



Australian War Memorial

AUSTRALIAN WAR MEMORIAL

Redevelopment of Post 1945 Conflicts Galleries and Discovery Room

STATEMENT OF EVIDENCE TO THE PARLIAMENTARY
STANDING COMMITTEE ON PUBLIC WORKS

December 2005



TABLE OF CONTENTS

Section	Page
INTRODUCTION	1
IDENTIFICATION OF NEED	
Objectives	3
Historical Background	3
Need	3
Options Considered	4
Reasons for Adopting proposed Course of Action	4
Description of Proposal	5
Heritage Considerations	7
Organisations Consulted	8
TECHNICAL SOLUTION	
Overview	9
CODES AND STANDARDS	9
PLANNING AND DESIGN CONCEPTS	
Memorial Refurbishment	9
Car parking	10
ARCHITECTURAL	
Design Concepts	10
Building Character	13
Collection Access	13
MATERIALS AND FINISHES	
External Walls	13
Floors	13
Internal Walls	14
Ceiling	14
STRUCTURE	
Geotechnical conditions	14
Foundation	15
Slab on ground	15
Design loads	15
Raised floors	15
Lateral stability	15
Column removal	16
Wall penetrations	16

MECHANICAL SERVICES	
Introduction	16
Air Handling Systems	16
Automatic Controls	17
Heating and cooling	18
ELECTRICAL SERVICES	
Scope	18
General	18
Post 1945 Conflicts galleries	18
Discovery Room	19
Staff toilets and public amenities	19
Male and female toilets	19
Back of house	20
Collection Storage Areas	20
SECURITY SERVICES	20
HYDRAULIC SERVICES	
Scope of Service	21
Existing Site Services	21
Internal Hydraulic Services	21
FIRE PROTECTION	
Fire Protection Services Overview	22
Fire Sprinkler System	22
Smoke Detection System	22
Fire Indicator Panel	22
EWIS	23
Fire and Smoke Control	23
PROVISION FOR PEOPLE WITH DISABILITIES	23
LANDSCAPING	23
AUTHORITIES CONSULTED	23
PROJECT COST	24
PROJECT DELIVERY SYSTEM	24
TIMING	25
SUMMARY AND RECOMMENDATION	25
DRAWINGS	26

INTRODUCTION

1 The Australian War Memorial is a unique national institution and in recent years has undergone a major program of redevelopment to reflect best museum practice. The current proposal is a redevelopment of the Memorial's Post 1945 Conflicts galleries and Discovery Room, visitor facilities and some back of house areas. The new gallery proposal also includes the display of the bridge section from HMAS *Brisbane* at the rear of the Memorial, which would be joined to the new galleries by a glazed link, not dissimilar to the link between ANZAC hall and the main building. The proposal reflects a continuation of the vision in the Memorial's current Corporate Plan which states:

“Our vision is for an outstanding Memorial that is acclaimed for its commemorative activities and exhibitions; engages with the greatest possible number of people; undertakes continuing revitalisation; and is recognized as a pre-eminent national institution.”

2 The Australian War Memorial began an ambitious program to redevelop its galleries almost a decade ago. The exhibitions at that time had become dated, were not communicating as well as they might, and were not using modern display techniques, particularly the use of multi-media. For inspiration the Memorial turned to its founder Charles Bean and his original vision for the institution:

“We are out to make our war museum, our war gallery, and our war library, if possible, not merely fine museums for Australia, but the finest that the world contains...”

3 The Australian War Memorial has completed the first stage of revitalising its galleries and facilities in the heritage-listed main building with enhanced visitor orientation, coherent circulation paths, and world class displays in the galleries. In addition, it has also successfully developed ANZAC Hall (made possible by a Centenary of Federation grant), a 3000 square metre large technology exhibition space that features the latest in museum experiences, “object theatre”. The latest and most exciting of these new experiences is *Striking By Night – Lancaster bomber ‘G for George’*, that recreates the drama of a bombing raid over Berlin in December 1943. The Memorial's new exhibitions are at the cutting edge of museum presentation and interpretation. Visitation and length of stay has increased significantly due to this redevelopment strategy. This success culminated in the Memorial being recognized for three years as Australia's Major National Tourism award winner and is now a member of the Tourism Hall of Fame.

4 Redevelopment has now come to the point where the Post 1945 conflicts, particularly Vietnam, Korea and Peacekeeping, need to be brought up to the same world class standards. Australia's involvement in recent conflicts in East Timor, Afghanistan and Iraq need to be commemorated through exhibitions that tell the stories of those involved. The current galleries are very small and inadequate, leading to criticism from veterans and visitors.

5 The most cost efficient way to create sufficient gallery space for these galleries was to relocate some collection, staff and back of house functions to the new East Building. This freed up over 1700 square metres of exhibition space for both the Post 1945 Conflicts Galleries and the Discovery Room on the lower level of the Memorial. The East Building will be completed early 2006 and will provide collection storage space, staff offices, photographic laboratories and a workshop.

IDENTIFICATION OF THE NEED

Objectives

6 This submission seeks approval for the Australian War Memorial to redevelop its Post 1945 Conflicts galleries and Discovery Room, upgrade some visitor facilities back of house areas for visitor services staff and relocate some collections.

7 The new galleries will provide over 1700 square metres of exhibition space in the Memorial's main building to the same world class standards as the rest of the galleries. It will also allow the display of major iconic objects like the Iroquois helicopter and Armoured Personnel Carrier from Vietnam and other objects (for example part of a Canberra bomber) that could not previously be displayed due to limitation of low ceilings and columns. It is also intended to display the HMAS *Brisbane* bridge, a ship which served in the Vietnam War and Gulf War 1, behind the existing gun mount located at the rear of the Memorial. The bridge is too large to display inside, but it can be joined to the building by a glazed link, thereby integrating its story seamlessly into Post 1945 Conflicts galleries.

Historical background

8 The Memorial was established by the Australian War Memorial Act 1925 as a national memorial to those Australian men and women who have died while on active service. In 1980 the Memorial's functions were re-defined to reflect the Memorial's role in commemoration, as a museum and as a research centre housing a rich and diverse collection of seminal events in Australian history. Since its opening in 1941, the main building has been modified and extended on several occasions to accommodate a growing collection and to provide space for new exhibitions.

9 The Australian War Memorial's Re-development program Stage 2 also includes new facilities such as a 400sqm Discovery Room directed at engaging children and their families. The new Discovery Room will feature interactive environments for children to actively explore such as an Iroquois helicopter, a World War One trench and a Cold War Oberon submarine. The project will also improve some building services which will make the main building fully code compliant. With the East Building will be completed in early 2006, it is planned to close the existing galleries on the lower level on 6 March 2006. After the clearance of the area of relics, and construction work is scheduled to begin in July 2006. The new galleries and Discovery Room will be ready for opening in late October 2007.

Need

10 Visitor evaluation undertaken in relation to Post 1945 Conflicts galleries indicates that 45% of those surveyed had some kind of personal connection to the over 110,000 Australians who have direct experience of these conflicts. These surveys also showed that the existing galleries rated low in terms of visitor satisfaction. The current gallery space allows a very limited coverage of operations and experience. Visitor and veteran comments have consistently criticized the inadequacies of the galleries and the presentations, which date back to the 1980s. Without moving back-of-house functions and collection storage there is no room for expansion of the existing

galleries to satisfy the visitor and stakeholder needs. An expanded gallery also allows for future commitments to be represented. The timing of the overall development is critical, as the numbers of active veterans decline especially those who served in the Korean War and early Peacekeeping operations.

11 A number of important iconic objects relating to the Post 1945 Conflicts cannot be displayed in the current space. These include, amongst other items such as the HMAS *Brisbane* bridge (Vietnam and Gulf War), an Iroquois helicopter (Vietnam) and an armoured personnel carrier (Vietnam, Somalia, and East Timor). Over 1300 square metres of prime exhibition space will be created to feature these objects as well as telling the stories of Australians who served in these conflicts.

12 Over 110,000 school students visit the Australian War Memorial per year. The current Discovery Room is less than 100 square metres and can only accommodate 20 students per session. The new Discovery Room will be more than double this size and it will be designed to allow 60 students every 40 minutes to explore and interact with the different immersive environments planned. The Room will also be a great attraction for families who will enjoy special hands on programs and activities.

Options considered

13 The Gallery Masterplan was formulated to provide a series of staged developments as funding became available, that would improve public facilities and maximize visitor access to the collections. A business case was prepared based on an evaluation of various options to redevelop the Post 1945 Conflicts galleries which, based on stakeholder and visitor comments, are now the highest priority for redevelopment. To defer this project would alienate stakeholders who are dissatisfied with the inadequacies of the existing galleries. Recent world events have heightened public awareness of recent commitments and this interest cannot be satisfied by the present very limited space. A simple redevelopment of the existing galleries is also unrealistic. The existing space is just one third of the Second World War galleries. Also the ceiling heights and columns do not allow iconic objects to fit into the space.

14 The Memorial examined the possibility of redeveloping the existing Discovery Room every two years in an effort to offer different hands on activities to school student and families. The confined space greatly limits the scale and number of experiences that can be offered to meet curriculum needs and provide children with immersive and exciting opportunities. For example, the space could not accommodate an Iroquois helicopter and a World War One trench. Both of these would offer children active learning environments. The new Discovery Room proposal has sufficient space to offer both of these experiences, and more.

Reasons for adopting proposed course of action

15 The inadequacies of the existing Post 1945 Conflicts galleries have been a source for constant criticism from veterans and their families for some years. The potential budget for the whole project, including plans to display the bridge from HMAS *Brisbane*, is \$17.8 million. An amount of \$14.7 million has been allocated from existing reserves and prudent allocation of funds for all design, architectural

primary works, building services, multimedia production, staffing and gallery exhibition works. It is planned to fund the displays of the *Brisbane* bridge, enhanced state of the art multimedia presentations of the Battle of Long Tan and new Korean War dioramas through sponsorship. Should this not eventuate, the normal rigorous cost/scope reconciliation process will ensure that the project remains in budget. The October 2007 opening will coincide with the 60th Anniversary of the first peacekeeping mission to Indonesia in 1947; and the anniversary of the Battle of Long Tan in Vietnam; and the battles of Kapyong, Maryang San and the Hook in Korea. The new Discovery Room will allow school students who visit the Memorial to access a unique hands-on learning environment coupled with new galleries, the proposal will redress the concerns of stakeholders, teachers and visitors by providing opportunities to promote the Memorial as a national institution, stimulate research and disseminate knowledge to the whole community of Australia's proud military history.

Description of proposal - Primary Works Gallery Design

16 Following a Qualification-Based Selection process endorsed by the Royal Australian Institute of Architects, the Memorial engaged Denton Corker Marshall (DCM) as architects for the ANZAC Hall project and subsequently East Building and the primary works for new galleries. DCM successfully designed these buildings which sympathetically complement the architecturally significant main Memorial building. It was appropriate that they undertake the primary works design for the new galleries based on their considerable experience in designing successful museums and their sensitive treatment of the heritage values of the Memorial site.

17 Much of the lower level floor will be lowered by one metre to accommodate large exhibits relating to Vietnam War and Korean War. New large metal façade will allow the easy access of such items. The full opening of the façade will be made between masonry support structure and will be approximately 4.6metres high and 5.6metres wide. This allows for two hinged metal-clad door leaves. A subdued paint finish is envisaged to compliment the stone facade. The area for which the floor will not be lowered will house smaller galleries and public amenities. Both zones will be linked together by a linear balcony space, which would also serve as the main circulation route to the HMAS *Brisbane* Bridge. The Discovery Room is also across two levels, and was developed to allow the display of another Iroquois helicopter for children to enter and explore.

18 The HMAS *Brisbane* Bridge is a very important inclusion to allow the Navy story to be effectively told. This is of great interest and importance to all those who served, their friends and relatives. The size of the bridge precludes its inclusion inside the galleries, but its story can be integrated within the content of the Vietnam and Recent Conflicts galleries. The Bridge is planned to be positioned behind a gun mount (already displayed adjacent to the Northern courtyard), also from HMAS *Brisbane*. This relationship is important as it presents the bridge and gun mount in the context of the ship. This relationship maintains the integrity of the object and its interpretation for visitors and veterans. It will be connected via a glass walk way and visitors will access the display as part of their journey through the new galleries, as if it was part of the Memorial building. The design by DCM has been strongly endorsed by the Council of the Australian War Memorial

Description of proposal – Gallery Works Exhibition Design

19 Following an expressions of interest and competitive tendering process, Cunningham Martyn Design was contracted to design the new Post 1945 Conflicts Galleries, and Mothers Art Design to create the Discovery Room. Both firms have successfully designed exhibitions and experiences in Australia's leading museums and they impressed the evaluation panel with their creativity and empathy with the content.

20 The Post 1945 Conflicts galleries will be arranged in a broadly chronological structure to reflect six decades of involvement from 1945.

21 The exhibition spaces will cover the following:

- Introduction
- The Cold War
- Korean War
- Malayan Emergency/Indonesian confrontation
- Vietnam War
- Peace keeping
- Post Cold War Conflicts

22 The galleries will be developed in accordance with the Council endorsed objectives to produce an outstanding, world-class series of galleries that:

- commemorate the service and sacrifice of defence force members in the many overseas commitments since 1945; and
- engage visitors so that they might understand the nature of the service and its context.

