



OUTLINE BUSINESS CASE

**ADULTS WITH COMPLEX NEEDS UNIT
COATHILL HOSPITAL**

AUGUST 2007

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Executive Summary

As set out in 'A Picture of Health' 2005 NHS Lanarkshire's Mental Health Services are modernising to enable delivery of services fit for the 21st century. Over a number of years, the Mental Health Service has been moving away from an institutional model of care towards a community-based model, delivered on a multi agency basis, particularly in partnership with local authorities. This direction of travel has resulted in the gradual reduction of beds on a number of hospital sites, notably Hartwoodhill, Cleland and Roadmeetings.

Patients with complex/low secure needs are currently accommodated at Hartwoodhill Hospital, Caird House and Airbles Road Centre. With the proposed closure of Hartwoodhill Hospital and Airbles Road Centre, the opportunity has been taken to review the overall bed configuration and to relocate this provision within the communities they serve. This involves building new units at Caird House, Hamilton and Coathill Hospital, Coatbridge with a total of 55 beds.

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 service is not limited to specific diagnostic groups but individuals will be characterised by having severe psychiatric disorders, complex social and mental health care needs, a poor network of social care supports and poor social functioning.

The major benefits of this development 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.

The outcome of an Option Appraisal process identified that one unit in North Lanarkshire (Coathill Hospital) and one in South Lanarkshire (Caird House) would best meet the needs of this specialist client group both in terms of availability and accessibility of the sites.

Financial Summary

Capital Cost of the preferred Option is £5.199m. Recurring Annual Revenue Cost of the preferred Option is £1.361m. (including Capital Charges of £0.288m.). These are explained and analysed within the Outline Business Case full cost breakdown is as contained within Appendix 2. Capital and Revenue Costs for the new build project are consistent with the financial modelling undertaken for Picture of Health and the Mental Health Services Strategy. The project is affordable within these Financial Frameworks.

Timescales

This development is on the critical path for the closure of Hartwoodhill Hospital and early implementation is crucial. The proposed timescale is as follows:

OBC Approval – NHS Board	August 2007
OBC to SEHD CIG for info	October 2007 (submit by 4 September)
Planning Consent	November 2007
OBC Approval – SEHD	December 2007
FBC Approval	March 2008
Contractor Appointment	May 2008
Completion	November 2009

Recommendations

NHS Lanarkshire Board is asked to formally approve the Outline Business Case for the reprovision of inpatient services for Adults with Complex Needs at Coathill Hospital. This was identified as one of the priorities in the 5-year Capital Plan.

Introduction

NHS Lanarkshire is committed to developing a strategy for improving and modernising mental health services. As part of this strategy, NHS Lanarkshire will continue the process of building community based services and reducing dependence on hospital-based services.

NHS Lanarkshire has developed a Mental Health Strategy that addresses all aspects of Mental Health service provision in Lanarkshire. This framework clearly identifies a strategy for moving away from institutionalised care and closing Hartwoodhill Hospital and this was recognised as a 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 cared for.

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 any inpatient provision close to the communities served and this business case specifically addresses the need of patients in the South Lanarkshire area.

In the reprovisioning 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 South Lanarkshire.

This decision is supported by the clinical rationale that these client groups have similar care and environmental needs, the only difference being the level of supervision required, this would be dependant on their stage of illness. Co-location maximises the opportunity for these clients to engage in a range of rehabilitative interventions through the sharing of facilities and clinical expertise. An early Feasibility Study carried out at Coathill Hospital and Caird House concluded that the Caird House site was most suited to the larger facility. This site was regarded as the most central location for a Lanarkshire wide service and supported the newly developed Court Liaison Service.

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 service is not limited to specific diagnostic groups but individuals will be characterised by having severe psychiatric disorders, complex social and mental health care needs, a poor network of social care supports and poor social functioning.

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.

Strategic Context

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.

These have a considerable impact on the pattern and delivery of services. They require a significantly more patient centred approach and they set a direction of travel and focus onto the development of community-based services with user and carer participation in their development.

NHS Lanarkshire has been moving in this direction for some time and 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 Framework Strategy and should not be viewed in isolation.

Resource network teams have been developed in each locality. Each locality will have an integrated health and social work Community Mental Health Team (CMHT), which will provide interventions for people with a wide range of mental health needs. Partnerships with other statutory and voluntary providers will ensure a wider range of people's needs can be met within the locality. However, it is recognised that on occasion clients with complex needs may require more specialist intervention or non-acute admission to hospital and the provision of this service will be explored in this business case.

Through its Health Plan and its public consultation 'A Picture of Health', NHS Lanarkshire has made a commitment to the re-provision of services from Hartwoodhill and the Airbles Road Centre. NHS Lanarkshire intends to provide services in partnership with the statutory and voluntary sectors, service users and carers that:

- Are centred on the needs of the person using the service.
- Promote recovery and social inclusion.
- Are community based, using hospital based care only when there is no safe, effective alternative.
- Deliver a range of accessible services, offering treatment and care appropriate to need.

Clinical Needs

For Adults with Complex Needs

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.

Local Demographics

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.

These groups of people will continue to require access to NHS inpatient care to manage crises and threatened relapses.

Proposed Outcomes – Benefits to Patients

The complex needs unit will take into account the clinical needs of patients with purpose designed modern facilities providing the services that these client groups require. The service model will move away from institutionalised care to reduce stigma as much as possible. The new unit will for the first time be located close to a range of local amenities and close to, or even within, the community from which the patient originates. Close proximity to a range of amenities and services with opportunities for social interaction will provide better prospects for successful rehabilitation. The location of these services more centrally in Lanarkshire in areas where there is good transport infrastructure will facilitate the sustaining of closer links with the families and friends of the patients, again promoting reintegration.

All facilities and services should be located and designed to:-

- Maximise rehabilitation and the opportunity to sustain an independent life
- Provide treatment in the least restrictive environment as close to home as clinically possible and establish appropriate liaison for effective follow up care
- Allow community based patients to access short term in-patient care at appropriate times and settings
- Provide accommodation with private and adequate physical space and access to fresh air in grounds/garden area
- 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
- Maintain a dynamic flow within the system with effective intervention and support to allow patients to move into the community where appropriate
- Meet anticipated demand from Prisons/Courts/other Psychiatric services
- Enable service users to participate fully in developing their care plan with an emphasis on independence, life skills and social inclusion

The provision of modern facilities will significantly improve the immediate physical environment of the patient. Each patient will have a single room with en-suite facilities and this enables a degree of privacy that previously has not been available in the large and old institutions.

Current Service

The current inpatient service is unsustainable in terms of quality of environment, geographical location and models of care. Currently the majority of complex needs inpatient care is provided at Hartwoodhill Hospital. This is an extremely large, old hospital complex with many wards, most of which are now closed. It is located in large grounds in a remote area. It provides care in a more institutionalised setting than is currently recommended. Many patients are located in dormitory style and six-bedded wards with shared sanitary facilities. The surrounding area has poor transport infrastructure and there are no local amenities within the village, because of this, opportunities for rehabilitating patients are limited.

Glencairn Unit, Airbles Road Centre in Motherwell, provides rehabilitation accommodation for ten patients. It was not designed for its current use and although the accommodation is better than Hartwoodhill Hospital it is also old, provides cramped conditions for the patients, suffers from damp, due to leaking roofs and there are shared sanitary facilities.

