

DESIGN VERIFICATION STATEMENT

Prepared to accompany a Development Application submitted to Liverpool Council.

28 October 2015

Project Site Address:

**The Paper Mill, Liverpool NSW
20 Shepherd Street**

Project Number

120530

Prepared on behalf of

Coronation Property Co. Pty Ltd.

Prepared by

**WOODS
BAGOT™**

THE PAPER MILLS, LIVERPOOL - DESIGN VERIFICATION STATEMENT

Pursuant to Clause 50 (1A) of the Environmental Planning and Assessment Regulation 2000, Woods Bagot Pty Ltd is a registered architect in accordance with the Architects Act New South Wales 1991. The Nominated Architect is Domenic Alvaro Registration number 7445.

Wood Bagot Pty Ltd is the architect for the residential flat development stated above and in my professional opinion the design is generally in accordance with the design quality principles set out in Part 2 of the State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development. We have provided further detail on the design's compliance with the design quality principles outlined below.

Please do not hesitate to call if you have any queries.

Yours sincerely,



DOMENIC ALVARO
PRINCIPAL

cc. Coronation Property Co. Pty Ltd.

SEPP65 STATEMENT: 20 SHEPHERD ST, LIVERPOOL

PRINCIPLE 1: CONTEXT

The property address is 20 Shepherd Street, Liverpool, NSW

The proposed development for 20 Shepherd Street creates an amazing opportunity to redevelop an existing industrial site into a vibrant residential precinct on the Georges River.

The existing buildings on the adjoining sites consist of an eclectic mix of industrial and residential buildings built after 1960. At present, the contextual area consists of a large variety of development typologies with retail showrooms, commercial office buildings, multi storey & single level residential developments. The existing buildings lining Atkinson Street include 3-4 story walk up apartment buildings, industrial metal clad buildings and their office spaces. The site is close to public transport facilities including Liverpool train station. Shepherd Street also provides access connections to the Casula Powerhouse and Light Horse Park.

The development of this site will create an attractive destination location where people can live and enjoy Liverpool's assets which include the Georges River, the surrounding parks and the Casula Powerhouse Arts Centre. The design objective is to create a high quality mixed residential development to reinvigorate this Liverpool precinct.

The scheme supports the vision by the Liverpool council to improve the quality of architecture and design in the area and specifically sets out to meet the stated objectives contained within the Liverpool Council Planning Controls and SEPP 65. The design aims to build upon those objectives in order to make a key contribution in this significant sector of Liverpool by providing a new high quality residential development integrated within the existing urban fabric.

The two proposed new residential buildings have been configured to front the Georges River and Atkinson Street and to respectfully respond to the heritage mill building to the south-west.

The Atkinson Street boundary of the site proposes both vehicular access to below-grade car parking and pedestrian access to the 2 proposed buildings. Pedestrian access to the proposed building and to the river will occur via a new public plaza defined at the corner of Atkinson Street and Shepherd Streets, in front of the heritage building. This corner of the site will anchor the entry into the development and provide greater street activation.

The detailed design of the heritage building's reuse and conservation management is addressed in the heritage report and documentation prepared by Tanner Kibble Denton Architects.



01 - View of existing car park from Atkinson Street looking south west towards the heritage building.



02 – View from Shepherd Street of the southern façade of the heritage building

The irregular shaped site has approximate dimensions of 100m x 85 x 68 x 76m with an approx. 300mm fall from Shepherd Street to the river.

The site is located in the Liverpool city centre and is within 10 minutes walking distance of the CBD and Liverpool Train station. It is also a short 15 minute drive to the proposed airport at Badgerys's Creek.

The elements of the development have been carefully configured in order to optimise the possibilities of the site for the occupants of the residential buildings and, the creation of a new public communal building, and the enjoyment of new amenities for its residents and the public.

PRINCIPLE 2: SCALE

The existing context includes a number of 2-4 storey industrial, commercial and residential buildings at street level. A majority of the existing developments in the area are well within the maximum building height set out in the Liverpool LEP 2008, but this is gradually evolving as new taller developments are being built such as 'The Point', 'Eagle Towers' and other developments in Bigge Street and Brown Parade.

