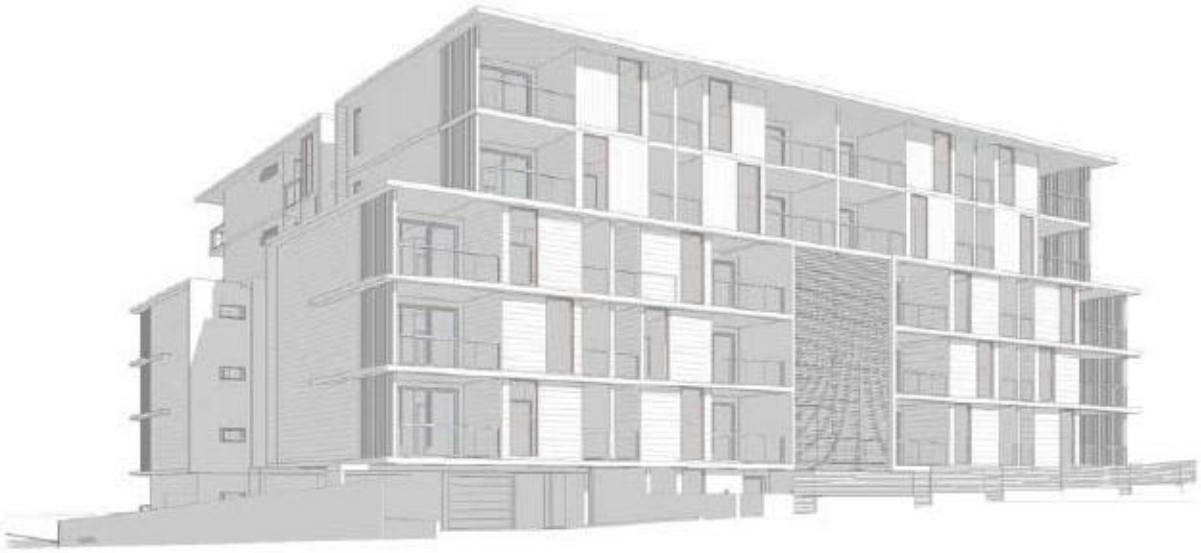
DESIGN VERIFICATION STATEMENT

115 - 119 Derby Street, Penrith

PROJECT NUMBER	**15 035**
CLIENT	**Elcon Pty Ltd**
LOT AND DP	**Lots 5,6,7 DP 24603**
CONSENT AUTHORITY	**Penrith Council**
PROJECT DESCRIPTION	**Demolition of 3x Single Level residential Dwellings and Construction of a 5 Storey Residential Flat Building consisting of 61 Residential Units over 2 Basement Car Parking levels.**



Nominated Architect: Joseph Panetta
NSW Architects Registration Board No: 9505

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STATE ENVIRONMENTAL PLANNING POLICY NO. 65

The following comments and the design review has been prepared by Joseph Panetta. Nominated Architect of CK Design + Interiors on behalf of Elcon Pty Ltd in support of a Multi-Unit Housing Development known as 115-119 Derby Street. Penrith.

The Design represents a detailed and considered approach to the development of the site. The design has resulted from the careful coordination and consultation with Penrith Council through Pre DA lodgement process and subsequent discussions to ensure that desired Planning outcomes and Urban Design objectives are met.

The report addresses the proposal in terms of SEPP 65 – Design Quality of Residential Flat Development. This Verification is to be read in Conjunction with the Architectural Drawings prepared by CK Design. as well as the following consultants:

Surveyor:	Mark Castelletti + Associates
Statement of Environmental Effects:	Stimpson + Baker Planning
Architecture:	CK Design
Landscape Consultant:	Ray Fuggle and Associates
3D Visualisations:	CK Design
Stormwater Consultant:	Nastasi + Associates
Basix Consultant:	Outsource Ideas Pty Ltd
Arborist:	Mackay Tree Management
Traffic Consultant:	Safeway Traffic Management

1. PRINCIPLE 1: CONTEXT

"Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area.

Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality and identity of the area."

The Penrith Local Government Area (LGA) is located 50kms West of the Sydney CBD and comprises of 38 Suburbs. Penrith's population is predominantly Australian and English, Irish and Scottish. Its urban density is relatively low for Sydney's average. Penrith is a pivotal suburb and major centre in the metropolitan area of Sydney. It is located at the cradle of the Blue Mountains, west of the Sydney central business district on the banks of the Nepean River. Its elevation is 25 m. Penrith is the administrative seat of the local government area of the City of Penrith. It is also acknowledged on the register of the Geographical Names Board of New South Wales as one of only four cities within the Sydney metropolitan area.

The population of the Penrith postcode area was 11,800 people in 2011, in an area of 404 square kilometres which is relatively low comparing to the Sydney Average.

In 2006, the NSW government released a planning strategy for Metropolitan Sydney, known as the City of Cities plan for Sydney. The plan identified Penrith as a 'centre' for the Inner West Sydney region.

With its excellent proximity to public transport, the site is in an area which has been marked for increased residential densities in mainly mixed-use buildings. The Penrith LEP for the city was gazetted recently in 2010. The LEP has allowed for increased densities around transport hubs to cater for the growing demand for housing in the area.

The great Western Highway and M4 Motorway run through Penrith, linking Penrith to The Sydney Metropolitan Area, Sydney International Airport, Sydney City, and other Suburbs west of Sydney. Other major connections / landmarks are the Blue Mountains and the Nepean River, which dissects Penrith Geographically from the mountains. The Penrith Railway Station other stations in Penrith City on the Western link provide excellent public transport to the City and surrounding Suburbs. The site is within walking distance of Penrith Train Station and Kingswood Train Station, as well as the Great Western Highway and the M4 Motorway by Road.

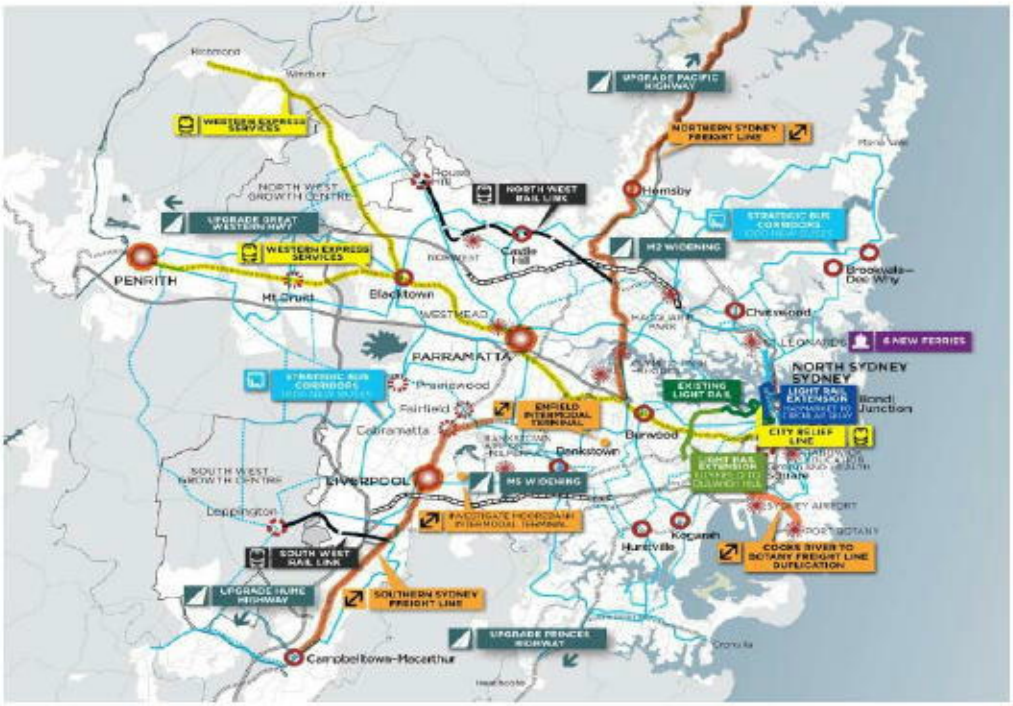


Figure 1: The Cities Transport Plan for Sydney, 2010.

