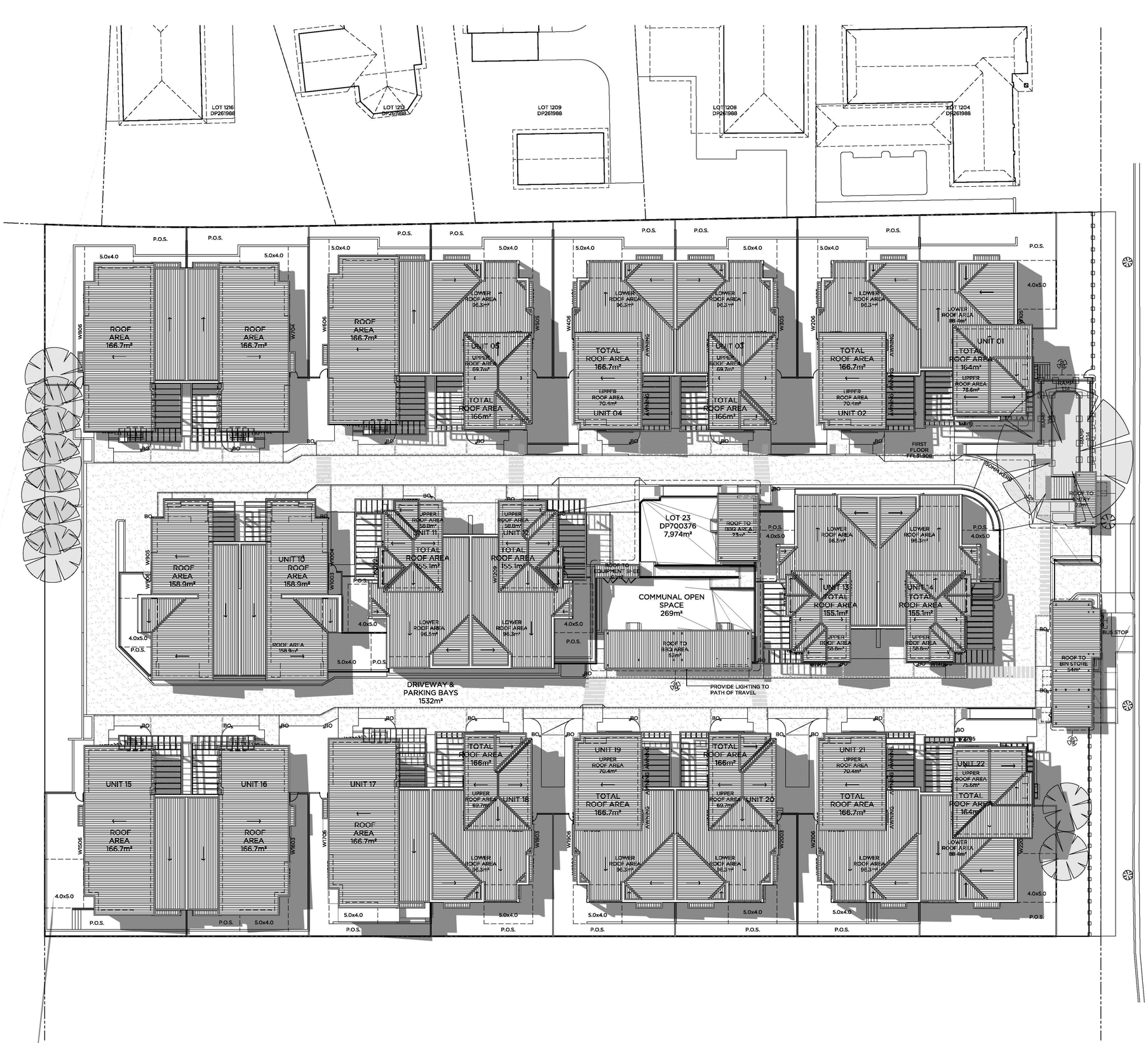
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 MARCH 9AM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA601 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT	PROJECT ADDRESS
Greater Western Group (NSW) **P/BE** Henry Street, Penrith NSW 2750	103-109 Laycock Street Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 270 309
Nom. Architect R. Alvaro 9021
0402 329 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

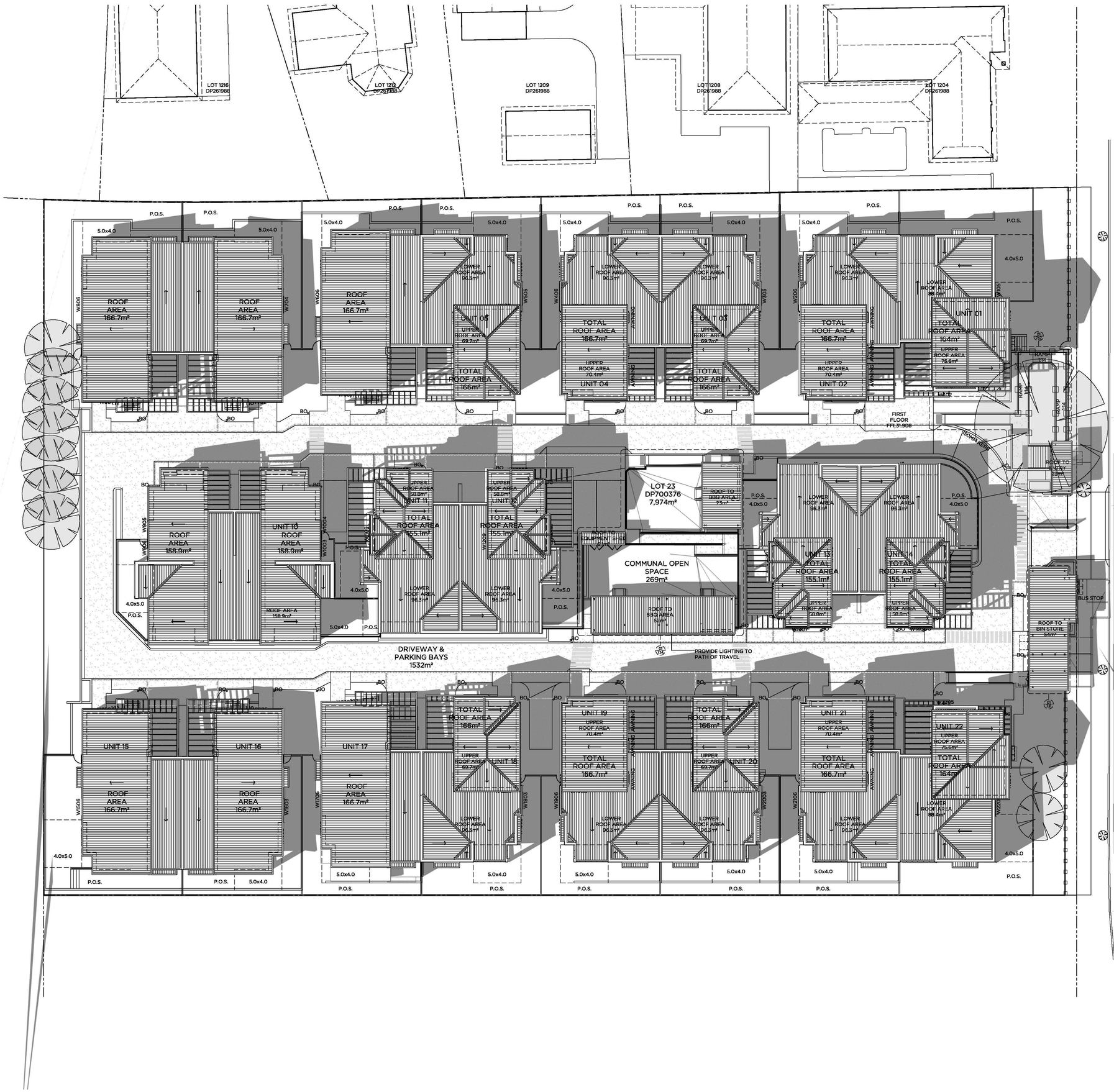
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE	
	EF	SHADOW DIAGRAM - 22 MARCH 12PM	
	CHECKED	SCALE @A2	JOB NUMBER
	RA	1:200	0246
	APPROVED	DRAWING NO.	REV
	RA	DA602	00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 MARCH 3PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA603 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 JUNE 9AM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA604 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988
LOT 1213 DP261988
LOT 1209 DP261988
LOT 1208 DP261988
LOT 1204 DP261988

P.O.S. 5.0x4.0 ROOF AREA 166.7m² W606 W505 W406 W305 W206 W105
UNIT 05 UPPER ROOF AREA 69.7m² TOTAL ROOF AREA 166m²
UNIT 04 TOTAL ROOF AREA 166.7m² UPPER ROOF AREA 70.4m² LOWER ROOF AREA 96.3m²
UNIT 03 TOTAL ROOF AREA 166m² UPPER ROOF AREA 69.7m²
UNIT 02 TOTAL ROOF AREA 166.7m² UPPER ROOF AREA 70.4m²
UNIT 01 TOTAL ROOF AREA 164m² UPPER ROOF AREA 75.6m² LOWER ROOF AREA 88.4m²
AWNING BO RAMP 1:14 RAMP 1:20 RAMP 1:8 RAMP 1:20 RAMP 1:14
FIRST FLOOR FFL 31.906
BOUNDARY

UNIT 10 ROOF AREA 158.9m² W905 W804 W703 W603
UNIT 11 UPPER ROOF AREA 58.8m² TOTAL ROOF AREA 155.1m²
UNIT 12 UPPER ROOF AREA 58.8m² TOTAL ROOF AREA 155.1m²
LOWER ROOF AREA 96.3m² 4.0x5.0 P.O.S. 5.0x4.0
ROOF TO EQUIPMENT SHED 12m²
LOT 23 DP700376 7,974m²
ROOF TO BBQ AREA 23m²
COMMUNAL OPEN SPACE 269m²
UNIT 13 TOTAL ROOF AREA 155.1m² UPPER ROOF AREA 58.8m²
UNIT 14 TOTAL ROOF AREA 155.1m² UPPER ROOF AREA 58.8m²
ROOF TO BBQ AREA 52m²
ROOF TO BRICKSTORE 54m²
BUS STOP
DRIVEWAY & PARKING BAYS 1532m²
PROVIDE LIGHTING TO PATH OF TRAVEL

UNIT 15 ROOF AREA 166.7m² W506 W805
UNIT 16 ROOF AREA 166.7m² W804
UNIT 17 ROOF AREA 166.7m² W703
UNIT 18 TOTAL ROOF AREA 166m² UPPER ROOF AREA 69.7m² LOWER ROOF AREA 96.3m² W803
UNIT 19 UPPER ROOF AREA 70.4m² TOTAL ROOF AREA 166.7m² LOWER ROOF AREA 96.3m² W603
UNIT 20 TOTAL ROOF AREA 166m² UPPER ROOF AREA 69.7m² LOWER ROOF AREA 96.3m² W703
UNIT 21 UPPER ROOF AREA 70.4m² TOTAL ROOF AREA 166.7m² LOWER ROOF AREA 96.3m² W2106
UNIT 22 UPPER ROOF AREA 75.6m² TOTAL ROOF AREA 164m² LOWER ROOF AREA 88.4m² W2205

LAYCOCK STREET

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR V.P+ASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 JUNE 12PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA605 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988 | LOT 1213 DP261988 | LOT 1209 DP261988 | LOT 1208 DP261988 | LOT 1204 DP261988

LAYCOCK STREET

BUS STOP

ROOF TO BIN STORE 54m²

ROOF TO LIFT 7.2m²

ROOF TO BBQ AREA 23m²

ROOF TO SUB STATION 52m²

LOT 23 DP700376 7,974m²

COMMUNAL OPEN SPACE 269m²

DRIVEWAY & PARKING BAYS 1532m²

PROVIDE LIGHTING TO PATH OF TRAVEL

FIRST FLOOR FFL 31.908

RAMP 1:12

RAMP 1:20

RAMP 1:8

BOUNDARY

UNIT 01 — TOTAL ROOF AREA 164m² — UPPER ROOF AREA 75.6m² — LOWER ROOF AREA 88.4m²

UNIT 02 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²

UNIT 03 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²

UNIT 04 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²

UNIT 05 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²

UNIT 06 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 07 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 08 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 09 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²

UNIT 10 — ROOF AREA 158.9m² — LOWER ROOF AREA 96.3m²

UNIT 11 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²

UNIT 12 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²

UNIT 13 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²

UNIT 14 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²

UNIT 15 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 16 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 17 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²

UNIT 18 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²

UNIT 19 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²

UNIT 20 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²

UNIT 21 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²

UNIT 22 — TOTAL ROOF AREA 164m² — UPPER ROOF AREA 75.6m² — LOWER ROOF AREA 88.4m²

P.O.S. | 5.0x4.0 | 4.0x5.0 | AWNING | BO

NOTES

BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN: 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 JUNE 3PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA606 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988
LOT 1213 DP261988
LOT 1209 DP261988
LOT 1208 DP261988
LOT 1204 DP261988

LOT 23 DP700376 7,974m²

UNIT 10 ROOF AREA 158.9m²
UNIT 15 ROOF AREA 166.7m²
UNIT 16 ROOF AREA 166.7m²
UNIT 17 ROOF AREA 166.7m²
UNIT 18 TOTAL ROOF AREA 166m² (UPPER ROOF AREA 69.7m², LOWER ROOF AREA 96.3m²)
UNIT 19 TOTAL ROOF AREA 166.7m² (UPPER ROOF AREA 70.4m², LOWER ROOF AREA 96.3m²)
UNIT 20 TOTAL ROOF AREA 166m² (UPPER ROOF AREA 69.7m², LOWER ROOF AREA 96.3m²)
UNIT 21 TOTAL ROOF AREA 166.7m² (UPPER ROOF AREA 70.4m², LOWER ROOF AREA 96.3m²)
UNIT 22 TOTAL ROOF AREA 164m² (UPPER ROOF AREA 75.6m², LOWER ROOF AREA 88.4m²)
UNIT 01 TOTAL ROOF AREA 164m² (UPPER ROOF AREA 75.6m², LOWER ROOF AREA 88.4m²)
UNIT 02 TOTAL ROOF AREA 166.7m² (UPPER ROOF AREA 70.4m², LOWER ROOF AREA 96.3m²)
UNIT 03 TOTAL ROOF AREA 166m² (UPPER ROOF AREA 69.7m², LOWER ROOF AREA 96.3m²)
UNIT 04 TOTAL ROOF AREA 166.7m² (UPPER ROOF AREA 70.4m², LOWER ROOF AREA 96.3m²)
UNIT 05 TOTAL ROOF AREA 166m² (UPPER ROOF AREA 69.7m², LOWER ROOF AREA 96.3m²)
UNIT 06 ROOF AREA 166.7m² (LOWER ROOF AREA 96.3m²)
UNIT 07 ROOF AREA 166.7m² (LOWER ROOF AREA 96.3m²)
UNIT 08 ROOF AREA 166.7m² (LOWER ROOF AREA 96.3m²)
UNIT 09 ROOF AREA 166.7m² (LOWER ROOF AREA 96.3m²)
UNIT 11 TOTAL ROOF AREA 155.1m² (UPPER ROOF AREA 58.8m², LOWER ROOF AREA 96.3m²)
UNIT 12 TOTAL ROOF AREA 155.1m² (UPPER ROOF AREA 58.8m², LOWER ROOF AREA 96.3m²)
UNIT 13 TOTAL ROOF AREA 155.1m² (UPPER ROOF AREA 58.8m², LOWER ROOF AREA 96.3m²)
UNIT 14 TOTAL ROOF AREA 155.1m² (UPPER ROOF AREA 58.8m², LOWER ROOF AREA 96.3m²)

