

# Case Study - Managing a large facilities portfolio by remote control

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**Building Maintenance and Management: Balancing today's challenges with expertise and responsibility.**

## Abstract

*Managing a large portfolio of purpose-built properties for services such as ambulance and fire stations in a decentralised state such as Queensland presents a unique set of issues and challenges for Facility Managers. This session will cover:*

- *Identifying framework weaknesses and developing strategies to improve management and results*
- *Working effectively with multiple cultures towards common goals*
- *Using success to positively implement change in a Facility Management environment*
- *Consolidating change for long term facilities management*

## Biography

Peter Savage is the Executive Manager, Property & Facility Management for the Queensland Department of Emergency Services. The department covers Ambulance, Fire, and Counter Disaster & Rescue Services. The Property & Facility Management Unit provides the corporate real estate, capital works program management and specialised project management and technical services for nearly 500 ambulance and fire stations distributed across Queensland.

## 1. Profile of the Agency

The Department of Emergency Services (DES) is unique in Australia, with services related to all phases of emergency and disaster management (prevention, preparedness, response and recovery) delivered by all emergency services (fire, ambulance and counter disaster and rescue) from a single emergency services department. The need to meet critical response times and response levels requires DES to constantly review the location and functionality of its varied assets.

The single Department of Emergency Services in Queensland provides significant advantages and benefits to the community. These benefits occur at many levels, from having single-point ministerial accountability for emergency services through to the cooperation and teamwork of officers assisting members of the community in emergencies and disasters. DES services are provided by 8,000 staff and over 85,000 volunteers to 3.75 million Queenslanders across our vast state of 1.77 million square kilometres.

Our three operational divisions are:

### **Counter Disaster and Rescue Services (CDRS)**

CDRS provides and supports a diverse range of land, sea and air services designed to rescue and protect persons, property and the environment from disasters and

emergencies. CDRS also seeks to build community resilience and awareness of disaster and emergency preparedness.

### **Queensland Ambulance Service (QAS)**

QAS provides emergency and non-urgent primary health care and specialised health transport, casualty room services, on-site commercial services and community services including: research, injury/illness prevention education, first aid training and a baby capsule hire service.

### **Queensland Fire and Rescue Service (QFRS)**

QFRS provides expert advice and services related to hazard mitigation, community education, fire prevention, hazardous materials management, fire fighting and rescue services including vehicle extrications, confined space rescue, vertical rescue and urban search and rescue. QFRS provides core staffing and support for the Rural Fire Service.

The operational divisions are directly supported by the:

### **Operations Support Branch (OSB)**

OSB provides operational areas with property & facility management, ambulance and leased fleet management and support, and operational emergency response information and communications technology systems, and technical support.

The two departmental support divisions are:

### **Business Support Services (BSS)**

BSS provides the operational and support areas with services and advice related to human resources, industrial relations, finance, library and records, and information systems and networks.