23 And to ensure that the following main messages are communicated to visitors by the galleries:-

- despite the great sacrifices and losses during the Second World War and the hopes for a peaceful world, instability resulted, caused by Cold War tensions and a wave of anti-colonialism;
- after the Second World War, Australia realized it could no longer rely on turning to its citizens in time of need and formed full time defence forces;

- in support of its national interests, Australia has played an active role on the world stage and has committed its defence force men and women throughout the world in a range of conflicts from humanitarian operations, peacekeeping to limited war. There has been a major loss of life in some of these;
- Australians have served overseas with distinction, and their competence and courage is recognized internationally;
- since the end of Superpower rivalry, on-going and long-term regional tensions, and terrorism have combined to continue to make the world an insecure place; and
- overseas service in the Australian Defence Force is demanding and often very dangerous, and those who serve deserve respect and support.

24 The Memorial is keen to include a major experience featuring the bridge section from the HMAS *Brisbane* which highlights its long operational history, personal stories of its crew and its sister “Perth” class ships, HMAS *Perth* and HMAS *Hobart*. The ship served in Vietnam and during the first Gulf war before becoming part of the MIF. This history would be featured in the interactive multimedia displays that would be mounted in the bridge itself. Dramatic footage of HMAS *Brisbane* on the Gun Line in Vietnam as it shelled enemy positions in support of the US 3rd Division in 1969. Another scenario would be in the Gulf seeing action as an anti aircraft picket and sending boarding parties onto ships suspected of breaking the UN trade sanctions. This display will tell many stories about the Navy’s role in Post 1945 Conflict situations as visitors interact directly with this object.

Heritage Considerations

25 The Memorial has engaged Peter Freeman Pty Ltd, conservation architects and planners, to provide independent advice on all heritage issues which arise from the new gallery design and to assist with discussions and consultations with relevant bodies.

26 The site and the Memorial building are covered by a Heritage Conservation Masterplan, 1997, which sets out policies and programs to assist in protecting and interpreting the historic fabric of the Memorial during all development works. This plan was developed with the Australian Heritage Commission. The plan is being reviewed in light of the new Environment and Heritage Legislation Act (No1) 2003, Australian Heritage Council Act 2003 and Australian Heritage Council (Consequential and Transitional Provisions) Act 2003.

27 The new gallery works will result in the adaptive reuse of a large are of the lower level of the Memorial and will require intervention into the fabric of the building to varying degrees. The largest intervention is the creation of a new opening into the western façade. This access is essential as it is the only way that large objects can be installed and maintained in the galleries. As the western façade is essentially symmetrical and axial in composition, the new doors will reflect this design. The new galleries present an opportunity to express the sequential development of the building

and to open previously hidden back-of-house areas to visitors. Small remnants of original marbled rubber floor finishes, and doors in the new visitor services areas will be retained and protected.

28 The display of the HMAS *Brisbane* bridge is the other intervention into the building fabric. The design meets the requirements of the Conservation Management Plan by using materials that are sympathetic in colour and texture to the building and is in a scale that still allows the building to be “seen in the round”. The display will not be visible from the front of the Memorial, nor the western approach through the sculpture garden. The glazed link from the building to the bridge structure is reversible and non permanent. An existing window opening will be used thus ensuring the penetrations into the building fabric are minimised. The bridge can be removed and the window and stonework reinstated without damage to the building. It is intended to display the bridge for a minimum of ten years, but this is contingent on conservation management of this significant object. The bridge is seen as a fundamentally important component of the Post 1945 Conflicts galleries.

29 Memorial has consulted with the National Capital Authority (NCA) and the Department of Environment and Heritage during the design concept development period in 2004/05. The Memorial has referred the HMAS *Brisbane* bridge display project to the Department of Environment and Heritage for approval as “not a controlled action” and will refer the interior works shortly. The Department was comfortable with running this process concurrently with the PWC process. Based on advice from Peter Freeman and previous consultation with DEH, we are confident that the new gallery design ensures that the heritage values of the site are not comprised.

Organisations Consulted

30 The Memorial has undertaken a consultation process with the National Capital Authority and Department of Environment and Heritage. The referral process is also being undertaken with the Department of Heritage and Planning. The Memorial continues to consult with the NCA prior to submitting the final plans to them for works approval after the PWC process is complete. Briefings will continue with the relevant ACT Government authorities, the nearby Campbell High School and local residents. It is planned to brief the Australian Greenhouse Office on the project early in the New Year.

31 Other important stakeholders, veterans’ groups, service organisations and interest groups have also been informed and consulted since 2004. The Memorial has a strong commitment to consulting with visitors about the types and quality of experiences that they encounter during their visits. A variety of promotional strategies will be used to inform visitors prior to visiting the Memorial about the gallery closures and the plans for the new galleries.

TECHNICAL SOLUTION

Overview

32 The proposed refurbishment work will comprise a total area of approximately 2500 square metres gross floor area and will include:

- Post 45 Galleries (1300 m2)
- Discovery Room (320m2)
- Schools Orientation (200 m2)
- Visitor Services offices (50m2)
- Staff and Back of House facilities (200m2)
- New Compactus Storage Area (320m2)
- New Public Toilets (65m2)
- New Plant Rooms (140m2)

CODES AND STANDARDS

33 The building and access areas will be designed in accordance with the Building Code of Australia and all other relevant codes and Australian Standards. Construction contracts will comply with the National Code of Practice for the Construction Industry.

PLANNING AND DESIGN CONCEPTS

34 The proposed Gallery Redevelopment for the Australian War Memorial Administration is the second stage following the construction of the East Building. The relocation of AWM staff functions to the East Building makes way for gallery expansion.

Memorial Refurbishment

35 The work to the galleries is primarily internal, with consideration given to the external envelope where new work is required to maintain the visual character of the Memorial when viewed externally. Post 1945 Conflicts Galleries are located to the west wing, replacing staff offices and amenities. Discovery Room will occupy the east wing, replacing existing compactus. Staff and back of house areas are located in current the photography zone, at the west of Research Tier 2 and 3. Compactus Store will occupy current staff offices areas which will be relocated to the East Building. New public toilets will be provided toward the southern end of the gallery areas. Plant rooms are made available through the consolidation of staff and gallery areas. These are centrally located to allow clarity of visitor flow that simply incorporates existing circulation routes and exits and minimise removal of building fabric.

Car parking

36 No new car parking is envisaged for this project. The gallery redevelopment is designed to greatly enhance the visitor experience and to meet the legitimate criticisms of veterans and their families.

ARCHITECTURAL

Design Concepts – Post 1945 Conflicts galleries

37 The Post 1945 Conflicts Galleries are proposed for the west wing of the Memorial, which currently accommodates staff offices and facilities. The galleries will be grouped in two physical zones described as upper tier and lower tier, arranged to reflect the spatial hierarchy of the building and the different spaces each exhibit requires. Most of the entire west wing floor is to be lowered approximately one metre so that the entire space can achieve the maximum height for the large objects. Floor level will be at grade with the external landscape. This lower tier will house large exhibitions, and will be finished in similar manner to ANZAC Hall.

38 The proposed concrete floor slab will be designed to accommodate heavy equipment loads. The floor will be paint finished. Flush floor boxes and trenching will allow electrical servicing. Sub-floor space below will allow for duct reticulation from special exhibits. Three central columns will be removed to allow flexible access for exhibition fitout and additional beams will be introduced to carry the load. The ceiling will be fitted with new acoustic ceiling lining, track lighting similar to and painted duct work similar to ANZAC Hall. Duct work will be exposed, and designed to maintain neat visual appearance.

39 Access to the lower tier will be provided through large doors centrally positioned within the western wall. It is proposed that the upper tier housing the smaller galleries will feature vinyl flooring, repainted walls and new ceilings. The upper tier will work within the constraints of the existing building fabric, with modifications including new wall openings and ceiling finishes where required. Removable flush black-out panels are intended for all windows at the gallery perimeter. These will comprise of painted composite panel, such as painted ply or aluminium sheet, with insulation for thermal and acoustic control. Structural advice has been given confirming the building can accommodate new openings.

40 Both zones are linked together by a proposed linear balcony space that serves as the main circulation spine linking the upper and lower tier galleries and the HMAS *Brisbane* Bridge. The space distinguishes between the gallery areas and serves as the main circulation link. Sub-floor space will be used for new services to keep the main gallery spaces free of plant equipment where possible. Special lighting and ceiling panels control noise and lighting conditions. Painted metal plate or glass balustrade panels are proposed and these will be designed in a character appropriate to the Memorial. Panels may be removable to cater for exhibition flexibility: during the life of the exhibition new circulation routes can be plugged in along the link without disrupting the spatial planning of building elements.

Design concepts - HMAS *Brisbane* bridge

41 The Australian War Memorial is an historic building of national importance. In keeping with the building, objects that sit around the building must have a clear visual iconic character. To realise the HMAS *Brisbane* Bridge as an ‘iconic’ object requires the careful design of assembled components. The bridge elements are proposed to be supported atop a metal clad podium that raises the object off the ground and gives it the representation as a free standing object. This will also isolate the object from a safety view point, as all elements will be well out of reach of a person on the ground. Its placement outside is on axis with the gun (also from HMAS *Brisbane*), and will be positioned within the courtyard to maintain a linear alignment with the mezzanine connection in the adjacent Post 1945 Conflicts exhibitions. The plinth and bridge link need to be designed in such a way to fit comfortably with the west wall and courtyard.

42 Four primary components will make up of the Bridge display – the podium, bridge, radio room, and gun director. These will be stacked over three levels and assembled on top of the podium using bolt connections. This will allow the pieces to be dismantled for object conservation and maintenance by Memorial staff. The plinth treatment will be MIO paint finish matching subdued mid grey tones of ANZAC Hall.

43 A glazed link will connect the bridge with the galleries. Using steel beams to span above ground and glass skins similar to ANZAC Hall, the link will have a weightless appearance, emphasising the bridge as a distinct object within the courtyard. The link is approximately 2600mm x 1100mm, aligning with existing window opening width and middle transom of the existing window. The top section of the existing window will be retained or replaced to match existing. Visitor circulation will be accommodated within the two storey podium volume.

44 The ground floor is approximately 45square metres and the upper landing is around 2300mm accessible from the outside. Services elements such as air slots and louvres and flush panel plant room access doors will be discreetly integrated into the podium design. All internal object components must be able to be dismantled for curatorial and maintenance purposes. New linings, structure and services are designed to accommodate exhibits and visitor circulation, and insulated for acoustic and thermal control to curator specifications.

45 The existing floor of the bridge needs rebuilding, and the bridge itself requires treatment for corrosion and the smoothing of rough edges. Drainage outlets will be concealed within the podium structure, accessible from within plant area. Steel frame and pad footings will allow a clear span across existing paving for easy access. Bolted connections will enable disassembly of each bridge component, including the floor, for conservation maintenance and object removal in due course. Similarly, associated services within each bridge component will require connections adaptable for this purpose. Lighting to visitor circulation areas, emergency lighting generally, and fluorescent lighting to plant room will be provided.

Design concepts - Discovery Room and Schools Orientation

46 Schools Orientation room will be maintained with only minor work including a new access to Discovery Room and some furniture relocation. Discovery Room will be a new space requiring full refurbishment to incorporate an Iroquois helicopter, submarine exhibits and other environments for children.

47 The preferred design incorporates utilizes the change in existing floor levels and optimizes the available exhibition space. Circulation becomes part of the exhibit experience: a new gantry is proposed, reaching from the upper floor to the lower floor through submarine exhibit, stairs and a disabled hoist will provide circulation to the lower floor Iroquois exhibit. Openings to the existing 1930's east wall are proposed to provide visual and spatial links; the sizes to be determined by display material and visitor access. Existing services will remain where required for Memorial functioning and are visually treated to suit the new exhibition environment. New services equipment will be introduced and co-ordinated within the ceiling zone amongst existing infrastructure.

Design Concepts - Back of House Functions

48 Back of house functions will be arranged within existing spaces and will require minor reworking of existing building fabric and the preservation of heritage features. New floor treatments in the new staff areas and a reworking of ceilings are expected to accommodate all functional needs. Where possible, existing fabric will be retained and repaired to match new work. Heritage fabric identified within this area includes some wall tiles, marble rubber flooring and jarrah flooring. Significant fabric will be protected and incorporated with new finishes. This will include covering with new material subject to further detail review with relevant consultants.

49 Staff amenities such as like toilets, showers, lockers and disabled facilities will be built above existing heritage flooring in the area where multimedia unit currently operates. Sheet flooring is likely to be used to protect existing material. A new staff tea room is located in the area, with new finishes that protect heritage building fabric.

50 The Memorial's main security offices will remain in their current locations.

51 Four new plant rooms will be needed to cater for the new galleries, new staff areas, and the collection storage compactus areas. Existing plant will require additional new equipment for the Discovery Room and storage areas. A new communications hub is required to the replace existing hub for the new gallery space and will be located adjacent to proposed Plant Room 1.