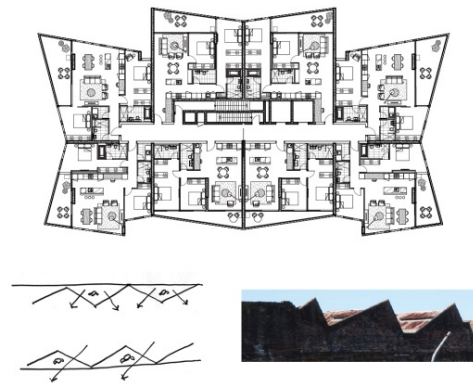
The proposal makes a positive contribution to the existing scale while also looking forward to the future scale towards high-density residential dwellings by proposing a well-proportioned low podium and slender tower configuration. The 5-storey podium massing is a transitional scale that is complimentary to the existing lower heights of the residential buildings and the scale of the Paper Mill heritage building. The lower podium relates to the human scale relevant to the public domain on street level which then serves to anchor the proposed slender tower form. The tower form is set back from the corner of the block and located at the river's edge to serve as a cornerstone to the development and mark the entry into the precinct.

PRINCIPLE 3: BUILT FORM

The proposed built form celebrates the geometry and materiality of the existing heritage building. Closely related to scale, the proposed built form and facades also carefully addresses the existing contextual order and proportion.

Building A – Atkinson Street Frontage

The podium is broken into a series of double-storey townhouse framed expressions in concrete at the ground level. Deep landscape setbacks and open terraces front these townhouses on Atkinson Street to provide privacy from passers-by at the street level. The three floors above are horizontal brick balcony expressions that run as continuous bands lined with brick soffits to reference the brick character of both the heritage building and the residential character of Atkinson Street.



03 - View of Building A from the river's edge

Both the podium and tower forms appropriate the attenuated angles of the saw tooth geometry of the heritage building roofline to direct views towards the river, the CBD and the surrounding parkland.

The podium facades are linear in plan with a series of angled glazing facades that break down the long lengths of horizontal glazing and create generous balcony spaces. These shapes mimic the saw tooth profiles of the heritage paper mill building's roofline. The saw tooth profiles are again enhanced in the tower form where this time, the open balconies are angled in plan and the facades are linear.

Lastly, multi-storey vertical slots run through both elevations of Building A to further reduce its scale and building mass as well as soften the facades with tall plantings. In these slots are trees in planter boxes made of weathered steel.

Building B – River Frontage

The form of Building B is articulated by a combination shifts in horizontal and vertical geometry. The plan is sheared into two by a corridor that runs north and south, then split by a lift lobby that runs east and west. At the end of each of these corridors are full height glazed windows with operable windows for natural ventilation.

The building mass is then broken into three parts with a triple-storey podium base and two double-storey horizontal blocks above. Deep recessed expressions are between the blocks to relate to the horizontal character of the Building A podium. Through the centre of Building B is a full height, glazed vertical slot that serves to further break down the scale of the building whilst at the same time, frames the view of the river and reveals the lift lobbies within.



04 - View of Building B from Riverside

The first 3-storey podium is further articulated with a 2-storey brick base component to relate the existing brick character of Atkinson Street and then a single storey of horizontal concrete expression. The upper floor facades are also made of textured concrete with slim horizontal bands of glazed balustrades and planter boxes.

Lastly, the building plan modulates with a series of angles on the north to increase building separation with Building A and most importantly, strengthen the landscaped through-site link from the public plaza to the river frontage between Buildings A and B.



05 – Ground floor plan showing the public access path to the river

The Architectural Tripartite

The proposed development responds to the development constraints for residential development and is of high quality in terms of urban form, massing, bulk and amenity.

The first element of the architectural tripartite are the podiums. The podium of Building A is 5-storeys and the podium base expression of Building B is 3-storeys. The Building A podium addresses the scale of the 4-storey buildings along Atkinson Street and the podium of Building B steps down to 3 storeys to create a pedestrian the scale to the river front foreshore.

Both podiums are brick façade expressions that provide a dialogue with the brick of the heritage building and the low scale residential buildings of Atkinson Street.

The second element of the architectural tripartite are the recessed horizontal setbacks or the visual breaks that separate the podiums from the forms above to strengthen the podium base expression and reduce the mass and bulk of the buildings.

The third elements of the architectural tripartite are the concrete and glass clad residential levels sitting above the podium levels (11 levels to Building A and 6 levels to Building B). The projecting balconies that wrap around the facades further reduce the bulk of Building A.

Inversely, Building B's form is articulated with recessed façade lines from the balconies. The massing is reduced in scale by a combination of geometric shifts in plan and elevation. The resulting geometry is a bifurcated plan and triple block elevation, each separated by a recessed floor. These concrete elements are designed to provide privacy to residents while also appearing light and open with the use of glass and low height solid balustrade.

PRINCIPLE 4: DENSITY

The project provides an apartment density that is appropriate and consistent with the medium to high density residential apartment developments common within the context.