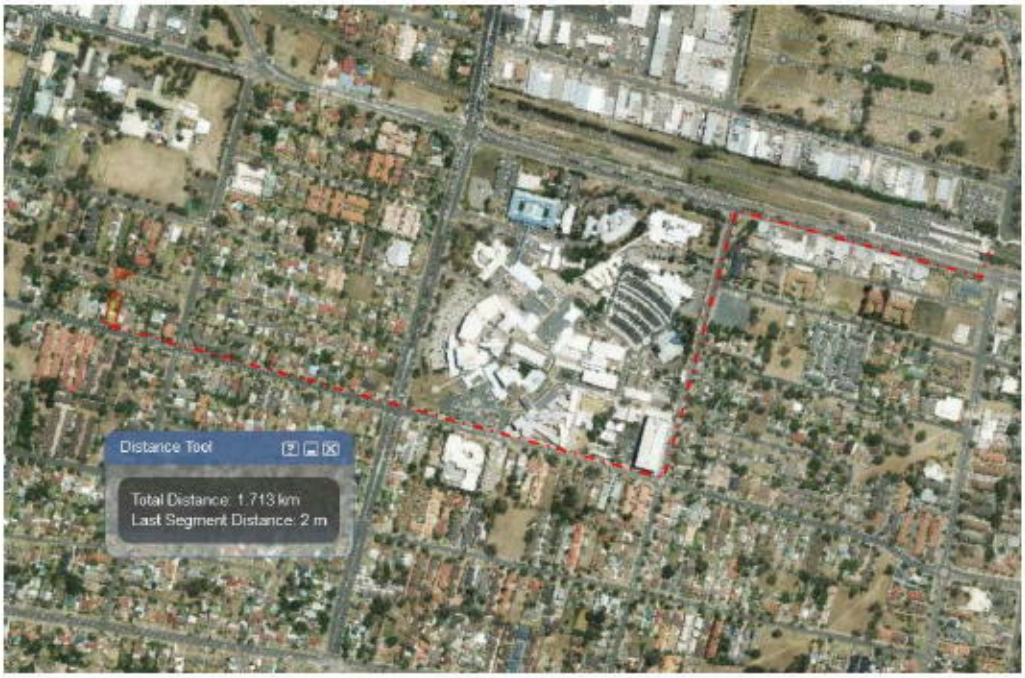


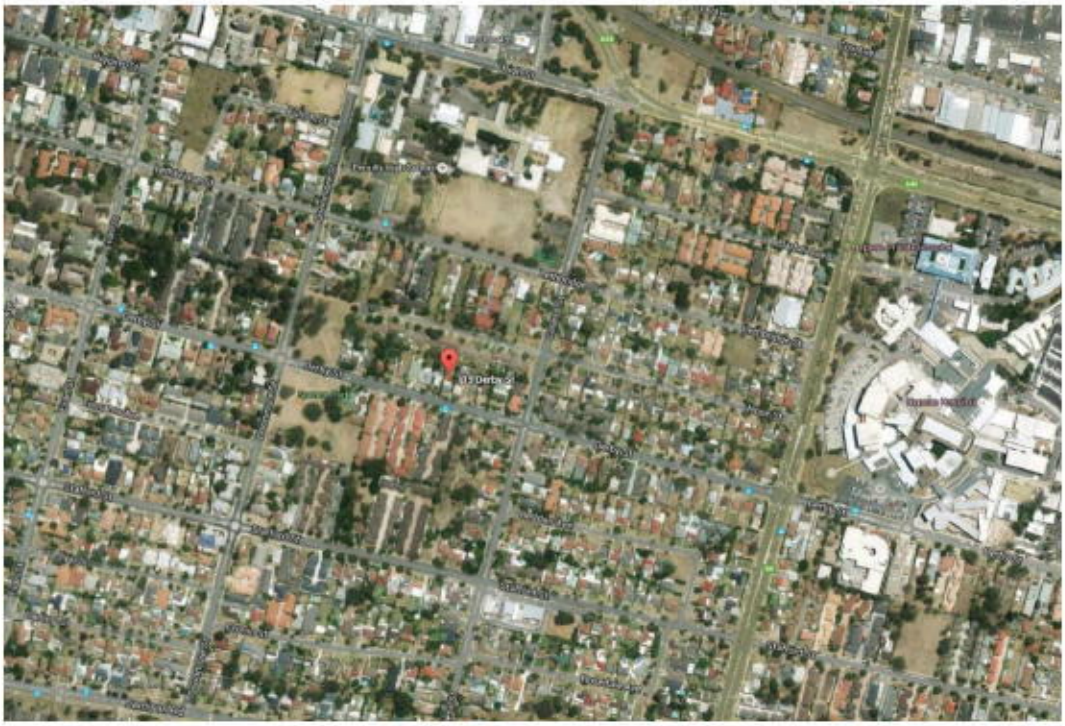
Figure 2: Travel Distance to Kingswood Railway Station

