



DEVELOPMENT
OF
MENTAL HEALTH FACILITY - ADULTS WITH COMPLEX NEEDS
COATHILL HOSPITAL

FULL BUSINESS CASE

December 2008

CONTENTS

| | | |
|----------|--|-----------|
| 1 | EXECUTIVE SUMMARY | 3 |
| 1.1 | Project Background and Objectives..... | 4 |
| 1.2 | Preferred Solution | 4 |
| 1.3 | Capital | 5 |
| 1.4 | Revenue Implications | 5 |
| 1.5 | Affordability Assessment | 5 |
| 1.6 | Economic Appraisal | 5 |
| 1.7 | Contract Framework, Project Milestones and Timetable | 6 |
| 1.8 | Conclusion | 6 |
| 2 | STRATEGIC CONTEXT..... | 7 |
| 2.1 | NHS Lanarkshire | 7 |
| 2.2 | Deprivation in Lanarkshire | 8 |
| 2.3 | Mental Health | 8 |
| 2.4 | Local Context | 9 |
| 2.5 | Summary | 10 |
| 3 | REVIEW OF THE OUTLINE BUSINESS CASE | 11 |
| 3.1 | Outline Business Case..... | 11 |
| 3.2 | Short Listed Options..... | 11 |
| 3.3 | Non Financial Benefits Appraisal..... | 12 |
| 3.4 | Financial Appraisal..... | 13 |
| 3.5 | Preferred Option..... | 13 |
| 3.6 | Movements from OBC to FBC | 13 |
| 4 | THE PROCUREMENT PROCESS..... | 15 |
| 4.1 | Introduction..... | 15 |
| 4.2 | Background to the Procurement Route..... | 15 |
| 4.3 | Advertising the Project..... | 16 |
| 4.4 | Pre Qualification Questionnaire..... | 17 |
| 4.5 | Invitation to Tender (ITT)..... | 18 |
| 4.6 | Post Tender Interviews..... | 20 |
| 4.7 | PSCP Appointment..... | 20 |
| 4.8 | Involvement of Stakeholders..... | 21 |
| 4.9 | Interaction with the Principal Supply Chain Partner..... | 21 |
| 5 | THE PREFERRED SOLUTION..... | 23 |
| 5.1 | Introduction..... | 23 |
| 5.2 | Project Structure..... | 23 |
| 5.3 | Project Description..... | 24 |
| 5.4 | Key Features of the Design..... | 25 |
| 5.5 | Clinical Functionality..... | 29 |
| 5.6 | Selection of Materials..... | 29 |
| 5.7 | Wayfinding & Interior Design..... | 29 |
| 5.8 | Making Best Use of the Site..... | 30 |
| 5.9 | Flexibility & Future Expansion..... | 30 |
| 5.10 | NEAT-Sustainable Approach to Development..... | 30 |
| 5.11 | Planning Permission..... | 30 |
| 5.12 | Timeline..... | 31 |

| | | |
|-----------|--|-----------|
| 6 | EQUIPMENT..... | 32 |
| 6.1 | Introduction..... | 32 |
| 6.2 | Equipment Categorisation..... | 32 |
| 6.3 | Equipment Strategy..... | 32 |
| 6.4 | Equipment Procurement..... | 33 |
| 6.5 | Equipment Commissioning..... | 33 |
| 6.6 | Funding of Equipment..... | 33 |
| 7 | CONTRACT FRAMEWORK..... | 34 |
| 7.1 | Introduction..... | 34 |
| 7.2 | Overview of the Contract Framework..... | 34 |
| 7.3 | The Principal Supply Chain Partner and its Supply Chain..... | 35 |
| 7.4 | The Board’s Right to Terminate..... | 36 |
| 7.5 | Reviews and Approvals..... | 36 |
| 7.6 | PSCP Payments..... | 36 |
| 7.7 | Open Book Accounting..... | 37 |
| 7.8 | Setting the Target Price..... | 38 |
| 8 | FINANCE | 39 |
| 8.1 | Capital Cost | 39 |
| 8.2 | Revenue Implications | 40 |
| 8.3 | Economic Appraisal/Value for Money Analysis | 40 |
| 8.4 | Affordability..... | 41 |
| 8.5 | Accounting Treatment | 41 |
| 9 | RISK ANALYSIS AND RISK MANAGEMENT STRATEGY | 42 |
| 9.1 | Introduction..... | 42 |
| 9.2 | Risk Management Overview..... | 42 |
| 9.3 | Risk Management Process..... | 42 |
| 9.4 | Current Risk Profile at Full Business Case..... | 45 |
| 9.5 | Risk & The Commercial Framework..... | 46 |
| 9.6 | Board Risk..... | 49 |
| 10 | BENEFITS ASSESSMENTS AND BENEFITS REALISATION PLAN... | 50 |
| 10.1 | Principles | 50 |
| 10.2 | Accessibility | 51 |
| 10.3 | Quality of Care | 51 |
| 10.4 | Operational and Environmental Suitability..... | 51 |
| 10.5 | Staff Recruitment, Training and Development..... | 51 |
| 10.6 | Timing | 51 |
| 11 | POST-PROJECT EVALUATION PLAN | 53 |
| 11.1 | Process..... | 53 |
| 12 | CONCLUSION..... | 54 |
| 12.1 | Summary | 54 |

LIST OF APPENDICES

| | | |
|-------------------|---------------|------------------|
| Appendix A | Forms FB1-4 | To Follow |
| Appendix B | Risk Register | 56 |

1. EXECUTIVE SUMMARY

- 1.1.1 The Outline Business Case (OBC) for “Adults with Complex Needs, Coathill Hospital” was approved by the Scottish Government Capital Investment Group in February 2008. The preferred option identified was for the provision of a new build facility at Coathill Hospital, a site owned by NHS Lanarkshire.
- 1.1.2 Current facilities do not allow the delivery of a number of strategic objectives. These include:
- Provision of treatment and care of the highest possible quality in the least restrictive environment as close to the community as possible in line with the stated aims of the Mental Health (Care & Treatment) (Scotland) Act 2003.
 - Commitments set out in Delivering for Mental Health (2006)
 - Integration of services with partners to promote joint working
 - Redesigning and implementing inpatient services accessible to patients within their own community
 - Implementation of new clinical models e.g. The Recovery Model
 - Maximise rehabilitation and the opportunity to sustain an independent life
 - Achieve an appropriate balance of risk management, which would result in a safe and therapeutic environment, but also one able to facilitate recovery and personal growth
 - Meet anticipated demand from Prisons/Courts/other Psychiatric services
- 1.1.3 This document sets out the Full Business Case (FBC) for the provision of the preferred solution and details how it will be achieved.
- 1.1.4 The objectives of the project are:
- Improved access to inpatient services where appropriate
 - Delivery of a high quality physical environment for patients and staff
 - Delivery of a fit for purpose facility which is flexible and adaptable
 - Opportunity to utilise resources more effectively
 - More locally based community mental health services
 - Support the delivery of the national and local Mental Health Strategies
- 1.1.5 Implementation of the preferred option will result in the achievement of the following benefits for patients, staff and members of the general public:
- Provision of improved access to community based mental health inpatient services that meet the needs of the population and are available within a central location.
 - Provision of premises which are fit for purpose, flexible and provide a welcoming environment ensuring compliance with DDA

and SGHD recommendations on single room ensuite accommodation.

- Access to sustainable services by addressing recruitment and retention and therefore ensuring that high quality services can be provided consistently and continuously for this complex patient/client group

1.2 Preferred Solution

- 1.2.1 The preferred solution is a publicly funded new build facility at Coathill Hospital utilising surplus NHS owned land on a site accessible to the local community.
- 1.2.2 This solution will deliver a modern environment where current clinical best practice is the starting point for continuous improvement and patients are cared for in clean, safe, high quality environment that make best use of the resources.
- 1.2.3 This solution will resolve the issue of functional suitability within the existing accommodation; this will enable the introduction of an enhanced new service model. The preferred solution is discussed in detail in Section 2.
- 1.2.4 Moving towards a model that seeks to provide inpatient provision close to the community served and this facility specifically addresses the needs in the North Lanarkshire area.

1.3 Capital

- 1.3.1 The Capital Costs for the new development are summarised in the table below:

| | Total Cost |
|---------------------------|-------------------|
| | £000's |
| Works Costs | 3,537 |
| Commercial Risk | 196 |
| Target Price | 3,733 |
| VAT | 590 |
| Fees | 375 |
| Equipment & IT/Telephones | 200 |
| Total Project Cost | 4,898 |

- 1.3.2 The target price of £3.733m has been agreed with the Principal Supply Chain Partners (Graham Construction) and includes £0.196m in respect of Commercial Risk. The target price has been assessed by the Board's Cost Managers and confirmation has been received that that the defined costs, fees and risk compare favourably with similar recent projects. The Contract Framework is fully described in section 7.
- 1.3.3 The NHS total project cost of £4.898m compares with the Outline Business Case cost of £5.199m.
- 1.3.4 Funding for the NHS cost of the development will be from the Lanarkshire NHS Board Capital Allocation.

1.4 Revenue Implications

- 1.4.1 The property costs of the new development are unchanged from the Outline Business Case. Capital Charges have decreased by £16,000.

| Cost Category | Addition to Revenue Cost |
|-----------------------------------|---------------------------------|
| | £000's |
| Rates, Property & FM Costs | 1,073 |
| Capital Charges | 272 |
| Total Revenue Costs to NHS | 1,345 |

1.5 Affordability Assessment

- 1.5.1 In testing the overall affordability of the Board's wider capital investment programme, a ten year plan has been prepared. This examines the potential movement in funding levels from SGHD and expenditure assumptions for the period. Whilst recognising the inherent risks which may impact on any future financial projections, and the ability of the organisation to mitigate these, NHS Lanarkshire Capital Investment Group and NHS Board have concluded that the proposed development of the Adults with Complex Needs Unit, Coathill Hospital is affordable within the current Financial Plan.

- 1.5.1 The cash flow profile for capital costs between 2007/08 and 2009/10 is outlined in the table below:

| Financial Year | NHS Capital £000 |
|-----------------------|-----------------------------|
| 2007/08 | 106 |
| 2008/09 | 250 |
| 2009/10 | 4,542 |
| Total | 4,898 |

1.6 Economic Appraisal

- 1.6.1 At the Outline Business Case stage, the capital and associated revenue costs of the options were used to carry out an economic appraisal using discounted cash flow techniques in line with Scottish Government Health Department guidance.

- 1.6.2 At that time the time of the OBC the preferred option was shown to have an Equivalent Annual Cost (EAC) of £1.215m. This was marginally higher than the lowest EAC of £1.212m delivered by the Strathclyde Option. When a cost benefit analysis was undertaken the Coathill Option delivered the lowest EAC per benefit point. The updated economic appraisal indicated that the preferred solution would still be the option with the lowest EAC per benefit point.

1.7 Contract Framework, Project Milestones and Timetable

- 1.7.1 The project is being administered under the third edition of the Engineering and Construction Contract (NEC 3) Option C with the contractor working to agreed margins and utilising open book accounting.
- 1.7.2 The contractual framework that will underpin the project is set out in detail in Section 7 and provides a summary of the key contractual relationships between the Board and its Principal Supply Chain Partner (PSCP) - Graham Construction.
- 1.7.3 The project for Adults with Complex Needs Unit, Coathill Hospital is one of four projects grouped together for the purposes of procurement. The other three projects are:
- Caird House - Adults with Complex Needs/Low Secure Unit;
 - Carluke Community Health Centre; and
 - Kirklands - Learning Disabilities Assessment and Treatment Centre.
- 1.7.4 The key dates and milestones associated with this project are detailed in the table below:

| Milestone | Target Date |
|--|----------------------|
| Detailed Planning Consent | June 2007 |
| Target Cost Established | December 2008 |
| Full Business Case NHS Board Approval | December 2008 |
| Full Business Case SGHD For Information | January 2009 |
| Site Mobilisation | February 2009 |
| Practical Completion | February 2010 |
| Service Commencement | March 2010 |

1.8 Conclusion

- 1.8.1 This FBC sets out the case to support NHS Lanarkshire proceeding with the development of an Adults with Complex Needs Unit, Coathill Hospital, to provide accommodation for 12 single ensuite bedrooms with associated day and therapeutic living space.
- 1.8.2 The project will require capital investment of £4.898m, to be funded from the NHS Lanarkshire Capital Allocation.
- 1.8.3 Recurring funding is available from 2009/10 to meet the revenue costs associated with this development and the project has been demonstrated to be affordable within the capital and revenue frameworks agreed by Lanarkshire NHS Board.

2. STRATEGIC CONTEXT

2.1 NHS Lanarkshire

2.1.1 There are a number of policy documents and legislative changes that have, and will, influence the current and future models of mental health service provision in Lanarkshire. Key amongst these are:-

- The framework for Mental Health Services in Scotland, 1997.
- The 1999 Mental Health Strategies for North and South Lanarkshire.
- The Mental Health (Care & Treatment (Scotland) Act 2003.
- A Mental Health Strategy for Lanarkshire 2006/2011 (Draft).
- NHS MEL (1999) 5 'Health Social Work and Related Services for Mentally Disordered Offenders in Scotland'.
- NHS HDL (2001) 9 'Services, Care, Support and Accommodation for Mentally Disordered Offenders in Scotland: Care Pathway Document'.
- Delivering for Mental Health (2006)
- Towards a Mentally Flourishing Scotland (2007)
- Implementation of Mental Health Collaborative
- Better Health Better Care
- NHS Lanarkshire – A Strategy for Mental Health and Wellbeing (2008)

2.1.2 These have a considerable impact on the pattern of service delivery and will necessitate a significantly greater emphasis on patient centred approaches to care.

2.1.3 The Mental Health (Care and Treatment) (Scotland) Act 2003 states that the following must be taken into account:

- An individual's past and present wishes about their care
- The care and treatment that will be of most benefit
- The range of options available for care and treatment of the individual
- The person's individual abilities and background
- The person's age, gender, sexual orientation, religion, racial origin or membership of any ethnic group.

2.1.4 The Mental Health (Care and Treatment) (Scotland) Act 2003 places a new duty on Health Boards and their Local Authority Partners to develop services for mental health care needs that promote wellbeing, social development and recovery.