ROOF TO BIN STORE 23m²
ROOF TO BBQ AREA 52m²
ROOF TO BIN STORE 54m²
ROOF EQUIPMENT SHED
COMMUNAL OPEN SPACE 269m²
DRIVEWAY & PARKING BAYS 1532m²
PROVIDE LIGHTING TO PATH OF TRAVEL
RAMP 1:14
RAMP 1:20
RAMP 1:14
RAMP 1:20
FIRST FLOOR FFL 71.900
BOUNDARY
BUS STOP
LAYCOCK STREET
P.O.S.
5.0x4.0
4.0x5.0
AWNING
BO

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E Info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

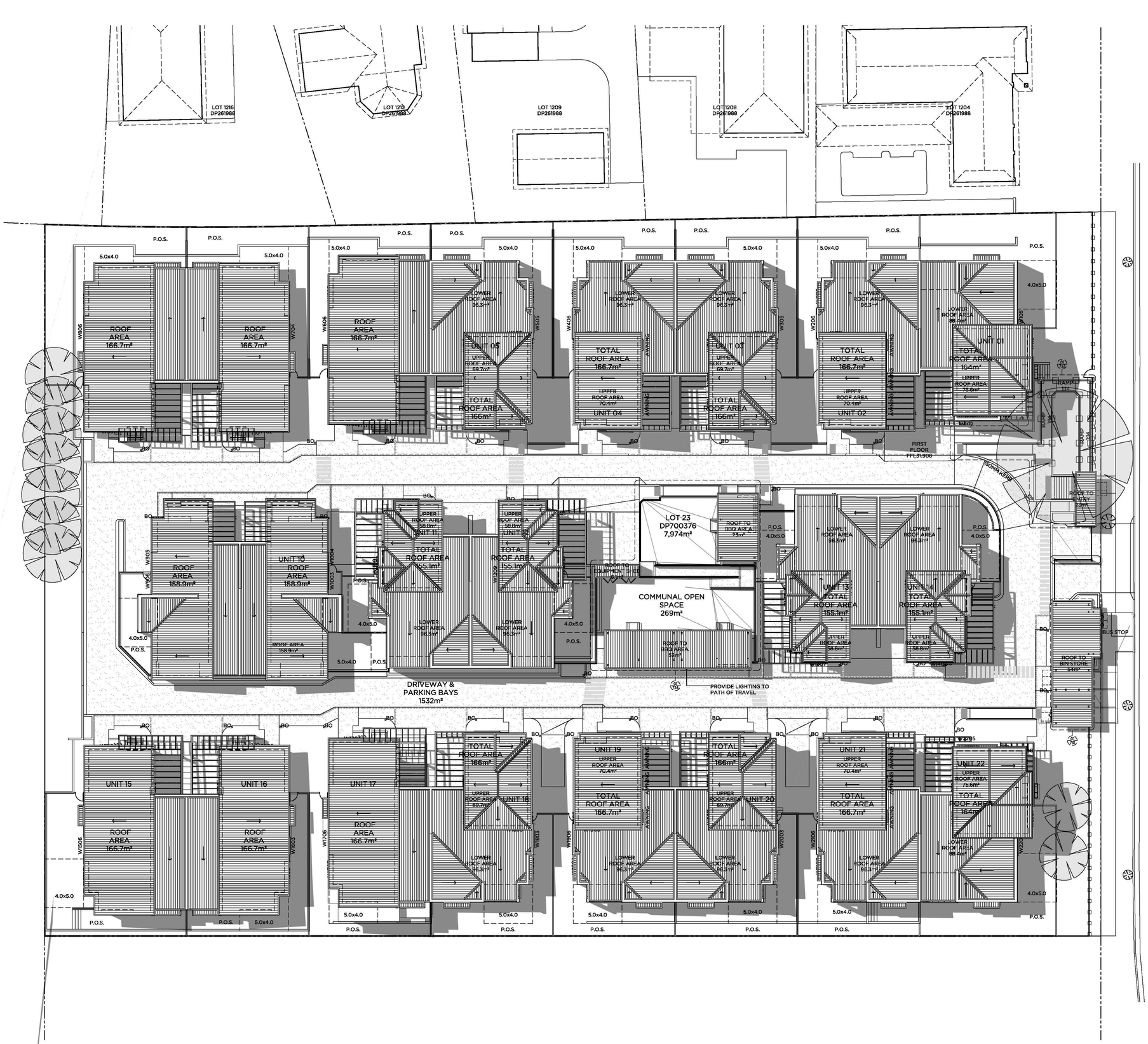
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 SEPTEMBER 9AM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA607 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
P/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect R. Alvaro 8021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E Info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 SEPTEMBER 12PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA608 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988

LOT 1213 DP261988

LOT 1209 DP261988

LOT 1208 DP261988

LOT 1204 DP261988

LOT 23 DP700376 7,974m²

ROOF AREA 166.7m² | ROOF AREA 166.7m² | ROOF AREA 166.7m² | TOTAL ROOF AREA 166.7m² | TOTAL ROOF AREA 166.7m² | TOTAL ROOF AREA 166.7m² | TOTAL ROOF AREA 166.4m²

UNIT 01 | UNIT 02 | UNIT 03 | UNIT 04 | UNIT 05

UPPER ROOF AREA 69.7m² | UPPER ROOF AREA 70.4m² | UPPER ROOF AREA 75.6m²

LOWER ROOF AREA 96.3m²

UNIT 10 ROOF AREA 158.9m² | ROOF AREA 158.9m²

UNIT 11 | UNIT 12 | UNIT 13 | UNIT 14

TOTAL ROOF AREA 155.1m²

UPPER ROOF AREA 58.8m²

ROOF TO LIFT AREA 2.5m²

ROOF TO STAIR AREA 52m²

ROOF TO BIN STORE 54m²

COMMUNAL OPEN SPACE 269m²

UNIT 15 ROOF AREA 166.7m² | UNIT 16 ROOF AREA 166.7m² | UNIT 17 ROOF AREA 166.7m²

UNIT 18 | UNIT 19 | UNIT 20 | UNIT 21 | UNIT 22

TOTAL ROOF AREA 166m² | TOTAL ROOF AREA 166.7m² | TOTAL ROOF AREA 166.4m²

UPPER ROOF AREA 69.7m² | UPPER ROOF AREA 70.4m² | UPPER ROOF AREA 75.6m²

LOWER ROOF AREA 96.3m² | LOWER ROOF AREA 96.4m²

AWNING | P.O.S. | 4.0x5.0 | 5.0x4.0 | BO | RAMP | FIRST FLOOR FFL 31.900 | BOUNDARY | DRIVEWAY & PARKING BAYS 1532m² | PROVIDE LIGHTING TO PATH OF TRAVEL | BUS STOP | LAYCOCK STREET

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

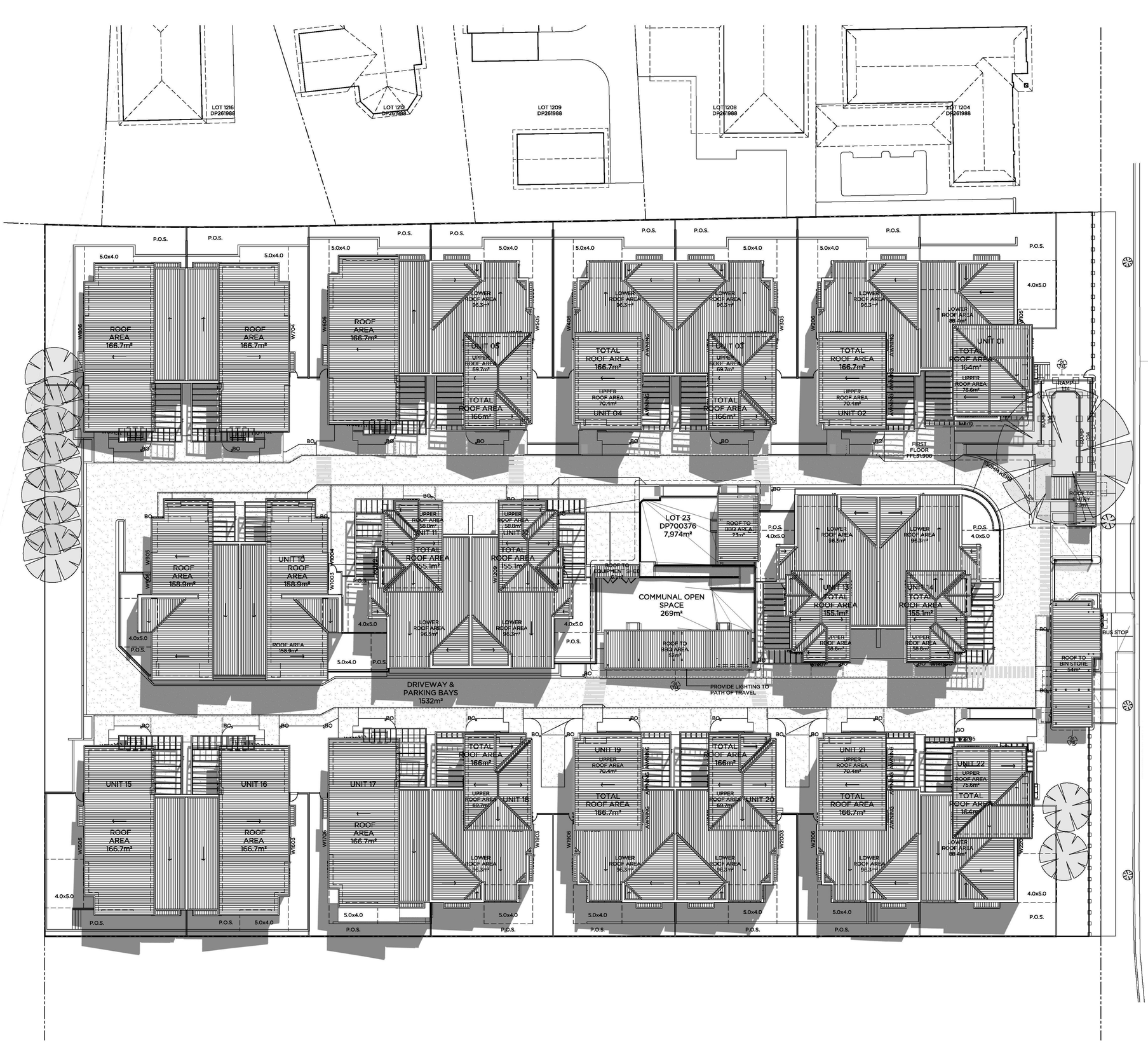
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 SEPTEMBER 3PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA609 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT	PROJECT ADDRESS
Greater Western Group (NSW) P/86 Henry Street, Penrith NSW 2750	103-109 Laycock Street Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 909
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 DECEMBER 9AM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA610 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

LOT 1216 DP261988
LOT 1213 DP261988
LOT 1209 DP261988
LOT 1208 DP261988
LOT 1204 DP261988

LOT 23 DP700376 7,974m²

UNIT 01 — TOTAL ROOF AREA 164m² — UPPER ROOF AREA 75.6m² — LOWER ROOF AREA 88.4m²
UNIT 02 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²
UNIT 03 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²
UNIT 04 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²
UNIT 05 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²
UNIT 06 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 07 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 08 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 09 — ROOF AREA 158.9m² — LOWER ROOF AREA 96.3m²
UNIT 10 — ROOF AREA 158.9m² — LOWER ROOF AREA 96.3m²
UNIT 11 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²
UNIT 12 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²
UNIT 13 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²
UNIT 14 — TOTAL ROOF AREA 155.1m² — UPPER ROOF AREA 58.8m² — LOWER ROOF AREA 96.3m²
UNIT 15 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 16 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 17 — ROOF AREA 166.7m² — LOWER ROOF AREA 96.3m²
UNIT 18 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²
UNIT 19 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²
UNIT 20 — TOTAL ROOF AREA 166m² — UPPER ROOF AREA 69.7m² — LOWER ROOF AREA 96.3m²
UNIT 21 — TOTAL ROOF AREA 166.7m² — UPPER ROOF AREA 70.4m² — LOWER ROOF AREA 96.3m²
UNIT 22 — TOTAL ROOF AREA 164m² — UPPER ROOF AREA 75.6m² — LOWER ROOF AREA 88.4m²

COMMUNAL OPEN SPACE 269m²
ROOF TO BBQ AREA 23m²
ROOF TO BBQ AREA 52m²
ROOF TO BIN STORE 54m²
ROOF EQUIPMENT SHED
DRIVEWAY & PARKING BAYS 1532m²
PROVIDE LIGHTING TO PATH OF TRAVEL
FIRST FLOOR FFL 31.908
RAMP 1:14
RAMP 1:20
RAMP 1:20
BUS STOP
LAYCOCK STREET
BOUNDARY
P.O.S.
5.0x4.0
4.0x5.0
BO
AWNING

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

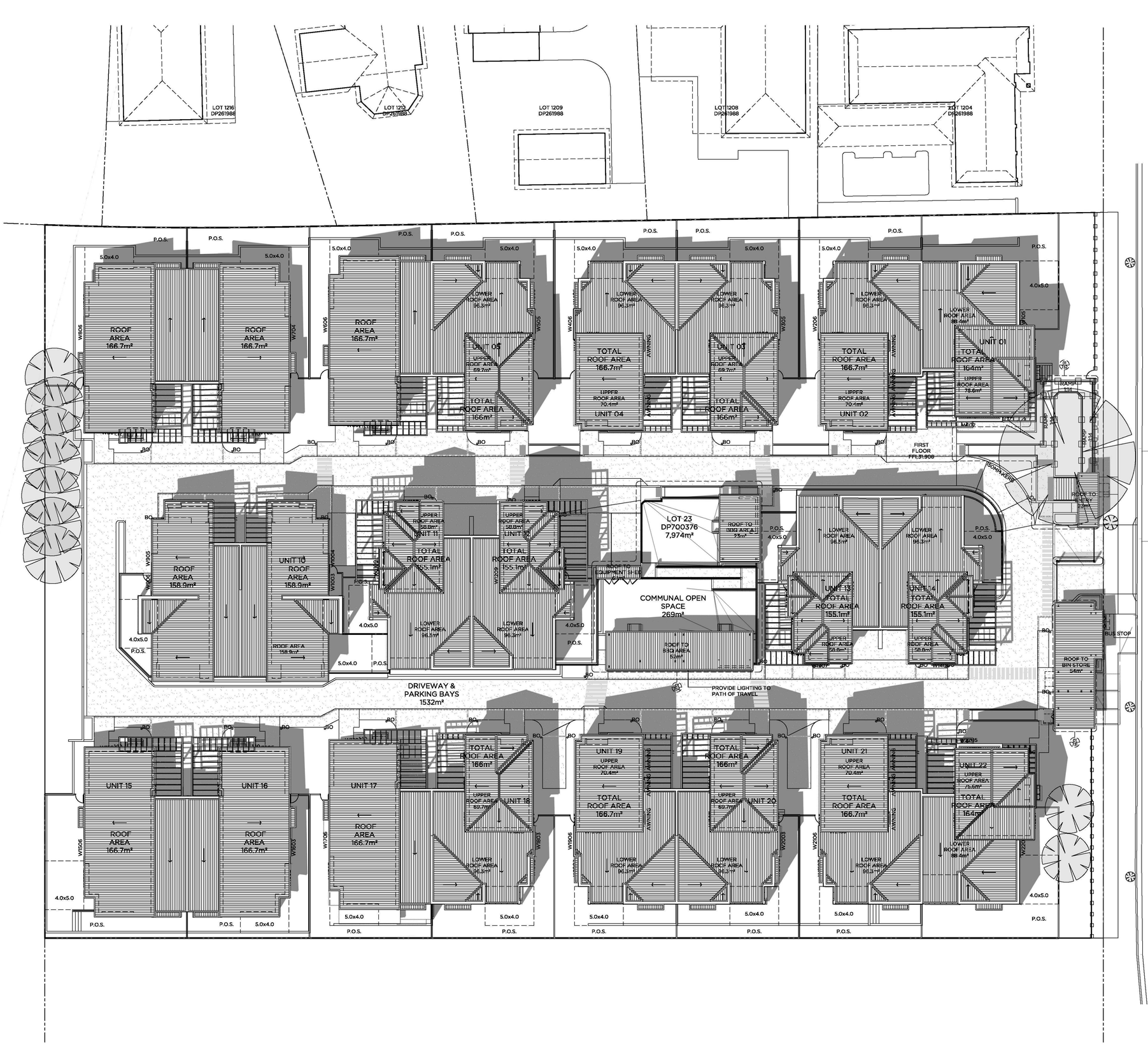
Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 DECEMBER 12PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA611 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF



NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m² OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 309
Nom. Architect N. Alvaro 9021
0402 529 840
H Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E Info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH	DRAWN	DRAWING TITLE
	EF	SHADOW DIAGRAM - 22 DECEMBER 3PM
	CHECKED	SCALE @A2 / JOB NUMBER
	RA	1:200 / 0246
	APPROVED	DRAWING NO. / REV
	RA	DA612 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



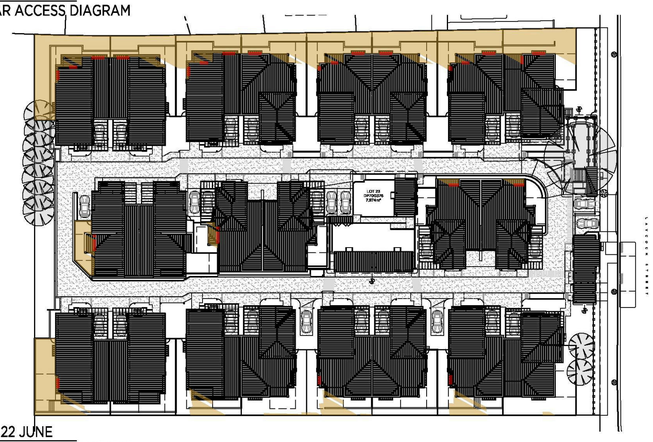
9AM 22 JUNE
SOLAR ACCESS DIAGRAM



10AM 22 JUNE
SOLAR ACCESS DIAGRAM



11AM 22 JUNE
SOLAR ACCESS DIAGRAM



12PM 22 JUNE
SOLAR ACCESS DIAGRAM



1PM 22 JUNE
SOLAR ACCESS DIAGRAM



2PM 22 JUNE
SOLAR ACCESS DIAGRAM



3PM 22 JUNE
SOLAR ACCESS DIAGRAM

PRIVATE OPEN SPACE			9AM		10AM		11AM		12PM		1PM		2PM		3PM		MIN. 3HRS DIRECT SUNLIGHT INTO P.O.S.
UNIT	PROPOSED (M^2)	REQUIRED (M^2)	M^2	%	M^2	%	M^2	%	M^2	%	M^2	%	M^2	%	M^2	%	
1	106.3	15	6.8	6%	96.8	91%	82.1	77%	75.3	71%	70.3	66%	65.4	62%	27.8	26%	Y
2	93.9	15	92.4	98%	92.3	98%	76.8	82%	70.5	75%	66.8	71%	59.8	64%	32	34%	Y
3	91.1	15	75.7	83%	75.6	83%	66.3	73%	62.8	69%	58.1	64%	52.6	58%	24.1	26%	Y
4	88.3	15	86.7	98%	86.7	98%	71.1	81%	64.9	73%	61.2	69%	53.5	61%	27.3	31%	Y
5	85.5	15	70.1	82%	70	82%	60.7	71%	57.2	67%	52.3	61%	41.5	49%	10.4	12%	Y
6	80.4	15	77.8	97%	78.5	98%	68.4	85%	59.7	74%	56.8	71%	49.9	62%	22	27%	Y
7	86.1	15	73.3	85%	73.8	86%	63.3	74%	60	70%	54.6	63%	48.2	56%	20	23%	Y
8	121.2	15	120.3	99%	120.2	99%	119.8	99%	119.1	98%	119.3	98%	118.3	98%	110.7	91%	Y
9	40.5	15	30.1	74%	30.1	74%	32.8	81%	33.3	82%	33.9	84%	34.4	85%	34	84%	Y
10	42.8	15	9.5	22%	9.3	22%	0	0%	0	0%	0	0%	0	0%	5.4	13%	N
11	31.7	15	17.8	56%	17.7	56%	7.7	24%	7.2	23%	0	0%	0	0%	0	0%	Y
12	43.2	15	7.1	16%	7.9	18%	0	0%	0	0%	0	0%	0	0%	2.5	6%	N
13	33.6	15	0	0%	0	0%	0.5	1%	3.7	11%	3.9	12%	0	0%	2.5	7%	N
14	34.5	15	10.3	30%	12.3	36%	0.3	1%	3.7	11%	3.9	11%	0	0%	4.6	13%	N
15	98.1	15	66.1	67%	65.7	67%	70	71%	76.4	78%	87.2	89%	96.4	98%	96.1	98%	Y
16	68.5	15	1.2	2%	1	1%	0	0%	0	0%	12.3	18%	33.2	48%	38	55%	N
17	76.7	15	16.4	21%	17.2	22%	12.5	16%	16.1	21%	28.3	37%	43.1	56%	50.6	66%	Y
18	73.2	15	0	0%	0	0%	0	0%	2.7	4%	23.1	32%	44	60%	49.3	67%	Y
19	73.2	15	5.9	8%	5	7%	9.2	13%	18.3	25%	36.9	50%	48.3	66%	55.4	76%	Y
20	73.2	15	0	0%	0	0%	0	0%	0	0%	26.4	36%	44	60%	49.3	67%	Y
21	73.2	15	10.3	14%	9.7	13%	7.9	11%	19.4	27%	32.9	45%	48.3	66%	55.4	76%	Y
22	99.4	15	3.9	4%	3.9	4%	0	0%	1.2	1%	24.3	24%	47.9	48%	53.1	53%	Y
																	TOTAL DWELLINGS W/MIN. 3HRS DIRECT SUNLIGHT INTO P.O.S. 77%

SOLAR ACCESS TO P.O.S. FOR 3 HOURS
SOLAR ACCESS TABLE

SUNLIGHT TO LIVING SPACES	9AM	10AM	11AM	12PM	1PM	2PM	3PM	MIN. 3HRS DIRECT SUNLIGHT INTO LIVING AREAS
UNIT	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	
1	Y	Y	Y	Y	Y	N	N	Y
2	Y	Y	Y	Y	Y	Y	N	Y
3	Y	Y	Y	Y	Y	N	N	Y
4	Y	Y	Y	Y	Y	Y	N	Y
5	Y	Y	Y	Y	Y	N	N	Y
6	Y	Y	Y	Y	Y	Y	N	Y
7	Y	Y	Y	Y	Y	N	N	Y
8	Y	Y	Y	Y	Y	Y	N	Y
9	Y	Y	Y	Y	Y	Y	Y	Y
10	N	N	N	N	N	N	N	N
11	Y	Y	Y	Y	N	Y	N	Y
12	N	N	N	N	N	N	N	N
13	Y	Y	Y	Y	Y	Y	Y	Y
14	Y	Y	Y	Y	Y	N	N	Y
15	Y	Y	Y	Y	Y	Y	Y	Y
16	N	N	N	N	N	N	Y	N
17	Y	Y	Y	N	Y	Y	Y	Y
18	N	N	N	N	N	Y	Y	N
19	Y	Y	N	Y	Y	Y	Y	Y
20	N	N	N	N	N	Y	Y	N
21	Y	Y	N	Y	Y	Y	Y	Y
22	N	N	N	N	N	Y	Y	N
								TOTAL DWELLINGS W/MIN. 3HRS DIRECT SUNLIGHT INTO LIVING AREAS 73%

SOLAR ACCESS TO LIVIGN SPACES. FOR 3 HOURS
SOLAR ACCESS TABLE

REV	DATE	DESCRIPTION	BY
00	29.10.19	DA ISSUE TO COUNCIL	EF

NOTES
BASIX NOTES

FIXTURES
ALL SHOWER HEADS 3 STAR (>4.5 BUT <=6L/MIN) TO ALL DWELLINGS
ALL TOILET FLUSHING SYSTEMS 4 STAR TO ALL DWELLINGS
ALL KITCHEN & BATHROOM TAPS 5 STAR TO ALL DWELLINGS

ALTERNATIVE WATER
1800L RAIN WATER TANK TO ALL DWELLINGS
COLLECT RUN-OFF FROM AT LEAST 50m^2 OF ROOF AREA TO ALL DWELLINGS
CONNECT RAIN WATER TANK TO OUTDOOR TAP & LAUNDRY TO ALL DWELLINGS

HOT WATER
4 STAR GAS INSTANTANEOUS HOT WATER SYSTEM TO ALL DWELLINGS

VENTILATION
BATHROOM, KITCHEN & LAUNDRY VENTILATION INDIVIDUAL FAN DUCTED W/MANUAL SWITCH ON/OFF TO ALL DWELLINGS

HEATING/COOLING
3.5 STAR 1-PHASE AIRCONDITIONING 1 STAR TO LIVING AREAS & BEDROOMS TO ALL DWELLINGS

ARTIFICIAL LIGHTING
LED/FLOURESCENT LIGHTING TO ALL BEDROOMS/LIVING AREAS/BATHROOMS/HALLWAYS/KITCHENS/LAUNDRIES TO ALL DWELLINGS

NATURAL LIGHTING
UNITS 1-5 & 18-22: 2 BATHROOMS/TOILETS TO BE NATURALLY LIT
UNIT 9-14: 1 BATHROOM/TOILET TO BE NATURALLY LIT

APPLIANCES
GAS COOKTOP & ELECTRIC OVEN TO ALL DWELLINGS

ALTERNATIV EENERGY
UNITS 7, 8, 9, 10, 15 & 16: PHOTOVOLTAIC SYSTEM MIN 2.0KW

COMMON AREAS
GARBAGE ROOM NATURAL VENTILATION EXHAUST ONLY
GARBAGE ROOM COMPACT FLOURESCENT LIGHTING WITH MANUAL ON/OFF

LEGEND
- 22 JUNE 9AM
- 22 JUNE 10AM
- 22 JUNE 11AM
- 22 JUNE 12PM
- 22 JUNE 1PM
- 22 JUNE 2PM
- 22 JUNE 3PM
- P.O.S. BOUNDARY
- GLAZING W/DIRECT SOLAR GAIN

CLIENT
Greater Western Group (NSW)
9/86 Henry Street,
Penrith NSW 2750

PROJECT ADDRESS
103-109 Laycock Street
Cranebrook 2749

ALVARO ARCHITECTS PTY LTD
ABN 71 604 370 303
Nom. Architect N. Alvaro 9221
0402 529 840
M Unit 24, 2-8 Daniel Street,
A Wetherill Park, NSW 2164
E info@alvaroarchitects.com.au
ALVAROARCHITECTS.COM.AU

ALVARO

PROJECT
Proposed Seniors Housing
Cranebrook

Use figured dimensions only. Verify all levels and dimensions on site before commencing construction, fabrication, or shop drawings.
© Copyright - All rights reserved.

DA ISSUE

NORTH

DRAWN	DRAWING TITLE
RA	SOLAR ACCESS DIAGRAM - 22 JUNE
CHECKED	SCALE @A2 / JOB NUMBER
RA	1:600 / 0246
APPROVED	DRAWING NO. / REV
RA	DA613 / 00

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

A1

1240
DP749603

1212
DP263023

1209
DP263023

1208
DP263023

1204
DP263023

No. 101
SINGLE STOREY
BRICK RESIDENCE
TILE ROOF

PAVED DRIVEWAY

STREET

328°15'40"
84.73

POST

WIRE

FENCE

CH329°49'10" 23.640
R438.0 A23.643

59°16'50"
73.105

TOP
34.51

No. 103-109
SINGLE STOREY
BRICK RESIDENCE
TILE ROOF

RIDGE 37.48
RIDGE 36.8
RIDGE 37.5
RIDGE 36.28
RIDGE

F.L. 33.34

METAL AWNING

CONCRETE

PAVED

G.L. 33.22

GT 35.71

RGC 33.16
37.69

RGC 33.69
37.69

23
DP 700376
7974m²

DRIVEWAY

GRAVEL

BBQ

22
DP 700376

24
DP 700376

108.55
329°16'50"

METAL

MESH

FENCE

METAL

MESH

FENCE

59°16'50"
74.385

BENCHMARK
DH IN TOP KERB
R.L. = 27.265

"BUS STOP"

DRAINAGE PIT
TOP:26.65
INV:25.28

CONC. DRIVEWAY

No. 111
ONE & TWO STOREY
BRICK RESIDENCE
TILE ROOF

LAYCOCK

MGA

(DP1173296)

DIAL BEFORE YOU DIG
www.1100.com.au

VC DENOTES VEHICULAR CROSSING
TK DENOTES LEVEL AT TOP OF KERB
LIP DENOTES LEVEL AT LIP OF KERB
LIN DENOTES LEVEL AT TOP OF LINTEL
SEWER MANHOLE
WATER
COMMS. PIT
ELEC. BOX
SIGN POST
POWER POLE
HYDRANT

NOTES :

1. THIS DETAIL SURVEY IS NOT A "SURVEY" AS DEFINED BY THE SURVEYING & SPATIAL INFORMATION ACT, 2002.
2. DATUM OF LEVELS : AUSTRALIAN HEIGHT DATUM
3. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE NSW LAND REGISTRY AND ARE SUBJECT TO FINAL SURVEY.
4. NO SEARCH MADE OF LOCATION AND NATURE OF TELEPHONE, ELECTRICITY, SEWER, WATER, GAS AND DRAINAGE RECORDS AT THE RELEVANT AUTHORITY. PRIOR TO ANY CONSTRUCTION THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR LOCATION OF SERVICES.
5. THE POSITION OF IMPROVEMENTS IN RELATION TO BOUNDARIES IS DIAGRAMMATIC ONLY.
6. VISIBLE, ACCESSIBLE SERVICES LOCATED ONLY
7. SIGNIFICANT TREES LOCATED ONLY.
8. NEIGHBOURING HOUSES, RIDGE AND ROOF POSITIONS ARE APPROXIMATE ONLY.
9. THIS TITLE BLOCK AND NOTES IS AN INTEGRAL PART OF THIS DRAWING WHICH IS NOT TO BE REMOVED.
10. CONTOURS ARE INDICATIVE ONLY. SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.

1:200
5 0 5 10 15 20 25
METRES

© THIS PLAN AND THE INFORMATION CONTAINED HEREIN REMAINS THE PROPERTY OF RICHARD HOGAN & CO. PTY LTD. IT MUST NOT BE COPIED IN WHOLE OR PART. AND IS NOT BE USED FOR ANY PURPOSE OTHER THAN FOR THAT WHICH IT HAS BEEN PREPARED, WITHOUT THE WRITTEN CONSENT OF RICHARD HOGAN & CO PTY LTD. THIS PLAN HAS BEEN PREPARED FOR THE SOLE USE OF THE INSTRUCTING PARTY.