Caird House, situated in Hamilton, is a modern unit that currently provides rehabilitation accommodation for ten patients from both North and South Lanarkshire. The standard of accommodation is good, with single rooms and ensuite facilities for the patients. However, the model of care is under review and in future wherever possible this type of rehabilitation will be community based.

Future Services

Adults with Complex Needs

Community Services

The aim of this service will be to provide intensive community care and treatment for people with severe/complex mental illness. Many of these patients have difficulty accessing or accepting services and effective interagency working is crucial. This unit will work closely with the Adults with Complex Needs/Low Secure Unit at Caird House and continue to build on the joint working which already exists between the Resettlement Team and the Forensic Team particularly for those patients who require a long period of rehabilitation based on The Recovery Model. This model will provide a range of interventions including daytime activity, crisis intervention, education and recreational opportunities.

In-Patient Services

Considerable work has been undertaken within the service to consider the model of care and the number of patients requiring inpatient treatments. In light of this it is proposed there should be 20 inpatient beds for Adults with Complex Needs in North Lanarkshire and 20 inpatient beds in South Lanarkshire. Work to identify the number of low secure beds has established that 15 beds are required for Lanarkshire as a whole. In practice because of the nature of the sites and options considered this unit will be co-located with the Adults with Complex Needs Unit in South Lanarkshire. The number of beds planned for the low secure unit takes into account the fact that Lanarkshire's requirement for medium secure beds will be met on a regional basis outwith Lanarkshire.

The inpatient services should be provided in locations that are close to, and accessible to the communities they serve with, wherever possible a range of local amenities to assist with social integration. The new facilities will provide patients with single rooms, ensuite accommodation and a number of small recreational areas to replicate community settings rather than the huge day rooms synonymous with institutionalised care. The new unit will provide an enhanced level of privacy and access for family visiting. Details of the schedule of accommodation are provided in Appendix 5.

North Lanarkshire Options Considered

There was service user, carer, and staff participation in this project of Mental Health Re-provision for Adults with Complex Needs. Separate meetings were held at each existing site that will be affected by the proposed closure of Hartwoodhill Hospital and the subsequent redesign of mental health care in Lanarkshire. The purpose of these meetings was to gather all the views from all relevant stakeholders and to gain their participation to ensure that their views were helping to lead the direction of this process. These meetings fed into the options discussed below. A summary report of the focus group meetings is provided in Appendix 2.

A long list of options was considered and the options identified were:

- 1. Do Nothing/Minimum**
- 2. Airbles Road Centre**
- 3. Brownfield Site**
- 4. Coathill Hospital**
- 5. Hartwoodhill Hospital (New Build)**
- 6. Monklands General Hospital**
- 7. Strathclyde Hospital**
- 8. Wishaw General Hospital**

The following options were not short-listed because of the following reasons: -

1. Do Nothing/ Minimum

The majority of mental health beds for Adults with Complex Needs are at Hartwoodhill Hospital, which is not considered a suitable location as it has very limited accessibility to the rest of Lanarkshire. A key aspiration of the mental health strategy is the development of services in or close to the communities they serve. This would not be met by continuing to provide a service from this existing location. As clinical services continue to be reprovided, community based units in line with the Mental Health Strategy this site will become clinically and financially unsustainable.

2. Airbles Road Centre

This is situated in a central location with good transport links, however, the building is old, provides cramped accommodation for patients and is in poor physical condition becoming difficult and costly to maintain. The future of Airbles Road is uncertain. The buildings were not designed for their current use and it would be necessary to demolish a large part of the existing buildings and to rebuild. This would impact on other services that are located here. The future of these other services would thus have to be taken into account, which would cause delays to this project.

3. Brownfield Site in North Lanarkshire

The availability of suitable sites is limited and it is unlikely a suitable site in an appropriate location could be found in the timescales available. Possible conveyancing delays could arise while purchasing the land required. The land would not be purchased until planning permission was approved for the proposal. Anticipated objections to developing at the site would lengthen the planning process. Site purchase would also add to the overall cost of the project.

6. Monklands District General Hospital

Through the 'Picture of Health' process NHS Lanarkshire consulted the public and staff on the future provision of Acute Services. The outcome of this consultation process has been formal approval of the proposal to develop Monklands as a planned care hospital, hosting specialist services such as Cancer Care and Renal Services. This will place additional pressure on an already restricted site. Due to this uncertainty, our ability to plan developments on this site at this time is therefore affected.

This service aims to provide care that is integrated more fully into the community and away from acute settings. Siting this service on a District General Hospital site undermines this intention. There are concerns that the compatibility of the patient mix would not be ideal in this location.

8. Wishaw District General Hospital

Through the 'Picture of Health' process NHS Lanarkshire consulted the public and staff on the future provision of Acute Services. The outcome of this consultation process has been formal approval of the proposal to develop Wishaw General Hospital as one of the two emergency receiving sites and this will place additional pressures on the hospital, although the detail of this is still to be clarified. The recent decision to review Monklands A&E Services may impact on the future configuration of services on the Wishaw site. Due to this uncertainty, our ability to plan developments on this site at this time is therefore affected.

This service aims to provide care that is integrated more fully into the community and away from acute settings. Siting this service on a District General Hospital site undermines this intention. There are concerns that the compatibility of the patient mix would not be ideal in this location.

Short Listed Options: Strengths and Weaknesses

Coathill Hospital – Option 1

Coathill Hospital is located close to the centre of Coatbridge in Whifflet.

Strengths:

This site is located in a central location in Coatbridge with good transport links to much of North Lanarkshire. This site is close to a variety of local amenities and this offers social integration opportunities for patients. This 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.

Weaknesses:

This is an existing NHS in-patient site, and the area of land available is limited. Future expansion at this site could be difficult. Coathill Hospital is not as accessible as the existing services on Airbles Road Centre are.

Hartwoodhill Hospital (New Build) – Option 2

Hartwoodhill Hospital is located in a rural area close to Shotts.

Strengths:

Mental Health facilities are already on this site, therefore there are no planning issues. The public has accepted Hartwoodhill Hospital as a site where mental health services are provided from, therefore there will be no concerns raised by them. Timescales for building on this site should not be problematic. Some existing Hartwoodhill patients would prefer to remain here. This site will provide access to large outside space.

Weaknesses:

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.

Strathclyde Hospital – Option 3

Strathclyde Hospital, located just off Airbles Road in Motherwell.

Strengths:

This site is in an accessible location. It is close to the population centre of Motherwell, with very good road links and within easy walking distance to a railway station. Due to its location this site would provide reasonably good opportunities to help patients integrate more fully into the community.

Weaknesses:

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.

Consideration was given to the development of one Lanarkshire wide 55 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.

Non-Financial Benefits Appraisal

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 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.

In an attempt to simplify the process it was agreed to score the criterion against each option by allocating points from 1-10.

The benefits criteria that were identified and defined were:

- **Quality of Care**

- Patient centred.
- Safe, high quality.
- Privacy, dignity.

- **Accessibility**

- Public transport.
- Local amenities.

- **Staff Recruitment & Retention**

- Good working environment.
- Professional isolation.
- Training/development opportunities.

- **Integration with other components of the wider Mental Health Service**

- Primary care teams.
- Acute in-patient units.
- Community teams.
- Joint working with other agencies.

Each of the options were discussed in relation to the above criteria.

An amalgamation of the “scores” produced the following results.