The proposed density will positively contribute to the mixed-use nature of the locality and to the long-term social sustainability of the project. The proposed retail and food and beverage facilities in the heritage building and proposed public plaza will activate the public domain.

The proposal offers 250 residential apartments with a mix of studio, one, two and three bedrooms to appeal to a wide range of household types and budgets. This apartment mix is generally in accordance with the Liverpool planning guidelines. 25 of the apartments are adaptable for people with disabilities and are distributed throughout the buildings.

The proposed mix is:

2% x Studio apartments, 28% x 1 Bedroom apartments, 64% x 2-Bed apartments, and 6% x 3 Bedroom apartments.

The residential apartments are supported by communal facilities which include a large rooftop terrace with and BBQ facilities and pool to Building A, and large roof top terrace with BBQ facilities facing the river to Building B.

PRINCIPLE 5: RESOURCE, ENERGY & WATER EFFICIENCY

The project adopts good passive environmental design solutions and appropriate use of materials to provide a simple yet effective response to the environmental requirements. A balance of solidity for good thermal performance and glazing for natural daylight is inherent to all facades whilst deep balcony reveals and operable screening provide passive shading and privacy where appropriate.

Operable windows are provided to all living and bedrooms, which are located along the facades. 61% of the total apartments achieve natural cross ventilation with operable windows.

Each living area and a majority of bedrooms have full height sliding glass doors to a large outdoor area.

Substantial landscaping has been included on the ground floor plane of the development providing zones for large vegetation and smaller scale planting areas. The landscape is appropriate to the locality and has been designed to meet minimal water requirements. Refer to Aspect Studios Landscape report and drawings.

Energy Efficient Fittings & Fixtures

Energy efficient fittings such as low energy LED and compact fluorescent lighting will be provided to all common areas.

Rain water harvesting and reuse

Harvesting of rain water in tanks is being proposed and will be included if necessary by the consenting authority. Water storage tanks located in the basement would be used for rain water collection and reused for irrigating gardens and potentially used for toilet flushing.

Water efficient fittings and fixtures

Water efficient fittings such as restricted water flow shower heads and dual flushing toilets will be provided to all residential apartments and common areas.

PRINCIPLE 6: LANDSCAPE

At the centre of the development, the proposed landscape design celebrates the heritage building as a central feature of the development and also articulates and defines the public access corridor to the river front. Trusses from the removed portions of the heritage building will be integrated with the landscape and used as vertical canopy elements that direct views to the river.

The proposed landscape design also softens the ground plane with raised planter boxes and seating as well as the roof tops with raised planter beds and integrated seating areas for both open and private functions. Deep soil zones have been provided along the river edge boundary and the north east. The proposed deep soil is 9% of the total site area.

Communal outdoor terraces have been provided on the podium of Building A and the roof of Building B. They include generous green roof areas and BBQ facilities and a pool to the Building A podium.

The apartments will also benefit from year-round outdoor access to large balconies.

New street trees will be planted along Atkinson Street in accordance with council's landscape strategy.

Refer to Aspect Studio's landscape drawings and report for further landscape details.

PRINCIPLE 7: AMENITY

The proposal includes efficient and spacious apartment layouts, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook, ease of access for all age groups and degrees of mobility where required.

As a result of the river's location on the east, the proposed design maximises access to eastern river views while also achieving as much solar access as possible. 60% of apartments achieve a minimum of 2 hours' sunlight between 9am and 3pm on 21 June. Approximately 109 of apartments achieve river views.

A total of 61% of apartments enjoy cross ventilation due to the deep slot articulations in the building forms.

Each apartment has been designed with modern open plan living areas comprising of the kitchen, dining and living areas. The majority of the apartments comply with the minimum unit sizes. Each living space has direct access to full height and full width clear glass sliding doors and windows to adjoining private outdoor spaces.

Apartments located at the corners of the buildings have either secondary balcony spaces or oversized wrap-around balconies. Balconies, including those that are angled in plan, generally have maximum dimensions of at least 2m in depth. Ground floor double-height apartments facing the river have outdoor terraces that have less than 2m deep terraces are provided with deep triple tiered landscape verges and direct, elevated views to the river. These apartments also have double height voids internally within the units.

Private outdoor spaces also have access from both living areas and bedrooms. Apartments that do not have dual access to balconies are located at vertical slots and afforded with direct views to tall slender tree plantings. There are also double height townhouse apartments that have both ground floor outdoor terraces and Level 01 Juliette balconies. The upper level balconies are deep set to control the sun shading and the privacy of the occupants.

