Sandwell and West Birmingham Hospitals NHS
NHS Trust

Midland Metropolitan Hospital

Final Business Case

January 2016

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Midland Metropolitan Hospital Project

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DOCUMENT CONTROL SHEET

VERSION	DATE	COMMENTS
0.1	8 Jan 2016	Initial draft for CEO comment
1.0	15 Jan 2016	Final version for publication reflecting CEO comments

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1 Executive Summary

1.1 Introduction

1.1.1 This Final Business Case (FBC) has been formed from both an Appointment Business Case (ABC) and Confirmatory Business Case (CBC), which were used to secure approval for the Trust to complete the procurement of the Midland Metropolitan Hospital (MMH). The FBC is based on the assumptions and facts contained within the ABC and CBC. In instances where these have changed from ABC to CBC, the latter position has been reflected in this FBC.

1.1.2 The procurement concluded on 11 December 2015 with Financial Close. The final outcome following Financial Close is reflected in Chapter 23.

1.1.3 The roles of the various MMH business cases are summarised in the table below:

Table 1: MMH Business Cases

Business Case	Purpose	Approval Date
Strategic Outline Case (SOC)	To secure agreement to the Right Care Right Here (previously known as 'Towards 2010') strategic system wide proposals which included a single acute hospital.	April 2004
Land Business Case	To secure approval to commence compulsory purchase of the land at Grove Lane. A version of the OBC was produced to support the Land Business Case to ensure that Grove Lane was the preferred option.	August 2009
Outline Business Case (OBC)	To secure approval to commence the procurement.	July 2014
ABC	To secure approval to 'close dialogue'. Based upon a Final Bid.	August 2015
CBC	To secure approval to appoint 'Preferred Bidder' and proceed to Financial Close, highlighting any changes in the case since the ABC. Followed the completion of funding competitions and the granting of planning permission.	December 2015
FBC	To combine the ABC and CBC into a single document.	N/A
Addendum following Financial Close	To reflect the outcome of Financial Close.	N/A

1.1.4 The FBC demonstrates that the case presented by the OBC remains robust with increasing drivers to make the changes proposed by the Right Care, Right Here (RCRH) Programme and develop a new acute hospital without delay. The proposals align with the direction proposed in NHS England's Five Year Forward View (October 2014) and local support for the project continues to be substantial.

1.1.5 Much of the document restates, where appropriate, the case made at OBC and demonstrates that the key drivers for the project, its scope, deliverability and affordability remain unaltered and in some instances are strengthened.

1.1.6 The key areas where the FBC develops the OBC further are:

- The procurement route and strategy;
- The bidder solution;
- The completion of funding competitions;
- Affordability (including a refresh of the Long Term Financial Model (LTFM), activity and income projections, cost improvement plan and downside scenario); and
- The Workforce model.

1.2 The Strategic Context

1.2.1 The strategic context remains largely unaltered since the OBC in terms of the population needs, commissioner and provider landscape and national policy. Since OBC approval the NHS Five Year Forward View has been published, which emphasises the need for closer integration and the breaking down of barriers between care settings. The RCRH Programme and the Midland Metropolitan Hospital Project closely align with this agenda. This is reflected in the Trust's plans to restrict the scale of its acute business and grow its community services.

The Population Served by the Trust

1.2.2 The total population served by Sandwell and West Birmingham Clinical Commissioning Group (CCG) is expected to increase by 6% over the next 20 years. A 16% increase in the number of children and young people in Birmingham is forecast over the same period. The increase in people over 65 years of age will be markedly lower than England overall but the increase in local residents over 85 will be significant.

Diversity

1.2.3 The Trust delivers services to a population with a significantly higher proportion of black and minority ethnic and other minority ethnic groups than England as a whole. The Heart of Birmingham area has the largest (68%) black and minority ethnic population in England, with the largest group being of Pakistani origin.

1.2.4 The Sandwell population is also becoming more ethnically diverse. In the ten years between 1991 and 2001 the black and minority ethnic population increased by 6% to 20%, with the rate of growth being most pronounced amongst the Asian communities.

1.2.5 The implications for the Trust are that services need to be culturally sensitive, accessible to all, tailored to specific needs, appropriate for different religious beliefs and supported by interpreting services where necessary.

1.2.6 The Trust will deliver services to people with increased levels of prevalence for certain conditions such as diabetes, eye disease and cardiovascular disease.

1.2.7 The Trust has a strong track record in the management of long term conditions, for example:

- It is an award winning rheumatology centre of excellence;
- Both acute and community specialist respiratory services are provided by the Trust;
- The Diabetes Team has won the national innovation award for integrated care; and
- The King's Fund commends iCares, an admission avoidance older people's team, as a national exemplar.

Deprivation and Poor Health

1.2.8 The population served by the Trust is dominated by high levels of deprivation. When ranked on the English Indices of Deprivation of 354 English local authorities, Birmingham and Sandwell are the 9th and 12th most deprived respectively. There are a significant number of local wards in the worst 20% nationally.

1.2.9 In 2014 the Trust published its own three year Public Health Strategy which focuses on health and wealth in the local community and in the workforce. The Chief Executive of Public Health England has praised the approach and commended it to other provider organisations. A Board level committee, chaired by the Trust Chairman, oversees the public health and community development agenda.

1.2.10 The Trust's regeneration work extends beyond the procurement of the new hospital project into wider community activities across the hospital sites.

1.2.11 The table below gives a summary of key health and lifestyle indicators per 100,000 of population. With the exception of the number of adults who smoke in Birmingham, all the figures are significantly worse than the average for England.

Table 2: Key Health and Lifestyle Indicators

Indicator (per 100,000 population)	Birmingham	Sandwell	England Average
Infant deaths	8.25	8.46	4.84
Deaths from smoking	248.10	280.50	206.80
Early deaths: heart disease and stroke	96.80	110.90	74.80
Early deaths: Cancer	123.20	135.10	114.00
People diagnosed with diabetes	5.12	5.63	4.30
Adults who smoke	22.50	27.50	22.20
Hospital stays due to alcohol	1,940	2,180	1,580
Obese adults	26.80	29.10	24.20
Obese children	10.80	12.90	9.60
Teenage pregnancies (under 18s)	52.10	59.10	40.90

National Policy

1.2.12 *The Francis Inquiry report* (February 2013) examined the causes of the failings in care at the Mid Staffordshire NHS Foundation Trust between 2005 and 2009, making 290 recommendations, including the need for:

- Openness, transparency and candour throughout the healthcare system (including a statutory duty of candour), fundamental standards for healthcare providers; and
- Improved support for compassionate, committed care and stronger healthcare leadership.

1.2.13 A number of other reports including: the *Berwick Report, 'A Promise to Learn a Commitment to Act'*, (August 2013), driving patient safety and '*Compassion in Practice'* (December 2012) – the vision for nurses, midwives and care-staff, have built on the recommendations of the Francis Report to embed a new culture of quality, safety and compassion in healthcare.

1.2.14 The *Keogh Report*: *'Transforming Urgent and Emergency Care Services in England, End of Phase One Report'* (November 2013), was commissioned in response to concern that A&E Departments, associated acute hospital services and ambulance services are under intense, growing and unsustainable pressure. The report describes the following vision:

- People with urgent but non-life threatening needs should receive highly responsive, effective and personalised services outside of hospital. These services should deliver care in, or as close to, people's homes as possible, minimising disruption and inconvenience for patients and their families.
- People with more serious or life threatening emergency needs should be treated in centres with the very best expertise and facilities in order to reduce risk and maximise their chances of survival and a good recovery. Getting the out-of-hospital services right will relieve pressure on hospital based emergency services to enable delivery of this part of the vision.

1.2.15 The *Better Care Fund* (BCF) provides an opportunity to transform local services so that people are provided with better integrated care supported by funding to help local areas manage pressures and improve long term sustainability. The Trust is represented on the Sandwell Integration Board and contributes to the West Birmingham sub-committee of the Birmingham BCF. Over the period to 2030 the Trust will to play a key role in avoiding admissions; the business case for a new hospital is not predicated on net growth in admitted care.

1.2.16 *The NHS Five Year Forward View* (October 2014) sets out how the NHS needs to change, proposing a more engaged relationship between patients, carers and staff in order to focus on wellbeing and prevention. The three main conclusions are:

- There should be more focus on prevention and public health;
- Patients need to be given more control over their own care; and
- Barriers need to be removed on how care is provided between primary care and hospitals; between physical and mental health; and between health and social care.

1.2.17 The report also emphasises that continued efficiencies of circa 2% per annum will be required and that new models of care will need to be developed to meet this challenge.

1.2.18 The Trust's '*2020 Vision'*, developed collaboratively over the last 12 months, aligns well with this agenda. It reflects in full the plans for the new hospital. The outpatient improvement work in particular, overseen by a fortnightly board chaired by the Chief Executive, is implementing changes to the model of care designed to support a highly localised multi-site planned care strategy.

1.2.19 In 2013 the Trust changed the acute care model to make it identical on both hospital sites in preparation for a single site delivery system in 2018.

1.2.20 The 2020 Vision presented below has at its heart the definition of coordinated care consulted upon by National Voices, the coalition of health and social care charities in England.

'We will become renowned as the best integrated care organisation in the NHS by 2020.'

The Right Care Right Here Programme

1.2.21 The Trust is a founding member of the *RCRH Partnership*. All partners have shown exceptional levels of commitment over the ten years of the programme. The current partners are:

- Sandwell and West Birmingham CCG;
- Sandwell and West Birmingham Hospitals NHS Trust;
- Black Country Partnership NHS Foundation Trust;

- Birmingham Community Healthcare NHS Trust;
- Birmingham and Solihull Mental Health NHS Foundation Trust;
- Birmingham City Council; and
- Sandwell Metropolitan Borough Council.

1.2.22 The RCRH Programme continues to align with national policy with objectives to:

- Redesign services to meet the needs of the local population;
- Ensure that people have the opportunity to benefit from healthier lifestyles;
- Expand services in community settings, bringing appropriate elements of care closer to home and integrating provision such that patients experience seamless care pathways;
- Develop new highly specialised acute hospital services to be provided in the Midland Metropolitan Hospital;
- Procure, build and commission the Midland Metropolitan Hospital on a brown field site in Smethwick; and
- Maximise opportunities for regeneration in the local area.

1.2.23 The programme governance of RCRH has been fully reviewed over the last twelve months. The Board now incorporates primary care providers including the local Vanguard Site.

1.2.24 The Trust is meeting a significant portion of the cost of the RCRH Programme because it is seen as instrumental in delivery of the changes required for the future.

1.2.25 The RCRH Programme Board will act as the client for the 2017 Readiness Review in preparation for occupation of the new hospital site. All partners will collectively consider any mitigations needed to be ready to migrate to the new model of care in October 2018.

1.2.26 The approach and support the Trust has via RCRH was described by the 2014 Gateway Review as a model for other schemes in the country.

1.2.27 The figure below presents an overview of the RCRH model of care showing the important role the new hospital will have in the overall model of care.

Figure 1: Right Care, Right Here Model of Care

The Black Country Alliance

1.2.28 The Black Country Alliance was formed between the Trust, the Dudley Group NHS FT and Walsall Healthcare NHS Trust in July 2015. The purpose of the alliance is to deliver higher quality care and increased productivity through working at scale. Opportunities are being identified in specialist clinical areas and corporate services.

The Trust

1.2.29 Sandwell and West Birmingham Hospitals NHS Trust (the Trust) is an integrated care organisation dedicated to improving the lives of local people, to maintaining an outstanding reputation for teaching and education and to embedding innovation and research.

1.2.30 The table below summarises the key facts about the Trust.

Table 3: Key Facts about the Trust

Population served	530,000
Annual turnover	£447m million (2014/15)
Number of sites	Two acute sites and three main community locations
Current CQC Rating	'Requires improvement'
Current TDA Rating	Level 3

1.3.1 The Trust provides acute and specialist services from City Hospital in Birmingham and Sandwell General Hospital in West Bromwich. Emergency care, including A&E services is provided at both sites. In addition, the Trust provides comprehensive community services to over 300,000 people in the Sandwell area from more than 150 locations.

1.3.2 The Trust's strategic objectives, which align closely with national policy and the RCRH vision, are presented in the table below.

Table 4: The Trust's Strategic Objectives

Strategic Objective	Description
Safe, high quality care	We will provide the highest quality clinical care. We will achieve the goals of safety, clinical effectiveness and patient experience set out in our quality strategy.
Accessible and responsive care	We will provide services that are quick and convenient to use and responsive to individual needs. They will be accessible to all ages and demographics. Patients will be fully involved in their design.
Care closer to home	Working in partnership with primary and social care we will deliver an increasing range of seamless and integrated services across hospital and community settings.
Good use of resources	We will make good use of public money. On a set of key measures we will be among the most efficient trusts of our size and type.
21st Century Infrastructure	We will ensure our services are provided from buildings fit for 21st century healthcare. We will make the most effective use of technology to drive improvements in quality and efficiency.
An engaged, effective organisation	An engaged and effective NHS organisation will underpin all we do. We will become an NHS foundation trust at the earliest opportunity. We will develop our workforce, promote education, training and research, and make the most effective use of technology to drive improvements in quality and efficiency.

1.4 The Case for Change

1.4.1 The case for change remains relevant and valid and has become more urgent with the increasing demands upon providers to raise standards of care against a backdrop of diminishing resources and increasing patient needs.

1.4.2 The Trust and local partners in the RCRH Programme agree that there is a clear case for change as summarised below:

- First and foremost, the Trust cannot sustain services and cannot meet Keogh recommendations on emergency care, operating acute services for adults and children from two sites.
- The poor health of the residents in the Trust's catchment area makes the case for change in the model of care to focus on prevention. The RCRH Programme has developed plans to deliver these changes. A new single site acute hospital is central to successful delivery of these plans.
- Major changes in primary and community care make the case for development of a new acute hospital with capacity aligned to the activity model agreed by the RCRH Programme.
- Due to the condition of the current estate the provision of a suitable environment for patients and staff will require investment in new hospital facilities.
- The preference for care closer to home and expansion of patient choice makes the case for delivering new services closer to home, building state of the art hospital facilities; and developing a high quality workforce.

1.5 The Future Service Requirement

1.5.1 The RCRH vision for the future and the strong case for change have informed the development of a new model of care for the future underpinned by an activity and capacity model agreed by partners across the local health and social care economy.

1.5.2 The implications of the RCRH vision for the Trust continue to be that:

- The majority of outpatient attendances and planned diagnostics will be provided outside the acute hospital in community locations. The existing two hospital sites will become community locations.
- A greater proportion of inpatient length of stay will be provided in the Trust's intermediate care beds. In the last twelve months the Trust has successfully won two tenders to deliver intermediate care services and operates the information hub through which all beds in Sandwell operate.
- There will be a significant reduction in average length of stay because the Trust is able to deliver consultant based inpatient medicine.
- There will be a modest catchment loss for emergency inpatient activity related to the change in location of the acute hospital. The Trust's partnership with The Dudley Group of Hospitals FT and Walsall Healthcare NHS Trust (the Black Country Alliance) will ensure that this transition is managed collaboratively and to time.
- There will be increased community-based urgent care and out-of-hours services to provide alternatives to attending the Emergency Department. The Trust will provide a major Urgent Care Centre (UCC) (already built) on the Sandwell Hospital site.
- The Trust will also provide an UCC with the MMH co-located to the Emergency Department.
- There will be increased day surgery rates with the majority of adult day surgery being provided in dedicated day surgery units in the Birmingham Treatment Centre (BTC), Sandwell Treatment Centre (STC) and Birmingham and Midland Eye Centre (BMEC).
- Better physical environments will be required for service users and staff which will encourage more rapid recovery and provide greater privacy and dignity.
- In partnership with our host CCG the service development plan includes repatriation of activity from other neighbouring Trusts where clinically appropriate to provide a more local service for patients.
- The development of a new single site acute hospital is required allowing consolidation of acute emergency and inpatient services. This includes co-locating paediatric, neonatal, maternity and gynaecology services.

1.5.3 The greater proportion of patients attending for acute care will therefore be acutely unwell, have complex conditions or require the most specialist assessment and treatment. Development of a new acute hospital to meet these needs by bringing specialist staff together on one site is therefore an essential part of the model of care.

1.5.4 The RCRH activity and capacity model has formed the basis for identifying the clinical facilities required within the new hospital.

Table 5: Activity 2019-2020

Category	Type	MMH	Community Facilities	Total
Admitted Patient Care	Elective Inpatients	8,142	0	8,142
	Day Cases	7,006	37,961	44,967
	Emergencies (inc intermediate care)	56,917	3,303	60,221
	Occupied Bed Days	211,535	51,257	262,793
Outpatients	New Outpatients	31,361	163,381	194,742
	Review Outpatients	27,888	317,857	345,745
	OP with Procedure	18,008	43,158	61,166
	Virtual Outpatients	1,928	22,214	24,142
	Maternity	18,739	0	18,739
Other	A&E Attendances	127,652	32,151	159,803
	Urgent Care	36,628	38,639	75,266
Capacity	Beds	669	148	817
Community	Contacts	0	880,805	880,805

1.5.5 The following summarises the key components that were specified to bidders as being required for the Midland Metropolitan hospital:

1.5.6 A total of 669 beds, including:

- 30 Bed Critical Care Unit (Level 2 and 3);
- 117 space Adult Acute Assessment Unit;
- 36 Neonatal Cots; and
- 56 bed Children's Unit.

1.5.7 14 Generic Wards of 32 beds each, including:

- 14 Coronary Care Beds; and
- 16 distributed higher dependency monitored beds (Level 1);

1.5.8 13 Operating Theatres, comprising:

- 2 Trauma Theatres;
- 2 Emergency Theatres (including laparoscopic equipment);
- 2 Maternity Theatres in Delivery Suite; and
- 7 Elective Theatres;

1.5.9 Bespoke outpatient clinics for:

- Children;
- Urodynamics; and
- Antenatal Services.

1.6 Project Objectives

1.6.1 The project objectives, summarised below, have not changed since the OBC:

- To move to a single acute hospital site;

- To develop a new high quality hospital building;
- To implement a new model of care;
- To deliver the best possible quality of care; and
- To develop staff and provide an optimal working environment.

1.7 Economic Case

1.7.1 The economic case has not changed since the OBC was approved in July 2014. 4 potential options were shortlisted to determine the strategic solution required to meet the strong case for change.

Option One: Do Minimum

1.7.2 This option would involve significant refurbishment of both the City and Sandwell Hospital sites resulting in a three-year delay as service provision would need to continue on the sites being redeveloped. Services would be delivered by splitting emergency care and elective inpatient care between the sites and would therefore continue to provide a dysfunctional model of care with significantly higher revenue costs.

Option Two: City Site Redevelopment

1.7.3 This option is similar to the Grove Lane option, although capital costs would be higher and build time would be two to three years longer in duration.

Option Three: Sandwell Site Redevelopment

1.7.4 This option is similar to Option Two, however, capital costs would be greater and the timescale would be one year longer due to the complexity inherent in a very confined site.

Option Four: New Build on the Grove Lane Site

1.7.5 This option required purchase of land through a compulsory purchase order to develop a new acute hospital. Limited refurbishment would be required on retained hospital estate.

1.7.6 A do nothing option was also described to serve as a baseline for assessment of costs.

Background to the Option Appraisal

1.7.7 The original non-financial appraisal was undertaken after the public consultation in April 2007.

1.7.8 Version 2 of the OBC, approved by the Department of Health in August 2009, contained a comprehensive economic appraisal across the four options to determine which option was the preferred solution. This approval enabled the decision to pursue a compulsory purchase order to facilitate acquisition of the Grove Lane site (Option Four). The Trust now owns the entire site.

1.7.9 The Trust refreshed the economic appraisal of the four options and the Do Nothing scenario for the OBC approved in July 2014. The conclusion was that Option 4 remained the preferred option. The procurement of the Midland Metropolitan Hospital was initiated on this basis.

1.7.10 Since the approval of the OBC in July 2014 there have been no changes in the underlying assumptions used to make the assessment and therefore the assessment still stands.

Economic Appraisal

1.7.11 The detailed appraisal in both non-financial and economic terms showed that the preferred solution was the development of a new acute hospital on the Grove Lane site. The result of the appraisal (at a 2013/14 price base) is summarised in the tables below.

Table 6: Combined Economic and Non-Financial Scores (over 66 Years)

Economic Impact Appraisal Period 66 Years All Options	Option Do Nothing	Option 1 Do Minimum	Option 2 City Site	Option 3 Sandwell Site	Option 4 Grove Lane
EAC (£000)	599,081.7	614,812.6	611,470.9	612,962.3	607,221.2
Benefit Point	47.6	51.0	76.9	72.5	84.3
EAC per Benefit Point (£000)	12,581.10	12,044.52	7,954.31	8,453.71	7,204.79
Rank	5	4	2	3	1
Margin (%)	74.6%	67.2%	10.4%	17.3%	0.0%

Table 7: Combined Economic and Non-Financial Scores (Over 36 Years)

Economic Impact Appraisal Period 36 Years All Options	Option Do Nothing	Option 1 Do Minimum	Option 2 City Site	Option 3 Sandwell Site	Option 4 Grove Lane
EAC (£000)	532,386	545,388	543,444	544,612	539,577
Benefit Point	47.6	51.0	76.9	72.5	84.3
EAC per Benefit Point (£000)	11,180.5	10,684.5	7,069.4	7,511.1	6,402.2
Rank	5	4	2	3	1
Margin (%)	74.6%	66.9%	10.4%	17.3%	0.0%

1.7.12 Both of the combined economic and non-financial scores show Grove Lane to be the preferred option by a margin of circa 10% compared with Option 2, City Site Redevelopment.

Health Economic Benefits Assessment

1.7.13 In 2011 the Trust undertook an exercise to quantify selected non-financial external health and regeneration benefits for the Do Nothing, Do Minimum and Grove Lane options.

1.7.14 The analysis was reviewed in February 2014 and concluded that the Option 4 Net Present Value is circa 1% favourable to Option 2. This is strengthened to 4% of Net Present Value once regeneration benefits are taken into account.

1.7.15 It also demonstrates that sufficient health and regeneration benefits are delivered to offset the additional net present costs incurred compared with either a Do Nothing or Do Minimum options.

Conclusion of Economic Case

1.7.16 There have been no changes in the underlying assumptions to this assessment since the OBC and therefore this analysis remains valid.

1.7.17 This review and refresh of the economic case reconfirms the original conclusion that Option 4: Grove Lane is the appropriate preferred option.

1.8 The Procurement Route

1.8.1 The Trust has procured the Midland Metropolitan Hospital through the Government's new approach to the delivery of private finance into public infrastructure and services - Private Finance 2 (PF2). The OBC demonstrated this procurement route to be better value for money than using a public sector approach.

1.8.2 The Trust followed the Competitive Dialogue procedure to develop high quality solutions that will meet the Trust's requirements and provide best value for money. This approach complies with European procurement law.

The Single Bidder Situation

1.8.3 The Invitation to Participate in Dialogue was issued to three bidders following the pre-qualification process. However, one bidder (Balfour Beatty) withdrew immediately after issue.

1.8.4 Although Momentum Healthcare (Laing O'Rourke/Interserve) engaged in the early part of dialogue it did not submit a response by the interim submission deadline and was therefore was deemed to have withdrawn.

1.8.5 This left Carillion (The Hospital Company) as a single remaining bidder.

1.8.6 This presented the Trust with both a challenge and an opportunity:

- The lack of competition could have compromised the ability to improve the quality of the bid at Preferred Bidder and prevented the Trust from securing the best possible value for money;
- However, there was an opportunity to de-risk the programme by bringing Financial Close earlier, thus making the October 2018 hospital operational date more viable and enabling better value for money.

1.8.7 Although continuing with the PF2 procurement with a single bidder was legal, on 16 January 2015 the Trust Board reassessed which procurement options would best achieve its objectives and secure a value for money solution.

1.8.8 The option of re-procuring via Private Finance 2 was discounted given that this would be likely to result in a similar or worse outcome. The market appetite was unlikely to have improved significantly so recently after the current procurement. Therefore, in reappraising the procurement route, there were two main options available for the Trust, either to:

- Abort the existing procurement and re-procure with a conventional public sector approach such as ProCure 21+ (assuming that the Trust would purchase the Interim Bid design from The Hospital Company); or
- Continue with PF2 with additional measures to mitigate against the potential implications of a single bidder scenario.

1.8.9 The Trust tested which of the above two procurement routes was the best means of the Trust achieving its strategic objectives as summarised in the table below.

Table 8: Option Evaluation - PF2 versus P21+

Criteria	PF2	P21+

Criteria	PF2	P21+
Quality of solution	Current solution evaluated as compliant and 'above the line' with plan in place to address Trust's 'red issues'. PF2 contract incentivises private sector to deliver integrated design which takes account of lifecycle and is inherently more efficient to run.	Reasonable to expect that the solution would be 'above the line'. Trust takes risk on functionality, on-going maintenance and fabric of the building. Therefore incumbent on Trust to integrate the design with lifecycle considerations.
Delivery timescales	Operational by October 2018	Operational by October 2019
Affordability	Affordable with overall Continuity of Service Risk Rating (CSRR) of 4 and £11m surplus forecast in 2020-2021	Affordable with overall CSRR of 4 and £8.3m surplus forecast in 2020/21
Risks	The Trust may not be able to drive the quality of the solution to the extent that would have been possible under on-going competition. However, the bid is currently 'above the line' and resolution of the outstanding areas of concern would be a condition of continuing the procurement. The Trust may not be able to secure and demonstrate that it has the best price. However, this would be largely mitigated through the additional measures proposed. There is a risk of the single bidder withdrawing/failing to provide a compliant bid. This is assessed as low given that the bidder already has sunk bid costs of £1.9m and is expecting to commit a further £3.8m before Financial Close.	There is a risk that the Trust would not secure the necessary public funding. There is a risk that more time would be required to address the design issues in the exemplar design, adding further delay, if the Trust did not buy the design from The Hospital Company. There is a risk that the construction programme would take longer than the assumed 31 months due to the lack of competitive pressure. Clearly the Trust would have the risk of the functionality and availability of the hospital and the on-going maintenance. However, this has been priced into the VfM comparison below. There is a risk of needing to pay bid costs to the current bidder which is circa £1.9m. It is expected that the bidder would claim for costs given that its bid is compliant.
VfM	A quantitative analysis shows that the PF2 option is 19.1% better value for money than the P21+ option. The PF2 option has a total risk adjusted NPV of £366m.	A quantitative analysis shows that the PF2 option is 19.1% better value for money than the P21+ option. The P21+ option has a total risk adjusted NPV of £434m.