RHCO RICHARD HOGAN & CO.
SURVEYING & DEVELOPMENT CONSULTANTS
ABN 59 082 453 165
P.O. BOX 4365, Penrith Plaza, NSW 2750.
Phone: (02) 4732 6599
Web: www.rhco.com.au Email: admin@hoganco.com.au

SURVEYOR: HN
DRAWN: HN
REDUCTION RATIO: 1:200 @ A1
CONTOUR INTERVAL: 0.5m
SHEET 1 OF 1

ORIGIN OF LEVELS:
SS176870
R.L. 25.65 (SCIMS)
DATUM: AUSTRALIAN HEIGHT DATUM
DATE: 04.04.2019
VERSION No.: A

PLAN OF DETAIL AND LEVELS OVER LOT 23 IN D.P.700376 AT No. 103-109 LAYCOCK STREET, CRANEBROOK

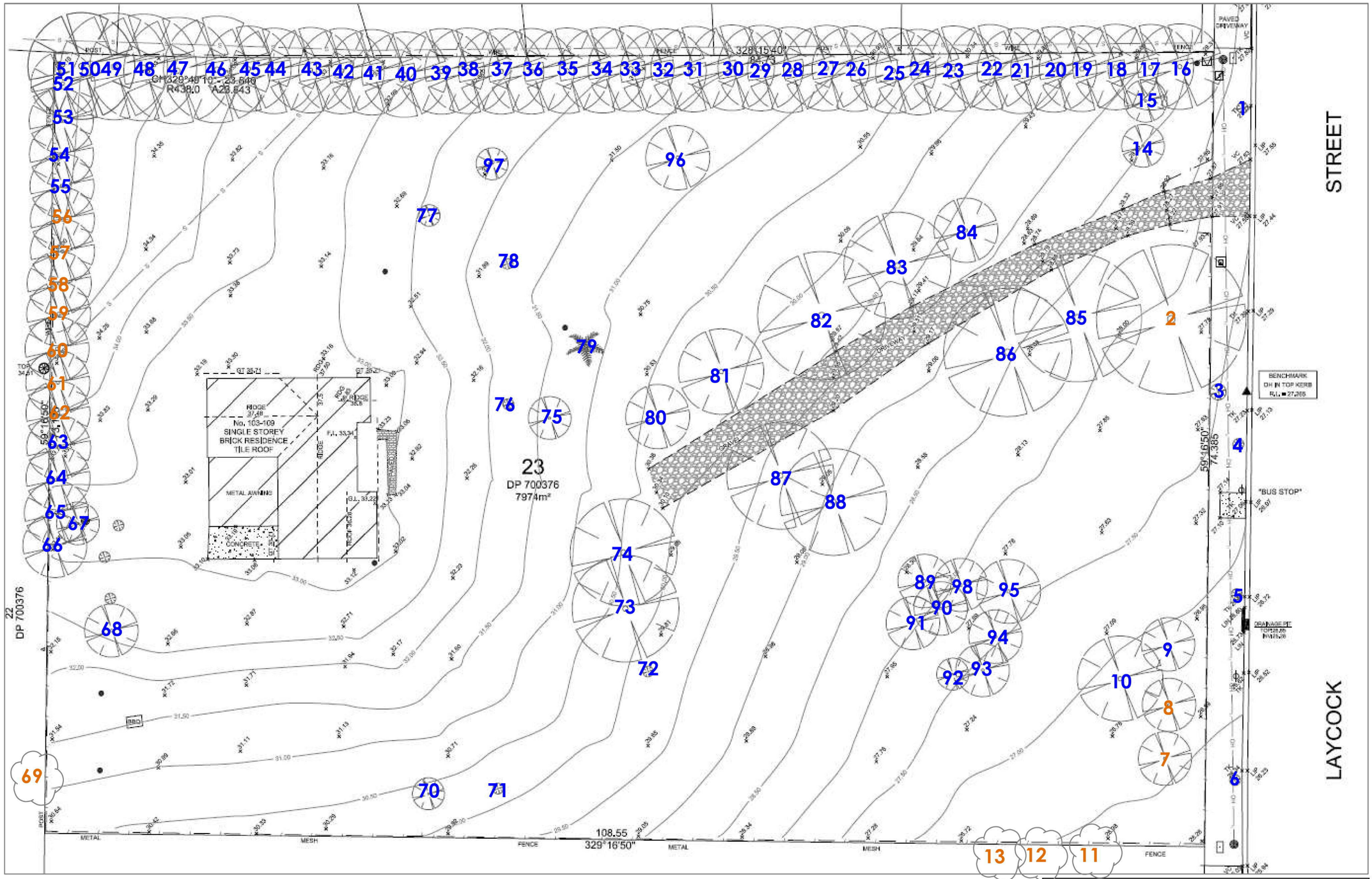
CLIENT: CAZ BUILD
L.G.A.: PENRITH
JOB REF: 19199

CAD FILENAME: X:\2019 - RHCO\19199 - 103-109 Laycock St Cranebrook\ACAD\19199 -No 103-109 Laycock St Cranebrook - DETAIL SURVEY.dwg

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Appendix C - Site Plan A – Survey of Subject Trees

This report has relied upon the following plan/s and documents which have been reproduced from electronic transmission and no longer to original scale.



Legend

- Trees numbered in **orange** are recommended for **retention**.
- Trees numbered in **blue** are recommended for removal.

Plan Details

Plan of Detail and Levels over Lot 23 in DP 700376, Job Ref: 19199, Sheet 1 of 1, Scale 1:200 @ A1, Date 04.04.2019 by Richard Hogan & Co. P.O. Box 4365, Penrith Plaza NSW 2750 T: 02 4732 6599 E: admin@hoganco.com.au

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

SCHEDULE OF EXTERNAL FINISHES

PROPOSED HOUSING FOR SENIORS OR PEOPLE WITH A DISABILITY

103-109 LAYCOCK STREET,

CRANEBROOK NSW 2749

Issued: 28/10/2019



ALVARO

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Schedule

CODE	DESCRIPTION	COLOUR/MATERIAL
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	SEE BELOW FOR INDIVIDUAL SCHEMES
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	
FB2	PAINT & RENDER FINISH TO BRICKWORK	
FB3	PAINT FINISH TO FC SHEETING	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	
GT2	PRE-FINISHED METAL CAPPING	
MF1	PAINT FINISH TO STEEL PERGOLA	
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	
SL1	PAINT FINISH TO FC SOFFIT LINING	
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	
DR1	COLOURED CONCRETE DRIVEWAY	CEMENT AUSTRALIA BLACK OXIDE
DR2	COLOURED CONCRETE PATHWAYS & UNIT DRIVEWAYS	CEMENT AUSTRALIA BEIGE OXIDE
CS1	BRICK COBBLE BOARDER TO DRIVEWAY & PATHS	NAMOI VALLEY FEDERATION BLACK BRICK
ST1	PAINT FINISH TO STEEL STRUCTURES	COLORBOND WOODLAND GREY-CLASSIC
FF1	PAINT & RENDER FINISH TO FENCE PIERS	DULUX LEXICON QUARTER
FF2	FACE BRICK FINISH W/RAKED JOINTS TO FENCE PIERS & BIN STORE	ASUTRAL BLACK STONE
FF3	POWDERCOAT FINISH TO ALUMINIUM FENCING	COLORBOND WOODLAND GREY-CLASSIC
EF1	STAINED TIMBER SEATING	INTERGRAIN EXTERIOR STAIN - EBONY
RT1	PRECAST CONCRETE SLEEPER RETAINING WALLS	GREY CONCRETE FINISH
RT2	FACE BRICK RETAINING WALL	NAMOI VALLEY SILVER GREY FACE BRICKS
RT3	FACE BRICK RETAINING WALL	ASUTRAL BLACK STONE
TS1	TIMBER SCREENING	INTERGRAIN EXTERIOR STAIN - MERBAU

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 01

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	01, 06, 15, 16, 22
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	N/A	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY FEDERATION BLACK BRICK	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC	
GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	KNOTWOOD BLACK WALNUT
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	TAUBMANS ALL BLACK
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 02

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	02, 03, 07, 08, 17, 18, 20, 21
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	COLORBOND SHALE GREY	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY SILVER GREY FACE BRICKS	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC	
GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	COLORBOND SHALE GREY
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	TAUBMANS ALL BLACK
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 03

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	4
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	COLORBOND SHALE GREY	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY SILVER GREY FACE BRICKS	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC
MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	COLORBOND SHALE GREY
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	DULUX LEXICON QUARTER
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 04

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	5
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	COLORBOND SHALE GREY	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY FEDERATION BLACK BRICK	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC
MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	COLORBOND SHALE GREY
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	TAUBMANS ALL BLACK
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 05

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	9, 10
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	N/A	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY SILVER GREY FACE BRICKS	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	
GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC
MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	KNOTWOOD BLACK WALNUT
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	DULUX LEXICON QUARTER
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



Material Scheme 06

CODE	DESCRIPTION	COLOUR/MATERIAL	UNIT NO.
AL1	POWDERCOAT FINISH TO ALUMINIUM FRAMED GLAZING	COLORBOND WOODLAND GREY-CLASSIC	11, 12, 13, 14, 19
AB1	POWDERCOAT FINISH TO ALUMINIUM CLADDING TO MATCH GARAGE DOOR	N/A	
FB1	FACE BRICK FINISH TO EXTERNAL WALLS	NAMOI VALLEY FEDERATION BLACK BRICK	
FB2	PAINT & RENDER FINISH TO BRICKWORK	DULUX LEXICON QUARTER	
FB3	PAINT FINISH TO FC SHEETING	DULUX LEXICON QUARTER	

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

GT1	PRE-FINISHED METAL FASCIA & GUTTER	COLORBOND WOODLAND GREY-CLASSIC
GT2	PRE-FINISHED METAL CAPPING	COLORBOND WOODLAND GREY-CLASSIC
MF1	PAINT FINISH TO STEEL PERGOLA	COLORBOND WOODLAND GREY-CLASSIC
TG1	PRE-FINISHED METAL LIFT DOOR TO GARAGE	KNOTWOOD BLACK WALNUT
TD1	NATURAL HARDWOOD ENTRY DOOR	INTERGRAIN EXTERIOR STAIN - EBONY
TL1	NON-SLIP TILE FINISH TO EXTERNAL FLOORING	SELECTED GREY TILE
CL1	WEATHERTEX - WEATHERGROOVE 300 CLADDING	DULUX LEXICON QUARTER
CL2	WEATHERTEX - WEATHERGROOVE NATURAL 75 CLADDING	TO MATCH KNOTWOOD BLACK WALNUT
SL1	PAINT FINISH TO FC SOFFIT LINING	DULUX WHITE ON WHITE
MS1	PRE-FINISHED SHEET METAL ROOFING W/SARKING	COLORBOND WOODLAND GREY-CLASSIC



ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO



ROCCOALVARO

Architect
NSW Reg. 9221

Member
Australian Institute
of Architects
2019

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Statement of Environmental Effects

103-109 Laycock Street Cranebrook

Demolition of the existing dwelling and construction of a 22 units under the provisions of state environmental planning policy - housing for seniors and people with a disability 2004

Greater Western Group Pty Ltd

urban strategies

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Figure 1: Site Frontage

Client:	**Greater Western Group (NSW)**
Project:	**103-109 Laycock Street Cranebrook**
Project No:	**19-6952**
Date:	**August 2019**
Project Contact:	**Mitchell Drake**

© 2019 Urban Strategies Pty Ltd
ABN 12 064 941 591
E admin@urbanstrategies.com.au
W www.urbanstrategies.com.au

BRISBANE
LEVEL 1, 39 GREY ST
PO BOX 3368
SOUTH BRISBANE QLD 4101
07 3360 4200

GOLD COAST – LOGAN
LEVEL 8, 33 ELKHORN AVE
SURFERS PARADISE QLD 4217
PO BOX 1136 SOUTHPORT QLD 4215
07 5551 9170

SYDNEY
7/LVL 2 LAWSON PLACE
165-167 PHILLIP ST SYDNEY NSW 2000
PO BOX 3036 REDFERN NSW 2016
02 8093 6950

DISCLAIMER

Urban Strategies retains copyright and ownership of the contents of this document, including all tables, plans, drawings, figures and other work produced by Urban Strategies. Unless expressly approved by Urban Strategies, this document may not be reproduced in full or in part, except for the client and for the purpose for which it was created. Use or reliance on the contents of this document by any third party is prohibited unless authorised by Urban Strategies.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Contents

1.0	**EXECUTIVE SUMMARY**		**3**
	1.1	Project Overview	3
	1.2	Legislative Requirements	3
	1.3	Non - Legislative Controls	3
	1.4	Conclusion	3
2.0	**SUMMARY**		**4**
3.0	**SITE INFORMATION AND ANALYSIS**		**5**
	3.1	Physical Description	5
4.0	**THE PROPOSAL**		**7**
5.0	**APPLICATION HISTORY**		**10**
6.0	**ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**		**14**
	6.1	Environmental Planning Instruments	14
	6.2	Development Control Plans	23
	6.3	Planning Agreements	26
	6.4	The Regulations	26
	6.5	The Likely Impacts	26
	6.6	Site Suitability	27
	6.7	Submissions	27
	6.8	The Public Interest	27
7.0	**CONCLUSIONS AND RECOMMENDATIONS**		**27**

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

1.0 Executive Summary

1.1 Project Overview

This Statement of Environmental Effects (SEE) is to accompany the plans lodged as part of the development proposal to Penrith City Council for demolition of an existing dwelling and construction of a 22 units under the provisions of State Environmental Planning Policy - Housing for seniors and people with a disability 2004, at 103-109 Laycock Avenue Cranebrook.

The statement addresses the relevant elements of Section 4.15 Evaluation of the Environmental Planning and Assessment Act 1979, together with relevant State Environmental Planning Policies, Sydney Regional Environmental Plans, The Regulations and local plans and policies.



Figure 2: Proposed Site Frontage

1.2 Legislative Requirements

The site is located in the Penrith City Local Government Area (LGA) within the R2 Low Density Residential Zone. The following state and local legislative controls relate to the proposal:

- State Environmental Planning Policy No. 55 – Remediation of Land.
- State Environmental Planning Policy – BASIX.
- State Environmental Planning Policy – Infrastructure.
- State Environmental Planning Policy – Housing for seniors and people with a disability 2004.
- Sydney Regional Environmental Plan – No 20—Hawkesbury-Nepean River (No 2—1997)
- Penrith City Local Environmental Plan 2010

1.3 Non - Legislative Controls

The following Non-Legislative control is applicable to the development:

- Penrith Development Control Plan 2014.

1.4 Conclusion

It is our professional opinion that the proposal is consistent with the relevant controls, their underlying objectives, together with the plans and policies at both local and state levels. The proposed works increase the longevity and usability of the existing residential resource and allow

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

the site to increase its contribution to the existing housing stock within this well-established residential zone.

2.0 Summary

Address of Site: 103-109 Laycock Street, Cranebrook
Local Government: Penrith City Council
Real Property Description: Lot 2, DP22283
Area of Site: 7974sqm
SEPP: State Environmental Planning Policy No. 55 - Remediation of Land State Environmental Planning Policy – BASIX State environmental Planning Policy – Infrastructure State Environmental Planning Policy - Housing for Seniors and people with a Disability Sydney Regional Environmental Plan – No 20—Hawkesbury-Nepean River (No 2—1997)
LEP: Penrith Local Environmental Plan 2010
DCP: Penrith Development Control Plan 2014
Zone: R2 Low Density Residential
Name of Owner: Greater Western Group Pty Ltd
Brief Description / Purpose of Proposal: Demolition of an existing dwelling and construction of a 22 units under the provisions of state environmental planning policy - housing for seniors and people with a disability 2004.
Staged Development: No
Assessment Manager / Council Officer Previously Involved: Sandra Fagan
Applicant Contact Person: Mitchell Drake

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

3.0 Site Information and Analysis

3.1 Physical Description

The subject site is legally known as Lot 2, DP22283 and commonly referred to as 103-109 Laycock Street Cranbrook. The allotment is irregular in shape with an angular front boundary to Laycock Street of 73m in width, and an average depth of 108m, equating to a site area of 7974.3sqm.