Figure 3: Travel Distance to Penrith Rail Station

The site is located with a 10 min walk to Penrith High School, Penrith South Public School, Penrith Public School, Nepean Village shopping centre and Nepean Hospital. With a 5 Min drive to Penrith Westfield's, Penrith Panthers, University of Western Sydney and Penrith Train station. It is also close to M4 Motorway and Great Western Highway links.

The proposal responds and contributes to its context now and into the future. The Design reinforces planning principles including street activation and a highly articulated building form and ensuring that the fundamentals of apartment amenity is achieved across the development.

The site is situated in a pocket of land which has been zoned "R4 – High Density" as per Penrith Council's LEP 2010. High Density Development is therefore promoted in the immediate locality by Penrith Council.



1.1. Figure 4: Aerial Photo Map

2. PRINCIPLE 2: SCALE

"Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings.

Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area."

The overall scale of the development complies with the objectives maximum height requirement in the LEP. There is no FSR control in the LEP for the subject site, however surrounding sites have been given a 3.5:1 FSR indicating the nature of intended development. There is currently an 18m height control requirement in the Penrith Council Planning Controls.

This Height of the building is in line with the objectives of the LEP clause 4.3. The design nominates a height that will provide an appropriate transition in built form and land use intensity.

The building is a well-articulated design with a base middle and top. Rhythmical openings, varying textures and architectural wall elements have been used. There is cohesion between the lower and upper portions of the proposal. The base addresses the Street with appropriate scale and uses as well as activating the Street and providing legible access points. Overall the proposed building is well proportioned and in scale with the desired future development for its locality. It responds to the emerging residential and commercial trends. This enables the building to sit comfortably with its surrounds at an appropriate scale.

I find that in terms of scale the proposal suits the Street and the surrounding buildings of the desired future outcome.

3. PRINCIPLE 3: BUILT FORM

"Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook."

Being within an urban context orientated to future development of the bulk and scale the form is acceptable.