Benefit Criteria		Option 1 Coathil Score (1-10)	Option 2 Hartwoodhill Score (1-10)	Option 3 Strathclyde Score (1-10)
1	Quality of care	9	4	9
2	Assessibility	8	1	6
3	Staff recruitment & retention	7	2	7
4	Joint working	6	2	6

Option	Description	Score	Rank
1	Coathill	30	1
2	Hartwoodhill	9	3
3	Strathclyde	28	2

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

Financial Appraisal

Capital Cost

The option of building at Hartwoodhill would have a capital cost of £5.112m. A new build at Strathclyde Hospital would cost £5.112m. The cost of building at Coathill Hospital, the preferred option would be £5.199m but the additional benefits and the loss of sales proceeds in respect of the other disposal of the other sites still mean that Coathill is the preferred option. The capital costs of the three options are detailed in appendix 2.

The cost profile assumes fees committed from March 2006, with construction costs from December 2007 to November 2009. The following table shows the expected expenditure profile of the preferred option.

North Lanarkshire Adults Complex Needs				
Expenditure Profile (£000) Total Cost £5,199				
Year	2006/07	2007/08	2008/09	2009/10
Spend (£000)	89	499	2,972	1,639

The option of a PFI/PPP development has not been considered in detail as it is not felt that the scale of the project is large enough to attract interest. In addition, it is unlikely that there would be sufficient evidence to demonstrate the benefits that PFI/PPP could deliver under the VFM Assessment Guide issued by the Scottish Executive Financial Partnership Unit. The traditional Public Procurement route is considered to be preferable, the main advantages being:

- Complexity and sensitivity around site selection meant that risk sharing approach to be the best way forward and can be achieved more readily through the traditional approach.
- Direct professional responsibility from designers to NHSL allowing direct detailed discussions around clinical brief.
- Increased likelihood for improved quality of design essential to stakeholders.
- Obtains a fully established design and specification before awarding a construction contract.

The fact that the preferred solution is to build on an existing NHS site, on a relatively small scale would make this unattractive to a number of PFI providers.

Revenue Impact

The new service will provide 20 beds each in North and South Lanarkshire for Adults with Complex Needs. Overall there is a bed reduction of 47 beds (from the existing model) this reduction reflects the changes in patterns of use; additional community provision and the development of a hospital discharge programme.

The proposed service at Coathill Hospital will cost £1.36m p.a. (including capital charges) as detailed within the Financial Costs and Assumptions shown within Appendix 2.

Capital and Revenue Costs for the new build project are consistent with the financial modelling undertaken for Picture of Health and the Mental Health Services Strategy. The project is affordable within these Financial Frameworks.

Net Present Value

Detailed profiles of discounted cash flows, modelled over 60 year period for the new build options are presented in appendix 2. In accordance with the current guidance capital charges and VAT has been excluded from the calculations. No revenue has been included on the basis that this project is considered cost neutral at this stage. The net present values of each of the options are: -

Coathill Hospital	£33.378m
Hartwoodhill Hospital	£33.303m
Strathclyde Hospital	£33.303m

Optimism Bias

Optimism Bias is the demonstrated tendency for appraisers to be over optimistic about key project parameters. In assessing the likely capital costs it is important to consider the impact of optimism bias.

The two main causes of optimism bias in estimating capital costs are:

- Definition of the scope and objectives of projects in the business case due to poor identification of stakeholders requirements, resulting in omission of costs at the initial project costing stage.
- Poor project management during implementation so that schedules are not adhered to and risks are not being mitigated.

These factors are distinct from the contingencies built into the capital costs. The contingencies built into the capital costs relate specifically to construction risks. Optimism Bias considers the totality of the project.

Specific key features can contribute towards reducing the level of optimism bias that is applied to each and these include:-

- Level of design undertaken.
- The degree of work undertaken in relation to output specifications.
- The extent of confidence in the capital cost estimates.
- The extent of management of generic risks.
- The extent of work undertaken to identify and mitigate project specific risks.

This business case has calculated a cost for optimism bias, based on the best estimates at this stage in the process and this has been included in the capital costings and subsequent economic appraisal in Appendix 2.

In accordance with the Treasury Green Book guidance, an optimism bias of 10.8% has been applied to the construction costs. Details of the factors included in this calculation are provided at Appendix 3.

Affordability

The Financial & Economic Appraisal demonstrates that the Option to provide a new building located at Coathill Hospital, represents the best value for money. Capital Cost for this Option is £5.199m. Recurring Annual Revenue Cost of this Option is £1.361m (including Capital Charges of £0.288m). These are fully detailed within Appendix 2 to the Outline Business Case. Capital and Revenue Costs for this Option are consistent with the financial modelling undertaken for Picture of Health and the Mental Health Services Strategy. The project is affordable within these Financial Frameworks.

Risk and Uncertainty

The most significant risk with all options is that the building is not available on time. This would delay the closure of Hartwoodhill Hospital, and in turn this would delay the development of new models of care and the release of considerable revenue savings. As the Hartwoodhill site becomes less and less busy, there is a greater sense of isolation and increased security risks for the remaining services.

For all options, a further area of risk is the need to decant services to facilitate construction work.

A risk register has been developed and details of the risks identified are provided in Appendix 4.

Preferred Option

Coathill Hospital – Option 1

As previously stated NHS Lanarkshire is committed to developing a strategy for improving and modernising mental health services. This strategy includes the process of building community based services and reducing dependence on hospital – based services.

The complex needs unit will take into account the clinical needs of patients with purpose designed modern facilities providing the services that these client groups require. This new unit will for the first time be located close to a range of local amenities and close to, or even within, the community from which the patient originates. Close proximity to a range of amenities and services with opportunities for social interaction will provide better prospects for successful rehabilitation. The location of these services more centrally in Lanarkshire in areas where there is good transport infrastructure will facilitate the sustaining of closer links with the families and friends of the patients, again promoting reintegration.

Coathill Hospital is the preferred option for the site of the new Adults with Complex Needs Unit for North Lanarkshire. Coathill Hospital provides the most suitable solution to NHS Lanarkshire objectives of modernising Mental Health Services as set out in their Local Health Plan. It is also the option that is most consistent with NHS Lanarkshire's property strategy. All the other available options match, to some extent, NHS Lanarkshire's objectives, however, Coathill Hospital is, overall, the best available option. This site will provide an appropriate location with regard to public transport facilities to the whole county and just as importantly offer good access to community amenities which allow the majority of service users better opportunities to reintegrate into the community than they currently enjoy.

Timetable

As previously stated this development is on the critical path for the closure of Hartwoodhill Hospital and early implementation is crucial. The proposed timescale is as follows:

OBC Approval – NHS Board	August 2007
OBC to SEHD CIG for info	October 2007 (submit by 4 September)
Planning Consent	November 2007
OBC Approval – SEHD	December 2007
FBC Approval	March 2008
Contractor Appointment	May 2008
Completion	November 2009

Project Management

A project board and project management arrangements are in place to implement this project. Its membership is:

Name:	Job Title:
Fiona Gairns	Planning & Development Manager
Alistair Cook	Associate Medical Director
Christine Fyfe	Head of Capital Planning
Sandra Shafii	Service Development Manager
David Henderson	Senior Charge Nurse, Glencairn Unit, Airbles Road
Brian McWatt	Head of Finance
Jim Wright	Locality General Manager

Role of External Advisors

As the preferred procurement option is the traditional publicly funded method, the following external advisors will provide services:

- Project Design Team, managed through lead architect
- Cost Management Consultant
- CDM Consultant

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.