1.8.10 The Trust Board determined that it was in the Trust's best interests to continue the existing procurement with some additional mitigation to counter the issues described above. These mitigations were to drive quality, control cost and thereby safeguard value for money.

1.8.11 The Department of Health and HM Treasury were closely involved in the development and approval of the single bidder conditions. The Trust set out the additional requirements of the bidder in procurement documentation which was approved by the DH and accepted by the bidder.

1.8.12 The assessment at OBC confirmed that both quantitatively and qualitatively it was better value for money to procure the Midland Metropolitan Hospital via PF2. A reassessment, taking into account the factors that have subsequently changed has reaffirmed this position.

1.8.13 In particular, the value for money of PF2 improved considerably during the procurement, mainly due to more favourable funding terms offered by funders and the underlying market rate. A sensitivity analysis confirmed that PF2 was likely to remain better value for money against a range of potential future scenarios.

1.9 Project Scope

1.9.1 The scope of the project includes:

- Development of a new acute hospital on a 'brownfield' site at Grove Lane which is now owned by the Trust;
- A design which responds to the Trust's design vision and clinical functionality as set out in the Functional Brief for Bidders at initiation of the procurement;
- A hard facilities management service to maintain the fabric of the hospital buildings and estate and ensure their lifecycle replacement for the duration of the contract;
- The elective and minor maintenance services as specified in the draft contract at OBC stage;
- The same equipment classifications and responsibilities for installation as agreed at OBC – equipment management services continue to be outside the Private Finance 2 contract;
- A single integrated IM&T network delivering wired and wireless coverage to agreed criteria at completion and at the operational stage as agreed at OBC; and
- The same expectation for environmental sustainability and minimising energy costs as well as for supporting local regeneration.

1.9.2 As specified in the OBC, the scope still excludes:

- Soft facilities management services; and
- Retail management (including retail catering).

Scope changes since approval of the Outline Business Case in July 2014

1.9.3 The Trust has increased the scope of the scheme to include Automated Guided Vehicles (AGVs). The Hospital Company will provide the infrastructure and the 9 AGVs.

1.9.4 Site remediation was included in the scope of the PF2 procurement at OBC. This has subsequently been removed and the Trust will procure directly, except for the site perimeter (estimated at £1.5m) which will be the responsibility of the Hospital Company.

1.9.5 Active IM&T infrastructure was excluded from the PF2 procurement at OBC but has subsequently been included.

1.10 Procurement Strategy

1.10.1 The procurement strategy presented in the OBC was for a structured and transparent Competitive Dialogue process, in line with underpinning regulations, to achieve the best outcome for the Trust without incurring unnecessary bid costs.

1.10.2 The draft Project Agreement was based on Department of Health Standard Form with subsequent amendments, including for the change to Private Finance 2 (PF2), and it was tailored for the specific elements of this project. This alignment remained in place throughout the procurement process.

1.10.3 The Trust submitted a 'Generic' ABC based upon a Draft Final Bid in April 2015. Approval of the Generic ABC enabled the Trust to 'Close Dialogue' with the bidder in July 2015.

1.10.4 The Trust submitted a 'Specific' ABC based upon a Final Bid in July 2015. Approval of the Specific ABC enabled the Trust to appoint 'Preferred Bidder' in August 2015.

1.10.5 Delivery of the project under PF2 required that there were two separate Funding Competitions. The first was used to identify the Third Party Equity Provider and the second was used to appoint the Senior Debt Provider. The equity funding competition was held prior to appointment of Preferred Bidder and the Senior Debt competition was held at the Preferred Bidder stage.

1.10.6 A CBC was submitted in October 2015, following conclusion of the funding competitions and the granting of planning permission. Approval of this enabled the Trust to achieve Financial Close in December 2015.

Single Bidder Treatment

1.10.7 In order to drive quality, the Trust required that:

- All concerns identified at the evaluation of the Interim Bid submission were addressed early in Competitive Dialogue Stage 4; and
- The quality scoring achieved at both draft final and final bids matched or exceeded that achieved at the Interim Bid submission.

1.10.8 The Trust created a new metric of 'cost per benefit points' from The Hospital Company's interim submission. This is a product of the Net Present Value of the unitary payment and an assessment of the quality scored at bid evaluations. The Trust required that this metric improved at each subsequent bid.

1.10.9 The approach to ensuring that costs were competitive was to request that The Hospital Company demonstrated what level of market testing was possible without delaying Financial Close. 78% of the value of the construction packages were required to be market tested using the following methods:

- True market lump sum;
- True market test rates;
- Subcontractor target cost / budget estimates;
- Quality/capability evaluation with all in rate for sample scope of works; and
- Market testing of rates using other schemes and adjusting for inflation.

1.10.10 For each method, two or three suppliers were approached to provide a cost. As the scheme developed from the Draft Final Bid submission (April 2015) to the Final Bid submission (July 2015) an increasing number of work packages were subjected to a rigorous approach, resulting in The Hospital Company demonstrating that at least 83% of the construction cost had been tested. The Trust's cost advisor used a range of measures to support this process of mitigating the loss of competition within the PF2 procurement process.

Overview of Pre-Qualification Questionnaire (PQQ) and Bids

1.10.11 A summary of the PQQ and Bids is shown at the table below:

Table 9: Summary of PQQ and Bids

PQQ / Bid	Purpose	Submission date
PQQ	To enable shortlisting of bidders on the basis of capacity and capability to deliver	September 2014
Interim Bid	To enable shortlisting from 3 to 2 bidders. Approximately 50% of the design developed at 1:200	December 2014
Draft Final Bid	To ensure that ready to Close Dialogue. 1:200 design developed throughout with significant design at 1:50.	April 2015

PQQ / Bid	Purpose	Submission date
Final Bid	To enable selection of 1 of 2 bidders prior to appointment of Preferred Bidder	July 2015

Interim and Draft Final Bids

1.10.12 Both the Interim Bid submission (December 2014) and Draft Final Bid submission (April 2015) were assessed by the Trust as compliant.

Final Bid

1.10.13 A satisfactory evaluation of the Final Bid was required to determine whether the Trust was ready to Appoint Preferred Bidder.

1.10.14 A Final Bid was received on 17 July 2015. It was evaluated by the Trust's Evaluation Teams and reviewed by the Trust's Evaluation Moderation Committee.

1.10.15 Each Bid Deliverable was assessed using the scoring structure presented in the table below.

1.10.16 The Trust evaluated the Bidder through the application of the evaluation criteria, scoring and weightings set out below. The Competitive Dialogue Stage 3 section weightings were carried through to Competitive Dialogue Stage 4 and 5 so that a direct comparison of the scores from interim submission to Draft Final and Final Bid could be made.

1.10.17 The bid was compliant in terms of quality scores because it achieved an overall score of more than 50% and had no questions scored as 1 (unacceptable).

1.10.18 The overall weighted score of 83.46 positioned the Bid above 'good' (83.33). There were significant improvements since the Draft Final Bid across M&E and Design Vision Scores and some improved Clinical scores. No deliverables were scored as poor (50.0) or below.

Price Compliance of Final Bid

1.10.19 The reference model that was evaluated included an assumption that there would be a capital contribution of £100m. This was subsequently reduced to £97.2m in order to accommodate the funding of the public sector equity.

1.10.20 The Bidder's Final Bid proposed a first year UP of £22.272m and a NPV of the UP over the operating period of £265.477m. The Bidder therefore complied with the price hurdles of £22.295m and £265.5m respectively.

Final Bid Adherence to Single Bidder Mitigation Requirements

1.10.21 The Bidder complied with all of the single bidder mitigations.

Standard Form Compliance

1.10.22 The Project Agreement and Schedules are compliant with HM Treasury's Standardisation of PF2 Contracts. Since this is the first hospital project to be procured under the PF2 model, the documents were worked up in close consultation with the Department of Health and HM Treasury.

Technical Due Diligence Draft Stage Two Report

1.10.23 The Due Diligence Advisors' Draft Stage Two technical review of the Project Agreement and the Final Bid demonstrated satisfactory findings. No issues were identified which would prevent the scheme being funded.

Appointment of Preferred Bidder

1.10.24 Approval of the ABC was a pre-requisite to the Trust appointing Preferred Bidder. The Trust also required approval from the Department of Health to the Preferred Bidder letter, prior to it being issued. Both of these approvals were secured and the Trust appointed Preferred Bidder on 7 August 2015.

Approach to Funding Competitions

1.10.25 One of the most significant changes under Private Finance 2 is the approach to the equity funding and ownership and make-up of the Special Purpose Vehicle/Project Co. A proportion of the equity is offered to the market in order to test market pricing and potentially secure a lower blended equity return. In addition, the public sector (Infrastructure UK) also takes a proportion of the equity under the same pricing and conditions as the selected equity funder.

1.10.26 The equity funding competition would normally take place post Preferred Bidder. However, as a result of the single bidder status, the Trust was able to undertake much of the discussions, evaluation and selection of funders concurrently with the procurement, thus accelerating the funding process.

1.10.27 The equity share of the SPV is as follows:

- Preferred Bidder: 50%
- 3rd Party Equity provider: 40%
- Infrastructure UK: 10%

1.10.28 This split was determined to be sufficiently attractive to the market in terms of scale, but also maintained the appropriate balance of control and input for each party.

1.10.29 The Due Diligence Advisors were novated to the Preferred Bidder following approval of the ABC to enable preparation for the Senior Debt Funding Competition.

1.10.30 The Preferred Bidder ran a funding competition for the senior debt element of the project. This was undertaken on an 'open book' basis and overseen by the Trust, its advisors and the Department of Health/Infrastructure UK. The Preferred Bidder selected and recommended the winning funders on a 'best value' basis in line with the agreed criteria and the Trust confirmed this selection.

Planning Permission

1.10.31 The Bidder submitted full planning application in advance of appointment of Preferred Bidder.

1.10.32 Full Planning Approval was granted on 23 September with expiration of the judicial review period due on 6 November 2015, prior to Financial Close.

1.11 The Bidder Solution

1.11.1 This section outlines the solution developed by The Hospital Company and the Trust.

Design Vision

1.11.2 The design proposals fully support and enhance the Trust's design vision values (unchanged since OBC) which are for the Midland Metropolitan Hospital to be:

- Inspirational, attractive and imaginative;

- Welcoming;
- Reassuring;
- Light and airy;
- Clean without being clinical;
- Sympathetic to the environment;
- Fully accessible;
- Supportive to privacy and dignity; and
- A good place to work.

1.11.3 The Hospital Company has worked closely with the Trust to develop a hospital design which is characterised by:

- A clear, simple and legible building form which maximises the use of natural daylight.
- A building which focuses on the delivery of acute care only, concentrating staff specialist care on the acutely unwell.
- A building where there is clear separation of flows between staff, public and facilities management functions.
- A strong external landscaping strategy which looks to tie in with the existing features around the site such as the canal.
- A building which utilises the topography of the site to create safe and secure parking for staff and visitors without cluttering the external views.
- A central circulation floor which is visible from the outside as well as the inside.
- A building which looks to minimise travel distances for both patients and staff vertically and horizontally.
- Internal spaces which are clear, simple and in clinical areas repetitive allowing staff to work more efficiently.
- A building which induces civic pride.
- A building which utilises natural boundary lines allowing the public and the wider community to free flow across the external spaces.

1.11.4 Central to the design is *The Green* which will provide the building with a vibrant, landscaped setting and the *Winter Garden* which will form a highly visual and active main circulation floor.

1.11.5 The hospital sits on a main gateway site and, with its elevated position, will create a prominent feature against the skyline. Despite the size and massing of the building from a distance, the use of a variety of carefully selected, high quality materials and the change in form created by the ward floor plates means that on closer inspection the building will be less overpowering and its individual elements will be visible giving it a more reassuring and welcoming feel.

1.11.6 The figure below presents the design that has been developed.

Figure 2: MMH within a Landscaped Setting

1.11.7 The Winter Garden will provide much of the natural daylight into the ward spaces.

1.11.8 The Hospital Company has developed a solution which removes visitor parking from view, and places it all in a well-lit, secure and undercover location beneath the hospital. It provides easy access to the lifts, along with drop off, and is immediately adjacent to the hospital entrance and the main circulation hub.

Clinical Involvement

1.11.9 The clinical design has been informed by comprehensive clinical engagement right from the beginning when clinical groups supported development of the brief (operational policies – Planning, Policy and Design Description), Public Sector Comparator (PSC), Architecture Design Review exemplar and the Competitive Dialogue process. The development of the brief involved circa 35 clinical leads with involvement from their wider teams whilst circa 100 clinical staff participated in the PSC and exemplar design. During Competitive Dialogue circa 60 clinical and operational leads have been involved in the formal boot camp design meetings including assessing drawings and proposals in preparation for evaluation of submissions.

Adjacencies, Flows and Generic Design

1.11.10 Clear separation of the public, ambulatory patients, inpatients and goods from the point of entering the hospital until the entrance into departments has been achieved. This promotes privacy and dignity for patients and the public.

1.11.11 Strong clinical adjacencies will support smooth patient pathways, especially for emergency and acute patients. There will be two podium floors which have co-located hot clinical areas to best facilitate acute patient and clinical staff flows.

1.11.12 Careful consideration has been given to meet the Trust's standards for bariatric care to meet the needs of the local community.

1.11.13 In addition to the isolation provision The Hospital Company has designed a high level of separation of clean and dirty flows in clinical departments to support effective infection control.

1.11.14 The Hospital Company has developed a robust approach to security in line with the Trust Brief.

1.11.15 Where clinically possible a generic design has been used for clinical accommodation to facilitate future change in use. For example: adult inpatient wards having a generic design and layout facilitates future flexibility in terms of which specialties can be accommodated in wards.

1.11.16 Internal strategically embedded soft expansion space has been included within or adjacent to key clinical departments to allow for future localised expansion or change of use. Flexibilities in operational practice have also been defined that could facilitate additional capacity in future.

1.11.17 The generic adult inpatient ward design provides 50% single bedrooms and 50% of beds in four bed bays. This meets the feedback received from patients in terms of having a choice of single rooms or four bed bays. The design will allow excellent observation into all bedrooms through the use of touch down spaces and viewing panels. This will allow patients good observation of staff and the corridors as well as facilitating staff to monitor and support groups of four or eight beds in line with agreed staffing ratios.

Construction

1.11.18 The construction programme includes a two month period of advance works prior to Financial Close for site set up works and accommodation, cut and fill to create formation levels and laying of the piling mat to allow piling works to commence immediately post Financial Close.

1.11.19 The overall construction period is for 33 months and includes beneficial access for the Trust to install and commission equipment and IT services.

1.11.20 The building is designed to support a fast track construction by using pre-cast frame for the podium levels with a steel frame for the ward levels which allows both speed of construction and design flexibility. The plan is for multiple work areas to be created to allow parallel working to keep the construction programme as short as is practicable, bearing in mind this hospital will be one of the shortest build programmes in the UK.

Facilities Management

1.11.21 The approach to soft facilities management services has not changed since OBC and does not therefore form part of the scope of the contract. The Trust will, in 2018, have two private finance buildings – the Midland Metropolitan Hospital and the BTC – as well as retained estate at City, Sandwell, Rowley Regis Hospitals and Leasowes. It is crucial that a consistent standard of service is offered across the organisation.

1.11.22 Since the OBC, the Trust has included the provision of Automated Guided Vehicles (AGVs) in the scope of the scheme. These will improve the movement of goods and waste within the MMH and enable a more productivity way of working.

Derogations

1.11.23 A number of derogations from Health Building Notes (HBN) and Health Technical Memoranda (HTM) have been proposed and accepted within the design. Some of the derogations are as a direct result of an innovative design, which provides other operational and functional benefits. In some instances the design exceeds the Trust's brief and HBNs.

1.11.24 The Trust has worked closely with the approval bodies to identify where derogations exist and confirm that they are acceptable to both the Trust Board and its external stakeholders. An independent review of the design and derogations has been undertaken and an internal derogations assurance process is underway, which is due to be complete prior to CBC approval.

1.12 Affordability

Key Changes Since OBC

1.12.1 The Trust's LTFM has been updated to reflect the following key changes since the OBC:

- Public Dividend Capital contribution reducing to £97.2m;
- The Unitary Payment reducing to £20.501m, following the funding competitions and the overall improvement in market terms;
- A revised phasing of land disposals that were previously planned for after 2024 are now scheduled in phases, commencing in 2018/2019 and releasing a contribution of £6m. Approval bodies have agreed that land receipts up to £16m will go to the Trust to fund the above investment; and
- Updated assessment of retained estate development bringing forwards £6m of investment; and
- The forecast surplus being increased to £5.0m for 2015/16 only.

Key Messages

1.12.2 The Trust retains the affordability ceiling of £27m as per the Outline Business Case (OBC) and remains affordable as demonstrated by the consistent achievement of Continuity of Service Risk Rating (CoSRR) Level 3 ratings across the period of the LTFM. Estates costs are also consistently within the 12.5% test limit.

1.12.3 The first full year unitary payment (2019/20) is now at £20.501m in nominal terms. This reflects updated funding terms and represents a significant improvement on the unitary payment at OBC of £27m.

1.12.4 The beneficial headroom created between the affordability ceiling and expected unitary payment since OBC is held as contingency.

1.12.5 The Trust delivered a 2014/15 surplus ahead of plan and plans to deliver a surplus of £5m in 2015/2016.

1.12.6 The downside case stress tests the plan including years impact bias. Mitigation identified demonstrates that affordability withstands the stress test with the impact of a reduction to CoSRR Level 2 in the first two years of operation.

1.12.7 The scheme is aligned with commissioner plans including Better Care Fund aspirations and remains consistent with Right Care Right Here (RCRH) strategies.

1.12.8 Whilst contracted income for 2015-2016 has been agreed with commissioners at a higher level than was projected at OBC, future years realign with the OBC trajectory.

1.12.9 The cost improvement programme is consistent with national efficiency requirements reflecting assumptions of cost inflation and price deflation. The additional net investment in the scheme is the equivalent of circa one additional year of that efficiency and is specifically enabled by delivery of the RCRH service changes. The scale of opportunity for operational productivity and service transformation driven cost change is consistent with that required to underpin scheme affordability.

1.12.10 The case includes necessary and sufficient investment in key enabling and supporting infrastructure and specifically informatics including EPR, retained estate and medical equipment. Fixed imaging equipment investment is assumed to be delivered through a Managed Equipment Service Contract. The revenue costs are reflected in full in the LTFM supporting the case.

Key Assumptions

1.12.11 A coherence of top line income, revenue surpluses, capital investment and balance sheet management consistent with sustaining a CoSRR Rating Level 3 and providing for meaningful downside mitigation.

1.12.12 The financial planning parameters also include a necessary and sufficient non-PF2 internal capital programme covering MMH equipment and refurbishment of the buildings that will become the Trust's community facilities. A Managed Equipment Service contract provides for that investment necessary in fixed imaging equipment.

1.12.13 The financial models and assumptions used in support of the LTFM derive much of their input from the RCRH activity trajectories which are integrated with the Trust's operational plans. Coherence with RCRH principles and strategies has been reviewed and confirmed. The case confirms the approach to the build-up of a reserve. This reserve is applied non-recurrently in the period to new hospital commissioning to enable transformation and then to underpin payment of the UP. By utilising these resources on a non-recurrent basis the Trust will be able to fund any additional costs during the transition. From 2018-2019 the costs associated with the MMH, and in particular the PF2 unitary payment, are included within the model and are funded from within internally generated sources.

1.12.14 The LTFM demonstrates that the MMH is recurrently affordable and that the overall Cost Improvement Programme (CIP) requirement is marginally greater than current Monitor CIP assumptions.

The Cost Improvement Programme (CIP)

1.12.15 The scale of the CIP is driven principally by national efficiency requirements reflecting assumptions of cost inflation and price deflation and not the additional costs of MMH. Even without MMH, the Trust would need to deliver the significant savings expected of providers across the NHS. The additional net investment in the scheme is the equivalent of circa one additional year of that efficiency and is specifically enabled by delivery of the RCRH service changes. The Trust contends that the scale of opportunity for operational productivity and service transformation driven cost change is consistent with that required to underpin scheme affordability.

1.12.16 The CIP is presented in the table below showing the additional savings to be achieved year on year:

Table 10: Cost Improvement Programme

CIP savings by year and type, 2014/15 to 2024/24 Value at 2014/15 prices (£m)	2014/15 (£m)	2015/16 (£m)	2016/17 (£m)	2017/18 (£m)	2018/19 (£m)	2019/20 (£m)	2020/21 (£m)	2021/22 (£m)	2022/23 (£m)	2023/24 (£m)
Pay - Consultants	1.4	0.6	0.6	0.6	0.6	1.0	0.6	0.6	0.6	0.6
Pay - Junior Medical	0.1	1.2	1.0	1.1	1.1	0.9	1.3	1.3	1.3	1.3
Pay - Nursing, Midwifery and Health Visitors	2.2	3.1	2.6	2.9	2.9	3.5	1.8	1.8	1.8	1.8
Pay - Other Clinical	0.0	0.6	0.3	0.6	0.6	0.7	0.3	0.3	0.3	0.3
Pay - Community Nursing, Midwifery and Health Visitors	0.1	1.1	1.0	1.0	1.0	0.9	1.4	1.4	1.4	1.4
Pay - Scientific, Therapeutic and Technical	0.8	2.3	1.9	2.1	2.1	1.8	1.7	1.7	1.7	1.7
Pay - Non Clinical	2.8	4.6	3.8	4.2	4.2	3.9	3.6	3.6	3.6	3.6
Pay - Agency (Consultants)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Junior Medical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Nursing, Midwifery and Health Visitors)	2.0	1.9	1.7	2.5	0.8	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Scientific, Therapeutic and Technical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Non Clinical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - TOTAL	9.4	14.9	13.3	15.0	13.4	11.8	10.7	10.7	10.7	10.7
Non Pay - Drugs	0.1	1.2	1.2	1.0	1.0	0.8	1.0	1.0	1.0	1.0
Non Pay - Clinical Supplies and Services	2.5	1.8	2.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0
Non Pay - General Supplies and Services	0.7	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Non Pay - Establishment Expenditure	0.6	0.5	0.3	0.5	0.3	0.3	0.1	0.1	0.1	0.1
Non Pay - Premises and Fixed Plant	1.3	1.0	0.5	1.0	0.2	0.3	0.1	0.1	0.1	0.1
Non Pay - CNST	0.7	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Non Pay - Other	0.1	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Non Pay - TOTAL	7.9	4.9	4.2	3.7	2.6	2.1	2.2	2.2	2.2	2.2
Income improvements contributing to TSP target	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL TSP savings at 2014/15 prices (£m)	20.6	19.8	17.5	18.7	16.0	13.9	13.0	13.0	12.9	12.9

Affordability

1.12.17 The scheme is affordable as demonstrated by the consistent achievement of CoSRR Level 3 ratings across the period of the LTFM. Estates costs are also consistent within the 12.5% test limit. The CoSRR in the base case PF2 LTFM is presented in the table below:

Table 11: Continuity of Service Risk Rating

CSRR in the base case PF2 LTFM		Forecast 2014/15	Forecast 2015/16	Forecast 2016/17	Forecast 2017/18	Forecast 2018/19	Forecast 2019/20	Forecast 2020/21	Forecast 2021/22	Forecast 2022/23	Forecast 2023/24
Liquidity ratio (days)											
	Current assets	62.5	48.2	45.9	96.8	150.3	66.5	63.4	54.0	55.3	60.3
	Inventories	3.2	3.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	PFI prepayments and assets held for sale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Current liabilities	-66.2	-52.5	-53.4	-50.6	-72.5	-58.5	-57.4	-51.0	-51.4	-51.8
	Days	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0
	Operating expenses	-415.5	-410.0	-409.9	-412.0	-406.4	-412.5	-420.5	-433.1	-444.1	-457.5
	Fully committed Working Capital Facility	-	-	-	-	-	-	-	-	-	-
	Derivatives and embedded financial assets	-	-	-	-	-	-	-	-	-	-
	Liquidity ratio (days) - opening liquidity	**-6.0**	**-6.8**	**-9.4**	**39.4**	**66.1**	**4.1**	**2.4**	**-0.3**	**0.5**	**4.1**
Capital servicing capacity (times)											
	Interest payable (-ve)	-2.1	-2.1	-2.4	-1.9	-12.5	-15.9	-15.6	-15.8	-15.4	-15.0
	Debt repayment (-ve)	-3.0	-2.0	-1.3	-0.9	-104.6	-5.6	-5.5	-6.1	-5.6	-5.4
	PDC dividend (-ve)	-5.2	-6.0	-6.8	-7.0	-5.9	-5.7	-5.9	-6.2	-6.4	-6.7
	PDC repayment (-ve)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	EBITDA	25.2	26.3	28.2	29.8	40.0	41.0	41.5	42.3	42.6	43.2
	Interest receivable (+ve)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Surplus available	25.2	26.3	28.2	29.8	40.0	41.0	41.5	42.3	42.6	43.2
	Capital servicing capacity (times)	**2.4**	**2.6**	**2.7**	**3.0**	**0.3**	**1.5**	**1.5**	**1.5**	**1.6**	**1.6**
Scoring (uses opening liquidity)											
	Liquidity ratio score	**3**	**3**	**2**	**4**	**4**	**4**	**4**	**3**	**4**	**4**
	Capital servicing capacity score	**3**	**4**	**4**	**4**	**1**	**2**	**2**	**2**	**2**	**2**
	Overall Continuity of Service Risk Rating (CSRR)	**3**	**4**	**3**	**4**	**3**	**3**	**3**	**3**	**3**	**3**

1.12.18 The downside case stress tests the plan including with early years impact bias. Mitigation identified suggests that affordability stands that scrutiny with the impact of a reduction to CoSRR Level 2 in the first two years of operation.