52 New compactus storage areas to accommodate remaining Research Centre collection material will fit within the existing building fabric, but some adjustment to services will be necessary. Currently the proposal requires the removal of ceilings and redundant services to suit compactus store requirements.

Building Character

53 Building structure and floor level changes within the Memorial are inherent characteristics that significantly influence the way in which spaces can be used for exhibitions. Circulation paths are determined by this in part, with visitor flow determined by working within existing central gallery spaces to orient the visitor through thematic exhibition sequences. Existing services pose some difficulties in realising clean new gallery spaces. Where possible, redundant services will be re-arranged or removed to provide clean spaces for new gallery areas.

Collection access

54 The proposed new collection access doors will be recessed within the central portion of the west facade. These doors will be solid hinged door leaves, with a minimalist detail in keeping with the Memorial. The full opening through the façade between masonry structures is approximately 4.6m high, 5.6m wide. The height of the opening relates to window lintel height. Metal plate door reveals are suggested, however, stone reveals would also be acceptable. These details will be reviewed in detail with Heritage consultants and the NCA. As the sole purpose for this access is for collection access, the opening will not in any way be seen as a public entry.

55 The proposed colour of the access doors will be a ‘warm-grey’ or a tone slightly darker than the darkest sandstone tone found on the Memorial facing. This will enhance visual connection in terms of colour and materiality with the Memorial, tonally blending with deeper reveal shadows of wall openings and ensure a subdued character. To minimize the impact on existing landscape and infrastructure, temporary collection access will be provided over the grass. This grass will be reinstated after exhibits are in place. The existing trees in this area are unaffected.

MATERIALS AND FINISHES

External Walls

56 The external walls will remain unaltered except where openings to the existing stonework are provided. The proposed colour of the access doors will be a ‘warm-grey’ or a tone slightly darker than the darkest sandstone tone found on the Memorial facing. The windows will remain unaffected as internal black out panels will be recessed behind fenestration and have a subdued colour to highlight existing material.

Floors

57 The Post 1945 Conflicts galleries upper tier will have vinyl or marmoleum sheet flooring that will blend with existing material. The Peace Keeping and Post Cold War Conflicts areas will retain the existing jarrah timber floor. The lower tier floor will be a smooth finished concrete. The link balustrades will be painted steel

plate or clear glazed panels which will be finalised after more exhibition design work is completed. The Discovery Room areas will be vinyl or painted concrete to suit exhibition requirements. Office rooms will be finished with carpet tile. Staff room and compactus areas will be vinyl or marmoleum floor finish.

Internal Walls

58 The new internal walls throughout will be insulated plasterboard paint finish. Colours to exhibition areas are being reviewed with heritage and exhibition requirements. Exhibition and plant room areas will be lined with acoustic material to isolate these areas from other functions.

Ceiling

59 The galleries will incorporate acoustic ceiling tiles generally for the upper tier areas. The lower tier will be treated with acoustic material to ensure there is no migration of sound to the upper level of the Memorial.

60 The staff areas will have acoustic ceiling tiles suitable for such areas.

61 Typically throughout a controlled layout of ceiling services with acoustic panels concealing the main air-conditioning duct runs is provided.

62 Collection store areas will use dust inhibiting sealant to concrete

STRUCTURE

63 The galleries being refurbished are at ground level, and will include the Post 1945 Gallery on the West of the site, and the Discovery Room on the East of the site. The proposed development includes some structural modifications to the existing buildings to allow for changing use patterns. This includes gallery space and plant room modifications. The modifications include the deletion of columns and penetrations in walls, as well as changes to the floor structure.

Geotechnical Conditions

64 The East and West of the site have different geotechnical profiles. On the West of the site the soil investigation report indicates a clayey sand base to a depth of approximately 0.5 to 2.8 metres, with extremely weathered rock below. On the East of the site the soil investigation report indicates sandy clay from 0.2 to 0.9 metres, with extremely weathered rock below.

65 On the West of the site, and in the central areas of the building, the footings will be typically founded on the clayey material, which has an allowable bearing

capacity of 200kPa. On the eastern side of the site, where the rock layer comes closer to the surface, the footings will be designed for an allowable bearing of 700kPa.

Foundation

66 The foundation consists of pad footings under the columns. Edge beams around the slab edge will also provide restraint to the ground slabs. Where new footings and slabs are constructed adjacent to existing footings and slabs, they will be tied together with roughened edges and dowel bars drilled and grouted between the elements.

Slab on Ground

67 The slab on ground will be a conventional insitu reinforced concrete slab with joints at a regular grid.

Design Loads

68 The design loads are in accordance with the appropriate Australian Standards for dead, live and wind loads. Allowance has been made for removable partitions and also for heavily loaded areas, such as plant room and special exhibition requirements on the ground floor. Where there is an upper floor over the area being refurbished, a load allowance will be made according to the design loads indicated on the original construction documents. Where no such load allowance is shown on the existing documentation, then loads allowances will be made in accordance with the current Australian Standard requirements.

Raised Floors

69 Raised floors will exist in a range of areas throughout the refurbished galleries, such as the Post 1945 Conflicts link. These floor systems will be a combination of hollowcore floors and timber floors. These floor systems will be supported off the ground by small pier and footing supports, typically constructed from masonry.

Lateral Stability

70 From a review of the documentation and an inspection of the building, the structural engineers have determined that the main walls and core structure of the building provide lateral stability to the existing structure. No changes to the external dimensions are proposed to be made. Whilst some penetrations will be made into the walls of the existing building, it will be ensured that the lateral stability requirements of the refurbished building are met with the addition of new columns that are tied into the main building system and the retention of a sufficient number of existing walls.

Column Removal

71 A significant aspect of the refurbishment of the existing structure is the need to remove a number of columns. In the cases where columns are proposed to be removed, the existing structure over will be supported by transfer beams that take the floor loads over back down the original columns to the footings. In places, these existing columns will need to be strengthened. This will be done with the addition of a new steel column adjacent to the existing concrete columns. In places, footings will also need to be increased in capacity by adding to their width and length with reinforced concrete.

Wall Penetrations

72 Penetrations will be made to a number of the walls. These penetrations will be achieved structurally by introducing lintels to support the wall over. These lintels will be steel beams, supported either on the remaining wall on either side of the penetration, or on small steel posts added on either side of the penetration. Where necessary, footings under will support these posts.

MECHANICAL SERVICES

Introduction

73 Air conditioning for the Gallery Development will be upgraded or replaced as required to suit the functions of the space.

Air Handling Systems – Gallery areas

74 New air handling system supplying the Post 1945 Conflicts galleries with a single zone air handling unit are planned to be located in new plantroom no. 1 adjacent to the new gallery. This AHU will provide gallery conditions of close tolerance temperature and humidity control. A new air handling unit, also located in new Plantroom no. 1, is planned for the World War I Gallery. This unit will have approximately 10% more capacity than the existing unit.

75 The Discovery Room will require a new comfort quality air handling system with an air handling unit located in existing plantroom and new exposed ducting. An economy cycle operation with relief air via existing smoke exhaust shaft is also recommended.

76 HMAS *Brisbane* bridge will require its own air handling system. The design basis for air conditions was prepared by Memorial collections and curatorial staff to meet conservation standards and is as follows:-

- Minimum temp 15 deg C
- Maximum temp 28 deg C

- Humidity range 30% to 80%RH

Humidification is not proposed due to the relatively low minimum of 30%RH. This is only partial air conditioning, not normal comfort or gallery quality air conditioning. Air conditioning will be supplied from a separate air handling unit (AHU) for the Bridge provided with chilled and heating water from the main building via the link. The air conditioning will be a basic single zone system supplying the upper level, lower level and link from an AHU in a plantroom located in the lower level where shown on the architects' sketches.

Air handling systems - Back of House areas

77 A new air handling unit in a small plant room for Back of House/EVS area providing comfort quality air conditioning for staff room, offices, security and associated areas is proposed. A new separate fan coil unit will be installed for 24-hour security room with CCTV monitoring equipment. A modified toilet exhaust system will be installed for staff toilets.

Air handling systems – Collection areas A,B,C

78 Modification is required for the existing Collection Store air handling system to suit reduced size of Store and also the infiltration of air from the tunnel to East Building. There is also planned modification of existing Records area air handling system to suit new Compactus Store B, this air handling system has humidity control and is suited to the requirements of the Store. Collection Area A is supplied from the Research Centre air handling system which currently does not have humidity control.

79 The Compactus requires close tolerance temperature and humidity control and a new air handling unit is proposed, dedicated to this store utilising existing ducting where possible. The new air handling unit will be located adjacent to the Research Centre plantroom.

Air handling - Male and Female Public Toilets

80 New toilet exhaust system with riser through the upper level gallery to a roof mounted exhaust fan is proposed.

Automatic Controls

81 Automatic controls for new and modified mechanical services will be digital type compatible with and connected to the building management system in the Memorial building. Energy management routines will be utilised to reduce energy consumption including air quality sensors to adjust minimum outside air to suit occupancy. The BMS will monitor equipment status and facilitate quick response to equipment failures and malfunctions.

Heating and Cooling

82 Heating and cooling for all air handling systems will come from the existing central boiler and chiller plant. The existing heating and chilled water mains running

through the Research Centre Reading Room to the existing west zones Level 1 plantroom are insufficient for the Gallery Stage 2 redevelopment and will be upgraded with new mains.

ELECTRICAL SERVICES

Scope

83 The extent of the electrical services proposed for this project comprises of the following main items:

- Distribution switchboards.
- Light and power sub-circuit wiring.
- Luminaires.
- General, specific power and data including wiring to equipment.
- Emergency and exit lighting.
- Base building security services.

General (Applicable to all areas)

84 As part of the major infrastructure works, the transformer and electrical main switchboard will be upgraded. This will ensure adequate power supply to the areas of works. Power factor correction is already present on Supply A which feeds this area, and hence although mentioned in the brief no additional works are required. We note that in general high efficiency light fittings with a power factor of 0.9 or better are to be used.

Post 1945 Conflicts Galleries

85 The Post 1945 Conflicts galleries will be provided with general light and power suitable for circulation spaces. Specialist lighting will be provided to exhibits, including track lighting with spotlights similar to those used in other galleries, plus higher powered floodlights for large physical displays. Lighting bars and ceiling mounted cable trays will be specified. Concealed fluorescent battens will be used to provide lighting for the diorama displays, as has been done elsewhere in the building. General lighting will be selected with energy efficiency in mind, and all fluorescent fittings etc. will have electronic ballasts and a power factor of at least 0.9. General lighting is to be switched in two stages, one for security/ cleaning purposes, and one for fully lit exhibition use. Exit and emergency lighting will be provided to code requirements, including link to a new test switch in the serving distribution board as per the new requirements of AS2293.

86 CCTV with PTZ low light level camera will be provided to link in with the security system installed throughout the building, and reed switches and card access will be documented for external access points, plus access to the back of house and plant areas where required.

87 Power will be provided to exhibits as required, as will data cabling. Additional 15A power will be provided for cleaners, and a 20A outlet will be provided near the large collection access door. It is noted that the Australian War Memorial utilises a

110 punch-down block system in the data cabinets, with RJ45 outlets in the public spaces, and this will be retained through the new works. We note that the power and data cabling is to generally run through a trench in the lower part of the Gallery, and we will ensure that any existing infrastructure is relocated to accommodate the new lowered floor in this area.

Discovery Room

88 The Discovery Room will be provided with general light and power suitable for circulation spaces. Specialist lighting will be provided to exhibits, including track lighting with spotlights similar to those used in other galleries, plus higher powered floodlights for large physical displays. Lighting bars and ceiling mounted cable trays will be specified. General lighting will be selected with energy efficiency in mind, and all fluorescent fittings etc. will have electronic ballasts and a power factor of at least 0.9. General lighting is to be zoned, and linked back to allow for BMS over-ride. Exit and emergency lighting will be provided to code requirements, including link to a new test switch in the serving distribution board as per the new requirements of AS2293.

89 CCTV with PTZ low light level camera will be provided in each room as briefed, to link in with the security system installed throughout the building, and reed switches and card access will be documented for external access points, plus access to the back of house and plant areas where required. Power and data will be provided to the computer-based interactives, and to exhibits as required. Additional 15A power will be provided for cleaners, and a scattering of power for general maintenance.

Staff Toilets and Public Amenities

90 Lighting will be installed as required, included power factor corrected high efficiency fluorescent fittings with electronic ballasts, and emergency lighting to AS2293. Power will be provided to any equipment required such as auto-flushers for urinals, hand dryers etc., and for general maintenance and cleaning. 15A cleaning outlets will be provided as required,

Male and Female Public Toilets

91 Lighting will be installed as required, included power factor corrected high efficiency fluorescent fittings with electronic ballasts, and emergency lighting to AS2293. Power will be provided to any equipment required such as auto-flushers for urinals, hand dryers etc., and for general maintenance. 15A cleaning outlets will be provided as required

Back of House including Staff Tea Room/EVS/ Security Control and Manager's Office

92 Back of house services will include high efficiency fluorescent fittings with electronic ballasts and a power factor of 0.9 or better, and exit and emergency lighting to AS2293, including wiring back to a master test switch to be installed in the supplying distribution board. Light switching will be segregated to allow for separate switching of each area.