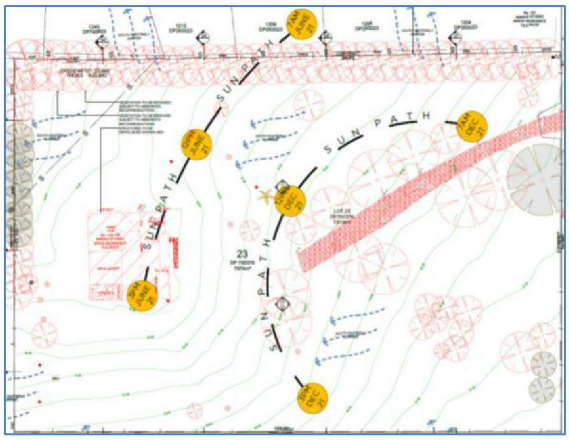


Figure 3: Extract of Site Analysis Plan



Figure 4: Extract of Site Location Overview Plan

The topographically the site features a slope from north down to south of approximately 13%. The site is currently occupied by a single detached dwelling with associated landscaping and parking. Pedestrian and vehicle access is gained via the site frontage at Laycock Street.



Figure 5: Site Location (Street Pattern)

Surrounding development includes to the north, at the rear of the site, 22 Nepean Street which is occupied by a single dwelling.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Figure 6: Northern, Rear Boundary

The site fronts Laycock St, a two-way, single lane in each direction road with parkland opposite to the south east.



Figure 7: Public open space opposite the site

To the east are residential dwellings within battle axe residential configuration. Adjoining development to the east is indicative of residential density in the locality.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Figure 8: Side boundary to the east

To the west is an existing detached dwelling on a similar size allotment to that of the current situation within the subject site.



Figure 9: Western Boundary Showing detached dwelling behind existing trees

4.0 The proposal

The applicant seeks approval for the demolition of the existing dwelling and construction of 22 units under the provisions of state environmental planning policy - housing for seniors and people with a disability 2004. The development will offer units within three rows along the length of the site, with landscaping and access for vehicles and pedestrians interspaced throughout the development.

The northern element of the proposal contains eight units, broken up into four distinct building modules. The vehicle and pedestrian access to these units are within the central areas of the site, facing south, away from adjoining sites. All modules are two levels and contain both two and three bedroom dwellings with parking on the ground floor areas.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

The central elements are made up of three modules and a large communal open space area central to the site, providing for a sense of openness within the complex. These units also contain two and three bedroom selections with ground floor parking, accessed in the forward module, from both the south, whilst the rearmost modules have their access from the northern elevation.

The southern element of the proposal contains eight units, again broken up into four distinct building modules. The vehicle and pedestrian access to these units are within the central areas of the site, facing north, away from adjoining site. All modules are two levels and contain both two and three bedroom dwellings with parking on the ground floor areas.

It is noted that the building modules within the rear 25% of the site are all single story developments.



Figure 10: Proposed Footprints

At the site frontage, a bin hide adjacent to the separate vehicle and pedestrian entries is provided. This is incorporated into a new bus shelter proposed to be constructed by the applicant to service not only this site, but the wider area.



Figure 11: Site Entry/Exit and Bus Shelter

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Vehicle access is from the eastern boundary at the site frontage to Laycock Street, with separate entry and exit points for all vehicles accessing the one-way driveway, circling the interior of the development. The driveway provides adequate areas for the manoeuvring of vehicles and allows entry and exit to and from the site in a forward direction. There is a total of 43 vehicle parking spaces on site.

The landscaping is mixed throughout the plan of the development with various areas provided. The numerical compliance of 40% of the site area is achieved by the proposal in addition to the merit-based requirements of usability, location, dimensions and built form softening that are integral to the assessment of landscape open spaces. In addition to these landscape areas are the private open spaces required for each unit.

The following table summarises the units and their numerical characteristics:

Unit No	Total Floor Space	Garage Space	Private Open Space	Bedrooms	Parking*
1	139.6sqm	26.6sqm	106.9sqm	3	2
2	143.5sqm	25.6sqm	94sqm	3	2
3	143.5sqm	25.6sqm	91.1sqm	3	2
4	143.5sqm	25.6sqm	88.4sqm	3	2
5	143.5sqm	25.6sqm	85.6sqm	3	2
6	104.5sqm	25.6sqm	80.8sqm	2	2
7	104.5sqm	25.6sqm	86.4sqm	2	2
8	104.5sqm	25.6sqm	121.6sqm	2	2
9	91.6sqm	25.1sqm	41.6sqm	2	2
10	91.6sqm	25.1sqm	42.8sqm	2	2
11	125.3sqm	25.1sqm	31.9sqm	3	2
12	125.3sqm	25.1sqm	43.5sqm	3	2
13	125.3sqm	25.1sqm	34.3sqm	3	2
14	125.3sqm	25.1sqm	35.5sqm	3	2
15	104.5sqm	25.6sqm	98.5sqm	2	2
16	104.5sqm	25.6sqm	68.9sqm	2	2
17	104.5sqm	25.6sqm	77sqm	2	2
18	143.5sqm	25.6sqm	73.3sqm	3	2
19	143.5sqm	25.6sqm	72.2sqm	3	2
20	143.5sqm	25.6sqm	73.3sqm	3	2
21	143.5sqm	25.6sqm	73.3sqm	3	2
22	139.6sqm	26.6sqm	99.9sqm	3	2

*Three additional spaces for visitor parking is provided.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Figure 12: Typical Car Parking Layout and Internal Street Interface



Figure 13: Typical Private Courtyard

5.0 Application History

A pre-lodgement meeting was held at Council chambers on 13 June 2019. The following is an extract of the findings of the meeting and a summary of responses to the points raised by stakeholders.

> *As discussed during the pre-lodgement meeting, the site has a large fall/slope, being approximately 8 metres from the street to the rear of the site. This is a significant constraint considering that the proposed use is Seniors Living.*

Response

Whilst it is acknowledged there is a fall in the land from west to east, this slope is not greater than the 1:14 requirement. Numerically, the site is appropriate for the proposal as it is compliant with the topographical limits which have been set at a strategic level, during the consideration of the policy and its adoption.

Further, works are to be undertaken to allow for an appropriate solution to ease any impact the existing slope may have on the movement of pedestrians throughout the site.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

The proposal has been designed to respond to the topography of the site. As can be seen within the below plan extract, with green reflecting fill and red reflecting cut, earthworks are minimal whilst providing numerically compliant grades along vehicle and pedestrian movement areas.

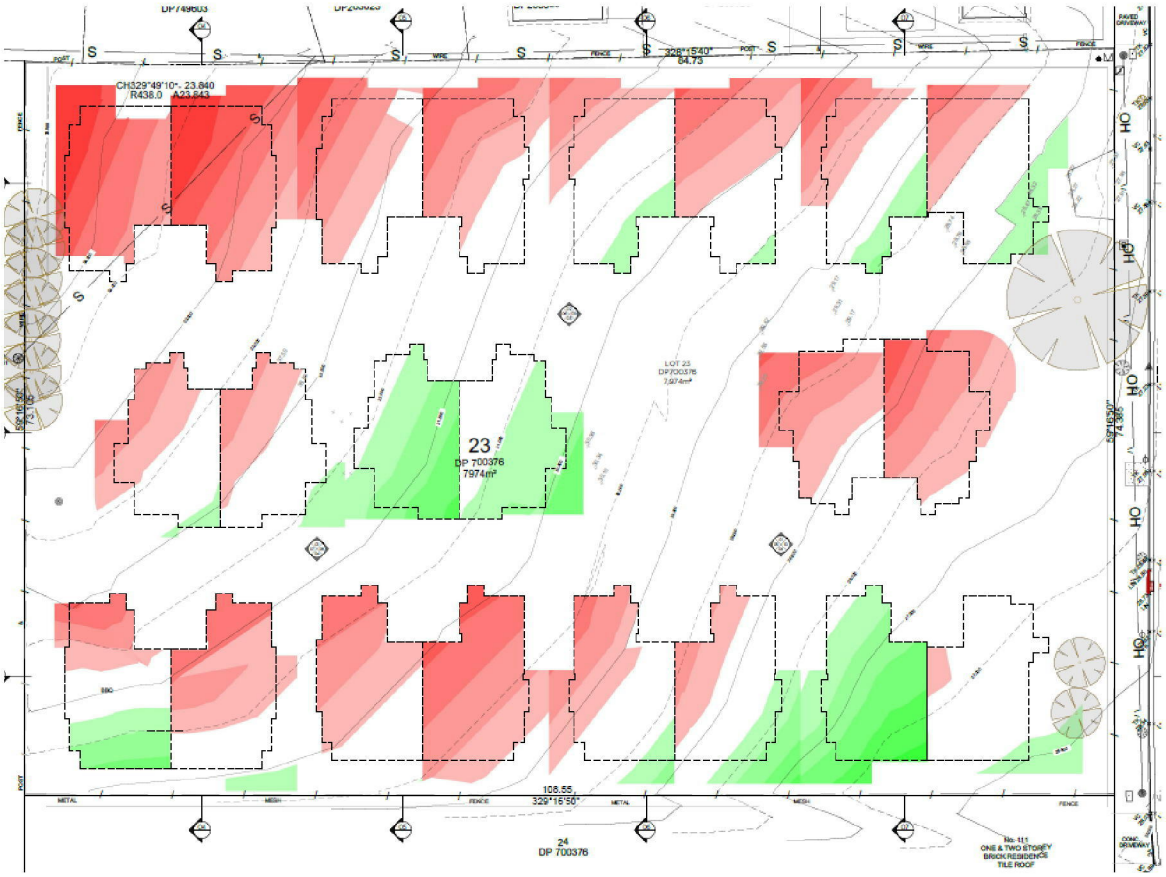


Figure 14: Proposed Earthworks (red depicting cut and green fill)

It is apparent that the resulting design, which includes cut and fill, contains a series of ramps and paths to deal with the level differences. This greatly affects the legibility and easy manoeuvrability throughout the site. The front setbacks of dwellings are significantly occupied by hardstand areas for ramps, level landings and driveways, thus limiting the ability to provide deep soil planting and vegetation to act as a visual and real buffer in the front setback areas of the dwellings. The realistic paths of travel for residents and visitors on foot is long and convoluted.

Response

referring to the submitted plans, the applicant has reviewed these elements of the proposal and has made the following adjustments and amendments in order to address Councils concerns:

- Cut and fill has been minimised through thoughtful design and appropriate response to the gradual slope. Please refer to figure 14 above.
- Substantial planting areas have been added to the areas adjoining the internal road and access ways to achieve an appropriate visual buffer within this style and type of development. This is detailed within the accompanying architectural and landscape architectural plans.
- Paths of travel are now less convoluted in response to Councils comments and allow for equitable paths of travel. Refer also to access report under separate cover for further detail.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

The design relies too heavily on expecting access only by vehicles. Pedestrian movements to/from and throughout the site should be further considered. For example, the movements to get to the waste area, common open space, and bus stops on Laycock Street are long and fairly complex, especially for dwellings located to the rear of the site. All movements to/from the street frontage appear to require access through the common open space, by a series of ramps.

While it is acknowledged that equitable access must be provided for seniors living housing, the existing slope of the land potentially makes this site difficult for the end user and therefore I question whether this site is suitable for the intended use. I believe this issue, foremost, needs to be resolved.

Response

The proposal does not rely on vehicle access only. This is clearly and distinctly demonstrated by both the submitted plans indicating adequate and equitable access to all areas and the use of appropriately designed and sloping ramps in the necessary locations at grades compliant with all plans and policies.

The proposal is accompanied by an accessibility report which indicates the proposal is acceptable in its design and considerations for the requirements in this regard. The accessibility report accompanies the proposal under separate cover.

Any progression of the proposal will need to include detailed sections through various parts of the development to show in more detail how the level changes work and how manoeuvrability is proposed. This should include details of retaining walls with RL's and references to the relationship and levels of adjoining properties.

Response

The application package includes detailed sections indicating appropriate level changes and adequate manoeuvrability, that is compliant with not only numerical requirements outlined within the policy but also augments the overall access throughout the site. All residents and visitors to the site will have adequate access to all areas of the development.

The treatment of the rear setback should be reconsidered. The proposed batter limits the usability and vegetation of the area, and the portion of road located in the rear setback should be relocated out of the 4m setback zone.

Response

Referring to the accompanying architectural and landscape plans, it is noted that the access driveway has been shifted out of the 4m rear setback and this area has been heavily landscaped in response to this concern.

Many of the gaps in the building footprint are occupied by parking spaces, with habitable rooms also fronting these spaces. The gaps between buildings should be designed as green, open spaces as this provides the relief from the building mass and density.

Response

This concern is noted and has been resolved through the revised design. The areas in between the buildings are no longer used for parking and are appropriately landscaped.

Council's Senior Traffic Engineer mentioned at the meeting that (you) should consider providing a bus shelter at each of the existing bus stops located on Laycock Street. From an

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

amenity perspective, this would benefit your future intended users, particularly given that you rely on the two bus stops to satisfy the SEPP requirements relating to access to services and therefore permissibility. Therefore, you should consider progressing this aspect by contacting Council's Traffic Unit.

Response
A bus shelter has been incorporated into the design of the development, providing public benefit to the wider locality. As the opposite side of the street is not part of the subject site the proposal does not show a bus shelter on this curb. Notwithstanding

The site is zoned Low Density Residential. Many of the surrounding sites and dwelling lots have low scale and permeable front fences, which results in a very open appearance to the streetscape and emphasises landscaping in the front setbacks, rather than a closed or solid street presentation.

Response
The design of the front fence has considered openness to the street whilst showing regard for safety and security and clear delineation of the site from the public realm. It should be noted that, notwithstanding the zone of the land, the development is permissible and thus is considered appropriate at a strategic level.

Careful design consideration has been shown to the front fence, in an area which is undergoing transition from large lot residential areas to a more intensive development typology. The fencing complements the permissible development, with regard shown for the verge and openness of the public open spaces.

I question the location of the common open space at the front of the site. I understand from the meeting that the intention is to position the space to allow views to the Blue Mountains escarpment. However, you should consider other locations, such as the middle of the site, as this would allow a better sharing and ownership of the space between the dwellings and provide a relief to the building mass.

Response
The common open spaces have been located more centrally in response to this concern.

With regard to tree removal please also see comments below about 'Vegetation Management'. The existing line of trees on the side and rear boundaries provide a suitable buffer from the adjoining dwellings, therefore, further thought should be given to keeping more of these trees (acknowledging the need for northern sunlight to the proposed dwellings).

Response
The proposal is accompanied by an arborist report which considers any issues relating to tree removal.

Please ensure that your SEE and design justification carefully considers the requirements of the SEPP (Seniors Housing). It would assist if your SEE responds to each site related and design principle of the SEPP.

Response
This element is addressed within this report under Section 6.1.4.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

6.0 Environmental Planning and Assessment Act 1979

6.1 Environmental Planning Instruments

6.1.1 State Environmental Planning Policy No. 55 – Remediation of Land

Clause 7 (1)(a) of State Environmental Planning Policy (SEPP 55) Remediation of Land requires consideration whether land is contaminated. A review of council records and an inspection of site attributes indicates that the proposal has been utilised as a residential site for a significant period.

In this regard, the works proposed will not result in risks being posed in terms of contamination of land and thus no further consideration is required under the provisions of Clause 7 (1) (b) and (c) of the SEPP. A review of the site indicates there is no evidence contamination and the wider residential locality is well established, the land is suitable for the land use.