### **Strategic Policy and Executive Services (SP&ES)**

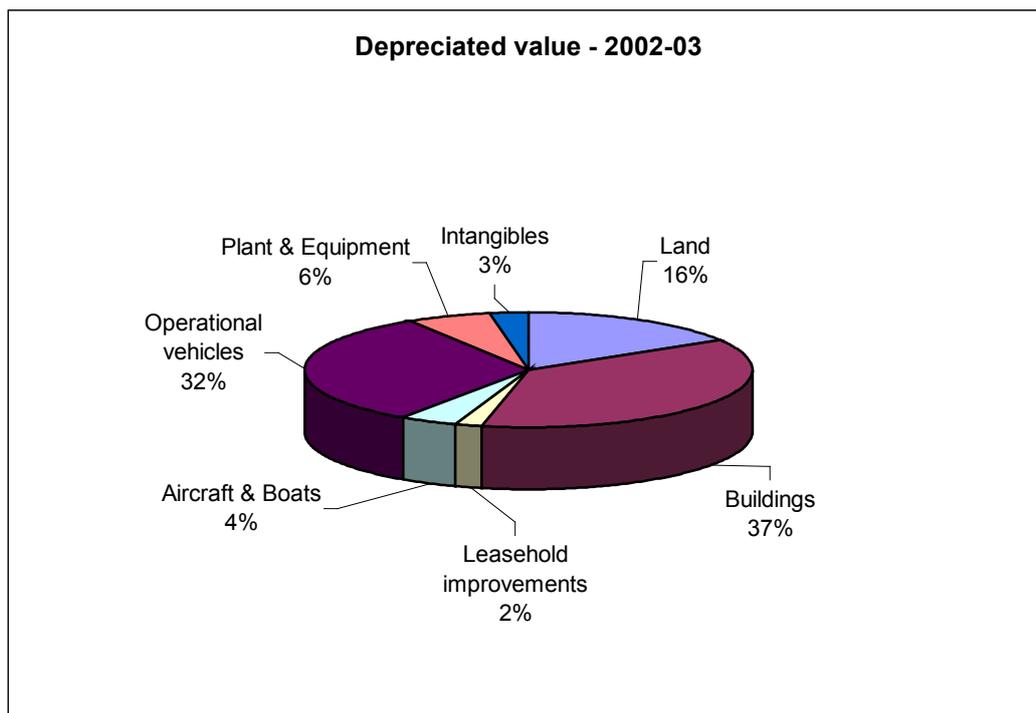
S&ES provides organisation-wide strategic management, strategic policy coordination, legal, legislative and Cabinet services, corporate initiatives and communication, and executive support to the Director-General and the Minister's office.

The physical assets of the Department of Emergency Services include the following:

- Land and buildings from which operational fire and ambulance services are delivered and the Kedron Park Complex (State Headquarters)
- Rotary-wing (helicopters) aircraft
- Rescue boats
- Operational fire appliances, ambulances and specialist support vehicles
- Computers, communication networks and software (intangibles)
- Operational plant and equipment
- Intellectual property

The relative proportion of the various classes of assets by value is shown in Figure 1.

The Department of Emergency Services delivers ambulance and fire services from nearly 500 locations around the state. These properties are, in the main, owned by DES. The headquarters is housed at Kedron Park in the northern suburbs of Brisbane and is also owned by DES. Regional and district offices are typically leased properties arranged through the Government Accommodation Unit within the Department of Public Works.



**Figure 1 - Asset base as at 30 June 2003.**

## 2. Background

Building capital works procurement in the Queensland Government up until the early 1990's was traditionally undertaken by the Department of Public Works (DPW) or its predecessors. Building maintenance was also undertaken by DPW staff through a Division now known as Q-Build. Budget allocations for both capital works and maintenance were held by the Department of Public Works and apportioned to projects on the advice of the relevant department or Cabinet.

In the mid 1980's the capital works and maintenance budgets were devolved to departments along with the requirement that departments develop their own strategic plans and manage the capital works and maintenance programs. Although maintenance funding was devolved to agencies they remained tied to Q-Build as a sole provider of maintenance.

During this time of change, the fire and ambulances services were provided by a plethora of independent boards, often responsible for only a single fire or ambulance station. In 1989 the services were brought together as statutory authorities, under a Bureau of Emergency Services. Over the next 15 years the organisation now known as the Department of Emergency Services went through a number of evolutionary changes. There is now a single department with three operational divisions as detailed above.

In late 1999 it became apparent to senior management that the land and building assets were of significant value in terms of both financial investment and the contribution they made to emergency response service delivery. A decision was made to provide a greater focus on building asset management and the position of Executive Manager,

Asset & Facility Services was established in January 2000 at that time under the Director of Finance and Asset Services.

This paper presents the outcomes of a four year unfinished journey towards best practice in building asset and facility management. The paper firstly presents an academic framework in order to provide an understanding of the characteristics of the key stakeholders involved in the management of operational facilities and their relationships and then presents a number of critical success factors identified through the journey to date.

### 3. Establishing the Framework

#### Roles and responsibilities.

Best practice within the facility management industry occurs when there is a strategic alignment of the facility management function with the organisations overall strategic aims and objectives. In this way property assets can support the organisation’s strategic aims in a proactive way, rather than being confined to the traditional role of procuring and providing space as the needs arise – a reactive approach.

In order to facilitate this proactive partnership, roles within the organisation need to be well defined to ensure that each function is being undertaken by the group best suited to the task. The roles and responsibilities are shown diagrammatically in Figure 2.

