SMITH & TZANNES

ADG DESIGN STATEMENT

88-92 ELIZABETH DRIVE, LIVERPOOL
[17_043]
(-) 04-12-2017

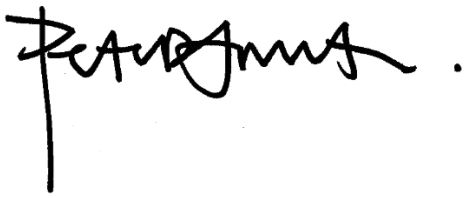
DESIGN VERIFICATION

This letter confirms that I, Peter Smith, being a registered architect in accordance with the Architects Act 2003, registration no. 7024:

a. Directed the design of the residential flat development at 88-92 Elizabeth Drive, Liverpool; and
b. that the design quality principles set out in Part 2 of the State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development are achieved for the residential flat development

An assessment against the design criteria of the Apartment Design Guide can be found within the *'Statement of Environmental Effects – December 2017 – 88-92 Elizabeth Drive, Liverpool'* (S.O.E.E.) as prepared by GAT & Associates.

Sincerely,



Peter Smith
Director

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SMITH & TZANNES

PRINCIPLE 1: CONTEXT AND NEIGHBOURHOOD CHARACTER

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.
Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.
Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

The subject site involves the consolidation of three individual residential lots with a total site area of 2422m². Originally single storey dwellings, the proposed development sees the construction of 49 new apartments, all of which are allocated as Affordable Housing under the State Environmental Planning Policy (Affordable Rental Housing). The immediate surrounding development comprises of older single storey dwellings, however these will inevitably undergo transition over time as afforded by the R4 zoning of this area. Some older brick multi residential buildings (2 storeys) are located to the west of the site.

Elizabeth Drive is State road, and in the immediate vicinity expands to three lanes west-bound and three lanes east-bound. It is a heavily used road with a 70km/h speed zone. A pedestrian crossing is within 50m to the east of the site at the traffic light of the Marsden Road intersection.

Marsden Road Public School is located 300m to the north-west, and three childcare centres are within 500m of the site. Liverpool Westfield contains an abundance of retail and grocery stores, and is conveniently a 500m walk from the site. Similarly the T-way Express Bus stop (express to Parramatta route) is 500m away. Liverpool CBD, the train station, TAFE and the Liverpool hospital are within 1km of the site.

With its excellent proximity to educational, shopping and transport facilities, the site provides an ideal location for high density housing. The proposed development creates a positive contribution to the desired future character of the area whilst also taking cues from the existing context. This is achieved by means of feature face brickwork, reinforced street walls, formal landscaping, formalised pedestrian access ways, activated street frontage and passive surveillance. The development will provide social benefits to the neighbourhood, being new and affordable housing.

FIGURE 01: SITE ANALYSIS

PRINCIPLE 2: BUILT FORM AND SCALE

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation 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.

The scale of the proposed development has considered the desired future character of the area and the prescriptive controls as outlined in the Liverpool Local Environment Plan 2008 (LLEP), Liverpool Development Control Plan 2008 (DCP) and Apartment Design Guide (ADG) Requirements. These are addressed with general compliance in respect of ADG setbacks, with some minor encroachments. Solid walling is utilised where encroaching the setback control, to alleviate privacy concerns to the side neighbours. Views are therefore redirected to the front and back of the site. Shadows studies (refer to FIGURE 02) also show there is no additional overshadowing contributed by the encroachment of the 3m ADG side setback. The shadows casted over the eastern neighbour is by the north eastern corner of the building which is within the setback.