2.1.5 Delivering for Mental Health (2006) identified the main challenges to mental health and wellbeing as:

- Improve patient and carer experience of mental health services
- Responding better to depression, anxiety and stress
- Improving the physical health of people with mental illness
- Better management of long-term mental health conditions

- Early detection and intervention in self harm and suicide prevention
- Manage better admission to and discharge from hospital
- Child and adolescent mental health services
- Enhancing specialist services (forensic services, peri-natal services, eating disorders, substance misuse)

2.1.6 In order to achieve these targets and commitments NHS Lanarkshire and its partners have developed Mental Health Services Strategy to support the systematic development of service models that fit the philosophy of Rights, Retention and Recovery.

2.1.7 The Adults with Complex Needs Unit, Coathill Hospital is one of a number of developments that are planned in Lanarkshire to enhance community based Mental health provision to achieve local and national objectives.

2.2 Deprivation in Lanarkshire

2.2.1 Poor mental and physical health is both a cause and a consequence of social, economic and environmental inequalities. Risk factors include individual behaviours such as smoking; alcohol misuse; diet and inactivity, together with aspects of the wider social, economic and physical environments that shape such behaviours including educational achievement; income and work status.

2.2.2 Good mental health is important to everyone living in Scotland. It underpins the vision for a healthier, more successful Scotland. mental illness takes away opportunity and we need to continue to address the stigma still attached to the subject and ensure that patients, their carers and all who work with them are treated with dignity and respect. Delivering on the commitment set out in New Horizons (2008) in respect of equality, social inclusion, recovery and rights is central to the vision and success of the plan.

2.3 Mental Health

2.3.1 At some point in their life approximately 140,000 people in Lanarkshire will have a mental health problem, 5,000 of whom will have a severe and enduring mental health illness requiring support from mental health clinicians. Whilst the majority of people who cope with severe and enduring mental health illness are successfully managed in the community there are some patients who require more intensive care. These patients will most probably fall into the following two patient groups:-

- **Existing long stay patients** – a proportion of these existing long stay patients will require 24-hour specialist medical and nursing input. However, for some patients being in a rehabilitation environment will provide an opportunity to develop their skills to a level where they will be able to be successfully supported in the community and no longer require 24 hr NHS care.
- **Very Complex Presentations** - this group of adults have very complex presentations and/or a forensic profile and would benefit from a more intensive model of care, which may at times include periods of

admission to a community in-patient setting. This group is often characterised by repeated brief admissions to psychiatric beds: some will have spent long periods in the past as inpatients on acute wards; others may be caught in a cycle of repeated offending; they may be homeless or have had many changes of address. Many combine mental health problems with substance misuse problems. They may have a history of violence against others and are more at risk of suicide, self-harm or self neglect. These adults may experience community isolation due to their poor social skills.

- 2.3.2 These groups of people will continue to require access to NHS inpatient care to manage crises and threatened relapses. The Adults with Complex Needs Unit, Coathill Hospital is a significant step in helping us to achieve that aim. The size of the facility is based on a review of the original bed numbers by key clinicians and managers based on current demand.
- 2.3.3 The principal function of the Adults with Complex Needs service is to provide the opportunity for rehabilitation for patients who require ongoing 24-hour specialist mental health care and treatment due to the complexity of their condition and level of risk which they present. This service will be able to admit patients when necessary due to mental health deterioration; disengagement from and/or breakdown of community care plans or where there is a change to the risk assessment of the level of supervision which is required.

2.4 Local Context

- 2.4.1 NHS Lanarkshire has conducted a comprehensive review of its mental health service provision. It is recognised that the majority of mental health interventions take place in a primary care setting. As such developments are planned across the entire range of mental health services including Child and Adolescent Mental Health Services, Substance Misuse, Liaison Psychiatry and Psychology and Old Age Psychiatry. It needs to be recognised that this proposal is only a part of the Mental Health Services Strategy and should not be viewed in isolation.
- 2.4.2 NHS Lanarkshire has a refreshed Mental Health Strategy that addresses all aspects of mental health service provision in Lanarkshire. The implementation of this strategy continues to move away from a model of institutionalised care and closing Hartwoodhill Hospital and is still the main priority. In planning to close the hospital it became apparent that capital investment was required for those patients who will continue to require 24 hour inpatient NHS provision: in moving towards a community based model it is recognised that some patients will require periods of inpatient care as part of the care pathway. The proposals in this business case will develop new inpatient facilities to enable the closure of the adults with complex needs/rehabilitation/low secure inpatient accommodation at Hartwoodhill Hospital and also at Airbles Road Centre. In accordance with the requirements of mental health legislation it will also make provision for the increasing number of patients who will require to be cared for in less secure facilities than those in which they are currently accommodated.

- 2.4.3 Traditionally Hartwoodhill Hospital provided a service for patients across Lanarkshire in a relatively inaccessible location. Lanarkshire is now moving towards a model that seeks to provide all inpatient provision close to the communities served and this business case specifically addresses the need of patients in the North Lanarkshire area.
- 2.4.4 In the repositioning of services from Hartwoodhill Hospital, clinical assessment has determined that there would be a requirement for two Adults with Complex Needs units for those clients who would continue to require 24 hr NHS care. A 15 bedded low secure unit for the whole of Lanarkshire will be co-located with the Adults with Complex Needs unit in at Caird House in Hamilton.
- 2.4.5 It is envisaged that over time the complex needs units will provide a step down facility to support the acute admission units for those patients who no longer require the degree of nursing and medical care offered within an acute in-patient setting but require prolonged rehabilitative interventions in a more stable environment. It is expected that this would relieve some of the pressures on acute in-patient services.

2.5 Summary

- 2.5.1 In summary, the development of a new Adults with Complex Needs Unit, Coathill Hospital is consistent with both national and local strategic aims and objectives and will contribute significantly to the modernisation of mental health services within Lanarkshire. This will result in the closure of Hartwoodhill Hospital.
- 2.5.2 This service model will provide treatment in the least restrictive environment, maximise independence and encourage social inclusion.
- 2.5.3 The provision of modern single room ensuite facilities will significantly improve the immediate physical environment of the patients by providing a degree of privacy that previously has not been available in the large old institutions.

3. REVIEW OF THE OUTLINE BUSINESS CASE

3.1 Outline Business Case

3.1.1 The Outline Business case was approved by the SGHD Capital Investment Group in February 2008. At that time, a long list of options had been considered, reviewed and subsequently reduced to a short list for option appraisal.

3.2 Short Listed Options

3.2.1 A range of options were identified and considered against the project criteria. The following options were identified as appropriate realistic solutions and were considered by a range of stakeholders.

3.2.2 Option A - Do Nothing/Minimum Upgrade.

A “do nothing” option was included within the option appraisal for comparative purpose as, in practice, it was accepted that the status quo is unsustainable and an upgrade of the building would not address the fundamental issues of geographic isolation, functional suitability and clinical adjacency.

3.2.3 Option B – Coathill Option

Coathill Hospital is located in a central location in Coatbridge with good transport links to much of North Lanarkshire. It is close to a variety of local amenities and this offers social integration opportunities for patients. The site has a long term strategic life and will continue to provide a mix of inpatient services for the foreseeable future thus eliminating the psychiatric institution concept. There is an ideal location within the site to accommodate the new development to the highest design standards.

3.2.4 Option C – Hartwoodhill Hospital

Hartwoodhill Hospital is located in a rural area close to Shotts. This site is remote from the population centres of North Lanarkshire. Public transport access is poor and there are proposals to remove all services from this site, thus the mental health accommodation would become isolated, which may perpetuate the concept of the “psychiatric institution” and reinforce the stigma associated with this service. As it is remote, it would be difficult to provide opportunities for social integration. There would also be an opportunity cost associated with not clearing the site completely for land sale. As the site has downsized significantly from its previous capacity, there has been an increase in the levels of vandalism causing disruption to service provision and impacting on patients’ privacy.

- 3.2.5 Option D – Strathclyde Hospital
Strathclyde Hospital, located just off Airbles Road in Motherwell. There is considerable uncertainty regarding the future of this site. NHS Lanarkshire Health Board is considering a range of uses for this site. Disposal is one of the main options due to the high land value of this site. If this site was chosen, it would be necessary to fast track the removal of services from the existing site and this would add to costs and timescales. The close geographical location of Caird House (South Lanarkshire option) to Strathclyde Hospital may be an issue as both sites are within three miles of each other. Strathclyde Hospital is also less accessible to a number of the large population areas in North Lanarkshire such as Airdrie, Coatbridge and Cumbernauld.
- 3.2.6 Consideration was given to the development of one Lanarkshire wide 39 bedded unit for Adults with Complex/Low Secure Needs but this was opposed by clinicians and service users on the basis it was creating a mini mental health institution. Such a proposal would also be in conflict with both national policy direction (Delivering for Mental Health) and NHS Lanarkshire’s Mental Health Strategic vision of local, accessible integrated mental health provision.

3.3 Non Financial Benefits Appraisal

- 3.3.1 A benefit appraisal scoring process was undertaken to assess the relative level of benefits delivered by the short listed options. Members of the Project Planning Team with relevant clinicians and stakeholder representatives participated in order to include a wide range of views. This appraisal identified as the preferred option. The benefits criteria included:
- Accessibility
 - Integration of services
 - Effectiveness of services/Quality of Care
 - Operational and Environmental Suitability
 - Staff Recruitment and Retention
- 3.3.2 Due to the nature of the client group it was agreed to carry out the Benefits Appraisal exercise with representation from the focus groups on the three existing in-patient sites, namely Hartwoodhill, Caird House and Airbles Road.
- 3.3.3 The key aims of the session was to:
- Help service users understand and agree on the approach to score the options.
 - Develop an agreed criteria against which each option would be evaluated.
 - Score the options.
- 3.3.4 In an attempt to simplify the process it was agreed to score the criterion against each option by allocating points from 1-10.

3.3.5 Although an amended Benefits Appraisal exercise was undertaken, key stakeholders were fully involved in the identification of the preferred option.

| | Option A | Option B | Option C | Option D |
|------------------------|-----------------|-----------------|-----------------|-----------------|
| Benefit Analysis Score | 7 | 30 | 9 | 28 |
| Rank | 4 | 1 | 3 | 2 |

Option B, Coathill is the preferred option taking into account non-financial benefits.

3.4 Financial Appraisal

3.4.1 The capital costs, lifecycle and net present costs (NPC) of the preferred option at OBC stage were:

- Capital: £ 5.199m
- NPC: £33.378m

3.4.2 These were robust estimates, with recognition that capital costs would be subject to confirmation through competitive tendering. In accordance with Treasury Green Book guidance, Optimism Bias was applied at 10.8% to the construction costs.

3.5 Preferred Option

3.5.1 At OBC stage, Option B ranked highest overall in terms of the non financial benefits. It remains the preferred solution and the delivery of this is described in detail within Section 5 onwards.

3.6 Movements from OBC to FBC

3.6.1 The capital costs for the preferred option, as detailed in the OBC were:

| Outline Business Case Costs | Total Cost |
|------------------------------------|-------------------|
| | £000's |
| Works Costs | 3,638 |
| Fees | 381 |
| Optimism Bias | 338 |
| VAT | 642 |
| Equipment & IT/Telephones | 200 |
| Total Project Cost | 5,199 |

3.6.2 Since OBC stage a review of the number and configuration of beds has taken place.

3.6.3 Overall, the capital price decrease from OBC to FBC is £0.301m.

- 3.6.4 This additional sum remains affordable within the context of the overall Capital Plan, although every effort will be made to explore options to manage these costs through the construction phase of the project.
- 3.6.5 In revenue terms, the additional costs have reduced by £16,000. This is solely due to the decrease in capital charges attributable to the reduction in capital cost.

4. THE PROCUREMENT PROCESS

4.1 Introduction

- 4.1.1 This chapter sets out the process, which the Board has followed in securing a preferred 'Principal Supply Chain Partner' (PSCP) and seeks to demonstrate the rigour established by the Project Team and the Project Board.
- 4.1.2 The NHS Board would like to acknowledge the efforts, commitment and professionalism shown by all bidders at each stage of the Procurement Process.
- 4.1.3 This chapter will provide a background to the procurement route and examine the process followed at:
- Official Journal of the European Union (OJEU) Stage;
 - Pre-Qualification Stage;
 - Invitation to Tender (ITT) Stage; and
 - Post Tender Interview Stage.
- 4.1.4 This chapter will also describe the extensive involvement of stakeholders, during all stages of the project and provide a description of the on-going interaction with the PSCP.
- 4.1.5 The project has been procured under all relevant rules of the European Union and copies of all documents issued to Bidders are available, in electronic format, from the Board's Project Team.

4.2 Background to the Procurement Route

- 4.2.1 Current NHS Scotland Guidance contained in PROCODE Version 2 is supportive of long term collaborative framework arrangements and recognises that strategic or term contracting has proved successful in the UK and overseas and that this approach reflects the best practice advocated under recent procurement initiatives. This is reinforced in the Guide to Contract Procedures.
- 4.2.2 Subsequent Guidance on procurement in support of PROCODE advocates the strengthening of team working, innovation and partnership where possible and provides guidance on partnering and framework approaches.
- 4.2.3 The proposed National Procurement Framework for NHS Scotland uses this approach to contracting and this was discussed at a meeting with NHS Lanarkshire (the Board) National Shared Services (NSS) and Health Facilities Scotland (HFS) on 24th April 2007.

- 4.2.4 This meeting explored the potential use of the new framework as a suitable procurement route for the next phase of four community projects to be taken forward by the Board. These projects, bundled together for procurement purposes, included the:
- Carluke Community Health Centre;
 - Caird House - Adults with Complex Needs/Low Secure Unit;
 - Coathill Hospital - Adults with Complex Needs; and
 - Kirklands - Learning Disabilities Assessment and Treatment Centre.
- 4.2.5 Following discussions with the Scottish Government Health Directorate (SGHD) a decision was taken by the Board to proceed with the four bundled projects on the basis that the national procurement framework would not be in place within a suitable timescale to allow for their inclusion.
- 4.2.6 The contract documents tendered by the Board utilised the same contractual arrangement as the proposed national framework i.e. the third edition of the Engineering and Construction Contract (NEC 3) Option C. with the contractor working to agreed margins and utilising open book accounting.
- 4.2.7 By embarking on this route for the four bundled projects the Board has taken the opportunity to benefit from the advantages of using a partnering approach and has shared lessons learned with HFS ahead of the National Framework.
- 4.2.8 Four teams, which had been appointed under separate arrangements, developed the designs for each facility and submitted planning applications to North and South Lanarkshire Councils.
- 4.2.9 The Board adopted a 'Develop & Construct' procurement which meant that the previous design work was not lost. The contracts for the previous design teams weren't novated as the successful PSCP was encouraged to use designers which they had developed long term working relationships.
- 4.2.10 The existing design team appointments were terminated at the completion of RICS Stage E design, on the basis that each project was terminated in favour of a larger single procurement. The Boards Legal Advisors (McClure Naismith) confirmed that this was an appropriate approach and that the appointments could be terminated by giving reasonable notice in writing.
- 4.2.11 A licence was granted allowing use of the designs, drawing and specifications etc by the successful PSCP and new design team.

