2010 (No. 23)

2010

PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Mersey Community Hospital, Department of Emergency Medicine Upgrade and Associated Program of Works

Brought up by Ms White and ordered by the House of Assembly to be printed.

MEMBERS OF THE COMMITTEE

Legislative Council	House of Assembly
Mr *Harriss* (Chairman)	Mr *Booth*
Mr *Hall*	Mr *Brooks*
	Ms *White*

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1. INTRODUCTION

The Committee has the honour to report to the House of Assembly in accordance with the provisions of the Public Works Committee Act 1914 on the:-

Mersey Community Hospital, Department of Emergency Medicine Upgrade and Associated Program of Works.

2. BACKGROUND

The Mersey Community Hospital (MCH) is a Commonwealth Government owned premise, leased by the State of Tasmania to provide acute level health services to the Mersey region, with the operational funds being provided direct through the Commonwealth of Australia.

3. SUBMISSION

The following is the main text of the written submission of the Department of Health and Human Services.
"This submission to the Parliamentary Standing Committee on Public Works is presented on behalf of the Department of Health and Human Services (DHHS) and specifically the Mersey Community Hospital (MCH). The purpose of this document is to inform the Parliamentary Standing Committee on Public Works of the need for the proposed project and how the design of the works will address this need.

This submission seeks approval for the redevelopment of the Mersey's Department of Emergency Medicine (DEM) in order to meet the growing emergency medical care needs of the Mersey regional community. Overall, the new facility will provide for a capacity of greater than 42,000 presentations per annum compared to the current 24,000 presentations predicted for this year in the department. The current physical capacity is, based on recognised standards, only suitable for 8,000 presentations.

The new development will meet the growing need for emergency medical care within the community and will better enable the MCH to fulfil its role as the major acute care centre in the Mersey region. The project will be put to tender with a view to completion and occupation by October 2011.

Your consideration and approval of this redeveloped facility is sought in the accompanying Submission.

The document includes the following:

- Confirmation that the proposed investment in infrastructure is the most appropriate means to support improved health services delivery.
- Confirmation that the project is consistent with the Department's Strategic Asset Management Plan and Clinical Services' Plan.
- Evaluation of the suitability of the proposed Design.
- Discussion of 'value for money issues' relating to the design and construction of this project.

2. PROJECT DEFINITION

2.1 Primary Objectives

The Mersey Community Hospital (MCH) is a Commonwealth Government owned premise, leased by the State of Tasmania to provide Acute level health services to the Mersey region, with the operational funds being provided direct through the Commonwealth of Australia.

Whilst the Tasmanian Health Plan recommended the closure of this facility and consolidation of the Mersey Regional Hospital for Acute level services in the North West, with the provision of the additional Commonwealth funding, the Mersey is now retained as a vital component of the overall Tasmanian health structure.

The Mersey Community Hospital has been operating well above capacity for some considerable time, with the redevelopment of the Emergency Department seen as a critical aspect of ensuring that the Mersey operates effectively. Currently the Emergency Department is required to manage the appropriate treatment and management of over 24,000 presentations per annum, in facilities originally designed for only 8,000 presentations per annum.

The new Centre will provide:

- Greater Emergency Medicine access to care and services for the Mersey and adjacent communities;
- Delivery of the highest quality, multi-professional Health Care services to the Mersey and adjacent communities;
- The potential capacity to handle over 42,000 presentations per annum. This will ensure that the redevelopment can achieve at least a 10 year life before any further significant redevelopments may be necessary.

2.2 General Scope

The project incorporates the redevelopment of the existing Department of Emergency Medicine and extensions to existing building footprint to create a significantly larger DEM within the Mersey Community Hospital.

Site Assessment

The Department undertook an initial review of the existing Department of Emergency medicine and identified that its current location is the most appropriate site with emergency vehicle and patient access to the Hospital and its location relative to support areas such as theatres etc.

The original High Dependency Unit was located adjacent to the DEM and has been relocated as part of enabling works as it does not need to be located adjacent to the DEM, thus creating additional space for expansion and decanting purposes in the DEM redevelopment. In addition once initial briefing and scope definition had been resolved it was identified that there was a requirement for increased floor space to that available and therefore the building footprint was expanded in the region of the DEM to provide the necessary space to develop a fully functional DEM.

New Facility Details

The project scope encompasses the redevelopment and extensions to the existing building of nominally 1,500m^2 in area, located in Block B of the Ground Floor. Preliminary enabling works to create a staging and decanting space has been undertaken with the relocation of the High Dependency Unit to the 1st Floor A block, which was completed in August 2010.

The redeveloped facility will incorporate a significant expansion of available treatment spaces and an improved patient flow configuration. The expanded Department of Emergency Medicine will broadly incorporate;

- A relocated public waiting area with associated amenities space and adjoining paediatric waiting area, adjacent to a repositioned DEM reception.
- Incorporation of respiratory waiting room to be used in event of infectious outbreaks prior to being seen.
- Development of purpose built administration and nurse station in a central hub with adjoining triage nurses and a triage treatment room.
- Upgraded ambulance bay and associated storage and office facilities.
- Two resuscitation bays and 6 adjacent treatment beds around a new centralised doctors and nurses station.
- A six bay short stay unit with separate nurses station.
- Three paediatric patient beds, Plaster treatment room, Safe Treatment room plus a centralised pressurised treatment room for isolation purposes.
- Eight fast track observation and waiting chairs.
- Centralised storage, kitchenette, drugs and utility spaces and patient toilets.
- Specific DEM offices, change rooms staff room and education facilities.
- Construction of a link from the end of A block into the adjacent former Nurses Home to allow relocation of non clinical functions into this space and provide secure access routes.
- Construction of additional car parking to resolve short term car park losses and on completion of project will provide additional parking to assist with resolving chronic car park issues across the entire campus.

The development works will be in full compliance with contemporary standards and building codes.