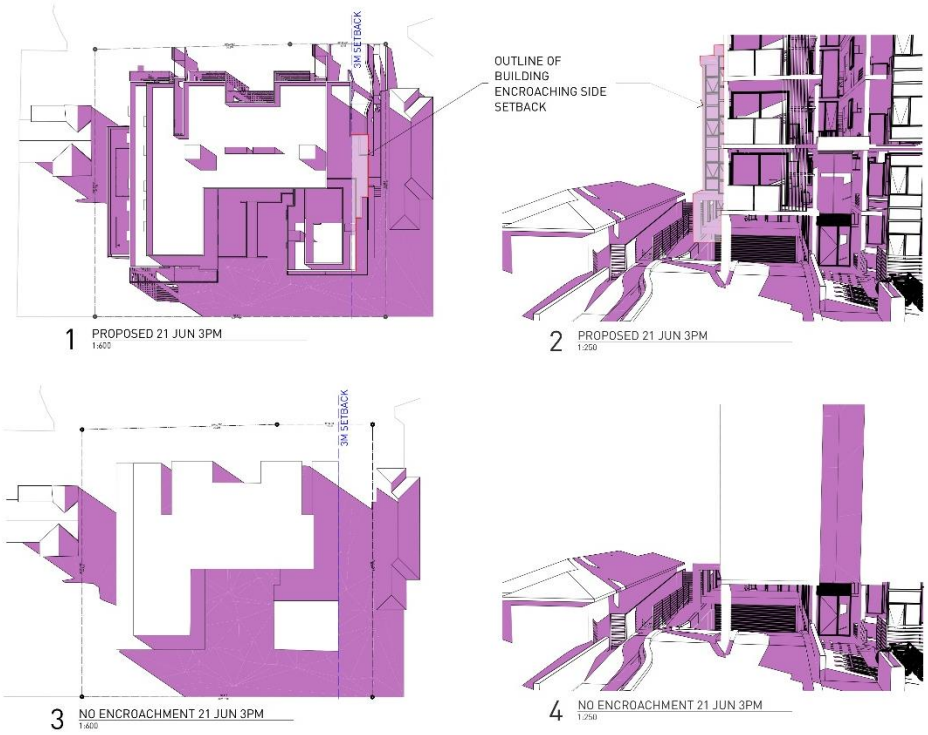

FIGURE 02: SHADOW ANALYSIS OF 3M SIDE SETBACK ENCROACHMENT

The height of the building does surpass the LEP control, as discussed in the Clause 4.6 variation of the S.O.E.E.. The impact of this height in respect of overshadowing is negligible as the only increase in overshadowing in winter occurs to the eastern neighbour in the afternoon, but this shadow is attributed to the lower levels and not the upper level (refer to FIGURE 03). The most notable encroachment of height occurs with the lift overruns and the western side of level 4 and these are strategically setback towards the centre to reduce visual impact.

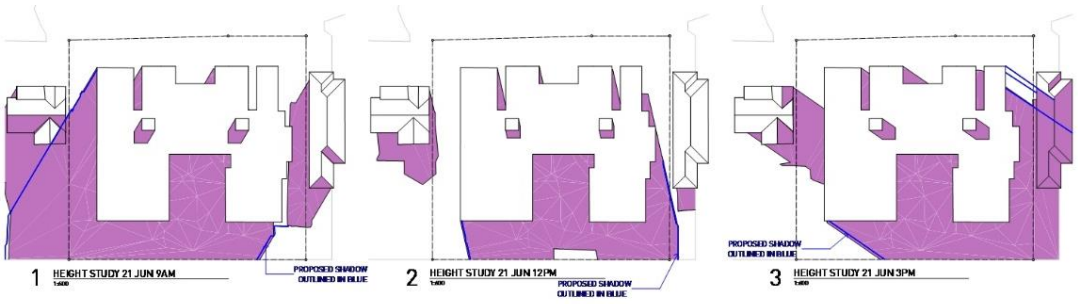

FIGURE 03: SHADOW COMPARISON OF HEIGHT IMPACT

The mass of the building is divided in two portions, with the lower base of the building as a heavy podium element contrasting a lighter storey top that is darker and set back from the levels below. The setback at the upper level provides improved building separation and reduced visual bulk. The street façade is articulated with two deep recesses on either side of the building, providing breaks in the bulk of the building width and separating textures of differing face brick. These breaks provides some relief to an otherwise dominant street wall.

Architectural elements such as battened screening, recessed and framed balconies, and projecting window frames provide depth and articulation to the building with resulting light and shadow. The generous setback at the upper level is exaggerated with a darker brick, creating a recessive element. The texture and warm materiality of the face brick provides a more human scale to an otherwise large building, and this finish makes reference to residential brick dwellings in the area. It is contrasted with expressed precast concrete elements that are applied to linear elements of the building such as sill upturns, parapets and projecting balconies. Complementing the varied brick and concrete palette are finer screening elements that provide human-scaled detail and privacy to occupants.

PRINCIPLE 3: DENSITY

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

The site is designated R4 (High Density Residential zone) under the LLEP, with a maximum permissible FSR of 1.5:1. The proposed development, with a complying FSR of 1.49:1, applies the objectives of Zone R4 to the site by providing a residential flat building with a scale representative of the desired future character of the neighbourhood.

