



Western Australian Auditor General's Report

# Major Capital Projects

Report 12 – October 2012





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# WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

## Major Capital Projects

Report 12  
October 2012



**THE PRESIDENT  
LEGISLATIVE COUNCIL**

**THE SPEAKER  
LEGISLATIVE ASSEMBLY**

### **PERFORMANCE AUDIT: MAJOR CAPITAL PROJECTS**

This report has been prepared for submission to Parliament under the provisions of section 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of the overall audit program. They seek to provide Parliament with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

The information provided through this approach will, I am sure, assist Parliament in better evaluating agency performance and enhance parliamentary decision-making to the benefit of all Western Australians.

A handwritten signature in black ink, appearing to read 'C. Murphy'.

COLIN MURPHY  
AUDITOR GENERAL  
17 October 2012

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# Auditor General's Overview

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This report builds on my previous audits of individual major projects and takes a broader view of performance across the 20 highest value non-residential building projects. The state government is investing billions of dollars in its capital works program to build hospitals, schools, prisons, police stations, sports venues and other government buildings. To improve project performance governments have increased the capacity in the WA public sector to manage capital works projects and have implemented a more structured, controlled and coordinated project management framework.

Given the significance of major capital projects, a clear audit trail of key decisions and approvals should be maintained so that accountability for those decisions is clear. For many projects this was not case, and needs to be addressed. The publicly available information on major projects is disparate and inconsistent, making it difficult to get a full and accurate picture of progress and performance. Government needs to consider how it can improve this and deliver a higher level of transparency for Parliament and the community.

The total cost variance for the 20 projects in the report is significant. This headline figure alone is not especially useful in identifying how performance might improve. Analysing the variance is more useful. Ninety per cent of it occurred during the evaluation phase of projects when scope and costs are being more accurately defined. Only 10 per cent of the variance occurred in the definition and delivery phases. This indicates that projects can be, and often are, effectively controlled once realistic scope, cost and time parameters have been defined.

The implications of these findings are clear, but not surprising. It is critical to project performance to get the early stages right. A sound asset management framework and robust planning need to be consistently applied across all major projects to ensure investment decisions are well informed and project expectations are realistic. Fixing projects gets harder as they progress and, as a number of projects in the report show, the impact of departing from good process at the start stays with them.

# Executive Summary

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## Background

Hospitals, schools, prisons, police stations and other state government buildings are fundamental to the delivery of services to the community and provide important social and economic enablers. The Western Australian State Government capital works program represents a major investment and financial risk for the state. Current investment in non-residential building projects totals nearly eight billion dollars.

Cost and time overrun on major capital projects is a world-wide issue and affects both public and private sector building projects. Following a sound asset planning process, good project management and effective governance increases the likelihood that a project will deliver its required outputs to quality, cost and time.

Cost and time variance can reflect the risks in departing from asset planning processes, poor project management and scope creep but may also reflect general economic conditions. It can also be a consequence of changing government priorities and service delivery needs that may lead to improved services to the community.

To ensure best practice in asset planning and project management the Department of Treasury (Strategic Projects) and the Department of Finance (Building Management and Works) are implementing the Works Reform program, and are currently updating government's overarching asset policy; the Strategic Asset Management Framework (SAMF).

Strategic Projects (SP) is responsible for oversight of the planning and delivery of complex, major non-residential building projects assigned to it by Government (typically with an estimated cost greater than \$100 million). It also works with other agencies in managing and reporting on large scale government projects. SP and Building Management and Works (BMW) provide guidance and assistance to agencies when developing project business cases and take responsibility for delivery after the approval of the business case.

This performance audit informs Parliament about the status of a sample of large capital works projects. It examined the government's 20 highest value non-residential building projects and highlights the extent and reported causes of variances from the original approved budgets and expected completion dates. It also reviews the causes of those variances to identify lessons for asset planning and project management.

The projects examined are listed in Appendix 2 and information on each project is detailed in project summary sheets in Appendix 3.

## Audit conclusion

There is limited transparency on the status of major capital projects. Parliament and the public must search various different information sources and even then may only get a limited understanding of progress against cost and time targets.

The expected cost variance of the 20 sampled non-residential building projects is 114 per cent above their original approved budget. Ninety per cent of the variance in project budgets occurred during the evaluation phase of projects when the project business case was developed and project scope and costs were more accurately defined. Project performance in the definition and delivery phases is generally good, accounting for only approximately 10 per cent of variance, indicating effective project management in delivery and the value of robust planning to project performance.

Variance occurs for a range of reasons including scope changes driven by improved project definition, changes in governments and their priorities and the availability of additional funding. Variances also occur because announcements on budgets and timelines are made before project evaluations are completed. This significantly increases the risk that budgets and timelines will be exceeded and public expectations will not be met.

For a number of the 20 projects, changes that occurred during the evaluation phase were very significant to the extent that the revised projects are considerably different to that which was initially approved and announced. These changes are often outside the control of the agencies tasked with delivering the asset and the resulting variance does not reflect project management performance in delivering the assets. There is an argument in these cases that measuring performance against the initial time and cost targets of these projects has limited value for the delivery agencies. We accept that there are circumstances to justify changing the baselines used for performance assessment purposes, but we see a real risk to accountability if scope changes led to automatic resetting of the baselines.

## Key findings

- Limited reporting on major capital projects means that Parliament and the public are restricted in their ability to assess the progress of each project against cost and timeline targets. This amounts to a major gap in the transparency and accountability framework of government given the cost and importance of these projects.
- The expected cost of the 20 projects we reviewed is \$6.157 billion which is \$3.275 billion (114 per cent) more than the total original approved budget estimates:
  - 15 of the 20 projects are expected to exceed their original approved budgets, of which four are expected to exceed it by more than 200 per cent
  - six of those 15 projects expect to exceed their original approved budget by more than \$100 million.
- Approximately 90 per cent (\$2.953 billion) of the cost variance for projects occurred during the evaluation phase of the project when the project business case was developed and the project scope and costs were more accurately defined.
- The overall cost variance after the conclusion of the project evaluation phase is \$322 million or approximately 10 per cent, indicating effective project management by SP and BMW and the value of robust planning in project performance.
- Changes that have occurred to some projects are so significant that the revised projects are considerably different to that which was initially approved and announced. The resulting variance to budget and timelines were often outside the control of the agencies tasked with delivering the assets and does not reflect project management performance. Four projects – the New Children’s Hospital and Midland, Busselton and Albany Health Campuses were examples of this. Together these projects account for over \$1.347 billion of cost variance. If these projects are excluded from the cost analysis, the total variance is \$1.928 billion.
- The estimated cost for four of the 20 projects includes Commonwealth funding, totalling \$430.5 million. Three of these projects (Midland, Busselton and Albany Health Campuses) received this funding after approval of their original budgets and the funding therefore shows as a cost variance in our analysis, although there is no additional capital cost to the state. This variance totals \$191.5 million, with most of that being \$180.1 million for the Midland Health Campus.



- Fifteen of the 20 projects are expected to be delivered later than initially planned. Delays range from one to 62 months with an average delay of 16 months. Depending on market conditions, delays in time can significantly increase costs and have serious consequences for the delivery of services to the public.
- Significant scope and design changes during the project evaluation phase were the key reasons for cost and time variance. Other factors included:
  - variations to the project scope after the awarding of the contract to build
  - issues relating to build quality prior to project completion
  - inclement weather conditions during construction.
- Project budgets and timelines were, in some cases, announced before detailed evaluation had occurred and project business cases had been approved. This reflects the inconsistency with which robust project planning was applied to some of the projects. Making early announcements significantly increases the risk that budgets and timelines will be exceeded and public expectations will not be met.
- Transparency and accountability for project decisions within relevant agencies was difficult to establish. We found that:
  - it is difficult for project staff or those undertaking any project review to establish a clear project history
  - there was often a lack of evidence to show that the existing business case remained valid following changes in the project scope
  - the point at which projects are reported to have started is inconsistent, with different projects reporting different project baselines such as Expenditure Review Committee (ERC) approval or Ministerial Statement. This makes it difficult to conduct trend analysis, measure project performance and determine the full capital cost of a project.

These weaknesses in accountability and transparency can have a number of implications including that:

- funding and procurement decisions could be made without a full understanding of original project requirements, risk and cost benefit analysis
- corporate knowledge will be lost due to staff turnover during the life of the project
- the post project review is made more difficult and so diminishes the opportunity to review project outcomes and systematically improve performance in subsequent projects
- Parliament and the public cannot easily be made aware of project progress and key changes to any project.

## Recommendations

- Major investment decisions need to be well informed and soundly based. Full project budgets and timelines should only be set when project evaluation is complete and a project business case has been considered.
- Government should consider options to provide regular and enhanced reporting to Parliament on the status of major capital projects. These options might include a consolidated report or coordinated reporting by the individual accountable authorities. Regardless, project performance should be reported against the original approved timeline and budget rather than the current practice of inconsistent and disparate information provided on individual agency websites or annual reports.

- The Department of Treasury should retain copies of key submissions and approvals project documents so that it is able to effectively track project development and oversee agency compliance with the SAMF.
- The Department of Treasury, the Department of Finance and client agencies should ensure that where there are changes to project scope, costs and/or schedules, project definition plans should include sufficient evidence to confirm that the chosen investment option, as detailed in the business case, remains valid. If the original investment option is no longer valid because of major scope change, then a new business case should be written as a matter of urgency.
- The Department of Treasury and the Department of Finance should seek to facilitate trend analysis, improve strategic project evaluation and the accuracy of performance reporting by:
  - establishing a standard baseline for reporting original approved budgets, original estimated completion dates and project start dates
  - ensuring that there is consistent reporting of estimated total costs (these should include all project specific planning, evaluation, definition, delivery, project close-out and review costs)
  - reporting project related land purchases and sales as part of the project estimated total cost
  - updating SAMF policies and guidelines, which are soon to be submitted for Cabinet, to ensure consistency in reporting cost and time performance.

## Agency responses

### Department of Treasury

The Department of Treasury strongly supports the audit recommendation that capital works asset investment decisions by Government need to be well informed and soundly based. In this regard, since 2009, the Departments of Treasury and Finance have collectively and actively sought to improve the planning (particularly) and delivery of capital works projects through application of robust asset management practice in accordance with the State Government's Strategic Asset Management Framework.

The audit findings highlight a number of instances where Government decisions outside the control of the agencies responsible for project planning and delivery have completely changed project scope and/or delivery timeframe. In these cases, the original project time and cost parameters are of little if any relevance to the measurement of project management performance by the responsible agency.

After project impacts are taken into account, the report highlights the effectiveness of the reform measures implemented by Treasury and Finance, evidenced by the finding that for the 20 projects examined, only 10 per cent of budget variance occurs after the project evaluation phase.

However, the Department of Treasury is concerned that the distinction between project parameters that are within the management control of agencies (and therefore relevant to measurement of agency performance) and project parameters that are outside agency control and not relevant to agency performance may not be clearly apparent to some readers.

Findings and recommendations relating to clarity and consistency of project performance reporting are noted. The Department of Treasury has significantly enhanced the quality of reporting to Government through the bi-monthly Western Australian Government Major Projects Report and will further review the report content

and format, taking the audit recommendations into account. Other measures to improve records of key project approvals will also be considered, including ensuring that the basis for changes to project parameters is well documented in business cases and project definition plans.

The audit recommendations in respect of reporting to the public and to Parliament are also noted. As the recommendations acknowledge, this is predominantly a matter for consideration by the Government.

## Department of Finance

### Recommendation 1 – Decisions and Announcements

- The recommendation is supported — major investment decisions need to be well informed and soundly based with full project budgets and timelines only being set when project evaluation is complete and a project business case has been considered. This is sound in principle and should be adopted as standard practice so to encourage the government, responsible agencies and support agencies to work together to manage public expectations on projects.
- The Department of Finance (the Department) acts as the delivery agency for the government's non-residential building program under \$100 million and provides a range of project management and contract management services to agencies who are the owners of the building projects. To this end, the Department has limited management responsibilities and can only advise and work with agencies to improve compliance with the government's strategic asset management framework (SAMF).

### Recommendation 2 – Improved Reporting

- The Department currently contributes to the bi-monthly Western Australian Government Major Projects Report produced by Strategic Projects through the Senior Officers Advisory Committee (SOAC) with direct reporting to the Economic and Expenditure Reform Committee. Any additional level of reporting should be with the responsible agencies.

### Recommendation 3 – SAMF

- The recommendation is supported.

### Recommendation 4 – Business Cases

- The proposal for business cases to be maintained throughout the life of the investment is not necessary. Project changes, however, should be monitored against the approved business case.
- The recommendation for project definition plans (POP) to confirm that the chosen investment option remains valid is supported provided this is with respect to cost and time parameters and not with respect to business need and financial logic as these are not functions of a PDP.

### Recommendation 5 – Performance Parameters

- Establishing a standard baseline for budgets and dates is feasible.
- Reporting of estimated total costs from project planning through to project close out and review costs will require significant contribution from the responsible agencies.
- The budgeting and reporting treatment for project related land purchases and sales is not a function for the Department. The business case document could include information on land acquisition costs.
- The Department will continue to contribute towards the updating of SAMF policies and guidelines by working with Department of Treasury (as SAMF owner).

### Department of Finance Specific References

- Projects are jointly managed by the Department and the responsible agency. The agency should undertake the appraisal of assets needed to deliver services and provide advice and approvals throughout the definition and delivery phases.
- The estimated cost of the seven Department managed projects within the audit is \$574.7 million which is \$98.5 million (21 per cent) more than the total of actual approved budget estimates, with five of the seven projects expected to exceed their original approved budgets. This compares to the 114 per cent increase in initial total approved budgets for the 20 projects. Note that the Department managed Projects only account for 10 per cent of the overall cost of the 20 projects (\$6.157 billion).
- 61 per cent (\$60.1 million) of the cost variance for the Departments projects occurred during the definition phase of the project.
- Figure 6 in the report ranks the projects by the percentage cost variance after the end of the evaluation phase. A Department managed project, the Central Law Courts refurbishment project had the highest cost variance of 183 per cent – attributable to significant scope changes. A further four Department managed projects had cost variations of between 18 to 54 per cent that were largely caused by legitimate and approved scope change.
- The Fast-Track Prison project was mentioned as not having a documented business case to demonstrate the project's viability. The Department of Corrective Services sought Cabinet approval for urgent funding without the Department's involvement or a business case.

# Introduction

## **The capital works program represents a major investment and financial risk for the state**

The state government capital works program represents a major investment and financial risk for the state. In addition to major infrastructure projects, the government is investing nearly eight billion dollars in major non-residential building projects (projects whose value exceeds \$10 million). The 20 highest value non-residential building projects are expected to cost \$6.157 billion.<sup>1</sup>

Government buildings are fundamental to the delivery of services to the community and provide important social and economic enablers. Investments should represent value for money and buildings should be planned, designed and constructed to appropriate quality standards, cost and time.

Every project is a compromise among the three variables of scope, cost and time. Sound project management, good governance and compliance with project management controls increase the likelihood that projects will deliver required outputs to quality, cost and time.

Well managed projects may experience cost and time variance due to factors beyond the control of project managers, such as decisions that reflect changing government priorities and business needs, and general economic conditions. Cost and time variance can, in some cases, result in improved services to the community such as where a project budget is increased due to originally unplanned contributions from the Commonwealth.

## **Project cost and time variance is a world-wide issue that affects both public and private sector projects**

Project cost and time variance is an issue that affects public and private sector projects globally. Research in 2009 (that used the original budget as the baseline to measure variance) identified that cost overruns of 50 per cent in real terms were common for major infrastructure projects around the world and that variances of 100 per cent were not uncommon.<sup>2</sup>

## **The 2009 Western Australian Government Works Reform Business Solution Plan identified that government's track record in planning and delivering its capital works program had been poor**

In June 2009 the government identified that the expected cost of 17 major building projects had increased from the original budget of \$1.542 billion to \$3.895 billion, a cost overrun of \$2.353 billion or 153 per cent. Almost half of the listed projects had cost overruns of more than 100 per cent.

Some of the 17 projects reported in 2009 were announced publicly without the fundamentals of sound strategic asset planning and business case analysis. Cost and completion date estimates were put on the public record and included in the state budget without the necessary rigour.

As a result costs increased, completion dates were delayed and public expectations were not met. High cost overrun can also have a significant impact on budget forward estimates and government strategic decision making.

<sup>1</sup> The expected cost is as at 30 June 2012.

<sup>2</sup> Brent Flyvbjerg, 2009, 'Survival of the unfittest: why the worst infrastructure gets built – and what we can do about it', *Oxford Review of Economic Policy*, vol. 25, no. 3 pp. 344-367.

## To improve project performance the government has increased its capacity to manage major capital projects

Government has recognised in recent years that a more structured, controlled and coordinated whole-of-government approach was needed to address project cost increases and time delays.

To improve performance the government increased its capacity to manage major capital projects by implementing the Works Reform (2009-2013) program.

In December 2007 government established the Office of Strategic Projects. It was to be responsible for overseeing the delivery of key strategic infrastructure projects. Accountability and reporting by the Office was to the Minister for Housing and Works.

In December 2008 the 'works' function of the Department of Housing and Works (Building Management and Works (BMW)) and the Office of Strategic Projects, now known now as Strategic Projects (SP), was transferred to the Department of Treasury and Finance. In April 2009, Cabinet approved a new lead role for BMW in the non-residential building program, and supported the growth in its project management capability and capacity.

In July 2011, the Department of Treasury and Finance was split into two departments; the Department of Treasury incorporating the Treasury and SP businesses, and the Department of Finance, with responsibility for BMW as well as revenue, shared services, procurement of goods and services and public utilities policy.

SP is responsible for oversight of the planning and delivery of complex, major non-residential building projects assigned to it by Government (typically with an estimated cost greater than \$100 million). It also works with other agencies in managing and reporting on large scale government projects. SP and BMW provide guidance and assistance to agencies when developing project business cases and take responsibility for delivery after the approval of the business case

SP works closely with BMW and client agencies. It also works with the Department of Treasury Public Private Partnership (PPP) Support Unit in the delivery of PPPs.

BMW provides a range of services and acts as the delivery agency for the government's remaining non-residential building program (as a general rule, projects valued below \$100 million).

The Works Reform program addresses the challenges of delivering new buildings, maintaining the existing portfolio of building assets and providing government office accommodation for agencies across Western Australia. It aims to address key problems with the procurement of building related projects and programs including:

- project cost and time overruns
- poor strategic asset planning across government
- poor business case development for capital investment
- loss of project management skills and experience within government.

A fundamental element of the Works Reform program is to improve agencies' compliance with the government's Strategic Asset Management Framework (SAMF). Published in 2005, SAMF is a strategy to enable effective and efficient asset management and capital investment across the state public sector. The SAMF has been undergoing a review and refresh by the Department of Treasury since early 2010.

The SAMF aims to improve the early corporate management, planning, needs assessment, evaluation and definition phases of the project lifecycle. The framework provides policies and guidelines designed to improve asset investment planning and management across the state public sector. It requires rigour and discipline. Recommendations to invest in an asset should have a clear strategic justification in terms of meeting the government's objectives, and demonstrate that the recommended option offers strong value for money.

