# CONSTRUCTION OF NEW CHANCERY 

## COLOMBO, SRI LANKA

STATEMENT OF EVIDENCE FOR PRESENTATION TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS


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## SUPPLEMENTARY INFORMATION

Item 1: $\quad$ Sketch Design Drawings

## IDENTIFICATION OF THE NEED

## 1. Objectives

1.1 The Department of Foreign Affairs and Trade (DFAT) seeks approval from the Parliamentary Standing Committee on Public Works (PWC) to proceed with a purpose built new Chancery Building at No. 21 Gregory's Road, Ward No. 36, Cinnamon Gardens, Colombo 07, Sri Lanka. This facility will be developed and owned by the Overseas Property Office within the Department of Foreign Affairs and Trade. The site was purchased in 1997 (for AUD 3.79 million at 1997 exchange rates) by the then Overseas Property Group in the former Department of Administrative Services for the purposes of constructing a purpose built facility.
1.2 Under the Administrative Order Arrangements of 26 November 2001, DFAT is responsible for "overseas property management, including, acquisition, ownership, and disposal of real property". This activity is undertaken by the Department's Overseas Property Office, which manages the overseas estate, and will be funding and constructing the new works.
1.3 The new Chancery building will serve as Australia's ongoing permanent mission to Sri Lanka, and will be tenanted by DFAT, the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA), the Australian Agency for International Development (AusAID), and the Australian Trade Commission (Austrade).

## 2. Historical Background

2.1. Australia has been represented in Sri Lanka since the first Commissioner took up his post in April 1947. Australia's first High Commissioner was appointed following the Country's independence in 1948.
2.2 The existing Chancery currently occupies two houses on one site that were constructed in excess of 50 years ago. The Commonwealth acquired one house in 1961 for use as a Chancery, and the other was purchased some time earlier for use as the Official Residence. As the requirement for additional space increased, a new house was purchased for use as the Official Residence and the Chancery expanded into the two buildings including the incorporation of an annex linking the two buildings. For some time the premises have no longer provided suitable or appropriate accommodation. The needs of the Australian mission to Sri Lanka that existed in the 1960's have changed significantly, and while modifications have been made, aspects such as access, services, layout, facilities and space are deficient.

## 3. Need

3.1 The current Australian High Commission building in Colombo is inadequate to service the requirements of a representational facility. It does not meet the minimum standards expected for security, functionality or occupational health and safety requirements. In addition, the building has aged to the stage that the structure has deteriorated and repair is no longer a practical method of improving condition. The floor area of $950 \mathrm{~m}^{2}$ is also inadequate to meet the current requirements for the ongoing
operation of the mission.
3.2 The security situation in Sri Lanka has been and remains poor. The existing building does not provide an effective security solution. Access for staff, official visitors and DIMIA clients is provided through a common main entrance and there is no facility to provide segregation to meet security requirements. Internally, the building has not been configured to provide for layered security levels. This is a result of the incompatibility for use as a Chancery of buildings that were previously residences.
3.3 The layout of the existing Chancery buildings is dysfunctional and does not meet the amenity or operational requirements of a modern facility. Incremental expansion over the life of the facility has meant that operational functions have been accommodated on an ad hoc basis. The resultant layout does not allow for efficient operations within the Chancery. A purpose-designed facility will allow for improved workflows and more efficient operations in line with the requirements of a modern operational and representational facility.
3.4 The current facility has significant deficiencies in meeting occupational health and safety requirements. The existing food preparation and storage areas are inadequate and do not meet acceptable health standards. The building is subject to water ingress during the heavy rains of the monsoon seasons. This increases risk of electrical failure causing fire or injury. Vermin infestation is a constant concern with rats and polecats regularly entering the ceiling. Building services are inadequate and the building structure is settling and deflecting in some areas. Any new facility will be designed to meet the requirements of the Building Code of Australia and will incorporate the appropriate $\mathrm{OH} \& \mathrm{~S}$ and fire standards.
3.5 The current Chancery does not present an appropriate image for Australia in a country where Australia is held in high esteem. The new Chancery is being planned to meet the current and future tenancy operational and technological requirements. The proposed layout will also accommodate space for some limited expansion, as well as meeting the Commonwealth's security requirements for the protection of staff and assets. Development of a purpose built and managed asset on the owned site will allow the Commonwealth to manage and control the facility to provide reliable and self sufficient services not available in leased accommodation.
3.6 Australia enjoys close ties with Sri Lanka with its significant number of migrants, and many Sri Lankans travel to Australian for commercial, educational and family reasons. The Sri Lankan economy has been stagnant for several years due to the civil unrest in the north and east of the country. With the reduction of the civil unrest it is expected that the bilateral relationship will grow in respect of the economic, commercial and cultural links. This will place additional demands on the Australian mission to Sri Lanka.