4.3 Advertising the Project

- 4.3.1 The Board gave notice of the project through the publication of OJEU Contract Notice number 2007/8 184-22560 dated 25/09/2007.

4.4 Pre-Qualification Questionnaire

- 4.4.1 Pre-Qualification was the first stage of the tender process which led to the appointment of the successful Principal Supply Chain Partner for the four bundled Projects.
- 4.4.3 The financial evaluation of the PSCP's and their supply chains was in accordance with "Constructionline" normal process with the additional requirement of ensuring each PSCP has the financial capability to undertake the expected value of work.
- 4.4.4 Pre-Qualification Questionnaires (PQQ), Memorandum of Information (MOI) and Glossary of Terms were issued to all organisations responding to the OJEU advertisement. The closing date for return of PQQ's was 27 November 2007.
- 4.4.5 The objective of the pre-qualification stage was to reduce the number of organisations being invited to tender to a shortlist of five 5 by using the Evaluation Criteria set out in the MOI.
- 4.4.6 Nine completed PQQ responses, from a total of 29 original enquiries, were returned to the Board. The respondents were as follows:
- Barr
 - Carillion
 - Dawn
 - Grahams
 - Interserve
 - Morgan Ashurst
 - Ogilvie
 - Rok
 - Skanska
- 4.4.7 An evaluation workshop took place and included Board staff representation from capital planning, estates, finance and procurement. The Boards Technical Advisors and a representative from Health Facilities Scotland were also in attendance.
- 4.4.8 The Boards Technical Advisors had prepared a schedule showing the financial details and Supply Chain Member information to assist the team in their evaluation. Following the review of the nine PSCP's responses the team then commenced scoring the PQQ's using the published evaluation criteria and a software package called TEST (Tender Evaluation Scoring Toolkit). TEST was developed by NHS Fife for comparing tenders.
- 4.4.9 The following evaluation scoring criteria was used:
- Technical Merit (50% of total score);
 - Cost Effectiveness/Value for Money (30% of total score); and
 - Quality/Collaborative Working (20% of total score).

- 4.4.10 The scoring was carried out by each member of the team and the results were reviewed individually and then brought together to agree a consensus score.
- 4.4.11 The results of the PQQ evaluation scoring are set out in table below.

| PSCP | % Score |
|----------------|----------------|
| Interserve | 90.39 |
| Skanska | 85.86 |
| Morgan Ashurst | 75.13 |
| Graham | 72.59 |
| Dawn | 71.71 |
| Carillion | 70.16 |
| Ogilvie | 58.49 |
| Barr | 49.39 |
| Rok | Non Compliant |

- 4.4.12 The PQQ response from Rok was considered to be non compliant due to the fact that they were not offering a supply chain approach to the procurement.
- 4.4.13 Following discussion on the scores, the team decided that the TEST results for Dawn and Carillion were so close that Carillion could not be excluded at this point and therefore the shortlist of organisation invited to tender should be extended to six.
- 4.4.14 The three unsuccessful PSCP's were informed in writing and offered the opportunity for feedback on their PQQ responses. Both Ogilvie and Barr took the opportunity for feedback on their submissions and they met with the Board and its technical advisors to discuss their submission and the resultant scores.

4.5 Invitation to Tender (ITT)

- 4.5.1 The Invitation to Tender (ITT) documentation was issued on 14 December 2007 and comprised the following volumes:
- Volume 1: Conditions of Tendering;
 - Volume 2/1: Contract Document;
 - Volume 2/2: Works Information/Site Information;
 - Volume 3: Tender Return Documents;

- Tender Workbook: (pricing information); and
 - CDM Questionnaire.
- 4.5.2 In addition to technical and quality information, tendering consortiums were required to provide commercial data as follows:
- PSCP staff and design rates;
 - subcontractor/consultant staff and design rates;
 - contractor fee %;
 - subcontractor fee %; and
 - priced activities (programme) for Stage 3 (design development) of each of the four bundled projects.
- 4.5.3 Tendering organisations attended a pre tender event on 9 January 2008. This event took the form of presentations by the Board and its Technical Advisors outlining the requirements for tender returns and in particular the completion of the tender workbook. Following a question and answer sessions with each supply chain there was an opportunity to visit the four sites.
- 4.5.4 Tenders were received from the six consortiums, by the Boards Deputy Director of Finance, on 28 January 2008.
- 4.5.5 Each return included all the relevant information to allow a proper evaluation of the tenders to take place, including:
- Volume 3 including Appendices 1 – 16; and
 - Tender Workbook on a CD.
- 4.5.6 Prior to the return date a tender model was prepared to enable comparison of the submissions including staff rates, fees and the anticipated Target Price envelope for each of the four projects within the bundling.
- 4.5.7 An initial review of tender, by the Boards Technical Advisors, identified anomalies requiring clarification. Clarifications were requested from all tendering companies and they were also requested to withdraw those items seen to be qualifications.
- 4.5.8 Following this clarification stage an adjusted tender price from each of the six consortiums was fed into the tender model to generate Stage 3 (Pre-Construction) prices as set out in table below.

| | |
|-----------------------|----------------------|
| Dawn | £529,955.62 |
| Carillion | £690,038.51 |
| Graham | £715,954.36 |
| Interserve | £902,419.77 |
| Morgan Ashurst | £968,606.34 |
| Skanska | £1,173,089.13 |

4.5.9 At this point there were still outstanding points for clarification from the qualitative evaluation of the tenders. Interviews were held and all six PSCP's were given the opportunity to present and to participate in a question and answer session in relation to their proposals.

4.6 Post Tender Interviews

4.6.1 Post tender interviews took place on 14th February 2008 with each PSCP asked to give a presentation followed by a question and answer session.

4.6.2 The interview panel included Board staff representation from capital planning, finance and procurement. The Boards Technical Advisors and a representative from Health Facilities Scotland were also in attendance.

4.6.3 An evaluation workshop was held on the 15th February 2008 with the same team in attendance and the performance of each PSCP assessed in line with the agreed qualitative evaluation criteria. The final scores for each PSCP are set out in table below.

Result of ITT Qualitative Evaluation.

| PSCP | % Score | Ranking |
|-----------------------|----------------|----------------|
| Graham | 77.29 | 1 |
| Interserve | 73.24 | 2 |
| Skanska | 64.99 | 3 |
| Carillion | 62.21 | 4 |
| Dawn | 61.10 | 5 |
| Morgan Ashurst | 57.80 | 6 |

4.7 PSCP Appointment

4.7.1 The results of the qualitative and quantitative evaluations carried out by the Board, assessing the technical and commercial merits of each tender, resulted in a recommendation from the Project Board to appoint Graham Construction as the preferred Principal Supply Chain Partner for the four bundled projects on the basis of the most economically advantageous bid to design and construct the new facilities.

4.7.2 This recommendation was endorsed by the Boards 'Capital Investment Group' on 25 February 2008 and the NHS Board on 27 February 2008.

- 4.7.3 Graham Construction was issued a letter of appointment on 25 March 2008 and at the same time the remaining five PSCP's were informed that they had been unsuccessful and offered the opportunity for feedback.
- 4.7.4 Stage 3 (design development) commenced following the ten day mandatory standstill period and there were no challenges during this time from unsuccessful PSCP's.
- 4.7.5 Stage 4 (Construction) will not proceed until Cost Certainty/Target Price for each project is known and approval of a project specific Full Business Case by the NHS Board and SGHD Capital Investment Group.

4.8 Involvement of Stakeholders

- 4.8.1 During all stages of the procurement there has been extensive involvement of NHS and non NHS staff.
- 4.8.2 The participation of users was led by the Project Board and there have been many events, presentations and workshops involving multi-disciplinary clinical and non-clinical staff including Council staff, GP's and local forums representing patients and carers.
- 4.8.3 The involvement of so many staff and users from within the Board and other key stakeholders has ensured that clinicians and non clinicians were at the heart of design development. This has ensured the designs have taken account of existing and emerging clinical models.
- 4.8.4 Facilities staff have also been involved at all stages and have led the design development of the hard and soft facilities management accommodation.
- 4.8.5 Details of the attendees at events, workshops and meeting etc are available from the Project Team.

4.9 Interaction with the Principal Supply Chain Partner

- 4.9.1 Following the appointment of Graham Construction as Principal Supply Chain Partner a Project Execution Plan (PEP) was developed by the Project Team.
- 4.9.2 The objective of the PEP is to create a planned environment going forward and establishes the key project management arrangements to be adopted throughout the procurement including:
- Project details including roles and responsibilities of the stakeholders;
 - Communication;
 - Meetings, including meetings schedule;
 - Third party approvals
 - Progress reporting
 - Risk management procedures;
 - Design Development and Change Control Management;
 - Health and Safety;
 - Dispute Management; and
 - Programme to Target Price.

4.9.3 The PEP is a dynamic document that will be developed and refined in each stage of the project life cycle.

5. THE PREFERRED SOLUTION

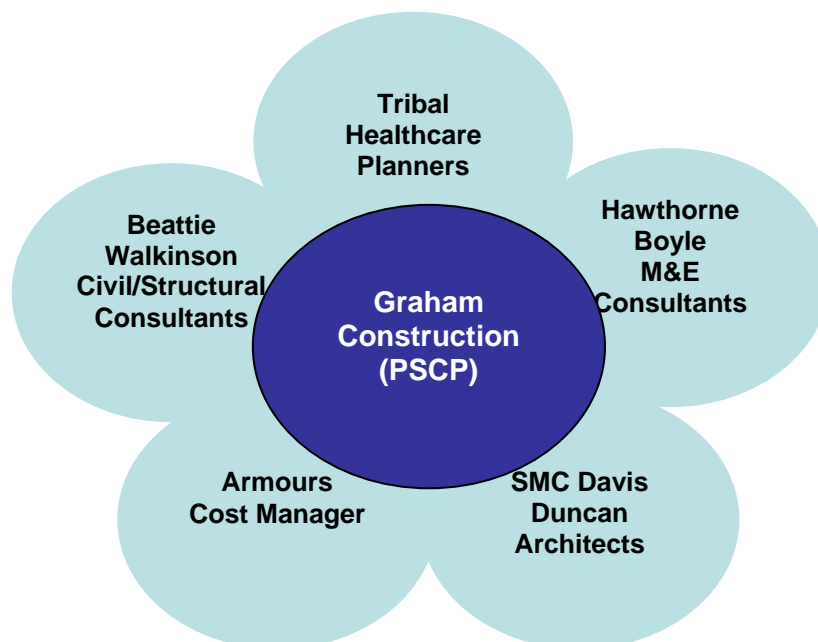
5.1 Introduction

- 5.1.1 The principal function of the Adults with Complex Needs service is to provide rehabilitation for patients who require ongoing 24-hour specialist mental health care and treatment due to the complexity of their condition and level of risk which they present. This new facility will enable patients to be admitted with mental health deterioration; disengagement from and/or breakdown of community care plans or where there is a change to the risk assessment of the level of supervision which is required.
- 5.1.2 The proposed scheme will deliver a modern environment where current clinical best practice is the starting point for continuous improvement and patients are cared for in clean, safe, high quality surroundings that make best use of the resources.
- 5.1.3 The new facilities will be of a high quality and will provide flexible and adaptable accommodation.
- 5.1.4 The Board will provide all hard and soft facilities management services.

5.2 Project Structure

- 5.2.1 The contract is being let under the New Engineering and Construction Contract (NEC 3) Option C. Following SGHD approval of the Outline Business Case Graham Construction was awarded the status of Principal Supply Chain Partner (PSCP) for Stage 3 i.e. up to Full Business Case approval. The diagram below shows the PSCP and the other key Supply Chain Members(SCM).

Graham Construction Supply Chain.



- 5.2.2 The experience and track record of the PSCP and SCM, in delivering community health services projects and other projects of this size and complexity, are available from the Project Team on request.

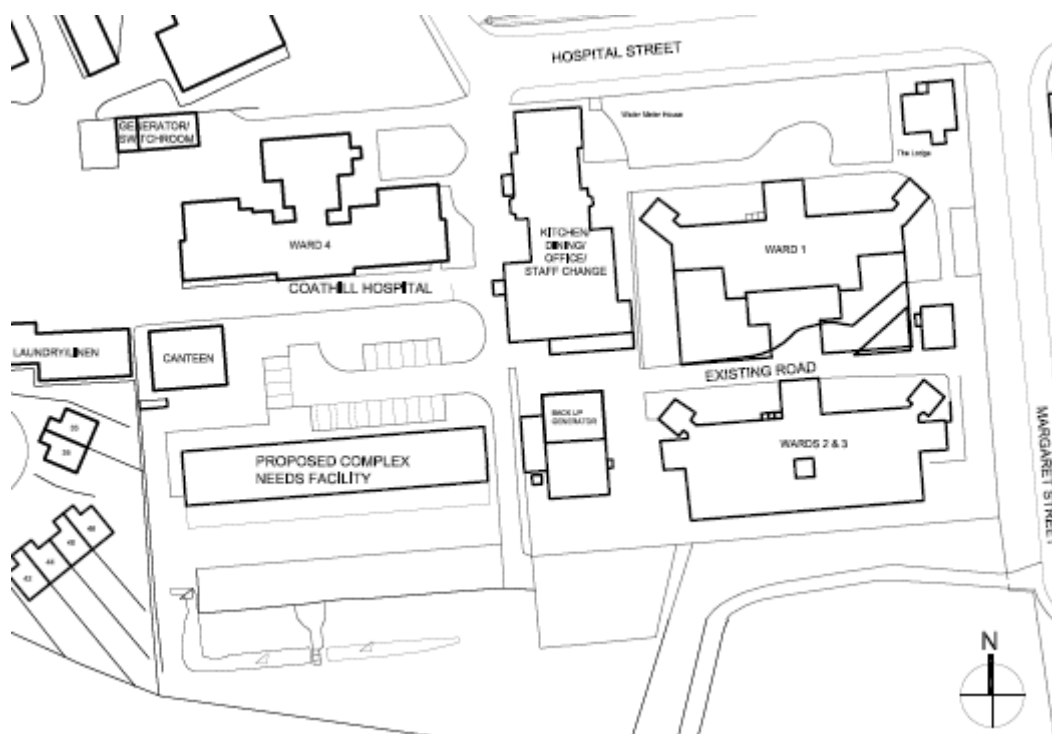
5.3 Project Description

- 5.3.1 The proposed scheme aims to achieve improvements in the effectiveness of clinical services by providing a flexible, responsive and efficient facility to meet local, regional and national imperatives. Drawings and plans of the proposed design are available from the Project Team on request.
- 5.3.2 The development of this new in-patient facility will enable the closure of the current substandard accommodation located at Hartwoodhill Hospital. The proposed accommodation will comprise of a 12 bed inpatient facility located within the site of the existing Coathill Hospital within easy reach of the local community.