## Management responsibilities for non-residential building projects

Decisions to invest in major non-residential building projects are made by Cabinet and should be based on sound advice and information in relation to three main decision points:

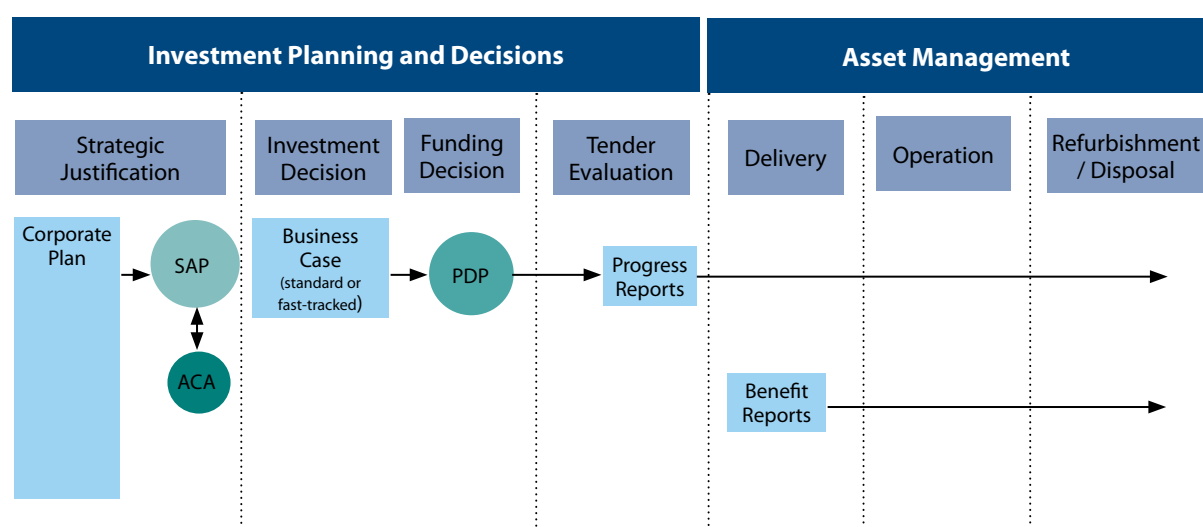
- **strategic justification:** based on agency business needs and asset plans
- **investment decision:** based on government priorities and the business case
- **funding decision:** based on the project definition plan and, where appropriate a revised business case.

Agencies are responsible for corporate planning and the appraisal of the assets needed to deliver services. They should provide applications for concept approval for high priority assets, submit business cases, project definition plans and, where appropriate, contract variations to Cabinet for consideration and approval.

The Economic and Expenditure Reform Committee (EERC), a committee of Cabinet, assign responsibility for non-residential building projects to SP on the basis of complexity, risk profile, and scale (typically greater than \$100 million in value). BMW delivers the remaining non-residential building projects.

Public Sector Commissioner's Circular 2009-22 requires all public sector agencies to adopt the principles of the SAMF. Although government trading enterprises are not explicitly bound by SAMF, they are expected to ensure that their asset planning standards and processes are consistent with the SAMF approach.

The SAMF emphasises the need to maintain an orderly sequence in the development and consideration of strategic asset plans, application for concept approvals, business cases, and project definition plans.



Source: Department of Treasury

Key: SAP: Strategic Asset Plan, ACA: Application for Concept Approval and PDP: Project Definition Plan

**Figure 1: Strategic Asset Management Framework (SAMF) sequence**

Additionally, the Western Australian Government project management framework, which is an internal Department of Treasury and Department of Finance management tool, includes gateways or stop go points between each phase of the framework. These gateways are intended to ensure that projects are managed within a controlled environment. Project scope, cost and time parameters should be detailed in the project business case and the project definition plan.

Working in accordance with the SAME, SP and BMW collaborate with client agencies and focus on robust project planning and on-target project execution, to ensure successful project outcomes. Project planning and project execution is divided into six specific phases. Figure 2 summarises the Western Australian Government's project management framework.

Out years	10-7	6-5	4-1			
Project Phase	1. Establish Business Need	2. Evaluation	3. Definition	4. Delivery	5. Transition to Operation	6. Project Close-out and Review
Purpose of Stage	To identify business need	To enable an investment decision to be made	Ascertain details and develop a procurement strategy	To design and construct the project, within the limits of the approved business case	Put the project into use	Were needs met?
Essential Deliverables	Strategic Justification – Business Needs Assessment	Investment Decision – Business Case	Funding Decision – Project Definition Plan	The Project	Handover Report	Post Operation Evaluation
Cost and Time Details	Not known with any certainty at this stage	Concept estimate of cost, and estimated completion date	Project estimate of cost, and estimated completion date	Regular reporting on Expected Total Cost (ETC)  If ETC, scope or completion date extend beyond previous approvals, direction must be sought from Department of Treasury, SP and EERC	Final cost, and completion date	
Approval to Proceed to Next Stage	Agency CEO and Minister	Department of Treasury, SP and EERC	Agency CEO and Minister (if scope, cost and time have changed from what was approved – case to be re-evaluated by Department of Treasury, SP and EERC)	Project team in consultation with receiving agency and/or operator	Agency and operator	Agency

**Figure 2: SP and BMW's project management tool**

*This tool is used by SP and BMW but is not a mandatory whole-of-government project management framework. The whole-of-government framework is provided by the SAME.*



## Audit focus and methodology used to measure cost and time variance

The purpose of this performance audit is to inform Parliament as to the current status of the 20 highest value non-residential building projects, and to show if they are meeting cost and time targets and if not, the reported reasons.

Assessing project cost and time performance requires a baseline from which to measure performance. We have used the variance between the original approved budget and the expected total cost to measure cost performance. Because SP does not report the project start date (the date the project team is established) we have used the year that the project was first included in agency budget papers as the project start date to calculate time variance.

We have used the original approved budget as the baseline because:

- of the impact on the state budget and forward estimates
- it reflects a public expectation that projects will be delivered within the announced budget and completion date
- it is consistent with the methodology used by government when it evaluated and reported overall project cost performance in the 2009 WA Government Works Reform Business Solution Plan.

We have also calculated cost variation between the different phases of the project management framework and have highlighted the level of variance from the investment decision (which occurs after consideration of the project business case). The 20 projects are in various phases of their development and delivery. Projects at the early stages of planning and definition will change as they progress. Projects in the delivery phase have relatively little scope to mitigate cost or time variance that has already occurred.

We recognise that project cost and timeline estimates mature as a project completes the evaluation and definition phase of its lifecycle. Some of the 20 projects have undergone significant change since their original budgets were announced. A number of these could be considered to be completely different projects. In these instances defining meaningful baselines for measuring project performance can be difficult. For the agencies tasked with the delivery of the assets, the original approval may have little relevance in tracking their performance. However, in broader accountability terms, being able to show all the changes, the reasons for them and their approval is important.

In conducting this audit we reviewed legislation, policies, and project documents held by the Department of Treasury, the Department of Finance and client agencies. Where possible we have verified project cost and timeline data with the Department of Treasury, Department of Finance and project client agencies.

The audit was conducted in accordance with the Australian Auditing and Assurance Standards.

## **Parliament and the public cannot easily determine the overall progress of major capital projects**

The financial and community significance of major capital projects demands a high level of transparency about the progress of these projects. Currently, this does not occur.

If Parliament or the public wish to track the progress of major capital projects in WA, then they currently have to collect the information from a number of sources, including:

- the 2010 Works Reform Progress Report
- the Department of Treasury's outcomes and key effectiveness indicators
- individual agency budget papers and annual reports.

The 2010 Works Reform Progress Report and the Department of Treasury's outcomes and key effectiveness indicators measure the performance of projects by the variance between the current approved budget and timeline and the actual or expected total cost and completion date.

However, measuring performance against what is currently approved rather than what was initially approved can on its own, be misleading. For example:

- The 2010 Works Reform Progress Report highlighted the performance of 15 projects at the end of 2010. The report stated that the expected total cost of the 15 projects was just 0.4 per cent above the combined approved budget.<sup>3</sup>
- The Department of Treasury's key effectiveness indicators for 2011-12 show that 100 per cent of the significant projects in the new buildings program would be delivered within the approved budget.<sup>4</sup>

A better basis of assessing overall performance is by comparing the actual or expected total cost or completion date against the original approved budget and timeline. But to compare against the original budget or timeline, it is necessary to find and extract the information from the relevant agency annual budget paper and/or annual report. This can be a slow process.

To improve transparency government should consider options to provide regular and enhanced reporting to Parliament on the status of major capital projects. These options might include a consolidated report or coordinated reporting by the individual accountable authorities. Regardless, project performance should be reported against the original approved timeline and budget rather than the current practice of inconsistent and disparate information provided on individual agency websites or annual reports.

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<sup>3</sup> 2010 Works Reform Progress Report, p. 17.

<sup>4</sup> 2012/13 Budget Papers for Department of Treasury (Vol. 1, p. 303).

## The estimated total cost of the 20 projects is \$6.157 billion, \$3.275 billion more than the original approved budgets

The estimated cost of the 20 projects we reviewed is \$6.157 billion which is \$3.275 billion (114 per cent) more than the total original approved budget estimates:

- 15 of the 20 projects are expected to exceed their original approved budgets of which four are expected to exceed it by more than 200 per cent
- six of the projects expect to exceed their original approved budget by more than \$100 million
- two projects – Fiona Stanley Hospital and New Children’s Hospital are expected to exceed their budget by \$1.3 billion (309 per cent) and \$961.9 million (465 per cent) respectively.

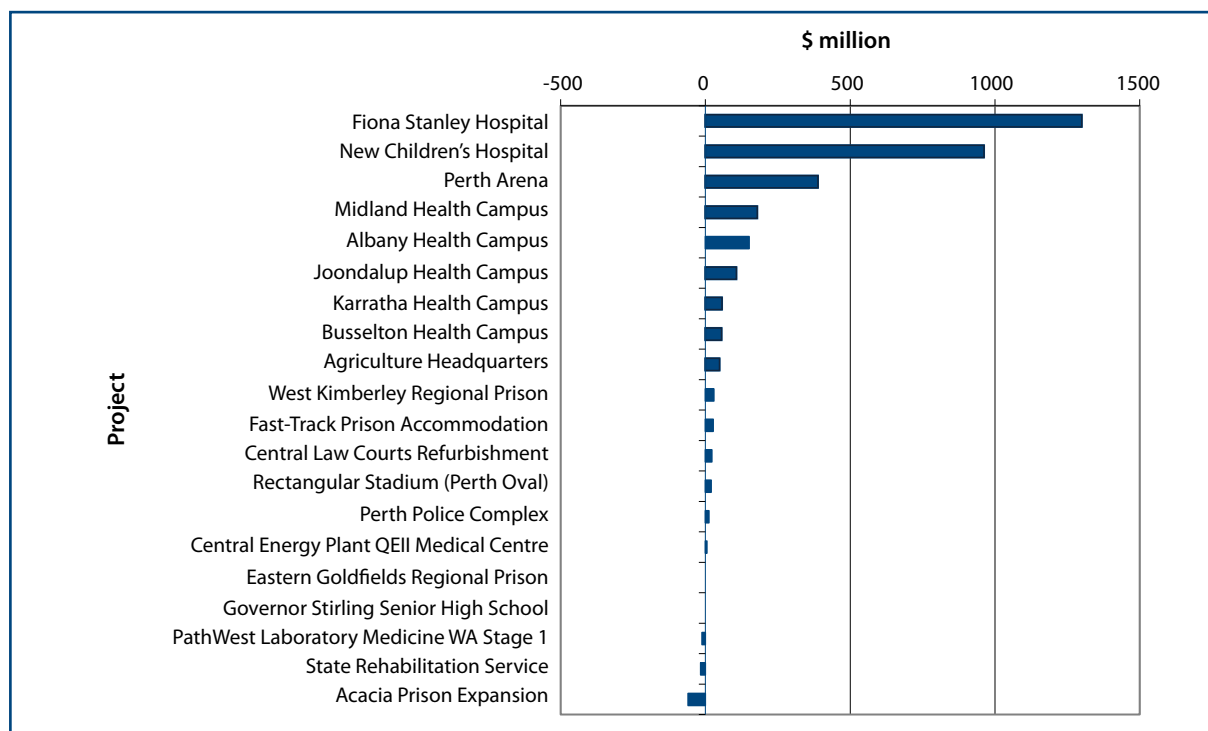
Cost variance can have a major impact on government strategic planning and the accuracy of the budget forward estimates. Once a project is in the state budget funding is effectively ring-fenced and cannot be spent on other government priorities. If the project is subsequently delayed and/or the expected cost increases, the project has to be cancelled, its scope reduced or additional money has to be found.

Total Original Approved Budget	\$2.882 billion
Expected Total Cost	\$ 6.157 billion
Total Variance From Original Approved Budget	\$ 3.275 billion

**Table 1: Total variance between original approved budgets and expected total costs for the 20 projects**

*The original approved budget is taken from agency budget papers and project documents. The expected total cost is at 30 June 2012.*

Project cost variance ranges from an increase of \$1.3 billion to a reduction of \$60 million (Figure 3). Six projects are expected to exceed their original budgets by more than \$100 million, nine by between \$1 million and \$99 million, two projects are on budget, and three are forecast to cost less than originally budgeted.

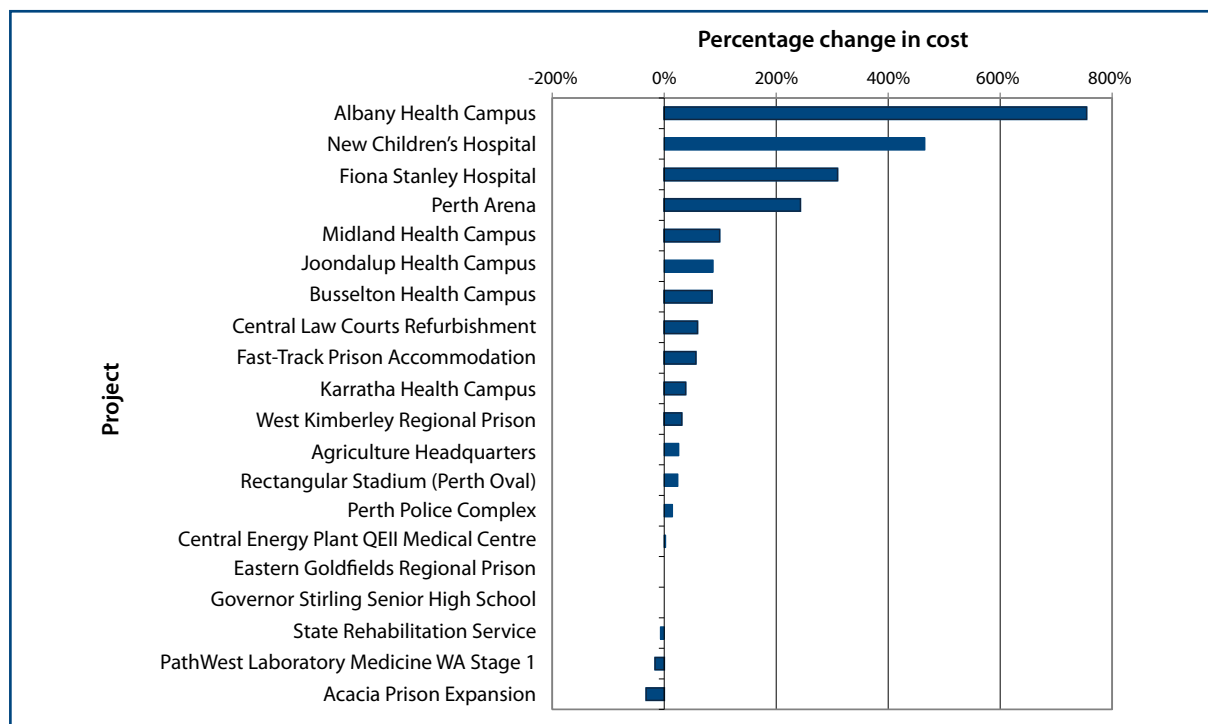


**Figure 3: Changes in cost from original budget to the expected total cost**

The Fiona Stanley and New Children's hospitals account for 47 per cent of the total expected cost of the 20 projects. In this sense they are significant outliers. They are also outliers in that the total amount of the cost variances from their original approved budgets far exceeds the total variance of the other 18 projects. Reporting the overall cost variance for the New Children's Hospital also has to take into consideration that the project has undergone significant change and that the original budget was based on a completely different project scope.

The expected total cost variance of 13 of the other 18 projects is \$1.014 billion (45 per cent) more than their original approved budgets.

Projects with the largest dollar variance do not always have the largest percentage change in cost. This can indicate that a project's original budget was set at an unrealistically low level and/or that there has been a very significant change on the project. For example, Albany Health Campus has the fifth largest dollar variance from original approved budget, but has the highest percentage cost variance. In this case the reason for the cost variance is a significantly expanded scope resulting from increased state and Commonwealth funding. Additionally, there was a cost increase due to the redesign and reconstruction of the medical imaging department.



**Figure 4: Percentage change in the estimate cost of projects from the original approved budget to the expected total cost**

As previously mentioned, in June 2009 government identified that the expected cost of a sample of 17 major non-residential projects had increased by \$2.353 billion or 153 per cent. By comparison, our sample of 20 projects showed a cost variance of 114 per cent.

However, little statistical comfort can be taken from this result given that the two samples included different projects at different project phases. Nevertheless, BMW and SP believe that the extent of cost over-runs has declined. BMW advised that this was due to a number of factors including:

- Works Reform initiatives that have made a positive contribution in controlling budget overruns on projects
- improvements attributed to competitive market conditions brought about by the global financial position
- a reduction in the number of non-residential building projects underway in the state has exerted downward pressure on the rate of cost increases.

## Approximately ninety per cent of cost variance occurred during the evaluation phase, prior to consideration of the project business case

Approximately ninety per cent of the overall cost variance (\$2.953 billion) occurred between the approval of the original budget and the completion of the evaluation phase (the second of the six stages of the project management framework).

### Some changes to projects can be so significant that they affect the basic parameters of a project

Project cost and timeline estimates mature as a project completes the evaluation and definition phase of its lifecycle. This can also last a prolonged period, sometimes many years, as projects evolve through a number of iterations and are affected by a range of factors. For some projects the changes during project evaluation can be fundamental and raise questions as to whether the project is the same project, whether the basis for the original investment decision remains valid and whether an entirely new project should be started with a new business case and investment decision.

Some projects which have experienced substantial and fundamental changes during their development are shown below. Together these projects account for \$1.347 billion of cost variance. The variance reflects a number of factors including the inconsistency in asset planning processes on older projects, changes in funding sources and availability, and changes in government priorities. These changes may be outside the control of the agencies tasked with delivering the assets and do not reflect project management performance in delivering the assets. Examples include:

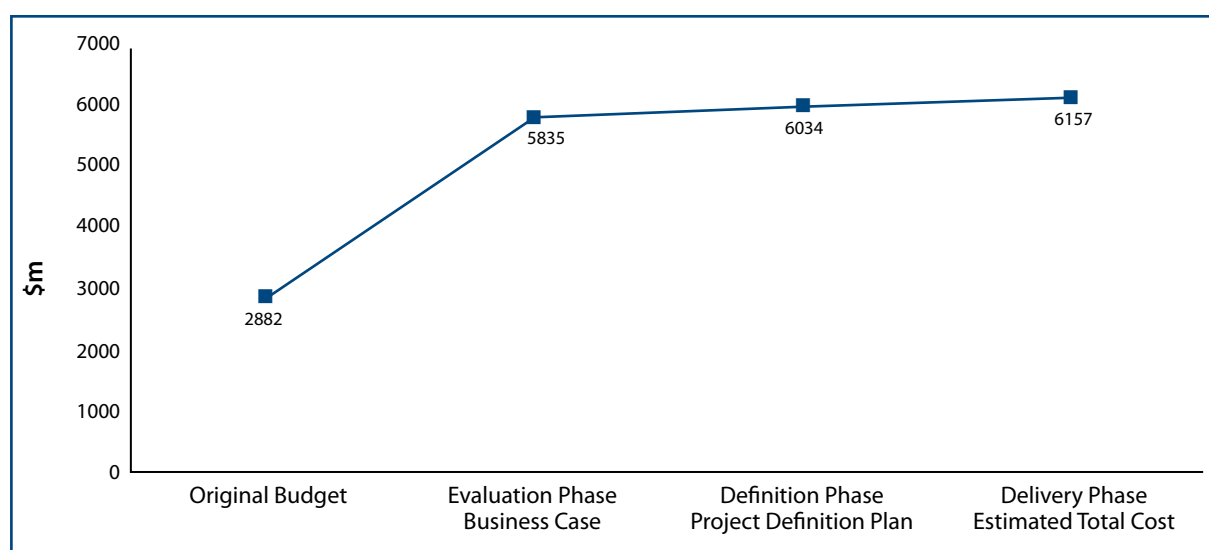
- The New Children's Hospital project has undergone significant change. The original \$207 million budget was based on relocating the Princess Margaret Hospital into the current Royal Perth Hospital buildings. The revised project, which is expected to cost \$1.169 billion, is based on the construction of a new building on the Queen Elizabeth II hospital site.
- The Busselton Health Campus was originally announced in 2005 as a new build hospital on a greenfield site at Vasse Newton costing \$65 million. Subsequently government decided to redevelop the existing Busselton Hospital with \$77.4 million of public funding and the inclusion of private sector involvement. The current project is for a new build on the existing Busselton Hospital site, at a cost of \$118 million which will be fully publicly funded and include \$41 million in Royalties for Regions funding.
- The Albany Health Campus project began as a \$20 million refurbishment of the existing Albany Hospital. The incoming Government in 2008 decided, in line with an election commitment, to approve a \$135 million new hospital on a greenfield site.
- The original approved Midland Health Campus project was for a redevelopment of the Swan District Hospital at a cost \$181 million. The currently approved project is for the construction of a new hospital on a greenfield site at an estimated cost of \$360 million. The additional funding of \$180 million is being provided entirely by the Commonwealth government under a National Partnership Agreement. So, while the project shows a 99 per cent cost variance from the original approved budget, the outcome is a new, more specialised hospital for no further capital investment by the state.

