Department of Finance & Administration, Property and Construction Division (Finance)

Proposed Refurbishment of the Royal Australian Mint, Canberra, Australian Capital Territory

Statement of Evidence to the Parliamentary Standing Committee on Public Works

July 2005

Contents

1. Identification of the need

1.1 Structure of the Submission

1.1.1 This Public Works Committee (PWC) submission is a joint proposal submitted by the Department of Finance and Administration, Property and Construction Division (Finance) as building owner and The Royal Australian Mint – (the Mint) an operating division of the Department of the Treasury as tenant.

1.1.2 The information contained in this submission is structured in three components, comprising General, Refurbishment and Fit out.

1.2 General - Background

1.2.1 On behalf of the Commonwealth, Finance manages the Mint buildings, which incorporates the Process building and the Administration building. The Mint buildings have not had any major upgrade works undertaken since they were built in1965.

1.2.2 Independent building condition reports have indicated that the non-structural components in the Mint buildings are past their useful economic life. The reports have identified Occupational Health and Safety (OH&S) and Building Code of Australia (BCA) non-compliance issues that can only be rectified through a major refurbishment.

1.2.3 Finance proposes to refurbish the Mint buildings, as required, to allow for the better utilisation of space and to assist in preserving its heritage value.

1.2.4 The refurbished buildings will provide for two tenancies; the Process building of approximately 13,000m² NLA (leased to the Mint) and the Administration building of approximately 3,000m² NLA available for lease to other government agencies.

1.2.5 Finance and the Mint have formed a project cooperative; it is intended that Finance, as the principal, will manage the refurbishment, which will integrate building owner base building works and tenant fit out works. The project will comply with legislation and Government policy for procurement, including the promotion of Government environmental policy initiatives.

1.3 Refurbishment - Need

1.3.1 Refurbishment will ensure the continued economic viability of this landmark building, and compliance with Government accommodation standards. Significantly, the refurbishment will address ongoing concerns relating to non-compliance issues relating to OH&S and fire safety.

1.3.2 As a major tourist destination attracting some 200,000 visitors per annum, the consolidation of the Mint's operations in to the Process building will allow the Mint to enhance the visitor experience through the introduction of new interpretative galleries. The refurbishment also allows for a significant upgrade in amenities for both staff and visitors.

1.4 Refurbishment - Objectives

1.4.1 Preserve the heritage value of the Mint buildings and make the best use of this Commonwealth asset. The primary objective in refurbishing the Mint buildings is to address non-compliant code issues, to make it suitable for the Mint and other Australian Government agencies, while maintaining and enhancing the heritage value of the buildings.

1.4.2 Provide a more efficient use of space by the Mint (reducing from 16,000m² to 13,000m² NLA) thereby providing the opportunity to lease the additional available space (3,000m² NLA) to another agency, increasing the revenue and return on investment on the asset.

1.4.3 Improve overall energy efficiency usage, through the incorporation of various environmental initiatives and sustainable design principles.

1.4.4 Enable the Mint to fulfil its charter (to meet the circulating coin and numismatic needs of the nation; through a vision of excellence as a profitable world class mint), by providing a building that meets its functional requirements more efficiently, and extend the life of the building by at least another 25 years.

1.5 Refurbishment - Options Considered

1.5.1 Finance in close consultation with the Mint undertook a review of the options available to upgrade the Mint's operating environment, these options included:

(a) Status Quo – continue with general repairs and maintenance as required;
(b) Undertake a major refurbishment of the existing Mint buildings.

1.5.2 Investigations, including preliminary design concept work and preparation of feasibility estimates were undertaken by Finance and the Mint with Canberra based consultants through 2004 and 2005. These studies concluded that Option B presented the best opportunity to provide the Mint with a fully upgraded operational environment, which would meet both the Mint's functional processing requirements and the Governments guidelines for sustainable development. These studies also highlighted that although most of the building services are at the end of their useful life the actual Mint buildings in terms of structure and façade are in excellent condition and will remain serviceable for at least another 50 years.

1.5.3 Option B reinforces but also enhances the Mint buildings Heritage value, as the facility was purpose built to carry out the production of Australia's circulating coin in 1965.

1.6 Refurbishment - Description of the Proposal

1.6.1 The cost of refurbishment is approximately $41.2 million (budgeted over three years from 2005 to 2008); Finance and the Mint are providing separate funding in respect to building owner base building works $25.1 million and tenant fit out works (relating to the Process building) $16.1 million.

1.6.2 The internal fit out of the Process building will be funded by the Mint and the internal fit out of the Administration building will be undertaken by a future tenant. This approach provides flexibility for the tenants to fit out the buildings to best meet their needs.

1.6.3 Administration building - the proposed refurbishment consists of: (Refer to Fig 1.14 at attachment 1)

- Internal demolition to create an open floor plate;
- New building services;
- New amenities;
- New floor coverings;
- New ceilings and lighting;
- New lift;
- Roof painting and safety system; and
- New staff parking arrangements for the Administration building.