Comprising of 49 units with a mix of one and two bedroom units, all of which are to be supplied as Affordable Housing by the developer, the intensification of residential uses on the site is consistent with the LLEP objectives. Each apartment meets the minimum size requirements as outlined in the ADG, with good access to daylight and ventilation. The proposal is an appropriate response to the accommodation needs of the area with respect of the site's proximity to retail, sporting, transport and educational establishments.

With the immediate surroundings also zoned as R4, we see the development as a positive contribution to the area, setting a high quality precedent for future similar development nearby.

PRINCIPLE 4: SUSTAINABILITY

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

A comprehensive environmental assessment undertaken as part of the Development Application details the building's performance and compliance in regards to BASIX requirements. In addition, sustainable design initiatives include:

- Capturing of stormwater for irrigation purposes.
- Floorplates that embrace corner or cross through style apartments to obtain cross ventilation
- Optimisation of floorplates to maximise north facing units
- Appropriate landscape selections with low water demand
- Built elements that promote natural daylighting into apartments, and projections that provide shading to recessed windows
- Operable windows to the northern ends of both corridor cores, allowing natural air and daylighting to lobbies minimising the demand for artificial systems.
- Selection of raw-format building materials (brick and concrete) that require minimal maintenance
- Storage for bicycle parking for visitors and residents.

PRINCIPLE 5: LANDSCAPE

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.

A landscape plan is provided as part of the Development Application. The landscaping has been designed in conjunction with the architecture to produce a unified scheme with variations of communal and private areas. Planting selections seek to soften the edges of the building and provide colour and interest at the street level.

The proposal provides communal open space both at ground level and at Level 4 (roof top terrace). The communal open space at ground is predominately on grade landscaping and is designed as a more passive recreational area with the privacy of units facing this area taken into account. Appropriate shrubs and feature planting is provided along the edges for privacy between this space and adjoining units' private open spaces. The landscaping past the podium offers active recreational space with features such as turf and a composting/worm farming area. Minimal fill to the rear edge of the podium is provided to maintain the natural ground falls acting to mediate the required emergency overland flow path falling to the south. Alongside the existing Black Teatree to be retained, six feature Watergum trees are proposed along the southern boundary as a means of providing a leafy canopy outlook, neighbour privacy and shade.

Given the excellent solar access on Level 4, this principal communal open space is designed to be more active incorporating elements such as BBQ facilities and seating. Feature planting surrounds the perimeter of this space softening the edge and providing amenity to the rooftop space. Equitable access to the ground floor communal open space is achieved with on-grade access flush with both lobbies. It is also provided on Level 4 communal open space via an internal corridor connecting the western and eastern wing of the building.

Shrubs and feature planting is similarly provided along both sides of the walkway on the northern eastern corner of the site. With separation provided by the path itself, the planting further alleviates visual impacts of carpark movements on the adjacent neighbour.

Private open spaces fronting the development are bounded by horizontal slatted fencing, providing privacy and security from the street. Fence-lines are bordered by perimeter hedging which enhances privacy to these residents. Gated private entries direct from the street are accentuated with punctuations of this border hedging. The two main entries are defined by the atrium space at both entry lobbies.

A variety of hardy shrubs and tufted plants, with the majority native selections, are chosen for durability and colour. This will provide residents and visitors with pleasant outdoor areas, with pockets of interest and year-round amenity.

PRINCIPLE 6: AMENITY

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being.

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

The proposal demonstrates good design and high amenity. This is achieved by:

- apartments receiving good natural daylight to living and bedroom areas
- daylighting to corridors by means of operable windows at northern end
- private open space areas meet minimum sizes of the ADG and are configured to be functional and conducive to recreational use. All are accessed from living areas
- 73% of apartments are cross ventilated
- 70% of living areas receive 2 or more hours of daylighting
- more than 50% of the principal communal open space receive 3 or more hours of daylighting during mid-winter 9am-3pm
- 10% of apartments are adaptable for persons with a mobility disability
- all apartments meet silver level Livable Housing requirements, giving good amenity to a wide demographic
- provision of two lifts (whilst not required by the ADG) at the request of the developer to provide access to optional vertical circulation to occupants in the event of one of the lifts breaking down
- long linear corridors to each level are articulated with a larger area designated around the lift core
- all levels comply with the maximum of eight units serviced by a circulation core, with both cores in the proposal serving between 2-6 apartments per floor
- direct and legible access from the primary street frontage is clear with the provision of a two single walkways straight to the two main lobby doors, allowing clear sight lines for occupants and visitors
- privacy to level 1 balconies facing the street front is improved with the provision of perforated metal balustrading
- acoustic protection from the driveway is achieved by separating it from the closest dwellings (unit BG.02 and BG.03) by entry corridor and plant/service areas
- offset privacy screening applied to bedroom window in the central southern façade, deterring sightlines from perpendicular neighbours.