2.3 Additional Works

The DEM redevelopment is the most critical project that is required on the site of the Mersey Community Hospital. In addition to this project some enabling works have already been undertaken on the site and the MCH has developed concept plans for additional works throughout the hospital.
Achieving the overall program of works is not expected to be able to occur within the current allocated budgets; however these additional works will be prioritised by the Mersey and undertaken as discrete projects where possible within the budget. In some instances projects may be re-briefed to overcome critical areas of concerns without achieving an ideal outcome, although additional sources of funding will also be sought.

High Dependency Unit

The High Dependency Unit project consisted of the relocation of the HDU from adjacent to the DEM to create the space for an enlarged DEM and the need for its Short Stay Unit. The HDU project began in March 2010 and was completed in August 2010. The HDU service was relocated to Level 1 of A Block which was formally spare ward bed space and has been subsequently converted to a 6 bed treatment space, one of the bays being converted as a negative pressure isolation space. Associated nurse's station, drug rooms, amenities, storage and staff areas were included in this redevelopment. The project budget was nominally $700,000 which was funded out of operational savings in the Mersey during 2009-2010

Theatres

Theatre 3 in the theatres suite located in C Block does not meet contemporary size requirements as it was originally designed as a minor procedures theatre, but is currently being utilised for full surgical procedures and is increasingly difficult to maintain the necessary accreditation. The theatres Recovery Area, Holding Bay and storage spaces are non compliant with current peri operative standards and require significant upgrades and relocation to better suit patient flow and clean – dirty flows.
A concept plan has been developed that has been accepted by the Mersey Community Hospital redevelopment Steering Committee for the purposes of developing budgets and the initial total project budget value is $1,100,000

Oncology and Day Clinics

The current Day clinics and oncology services are located on the ground and first floors of C Block and these services operate in extremely cramped conditions in which the services and patient flows are poorly configured. These two services have experienced significantly increasing caseloads through the shift to ambulatory service delivery and its associated requirement for specialist consultants, allied health and nursing service professionals.
A concept plan has been developed that has been accepted by the Mersey Community Hospital redevelopment Steering Committee for the purposes of developing budgets and the initial total project budget value is $3,100,000.

University of Tasmania Co-location
Whilst this project is not funded by the Department it should be noted that the University of Tasmania is planning to fit out the upper level of C Block to provide research and training spaces for its regional placements. The construction of this project is scheduled to occur in approximately February 2011 with a value of nominally $1,500,000 and requires the relocation of administrative functions currently on this level into unoccupied portions of the adjacent Nurses Home.

3. NEED FOR THE PROJECT

3.1 The Service

The Mersey Community Hospital Emergency Department Redevelopment will provide the following services:-

- Adequate provision of emergency and acute health care to the growing and complex needs of the North West area.
- Provision of an Emergency Department with structured and optimal design for patient flow.
- A six bed short stay area to provide 24 hour observation to minimise representations and optimise patient length of stay in the Emergency Department.
- Provision of state of the art Resuscitation Bays to optimise emergency response and care provision to paediatric and adult category 1 and 2 patients.
- Provision of fast track services for Category 4 and 5 patients. This would improve waiting time indicators as well as physically separate lower acuity patients from those patients requiring more complex care.
- Provision of improved patient waiting areas to enhance patient comfort and meet community expectations. Waiting room will be divided into general and paediatric areas which can also be utilised as a respiratory waiting room, separately ventilated to accommodate infection control issues when required.

3.2 Existing Facility

Construction on the site was commenced in 1956, with minor remedial works undertaken up to 1985, when the Construction of A Block, was begun and was operational by 1989. The third level of B block was added at this time with the potential for future expansion of a third floor if needed on C Block. The DEM is located in the ground level of B Block adjacent to the A block extension. The existing building is located on the site of nominal 3.163Ha between Torquay Road, Bass Highway and Moriarty Road in Latrobe and the building itself is a three and four level construction of approximately 12,000m^2, which operates as an acute level Hospital for the Devonport region.

In addition to the A Block extension being relatively modern at only 20 years of age, there has been redevelopment of the B Block Ground, 1st and 2nd floors at a similar time period which it is understood was the last time in which any significant refurbishment of the DEM has occurred, with redevelopment of this area in 1991.

Many of the integrated services have reached the end of their operational life and as mentioned elsewhere the configuration of the DEM was only designed to accommodate some 8,000 presentations per annum. It is currently seeing in excess of 24,000 presentations.

Issues with the lack of available space in the DEM and its poor configuration have been raised since the mid 2000's, however changes of operator and ownership of the site, effectively stalled any upgrading and capital investment. Original ownership and operation of the hospital from 1956 to 1995 was the Tasmanian Government. In 1995, the hospital was leased to Health Care of Australia and subsequently in 1999 to Mayne Health, which then transferred to Health Scope in 2003. In 2005, Health Scope then decided to relinquish its management option and the hospital then was transferred back to Tasmanian Government operation.

The Tasmanian Clinical Services plan 2007 recommended a downgrade of the operation of the Mersey to focus on sub acute patients. Community dissatisfaction of this as an option ultimately saw the Commonwealth of Australia purchase the site and leased it back to the Tasmanian Government along with the provision of the necessary funding to operate the facility. This occurred in 2008 and has been operating under this model since.

The existing Department of Emergency Medicine provides a 24 hour, seven day a week emergency service, but where all Alpha level trauma patients are routed through to the Burnie North West Regional Hospital.