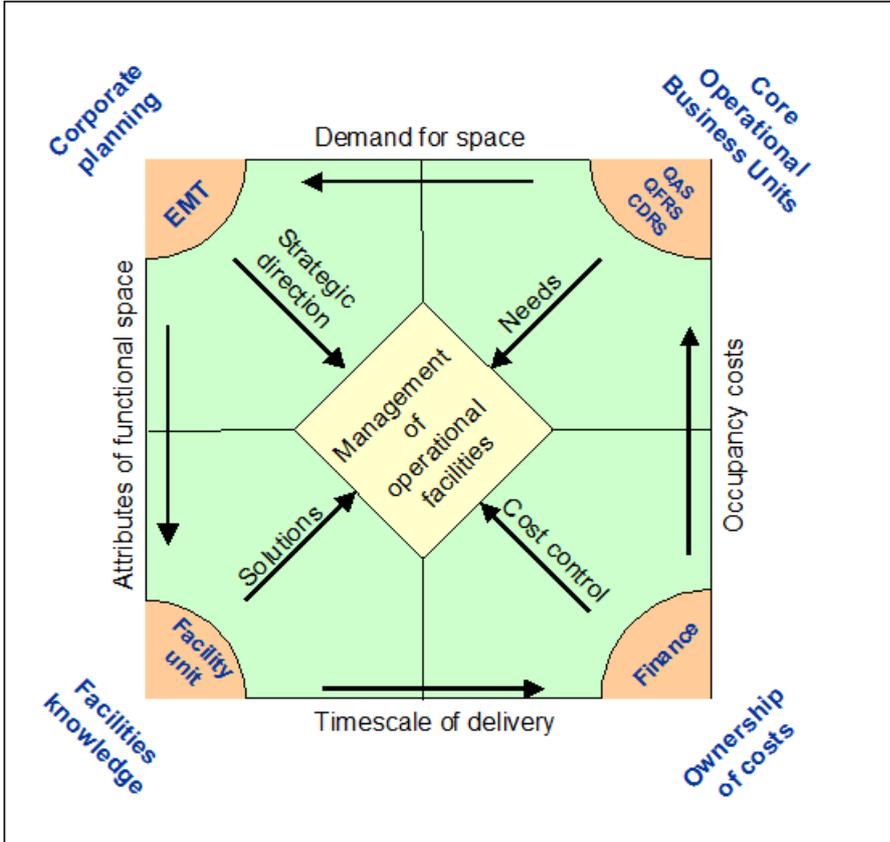


Figure 2 - Roles and Responsibilities (Adapted from Prof Danny Then)

**a) Core Operational Business Units.**

- Deliver the services.
- Focus on their own needs and have expectations beyond the organisations capacity to pay.
- Highly skilled in specialised areas.
- Work together on a daily basis.
- Are not trained in facility design and may have limited vision.
- Will probably be risk adverse and cautious with change.
- Essential in acceptance on new designs.
- Concentrate on the tools and skills needed for their job.
- Short term focus.

**b) Executive Management Team.**

- Provide whole of government overview and policies
- Provide strategic direction to organisation
- Required to make decisions in regard to resource allocations
- Conduit for Ministerial representation
- Usually risk adverse as a group
- Short to medium term focus

**c) Facility Designers and Managers.**

- Long term focus in addition to dealing with short term problems.
- Often include creative and adventurous staff.
- Focused on facilities design and operations.
- Broad based skills with teams often built up of multiple professional backgrounds.
- Solutions focused.

**d) Finance.**

- Corporate governance role.
- Provision of financial advice.
- Review and assistance for business planning.
- Maintain and calculate Operating Statements and Balance Sheets.
- Short, medium or long term focus depending on the task.

## **4. The journey so far**

In mid 2000 the following shortcomings in the management of building assets were identified by the author:

- The Capital Works Program was running up to three years behind with a consequence loss of service delivery and an increase in costs;
- Despite stations having significant common elements, each station was designed individually at a regional level;
- The cost of stations was increasing rapidly;
- Capital works planning and procurement was being undertaken in the main by uniformed operational staff without out any supporting documentation or training;
- Maintenance was undertaken without any strategic planning, broad area prioritisation or supporting documentation;
- The supporting computer systems treated buildings and land assets separately and did not provide parent-child relationships.