1.12.19 The downside case is presented in the table below:

Table 12: Downside Case

ABC Downside: I&E Position	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case	**3.4**	**4.3**	**6.4**	**9.3**	**4.6**	**4.2**	**4.2**	**4.3**	**4.2**
Downside Case	(7.7)	(12.4)	(16.7)	(21.1)	(25.5)	(29.9)	(33.9)	(37.3)	(41.3)
Revised Downside I&E Position	**(4.3)**	**(8.1)**	**(10.3)**	**(11.8)**	**(20.9)**	**(25.8)**	**(29.7)**	**(32.9)**	**(37.1)**
Mitigation Case	7.2	10.7	18.3	15.2	25.7	29.8	32.7	36.7	40.0
Net Impact of Interest and Inflation	0.1	0.1	0.1	(0.2)	(0.1)	0.1	0.1	(0.3)	(0.6)
Revised Mitigated I&E Position	**3.0**	**2.7**	**8.1**	**3.2**	**4.8**	**4.1**	**3.1**	**3.4**	**2.3**

ABC Downside: Cash Position	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case	**28.7**	**27.8**	**33.3**	**45.1**	**42.6**	**37.5**	**42.2**	**48.8**	**56.2**
Downside Case	(7.7)	(20.1)	(36.9)	(58.0)	(83.4)	(113.3)	(147.3)	(184.5)	(225.8)
Revised Downside Cash Position	**21.0**	**7.7**	**(3.5)**	**(12.8)**	**(40.9)**	**(75.9)**	**(105.0)**	**(135.7)**	**(169.6)**
Mitigation Case	7.9	18.6	37.1	52.5	78.6	108.5	141.2	177.9	217.7
Net Impact of Interest and Inflation	0.1	0.5	1.1	1.0	1.0	0.9	1.0	0.8	0.2
Revised Mitigated I&E Position	**28.9**	**26.8**	**34.7**	**40.7**	**38.7**	**33.5**	**37.2**	**42.9**	**48.4**

ABC Downside: Continuity of Service Risk Rating	2015/16 Year 1	2016/17 Year 2	2017/18 Year 3	2018/19 Year 4	2019/20 Year 5	2020/21 Year 6	2021/22 Year 7	2022/23 Year 8	2023/24 Year 9
Base Case - ABC	4	3	4	3	3	3	3	3	3
Downside Case - ABC	3	2	3	3	1	1	1	1	1
Mitigation Case - ABC	4	3	4	3	2	2	2	3	3
Mitigation Case - OBC	**3**	**4**	**4**	**3**	**2**	**2**	**3**	**3**	**3**

1.12.20 The case includes necessary and sufficient investment in key enabling and supporting infrastructure and specifically informatics including electronic patient record, retained estate and medical equipment. Fixed imaging equipment investment is assumed to be delivered through a Managed Equipment Service Contract. The revenue costs are reflected in full in the LTFM supporting the case.

1.12.21 The anticipated unitary payment reflects updated terms and represents a significant improvement on those at OBC. This case retains that improvement as affordability headroom.

1.12.22 The base case is predicated up on the provision of £97.2m of PDC investment as agreed with the NTDA and presented in the table below.

Table 13: Public Dividend Capital

	2016/17 £m	2017/18 £m	2018/19 £m	Total £m
PDC Drawdown	44.5	46.6	6.1	97.2

1.14 Management Case

Leadership and Project Management

1.14.1 The Chief Executive Officer (Senior Responsible Owner for this project) and Director of Finance and Performance both have considerable experience of delivering large Private Finance Initiative

schemes. The Trust's Chairman has significant experience in property management. This level of capability will ensure strong leadership for the project.

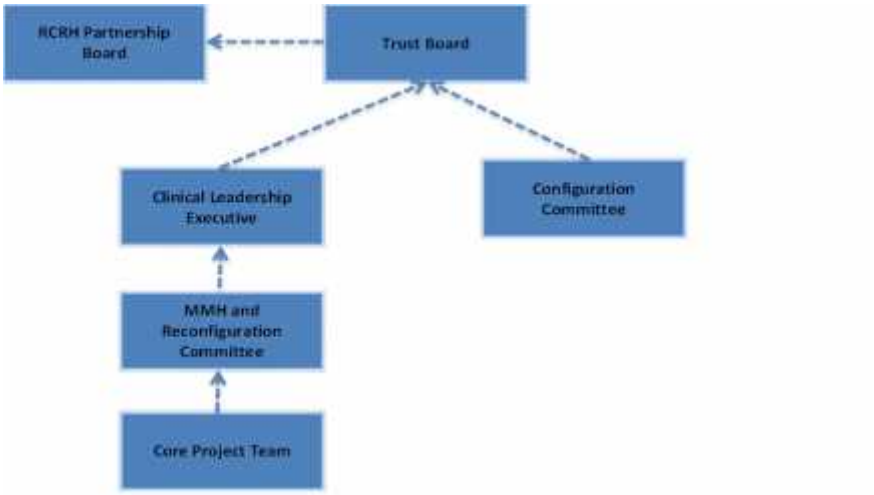
1.14.2 The Trust's in-house team also has significant experience of projects of this type and is supported by a team of external advisors who can build on learning from other successful schemes they have been involved in.

1.14.3 Four Gateway Reviews have been undertaken to date all resulting in a Green or Amber/Green outcome demonstrating the strong approach being taken to project management.

1.14.4 Strong governance has been put in place to ensure that the Trust Board, as investment decision maker, is assured that the proposals being made for the Midland Metropolitan Hospital and the intended procurement route represent a prudent, value for money and affordable course of action for the organisation.

1.14.5 The Governance Structure is presented in the figure below.

Figure 3: Governance Structure

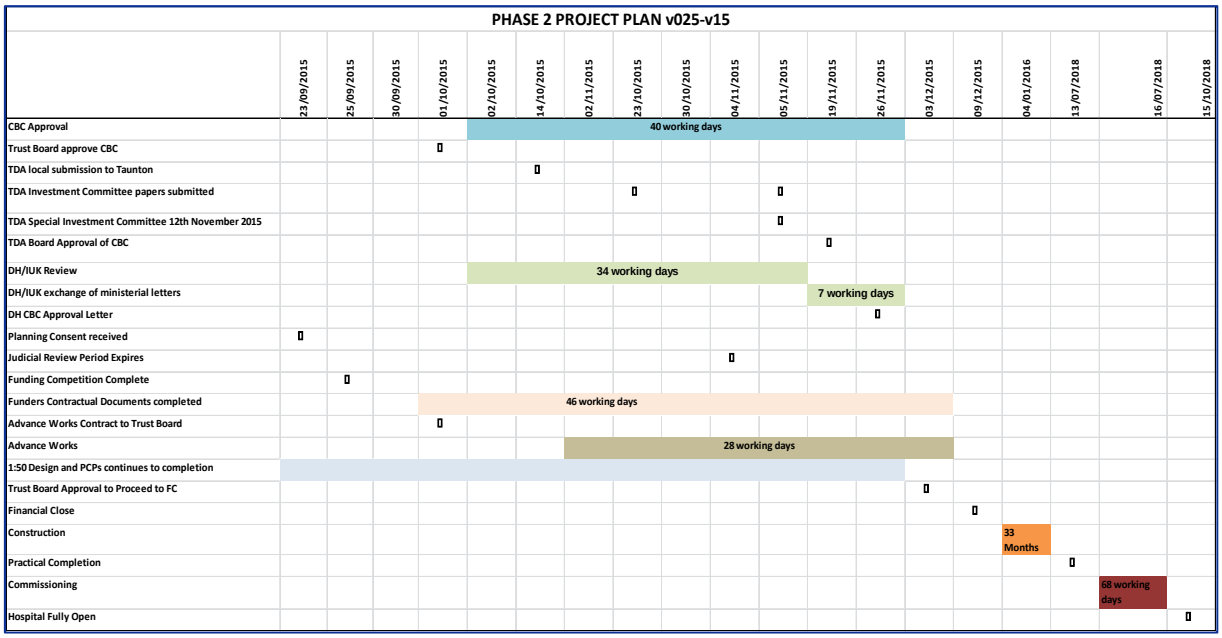


Project Plan and Timetable

1.14.6 The Single Bidder situation provided the opportunity to reduce programme risk by bringing Financial Close earlier, making the October 2018 hospital operational date more viable.

1.14.7 The figure below shows an overview of the key dates and steps to getting the Midland Metropolitan Hospital procured, built and opened.

Figure 4: Overview of the Steps to Opening the MMH in October 2018



1.14.8 The table below shows the key milestones that have been achieved and milestones to the Midland Metropolitan Hospital being operational.

Table 14: Key Milestones

Milestone	Date
OBC approved and OJEU Notice published	July 2014
Invitation to participate in dialogue issued	September 2014
Interim bid submission received	December 2014
Receipt of Draft Final Bids	April 2015
Submission of Generic ABC	May 2015
Approval of Generic ABC and Close Dialogue	July 2015
Receipt of Final Bid	July 2015
Submission of Specific ABC	July 2015
Approval of Specific ABC and Appointment of Preferred Bidder	August 2015
Full planning consent granted	September 2015
Submission of CBC	October 2015
Advanced works commence on site	November 2015
Approval of CBC	November 2015
Financial Close	December 2015
Commencement of main construction programme	January 2016
MMH handed over to Trust	July 2018
MMH operational	October 2018

1.15 Risk Management

1.15.1 The progress in the project has served to reduce the risk profile in the following areas:

- Both equity and debt funding competitions have concluded providing certainty regarding the cost of funding and UP;
- The site remediation to be undertaken by Carillion has been confirmed at a fixed price within the £1.5m of capital provided within the Final Bid model;
- The swap rate continues to remain within the required parameters. The LTFM retains a 50 basis point buffer to mitigate adverse movements in financial markets in the 10 weeks leading up to Financial Close;
- The programme risk, and therefore risk of cost escalation, has reduced given that the project remains on track to achieve Financial Close in December 2015;
- With less time until Financial Close, the risk arising from changes in the legal and regulatory environment has lessened.

1.16 Sustainability

1.16.1 Sustainability, regeneration and corporate citizenship are important aspects of the project. The work undertaken by The Hospital Company has strengthened the approach by providing a robust, measurable set of proposals to meet the Trust's specification.

1.16.2 Reducing the carbon footprint and energy consumption together with resulting emissions is of paramount importance to the Trust. A solution capable of achieving energy consumption of not greater than 42GJ/100m^3 is required.

1.16.3 The BREEAM (Building Research Establishment Energy Assessment Model) assesses many criteria including sustainability management; waste from construction and in use, water, materials and transport. The mandated score of Excellent will drive out a fully comprehensive sustainability package including the reduction of admissions.

1.16.4 The Midland Metropolitan Hospital will make a positive difference to the development of Birmingham and Sandwell's local communities, enabling them to further thrive and prosper through a Supply Chain and Employment Framework.

1.16.5 The Hospital Company has great experience in creating employment and skills opportunities. 80% of construction expenditure will be local within the East and West Midlands and 70% of expenditure will be in the 'B' postcode. Coupled with the Trust's understanding of the needs of local communities, the project will make a significant and positive contribution to the region's economic regeneration.

1.16.6 An equality impact assessment concluded that some frail and elderly patients/members of the public would have further to travel to the new hospital. This is addressed in the transport strategy which has been agreed with the RCRH Programme Board.

1.17 Workforce

1.17.1 The Trust's Workforce and Organisational Development Strategy is underpinned by an affordable Long Term Workforce Model (LTWM), a Workforce Change Plan and effective change management arrangements.

Long Term Workforce Model

1.17.2 The LTWM presented in the table below is aligned to the LTFM which has top down workforce assumptions aligned to activity and income.

Table 15: Long Term Workforce Model

		Outturn 2014/15 Wte	Plan 2015/16 Wte	Forecast 2016/17 Wte	Forecast 2017/18 Wte	Forecast 2018/19 Wte	Forecast 2019/20 Wte	Forecast 2020/21 Wte	Forecast 2021/22 Wte	Forecast 2022/23 Wte	Forecast 2023/24 Wte
BASELINE inc RCRH Change & CIP											
Pay - Consultants		289.2	289.2	289.7	290.0	290.8	291.6	293.5	299.3	302.0	304.5
Pay - Junior Medical		500.8	476.6	476.3	476.0	473.4	470.7	471.0	471.1	471.3	471.5
Pay - Nursing, Midwifery and Health Visitors		1,789.7	1,759.7	1,734.5	1,696.7	1,664.4	1,635.0	1,661.0	1,677.8	1,691.9	1,706.2
Pay - Community Nursing, and Health Visitors		473.4	465.5	472.9	482.8	495.9	505.0	513.1	519.6	536.7	544.0
Pay - Scientific, Therapeutic and Technical		1,131.7	1,078.7	1,088.9	1,097.3	1,108.5	1,129.8	1,144.9	1,156.7	1,169.4	1,180.6
PAY - OTHER CLINICAL		683.2	671.8	666.7	649.2	640.3	660.5	668.8	674.0	679.7	684.9
Pay - Non Clinical		2,127.3	1,980.0	1,978.2	1,972.5	1,903.7	1,834.1	1,829.7	1,834.3	1,840.0	1,845.1
Agency		240.0	240.0	227.1	205.7	188.8	195.6	197.1	192.3	193.6	195.1
Sub Total		*7,235*	*6,962*	*6,934*	*6,870*	*6,766*	*6,722*	*6,779*	*6,825*	*6,885*	*6,932*
Repatriation & Community Developments											
Pay - Consultants		-	2	3	3	4	6	7	8	9	10
Pay - Junior Medical		-	3	5	6	7	10	13	14	16	17
Pay - Nursing, Midwifery and Health Visitors		-	34	86	156	204	288	365	426	498	574
Pay - Community Nursing, and Health Visitors		-	-	-	-	-	-	-	-	-	-
Pay - Scientific, Therapeutic and Technical		-	12	18	19	22	33	42	46	47	47
PAY - OTHER CLINICAL		-	-	-	-	-	-	-	-	-	-
Pay - Non Clinical		-	4	5	6	6	9	12	13	13	13
Agency		-	-	-	-	-	-	-	-	-	-
Sub Total		-	55	117	190	244	347	439	508	582	661
CIP Impact											
Pay - Consultants		-	- 0	- 1	- 2	- 2	- 3	- 3	- 4	- 5	- 5
Pay - Junior Medical		- 24	- 12	- 22	- 33	- 44	- 53	- 66	- 79	- 92	- 105
Pay - Nursing, Midwifery and Health Visitors		- 30	- 48	- 88	- 132	- 176	- 214	- 241	- 269	- 296	- 323
Pay - Community Nursing, and Health Visitors		- 8	- 17	- 31	- 46	- 62	- 75	- 96	- 117	- 138	- 159
Pay - Scientific, Therapeutic and Technical		- 53	- 36	- 66	- 99	- 132	- 160	- 187	- 213	- 239	- 266
PAY - OTHER CLINICAL		- 11	- 24	- 44	- 66	- 88	- 107	- 120	- 133	- 145	- 158
Pay - Non Clinical		- 147	- 103	- 188	- 282	- 376	- 457	- 537	- 617	- 697	- 777
Agency		-	- 20	- 55	- 105	- 125	- 125	- 125	- 125	- 125	- 125
Sub Total		- 274	- 260	- 495	- 765	- 1,005	- 1,195	- 1,376	- 1,557	- 1,738	- 1,919
Net Trust Wide Position											
Pay - Consultants		289	290	291	292	293	295	298	304	306	309
Pay - Junior Medical		477	467	459	449	437	428	418	406	395	383
Pay - Nursing, Midwifery and Health Visitors		1,760	1,746	1,733	1,720	1,692	1,709	1,784	1,835	1,894	1,957
Pay - Community Nursing, and Health Visitors		466	449	442	437	434	430	417	402	398	385
Pay - Scientific, Therapeutic and Technical		1,079	1,055	1,040	1,018	999	1,002	1,000	989	976	962
PAY - OTHER CLINICAL		672	648	623	583	552	554	549	541	534	527
Pay - Non Clinical		1,980	1,881	1,795	1,696	1,534	1,386	1,305	1,230	1,156	1,081
Agency		240	220	172	101	64	71	72	67	69	70
Net Position	*7,221*	6,962	6,757	6,556	6,295	6,004	5,875	5,842	5,776	5,729	5,674
ABC Annual Movement		- 260	- 205	- 201	- 261	- 291	- 130	- 32	- 67	- 47	- 54
ABC Cummulative Movement		- 260	- 465	- 665	- 926	- 1,217	- 1,347	- 1,379	- 1,445	- 1,493	- 1,547

1.17.3 The model is consistent with the OBC trajectory reducing the workforce by 1,347 WTEs (against a 1,367 reduction within the OBC) between March 2014 and March 2020.

The Workforce Change Plan

1.17.4 It should be noted that the reduction in pay bill required is principally driven by the need to meet the national efficiency requirement, not the additional costs of MMH. There will be no revenue costs associated with MMH until 2018 and thus no pay bill reductions are due to MMH. Beyond 2018, many of the pay bill savings will be possible as a result of the planned reconfiguration of services.

1.17.5 The Trust has already made good progress in delivering the Workforce Change Plan set out in the OBC. Since OBC approval the Trust has:

- Successfully delivered the first wave (April 2014 – March 2015) of the Safe and Sound workforce change programme resulting in a reduction of 260 WTE;
- Launched the second wave of workforce change with the aim of achieving a reduction of 205 posts between April 2015 and March 2016;
- Made good progress in re-configuring existing services and developing more detailed plans for workforce changes to be delivered in 2016-2018 in readiness to work safely in the MMH; and
- Confirmed that clear safe staffing standards are currently in place and outlined plans to ensure that they will be maintained in 2018-2019.

1.17.6 The workforce planning approach has been to develop strategic workforce change themes grouped within the following three drivers:

- Activity and pathway driven changes in workforce;
- Productivity driven reductions in workforce; and
- Reduction in the cost per WTE, through the introduction of new roles with different skills required, creating a path for progression from a wider range of backgrounds.

1.17.7 The rationale for this structured approach is to avoid double counting pay cost savings across schemes and years and to ensure a coherent transition to the Midland Metropolitan Hospital is achieved. The table below outlines the approach.

Table 16: Workforce Change Plan

Key Drivers	Strategic workforce change theme	Transition phase (April 2016 – March 2018)	MMH phase (April 2018 – March 2020)
Activity and pathway driven changes in workforce	**Clinical Restructuring**	Fewer nurses and HCAs due to fewer outpatient sessions and reduction in beds Investment in community nursing	Fewer nurses and HCAs due to fewer outpatient sessions and reduction in beds Investment in community nursing Fewer emergency department staff as a result of single ED within MMH.
	Non-Clinical	Reduction in facilities staff due to greater cross functional working	
Productivity driven reductions in workforce	**Technology**	Fewer healthcare records staff due to introduction of EpR. Better use of consultant's time through telehealth enabling resources to be channelled into seven day working. Introduction of mobile technology to improve productivity in community Fewer medical secretaries as a result of completing speech recognition technology.	Fewer porters and distribution staff as a result of introduction of automated guided vehicles
	Clinical Transformation	Medical and surgical bed reductions, shift to community settings, outpatients transformation, theatre utilisation, site reconfiguration, de-duplication of on-call rotas	Single site reconfiguration will result in transfer of hard FM staff to PF2 provider under TUPE.
	Scheduling	Reduction in theatre staff and outpatient staff as a result of improved scheduling and changing working practices to ensure optimal use of clinics and theatres.	
	Black Country Alliance	Collaboration of three NHS Trusts to share back office processes and reduce costs.	-
	Sickness Absence	Driving down sickness absence to ensure that the Trust is fully staffed.	
	User-Led	Empowering service users to carry out certain administrative tasks relating to their appointments e.g. booking and changing appointments, transport and tests.	

Key Drivers	Strategic workforce change theme	Transition phase (April 2016 – March 2018)	MMH phase (April 2018 – March 2020)
	Management De-layering	Completion of management de-layering pre MMH. Fewer corporate staff due to co-location into single head office site.	Further management de-layering as a result of single site configuration. Fewer corporate staff due to completion of co-location into single head office site at Sandwell General Hospital.
	Non-Consultant Doctors	Improving senior medical cover/review of middle grade doctors against future requirements.	Reduction in medical staff due to de-duplication of medical rotas enabled by single site configuration.
	Skill mix and role redesign	A review of roles to introduce new more junior roles to reduce cost per WTE create a career path for progression from a wider range of backgrounds.	
	Premium Payments	Eliminating bank, agency, overtime and waiting list payments to reduce temporary staffing costs.	
	Intermediate Care is Cheaper	Shifting care from acute to community models of care.	

1.17.8 The leadership and governance arrangements are in place to drive the execution of the workforce plan to deliver the LTWM. Effective arrangements are in place to support the management of change.

1.17.9 The benefits of the moving to the Midland Metropolitan Hospital configuration are vital to continue to improve quality and sustain safe services with a more productive workforce.

1.18 Consultation, Stakeholder Involvement and Approvals

1.18.1 Awareness of the scheme among local residents and the clinical community has been reborn since the publicity surrounding OBC approval. A specific section of the Trust's website has been dedicated to the project and local representatives through Healthwatch have been briefed on the project.

1.18.2 The CCG led listening exercise on Interventional Cardiology and Emergency Surgery, both of which move to single sites from August 2015, has afforded an important opportunity to restate the detail of the 2007 consultation and 2009 engagement activity. The Trust is satisfied that there is strong local awareness of the move to Midland Metropolitan Hospital tempered with some scepticism born of the decade plus journey to this point.

1.18.3 The Trust's work with local community groups, especially those adjacent to the site and along Dudley Road (which runs from the current City Hospital site to the Grove Lane site), has been extended in the last year. The Trust is in the process of creating a network of community contacts to support both clinical and charity work.

1.18.4 The Hospital Company took the lead on engagement from May 2015 to support the design and landscaping of the site relevant to the final planning consent.

1.18.5 Work is advanced in considering the transport connections vital to make the site work with minimal disruption to neighbours.

1.18.6 In 2013 and 2014 the Trust obtained support from the three local CCGs together with the local area team of NHS England. Both Health and Wellbeing Boards support the scheme. The OBC was approved by the National Trust Development Authority. Final approval to proceed was granted by the Department of Health and HM Treasury in July 2014.

1.18.7 These recent approvals reflect longstanding support for the project dating back to the SOC being agreed in 2004.

1.19 Conclusion

1.19.1 The Conclusion of this FBC is that:

- Since approval of the OBC the strategic context, case for change and economic case remain conclusive that the Midland Metropolitan Hospital is necessary and is fully supported by the local health economy.
- The subsequent refresh of activity, income and capacity projections demonstrate that the scope of Midland Metropolitan Hospital and its capacity remains unaltered from the OBC.
- A reassessment demonstrates that value for money has improved from 4.3% on a NPV basis at OBC to 23.1% at CBC, following the outcome of the funding competitions. This improvement is mainly due to more favourable terms being offered by funders and the underlying market rate.
- A refresh of the LTFM, CIP, Workforce Plan and Downside Case demonstrates that the scheme remains affordable. The Trust's results achieved in 2014/15 demonstrate the drive and capability locally to stick to the plans set out in this business case.

1.20 Addendum post Financial Close

1.20.1 An addendum at the end of this ABC provides an update to the Confirmatory Business case (CBC) approved by the Department of Health (DH) and reflects the actual position achieved at Financial Close on 11 December 2015.

1.20.2 There have been no changes to the scope, capital cost or timescales of the scheme since the CBC approval.

1.20.3 The key areas of progress since the CBC was submitted to the DH 1 October 2015 are:

- The completion of the 1:50 design process;
- The expiration of the judicial review period on 6 November 2015, with no issues raised;
- The DH formally approved the CBC on 9 December 2015.
- The achievement of Financial Close on 11 December 2015, resulting in a final Unitary Payment of £19.598m.

1.20.4 Financial Close was delivered within the approval parameters. This completes the procurement of MMH ahead of schedule, delivering an affordable scheme which will result in the new hospital being operational by October 2018.

2 Introduction

2.1 Purpose of the Final Business Case (FBC)

2.1.1 This FBC combines the Appointment Business Case (ABC) and Confirmatory Business Case (CBC), which were used to secure approval to 'closing dialogue' and appointing a 'Preferred Bidder' respectively.

2.2 Approach to the FBC

2.2.1 Given that very little has changed to the scheme since Outline Business Case (OBC) approval, much of what was approved in the OBC remains unchanged and still valid. In these instances, the case made and approved in the OBC is re-stated for continuity. Thus, the key areas of the FBC are those that address the changes since the OBC.

2.3 Structure of the FBC

2.3.1 The FBC follows the five case model

2.3.2 Part A: Introduction and Strategic Case (Why does the Trust need to do anything - what is the problem?)

- Introduction
- Strategic Context
- Case for Change
- Future Service Requirement

2.3.3 Part B: Economic Case (What is the strategic solution?)

- Background to the Option Appraisal
- Benefit Appraisal
- Economic Appraisal

2.3.4 Part C: Commercial Case (How does the Trust best procure the solution - MMH?)

- Procurement Route
- Project Scope
- Procurement Strategy
- Bidder Solution
- Design, Development and Delivery Programme
- Equity Funding Competition
- Debt Funding Competition

2.3.5 Part D: Financial Case (Can the Trust afford it?)

- Affordability

2.3.6 Part E: Management Case (How does the Trust make it happen?)

- Workforce

- Project Timetable and Management Arrangements
- Risk Management
- Sustainability, Regeneration and Corporate Citizenship
- Consultation and Stakeholder Involvement
- Conclusion

2.3.7 The document comes in two volumes:

- Volume 1: The FBC Chapters
- Volume 2: The Appendices to the FBC

2.4 Previous Business Case Approvals and Conditions of Approval

Overview

2.4.1 Approval conditions were attached to each stage of approval from OBC to CBC. A Stakeholder Board, which comprised the Department of Health (DH), the National Trust Development Authority (TDA) and Her Majesty's Treasury (HMT) provided the governance to ensure that these were satisfactorily met prior to being agreed as 'closed'. The Stakeholder Board was satisfied that all conditions had been met as appropriate to Financial Close.

Outline Business Case

2.4.2 The OBC was approved in July 2014, enabling the Trust to commence the MMH procurement. The letter of approval from the Department of Health (DH), together with previous approvals, is at ***Appendix 2a***.