**Mental Health Re-provision for Adults with Complex
Needs/Low Secure Provision**

Service User Focus Group Meetings

Summary Report

Introduction

It is very important that there is service user, carer, and staff participation in the process of Mental Health Service Redesign. For this reason separate meetings were held at each existing site that will be affected by the proposed closure of Hartwoodhill Hospital and the subsequent redesign of mental health care in Lanarkshire. The purpose of these meetings were to update all interested parties on the progress NHS Lanarkshire is making in regard to this matter but more importantly to gain participation from the users carers and staff to ensure that their views were helping to lead the direction of this process.

Meetings were held @

- Hartwoodhill Hospital
- Airbles Road Centre
- Caird House

Service users, carers, staff and voluntary organizations who will be affected by this proposal were invited to attend these meetings. At these meetings a review of the progress of this project was presented and a review of the long list of options initially available was discussed and a summary of the short-listed options and their respective strengths and weaknesses was tabled to each person present. The participants were encouraged to comment on each of the options available and a procedure was set up to allow us to collect their comments after a period of reflection. It was stressed that not only did we want feedback on the respective options open to us but that we were looking for views and issues with regard to the whole process that we could feed back to the project steering group.

What follows is a general summary of the views expressed at the various meetings and this will be followed by a more site specific option views.

General Views From the Focus Group Meetings

Overview of General Comments

There is an understanding that this is not only about reprovision of existing beds, but that the idea is to change the ethos of the service. The aim of this new service is to try and ensure patients are cared for in the community with as much support as they require. There is a recognition that the patient mix will thus be different to what is currently provided at Caird House and Airbles Road and at Hartwoodhill Hospital. Provision will need to be made for some adults with more complex needs while at the same time ensuring that there is flexibility in the service to care for other types of patients and any possible relapse of a patient in the community. Some issues were raised with regard to the change in existing service and the need to ensure rehabilitation facilities were continued. It was agreed that staff should be more involved in operational issues surrounding this redesign and involved in the internal arrangement of the new facilities. It was noted that these new buildings will be future proofed as much as possible to allow for flexibility in any change in demand. There is a commitment that facilities will be available to maximize patient's abilities.

General Issues from the Meetings

- There were many operational concerns that require to be addressed with regard to this process.
- The general consensus is that staff do not feel that they have been involved in the discussions surrounding operational change and models of care that will occur as part of this project. Better interaction between Acute, primary, and community care staff is required.
- Comment was made about possible under provision in the proposed service.
- Patients have concerns over how any change will affect them.
- Difficulties currently exist with regard to getting tenancies from council, leading to bed blocking.
- What will happen with regard to existing referral process? How will patients currently waiting be accommodated?
- How will Hartwoodhill patients be amalgamated with the current patients at existing facilities at Caird House and Airbles Road Centre.
- Any new unit needs to provide a range of facilities.
- Community based units will be more conducive to better care.
- Greater Clarity is needed with regard to operational issues.
- Concerns over lack of public involvement in these decisions.
- Feeling that this options appraisal was a sham and that the decision had been made already, as proposals have already been published in the Picture of Health Document.

Additional Issues Raised over Options

Hartwoodhill Hospital (New Build)

- Existing Public Transport provision is poor and could get worse.
- Some Patients could prefer to stay in this location.
- However it was acknowledged that future patient's needs need to be balanced against present patient's desires.
- Local amenities are poor.

Strathclyde Hospital

- Relatively accessible.
- Would prefer to be closer to amenities.
- Better Public Transport than Coathill.
- In a regeneration area where new funding is being well used.
- Site is at bottom of steep hill and many people would not be able to walk into the town centre or to the Railway station.

Coathill Hospital

- Coathill Hospital is less accessible than the current Airbles Road accommodation.
- Public Transport issues exist, better public transport to Motherwell than to Coathill.
- Slightly removed from amenities.
- This is an existing NHS hospital site.
- Some space concerns.
- Whifflet High Street is busy and a good shopping centre.
- There is a known drink and drug culture amongst the teenage and young adult population in the Coatbridge area.

Actions and Responses to these Comments

- An operation policy group will be established to look at some of the operational concerns, future referral process. The Service Development Manager, Mental Health will lead this group.
- Senior Clinicians to contact line management with regard to operational issues.
- A communication plan is in place which has council involvement.
- It was noted that Caird House and Coathill were strong options.
- Schedule of Accommodation had been distributed for comment and was also discussed at each of the meetings and changes were made in light of this.
- Internal layout of the Schedule of Accommodation has not been finalized and it is proposed staff are involved in this (footprint size has been agreed).
- Lanarkshire Links and the Hartwoodhill Patient Council have met separately to discuss the options available. Hartwoodhill Patient Council held an additional public meeting to gather further views. All of these comments have been returned to NHS Lanarkshire and have been included in this summary report.
- Comment sheets were left at all the sites and staff were asked to speak to all patients carers and staff who were not able to attend to have a chance to comment on the options. Comments have been collected and amalgamated into this report. This summary report should also be read in conjunction with the initial Strengths and Weakness report that formed the basis of these meetings.
- Noted that the new CHP structure may help better joint working with Social Work.
- Noted that future patient's needs need to be balanced against present patient's experiences.

I would like to take this opportunity to thank Hartwoodhill Patient Council and Lanarkshire Links for their involvement and hard work in this process and also all of the people who attended the meetings for their comments and their endeavours in collecting all the opinions that are shown here.

Financial & Economic Appraisal

It is proposed that a 20 bed adults with complex needs ward be located in North Lanarkshire, the site options for consideration are Strathclyde Hospital, Hartwoodhill Hospital and Coathill Hospital. The schedule of accommodation identifies the total floor area as 1,447m² it is proposed that the accommodation will be provided on 2 floors thus the required building footprint is around 800 sq the addition of parking and landscaped areas brings the site area required to 0.2 ha.

The options:

Coathill Hospital – Option 1

The original site identified for this new facility was the vacated wards 2/3. Whilst this building is in good condition both internally and externally. The internal arrangement and size of the building precluded it from being converted for use as a complex needs facility. It is located very close to the site boundary with the rear of the building almost bounding the stone (boundary) wall from which there is a significant drop to the ground below. The significant drop from the boundary wall to the adjacent site was identified as being a high clinical risk by the users. Also the proximity to the boundary provided very little external space.

An alternative option was developed and approved by NHS Lanarkshire Capital Investment Group in December 2006. This proposed demolishing the adjacent buildings to the original site. These buildings are of poor construction and will incur significant maintenance problems over the next few years, with the roof alone estimated to cost in the region of £150k to replace. The buildings presently house a number of office functions along with some limited clinical provision. The staff currently occupying the buildings would require to be relocated. This relocation of service forms part of a Standard Business Case and will be considered separately from this business case.

The site of the buildings once demolished, would offer a larger footprint providing good quality external space, supporting the management of the patients and eliminate the clinical risks associated with the boundary wall.

There are no proposals to dispose of any land within the Coathill site, therefore no site opportunity costs are attached to the use of this location.

Strathclyde Hospital – Option 2

Strategic plans for the site indicate that the operational area will be substantially reduced and non-essential areas will be declared surplus for sale via the open market, preliminary discussions with Council Planning Officials indicated that the likely future planning use will be residential.