## **Phase 1 - Building Condition Audit**

In June 1999 the Queensland Government introduced the Maintenance Management Framework (MMF). The Framework was designed to give guidance to Queensland Government agencies in developing maintenance strategic plans and prioritising maintenance expenditure. One of the elements of the MMF was a three yearly condition audit.

DES went to tender to select an organisation to carry out the condition audit and was the first Queensland government agency to do so. The cost of the condition audit was substantial in comparison with the maintenance budget then available.

The condition audit provided DES with a list of maintenance and minor works projects listed by criticality and risk and gave us the hard information required to gain additional funding for maintenance over the next two years. There were however, a number of points where improvements will be made in the next round.

### **Critical success factor – take your time**

In conducting a condition audit over a large portfolio it is essential that the agency is well prepared. It is important not to rush the process and to ensure that regional staff understand the process and the desired outcomes in detail as they can have a significant influence on the auditors in the field. With such a large number of sites it is also important for the auditors to have the time to develop an understanding of the functionality of the buildings being audited and to review their work for consistency at regular intervals.

### **Critical success factor – be prepared**

It is important to think through and reach agreement across the agency in regard to the condition standards that will apply to each room or building element and which elements will be included. It is critical that this is understood by regional staff and the auditors. It is helpful to have a common room description system and to have floor plans available for each building. The maintenance information gained will not be worth much if the items cannot be identified in three years time. It is likely that you will come across many items that staff will suggest to the auditors are Workplace Health and Safety matters. This will be done in an effort to get their niggling problems to the top of the list. These items should be considered carefully as to their true nature and impact.

You will also come across items for which the cost of repair or replacement cannot be easily estimated. In many cases these will include the need to redesign the area and to move from maintenance funding to capital works to implement a worthwhile solution.

### **Critical success factor – develop supporting systems first**

The final success factor in regard to condition audits is to have in place a business system which will accept the data. In a large organisation such as DES it is critical to maximising the value of the condition audit that the data is updated as work is carried out and new items of deferred maintenance be added. The system must be in operation at both a regional and head office level to enable regional staff to use and update the data within their normal work practices.

This is in itself a significant undertaking and requires considerable research and time in implementation. Ideally the updated data in the management system will be used for budgeting each year and for predicting future budget needs.

## **Phase 2 – Improving Capital Works Expenditure**

In the case of DES the most critical part of the building asset life cycle needing improvement was in the planning and procurement areas or what is commonly known as the Capital Works Program. Projects were typically lagging behind the program by several years leading to frustration by operational staff and their local communities and going well over budget. The Department runs a decentralised budgeting process with capital works funding distributed to regions and with projects administered by uniformed regional staff with support from my own team.

### **Critical success factor – enabling self-examination and improvement**

Organisations such as the Queensland Ambulance Service and the Queensland Fire and Rescue Service have a very proud history stretching over a hundred years. In Queensland at least they were run by community boards who were largely responsible for their own fund raising until relatively recent times. Thus in Queensland a common sight in main street on a Saturday morning was the ambulance chocolate wheel and at Christmas time the QATB fair. This need, and indeed expectation, that the board and the uniformed staff did everything including the planning and procurement of buildings was a part of their culture.

The cultural background of the operational part of the organisation needs to be understood by specialist Facility Managers. In the case of DES, it was a culture which did not always react kindly to criticism from outside the uniformed ranks. This understanding of the culture gave direction to the next phase of the improvement process which was to establish mechanisms for enabling self examination of their processes and achievements and to encourage an understanding that the current circumstances were not ideal and could be improved upon. This was done through fostering quarterly meetings of ambulance and fire regional staff separately. The programs typically ran for two or three days and included the opportunity to talk to each other about common problems, presentations from experts in various fields of asset management and the development of group projects for business improvement.