Table 17: OBC Approval Conditions

No	Approval Condition
1	Implement the Trust's existing recruitment plan to progress effective procurement and ensure that resourcing plans are sufficient.
2	Through dialogue identify whether delivery in July 2018 can be afforded within the Unitary Payment Cap set out in the OBC or whether savings could be made by adopting a different timetable.
3	The Unitary Payment (UP) must remain affordable and within the affordability cap identified within the OBC.
4	Need to develop a robust set of mitigation plans, supported by key commissioners, for a downside scenario before the Generic Appointment Business Case (ABC) approval.
5	Demonstrate Value for Money (VfM).
6	Work closely with the NTDA, DH and IUK throughout the procurement and provide regular updates against key approval parameters via a Stakeholder Board.
7	Demonstrate that the value for money still favours PF2.
8	Ensure no capital or revenue cost increases against the amounts identified in the OBC. DH capital cost cap set at £291m.
9	Submit a jointly agreed plan with commissioners for managing stranded fixed costs in the event of an income downturn at the Trust.
10	Explore, before submission of Generic ABC the possibility of using land sales proceeds to improve affordability.
11	Demonstrate that the scheme remains on track to deliver the significant workforce savings aligned to LTFM using evidence based plans to achieve full value of necessary savings.

No	Approval Condition
12	Commissioner's support of Trust activity and income to be reconfirmed at each business case approval stage and income "actuals" to be evidenced. Plan to be congruent to OBC and underpinning LTFM.
13	Significant levels of productivity improvement to be delivered and affordability and efficiency to be kept under regular review.
14	Maintain strong performance against CQC and NTDA metrics of quality, safety, finance and performance in each financial year.
15	Achieve Capital and Cash plans in 2014-15 and satisfy the NTDA of its continuity of service risk rating for 2015-16 and 2016-17 and that it remains consistent with Long Term Financial Model (LTFM). This must include auditable visibility of the Right Care, Right Here (RCRH) reserve which services in 2018-19 the unitary payment.
16	Maintain a Gateway rating of amber-green or better.
17	Achieve approval prior to Financial Close of IT Business Case or agree mitigation measures.
18	Ensure that project continues to reflect accurately all aspects of PF2 policy.

2.4.3 In addition to the conditions of OBC approval, another three conditions were subsequently added by the Department of Health (26 March 2015). These are detailed in the table below.

Table 18: Additional DH Conditions March 2015

No	Approval Condition
19	Bidder to provide written assurance, in form approved by DH and HMT, that it accepts and complies with measures detailed within the ITPD 12 February 2015.
20	Establish that the building envelope set out in the single bidder's design is adequate to meet the brief set out in the Trust Construction Requirements and provide supporting written evidence.
21	A representative from each of DH and HMT be appointed to the Trust's Project Board and attend relevant meetings as necessary.

'Generic' ABC Approval

2.4.1 The 'Generic' ABC was approved in July 2015. The letter of approval from the Department of Health (at ***Appendix 2a***) stipulated the following conditions as per the table below.

Table 19: Generic ABC Approval Conditions

No	Approval Condition
22	The capital cost to be held within the £291 million figure set at OBC and this to be confirmed at sABC stage. This cost limit is based on the current scope, as at gABC. The Department recognises the Trust is considering specific additional investments which it agrees to consider when any business cases are available.
23	Approval reconfirms that the Department's capital contribution of £100 million is on a gross basis and the Trust will benefit from agreeing a land sale scheme with the TDA, which will then be considered by the Department with an assumption of Departmental support with minimal restriction.
24	The Department notes the on-going work on land disposals and the Trust's intention to consider disposal over coming years in a manner consistent with the Local Authority planning constraints in place at that time. The DH will wish to be kept updated on the Trust's proposals.
25	The forecast 'RCRH' related savings should be tracked and reported to the Programme Board.
26	Prior to CBC approval, independent (eg internal audit) validation of the reconfiguration savings plan should be completed and shared. This should include consideration of the Trust's CIPs to ensure there is no potential 'double counting' of savings.
27	In the period up to Financial Close, the Trust should inform approving bodies of any material potential changes in schemes scope or content to at an early stage.

No	Approval Condition
28	That the revised VfM sensitivity analysis be appended to the sABC.
29	NHS England formally Confirmatory the availability of £22.3 million of transitional support to the Trust at sABC stage.
30	Provision of a satisfactory report on derogations before appointment of the Preferred Bidder.
31	There is enough flexibility in the plans to be consistent with the Five Year Forward View possibilities around new models of care and to allow for out-of-hospital elements of care to be provided from the new building.
32	The NHS TDA is provided with the sABC and notified of any changes between the dABC and the sABC.
33	Receive a positive report from NHSE that confirms the assumptions in the Right Care Right Here Partnership by sABC stage.
34	The NHS Trust should continue to ensure that activity planning assumptions are aligned with commissioner plans as much as possible and actual activity measured closely against assumptions in this case through the RCRH Programme Stakeholder Board, and that Commissioner support for the assumptions in the case is refreshed at the point of the Confirmatory Business Case.
35	The NHS Trust should develop detailed Project Initiation Documents for the downside mitigations at the CBC stage. The NHS Trust should also ensure it has discussed the downside case and mitigations at the NHS Trust Board, including appropriate involvement with staff-side representation on those mitigations involving changes to workforce terms and conditions.
36	The NHS Trust obtains an independent view of the impairment of 10% of the new asset to ensure this is reflected accurately in the financial model by CBC stage.
37	The NHS Trust to provide evidence of the independent audit of the accounting treatment of the PF2 in the Trust's financial model by CBC stage.
38	The NHS Trust must ensure that the actions set out in the Estates Review are finalised, including a review of Soft FM costs, further examination of the operating costs for the Winter Garden area, and elaboration of the costings for non-MMH expenditure (particularly decant costs and double running costs) at sABC stage.
39a	The NHS Trust should follow through on their commitment to include the estates content listed in Table 6 of the TDA Recommendation Report in their sABC - The NHS Trust has shared their programme for their retained estate. This should be included in the sABC.
39b	The NHS Trust should follow through on their commitment to include the estates content listed in Table 6 of the TDA Recommendation Report in their sABC - The NHS Trust has now shared a simple table that shows bed numbers by specialty which can be reconciled with drawings; this would make a valuable addition to the sABC and should be included.
39c	The NHS Trust should follow through on their commitment to include the estates content listed in Table 6 of the TDA Recommendation Report in their sABC - The NHS Trust has described their plans for the 9th floor expansion space (i.e. as potential future clinical capacity, not administrative space). The NHS Trust will engage Carillion in a conversation about costing the 'fit out' of this space in the future so that future cost can be managed as best as possible within the PF2 contract, and included at sABC.
39d	The NHS Trust should follow through on their commitment to include the estates content listed in Table 6 of the TDA Recommendation Report in their sABC - The NHS Trust has provided a costed equipment schedule. The NHS Trust has a separate Managed Equipment Service (MES) Business Case that is being approved separately to the MMH case. The NHS Trust will also transfer a significant proportion of existing equipment from the existing provision. The NHS Trust should make sure that their equipping of the new building is described more coherently in a single place in the sABC.
39e	The NHS Trust should follow through on their commitment to include the estates content listed in Table 6 of the TDA Recommendation Report in their sABC - The NHS Trust has had a DQI report undertaken on their design proposals. This is mentioned at 11.6.5 in the gABC. It would be useful to see the schedule of DQI dates and a description of them included in the sABC.
40	The NHS Trust will engage with the NHS TDA Clinical Directorate to make sure that QIAs are undertaken in line with the National Quality Board 'Quality Impact Assessment Tool' by CBC stage.
41	The NHS TDA will undertake a workforce review in September in order to support the Trust with the learning from Phase 2 of their 'Safe and Sound' programme.

No	Approval Condition
42	The NHS Trust should strengthen the engagement with the Local Education Training Board to understand the impact the change will have on medical and non- medical trainees, to reduce the impact on these staff during the transformation. Evidence of this engagement should be available at CBC stage.
43	In relation to ICT systems, further assurance is required to demonstrate how wider ICT systems integrate with other systems for the purposes of patient quality and safety to include system integration, impact on quality and safety, clinical engagement, clinical knowledge and use of system and benefit realisation. The sABC should describe how the EPR and wider MMH schemes are technically congruent.
44	Develop the commercial case to include information on the service requirements, charging mechanism, risk transfer, key contractual arrangements, any personnel implications e.g. TUPE and the accounting treatment at CBC stage.
45	The NHS Trust should maintain the process for engaging with both the local and national health economy to develop robust mitigations to emerging risks and challenges.
46	The NHS Trust should ensure that it develops a framework to systematically measure actual performance against key assumptions in the financial model to ensure delivery is achieved.
47	The NHS Trust to provide further evidence of the margin to be made on repatriation work and also to provide evidence of the commissioning intent and opportunity to repatriate this amount of activity back to the Trust.
48	Develop full contingency arrangements for the project include operational and delivery risk.
49	The NHS TDA should continue to Chair a monthly Stakeholder Board with representation from all of the approval bodies and the NHS Trust.
50	The NHS TDA will regularly perform CIP reviews to gain assurance that management of the CIP programme remains on track and that the Trust continues to identify schemes to meet efficiency requirements.
51	The affordability of the case is reliant on delivery of around a 9% EBITDA, and therefore reliant on the contribution of individual service lines. The NHS Trust is asked to ensure it uses service line reporting information and wherever possible, patient level costing information to inform financial performance management of service lines and target contribution.
52	The NHS TDA will undertake some observations of the Workforce Committee and weekly progress meetings during the transformation programme. These observations will be used to evidence the good governance of the Trust's workforce planning to support the CBC approvals process.
53	The NHS TDA will carry out on-going monitoring of both the operational workforce plan for 2015-2016 and also the overarching 2020 Workforce Plan with increased scrutiny via the regular Integrated Delivery Meeting.
54	The NHS TDA will need to gain further assurance during 2015-2016 of the nursing establishment and impact on fill rates and establishment during 'Safe and Sound Phase 2' and future transformation work.

'Specific' ABC Approval

2.4.2 The 'Specific' ABC was approved in August 2015. The letter of approval from the DH (at ***Appendix 2a***) stipulated the following conditions as per the table below.

Table 20: Specific ABC Approval Conditions

No	Approval Condition
55	The overall total capital cost of the scheme, including construction costs and bidder costs, but excluding VAT, is stated to be £305.08m in the ABC. The total construction cost and capital value of the scheme are not to increase beyond this amount.
56	The Trust should continue to ensure that activity planning assumptions are aligned with commissioner plans as much as possible. Actual activity should be measured closely against assumptions in the business case through the RCRH Programme Stakeholder Board, and Commissioner support for the scheme will need to be refreshed at Confirmatory Business Case stage.

No	Approval Condition
57	The Trust should complete the relevant checklist documents for each of the approval bodies at CBC stage.
58	The projected Soft Facilities Management spend was found to be around 30% below expected levels. The Trust should complete further work on this to provide assurance that costs are accurately modelled, to the satisfaction of TDA and the Department. This work will need to have been completed before approval of the CBC.
59	The Trust should continue to work constructively with the TDA during the 1:50 design process to make sure that the Trust's rationale for derogations from Health Building Note (HBN) standards is robust and well evidenced, and that the functionality of any derogated clinical spaces is optimised.
60	The capital contribution which the department expects to make in support of the scheme is the sum of £100 million, less the value of the investment that the Department will make in the public equity contribution (currently estimated at £2.95m but this figure is subject to confirmation). Once the amount of the public equity contribution has been determined, it should be included in the Trust's financial modelling at CBC stage.
61	The Trust shall, as soon as reasonably practicable, obtain the approval of the TDA and the Department to its proposals for the sale of land which will be surplus following completion of the MMH scheme. It is recognised that the Trust will be entitled to retain the receipts of any sale of this surplus land. It is also recognised that the disposal of surplus land, and the creation of new housing, are matters of Government policy and accordingly are areas in which the TDA and the Department have an interest. The timing and manner in which this condition will be satisfied will be for further discussion between the Trust, the TDA and the Department.
62	The Trust should provide a detailed project plan for the period from appointment of the Preferred Bidder through to Financial Close, including the approvals process, and agree this with the approving bodies.
63	The appointment of the Preferred Bidder should be made in accordance with the terms of the final draft Preferred Bidder letter sent to the Department's Private Finance Unit for review on 31st July 2015, unless the Trust shall first have obtained the approval of PFU to any substantive changes.

2.5 Key changes to the scheme since OBC approval

2.5.1 In terms of the Strategic Context, the operating environment has become more challenging. The drive to deliver higher standards of care and meet patient needs with diminishing resources has intensified, making the case for change more urgent.

2.5.2 The case for change for the scheme remains robust. The requirement for the MMH continues to be fully supported within the local health economy and forms a vital part of the Trust's strategy to deliver high quality care into the future. It remains a Trust priority to open the MMH in October 2018 in order to ensure the safety and sustainability of key services.

2.5.3 The project objectives developed in response to the case for change presented below have not changed since OBC approval:

- To move to a single acute hospital site;
- To develop a new high quality hospital building;
- To implement a new model of care;
- To deliver the best possible quality of care; and
- To develop staff and provide an optimal working environment.

2.5.4 Key changes arising from further development of the scheme and changes in the operating environment are detailed in the table below. None of these changes breach any previous approval parameters or conditions and the business case remains robust.

Table 21: Changes from OBC to CBC

	Key change since OBC	Implications	Chapter(s) where addressed
Activity and Income	Activity mapped to virtual outpatients A&E and UCC split out separately at MMH Activity and income projections have been refreshed to take account of the 2014/15 actual position and the expected contracted activity for 2015/16. New tariff deflators have been applied.	Activity projections remain in line with OBC assumptions for 2019/20. Income projections continue to align with 'Right Care Right Here' assumptions agreed with commissioners. Therefore, the capacity requirements for MMH are unchanged from the OBC. However, the rate of change of transformation will need to increase in the interim.	5. Future service requirement 16. Affordability
Pay Costs Inflation	Pay cost inflation has been refreshed to take account of the most recent Monitor guidance.	Increased pay costs principally due to higher employer pension contributions.	16. Affordability
Capital Programme	The capital programme has been refreshed and re-prioritised within the overall OBC envelope.	No impact on affordability or Continuity of Service Risk Rating (CSRR).	16. Affordability
Cost Improvement Programme (CIP)	The CIP has been refreshed through the business planning process to provide detail for 2015/2016 – 2016/2017. This has been reconciled to the LTFM and workforce plans. An outline plan has been created for the following 3 years.	Additional rigour to demonstrate affordability.	16. Affordability
Term Sheets	Revised term sheets applied, reducing UP. The OBC assumed historic term sheets in accordance with the rates achieved at Alderhey plus a 50 basis point buffer. The FBC is based on revised term sheets following the funding competitions.	The revised rates are significantly lower than assumed at OBC leading to a reduced UP. A 50 basis point buffer has been retained.	16. Affordability
Capex of Scheme	The capital cost used in the shadow tariff for the OBC was £285m. The Trust's cost advisers have revised this to £312 to adjust for building cost inflation to date. The capital cost of the Final Bid is £296.9m on an outturn cost basis.	The Final Bid is an affordable and efficient design and costs less than the estimate for the design at OBC in real terms. Furthermore, it meets the OBC approval criteria.	9. Procurement route
Procurement Process	PF2 procurement conducted but only one bidder submitted Interim Bid Submission in December 2014. Therefore, single bidder in the procurement since that date. A revised Invitation to Participate in Dialogue was been issued to the bidder (and accepted), which set out additional criteria to ensure that value for money was secured. The DH approved approach to ensuring value for money in a single bidder procurement 26 March 2015.	As a result of the additional criteria, the Trust is confident that the Final Bid offers value for money for the Trust and that PF2 remains the preferred procurement route. As a result of the single bidder scenario, the Trust has been able to accelerate the procurement programme.	9. Procurement route 11. Procurement strategy

	Key change since OBC	Implications	Chapter(s) where addressed
Public Sector Comparator (PSC)	The PSC was been refreshed to enable a proper comparison with the Bidder's solution. Updated to reflect same pricing index as Final Bid and revised scope.	Following these revisions to the PSC, a value for money assessment has been made which re-confirms the OBC conclusion that PF2 offers better value for money.	9. Procurement route
Programme	Financial Close was been brought forward from April 2016 to December 2015. Advance works which were not planned within the OBC commenced in November 2015 with the main construction programme commencing January 2016. The OBC anticipated a construction period of 27 months. The Final Bid anticipates a construction period (including advance works) of 33 months.	The hospital is still due to be open October 2018. A reduced risk profile for the construction programme enabling better value for money.	11. Procurement strategy 18. Project timetable and management arrangements
Scope	**AGVs** Following a value for money case, the Trust has stipulated that the Hospital Company supplies 'Automated Guided Vehicles' (AGVs) and associated infrastructure. **Site remediation** Site remediation was included in the scope of the PF2 procurement at OBC. This has subsequently been removed and the Trust will procure directly, except for the site perimeter (estimated at £1.5m) which will be the responsibility of the Hospital Company. **Active IM&T infrastructure** Active IM&T infrastructure was out-with the PF2 procurement at OBC but has subsequently been included.	Increase of £3.6m capex and £277K unitary payment as a result of the inclusion of AGVs in the scheme. The net cost impact of remediation and the IM&T infrastructure is insignificant. The inclusion of remediation of the site perimeter will have no impact on the unitary payment but, together with the potential impact of hazardous spoil removal, will increase the capital cost of the scheme by up to £1.5m. In the event that the actual cost of remediation of the perimeter is less than £1.5m, the saving will be passed on to the Trust by a reduced unitary payment. The risk to the Trust associated with the delivery a functional MMH on time has been reduced.	10. Project scope

	Key change since OBC	Implications	Chapter(s) where addressed
Workforce Plans	The Trust has commenced its workforce transformation programme and completed a statutory consultation for the first stage of the programme. An experienced Director of Organisational Development has been appointed to the Board who has a track record of large scale transformational change. More detail has been added to the Trust's workforce plan. This includes more definition and detail about how it will be delivered, given that the Trust has already delivered the first year of its workforce transformation.	More rigour and confidence in plans.	17. Workforce
Downside Case	The downside case has been refreshed to reflect the risks identified in the Trust's Board Assurance Framework. The mitigations have been reviewed and improved to form a challenging but credible plan which is supported by commissioners.	More robust and credible downside case supported by commissioners.	16. Affordability
Long Term Financial Model (LTFM)	The annual update of the LTFM has been refreshed to reflect the above changes since OBC.	Continuity of Service Risk Rating (CSRR) remains at '3' or above throughout the period of the LTFM.	16. Affordability
Electronic Patient Record (EpR)	EpR was assumed to be fully implemented by October 2017 within the OBC. This has been reviewed and it is now planned that a 'Clinical wrap' of EpR will be fully implemented by October 2017.	The new hospital will be fully functional with the proposed solution	10. Project scope
Public Dividend Capital contribution (PDC)	The OBC was based upon £100m of Public Dividend Capital (PDC) being provided by the DH towards the scheme. The FBC is based upon £97.2m of PDC being made available.	Marginal increase in Unitary Payment reflecting consequent revised senior debt funding requirement.	16. Affordability
Land Sales	The OBC assumed that land sales of the surplus retained estate would not take place until beyond 2024. The CBC is based upon land sale receipts being necessary to offset the impact of a reduced PDC contribution and to enable the Trust's retained estate programme to be accelerated.	LTFM includes £6m of land sale receipts realised on a phased basis 2018 to 2021 and which supports an equivalent sum of capital investment in retained estate development. It has been agreed with approval bodies that up to £16m land receipt value will go to the Trust. Neutral impact on financial risk ratings.	16. Affordability

	Key change since OBC	Implications	Chapter(s) where addressed
Equity & Debt Funding Competitions	Equity and Debt Funding Competitions concluded on favourable terms to that assumed at OBC. Unitary Payment & LTFM have been updated for results of competitions.	The first full year of the Unitary Payment, following the debt and equity funding competitions but prior to Financial Close, was confirmed at £20.501m.	16. Affordability

2.6 Conclusion

2.6.1 The basis for the scheme has been refreshed with more recent information and validates that stated in the OBC. The key changes since the OBC which have a bearing on the scheme are outlined above and are addressed in detail in this FBC.

2.6.2 None of the changes identified challenge the requirement, scope, affordability or deliverability of the scheme. Rather, the changes emphasise the case for change and demonstrate better value for money than the OBC, thus making the business case more robust.

2.7 Progress since the OBC

2.7.1 Since the approval of the OBC in July 2014, the following key scheme developments have taken place:

- The equity and senior debt funding competitions have been completed;
- The Trust's demolition and remediation of the MMH hospital site at Grove Lane has been completed;
- Full planning permission for the MMH has been granted by Sandwell Metropolitan Borough Council;
- The Trust's Electronic Patient Record procurement remains on track for delivery of a clinical solution by October 2017 and continues to remain within the agreed financial parameters;
- All 1:50 plans have been reviewed and are on target to be signed off by Financial Close;
- The Value for Money Assessment has been updated to take account of the reduced unitary payment;
- The Long Term Financial Model (LTFM) has been refreshed to reflect the changes detailed above;
- Action has been taken to address the remaining approval conditions; and
- The Trust Board has agreed to an advanced works contract to commence in November 2015.

2.8 Business Case Approvals

2.8.1 The ABC was approved by the Department of Health (DH) on 7 August 2015. The formal letter of approval is at ***Appendix 2a***. The Trust issued the Preferred Bidder letter the same day.

2.9 Planning Approval

2.9.1 The full planning application for MMH was approved by Sandwell Borough Council on 23 September 2015. The letter of approval is at ***Appendix 2b***. The judicial review period is due to expire on 6 November 2015, prior to Financial Close.

2.10 Conclusion

2.10.1 There have been minimal changes since OBC which overall have served to strengthen the case.

2.10.2 The FBC demonstrates that the project has remained within the key parameters set out within the OBC and confirmed by the DH in its letter of approval 14 July 2014.

3 Strategic Context

3.1 Introduction

3.1.1 The strategic context outlined in this chapter continues to support the development of the MMH as outlined in Chapter 4: the Case for Change. It outlines the factors that come together to provide strategic context for the project including the:

- National context including policy, emerging guidance and financial conditions;
- Local context including: the needs of the population served by the Trust; commissioning intentions; the objectives of the Health and Wellbeing Boards and competition from other provider organisations;
- The Right Care Right Here (RCRH) vision for improving care in the local health and social care economy;
- The Trust's vision for the future and strategic objectives, and
- Conclusion and alignment with the national and local agenda.

3.2 National Context and Government Policy

3.2.1 This section summarises national policy and guidance as well as other factors that need to be taken into account in the Trust's plans for its future services and facilities.

The Francis Report

3.2.2 *The Francis Inquiry report* (February 2013), examined the causes of the failings in care at the Mid Staffordshire NHS Foundation Trust between 2005 and 2009 and makes 290 recommendations, including the need for:

- Openness, transparency and candour throughout the healthcare system (including a statutory duty of candour), fundamental standards for healthcare providers; and
- Improved support for compassionate, committed care and stronger healthcare leadership.

3.2.3 A number of other reports including: the *Berwick Report, 'A Promise to Learn a Commitment to Act', (*August 2013*)*, driving patient safety and '*Compassion in Practice'* (December 2012) – the vision for nurses, midwives and care-staff, have built on the recommendations of the Francis Report to embed a new culture of quality, safety and compassion in healthcare.

The Keogh Report

3.2.4 The Keogh Report: '*Transforming Urgent and Emergency Care Services in England, End of Phase One Report*' (November 2013), was commissioned in response to concern that A&E Departments, associated acute hospital services and ambulance services are under intense, growing and unsustainable pressure. The report describes the following vision:

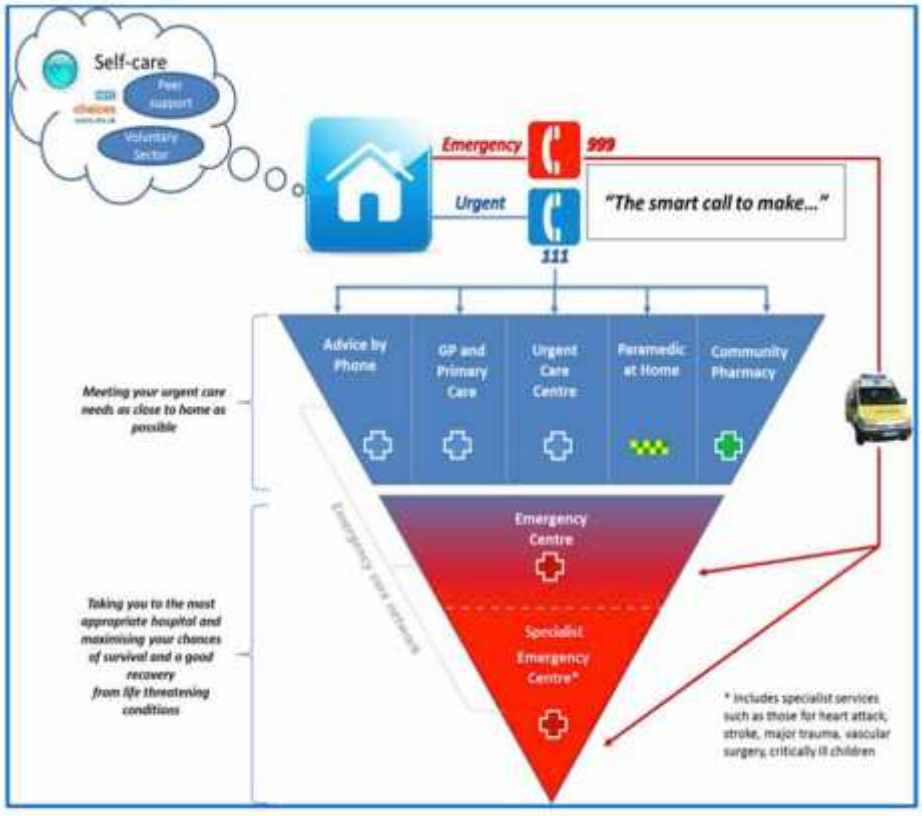
- People with urgent but non-life threatening needs should receive highly responsive, effective and personalised services outside of hospital. These services should deliver care in, or as close to, people's homes as possible, minimising disruption and inconvenience for patients and their families.
- People with more serious or life threatening emergency needs should be treated in centres with the very best expertise and facilities in order to reduce risk and maximise their chances of survival and a good recovery. Getting the out-of-hospital services right will relieve pressure on hospital based emergency services to enable delivery of this part of the vision.