6.1.2 State Environmental Planning Policy BASIX

A BASIX certificate has been prepared and accompanies the proposal under separate cover. This BASIX certificate demonstrates a consistency with the policy. Any additional recommendations and compliance with the certificate may be included into any condition consent documents.

6.1.3 State Environmental Planning Policy – Infrastructure

Clause 45 of the State Environmental Planning Policy (SEPP) requires the Consent Authority to consider any development application for any development carried out:

- Within or immediately adjacent to an easement to an easement for electrical purposes,
- Immediately adjacent to an electrical sub-station,
- Within 5m of an overhead power line,
- Includes instillation of a swimming pool any part of which is within 30m of a structure

A site inspection has indicated that the site subject to the proposal is within 5m of an overhead powerline thus a referral to Ausgrid is required. Any recommendations resulting from the referral to Ausgrid are requested to be included into the conditions of consent.

6.1.4 State Environmental Planning Policy – Housing for seniors and people with a disability 2004.

CHAPTER 1 – PRELIMINARY
The relevant elements of the chapter are addressed below:

2 Aims of Policy
(1) This Policy aims to encourage the provision of housing (including residential care facilities) that will:

(a) increase the supply and diversity of residences that meet the needs of seniors or people with a disability, and

Response
The very essence of the application shows consistency within this objective. The proposal clearly increases the supply of residences that are diverse when compared to that of the existing development within this area that is undergoing a transition in residential land use.

The design and accessibility of the site clearly complies with the controls and aims, that have been outlined at a strategic level and provides an appropriate design and layout that lends

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

itself to the seniors living SEPP. The proposal exceeds expectations in its clear and robust consistency with the clause.

(b) make efficient use of existing infrastructure and services, and

Response
The development not only makes use of existing infrastructure, but also will add to the public transport network by providing a new bus shelter at the site frontage, for use by residents of the new site and any other patron of the public transport system.

The intent is to create a nexus between transport and land use whilst reducing where possible the use of vehicles for short trips. The proposal again shows consistency with the overall relevant aims and the underlying intent of the SEPP.

(c) be of good design.

Response
This element of the aims is discussed within the architectural design statement prepared by Alvaro Architects. The statement outlines the proposal architectural and design intent and shows the proposal to be of good design.

(2) These aims will be achieved by:

(a) setting aside local planning controls that would prevent the development of housing for seniors or people with a disability that meets the development criteria and standards specified in this Policy, and

Response
As the proposal clearly meets the development criteria and standards of this higher order planning policy. It is appropriate to set aside the local planning controls that prevent the development.

(b) setting out design principles that should be followed to achieve built form that responds to the characteristics of its site and form, and

Response
This element of the aims is discussed within the architectural design statement prepared by Alvaro Architects. The statement outlines the proposal architectural and design intent and shows the proposal to be constant with design principles.

(*c) ensuring that applicants provide support services for seniors or people with a disability for developments on land adjoining land zoned primarily for urban purposes.*

Response
The proposal provides all services that would be required for this type of land use. The new bus shelter at the site frontage, communal open space within the site, the parking provided at a front door first stop position for all units, landscaping and plantings, together with accessibility provisions all combine to create an appropriate and well serviced proposal.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

CHAPTER 2 – KEY CONCEPTS

The relevant elements of the chapter are addressed below:

10 ***Seniors housing***

In this Policy, seniors housing is residential accommodation that is, or is intended to be, used permanently for seniors or people with a disability consisting of:

(c) a group of self-contained dwellings

13 ***Self-contained dwellings***

(1) ***General term: "self-contained dwelling*** *"In this Policy, a self-contained dwelling is a dwelling or part of a building (other than a hostel), whether attached to another dwelling or not, housing seniors or people with a disability, where private facilities for significant cooking, sleeping and washing are included in the dwelling or part of the building, but where clothes washing facilities or other facilities for use in connection with the dwelling or part of the building may be provided on a shared basis.*

CHAPTER 3 – DEVELOPMENT FOR SENIORS HOUSING	
Objective	**Response**
PART 1 - GENERAL	
The objective of this Chapter is to create opportunities for the development of housing that is located and designed in a manner particularly suited to both those seniors who are independent, mobile and active as well as those who are frail, and other people with a disability regardless of their age.	The proposal is designed to cater for all potential occupants that fit in the over 55 age group. Both the frail and the active will be able to live in this all-encompassing complex.
This Chapter allows the following development despite the provisions of any other environmental planning instrument if the development is carried out in accordance with this Policy:	
development on land zoned primarily for urban purposes for the purpose of any form of seniors housing, and	Not Applicable
development on land that adjoins land zoned primarily for urban purposes for the purpose of any form of seniors housing consisting of a hostel, a residential care facility or serviced self-care housing	Not Applicable
Development allowed by this Chapter may be carried out only with the consent of the relevant consent authority unless another environmental planning instrument allows that development without consent	Not Applicable
Subject to subclause (2), a consent authority must not consent to a development application made pursuant to this Chapter to carry out development on land that adjoins land zoned primarily for urban purposes of	
a hostel,	A hostel is not proposed
a residential care facility,	A residential care facility is not proposed

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

CHAPTER 3 – DEVELOPMENT FOR SENIORS HOUSING	
Objective	**Response**
PART 1 - GENERAL	
Serviced self-care housing	Serviced self-care housing is not proposed
A consent authority must not consent to a development application made pursuant to this Chapter to carry out development for the purposes of serviced self-care housing on land that adjoins land zoned primarily for urban purposes unless the consent authority is satisfied that the housing will be provided:	
for people with a disability, or	Housing is provided for people with a disability.
in combination with a residential care facility, or	Not Applicable
as a retirement village	Not Applicable
Development allowed by this Chapter may be carried out for the accommodation of the following only:	
seniors or people who have a disability,	The proposal is for Housing for people and people with a disability. Thus, the proposal fulfils this requirement.
people who live within the same household with seniors or people who have a disability,	Complies
staff employed to assist in the administration of and provision of services to housing provided under this Policy.	Not Applicable
A consent authority must not consent to a development application made pursuant to this Chapter unless:	
A condition is imposed by the consent authority to the effect that only the kinds of people referred to in subclause (1) may occupy any accommodation to which the application relates, and	A condition of consent may be imposed by Council in this regard.
The consent authority is satisfied that a restriction as to user will be registered against the title of the property on which development is to be carried out, in accordance with section 88E of the Conveyancing Act 1919, limiting the use of any accommodation to which the application relates to the kinds of people referred to in subclause (1).	This may also be addressed via consent conditions.
PART 2 – SITE RELATED REQUIREMENTS	
A consent authority must not consent to a development application made pursuant to this Chapter unless the consent authority is satisfied, by written evidence, that residents of the proposed development will have access that complies with subclause (2)	The facilities and services referred to in subclause (1) are located at a distance of not more than 400 metres from the site of the proposed development that is a distance accessible by means of a suitable access pathway and the overall average gradient for the pathway is no more than 1:14. There is a public transport service available to the residents who will occupy the proposed development within 400m of the subject site.
Shops, bank service providers and other retail and commercial services that residents may reasonably require, and	Cranebrook Village is located near to the site on the corner of Laycock Street and Borrowdale Way, Cranebrook
Community services and recreation facilities, and	Cranebrook Community Centre is located at 17 Hoskins Street Cranebrook

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

CHAPTER 3 – DEVELOPMENT FOR SENIORS HOUSING	
Objective	**Response**
PART 1 - GENERAL	
The practice of a general medical practitioner	There is a general medical practitioner located at 35 Laycock St, Cranebrook
Part 4 - Development Standards to be Complied With	
Site size: The size of the site must be at least 1,000 square metres.	Complies – site area totals 7974sqm.
Site frontage : The site frontage must be at least 20 metres wide measured at the building line.	Complies – site frontage is 73m approximately
The height of all buildings in the proposed development must be 8 metres or less, and	Complies – does not exceed 8m
A building located in the rear 25% area of the site must not exceed 1 storey in height.	Complies – the rear 25% of the site does not exceed 1 storey in height
Division 4 - Self-Contained Dwellings	
Standards that cannot be used to refuse development consent for self-contained dwellings	
building height: if all proposed buildings are 8 metres or less in height (and regardless of any other standard specified by another environmental planning instrument limiting development to 2 storeys),	Complies – does not exceed 8m
density and scale: if the density and scale of the buildings when expressed as a floor space ratio is 0.5:1 or less,	Complies – FSR is 0.0.41:1
landscaped area: if: in the case of a development application made by a social housing provider—a minimum 35 square metres of landscaped area per dwelling is provided, or in any other case—a minimum of 30% of the area of the site is to be landscaped,	Complies - 34% (2711sqm)
deep soil zones: if, in relation to that part of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) that is not built on, paved or otherwise sealed, there is soil of a sufficient depth to support the growth of trees and shrubs on an area of not less than 15% of the area of the site (the deep soil zone). Two thirds of the deep soil zone should preferably be located at the rear of the site and each area forming part of the zone should have a minimum dimension of 3 metres	Complies - The proposal provides appropriate landscaping and meets the numeric controls, as demonstrated within the accompanying landscape architectural plans
parking: if at least the following is provided: 0.5 car spaces for each bedroom where the	Complies - 43 spaces are provided

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

CHAPTER 3 – DEVELOPMENT FOR SENIORS HOUSING	
Objective	**Response**
PART 1 - GENERAL	
development application is made by a person other than a social housing provider, or	

6.1.5 Sydney Regional Environmental Plan – No 20—Hawkesbury-Nepean River (No 2—1997)

The proposal is identified within Figure 15 below as being within a location that is subject to the Plan.

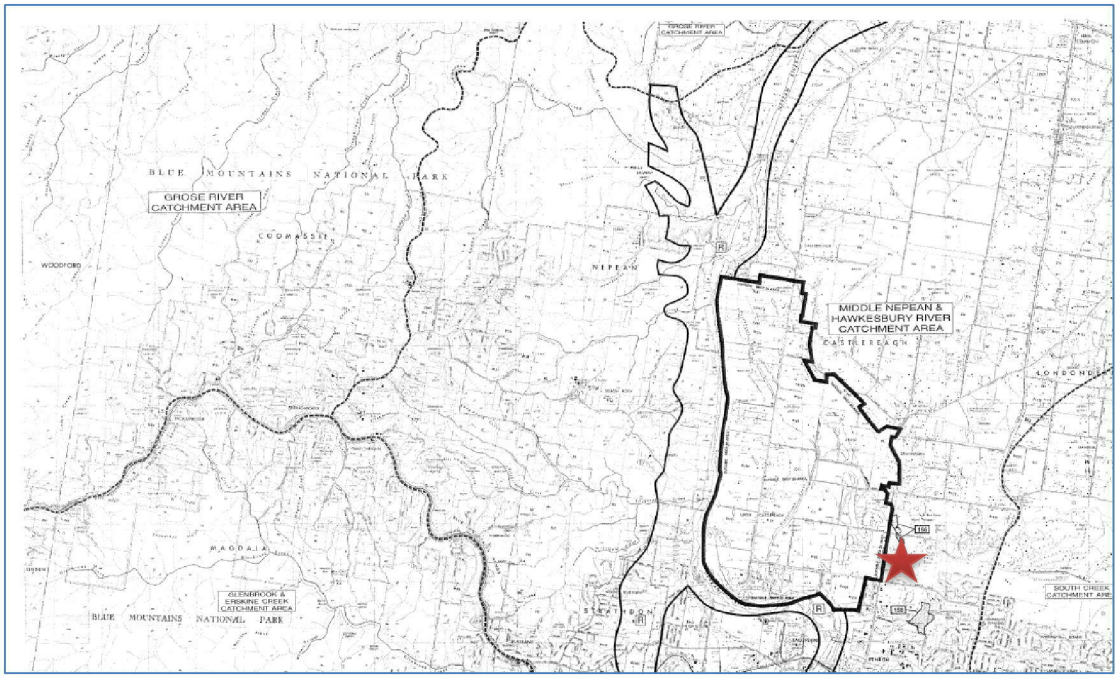


Figure 15: Site Location, Hawksbury Nepean Catchment Map 26 of 43

= Subject Site

The following is an assessment of the proposal in accordance with the plan.

PART 1 – INTRODUCTION

3 Aim of this plan

> *The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.*

Response

The proposals response to any stormwater resulting from the land use, together with any other possible impacts on the river system are appropriate in the context of the plan.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Part 2 General planning considerations, specific planning policies and recommended strategies		
Application of general planning considerations, specific planning policies and recommended strategies		
The general planning considerations set out in clause 5, and the specific planning policies and related recommended strategies set out in clause 6 which are applicable to the proposed development, must be taken into consideration:		
by a consent authority determining an application for consent to the carrying out of development on land to which this plan applies, and	This application allows the consent authority to consider the general planning considerations	
by a person, company, public authority or a company State owned corporation proposing to carry out development which does not require development consent.	Not Applicable	
General planning considerations		
The general planning considerations relevant for this Part are:		
The aim of this plan, and	The aims of the plan are achieved by the proposal	
The strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and		
Metropolitan Strategy objective	Environmental target	Compliance
Improve the health of waterways, coasts and estuaries	Meet community objectives for ecosystem health and recreational amenity, Government-approved Water Quality and River Flow Objectives (EPA 2000)	YES
Protect Sydney's unique diversity of plants and animals	Maintain or improve regional biodiversity values across the region (consistent with the Threatened Species Amendment Act, 2004 [NSW])	YES
Improve Sydney's air quality	Reduce emissions and improve compliance with national standards for air quality to protect health. National Environment Measure for Ambient Air Quality (NEPC 1998)	YES
Protect Aboriginal and other cultural heritage	Maintain Aboriginal and other important cultural heritage values: archaeological, built and landscape scale	YES
Minimise household exposure to unacceptable noise levels	Reduce proportion of population exposed to excessive noise levels.	YES
Contain Sydney's urban footprint	Ensure 60–70% of future growth occurs within existing urban footprint	YES
Achieve sustainable use of water	Keep water extraction within sustainable yield (as per Metropolitan Water Plan [NSW Government 2004]) BASIX target: 40% reduction in water consumption	YES
Use energy efficiently and reduce greenhouse intensity of energy supply	Increase renewable energy generation. Greenhouse target for 60% reduction in emissions by 2050 and return to 2000 levels by 2025. BASIX target: 40% reduction in energy consumption/greenhouse gas emissions	YES
Minimise and recycle waste	No net increase in total amount of waste generated for next five years.	YES
Whether there are any feasible alternatives to the development or other proposal concerned, and	The Seniors Living development is a standalone land use separately defined. There are no alternatives to the proposed use.	
The relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored.	Any impacts are addressed within the stormwater, engineering, and landscape packages provided under separate cover.	

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Part 2 General planning considerations, specific planning policies and recommended strategies	
Specific planning policies and recommended strategies	
Total catchment management	
Refer the application or other proposal for comment to the councils of each adjacent or downstream local government area which is likely to suffer a significant adverse environmental effect from the proposal.	This may be addressed via Councils referral policies. No further investigation is required.
Consider the impact of the development concerned on the catchment.	The proposal has considered any impacts and has been found to be appropriate and consistent with the aims of the plan.
Consider the cumulative environmental impact of development proposals on the catchment.	The proposal has considered any cumulative environmental impact and has been found to be appropriate and consistent with the aims of the plan.
Urban development	
When considering a proposal for the rezoning or subdivision of land which will increase the intensity of development of that land (for example, by increasing cleared or hard surface areas) so that effluent equivalent to that produced by more than 2,500 people will be generated, consider requiring the preparation of a Total Water Cycle Management Study or Plan.	Not applicable, no rezoning or subdivision is proposed.
Consider urban design options to reduce environmental impacts (such as variable lot sizes and shapes, and the clustering of development).	Complies – the proposal presents small clusters of form, each easily accessible by foot or car and each located within a landscape setting.