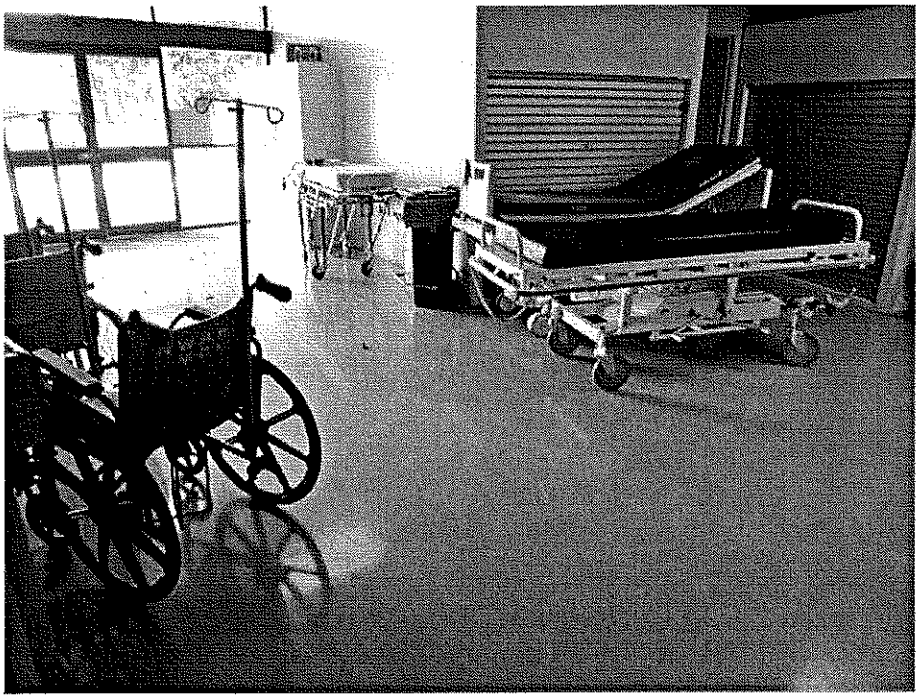
The DEM was, until the recent relocation of the High Dependency Unit, co-located with this facility. This will generate the opportunity to provide a Short Stay Unit as recommended in the 2007 Clinical Services Plan.

3.3 Limitations with the current facility

With the configuration of the DEM having not changed significantly since redevelopments of the late 80's early 90's, a number of deficiencies exist which have been identified within the project briefing sessions. These deficiencies include;

- A lack of a triage space between Ambulance area and "walk in" patients. This is considered as critical in a modern DEM front of house configuration to allow rapid first point assessment of patients and needs to be located between the public entry and ambulance entries to avoid Ambulance and public entries being combined.
- The current Triage location is located adjacent to the patient waiting area, rather than between this and the ambulance entrance and has no direct connection with the treatment areas except through an administrative office.
- Insufficient treatment rooms exist based upon the number of presentations that currently present and are predicted to present in future. In addition there are limitations in size and layout in the treatment bays and a lack of privacy between adjacent treatment areas. Associated with the lack of beds is a poorly configured space for staff observation purposes.
- An aspect of the current configuration is that the number of presentations requires a certain minimal number of nurses to manage the patient levels under the DHHS staff agreements, and the spatial limitations make this a physical impossibility.

- No negative pressure isolation facility for infectious patients is located within the DEM space.
- No Short Stay facility is provided which is recommended under the State Clinical Services Plan 2007 and is required to;
    - provide a space for longer stay emergency patients to monitor their conditions,
    - stabilise cardiac patients for retrieval and transfer
    - provide a space for retrieval patients i.e. an overflow space for HDU ICU patients.



Crowded Ambulance entry, also used for general storage, no decontamination area

- The ambulance entry does not have a decontamination shower and change area which is required under current standards and guidelines.
- The resuscitation bays are located at the wrong end of the patient flow that would practically occur in a DEM.
- No safe room exists for treatment of Mental Health patients or similar client groups that require a higher level of security for self harm and to the staff.
- That the current configuration does not accommodate a "fast flow" processing facility for "minor" cases which present to the DEM and are currently blocking up essentially needed beds in the remainder of the DEM treatment areas.
- Waiting areas are very poorly configured and open to the full public and have insufficient configurations for privacy. They are poorly configured for security and surveillance with no separate spaces for paediatric relatives etc. Currently the waiting area is the public access corridor.

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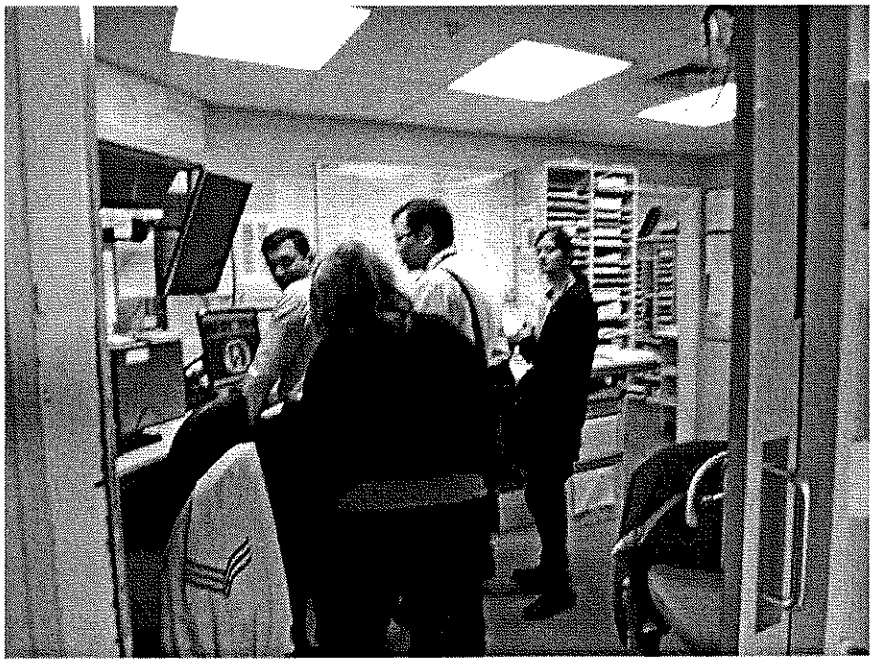
Patients and relatives lined up in Corridor waiting area

- Reception is poorly configured in respect of its location relative to the rest of the unit and waiting areas; it is generally dysfunctional with its own layout, has no confidentiality or private interview space.
- Staff facilities are totally insufficient and the changeover room is a small crowded office that is used as a thoroughfare.