## 4. Options Considered - Comparative Costs

4.1 Following the decision to proceed with the planning for a new Chancery building in Colombo, which was included in the 2001/02 Budget, a number of development options were reviewed:
(a) Demolish the existing buildings and redevelop on the existing site;
(b) Refurbishment and redevelopment of the existing buildings;
(c) Demolish one of the existing buildings, upgrade of the other remaining and the construction of a new purpose designed wing;
(d) Lease alternative accommodation on the open market;
(e) Pre-commitment lease through a contract with a developer to design, construct and maintain a purpose designed building to be leased on completion;
(f) Construct a new purpose designed chancery on the vacant site purchased in 1997.
4.2 Investigations, including preliminary design work and preparation of feasibility estimates, were undertaken by the Department of Finance and Administration in late 2000. These studies considered the Post's ongoing operational requirements, the availability of temporary staging space, divestment opportunities for the surplus property, and the relative costs.
5. Reasons for Adopting Proposed Course of Action
5.1 The construction of a new Chancery on a greenfield site will offer the following advantages:
(a) Provision of a purpose designed building, with appropriate functional, efficient office space and technological requirements for the occupying agencies;
(b) Provision of appropriate security;
(c) Minimal disruption to the operation of the High Commission, as the existing facility can continue to operate until the new facility is ready for occupation;
(d) Future sale and return of funds from the current Chancery property.
5.2 The proposed course of action outlined has previously been endorsed by the Department of Finance and Administration when it was responsible for the ownership and management of the Commonwealths overseas estate. Occupying agencies have also provided their support for this proposal.

## 6. Description of Proposal

6.1 The proposal is to design and construct a new Chancery building on the vacant site within the Colombo Municipality of Cinnamon Gardens. This site is in the same general area as the current Chancery. The project will deliver an efficient, modern, functional, two storey building to accommodate DIMIA, Austrade and public foyer/ entry functions on the ground floor, with AusAID and DFAT accommodated on the upper floor. The building will cater to the tenants' office planning requirements, and provide appropriate security provisions to account for the high risk classification of Sri Lanka.
6.2 The ground floor will be capable of providing for multi-purpose functions, such as official receptions, exhibitions and trade displays, meetings, lectures and business missions, through the use of multi-purpose room, foyer and immediately adjacent outside spaces.


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6.3 The project will also include an attached services engineering wing housing full support facilities such as emergency power, potable and fire fighting water, staff (and family) recreation area, official fleet car parking area and landscaped surrounds within the fully fenced secure compound.


## 7. Environmental Impact Assessments

7.1 The proposed new Chancery site had on it a dilapidated house that was demolished following purchase.
7.2 An environmental impact assessment is not required by local authorities. Other foreign Missions are located in Gregory's Road, and the Chancery proposal is consistent with usage requirements allowed by the local authorities.
7.3 There is a small scattering of trees of varying condition on the site. It is considered that none are of particular value, and accordingly all could be removed. Approval will be sought by the High Commission from the Divisional Secretary Colombo Centre for the removal of three trees located on the site. These trees include two Jack Fruit trees (Artocarpus heterophyllus) and a Tamarind tree (Tamarindus indica) with timber from the latter to be incorporated in joinery fittings in the new Chancery. The provision of landscaping associated with the new Chancery, will enhance site aesthetics and will harmonise with overall environmental conditions. An existing large Mara tree (Peltaphorum pterocarpum) on the street frontage beyond the boundary will be kept and incorporated in the streetscape presentation of the building.
7.4 A geotechnical investigation has been carried out on the site. The underlying geology presents no difficulty to the proposed structural design of a two storey building on this site. No evidence of contaminated soils was identified in the geotechnical investigation.
7.5 The site is relatively flat and level with access from Gregory's Road and is located within an area that does not normally suffer from significant flooding. However, minor site earthworks will be required to raise the Chancery ground floor above the footpath and road levels in order to enhance the arrival presentation of the building and avoid any possibility of localised flooding.
7.6 The site is in a "built-up" area in close proximity to a number of other foreign Missions and Official Residences. Therefore, the implementation and adherence to suitable noise and dust mitigation measures, a traffic management plan, and suitable restrictions on working hours during the construction period will be necessary.