The 1,131m² of accommodation will be provided over two floors and house 12 single bedrooms all with en-suite. Other accommodation will include:

- Reception and foyer;
- 2 quiet rooms;
- 2 sitting rooms;
- Dining room;
- Multi purpose room;
- 2 assessment kitchens;
- Meeting room;
- 2 interview rooms;
- 2 doctor/consultant rooms;
- Multi professionals office;
- Staff office;
- Clean/Dirty utility rooms;
- Patients property store;
- Patients Laundry room;
- Patients bathroom;
- Staff facilities (with Staff Shower and Toilets);
- Records Storage;
- Soft facilities management space; and
- Plant/Switch Rooms.

The figure below shows the position of the new facility within the existing Coathill Hospital site.



5.4 Key Features of the Design

5.4 Project Management Arrangements

Introduction

- As is demonstrated by this Full Business Case the project, up to the agreement of the Target Price, has been managed effectively and in a timely way.
- The Board intends to maintain this level of performance and commitment to delivering the project throughout the construction stage.
- This chapter will set out how the Board intends to manage the Project throughout the production stage and deliver successful service commencement and post-project evaluation.

5.4.1 Roles & Responsibilities

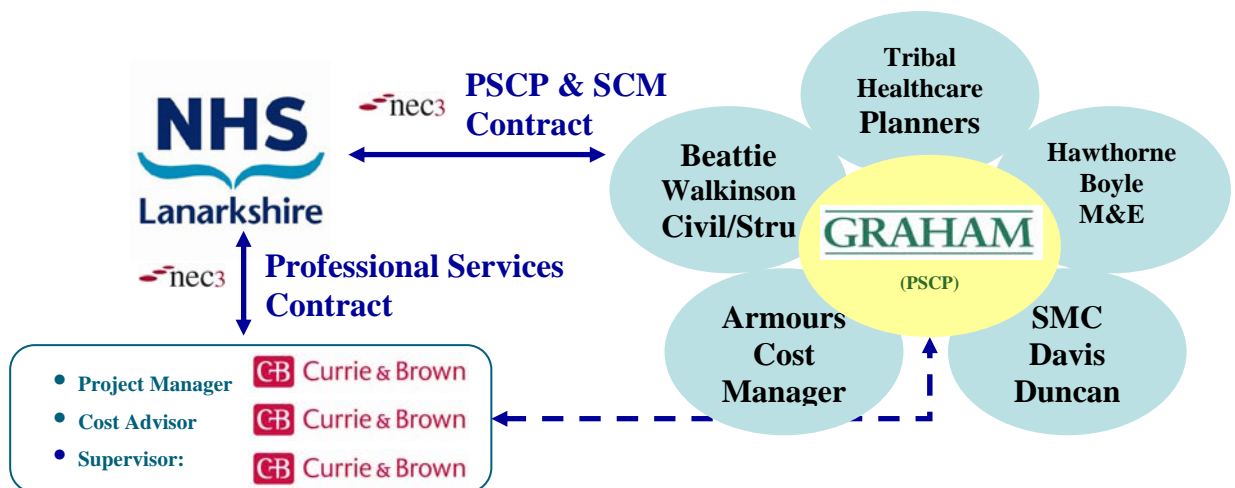
- The following key project roles will be maintained throughout the construction and commissioning phases of the project.
- The NHS Board's Capital Investment Group will maintain the overview of the project, receiving regular reports on progress and retaining accountability for the delivery of all aspects of the project;
- The Director of Strategic Implementation, Planning and Performance, as Project Owner, will retain personal accountability for project delivery. The Project Owner receives, and will continue

to receive, update reports from the Project Team on key issues and progress;

- The Project Team will continue to act as the key point within the Board for providing leadership and direction to the scheme and for internal/external stakeholders;
- Providing overall direction of the project through implementation and into operational use;
- Working with clinical & non-clinical service managers to deliver and realise the project benefits;
- Providing a focal point for external interest in the project;
- Managing the relationship between the Board, Graham Construction and its Supply Chain Members;
- Manage the change control process;
- Directing the work of the commissioning and mobilisation sub-groups.

5.4.2 Project Implementation Structure

- The key roles described above will be supported by an appropriate project organisation structure.
- The Board has a strategic partnering agreement with Currie and Brown to provide professional services and advice for the bundled projects. The Project Team will be supported by these advisors, to deliver the key outputs in a timely way.
- Currie & Brown have put together a team that encompass the contractual NEC roles of Project Manager, Cost Advisor and Supervisor. This team includes an appropriate level of administrative staff and recognises the demand on resources from a procurement comprising four projects being delivered simultaneously.
- Currie & Brown will act on behalf of the Board in delivering a successful project in line with the requirements of NEC 3 option C, target contract with activity schedule. The Project Manager shall;
- Provide a link between the Boards Project Team, and Graham Construction and design team members to facilitate the flow of information;
- Develop and maintain the project execution plan;
- Provide advice to the Project Team;
- Provide progress and monitoring information; and
- Develop and maintain the 'Contract Administration Toolkit'.
- The diagram below outlines the relationship between the main parties involved in the delivery of the project.



5.4.3 Contract Administrative Toolkit

- The Contract Administration Toolkit (CAT) was originally developed by NHS Fife but has been further developed by Currie & Brown to assist in the administration of the project and is closely linked to the contract terms.
- A Master Register which has been developed for the Project Team as a management tool for complying with all the requirements of the contract, automatically updates 24 proforma's from information entered.
- The information entered into the 24 proforma's is then electrically signed and distributed with all attached supporting documentation.
- The Master Register includes a:
 - graphical summary of progress on all pro-forma issues;
 - hyper linking of Master Register to all Proforma's for easy reference;
 - traffic light assessment of acceptance and non acceptance on programme, cost and design issues;
- Summary of compensation events issued with dates and acceptance status for quotations and completion dates;
- Summary of monthly assessment of amount due;
- Summary of monthly forecast of total defined cost;
- Notification of any disallowed costs at gateways;
- Status of early warning meetings and risk reduction meetings;
- CAT system can be used to report a range of Key Indicator's as to the current position and projected status of the project.
- Using CAT is an efficient time, quality and cost effective method to

ensure compliance when managing the contractual process.

5.4.4 Training

- All parties involved in the project have recognised the need to have well trained staff to meet the challenges of delivering the bundled projects under the NEC 3 contract. Therefore NEC3 training sessions have been held and regular workshops are ongoing to ensure that lessons are learned and a consistent approach is taken across all of the projects.
- Experiences gained in these workshops are carried forward to inform future decision making in the spirit of close collaboration and partnership working between all parties.

5.4.5 Governance

- There is an ongoing requirement to maintain governance structures for the project post Full Business Case. Therefore a Project Implementation Board has been established and it's role and membership approved by the Boards Capital Investment Group.

5.4.6 Change Management

Management of change during the project is an important aspect of project delivery. The Project Team will ensure that a running total of variations is kept up to date at all times and this will be monitored through the normal performance review mechanisms with the Board.

5.4.7 Learning from Other Projects

- Throughout the development of the project, the Project Team has sought to adopt good practice and ensure that lessons are learnt in order to avoid any potential pitfalls.

5.4.8 Publication of FBC and Contractual Documents

- The Board is aware of its responsibilities under the Scottish Governments Code of Openness for Capital Projects. Within one month of FBC approval the Board will ensure that copies of all relevant project documents are made publicly available as follows:
 - In an accessible place for members of the public at Board Offices;
 - With local Partnership Forums;
 - In the local libraries. This, plus the copy in the NHS Board HQ, will be notified to the public by advertisements in local newspapers;
 - Copies will also be sent to the Scottish Government; and
 - On the NHS Board public website.
- The documents will be as complete as possible and only areas of genuine commercial sensitivity will be omitted following discussion with Graham Construction.

5.5 Clinical Functionality

- 5.5.1 The new unit will provide treatment in the least restrictive environment as close to home as clinically possible and establish appropriate liaison with local community services for effective follow up care.
- 5.5.2 The facility fully meets the clinical brief and the departmental relationships and internal flows in particular have been full agreed and signed off by clinical user groups. The design has been assessed through the use of an AEDET design evaluation tool to be good or very good in all ten categories. Key features include:
- a clearly distinguished main entrance which leads to a common reception foyer where all staff and visitors arrive, maximises security and control of the building;
 - up to date good practice designs of both physical layout and security systems maximise the efficiency of the functional requirements;
 - the design creates an aesthetically pleasing environment, making most of natural daylight and ventilation; and
 - disability audits have been carried out as an integral part of the design process and development to influence strategic decisions in regards to access and circulation to specific details such as colour and texture of finish.

5.6 Selection of Materials

- 5.6.1 Traditional and sustainable building materials are used in a contemporary manner to give appropriate visual aesthetic and vibrancy. The specifications of windows and external screens have been carefully considered to ensure robust security whilst avoiding a harsh, secure aesthetic.

5.7 Wayfinding & Interior Design

- 5.7.1 The design succeeds in breaking down the scale of the project producing a 'friendly' and 'domestic' type environment. A logical hierarchy of accommodation from public to semi-public to private space is achieved from the foyer both vertically and horizontally.
- 5.7.2 The clear and visible identification of patient and non-patient areas challenges the 'institutional' norm, and simplicity and legibility of the design allow ease of orientation, discrete use of security measures and facilitate observation and supervision.
- 5.7.3 Light and colourful interiors embrace the aspiration of an open, uninhibited and non-threatening environment. Lessons learned from visits to other Mental Health inpatient facilities in the West of Scotland have been incorporated into the design.

5.8 Making Best Use of the Site

The existing Coathill Hospital buildings vary in age and style and appear adhoc. The new facility will be accessed via the hospital grounds from the entrance at Hospital Street. Making best use of the site topography it sits low in the south corner of the Coathill Hospital site, where it will replace old surplus office accommodation.

- 5.8.2 Access to the Facility will be straightforward, with clear signposting and dedicated car parking close to the entrance. The existing hospital road network, associated car park and drop off areas will facilitate good access and egress.

5.9 Flexibility & Future Expansion

- 5.9.1 There is limited flexibility due to the specialist nature of the building. However the proposed design allows internal adaptation to meet the changing ways in which care will be delivered in the future. There is potential to change the purpose of rooms or take down partitions to create larger areas. The living and bedroom areas could accommodate different types of patients.

- 5.9.2 Accommodation has been planned and designed to adapt to change, with a standardised room specification so that rooms can be easily converted to alternative uses, and yet readily tailored to specialist needs.

- 5.9.3 Internal compartmentalisation is primarily formed using dry walling techniques allowing remodelling work to proceed with minimal disruption in terms of nuisance (noise, vibration and dust).

5.10 NEAT – Sustainable Approach to Development

- 5.10.1 During the design development stage, the Board required the developers to undertake an evaluation of their proposals using the NHS Environment Action Tool (NEAT). The proposed facility achieves a ranking of Very Good under this tool.

- 5.10.2 The building from an engineering perspective has been designed to be flexible and controllable. The anticipated energy consumption of the designed facility has been assessed as meeting the government target of 35 – 55 GJ/100m³ for new developments.

5.11 Planning Permission

- 5.11.1 The Boards advisors submitted a planning application for the new facility on 10th April 2007 and North Lanarkshire Council Regulatory Committee considered the application in June 2007 and Planning Consent was granted subject to conditions.

5.11.2 There are 7 conditions attached to the planning consent, all of which are standard conditions and shall be discharged by Graham Construction and their designers as the design develops.

5.11.3 Throughout the design development process there has been regular and ongoing discussions with North Lanarkshire Council in order to ensure that all planning conditions are discharged timeously.

5.12 Timeline

5.12.1 The proposed programme for completion of the development is:

| | |
|--|----------------------|
| Planning Consent | June 2007 |
| Target Cost Established | December 2008 |
| Full Business Case NHS Board Approval | December 2008 |
| Full Business Case SGHD For Information | January 2009 |
| Site Mobilisation | February 2009 |
| Practical Completion | February 2010 |
| Service Commencement | March 2010 |

6. EQUIPMENT

6.1 Introduction

6.1.1 This chapter of the Full Business Case sets out:

- the categorisation of equipment;
- an overview of the equipment strategy;
- equipment procurement responsibilities;
- commissioning arrangements; and
- the funding route for the equipment.

6.2 Equipment Categorisation

6.2.1 Equipment within the project is grouped into four categories. These are:

- Group 1: Items (including engineering terminal outlets) supplied and fixed within the terms of the building contract;
- Group 2: Items which have space and/or building construction and/or engineering service requirements and are fixed within the terms of the building contract but supplied by the Board;
- Group 3: As Group 2 but fixed or placed in position by the Board; and
- Group 4: Items supplied by the Board, possibly with storage implications but otherwise having no effect on space, construction or engineering services.

6.3 Equipment Strategy

6.3.1 In order to ensure clarity the Board has produced an Equipment Responsibility Matrix (ERM) detailing in which category individual pieces of equipment fall.

6.3.2 Graham Construction shall, as part of the Target Cost, procure, install and commission all group 1 equipment and shall install only group 2 equipment procured by the Board.

6.3.3 Board responsibility is mainly limited to items such as medical equipment and other moveable items which fall within Groups 3 and 4. These items shall be procured new or will be transferred from an existing facility. This equipment shall be procured, installed, commissioned, maintained and life cycle replaced by Board departments such as Medical Physics or through contracts with specialist suppliers.

6.3.4 Detailed Room Data Sheets (RDS) have been fully developed and agreed for all standard rooms within the facility and this process will be completed for all rooms prior to construction beginning on site.

6.3.5 A detailed transfer inventory is currently underway within existing facilities. This is designed to capture information relating to the age and condition of equipment as well as its suitability for use within the new facility.