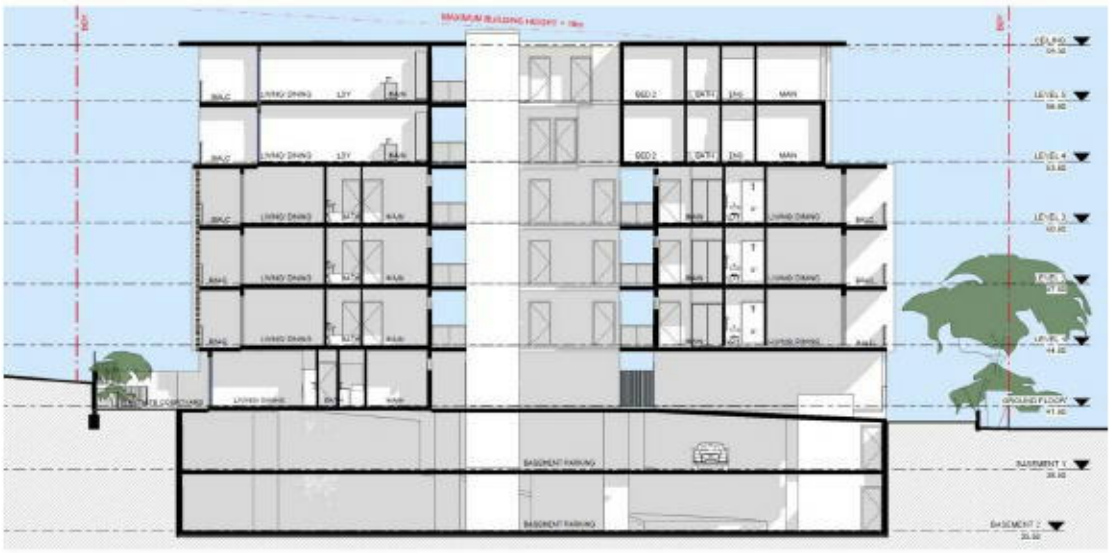
The design achieves an appropriate built form for the site. The building's purpose in terms of building alignment, proportions, building type and use of building elements addressing the street environment is competent. Design features, colours, materials and textures all combine to produce a cohesive design with varied wall elements for visual interest. These will break up the building bulk.

The current buildings on site will represent an "Anomaly" in the streetscape, due to the future interaction and development controls within the street, and the existing houses on site currently contradict Penrith Council's DCP and LEP planning outcomes.

The rhythm of the building forms of Derby Street, which step down with the topography and create a "New" setback to the street boundary is an important feature of the street. The design has taken this into consideration, and follows this form which has been carefully designed with council's assistance, whilst respecting the existing buildings on Derby Street.

The careful "stepping in" of the upper level element without affecting the cohesion of the buildings rhythm is a success. The built form meets the 3rd principle by the designing of its massing.

The stepping of solid and void to the facades, to create privacy and separation to the neighbouring properties is also an intelligent response to the concerns of buildings relatively close to adjoining boundaries.



3.1. Figure 5: Cross Section through the Development [NTS]

4. PRINCIPLE 4: DENSITY

"Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).

Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality."

The density controls for mixed use and residential flat building development are usually reflected in the floor space ratio development standard. building form / envelope controls and height controls contained in the LEP.

In summary. the site does not contain a respective FSR control. however the proposed development achieves reasonably sized units and a good mix of dwelling sizes and generally complies with the building footprint and envelope controls provided by council.

A variety of dwelling sizes provides a range of affordable housing opportunities and a better demographic mix for the utilisation of existing infrastructure. The range of unit types is a direct result of market analysis in the Penrith Municipality. The proposed density and uses are a direct response to the desired future character of the area and proximity to public transport including both Bus. Taxi and Train routes.

To keep the design affordable and relative to the target market of the area. the building needs to be efficient and needs to maintain a smaller floor plates and unit areas. The proposed residential unit areas vary in building depth to respond to desirable apartment depths. balcony depths. orientation for cross ventilation. and daylight and solar access.

As such it is considered that the proposed development satisfies the performance requirement for density and will not over burden existing facilities.

5. PRINCIPLE 5: RESOURCE, ENERGY AND WATER EFFICIENCY

"Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction. Sustainability is integral to the design process.

Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water."

The components of energy efficient building design are firstly to do with the impact of the building design on the indoor temperature. natural light levels and ventilation and secondly the fixtures used in the building and their energy consumption determine the energy efficiency.

The BASIX Certificate demonstrates that in addressing both these issues the energy efficiency and thermal comfort levels within each dwelling meet the prescribed outcomes. An integral part of the design is the ability to obtain flow through ventilation to the dwellings as well as permitting deep solar penetration which is controlled by sliding screens and blinds. Both these factors will assist in the reduction of reliance on fossil fuels to power air-conditioning units and the like.