Crowded staff office / changeover room

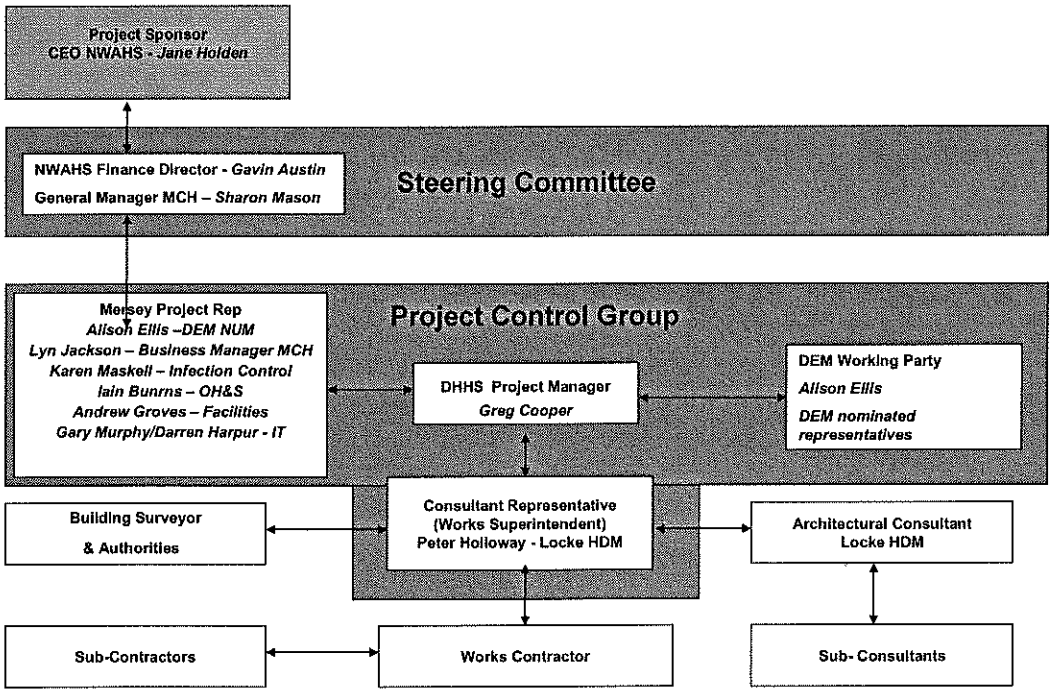
4. CONSULTATION AND GOVERNANCE

Preliminary Consultation

In formulating the draft for the Emergency Department redevelopment, the following stakeholders were consulted.

- Medical and Nursing staff at Mersey Community Hospital
- TAS Ambulance
- Peer Review by Emergency Specialists at NWRH
- Infection Control
- Review of completed redevelopment at RHH
- Patient satisfaction reviews of current facilities
- Miscellaneous stakeholders affected by the Capital Works such as Imaging, Pathology and Women's Auxiliary
- Relevant and associated Standards and Guidelines

Project Control Group
Detailed stakeholder consultation commenced immediately following appointment of the Project Architect – Locke HDM Architects. The following diagram illustrates the, Project Control Group (PCG), Project Team and Consultant Team relationships.
Project Coordination/Governance Structure



Appendix 12.1 Project Management Structure

The Project Control Group and Project Team have been meeting on a regular basis to enable the project to evolve in line with the project timeline, the aim being to enable an adequate consultation phase while still allowing sufficient periods for documentation and procurement of the project. The Project Control Group oversees the progress of the project. The Project Manager and Project Team report to the PCG to enable the PCG to track progress, provide guidance and issue formal approvals at key milestone points of the project.

This approach was identified during the initial consultation phase to maintain the project momentum to effect tendering of the project by the end of 2010.

Consultation with Service Stakeholders
Consultation has continued to occur with all key services groups, other internal stakeholders and associated services. A separate working party of key internal stakeholders including Tas Ambulance meets on a regular basis to review the documentation with Alison Ellis, the DEM Nurse Unit Manager and have regular input into the design.

Design Approval
The Steering Committee, through the NWAHS CEO Jane Holden endorsed the project schematic design. Final sign off of the developed plans is currently being provided by all members of the Project User Group.

At this meeting all desired project outcomes where tabled, discussed and then reviewed for compliance with the endorsed project brief. Participants tested for adequacy in planning, design and budget and maximising value by improving the relationship between various services and related functions.

This consultative approach has resulted in a design that allows all of the desired outcomes to be resolved. A peer review of the schematic design was undertaken by the North West Regional Hospital DEM staff prior to the endorsement by the North West Area Health Service CEO.

5. ADDRESSING THE NEED

5.1 Design Philosophy

The design philosophy is focussed around a major redevelopment and expansion of the existing Department of Emergency Medicine and is driven by adhering to the following principles:

- External presentation of extended areas to be complimentary to the existing façade treatment
- Where possible retain / duplicate existing valued detail features to retain whole of complex context (handrails etc)

The design will continually evolve as documentation proceeds to ensure best functional solutions are achieved as DEM and other hospital representatives become more familiar with the planning / documentation process and intended required outcomes,

- A viable, efficient and safe Department of Emergency Medicine must be maintained for the duration of the redevelopment works, with a design for staged development that takes into consideration that the hospital will remain in operation for the duration of the project,
- Patient and practitioner privacy and respect to be a priority,
- Public and waiting areas to have a bright and restful presentation,
- Paediatric areas to be vibrant and child friendly,

- Specialist artworks components to be incorporated into building envelopment where possible and practical and
- Maximize existing courtyard long term parking availability.

5.2 Building Proposal

The redevelopment of the DEM from a physical perspective includes the construction of nearly 500m2 of additional floor area, through extending out on both the Northern and Southern facades of the ground floor of B Block and the internal refurbishment of nearly 1,500m2 of the existing DEM and former HDU spaces.
In respect of the DEM's physical location to other services its close relationship to Medical Imaging in A Block is ideal. The Theatres are located in Level 1 of C Block, which is relatively easily traversed with connecting lifts and corridor for any emergency operations that may be required. External car parking including ambulance access are already well configured for quick access to the DEM and therefore it was not seen as a requirement that the DEM needed to be relocated.
The following details the physical response to overcoming the numerous deficiencies which exist within the current DEM:

Waiting and Reception
A discrete DEM waiting area of increased capacity has been provided through the extension to the Southern side of the building. This waiting area incorporates a small separate paediatric waiting space. Public toilets are located opposite to the waiting space as does a separate public waiting area for the general public who may not be directly associated with DEM patients. A new reception which provides an improved level of confidentiality for patients and carers has been provided with improved security and layouts for reception staff and an adjacent administrative office for standard office type functions. A longer term carer / family room is located in the general area to facilitate longer term waiting needs.