1.6.4 Process building - to accommodate all of the Mint's functions, including production facilities currently accommodated within the Process building, new office accommodation for staff currently housed within the Administration building and new public entry and exhibition areas, parts of which are currently contained within the Administration building, works proposed include: (Refer to Fig 1.04 at attachment 1)

- New floor coverings to office, public and exhibition areas;
- New ceilings to office, public and exhibition areas (part only);
- Refurbishment of existing concrete and timber floors in process areas;
- New amenities;
- New building entry at ground floor;
- New public and staff parking arrangements for the Mint;
- New public forecourt and entry courtyard providing access into the Mint (Process building);
- New basement tunnel link to vault; and
- New goods delivery security gates to southern end of Process building.

1.7 Refurbishment - Related Projects

1.7.1 In addition to the refurbishment undertaken by Finance and the Mint, agencies intending to lease the Administration building will need to undertake a fit out.

1.7.2 Finance is negotiating with other Australian Government agencies to lease the Administration building and the fit out for this building will be subject to a separate PWC process.

1.8 Refurbishment - Revenue to be derived from the Project

1.8.1 The rationalisation of space by the Mint, following the building refurbishment (reducing from 16,000m² to 13,000m² NLA), will provide an additional 3,000m² NLA of vacant space available for lease on a commercial basis; this will optimise space utilisation of the Government's building stock and maximise the return on investment to Government.

1.8.2 Market rental is estimated at $2.6 million per annum under a 20 year lease term from 2008-09.

1.9 Fit out - Royal Australian Mint

1.9.1 The Mint is to be the major tenant post refurbishment. The Mint is an operating division of the Department of the Treasury responsible for producing circulating coin for Australia. It also produces a range of high quality numismatic coin, together with minted non-coin products for the private and public sectors. The Mint is responsible for promoting public understanding about the cultural and historical significance of coins. It attracts 200,000 visitors each year and offers guided tours, exhibitions and displays of coins, including the National Coin Collection; strong visitor numbers emphasis the status of the Mint as a national institution.

1.9.2 The Mint presently occupies the whole of the Mint buildings complex (both the Administration and Process buildings); the current accommodation is seen as ageing, deteriorating to a point where total refurbishment is now required. A number of building condition reports have concluded that the building's services and facilities (which continue to be a substantial cost each year) are at the end of their useful life. The reports have highlighted various non-compliance issues in relation to the BCA, OH&S and fire safety. Essential maintenance and OH&S works requiring attention include inter alia removal of remaining hazardous materials, the upgrade of fire safety systems, the upgrade of various services including lifts and the replacement of chillers and cooling towers. The Mint buildings have not had any major works undertaken since its construction between 1962 and 1965.

1.9.3 Some areas of the Mint buildings are currently under utilised or vacant. Refurbishment will optimise space utilisation of both buildings, and together with the cost savings of an integrated refurbishment and fit out, maximise the return on investment to Government. Areas not required by the Mint will be subleased at commercial rates.

1.9.4 Refurbishment will ensure compliance with Government accommodation standards and address ongoing concerns relating to non-compliance issues relating to the BCA, OH&S, fire safety and security requirements.

1.10 Fit out - Objectives

1.10.1 The fit out will provide for a standard commercial office, manufacturing and production environment and a contemporary education and visitor gallery, totalling approximately 13,000m² (NLA). Refurbishment will provide greater flexibility of the floor plan and increased operational synergies.

1.10.2 Office accommodation will provide for individual modular workstations that afford more efficient operation of new technologies.

1.10.3 The manufacturing and production environment will provide for enhanced production capability, with flexibility and superior efficiencies. Refurbishment will address inadequacies of the current accommodation and the operational inefficiencies of outdated services and facilities.

1.10.4 The education and visitor gallery will provide for a contemporary education centre and visitor gallery and the updating of the education and visitor services role, in line with other national institutions. It will provide for dedicated facilities and resources to service the public (and education providers) to ensure that the Mint maintains its responsibilities as curator of the National Coin Collection, and promoting public understanding about the cultural and historical significance of coins.

1.11 General - Environmental Assessment

1.11.1 The refurbishment will comply with the Australian Government's guidelines relating to energy efficient buildings. The base building incorporates the Department of Environment and Heritages (DEH) Ecologically Sustainable Development (ESD) principles.

1.11.2 The design aims to achieve low energy facilities with substantial recurrent cost savings, and provide a healthy environment for the tenants.

1.12 General - Heritage Considerations

1.12.1 The Mint buildings are not registered on The Commonwealth Heritage List that comprises natural, Indigenous and historic heritage places on Commonwealth lands and waters or under Australian Government control however the Minister for the Environment and Heritage has identified the Mint buildings as having Commonwealth heritage values.

1.12.2 The Mint is a purpose-designed facility built to carry out the production of Australia's circulating coin; constructed by the Commonwealth and opened by the Duke of Edinburgh on 22 February 1965.

1.12.3 The Mint was commissioned to manufacture Australia's decimal currency, which was introduced on 14 February 1966. The Mint is therefore strongly associated with this nationally significant event.

1.12.4 The location of the Mint is significant in the development and planning of Canberra. The Mint is located between central Canberra and Woden Township; this was consistent with the plan

for the expansion of Canberra described in the National Capital Development Commission (NCDC) 1965 publication 'Future Canberra.'

1.12.5 The Mint buildings are unique in that there is only one national mint in Australia.

1.12.6 The Mint buildings have a form and articulation that it shares with a number of significant buildings constructed in Canberra during the 1960's.