## 8. Heritage Considerations

8.1 There is no building currently on the site. The streetscape along Gregory's Road is mostly a collection of colonial style houses, an international school, and a collection of modern buildings including apartments. The new Chancery will be in sympathy with the surrounding neighbourhood through the use of local materials (such as stone) and render and painted facades, and a terracotta tiled roof.
8.2 There are no known heritage considerations associated with the construction of the new Chancery. The Municipal Council of Colombo requires that the new building should be in harmony with the existing architectural character of the area.

## 9. Details of Organisations Consulted

9.1 Considerable consultations and presentations have been held with Departments and agencies that are represented in Colombo. These include DFAT, DIMIA, AusAID and Austrade. A comprehensive Tenant Brief has been produced by an independent consultant which has been used as the basis for the functional planning for the scheme. The planning has been accepted by all tenant Departments and agencies and all Departments, agencies, the Head of Mission and High Commission staff who support the need for a new Chancery.
9.2 Discussions and presentations of the development have also been held with:

- Community and Public Sector Union (CPSU);
- Family Liaison Officer (FLO);
- Foreign Affairs and Trade Association (FATA);
- Environment Australia;
- Australian Greenhouse Office.


## 10. Amount of Revenue Derived from the Project

10.1 Pre-commitment leases have been signed by all tenant agencies prior to the commencement of construction. Occupying agencies will be charged rents consistent with the quality office spaces provided and that will provide an appropriate return on investment as required by the Commonwealth Property Principles.

## TECHNICAL INFORMATION

## 11. Location

11.1 The site for the proposed new Australian Chancery in Colombo is located at No. 21 Gregory's Road, Ward No. 36, Cinnamon Gardens within the Municipal Council of Colombo limits. The Canadian High Commission and the Embassy of Japan are located in Gregory's Road, while several other Embassies are located within close proximity. An International School is also located in the street.

## 12. Scope of Work

12.1 The construction of the new $2200 \mathrm{~m}^{2}$ Chancery will consist of a two level building (ground plus one upper level). Appropriate provisions for security will be provided in accordance with DFAT and individual agency requirements. The Chancery will be designed to meet the specific space needs and functions of the tenants whilst also providing for some future expansion.
12.2 The pedestrian and vehicular accesses to the site will be from Gregory's Road. The main entrance to the Chancery will provide controlled pedestrian access for staff and visitors, with controlled driveway access for official vehicles. A separate controlled public entry will be incorporated in the design for DIMIA clients. The driveway to the
west of the site will also provide access for fleet and Australian based staff vehicles to the carpark and services wing at the rear of the site.
12.3 The project also includes for construction of an attached services wing at the rear of the site, staff recreation facilities, a controlled access car parking area, fully landscaped surrounds, all located within a secure, fully walled and fenced compound.
12.4 Although the site has some existing services infrastructure, the construction works will include the installation of new engineering services including a generator for standby power, mains electricity through an on-site substation, water reticulation and storage (including further treatment of potable water), storm water and sewer drainage, and telecommunication facilities. The services will be connected to the statutory authorities mains services, along the Gregory's Road boundary.
12.5 The integrated building fit-out will be designed in response to the tenant's specifications, and procured via the main construction works contract. Items in the fitout scope include all security forced entry and ballistic requirements, security counters, security doors and door hardware, transformer and generator, air-conditioning, electrical switch gear, water pumps and purifiers, fixed work-stations, fixed partitions and doors, compactus storage units, window treatments and floor coverings. In addition, specific tenant required tea rooms and toilet facilities will be included as part of the fit-out.
12.6 Loose items comprising furniture such as tables, chairs, desks, filing cabinets and general office equipment such as photocopiers, computers and printers are not included in the construction works. These items will be supplied by the tenant agencies.

## 13. Site Selection and Site Description

13.1 Cinnamon Gardens is a picturesque residential area of Colombo, with mature and well established surroundings. A number of foreign Missions and Heads of Mission Residences are located within the vicinity. Cinnamon Gardens has established infrastructure and services with the site being selected for these reasons.
13.2 The $3221 \mathrm{~m}^{2}$ site is flat and rectangular in shape, with a nominal 30.5 m frontage to Gregory's Road along the southern boundary, extending approximately 103.6 m to the north. The two long sides are bounded by adjoining residential properties, with The Institute of Aesthetic Studies and the University of Kelaniya building adjoining the rear boundary.