While these kinds of changes may be outside the control of the agencies tasked with delivering the projects, the changes still need to be fully considered, controlled and their approval well documented. This would be assisted by greater clarity in SAMF on when it is appropriate to revisit a project investment decision and when projects have changed to such an extent that the original one should be cancelled and a new one started.

Major changes to projects as they develop can make it difficult to identify an appropriate baseline against which to measure the project. This can be more difficult if the history of approvals for a project are not well documented as is the case for a number of projects in our sample.

### Project budgets were often announced before detailed project evaluation had been completed and project business cases had been approved

Making early announcements prior to rigorous project evaluation increases the risk that costs will go up, completion dates will be delayed and public expectation will not be met. Although there may be valid reasons for cost increases, the original approved budget is the cost anchor against which the public will judge performance. Based on our review of project documentation, at least half of the 20 projects were announced before project evaluation and a business case had been completed.



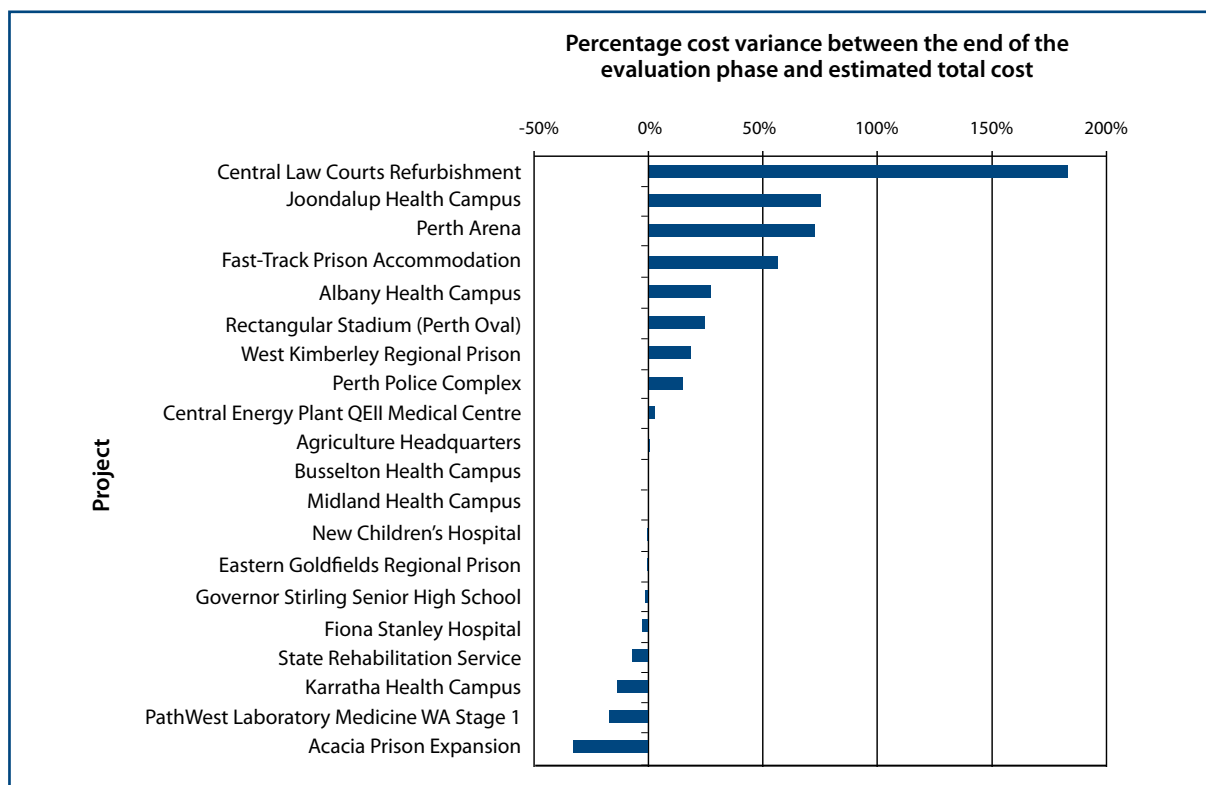
**Figure 5: Increase in total cost by project management framework phase**

*The biggest increase in the expected total project costs occurred between the establishment of the original budget and the evaluation phase when the business case was developed.*

### Only approximately 10 per cent of the overall cost variance occurred after the conclusion of the evaluation phase

Only approximately 10 per cent (\$322 million) of the overall cost variance of \$3.275 billion occurred after the decision to invest had been made. This reflects the fact that cost estimates at this stage are more mature and are based upon rigorous consideration of the project business case and stated project outcomes.

Defining the scope of work is very important. The greater the detail, the more accurate the estimates will be. Significant scope and design changes can increase the size and cost of a project. For example, late design changes and the inclusion of a car park under the Perth Arena resulted in a significant variation to the contract, increased costs and a much delayed project completion date.



**Figure 6: Percentage cost variance after the end of the evaluation phase**

## Fifteen of the 20 projects are expected to be delivered later than originally planned, four on time and one earlier than planned

The total expected completion time of the 20 projects is 1 624 months. This represents a total time variance of 319 months (24 per cent) compared with the original planned project times.

For the 20 projects we found that:

- the average time delay is 16 months
- 15 projects are expected to be delivered later than initially planned. Delays range from one to 62 months with an average delay of 16 months
- four projects are expected to be delivered on time
- one project is expected to be completed earlier than originally planned.

Depending on market conditions, delays in time can significantly increase costs and may have serious consequences for the delivery of vital services to the public.



Total original planned project time	1 305 months
Total expected project time	1 624 months
Total variance from original and expected project time	319 months

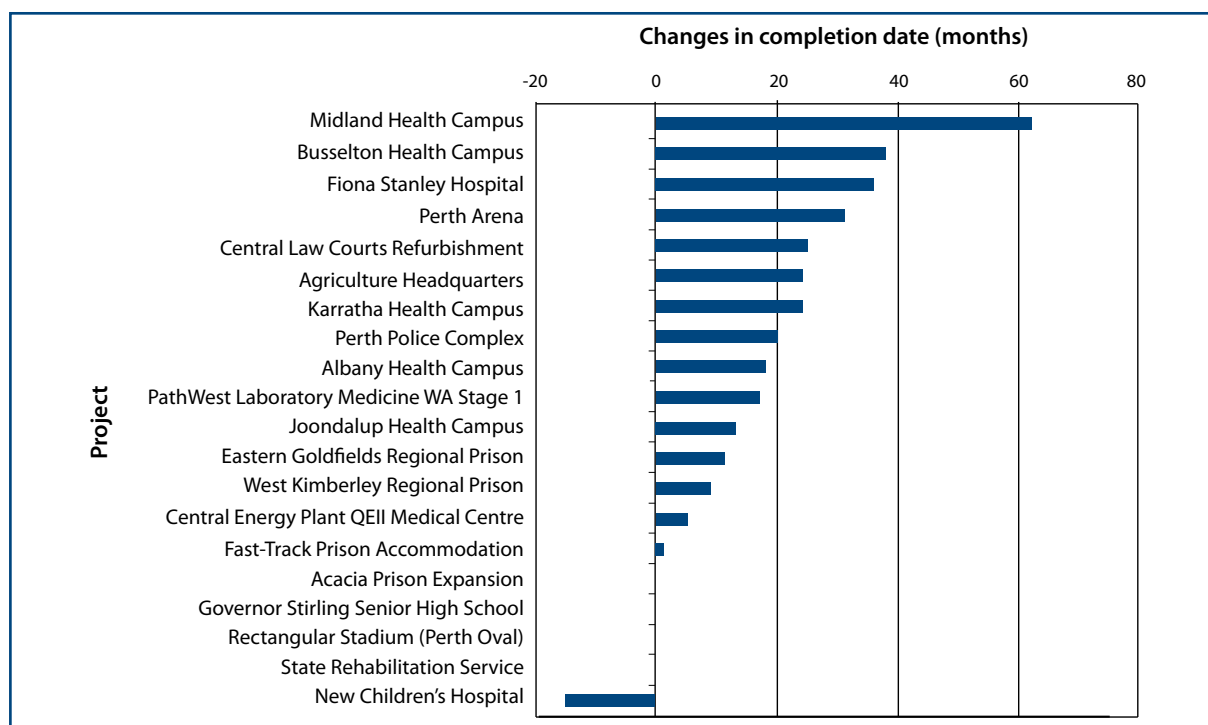
Source: OAG; Department of Treasury; Department of Finance

**Table 2: Aggregated variance from original and expected project time**

*The original project start date is taken as 1 July in the year that the project first appeared in agency budget papers. The expected completion date is as reported on 30 June 2012.*

One project, the New Children's Hospital is currently forecast to be completed 15 months ahead of the original schedule. Seven projects have an expected completion date of 24 or more months later than originally planned:

- Midland Health Campus (62 months)
- Busselton Health Campus (38 months)
- Fiona Stanley Hospital (36 months)
- Perth Arena (31 months)
- Central Law Courts Refurbishment (25 months)
- Department of Agriculture Headquarters (24 months)
- Karratha Health Campus (24 months).

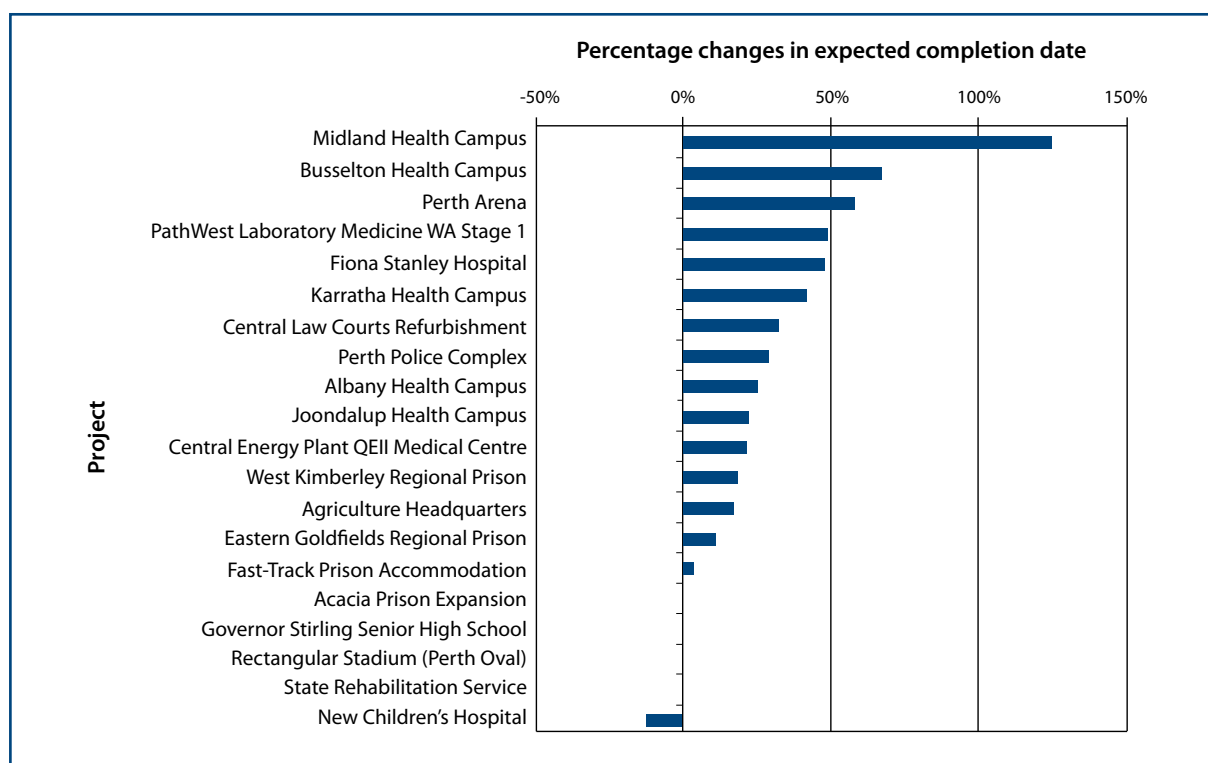


**Figure 7: Changes in completion date from the initial approved completion date to expected completion date**

*Current expected completion dates range from 15 months ahead of the original schedule to 62 months behind schedule.*

The percentage change from original approved timeline to expected completion date for projects gives an indication of how each project is performing. Projects with the largest time variance do not always have the largest percentage change in time. For example, PathWest Laboratory Medicine (Stage 1) has the tenth largest variance from original timeline (17 months), but has the fourth highest percentage time variance with an increase of 49 per cent. Examples such as this can indicate that:

- the original timeline was unrealistically short
- that there has been a very significant change in scope
- project delivery (construction) was delayed.



**Figure 8: Percentage change from the initial completion date to the expected completion date**

*Fifteen of the 20 projects are currently expected to run late and one is expected to be completed early.*

## Significant scope and design changes during the project evaluation phase were the key reasons for cost and time variance

The main reasons for cost and time variance were scope and design changes during the evaluation phase (planning) of projects. Other factors included:

- variations to the project scope after awarding the contract to build
- issues relating to build quality prior to project completion
- inclement weather conditions during construction.

Six of the 20 projects are expected to exceed their original approved budget by more than \$100 million, with variances ranging from \$107.13 million to \$1.3 billion. Scope and design changes were the main reasons for the variances – see Table 3.

Project	Original budget \$m	Estimated total cost at 30 June 2012	\$ variance (\$m)	Per cent variance	Reason for variance
Albany Health Campus	20.00	170.80	150.80	754	Significantly expanded scope resulting from increased state and Commonwealth funding. Increase in cost is also due to the cost of medical imaging department redesign and reconstruction.
New Children's Hospital	206.80	1168.70	961.90	465	The original \$206.8 million budget was for the relocation of Princess Margaret Hospital to Royal Perth Hospital. The current approved budget is based on a completely new build on the QEII Medical Centre site.
Fiona Stanley Hospital	420.00	1719.80	1299.80	309	The original estimates were unrealistic and were not based on a good understanding of what this major project would involve. The planning phase for the Fiona Stanley Hospital was neither efficient nor effective.
Perth Arena	160.00	548.70	388.70	243	Original cost and time estimates were made before the project was well understood and defined. Changes to the scope of the project during the planning, tendering and contract award phases, including the addition of an undercover car park, have added to cost increases.
Midland Health Campus	181.20	360.20	179.00	99	Midland was originally planned to be a major refurbishment and expansion of the existing Swan District site. The project is now the construction of a new hospital at a new site. The original budget only included the state government's commitment for this refurbishment. An additional \$180.1 million is to be funded from the Commonwealth Government.
Joondalup Health Campus	122.67	229.80	107.13	87	Original project budget announced prior to business case. Also, after business case approval the project underwent detailed project definition to clarify project costs resulting in an approval to current budget of \$229.8 million.

**Table 3: Details of projects expected to exceed their original approved budget by more than \$100 million**

Recent research highlights that without a defined scope any budget that is formulated at the original decision to build will be inaccurate and subject to change.<sup>5</sup> Setting project budgets and timelines before the consideration of a project business case significantly increases the risk that project costs will be understated, completion dates will be delayed and public expectations will not be met. It also indicates that the major investment decision for a project was not as well informed as it could have been had it been taken at the completion of the project evaluation phase.

Better practice is to set the project budgets and timelines after there has been consideration of a project business case, making the investment decision better informed.

SP advised that it has been recent government practice for complex, high risk projects to receive an initial budget to fund evaluation development and planning. Subsequent project budgets and timelines were established at the end of the evaluation phase when the business case has been completed, a more realistic view of cost and timelines are available and the project has received Cabinet approval to proceed.

This new approach is evident in the Perth Major Stadium project (not included in the 20 projects in this audit). This project was allocated an initial \$13 million to conduct project definition and master planning. If the project continues into delivery, the original approved budget and completion date should be based on a business case and project definition plan. The stadium should therefore be subject to less cost and time variance and the final outcome should be close to the original approved budget and timeline.

Implementation of this approach over time, coupled with the completion of older projects that pre-date Works Reform, should see a reduction in overall cost and time variance.

## Project transparency and accountability could be improved

Project transparency and accountability for decisions across the 20 projects was often difficult to establish. This was primarily due to problems in tracking key project documents such as significant decisions and evidence to show that the business case investment option remained valid throughout a project's lifecycle. We found that:

- it is difficult for project staff or those undertaking any project review to establish a clear project history
- project definition plans did not always provide sufficient evidence that the preceding business case investment option remained valid
- there is inconsistent reporting of expected total costs and project start dates. This makes it difficult to conduct trend analysis, measure project performance and determine the full capital cost of a project.

In the absence of this documentation, it is more likely that:

- funding and procurement decisions could be made without a full understanding of original project requirements, risk and cost benefit analysis
- corporate knowledge will be lost due to staff turnover during the life of the project
- the post project review is made more difficult and so diminishes the opportunity to review project outcomes and systematically improve performance in subsequent projects
- Parliament and the public cannot easily be made aware of project progress and key changes to any project.

<sup>5</sup> Love, P, Wang, X, Sing, C, Tiong, R (2012) "Determining the Probability of Project Cost Overruns", *Journal of Construction Engineering and Management*, doi:10.1061/(ASCE)CO.1943-7862.0000575.

### **It is difficult for project staff or those undertaking any project review to establish a clear project history**

Project transparency and accountability is hampered by having key project records dispersed across numerous locations and by difficulties in tracking and establishing project submissions and approval documents at those locations.

Key project documents are held by different areas within agencies and project submissions and Cabinet approvals are classified Cabinet-in-Confidence. It is difficult for project staff or those undertaking any project review to establish a clear project history, including original project outcomes, major changes to the project scope and key project approvals. The only way to establish a complete project history is to retrace all project documents.

SP does not retain copies of all key project documents. This makes it difficult for SP to oversee the non-residential building program and verify that agencies are complying with the SAME. So that it is able to effectively undertake this activity SP should retain copies of key submissions and approvals project documents.

### **Project definition plans did not always provide sufficient evidence that the investment option detailed in the business case document remained valid**

It was difficult to verify that a project business case investment option remained valid throughout the life of a project. Project definition plans (which are completed at the end of the definition phase of the project management framework), did not always provide sufficient evidence that the business case investment option remained valid.