Rationalisation of the site commenced in 2005, the existing ward buildings have been vacated and the majority of the remaining buildings will be vacated within the next two years with the development of a new Corporate HQ at Kirklands Hospital. Plans are in place to fully clear and vacate this site, the District Valuer has valued the site at £1,650,000 per ha thus there would be a lost opportunity cost of around £330,000 in respect of lost income.

Hartwoodhill Hospital – Option 3

Existing in patient accommodation on the Hartwoodhill site are unsuitable for adaptation to create new wards to current healthcare design standards and the fabric of the existing buildings is unsuitable in terms of upgrading to meet current fire and energy performance levels. This option examines the provision of a new building. The site is of sufficient size to accommodate the ward as a single storey building.

Plans are in place to close Hartwoodhill Hospital and dispose of the site thus there is a site cost attached to this option. The site has a total area of 32.89 ha of which the developed area is 4.74 ha, the District Valuer has estimated the open market value of the site as £600,000 based on the developed area.

The new ward would require a footprint of around 800m² with an additional area of for parking and landscaped areas the total area required equates to 0.21 ha and on a pro rata basis this reduces the value of the site by £45,000.

Costs & Assumptions

	m ² 1,447	m ² 1,447	m ² 1,447
	Option 1 Coathill	Option 2 Strathclyde	Option 3 Hartwood
	£000's	£000's	£000's
<u>Capital Cost Summary</u>			
Cost			
Building Costs	3,068	3,068	3,068
Demolition	20	0	0
Car parking	41	0	0
Optimism Bias	10.80%	338	331
VAT (Building Costs)	607	595	595
Inflation (Building Costs)	489	489	489
Fees (including Planning/Building Warrant)	381	374	374
Equipment (including I.T.)	200	200	200
VAT (Equipment Costs)	35	35	35
Specialist Removal/Decanting	20	20	20
Total	5,199	5,112	5,112
Capital Cost per Benefit Point	173	183	568

Revenue Cost Summary

Full Year Revenue Cost	£000's	£000's	£000's
Clinical (Nursing) Salaries	713	713	713
Clinical Supplies	109	109	109
Heat, Light & Power	27	27	27
Water/Waste (inc. Clinical Waste)	14	14	14
Day to Day Maintenance	24	24	24
Life Cycle Maintenance	36	36	36
Domestic Services (Inc. Laundry & Linen)	62	62	62
Catering	50	50	50
Portering	14	14	14
Other Miscellaneous	20	20	20
Telecoms	4	4	4
Total Annual Revenue Cost	1,073	1,073	1,073

Capital Charges Summary

Full Year			
Depreciation Buildings	83	81	81
Depreciation Equipment	24	24	24
Interest Charge	182	179	179
Total Capital Charges	288	284	284

NET PRESENT VALUE

NPV	33,378	33,303	33,303
NPV per Benefit Point	1,113	1,189	3,700

Financial Assumptions

The following sets out the financial assumptions used in the financial modelling.

Construction Costs

Building Costs are based on Probable Cost estimates provided by Quantity Surveyors, Armour Construction who are part of the project design team led by Duncan Davis Architects. These have been developed with reference to the Coathill Hospital site but have been used as a basis to derive costs for the Strathclyde and Hartwoodhill Hospital site options.

Optimism bias, computed in line with the most recent Treasury Guidance has been applied to the new build costs but has not been applied to equipment. The same Optimism Bias factor has been applied to all Options as the designed facility would be provided on either site.

Revenue Costs

Clinical and Facilities revenue costs are assumed to be the same for all options on the basis that the floor areas occupied by each of the facility will be constant over each of the Options.

Nursing salary costs have been computed to allow for Agenda for Change pay rates.

Capital Charges

Buildings have been depreciated over 60 years and equipment over 10 years. Interest has been applied at 3.5% per annum.

Net Present Values

NPVs and EACs have been calculated on the capital costs (excluding VAT) and the revenue costs (excluding capital charges).

Discount Factor

The effects of inflation have been excluded from all costs except construction, as the impact on the economic analysis will not vary between the options. A discount rate of 3.5% for the first 30 Years and 3.0% has been applied in calculating the NPVs. This is in line with the NHS Scotland Capital Accounting Manual - February 2006.

Coathill - Adults with Complex Needs

OPTION APPRAISAL - NET PRESENT VALUE

Option -
1

Excl. VAT & capital charges
(£000's)

1,215 EAC

Annual Revenue Costs 1,073

Years	NPV %	CAPITAL £000's	REVENUE £000's	TOTAL £000's	NPV £000's	£000's
0	1	4,557		4,557	4,557	
1	0.96618357		1,073	1,073	1,037	5,594
2	0.9335107		1,073	1,073	1,002	6,596
3	0.90194271		1,073	1,073	968	7,563
4	0.87144223		1,073	1,073	935	8,498
5	0.84197317		1,073	1,073	903	9,402
6	0.81350064		1,073	1,073	873	10,275
7	0.78599096		1,073	1,073	843	11,118
8	0.75941156		1,073	1,073	815	11,933
9	0.73373097		1,073	1,073	787	12,720
10	0.70891881	200	1,073	1,273	902	13,623
11	0.68494571		1,073	1,073	735	14,358
12	0.6617833		1,073	1,073	710	15,068
13	0.63940415		1,073	1,073	686	15,754
14	0.61778179		1,073	1,073	663	16,417
15	0.59689062		1,073	1,073	640	17,058
16	0.57670591		1,073	1,073	619	17,676
17	0.55720378		1,073	1,073	598	18,274
18	0.53836114		1,073	1,073	578	18,852
19	0.52015569		1,073	1,073	558	19,410
20	0.50256588	200	1,073	1,273	640	20,050
21	0.4855709		1,073	1,073	521	20,571
22	0.46915063		1,073	1,073	503	21,074
23	0.45328563		1,073	1,073	486	21,561
24	0.43795713		1,073	1,073	470	22,031
25	0.42314699		1,073	1,073	454	22,485
26	0.40883767		1,073	1,073	439	22,923
27	0.39501224		1,073	1,073	424	23,347
28	0.38165434		1,073	1,073	410	23,757
29	0.36874815		1,073	1,073	396	24,153
30	0.35627841	200	1,073	1,273	454	24,606
31	0.39998715		1,073	1,073	429	25,035
32	0.38833703		1,073	1,073	417	25,452
33	0.37702625		1,073	1,073	405	25,857
34	0.3660449		1,073	1,073	393	26,249

35	0.3553834		1,073	1,073	381	26,631
36	0.34503243		1,073	1,073	370	27,001
37	0.33498294		1,073	1,073	359	27,360
38	0.32522615		1,073	1,073	349	27,709
39	0.31575355		1,073	1,073	339	28,048
40	0.30655684	200	1,073	1,273	390	28,438
41	0.297628		1,073	1,073	319	28,758
42	0.28895922		1,073	1,073	310	29,068
43	0.28054294		1,073	1,073	301	29,369
44	0.27237178		1,073	1,073	292	29,661
45	0.26443862		1,073	1,073	284	29,945
46	0.25673653		1,073	1,073	275	30,220
47	0.24925876		1,073	1,073	267	30,488
48	0.2419988		1,073	1,073	260	30,748
49	0.23495029		1,073	1,073	252	31,000
50	0.22810708	200	1,073	1,273	290	31,290
51	0.22146318		1,073	1,073	238	31,528
52	0.2150128		1,073	1,073	231	31,758
53	0.20875029		1,073	1,073	224	31,982
54	0.20267019		1,073	1,073	217	32,200
55	0.19676717		1,073	1,073	211	32,411
56	0.19103609		1,073	1,073	205	32,616
57	0.18547193		1,073	1,073	199	32,815
58	0.18006984		1,073	1,073	193	33,008
59	0.17482508		1,073	1,073	188	33,196
60	0.16973309		1,073	1,073	182	33,378
	27.4671677					1,215