## 14. Zoning and Approvals

14.1 In accordance with the Urban Development Authority and the Municipal Council of Colombo (Proposed Zoning Plan (2010) City of Colombo), the site is zoned for special primary residential use. This usage also permits the construction of Chancery buildings.
14.2 As a freehold owned property the Commonwealth has complete authority to lease, dispose of, or to undertake developments on the site in accordance with local authority building by-laws.


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14.3 Approval to construct a new building on the site will be required by the Municipal Council of Colombo. A Preliminary Planning Clearance application has been approved by the Municipal Council of Colombo. A Building Application will be submitted when construction documentation has been completed and must be approved prior to commencement of construction works.


## 15. Land Acquisition

15.1 The proposed new Chancery site is freehold property. The property was purchased by the Commonwealth of Australia by deed number 353 dated December 1, 1997, for a consideration of LKR 152.82 million (AUD 3.79 million, at 1997 exchange rates).
16. Codes and Standards
16.1 It is intended that the project will be delivered in accordance with the Building Code of Australia (BCA) and relevant Australian Standards, or local (or international) standards where they are deemed to be of a higher or more relevant standard.
16.2 It will be necessary for the design to satisfy the requirements of the Municipal Council of Colombo, in order to obtain the relevant Sri Lankan development approvals. In Sri Lanka, most standards are generally based on British Standards, which approximately parallel Australian Standards.
16.3 The project will be delivered in accordance with the Disability Discrimination Act 1992. Particular attention will be given to equality in access to premises and amenities.

## 17. Planning and Design Concepts

## Architecture

17.1 The new Chancery will reflect a modern, efficient, pleasant and safe work environment for High Commission staff. The new facility will assist them in their work responsibilities and aid the corporate objectives of DFAT and other tenant agencies in furthering Australia's interests internationally. In accordance with the project staffing estimates of the tenant agencies, the facility has been designed to accommodate 11 A based and 23 locally engaged staff. The design allows for some possible future expansion.
17.2 The general design philosophy for the proposed Chancery building:
(a) Provides a setting to enable the effective and efficient functional activities of the High Commission. Attention will be given to ensure the building, both in general form and detail, provides a pleasant environment in which to work and conduct business;
(b) Represents an image of Australia to the host nation by using a range of Australian materials and finishes in public area fit-outs;
(c) Allows for the required security measures within the building design and siting by clearly separating public from office areas. To protect unauthorized
entry both into the building and between various areas within the building, the Chancery will include security measures consistent with the appropriate Commonwealth standards;
(d) Maximises the site potential by using the entire site area in a cohesive mix of building and landscaped elements;
(e) Respects local culture by being sympathetic to the surrounding buildings both in the building form and the materials employed;
(f) Responds to local climatic conditions by providing large roof overhangs, shading to windows, high efficiency glazing and covered outdoors areas for breakout spaces and recreation;
(g) Includes an entry driveway and a porte-cochere to provide a formal drop-off facility protected from the weather.

## Structure

17.3 Conventional reinforced concrete will be used as the primary structural form for floors, columns and load bearing walls in keeping with Sri Lankan building practice. The basic roof support system will comprise structural steel framing. Office partitions will be either light weight systems or infill masonry walls, except where security requires hardened barriers. The construction methodology will provide value for money, include long life and low maintenance structural members and components, provide a secure structure, use appropriate technology, and will provide flexibility in layout to meet the required functionality of the building.
17.4 Live loads will be in accordance with Australian loading codes and tenant specific requirements. Consideration will be taken of local site conditions including wind and seismic forces appropriate to the location. The building will be designed with a postdisaster function to satisfy Australian standards.
17.5 The foundations will be conventional reinforced concrete pad footings under columns and strip footings under load bearing walls. These will be founded in the re-compacted surface soils in accordance with the recommendations of the geotechnical report.

## Materials and Finishes

17.6 Materials will be selected to present a high quality building of distinctive appearance, but also to be durable with minimum maintenance. Account has been taken into consideration that the local workforce will be Sri Lankan. Selection of materials, finishes and building detailing will therefore be commensurate with the capability of the local work force. Many of the construction materials such as glazing components, aluminium window sections, plant and equipment, electrical and hydraulic fixtures and fittings, joinery, and structural steelwork will need to be imported as they are not available in Sri Lanka.
17.7 External finishes to the building will be masonry, rendered and painted with long wearing coatings, as commonly used in Sri Lanka. Local granite will be used to enhance the façade treatment to main visual areas. Local hard-wearing granites will also be utilized for floors in the public foyers and entrances.
17.8 Non-load bearing internal walls to office fit-out will be light weight steel stud framed partitions and painted plasterboard or of rendered and painted masonry construction. Internal partitions with a security requirement will be constructed in accordance with DFAT Security Section requirements.
17.9 Wet areas will be finished with ceramic tiles to walls and slip resistant vitrified tiles to floors.
17.10 Ceiling finishes will be lay-in suspended acoustic ceiling tiles to office areas, with painted plasterboard to foyer areas and decorative plywood to meeting rooms.
17.11 Floor finishes will be natural granite, carpet, vinyl, concrete and vitrified tiles as appropriate to the area.