There are no other provisions relevant to the proposal within the plan.

6.1.6 Penrith City Local Environmental Plan 2010

The following is an assessment of the proposal against the relevant aims and objectives of the Local Environmental Plan.

PART 1 – PRELIMINARY

1.2 Aims of Plan
The list below outlines the proposals consistency with the relevant aims of the Plan

> *Aim*
> *To promote development that is consistent with the Council's vision for Penrith, namely, one of a sustainable and prosperous region with harmony of urban and rural qualities and with a strong commitment to healthy and safe communities and environmental protection and enhancement,*

Response
The proposal includes designs and methodologies that result in both a sustainable and functional development for seniors housing. The proposal with its open spaces, extensive landscaping and fluid incorporation into the existing locale that is currently under transition. The increase in density within the overall area, promotes a healthy, safe and vibrant community, offering further choice to existing and future residents with regard to residential accommodation.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Aim
To accommodate and support Penrith's future population growth by providing a diversity of housing types, in areas well located with regard to services, facilities and transport, that meet the current and emerging needs of Penrith's communities and safeguard residential amenity,

Response
The proposal adds to the mix of housing typologies within the LGA. The transition of this area from semi-rural residential uses to more intensive and mixed choice of housing is a natural transition, facilitated by the proposal and its incorporation into existing and future infrastructure and ancillary services available to the local population.

Aim
To ensure that development incorporates the principles of sustainable development through the delivery of balanced social, economic and environmental outcomes, and that development is designed in a way that assists in reducing and adapting to the likely impacts of climate change.

Response
The proposal is consistent with the aims of a sustainable development. The modern materials, designs and layouts have incorporated environmentally aware solutions to the site that ensures a minimal impact upon climate change results. The proposal utilises the natural features of the site, together with existing infrastructure opportunities to create an appropriate environment outcome.

PART 2 – PERMITTED OR PROHIBITED DEVELOPMENT

Land Use table
R2 Low Density Residential Zone

The proposal is identified as ***Seniors Housing***, defined by the instrument as:

(a) a residential care facility, or
(b) a hostel within the meaning of clause 12 of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, or
(c) a group of self-contained dwellings, or
(d) a combination of any of the buildings or places referred to in paragraphs (a)–(c), and that is, or is intended to be, used permanently for—
(e) seniors or people who have a disability, or
(f) people who live in the same household with seniors or people who have a disability, or
(g) staff employed to assist in the administration of the building or place or in the provision of services to persons living in the building or place but does not include a hospital.

Seniors Housing is a type of residential accommodation—see the definition of that term in this Dictionary. Thus, the proposal is permitted with consent within the R2 low density residential zone.

PART 4 – PRINCIPLE DEVELOPMENT STANDARDS

Standard	Required	Provided	Comment
Minimum Lot size	1ha	7.974ha	Complies
Height of Buildings	8.5m	8m	Complies
Floor Space Ratio	Not adopted	0.41:1	Complies

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

PART 7 – ADDITIONAL LOCAL PROVISIONS

6.1 Earthworks

The following table indicates the proposals consistency with the requirements of the plan

The objectives of this clause are as follows:	Compliance
To ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land,	Minimal earthworks are proposed with the proposal carefully designed to respond to the existing topography of the land whilst allowing for full compliance in terms of vehicle and pedestrian accessibility
To allow earthworks of a minor nature without requiring separate development consent	Only minor earthworks are proposed
Development consent is required for earthworks unless:	
The work is exempt development under this Plan or another applicable environmental planning instrument, or	The works are not exempt
The work is ancillary to other development for which development consent has been given.	The works are integral to the development
Before granting development consent for earthworks, the consent authority must consider the following matters:	
The likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,	No Impact – refer to the accompanying stormwater concept plan
The effect of the proposed development on the likely future use or redevelopment of the land,	No Impact – refer to the accompanying stormwater concept plan
The quality of the fill or the soil to be excavated, or both,	The site is not considered to be contaminated and any external fill is intended to be clear of contaminants
The effect of the proposed development on the existing and likely amenity of adjoining properties,	No Impact – all earthworks are well set in from property boundaries to ensure no impact on adjoining properties
The source of any fill material and the destination of any excavated material,	This requirement can be conditioned
The likelihood of disturbing relics	No noted relics are present within proximity of the site
The proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.	No Impact

6.2 Development Control Plans

The following is an assessment of the proposal against the relevant controls contained within the Penrith Development Control Plan 2014:

PART B – DCP PRINCIPLES

1.2 – PRINCIPALS

Principle 1: Provide a long-term vision for cities, based on sustainability; intergenerational, social, economic and political equity; and their individuality.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

The proposal shows consistency with this principle. The proposal is of a contemporary design which will fit seamlessly into the surrounding locality and provides housing diversity and further principles of gaining in place.

Principle 2: Achieve long term economic and social security

The proposal shows consistency with this principle. In providing housing diversity and provides economic benefits to the locality both through construction and through increasing the number of people living in the locality.

Principle 3: Recognise the intrinsic value of biodiversity and natural ecosystems and protect and restore them.

The proposal shows consistency with this principle. The subject site is considered to have limited biodiversity value and on balance will provide a net benefit to the locality. Stormwater quality and arboriculturally reporting accompanies this application.

Principle 4: Enable communities to minimise their ecological footprint

The proposal shows consistency with this principle. The proposal is considered an efficient use of land which capitalises on local services and facilities, including proximity to shops and a bus stop.

Principle 5: Build on the characteristics of ecosystems in the development and nurturing of healthy and sustainable cities.

The proposal shows consistency with this principle. The subject site is considered to have limited biodiversity value and on balance will provide a net benefit to the locality. Stormwater quality and arboriculturally reporting accompanies this application.

Principle 6: Recognise and build on the distinctive characteristics of cities, including their human and cultural values, history and natural systems.

The proposal shows consistency with this principle. In providing housing diversity and provides economic benefits to the locality both through construction and through increasing the number of people living in the locality.

Principle 7: Empower people and foster participation

The proposal shows consistency with this principle. The proposal contains communal areas and is of a design and layout intended to foster a sense of community. Notwithstanding this principle is not Applicable as outlined by Council policies and controls.

Principle 8: Expand and enable cooperative networks to work towards a common, sustainable future.
The proposal shows consistency with this principle for the reasons outlined above.

Principle 9: Promote sustainable production and consumption, through appropriate use of environmentally sound technologies and effective demand management. The proposal shows consistency with this principle for the reasons outlined above.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Principle 10: Enable continual improvement, based on accountability, transparency and good governance.

The proposal shows consistency with this principle.

PART D- LAND USE CONTROLS

It is noted that there are no specific land use controls for seniors housing. The controls for multi dwelling housing within the DCP will be used to assess the development against the lower order controls.

Control	Required	Provided	Comment
Front setback	5.5m	0m to bin hide	Complies (SEPP Prevails)
Rear Setback G/F	4m	4m	Complies
Rear Setback F/F	6m	≥ 6m	Complies (SEPP Prevails)
Side Setback	2m	≥ 2m	Complies
Side Envelope	6.5m x 45°	Complies	Complies
Landscaping	35%	34%	Complies (SEPP Prevails)

2.4.9. Solar Access
The proposed development provides a minimum of 4 hours sunlight between 9am and 3pm on 21 June, to living zones of each dwelling, and the living zones of any adjoining dwellings. Further, the proposal ensures a minimum of 3 hours sunlight between 9am and 3pm on 21 June, to 40% of the main private open spaces of the dwelling and main private open spaces of any adjoining dwellings. The proposal is compliant in this regard.

2.4.12 Building Design
The proposal is seen from the street as semi-detached dwellings separated by gardens and ancillary elements. Facades incorporate a variety of materials and shading structures with various styles of roofs and projections.

The proposal utilises a range of materials and finishes with windows on every elevation with Articulation in the form of broken wall plans and a variety of finishes facing all boundaries are provided.

2.4.14 Design of Dwellings and Private Courtyards
The courtyards and other open spaces have appropriate levels of amenity and demonstrate traditional practices of suburban design. Further comment is provided within the Architectural Design Statement under separate cover.

2.4.18 Fences and Retaining Walls
All fences retaining walls are compatible with the existing (diverse) neighbourhood character. All of these elements are integrated into building design and gardens. Appropriate levels of casual surveillance of public and common areas is achieved without impacting unreasonably on the privacy of adjoining dwelling and private/public open spaces.

2.4.19 Visual and Acoustic Privacy and Outlook
The proposal allows for outlooks from all dwellings and associated private open space whilst achieving levels of acoustic and visual privacy that are reasonable for this seniors housing development. The high level of visual and acoustic privacy achieved in dwellings and private open space is a result of appropriate and thoughtful building design that minimises overlooking into private and public pen spaces.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

2.4.20 Safety and Security

The proposal achieves adequate levels of passive security within the complex as well as for surrounding dwellings. The front fence and associated structures (bus shelters and bin hides) are designed to allow for casual views from dwellings and private areas to the street frontage and to driveways. Appropriate levels of casual surveillance are achieved by the proposal.

2.4.21 Accessibility and Adaptability

The proposal is for Seniors Living. Accessibility and Adaptability have been provided s an integral part of the overall design as per the state policy.

6.3 Planning Agreements

There are currently no Draft Planning Agreements or Planning Agreements applicable to the development.

6.4 The Regulations

6.4.1 Division 8A

The consent authority is to consider 'Prescribed conditions' of development consent. This matter may be addressed within any consent documentation.

6.4.2 Clauses 54 and 109

Were Council to require additional information, consideration must be given to the number of days taken in this assessment in light of this clause within the Regulation. No additional information has been requested at the time of writing of the Statement.

6.4.3 Clause 92

The consent authority is to consider AS 2601 – 1991: The Demolition of Structures. This matter may be addressed via a condition of consent.

6.4.4 Clauses 93 and/or 94

The consent authority is to consider the upgrading of a building (including fire safety upgrade of development). This matter may be addressed via a condition of consent.

6.5 The Likely Impacts

6.5.1 Environmental

The assessment of the proposal has shown that any environmental impacts resulting from the proposal will be negligible. Regard is shown for the natural environment in terms of on-site management of stormwater and drainage, with appropriate measures incorporated into the overall design that operate in concert with the extensive areas of landscaping provided by the site layout.

The built environment will be enhanced by the upgraded site and its increased yield allowing for the more economical use of the available resource, without impacting or dominating the area in terms of built form.

The proposal satisfies the requirements of both the natural and built environments.

6.5.2 Social

The proposal adds to housing stock, allowing for a more diverse accommodation typology within the appropriate R2 Zone. This allows a more diverse population cross section to "settle and stay "within the Penrith City LGA.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

The increased choice of housing in this area provided by the proposal increases the longevity of the site whilst allowing residents an upgraded modern alternative.

The upgraded dwelling will continue to fill an existing void and increase the services available to the occupants of dwellings on the Penrith City in terms of housing and add to the available hosing stock within the area and provide opportunities for more varied dwelling choice. The proposal is consistent with the social requirements in these regards.

6.5.3 Economic

The provision of separate housing opportunities within this appropriately zoned locality, contributes to the easing of housing affordability pressure on potential homeowners whilst showing regard for the requirements of this R2 Zone on the fringe of areas undergoing radical built form change.

The proposal provides economic benefits that extend beyond the dwelling. Increased residents in this appropriate zone, adding to the economic stability of the area by allowing for residents to live in a locality that is gentrified and economically vibrant, in close proximity to local services and within reasonable distance to local business and upgraded infrastructure that will benefit from the employment and economic input provided by the future residents.

6.6 Site Suitability

The site suitability is indicated by the appropriate land use being located within the appropriate R2 Low Density Residential Zone. The proposal has demonstrated compliance with all the standards and controls together with a consistency of all underlying objectives of both State and Local controls. The subject site is serviced by existing infrastructure, is easily accessible and is within a gentrified residential area. The proposal is an appropriate fit to the naturally developed character of the locality and will add a further unique land use and housing opportunity within this residential area. The application is considered acceptable with regards to suitability of the site.

6.7 Submissions

There have been no submissions received from any public person, private or Government Authorities at the time of the preparation of this report.

6.8 The Public Interest

The public interest is served by the provision of the appropriate land use that is consistent with local and state planning objectives. The land use responds at a strategic level to desired planning outcomes together with increased affordable housing opportunities within the Sydney region and the Penrith City LGA specifically.

The proposal is consistent with the underlying objectives of the EP and A Act in that it is an appropriate and economical use of the available resource.

7.0 Conclusions and Recommendations

The project, located within suburban Cranbrook, offers a high-quality, flexible, contemporary, residential outcome which provides for and contributes to the housing diversity in this residential precinct comprised of a varied and eclectic mix of types of dwellings. The proposal has demonstrated consistency with the underlying objectives of the controls and general compliance with the numerical standards contained within both State and Local policies and plans. The proposal shows regard for Section 4.15 of the Act, shows regard for all heads of consideration including site suitability, economic, social and environmental impacts and the public interest.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

We recommend the proposal to Council for approval under the provisions of Section 4.16 Determination, of The Act.

Urban Strategies Pty Ltd
29/10/2019

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ARCHITECTS DESIGN STATEMENT
PROPOSED SENIORS HOUSING & HOUSING FOR PEOPLE WITH A DISABILITY & STRATA SUBDIVISION
103-109 LAYCOCK STREET, CRANEBROOK 2749

Issued: 29/10/2019

ALVARO

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

Design Parameters & Objectives

The following is a list of objectives and planning parameters that form the basis of the design approach. Each objective was carefully considered to achieve a solution that reflects the site context and surrounding areas.

Zone R2 Low Density Residential Objectives:

- *To provide for the housing needs of the community within a low-density residential environment.*

The proposal aims to provide housing for seniors and people with a disability within a location that is primarily a Low-Density Residential Zone. The site provides amenities and views that will enrich the lives of the proposed residents. This proposal allows for the intended residents a site and location with large spans of managed parklands and views of man-made lakes and the mountain ranges of the Blue Mountains.

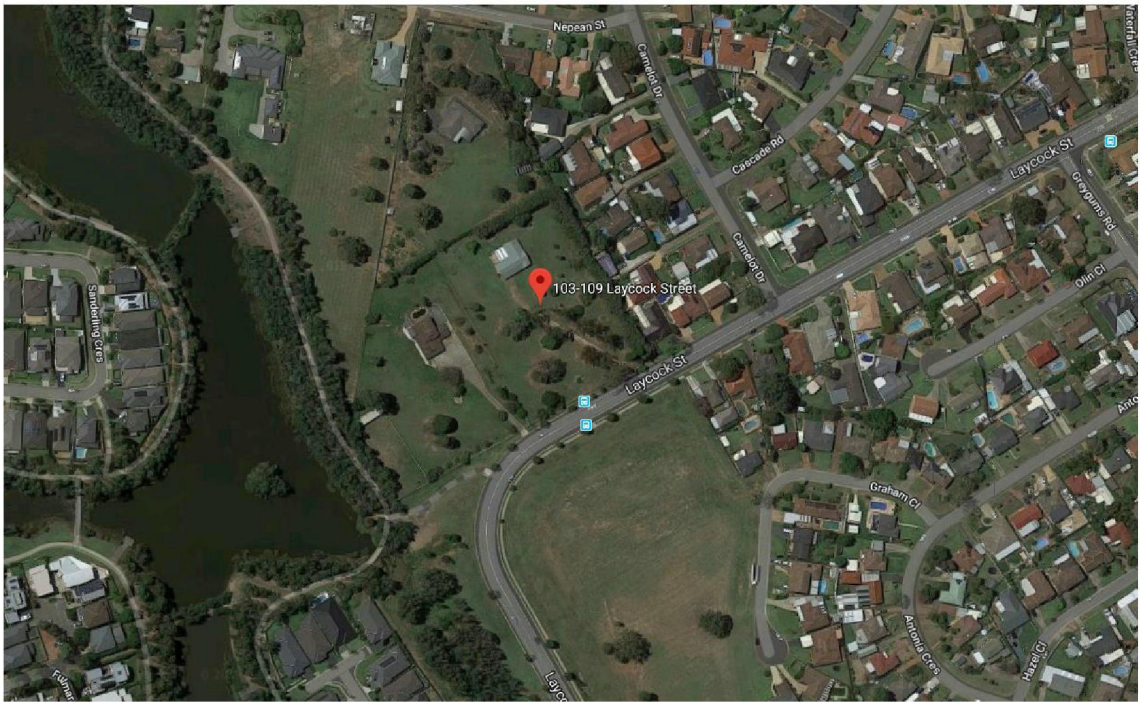


Fig. 1 – Aerial View of the proposed Site within its context.