1.12.7 A "Statement of Heritage Impact" report was undertaken in April 2005 to assess the building's heritage values against Commonwealth Heritage Criteria, the report concluded that the proposed refurbishment ensures the Mint retains its place as the Royal Australian Mint, the refurbishment results in changes to only minor elements of the exterior fabric, retains the principal elements of the interior fabric, and maintains and enhances public access to the Process building.

1.12.8 The primary significance of the Mint buildings lies in its:

- location and original and evolved urban planning function;
- association with the history, planning and development of the National Capital;
- association with the role and processes of Government currency and human institutions in the National Capital;
- association with the life and work of nationally important institutions and individuals; and
- association with the life and work of individuals of importance to the planning and development of the built infrastructure and the landscape of the National Capital.

1.13 General - Details of Organisations Consulted

1.13.1 Finance has consulted with the National Capital Authority (NCA) and Australian Heritage Commission (AHC) on the heritage impact of refurbishing the buildings. Both are satisfied with Finance's actions to preserve the heritage value of the buildings, with the Department of the Environment and Heritage confirming the proposed action is not a controlled action under the EPBC Act.

1.13.2 Finance has been in contact with several Australian Government agencies that may wish to lease the refurbished Administration building, as it is in the interests of future tenants to be involved with the design of the refurbishment.

The Mint has consulted extensively with various staff focus groups, including Workplace Design, Museum and Visitor Gallery, Production and Manufacturing, OH&S, Staff Amenity, Security, Environmental and Senior Management focus groups. Similarly external consultation with union representatives, Public Sector and Australian Metal Workers Union and ACT Tourism.

1.13.3 Staff are kept appraised of the project through Staff Focus Group Bulletins, Staff Notices, and the Mint Refurbishment Project Website, which details minutes of the various meetings, associated polices, guidelines and standards and staff surveys completed.

1.13.4 In addition, discussions have been held with the following organisations:

- Department of Environment and Heritage;
- ACT Planning and Land Authority;
- Australian Greenhouse Office.

1.14 General - Impact of the Project

1.14.1 The construction of the refurbishment works and fit out works will generate an average employment on site of between 50-60 people during the construction period, with a peak on site labour requirement of 90.

1.14.2 The refurbishment will ensure the continued economic viability of this landmark building and extend its useful life by some 25 years.

1.14.3 Enable the Mint to fulfil its charter by providing a building that meets its functional requirements more efficiently, with the modern fit out improving the Mint's ability to respond to changing operational needs.

1.14.4 Improve the building's overall energy efficiency.

1.14.5 The proposed refurbishment of the building will enable the Mint to reduce its space requirements from 16,000m^2 to 13,000m^2 thus allowing the existing building to be split over two tenancies.

2. Technical Information

2.1 Refurbishment - Scope of the Work

The majority of the project works will be undertaken within the existing Process and Administration buildings. Site works will include the transformation of the existing secure loading dock area located between the buildings into a new entry forecourt for the Mint.

The proposed refurbishment project comprises the complete refurbishment of the Mint site to provide:

2.1.1 Accommodation suitable for the Mint within the Process building, comprising:

- refurbished light industrial standard operational areas;
- conversion of first floor storage area into high quality commercial office space;
- refurbishment of existing operational/storage areas into public areas to be fitted out by the Mint to accommodate their public exhibition requirements; and
- a new public/staff entry including landscaped forecourt.

2.1.2 High quality office accommodation for a Government tenant within a refurbished Administration building.

2.1.3 New Mint entry forecourt, including modifications to the Process building required to create an identifiable entry to the Mint. (Refer to Fig 1.10 – 1.14 at attachment 1)

2.2 Refurbishment - Site Selection, Zoning and Approvals

2.2.1 The site of the proposed works is Commonwealth Land, managed by Finance, identified as:

- Block 1 Section 65 Deakin, ACT and has a total site area of 3.58 hectares.

2.2.2 Refer to the location plan Fig 1.01 at Attachment 1.

2.2.3 All the proposed works are on Commonwealth owned land, designated Urban Areas under the National Capital Plan and zoned for use by the Royal Australian Mint. The NCA is the relevant planning authority.

2.3 Refurbishment - Land Acquisition

- There is no requirement for the acquisition of any land.

2.4 Refurbishment - Heritage Considerations

2.4.1 The refurbishment of the buildings will not adversely affect the heritage value of the buildings. Changes proposed to the buildings both retain and maintain the building exterior with minimal alteration to the buildings original fabric, with both the NCA and AHC satisfied with Finance's actions to preserve the heritage value of the buildings.

2.5 Refurbishment - Design Philosophy

2.5.1 **Architecture**

This project will:

- Maximise the use of the existing structure and façade;
- Maintain the original heritage fabric to the extent reasonably feasible and practicable;
- Adopt conventional construction techniques and materials that are commonly used in the construction industry, with due regard to the location and heritage requirements;
- Utilise readily available and durable materials that combine long life with minimum maintenance; and
- Respect the planning and heritage requirements associated with the building location.