Ambulance Bay
The existing ambulance bay has been redeveloped to provide a new heavy duty decontamination shower facility, change rooms, storage and write up.

Triage
A centralised triage facility is located adjacent to the main DEM entrance and has good accessibility from the ambulance entry point. It is configured to support two triage nurses and administrators and an adjacent triage treatment room.

Fast Flow Treatment
Patients who are assessed as lower level Category 4 and 5 now have a specific patient flow configuration to ensure they are not blocking the more critical DEM presentations. The Fast Flow processing area includes a waiting space, patient treatment, observation bays and a dedicated nurses station. In addition the treatment safe room is located in this area and the plaster treatment space. A separate carer's room, patient toilet, cleaner's room and kitchenette are configured into this zone. Three paediatric / general treatment rooms are located adjacent to the fast flow zone.

Short Stay Unit

A six bay short stay unit is designed to provide a level of extended stay in the Emergency Department for prolonged observation and treatment of patients that only require a stay of 4 – 24 hours typically, so do not require access to other wards in the Hospital and can be discharged upon completion of their short term stay. This space is configured with its own patient toilet and shares the nurses station utilised for the fast flow service.

Emergency Department Treatment unit
This is the expanded main treatment area which assesses Category 1, 2 and 3 patients across 6 treatment bays, all of which are provided with a higher level of privacy than the current configuration. A separate Dr's / nurses station is central to the area and support features including the drugs and utility rooms are in the central core. A 2 bed resuscitation bay is located at the end of the unit and has separate access directly adjacent to the ambulance bay for those emergency patients who need to bypass the standard admission routes. A new negative pressure treatment bay is incorporated within the main treatment zone. A specific linen storage cupboard is fitted into this space.

Staff Areas
Expanded staff facilities complete the DEM redevelopment with the provision of male and female lockers, change rooms and amenities and a staff reception and offices to accommodate the Director, Nurse Manager and shared offices. A staff room and an educational space have been provided with integrated kitchenette.

Support Areas
The need to provide a link between the main hospital and the adjacent Nurses Home to facilitate 24 hour secure access to the relocated medical records team is incorporated within this redevelopment and also includes the creation of a laundry uploading bay, bulk equipment stores and attendants rooms with kitchenette. The creation of a new access corridor out into the current staff and patient car park also requires a major reconfiguration of the auxiliary kiosk and provision of a seated coffee shop environment with an outdoor seating area. The external car parking will need to be reconfigured to suit the changed building envelope.

5.3 Architecture & Interiors

The design solution is based on addressing the flow requirements of the Mersey Community Hospital Department of Emergency Medicine in a practical and efficient manner.
References throughout the design process have been the Australian Health Facility Guidelines and the Australian College of Emergency Medicine Guidelines on Emergency Department Design.
Whilst the design outcome is very much constrained by fitting within the existing building and associated structural constraints, the clinicians involved in both the solution and review processes have expressed satisfaction with the functionality and completeness of the presented outcome.

Patient treatment areas will have a restful, unobtrusive presentation whilst public areas will be treated in a brighter and more outgoing colour pallet. In the interests of

staff comfort and social responsibility most of the development area will have rubber floor coverings.

5.4 Design Process

The project concept plan design responds to the Project Brief confirmed by hospital representatives 2 April 2009, refer attachment A and subsequent review meetings with DEM senior staff.
Concept Plan DEM CP01 dated 29 May 2009 was accepted as meeting the brief requirements and was the basis for the building component Budget Estimate dated 21 June 2009.
A review of the concept plan by the CEO and senior DEM clinicians prior to commencing design development resulted in a reassessment of previously proposed DEM processes and functional relationships with the significant change being relocation of the Short Stay Unit as an extension to the main treatment area and resultant relocation of staff facilities.
Continuing review of 1:50 individual room details resulted in minor refinement to all areas as design development documentation continued.

A peer review with clinicians and management from the North West Regional Hospital was undertaken in early June and was followed by a visit to RHH DEM by senior clinicians. These 2 important actions resulted in further minor refinement to fit out prior to Limit of Cost Estimate being prepared in late June 2010.

The Limit of Cost estimate and Design Development drawings have been signed off by the Chief Executive Officer and tender documentation is proceeding.

Regular fortnightly Project Control Group meetings have ensured ongoing dialogue between regional and hospital management with DEM representatives and the documentation team.

Additional works requested to be incorporated since Design Development sign-off includes additional storage facilities and linkage to the former Nurses Home for user security.

5.5 Project Staging

The Main DEM redevelopment is intended to be constructed in 6 main stages (refer to attached staging drawing in Appendix B), which will enable the facility to operate at full capacity throughout the construction period.
It is noted that an Early Works package has already been completed with the relocation of the High Dependency Unit into the end of Level 1 in A Block. This has created a significant clear area in which the Preliminary Works stage of the DEM project can begin.

Stage PW – Preliminary Works

A number of enabling works projects are critical to ensuring the ongoing operation of the Hospital as a whole whilst the main building works are occurring. These include the construction of a new 37 space car park facility to overcome the lack of access to clinical, client and staff car parking that occurs whilst construction is happening. A new link into the adjacent nurse's home building will be created to create a secure

link for relocated Medical Records team along with the construction of additional storage areas and the attendant's rooms. A new temporary ambulance entry support area will be constructed utilising temporarily hired buildings and the former HDU space adjacent to the DEM will be given a minimal refurbishment to create a temporary configuration from which DEM can operate, whilst the later construction stages occur. A temporary wall will need to be constructed at this stage to provide a clear boundary for the temporary DEM from the remainder of the construction stages and to ensure the necessary infection control and OH&S measures are maintained.