### **Critical success factor – provide the basic tools**

Four years ago there was very little information available to staff in regard to asset management. The only information available related to financial treatment of work in progress and related asset accounting matters. Each ambulance and fire station was typically designed by local staff in association with local architects either from the regional office of the Department of Public Works or private consultants. In some cases it was obvious that the funding from the Local Ambulance Committee was being used in a competitive way to establish that town “A” was much more important than its neighbours by the size of the ambulance station. It was difficult to incorporate learnings from other stations in other regions.

The first major project for the Ambulance Committee described above was to develop Design Standards for ambulance stations with a view to providing a base for annual review of design features, keeping costs under control through common specification of room sizes and finishes and reducing the costs of design and documentation.

In partnership with Project Services (Department of Public Works) a Design Master Brief was prepared. I was a relatively wordy document with some example layouts of completed stations included. The Ambulance Master Brief has fulfilled all expectations and has been well accepted by staff. The success of this document led the QFRS to develop Design Standards for fire stations. This document took the learnings from the ambulance master brief and the document became a much more graphic format.

The next essential document for both teams was the development of a Project Procedures Manual which assigned roles and responsibilities to all parties involved in the design and construction process both internally and externally, and importantly for a government agency specified the approval stages and the delegations for approval.

### **Critical success factor – improving internal relationships**

At about this time in the process some significant organisational changes within DES took place. The Operations Support Branch was established in late 2002 to bring together many of the asset managers which had been located in client based teams within the Department. This included the creation of the Property & Facility Management Unit bringing together all of the Head Office technical and professional staff involved with this function.

This change in structure facilitated the ability to second uniformed officers into the Property & Facility Management Unit for a 12 to 18 month period to work alongside the technical and professional Facility Management staff. This has had the effect of dramatically breaking down the “them and us” barriers and given greater responsibility for performance to the uniformed divisions whilst giving them better access to technical advice and support.

### **Phase 3 – Planning for Maintenance**

With the capital works program now performing in a more satisfactory manner, attention is now being turned back to improving maintenance through the development of a Building Maintenance Strategic Plan covering the next three years. The process of business improvement commenced two years ago with changes to the accounting system.

### **Critical success factor – using the budget processes to direct strategic thinking**

It is of critical importance in developing strategic maintenance planning that all staff are very clear in regards to the maintenance hierarchy of needs. This creates not only an understanding of how to best prioritise maintenance funds but also the need to better manage information about their assets.

Budget planning should take place in the following priority order:

- Statutory cyclic maintenance – based on service contracts
- Urgent breakdown maintenance – based on historic data
- Preventative cyclic maintenance – based on service contracts
- Condition based maintenance – prioritised according to risk and criticality using funds available

The starting point for DES in this phase commenced two years ago. Until that time all maintenance budgeting was passed through the one account code. This made it difficult to gain an understanding of what was happening on a preventative basis versus breakdown maintenance and to know how much money was required for each category of maintenance expenditure.

The first step was to provide account codes for the 5 maintenance types recognised under the MMF. DES now has one years worth of data which is being used to provide initial input into the 2004-05 budget. A request has also been made to regions to undertake equipment audits to enable a more calculated approach to statutory and

preventative cyclic maintenance. In the absence of a comprehensive business system, spreadsheets have been designed which can be collated at regional and head office for analysis.

The condition based maintenance will now become the maintenance which occurs after all preventative maintenance is budgeted for and an amount is set aside for urgent breakdown items. The focus on statutory and preventative maintenance budget being based on the cost of service contracts has focused attention at a regional level on better managing their buildings and equipment and will in years to come provide useful data to guide design. It is also anticipated that as more of the building plant and equipment comes under service contracts there will be an opportunity to reduce costs through economies of scale.

### **Future projects**

During this next three year period it is planned to complete the following activities to ensure that maintenance moves from completely reactive to predominantly proactive:

- Review Condition Audit specifications and establish a rolling program of audits across the state
- Prepare for the introduction of a computerised asset management and maintenance information system
- Develop maintenance performance measures, financial standards and budget processes
- Develop maintenance standards, procedures, guidelines and training packages

There will also be developments in regards to capital works including a greater focus on joint activities. This is also a difficult area for emergency services personnel in terms of accommodating each others work patterns and culture. However, it is an opportunity for the building assets to play an active part in ensuring a better co-ordinated workforce through bringing the various emergency services personnel together in training activities and in a social context.