

ARCHITECTURAL DESIGN STATEMENT

1.0 DESIGN BRIEF AND ARCHITECTURAL RESPONSE

1.1 Background

The Faculty of Arts is the largest and most diverse Faculty at Macquarie University – it contains 12 Academic Departments covering fields of study & research ranging from Archeology through Politics to Circus Performance Studies.

The Faculty of Arts has undertaken an extensive project briefing and visioning process facilitated by the Lend Lease's Strategic Briefing & Change Management Team to identify the physical environment required to achieve strategic goals and cultural change. Through this process a Strategic Brief and Vision Report was developed including a Space Budget Schedule which created the brief for the initial Concept Design.

The Project Brief was then further developed through an intensive Project User Group Workshop process resulting in a refined Project Brief that included PUG approved Briefs for all major elements of the Arts Precinct Project.

Specific Design Brief requirements and a description of our Architectural Response are summarised below:

1.2 Improved connection to Wally's Walk

Macquarie Property and the Faculty of Arts desired an improved connection to Wally's Walk, the major campus defining pedestrian thoroughfare, so that the redeveloped tower building became a primary destination.

Our response to this Brief element is the creation of the podium linkage, while retaining the legacy fabric of the exposed and strongly modeled concrete frame, along with the associated gently stepped outdoor platforms leading across the now open central courtyard to the re-developed tower building and then interconnecting at the top platform level with the active staff and student facilities located on the ground plane of the redeveloped tower.

1.3 A Collaborative Environment facilitating Student, Staff and wider community Interaction

The Faculty's vision was for an engaging and collaborative environment connecting the currently isolated academic accommodation within the aged fabric of the W6A tower to the wider student, research & community environment.

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Our design response involves the removal of the currently tight and closed central core of the tower building and the insertion of a new vertical Collaborative Hub connecting all 8 floors of the tower in an environment that is open visually and contains interactive meeting and research activity spaces offering a variety of scenarios for collaborative work that vary between floors to promote vertical circulation. Student facilities including the new Cafe, the Student Connect unit, 'Drop In' Centres for students and staff and a central Concierge function create a porous and active ground plane at the base of the Collaborative Hub to create an environment that encourages the wider interaction sought by the Faculty.

The Collaborative hub is extended north from the general alignment of the tower building to capture extensive views, to open the currently closed an inward looking environment of the tower and to bring the life and activity that will be created by the new Collaborative Hub to a direct interface with the external environment

1.4 A Showcase for the Faculty's Work & Collections

The Faculty also wished to generate an improved entry from the south to address the external groups and official visitors who largely access the Faculty from the campus perimeters and to create community interest and engagement by showcasing their collections and community facing research and education areas as a part of this entry experience.

Our design response is the creation of a new Showcase Building which accommodates a combined Ancient Cultures and Modern History Museum, a new Function and Temporary Exhibition space, the Immersive Languages Teaching spaces with their community interaction programme and significant community focused research units such as Big History, the Ancient History Research Centre and the Centre for Agency Values and Ethics and which has an entry from the south directly into and through the most public components of these Showcase spaces.

This southern entry is directed from the higher site levels to the south down and through the open social core of the Showcase Building and directly into a new covered Atrium space with a direct axial connection to the redeveloped tower ground plane containing the central faculty concierge point and student, staff and community facilities.

1.5 A Centre for The Arts at Macquarie

Macquarie Property and the Faculty of Arts sought a consolidation of the accommodation currently located remotely across the campus within a new

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Precinct for the Arts in the historic home of this foundation Faculty adjoining Wally's Walk.

The additional floor area required to consolidate three currently remote faculty departments and to relocate the collection of the Ancient Cultures Museum within the new Arts Precinct footprint was significant when assessed in the context of the legacy status assigned in the Master Plan to the existing building fabric and the new Showcase Building was designed to accommodate the necessary 5,100 gross square metres in a new building that was of lower rise but sympathetic in form, scale and siting to the redeveloped central tower.

Our response was to provide a covered Atrium space, maintaining the Master Plan proposed secondary pedestrian link along the southern facade alignment of the tower and designed as an integrated component of and therefore creating an extended Arts Precinct, unifying the two redeveloped existing building elements and the new Showcase Building with a consistent character, an integrated circulation system and an Arts specific identity. The ETFE pillow roof proposed to the Atrium combines desirable visual softness with minimal structural requirements due to its inherent spanning ability and light weight allowing the creation of an elegant floating structure that visually integrates the buildings and creates usable outdoor social and educational environments at both Atrium floor level and on the roof terrace to the Showcase Building.