Strathclyde - Adults with Complex Needs

OPTION APPRAISAL - NET PRESENT VALUE

Option -
2

Excl. VAT & capital charges
(£000's)

1,212 EAC

Annual Revenue Costs 1,073

Years	NPV %	CAPITAL £000's	REVENUE £000's	TOTAL £000's	NPV £000's	£000's
0	1	4,482		4,482	4,482	
1	0.96618357		1,073	1,073	1,037	5,519
2	0.9335107		1,073	1,073	1,002	6,521
3	0.90194271		1,073	1,073	968	7,488
4	0.87144223		1,073	1,073	935	8,423
5	0.84197317		1,073	1,073	903	9,327
6	0.81350064		1,073	1,073	873	10,200
7	0.78599096		1,073	1,073	843	11,043
8	0.75941156		1,073	1,073	815	11,858
9	0.73373097		1,073	1,073	787	12,645
10	0.70891881	200	1,073	1,273	902	13,548
11	0.68494571		1,073	1,073	735	14,283
12	0.6617833		1,073	1,073	710	14,993
13	0.63940415		1,073	1,073	686	15,679
14	0.61778179		1,073	1,073	663	16,342
15	0.59689062		1,073	1,073	640	16,983
16	0.57670591		1,073	1,073	619	17,601
17	0.55720378		1,073	1,073	598	18,199
18	0.53836114		1,073	1,073	578	18,777
19	0.52015569		1,073	1,073	558	19,335
20	0.50256588	200	1,073	1,273	640	19,975
21	0.4855709		1,073	1,073	521	20,496
22	0.46915063		1,073	1,073	503	20,999
23	0.45328563		1,073	1,073	486	21,486
24	0.43795713		1,073	1,073	470	21,956
25	0.42314699		1,073	1,073	454	22,410
26	0.40883767		1,073	1,073	439	22,848
27	0.39501224		1,073	1,073	424	23,272
28	0.38165434		1,073	1,073	410	23,682
29	0.36874815		1,073	1,073	396	24,078
30	0.35627841	200	1,073	1,273	454	24,531
31	0.39998715		1,073	1,073	429	24,960
32	0.38833703		1,073	1,073	417	25,377
33	0.37702625		1,073	1,073	405	25,782
34	0.3660449		1,073	1,073	393	26,174

35	0.3553834		1,073	1,073	381	26,556
36	0.34503243		1,073	1,073	370	26,926
37	0.33498294		1,073	1,073	359	27,285
38	0.32522615		1,073	1,073	349	27,634
39	0.31575355		1,073	1,073	339	27,973
40	0.30655684	200	1,073	1,273	390	28,363
41	0.297628		1,073	1,073	319	28,683
42	0.28895922		1,073	1,073	310	28,993
43	0.28054294		1,073	1,073	301	29,294
44	0.27237178		1,073	1,073	292	29,586
45	0.26443862		1,073	1,073	284	29,870
46	0.25673653		1,073	1,073	275	30,145
47	0.24925876		1,073	1,073	267	30,413
48	0.2419988		1,073	1,073	260	30,673
49	0.23495029		1,073	1,073	252	30,925
50	0.22810708	200	1,073	1,273	290	31,215
51	0.22146318		1,073	1,073	238	31,453
52	0.2150128		1,073	1,073	231	31,683
53	0.20875029		1,073	1,073	224	31,907
54	0.20267019		1,073	1,073	217	32,125
55	0.19676717		1,073	1,073	211	32,336
56	0.19103609		1,073	1,073	205	32,541
57	0.18547193		1,073	1,073	199	32,740
58	0.18006984		1,073	1,073	193	32,933
59	0.17482508		1,073	1,073	188	33,121
60	0.16973309		1,073	1,073	182	33,303
	27.4671677					1,212

Hartwood - Adults with Complex Needs

OPTION APPRAISAL - NET PRESENT VALUE

Option -
3

Excl. VAT & capital charges
(£000's)

1,212 EAC

Annual Revenue Costs 1,073

Years	NPV %	CAPITAL £000's	REVENUE £000's	TOTAL £000's	NPV £000's	£000's
0	1	4,482		4,482	4,482	
1	0.96618357		1,073	1,073	1,037	5,519
2	0.9335107		1,073	1,073	1,002	6,521
3	0.90194271		1,073	1,073	968	7,488
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9	0.73373097		1,073	1,073	787	12,645
10	0.70891881	200	1,073	1,273	902	13,548
11	0.68494571		1,073	1,073	735	14,283
12	0.6617833		1,073	1,073	710	14,993
13	0.63940415		1,073	1,073	686	15,679
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15	0.59689062		1,073	1,073	640	16,983
16	0.57670591		1,073	1,073	619	17,601
17	0.55720378		1,073	1,073	598	18,199
18	0.53836114		1,073	1,073	578	18,777
19	0.52015569		1,073	1,073	558	19,335
20	0.50256588	200	1,073	1,273	640	19,975
21	0.4855709		1,073	1,073	521	20,496
22	0.46915063		1,073	1,073	503	20,999
23	0.45328563		1,073	1,073	486	21,486
24	0.43795713		1,073	1,073	470	21,956
25	0.42314699		1,073	1,073	454	22,410
26	0.40883767		1,073	1,073	439	22,848
27	0.39501224		1,073	1,073	424	23,272
28	0.38165434		1,073	1,073	410	23,682
29	0.36874815		1,073	1,073	396	24,078
30	0.35627841	200	1,073	1,273	454	24,531
31	0.39998715		1,073	1,073	429	24,960
32	0.38833703		1,073	1,073	417	25,377
33	0.37702625		1,073	1,073	405	25,782
34	0.3660449		1,073	1,073	393	26,174

35	0.3553834		1,073	1,073	381	26,556
36	0.34503243		1,073	1,073	370	26,926
37	0.33498294		1,073	1,073	359	27,285
38	0.32522615		1,073	1,073	349	27,634
39	0.31575355		1,073	1,073	339	27,973
40	0.30655684	200	1,073	1,273	390	28,363
41	0.297628		1,073	1,073	319	28,683
42	0.28895922		1,073	1,073	310	28,993
43	0.28054294		1,073	1,073	301	29,294
44	0.27237178		1,073	1,073	292	29,586
45	0.26443862		1,073	1,073	284	29,870
46	0.25673653		1,073	1,073	275	30,145
47	0.24925876		1,073	1,073	267	30,413
48	0.2419988		1,073	1,073	260	30,673
49	0.23495029		1,073	1,073	252	30,925
50	0.22810708	200	1,073	1,273	290	31,215
51	0.22146318		1,073	1,073	238	31,453
52	0.2150128		1,073	1,073	231	31,683
53	0.20875029		1,073	1,073	224	31,907
54	0.20267019		1,073	1,073	217	32,125
55	0.19676717		1,073	1,073	211	32,336
56	0.19103609		1,073	1,073	205	32,541
57	0.18547193		1,073	1,073	199	32,740
58	0.18006984		1,073	1,073	193	32,933
59	0.17482508		1,073	1,073	188	33,121
60	0.16973309		1,073	1,073	182	33,303
	27.4671677					1,212