- 6.3.6 Where appropriate the specification of group 1, equipment procured by Graham Construction, has been approved by the Board.

6.4 Equipment Procurement

- 6.4.1 Where required the Boards Procurement department shall lead users in specifying, selecting and tendering of all Board equipment in line with Standing Orders, Standing Financial Instructions and EU Supplies Directives.
- 6.4.2 The Procurement department shall provide Graham Construction with timeous information on each item of Group 2 equipment; to include dimensions, fixing details, mechanical and electrical service requirements, service connection, heat outputs, allowable deflections etc.
- 6.4.3 The Boards Medical Physics department shall advise on the procurement of medical and scientific equipment to ensure that items under consideration, are safe and comply with relevant standards and are compatible with users working practices and existing equipment.
- 6.4.4 The purchase of Group 3 and 4 equipment will take place during the technical commissioning period. However the procurement of group 2 equipment such as dental chairs that have significant design implications shall be discussed and agreed with Graham Construction to ensure delivery at the appropriate time in the construction programme.

6.5 Equipment Commissioning

- 6.5.1 A commission team shall be responsible for the logistics, installation, commissioning and staff training on the use of Board equipment. This commissioning team shall:
- develop an equipping programme based on overall project timescales;
 - develop the final equipment lists based on the finalised room data sheets;
 - undertake the transfer exercise;
 - take receipt of all equipment and distribute on-site; and
 - manage the process of testing, commissioning and training.

6.6 Funding of Equipment

- 6.6.1 The cost of procuring all Group 1 equipment is included within the Target Cost.
- 6.6.2 Equipment groups 2, 3 and 4 will be purchased or leased by the Board using national contracts and conventional competitive tendering.
- 6.6.3 As outlined above there is an expectation that wherever possible equipment shall transfer from existing facilities.

7. CONTRACT FRAMEWORK

7.1 Introduction

7.1.1 The Chapter will examine:

- an overview of the contract framework;
- the Principal Supply Chain Partner and its Supply Chain Members (SCM);
- the Boards right to terminate;
- reviews and approvals;
- PSCP payments;
- Open Book Accounting; and
- setting the Target Price.

7.1.2 This Chapter describes the basis of the legal or contractual framework that will underpin the project and sets out a summary of the key contractual relationships between the Board and its Principal Supply Chain Partner (PSCP) - Graham Construction.

7.1.3 Adults with Complex Needs Unit, Coathill Hospital is one of four projects bundled together for the purposes of procurement. The other three bundled projects are:

- Caird House - Adults with Complex Needs/Low Secure Unit;
- Carluke Community Health Centre; and
- Kirklands - Learning Disabilities Assessment and Treatment Centre.

7.1.4. The Boards Legal Advisors are McClure Naismith and the projects are being administered under the third edition of the Engineering and Construction Contract (NEC 3) Option C with the contractor working to agreed margins and utilising open book accounting.

7.1.5 The Chapter will examine:

- an overview of the contract framework;
- the Principal Supply Chain Partner and its Supply Chain Members (SCM);
- the Boards right to terminate;
- reviews and approvals;
- PSCP payments;
- Open Book Accounting; and
- setting the Target Price.

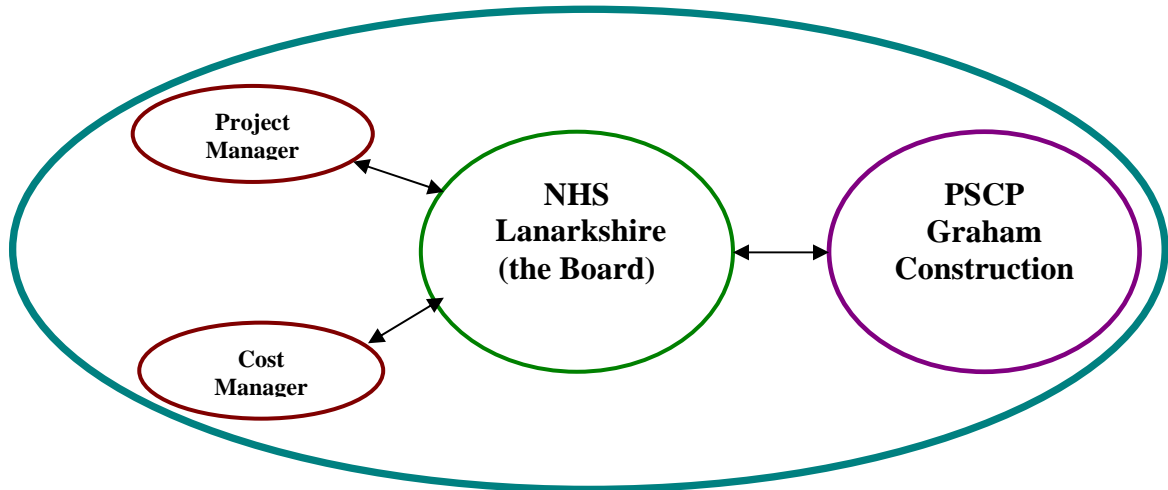
7.2 Overview of the Contract Framework

7.2.1 Public sector capital is the procurement route that has been assessed to deliver value for money for these projects. The collaborative partnership approach being followed is based on the principals of ProCure 21 using the NEC3 ECC Conditions of Contract (Option C).

7.2.2 Price certainty is obtained by agreement of a Target Price between the Board and Graham Construction and a risk and reward formula (Gain/Pain share) is an inherent part of the contract.

7.2.3 The project is owned by the Board, with Currie & Brown being appointed to act as Project Managers and Cost Managers. The contractual links are illustrated below.

Contract Framework



7.2.4 One of the key principals underpinning this collaborative approach is the establishment of an integrated Project Team made up of participants from the Board, its advisors and the Principal Supply Chain Partner and Supply Chain Members (SCM).

7.2.5 The integrated Project Team will work together in a non-adversarial manner to achieve the common goal of delivering the four projects. The establishment of an integrated Project Team has many benefits including:

- open and transparent management of the projects;
- building trust between the Board and the PSCP;
- a better understanding of each others needs;
- improvements in cost, time and quality; and
- skills transfer.

7.3 The Principal Supply Chain Partner and it's Supply Chain

7.3.1 The Board selected Graham Construction as its Principal Supply Chain Partner under an EU compliant competitive tendering procurement process, to design and construct the four bundled projects. This is described in Section 4 – The Procurement Process of this Full Business Case.

7.3.2 The initial appointment is to take each of the four projects to completion of NEC Stage 3 or 'Full Business Case/Target Price'. Individual projects within the bundling will only move forward to Stage 4 – 'Construction' following NHS Board and Scottish Government Health Directorate approval of the Full Business Case.

7.3.3 Graham's Supply Chain Members are as follows:

| | |
|--------------------------------|----------------------|
| Architect | - SMC Davis Duncan; |
| Cost Consultant | - Armours; |
| Structural/Civil Engineer | - Beattie Watkinson; |
| Mechanical/Electrical Engineer | - Hawthorne Boyle; |
| CDM co-ordinator | - CRGP; and |
| Condition surveys | - CRGP. |

7.3.4 Grahams Construction may not change any of its Supply Chain Members without the Boards consent.

7.4 The Board's Right To Terminate

7.4.1 The project is proceeding in the following distinct stages and the contract with Graham Construction is subject to termination rights at each stage.

- Stage 3 – engagement up to approval of FBC; and
- Stage 4 – engagement to carry out the construction of the facility.

7.4.2 If approval is not given to proceed to Stage 4 – Construction the Board has the right to terminate the contract, even if Graham Construction is not in breach. The Board may terminate the contract at this stage and Graham Construction would not be entitled to claim for the loss of anticipated profits.

7.5 Reviews and Approvals

7.5.1 Graham Construction has collaborated with the Board to develop the Stage 3 design for the Adults with Complex Needs Unit, Coathill Hospital and to reach an agreed Target Price. The design has now been accepted by the Board, with 'Clinical Sign-off' of the site development plan, clinical adjacencies at 1:200 scale and room layouts at 1:50 scale of all standard rooms. Some design development is ongoing on the remaining room layouts and this will be complete prior to work commencing on site. The Target Price was agreed on 5th December 2008.

7.5.2 Full Business Case approval is now being sought from the NHS Board and Scottish Government Health Directorate (SGHD) 'Capital Investment Group' to proceed to Stage 4: Construction.

7.6 PSCP Payments

7.6.1 As part of the selection process, Graham Construction submitted details of their supply chain rates for Stage 3.

- 7.6.2 During Stage 3 ‘design development’ Graham Construction has been paid on an open book defined cost plus fee basis, together with defined cost of subcontracted work and the subcontracted fee. This is monitored against a target agreed prior to entering into this stage.
- 7.6.3 In Stage 3 Graham Construction do not share in any savings nor is there a penalty for overspending the stage target; always providing that they have complied with the acceptance procedure in the contract by obtaining the Project Manager’s agreement to any increase. Failure to follow this acceptance procedure may result in defined costs that exceed the stage target being determined as a disallowed cost.
- 7.6.4 The Target Price for Stage 4 ‘construction’ is now fixed and subject to Full Business Case approval.
- 7.6.5 During Stage 4 Graham Construction must deliver the project for the Target Price. However it should be noted that the Target Price may be revised upward or downward where contract compensation events occur.
- 7.6.6 In Stage 4 Graham Construction are paid their defined cost and fee together with defined cost of subcontracted work and the subcontracted fee.
- 7.6.7 Defined costs plus fee are compared to the Target Price and a ‘Gain/Pain Share’ mechanism applied depending on whether the final total cost exceeds or falls short of the Target Price. The mechanism is applied as follows
- Where actual price is below Target Price, the contractor and the Board will share the ‘gain’ on a 50/50 ratio.
 - If the actual price is below 80% of the Target Price the Board receives 100% of any further savings.
 - Where actual price exceeds the Target Price, all additional costs are absorbed by Graham Construction.
 - Appropriate levels of incentives are maintained by ‘ring fencing’ profit.
- 7.6.8 Graham Construction is therefore incentivised to identify and bring to the Boards attention opportunities for value engineering and cost management. The decision to proceed with changes to the accepted design lies with the Board.

7.7 Open Book Accounting

- 7.7.1 The Board and its Cost Managers have agreed with Graham Construction the appropriate level of information required in support of monthly applications for payment.
- 7.7.2 On an ongoing basis the Boards Cost Managers will audit Graham Construction’s accounts to verify the amounts forming the basis of the application for payment.

- 7.7.3 Each application will be separated into elements of:
- defined cost of works, materials and services;
 - risk allowances; and
 - the percentage fee (overheads and profit).
- 7.7.4 The aim underpinning this partnership approach is to reduce costs by understanding the commercial risks and mitigating their time/cost impact on the construction of the new facility.

7.8 Setting The Target Price

- 7.8.1 The Target Price for Stage 4 has now been agreed and Graham Construction must deliver the project for this cost.
- 7.8.2 The Boards Cost Managers have benchmarked the proposed Target Price by comparing this with actual costs of other projects and have confirmed that the defined costs, fees and risk compare favourably with similar recent ProCure 21 projects.
- 7.8.3 The Board and its advisors have worked closely with Graham Construction to understand the costs and the commercial risks which make up the Target Price. Joint risk workshops are regularly held to ensure transparency and the best possible outcomes are achieved.
- 7.8.4 The allocation of commercial (Graham Construction) and Board risks is fully described in Section 9 – ‘Risk Analysis and Risk Management Strategy’ of this Full Business Case.

8. FINANCIAL APPRAISAL AND AFFORDABILITY

8.1 Capital Cost

8.1.1 As highlighted in section 1.3.1, capital costs for the proposed development have been updated from the OBC. These costs are based the Target Price as agreed with the Board's Principal Supply Chain Partner (Graham Construction):

| | Total Cost |
|---------------------------|-------------------|
| | £000's |
| Works Costs | 3,537 |
| Commercial Risk | 196 |
| Target Price | 3,733 |
| VAT | 590 |
| Fees | 375 |
| Equipment & IT/Telephones | 200 |
| Total Project Cost | 4,898 |

8.1.2 The works costs at FBC are the outcome of the negotiations with Graham Construction to achieve agreement of a Target Price which includes Commercial Risk that will be borne by the contractor.

8.1.3 The above table shows an NHS capital expenditure figure of £4.898m. This figure includes non recoverable VAT, Fees, Risk and Equipment.

8.1.4 Construction cost inflation in respect of increases in the building cost indices as advised by NHS Lanarkshire Property Advisors Currie & Brown has been included at both OBC and FBC stages to programme mid-point of Q3 2009.

8.1.5 The capital costs will be funded through the NHS Lanarkshire Capital Resource Limit (£4.898m). Appropriate provision has been made in the Board's five year Capital Plan

8.1.6 The Planning Authority set planning conditions as detailed in paragraph 5.11.2. These will be discharged by Graham Construction and their designers.

8.1.7 Equipment costs are based on a detailed schedule of requirements with an assumption that wherever possible equipment shall transfer from existing facilities.

8.1.8 NHS Lanarkshire's Property Advisors Currie & Brown have benchmarked the FBC costs against other recent central belt projects. In their opinion the target price submitted by Graham Construction represents fair market value.

8.1.9 Forms FB1-4 detailing the breakdown of capital costs are included at Appendix A.

8.2 Revenue Implications

8.2.1 As a result of the decreased capital costs, and as noted in Section 3.6, the revenue implications of the new development have been updated from the OBC. These costs have been developed by the NHS Lanarkshire Finance and Property & Support Services Departments, in conjunction with Currie & Brown acting as the NHSL board's cost advisors.

8.2.2 The projected revenue costs to the NHS are summarised in the table below:

| Cost Category | Revenue Cost at OBC Stage | Revenue Cost at FBC Stage |
|-----------------------------------|---------------------------|---------------------------|
| | £000's | £000's |
| Rates, Property & FM Costs | 1,073 | 1,073 |
| Capital Charges | 288 | 272 |
| Total Revenue Costs to NHS | 1,361 | 1,345 |
| | | |
| Net Decrease to NHS | | 16 |

8.2.3 Rates, property and facilities management costs have been re-appraised by NHSL finance and property and support services department and have not increased since OBC stage.

8.2.4 The Capital Charges decrease of £16,000 reflects the decrease in the capital cost of the building between OBC and FBC stage as detailed in section 3.6 above. This decrease in revenue costs is affordable within the Board approved Five Year Financial Plan.