The proposed refurbishment of the Mint comprises four components:

2.5.2 The **Administration building** will be refurbished to provide a high quality commercial office accommodation for a future tenant. The Administration building's external condition is generally very good and requires minimal works. The existing interior of the Administration building is dated, with materials and finishes that are at the end of their serviceable life. The proposed refurbishment comprises a total internal demolition and refit, with the exception of the existing entry lobby, where the stone wall cladding and existing staircase will be retained. A summary of the scope of works proposed includes:

- Internal demolition to create an open floor plate;
- new building mechanical, electrical, and fire services;
- new lift located adjacent to the main entrance;
- new male, female and disabled access toilets centrally located;
- new commercial quality carpet to office areas;
- refurbishment of existing stone flooring to lobby;
- new suspended acoustic tiled ceilings and new light fittings; and
- stairs upgraded to comply with BCA.

2.5.3 The **Process building** will be refurbished to accommodate all of the Mint's functions, including production facilities currently accommodated within the Process building, new high quality commercial office accommodation for Mint staff currently housed within the Administration building and a new public entry and exhibition areas, parts of which are currently contained within the Administration building.

2.5.4 The existing Process building's external condition is generally very good and requires minimal rectification works. The major intervention upon the existing façade is the proposed new entry into the Process building. Following discussions with the NCA and DEH it was concluded that a minimalist intervention approach was the most desirable, and that this would best be achieved by locating the new entry in the area currently functioning as the loading dock.

2.5.5 The existing loading dock function is to be relocated to the southern end of the building, utilising the lower ground direct entry into the building. This creates an opportunity to develop a new public entry forecourt between the Process and Administration buildings. The proposed design solution relocates the existing access road and extends the forecourt towards Denison Street, culminating in a VIP drop off point.

A summary of the scope of works proposed includes:

Access / Entry

- new building entry at ground floor (combined public and staff);
- new public lift to foyer area to serve the ground and first floor;
- new public stairs from ground to first floor within public area;

Interior Refurbishment

- new floor coverings to office, public and exhibition areas;
- new ceilings to office, public and exhibition areas (part only);
- refurbishment (painting and lining) to part existing roof lights within public and staff areas at first floor;
- refurbishment of existing concrete and timber floors in process areas;

Amenities

- new staff (office) amenities at first floor;
- new tea room for staff at first and ground floors;
- new staff toilets and showers adjacent new entry;
- existing staff amenities within Process areas refurbished;
- new public amenities in ground floor public area;

Ancillary / Other

- new 8 ton goods lift within Process area; and
- new basement tunnel link to vault.

2.5.6 **External works** modifications required as a result of the changed functions of the buildings, include:

- New VIP set-down area forecourt and entry courtyard providing access into the Mint;
- New 5 coach capacity parking area within the reconfigured car park; and
- New public and staff parking arrangements for the Mint.

2.5.7 **Security works** modifications required as a result of the changed functions of the buildings, include:

- New goods delivery security gates at the southern end of the Process building;
- New boom gate controlled access to staff parking for the Administration building; and
- New chain link fence providing a secure compound to the west of the Process building.

2.5.8 Structure

Administration building

The building structure and fabric is generally sound, and appears to have been well maintained during its life. The external façade is also generally in good condition. The Administration building contains three storeys including a basement level and two upper levels. The main entry on the northern façade is significant feature of the building.

Process building

The building structure and fabric is generally in sound condition with no major restoration works required, general structural modifications may be required to suit the proposed architectural works. The Process building is a two/three storey building with basement under parts of the floor area.

2.5.9 Civil Works

The civil works will improve the traffic flow in around both buildings, improve the exterior aspect of the Mint buildings which will enhance their heritage value, and improve the overall functionality of the Mint buildings. The civil works include: (Refer to Fig 1.02 at attachment 1)

- Relocation of the existing coach parking area currently located east of the Administration building to a new coach parallel parking area located between the visitor and staff parking areas off Denison Street east of the Process building;
- Alterations to the existing car parking areas east and south-east of the Process building to incorporate designated staff and visitor parking areas. Ninety-two spaces will be allocated to staff of the Process building and made secure by means of boom gates. The visitor spaces located east of the staff car parking will also be formalised and will accommodate 54 vehicles;
- Close off the northern-most car park entry/exit off Denison Street;

- Construction of new paved turning circle drop-off zone north of the visitors parking areas providing a direct paved link to the new Process building entrance;
- Construction of a new section of entrance driveway to the Administration building's car park off Denison Street. This section of driveway will be signposted 'Staff Entrance Only' and will have boom gates on the entry and exit lanes; and
- Construction of new concrete pedestrian link adjacent new coach parking area between staff and visitor parking areas (landscape).

2.5.10 Building Services – Administration building

The current interior presents a dated image, with services, materials and finishes approaching the end of their serviceable life. In order to provide a high quality commercial office accommodation consistent with current standards it is proposed that the interior will be totally refurbished with new floor covering, new suspended ceilings, refurbished wet areas, and new building services.

Building service works include:

2.5.10.1 Mechanical Services

- All of the existing Administration building mechanical services are to be removed;
- A new air cooled chiller, chilled water storage tank and reticulated chilled water pipework is to be installed in the existing basement plant room;
- A new gas fired boiler is to be installed in the existing basement plant room;
- A new gas main is to be installed to enable separate gas supply to the Administration building;
- New air handling units are to be installed in the existing basement plant room;
- New ducted variable air volume systems and diffusers are to be installed on the ground and first floors; and
- Modifications to the outside air intake and introduction of heat ejection pathways into the basement plant room.