Stage 1A

Stage 1A will be the construction of the new main DEM entrance, public toilets and waiting areas. A new external walkway will be constructed to link the DEM with the main Hospital entrance in Block B, as ultimately the current walkway will be in-filled. During this stage the auxiliaries' kiosk will be relocated and an expanded seating area created for hospital patrons. The existing DEM will at this stage be accessible from the main hospital entrance and a temporary entrance through the future Equipment Store constructed in stage PW. This will require a public advertising campaign to make clients aware of the accessibility changes. Apart from the access issue the existing DEM will still operate as it is currently configured during this stage.

Stage 1B

During Stage 1B, the DEM will relocate and temporarily operate out of the redeveloped former HDU area and the existing DEM will be redeveloped into reconfiguring the existing space for the isolation rooms, new triage, reconfigured reception, triage, nurse's stations and utility spaces. In addition the building envelope will be expanded to accommodate the new 6 bed emergency department beds and the resuscitation bays. The ambulance bay and support areas will be reconfigured at this stage.

Stage 1C

Having refurbished the main DEM space and the new external corridor, the existing corridor can then be in-filled with the new reception, administrative offices, fast track waiting and treatment rooms.

Stage 1D

Stage 1D is the fit out of some new storage and utility areas where the temporary wall constructed in stage PW ultimately runs between the two side walls that ultimately this space is to be configured for.

Stage 2

Having completed the redevelopment of the existing DEM space, the DEM would then relocate from its temporary location in the former HDU space, leaving this are vacant to then allow the creation of the short stay facilities, the fast track unit and associated nurses stations, amenities, offices lockers and staff facilities.

5.6 Building Services Design

Existing Services

As the redevelopment is only a portion of the existing building, the majority of existing services will be retained unless where they have achieved the end of their economic life, and this project is an enabler to replace those systems that require upgrade.
Examples of this is the fire control panel which does not meet current contemporary standards and as part of this project a new fire panel will be provided with contemporary addressable heads for the refurbished areas. It will be sized to accommodate the future conversion of the remainder of the campus where funds become available.
Details of where systems require major replacement or upgrade are outlined under each of the specific services.

Electrical Services including Fire Detection
The electrical systems within the redevelopment are to be completely replaced along with major Data/Comm's, Security and Fire upgrades that will have benefits across the whole site. The electrical backbone infrastructures used within this project will include the latest technologies, are to be fully expandable and will assist in future proofing at the Mersey Regional hospital.
The following systems are included in the new works:

- Complete rewire of all the essential and non-essential power and lighting including switchboards to Medical standards AS/NZS 2500, AS/NZS 3003 and a minimum of 75% spare capacity included for future expansion.
- New Data/Comm's node room, including dual redundant fibre backbone connection to existing onsite data centre. Full Cat 6 Data/communication cabling to all new areas included in this project and full wireless coverage as set out in the DHHS wireless report.
- All new lighting to meet the requirements of AS/NZS 1680.2.5
- New IP Sedco Nursecall system and backbone to connect to the system recently installed into the Mersey HDU project with spare capacity for future roll out into other areas of the hospital.
- Fully integrated Honeywell Door Access control, Duress and CCTV systems.
- New Resus bays to include integrated Drager Medical pendant systems with on board Medical protected power, Data, Nursecall, Medical Gasses, and surgical lighting.
- New Paging and PA system.

New main Fire Indication Panel and warden call system to AS1670.1, this also includes new fire detection and fire PA throughout this project. Fire panel to have 100% spare capacity and including integration to the existing Hospital fire systems.
Emergency lighting and Exit lighting system to AS 2293.

Mechanical Services:
The mechanical systems within the redevelopment are designed for ease of operation, low maintenance and to utilise existing reticulated medical gases systems, exhaust systems and heating and cooling plant currently available throughout the site where possible.
The following systems are included in the new works:

- 2000 l/s outdoor air heat/energy recovery ventilator for all areas excluding the new waiting rooms.
- Individual fan coil units with heating and cooling water coils supplied from existing plant for areas excluding the new waiting rooms.
- Dedicated full outdoor air heat/energy recovery ventilator with heating and cooling water coils for the new waiting rooms separate for all another systems for isolating the space if required.
- Negative pressure isolation room with dedicated variable speed exhaust system.
- Exhaust systems for all toilet, change rooms, photo copiers and general areas requiring mechanical extraction.
- Dedicated IT room air conditioning system.
- Fully integrated control from the existing site Honeywell BMS.

Medical Gases:
The following systems are included in the new works:

- New medical gas terminal outlets to all bed heads and pendants including extending the reticulation of nitrous oxide, medical oxygen, medical air and suction to/from the existing plant or cylinders.
- New isolation valves sets with pressure sensors and alarms to all areas.

Hydraulics:
Generally the existing hospital infrastructure will be used and includes:

- Hot and cold water reticulation to all new fittings and fixtures.
- Provision of low consumption water fittings to minimise water consumption.
- Drainage from new waste fixtures.
- Alterations to stormwater to accommodate the new building extensions.

6. PROJECT SCHEDULE & BUDGET

The construction program for the redevelopment of the Department of Emergency Medicine Project will need to be conducted in a multi stage construction package, due to working on an existing operating site that must be maintained.

Due to the tight space availability a previous project involving the relocation of the High Dependency unit has been completed with relocation of staff and patients occurring in August 2010.

The current project status is that the initial design phases are completed and the design and tender documents are being progressed to tender.

Summary Project Timeline	
Project Stage	**Completed**
Design and Documentation	June 2010-November 2010
PSCPW Approval	November 2010
Works Tender Advertisement	November 2010
Contract Award	December 2010 (On approval from PSCPW)
Construction Commencement for the preliminary works	November 2010
Construction commencement for Stages 1A – 1D and Stage 2	February 2011
Construction period – All Stages	9 months (Completion October 2011)

7. PROJECT COST

The available total funding for the redevelopment is $7,504,000, which is made up of;
$1,900,000 in 2010/11 from the DHHS Capital Investment Program;
$3,800,000 in 2009/10 from central DHHS funds;
$1,554,000 in 2009/10 from recurrent funding savings within the Mersey Community Hospital; and
$250,000 in 2010/11- contribution from UTas as part of creation of the new learning hub for relocation of existing services.