Optimism Bias

Optimism Bias - Upper Bound Calculation for Build									
Lowest % Upper Bound		13%							
Mid %		40%							
Upper %		80%							
Actual % Upper Bound for this project		18%							
Build complexity						Scope of scheme			
<i>Choose 1 category</i>		X			<i>Choose 1 category</i>		X		
<i>Length of Build</i>	< 2 years	x	0.50%	0.50%	Facilities Management	Hard FM only or no FM	x	0.00%	0.00%
	2 to 4 years		2.00%	0		Hard and soft FM		2.00%	
	Over 4 years		5.00%	0					0
					Choose 1 category				
<i>Choose 1 category</i>					Equipment	Group 1 & 2 only	x	0.50%	0.50%
<i>Number of phases</i>	1 or 2 Phases	x	0.50%	0.50%		major Medical equipment		1.50%	0
	3 or 4 Phases		2.00%	0		All equipment included		5.00%	0
	More than 4 Phases		5.00%	0					
					Choose 1 category				
<i>Choose 1 Category</i>					IT	No IT implications		0.00%	0
<i>Number of sites involved (i.e. before and after change)</i>	Single site*	x	2.00%	2.00%		Infrastructure	x	1.50%	1.50%
	2 Site		2.00%	0		Infrastructure & systems		5.00%	0
	More than 2 site		5.00%	0					
* Single site means new build is on same site as existing facilities					<i>Choose more than 1 category if applicable</i>				

						External Stakeholders	1 or 2 local NHS organisations	x	1.00%	1.00 %
Location							3 or more NHS organisations		4.00%	0
							Universities/Private/Voluntary sector/Local government		8.00%	0
<i>Choose 1 Category</i>										
<i>New site - Green field</i>	New build		3%	0		Service changes - relates to service delivery e.g. NSF's				
<i>New site - Brown Field</i>	New Build		8%	0						
<i>Existing site</i>	New Build	x	5%	5.00%		<i>Choose 1 category</i>				
	<i>or</i>					Stable environment, i.e. no change to service		x	5%	5.00 %
<i>Existing site</i>	Less than 15% refurb		6%	0		Identified changes not quantified			10%	0
<i>Existing site</i>	15% - 50% refurb		10%	0		Longer time frame service changes			20%	0
<i>Existing site</i>	Over 50% refurb		16%	0						
					8.00%	Gateway				
						<i>Choose 1 category</i>				
Optimism Bias Calculation										
						RPA Score	Low		0%	0
Build Complexity	8.00%						Medium	x	2%	2.00 %
Scope of Scheme	10.00%						High		5%	0
Total Upper Bound for this Project	18.00%									
Risk Mitigation Factor	60.00%									10.00 %
Optimum Bias Applied to Capital	10.80%									

Scheme name: Adults with Complex Needs – Coathill Hospital

Contributory Factor to Upper Bound	% Factor Contributes	% Factor Contributes after mitigation	Explanation for rate of mitigation
Progress with Planning Approval	4	3	Initial discussions have taken place with South Lanarkshire Council but application for full Approval will only be made once the OBC is approved.
Other Regulatory	4	3	The nature of this facility will mean that there will be significant involvement of regulatory bodies.
Depth of surveying of site/ground information	3	1	The proposed site for the development currently has existing buildings on it.
Detail of design	4	2	The design of the facility is well advanced with full involvement of the users.
Innovative project/design (i.e. has this type of project/design been undertaken before)	3	1	This type of building and service have been delivered previously the only issue is around the level of security that will be required.
Design complexity	4	2	As above some design considerations in respect of security levels have been included.
Likely variations from Standard Contract	2	1	No major variation from standard contracts are envisaged.
Design Team capabilities	3	1	Design team appointed in May 2006 have previous experience of developing NHS facilities.
Contractors' capabilities (excluding design team covered above)	2	2	Contractors not yet appointed.
Contractor Involvement	2	2	Contractors not yet appointed.
Client capability and capacity (NB do not double count with design team capabilities)	6	3	NHSL staff within the project team have previous experience in projects of this nature.
Robustness of Output Specification	25	15	Design team appointed in May 2006 and work on the design is at an advanced stage. Appropriate consultation and engagement with stakeholders and building users has taken place.
Involvement of Stakeholders, including Public and Patient Involvement	5	5	Although there has been appropriate stakeholder and user involvement it is anticipated that this will be a particularly sensitive local issue.
Agreement to output specification by stakeholders	5	2	Stakeholders and building users have been fully engaged throughout the design phase.
New service or traditional	3	2	This is not a new service but is moving towards a more community based model and this will support that move.
Local community consent	3	3	This is a highly sensitive issue and there is likely to be a degree of local concern due to the nature of the patient group.
Stable policy environment	20	10	The building will be completed to current building policies and standards. The operational approach will be in line with the strategic direction of NHSL Mental Health services.
Likely competition in the market for the project	2	2	Due to the current buoyant nature of the construction industry no mitigation has been applied.
TOTAL	100	60	

Note: Across all contributory factors, mitigation would be expected to be greater the greater the extent of risk quantification and risk management.

Risk Register

A Risk Register was developed as a basis for assessing the individual project risks, this was compiled in conjunction with the project team and discussed with NHS Lanarkshire's Risk Manager. Details of the individual risks along with a supporting descriptions and a strategy on how to manage these risks are provided below.

Risk	Risk Description and Effect	Risk Management
Design and Construction Risks		
Change in Requirements of Stakeholders/NHS Policy Change	The Board may require changes to the design, leading to additional design and construction costs, possibly leading to a delay with additional cost implications and inherent implications for the CIP 5 year spend profile	Regular review meetings should be held. A clear project plan identifying the main objectives of all parties should be devised
Inadequate Design	The design Brief may not provide an adequate basis on which to plan the facility which meets clinical and functional needs	Regular design reviews should be held to monitor design adequacy. These reviews should include relevant stakeholders. When full agreement is reached, "sign off" will be required.
Inability to complete Design on Time	The design cannot be completed within the agreed timescales. Additional property costs incurred	Realistic timescale to be developed in agreement with users developers and project sponsors.
Design Team Default, Design Creep	The design team fail to deliver the brief set out in the specifications leading to design creep. May put scheme at risk due to increased cost or result in programme delays and scope changes	Regular meetings/reviews of design proposals: early agreement to design solutions. Good Project management procedures to be in place.
Incorrect Time and Cost Estimate	The Time taken and the costs incurred to complete the construction phase may be different from that estimated	Prepare detailed design and bills of quantities. Regular cost and risk review should be held to monitor progress.
Incorrect Budgetary Estimate	Additional costs incurred. Project delayed whilst funds are secured, impact upon succeeding year's capital programme.	Prepare detailed design and bills of quantities. Regular cost and risk review should be held to monitor progress. Early negotiations with developer to ensure construction costs are accurate. Ensure sufficient contingency and risk sums are included.
Unforeseen Ground conditions	A risk exists that unforeseen Ground Conditions may result in delays	Carry out early site survey to confirm suitability for building.
Problems with Utility Connections	Problems may arise with regard to gas, electricity, water connections. May affect both timescales and price	Need to ensure our requirements are accurate. Early discussions and agreement with utilities providers.
Delay in Vacating Site	There may be a delay in vacating the site. Alternative accommodation for services to be secured. May have cost implications.	Develop relocation plan with service users.
Contractor Default including Failure to Build to design	In the case of a contractor default, additional costs may be incurred in appointing a replacement, and may cause a delay	Regular cost and risk review should be held to monitor progress. Ensure robust design details are provided. Contractor details must be explicit stating any penalty clauses.
Poor Project Management	There is a risk that poor project management will lead to additional costs. E.g. co-ordination of sub-contractors could be poor leading to delays because the work of another is incomplete.	Regular cost and risk review should be held to monitor progress. Ensure a rigorous pre and post tender selection process is undertaken.