## Mechanical Services

17.12 All offices, meeting rooms and common spaces will be mechanically air-conditioned, with a separate air handling system serving each tenancy. This will allow for independent use of tenancy areas if required, without having to run the entire building system and also for designated areas that require 24 hr operation.
17.13 Cooling will be provided by air cooled water chillers, with chilled water piped to the air handling units. All plant will be housed in an attached services wing, located to the rear of the site, outside the building secure area.
17.14 Equipment and materials for mechanical services will be selected for long life, maximum efficiency and low maintenance.
17.15 Exhaust systems will be provided to toilets, staff facilities and kitchen exhaust hood.
17.16 A Building Management System (BMS) will control and monitor the air-conditioning system, standby power system and other plant.

## Hydraulic Services

17.17 Town water supply is available from the Water Supply and Drainage Board. Although the water supply in the area is clear and chlorinated, it will be subject to further treatment to ensure it is of the required quality standard for consumption.
17.18 The town water supply that services Gregory's Road does not have reliable pressure and as such a storage tank and pressure system to satisfy the daily demand will be required. The storage tank will be located underground and will be sized to provide seven days supply as recommended by the Water Board.
17.19 Sewerage will be collected and discharged to the local sewerage system in accordance with the local authority requirements.
17.20 Fire hydrants to fire brigade requirements will be provided to the site, and hose reels located throughout the building.
17.21 Combined water storage for domestic water, fire hydrants and sprinklers will be provided to a capacity of 120,000 litres in accordance with local authority requirements. An assessment of the viability of rain water collection has been carried out. It is not recommended to provide rain water collection due to the potential for contamination and the need for continued monitoring and maintenance of an independent water system.
17.22 Hot water will be provided to showers, basins and sinks, sourced from a solar heating and storage system with electric backup heating elements. Solar heating is common in Colombo and will facilitate long term reductions in energy use. Electric instantaneous boiling water will be provided in tea rooms.

## Electrical Services

17.23 The public utility electrical supply is an 11 kV underground reticulated system provided by the Ceylon Electricity Board. A substation will be required to be established on site to house a transformer, authority switching and metering equipment. The substation will be located to the street frontage, accessible to the utility provider, and will provide low voltage power to the building electrical services.
17.24 One packaged self-contained main diesel generator ( 250 kVA ) will be provided to ensure reserve power generation for $100 \%$ load. An underground fuel storage tank will provide sufficient fuel for the total electrical requirements of the building for seven days operation. Diesel exhaust will be discharged 3 m above the building to disperse generator exhaust to atmosphere in compliance with local environmental regulations.
17.25 The main switchboard will provide supply to the following distribution boards:
(a) Lighting and Power Distribution boards at each level;
(b) Mechanical Services Switchboard;
(c) Lift Services Switchboard;
(d) Hydraulics Switchboard.
17.26 Electrical surge protection will be provided to the main switchboard and distribution switchboards.
17.27 Separate in-house power consumption will be metered for each tenant agency and be recorded by the Building Management System (BMS).
17.28 General lighting and power will be provided throughout the building. Sub-circuits feeding general power outlets, excepting those supplying permanently connected appliances, will be fitted with residual current devices (earth leakage) to ensure personnel safety. Power outlets will be configured to the local pattern with the exception of those required to the Communications area which will be of an Australian pattern.
17.29 External amenity and security lighting will be provided to ensure safe passage of pedestrians and vehicular thoroughfares. Security lighting will be provided around the site coordinated with CCTV and security surveillance requirements.
17.30 A lightning protection system will be provided for the building.
17.31 Mains power/ battery backup emergency lighting will be provided to indicate egress points from the building in the event of emergency or total power failure.