Project definitions will invariably change after the development of the business case – often considerably. Such changes, unless they of a minor nature should lead to an update to the business case. If the original business case is not updated, there is a risk that the funding decision could be made without a full understanding of the impact of the changes on the original project needs assessment, risk and cost benefit analysis.

Every project should be able to demonstrate its viability. A project's business justification should be documented and maintained in the business case which provides the foundation for investment decisions and acts as a point of reference throughout the life of a project. We found that 19 of the 20 projects had a documented business case. There was no documented business case for the Fast-Track Prison project, however Cabinet approval was granted for urgent funding without a business case.

A robust business case document enables agreement of the best investment option, and the scope, cost schedule and risk parameters that apply. Maintaining the business case is essential to understanding the merits of the project on a risk and cost-benefit basis.

The project definition plan provides the in-depth analysis and specification of the agreed option. The project definition plan should confirm whether planning for the project remains on track, or whether there have been material changes in the scope, cost and schedule parameters as detailed in the business case document. It provides an important reality check to enable decision makers to determine whether or not to proceed to the delivery stage of the project management framework.

We found that for some projects, project definition plans did highlight changes in scope, cost and schedule. However, in some projects, where there were substantial increases in costs between business case and project definition plan, there was little evidence to show that the business case had been reviewed and that the original investment option and baseline remained valid.

SP, BMW and agencies should ensure that project business cases are maintained throughout the life of the investment. Where project scope, costs and schedules change, project definition plans should provide sufficient evidence to confirm that the investment option remains valid. If the original investment option is no longer valid because of major scope change, then a new business case should be written as a matter of urgency.

### **There is inconsistent reporting of expected total costs and project start dates**

A consistent approach to reporting project cost and timeline is critically important in evaluating project performance and measuring the success of the Works Reform program.

We found that a consistent approach does not exist across all 20 projects for reporting of project start dates and expected project costs. For example, Albany Health Campus notes a start date of Expenditure Review Committee approval, whilst alternatively Perth Rectangular Stadium reports a start date based upon a Ministerial statement. This reflects inconsistencies in government process. In the absence of a consistent approach, it is difficult to conduct trend analysis, measure project performance and determine the full capital cost of a project.

Expected total costs did not always include all capital costs, some of which amounted to many millions of dollars. Examples include the exclusion of:

- related land purchases and sales
- ground works
- associated staff accommodation costs
- BMW management fees
- project close out and review costs.

To facilitate trend analysis, improve strategic project evaluation and the accuracy of performance reporting SP and BMW should:

- establish a standard baseline for reporting original approved budgets, original estimated completion dates and project start dates
- maintain a complete and accurate project history including details of key decisions and a repository of key documents
- ensure that there is consistent reporting of estimated total costs (these should include all project specific planning, evaluation, definition, delivery, project close-out and review costs)
- report project related land purchases and sales as part of the project estimated total cost
- update SAMF policies and guidelines, which are soon to be submitted for Cabinet, to ensure consistency in reporting cost and time performance.

## Appendix 1: Glossary

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Economic and Expenditure Reform Committee (of Cabinet)	EERC
Expenditure Review Committee	ERC
Public Private Partnership	PPP
Strategic Asset Management Framework	SAMF
The Department of Finance – Building Management and Works	BMW
The Department of Treasury – Strategic Projects	SP

## Appendix 2: The Top 20 Highest Value Non-residential Building Projects

Project	Client agency	Estimated total cost \$m
Acacia Prison Expansion	Department of Corrective Services	126.00
Agriculture Headquarters Redevelopment including Australian Export Grains Innovation Centre	Department of Agriculture and Food WA	235.00
Albany Health Campus Redevelopment	Department of Health	170.80
Busselton Health Campus	Department of Health	120.40
Central Energy Plant QEII Medical Centre	Department of Health	225.20
Central Law Courts Refurbishment	Department of the Attorney General	59.40
Eastern Goldfields Regional Prison	Department of Corrective Services	232.00
Fast-Track Prison Accommodation	Department of Corrective Services	75.05
Fiona Stanley Hospital	Department of Health	1 719.80
Governor Stirling Senior High School	Department of Education	63.00
Joondalup Health Campus – Stage 1 Redevelopment	Department of Health	229.80
Karratha Health Campus	Department of Health	207.20
Midland Health Campus	Department of Health	360.20
New Children's Hospital	Department of Health	1 168.70
PathWest Laboratory Medicine WA Stage 1	Department of Health	59.80
Perth Arena	Venues West	548.70
Perth Police Complex	WA Police	92.80
Perth Rectangular Stadium Redevelopment (Perth Oval)	Department of Sport and Recreation	102.60
State Rehabilitation Service	Department of Health	239.00
West Kimberley Regional Prison	Department of Corrective Services	122.00
	<b>TOTAL</b>	<b>6 157.45</b>

Source: Department of Treasury and Department of Finance

*The expected cost is as reported on 30 June 2012.*



## Appendix 3: Project Summary Sheets

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### Notes for the project summary sheets

1. Cost variance is the difference between originally approved budgets (State Budget Paper) and current expected total cost.
2. Time variance is the difference between 1 July in the year that the project first appeared as a 'New Project' in State Budget papers and the current expected completion date (end of month).
3. Detailed reasons for cost and time variances for each project were provided by the Department of Treasury, the Department of Finance and client agencies.
4. We have summarised the information provided to us by agencies to reflect high level reasons for variance, and it is these which are included in the project summary sheets.

## Acacia Prison Expansion

### DESCRIPTION AND BACKGROUND

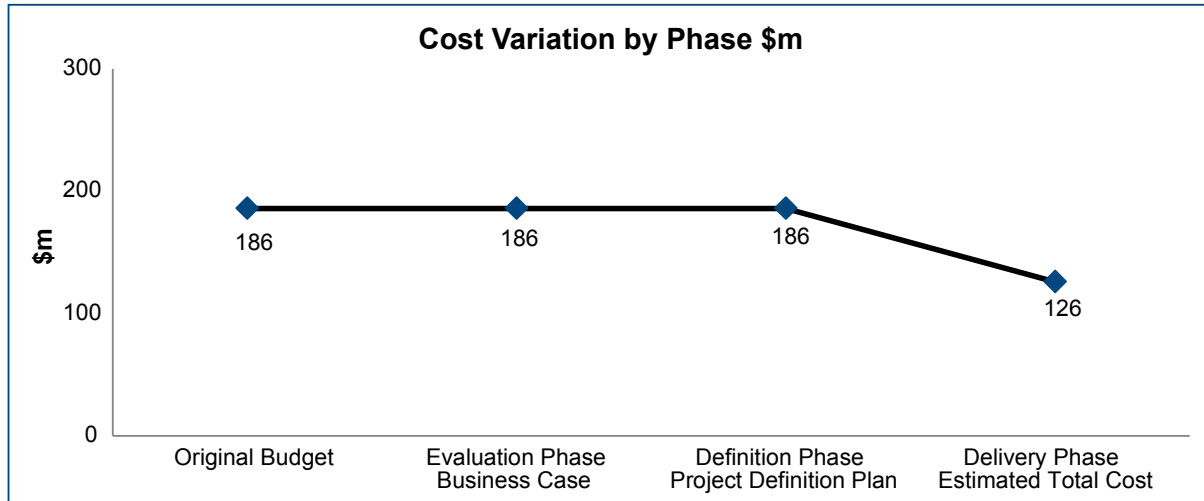
<b>Project description and scope</b>	Expansion of existing Acacia Prison to provide accommodation for an additional 387 prisoners and associated infrastructure and amenities. Design and Construct contract to be delivered within an existing operating prison.
<b>Location</b>	Wooroloo, 55 km east of Perth
<b>Agency</b>	Department of Corrective Services
<b>Procurement strategy</b>	Design and Construct
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery

### COST

Original approved budget	\$186m	<p>Expenditure to 30 June 2012 \$1.4m</p> <p>Expected cost \$126m</p> <p>Variance - \$60m</p> <p>Original planned project budget \$186m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$126m	
Expected cost	\$126m	
Expenditure to 30 June 2012	\$1.4m	
Variance from original approved budget	- \$60m	
Reasons for variance	SCOPE CHANGE Project scope reduced prior to award of construction contract.	



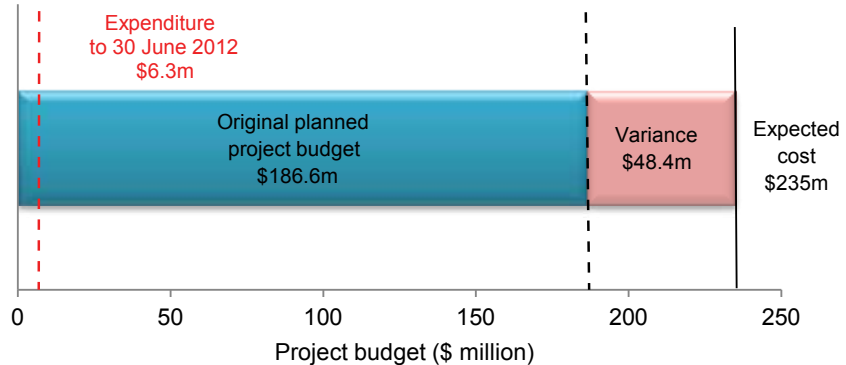
TIME		
Project start date	July 2009	<p>Original project time 71 months</p> <p>Expected project time 71 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	June 2015	
Current approved completion date	June 2015	
Expected completion date	June 2015	
Variance from original approved completion date	0 months	
Reasons for variance	NOT APPLICABLE	

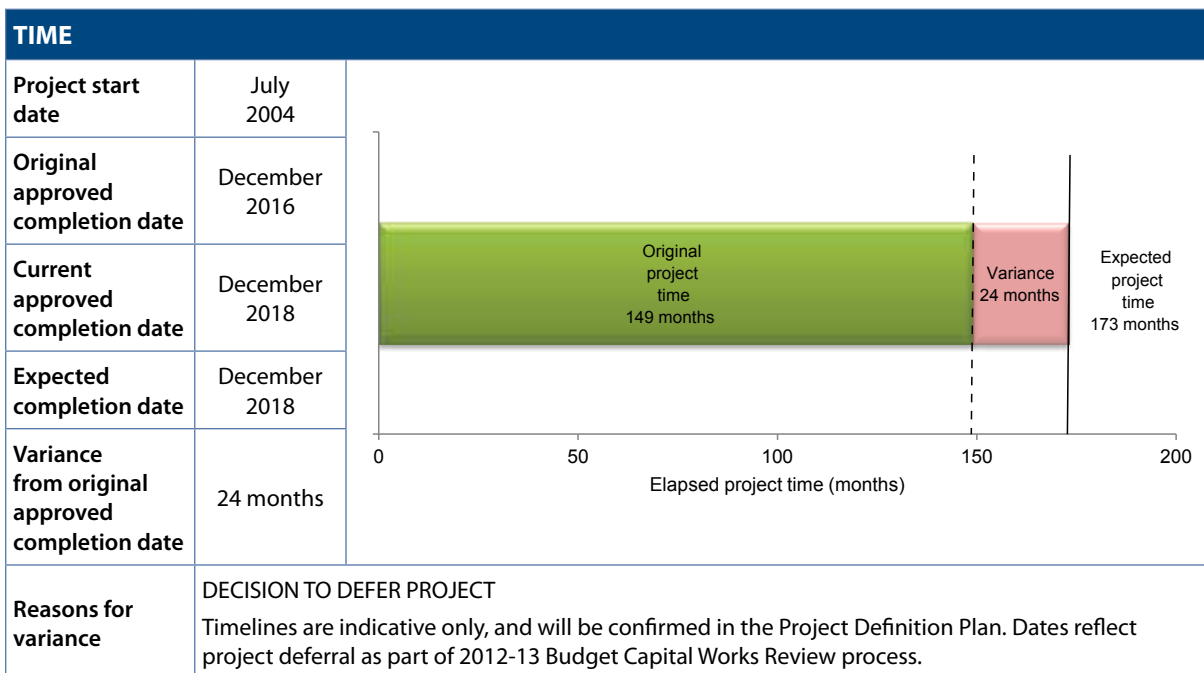
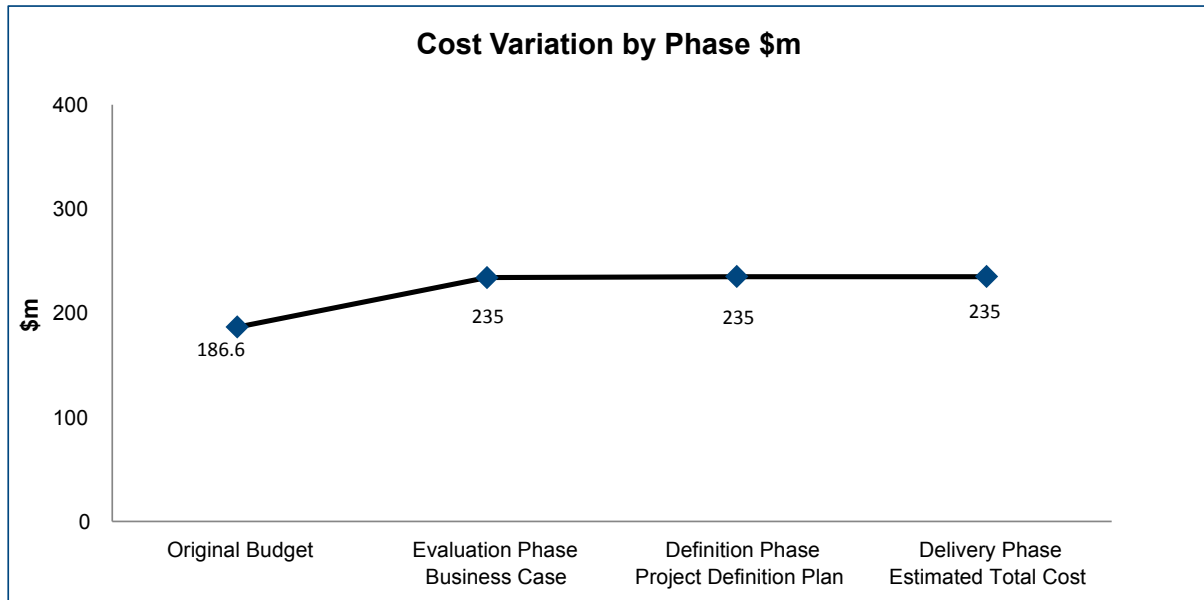
## Agriculture Headquarters Redevelopment including Australian Export Grains Innovation Centre

DESCRIPTION AND BACKGROUND	
Project description and scope	Redevelopment of the Department of Agriculture Headquarters including Australian Export Grains Innovation Centre.
Location	South Perth
Agency	Department of Agriculture and Food WA
Procurement strategy	To be decided
Funding source	State Government

PROJECT MANAGEMENT	
Delivery agency	Department of Treasury – Strategic Projects
Project phase	Definition – Project Definition

COST	
Original approved budget	\$186.6m
Current approved budget	\$235m
Expected cost	\$235m
Expenditure to 30 June 2012	\$6.3m
Variance from original approved budget	\$48.4m
Reasons for variance	<p>SCOPE CHANGE</p> <p>Original budget allocation of \$186.6 was based on a relocation of the Department of Agriculture and Food WA (DAFWA) to the grounds of Murdoch University. Total project costing now represents the total cost for development of a new DAFWA Headquarters at existing Kensington site.</p>





## Albany Health Campus Redevelopment

### DESCRIPTION AND BACKGROUND

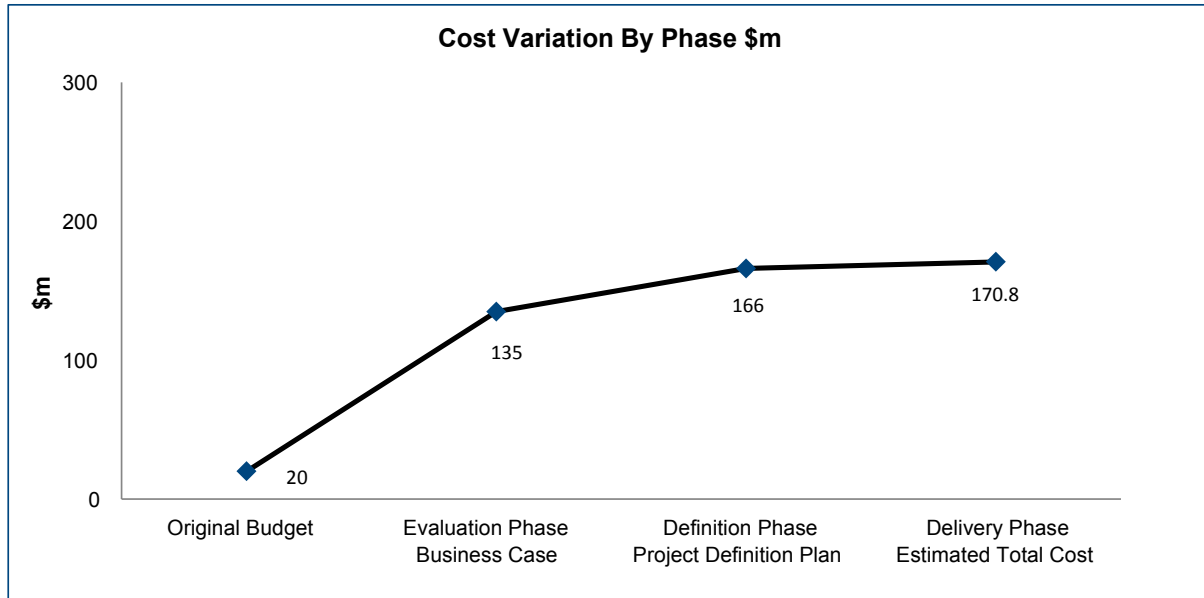
<b>Project description and scope</b>	Construction of a new regional health campus in Albany to replace the existing facility. It is the largest public health construction project undertaken in regional WA.
<b>Location</b>	The new Albany Health Campus will be built on the existing hospital site in Warden Avenue, Albany, which will remain open while the new campus is under construction
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Early Contractor Involvement
<b>Funding source</b>	State Government, Royalties for Regions and Commonwealth Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$20m	<p>Original planned project budget \$20m</p> <p>Project expenditure to 30 June 2012 \$120.2m</p> <p>Variance \$150.8m</p> <p>Expected cost \$170.8m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$170.5m \$161.6m February 2010 election commitment and \$8.9m Commonwealth	
Expected cost	\$170.8m	
Expenditure to 30 June 2012	\$120.2m	
Variance from original approved budget	\$150.8m	
Reasons for variance	SCOPE CHANGE The cost increase is due to a significantly expanded scope resulting from increased state and Commonwealth and funding. Increase in cost is also due to the cost of medical imaging department redesign and reconstruction.	



TIME		
Project start date	July 2005	<p>Original project time 74 months</p> <p>Variance 18 months</p> <p>Expected project time 92 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	September 2011	
Current approved completion date	December 2012	
Expected completion date	March 2013	
Variance from original approved completion date	18 months	
Reasons for variance	DELAYS IN CONTRACTOR APPOINTMENT AND DELIVERY DELAYS Late appointment of the contractor has delayed the commencement of the construction. There have been delays due to medical imaging redesign, asbestos being found during demolition and poor weather conditions.	