93 Power and data will be provided to workstations and desks as required, including generally two double general power outlets and a double data outlet per desk. The data outlets will have RJ45 terminations in the user area, and will be of the 110 punch-down type in the data closet. Additional data outlets will be documented for dedicated fax and modem lines as required. Additional power outlets will be documented for cleaning and maintenance as required.

94 We note that the works indicated include a relocation of the existing central data cabinet, which is the main link back to the administration building. The horizontal cabling from this rack is generally Category 6 with RJ45 user terminations, and 110 punch-terminations in the data rack. The fibre links utilise SC terminations, and will be spliced as necessary, or re-run if practical. CCTV will be provided to link in with the security system installed throughout the building, and reed switches and card access will be documented for access points from public spaces and external to the building. The staff tearoom will have power to documented to dishwasher, fridges, microwaves and other general kitchen appliances, vending machines etc, as required, and data outlets will also be documented to the vending machines if needed.

Collection Store Areas A,B,C

95 General lighting will be provided in the form of high energy fluorescent fittings with electronic ballasts and a power factor of 0.9 or better, and exit and emergency lighting to AS2293, including wiring back to a master test switch to be installed in the supplying distribution board. General power will be provided for cleaning and maintenance as required. Reed switches and card access will be documented for the access door.

96 General lighting will be provided to the compactus areas in the form of high energy fluorescent fittings with electronic ballasts and a power factor of 0.9 or better, and exit and emergency lighting to AS2293, including wiring back to a master test switch to be installed in the supplying distribution board. As the bulk of the illumination task is for the vertical faces of items stored on the compactus shelves, prismatic diffusers which throw a high component of light sideways will be used. General power will be provided for maintenance and cleaning as required, including 15A cleaning outlet.

SECURITY SERVICES

97 A security and access control system will be provided to the East building comprising of the following main items:

- Alarm monitoring of all access doors.

- A card swipe access system to all doors for AWM staff.
- External CCTV linked to the main building system.
- Passive Infra Red (PIR) Detectors to the Research Centre Collection Store.

98 All access doors and exit points will be fitted with electronic locks, be monitored by the CCTV system and have protection be internal motion detectors.

99 The security and access control systems will be an extension of or integration to the existing systems providing coverage to the main buildings.

HYDRAULIC SERVICES

Scope of Services

- 100 The hydraulic services will include:
- Connection to or modification of existing hydraulic site services;
 - Sanitary Plumbing and Drainage;
 - Domestic Hot and Cold Water Services; and
 - Fire Hydrant and Fire Hose Reel Services.

Existing Site Services

101 **Sewer** An existing 100mm-diameter sanitary drainage line is located to the north of the proposed building. While this drain is external to the proposed building it is internal to the site boundary and hence is under the jurisdiction of the AWM. The drain currently serves the Outpost Café and has sufficient spare capacity so that it can be used for the East Building.

Internal Hydraulic Services

102 **Sanitary Drainage** - Sanitary plumbing and drainage will be used to convey the waste from the kitchens and toilets throughout the building to the existing sanitary drainage line. It is proposed that uPVC pipework be used for both the sanitary plumbing and sanitary drainage.

103 **Stormwater** - A stormwater trench drain will be installed at the perimeter of the new west external access doors with associated stormwater drainage. There will also be a required for some readjustment of the stormwater drainage within the Post 1945 Conflicts gallery spaces

104 **Plant Rooms** – existing hydraulic services to new plant rooms will be upgraded as required to meet equipment needs.

105 **Hydrants and Hose Reels** The new galleries are required to have fire hydrant and fire hose reels installed to comply with the requirements of the BCA. As discussed in the external hydraulics section above, the water supply for the fire hydrants will come the existing fire hydrant service to the existing Australian War

Memorial buildings. The water supply for the fire hose reels will come from the potable water supply serving the building. The required backflow protection devices will be installed to the fire hose reels.

FIRE PROTECTION SERVICES

Fire Protection Services Overview

106 The building is to be fully protected with an automatic fire sprinkler system installed in accordance with AS2118. Smoke detection and alarm will be provided throughout to comply with AS1668.1, and to provide early warning by VESDA in high risk collection areas.

107 A fire engineering assessment will be undertaken to assess compliance with the performance requirements of the BCA 2004; the results of this assessment may alter the fire safety systems to provide a sufficient level of protection.

Fire Sprinkler System

108 The new galleries will be fully protected against fire by the installation of an automatic wet pipe sprinkler system throughout all areas. Sprinklers will be fast response type with an RTI less than 50. Hazard Classifications will be in accordance with AS2118 to suit the occupancy risk.

109 The sprinklers will be monitored by the fire alarm system monitors and connected back to the Fire Brigade. The system will activate both the smoke control system and the EWIS.

Smoke Detection System

110 A smoke detection system will be provided at extended spacings in accordance with the BCA 2004 and AS1668.1. Below ceiling and concealed space detectors will be provided and well as return air detectors for A/C system shut down. Smoke detectors will not be provided in areas which may create spurious alarms; i.e. areas of the workshop, toilets, tea points.

111 The installation of a MASDS (VESDA or similar) is proposed in the Collections storage area to provide early detection.

Fire Indicator Panel

112 The existing Fire Indication Panel (FIP) in the main building will be utilised to notify the Fire Brigade and control the various fire systems. All smoke detection and other fire services will be connected to a dedicated addressable responder unit wired from the existing addressable FIP in the main Australian War Memorial building.

EWIS

113 The existing Fire Indication Panel (FIP) in the main building will be utilised to notify the Fire Brigade and control the various fire systems. All smoke detection and other fire services will be connected to a dedicated addressable responder unit wired from the existing addressable FIP in the main Australian War Memorial building.

Fire and Smoke Control

114 Existing smoke exhaust systems in level 1 east areas will be modified to suit the new arrangement of the Discovery Room and Collections areas. A new smoke exhaust system will be provided for the Post 1945 Conflicts Galleries lower tier with risers concealed through WW1 gallery to the roof. The activation of any fire system will initiate the smoke hazard management system.

PROVISION FOR PEOPLE WITH DISABILITIES

115 The building is designed to conform to the codes for people with disabilities, AS1428.1 and AS1428.2, including but not limited to:

- disabled lift platforms to all gallery areas
- disabled lift to HMAS *Brisbane* bridge level
- provision of disabled toilets

LANDSCAPING

116 Landscaping adjacent to new western access doors will be reinstated to the existing design. No trees will be affected by the planned works.

AUTHORITIES CONSULTED

117 The following authorities and Departments have been contacted and/or consulted by the Memorial and its consultants during the preparation of this submission:

- Department of Finance & Administration
- National Capital Authority
- Department of Environment and Heritage
- Public Works Committee Secretariat
- ACT Planning and Land Management
- ACT Building, Electrical and Plumbing Control
- ACTEW

- ACT Fire Brigade
- Australian Greenhouse Office

PROJECT COST

118 The potential total budget for the whole project, including plans to display the HMAS *Brisbane* bridge, is \$17.8 million. This is inclusive of escalation costs, contingencies, all professional fees and authorities charges. The estimate excludes GST, relocation costs, staffing costs, and stakeholder consultation costs.

The estimate components are as follows:

- Gallery primary works including all demolition, circulation link, new floors on lower level, building finishes, services costs and HMAS *Brisbane* bridge podium and link to Memorial building.
- Sufficient contingencies for building latent conditions
- Exhibition fitout costs including all showcases, internal walls, lighting, set pieces and special “in country feel” treatments.
- All production and hardware costs for the dioramas, experiences and smaller multimedia programs planned for the galleries
- All object installation and support requirements
- All exhibition graphics and other didactic material costs.

PROJECT DELIVERY SYSTEM

119 To meet the timetable for opening, the engagement of head contractor under a Traditional “Lump sum” contract is considered the most appropriate. Under this form of contract the design is fully developed and documented by the principal’s design team for tender by construction contractors. This form of contract affords the principal a high level of design control and provides flexibility to manage design changes and unidentified latent conditions through variations managed within a construction contingency allowance.

TIMING

121 Subject to a favourable report from the Public Works Committee and Parliamentary approval, it is planned to call tenders in April 2006 with construction of primary works scheduled for completion by end of December 2006. Gallery fitout works will begin in January 2007 with the galleries ready to open to visitors by end of October 2007.

SUMMARY AND RECOMMENDATION

122 The redevelopment of the Post 1945 Conflicts galleries and Discovery Room will bring these galleries to the same world class standards as the other redeveloped galleries in the Memorial, and satisfy the considerable criticism from the veterans' community and visitors.

123 The design and content brief satisfies the needs of the Memorial's stakeholders and visitors who have been, and will continue to be consulted throughout the whole redevelopment process.

124 The architectural and exhibition design successfully takes into account the heritage values of the Memorial building and site, thus delivering an outcome which is sympathetic to this nationally significant site.

125 The project will provide a boost to employment in the construction and associated industries in Canberra and result in an on-site workforce peaking at approximately 80 persons during the 18 month construction period.

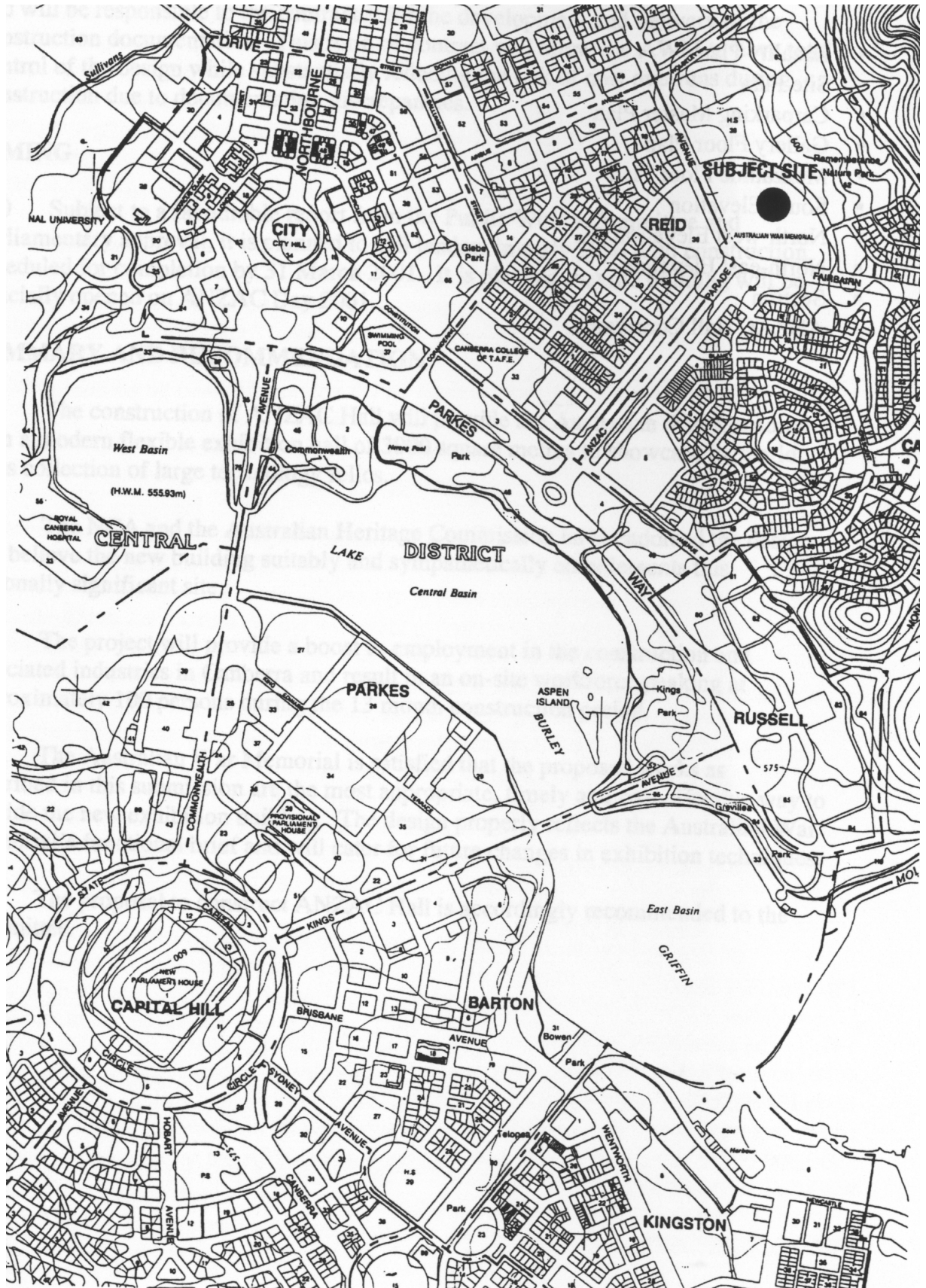
126 The Australian War Memorial is satisfied that the proposed works as described in this submission are the most appropriate, timely and cost effective way to provide the new exhibitions and galleries in the Memorial. The design properly reflects the Australian War Memorial's functional design brief and accommodate any future commitments to conflicts and peacekeeping operations.