PRINCIPLE 7: SAFETY

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well-lit and visible areas that are easily maintained and appropriate to the location and purpose.

An assessment of the risk has been carried out as part of the design process incorporating the following security measures to restrict and control communal access.

- The primary access for occupants and visitors is highly visible from Elizabeth Drive, with two straight formalised walkways leading directly to the main entry doors which is also visible from the street. The walkways are complemented by

double height entry lobbies which provides a visual signifier to visitors to the building.

- With most apartments oriented to the north/south of the development, half of the private open spaces of the apartments view the street frontage providing a good level of casual surveillance.
- An intercom point is provided at both main entries to enable secure visitor access.
- A swipe card security system will be supplied to occupants through all communal secure checkpoints and lift operations.
- The basement carpark area is secured via means of a perforated carpark shutter to ensure maximum visibility inside and out. Pedestrian emergency egress is through the building via the fire stairs.
- Carparks are laid out in an efficient manner eliminating alcoves or blocked sightlines.
- Mailboxes are located on the street boundary adjacent to both pedestrian entries.
- Circulation areas are generally linear to provide clear sight lines with no obscured corners.
- High quality architectural lighting provides improved visibility for occupants at night.
- The primary communal open space is secured from the street by new and existing fencing which will prevent loitering.
- Private courtyard areas are defined by slatted fencing, with secure gated entries identified by unit numbers. This direct access improves safety with passive surveillance and increased social interaction.

The development provides for a safe and secure environment with clearly defined private and public spaces. The proposal abides by the best practice principles outlined in the ADG.

PRINCIPLE 8: HOUSING DIVERSITY AND SOCIAL INTERACTION

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.
Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

The proposed development will assist in realising the area's growing demand for residential accommodation within good proximity to transport, education and retail/commercial hubs. The site also has excellent proximity to child care, employment and recreational services (within 1km).

A range of one (28.6%) and two (71.4%) bedroom apartments of varying configurations, provide a good mix of accommodation responding to the affordable housing needs of the community. 10% of apartments are designed as adaptable which surpasses the minimum requirement and all units are designed to be compliant with Livable Housing Guidelines.

PRINCIPLE 9: AESTHETICS

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Material palette (From top left – Precast concrete, translucent glass balustrades with powdercoated framing, horizontal slatted fencing, PGH 'Crevole' brick, PGH 'Truffle' brick, PGH 'Urban blue' brick, Colorbond 'Monument' powdercoat to all metalwork)







The central ambition for the project is to create a piece of architecture that is economical, practical and supportive to the needs and aspirations of its occupants, but also one that is attractive to the streetscape with low maintenance and timeless materiality. The approach to materiality celebrates raw surfaces of face brick and precast concrete. This provides a neutral palette that ages well aesthetically as well as physically. Finer elements including perforated metal balustrading, screening and palisade fencing provide human scale and contrasts the solidity of the primary structure.

The proposal provides a massing arrangement of a face-brick podium, with the two upper levels setback from the street wall and constructed of darker colour to exaggerate their recessive-ness. Elevational elements such as concrete portal 'framing' emphasise the verticality of the massings. The street elevation is an ordered arrangement with individual dwelling clearly demarcated. Balconies of central units pop out slightly from the building line to create interest in the elevation with a play of light and shadow as the sun moves across the sky.

The eastern elevation encroaches the ADG setback, as such walling here is generally solid with minimal fenestration. A mix of building materials applied to these 'blade' walls provide interest and hierarchy. Finer details such as stack brick patterning break up expanses of walls where relief is desired. The west elevations utilises window awnings and hoods to protect from western sun. These projections animate the façade as the sun moves across the sky. Brick pattern bandings continue the language of the eastern façade.

Overall a cohesive palette of materials and architectural elements across all facades provide for a high quality and well-articulated building for the area.