## Communications

17.32 An integrated telephone and data communications backbone and horizontal cabling system will be provided throughout the building.
17.33 A Master Antenna Television system (MATV) will be provided.
17.34 Rack mounted 1.4 kVA Uninterrupted Power Supply (UPS) units will be provided for each communications cabinet which houses active communication equipment.
Additional UPS may be supplied by tenant agencies to meet their individual needs.
17.35 A new satellite dish is currently being planned for supply/ installation at the present Chancery by DFAT. The dish will subsequently be relocated to the new Chancery following completion of the new building.
17.36 Local service providers will be used for communications services.

## Lift Services

17.37 A passenger lift that will cater for disabled persons will be provided to the building. The lift will have capacity for 10 persons, and will also be capable of being used as a goods lift. Protective lift curtains for carrying goods will be supplied by the Works Contractor.

## Landscaping

17.38 The site is not affected by any vegetation protection order. However, approval is being sought from the Divisional Director Colombo Centre for the removal of one Tamarind tree and two Jack Fruit trees. All existing trees from the site will be removed and new landscaping completed as part of the project. Existing vegetation on site has been reviewed and identified by a forestry specialist.
17.39 The external hardscape will comprise local materials and components to produce a high quality finish. The hardscape will comprise materials of coloured and exposed aggregate concrete, locally sourced granite, light coloured sandstone/ limestone or local stone.
17.40 External softscape will include a number of gardens and planter beds to the site frontage, perimeter of the Chancery building, car parking area, recreational facilities and common use areas. A selection of suitable tropical species, both native and exotic, will be chosen to provide low maintenance vegetation, and to enhance the site aesthetics and micro environment.

## Civil Works

17.41 To minimise the potential for local flooding as a consequence of monsoon storms, site earthworks will be required to raise the building ground floor level. This will require the importation of fill material to raise the building platform level above Gregory's Road level.
17.42 The entry forecourt, driveway and parking areas will be designed with a surface finish that is appropriate for use by both pedestrians and vehicles alike.

## Operation, Maintenance and Warranties

17.43 Operation and maintenance manuals will be provided by the Works Contractor. The manuals will contain equipment data, supplier identification, specifications, recommended maintenance procedures and manufacturers manuals. As-built services and architectural drawings will be incorporated into the Final Construction Completion Report.
17.44 Warranties will be provided in the name of the Commonwealth of Australia.

## 18. Acoustics

18.1 Particular consideration will be given to the acoustics requirements and in the selection of materials and finishes to control noise transmission.
18.2 No hard floored areas will be located above office spaces.
18.3 Reduction in sound transmission of external noise will be achieved by the use of concrete, masonry or insulated lightweight walls and laminated glazing.
18.4 Internal ceilings, partitions and doors will be detailed to achieve required sound attenuation levels.
18.5 Building services will be designed to minimise noise transmission to the working environment.
18.6 Acoustic treatment will be provided to mechanical plant and the diesel generator in compliance with local regulations.

## 19. Energy Conservation Measures and Targets

19.1 Energy conservation will be an important design consideration in the selection of plant and equipment. To achieve optimum performance, plant will be selected for energy efficiency and shading will be provided to minimise solar load.
19.2 Electrical energy use in Sri Lanka is regulated by the Ceylon Electricity Board due to the country's limited generation capacity. The code of design applies to commercial and industrial buildings limiting the potential for inefficient design and operation of new buildings. The design will comply with the local code and the performance guidelines as set out in the Property Council of Australia Energy Guidelines.
19.3 Contact has been made with the Australian Greenhouse Office and Environment Australia. The energy targets recommended for new buildings are based on the targets developed by the Property Council of Australia.
19.4 Colombo is approximately 8 degrees north of the equator and as such is hot and humid for most of the year, and has seasonal monsoonal rains. Accordingly, the following passive energy conservation measures will be incorporated into the design to maximise energy efficiency:
(a) High efficiency glazing to reduce thermal transmission between the outside and inside of the building;
(b) Adoption of light colours to the building exterior and window treatment to reflect heat;
(c) Use of appropriate building materials and thermal insulation to minimise thermal external/internal gradients;
(d) Solar hot water heating for staff ablutions;
(e) Use of natural light and daylight source to reduce lighting costs;
(f) Solar control to larger glazed areas.
19.5 Active energy conservation measures incorporated into the building design include:
(a) Zoned air conditioning system to allow zonal control of office temperatures and reduction in operating cost and power consumption when the building is partly occupied outside office hours;
(b) In high occupancy areas such as meeting rooms, automatic reduction in outside air intake at times of low occupancy;
(c) Time scheduled control of common area air-conditioning systems;
(d) Installation of energy efficient lighting;
(e) Zoned switching to minimize over lighting;
(f) Elemental metering of electricity use to facilitate energy management.