3.2.5 The proposals emphasise that the NHS must:

- Provide better support for people to self-care;
- Help people with urgent care needs get the right advice in the right place, first time;
- Provide highly responsive urgent care services outside of hospital so that people no longer choose to queue in A&E;
- Ensure that those people with more serious or life threatening emergency care needs receive treatment in centres with the right facilities and expertise to maximise chances of survival and good recovery; and
- Connect all urgent and emergency services together so that the overall system becomes more than just a sum of its parts.

3.2.6 The vision is summarised in the figure below.

Figure 5: Keogh: Vision for Urgent and Emergency Care



The Better Care Fund

3.2.7 The *Better Care Fund* was announced in June 2013. It provides an opportunity to transform local services so that people are provided with better integrated care and support. A substantial level of funding is being provided to help local areas manage pressures and improve long term sustainability. The Fund is an important enabler to take the integration agenda forward at scale and pace, acting as a significant catalyst for change. The Better Care Fund provides an opportunity to improve the lives of some of the most vulnerable people in society, giving them control, placing them at the centre of their own care and support, and, in doing so, providing them with a better service and better quality of life.

The Fund will support the aim of providing people with the right care, in the right place, at the right time, including through a significant expansion of care in community settings.

3.2.8 Commissioner support for the scheme, and approval of it, post-dates the initiation of the Better Care Fund and, at Outline Business Case (OBC) stage, specifically confirmed the congruence of the project with the Better Care Fund.

3.3 The NHS Five Year Forward View

3.3.1 The *NHS Five Year Forward View* (October 2014) sets out how the NHS needs to change. It proposes a more engaged relationship between patients, carers and staff in order to focus on wellbeing and prevention. The three main conclusions are:

- There should be more focus on prevention and public health;
- Patients need to be given more control over their own care; and
- Barriers need to be removed on how care is provided between primary care and hospitals; between physical and mental health; and between health and social care.

3.3.2 The report emphasises that continued efficiencies of circa 2% per annum will be required and that new models of care will need to be developed to meet this challenge. Such models may include:

- Primary and Acute Care systems, bringing together GPs and hospitals; and
- Multi-Speciality Community Providers, whereby primary care, community care and hospital specialists come together to create integrated out-of-hospital care.

3.3.3 The Trust is a partner in the local Vanguard Scheme being developed through the Vitality GP partnership.

3.4 Financial Environment

3.4.1 As referred to in the *NHS Five Year Forward View*, funding constraints and real terms tariff reductions lead to the requirement for high levels of Cost Improvement Plans compared with historic levels. Funding constraints for commissioners will add to the pressures being felt locally.

3.4.2 This is reflected in the changes to efficiency assumptions and expectations under Monitor's Compliance Regime along with the requirement (set by the Trust's Board) for the base case to deliver a Level 3 Risk Rating under Monitor's Continuity of Service Risk Rating metric.

3.4.3 This results in the Trust needing to make significant savings leading up to the new hospital opening and to realise further financial benefits when the facility opens in October 2018. The vast majority of the savings are required with or without the new build, and, as the Workforce Chapter explains, these are efficiencies that can only be accessed via reconfiguration.

National Context: Conclusion

National context dictates that significant change driven by clinical leaders and supported by public engagement will be required to meet the higher standards of care expected in future.

Investing in integrated care and shift of activity away from the acute setting will be central to future plans supported by development of high quality, safe and sustainable services for patients requiring acute care in hospital.

Services will need to become increasingly productive and cost effective to ensure that the NHS continues to meet the needs of patients.

3.5 Local Context and Health Strategy

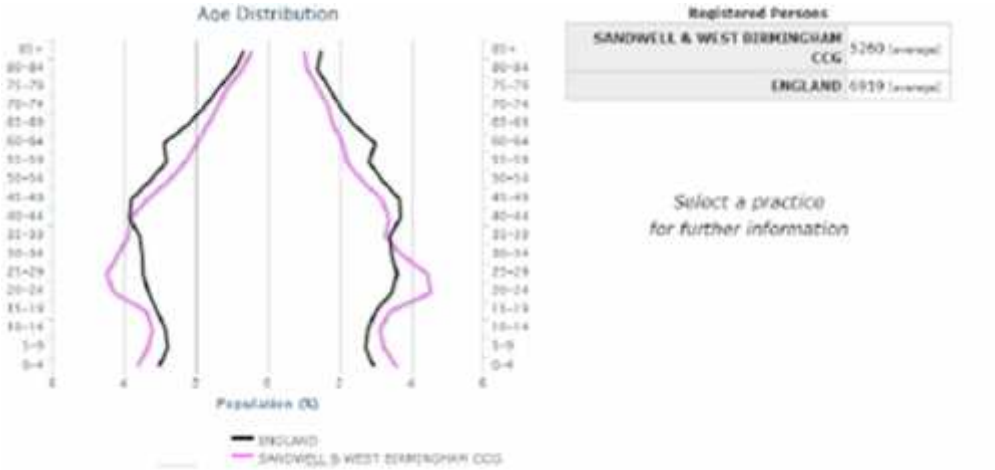
Population Served by the Trust

3.5.1 This section outlines the needs of the population that the Trust serves.

Demographic Change

3.5.2 The total population served by Sandwell and West Birmingham Clinical Commissioning Group (SWB CCG) is expected to increase by 6% over the next 20 years. A 16% increase in the number of children and young people in Birmingham is forecast over the same period. The increase in people over 65 years of age will be markedly lower than England (approximately only a third of the England trend). This is highlighted by the population pyramid presented in the figure below.

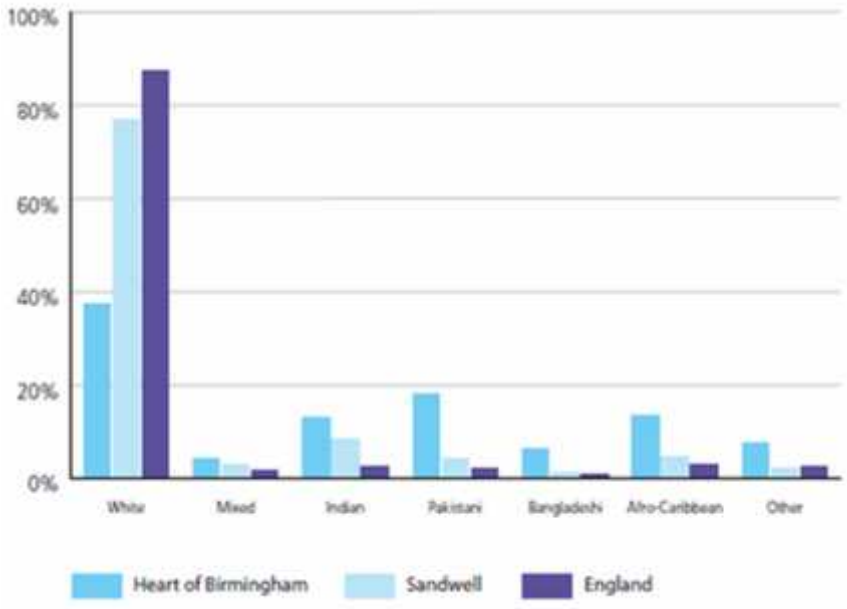
Figure 6: Age Distribution



Ethnicity

3.5.3 The Trust delivers services to a population with a significantly higher proportion of black and minority ethnic (BME) and all other ethnic groups than England as a whole. This is illustrated in the figure below.

Figure 7: Ethnicity



3.5.4 The Heart of Birmingham area of SWB CCG has the largest (68%) black and minority ethnic population in England, with the largest group being of Pakistani origin. There is a further increase in the BME population predicted to 2016 (40% increase in the Pakistani and Bangladeshi population and a 130% increase in the number of Black Africans to 18,000).

3.5.5 The Sandwell population of SWB CCG is also becoming more ethnically diverse. In the ten years between 1991 and 2001 the BME population increased by 6% to 20%, with the rate of growth being most pronounced amongst the Asian communities. It is estimated that by 2025, people from BME communities will comprise 30% of the Sandwell population in the SWB CCG.

3.5.6 The implications for the Trust are that:

- Services need to be culturally sensitive and accessible to all;
- Health promotion or lifestyle management may need to be tailored for the specific needs of this group;
- Plans for the future need to ensure that the Trust has facilities which are appropriate for different religious beliefs and which make interpreting services available where necessary; and
- The Trust will deliver services to people with increased levels of prevalence for certain conditions such as diabetes, eye disease and cardiovascular disease.

Deprivation

3.5.7 The population served by the Trust is dominated by high levels of deprivation. When ranked on the English Indices of Deprivation (IMD) of 354 English local authorities, Birmingham and Sandwell are the 9th and 12th most deprived respectively. There are a significant number of wards in the worst 20% nationally.

3.5.8 The most deprived areas of Sandwell have a life expectancy of 10.1 years lower for men and 5.9 years lower for women than in the least deprived areas. For the Birmingham population of SWB CCG, the corresponding figures are comparable with a 10.3 years and 5.6 years gap respectively.

3.5.9 The overall Birmingham unemployment rate (as measured by the percentage of the population claiming job seekers allowance) is 12.6%, more than double that of the UK at 5.6%, with electoral wards in the Birmingham area being the most severely affected at over 20%. Sandwell's rate is currently 7.2%. Such social and economic deprivation has an adverse impact on health at all levels. The Trust therefore serves a population with lower life expectancies and higher than average rates of mortality and disease.

Health Status

3.5.10 As expected for a population with high levels of deprivation, life expectancy for both men and women is significantly lower than the England average. Men have a life expectancy of 75.9 years for Birmingham as a whole and 74.3 years for men in Sandwell, in comparison to an England average of 77.9 years. Female life expectancy in Birmingham is 81 years, compared to 80 in Sandwell, and 82 years for the England average. It is important to note that these figures are for Birmingham as a whole, and that indicators for the heart of Birmingham area are assumed to be significantly worse as a result of the high levels of deprivation.

3.5.11 The table below gives a summary of key health and lifestyle indicators per 100,000 of population. With the exception of the numbers of adults who smoke in Birmingham, all the figures are significantly worse than the average for England.

Table 22: Key Health and Lifestyle Indicators

Indicator (per 100.000 population)	Birmingham	Sandwell	England Average
Infant deaths	8.25	8.46	4.84
Deaths from smoking	248.10	280.50	206.80
Early deaths: heart disease and stroke	96.80	110.90	74.80
Early deaths: Cancer	123.20	135.10	114.00
People diagnosed with diabetes	5.12	5.63	4.30
Adults who smoke	22.50	27.50	22.20
Hospital stays due to alcohol	1,940	2,180	1,580
Obese adults	26.80	29.10	24.20
Obese children	10.80	12.90	9.60
Teenage pregnancies (under 18s)	52.10	59.10	40.90

3.5.12 Additional analysis of key health conditions shows that:

- Incidence rates for some cancers are significantly higher for the local population than for the rest of the West Midlands;
- Levels of prevalence for certain health conditions are projected to increase largely in line with the national average rates for the heart of Birmingham area, but at a higher rate for Sandwell which is projected to have the highest rates of stroke, CVD, CHD and hypertension in the local health economy; and
- Birth rates for the local populations are higher than the England average, with Sandwell having the highest rate within the West Midlands (77.6 live births per 100,000), and Birmingham the third highest (73.3).

The Population Served by the Trust: Conclusion

Population growth, local diversity, high levels of deprivation and consequent poor health means that there is a need to rebalance resources, to shift activity away from the acute setting and invest in services that will improve the health of local people and reduce health inequalities.

3.6 The Local Health and Social Care Economy

3.6.1 This section describes the local health and social care economy outlining the objectives of local partners and commissioners as well as summarising the impact of competition from other providers in the area.

The Local Councils

3.6.2 The Trust delivers services to a core population of circa 530,000 which is served by two local authorities:

- Sandwell Metropolitan Borough Council; and
- Birmingham City Council.

3.6.3 The borough of Sandwell spans a densely populated part of the Black Country and the West Midlands conurbation, encompassing the urban towns of Blackheath, Cradley Health, Oldbury, Rowley Regis, Smethwick, Tipton, Tividale, Wednesbury and West Bromwich.

3.6.4 Bordering Sandwell to the east is the Heart of Birmingham area of the city of Birmingham. This area includes some of the poorest, most deprived neighbourhoods as well as the affluent shopping and business districts of the City Centre. The Trust predominantly serves the Handsworth Wood,

Ladywood, Aston, Lozells, Nechells, New Oscott, Perry Barr and Soho wards in the Heart of Birmingham area.

The Commissioning Organisations

3.6.5 The regional team of NHS England covers the Midlands and East of England. This benefits the Trust, as it is now geographically at the heart of this one body as opposed to being on the periphery of two separate clusters as it was in the early days.

3.6.6 The Trust now provides services for three main Clinical Commissioning Groups (CCGs):

- NHS Sandwell and West Birmingham CCG (accounts for circa 75% of Trust activity);
- NHS Cross City CCG (accounts for circa 13% of Trust activity); and
- NHS Birmingham South and Central CCG (accounts for circa 5% of Trust activity).

Sandwell and West Birmingham Clinical Commissioning Group

3.6.7 Sandwell and West Birmingham Clinical Commissioning Group (SWB CCG) is responsible for a population of 530,000, largely drawn from the Sandwell and Heart of Birmingham geographical areas. The CCG population is aligned to the catchment population that the Trust serves.

3.6.8 SWB CCG includes all but three of the practices that sit within the Trust's natural boundary. The three remaining practices, which have a practice population of around 28,000, are part of the NHS Cross City CCG, which accounts for circa 13% of the Trust's activity. The configuration of local practices is presented in the table below.

Table 23: Local GP Practice Configuration

	Local Consortium	Number of Practices	Approx. list Size	No. of practices in top 20 referrers to SWBH
SWB CCG	Healthworks	10 12	54,000 77,000	0 7
	Black Country Commissioning Group	20	112,000	5
	Sandwell Healthcare Alliance	31	127,000	6
	Pioneers for Health (P4H)	10	46,000	0
	Intelligent Commissioning Forum (ICOF)	27	107,000	0
NHS Cross City Clinical Commissioning Group		1 2	4,000 24,000	0 2
Total		**113**	**551,000**	**20**

3.6.9 The strategic priorities for Sandwell and West Birmingham CCG are to:

- **Initiate** – intervening early to prevent illness and being proactive in providing care, using high quality information and empowering patients to make choices and manage their care;
- **Integrate** – putting the patient at the centre of everything, improving communications to ensure seamless transitions between primary, secondary and community care, and across health and social care;
- **Innovate** – scaling up good practice, changing the way we do things to deliver more with less, creating new models of delivery to provide more care in community settings;

- **Improve** – focusing on the quality and safety of services in all parts of the system, ensuring that this is reflected in the patient experience, valuing and acting on their feedback; and,
- **Influence** – playing a full role in local partnerships to affect the wider determinants of health, engaging directly with patients and our communities to facilitate change.

3.6.10 Given the nature of the health needs of the SWB CCG population, five domains or high level outcomes have been identified:

- Preventing people from dying prematurely;
- Enhancing the quality of life for people with long-term conditions;
- Helping people recover from ill health or following injury;
- Ensuring people have positive experiences of care; and
- Treating and caring for people in a safe environment and protecting them from avoidable harm.

3.6.11 A further key priority for SWB CCG includes building on the successful partnership arrangements as part of the RCRH Programme. SWB CCG has not only confirmed commitment to the programme, but has also expressed an intention to accelerate this work. The CCG recognises that the RCRH Programme is critical to the successful delivery of the objectives of the local health economy.

3.6.12 Other key CCG priorities include improving the quality of clinical services commissioned, increasing efficiency of all providers and decreasing dependency on the acute sector. These priorities are aligned to delivery of the RCRH strategy.

Local Health and Wellbeing Boards

3.6.13 The local Health and Wellbeing Boards for Sandwell and Birmingham have identified their priorities for improving health. There is significant congruence in their priorities, particularly those focused around:

- Early years and adolescent health;
- Long term conditions and integration of care;
- Frail elderly and dementia;
- Alcohol;
- Healthy and sustainable communities; and
- Maximising the capability of individuals to lead healthy lives.

3.6.14 During 2014-2015 the Health and Wellbeing Board for Sandwell refreshed its medium term plans. The Midland Metropolitan Hospital is now one of the named priorities of the Board.

3.6.15 The Trust is responding to local challenges through the development of a Public Health Plan supported by local partners that contributes to the local Health and Wellbeing priorities.

3.6.16 In addition to the specific commitments the Trust gives to improving health and wellbeing, the plans for a new hospital will support the physical regeneration of a large part of the area. Construction and procurement of local products/services will also create local jobs.

Other Providers in the Local Area

3.6.17 There are five other general acute hospital Trusts (including three NHS Foundation Trusts) within the Birmingham and Black Country area, three of which also provide community health services. There are also three specialist NHS Foundation Trusts and a large Community Services Trust. The Trust has established a joint Partnership Board for collaboration with both Walsall and Dudley Group of Hospitals. The types of services provided by these organisations are presented in the table below.

Table 24: NHS Organisations in Birmingham and the Black Country

Organisation	Acute Service Provider	Community / Health and Social Care Provider	Catchment Area
Dudley Group of Hospitals NHS Foundation Trust (DGH)	✓	✓	Dudley
Heart of England NHS Foundation Trust (HEFT)	✓	✓	Birmingham Solihull
University Hospital Birmingham NHS Foundation Trust (UHB)	✓		Birmingham
Walsall Healthcare NHS Trust (WHT)	✓	✓	Walsall
Royal Wolverhampton Hospitals NHS Trust (RWT)	✓	✓	Wolverhampton
Birmingham Community Healthcare NHS Trust		✓	Birmingham
Black Country Partnership NHS Foundation Trust (SMHSCT)		✓	Sandwell
Birmingham and Solihull Mental Health NHS Foundation Trust			Birmingham and Solihull
The Royal Orthopaedic Hospital NHS Foundation Trust	✓		West Midlands Specialist Trust
Birmingham Children's Hospital NHS Foundation Trust	✓		West Midlands Specialist Trust
Birmingham Women's NHS Foundation Trust	✓		West Midlands Specialist Trust
Dudley and Walsall Mental Health Partnership NHS Trust			Dudley and Walsall

Competition and Acute Market Share

3.6.18 The Trust is in the centre of a complex and competitive local healthcare market, reinforcing the need for the Trust to deliver excellent care that meets patient needs and is convenient to access. The situation also provides opportunities for the Trust to encourage a greater flow of patients from the local population.

3.6.19 A summary of the Trust's market share by CCG is summarised in the table below:

Table 25: Market Share

		OP: new attendances	Non-elective admissions	Elective admissions
SWB CCG	Activity	261,602	49,451	43,805
	% of Trust total	75	76	70
	% SWB CCG total	80	64	70
Cross City	Activity	46,529	6885	9,472
	% of Trust total	13	11	15
	% Cross city total	15	6	11

		OP: new attendances	Non-elective admissions	Elective admissions
South Birmingham CCG	Activity	16,120	2653	3074
	% of Trust total	5	4	5
	% South Birmingham total	17	8	13
Walsall CCG	Activity	4347	711	1298
	% of Trust total	1	1	2
	% Walsall CCG total	7.9	6.1	9.3
Dudley CCG	Activity	4735	676	1082
	% of Trust total	1	1	2
	% Dudley CCG total	4	1	2

The Local Health and Social Care Economy: Conclusion

The Trust maintains strong alignment with the local context including the need to develop services that prevent poor health, integrate care, develop care closer to home and increase focus on quality and safety.

Healthy competition from a range of other providers requires proactive shift of activity to community services and development of sustainable, high quality, acute and specialist services.

3.7 Right Care Right Here (RCRH) Programme

3.7.1 This section summarises the implications of the RCRH objectives and model of care on the plans of the Trust.

The RCRH Partners

3.7.2 The Trust is a key member of the RCRH Partnership. All partners have shown exceptional levels of commitment over the 10 years of the programme.

3.7.3 The current RCRH partners are:

- Sandwell and West Birmingham Clinical Commissioning Group (SWB CCG);
- Sandwell and West Birmingham Hospitals NHS Trust (The Trust);
- Black Country Partnership NHS Foundation Trust (BCP FT);
- Birmingham Community Healthcare NHS Trust (BCH);
- Birmingham and Solihull Mental Health NHS Foundation Trust (BSMHFT).
- Birmingham City Council (BCC); and
- Sandwell Metropolitan Borough Council (SMBC).

RCRH Objectives and Outcomes

3.7.4 The RCRH objectives are to:

- Redesign services to meet the needs of the local populations;
- Ensure that people have the opportunity to benefit from healthier lifestyles;
- Expand services in community settings, bringing appropriate elements of care closer to home and integrating provision such that patients experience seamless care pathways;

- Develop new highly specialised acute hospital services to be provided in the MMH;
- Procure, build and commission the MMH on a brownfield site in Smethwick; and
- Maximise opportunities for regeneration in the local area.

3.7.5 The expected outcomes of the RCRH Programme are significant. Local people will have improved physical, mental and social well-being through:

- Prevention of ill health and promotion of healthy lifestyles through education and leisure activities;
- Earlier treatment of specific conditions to improve life expectancy and chance of recovery;
- Development of a single pathway of care and integration of services - with agencies working together facilitated by information sharing;
- Support to enable people to stay in their own homes;
- Delivery of care closer to people's homes;
- Re-organisation of services to reduce professional isolation, achieve greater critical mass, deliver better quality of care and achieve long term clinical sustainability;
- Better physical environments for service users and staff to encourage more rapid recovery and provide greater privacy and dignity;
- Involvement of local people as active participants in the development of services which are culturally sensitive and convenient;
- More effective use of staff resources and greater diversity in the workforce that reflects local communities; and
- Integration of health plans with local regeneration developments.

Overview of the RCRH Model of Care

3.7.6 The RCRH Programme has developed a new model of care for the local population summarised in the figure below.

Figure 8: The RCRH Approach

3.7.7 The model of care includes interdependent components that deliver:

- Improved prevention and early intervention;

- Improved care for people with long term conditions;
- A wider range of services available locally;
- Improved access to specialist care in the community; and
- Improved specialist services through improved estate and new models of care.

3.7.8 Implementation of the RCRH Programme has now been underway for some years with a growing range of traditional secondary care services now being provided via new models of care in community locations.

3.7.9 The Trust is developing a new model of patient care in line with the RCRH vision outlined above. Within this service model the Trust will deliver clinical services in multiple locations including:

- Patients' own homes;
- Primary care and health centre settings;
- The Trust's community facilities including Rowley Regis Hospital, Sandwell Treatment Centre (STC), Birmingham Treatment Centre (BTC), Birmingham and Midlands Eye Centre, the adjacent Sheldon Block and Leasowes Intermediate Care Facility; and
- A new single site acute hospital.

3.7.10 This vision requires a major step change in service provision across the health economy through service redesign and investment with a re-balancing of capacity to reflect a greater focus on delivering care in community and primary care settings and clinically sustainable acute hospital services operating at maximum productivity.

3.7.11 Where quality, safety and outcome are improved by care closer to home the Trust will deliver care in community settings and will integrate services both internally and with external partners in order to provide seamless care.

3.7.12 The RCRH vision will be enabled by:

- Transformation of the estate including development of primary care facilities, community facilities and development of a new acute hospital;
- Development of information management and technology (IM&T) functionality that will facilitate pathways of care across all local healthcare settings; and
- A redesigned workforce that is able to deliver high quality care across reconfigured services and in a range of different settings.

Right Care Right Here Programme: Conclusion

The RCRH Programme requires the Trust to shift care out of acute facilities to enable investment in prevention and care closer to home.

The RCRH model of care proposes a single site new acute hospital to deliver those high quality sustainable clinical services that need to be delivered within a hospital.

3.8 The Trust Context

Introduction to the Trust

3.8.1 Sandwell and West Birmingham Hospitals NHS Trust (the Trust) is an integrated care organisation. The Trust is dedicated to improving the lives of local people, to maintaining an outstanding reputation

for teaching and education and to embedding innovation and research. The table below summarises the key facts about the Trust.

Table 26: Key Facts about the Trust

Population served	530,000
Annual turnover	£447m million (2014/15)
Number of sites	Two acute sites and three main community locations
Current CQC Rating	Requires improvement
Current TDA Rating	Level 3

3.8.2 The Trust provides acute and specialist services from City Hospital in Birmingham and Sandwell General Hospital in West Bromwich. Emergency care, including A&E services is provided at both sites. In addition, the Trust provides comprehensive community services to over 300,000 people in the Sandwell area from more than 150 locations. Of these three are registered through the Trust. Those being:

- Rowley Regis Community Hospital;
- Leasowes Intermediate Care Centre; and
- Halcyon Midwife-led Birth Centre.

3.8.3 In April 2011 the Trust acquired Sandwell PCT's Community Services Provider Arm, resulting in the Trust providing community based care for circa 60% of its local catchment population.

3.8.4 The Trust is a teaching hospital Trust of the University Of Birmingham. It also delivers undergraduate and specialist education for nurses and professions allied to medicine for the University of Birmingham, the University of Wolverhampton and Birmingham City University. A number of clinical specialties have a long and distinguished record of contribution to academic research.

Trust Vision

3.8.5 Taking into account the local health economy context and the Trust's inherent strengths, the Trust has set the following vision for the future of its services:

'We will become renowned as the best integrated care organisation in the NHS by 2020.'

3.8.6 In the short term the Trust will:

- Relentlessly improve the quality of care provided to patients, achieving ever higher levels of safety, effectiveness and patient satisfaction;
- Recruit, engage and develop passionate and committed people;
- Integrate specialist community services with acute services to ensure that pathways focused on prevention and swift rehabilitation are developed;
- Integrate district nursing, community midwifery and health visiting services as closely as possible with primary health care teams to ensure that patients receive a comprehensive proactive health promoting service;
- Work with partners to actively identify and care for patients who are most at risk of hospital admission, developing virtual wards to keep patients out-of-hospital and swiftly able to be discharged;
- Actively build on the success of the Trust's acute specialist services;

- Meet all statutory and regulatory obligations;
- Ensure that plans will be based on a sophisticated understanding of the health needs of local communities driven by active dialogue and engagement; and
- Explore new contractual and funding partnerships to create a system with clear and comprehensive incentives to keep patients well and out-of-hospital.