2.5.10.2 Electrical Services

- All of the existing Administration building electrical services are to be removed;
- New main switchboard to be installed in the basement plant room;
- New distribution board to be installed on each level (total 5 off. 2 each on ground and level 1, 1 off in basement); and
- New light fittings to be installed on each floor.

2.5.10.3 Communications

- New Telstra incoming services to be installed; and
- New Communication Telephone cabling to each floor.

2.5.10.4 Security

- New base building security installed on all perimeter doors.

2.5.10.5 Fire Services

- New fire indicator panel to be installed;
- New smoke and thermal detection system to be installed;
- New fire booster valve room to be installed and existing sprinkler system to be upgraded; and
- Existing EWIS system to be replaced.

2.5.10.6 Lifts

- A new lift is to be installed in the foyer area; and
- The existing passenger lift is to be refurbished.

2.5.10.7 Hydraulic Services

The majority of the existing hydraulic services within the Administration building are past their design life. The exception to this is the roof downpipes. Accordingly, as part of the refurbishment works it is proposed to completely strip the building and provide new hot water, cold water, sanitary plumbing and drainage, fire hydrant and fire hose reel services.

2.5.11 Building Services – Process building

The current interior presents a dated image, with services, materials and finishes approaching the end of their serviceable life. In order to provide a high quality commercial office accommodation and contemporary museum, visitor gallery and a modern light industrial manufacturing environment in line with the Mint's operational requirements that is consistent with current standards, the following service works are proposed:

2.5.11.1 Mechanical Services

- Existing mechanical services to be removed to accommodate new plantroom, mezzanine offices and gallery spaces;
- New cooling towers to be installed adjacent to existing towers;
- New reticulated chilled water system to be installed from the basement chillers to the new mezzanine plant room and the existing plant room;
- New heating coils to be installed in the basement supply fan chamber;
- New air handling units to be installed in the new mezzanine plant room and plant room;
- New variable air volume systems and diffusers to be installed in the mezzanine offices and public areas;
- New air conditioning systems to be installed to serve the revised Process building office layouts (in the Basement and on the Ground and Mezzanine floors);
- New heating and cooling systems to be installed to serve the Basement and Ground floor coin production areas;
- Existing outside air intake path to be connected to the basement air handling chamber;

- New Building Management System to be interlinked with the existing controls; and
- Skylights above new ceilings to be blanked.

2.5.11.2 Electrical Services

- Existing substations to be consolidated from two to one;
- Existing main switchboards to be replaced;
- Existing base building distribution boards to be replaced and new distribution boards installed to suit base building requirements;
- Existing light fittings to be replaced and new light fittings to be installed in the mezzanine offices and the public gallery; and
- Existing socket outlets to be replaced and new socket outlets to be installed to suit base building requirement.

2.5.11.3 Communications

- Existing Telstra incoming telephone cables (including ICON) to be modified.

2.5.11.4 Security

- New base building security installed on all perimeter doors.

2.5.11.5 Fire Services

- New fire indicator panel to be installed at main entrance;
- New mimic-panel to be installed in security room;
- New smoke and thermal detection system to be installed throughout the building;
- New EWIS panel to be installed at main entrance; and
- Existing EWIS system (horns, speakers, etc.) to be modified.

2.5.11.6 Lifts Services

- The existing 8 ton lift is to be refurbished as a staff lift;
- A new 8 ton goods lift to be installed in the coin production area to serve the basement, ground and mezzanine floors; and
- A new passenger lift will be installed in the public area to serve the ground and first floors.

2.5.11.7 Hydraulic Services

The majority of the existing hydraulic services within the process building are at the end or past their design life or have significant BCA non-compliance's. The exception to this is the roof downpipes.

Accordingly, as part of the refurbishment works it proposed that the hydraulic services to the building be replaced wherever possible and that new hot water, cold water, sanitary plumbing and drainage, fire hydrant and fire hose reel services are provided.

2.6 Refurbishment - Standards and Codes

2.6.1 The design and construction of the works and services will conform to the requirements of:

- Building Code of Australia (BCA);
- Relevant Australian Standards and Codes;
- Occupational Health and Safety Act, 1991;
- Environment Protection and Biodiversity Conservation Act 1999, amended in 2003 and effective from 1 January 2004;
- Workplace Health and Safety Act and Regulations;
- ACT Fire Brigade; and
- ACT Utilities Authorities.

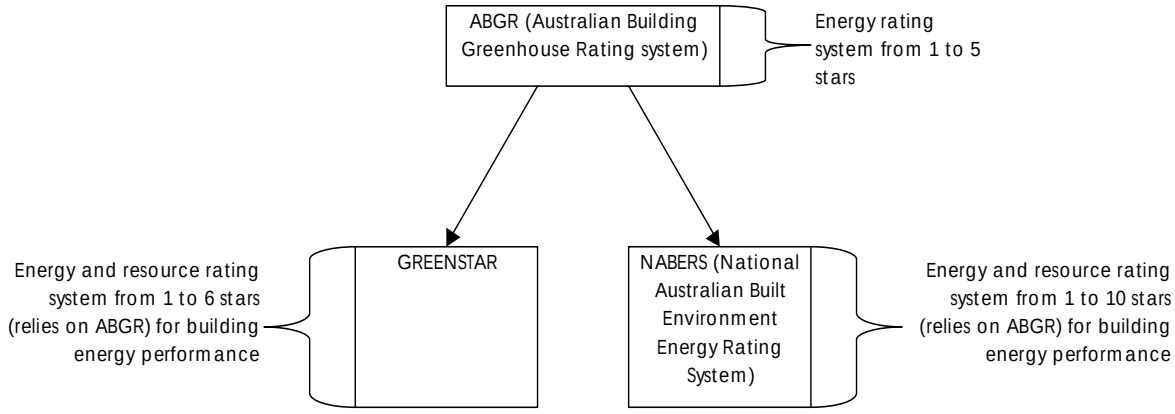
2.7 Refurbishment - Ecologically Sustainable Development