Risk	Risk Description and Effect	Risk Management
Design and Construction Risks		
Delayed/unobtainable planning approval/building warrant	This may have wider cost implications. Significant delay to project whilst appeal to Secretary of State is made or alternative site found.	Secure input and consult with Local Authority Planners at initiation stages and consult throughout the project design. Secure support of local Councillors.
Capacity and Demand Risks		
Failure to deliver required levels of performance	Required levels of clinical performance are not achieved resulting in an inability to meet the capacity to the clinical service demands	Early Partnership working with health professionals to ensure accommodation and capacity is adequate for required clinical performance
Unused Facilities and Capacity	Surplus capacity results as anticipated demand does not materialise	
Facilities not Flexible enough to respond to changes in demand	The Facilities is not adequately flexible to allow capacity to be expanded at the rate required due to changes in healthcare	Preparation of a detailed design that could accommodate a range of care needs. Materials used in construction to allow easier internal re-organisation if required.
Inadequate patient environment	The physical environment does not meet statutory, dignity clinical requirements for the patient group	Ensure facilities meet all relevant current standards required.
Failure to secure adequate Car Parking Agreements	May lead to operational problems for site	Adequate Car parking policies to be put in place to ensure smooth running of facility
Staffing Risks		
Staff support for the proposal weakens. Staff unwilling to transfer working location	Staff are unwilling to transfer their working base to the new facility as such gaps and disruption to the service occur.	Regular Meetings/reviews with user groups. NHS Human Resources policies are implemented effectively and early
High Staff Turnover resulting in Gaps in service and Disruption	Levels of staff turnover are such that continuity and quality of service cannot be maintained	NHS Human Resources policies are implemented effectively
Timescale Risks		
Incorrect Timing and cost estimates for commissioning	The estimated time required and associated costs for commissioning are incorrect leading to delays and excess costs	Timescales and costs to be agreed with Design Team and Construction Team, and Service Managers
Service Disruption Risks		
Disruption to ongoing delivery of clinical and non clinical services in the short term	The Short term configuration of services compromises the effective operation of the clinical units	IF preferred option is chosen services will continue as at present until services move to new accommodation. Ensure that move will be smooth by including all relevant stakeholders in planning of move.
Disruption to ongoing delivery of clinical and non clinical services in the longer Term	The configuration and co-location of services compromise the effective longer term operation of the clinical units	Regular stakeholder review meetings should be held to ensure operation of co-located clinical services is effective.
Reputational Risks		
Failure to Deliver Key Board Targets	Key targets are not achieved, promises are not kept resulting in damage to the Boards Reputation	Regular review meetings should be held to ensure timescales are being met and targets achieved.
Adverse Publicity resulting from failure to justify levels of investment	The level of capital and revenue investment required to support the changes cannot be justified when compared to the overall benefits	A clear project plan identifying the main objectives of all parties should be devised. To include an accurate cost analysis that is monitored to ensure compliance.

Schedule of Accommodation

ACCOMMODATION FOR ADULTS WITH COMPLEX NEEDS COATHILL HOSPITAL

<u>1.0 Ward Areas</u>	<u>Quantity</u>	<u>Area</u>	<u>Total Area</u>	<u>Comments</u>
1.1 Bedroom single	19	10.5	205.2	
1.2 En-suite shower/wc/wash	19	4.5	81.5	
1.3 Bedroom mother & baby/disabled	1	15.8	15.8	First Floor
1.4 en-suite bath/wc/wash	1	6.6	6.6	First Floor
<u>2.0 Sanitary Facilities</u>				
2.1 Patients bathroom/wc/wash	1	13.2	13.2	First Floor
2.2 Patients wheelchair wc	1	6.3	6.3	
2.3 Patients ambulant/assisted wc	3	3.5	11.5	3no.
<u>3.0 Patients Day Spaces</u>				
3.1 Sitting room/TV lounge 15 spaces	1	35.8	35.8	
3.2 Quiet room 6 spaces	1	22	22	First Floor
3.3 Quiet room 6 spaces women only	1	21.2	21.2	First Floor
3.4 Smoking lounge 15 place	1	14.2	14.2	
3.5 Multi Purpose room 10 place	1	20	20	
3.6 Dining room 20 place	1	36.4	36.4	
3.7 Servery	1	0	0	Doubles as Ward Pantry
3.8 Assessment Kitchen	2	11	23.8	
3.9 Patients utility/laundry room	1	12	12	
<u>4.0 Ward Administration</u>				
4.1 Multi Professionals Office 3 Place	1	17.1	17.1	First Floor
4.2 Staff base	1	14	14	
4.3 office 2 place: ward	2	19.5	38.9	
4.4 office 1 place: Doctors/Consultant	2	10.7	21.3	
4.5 office 2 place: reception	1	16	16	
4.6 Interview room	2	10.25	20.5	
4.7 Records Storage	1	12	12	
<u>5.0 Support Spaces</u>				
5.1 Treatment/ clean utility room	1	16.4	16.4	
5.2 Dirty utility	1	11.5	11.5	
5.3 Disposal hold	1	19	19	2no.
5.4 Store patients property	1	15.8	15.8	
5.5 Store general	1	8.5	8.5	2no.
5.6 Store equipment	2	9.4	18.7	
5.7 Store linen	1	9	9	
5.8 Cleaners store	2	8.4	16.8	
5.9 Switchgear cupboard	1	16	16	
5.10 Plant room	1	23.7	23.7	
5.12 Lift	1	6.8	6.8	
5.13 IT/Comms	1	3	3	
5.14 Water storage room	1	60.9	60.9	
5.15 Air Handling room	1	53.9	53.9	
5.16 Bin Store	1	4.7	4.7	

5.17 Service Voids 1 4.6 4.6

6.0 Staff Facilities

6.1 Staff rest room 1 16.2 16.2
 6.2 Staff wc/ wash 2 7 14.1 5no.
 6.3 Regeneration kitchen 1 18.6 18.6
 6.4 Foyer facilities 1 17.9 17.9

7.0 Patient Areas

7.1 Visiting Family Areas 1 13.7 13.7

Net Allowance	1035.1
5% Planning Allowance	
Total	1035.10
3% Engineering Allowance	104.40
25% Circulation Allowance	307.50
 <u>TOTAL</u>	 1447.00

<u>Area</u>	<u>Cost</u> <u>M2</u>	<u>Total</u>
0.00	£0	£0.00
		£0.00
		£0.00
		£0.00