127 The proposal to redevelop the Memorial's Post 1945 Conflicts galleries, Discovery Room and back of house areas is accordingly recommended to the Committee.

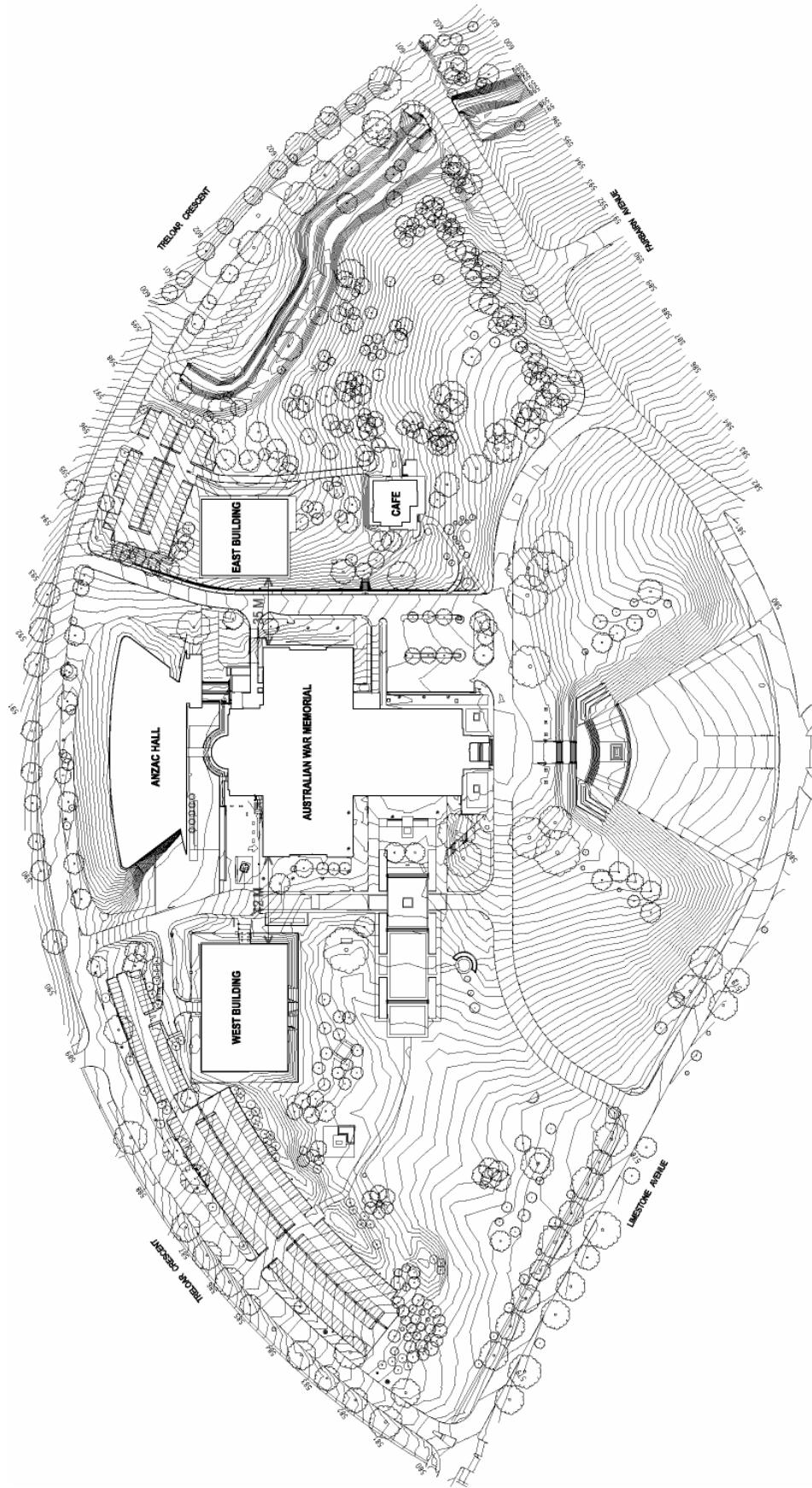
DRAWINGS

- Locality Plan
- Site Plan
- Australian War Memorial – Project Scope
- Post 1945 Conflicts Galleries – proposed spatial layout
- Discovery Room – proposed spatial layout
- HMAS *Brisbane* Bridge display