2.7.1 Finance is committed to applying the principles of ESD to the management and design of all of its properties. The Base Building Brief incorporates the ESD principles and outlines performance measures. These measures include the Green Building Council of Australia 'Green Star' rating system, and the National Australian Building Environmental Rating System. The aim is to achieve low energy facilities with substantial recurrent cost savings, and provide healthy environments for the tenants.

2.7.2 The newly refurbished Administration building will be designed to achieve a 4.0 Australian Building Greenhouse Rating (ABGR) system star rating. The ABGR system is the critical energy-rating tool that assesses a building's energy performance. The inputs required are the annual electricity and gas consumption figures, the population levels and the building square metre size. Other rating tools such as GREENSTAR and NABERS utilise the ABGR system and give additional credit points for proximity to transport, efficient water use and waste management etc.

2.7.3 The GREENSTAR rating system requires that the building achieve a minimum 4.0 star ABGR system rating before a GREENSTAR star rating is awarded. The GREENSTAR system awards between 1 and 6 stars.

A hierarchy of the rating tools is provided below:



2.74 The Process building cannot be rated under the ABGR, GREENSTAR or NABERS rating schemes, as it is not a commercial office building. However, the office space within the newly refurbished process building will be designed to achieve the energy targets equal to that required for a 4.0 Australian Building Greenhouse Rating (ABGR) system star rating. This will have the advantage of reduced energy consumption, reduced operating costs and reduced greenhouse gas emissions.

2.8 Refurbishment - Energy Conservation Measures

2.8.1 Mechanical Services

To minimise energy usage within the building, the following control strategies will be used:

- Critical zone reset for Variable Air Volume control;
- Variable speed drives on all motors;
- Introduction of Earth Closet motors on all new exhaust fans;
- Night purges to reduce the internal building load;
- Maximised free outside air cooling via economy dampers; and
- After hours zoning to be no greater than 500m² in office spaces.

2.8.2 Electrical Services

The following energy efficiency measures were incorporated for electrical services.

- Energy Efficient Lamps:

All fittings replaced and any new fittings used will have energy efficient lamps where possible. For example 28W T5 lamps will be used in place of 36W T8 lamps and metal halide lamps in place of mercury vapor.

- Electronic Ballast:

All fittings replaced and any new fittings will use electronic ballast in place of iron core ballast wherever possible. The electronic ballast has reduced energy loss in the form of heat and can extend lamp life resulting in reduced maintenance costs.

- Lighting Controls:

Lighting controls are to be incorporated into the lighting design. The controls should reduce unnecessary after hours lighting when areas are not occupied.

2.8.3 Hydraulic Services

2.8.3.1 Potable Water Reduction

A number of measures will be undertaken to minimise demand on potable water. These will include:

- Use of waterless urinals;
- Use of dual flush toilets with 4.5/3 litre flushes;
- Use of basin taps with a minimum of 3A rating in accordance with AS6400 (more than 3.0L/min but not more than 4.5 L/min); and
- Use of sinks and showers with a minimum of 3A rating in accordance with AS6400 (more than 7.5 L/min but not more than 9.0 L/min).

2.8.3.2 Hot Water Generation

It is envisaged that the hot water generation plant for this development will be generated by a system utilising gas fired heaters and appropriate storage. Hot water will be limited to a maximum of 45°C to disabled accessible facilities and to 50°C to all other facilities in accordance with the requirements of the BCA and AS3500. The hot water will be limited by means of thermostatic mixing valves.

2.9 Refurbishment - Acoustics

2.9.1 Sound attenuation is especially important in all office accommodation. Attenuation will be provided through the appropriate use of material and adoption of suitable construction techniques. Within the Process building existing acoustic baffles located in the production areas will be cleaned and the acoustic material replaced.

2.10 Refurbishment - Fire Protection

2.10.1 The following philosophy has been adopted with respect to the design of fire protection systems:

- All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the BCA and ACT Fire Brigade requirements; and
- Finance will require certification from a suitably qualified certifier, that the design and construction meet the requirements of the BCA and all other applicable Codes and Standards.

2.11 Refurbishment - Precautions against Legionella

2.11.1 The new air conditioning system will be designed to incorporate all reasonable precautions against Legionella Bacillus.

2.12 Refurbishment - Occupational Health and Safety

2.12.1 The health and safety of all workers employed on the construction of the proposed facilities will be protected by strict compliance with the *Occupational Health and Safety (Commonwealth Employment) Act 1991* (Commonwealth) and the *Occupational Health and Safety Act 1989* (ACT). Construction of the facilities will be in accordance with a site specific Occupational Health and Safety Plan. There are no identified public safety issues.