The three storey connecting bridge linking the redeveloped tower with the new Showcase Building creates an expanded Collaborative Hub integrating the open vertical circulation elements of both buildings in a multilevel and visually transparent connection that reinforces the integrated functionality and consistent character of the entire new Arts Precinct.

1.6 A modern open and transparent environment

Macquarie Property required a 50 year building lifecycle renewal with the integration of modern services in an environmentally sensitive manner and the Faculty of Arts wished to create an open and transparent environment as a dramatic contrast to the currently aged and inward looking environment they inhabited.

The existing extremely low floor to floor heights of the existing tower building were an obvious challenge and could not accommodate air conditioning ductwork with realistic ceiling heights within the retained building area - our design response involved the provision of floor by floor plant rooms to provide services to the retained and redeveloped academic wings and the location of all ducts runs externally so as to allow the retention of clear internal heights that approached the underside of the existing concrete

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soffits without false ceiling zones to the major areas of the academic office and open workspace environments.

In response to the Faculty's requirement that an open and visually transparent environment be provided to the academic accommodation zones, we have removed the enclosing masonry elements to the long north and south facades and have substituted clear, non tinted and externally uncoated glazed facades.

The exposed twin wall northern facade has been created to visually screen the externally mounted ductwork within an accessible cavity enclosing shading horizontal louvres in a weatherproof condition that allows the use of conventional clear glass elements to both leaves of the twin wall cavity which therefore creates visual interconnectivity and transparency while the combined facade reduces energy usage by exceeding required environmental shading and insulation criteria.

The southern facade is protected by the ETFE Atrium roof enclosure allowing the use of a single glazed but transparent facade also with clear glass elements and with the external ductwork concealed with simple aluminium panel clad horizontal elements.

1.7 Consistency of Development with the Master Plan

The Macquarie Property Brief included consistency with the University Master Plan & Design Guidelines which nominate the existing buildings as legacy elements, create a grid network of primary and secondary pedestrian and vehicular circulation links, establishes a landscape and building character and reinforces open space links on the campus.

The design response maintains the primary visual anchor of the three storey articulated exposed concrete and face brick teaching space fronting Wally's Walk with minimal external fabric intervention, maintains the tower form and creates visually important matching face brick east and west end facades to retain the legibility of the campus wide theme of academic buildings containing face brick elements, respects the Master Plan proposed pedestrian and vehicular links and continues the campus in a natural environment theme with extensive linked landscaped elements and direct visual links to both Wally's Walk and the open areas to the north

2.0 ANALYSIS OF CONTEXT

The existing legacy buildings – W6A & W6B – will be extensively redeveloped but will remain the heart of the new Arts Precinct, located with a primary frontage to Wally's Walk, and of a scale, form and location that

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ensures they currently, and will continue to, function as defining elements to the western end of Wally's Walk.

While the existing complex occupies this primary position fronting Wally's Walk, the current complex largely turns its back on Wally's Walk with no attractive visual and limited direct physical pedestrian connections into the buildings – the proposal seeks to redress this situation by opening the ground plane of the northern wing of building W6B, within the retained and attractive expressed concrete frame, to create a high quality and attractive link between Wally's Walk and the central courtyard space within W6A & W6B.

The existing central courtyard does not successfully address the major W6A tower – the level change of near 2 metres is handled poorly so that W6A does not currently address the central courtyard other than overlooking this important outdoor space.

The proposal addresses this issue by creating a visual and circulation axis through the new W6A collaborative hub that reverses the circulation to the western wing of W6B so that this now addresses and helps activate the central courtyard consistent with the form of the circulation and courtyard frontage of the existing northern and eastern wings.

The central courtyard will also be developed as a series of stepped platforms or outdoor pavilion like terraces that gently interplay with the strong brutalist forms of the expressed concrete framing to W6B while bridging the level difference with the W6A tower ground plane so that access to W6A via these platforms is encouraged and the visual link between the student activity oriented spaces within the W6A ground plane and the central courtyard strengthened so that these facilities are a primary address to the central courtyard with their activities spilling out into the central courtyard space.