8.3 Economic Appraisal/ Value For Money Analysis

8.3.1 The capital and associated revenue costs were used to carry out an economic appraisal of the options, using discounted cash flow techniques in line with SGHD guidance. A discount rate of 3.5% for the first 30 years and 3% for the remaining period to 60 years was used in this computation. The appraisal undertaken for the OBC has been updated for the revised capital and revenue costs.

8.3.2 At the time of the OBC there was no significant difference in NPC and EAC between the preferred option and the other considered options. The preferred option was selected on the basis that it delivered the highest level of non-financial benefits.

8.3.3 The economic analysis undertaken for the FBC was carried out assuming that the capital and revenue costs for the OBC options would change pro rata from the date of the OBC to FBC. As a result of this, there was no significant change in the NPCs and EACs of the considered options. The preferred option remains that which delivers the highest level of non-financial benefits.

8.4 Affordability

8.4.1 The preferred option remains affordable within NHSL's 5-year Capital and Revenue Plans.

8.5 Accounting Treatment

8.5.1 The delivery of the preferred solution is by way of a traditional public funded procurement and the Capital Expenditure incurred in developing the building will be reflected on NHSL's Balance Sheet as a Fixed Asset.

9. RISK ANALYSIS AND RISK MANAGEMENT STRATEGY

9.1 Introduction

9.1.1 The objective of performing risk analysis is to:

- allow the Board to understand the project risks and put in place mitigation measures to manage those risks;
- assess the likely total outturn cost to the public sector of the investment option under consideration; and
- ensure that the allocation of risks between the Board and the private sector is clearly established and demonstrated within the contractual structure.

9.1.2 A risk may or may not occur and is defined as an event which affects the cost, quality or completion time of the project. There are a number of such events that could arise during the design, construction and commissioning of the new facilities.

9.1.3 A full risk analysis was undertaken to identify and assess the impact of risks during all stages of the project. This comprised a series of workshops involving the Project Team and professional advisors, the Boards risk manager, users of the building and representatives from Graham Construction and their design team.

9.1.4 This chapter sets out the project specific approach to managing risk and illustrates how risk has been integrated into the NEC commercial framework and confirms on-going risk management arrangements. The areas covered are:

- Risk Management Overview;
- Risk Profile at Full Business Case; and
- Risk & the Commercial Framework.

9.2 Risk Management Overview

9.2.1 All capital projects carry a degree of risk and project risks that are not identified at the appropriate stage in the project life cycle cannot be effectively managed. Often this results in time and cost overruns and a reduction in the quality of the built facility.

9.3 Risk Management Process

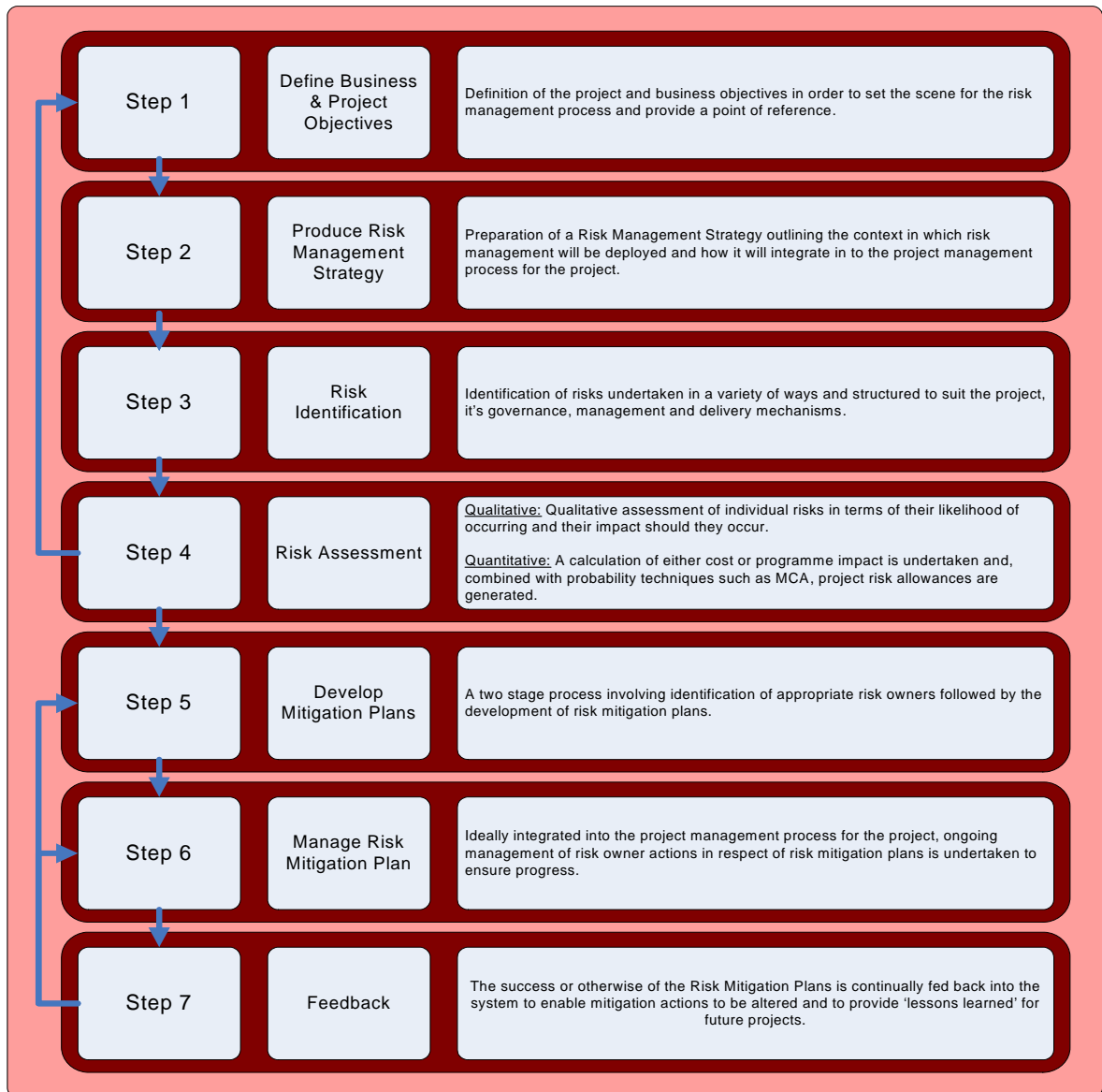
9.3.1 The approach taken to risk management follows the process illustrated at the end of this section.

9.3.2 Following development of project objectives and the risk management strategy, risks were identified as either present or anticipated (emergent).

9.3.3 Identification and assessment of risks has been and will continue to be revisited regularly during development and delivery of the project.

- 9.3.4 An initial risk register was developed by the project team at OBC stage. This was further developed as the project progressed and shared with Graham Construction during the design development stages of the project.
- 9.3.5 Project Team members have been encouraged to add risks at any stage during project development in order to ensure that all significant project risks are identified and considered by all project stakeholders.
- 9.3.6 Qualitative assessment of all identified risks was undertaken with the probability of a risk occurring and its potential impact scored using the Boards risk management methodology. This scoring of risk enabled the development of a risk profile for the project, and scores are revised on a regular basis depending on the implementation and success of mitigation strategies.
- 9.3.7 Quantitative assessment of risks at the time of submitting this Full Business Case is described later in this chapter.
- 9.3.8 The risk management process developed appropriate mitigation strategies for risks which were classified as either:
- Retain - where other options are uneconomic or undesirable;
 - Reduce - minimise the risks by raising awareness and developing protection measures;
 - Avoid - choose different methods/solutions;
 - Transfer - assign the control of risks to others; or
 - Share - where control could not be managed fully either partly alone.
- 9.3.9 In addition to developing plans for mitigation of risk, the risk management plan has identified risk owners on the basis of the organisation best placed to manage them. The Board or Graham Construction will manage the risks and the mitigation strategies allocated to them. It should be noted that ownership of a risk for mitigation purposes is not the same as allocation of risk from a commercial purpose.
- 9.3.10 The penultimate stage in the risk management process has involved the collection, categorisation and summary of the information obtained thus far, enabling the development and implementation of the risk management system.
- 9.3.11 Finally, the risk management system accommodates feedback in order to assess its effectiveness and enable its revision.

The Risk Management Process



9.4 Current Risk Profile at Full Business Case

- 9.4.1 In following this structured approach to risk management, the project risk profile has both changed and reduced during design development.
- 9.4.2 The risk register for the project is attached at Appendix B However the table below summarises the significant commercial (Graham Construction) risks that are included within the Target Price and pertinent at the time of drafting this Full Business Case.

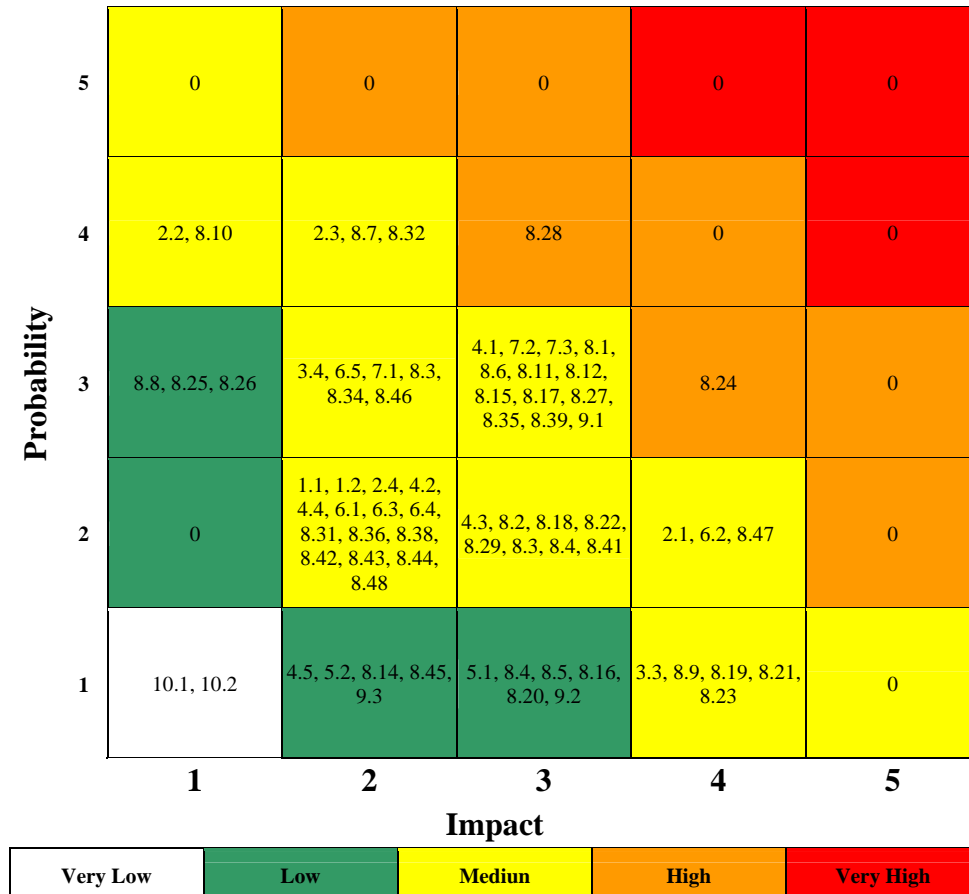
Significant Commercial Risks.

| Risk Ref | Description of Risk | Risk Exposure | | Risk Exposure Rating Col 3 x Col 4 | Assessed Risk | Risk Owner | Control Measures |
|-------------|--------------------------------|---------------|--------|---------------------------------------|---------------|------------|---|
| | | Probability | Impact | | L/M/H | | |
| 8 | Construction | | | | | | |
| 8.24 | Inflation exceeds Forecast | 3 | 4 | 12 | High | Graham | PSCP carries inflation risk ro 2-year from agreement of Target Price. |
| 8 | Construction | | | | | | |
| 8.28 | Price fluctuation of crude oil | 4 | 3 | 12 | High | Graham | |

- 9.4.3 It should be noted that although the register was initiated and developed by the Project Team, the FBC register has been further developed and enhanced by involvement of Graham Construction and the entire supply chain.
- 9.4.4 The risk register details the mitigation strategies that have been adopted in order to manage all the project risks.
- 9.4.5 Although the risk profile at Full Business Case is discussed later in this chapter, this can only be considered a snapshot.
- 9.4.6 It should be noted that the risk scores above have been adjusted to take account of the impact of the mitigation strategies only where these strategies have commenced or are complete.
- 9.4.7 The Probability/Impact Grid shown overleaf below provides a graphic representation of the project risk profile. Each reference represents an individual risk on the register.
- 9.4.8 It should be noted that the proportion of high level, high scoring risks shown in the top right hand quadrant is relatively low and that the risk profile has reduced sufficiently to enable the investment decision to proceed. There are no very high (red) risks

9.4.9 The ownership of individual risks has been agreed between the Board and Graham Construction and in the main allocation has been based on the principal of which organisation is best placed to manage it. However, it should be noted that ownership of a risk for management purposes should not be inferred as ‘risk transfer’ from a commercial perspective.

Probability/Impact Grid.



9.4.10 The table above shows the risks which have been assessed to have a potential impact on programme together with time impact.

9.4.11 An assessment has been made of these risks and an ‘float’ allowance introduced to the construction programme to accommodate any potential slippage.

9.4.12 The process of agreeing an appropriate capital risk allowance for determining the Target Price is set out below.

9.5 Risk & The Commercial Framework

9.5.1 The key features of the New Engineering and Construction Contract (NEC 3 - Option C) contract are:

- It is a variant of Maximum Price/Target Cost (MPTC) approach.
- The parties are encouraged to work together as partners in an open and transparent approach and to ensure that this partnering ethos is

maintained.

- There is a ‘Gain/Pain share’ mechanism to act as an incentive to the delivery team, by rewarding good performance and penalising poor performance.
- A clear and transparent system is ‘on the table’ to enable negotiation to take place on prices.
- A level of ‘price certainty’ is determined.
- All price thresholds are set using quantitative risk analysis.

9.5.2 With the risk register now complete and agreed between the Board and Graham Construction (stage 1) the following process was followed.