Further. the design punches a large hole in the floor plate to create a large open atria space at ground level right through to the roof level. These are naturally ventilated areas which allow airflow or "Stack effect" ventilation to

occur by promoting air through and up the building naturally. This meets the Environmental provisions of the Penrith DCP.

The provision of dual aspects to most dwellings gives cross flow ventilation. There is no need for air-conditioning on temperature grounds. Air-conditioning will be provided for the use of residents if they require greater levels of acoustic privacy.

All dwellings have their kitchen back walls no more than 8m from natural light / ventilation source. All residential dwellings above ground have operable glass louvres above the entry doors to manipulate air and breezes through the units. Most units also have additional high level windows to gain borrowed natural light where available. These incentives represent a significant energy-saving on lighting and cooling. Ceiling Fans may also be proposed in all Living areas to promote natural cooling.

With the proposed building having 1 street frontage facing South and a Development in a Medium / High density urban area. the design has done well to comply with the solar requirements of the RFDC. The requirement for solar access to 70% of units should be three hours of sunlight to living room & balconies at midwinter. Due to the solar orientation of the site [predominantly North East]. and the large open aspect to this orientation. the proposal is able to achieve three hours of solar access for 70% of the proposed residential units. by orientating the majority of units to the rear of the site in 2 compact bays which form a large courtyard space internally.

This is acceptable and basically in accordance with the RFDC.

In terms of Construction waste. much wastage of construction materials is now reduced and / or avoided and the use of new materials reduced following Penrith Council's controlled waste management principles. The design incorporates Garbage and Recycling areas to fully comply with Penrith Council's DCP.

A major impact of this proposal is that many of the occupants will be relying on public transport. This reduction of car use is significant in saving resources. There are regular bus services in both directions along Derby Street. especially near the Nepean Hospital Site some 600m away from the site. Regular Taxi Services also run from the hospital as well as the site being in relatively close proximity to the Train Station.

Once measured against the thumbnail rules of the RFDC the resource. energy and water efficiency proposed in this development meets the principle.

6. PRINCIPLE 6: LANDSCAPE

"Good design recognizes that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.

Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.
Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for long term management. "

Landscaped spaces have been provided at ground level in the "courtyard space" of the development for the enjoyment of all users of the building. as well as to the fringes of the development to each boundary. Lush Private planter box areas are provided at Ground floor through the common areas. Upon entering the development. visitors and users of the building are confronted with large landscaped atrium. as well a large common outdoor area which separates and dissects the residential dwellings in the 2 separate floor plate areas from each other.

Also designed into the landscape plan are measures to affect water management. climate and heat island mitigation together with biodiversity support. Details of this may be found on landscape plans Ray Fuggle and Associates.

With the proximity of Spence Park [approx. 30m away]. on the corner of Doonmore and Derby Street. the Residents have a fully functioning park. with play area. toilet facilities and dog leash area at their disposal 24 hours a day. This removes the absolute need for a separate common outdoor area within the development. The development design however does provide large common areas. able to be utilised by the residents.

The type of planting proposed has been selected on the basis of good aesthetic appearance. being mainly native and suitable to the locality and for requiring minimal amounts of water. The size of the development is such that a body corporate will be in overall control of all the landscaping. The body corporate will ensure the landscaping is maintained at optimal levels and regular maintenance takes place. It is noted that the automatic drip watering establishment system will ensure only the required level of water is delivered to the planting. After establishment the plants are selected to be self-sufficient. There is also a combined OSD / Rainwater tank design at Ground level. These tank swill gravity feed the gardens and the car wash area. This in turn will reduce overall energy consumption.

The ground level OSD tank is locate in the rear north western corner of the site so as not to take up vital landscape area within the development. The tank can hold up to 60 cubic metres of water. Therefore this principle is adequately addressed and the proposal will contain attractive and acceptable landscaping for its locality.

7. PRINCIPLE 7: AMENITY

"Good design provides amenity through the physical, spatial and environmental quality of a development.

Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and the degrees of mobility."

The Entry points to the building. both pedestrian and vehicular. are clearly visible and apparent. The main pedestrian access to the stairs and lifts are well defined by paving. lighting and signage.

The double glass entry doors to the foyers can be readily recognized if persons. who may be afraid of their personal safety. need to quickly access the building. These doors also allow for transparency through the lobby without the loss of safety. There are also security gates to each end of the site to allow for ventilation without compromising security to the development.

At night good levels of lighting will be maintained to continue this theme of quick access if needed. All units will have access to an Audio Visual Security Intercom System. No access is able to be achieved from other parts of the site other than off Derby Street Frontage. In this situation the design has tried to maximise the main frontage exposure. and thus reduced the size and appearance of the driveway and large and bulky utilitarian requirements of Fire stairs. Garbage Rooms. Etc. which can dominate the streetscape.

Balconies and courtyards of units will assist in the provision of good amenity levels to all the residents. All balconies are linked to the indoor living areas and form an extension of these spaces.

The majority of units at ground floor facing Derby Street have direct access via security gates to the street from a private courtyard area.

With the dual aspects of many units there is good solar penetration and the units on the whole do not rely upon artificial lighting or heating. The shadow diagrams show that adequate solar access to the dwellings is achieved for this development. considering the orientation and density of this type of Development.

Good cross ventilation is provided with all units having dual aspects. as discussed the open Atrium has been carefully designed to promote "Venturi" or "Stack effect" ventilation which along with ceiling fans in all dwellings. which reduce the reliance on Air Conditioning. This atrium is also used to promote solar penetration deep into the floor plate of the building.

In terms of storage. each dwelling has a dedicated storage area within the dwelling AND in the basement level. All units have access to a Stretcher lift and fire stair as well as good visual separation between units. Therefore the amenity of the Proposed Development is considered to be adequate.

8. PRINCIPLE 8: SAFETY AND SECURITY

"Good design optimizes safety and security, both internal to the development and for the public domain.

This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces."

As previously mentioned the proposed design affords good overall security for residents.

The design of the building has avoided recesses or enclosures where dangerous incidents may occur.

Generally the proposal has provided a bright pedestrian friendly atmosphere at ground level.

Dwellings 1-4 in particular address the Derby Street frontage at ground level with passive surveillance should any undesirable persons get past the ground level security measures.

The principles of Crime Prevention through Environmental Design (CPTED) have been considered from initial conception of the project. and implemented in the final design proposal. Elements included within the design have considered the effective use of the built environment to reduce the occurrence of crime. reduce the fear of crime. and improve the quality of life for the community and include:

8.1. NATURAL SURVEILLANCE

The proposal has designed the placement of physical features. activities and people in such a way as to maximise visibility and foster positive social interaction among legitimate users. Window placement towards public spaces. balconies. lighting and landscape design assist in achieving these outcomes in the design.

8.2. ACCESS CONTROL

Because of the way the design has selectively placed entrances and exits. fencing. lighting and landscape to limit access or control flow. natural access control occurs. Within the design this has been implemented particularly through the use of clearly identifiable points of entry: fencing and operable barrier controls such as lockable doors.

8.3. TERRITORIAL REINFORCEMENT

The design creates a sense of difference between private and public spaces providing a visual alert that an area is off-limits and where intruders stand out and are more easily identified thereby deterring criminal behaviour. Such examples in the proposed design include fencing and landscaping. built form design and layout.

8.4. MAINTENANCE AND OWNERSHIP

The ongoing maintenance of will present the notion that activity on the site is regular and visitation by legitimate users is unpredictable. This circumstance will deter anti-social behaviour as crimes

are more likely to be detected. The development has been designed to ensure that maintenance regimes are not onerous and that materials will provide long lasting visual appeal to create a well-maintained presentation.

The parking design has been checked and is safe and secure. It is provided below ground to minimise visual impact.