3.8.7 In the longer term, 2020 ambitions mean that:

- The Trust will consistently deliver safe, reliable care that patients value highly;
- Patients will say that they do not perceive organisational barriers to accessing the care they seek;
- Staff engagement and leadership programmes will be recognised as among the best in the NHS;
- The Trust will be widely recognised as a ground breaking organisation that takes responsibility for meeting the health and wellbeing needs of the population - providing and organising care in a systematic way;
- The Trust will make innovative use of analytics and technology to make services more accessible and responsive;
- The Trust will develop a more comprehensive set of services to manage the health of the local population working with local communities, the voluntary and statutory sectors;
- The population will hold and use its own integrated health record;
- The Trust will invest more in alternatives to hospital care, reducing the acute services footprint so that the MMH will be a new smaller centre for the most acute inpatient treatment;
- The MMH will be open to provide the highest quality acute specialist services from pleasant, clean, fit for purpose facilities; and
- The Trust will drive innovation in the local health economy, using membership of the West Midlands Academic Health Science Network and building on research strengths and position as a large employer to create local employment opportunities.

Trust Values

3.8.8 The Trust values underpin everything it does as an organisation and reflect what it believes is most important to its patients, their relatives and their carers. The table below outlines what the Trust values will mean to patients, carers, relatives and staff.

Table 27: Trust Values

The Trust will be	What this will mean to patients, carers, relatives and staff
Caring and Compassionate	The Trust sees patients, their carers and relatives as individuals and listens to their needs The Trust cares for patients, their carers and relatives as they want it to The Trust will treat all the patients with dignity and respect
Accessible and Responsive	The Trust's services are accessible to all The Trust identifies and responds to the diverse needs of the patients and communities that it serves The Trust involves patients in decisions about their care.
Professional and Knowledgeable	The Trust demonstrates high levels of competence and professionalism in all that it does The Trust provides safe, high-quality services The Trust pursues opportunities for innovation in the way it provides services

The Trust will be	What this will mean to patients, carers, relatives and staff
Open and Accountable	The Trust is open about what it does The Trust is accountable to patients and local people for the decisions in takes and the services it provides
Engaging and Empowering	The Trust values the experience and knowledge of all its staff and listens to their ideas The Trust works together across boundaries to provide the very best care The Trust provides an environment in which staff can flourish and grow

3.8.9 Combined with the Trust's vision for the future delivery of healthcare to the distinct and diverse population that it serves, the Trust's values have helped it to develop a set of long term strategic objectives.

Strategic Objectives

3.8.10 The Trust's strategic objectives are presented in the table below:

Table 28: The Trust's Strategic Objectives

Strategic Objective	Description
Safe, high quality care	We will provide the highest quality clinical care. We will achieve the goals of safety, clinical effectiveness and patient experience set out in our quality strategy.
Accessible and responsive care	We will provide services that are quick and convenient to use and responsive to individual needs. They will be accessible to all ages and demographics. Patients will be fully involved in their design.
Care closer to home	Working in partnership with primary and social care we will deliver an increasing range of seamless and integrated services across hospital and community settings.
Good use of resources	We will make good use of public money. On a set of key measures we will be among the most efficient trusts of our size and type.
21st Century Infrastructure	We will ensure our services are provided from buildings fit for 21st century healthcare. We will make the most effective use of technology to drive improvements in quality and efficiency.
An engaged, effective organisation	An engaged and effective NHS organisation will underpin all we do. We will become an NHS foundation trust at the earliest opportunity. We will develop our workforce, promote education, training and research, and make the most effective use of technology to drive improvements in quality and efficiency.

Range of Services

3.8.11 The Trust provides a full range of secondary care services for the local population, some more specialist services to a wider population and comprehensive community services in Sandwell.

3.8.12 City Hospital (shown in the figure below) was built in 1887 as the Infirmary for the Birmingham Workhouse. The majority of the estate, including the main inpatient facilities, still dates from this time. More recent additions include the £35m BTC which provides state of the art facilities for one-stop diagnosis and treatment. It includes an Ambulatory Surgical Unit with six theatres, extensive imaging facilities, an integrated breast care centre and teaching accommodation.

3.8.13 Specialist services / departments at City Hospital include:

- The Birmingham and Midland Eye Centre (BMEC), a supra-regional specialist facility;
- The Pan-Birmingham Gynaecological Oncology Centre;

- The Sickle Cell and Thalassaemia Centre; and
- The regional base of the National Poisons Information Service.

Figure 9: City Hospital

3.8.14 Sandwell General Hospital's (shown in the figure below) main clinical facilities were rebuilt in the 1970s. In 2005 a new £18m Emergency Services Centre opened on the Sandwell site, incorporating a comprehensive Emergency Department, Emergency Assessment Unit and Cardiac Care Unit.

Figure 10: Sandwell Hospital

3.8.15 Rowley Regis Community Hospital (shown in the figure below) was opened in 1994 and provides continuing care and rehabilitation services. It also has a range of outpatient and diagnostic facilities.

Figure 11: Rowley Regis Community Hospital

3.8.16 Clinical Directorates serve as the main focus for both operational management and planning, supported by a clinical group management structure which integrates performance, business, quality and financial management with operational delivery. The seven groups are as follows:

- Medicine and Emergency Care;
- Women and Child Health;
- Imaging;
- Surgery A (General Surgery, Trauma and Orthopaedics, Urology, Vascular), Anaesthetics and Critical Care;
- Surgery B (BMEC, Oral and Maxillo-facial surgery, ENT and Audiology);
- Pathology; and
- Community and Therapies.

3.8.17 The table below gives an overview of services across the hospital sites.

Table 29: Services by Site

	Service	City	Sandwell	Rowley
WOMEN AND CHILD HEALTH	Paediatrics	OP and PAU	✓	
	Obstetrics	✓		
	Midwifery led care	Serenity birth centre and OP	OP	
	Neonatal	IP (level 2 units) and OP		
	Gynaecology	✓	DC and OP	OP
	Gynae- oncology	✓	OP	
	Genito-urinary Medicine/ HIV		OP	

	Service	City	Sandwell	Rowley
	Children's therapists		✓	OP
	Health Visiting			
	Family planning			OP
SURGERY A	General surgery	DC and OP	✓	OP
	Breast surgery	✓		
	Trauma and orthopaedics	SAU,DC and OP	✓	
	Vascular surgery (I P at UHB)	DC and OP	DC and OP	
	Urology	✓	TC and OP	OP
	Plastic surgery	✓	✓	OP
	Paediatric surgery	TC and OP	✓	
	Emergency surgery	SAU	✓	
SURGERY B	Ophthalmology	✓	DC and OP	OP
	Behcets	OP		
	Ear, nose and throat	✓	OP	OP
	Oral surgery	DC and OP	OP	
	Dental surgery (Host)		DC and OP	OP
	Audiology	DC and OP	OP	OP
	New-born hearing	✓		
MEDICINE	Emergency medicine	A&E and MAU	A&E and MAU	
	Acute medicine	IP and OP	✓	
	Elderly care	✓	✓	OP and DC
	Stroke (Including TIA)		✓(Including HASU)	
	Neurology	OP	✓	OP
	Cardiology	✓	✓	OP
	Gastroenterology	✓	✓	OP
	Respiratory	✓	✓	
	Dermatology	✓	DC and OP	
	Diabetes and renal	IP and OP	IP and OP	OP
	Lipid clinic		OP	OP
	Rheumatology and immunology	✓	✓	OP
	Haematology (non-oncology)	✓(sickle cell and thalassemia unit)	OP	OP
	Haematology (oncology)	DC and OP	✓ (level 2b care)	
	Anticoagulation	OP	OP	OP
	Oncology	OP and chemo (DC)	OP and chemo (DC)	
CLINICAL SUPPORT	Anaesthetics & pain	DC and OP	DC and OP	
	Critical care	IP and OP	IP and OP	
	Imaging	✓	✓	OP (ultrasound and x-ray
	Pathology	Some laboratories	Main laboratories	

	Service	City	Sandwell	Rowley
COMMUNITY SERVICES	Phlebotomy	IP and OP	IP and OP	IP and OP
	Intermediate care and re-enable meant	IP at City		IP
	Foot health	OP	OP	OP
	Musculoskeletal service	OP	OP	OP
	Community TB team		OP	
	Nutrition and dietetics	IP and OP	IP and OP	OP
	Icares		In reach	
	Primary care assessment and treatment centre			OP
	Physiotherapy and occupational therapy	IP and OP	IP and OP	IP and OP
	Speech and language therapy	IP and OP	IP and OP	IP and OP
	Palliative care	IP support	IP support	
	Continence	OP	OP	

Changes to SAU and Cardiology as a result of interim reconfiguration are likely to be approved by August 2015

3.8.18 A broad range of community services in Sandwell are provided from four main community sites including rehabilitation at the Leasowes Intermediate Care Centre, a range of outpatient activity from the Lyng Centre for Health and Social Care and Rowley Regis Hospital and midwife-led births delivered at the Halcyon Birth Centre.

Activity

3.8.19 Activity delivered at each of the three hospitals is presented in the table below:

Table 30: Activity by Site 2014-2015

Activity	City Hospital	Sandwell Hospital	Rowley Regis	Community Services Sites	Henderson & Leasowes (Beddays)	Total
Elective Admissions	32,660	15,976	15			48,651
Emergency Admissions	48,122	9,896	3		13,825	71,848
Outpatients (total)	470,027	253,078	18,277			741,383
Outpatients (A&E)	113,210	107,348				220,558
Community Contacts				721,068		721,068

3.8.20 The table below shows activity by specialty in 2014-2015:

Table 31: Activity by Specialty

Speciality	Elective inpatients	Day cases	Elective and day cases	Emergency admissions	Outpatient attendances
General surgery	783	2,967	3,750	4,999	19,420
Urology	1,287	1,632	2,919	1,207	20,008
Breast surgery	59	836	895	50	11,029
Colorectal surgery	1	-	1	1	-
Vascular surgery	7	311	318	16	4,431
Trauma & Orthopaedics	1,522	1,832	3,354	3,134	28,523
ENT	349	692	1,041	861	16,456
Ophthalmology	501	7,254	7,755	553	134,833
Oral surgery	21	3,043	3,064	4	5,648
Plastic surgery	319	1,033	1,352	35	6,660
Accident & Emergency	1	-	1	91	96
Pain management	12	1,880	1,892	9	6,076
General medicine	- 10	- 1,342	- 1,353	39	-
Acute Internal Medicine	48	- 897	- 849	17,097	10,560
Gastroenterology	142	1,809	1,951	1,966	16,836
Clinical haematology	248	2,881	3,129	240	17,160
Diabetic medicine		1	1	169	8,687
Cardiology	418	1,431	1,849	2,358	30,676
Anticoagulant Service	1	-	1		65,417
Stroke Medicine	3	- 3	- 1	1,001	349
Dermatology	24	2,167	2,191	37	25,347
Respiratory medicine	55	228	283	1,908	9,632
GUM			-	-	7,839
Medical oncology	636	5,068	5,705	- 6	8,425
Neurology	12	141	153	99	9,039
Rheumatology	29	2,442	2,472	29	25,729
Paediatrics	477	317	795	7,564	12,320
Geriatric Medicine	18	- 3	14	2,946	3,957
Obstetrics	9	5	15	5,811	65,560
Gynaecology	651	1,367	2,017	1,943	14,748
Gynaecological Oncology	636	181	817	176	3,089
Clinical Oncology	88		88	1	5,867
Midwife Episode			-	1,779	15,007
Others	386	2,645	3,031	1,904	132,601
Total	**8,732**	**39,919**	**48,651**	**58,022**	**742,025**

Quality and Safety

3.8.21 The Trust Board regularly reviews all key quality indicators, considers a monthly integrated quality report and has recently approved a new five year Quality and Safety strategy to formalise and provide a local framework for quality and safety. The vision for 'Safe, High Quality Care' is that all clinical care is measured appropriately for safety, effectiveness and patient experience and that increasing attention is given to the outcomes of care. Information on quality and safety is acted upon rapidly and effectively to ensure continual improvement.

3.8.22 The four key objectives articulated in the Quality and Safety strategy are to:

- Improve patient safety, clinical effectiveness and patient experience;

- Ensure the right quality mechanisms are in place so that standards of quality and safety are understood, met and effectively demonstrated;
- Provide assurance that quality and safety outcomes and benefits are being realised, and take action if quality or safety is compromised; and
- Promote the continuous improvement in the quality and safety of services provided.

3.8.23 The Quality and Safety strategy includes three ambitious Trust-wide quality priorities covering safety, clinical outcomes and patient experience which drive year-on-year improvement. These were selected to have the highest possible impact on improving patient care across the organisation. The top three quality and safety related priorities are presented in the table below.

Table 32: Top Three Quality and Safety Related Priorities

Patient Safety	To reduce adverse events which result in avoidable harm	=	We do no harm to patients
Clinical effectiveness	To reduce avoidable mortality and morbidity	=	Fewer patients dying and fewer having complications
Patient experience	To increase the % of patients who would recommend the Trust to family and friends	=	Improve patient satisfaction

3.8.24 Specific, measurable quality improvement goals will be set out each year through the annual planning process. Performance will be reported through public Board reports and through the Quality Account.

Research

3.8.25 The Trust is committed to delivering high quality research to improve patient care and treatment. It has a long history of delivering research in the fields of Cancer, Cardiology, Diabetes, Rheumatology, Ophthalmology and Neurology. More recently, there has been increased research activity in other disciplines including Gastroenterology, Stroke, Dermatology and Paediatrics. Research teams at the Trust have developed large, well-characterised clinical cohorts from the local ethnically mixed patient population in order to support on-going research activity.

3.8.26 The research portfolio includes a range of both academic and commercially funded studies, and also supports undergraduate and postgraduate student educational projects. The Trust has strong ties with local universities and hosts a number of academic units which deliver both basic and translational research (applying findings to influence practice and improve outcomes). Income streams include the Department of Health through the National Institute for Health Research (NIHR), clinical research networks, research councils, charities, and commercial companies.

3.8.27 In 2014-2015 the Trust published a three year Research and Development Plan. This commits the organisation to seeking to treble trial recruitment and move towards the top of local recruitment performance. The organisation plays an increasingly active role in the Clinical Research Network. Research facilities are incorporated across the future hospital sites, recognising that the majority of trial activity is outpatient derived.

Education

3.8.28 The Trust's hospitals are part of the University of Birmingham Teaching Programme and are responsible for training 300 medical students every year, including military trainees. Quality of training has been consistently rated as excellent, following visits from both the West Midlands Workforce Deanery and the Royal Colleges.

3.8.29 Trainee nurses from both Wolverhampton and Birmingham City Universities are based in the Trust and at any one time up to 300 students are working to complete their adult nursing course across all three sites at both degree and diploma levels. Placements are also offered to a range of trainee clinical scientists and Allied Health Professionals (AHPs) as part of their undergraduate and post-graduate studies including: Audiology, Pharmacy, Biomedical Sciences, Physiotherapy, Dietetics, Speech and Language Therapy, Occupational Therapy, Radiology (both diagnostic and therapeutic), Clinical Physics, Clinical Physiology and Medical Physics.

3.8.30 Educational facilities are provided across the future hospital sites. The current education centre at Sandwell Hospital will be retained. Lecture, meeting and library facilities are also provided within the Midland Metropolitan Hospital.

Public Health Plan

3.8.31 The Trust has developed its first Public Health Plan to improve health across the Sandwell and West Birmingham Health Economy. It has been developed in consultation with local stakeholders and sets out how the Trust proposes to improve the health and wellbeing of its patients, visitors, our staff, Trust members and the local community. By taking a co-ordinated approach the entire organisation will be able reinforce consistent health-promoting messages.

Finance

3.8.32 The Trust achieved an annual income in 2014-2015 of £441m, which generated a surplus of £4.3m. The table below shows that the Trust has a history over the last three years of strong financial performance, achievement of statutory financial targets and delivery of circa £65m of cost improvement savings:

Table 33: Summarised Statement of Comprehensive Income Position

Statement of Comprehensive Income	2011/12	2012/13	2013/14	2014/15
	£m	£m	£m	£m
NHS Clinical income	382.8	391.4	394.1	397.2
Non NHS Clinical income	41.4	41.6	43.5	43.5
Total Income	**424.1**	**433.0**	**437.6**	**440.7**
Total Operating Expenses	**(401.2)**	**(406.3)**	**(410.6)**	**(415.7)**
Surplus/(Deficit) from operations	**23.0**	**26.7**	**27.0**	**25.0**
Surplus (deficit) from operations margin	*5.4%*	*6.2%*	*6.2%*	*5.7%*
Adjustment for donated asset income	(0.5)	(0.0)	(0.2)	(0.1)
EBITDA	22.5	26.7	26.8	25.0
EBITDA margin	*5.3%*	*6.2%*	*6.1%*	*5.7%*
Non - Operating Income	(0.2)	(0.1)	(0.2)	(0.0)
Non - Operating Expenses	(18.3)	(30.0)	(29.3)	(17.9)
Surplus/(deficit)	**4.5**	**(3.4)**	**(2.5)**	**7.1**
IPAQ Technical adjustments - impairment lossess (reversals)	2.4	(8.7)	(8.9)	2.8
Replace Surplus/(deficit)	**2.1**	**5.3**	**6.4**	**4.3**
Replace Surplus margin	*1.1%*	*-0.8%*	*-0.6%*	*1.6%*

Performance

3.8.33 The Trust has a strong track record of performing well against the national standards for acute hospital Trusts including achieving national targets.

3.8.34 The table below provides more detail on the Trust's performance against key targets over the period 2012-2013 to 2014-2015. The key area of underperformance continues to be emergency care. Detailed partnership arrangements are in place to support improvement. The Midland Metropolitan Hospital will offer a better environment and configuration from which to sustain improvement.

Table 34: Summary of Performance against Targets

	Measure	2011/2012	2012/13	2013/14	2014/15	2014/15 Target	2015 /16 Target
Access metrics							
Cancer two weeks GP referral to first outpatient	%	94.8	94.7	95	93.5	=>93.0	=>93.0
Cancer two weeks GP referral to first outpatient (breast symptoms)	%	95.8	95.9	96.7	94.7	=>93.0	=>93.0
Cancer 31 date diagnosis to treatment for all cancers	%	99.5	99.5	99.2	98.6	=>96.0	=>96.0
Cancer 62 day urgent GP referral to treatment for cancers	%	86.9	87.1	87	88.3	=>85.0	=>85.0
Emergency care four hour waits	%	95.38	92.54	94.5	92.52	=>95.0	=>95.0
Referral to treatment time admitted <18 weeks	%	93.2	93.7	90.1	92.45	=>90.0	=>90.0
Referral to treatment time non-admitted <18 weeks	%	97.5	98.6	96.5	95.49	=>95.0	=>95.0
Referral to treatment time incomplete pathway <18 weeks	%	97.2	95.3	92.7	94.88	=>92.0	=>92.0
The acute diagnostic waits > six weeks	%	0.99	0.88	0.75	0.23	<1.00	<1.00
Cancelled operations	%	0.6	0.7	1.1	0.8	=<0.8	=<0.8
Cancelled operations (breach 28 day guarantee)	%	0.002	0.004	0.02	0.89	0	0
Delayed transfers of care	%	5.2	2.9	3.1	3.7	=<3.5	=<3.5
Outcome metrics							
MRSA bacteraemia	No.	2	1	1	4	0	0
C Difficile	No	95	37	39	29	<37	<37
Mortality reviews within 42 days	%	66.9	72.9	83	89	=>80.0	=>98.0
Risk Adjusted Mortality rate	RAMI	90.5	88.9	86.9	88	<100	
Summary hospital level mortality index	SHMI	96.8	95.9	96.3	94.2	<100	
Caesarean section rate	%	22.2	23.6	24.9	25	=<25.0	=<25.0
Patient safety thermometer - harm free care	No.		94.2	94.4	93.5	=>95.0	=>95.0
Never events	No.		2	5	0	0	0
VTE risk assessment (adult IP)	%	92.4	90.8	98.7	97.8	=>95.0	=>95.0
WHO safer surgery checklist	%		99.2	99.9	99.9	=>98.0	=>98.0
Quality Governance Metrics							
Mixed Sex Accommodation Breaches	No.			124	107	0	0
Patient Satisfaction (FFT) - Response Rate (IP Wards and Emergency Care)	%			20.5	43.2/21.9	>28/>20.0	>30/>20.0
Patient Satisfaction (FFT) - Score (IP Wards and Emergency Care)	No			68	72/52	>68/>40	>60/>46
Staff Sickness Absence	%			4.33	4.69	=<3.15	=<3.15
Staff Appraisal	%			96.7	90.5	=>95.0	=>95.0
Medical Staff Appraisal and Revalidation	%			97.9	92.8	=>95.0	=>95.0
Mandatory Training Compliance	%			87.2	87.6	=>95.0	=>95.0
Commissioning for Quality & Innovation (CQUIN)							
VTE Risk assessment (adult IP)	%			98.7	97.8	100	
NHS Safety Thermometer - Reduction in Pressure Sores	No.			Achieved	Achieved	Base less 10%	
Dementia - Find, Investigate and Refer	No.			Not met	Achieved	Meet 3 components	
Dementia - Patient Stimulation				Achieved	Achieved	Comply	
Safe Storage of Medicines	%			81	n/a	90	
Use of Pain Care Bundles	%			Achieved	Achieved	Improve on base	
Use of Sepsis Care Bundles	%			Achieved	Achieved	Improve on base	
Community Risk Assessment & Advice	%			Achieved	Achieved	Improve on base	
Recording DNAR Decisions	%			Achieved	n/a	Improve on base	
Clinical Quality and Outcomes							
Stroke Care Patients who spend > 90% stay on Stroke Unit	%	85.9	85.6	91.3	91.9	=>83.0	=>90.0
Stroke Care Patients admitted to an Acute Stroke Unit < 4 hours	%	68.7	59.1	76.4	79.5	=>90.0	=>90.0
Stroke Care - Patients receiving a CT Scan < 1 hour of presentation	%	37.5	52	71.9	71.6	=>50.0	=>50.0
Stroke Care Admission to Thrombolysis Time (% within 60 minutes)	%			51.2	80.3	=>85.0	=>85.0
Stroke Care Swallowing Assessments within 24 hours of admission	%			98.6	99.6	=>98.0	=>98.0
TIA (High Risk) Treatment within 24 hours of presentation	%	53.2	69.8	70.9	98.1	=>70	=>70
TIA (Low Risk) Treatment within 7 days of presentation	%	30.4	75.9	84.5	97.11	=>75.0	=>75.0
MRSA Screening Elective	%	56	60	92.6	87.26	=>80.0	=>80.0
MRSA Screening Non Elective	%	55	65	94.2	82.52	=>80.0	=>80.0
Inpatient Falls Reduction - Acute	No.		737	617	811	<660	
Inpatient Falls Reduction - Community	No.			112	184	<144	
Hip Fractures - Operation within 24 hours	%	66.4	75.7	70.3	69.5	=>85.0	=>85.0
Patient Experience							
Complaints Received - Formal and Link	No.	834	724	948	941		
Patient Average Length of Stay	Days	4.2	3.8	3.4	3.7	=<4.3	
Coronary Heart Disease - Primary Angioplasty (<150 minutes)	%	88.4	91.2	92.5	89.8	=>80.0	=>80.0
Coronary Heart Disease - Rapid Access Chest Pain (<2 weeks)	%	99.1	95.7	96.3	98.2	=>98.0	=>98.0
GU Medicine - Patients Offered Appointment <48 hours	%	100	100	100	100	n/a	

The Estate

3.8.35 The Estates Strategy was updated in September 2013 (see ***Appendix 3a***). The strategy identifies significant issues with the suitability of large parts of the Trust's current estate. Parts of City Hospital, including the main hospital building, are over 100 years old and the Trust has one of the highest backlog maintenance levels in the NHS in England. The Estates Strategy sets out these issues in more detail. The Retained Estate programme is presented at ***Appendix 3b***.

3.8.36 There have, however, been some fairly recent capital developments in the Trust's hospitals. In 2005 the Trust opened a £18.7m Emergency Services Centre at Sandwell Hospital (following the destruction of the former A&E by fire) and the £30m PFI-financed Birmingham Treatment Centre (BTC) at City Hospital also opened in that year.

3.8.37 Detailed condition surveys of the two main sites were undertaken in 2002. A desktop update of the surveys was carried out in August 2007 and the surveys were updated again in June 2012 to identify where condition had deteriorated due to age or improved as a result of capital investment in the estate. Backlog maintenance figures are amended annually to take account of any capital investment required for the High and Significant risk items from revised risk assessments and an allowance for inflation.

3.8.38 The table below identifies the estimated cost to achieve Estate Code Condition B at 31st March 2013. The Trust has used DH methodology for measuring risk in relation to substandard assets so that investments can be prioritised. The DH definition of Condition B is: 'Sound, operationally safe and exhibits only minor deterioration'.

Table 35: Cost to Achieve Condition B

Risk Level	Cost (£)		
	Sandwell	City	Trust
High Risk	0	0	0
Significant risk	1,415,000	1,825,000	3,430,000
Moderate risk	38,126,562	43,617,055	82,250,017
Low risk	3,779,969	6,265,212	10,973,383
Total backlog	43,321,531	51,707,267	96,653,400
Risk adjusted	3,161,105	3,903,427	7,638,640

3.8.39 The Trust aims to reduce its backlog maintenance levels through the development of the new hospital. The strategy also summarises the following plans:

- Upgrade to some parts of the existing accommodation to manage High and Significant estates risks on current sites;
- Reconfiguration of the City Hospital site to support the acute, community and primary care services not transferring to the MMH; and
- Reconfiguration of the Sandwell Hospital site to support the acute, community and primary care services not transferring to the MMH.