Each 1 bedroom unit has access to 1 shared full sized bathroom whereas each 2 bedroom unit has access to 2 bathrooms. Double width laundry areas with basins are provided in cupboard areas from the living / or bathroom space. Each laundry can accommodate a dryer, washing machine, sink and storage for a clothes bin, ironing board and cleaning products.

Full kitchens are provided with appropriate storage and sufficient bench areas for cooktops, basins and for preparation, cooking and display. All kitchens are located within the maximum distance of 8m to operable windows and/or sliding doors. All apartments have primary bedrooms sized to accommodate either a double or a king size bed. All bedrooms have ample storage with double full height robes and access to an operable window.

10% of the total apartments or 25 apartments are adaptable dwelling units. Refer to the accessibility report attached to this submission.

Common area corridors and lift lobbies have been designed with access to natural daylight and cross ventilation. In Building B, double height lift lobbies have been designed to increase the vertical transparency and framing of river views from the courtyard.



06 – Internal circulation diagrams of Buildings A and B

Lastly, communal outdoor roof terraces have been provided and include large green roof areas and BBQ facilities, with Building A having an accessible pool.

PRINCIPLE 8: SAFETY AND SECURITY

The proposal provides for good passive surveillance through active uses within the interior of the development and communal courtyard spaces. Lighting along boundaries, in lobbies and communal areas to maximise surveillance will also be provided.

Furthermore, the main pedestrian entrance to Building A residential lobby is via a secure key card controlled glazed door accessed from Atkinson Street, with the main secure vehicular access also from Atkinson Street. Sight lines from the apartments and neighbouring buildings provide safe and secure access to both lobby and car park entries.

The main pedestrian entrance to Building B residential lobby is via a secure key card controlled glazed door access from the public plaza and pathway. The main secure vehicular access to Building B is also via Atkinson Street.

Security will be maintained via a secure lobby entrance off Atkinson Street with a monitored security room, CCTV surveillance and key card lift access.

PRINCIPLE 9: SOCIAL DIMENSIONS AND HOUSING AFFORDABILITY

The proposal offers 250 apartments with a mix of apartments to appeal to a wide cross section of the suburban demographic in terms of density and affordability. The proposal offers 2% x Studio apartments, 28% x 1 Bedroom apartments, 64% x 2-Bed apartments, and 6% x 3 Bedroom apartments.

The development also provides a mix of private open space in the form of generous terraces and balconies and a communal rooftop BBQ terrace with substantial planting, catering for both formal and informal recreational activities. The inclusion of accessibility features such as level footpaths and disability access at ground level caters for the varying degrees of accessibility in the general population. BCA and Accessibility reports are included in the development application and the design reflects these reports.

The adaptive re-use of the heritage building as a food and beverage destination offering will enhance the social mix to the immediate precinct and serve as a community hub for the residential component.

PRINCIPLE 10: AESTHETICS



07 – View of public plaza and the reuse of the heritage building

The aesthetics of the proposal are derived from the considered analysis of the contextual environment and celebrates the beauty of the Georges River, the existing heritage building and the history of the site as a premier paper mill site in Australia. The proposal composes elements, textures, materials and colours from these desirable elements of the site but proposes new architectural forms that look forward to the future growth of the area as a high-density residential precinct while also framing vistas to the Georges River and bring forth a new social dimension to the adaptive re-use of the heritage building as a community food and beverage destination.

The proposal cites the heritage building as a source of inspiration for its brick and weathered steel materiality and angled “saw tooth” roof geometry. These elements are appropriated into the building façades materials and textures; the profiles of the balcony and glass wall panels in plan; and in the details of the landscape design.

Glazing is also generously used in the double height ground level and typical floor lift lobbies to provide as much transparency through the buildings and therefore, take advantage of the many beautiful vistas to the river, the proposed public plaza and communal open areas.

The proposal embodies a slender tower and podium arrangement. The podium relates to the human scale at street level while also providing a transitional scale between the existing context and the proposed tower form. The tower’s location at the riverside will provide a recognisable urban form, marking the future character of the area as a high-density residential precinct. The building aligning the river mediates these heights, providing residents with maximum views to the river on one side, and views to the heritage building surrounded by lush landscaped communal areas on the other side.

In conclusion, the proposed buildings have been designed with the aim of creating an excellent contextual fit with the river, the heritage building and streetscape. The principles of the SEPP 65 have been closely adhered to and the proposed design achieves design excellence and will be an exemplary benchmark development for the city of Liverpool.

Please refer to the Woods Bagot 20 Shepherd Street DA addenda for further details of the principles outlined in this report.