## Busselton Health Campus

### DESCRIPTION AND BACKGROUND

<b>Project description and scope</b>	Redevelopment of the existing hospital site with the construction of a new 80 bed facility and a new integrated Health Campus.
<b>Location</b>	Mill Road, Busselton
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Design and Construct with novation of the design team (ND&C)
<b>Funding source</b>	State Government, Royalties for Regions and Commonwealth Government

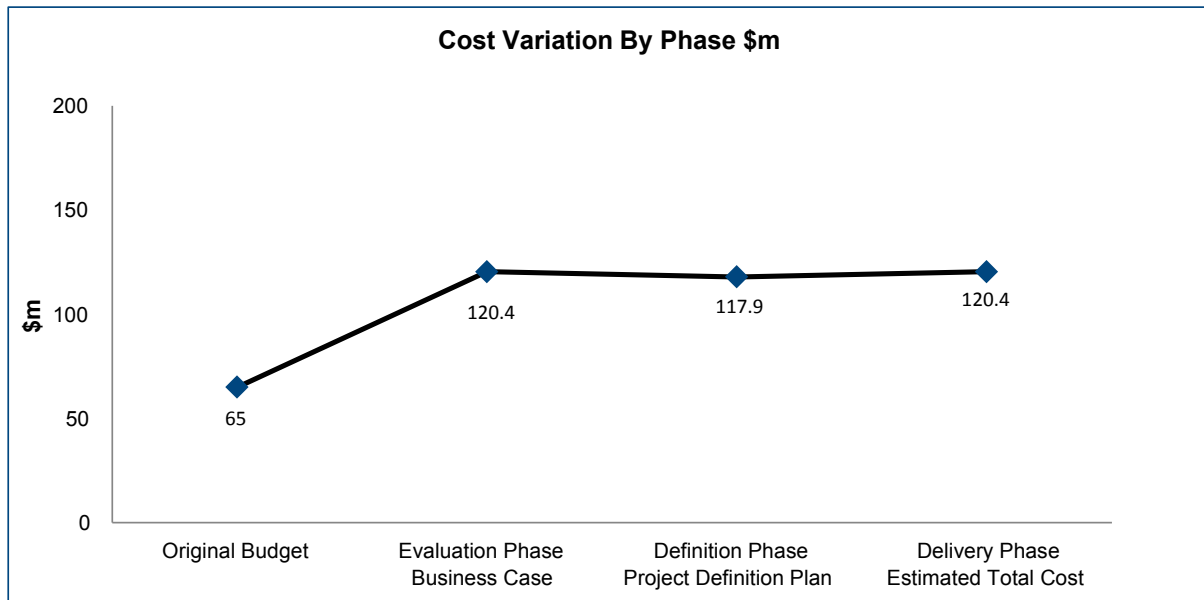
### PROJECT MANAGEMENT

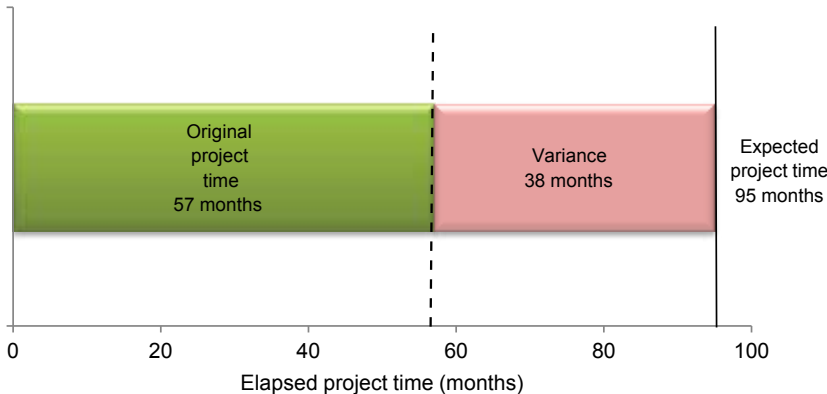
<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Tender

### COST

Original approved budget	\$65m	<p>Expenditure to 30 June 2012 \$5.8m</p> <p>Original planned project budget \$65m</p> <p>Variance \$55.4m</p> <p>Expected cost \$120.4m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$120.4m	
Expected cost	\$120.4m	
Expenditure to 30 June 2012	\$5.8m	
Variance from original approved budget	\$55.4m	
Reasons for variance	<p><b>SCOPE CHANGE</b></p> <p>The original budget was for a green-field hospital site located in the Vasse Newton but the plan is now for a redevelopment of the current hospital site in Busselton. The approved business case and new budget include funding for the replacement of the community health centre and mental health clinic.</p>	





TIME		
Project start date	July 2006	
Original approved completion date	April 2011	
Current approved completion date	June 2014	
Expected completion date	June 2014	
Variance from original approved completion date	38 months	
Reasons for variance	SCOPE CHANGE AND DELAY IN OBTAINING ENVIRONMENTAL APPROVAL More detailed planning required due to change in project scope from new hospital on green-field site to redevelopment of the current hospital. Also, project now includes a new community health centre and mental health clinic. There were also delays in obtaining state and commonwealth environmental approvals.	

## Central Energy Plant QEII Medical Centre

### DESCRIPTION AND BACKGROUND

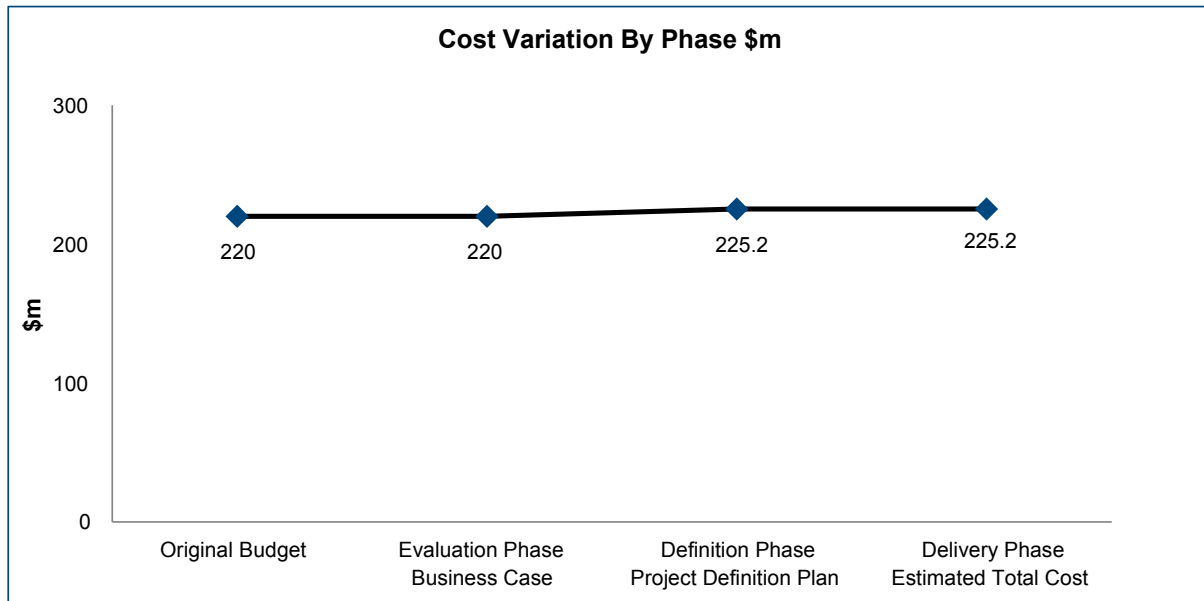
Project description and scope	Relocation of the existing central energy plant with a new facility located to the east of Hollywood Hospital.
Location	QEII Medical Centre, Nedlands
Agency	Department of Health
Procurement strategy	Two stage managing contractor
Funding source	State Government

### PROJECT MANAGEMENT

Delivery agency	Department of Treasury – Strategic Projects
Project phase	Delivery – Construction

### COST

Original approved budget	\$220m	<p>Expenditure to 30 June 2012 \$182m</p> <p>Original planned project budget \$220m</p> <p>Variance \$5.2m</p> <p>Expected cost \$225.2m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$225.2m	
Expected cost	\$225.2m	
Expenditure to 30 June 2012	\$182m	
Variance from original approved budget	\$5.2m	
Reasons for variance	<b>COST CLARIFICATION DURING PROJECT DEFINITION</b> After business case approval the project underwent detailed project definition to clarify project costs. This definition identified an expected cost of \$225.2 million for the project, \$5.2 million more than the business case estimate.	



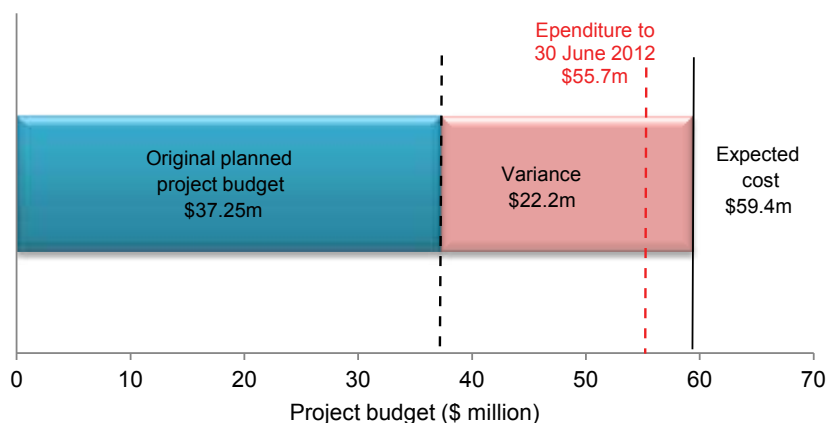
TIME		
Project start date	July 2010	<p>Original project time 24 months</p> <p>Variance 5 months</p> <p>Expected project time 29 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	July 2012	
Current approved completion date	December 2012	
Expected completion date	December 2012	
Variance from original approved completion date	5 months	
Reasons for variance	DELAY WITHIN DELIVERY PHASE	

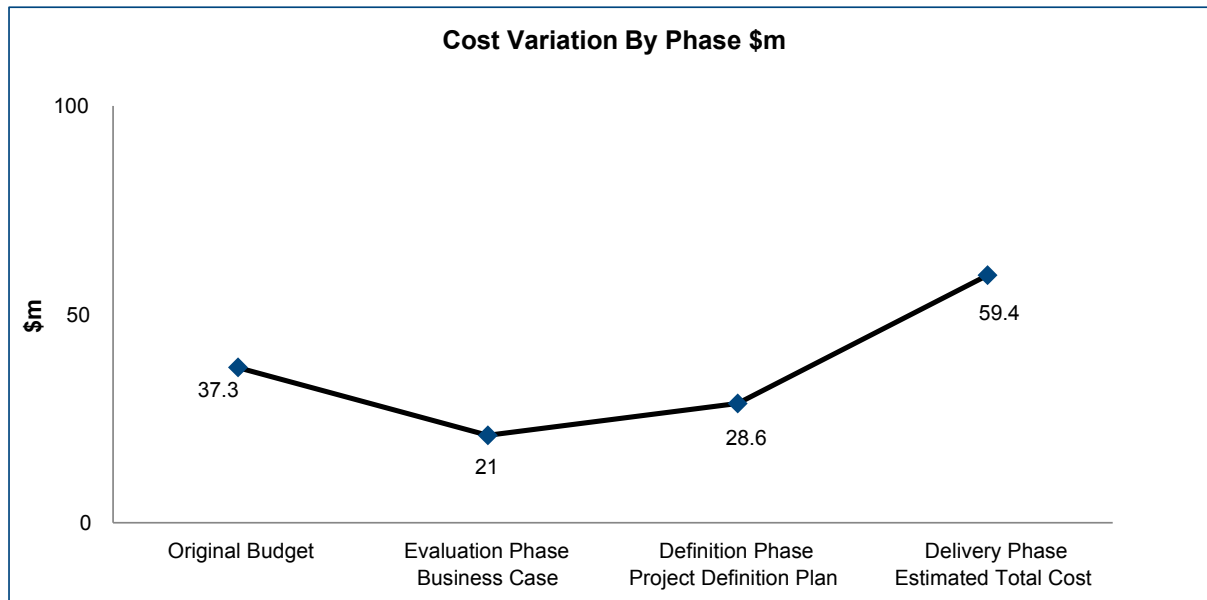
## Central Law Courts Refurbishment

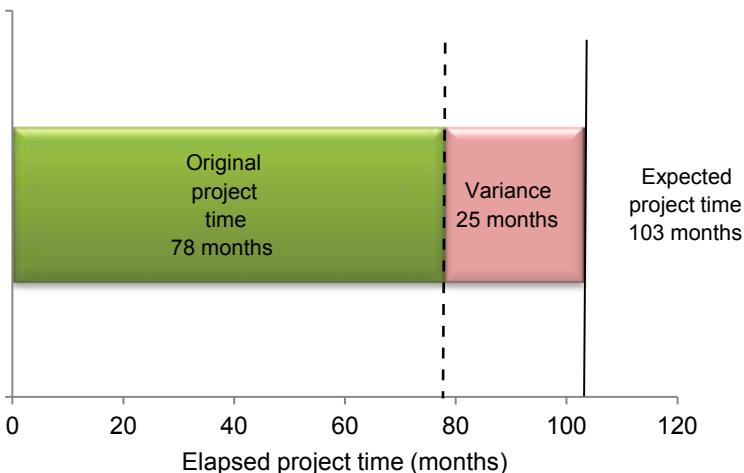
DESCRIPTION AND BACKGROUND	
Project description and scope	Refurbishment of the Central Law Courts as a dedicated Magistrates Court following the completion of the new District Court building.
Location	Perth CBD
Agency	Department of the Attorney General
Procurement strategy	Design and Construct
Funding source	State Government

PROJECT MANAGEMENT	
Delivery agency	Department of Finance – Building Management and Works
Project phase	Delivery – Construction (defect rectification)

COST	
Original approved budget	\$37.25m
Current approved budget	\$59.4m
Expected cost	\$59.4m
Expenditure to 30 June 2012	\$55.7m
Variance from original approved budget	\$22.2m
Reasons for variance	<p><b>SCOPE CHANGES</b></p> <p>Current approved budget includes an increase to the contingency allowance. The original budget was based on an estimate as the state of disrepair could not be assessed from visual assessment, audio recording and video conferencing and IT costs along with a number of scope variation costs pre and post award of construction project which were not included in the original budget. All variations were approved via the May 2008 State Budget.</p> <p>It was always recognised that the Central Law Courts refurbishment would potentially cost substantially more than estimated as the state of disrepair could not be assessed from visual assessment.</p>





TIME		
Project start date	July 2003	
Original approved completion date	July 2009	
Current approved completion date	August 2009	
Expected completion date	February 2012	
Variance from original approved completion date	25 months	
Reasons for variance	CONSTRUCTION HANDOVER DELAY AND INCREASED SCOPE Scope variation pre and post award of construction project, failure to achieve project completion date due to the nature of works in an occupied building and poor quality finish meaning major rectification works needed before handover.	

## Eastern Goldfields Regional Prison

### DESCRIPTION AND BACKGROUND

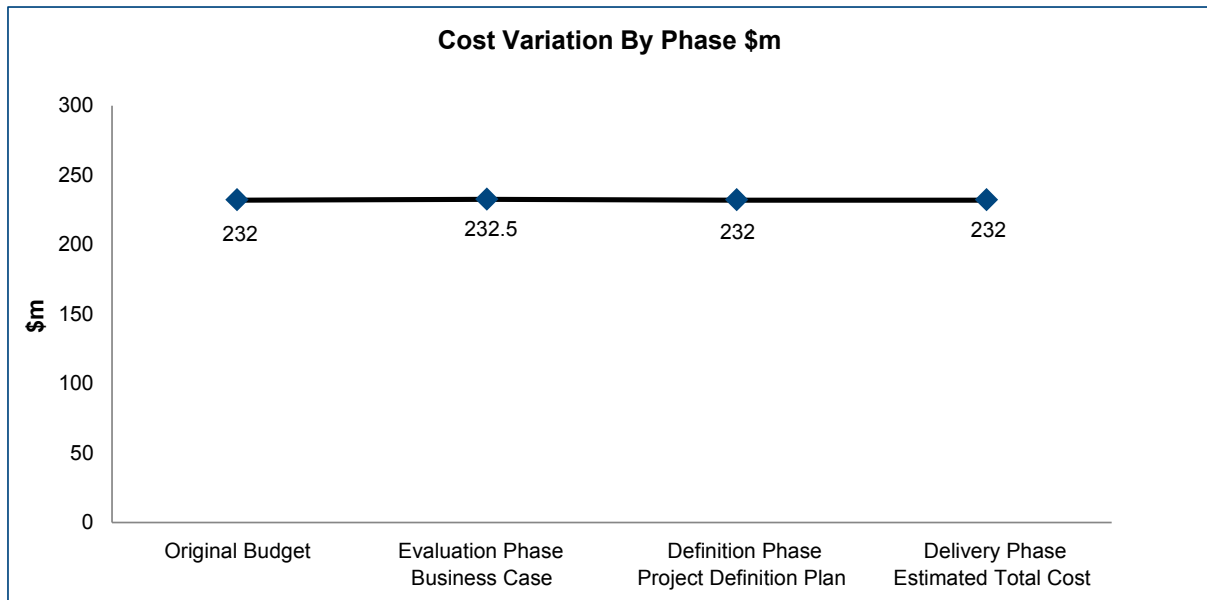
<b>Project description and scope</b>	Construction of a new 350 bed prison to replace existing 100 bed facility. The prison will be mixed gender and cater for maximum, medium and minimum security prisoners from the region.
<b>Location</b>	Kalgoorlie-Boulder, 596 km east of Perth
<b>Agency</b>	Department of Corrective Services
<b>Procurement strategy</b>	Public Private Partnership
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Tender

### COST

Original approved budget	\$232m	<p>Expenditure to 30 June 2012 \$3.1m</p> <p>Original planned project budget \$232m</p> <p>Expected cost \$232m</p> <p>0 50 100 150 200 250 Project budget (\$ million)</p>
Current approved budget	\$232m	
Expected cost	\$232m	
Expenditure to 30 June 2012	\$3.1m	
Variance from original approved budget	\$0m	
Reasons for variance	NOT APPLICABLE	



TIME		
Project start date	July 2006	
Original approved completion date	December 2014	
Current approved completion date	November 2015	
Expected completion date	November 2015	
Variance from original approved completion date	11 months	
Reasons for variance	<p><b>PROCUREMENT DELAY</b></p> <p>The delay in the procurement decision has effected project completion date. Dates initially provided were based on traditional procurement with approval to proceed mid-2009. Revised project timetable reflects the delay.</p>	

## Fast-Track Prison Accommodation

### DESCRIPTION AND BACKGROUND

<b>Project description and scope</b>	Provision of an additional 640 prison beds located at three maximum security prisons. The project has been extended to provide infrastructure upgrades to the three prisons and to extend the prison wall at Hakea.
<b>Location</b>	Casuarina, Hakea and Albany Regional Prison
<b>Agency</b>	Department of Corrective Services
<b>Procurement strategy</b>	Managing contractor
<b>Funding source</b>	State Government

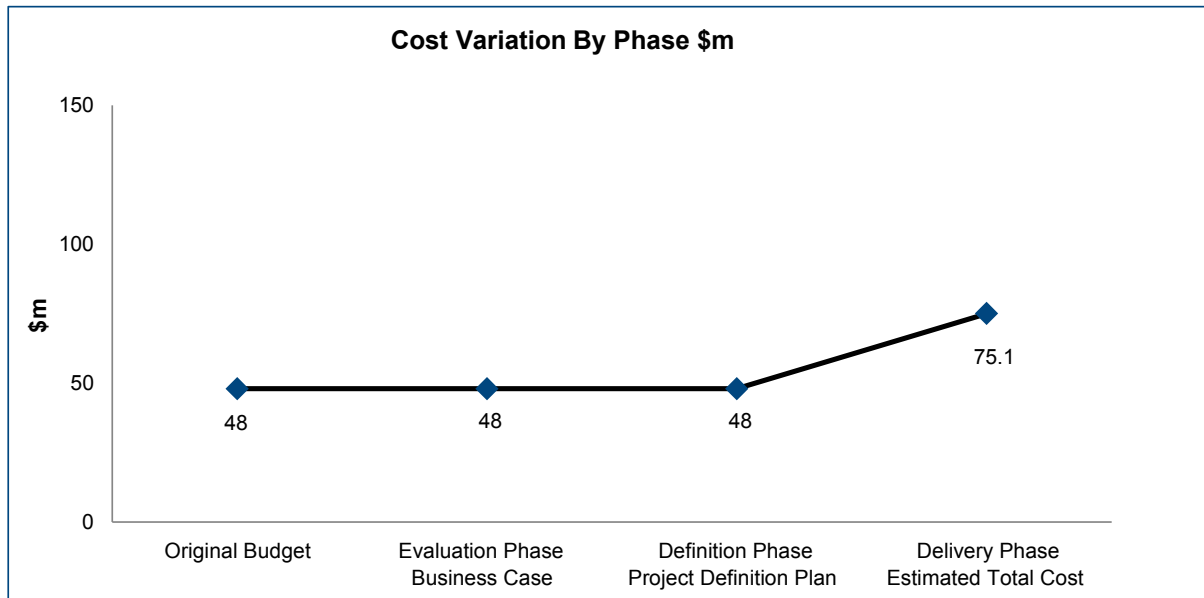
### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Finance – Building Management and Works
<b>Project phase</b>	Transition to Operation

### COST

Original approved budget	\$48m	<p>Expenditure to 30 June 2012 \$75.01m</p> <p>Original planned project budget \$48m</p> <p>Variance \$27.05m</p> <p>Expected cost \$75.05m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$69.5m	
Expected cost	\$75.05m	
Expenditure to 30 June 2012	\$75.01m	
Variance from original approved completion date	\$27.05m	
Reasons for variance	<p><b>SCOPE CHANGE AND SUPPLIER DELAY</b></p> <p>Initial scope of project expanded from provision of transportable prisoner accommodation to build accommodation at a number of prisons. This change in scope necessitated infrastructure upgrades at the three prisons, including a new perimeter wall at Hakea Prison.</p>	





TIME	
Project start date	July 2008
Original approved completion date	July 2011
Current approved completion date	July 2011
Expected completion date	August 2011
Variance from original approved completion date	1 month
Reasons for variance	SCOPE CHANGE AND SUPPLIER DELAY Change in scope and delays in supply of concrete panels.