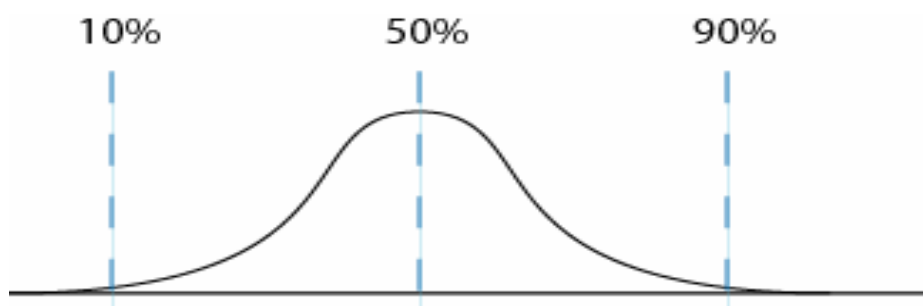
- Stage 2: All risks that have a cost impact were priced by Graham Construction using a three point estimating technique. These costs were verified by the Board’s Cost Advisors.
- Stage 3: The allocation of risk was agreed between Graham Construction (commercial) and the Board (project/corporate).
- Stage 4: A Monte Carlo analysis was undertaken on both risk ‘buckets’ i.e. commercial and project.
- Stage 5: The Monte Carlo outputs from the commercial risk bucket are used to set the price framework.
- Stage 6: The Monte Carlo output from the project risk bucket is used to set the Board Risk allowance.

9.5.3 The three point estimating techniques used by Graham Construction to price the risks, determines:

- the ‘best case’ cost;
- the ‘most likely’ cost; and
- the ‘worst case’ cost

9.5.4 A statistical distribution analysis is performed on the individual three point estimates, typically using a normal distribution curve as shown below.

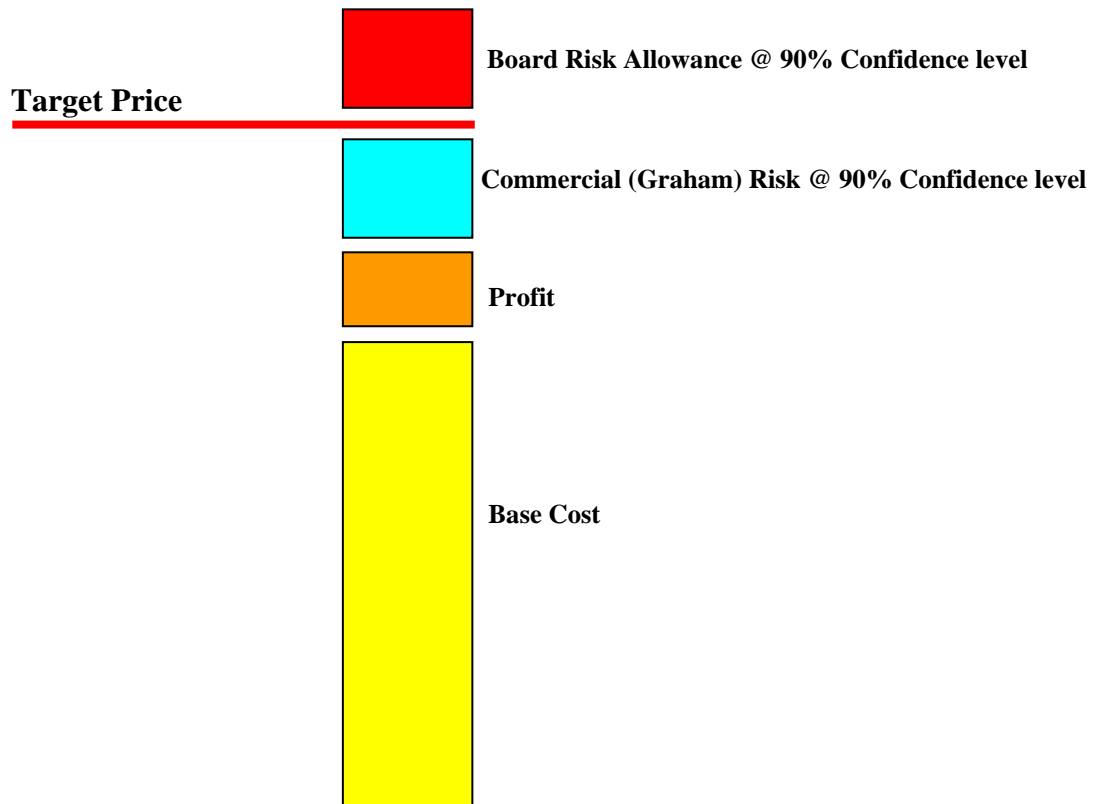
Normal Distribution Curve.



- 9.5.5 The problems with assessing the cost of risk is that not all of the risks will occur and the risks that do occur may not fall at the most likely predicted outcome i.e. a 50% level of confidence. The Monte Carlo Analysis is a statistical simulation that considers the probability of all, some or none of the risks occurring.
- 9.5.6 The Monte Carlo Analysis is a statistical simulation that considers the probability of all, some or none of the risks occurring.
- 9.5.7 The simulated value for commercial risk calculated as ‘most likely’ i.e. 90% confidence level is used to set the Target Price. This is illustrated below:

Elemental Build Up of Target Price.

- 9.5.8 The contract as tendered by the Board sets the ‘Gain/Pain share’ mechanism as follows:
- Where actual price is below Target Price, the contractor and the Board will share the ‘gain’ on a 50/50 ratio.
 - If the actual price is below 80% of the Target Price the Board receives 100% of any further savings.
 - Where actual price exceeds the Target Price, all further pain is absorbed by the contractor.
 - Appropriate levels of incentives are maintained by ‘ring fencing’ profit.



- 9.5.9 The risk simulation can only ever include for risk events that have been identified, therefore now that the price framework has been agreed the occurrence of a risk that was not identified in the register does not qualify as compensation events.

9.5.10 Risk events that are dealt with under the contract, such as weather, are included in the risk register.

9.6 Board Risk

9.6.1 The Board risks are also identified on the risk register. To a large extent these have been mitigated by the extensive site investigation works carried out earlier in the project and by the robust project management arrangements in place.

9.6.2 Should any Board risk occur, the cost of these shall be met from a risk allowance set aside for those projects listed in the Boards Capital Plan.

9.6.3 Compensation events are used to 'instruct' changes and are paid for from the 'Board' risk pot.

10. BENEFITS ASSESSMENTS AND BENEFITS REALISATION PLAN

10.1 Principles

10.1.1 A key component of any formal option appraisal is the assessment of the non-financial benefits that are likely to accrue from the options under consideration. Stakeholders were invited to participate in this benefit appraisal in an open and transparent environment in order to assess the options fully and fairly.

10.1.2 Due to the nature of the client group it was agreed to carry out the Benefits Appraisal exercise with representation from the focus groups on the three existing in-patient sites, namely Hartwoodhill, Caird House and Airbles Road. The benefit appraisal had three main stages:

- Identification of the benefits criteria
- Weighting of the benefits criteria
- Scoring of the short listed options against this criteria.

The key aims of the session was to:

- Help service users understand and agree on the approach to score the options.
- Develop an agreed criteria against which each option would be evaluated.
- Score the options.

10.1.3 By comparing the non-financial benefits offered by each of the options a distinction was made between them that assisted in the identification of the overall preferred option.

10.1.4 The key aims of the process were to:

- Establish a common understanding and agreed approach to the benefits appraisal process
- Review and describe the lists of options to be evaluated
- Develop the list of criteria against which each option is to be evaluated
- Score the options.

10.1.5 Although an amended Benefits Appraisal exercise was undertaken, key stakeholders were fully involved in the identification of the preferred option.

10.1.6 The key features of each of the benefits considered are described below:

10.2 Accessibility

10.2.1 This can be summarised as:

- Appropriate access to site in terms of public and private transport links
- Appropriate accessibility for disabled visitors
- Access to the site from the highway, both pedestrian and vehicular
- Car parking issues.

10.3 Quality of Care

10.3.1 This can be summarised as:

- Ensure that the patient is at the centre of their care
- Strengthening of partnerships with other agencies
- Develops partnership working between the various healthcare professionals
- Provide safe high quality care
- Functionally suitable accommodation relieves pressure on staff time and resources allowing more time to be spent productively with patients.

10.4 Operational and Environmental Suitability

10.4.1 This can be summarised as:

- Providing buildings and facilities appropriate for users and staff with appropriate functional content, layout and suitability that promotes the use of modern clinical practice & technologies
- Good physical condition and compliance with statutory regulations
- Complies with relevant current and foreseeable guidelines and good practice in terms of layout and room sizes
- Provides a modern, clean and safe environment and facilities.

10.5 Staff Recruitment, Training and Development

This can be summarised as:

- 10.5.1
- Provides Scope for Recruiting and retaining staff
 - Attractiveness to staff (including location, working environment)
 - Provides better training and development opportunities, ability to cross cover.

10.6 Timing

10.7.1 This can be summarised as:

- Meets timescales of re-provision required, i.e. enables early re-provision.

The table below summarises the benefits assessment and realisation plan:

| | BENEFIT | OUTCOME | MEASURE |
|---|---|---|---|
| 1 | Quality of care The current inpatient service is unsustainable in terms of quality of environment, geographical location and models of care. | Meets SGHD guidelines on single room en-suite accommodation Implementation of recovery model. | Audit using SRI tool |
| 2 | Improved accessibility The new facility will be community based with access to a range of local amenities. | Increased opportunity for social integration within the local community. Good public transport infrastructure. | Quality of Life Audit carried out by Lanarkshire Links (User and Carer Group) |
| 3 | Improved integration of services Provides access to a range of services including multi-agency community teams, Acute inpatient units, voluntary groups and Primary Care teams. | Improve partnership working. The service will be an integral component of the locality mental health system. | North Lanarkshire Health and Care Partnership |
| 4 | Improved staff recruitment, training and development The new facility provides a stable healthcare environment and consequently ensures long term employment opportunities.. | Successful staff recruitment Improved staff retention | Monitored through the Workforce Plan |

11 POST-PROJECT EVALUATION PLAN

11.1 Process

11.1.1 A post project evaluation will be undertaken within 6 months of the completion of the project and in advance of the dissolution of the design team. The primary undertaking will be to evaluate the procurement process and to identify learning opportunities for others and for future projects. This will involve assessment of success by means of considering the original project objectives, delivery of the project in terms of programme, cost and quality outcomes, and a value for money appraisal.

11.1.2 The evaluation process will continue to be developed as the project is delivered and will incorporate:

- A description of the project objectives
- Amendments to the project requirements and associated reasons
- Review of the legal framework which supported the project and assessment of its appropriateness
- Review of Project Execution Plan, programme, project structure and outcomes
- Review of final cost outcomes
- Review of optimism bias calculations
- Review of any unpredictable events and impact on outcome.

11.1.3 A formal report will be issued identifying project successes, weaknesses and setting out learning opportunities for future projects. This will include detail of:

- cost compliance
- programme achievement
- effectiveness of structure and approach
- technical competence of project team and design team
- compliance with statutory requirements.

12 CONCLUSION

12.1 Summary

- 12.1.1 NHS Lanarkshire proposes to develop an Adults with Complex Needs Unit, Coathill Hospital which will include:
- Provision of treatment and care of the highest possible quality in the least restrictive environment as close to the community as possible in line with the stated aims of the Mental Health (Care & Treatment) (Scotland) Act 2003.
 - Provision of a purpose built facility designed to enable the delivery of a modern healthcare service which complies with current Scottish Health Executive Department (2001) guidance and service user expectations in respect of single room, ensuite accommodation.
 - Provides the opportunity to deliver an enhanced range of services to this complex client group.
 - Supporting the “Delivery for Mental Health” Agenda through the provision of better and more accessible services to clients within their own communities.
- 12.1.2 This project offers the opportunity to significantly improve the quality and accessibility of the in-patient services. By providing a facility in Coatbridge the opportunity for rehabilitation will be greatly enhanced. It is recognised that this project is one part of the entire modernisation of Mental Health Services Strategy that NHS Lanarkshire is currently pursuing. This strategy will create a service that matches the best services in Scotland and will meet the future needs of the population of Lanarkshire.
- 12.1.3 It is envisaged that over time the complex needs units will provide a step down facility to support the acute admission units for those patients who no longer require the degree of nursing and medical care offered within an acute in-patient setting but require prolonged rehabilitative interventions in a more stable environment. It is expected that this would relieve some of the pressures on acute in-patient services. This proposal represents the most effective solution in terms of value for money and will deliver a platform for the improvement of health within North Lanarkshire.
- 12.1.4 The wards at both Hartwoodhill and Airbles Road Centre are old and no longer fit for purpose. This, combined with new models of care, have resulted in the development of this business case which seeks to provide modern, accessible and fit for purpose accommodation for those patients requiring in patient care as part of their treatment plan.