Locality Plan



Site Plan

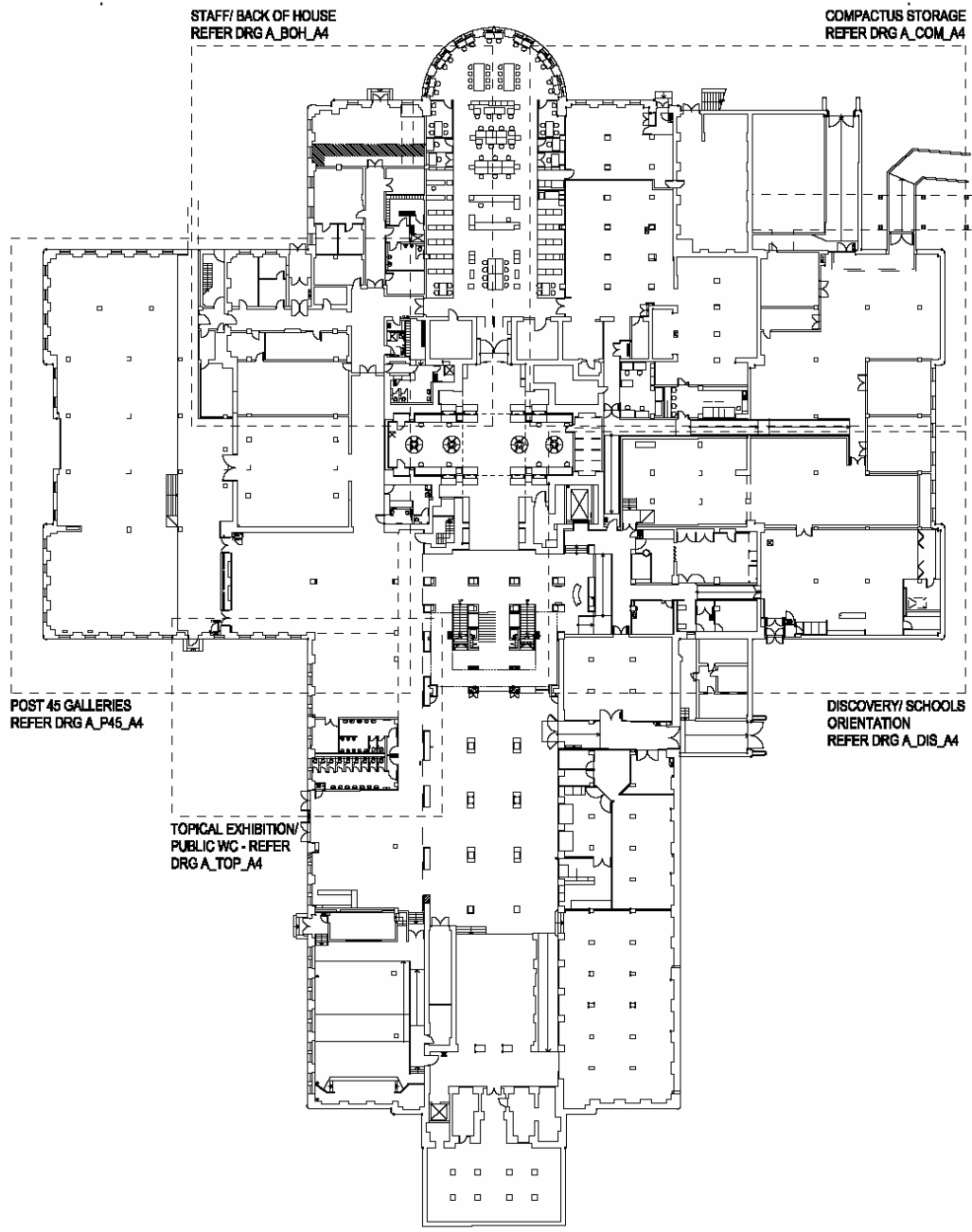


**DENTON
CORKER
MARSHALL**

**ANZAC EAST BUILDING
CANBERRA
MASTER SITE PLAN**
7/10 28.05.2004

A_A_R15/01

Australian War Memorial – lower level Project Scope



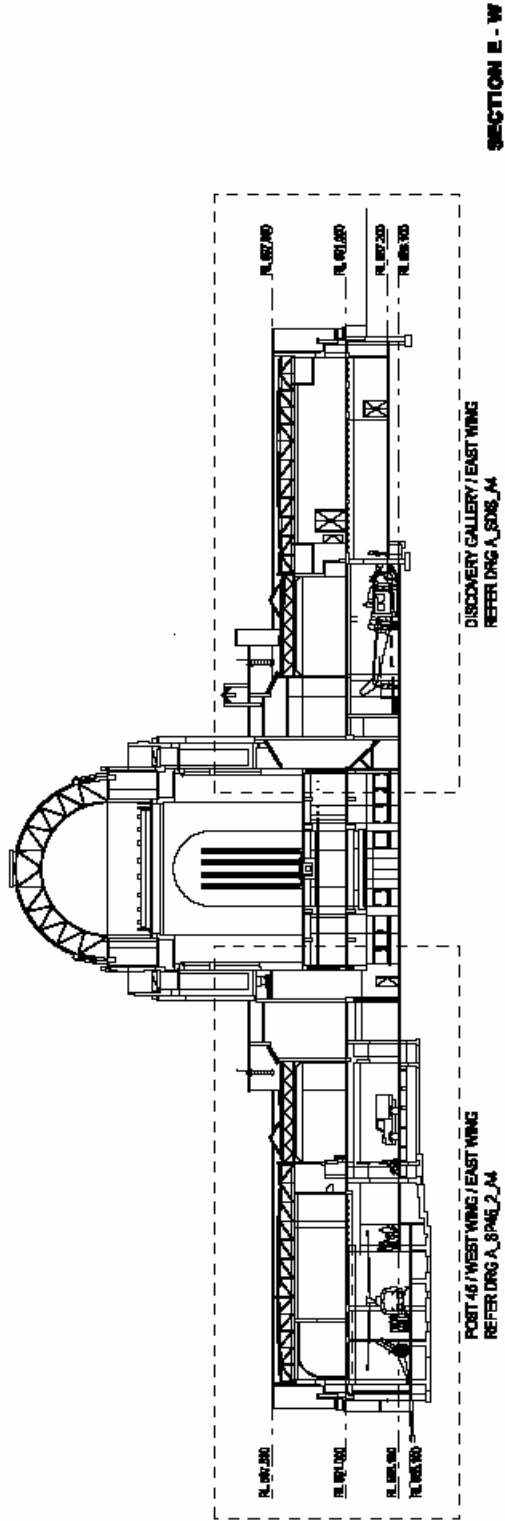
1:500 @ A4 0 2 5 10M



DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

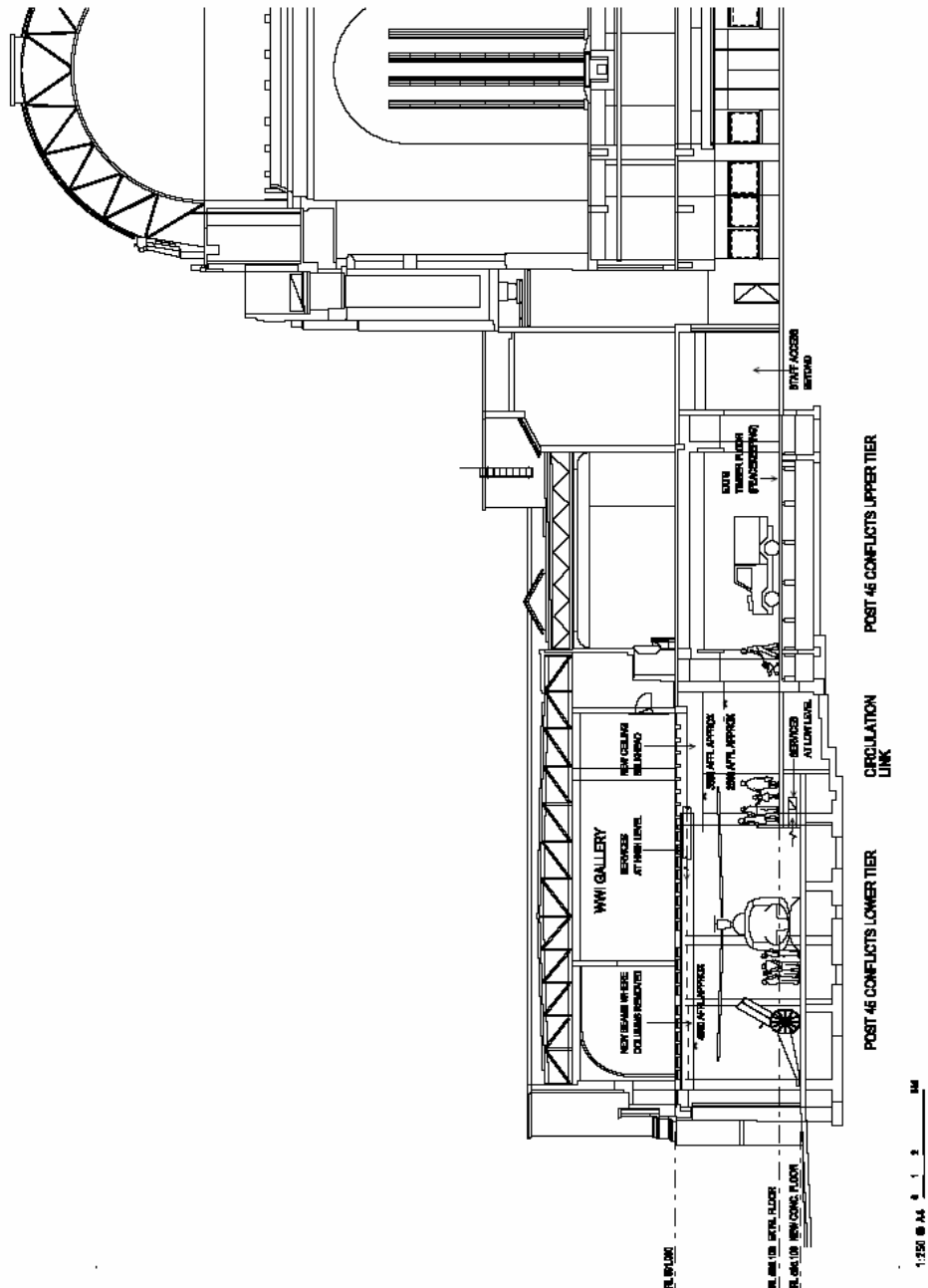
PRELIMINARY
PWC REPORT
30 NOVEMBER 2006
LEVEL 1 KEY PLAN
A_PL01_M_S1



SECTION E - W

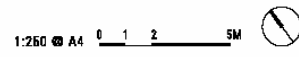
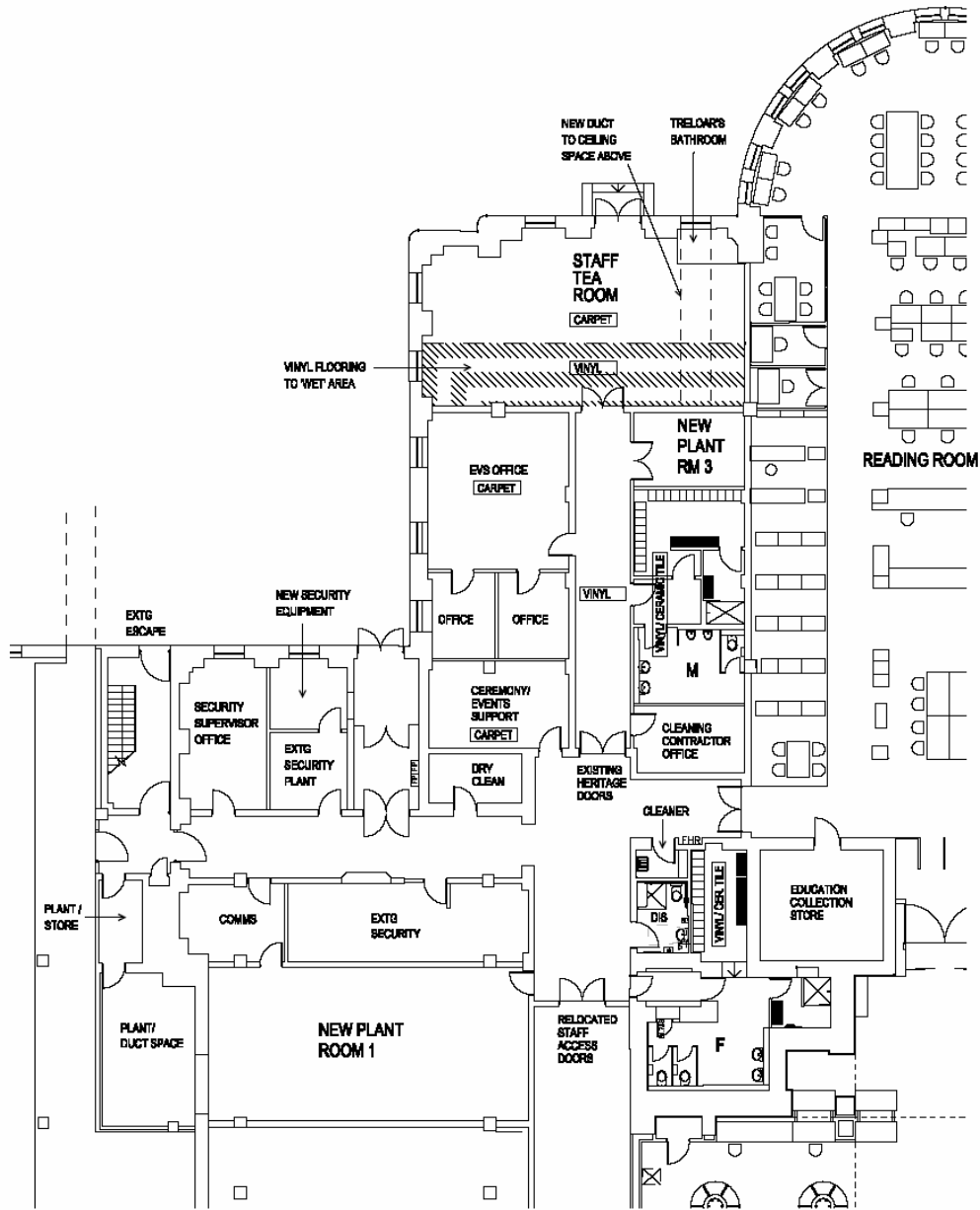
PRELIMINARY	PWC REPORT 30 NOVEMBER 2005	SECTIONS THROUGH GALLERIES A,B,E,H,K
AWM GALLERY STAGE 2 CANBERRA	AUSTRALIAN WAR MEMORIAL CANBERRA	DENTON COCKER MARSHALL

Post 1945 Conflicts galleries – elevation showing the proposed upper and lower tiers

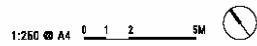
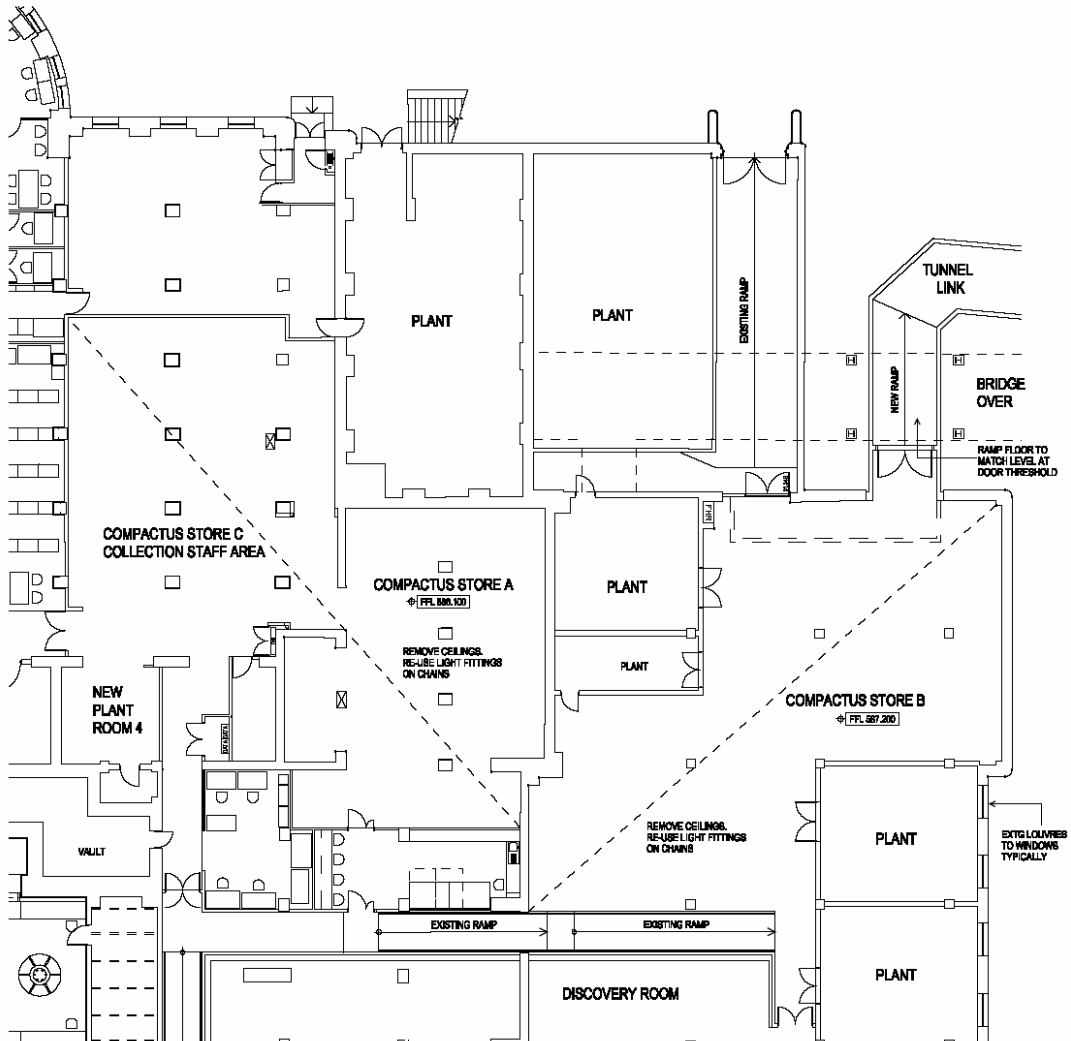


<p>DENTON CORKER MARSHALL</p>	<p>AWM GALLERY STAGE 2 CANBERRA AUSTRALIAN WAR MEMORIAL CANBERRA</p>	<p>PRELIMINARY PWC REPORT 30 NOVEMBER 2005 POST 46 SECTION E - W A10412.01</p>
---------------------------------------	------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

Project Scope – New back-of-house staff areas



Project scope – Collection Storage areas

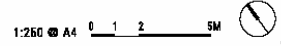
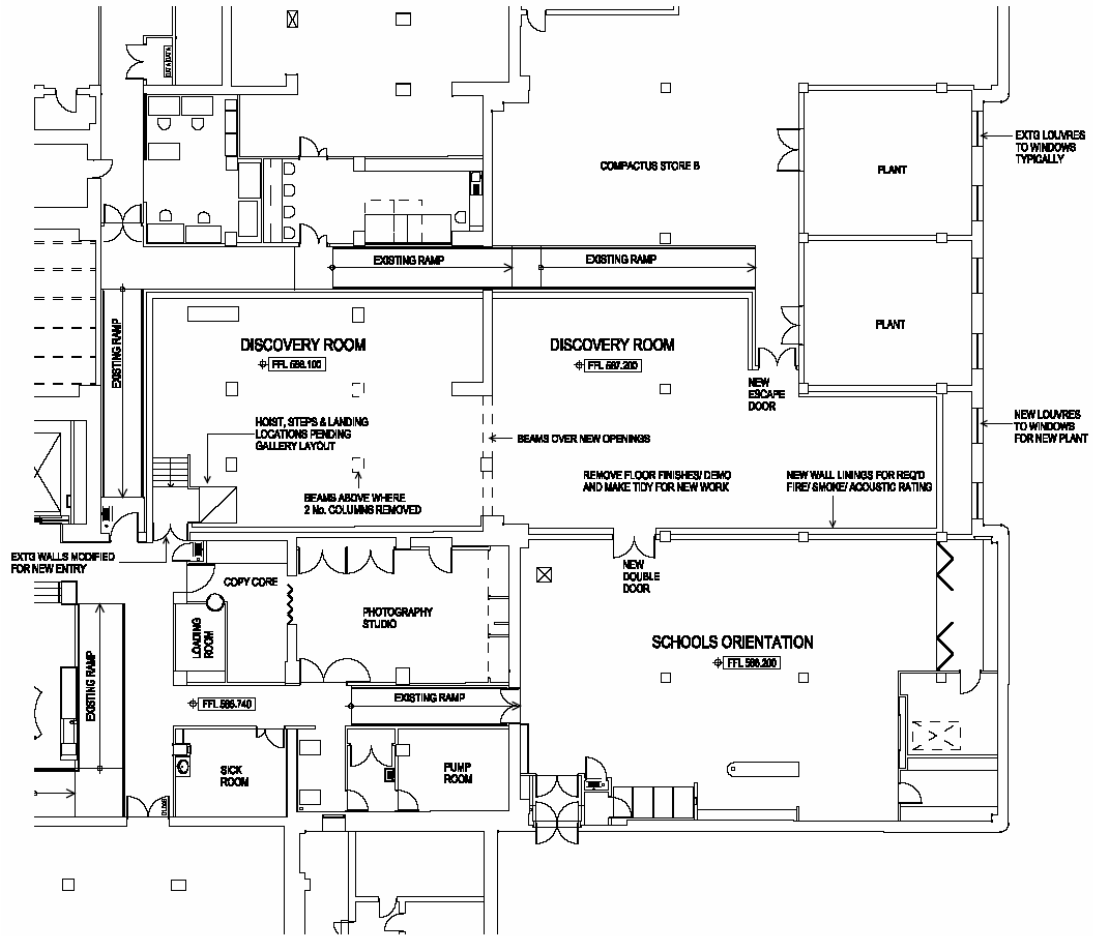


DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

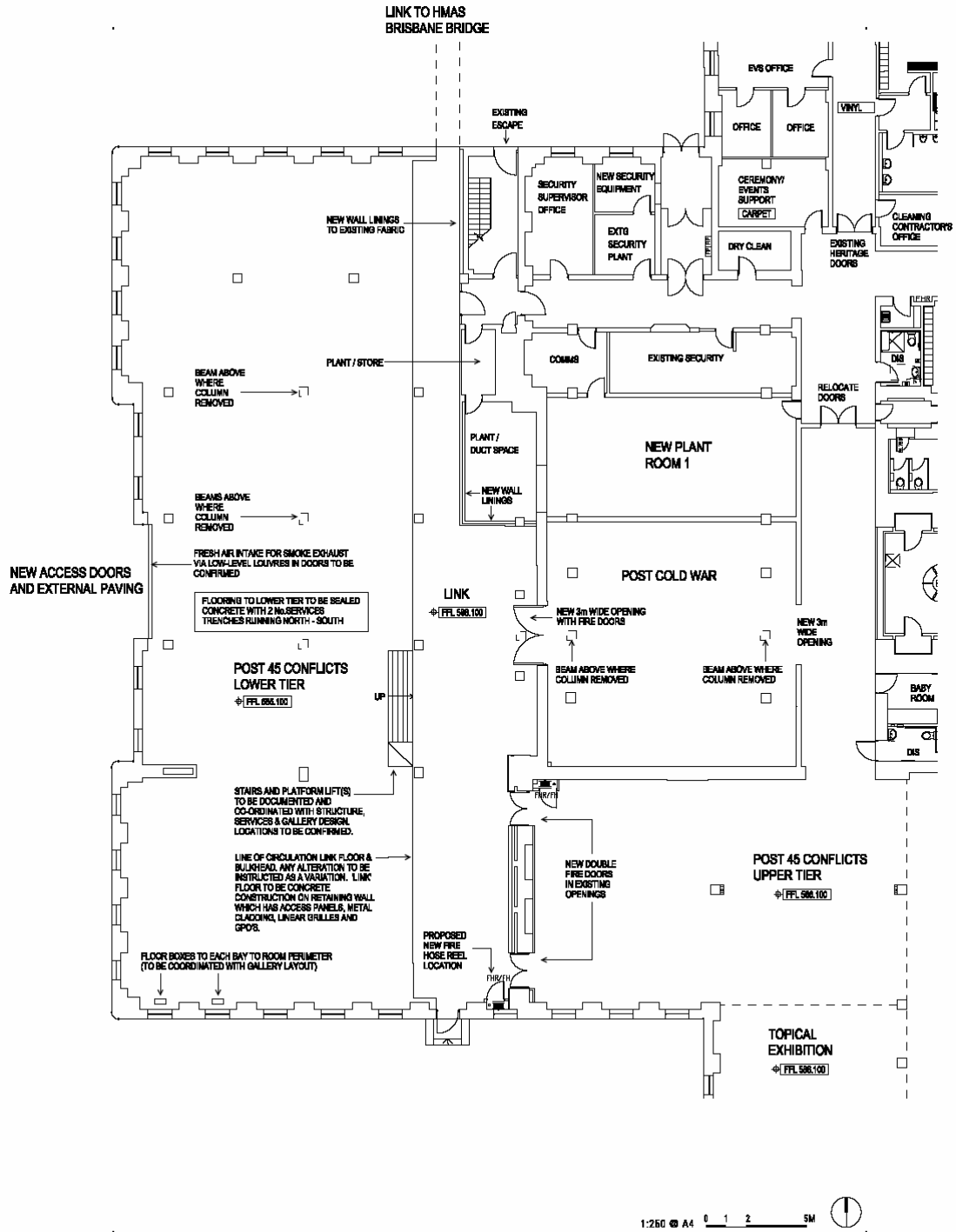
PRELIMINARY
PWC REPORT
30 NOVEMBER 2006
COMPACTUS STORAGE
A_COM_M_S1

Project scope – Discovery Room



<p>DENTON CORKER MARSHALL</p>	<p>AWM GALLERY STAGE 2 CANBERRA AUSTRALIAN WAR MEMORIAL CANBERRA</p>	<p>PRELIMINARY PWC REPORT 30 NOVEMBER 2006 DISCOVERY/ SCHOOLS ORIENTATION A_DIS_M_81</p>
---------------------------------------	------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------

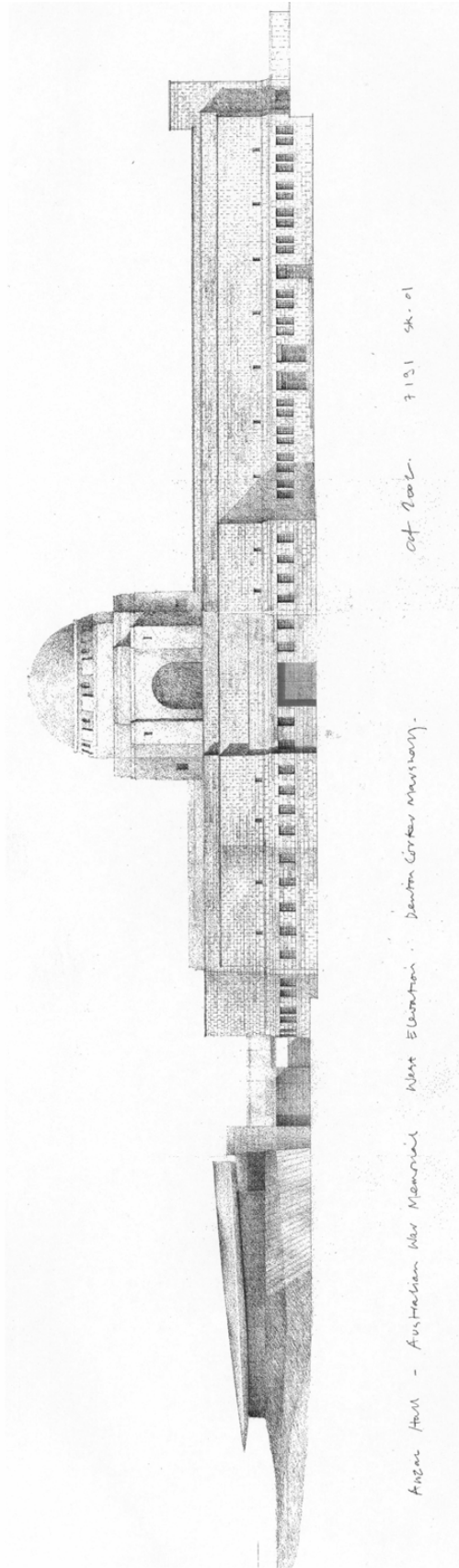
Project scope – Post 1945 Conflicts galleries



DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

PRELIMINARY
PWC REPORT
30 NOVEMBER 2006
POST 45 GALLERIES
A_P45_A4_S1



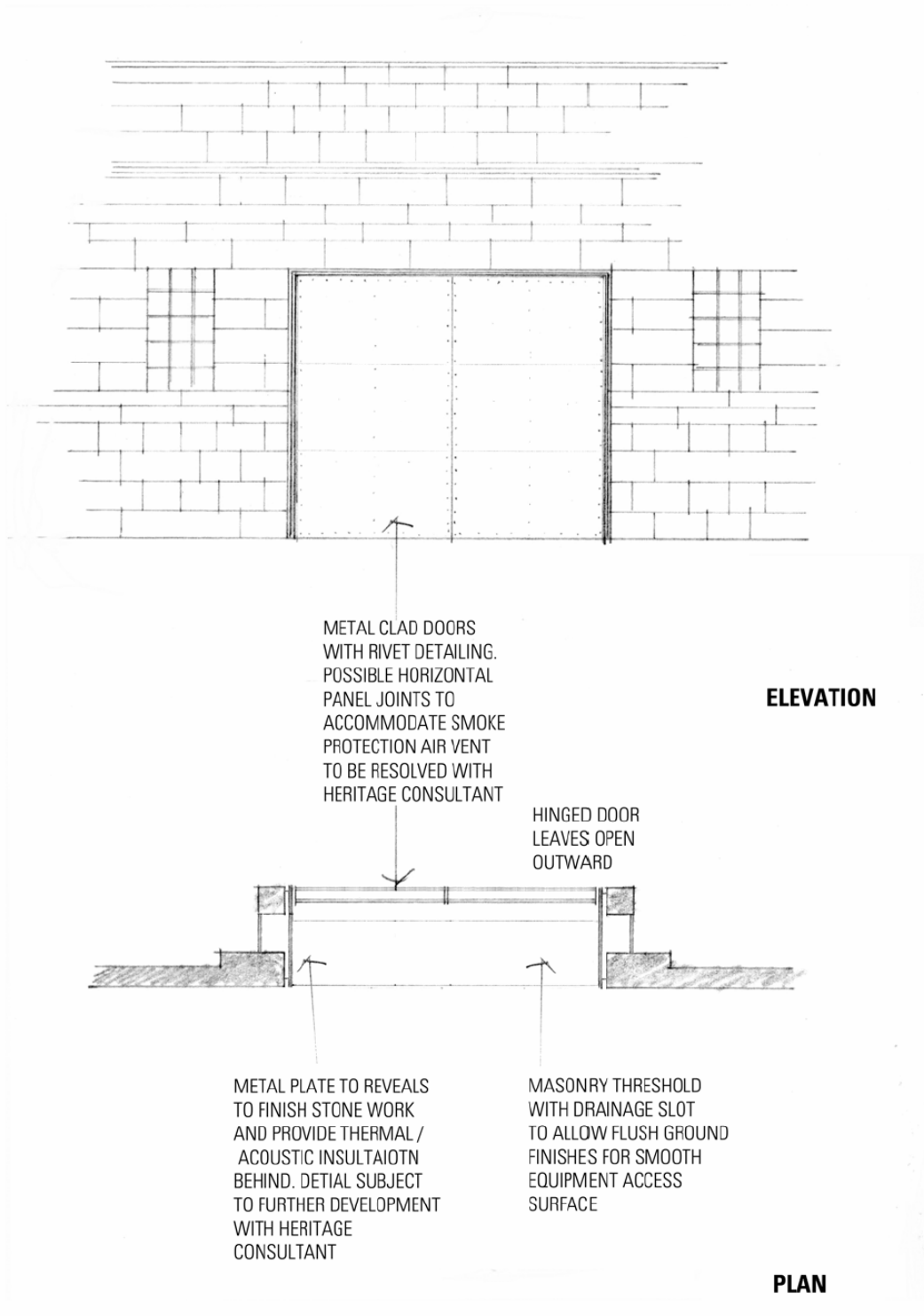
PRELIMINARY

DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

PWC REPORT
30 NOVEMBER 2005
WEST ELEVATION SKETCH
A_WELE_M_S1

Proposed western collection access doors



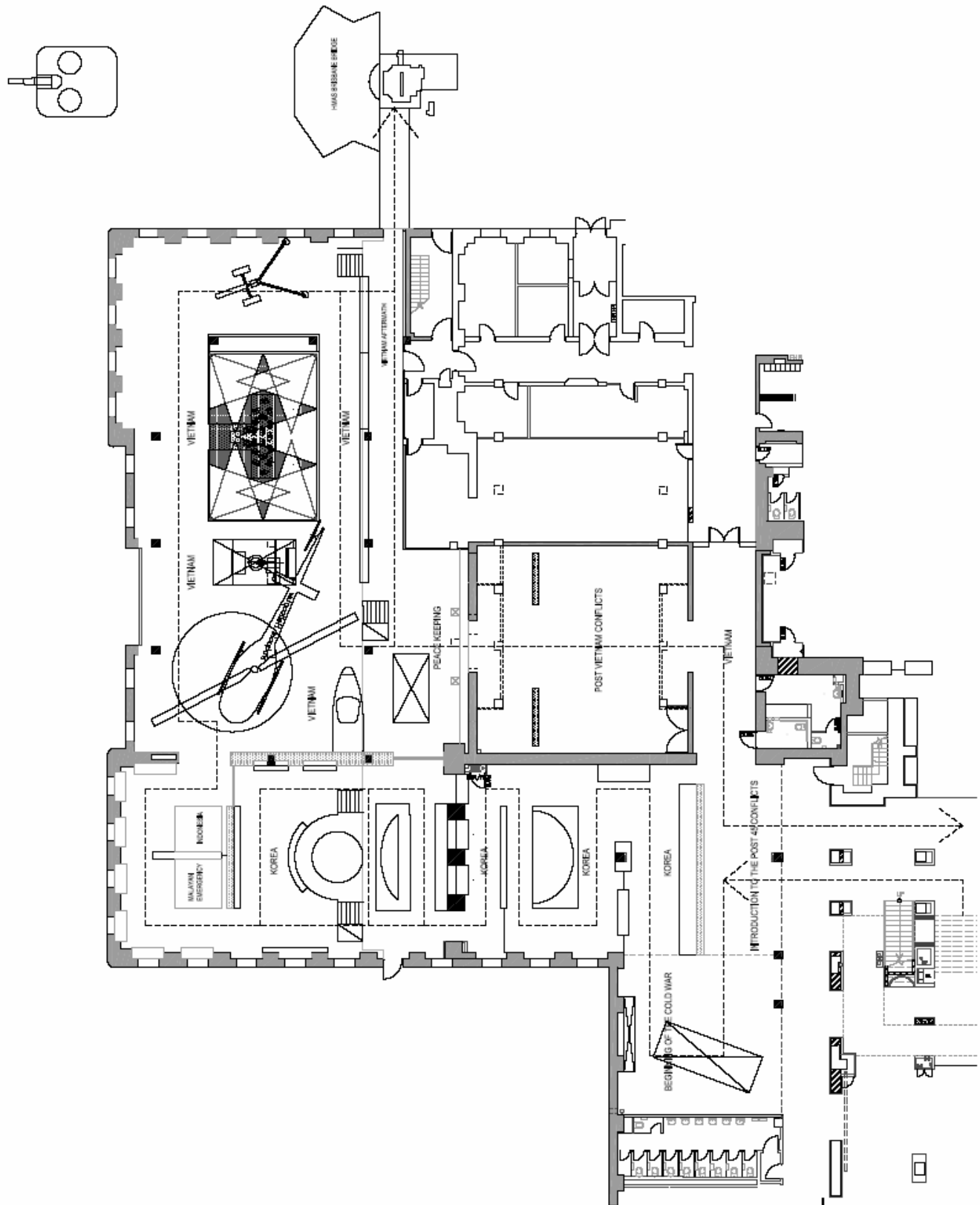
DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