The existing buildings are located within a building platform grid established by the MQ Master Plan with a secondary pedestrian circulation route to the immediate south – this is respected in the proposed development with the atrium space located to the south of the redeveloped W6A tower functioning as a covered component of the Master Plan proposed secondary route that is open to a minimum of a two storey height at the east and west ends and under the central link bridge elements connecting the collaborative hubs of the redeveloped W6A tower and the new Showcase Building.

The existing W6B tower fabric is aged, inward looking with solid facades containing limited openings, does not have necessary modern services and does not meet current day needs for an involving educational environment that encourages student, staff and community interaction – it also does not

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have an appropriate entrance from either the primary student interface via the central courtyard or from the carpark and more visitor oriented perimeter circulation routes to the south.

The floor area of the current complex does not meet the Faculty of Arts current needs with a number of Departments currently located in other facilities across the campus including important facilities such as the Ancient Cultures Museum and the Numismatics Suite that are tucked away with little identification in the X5B building to the west.

The proposal addresses this issue by developing a new Showcase Building that will house important local and community facilities that showcase the Faculty, including the Ancient Cultures Museum and the Australian History Museum, in purpose designed high quality accommodation that will appropriately display the significant collections held by these Museums plus it provides a home for outward looking Research Units, the Immersive Languages Department and accommodates a Function and Temporary Exhibition Space that will further support the community outreach and involvement vision for the Faculty's future.

This new building will provide an attractive and involving entry experience from the south with a direct connection past the Museum, Function & Temporary Exhibition areas to the ground plane of the Atrium space and into the new ground level central Concierge point in the redeveloped W6A tower that lies at the base of the new collaborative hub interconnecting all levels of the W6A tower and the Showcase Building.

The additional floor area provided in the additional building allows the consolidation of the Faculty of Arts, with three currently remote Departments now incorporated in the new complex creating an identifiable new Arts Precinct on the University Campus – the consolidation of the Faculty of Arts on the site that has been its historic home respects the social and cultural heritage of this foundation Faculty.

3.0 HERITAGE

3.1 Background

The existing building complex known as W6A & W6B is identified in the Macquarie University Master Plan as a Legacy Building – the buildings address Wally's Walk, which is the main pedestrian spine on the campus, and have sufficient strength to contribute positively to the definition of the western end of this central element – the W6A tower is one of two major eight (8) storey structures that help define & visually terminate the ends of the central academic and administrative zone of Wally's Walk.

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The existing building complex houses a number of departments and the central executive of the Faculty of Arts, which is a foundation Faculty of Macquarie University, therefore adding a social legacy significance beyond the fabric legacy value.

However, to retain and consolidate the Faculty of Arts in this zone of the campus, consistent with the Master Plan objectives for the Arts Precinct, which will retain and enhance the social and cultural significance of this foundation faculty in this location, it is necessary to renew, undertake a lifecycle upgrading & expand the existing building complex to meet the current needs and future vision of the Faculty of Arts.

To ensure that the new building design is consistent with their future vision, the Faculty of Arts has undertaken an extensive project briefing and visioning process to identify the physical environment required to support their strategic goals and cultural change. Key to the requirements is investment in spaces and environments that responds to the nature of the Faculty's work, teaching and research. The Schematic Design has been developed in consultation with the Faculty and Macquarie University Property and is responsive to the brief and the strategic vision and requirements of the Faculty.

3.2 Legacy Fabric Design Notes

Building W6B - now 25WWA:

The existing three storey W6B structure has a direct frontage to Wally's Walk and respects the overall materiality underlying the legibility of the existing campus with significant face brick surfaces interplaying with the exposed off form concrete frame consistent with the academic rather than administrative buildings on the campus.