The chart displays the project timeline with the following data points:

Category	Start Date	End Date	Duration (Months)
Original project time	July 2008	July 2011	36
Expected project time	July 2008	August 2011	37

The variance of 1 month is indicated by the difference between the original and expected completion dates.

## Fiona Stanley Hospital

### DESCRIPTION AND BACKGROUND

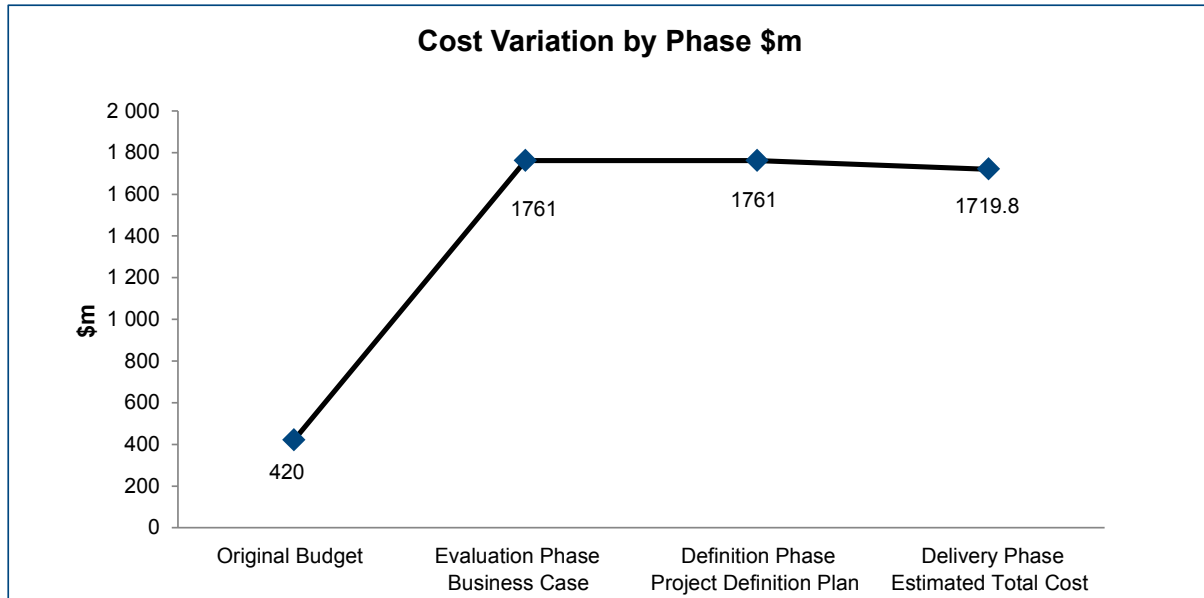
<b>Project description and scope</b>	Construction of a new 643 bed tertiary hospital in Murdoch to provide tertiary services for the south metropolitan area and some state-wide services.
<b>Location</b>	Fiona Stanley Hospital is located at Murdoch, approximately 15 kilometres south of the Perth CBD and nine kilometres east of Fremantle
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Two Stage Managing Contractor
<b>Funding source</b>	State Government

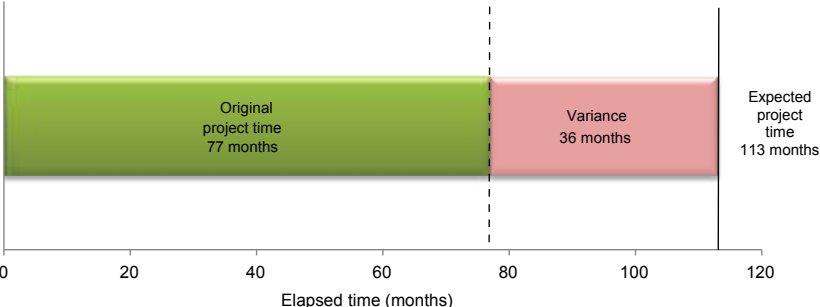
### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$420m	<p>Original planned project budget \$420m</p> <p>Expenditure to 30 Jun 12 \$1 259.9m</p> <p>Variance \$1 299.8m</p> <p>Expected cost \$1719.8m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$1 719.8m	
Expected cost	\$1 719.8m	
Expenditure to 30 June 2012	\$1 259.9m	
Variance from original approved budget	\$1 299.8m	
Reasons for variance	<p><b>SCOPE CHANGE PRIOR TO CONTRACT</b></p> <p>The original estimates were unrealistic and were not based on a good understanding of what this major project would involve. The planning phase for Fiona Stanley Hospital was neither efficient nor effective.</p>	



TIME		
Project start date	July 2004	
Original approved completion date	December 2010	
Current approved completion date	December 2013	
Expected completion date	December 2013	
Variance from original approved completion date	36 Months	
Reasons for variance	<p>SCOPE CHANGE PRIOR TO CONTRACT</p> <p>The delays to the opening date reflect the delays in the construction start dates caused by poor planning that held up project approval and extended construction timeframes reflecting increased scope.</p>	

## Governor Stirling Senior High School

### DESCRIPTION AND BACKGROUND

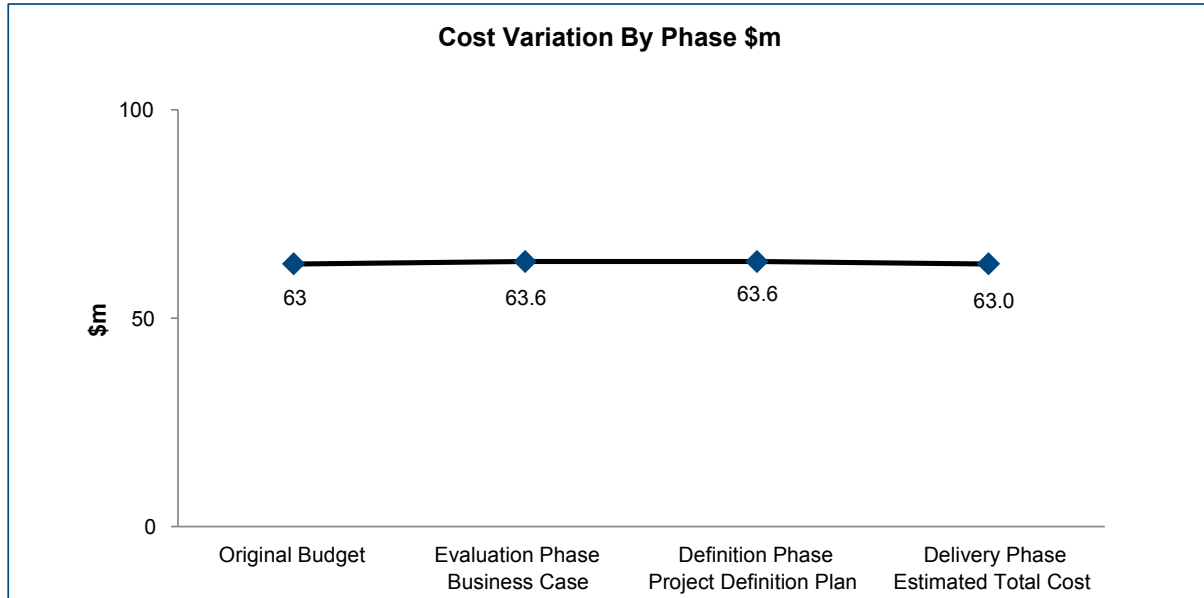
<b>Project description and scope</b>	Redevelopment of the Governor Stirling Senior High School as a comprehensive years 8-12 school designed to accommodate 1 000 students on its current 4.7 ha site.
<b>Location</b>	Ford Street, Woodbridge WA
<b>Agency</b>	Department of Education
<b>Procurement strategy</b>	Construct only
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Finance – Building Management and Works
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$63m	<p>Expenditure to 30 June 2012 \$41.7m</p> <p>Original planned project budget \$63m</p> <p>Expected cost \$63m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$63m	
Expected cost	\$63m	
Expenditure to 30 June 2012	\$41.7m	
Variance from original approved budget	\$0m	
Reasons for variance	NOT APPLICABLE	



TIME		
Project start date	July 2008	<p>Expected project time 54 months</p> <p>Original project time 54 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	January 2013	
Current approved completion date	December 2012	
Expected completion date	January 2013	
Variance from original approved completion date	0 months	
Reasons for variance	NOT APPLICABLE	

## Joondalup Health Campus – Stage 1 Redevelopment

### DESCRIPTION AND BACKGROUND

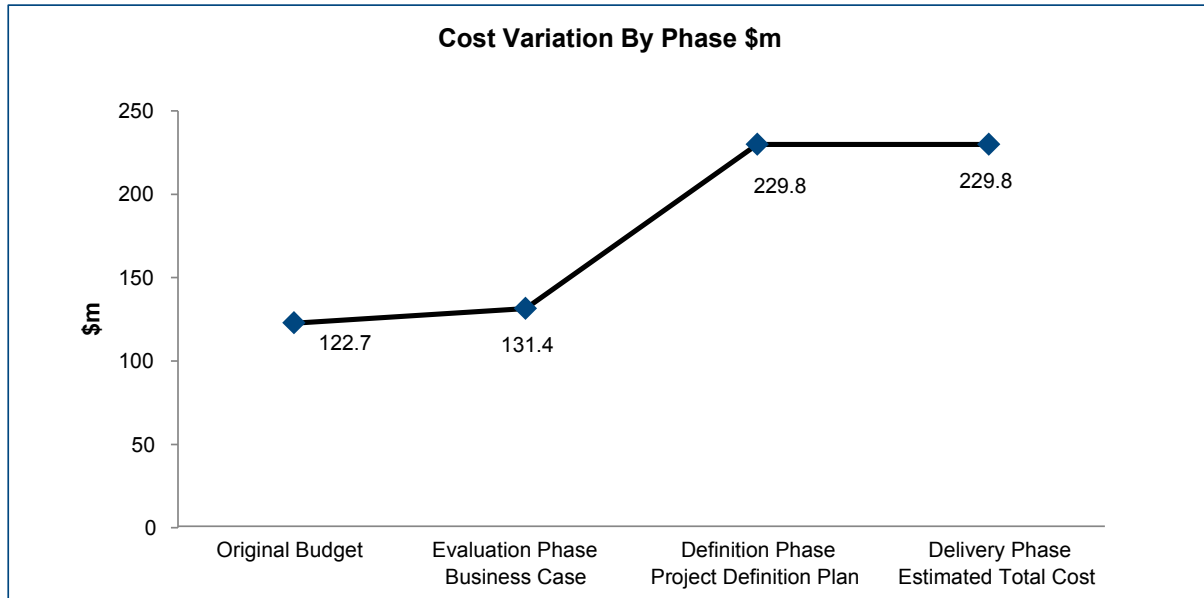
<b>Project description and scope</b>	Additions and alterations to the existing public and private hospital. The Stage 1 redevelopment project is being undertaken in seven phases, with final completion anticipated late 2013 increasing capacity from the current 280 public beds to 477 (including 20 day renal places).
<b>Location</b>	Located at corner Grand Boulevard and Shenton Avenue, Joondalup
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Managing contractor (engaged by Ramsey Health Care)
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$122.67m	<p>Expenditure to 30 June 2012 \$166.9m</p> <p>Original planned project budget \$122.67m</p> <p>Variance \$107.13m</p> <p>Expected cost \$229.8m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$229.8m	
Expected cost	\$229.8m	
Expenditure to 30 June 2012	\$166.9m	
Variance from original approved budget	\$107.13m	
Reasons for variance	COST CLARIFICATION DURING PROJECT DEFINITION Original project budget announced prior to business case. Following approval of the business case, the project underwent detailed project definition to clarify project costs. This resulted in the current approved budget of \$229.8m.	



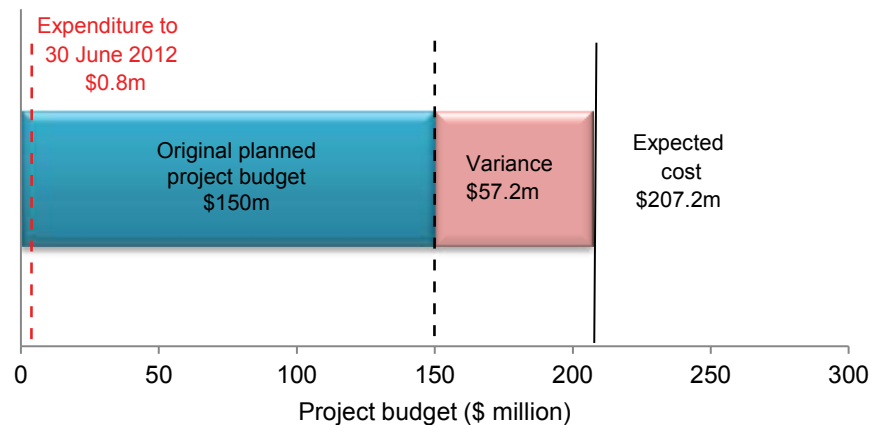
TIME		
Project start date	July 2007	<p>Original project time 61 months</p> <p>Variance 13 months</p> <p>Expected project time 74 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	August 2012	
Current approved completion Date	March 2014	
Expected completion date	September 2013	
Variance from original approved completion date	13 months	
Reasons for variance	MORE ACCURATE TIME PLANNING AS PROJECT PROGRESSED A more accurate delivery date was determined during the progression from project announcement to project delivery.	

## Karratha Health Campus

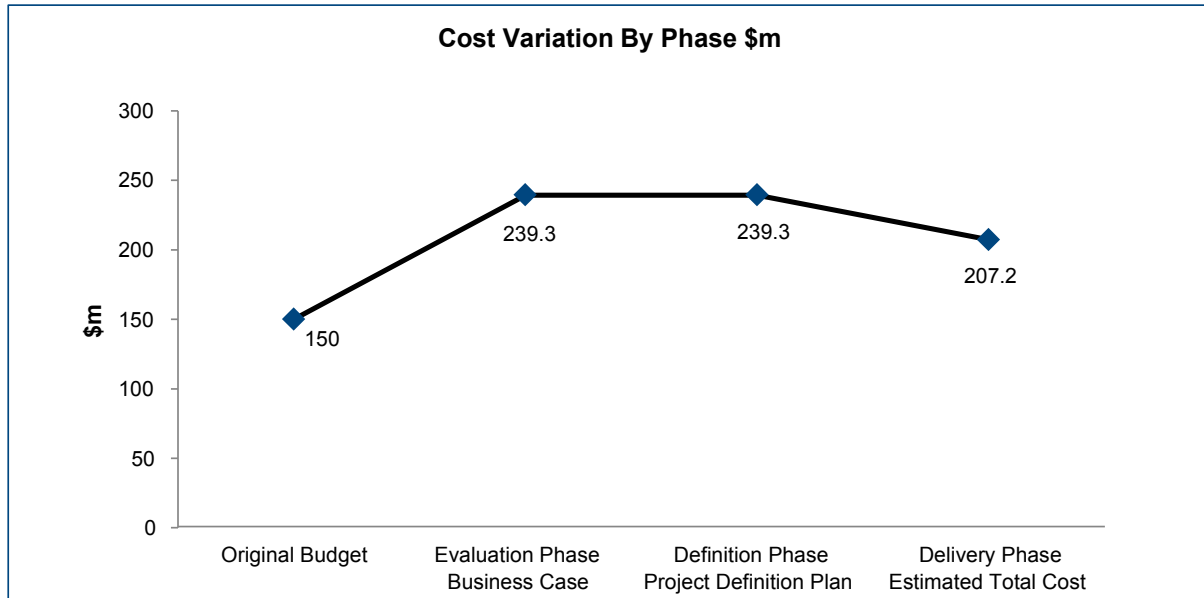
DESCRIPTION AND BACKGROUND	
Project description and scope	Deliver appropriate health infrastructure capacity to meet future demand of the West Pilbara region through the redevelopment/replacement of Nickol Bay Hospital.
Location	Karratha, Pilbara
Agency	Department of Health
Procurement strategy	To be decided
Funding source	State Government appropriation, Royalties for Regions grant and industry funding (for helipad)

PROJECT MANAGEMENT	
Delivery agency	Department of Treasury – Strategic Projects
Project phase	Project definition

COST	
Original approved budget	\$150m
Current approved budget	\$207.2m
Expected cost	\$207.2m
Expenditure to 30 June 2012	\$0.08m
Variance from original approved budget	\$57.2m
Reasons for variance	SCOPE CHANGE Significant project scope change from the original plan of refurbishing the existing hospital to the construction of a new hospital including a helipad.
Notes	PROJECT NOT YET IN DELIVERY







TIME		
Project start date	July 2010	<p>Original project time 59 months</p> <p>Variance 24 months</p> <p>Expected project time 83 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	June 2015	
Current approved completion date	June 2017	
Expected completion date	June 2017	
Variance from original approved completion date	24 months	
Reasons for variance	SCOPE CHANGE Significant project scope change from original plan to refurbish existing hospital to the construction of a new hospital. This change was made after the initial announcement of project completion dates.	