2.13 Refurbishment – Landscaping

2.13.1 The landscape setting seeks to reinforce pedestrian access to the recessed entry of the Mint building. The ramp scale and width is enhanced with the provision of planting beds to both sides. These beds ensure that handrails are not required.

The new entrance and gathering area is visually linked to a potential outdoor eating area associated with the cafeteria, both of these elements are treated as elevated podiums.

(Refer to Fig 1.06 at attachment 1)

The paving pattern reflects the existing building structural elements with broad edge banding and infill blocks. Paving will be honed re-constituted stone to reflect the significance and quality of the building structure. The paving is extended out to a proposed formal turning circle/drop-off zone, paved with granite cobbles, which reinforces the building entry. Signage and flagpoles also act to reinforce the entry.

Plant materials are selected for their xeric qualities. The patterning of the plants will incorporate contrasting colours, with the dominant “feature ribbon” to emphasis the linear corridor.

Tall columnar evergreen trees, *Cupressus sempervirens,* are planted on the east side of the entry corridor, to direct pedestrians as well as reducing the built form of the eastern annex building.

Shade is provided in the car park by the deciduous trees, *Platanus orientalis*. New bus parking facilities are introduced near the main entrance to ensure all visitors enter from that location.

2.14 Refurbishment - External Security Treatments

2.14.1 External security works, commensurate with the tenant’s threat and risk profile will be constructed. The refurbishment component of the works will comprise a vehicle barrier, an intruder resistant fence with associated access point, and secure parking.

2.15 Refurbishment - Project Cost Estimates

2.15.1 The outturn cost estimate of the proposed works is $24.14million based on 2005 prices. Included is an allowance for escalation to the construction commencement date of October 2006. The outturn cost estimate includes construction and other related elements such as consultant fees, project management and supervision.

2.16 Fit out - Scope of Work

2.16.1 The Mint's office accommodation, currently housed within the adjoining Administration building, will be transferred to new offices and staff amenities to be provided in the refurbished Process building.

On completion all of the Mint's functions, including production and administration functions will be housed within the one building.

The fit out design optimises formal and informal opportunities for communication and supports team based working patterns.

The refurbished accommodation includes:

- Refurbished light industrial standard operational areas;
- Conversion of first floor storage area into high quality commercial office space, suitable for the needs of the Royal Australian Mint administration;
- Refurbishment of existing public areas to accommodate new public exhibition galleries;
- Meeting the functional needs of staff in conducting meetings, with appropriate audio visual equipment, kitchen facilities, acoustic privacy and selection of furniture; and
- Maximising flexibility through size, layout and connectivity.

The renewed Mint's facilities have been designed to reinforce their corporate image and convey a corporate culture to visitors, clients and staff.

The Mint has a unique story to tell within the context of our national story and the visitor accessible space will be developed to engage an audience by the telling of this story. The overarching theme of this visitor experience is proposed as "The Value of Money".

2.17 Fit out - Design Philosophy

2.17.1 Architecture

The Mint is currently a whole-of-building tenant in the Mint buildings. Whilst minor alternations and fit outs have occurred throughout the lifetime of the building it has not had any major upgrade works undertaken since its construction in 1965. The existing Process building's fit out and its associated services and facilities are well past the point of their useful life and are in need of refurbishment.

The proposed fit out involves the complete refurbishment of the Royal Australian Mint Process building to provide a high quality commercial office space, contemporary museum, visitor gallery and a modern light industrial manufacturing environment in line with the Mint's operational requirements.

For the Mint to fully embrace flexibility in its tenancy fit out design to accommodate the evolution of current and future changing demands, a generic approach be taken to the office planning.

This has resulted in the standardisation of work point sizes and branch support facilities such as interview, meeting, storage/utility rooms, staff amenities areas/spaces and the like. Built elements that are flexible in their use, for example, an enclosed office that is, in size and location, equally functional as a storeroom and/or a meeting room have also been provided.

An important element in achieving future flexibility will be the selection of appropriate construction systems for partitioning and workstation screening.

Circulation conflict is minimised between people and forklifts and other vehicles associated with the industrial operations of the Mint.

Access for the disabled will be in accordance with SAA Code AS 1428.1 and AS 1428.4-1995-2001 as amended.

General work areas of the tenancy will be painted plasterboard or render finish to walls, (woollen) carpet to office floors, rubber, vinyl & parquet flooring (or as appropriate) in operational areas, and acoustic tiled ceilings with air-conditioning and lighting to appropriate Australian Standards and commercial standards for office space. External windows will have slim venetian blinds.

Finishes to other areas of the Mint such as rubber, vinyl and parquet shall satisfy Australian Standards as a minimum.

2.17.2 Mechanical Services

The mechanical services design is based on the following principals

- Minimum whole of life costs;
- Suitability for the application;
- Reliability and ease of maintenance; and
- Environmentally sustainable principles.

The works include:

- Alterations and additions to the base building's air conditioning, heating and ventilation systems to suit the fit out design;
- Provision of supplementary air conditioning to areas with special temperature requirements, high occupancy or high heat load;

- Provision of energy efficient radiant tube heating to process areas not heated by the base building;
- Replacement of non complying fume cupboards for use in decanting chemicals;
- Provision of specialist industrial exhaust systems to exhaust hazardous fumes from the process equipment; and
- Replacement of equipment, which has reached the end of its economic life.