APPENDIX A

APPENDIX B

NHS Lanarkshire - Scheme for Bundling
COATHILL RISK REGISTER

* Location = Corporate Directorate, Division, LHCC, Hospital/ Directorate or Department
 ** Risk Category = Clinical, Corporate, Finance, HR, Operational
 (L) = 1-Rare, 2-Unlikely, 3-Possible, 4-Likely, 5-Almost Certain
 (S) = 1-Negligible, 2-Minor, 3-Moderate, 4-Major, 5-Catastrophic

Risk Owner  NHSL
 Graham



Location **COATHILL**

Risk Category

Date **06/05/2005**

Date Review **11/05/2009**

| 1 Risk Ref | 2 Description of Risk | 3 Risk Exposure | | 5 Risk Exposure Rating Col 3 x Col 4 | 6 Assessed Risk Low Moderate High | 7 Costs | | | 7 Control Measures | 8 Adequacy of Controls Adequate (a) Inadequate (b) Uncontrolled (u) | | | Risk Owner |
|---------------|--|--------------------|------------------|---|---|------------|---------|----------|---|--|--|--|------------|
| | | Likelihood (L)*** | Severity (S)**** | | | Min Cost | ML Cost | Max Cost | | | | | |
| 1 | General Site Issues | | | | | | | | | | | | |
| 1.1 | Discovery of unknown services across site. | 2 | 2 | 4 | Medium | | | | SI now carried out. SCP to review and carry out further SI if deemed necessary. | a | | | |
| 1.2 | Insufficient capacity in, utilities to serve project requiring costly infrastructure | 2 | 2 | 4 | Medium | | | | Check if this matter has been closed out by SCP to remain a low risk meantime. SCP currently reviewing | a | | | |
| 2 | Health & Safety | | | | | | | | | | | | |
| 2.1 | Danger arising from public going onto site | 2 | 4 | 8 | Medium | | | | Refer to the construction phase Health & Safety Plan. NHSL to check soundness of boundaries (repair fence). | a | | | |
| 2.2 | Neighbourhood statutory authority complaints. | 4 | 1 | 4 | Medium | | | | | | | | |
| 2.3 | Access, deliveries, traffic and parking. | 4 | 2 | 8 | Medium | | | | | | | | |
| 2.4 | Impact of ecological risks during construction and following building completion. | 2 | 2 | 4 | Medium | | | | Tree survey to be carried out. | | | | |
| 3 | Client Matters | | | | | | | | | | | | |
| 3.1 | Client request major changes to brief after Scheme Design stage. | 4 | 4 | 4 | Medium | | | | | a | | | |
| 3.2 | Client request minor changes to brief after Scheme Design stage. | 4 | 1 | 4 | Medium | | | | | | | | |
| 3.3 | Client requests major changes during construction period. | 1 | 4 | 4 | Medium | | | | | a | | | |
| 3.4 | Client requests minor changes during construction period. | 3 | 2 | 6 | Medium | | | | | | | | |
| 4 | Planning & Building Control | | | | | | | | | | | | |
| 4.1 | Planning Condition No 5. For the avoidance of doubt the existing line of trees which form part of the west boundary between the building hereby approved and the neighbouring dwelling houses at 33 and 35 St Martins Gate shall not be removed. Accordingly, before the development starts, tree protection measures in accordance with British Standards BS 5837 shall be erected along the drip line of the trees and shall not be removed without the approval in writing of the Planning Authority. | 3 | 3 | 9 | Medium | | | | To be incorporated into the landscape design and construction phase plan. | | | | |

NHS Lanarkshire - Scheme for Bundling
COATHILL RISK REGISTER

| 1 Risk Ref | 2 Description of Risk | 3 Risk Exposure | | 5 Risk Exposure Rating Col 3 x Col 4 | 6 Assessed Risk Low Moderate High | Costs | | | 7 Control Measures | 8 Adequacy of Controls Adequate (a) Inadequate (b) Uncontrolled (u) | | | Risk Owner |
|---------------|--|--------------------|------------------|---|---|----------|---------|----------|---|---|--|--|------------|
| | | Likelihood (L)*** | Severity (S)**** | | | Min Cost | ML Cost | Max Cost | | | | | |
| | | | | | | | | | | | | | |
| 4.2 | Planning Condition E- Before the development hereby permitted starts, revised layout plans shall be submitted to the Planning Authority for its prior written approval and these shall now show the following: a. 9 meter internal junction radii b. The provision of adequate turning facilities for service vehicles. c. Pedestrian facilities linking the parking area to the building entrance. d. Details of the surface finishes to all parking and manoeuvring areas. Details of measures to resolve conflict between pedestrians, the disabled parking bays and service vehicles. | 2 | 2 | 4 | Medium | | | | | | | | |
| 4.3 | Planning Condition No 7 - Prior to the building hereby permitted first coming into use the revised access and parking layout plans as agreed under condition 6 above shall be completed. | 2 | 3 | 6 | Medium | | | | Ensure car park is complete before the building is opened. | | | | |
| 4.4 | Discharge planning conditions: 1-4 | 2 | 2 | 4 | Medium | | | | Discharge as part of the construction process. | | | | |
| 4.5 | Materials not acceptable to planning. | 1 | 2 | 2 | Low | | | | Early engagement with planners. | | | | |
| 5 | Design | | | | | | | | | | | | |
| 5.1 | Legislation changes affecting design. | 1 | 3 | 3 | Low | | | | Risk to be monitored. DT liaising to mitigate risk. Fire Strategy docs approved & signed off (new fire code awaited). | a | | | |
| 5.2 | Additional requirements of the fire officer may delay the works | 1 | 2 | 2 | Low | | | | | | | | |
| 6 | Financial & Procurement | | | | | | | | | | | | |
| 6.1 | Delay in contract award | 2 | 2 | 4 | Medium | | | | NHSL/Currie & Brown to issue award on time. | a | | | |
| 6.2 | NHS Board approval not achieved by projected programme date leading to delay with inherent implications for the CIP 5 Year spend profile. | 2 | 4 | 8 | Medium | | | | Regular review of policy and overall NHSL estate strategy. | a | | | |
| 6.3 | Delaying in achieving Target Price. | | | | | | | | Regular cost review and regular updates to CIG. This should be addressed as FBC/Target Price discussions progress and should be resolved before FBC is submitted. | a | | | |
| 6.4 | Increase in utilities costs may impact on revenue and overall affordability | 2 | 2 | 4 | Medium | | | | | a | | | |
| 6.5 | Increase in construction costs may impact on the ability to achieve an affordable Target Price | 3 | 2 | 6 | Medium | | | | Monitor costs and take any corrective action at the earliest time | a | | | |
| 7 | Demolition | | | | | | | | | | | | |
| 7.1 | Delay in the demolition of existing building may impact on construction programme | 3 | 2 | 6 | Medium | | | | | | | | |
| 7.2 | Asbestos removal from within existing building may delay demolition and subsequently delay construction starting | 3 | 3 | 9 | Medium | | | | Enabling strategy to be developed | | | | |

NHS Lanarkshire - Scheme for Bundling
COATHILL RISK REGISTER

| 1 Risk Ref | 2 Description of Risk | 3 | | 4 | 5 | 6 | 7 | | | 8 | | | Risk Owner |
|---------------|--|------------------|------------------|---------------------------------------|--|----------|---------|----------|--|---|--|--|------------|
| | | Risk Exposure | | Risk Exposure Rating Col 3 x Col 4 | Assessed Risk Low Moderate High | Costs | | | Control Measures | Adequacy of Controls (a) Inadequate (b) Uncontrolled (u) | | | |
| | | Likelihood (L)** | Severity (S)**** | | | Min Cost | ML Cost | Max Cost | | | | | |
| 7.3 | Client service diversions to clear the site footprint may be prolonged, delaying the site start | 3 | 3 | 9 | Medium | | | | NHSL reviewing this with Hawthorne Boyle. | | | | |
| 8 | Construction | | | | | | | | | | | | |
| 8.1 | Delay in access to site due to the delayed decant of existing facilities into alternative premises | 3 | 3 | 9 | Medium | | | | | | | | |
| 8.2 | Uncharted archaeological findings: risk of excavations of artefacts within the project site | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.3 | Difficult ground conditions encountered (eg ground water, inadequate load characteristics, sandy soils, organic materials and the like) excessive depth of topsoil. (Outwith existing Backford Lodge envelope) | 3 | 2 | 6 | Medium | | | | Warranty to be obtained on Site Investigation report although this may offer limited protection. Graham will have to carry out further investigations and adequate provision within the price and programme. | | | | |
| 8.4 | Discovery of contaminated materials within the project site | 1 | 3 | 3 | Low | | | | | | | | |
| 8.5 | Discover of mine workings / man-made obstructions within the project site | 1 | 3 | 3 | Low | | | | | | | | |
| 8.6 | Excavated materials found to be inadequate for re-use due to characteristics. Increased need for imported fill | 3 | 3 | 9 | Medium | | | | | | | | |
| 8.7 | SEPA ground water discharge costs during construction. Additional costs to project if additional drainage requirements are imposed | 4 | 2 | 8 | Medium | | | | | | | | |
| 8.8 | Complaints leading to provision of a wheel wash facility to avoid construction traffic discharging mud on road. | 3 | 1 | 3 | Low | | | | Not normally included within the price, but the risk of having to provide one needs to be considered. | | | | |
| 8.9 | Diversion of any uncharted services found that can not be worked around. | 1 | 4 | 4 | Medium | | | | Review service plans and contact local utility providers. | | | | |
| 8.10 | Difficulties obtaining temporary site supplies / connections. | 4 | 1 | 4 | Medium | | | | Hawthorne Boyle to advise NHSL what capacity is required. | | | | |
| 8.11 | Difficulties obtaining permanent site supplies / connections timously to meet the construction programme. | 3 | 3 | 9 | Medium | | | | Early application and may need to be dealt with prior to Stage 4 | | | | |
| 8.12 | Increased costs of the permanent service connections. | 3 | 3 | 9 | Medium | | | | Fixed quotes cannot be obtained from utility providers and additional costs may have to be included within the Target Price. | | | | |
| 8.13 | Construction works impact on adjacent public footpaths. Temporary works may be required | 2 | 2 | 6 | Medium | | | | | | | | |
| 8.14 | Restrictions to planned working hours imposed by statutory bodies. | 1 | 2 | 2 | Low | | | | Unusual that this has not been raised by planning however they may do so retrospectively. | | | | |
| 8.15 | Problems with client approval of construction dwgs | 3 | 3 | 9 | Medium | | | | Early engagement to ensure that the design acceptance process under NEC does not become a design review and comment process. | | | | |

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|---------------|---|--------------------|------------------|---|---|------------|---------|----------|---|--|--|--|------------|
| | | Likelihood (L)*** | Severity (S)**** | | | Min Cost | ML Cost | Max Cost | | | | | |
| | | | | | | | | | | | | | |
| 8.16 | Staff turnover, loss of key personnel | 1 | 3 | 3 | Low | | | | Graham to maintain good staff / company relations and develop an enjoyable project environment. | | | | |
| 8.17 | Building Control fail to meet approvals programme. | 3 | 3 | 9 | Medium | | | | Early engagement with Building Control to develop relationships and to plan effectively inspections and approvals. | | | | |
| 8.18 | Inadequate site security results in the loss of specialist plant and/or materials | 2 | 3 | 6 | High | | | | | | | | |
| 8.19 | Extreme vandalism | 1 | 4 | 4 | Medium | | | | | | | | |
| 8.20 | Labour rate / availability. | 1 | 3 | 3 | Low | | | | | | | | |
| 8.21 | Supply chain industrial action causes delays | 1 | 4 | 4 | Medium | | | | | | | | |
| 8.22 | Specialist materials availability. | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.23 | Plant availability. | 1 | 4 | 4 | Medium | | | | | | | | |
| 8.24 | Inflation exceeds forecast | 3 | 4 | 12 | High | | | | Refer to clause option X1 - contractor carries risk of inflation for 24 months after GMP. Accordingly expected inflationary costs need to be provided for in the Target price. | | | | |
| 8.25 | Changes to Aggregate Tax following agreement of Target Price. | 3 | 1 | 3 | Low | | | | | | | | |
| 8.26 | Changes to Land Fill Tax following agreement of Target Price. | 3 | 1 | 3 | Low | | | | | | | | |
| 8.27 | Involency of SCM / Supplier. | 3 | 3 | 9 | Medium | | | | | | | | |
| 8.28 | Price fluctuations of crude oil, i.e. bitumant for surfacing / power / transport. | 4 | 3 | 12 | High | 0 | 0 | 0 | | | | | |
| 8.29 | Subcontractor quotations - validity / unable to obtain firm offer (inexpensive qualifications to tender). | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.3 | Quantity take off affecting accuracy of target cost | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.31 | Changes in specification, materials and design during construction. | 2 | 2 | 4 | Medium | | | | Risk of specification creep which affects Target costs which will be managed by design management, value engineering and effective control of design team, ensuring designers design to a budget. | | | | |
| 8.32 | Adverse weather conditions. | 4 | 2 | 8 | High | | | | | | | | |
| 8.33 | Attention requirements in excess of that stated on design freeze drawings. | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.34 | Energy modelling / thermal modelling of design is inadequate or inaccurate leading to additional works. | 3 | 2 | 6 | Medium | | | | | | | | |
| 8.35 | Failure in air tightness testing on completion results in increased works and delayed occupation. | 3 | 3 | 9 | Medium | | | | | | | | |
| 8.36 | If acoustic testing throws up inefficiencies in final testing | 2 | 2 | 4 | Medium | | | | | | | | |
| 8.37 | Final Gross Floor Area to be checked against tender target area. | 3 | 2 | 6 | Medium | | | | | | | | |

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| | | Likelihood (L)*** | Severity (S)*** | | | Min Cost | ML Cost | Max Cost | | | | | |
| 8.38 | Additional requirements of the Highways Department affecting the construction of the works. | 2 | 2 | 4 | Medium | | | | Review on formal submission to Highways | | | | |
| 8.39 | Restrictions in accessing all areas of site for the purpose of construction. Maintaining access to adjacent live buildings | 3 | 3 | 9 | Medium | | | | review with NHSL use of Card | | | | |
| 8.4 | Timous procurement of Materials with long lead in times, e.g. lifts. | 2 | 3 | 6 | Medium | | | | | | | | |
| 8.41 | Increased scope of landscaping works - additional costs associated with design development | 2 | 3 | 6 | Medium | | | | Clinicians to review design of courtyard to be closed out prior to target price. | | | | |
| 8.42 | Extended Commission / Demonstrations delays completion. | 2 | 2 | 4 | Medium | | | | | | | | |
| 8.43 | Design - Infection Control | 2 | 2 | 4 | Medium | | | | HA I scribe now gone ahead | | | | |
| 8.44 | Design - NEAT review | 2 | 2 | 4 | Medium | | | | | | | | |
| 8.45 | CDM Co-ordinator - risk of change over | 1 | 2 | 2 | Low | | | | | | | | |
| 8.46 | Additional drainage works required to tie-in to existing sewer cutwith the site on the adjacent park. Agreement on wayleaves | 3 | 2 | 6 | Medium | | | | Drainage design to be bottomed out to confirm assumptions. | | | | |
| 8.47 | Additional works required in respect of differing ground conditions found below the foot print of the existing building | 2 | 4 | 8 | Medium | | | | | | | | |
| 8.48 | Undertaking works on a live hospital site - maintaining access and egress to existing facilities | 2 | 2 | 4 | Medium | | | | Existing cowp and existing one way system. | | | | |
| 8.49 | Closure of hospital car parking required during construction of retaining walls. | 2 | 2 | 4 | Medium | | | | | | | | |
| 9 | Legal/ Contractual Matters | | | | | | | | | | | | |
| 9.1 | Client obligations under the NEC 3 Contract. | 3 | 3 | 9 | Medium | | | | | | | | |
| 9.2 | SBC obligations under the NEC 3 Contract | 1 | 3 | 3 | Low | | | | | | | | |
| 9.3 | Risks in relation to 3rd party rights / Titles / public right-of-ways | 1 | 2 | 2 | Low | | | | | | | | |
| 10 | Target Price Additions | | | | | | | | | | | | |
| 10.1 | Building/ Planning issues which delay the commencement date of construction works on site and impact on the completion dates. | 1 | 1 | 1 | Low | | | | | | | | |
| 10.2 | Any changes required to achieve clinical functionality after the 1:50 room layouts have been accepted by the Client. | 1 | 1 | 1 | Low | | | | | | | | |