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

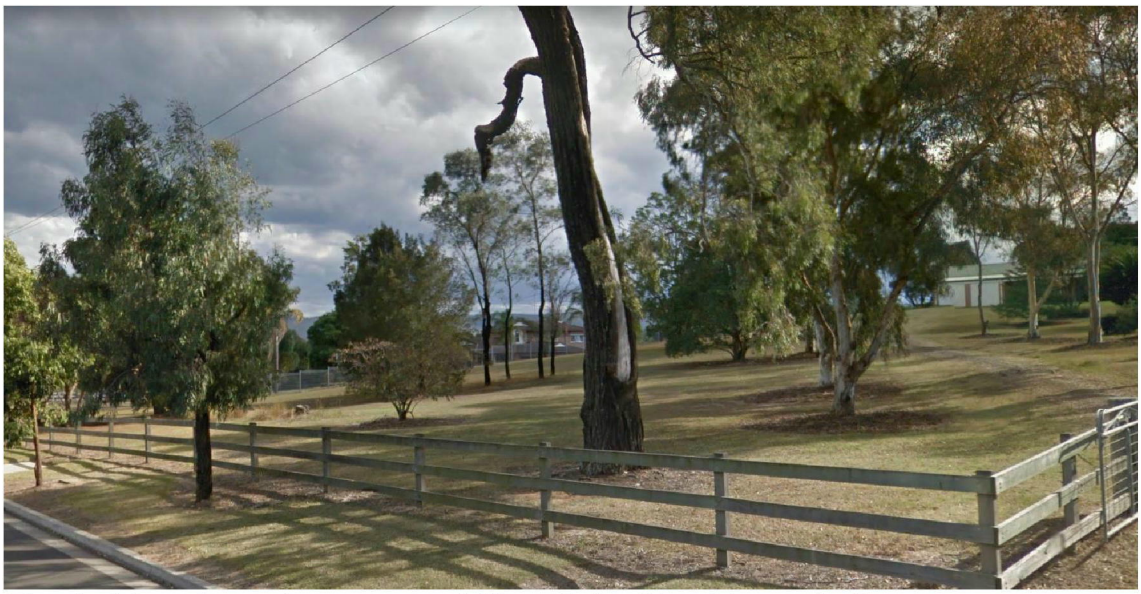


Fig. 2 –View from the proposed Site of the Blue Mountain Ranges.

- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

Seniors Housing is permissible within the R2 Zone. This type of development provides additional amenities that provide the frail and people with a disability to actively utilize the spaces provided that may not have been previously accessible.

- *To promote the desired future character by ensuring that development reflects features or qualities of traditional detached dwelling houses that are surrounded by private gardens.*

In order to maintain the look and feel of the surrounding area many of the controls for Townhouse development were considered extremely important. These controls provide the closest resemblance to low density residential design as they in themselves promote the importance of design that relates back to its context.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

- *To enhance the essential character and identity of established residential areas.*

The design is comprised of new and innovative materials that reflect the original materials found throughout the neighbouring areas. Through the choice of materials the concept provides a distinct link back to the neighbouring dwellings while providing a contemporary look and feel. A thoroughly considered landscape plan was designed to order to maintain the green streets specifically that of Laycock Street.



Fig. 3 –Green "Corridor" of Laycock Street.



Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

Fig. 4 –Proposed Green Frontage of the Design. Artists impression.

What is notable in the image above is the use of greenery to establish the setback of the design. The intention was to provide a landscape strip to distinguish the front setback of the design. the size of the vegetation and groundcover provides the right amount of screening that replicates the views as demonstrated in Fig. 3.

- *To ensure a high level of residential amenity is achieved and maintained.*

This development proposes additional amenity to the site itself and o the surrounding suburb. The primary use of the site is to encourage proposed residents to live within an area that was previously not suitable.

The development also provides a covered bus stop where the previous bus stop provided only a concrete pad.

As per the requirements of sites suitability for seniors housing the development requires to be close to bus services. Fortunately this site was provided with a bus stop centered to the front boundary. The propoisal took the opportunity to create a covered bus stop that would integrate with the current hardstand area.

Below are the existing and proposed images of the Bus Stop that services the site.



Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

Fig. 5 –Existing Bus Stop.



Fig. 6 –Proposed Bus Stop.

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

1) *This Policy aims to encourage the provision of housing (including residential care facilities) that will—*
   a) *increase the supply and diversity of residences that meet the needs of seniors or people with a disability, and*

This proposal is intended only to increase the supply for diverse living within the Penrith City Council Area. The design will provide 22 Dwellings with accessible ground floor areas and vehicular parking spaces. the design also provides an accessible common open space for the residents that is located centrally to the development. Beyond the site residents can enjoy the surrounding amenities provided.

   b) *make efficient use of existing infrastructure and services, and*

The proposal is well located within reach of the surrounding infrastructure. Sewer, Water, Gas and transportation are all available to the site.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

c) *be of good design.*

Good design must take into consideration the constraints and controls of the site. the development considers the design guidelines of Penrith City DCP to maintain a harmonious and compatible streetscape. The design is based on the surrounding areas where design features are recognisable throughout the neighbouring development.

2) *These aims will be achieved by—*
   a) *setting aside local planning controls that would prevent the development of housing for seniors or people with a disability that meets the development criteria and standards specified in this Policy, and*

This aim should veer the development away from the controls of the local authority. However, the intended design solution took into account the local provisions and objectives.

   b) *setting out design principles that should be followed to achieve built form that responds to the characteristics of its site and form, and*

The design principles that are defined within the SEPP provide a minimum design requirement for the proposal. This along with the Development Controls informed the design of the proposal and the suitability of a Seniors Housing Development within the Residential Zone.

   c) *ensuring that applicants provide support services for seniors or people with a disability for developments on land adjoining land zoned primarily for urban purposes.*

The location of the site and the suitability of the site took into consideration the locations and vicinity to the support services that may be required by the residents.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

The Proposal

The proposal is to provide residential housing for Seniors and People with a Disability. A total of 22 town house style units will be proposed on the site with 100% accessibility to the lower ground floor of each. Every unit except for the units within the rear 15% of the site will consist of a two-storey element. This provides additional spaces for bedrooms for the families of the residents requiring this type of housing. The rear units are of single storey construction with an accessible ground floor.

Each townhouse has two car spaces except for Unit 10. The requirement for parking has been intentionally exceeded to minimise the impact on the surrounding streets. Visitor parking has been made available to accommodate the controls of the DCP.

In addition to the dwelling units is the common open space. Located central to the development it will provide an accessible area that functions as an extension to the private open spaces of each unit. The common open space provides additional area for diverse activities that is active and engaging and promotes interaction between residence and visitors of the residence.

The site is enclosed by fencing as a precautionary measure that provides a safe environment for all residents.

Landscaping is essential to development in Penrith. This design uses landscaping to screen the development from neighbouring properties and to enhance the look and feel of the proposal to and from the site.



Fig. 7 – Overview of the Proposal.

ABN 71 604 570 309 NSW Architects Registration No. 9221

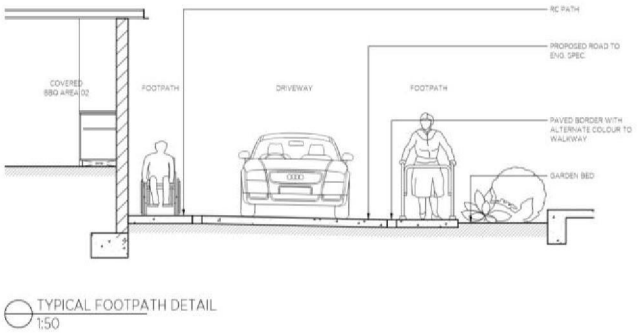
M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

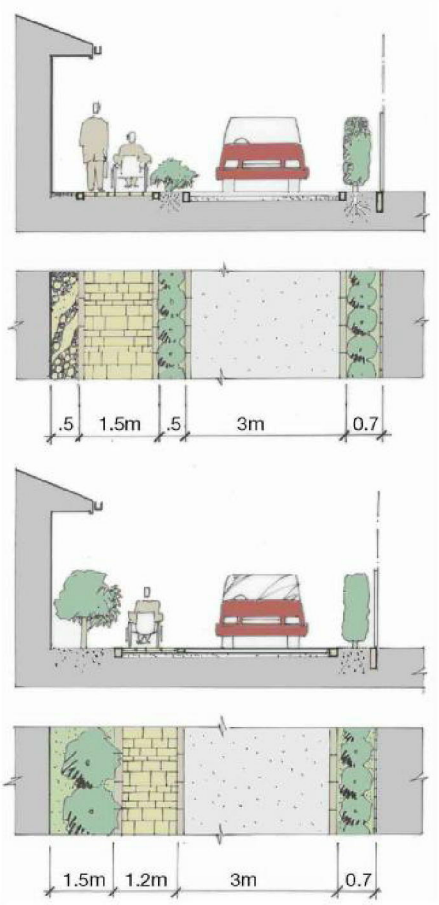
ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

Within the development is the proposed street circuit, pedestrian walkway and visitor parking spaces. These zones provide the circulation routes throughout the site. These have been designed to provide a safe and efficient path throughout the development.





05: *Separate pedestrian paths of generous width are preferable to shared pedestrian/vehicular access ways. In either case, adequate buffering between dwellings and pedestrian paths or driveways should be considered.*

Fig. 8, 9 & 10 – (Left) Detailed Sectional View of the Driveway Detail, (Right) an recommended driveway section as proposed in the "Seniors Living Policy Urban Design Guidelines for Infill Development"

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Fig. 10. – Image of the proposed Driveway & Path Design.

Lighting Bollards and Edge Paving will provide a safe guidance for both vehicles and residents to circulate the development. Zebra crossings have also been provided to safely move between dwellings or to access common open spaces.

The material selection, please refer to the attached Material Schedule, was selected to provide a seemingly endless selection of material choices that provides individual facades to each dwelling. Throughout there area a total of 6 material schemes that are complement each other through the mix of the recurring materials. The selection was based on the surrounding developments with a contemporary spin on existing materials seen throughout the surrounding context.

The bus stop. An essential amenity to the proposal has been incorporated into the scheme. It provides a space for respite before catching the provided transport. The design of the bus stop incorporates planting and materials throughout the site and provides screening from the bin store.

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020



Fig. 11. – Image of the proposed bin store and bus stop.

The incorporated seating also provides space for 2 wheelchairs. To the left of the bin store is the secured entry to the development and the location of the letterboxes. This is repeated on the opposite side of the site next to the secured driveway. Each entry point provides a secure and covered entrance to the development.



Fig. 12. – Image of the proposed entry & driveway.

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

Design Principles

CONTEXT AND NEIGHBOURHOOD CHARACTER

The design considers the natural features of the area and the built environment. The proposal responds to the sloping site with a design that take on the form of the contours. In doing so the development was designed with levels that would not limit the accessibility of the site from front to rear. A minimal amount of ramping was required to access the site. Residents can rely of pedestrian access throughout the site without limitation.

The design also incorporated the landscaping features throughout the site and attempted to retain the significant trees where possible.

The site has a distinctive frontage which faces an open park area directly opposite. The dwellings are also provided with views to the blue mountain. Achievable through the natural slope of the site.

The built form is distinctively like the proposal, specifically to the North East Boundary. The dwellings on this boundary are all battle axe developments. Where this development bears similarity is the relationship between neighbouring properties and their vicinity to each other.

Pushing the side setback further than required provides a rear/side boundary that imitates the side boundaries of surrounding sites.

BUILT FORM AND SCALE

The development provides an appropriate building form that is like the surrounding built forms and is burdened with an 8m height limit. This height limit is not shared by the surrounding properties as they may adopt an 8.5m limit. The proposal also adopts a similar floor plate to the properties north east of the site. The proposal also minimises the floor plat to the upper storeys. This was intended to minimise the overshadowing to the battle-axe lots reducing the overshadowing on their already limited private open spaces.

A maximum of two dwellings attached promote green corridors throughout the development. The neighbouring properties benefit from these spaces through solar access and prevailing winds.

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

DENSITY

The available FSR of the site is 0.5:1. The proposal requires only 0.33:1 FSR allowing for more landscaped area and communal spaces.

The rear 15% of the site is designed with single storey two-bedroom dwellings the front of the site contains 3 bedroom two storey dwellings.

SUSTAINABILITY

The bus stop located at the entry of the proposal minimises the reliance on individual vehicles for transport to and from local facilities in turn minimising carbon emissions. The common open spaces within the site provide a space for recreation without the need for vehicular travel.

The park and facilities within 1km of the site provide additional recreational facilities within walking distance.

An analysis of the development has been undertaken and is detailed within the BASIX report provided.

LANDSCAPE

A landscape plan has been provided within this application. The provisions for the landscape area have been determined through the Penrith DCP. The controls relating to Townhouse development seemed to benefit the site providing green corridors and screening to the surrounding neighbouring properties.

AMENITY

The proposal provides a range of two storey and single storey townhouse dwellings with an accessible ground floor and an accessible pedestrian path throughout the site. The development also provides a sheltered space to an existing bus stop for the residents and users of the bus zone.

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

SAFETY

Safety and security are provided for residents and visitors through the following design measures:

- Secured entry and exists for pedestrians and vehicles.
- Boundary fencing
- Coloured delineation of pedestrian travel routes and vehicular driveways.
- Fenced common open spaces from driveways
- Glazing windows and doors facing the common driveway and the street for active surveillance.
- Active surveillance of the common open spaces.
- Bollard Lighting to provide well-lit paths for pedestrians and as a safety measure against vehicles.

AESTETHICS

The design of the materials palette and the form of the dwelling facades provide a varying and contemporary aesthetic for the development. Landscaping has the biggest impact on the aesthetic of the proposal. This is incorporated into every potential pocket of the development.

The development has been composed to provide a simple and elegant aesthetic that represents a contemporary version of the sites context.

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020

ALVARO

Virtual Tour

To better understand the proposal please use this virtual tool. Follow the link below to the proposed design.

The Virtual Tour may be viewed on any device that supports a web browser. We have provided this same tour on the Notification Plans to provide more information to the neighbouring properties to assist with their comments/concerns.

https://www.4dco.com.au/LAYCOCK/

ROCCOALVARO

Architect
NSW Reg. 9221

Member
Australian Institute
of Architects
2019

ABN 71 604 570 309 NSW Architects Registration No. 9221

M 0402 529 840 A Unit 24, 2-8 Daniel Street, Wetherill Park, NSW 2164 E info@alvaroarchitects.com.au

ALVAROARCHITECTS.COM.AU

Document Set ID: 9032600
Version: 1, Version Date: 20/02/2020