We recognize the importance of these materials at the primary frontage of the redeveloped Arts complex to Wally's Walk – they are at human scale level and therefore a primary visual anchor for the complex – by retaining this structure with minimal intervention consistent with achieving the functional improvements needed to meet the Faculty of Arts need as follows:

- a section of the masonry and glass infill to the ground plane immediately adjacent Wally's Walk is removed to open the delightful central courtyard element directly to Wally's Walk and to the green space to the north. However, the existing well articulated exposed concrete frame is retained to frame these new openings and the presentation of the façade to Wally's Walk varies little when approached from the east which is the primary pedestrian connection address for the buildings – this is

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reinforced by the retention of the visually strong face brick northeastern corner wall

- The eastern façade of W6B is amended to include new windows in the currently blank brick & concrete framed facades - these new openings are created by cutting out sections of existing face brickwork but the existing brickwork is retained as the sill element with the exposed concrete frame left unchanged and vertical external louvres are added but spaced off the existing façade so that they create a minimal impact on the legibility of the retained base masonry materials. The new windows are clearly needed to provide light & outlook to the academic offices that now occupy the internal floor area along this façade to meet the extensive accommodation needs of the FoA Brief.
- The western façade of W6B currently has high level windows only in the existing face brick panels between the existing exposed concrete frame elements as this side contains the current circulation zone with the western wing effectively turning its back on the central courtyard element. To activate the courtyard and to create legibility with an aligned circulation system fronting the central courtyard, the western wall will now become the primary source of natural light to the Seminar Rooms located in this wing and therefore the existing high level windows are removed and the existing brick sills cut down to accommodate new larger windows with visually separated vertical louvres added consistent with the treatment proposed to the eastern façade.

Building W6A – now 25WWB:

The existing W6A tower block is 8 storeys in height and is set well back from Wally's Walk but remains a significant visual element due to its height.

The current building fabric is aged, inward looking with solid facades containing limited openings, does not have necessary modern services, has minimal 2 625 floor to slab soffit heights and does not meet current day needs for an involving educational environment that encourages student, staff and community interaction.

To maximize the reuse of existing building fabric, consistent with meeting modern environmental and facility standards, we propose to provide the necessary air conditioning services by adding floor by floor plant rooms to the east and west ends of the tower building and locating the ductwork external to the current façade so that ceiling heights can be maximized and creating the desired visual transparency and interactivity by opening the northern and southern facades.

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The existing W6A eight storey tower is therefore retained in height and scale terms but is redeveloped & refurbished to create modern interactive academic accommodation as follows:

- The existing central core section is completely demolished and a new collaborative hub with open vertical circulation and shared meeting facilities that will encourage student, staff and interdepartmental interaction on all levels of the building is inserted
- All existing internal walls and the face brick facades are removed leaving only the structural frame with new floor by floor plant rooms added to the ends of each wing and new glazed facades installed to the north & south elevations to create visual connectivity that is not provided by the current structure but which is a foundation design principle of a modern educational environment
- Vertical face brick elements are recreated to the visually prominent east and west ends and to the western component of the northern Collaborative Hub to maintain the heritage context of the building complex as these elements – particularly the eastern plant enclosures – are primary components of the visual field when approaching the building from the east along Wally's Walk
- These elements will read in combination with the retained concrete and brick facades of the lower W6B teaching complex that will anchor the building and maintain the legibility of the brick and exposed concrete surfaces generally despite the now extensive glazed surfaces to the long north and south facades
- New environmental control is provided by externally located horizontal services distribution that is enclosed by the environmentally sensitive twin wall northern façade with enclosed louvre assemblies to one side and the transparent ETFE roofed Atrium to the southern side.
- The ETFE roof and the glazed vertical ends are soft transparent elements set back from the visually strong vertical face brick elements to the east and west ends of the tower building
- Open adaptive workplace areas are located along the northern façade to maximize light into the academic wings and to make use of the attractive outlook available to the north
- The ground floor plane is developed to house a range of staff and student activity including a central Café, student & Staff 'Drop In' Centres, Concierge facilities and Student Support plus a Readers & Writers Lounge to maximize activity and create a vital and welcoming

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environment

3.3 Conclusion

We believe that the major new face brick surfaces, that will be carefully selected to match the existing face brick including matching the specific bond pattern to the east and west end plant room structures & the western area of the Collaborative Hub, will form primary elements of the visual field – the larger scale soft and fully transparent glazed façade is a visually quieter element that will not detract from the strength of the major brick end elements & the tonally similar dark Bronze anodized air intake louvres will maintain the integrity of the masonry planes - and will read in conjunction with the anchoring three storey retained W6B brick and concrete surfaces to appropriately respect and retain the legacy status of the existing built fabric while ensuring the continuity of the social legacy of the Faculty of Arts in this precinct as a foundation Macquarie University Faculty.