PRELIMINARY

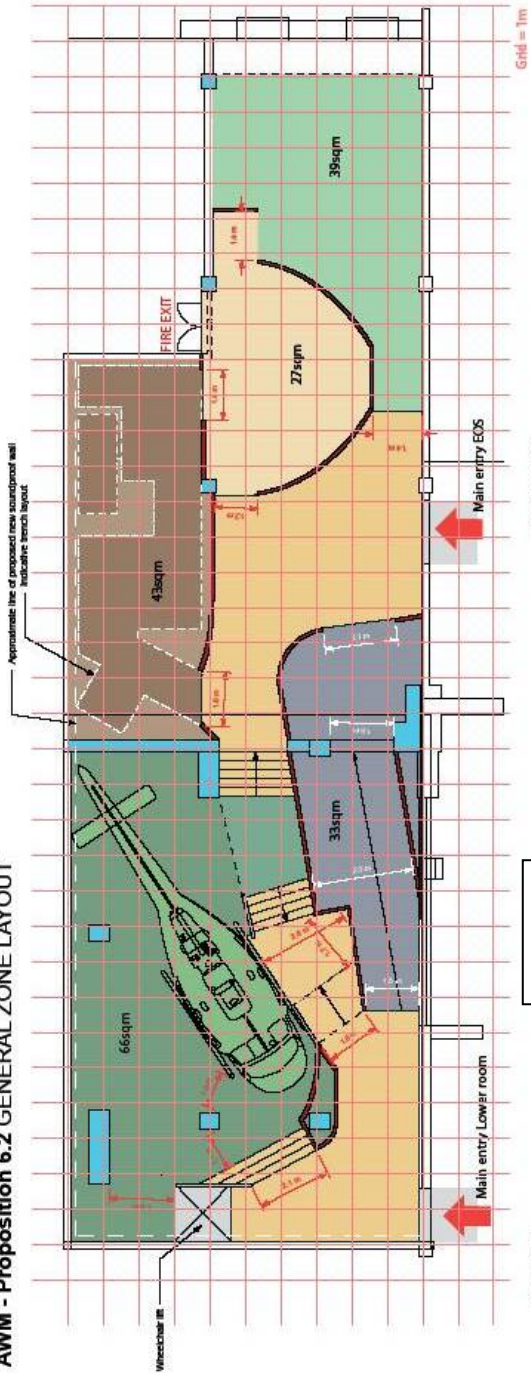
PWC REPORT
30 NOVEMBER 2005
WEST ENTRY DOORS
A_WENT_A4_S1

Post-1945 Conflicts Galleries - proposed spatial layout



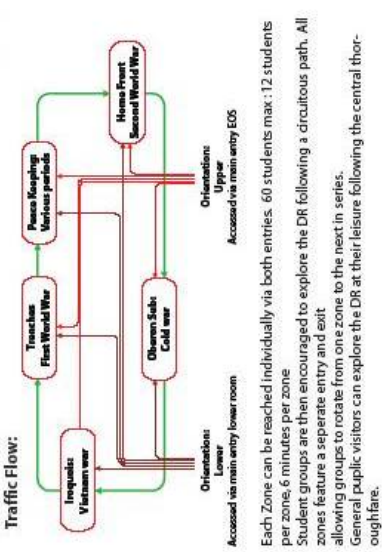
Discovery Room – proposed spatial layout

AWM - Proposition 6.2 GENERAL ZONE LAYOUT



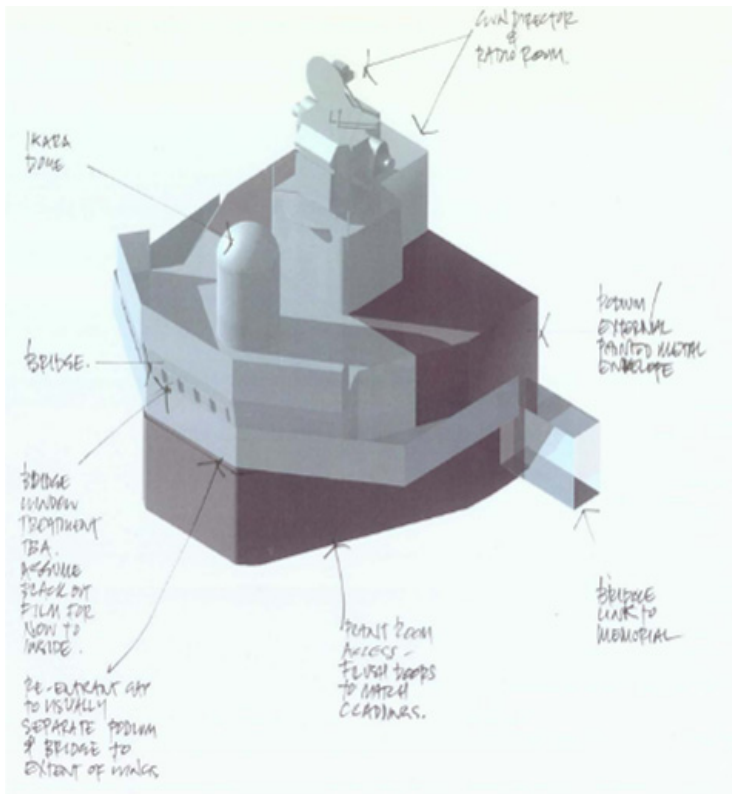
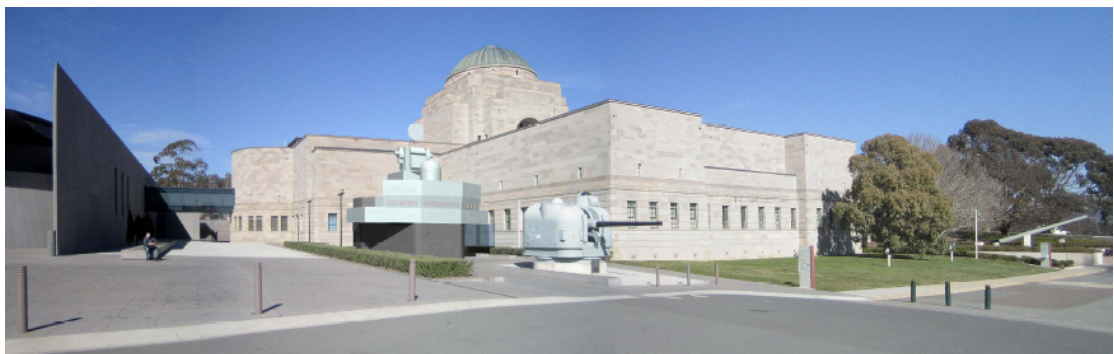
	66 sqm
	33 sqm
	27 sqm
	43 sqm
	39 sqm

	Iroquois Vietnam war
	Oberon Subi-Cold war
	Peace Keeping
	Trenches (First World War)
	Home Front (Second World War)
	Orientation-main thoroughfare

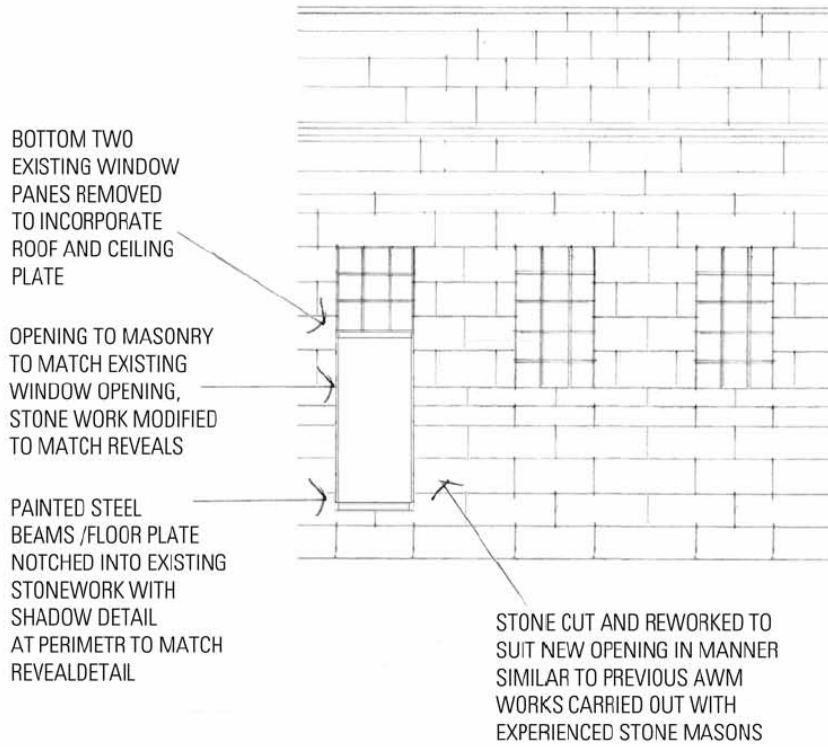


Each Zone can be reached individually via both entries. 60 students max : 12 students per zone, 6 minutes per zone
 Student groups are then encouraged to explore the DR following a circuitous path. All zones feature a separate entry and exit allowing groups to rotate from one zone to the next in series.
 General public visitors can explore the DR at their leisure following the central thoroughfare.

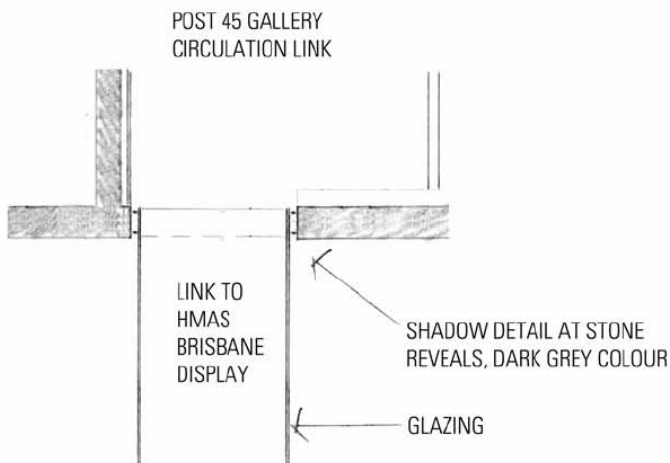
HMAS Brisbane Bridge display – proposed location and primary works design



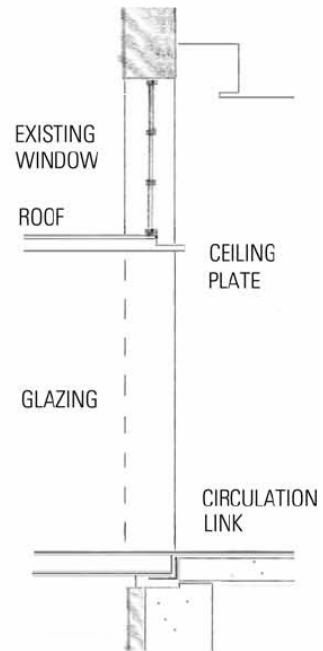
HMAS Brisbane Bridge display – proposed link to Post 1945 Conflicts galleries



ELEVATION



PLAN



SECTION

DENTON
CORKER
MARSHALL

AWM GALLERY STAGE 2
CANBERRA
AUSTRALIAN WAR MEMORIAL
CANBERRA

PRELIMINARY

PWC REPORT
30 NOVEMBER 2005
HMAS BRISBANE LINK DETAIL
A_LINK_A4_S1