2.17.3 Electrical Services

In general terms the fit out is designed on the basis that the base building refurbishment will upgrade the building's basic electrical infrastructure and interior lighting. The fit out electrical services provide for the reconnection of all existing process equipment (including relocated equipment) to the new electrical switchboards and infrastructure. Special task lighting requirements have been catered for where required to supplement base building provisions.

The fit out component of the office areas includes additions and modifications to the base building interior lighting where required to suit the office fit out as well as providing energy saving lighting controls to the office areas. The fit out includes architectural lighting to the main entry foyer spaces. General purpose power and communications systems are provided to suit the fit out.

2.17.4 Hydraulic Services

The fit out hydraulic services provides the additional services to the office component of the fit out that is not provided by the base building works. The hydraulic services also extend to the complete refurbishment and relocation of equipment that form part of the production area upgrade of the Process building. The works include:

- Replacing pipe work, fixtures and tapware;
- Provide trade waste approvals for discharge to sewer and advising any alternation necessary to obtain approvals;
- Reconnecting relocated equipment to water and waste;
- Sealing and removing redundant pipe work to approval;
- Upgrading eyewash and safety showers;
- Upgrading water and connections to hazardous areas;
- Upgrading existing and provide new waste drains to the appropriate system, ie trade waste and sewer;
- Provision of water saving devices where required and appropriate;
- Alteration to base building cold and hot water systems to suit fit out;
- Provision of a Rain Water Reuse system.

2.18 Fit out - Standards and Codes

2.18.1 The fit out design and construction will comply with all the relevant standards and codes as detailed in the Refurbishment Section.

2.19 Fit out - Energy Conservation

2.19.1 The fit out design includes energy saving intelligent lighting controls to the interior lighting systems. The base building lighting systems in the process areas will be provided with time controls. The lighting systems to office areas will be provided with occupancy based lighting controls consisting of a mixture of occupancy sensors and reset switching systems to turn off lights in areas and offices that are not occupied. In office areas and public areas and public spaces that retain the skylight, photoelectric light sensors will dim the lighting to make maximum use of natural daylight while retaining required task lighting levels.

2.19.2 The reticulation of emergency power is in accordance with the Royal Australian Mint's Disaster Recovery Plan.

2.20 Fit out - Project Cost Estimates

2.20.1 The outturn cost estimate of the proposed works is $15.19 million based on 2005 prices. Included is an allowance for escalation to the commencement date of October 2006. The outturn cost estimate includes construction and other related elements such as consultant fees, project management and supervision.

2.21 General - Project Delivery System

2.21.1 The project delivery strategy will be developed using delivery systems specifically tailored to achieve value for money and meet the objectives and risks associated with each building.

2.21.2 The Mint will remain operational throughout the construction phase of the project, be it at a reduced production level. The project delivery system will be selected that meets the Mint's time, cost and quality objectives, which considers market conditions. The delivery system will be appropriate to ensure that:

- The quality standards as required by the tenant lease are delivered; and
- Risks of delay are minimised.

2.21.3 It is envisaged a well structured detailed design and program which specifies milestones will be endorsed by both Finance and the Mint prior to commencement.

2.22 General Construction Program / Project Schedule

2.22.1 Subject to Parliamentary approval of the project, construction of works are planned to commence in October 2006.

2.22.2 The anticipated project milestones for the Process building are as follows:

a) Let construction contract: October 2006

b) Commence internal demolition: October 2006

c) Complete base building and fit out: June 2008

d) Mint occupation: Staged as follows:

- Stage 1 - April 2007
- Stage 2 – April 2008
- Stage 3 – May 2008
- Stage 4 – May 2008
- Stage 5 – June 2008

The anticipated project milestones for the Administration building are as follows:

a) Agree lease with tenant: Dec 2005

b) Commence internal demolition: July 2008

c) Complete base building and fit out: Mar 2009

d) Tenant occupation: April 2009

3. Abbreviations

ABGR – Australian Building Greenhouse Rating

ACT – Australian Capital Territory

AHC – Australian Heritage Commission

AS – Australian Standard

BCA – Building Code of Australia

CCTV – Closed Circuit Television

DEH – The Commonwealth Department of Environment and Heritage

EPBC – The Environment Protection and Biodiversity Conservation Act 1999 as amended 2003

ESD – Ecologically Sustainable Development

EWIS – Emergency Warning and Intercom System

FINANCE – The Commonwealth Department of Finance and Administration

NABERS – National Australian Built Environment Energy Rating System

NCA – National Capital Authority

NCDC – National Capital Development Commission

NLA – Net Lettable Area

OH&S – Occupational Health and Safety

PWC – Public Works Committee

SAA – Standards Association of Australia

4. ATTACHMENT 1 – Refurbishment Drawings

01 Location plan

02 Site plan

03 Process Basement

04 Process GF

05 Process L1

06 Process Entry Plan

07 Process North Elevation

08 Process Section A-A

09 Process Section B-B

10 Perspective View 1

11 Perspective View 2

12 Perspective View 3

13 Perspective View 4

14 Administration Floor Plan

15 Administration Elevations