## 20. Master Planning and Site Planning

20.1 Project master planning has been conducted by way of consultation with all project stakeholders, value management workshops, design options and the preparation of cost estimates. This process has lead to the presentation of preliminary design concepts, and now the preferred final design concept.
20.2 The building has been placed on the site to best present the building, consistent with functional planning and operation, within the constraints of the site boundaries. The proposed siting of the building takes into consideration all physical and functional requirements, environmental factors and operational activities of the individual agencies to achieve a highly efficient and effective layout. The DIMIA operation, with approximately 140 clients per day, has been provided with a secure entrance, separate to the main entrance to the Chancery.
20.3 The concept design presented in this submission allows for only limited future expansion of the new Chancery. The main restrictions on designing for future
expansion are present design for tenant needs, budgetary control, and the site parameters.

## 21. Provisions for People with Disabilities

21.1 Aspects of the new Chancery design that relate specifically to functional design for people with disabilities include:
(a) Wide external doorways;
(b) Easy wheelchair access to building public areas;
(c) Access toilets for people with disabilities are provided on both levels;
(d) Provision of a carparking bay for persons with disabilities;
(e) Elevator access between floors.

## 22. Heritage Issues

22.1 There are no known heritage issues restricting the development of this proposed new Chancery site.

## 23. Child Care Provisions

23.1 Due to the minimum number of A-based and locally engaged staff, no specific child care facilities are included within the Chancery design.

## 24. Fire Protection and Security

## Fire Protection

24.1 The new Chancery fire system design fully integrates the requirements of the BCA with the specialist requirements for a Chancery building. The fire safety system adopted for the building incorporates fire detection and alarm systems, sprinkler protection, hydrants and hose reels, and illumination of building egress.
24.2 Fire detection will be achieved by the installation of smoke alarms and heat detectors connected to a main fire indicator panel, with battery back-up, and a mimic panel within the Guard Post, an automatic dial-up to the High Commission Duty Officer and potentially to the Colombo Fire Services Department.
24.3 An audible local fire alarm system to alert occupants will be installed throughout the building.
24.4 Fire suppression is to be achieved by an automatic sprinkler system, the careful selection of retardant materials, strategic location of extinguishers, hydrants and hose reels.
24.5 An underground combined fire service and domestic water storage tank will be installed to provide a water supply for fire fighting and will comply with local standards.


#### Abstract

24.6 Safe egress from the building is ensured by compliance with BCA and Sri Lankan building regulations, which involve the careful layout of designated fire exists, stairs and interconnecting passages.


## Security (physical and electronic)

24.7 The security measures for the Chancery project follow the principles of "defence in depth" which utilize layers of passive and active security measures to cocoon the more secure areas. In summary these security measures will include:
(a) Chancery grounds will be secured by monitored perimeter walls with controlled access points on the street frontage, with landscaping restricted to allow clear lines of sight;
(b) Segregation of public and official building access;
(c) Effectively placed perimeter lighting;
(d) Intruder and explosive resistant materials, fixtures, hardware and fittings used for the Chancery shell;
(e) Restricted and monitored building entrances, including approved keying and card access control systems;
(f) Installation of intruder and duress alarms, and closed circuit television (CCTV);
(g) Use of containment measures and ballistic protection in specified internal locations.
24.8 The design enables multiple levels of external and internal communications. Included in the communications design are fixed landlines, satellite, and limited radio and television services. The Chancery communications are closely linked to security requirements at all levels of information and voice processing.

## 25. Occupational Health and Safety

25.1 Compliance with occupational health and safety issues are of considerable importance to the building owner. In accordance with the Occupational Health and Safety Act (Commonwealth Employment) 1991, considerable attention will be given to this aspect during the detailed planning of the project.
25.2 Occupational, Health Safety and Rehabilitation practices will be implemented and enforced during the construction works at the site. These practices will be consistent with Commonwealth and Australian Capital Territory law.

## 26. Landscaping

26.1 The site will be landscaped with a selection of suitable tropical species, both native and exotic, and such will be chosen to provide low maintenance vegetation, and to enhance the building presentation and overall site aesthetics. Landscaping will include a number of gardens and planter beds to the site frontage, perimeter of the Chancery building, car parking area, recreational facilities and common use areas.
26.2 The external hardscape will comprise materials of coloured and exposed aggregate concrete, locally sourced granite, light coloured sandstone/ limestone or local stone.