## Midland Health Campus

### DESCRIPTION AND BACKGROUND

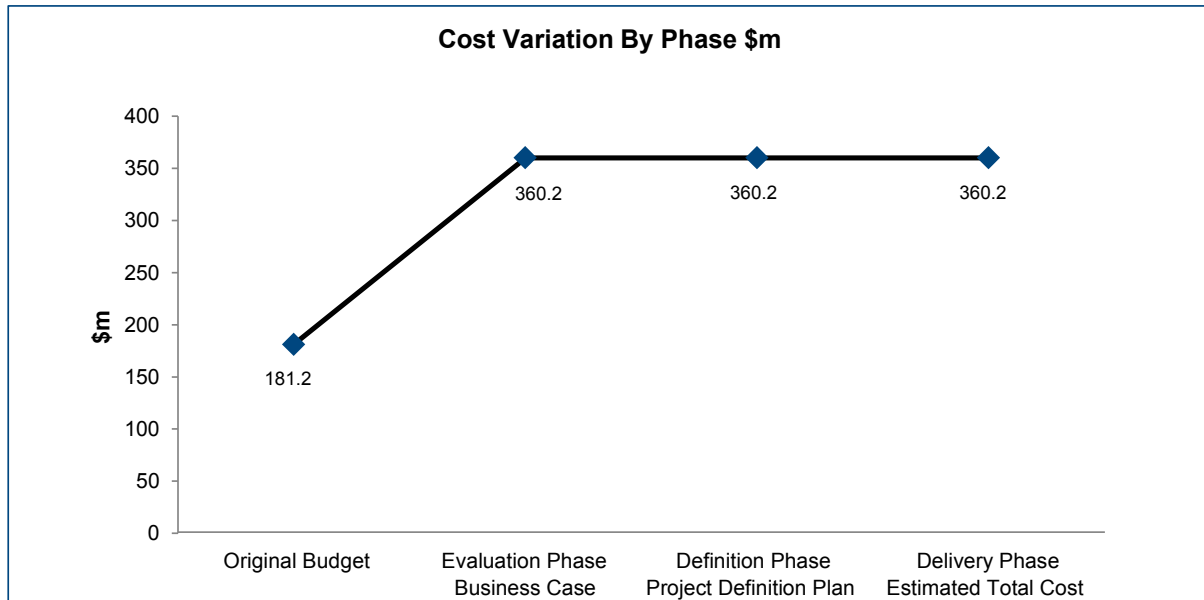
<b>Project description and scope</b>	Replacement of the existing Swan District Hospital with a new facility closer to the Midland town centre. The proposed new development will increase the existing bed capacity of 194 beds at Swan District Hospital to 307 beds on the new site, including an increased range of clinical services.
<b>Location</b>	Located on an eight hectare site bordering Clayton Street, Centennial Place and Lloyd Street in the heart of Midland town centre
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Design Build Operate Maintain
<b>Funding source</b>	State Government and Commonwealth (50/50)

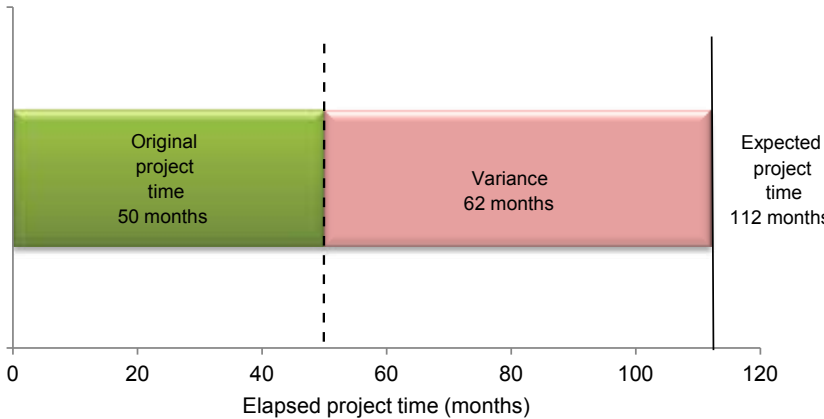
### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Contract awarded

### COST

Original approved budget	\$181.2m	<p>Expenditure to 30 June 2012 \$6.7m</p> <p>Original planned project budget \$181.2m</p> <p>Variance \$179m</p> <p>Expected cost \$360.2m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$360.2m	
Expected cost	\$360.2m	
Expenditure to 30 June 2012	\$6.7m	
Variance from original approved budget	\$179m	
Reasons for variance	<p><b>ADDITIONAL FUNDING BY COMMONWEALTH AND SCOPE CHANGE</b></p> <p>Midland was originally planned to be a major refurbishment and expansion of the existing Swan District site. The project now involves the construction of a new hospital at a new site. The original budget only included the state government’s commitment for this refurbishment. An additional \$180.1 million in funding is to be provided by the Commonwealth Government.</p>	



TIME		
Project start date	July 2006	
Original approved completion date	September 2010	
Current approved completion date	November 2015	
Expected completion date	November 2015	
Variance from original approved completion date	62 months	
Reasons for variance	DELAY IN COMMONWEALTH FUNDING AND SCOPE CHANGE Time delay due to project changing from refurbishment of Swan District Hospital to construction of a new hospital on another site. There were also delays in obtaining Commonwealth funding.	

## New Children's Hospital

### DESCRIPTION AND BACKGROUND

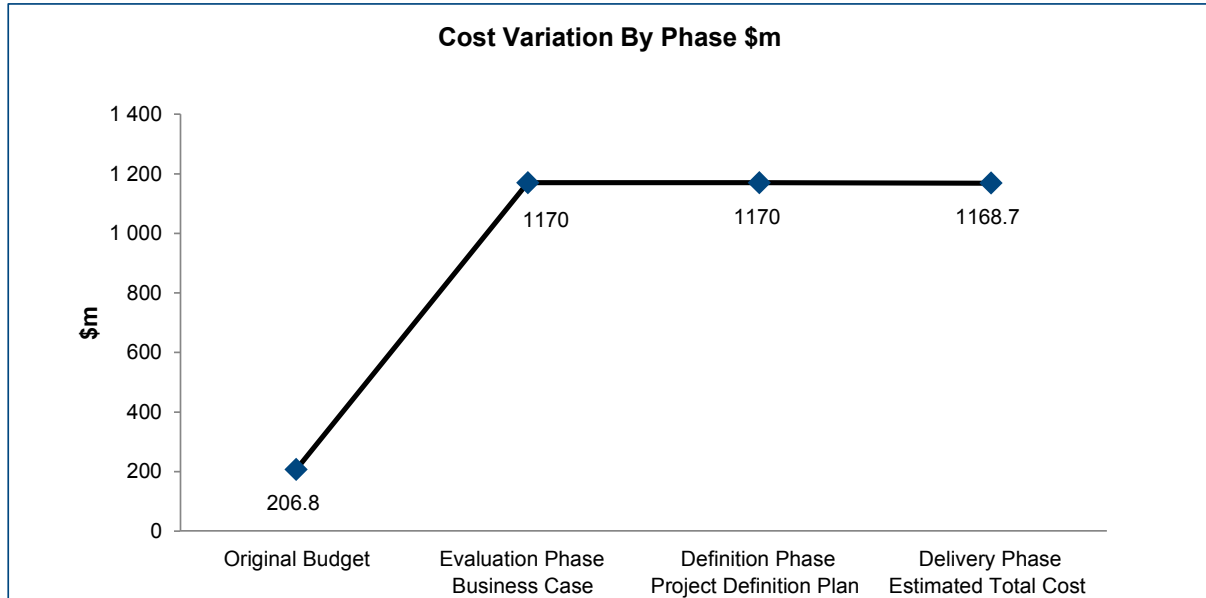
<b>Project description and scope</b>	Replacement of the existing Princess Margaret Hospital with a New Children's Hospital facility collocated with Sir Charles Gardiner Hospital on the QEII Medical Centre site.
<b>Location</b>	QEII Medical Centre, Nedlands
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Two stage managing contractor
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery

### COST

Original approved budget	\$206.8m	<p>Expenditure to 30 June 2012 \$86.3m</p> <p>Original planned project budget \$206.8m</p> <p>Variance \$961.9m</p> <p>Expected cost \$1168.7m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$1 168.7m	
Expected cost	\$1 168.7m	
Expenditure to 30 June 2012	\$86.3m	
Variance from original approved budget	\$961.9m	
Reasons for cost variance	<p><b>SCOPE CHANGE</b></p> <p>The original \$206.8 million budget was for the relocation of Princess Margaret Hospital to Royal Perth Hospital. The current approved budget is based on a completely new build on the QEII Medical Centre site. This is effectively a completely different project.</p>	



TIME		
Project start date	July 2006	<p>Expected project time 110 months</p> <p>Variance -15 months</p> <p>Original project time 125 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	December 2016	
Current approved Completion date	September 2015	
Expected completion date	September 2015	
Variance from original approved completion date	-15 months	
Reasons for variance	PROJECT DEFINITION Approved project definition plan highlights potential for earlier completion than noted in approved business case.	

## PathWest Laboratory Medicine WA Stage 1

### DESCRIPTION AND BACKGROUND

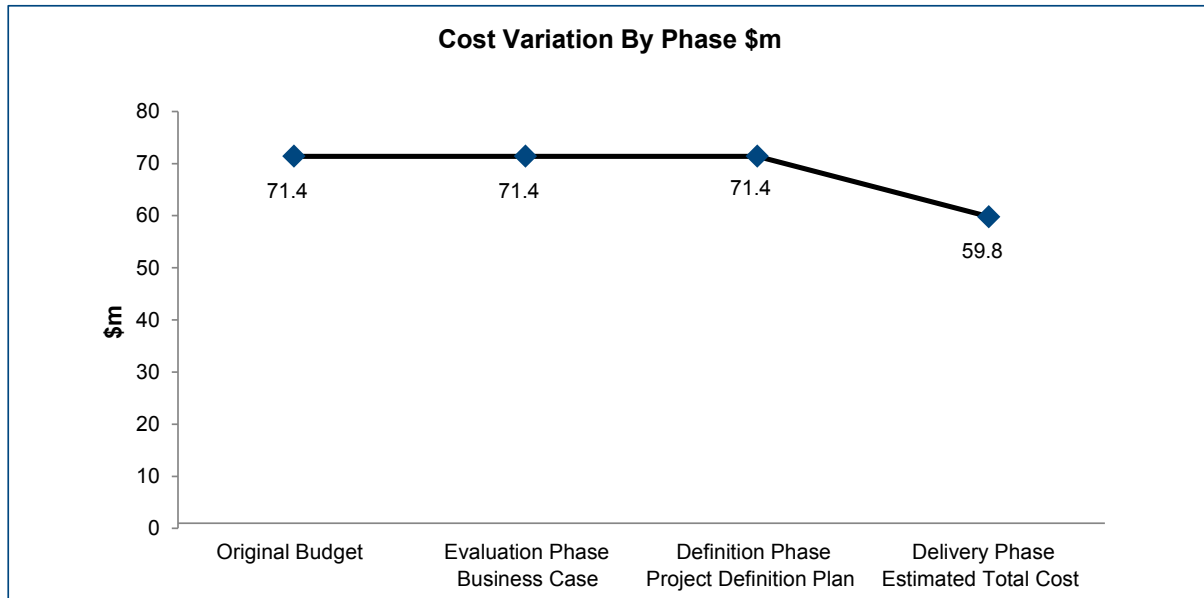
<b>Project description and scope</b>	The new PathWest Laboratory Medicine WA Stage 1 will bring together pathology functions for the region into a new building in the heart of the QEII Medical Centre site. The new PathWest Laboratory Medicine WA building is approximately 9 000m <sup>2</sup> in area and comprises a basement level, six above ground levels, and a roof level plant room.
<b>Location</b>	QEII Medical Centre, Nedlands
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Construct only
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

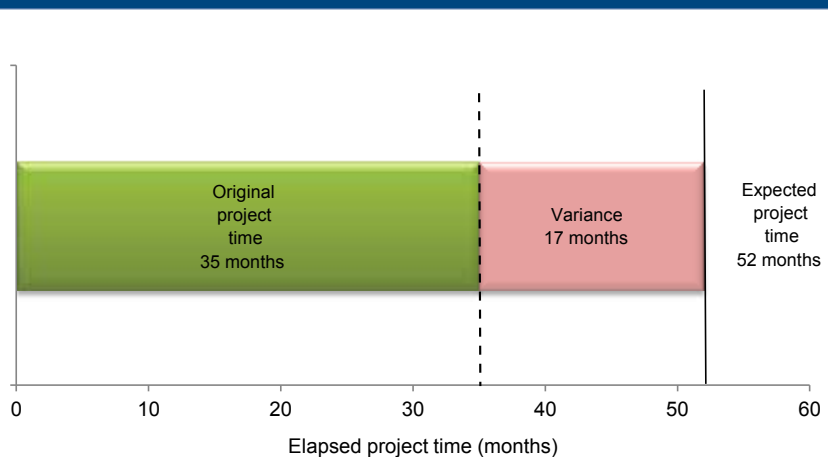
<b>Delivery agency</b>	Department of Finance – Building Management and Works
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$71.4m	<p>Expected cost \$59.8m</p> <p>Expenditure to 30 June 2012 \$39.8m</p> <p>Variance - \$11.6m</p> <p>Original planned project budget \$71.4m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$58.3m	
Expected cost	\$59.8m	
Expenditure to 30 June 2012	\$39.8m	
Variance from original approved budget	-\$11.6m	
Reasons for cost variance	<p><b>TENDER SAVINGS AND SCOPE CHANGE</b></p> <p>\$17 million saving at tender, which resulted in the approved budget dropping to \$54.4 million. After the contract to construct was awarded the Department of Health changed the scope of the project to include paediatric pathology. This increased the budget to \$58.3 million.</p>	



TIME	
Project start date	July 2008
Original approved completion date	June 2011
Current approved completion date	August 2012
Expected completion date	November 2012
Variance from original approved completion date	17 months
Reasons for variance	<p>SCOPE CHANGE AND INCLEMENT WEATHER</p> <p>Project delayed due to change of scope to include paediatric pathology and approved extensions of time for inclement weather.</p>



## Perth Arena

### DESCRIPTION AND BACKGROUND

<b>Project description and scope</b>	Perth Arena is a multi-purpose, indoor entertainment and sports venue developed and operated by the state government to cater for a range of entertainment, arts and sporting events due to closures of the Burswood Dome and Perth Entertainment Centre. The Perth Arena will provide a minimum of 12 000 seats in sports mode and up to 14 000 in concert mode.
<b>Location</b>	Northbridge Link site (formerly the Perth Entertainment Centre car park) on Wellington Street in Perth's CBD
<b>Agency</b>	Western Australian Sports Centre Trust (Venues West)
<b>Procurement strategy</b>	Construct only with design and construct elements
<b>Funding source</b>	State Government

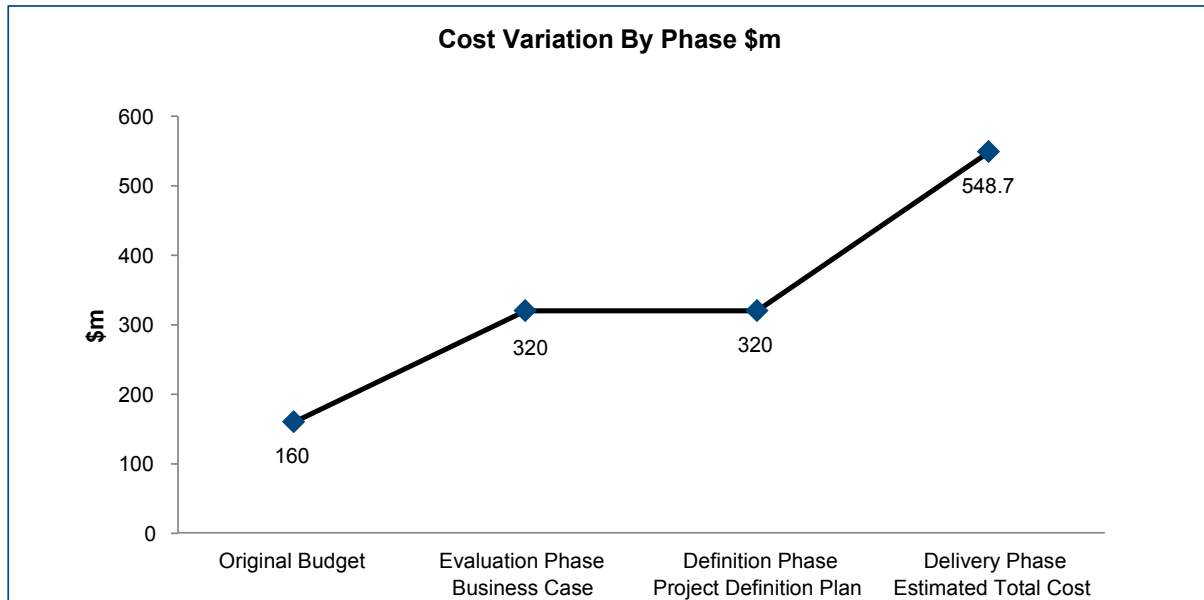
### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$160m	<p>Original planned project budget \$160m</p> <p>Variance \$388.7m</p> <p>Expenditure to 30 June 2012 \$472.8m</p> <p>Expected cost \$548.7m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$548.7m	
Expected cost	\$548.7m	
Expenditure to 30 June 2012	\$472.8m	
Variance to original approved budget	\$388.7m	
Reasons for variance	<p><b>POOR INITIAL PLANNING AND SCOPE CHANGE</b></p> <p>Original cost and time estimates were made before the project was well understood and defined. Changes to the scope of the project during the planning, tendering and contract award phases, including the addition of an undercover car park, have added to cost increases.</p>	





TIME																		
Project start date	September 2005	<table><thead><tr><th>Category</th><th>Start (months)</th><th>End (months)</th><th>Duration (months)</th></tr></thead><tbody><tr><td>Original project time</td><td>0</td><td>54</td><td>54</td></tr><tr><td>Variance</td><td>54</td><td>85</td><td>31</td></tr><tr><td>Expected project time</td><td>0</td><td>85</td><td>85</td></tr></tbody></table>	Category	Start (months)	End (months)	Duration (months)	Original project time	0	54	54	Variance	54	85	31	Expected project time	0	85	85
Category	Start (months)		End (months)	Duration (months)														
Original project time	0		54	54														
Variance	54		85	31														
Expected project time	0		85	85														
Original approved completion date	March 2010																	
Current approved completion date	September 2012																	
Expected completion date	October 2012																	
Variance from original approved completion date	31 months																	
Reasons for variance	<p><b>POOR INITIAL PLANNING AND SCOPE CHANGE</b></p> <p>The opening date for the Perth Arena has been delayed a number of times reflecting an inadequate understanding of what the project would involve and how long it would take. Extensions in construction time as a result of design changes have further delayed the Perth Arena opening date.</p>																	