The cost of the DEM redevelopment is currently advised at:

DESCRIPTION	SUM
Building Works	$4,061,000
External Works including site preparation + car parking allowance	$200,000
Subtotal of Construction Works	**$4,161,000**
Art in Public Buildings	$80,000
Professional Fees & other fees	$350,000
Loose Furniture and Equipment	$770,000
Design Development Contingencies	$50,000
Construction Contingencies	In above
IT and Equipment	In above
CPI and Cost escalation allowances	$110,000
TOTAL	**$5,521,000**

The Mersey also has a future program of works requirements which include the redevelopment of its Theatre Number 3 at a nominal budget of $1.100mil and the refurbishment of its Oncology and day clinics at a nominal budget of $3.100mil. Both of these areas have only been taken to concept design to enable preliminary costing to occur.

The Mersey acknowledges that the total ideal redevelopment is beyond the available funding and there are no readily accessible sources of additional funds. However the project team is planning to identify either additional sources of funds in the first instance or, how better to prioritise the remaining approximately $1.7mil into achieving the best possible health outcomes for its North West region patients.

The current project costs are provided by the project Quantity Surveyor and are based on reasonable allowances for the complexity of the job and current market conditions. Fortunately what had been an extremely busy nature of the construction market with the Commonwealth's National Economic Stimulus package in the Education Sector has begun to ease with the completion of many of these projects. It is hoped that more competitive pricing will occur and this may make available additional funds for the remaining projects.

It is noted that the projects QS estimate is under the total available budget allowances for the DEM redevelopment. Remaining funds will be allocated towards the planned redevelopment of the Theatres and the Day clinics oncology areas.

8. RECOMMENDATIONS

The Project Control Group and Project Team have carefully assessed and explored the options and solutions available and have determined that the design submitted delivers the project outputs as determined in the project functional brief. In addition, the design is consistent with the strategic long-term direction proposed for the site.

The current facilities are inadequate, inefficient and struggle to cope with the demand pressures for this growing community. The proposed development is a crucial element in the State's Provision of Health Care.

It is recommended that this submission be viewed favourably and in the spirit of the benefit it will provide to the local community. The proposed works will address the highest priority outputs that the Mersey Community hospital is required to deliver appropriate levels of health and community services."

4. EVIDENCE

The Committee commenced its inquiry on Thursday 28 October 2010, with an inspection of the site of the proposed works. The Committee then proceeded to the Devonport Entertainment Centre where the following witnesses appeared, made the Statutory Declaration and were examined by the Committee in public:-

Sharon Mason, General Manager, Mersey Community Hospital
Gavin Austin, Finance Director, North West Area Health Services
Victoria Brown, Acting Nurse Unit Manager, Mersey Community Hospital
Julie Duff, Assistant Director of Nursing
Greg Cooper, Manager Major Projects Asset Management Services
Peter Holloway, Consultant, Locke H.D.M Architects

PROJECT COSTS

The Committee questioned the witnesses about an apparent difference in the costs as identified in the formal reference and those in the submission. The Chair asked:-

> *Gavin, the message from the Governor states $5.3 million as the project cost. The documentation we have in front of us indicates $5.521 million. I know it is not a huge amount of money, only a couple of hundred thousand. Is there any particular matter that ought to be drawn to our attention to address that difference?*

The cost difference was explained as follows:-

Mr AUSTIN - *Not that we are aware of. At this stage we do not have the final QS estimate so the figures that we are working off are tentative. The budget of $5.3 million is certain and I have a little bit more than that.*

Mr COOPER - *The figure in the project cost in the report also reflects some of the preliminary works but the number that went into the document to the Governor had not identified what that quantum was at that stage. So now we have a better understanding that a little bit of car parking work needs doing, the temporary buildings and so forth. There is about $200 000 associated with that.*

CHAIR - *Does that show up anywhere in the submission?*

Mr COOPER - *If you look at page 24, there is $4.061 million allocated to the main building works, and then we have a line item of $200 000 for the site preparation, car parking-type works that we need to do. So that should read $4.261 for the subtotal. Then we have art in public buildings, fees, loose furniture and equipment. There is quite a quantity of equipment that we need to install, given that it is a whole new service. The creation of a short-stay unit requires a whole range of additional equipment, specialist medical equipment, and that is all within this figure.*

CHAIR - *So the $3.3 million was external of that $200 000 shown there?*

Mr COOPER - *Yes, that's correct.*

The Committee later noted that construction contingencies are usually a separate item and usually about 10% or thereabouts of the total capital cost but the submission indicated CPI and cost escalation allowances of $110,000. The Committee asked the reason for the way the costs have been allocated. The witnesses responded:-

Mr COOPER - *I pulled the figures together. It was just the way in which our quantity surveyor had provided the prices; it was all embedded with that, so I hadn't taken it out.*

Mr HOLLOWAY - *It is identified.*

Mr COOPER - *It's roughly in the order of 10 per cent.*

Mr HALL - *Okay. I just found it a little bit confusing when I read it because that's not the way it's usually tabulated to us. So we can be assured that 10 per cent or thereabouts has been taken into account?*

Mr COOPER - *Yes, that's right.*

PROJECT CAPACITY

Ms WHITE - *You currently have 24 000 presentations a year but your recognised standard is a capacity of 8 000, so to accommodate 42 000 and meet recognised standard requirements is obviously a big jump.*

Ms MASON - *Yes, that is anticipated population growth for the Devonport area and that transient population we have, so the facility would meet the 42 000 capacity.*

Mr BOOTH - *How many years forward is that projection of 42 000? In terms of redundancy, are you projecting that this development will work for the next five, 10, 20 or 30 years in terms of capacity?*

Ms MASON - *I think we would be certainly looking at a five to 10-year, but I can provide you with some specific demographic data to back that up, but I do not have that to hand.*

Mr BOOTH - *Are you satisfied, then, that the work done now will provide sufficient capacity under the current scenario for, say, five years? Can you be specific?*

Ms DUFF – *I'd say 10 years plus. As Victoria pointed out this morning, there is the change in flow and the fact that there is actually a flow that wasn't built into the very first. It's not always about the size, it's about the flow and the available waiting areas et cetera, so certainly I would say 10 years, easily.*

The Committee inquired about clarification in relation to intensive care and the high dependency unit. Mr *Hall asked:-*

In terms of an ICU, for the record, just explain the difference between an HDU and an ICU and where the line is drawn, for example, where you have to then send patients off to an ICU to, I presume, Burnie and/or Launceston?