3.8.40 The services that will be provided from the reconfigured retained estate sites are outlined in Chapter 5.

The Trust's Current Status and Strategic Objectives: Conclusion

The Trust's successful track record of delivery despite the unsustainable configuration of services across two acute hospital sites and the poor condition of its estate means that it is in a good position to move forward.

The organisation's strategic objectives are in alignment with national and local context.

3.9 Conclusion and alignment with national and local agenda

3.9.1 The table below summarises and brings together the themes explored in this chapter to demonstrate how the RCRH vision for change and Trust plans for the future continue to align with national and local strategic context to provide for the needs of the local population.

Table 36: Strategic Themes

Strategic Themes	RCRH and MMH Alignment
High Quality, Safe Care Increased focus on the need to change the culture of the NHS to provide consistently high quality, safe care that meets rising patient expectations as a result of the Francis Enquiry, Berwick and other reports.	Concentrating a critical mass of specialist expertise on one acute site to facilitate right care, at the right time, at the right place. Supporting the delivery of high quality, safe care through better building design, clinical adjacencies, consistent environments, easy to clean surfaces etc. Improved working environment and more sustainable clinical teams working together and developing a sense of professional pride in delivering high quality care
Funding Restraints The need to make step change improvements in efficiency and productivity as a result of continuing pressure on resources.	Reduction in number of patients accessing expensive acute care unnecessarily. Efficiencies gained from moving to a single site acute hospital, reduction in duplication and focusing investment in clinical rather than back office services. Productive clinical environments support improvement in length of stay and other improvements in efficiency. OBC modelling is integrated into the LTFM to ensure that the long term planning horizon is understood and efficiency improvements required prior to the opening of the MMH will be delivered to plan.
Sustainable Clinical Care Drive to ensure that services are clinically safe and sustainable needs to be led by clinicians underpinned by local engagement.	Concentration of acute inpatient services on a single site. Bringing teams together on one site to help cover rotas in specialties with limited supply in key professional roles. Development of excellent children's care by concentrating expertise on one site and providing for the specific needs of children and younger people. Improvement in reputation gained from new facilities support recruitment and retention of key staff.
Prevention and Reducing Health Inequalities Continuing drive to reduce inequalities and improve population health supported by partnership working in the Health and Well Being Boards.	RCRH rebalancing of resources to focus on prevention and health improvement. Partnership working through RCRH has been strong over the last decade. Engagement of representative service users has improved MMH plans.
Integrated Care The need to provide care that is more integrated around the needs of patients, offering care closer to home when appropriate and delivered seamlessly across organisation boundaries.	RCRH facilitates a devolved model of care that shifts services closer to patients' homes. RCRH model of care for patients with long term conditions to ensure that their conditions are managed effectively to avoid hospital admission. A smaller acute footprint allowing resources to be diverted to keeping people well and out of hospital. Opportunities offered by the Better Care Fund to build on these achievements.

Strategic Themes	RCRH and MMH Alignment
Patient Choice and Competition Responding to increasing public expectations supported by growing sources of information to guide their choices.	RCRH will provide choice of a range of community facilities. MMH will provide a significantly improved acute care environment for patients and their carers - this will encourage them to choose the new hospital. Patients will be able to choose a single room or a 4 bedded bay. Improvements to patient experience, privacy and dignity will be facilitated by the new facilities.

4 Case for Change

4.1 Introduction

4.1.1 Chapter 3 outlines local health needs, strategic context, and the development of a new model of care agreed by the local health economy.

4.1.2 This chapter presents the case for the development of the MMH as part of the wider RCRH model of care and concludes that there is a need to develop a new system of healthcare that addresses the changing needs of patients and enables delivery of high quality services.

4.1.3 Since the Outline Business Case (OBC) was approved in July 2014 the Trust has continued with a programme of reconfiguration aiming to bring primary cardiac intervention services onto the City Hospital Site and Emergency Surgery onto the Sandwell site to provide more sustainable care until the MMH opens. This strengthens the case for change due to the impact of separation of specialties across sites. There have been no other changes and the case for change continues to grow as presented in the following sections.

4.1.4 The case for change is presented under five main headings:

- Poor health in the area the Trust serves;
- Major changes in primary and community care;
- Sustaining top quality acute services;
- Old and unsuitable hospital buildings; and
- Care closer to home and patient choice.

4.1.5 The following sections detail the evidence supporting the case for change.

4.2 Poor Health in the Area the Trust Serves

4.2.1 The areas of Birmingham and Sandwell that the Trust serves have some of the highest levels of deprivation and poorest levels of health in the UK. Poor health has persisted in the area for many years and is improving more slowly than in the rest of England.

Health indicators

4.2.2 Chapter 3 outlines the impact of deprivation on the health of the population served by the Trust showing that the Trust's catchment has poor life expectancy, high levels of infant mortality and a high level of households with one or more persons with a long term illness. These outcomes require major change in the way health and social care services are provided. Health indicators demonstrate the following:

- Low overall levels of life expectancy;
- Early deaths from heart disease and strokes;
- High level of deaths from smoking;
- High levels of hospital stays due to alcohol;
- High levels of low birth weight babies; and
- High levels of infant mortality.

Long Term Conditions

4.2.3 There are a high percentage of households with one or more persons with a limiting long term condition. The current default for these patients is to access acute services for their care resulting in higher than expected use of non-elective care.

The Need to Rebalance Resources

4.2.4 As described in the *NHS Five Year Forward View*, redesigning services to focus on prevention and health promotion will be essential to improving outcomes for the community. The RCRH strategy is to invest in the prevention of ill health which means that it will be necessary to move specialist expertise and resources from the acute sector into primary care.

4.2.5 In order to support this shift, there needs to a rebalancing of resources resulting in the need for a smaller, but more effective and highly specialised acute facility. Length of stay will be shorter due to the provision of more productive, high quality care which will enable patient needs to be met through reduced capacity. It follows that this more concentrated acute care requires appropriate facilities suitable for the needs of 21st century healthcare. Achieving this across two hospital sites would be very expensive and clinically unsustainable due to the duplication of infrastructure and specialist staffing.

4.2.6 The RCRH Programme model of care summarised in Chapter 3 will ensure that patients are able to access:

- Health promotion services;
- Services supporting self-care and care at/closer to home to avoid unnecessary admission to hospital; and
- 21st century healthcare provided in a single site, new acute hospital when they do require admission to an acute hospital.

Conclusion

The poor health of the residents in the Trust's catchment area makes the case for change in the model of care to focus on prevention. The RCRH Programme has developed plans to deliver these changes. A new single site acute hospital is central to successful delivery of these plans.

4.3 Major Changes in Primary and Community Care

4.3.1 Some major investments in buildings and services in primary and community care have already been delivered with more on the way. Examples of changes already being implemented are:

- Development of primary care facilities;
- Development of intermediate care services;
- Expansion of hospital at home schemes;
- Transfer of outpatient services to community settings; and
- Development of urgent care services to reduce pressure in the Emergency Departments.

4.3.2 The shape and size of the local acute hospital service will need to change in response to this because:

- Specialist expertise will be required in the community as well as in the acute environment. It will be difficult to provide sustainable highly specialist cover on two acute sites as well as a range of community facilities in the new model.

- Planned developments in community and primary care will result in the requirement for fewer acute hospital beds and reduction in outpatient and diagnostic capacity in the acute hospital.

Conclusion

Major changes in Primary and Community Care make the case for development of a new acute hospital with capacity aligned to the activity model agreed by the RCRH Programme.

4.4 Sustaining Top Quality Acute Services

4.4.1 Following the recommendations of the *Keogh Review* the Trust is concerned about the stability of current acute care configuration which is sustained by a very high proportion of temporary staff. This situation is not sustainable in the longer term and the Keogh recommendations would be impossible to implement in the current configuration.

4.4.2 There is increasing evidence that large, more specialist units, deliver better outcomes than smaller units unable to specialise sufficiently. For example: the importance of improving clinical outcomes through greater sub-specialisation with appropriate critical mass has been highlighted in: *'Getting it Right First Time*' (Tim Briggs, September 2012). The main reasons for change in this area are:

- The changing way in which doctors are trained;
- The effect of the European Working Time Directive on working hours;
- Strong evidence that specialist centres are more effective because they concentrate clinical expertise where it is needed to improve sustainable cover across services; and
- The challenge of attracting and retaining the best staff in a competitive market.

4.4.3 It is becoming increasingly difficult to provide top quality, sustainable acute hospital services for a population of circa 530,000 in a relatively small geographical area from two hospitals that are only 4-5 miles apart. This section provides examples of the impact of this issue on the Trust and makes the case for developing a new single site hospital.

Specialist Services

4.4.4 The Trust has already made changes to some specialist services e.g. paediatrics, neo-natal services, stroke services and surgery. These reconfigurations will go some way to improving the sustainability of services pending the opening of the MMH.

4.4.5 The Trust is currently consulting on a proposal to locate cardiology services, including a 24 hour Primary Cardiac Intervention Service, on a single site at the City Hospital. Direct admission to the interventional cardiac suite is difficult to do on two sites given the range of staff involved and proposals indicate that a higher quality and more sustainable service can be provided on a single site.

4.4.6 Similarly, the Trust is also consulting on a proposal to locate SAU for emergency surgery and trauma assessment onto a single site. This also ensures that a sustainable and high quality service is provided to patients.

Critical Care

4.4.7 Step up and down arrangements for patients requiring critical care are currently quite limited with resultant risks to quality of care. Patients requiring Level 1 care are therefore either accommodated in the Critical Care Unit longer than clinically required or transferred to a general ward earlier than is ideal. It is proposed to introduce defined Level 1 Care beds on appropriate wards and extended hours of operation for the Critical Care Outreach Team to address this. Development of these services

across two sites would require significant investment in difficult to recruit staff. This would present issues around affordability and may not be achievable.

Consultant Led Services

4.4.8 Development of seven day per week/24 hour consultant-led services in the Emergency Department, Adult Acute Assessment Unit and other key areas would improve speed of senior assessment and quality of care. To achieve this on two sites will require significant increase in consultant numbers, which will not be affordable. In addition, recruiting to specialist medical posts in the Emergency Department is likely to be difficult. Meeting national standards and requirements will be more difficult across two sites, whereas on a single site the Trust will comfortably match expectations.

Separation of Clinical Specialties across Sites

4.4.9 There is strong scientific evidence that surgical outcomes are substantially better when procedure rates exceed 100 per annum. For example a specialist interventional cardiologist should have the opportunity to perform a minimum of 100 Percutaneous Cardiological Interventions per year Delivering the service across two sites requires more interventional cardiologists making it not only less productive but also more difficult for clinicians to maintain minimum levels.

4.4.10 Interim reconfiguration was approved in the context of the change being a medium term plan to improve clinical specialisation and sustainability - the long term plan being to bring it all onto one site in the MMH. If plans for the new hospital do not progress this would result in long term separation of specialties across sites with the following impact:

- The on-going requirement to transfer patients who require inpatient admission in paediatrics, emergency general surgery, trauma and gynaecology;
- Practical problems organising training for junior doctors;
- The requirement for clinicians to maintain cover across sites in the context of the reconfigured services; and
- The risk involved when acutely ill patients may be on one site while the specialist team is undertaking clinical care on the other.

4.4.11 The average journey time between the two hospitals is 20 – 30 minutes but can be quite a bit longer. This has impact on patients travelling by ambulance, relatives and also on staff, putting pressure on the working day.

4.4.12 Where the Trust has restructured to focus specialities onto one of the sites this has sometimes caused more issues with clinical adjacencies further complicating the situation outlined below.

4.4.13 In some of the very acute specialities such as critical care, anaesthesia and emergency surgery the Trust has to divert scarce consultant resource away from elective care because of the need to staff 24 hour cover rotas on two sites. The activity does not always justify this.

Duplication of Departments across Two Sites

4.4.14 Duplication of departments across two sites reduces the efficiency and sustainability of services due to staffing requirements and skill mix as well as the running costs of expensive equipment. Examples of departments that would benefit from integration onto one site are:

- Interventional Imaging;
- Pharmacy;
- Inpatient Operating Theatres;
- Critical Care;

- Emergency Department;
- Acute Adult Assessment; and
- Cardiology (CCU and Cardiac Catheter Labs in particular).

Conclusion

The examples above demonstrate the case for the move to a single site acute hospital to sustain top quality acute services.

4.5 Old and Unsuitable Hospital Buildings

4.5.1 Many of the buildings at both City and Sandwell Hospitals are old and unsuitable for the provision of 21st century healthcare.

Age of the Estate

4.5.2 Much of the existing estate is of significant age and does not comply with the DH aspiration for 40% of the NHS estate to be less than 15 years old by 2010. The table below shows the age profile of City, Sandwell and Rowley Regis Hospitals.

Table 37: Building Age Profile

Age profile	Sandwell %	City %	Rowley %
2005 to present	0	21.29	0
1995 to 2004	0	9.31	0
1985 to 1994	0	3.98	100
1975 to 1984	88.87	5.12	0
1965 to 1974	4.28	7.27	0
1955 to 1964	0	3.11	0
1948 to 1954	0	0.41	0
pre1948	6.85	49.5	0
Total	**100**	**100**	**100**

4.5.3 In summary:

- More than 70% of the City Hospital site is more than 30 years old;
- More than 90% of Sandwell Hospital site is more than 20 years old; and
- Almost 50% of the City Hospital site was built pre 1948.

4.5.4 Some of the Trust's clinical services are housed in sub-optimal portacabins and other temporary buildings.

Backlog Maintenance

4.5.5 The Trust has one of the largest backlog maintenance problems in the country. The current estimated cost to achieve Estatecode condition 'B' is in the region of £100 million. When compared to other large acute Trusts outside of London the Trust lies well above the upper quartile. Significant investment has been utilised from the Capital Programme to address High and Significant Risk backlog and minimise risk to the organisation. It is accepted that the Trust will continue to have very high backlog

maintenance levels until the MMH is open. The emphasis will continue to be to keep High and Significant Risk backlog to a minimum.

Condition Surveys

4.5.6 Condition surveys have been undertaken across the range of categories defined in Estatecode. These include Physical Condition, Statutory Compliance, Energy Performance and Space Utilisation. Overall the outcome of all of these criteria is that the Trust is in need of complete modernisation and improvement and the only way to realistically achieve this is through the development of a new acute hospital.

Management of Asbestos

4.5.7 The presence of asbestos, whilst managed in accordance with statutory regulations, still presents major problems for refurbishments and major new works. The need to carry out destructive/invasive surveys to determine the full extent of its presence presents operational difficulties for clinical and non-clinical services.

Engineering Infrastructure

4.5.8 The age of the engineering infrastructure, including services and medical gases, means that although they are serviceable, they will need long term replacement. The age and construction of much of the engineering services does not allow easy adaptation and expansion to facilitate the development of new and improved clinical services.

Energy Performance

4.5.9 72% of the City Hospital site and 77% of Sandwell Hospital site requires improvement to increase energy performance.

Functional Suitability

4.5.10 At City Hospital, only 29% is deemed acceptable with over 70% being either tolerable or intolerable.

4.5.11 At Sandwell Hospital, only 18% is deemed tolerable with approximately 70% being either tolerable or intolerable.

4.5.12 The following sections outline the clinical impact of poor functional suitability.

Empty Buildings

4.5.13 Since 2012 ten medium/small buildings on the City Hospital site and the old Maternity Unit at Sandwell Hospital have been closed for the following reasons:

- Poor condition and utilisation;
- Vacant facilities following clinical reconfigurations; and
- The need to make estate efficiencies.

4.5.14 Closure of the buildings has provided savings and increased estate efficiency in the short term, but results in an unsightly hospital environment. It will not be appropriate to continue to hold empty buildings in the long term.

Lack of flexibility

4.6.1 The age and piecemeal construction of the hospitals has resulted in lack of flexibility – there is very little generic space that could be used to support changes in services and models of care over time. This means that changes to service require expensive and suboptimal capital developments that have to fit in around existing buildings. This limits the potential for future service development as well as the potential for new technology and innovation.

Care Environment

4.6.2 Patient Led Assessments of the Care Environment (PLACE) audits were held between April and June 2014. Feedback from the audits was that overall standards continue to be very good and the majority of the detailed checks were passed. The audits covered cleanliness, food, privacy and dignity and condition appearance and maintenance. Whilst a high standard has been achieved, both patients' expectations and the Trust's aspirations continue to rise. However, an aging estate will make further improvements increasingly hard to achieve.

4.6.3 The Trust has developed an Art in Hospital Strategy prior to the opening of the new hospital. The Art Steering Group has facilitated a number of community and staff engagement art projects and commissioned some collections of art loan pieces from 'Painting in Hospitals'. This artwork has enhanced some of the corridors and clinical areas in both City and Sandwell Hospitals. However, it is difficult to place/hang pictures in many areas because of poor lighting, engineering pipes and other issues that affect the aesthetic.

Fragmented Adjacency of Departments

4.6.4 Ad hoc development of the hospitals over the years has resulted in a number of poor adjacencies between departments. The impact of this has been reduced through rationalisation of the estate and by moving several services to more central locations. This includes the Sickle Cell and Thalassemia (SCAT) Centre and services for older people previously located in a separate building. However, there are still a number of issues caused by fragmented adjacency:

- To transfer an emergency patient from the Emergency Department to Theatres or Critical Care entails taking patients along public corridors. This is particularly difficult at City Hospital where the route is along the main spine corridor. This increases the length of the patient journey, with consequent clinical risk, and provides no privacy or dignity. The figure below shows the length of the corridor and the lack of separation between patients being transferred, visitors and deliveries / FM services.

Figure 12: City Hospital Main Spine Corridor

- The length of the spine corridors causes problems for patients and visitors needing to walk long distances, particularly if they have mobility problems or are unwell.
- Access to wards from the Adult Emergency Assessment Units on both sites is also along public corridors.
- Maternity and Rheumatology are also disconnected from the corridor on the City Hospital site. Ambulance transport is therefore required to access main hospital services with potential for clinical risk.

4.6.5 The impact of poor adjacency is:

- Less than ideal patient journeys;
- Increased cost for porters or use of ambulances; and
- Increase in clinical risk

Inpatient Facilities

4.6.6 Out-dated ward configurations have been improved as much as possible in the current estate; however, they are no longer suitable for modern care. The figure below shows an example of an unsuitable ward configuration.

Figure 13: Unsuitable Ward Configuration

4.6.7 Current ward templates are such that the number of single rooms that can be designed into the space available is insufficient to deliver a service. This limits the improvement possible in the current estate. The current percentage of single room accommodation available across the two hospital sites is less than 15% which is not ideal, particularly given the prevalence of serious infectious diseases such as TB in the local population. These rooms are widely dispersed across the existing estate which makes it more expensive to bring them up to the standards likely to be required over the next ten years.

4.6.8 The impact of this is:

- Poor privacy, dignity and patient experience;
- Only a minority of patients have the choice of a single room – this may have particular impact on some groups of patients and limits choice to all patients admitted;
- Infection control is hampered by the lack of isolation facilities;
- Poor ability to use space flexibly due to issues with access to toilet facilities; and
- Large bays in typical wards are difficult to clean without major impact on bed availability.

Fragmentation of Inpatient Theatres

4.6.9 Inpatient theatres are spread between two sites in configurations which reduce efficiency both in terms of space utilisation and staffing. In addition, at Sandwell Hospital theatres are split across two floors with four theatres on the first floor and four theatres on the third floor. This fragmented configuration reduces the Trust's ability to implement the following modernised service improvements:

- The development of a central admissions unit for elective surgical cases;
- Integrated recovery facilities;
- Effective staffing structures and skill mix; and
- Flexibility in use of staff and equipment.

Lack of Dedicated Departmental Facilities

4.6.10 There is currently a dedicated Medical Day Case Unit on the City hospital site but not at Sandwell with the result that treatments take place across many different unsuitable ward and outpatient environments. The impact of this is:

- Patients are admitted to wards unnecessarily reducing efficient use of ward resources;
- Reduced ability to share recovery areas with other departments (Medical Day Case Unit and Interventional Radiology share in the preferred solution);
- Reduced potential for development of effective skill mix across clinical areas; and
- Reduced ability to respond to the increase in demand over time for day case rather than inpatient treatments.

Poor Functional Performance within Departments

4.6.11 Many departments are no longer suitable for the provision of modern services, for example:

- The Medical Admissions Unit at City Hospital is hampered by poor access arrangements and movement around the department is limited by pillars and disjointed circulation space;
- Lack of training and meeting facilities close to working departments means that staff have to leave the department for routine continuing professional development, departmental meetings etc.; and
- Changing facilities are often not available making implementation of a uniform policy more difficult.

Movement around Hospital Sites

4.6.12 Way finding especially at City Hospital is made difficult by:

- Distance between buildings;
- The existence of many entrances across the site; and
- The fact that car parking is spread across a wide area.

4.6.13 The impact of this is:

- Poor patient and visitor experience caused by anxiety when they are unable to find departments;
- Patients find walking between departments difficult because of the distances involved; and
- Long walks across uneven terrain in all weather conditions from car parks and bus stops.

Lack of a Clear Main Entrance

4.6.14 The Hospitals do not have clear main entrances, particularly at City Hospital, but present a sprawling, disjointed and untidy front door. The figure below shows the difficulty for patients trying to find the main corridor at City Hospital. The car park is some distance away and the signage can often be hidden by delivery vehicles.

Figure 14: Entrance to the Main Spine Corridor at City Hospital

4.6.15 This has the following impact on the Trust:

- Poor way finding as described above;
- Inability to concentrate resources such as wheelchairs, payphones etc.
- Inability to focus customer care resources where help is needed;
- Poor image for the Trust resulting in potential lack of confidence from patients and their families;
- Limited ability to present patient information and health messages;
- Limited ability to host community activities, exhibitions etc.; and
- Reduced ability to enhance well-being through the use of airy, comfortable places for service users or staff to wait or meet.

Poor Working Environments

4.6.16 Staff are still working in poor clinical environments with impact on morale and ability to provide best patient care. Some examples of this are presented below:

- Lack of single rooms make it operationally more difficult to manage infection control;
- The Emergency Department at City Hospital has developed on an ad hoc basis within available space. The layout does not lend itself to efficient patient flow or organisation.
- The Medical Assessment Unit at City Hospital is in an area with disjointed layout as described above, poor facilities and no natural daylight; and
- The Trust has difficulty in maintaining national standards for patient flow and segregation in Endoscopy due to size and lay out constraints.

Integration of Health Plans with Regeneration Developments

4.6.17 Full integration of health plans with local regeneration developments is not possible under current circumstances because the poor condition of current estate does nothing to improve local

neighbourhoods. The Trust cannot support wider regeneration objectives without making substantial changes.

Conclusion

Due to the condition of the current estate the provision of a suitable environment for patients and staff will require investment in new hospital facilities. This provides the case for the development of a new high quality hospital building.

4.7 Care Closer to Home and Patient Choice

Reasons for Developing Care Closer to Home

4.7.1 Many patients prefer to receive care closer to home as has been evidenced by evaluation of the RCRH exemplar projects. They value the convenience and find venues easy to get to. Other reasons for moving care closer to home or community settings are:

- Acute hospitals are not ideal environments for the frail or elderly because the expertise of clinical staff may often be focused on the short term management of acute patient care;
- The expertise for planning and delivering rehabilitation and the management of long term needs may not be as well developed in acute hospitals as it is in community environments; and
- On-going management of long term conditions when the acute treatment is completed should be managed by the GP/community team who should know the patient well.

Delivery of Care Closer to Home

4.7.2 Patients and GPs increasingly expect care to be provided as close to home as possible. Responding to this, where clinically possible, will strengthen the Trust's links with primary care and the population that the Trust serves in an area where patients have real choices about where to go for specialist treatment. Effective development of community services is the essential component of care closer to home. For example:

- Limited out of hours community respiratory service means that patients with long term respiratory conditions, who have an acute episode out-of-hours, are more likely to present to the Emergency Department, and then get admitted for further assessment;
- Patients with a fractured neck of femur currently stay in hospital longer than necessary because of a lack of rehabilitation service in community locations or at home; and
- Many patients requiring end of life care are currently admitted to hospital due to a lack of hospice beds or home support services.

4.7.3 Development of these services is dependent on achieving shift of activity out of acute care. In addition, implementation of a new model of care across the interface with acute services is a very important enabler of this change. It will not be possible to deliver care closer to home with current acute bed capacity and the current approach to clinical care. The reasons for this are as follows:

- Current acute capacity supports a higher level of activity than the model predicts – failure to reduce acute activity will reduce the resources available for delivery of community services;
- Current variation in acute assessment processes and poorly developed streaming can mean that patients are admitted unnecessarily. This means that care that could have been managed in patients' own homes defaults to acute admission; and
- Current variation in care and discharge processes means that patients are not yet consistently having the opportunity to access early discharge to a community setting or to their own homes.

Patient Choice

4.7.4 Extension of patient choice and the range of providers mean that the Trust will need to be able to respond to patients' needs and involve them in decisions about their care. The Trust will need to ensure that it responds to patient requirements in a highly competitive market place because patients in the Trust's catchment area have easy access to a number of other local hospitals. The Trust will be responding to patient choice by:

- Delivering services that offer care closer to home;
- Ensuring that the patient experience is supported by providing the best quality services in the best facilities; and
- Delivering the best customer care with staff that are focused on patient centred care.

Conclusion

The preference for care closer to home and expansion of patient choice makes the case for delivering new services closer to home, building state of the art hospital facilities; and developing a high quality workforce.

4.8 The Conclusion of the Case for Change

4.8.1 The overall case for change draws on the need to respond to changing local health needs with modernised services as described by the RCRH Programme.

4.8.2 **The poor health of the residents in the Trust's catchment area** makes the case for change in the model of care to focus on prevention. The RCRH Programme has developed plans to deliver these changes. A new single site acute hospital is central to successful delivery of these plans.

4.8.3 **Major changes in Primary and Community Care** make the case for development of a new acute hospital with capacity aligned to the activity model agreed by the RCRH Programme.

4.8.4 The move to a single site acute hospital is necessary to **sustain top quality** acute services.

4.8.5 Due to the **condition of the current** estate the provision of a suitable environment for patients and staff will require investment in new hospital facilities.

4.8.6 The preference for **care closer to home and expansion of patient choice** makes the case for delivering new services closer to home, building state-of-the-art hospital facilities; and developing a high quality workforce.