## 27. Authorities Consulted

27.1 Meetings have been held with the Municipal Council of Colombo regarding the local statutory authority building approval processes and requirements. The Council is the controlling statutory authority for approval of buildings in Colombo. An application has been submitted to the Council including preliminary concept designs seeking Preliminary Planning Clearance. The Council is very supportive, and issued Preliminary Planning Clearance on 7 August 2002.
27.2 Initial introductions and follow up correspondence has been made to the following authorities:
(a) Ceylon Electricity Board (CEB)

CEB have advised of their requirements and will respond with an estimate of costs and formal supply conditions;
(b) Colombo Environmental Authority (CEA)

The authority has no specific approval requirements for construction projects similar to the proposed Chancery, however local regulations on noise and diesel exhaust location have been ascertained and will be adhered to;
(c) Water Supply and Drainage Board (WSDB)

WSDB have issued an acceptance and confirmed a water connection;
(d) Fire Service Department Colombo (FSDC)

FSDC will advise the Municipal Council of Colombo when a building design is submitted as part of the Building Approval process. The Fire Services requirements have been obtained and the design will reflect these requirements.

## 28. Local Impact

28.1 Community consultation for this project will be essentially limited to the statutory requirements pertaining Parliamentary Standing Committee on Public Works hearings and a limited briefing with the immediate neighbours in Colombo.
28.2 Project sign boards will be erected at the Colombo site.
28.3 The majority of the construction work force will be Sri Lankans. Approximately 100 local workmen will be employed at peak construction time.
28.4 The local community impact of this project is anticipated to be low as the site has been previously used for residential purposes, and is in keeping with the local zoning and development requirements.
28.5 Where specialized material or equipment is not readily available in Sri Lanka, Australian and New Zealand or internationally acceptable manufactured products will be imported for use in the project. However, the local economy will benefit positively during the construction and defects liability period, by way of employment of local people on the site, and many more involved in the supply of goods and services offsite.
28.6 In comparison with the existing site, the streetscape aesthetics will be improved by the construction of a modern building and the provision of well landscaped areas.
28.7 As the site is located within a residential area, containing several Foreign Missions and an International School, the following site and traffic control measures will be implemented during construction:
(a) Works contract construction working hours limited to 0730 to 1800 hrs Monday to Friday and 0830 to 1800 on Saturdays;
(b) Noise levels surrounding the site monitored and restricted to 80 dbA ;
(c) Control of construction traffic by restricting vehicle movements between 0800 and 0830 hrs and 1400 and 1500 hrs , so as not to conflict with the school peak drop off and pick up times;
(d) Water spraying, if necessary, during dry periods to reduce dust levels, and the installation of temporary drains and pits to intercept site run-off during construction.

## 29. Project Cost Estimates

29.1 The out-turn cost estimate of the proposed works is AUD 11,190,000, based on September 2002 prices. Included is an allowance for escalation to the date of tender for a period of 19 months as well as escalation during the programmed construction period of 14 months, at an exchange rate of AUD $1=$ (Sri Lankan) Rs. 50. The outturn cost estimate includes construction and other related elements such as consultants' fees, project management, supervision and site office expenses.
29.2 The estimate does not include furniture, artworks, white goods, or interest charges.
29.3 The estimate does not include Sri Lankan Government Import Duty taxes. However Sri Lankan Government VAT has been included.

## 30. Project Delivery System

30.1 Following a complete analysis, a traditional style of design, documentation, tendering and contracting has been selected as appropriate for this project. This represents the best value for money for the Commonwealth, and allows DFAT, as the building owner, to be fully in control of all the project delivery stages.
30.2 A single contract will be awarded for the construction works and the fit-out works. Tenders will be called from a selected list of contractors, shortlisted on the basis of pre-qualifications received. The advertising for pre-qualifications will be called both in Australia and Sri Lanka.

## 31. Construction Program

31.1 With the approval of concurrent documentation, the project program has the works contract documentation phase scheduled for completion at the end of December 2003, followed by the tendering phase being in January/ February 2004 and works
construction starting in May 2004. Practical completion and occupation scheduled for July 2005, and Final Completion at the end of the defects period in July 2006.

## 32. Associated Sketch Design Drawings

32.1 The following drawings have been prepared to illustrate and define the proposal:

Location Plan
Site Plan
Ground Floor Plan
Upper Floor Plan
Sections and Elevations
Elevations

## SUPPLEMENTARY INFORMATION

Item 1: Associated Sketch Design Drawings

- Location Plan
- Site Plan
- Ground Floor Plan
- Upper Floor Plan
- Sections and Elevations
- Elevations