## Perth Police Complex

### DESCRIPTION AND BACKGROUND

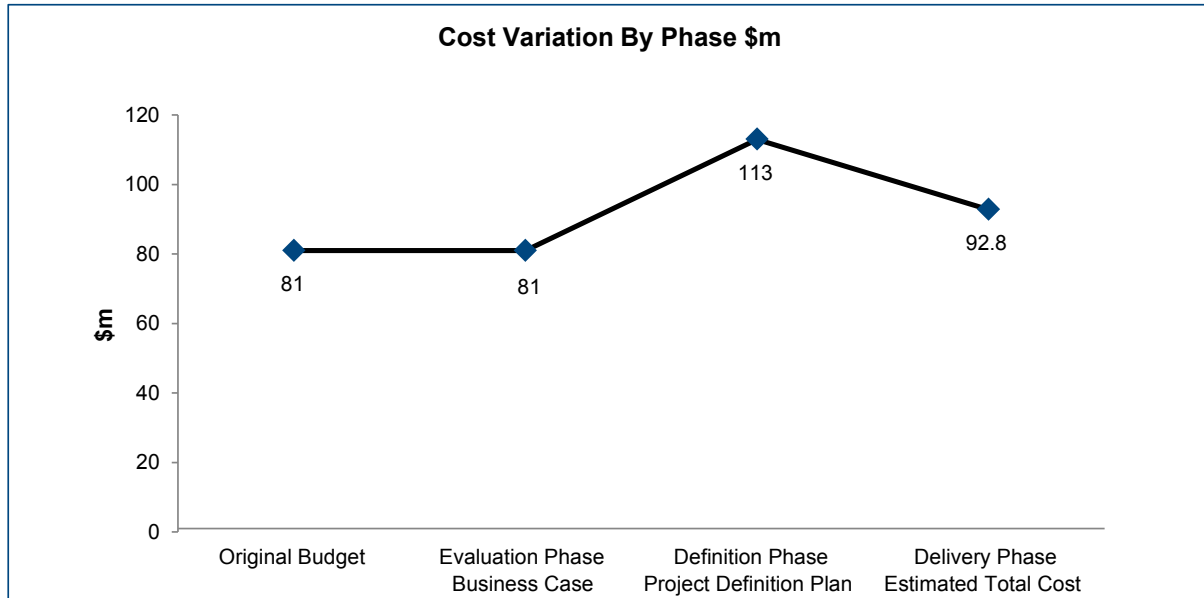
<b>Project description and scope</b>	The new Perth Police Complex will include a police centre, watch house and a magistrate's court at the corner of Roe and Fitzgerald Streets, Northbridge.
<b>Location</b>	Northbridge, Perth
<b>Agency</b>	WA Police
<b>Procurement strategy</b>	Construct only
<b>Funding source</b>	State Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Finance – Building Management and Works
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$81m	<table border="1"><thead><tr><th>Category</th><th>Value (\$ million)</th></tr></thead><tbody><tr><td>Original planned budget</td><td>81</td></tr><tr><td>Expenditure to 30 June 2012</td><td>60</td></tr><tr><td>Expected cost</td><td>92.8</td></tr><tr><td>Variance (Expected cost - Original budget)</td><td>11.8</td></tr></tbody></table>	Category	Value (\$ million)	Original planned budget	81	Expenditure to 30 June 2012	60	Expected cost	92.8	Variance (Expected cost - Original budget)	11.8
Category	Value (\$ million)											
Original planned budget	81											
Expenditure to 30 June 2012	60											
Expected cost	92.8											
Variance (Expected cost - Original budget)	11.8											
Current approved budget	\$92.8m											
Expected cost	\$92.8m											
Expenditure to 30 June 2012	\$60m											
Variance from original approved budget	\$11.8m											
Reasons for cost variance	<p><b>SCOPE CHANGE</b></p> <p>The original budget was based on the upgrading of Curtin House to accommodate the Perth Watch House and the Perth Police Centre, and the relocation of the crime portfolio from Curtin House to a new facility on the Police Operations Support Facility site in Midland.</p> <p>During the project definition phase in 2006 it was determined Curtin House could not be upgraded to suit the operational requirements. After consideration the option chosen was to construct the Perth Watch and Police Centre on a green-field site in Northbridge, defer provision of a new facility for crime headquarters and refurbish the area in Curtin House vacated by Perth Police Station on completion of the new facility.</p>											



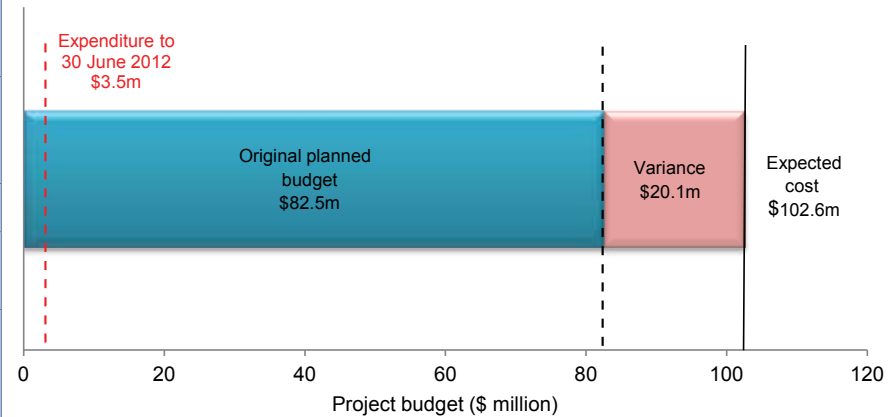
TIME		
Project start date	July 2005	<p>Original project time 71 months</p> <p>Variance 20 months</p> <p>Expected project time 91 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	June 2011	
Current approved completion date	December 2012	
Expected completion date	February 2013	
Variance from original approved completion date	20 months	
Reasons for variance	SITE SELECTION, FUNDING AND DEWATERING Delays in finding and acquiring a suitable site in Northbridge. Delays in obtaining funding approvals through EERC. Delays in obtaining a dewatering licence from Department of Water (DOW). After receiving the licence further time was lost in liaising with government on how to dispose of the water.	

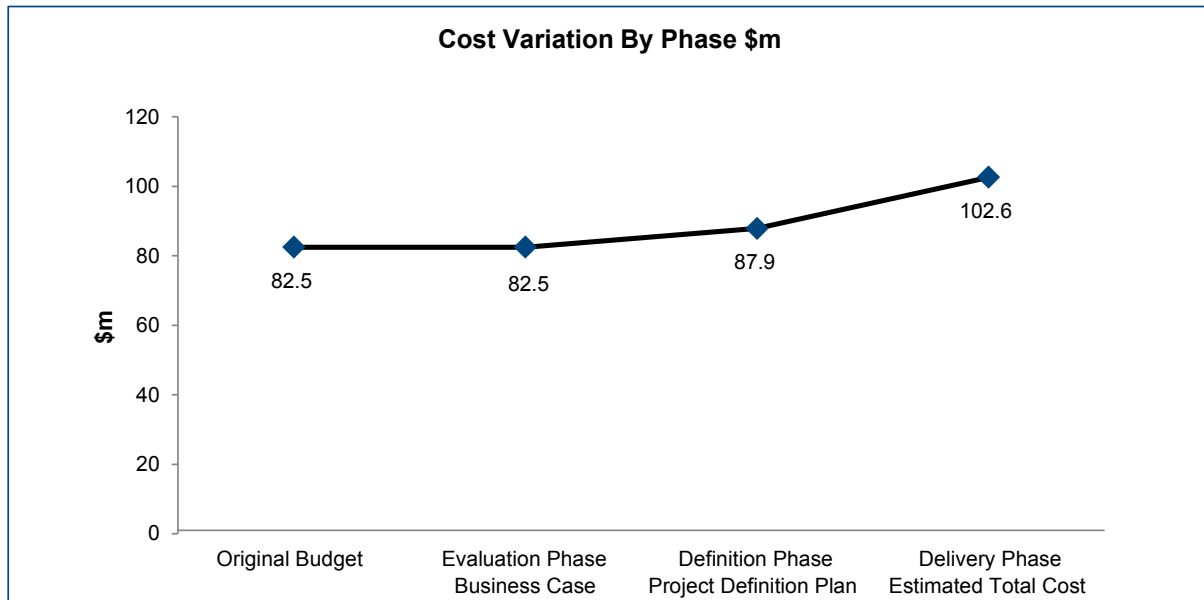
## Perth Rectangular Stadium Redevelopment (Perth Oval)

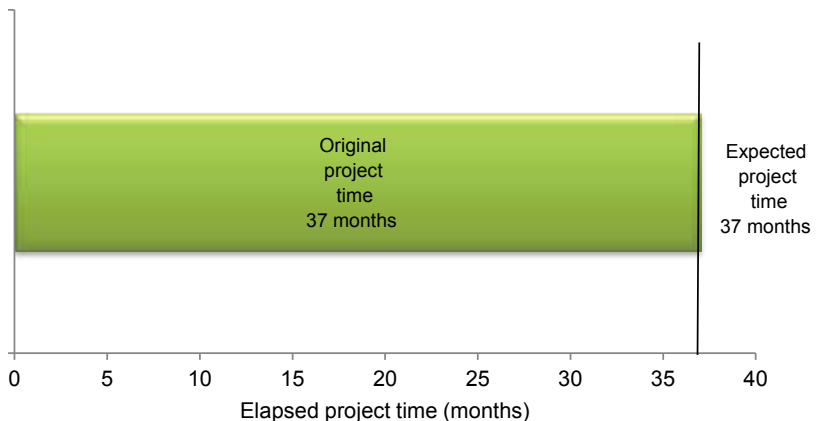
DESCRIPTION AND BACKGROUND	
Project description and scope	To implement a master plan for Perth Oval, commencing with an un-serviced eastern grandstand, with the inclusion of some corporate amenity. The state has leased the site from the City of Vincent.
Location	Pier Street, Perth
Agency	Department of Sport and Recreation
Procurement strategy	Traditional with construction management components
Funding source	State Government

PROJECT MANAGEMENT	
Delivery agency	Department of Finance – Building Management and Works
Project phase	Delivery – construction

COST	
Original approved budget	\$82.5m
Current approved budget	\$102.6m
Expected cost	\$102.6m
Expenditure to February 2012	\$0.9m
Variance from original approved budget	\$20.1m
Reasons for variance	<p>SCOPE CHANGE</p> <p>Cabinet approved a budget change to \$88 million upon completion of the business case. Cabinet also approved a payment of \$5 million to the City of Vincent for the long term lease. Cabinet then approved a further \$7.14 million for corporate amenity to bring the budget to \$102.6 million.</p>





TIME		
Project start date	July 2010	
Original approved completion date	August 2013	
Current approved completion date	August 2013	
Expected completion date	August 2013	
Variance from original approved completion date	0 months	
Reason for variance	NOT APPLICABLE	

## State Rehabilitation Service

### DESCRIPTION AND BACKGROUND

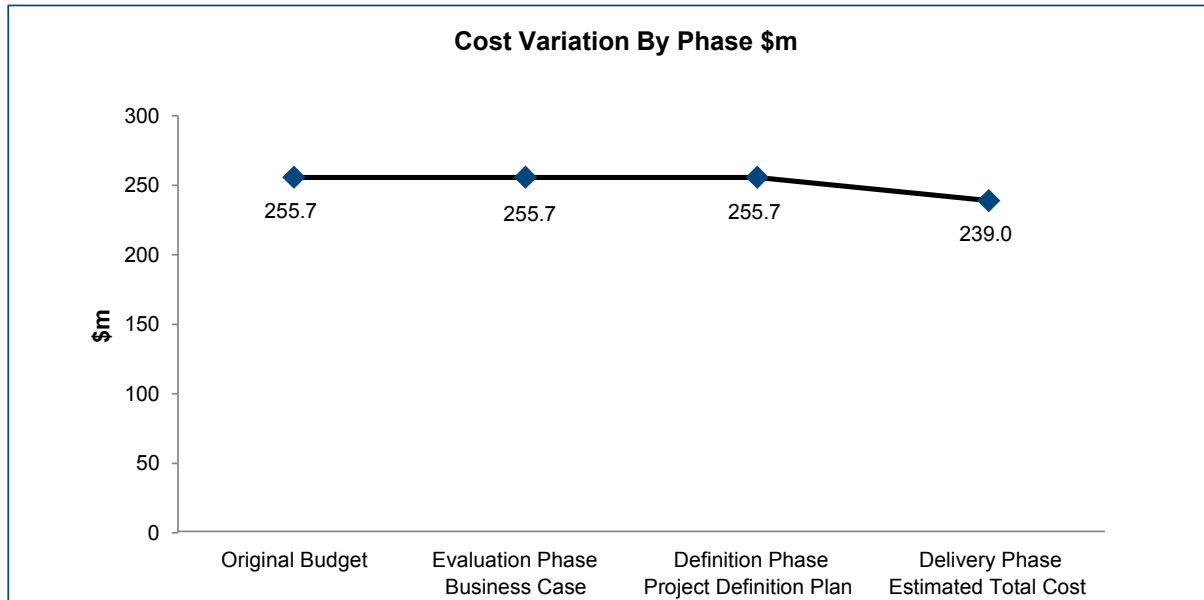
<b>Project description and scope</b>	Construction of a new state-wide, tertiary rehabilitation service of approximately 140 beds on the Fiona Stanley Hospital site. The service will also provide associated outpatient services, including a hydrotherapy pool, outdoor therapy and socialisation areas and a cafe. An associated multi-storey car park will also be constructed, with a bridge link to the outpatient reception area of the state rehabilitation service.  The new state rehabilitation service has been funded by the Commonwealth and is due for completion with the main hospital.
<b>Location</b>	Located at Murdoch on the Fiona Stanley Hospital site, approximately 15 kilometres south of the Perth CBD and nine kilometres east of Fremantle
<b>Agency</b>	Department of Health
<b>Procurement strategy</b>	Variation to the Fiona Stanley Hospital managing contractor contract
<b>Funding source</b>	Commonwealth Government

### PROJECT MANAGEMENT

<b>Delivery agency</b>	Department of Treasury – Strategic Projects
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$255.7m	<p>Expenditure to 30 June 2012 \$167m</p> <p>Variance - \$16.7m</p> <p>Original planned project budget \$255.7m</p> <p>Expected cost \$239m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$239m	
Expected cost	\$239m	
Project cost expenditure to 30 June 2012	\$167m	
Variance from original approved budget	-\$16.7m	
Reason for variance	MOVEMENT OF CAPITAL FUNDS TO RECURRENT FUNDING Capital funding has been transferred to operational expenditure to support the facilities management component of the project.	



TIME		
Project start date	July 2010	<p>Original project time 41 months</p> <p>Expected project time 41 months</p> <p>Elapsed project time (months)</p>
Original approved completion date	December 2013	
Current approved completion date	December 2013	
Expected completion date	December 2013	
Variance from original approved completion date	0 months	
Reason for variance	NOT APPLICABLE	

## West Kimberley Regional Prison

### DESCRIPTION AND BACKGROUND

<b>Project description and scope</b>	To construct a 150 bed mixed gender prison for maximum, medium and minimum security prisoners on a greenfield site in the Shire of Derby / West Kimberley. The prison will provide a full range of education, vocational training and rehabilitative programs specifically suited to the needs of prisoners from the Kimberley.
<b>Location</b>	Derby, West Kimberley
<b>Agency</b>	Department of Corrective Services
<b>Procurement strategy</b>	Construct only
<b>Funding source</b>	State Government

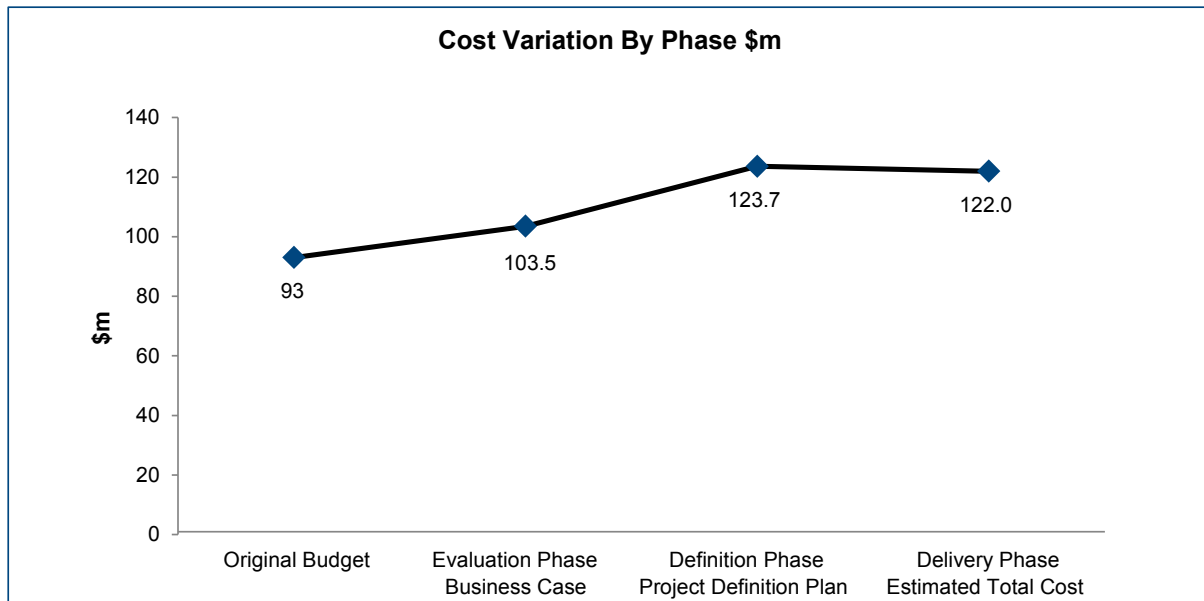
### PROJECT MANAGEMENT

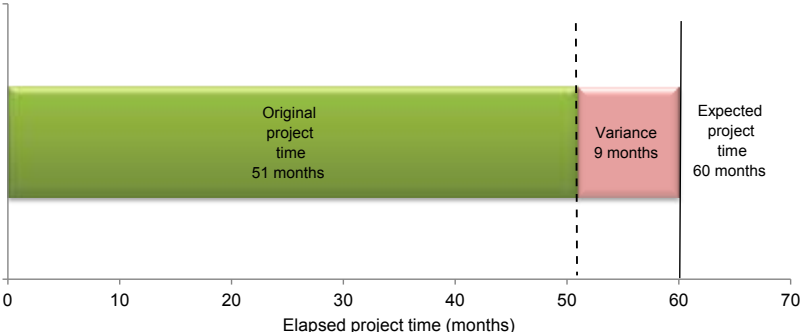
<b>Delivery agency</b>	Department of Finance – Building Management and Works
<b>Project phase</b>	Delivery – Construction

### COST

Original approved budget	\$93m	<p>Expenditure to 30 June 2012 \$112m</p> <p>Variance \$29m</p> <p>Expected cost \$122m</p> <p>Original planned project budget \$93m</p> <p>Project budget (\$ million)</p>
Current approved budget	\$122m	
Expected cost	\$122m	
Expenditure to 30 June 2012	\$112m	
Variance from original approved budget	\$29m	
Reasons for variance	SCOPE CHANGE AND INCREASE IN COST OF CONSTRUCTION IN REGIONAL WA Project scope changed from the construction of a 120 bed to a 150 bed prison prior to project definition.	





TIME		
Project start date	July 2007	
Original approved completion date	October 2011	
Current approved completion date	July 2012	
Expected completion date	July 2012	
Variance from original approved completion date	9 months	
Reasons for variance	EXTREME WEATHER CONDITIONS AND DELAYS TO MAIN WORKS	

# Auditor General's Reports

REPORT NUMBER	2012 REPORTS	DATE TABLED
11	Second Public Sector Performance Report 2012 <ul style="list-style-type: none"> <li>– Business Continuity Management by Port Authorities</li> <li>– Western Australian Natural Disaster Relief and Recovery Funding</li> <li>– Housing's Implementation of the Head Contractor Maintenance Model</li> </ul>	26 September 2012
10	Information Systems Audit Report	28 June 2012
9	Public Sector Performance Report 2012 <ul style="list-style-type: none"> <li>– Regional Procurement</li> <li>– Ministerial decision not to provide information to Parliament on the amount of funding tourism WA provided for the Perth International Arts Festival</li> </ul>	28 June 2012
8	New Recruits in the Western Australia Police	20 June 2012
7	Pharmaceuticals: Purchase and Management of Pharmaceuticals in Public Hospitals	13 June 2012
6	Victim Support Service: Providing assistance to victims of crime	16 May 2012
5	Audit Results Report – Annual Assurance Audits completed since 31 October 2011 including universities and state training providers and Across Government Benchmarking Audits: Accuracy of Leave Records; Act of Grace and Like Payments; and Supplier Master Files	16 May 2012
4	Supporting Aboriginal Students in Training	2 May 2012
3	Beyond Compliance: Reporting and managing KPIs in the public sector	19 April 2012
2	Opinion on Ministerial decisions not to provide information to Parliament on the amount of funding Tourism WA provided for some events	22 February 2012
1	Working Together: Management of Partnerships with Volunteers	22 February 2012

The above reports can be accessed on the Office of the Auditor General's website at [www.audit.wa.gov.au](http://www.audit.wa.gov.au).

On request these reports may be made available in an alternative format for those with visual impairment.



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