Entry from Derby Street is clearly delineated for resident parking and visitor parking alike. Pedestrians have clear access points also from a clear entry point at ground level. At night good levels of lighting will be maintained to continue this theme of quick access if needed. This provides the ability for all residents to access their dwellings from the security of the basement as well as having a well-defined and well-presented entry point from the ground level for passive security.

Extensive all night low glare lighting, will be provided to ensure residents returning to their dwellings late at night are not confronted by dark spaces or uncertainty as to the location of the entry foyer. Again the all night lighting will deter anti-social behaviour.

Generally the design has provided an environmentally friendly atmosphere at ground level. The proposed design affords good overall security for residents of the building in these ways.

Therefore the proposal meets the requirements.

8.5. Figure 6: Street View – Proposed Street Access off Derby Street

9. PRINCIPLE 9: SOCIAL DIMENSION

"Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.

New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.

New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs."

The increase in residential density for the site in Penrith Council's LEP is principally to do with an educated and informed application of the requirements for increased urban densities. This housing proposal is an ecological imperative. The proposal correspondingly responds to the need for compact cities as one of the necessary strategies to achieve a sustainable environment. Whilst in the short term there is a degree of compromising the integrity of existing low-level buildings, the proposal protects the integrity of the single housing zones generally

throughout the entire LGA. The LEP foreshadows the compromise as being transitional until the rest of the immediate zone is developed along the lines of this proposal.

This proposal is in mainly in accordance with the SEPP 65 guidelines and controls for unit mix. It will also provide a range of housing choices to future residents as well as a greater amenity and a mix of dwellings as required in the guidelines. The One-bedroom units in the development in particular offer enhanced affordability. The number exceeds the number recommended in the RFDC. However I consider the mix to be an effective response to the higher availability and percentage of large units in the locality. Considering the demand of these types of units. the design is a responsible one.

The proposal provides the following unit mix:

8	1 Bedroom Units	13%
6	1 Bedroom + Study Units	10%
43	2 Bedroom Units	70%
4	3 Bedroom Units	7%
Total	**61 Units**	**100%**

Attention has been given to ensure the design facilitates resident interaction and social interaction within the proposal and within the community. The main outcome of this proposal is to enhance and preserve and encourage the social nature of Smith Street and its shopping / commercial precinct. by encouraging residents to use public transport. the local public parklands. and shop and eat in the local retail strip that is in the immediate vicinity.

With this in mind. principle 9 is satisfied.

10. PRINCIPLE 10: AESTHETICS

"Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development.

Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area. "

The design has been worked on for over 9 months to produce a very attractive end result.

The proposal as shown here will compliment other proposed and existing medium density developments in the area. It is designed to be mutually supportive of the desired future outcome for this area.

The design is strongly tripartite with a distinctive contemporary presentation to Derby Street. It uses contemporary elements and other unique "Environmental" design elements using high quality materials. colours and finishes.

Likewise the surmounting upper-storey units at the top of the proposal are articulated in a vertical and horizontal manner in dialogue with framed elements expressed in the main body of the proposal.

In this way I find that the aesthetics of this proposal are pleasing and acceptable in terms of the SEPP.

10.1. Figure 7: Street View [Derby Street]

The selected building materials, window openings and balconies, entry treatments have been carefully controlled in a way that meets the objective of working within the buildings context, scale and built form.

I consider this building a successful transition building and infill development in the Streetscape.

CONCLUSION

I verify that our development was designed in accordance with, and satisfies the design principles contained in SEPP 65.

The above comments with respect to the proposal are made against SEPP 65 – Design Quality of Residential Flat Development. They demonstrate how our team has worked thoroughly through the 10 principles.

The proposal responds to the environmental and ecological needs for a compact city through urban consolidation and conservation of resources.

It supports the desired outcomes of Penrith Council.

The proposal offers satisfactory Urban Design, Architectural and Landscape outcomes.

These comments are offered in respect of SEPP 65 – Design Quality of Residential Flat Development and have been prepared by:

Regards:

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Nominated Architect:
Joseph Panetta

NSW Architects Registration Board No: 9505