4.0 EXTERNAL DESIGN PANEL REVIEW

Macquarie University's Master Plan requires a review of all major projects on campus by their expert External Design Panel - a presentation and workshop was held with the External Design Panel on 17th May 2017.

Topics of discussion included building orientation, Museum briefing and siting, overall project costs and the clarification of primary entrance locations.

Our detailed response to the issues identified by the External Design Review Panel was endorsed by Macquarie University and resulted in the following refinements to the Architectural Design:

- The southern facade of the new Showcase Building was redesigned to create a stronger and more distinctive architectural expression with the new sawn sandstone clad central element and projected glazed vertical screen highlighting the entry to the complex from the southern public realm and the articulated colonnade and projected granite clad columns and sunshading elements providing visual depth and quality creating a clear differentiation with the more commercial curtain wall clad buildings further to the south nearer the public interface with the campus
- A specialist Museum consultancy has been appointed to assist the FoA in combining the two currently separate museum collections and to identify how to improve the educational outcomes from the new Museum that are sought by the Faculty Executive
- Stronger shared pedestrian north/south links, including an accessible link

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to the west of the new Arts Precinct complex, have now become a part of the project scope

5.0 FUTURE PROOFING

There has been a conscious effort during the initial initial briefing level and throughout the design process to 'Future proof' the Arts Precinct Project.

The Design accommodates the Faculty's growth predictions taken forward until 2021 including the impact of current and future research grants and teaching loads with a large number of open adaptive workplaces supporting additional future staff and senior research student growth.

The Design facilitates future change and growth in the following manner:

- Individual offices have been provided to accommodate all briefed full time staff initially but with the offices sized to allow shared occupation. The Faculty Executive envisages that future growth beyond the 2021 projections would be met either by accommodating new academic appointments in shared offices - this provides a very significant potential increase in capacity and building services have been designed to meet the loads involved in at least 50% of the offices being occupied by two rather than one academic – or by assigning new appointments within the extensive number of open adaptive work places provided in each wing
- The Academic wings are modular in nature – the offices and the adaptive open work areas are based upon the existing building structural bays with services delivery integrated on an individual modular bay unit. Individual offices can therefore be removed and more adaptive open workspaces substituted as work conditions change and academic staff become more receptive to the collaborative work opportunities that open work environments offer
- All academic wings are of consistent plan and facility mix so that current department divisions that limit flexibility and do not recognize the often even stronger cross department links between specific academics that occur in many research programmes will not occur with Departments occupying multiple floors or only parts of generic floors throughout the building on a flexible basis that can change as future needs and priorities change
- The adaptive workplace environments located immediately adjacent the Collaborative Hubs will facilitate varying research team groupings with personnel and team numbers able to be amended readily to respond to changes in community, faculty and research grant priorities

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and with much greater levels of flexibility than that possible in cellular work units

- A variety of Project Rooms are provided throughout the Collaborative Hubs and are a central resource available for long term assignment to research teams formed across all departments to meet changing needs without restructuring permanently assigned spaces – these areas are additional to the extensive meeting and non assigned collaborative facilities located in a varying mix throughout the Collaborative Hubs

6.0 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Macquarie University has a commitment to achieving a 25% reduction in the existing One Planet Footprint across the campus involving the inclusion of sustainability measures beyond just compliance with the standards established by Part J of the BCA.

The Sustainability Report prepared by Wood & Grieve Engineers should be referred to for more detailed advice on ESD objectives and the measures incorporated in the design but a simple listing of the major ecological initiatives included in the design is as follows:

- Maintaining the embodied energy of the existing building structures by retaining and re-using these structures
- Minimising applied internal finishes to use existing thermal mass
- Recycling of demolition materials for re-use
- Well shaded facades including the twin wall northern façade that provide environmental performance exceeding Part J requirements
- Clean accessible roof planes created by adopting floor by floor plant facilitates efficient PV cells installation for renewable power generation
- Open plan design ensures future proofing and flexibility
- High indoor air quality standards and energy efficient HVAC design and control systems accommodating varying occupant loadings
- Carefully designed internal acoustic environment
- Sensitive lighting control systems integrated with the high daylight levels generated by the transparent facades and using efficient LED light sources
- Passive solar design includes maximized north and south facades
- Stormwater re-use and retention integrated with water efficient fittings