Ms DUFF - *That area that we spoke about, we are now what we call a high dependency unit. An intensive care unit comes under a standard whereby you have to have an intensivist around the clock, so 24 hours a day on-call and within that unit. That is a national problem, there are not many intensivists out there, and I guess is part of the reason and only part of the reason that we became an HDU. In an HDU we have clear policies whereby after six hours our patients are transferred out, so we have a lot of retrievals out to the North West Regional Hospital, Burnie, or whatever hospital and that could be as far as Melbourne, and they are retrieved according to the workloads within the other hospitals.*

Mr HALL - *So in an ideal world, if those personnel were available, would it be an advantage to have an ICU unit at Latrobe?*

Ms DUFF - *As I said, that was only part of the problem there. There is not a problem with the set-up that we have. We have to also look at the fact that we are a rural area and we're not only talking about intensivists here, we're talking about medical and nursing teams available and the numbers within. You have to look at inefficiencies, duplication of equipment - there are many areas and that's why I said it was just one of the areas that was looked at. Our set-up at the moment is absolutely sufficient.*

Mr HALL - *So in general terms you think that the population in the Mersey region is catered for in that respect, in being able to transfer patients?*

Ms DUFF - *Yes, it certainly is.*

Mr HALL - *It is not an issue there?*

Ms DUFF - *No, not an issue at all. We have policies and it's a good retrieval system.*

ADDITIONAL WORKS AND ACCREDITATION

There had been some concerns expressed about the standard of operating theatres and potential impact on future accreditation. The Chair noted that according to the submission there have been some difficulties in retaining accreditation due to the substandard nature of operating theatres and asked for an explanation:-

Ms MASON - *We have had the mid-cycle review with College of Anaesthetists recently and the area it is referring to is the requirement to have a metre gap between the recovery beds. I have to say we are pretty much the same as Launceston and Royal Hobart in that they do not meet the standards either. It is understood that we will be working towards meeting the standards as part of our redevelopment and that it will be addressed when the redevelopment takes place. There is not the opportunity to change the configuration of the theatre as it stands. With regards to wanting to enlarge the third theatre, that is about enabling ourselves to do a different variety of work and to follow the focus of Mersey becoming sub-acute with a focus on a facility of speciality around day surgery. To enlarge that theatre will allow us to do more laparoscopic work, which is traditionally day theatre surgery. So not meeting the accreditation is owing to inability to have that metre gap between the recovery beds and matching the recovery beds to the numbers of theatres.*

Later the question was addressed by Mr Cooper with the following available funding allocations:-

Mr COOPER - *The DEM project itself is in the order of $5.5 million, and we are also looking at redeveloping the theatres. We had a budget figure of $1.1 million for that. Also oncology and day clinics require significant work because there is under-capacity in those spaces, so we have concepts there for another $3 million. I think we are doing submissions at the moment, essentially to the National Health and Hospitals Fund, because there are other options we need to do to improve the Mersey as a whole. We have $7.5 million from the State Government at the moment, which only sees us part way through that overall journey of the redevelopment. We need to obtain additional funds to make the Mersey the optimum hospital that they want it to be.*

Mr BOOTH - *More savings from this project would be added on to that and be part of it?*

Mr COOPER - *Correct. So if the tenders come in at $3 million and gave us an extra million dollars, then that would mean we could do more within that budget within the oncology area. If we were unsuccessful in any further bids then essentially we would just need to constrain our hopes and expectations within the day-clinic-type area and just do minor refurbishment work.*

COMMUNITY LIAISON

The Committee asked about the measures in place to maintain ongoing community liaison because of the reconfiguration of the facility. Ms Brown described the arrangements:-

We have a media liaison department within the North West Area Health Service and we've already developed a communication strategy in conjunction with them about how we're going to approach this very issue. We're putting an action plan together with time lines, starting from now and going right through to the end of the project. We are looking at internal and external stakeholders and are starting off with discussions with all the staff within the hospital and making sure that they're all up to date with everything. There are meetings planned with both Devonport and Latrobe councils to give them a briefing on the project and how it's going to affect things such as car parking and access to emergency services. Elisa from our media unit is also preparing some media releases and will be doing that every three to four weeks throughout the project so that people in the community can be aware of what's currently happening, what stage of construction we're at and how it might affect things such as access. So we have given this quite a lot of thought. There are lots of other little things that I haven't mentioned, such as bulletin boards and posters to go up around the place, using local community newsletters. That is all factored into our communication strategy.

5. DOCUMENTS TAKEN INTO EVIDENCE

The following document was taken into evidence and considered by the Committee:

> Department of Health and Human Services, Mersey Community Hospital Department of Emergency Medicine Upgrade and Associated Program of Works, Submission to the Parliamentary Standing Committee of Public Works - August 2010
>
> Department of Health and Human Services, Mersey Community Hospital Department of Emergency Medicine Upgrade and Associated Program of Works, Redevelopment Demographics and Future Demand Model.

6. CONCLUSION AND RECOMMENDATION

The evidence presented to the Committee clearly demonstrated the need for more adequate provision of emergency and acute health care at the Mersey Community Hospital. When completed, the project as designed will provide for optimal patient flow, a short stay area, resuscitation bays, improved waiting areas and enhanced staff facilities.
The Committee is satisfied that the project will meet the growing population needs of the area for at least ten years and that the need for additional works for the hospital to maintain the appropriate accreditation is being addressed.

Accordingly, the Committee recommends the project, in accordance with the documentation submitted.

Parliament House
Hobart
17 November 2010

Hon. A. P. Harriss M.L.C.
Chairman