4.8.7 Since the approval of the OBC in July 2014 there have been few changes, but the need for delivery without delay has intensified in the context of:

- On-going challenges to clinical sustainability;
- Increasing financial pressures requiring improvements to efficiency;
- Increasing population and needs of the community; and
- Growing expectations of NHS services.

5 Future Service Requirements

5.1 Introduction

5.1.1 This chapter sets out the model of care that has been agreed by partners within the local health economy. It details the activity projections and the capacity requirements to deliver that activity.

5.1.2 Activity projections have been refreshed to take account of a revised actual position for 2014-2015 and contracted activity for 2015-2016. The outcome of this refresh, presented at ***Appendix 5a***, is that the capacity requirements for MMH remain unaltered.

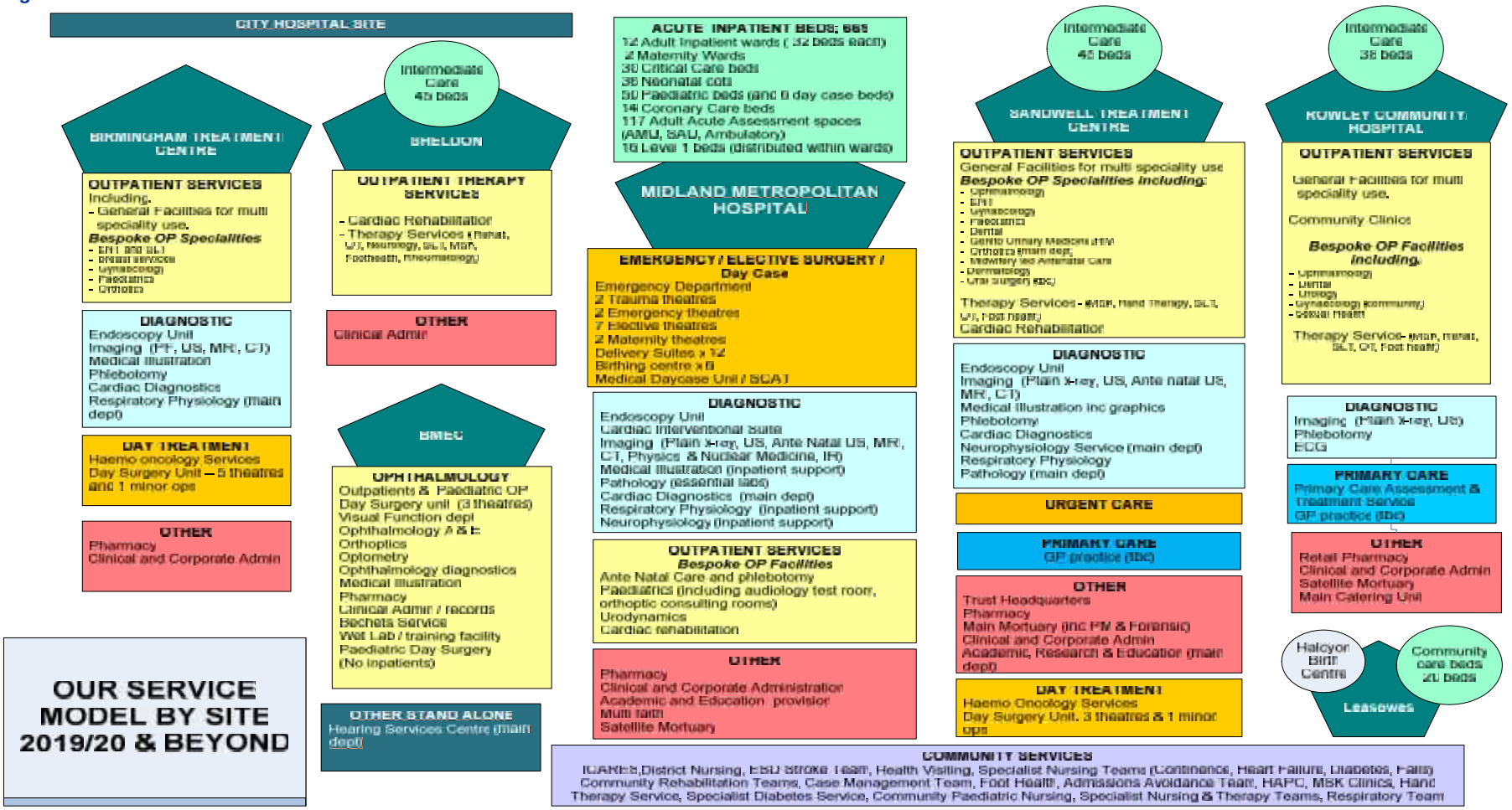
5.2 Right Care Right Here (RCRH) Model of Care

5.2.1 The RCRH Programme has developed a new model of care, as presented in Chapter 3, for the local population.

5.3 Trust Service Configuration

5.3.1 The figure below summarises the services that will be offered at each of the locations to support the RCRH model of care.

Figure 15: Model of Care



5.3.2 The Trust's service configuration aligns to the RCRH model. Most of the Trust's services will be provided either in the community or from one of its community facilities. The principles behind these decisions agreed with the Trust's Clinical Leadership Committee were to:

- Ensure the vision for the RCRH Programme is maintained;
- Transfer additional appropriate outpatient, day case and support services to community facilities;
- Deliver acute inpatient care on a single site hospital;
- Accommodate corporate administration functions on the community sites; and
- Plan future service locations with the departments involved.

The Community Facilities

5.3.3 The community facilities will serve populations of about 150,000 and provide accommodation for a range of services including:

- Urgent care;
- Outpatients and diagnostics;
- Day surgery and day services;
- Intermediate care beds;
- Specialist community services; and
- Primary care.

5.3.4 The exact mix of services provided in each of the facilities will vary according to local circumstances. A range of provider organisations including the Trust, primary care and community service providers will operate from the community facilities.

5.3.5 The buildings to be retained and developed (if required) for the Trust's community facilities are:

- The Birmingham Treatment Centre (BTC) on the City Hospital site;
- Part of Sandwell General Hospital, which will become the Sandwell Treatment Centre (STC);
- Rowley Regis Hospital (RRH);
- Sheldon Block on the City Hospital site, which will become the Dudley Road Intermediate Care Centre;
- The Birmingham and Midlands Eye Centre (BMEC), which will continue to accommodate all Ophthalmology services with the exception of inpatient elective care; and
- Leasowes Intermediate Care Centre.

5.3.6 The necessary investment will be delivered through the Trust's Capital Programme.

The New Acute Hospital Facility

5.3.7 A new acute hospital is the final part of the set of facilities that will support the RCRH model of care. The Trust's aspiration for the hospital is that patients attending services for investigation or treatment will receive excellent care with timely availability of clinical expertise at all points of their individual care

pathways. It will provide modern purpose built facilities in which to deliver acute care. As a single site acute hospital it will allow consolidation of acute emergency and inpatient services with a critical mass of patients, staff and equipment. This will enable delivery of:

- High quality care 24/7 and 365 days per year;
- Continuity of care through multidisciplinary teams working to pathways and protocols agreed by expert led teams;
- Initial assessment and treatment of patients requiring emergency care by experienced specialist clinicians working extended hours seven days a week.
- In the most acute specialities and on-site 12 hours, seven days a week for a number of others;
- Sub-specialty expertise across the entire range of specialties available to in-patients in a timely fashion;
- High-level diagnostic support, including imaging and pathology available 24/7;
- Separation of acute unplanned and elective patient flows with individuals responsible for elective care of patients not being simultaneously responsible for the delivery of emergency care; and
- Leadership at the point of care delivery e.g. wards, departments and theatres will be provided by experienced clinicians with sufficient time to lead and supervise staff and standards.

5.3.8 This will also mean:

- A greater proportion of patients attending the acute hospital will be acutely unwell, have complex conditions or require specialist assessment.
- The smooth transfer of patients to a community location or primary care once this level of acute care is no longer required will be essential.
- Clear patient pathways that cross organisations and professional groups will be essential to ensure seamless patient care without duplication or gaps and to ensure patients receive the right service in the right place at the right time.
- Smooth, timely flow of information, ideally in the form of an integrated health care record, between professionals and across locations and providers will be important.
- Changes to the workforce will be required to ensure staff with the right competencies are available at the right time in the right place.
- The Trust will continue to provide and develop a range of more specialist services to the local population, to the wider population within the West Midlands and in some cases further afield. This includes Gynae-oncology, specialist Ophthalmology, Sickle Cell and Thalassaemia and specialist Rheumatology services.

5.3.9 A detailed breakdown of activities being provided by the Trust at each of these facilities is presented in the Service Model presented at ***Appendix 5b***.

5.4 Activity Projections

5.4.1 The RCRH Programme has developed a jointly owned Activity and Capacity Model which is used by the partners to underpin future healthcare development. It provides activity forecasts for the Trust's catchment area across all commissioners.

5.4.2 The RCRH Activity and Capacity Model was originally developed in 2004 for the Strategic Outline Case (SOC) and has since been developed through a series of versions. In summary the most significant versions have been:

- Version 4.2 (2008) formed the basis of the first version of the OBC (2008).
- Version 5.1 (2010) developed by the RCRH Programme as part of a wider review linked to change in financial conditions within the NHS. Version 5.1 included revised forecast activity and capacity for the MMH.
- Version 5.3 (2010) developed by the Trust following a value engineering exercise for the MMH to recognise the changes in version 5.1 and also given the changes to NHS financial conditions to reduce the size of the MMH and improve affordability. In particular this resulted in a change in the split of activity between MMH and the Trust's future community facilities (retained estate).
- Version 5.7 adjusted (2013). Over the last few years the Trust has amended the Activity and Capacity Model to support its Long Term Financial Model (LTFM) submissions. Version 5.7 adjusted (V5.7a) forms the basis of the LTFM submitted in November 2013 as part of the assurance work and preparation for proceeding to the procurement phase for MMH. All modelling in V5.7 is based on 2010-2011 outturn. The main adjustment has been to identify the difference between the 2013-2014 contracted (LDP) plan and the modelled activity for 2013-2014 in the earlier version 5.7 and then to apply the % difference to the future years trajectory. The model assumes MMH becomes fully operational from October 2018.
- The LTFM approved by the Board, updated to include revised activity detail provided by the relevant CCGs (Version 5.7b).

5.4.3 The current version of the model starts from a baseline of the first 10 months of actual activity plus two months forecast in 2014-2015 and produces a detailed year-by-year forecast over the ten years to 2023/24.

5.4.4 ***Appendix 5a*** presents comprehensive detail about the assumptions underpinning the activity assumed for the Trust. This includes productivity, length of stay, day case rates, bed occupancy, theatre minutes and utilisation, outpatient new-to-review ratios and throughput etc. It has also been supplemented by additional analysis and modelling for Pathology and Imaging.

5.4.5 The model produces activity projections for the Trust aligned to location as presented in the table below:

Table 38: Projected Trust Activity in 2019/20 by Location

Category	Type	MMH	Community Facilities	Total
Admitted Patient Care	Elective Inpatients	8,142	0	8,142
	Day Cases	7,006	37,961	44,967
	Emergencies (inc Intermediate care)	56,917	3,303	60,221
	Occupied Bed Days	211,535	51,257	262,793
Outpatients	New Outpatients	31,361	163,381	194,742
	Review Outpatients	27,888	317,857	345,745
	OP with Procedure	18,008	43,158	61,166
	Virtual Outpatients	1,928	22,214	24,142
	Maternity	18,739	0	18,739
Other	A&E Attendances	127,652	32,151	159,803
	Urgent Care	36,628	38,639	75,266
Capacity	Beds	669	148	817
Community	Contacts	0	880,805	880,805

5.4.6 The model produces trajectories for how activity will change over the years to the opening of the new hospital as summarised in the table below.

Table 39: Activity Trajectory

Activity Trajectories	Actual 31/03/12	Actual 31/03/13	Actual 31/03/14	Forecast 31/03/15	Forecast 31/03/16	Forecast 31/03/17	Forecast 31/03/18	Forecast 31/03/19	Forecast 31/03/20	Forecast 31/03/21	Forecast 31/03/22	Forecast 31/03/23	Forecast 31/03/24
Elective	58,534	57,310	52,642	48,651	49,540	50,528	51,452	52,253	53,109	53,979	54,767	55,416	56,082
Non elective	61,163	57,404	57,838	58,022	59,582	60,175	59,943	59,388	60,221	61,488	62,618	63,530	64,463
Outpatients	683,540	690,550	730,364	742,025	751,849	708,593	669,414	634,267	644,535	656,076	666,709	675,890	685,306
A&E and Urgent Care	210,094	196,250	174,928	220,558	219,340	223,324	227,209	230,038	235,069	239,195	242,377	244,247	246,151
Other clinical - Non Tariff	60,612	76,820	53,703	1,414,134	1,460,561	1,467,195	1,485,499	1,505,792	1,533,467	1,558,305	1,583,429	1,608,872	1,634,638
Community Contacts	636,500	717,180	748,088	720,759	723,980	768,995	800,957	843,297	880,805	918,705	946,397	963,893	981,811

5.4.7 The activity and capacity model has been used to calculate bed, theatre, outpatient, imaging, endoscopy, cardiac intervention room and birthing room capacity. It also informs the income assumptions presented in the LTFM as presented in Chapter 13.

5.5 Performance assumptions

5.5.1 The productivity implications of the RCRH Vision for the Trust are that:

- The majority of outpatient attendances and planned diagnostics will be provided outside the acute hospital in community locations by a mixture of secondary care specialists and primary care professionals.
- A greater proportion of inpatient length of stay will be provided in the Trust's intermediate care beds.
- A significant reduction in average length of stay, reducing in the acute hospital to 3.1 days and within the intermediate care beds to 17 days.
- A catchment loss for Emergency Department and emergency inpatient activity related to the change in location of the acute hospital.
- Increased community-based urgent care and out-of-hours services to provide alternatives to attending the Emergency Department.
- Increased day surgery rates (to 85%) with the majority of adult day surgery being provided in dedicated day surgery units in the BTC, STC and BMEC.
- Better physical environments for service users and staff which will encourage more rapid recovery and provide greater privacy and dignity.
- The development of a new single site acute hospital is required allowing consolidation of acute emergency and inpatient services.

5.5.2 The impact of the RCRH model of care is presented in the table below.

Table 40: Impact of the RCRH Model of Care

	SWBH in MMH	SWBH in Community Facilities	Other Providers
Outpatient Attendances	*13%* *(Antenatal & Paediatrics)*	74% will be provided by SWBH in community locations 24% being Ophthalmology attendances in BMEC 4% being attendances provided via virtual clinics	6% will be provided by new providers in community locations 7% will be absorbed in to primary care as part of routine working in primary care.
Beds & Length of Stay	671 beds Average length of stay of 3.08 days	Circa 148 beds Average length of stay of 17.01 days	
Catchment Loss	3% adult emergency inpatient admissions	None assumed	Emergency catchment loss primarily flows to:

	SWBH in MMH	SWBH in Community Facilities	Other Providers
			Walsall UHBT DGoHFT HEFT
Emergency Department	70% total ED & Urgent Care attendances	30% delivered in Urgent Care Centres (STC) & BMEC (45 % in BMEC)	Excludes Urgent Care activity in existing primary care Urgent Care Centres (e.g. Summerfield)
Day Case Rate 85%	48% including: Children's day surgery * Medical Day Case Unit Interventional Cardiology	100% Day surgery in BTC, BMEC & STC Medical day cases (including chemotherapy) in BTC & STC	

5.6 Capacity requirement

5.6.1 In order to develop an understanding of capacity requirements it has been necessary to consider the level of throughput possible given the planned case-mix of the Trust and a set of performance and productivity assumptions.

5.6.2 ***Appendix 5a*** presents the activity/performance/capacity parameters underpinning the functional requirements. These models were used as the starting point for discussing capacity with lead clinicians within the Trust and for developing the functionality of the new acute hospital and the community facilities.

Inpatient Beds

5.6.3 The tables below summarise the functionality requirements of significant departments within the new acute hospital and the community facilities, comparing these with current provision and highlighting any key performance factors or other issues.

Table 41: Inpatient Beds

	2014-2015	2019-2020 Planned Capacity	Other Comments
Critical Care (Levels 2 &3)	30 funded beds (32 physical bed spaces)	30	2014-2015: Bed numbers vary as staffed on points basis.

	2014-2015	2019-2020 Planned Capacity	Other Comments
Children	51	50	2014-2015: In addition: 5 medical day case beds; 9 surgical day case beds open 2-3 days per week; ability to open up to 12 winter/flexible beds) 2019-2020: Includes Assessment Unit, adolescent beds (up to the age of 16) & capacity for children in all specialties. In addition there are 6 day case spaces.
Neonatal	29 funded cots (37 physical cot spaces)	36	Some transitional care will take place on the maternity wards (see below).
Maternity	44 (inc. transitional care, HDU beds on Delivery Suite, antenatal & post-natal care)	60* (inc. transitional care, HDU beds on Delivery Suite, antenatal & post-natal care)	2014-2015: In addition - 6 ADAU spaces & 6 discharge lounge spaces 2019-2020: *includes circa 10 transitional care beds although actual no. vary according to demand and flexible use with maternity beds In addition there is a Foetal Medicine & Antenatal Day Assessment Unit (6 spaces) & Transfer Lounge (6 spaces – can be flexed to beds at peak demand)
Adult Acute Assessment	103 Medical (includes 21 trollies) 21 Surgical	117 (94 medical & 23 surgical)	2019-2020: Reduced capacity to reflect direct admission from ED or ambulance to a number of specialties including stroke, trauma (fractured neck of femur), interventional cardiology etc. Also move to ambulatory pathways and use of chaired area and consult/exam rooms for this. Adult Acute Assessment will comprise: Medical Assessment Unit with: 56 medical assessment beds 14 medical monitored beds 24 trollies medical ambulatory assessment (in addition to a chaired area for up to 30 patients) Surgical Assessment Unit with: 6 beds and 17 trollies
Medical Adult Beds	318	224 (inc. 14 CCU beds)	2014-2015: Includes extra beds across medicine and surgery opened in 2013-2014 & 2014-2015 but planned to reduce by 2017-2018. Includes 51 '*ready to go'* beds 2019-2020: Capacity reflects earlier transfer to intermediate care beds.

	2014-2015	2019-2020 Planned Capacity	Other Comments
Surgical Adult Beds	208	152	In addition there will be an Emergency Gynaecology Assessment Unit (6 trolley spaces) and Emergency Pregnancy Assessment Unit (6 trolley spaces)
Sub Total	**804**	**669**	
Intermediate Care	42	148	
SWBH Total	**846**	**817**	

Bed Capacity Modelling Methodology

5.6.4 To derive the bed groupings the future adult bed days were analysed by HRG and HRG Chapter and then grouped on the basis of conditions that were agreed with clinical leads to give the bed numbers in the table below. It should be noted that generic wards were planned as units of 32 beds, arranged in clusters of 3 so at an operational level there will be some flexibility in use of these beds.

Table 42: Inpatient Beds by Condition Grouping

Condition Groupings	Specialties	Bed Numbers
Medicine	Respiratory: Includes 4 level 1 beds & 10 isolation rooms	32
Medicine	Acute Elderly: Includes acute elderly & mental illness	32
Medicine	GI: Includes medical, acute GI bleeding,4 level 1 beds	32
Medicine	Haematology oncology, Haemoglobonopathy Dermatology & Rheumatology	32
Medicine	Stroke & neurology Includes 4 level 1 beds	32
Medicine	Short stay, frail elderly, poisons (monitored beds)	32
Musculoskeletal	Orthopaedics & Trauma	64
Maternity	Ante- and post-natal, HDU (level 2). In addition there is a Foetal Medicine & Antenatal Day Assessment Unit (6 spaces) & Transfer Lounge (6 spaces – can be flexed to beds at peak demand)	60
Gynaecology & Gynaeoncology	In addition a collocated EGAU (6 spaces) & EPAU (6 spaces)	24
Surgical Specialties	Long stay, Colorectal Surgery includes 4 level 1 beds	32
Surgical Specialties	Short stay, Urology, ENT, Interventional Radiology, Plastic Surgery, Breast Surgery & Ophthalmology	32
Cardiology	Includes 14 CCU beds & cardiology step down beds	32
Sub Total		***436***
Adult Acute Assessment	All adult emergency inpatients (except maternity, fracture of femur, stroke, & acute chest pain): • 56medical assessment beds • 14 medical monitored beds • 24 trollies medical ambulatory assessment (in addition to a chaired wait) • 23 Surgical Assessment Unit trollies/beds	117
Critical Care (ICCU) level 2 & 3	All adult	30
Neonatal	Intensive Care, High Dependency and Special Care	36
Children	Includes Paediatric Assessment Unit, Adolescents, High Dependency. In addition there are 6 day case spaces.	50
Sub Total		***233***
Total		**669**
Condition Groupings	**Specialties**	**Bed Numbers**

Theatres

5.6.5 Operating theatre capacity requirements are presented in the table below.

Table 43: Operating Theatres

	2019/20	2019/20 - Other
Emergency (including trauma)	4	Includes: 2 Trauma; 1 Laparoscopic & 1 General
Elective Inpatient	7	Includes: 2 Orthopaedic; 2 Laparoscopic; 1 IR capacity; 1 Ophthalmic &ENT capacity and I gynae-oncology
Maternity	2	In Delivery Suite
MMH Sub-total	**13**	
BTC	5	And 1 minor op
BMEC	3	
Sandwell	3	And 1 minor op
Community Sub-total	**11**	
Total	**24**	

Outpatients

5.6.6 Outpatient capacity requirements are presented in the table below.

Table 44: Outpatients Consulting Rooms

Specialty	SWBH 2014/15	2019/20 Midland Met	2019/20 Community	Community Locations	2014/15 Total	2019/20 Total
Generic Adult	35 BTC 21 SGH 5 RRH	0	35 BTC 36 STC 9 RRH	BTC, STC & RRH will have suites of generic adult consulting rooms for use by all specialties (apart from those requiring bespoke accommodation)	61	80
T&O	4 cubicles & 4 rooms SGH 6 cubicles & 2 rooms City	0	Use of generic adult rooms		16	Use of generic adult rooms
Breast	5 BTC	0	5	Bespoke accommodation: BTC	5	5
ENT	6 BTC 5 SGH	0	3 STC 6 BTC	Bespoke accommodation: BTC & STC	11	9
Oral Surgery	3 City	0	4	Bespoke accommodation: STC&RRH	3	4
Dental	3 SGH	0	2	Bespoke accommodation: STC&RRH	3	2
Diabetes	6 City 7 SGH	0	Use of generic adult rooms		13	Use of generic adult rooms
Dermatology	6 Sheldon	0	6	Bespoke accommodation: STC	6	6
Antenatal	5 City 3 SGH	7	6	Bespoke accommodation for Midwifery led antenatal clinics: STC	8	13
Fetal Medicine	1 City	0	0		1	Use of antenatal clinic
Respiratory	5 SGH	0	5	Bespoke accommodation: STC	5	5
Oncology	6 BTC (at SGH use generic adult rooms)	0	6 BTC 4 STC	Bespoke accommodation: BTC & STC (adjacent to chemotherapy day units)	6 BTC & use of generic adult rooms	10
Ophthalmology	27 BMEC 5 SGH Archer Ward	1*	39 BMEC 6 STC 4 RRH	Bespoke accommodation: BMEC, BTC & STC	32 & Archer Ward	49

5.6.7 For the majority of specialities all adult outpatient activity will be undertaken in community facilities with no outpatient activity in the MMH. The exception to this is Maternity where all consultant-led and high risk antenatal outpatient activity will be undertaken in the MMH. Low risk and midwifery-led outpatient activity will continue to be offered in community locations.

Imaging

5.6.8 Imaging capacity is presented in the table below.

Table 45 Imaging Capacity

Department	New Acute Hospital	BTC	STC	RRH
Imaging	2 Plain Film x-ray 2 Plain Film x-ray in ED 4 Ultrasound rooms 2 MRI 2 CT 2 Fluoroscopy room Interventional Radiology Suite (with x 2 Fluroscopy, barium and 1 ultrasound room) 4 Gamma Cameras	1 MRI 1 CT 1 Dexa Scanner 2 Plain x-ray rooms 4 Ultrasound rooms	1 MRI 1 CT 2 Plain Film x-ray 3 Ultrasound rooms (1 to be used as a vascular room)	1 Plain Film x-ray 2 Ultrasound rooms
Cardiac Diagnostics	1 Stress ECHO TOE room 2 ECHO rooms 1 Ambulatory monitoring room 1 ECG rooms 1 Pacing room3 Cath Labs	1 Exercise stress testing room 1 Ambulatory monitoring room 2 ECG rooms	1 Exercise stress testing room 2 ECG rooms 1 Ambulatory monitoring room 1 Device testing room	1 ECG/ECHO room
Respiratory Physiology	1 Respiratory testing 1 Sleep diagnosis/therapeutic assessment room	4 Respiratory testing rooms	2 Respiratory testing rooms 1 Sleep room	N/A
Neurophysiology	1 Nerve Conduction Studies 1 EEG Recording room	N/A	1 Ambulatory EEG room 2 NSC/EMG rooms 2 EMG/NCS & EP rooms 4 EEG sleep rooms	N/A

Note: No Imaging capacity in BMEC or the Sheldon Block

Sensitivity Analysis and Expansion / Reduction Strategy

5.6.9 Sensitivity analysis has been undertaken for the activity and capacity model. This work has informed the Trust's Expansion/Reduction Strategy.

5.7 Expansion Strategy

5.7.1 The Trust's brief has identified expansion space within the MMH sufficient for up to an additional 96 adult generic beds (using the generic ward template). In addition some additional bed capacity could be created through further improved productivity in length of stay and/or additional bed days provided in intermediate care or contacts in the community (as an appropriate alternative to admission or step down from acute care). The generic ward design within MMH will enable easy change in use of ward between specialties.

5.7.2 In relation to specialist areas:

- **Critical Care:** within the ADR there is soft expansion space that could be used for additional critical care bed capacity possibly through a central Level 1/stepdown area.
- **Neonatal Unit:** if additional capacity was required the first option would be transfer of cases within the Neonatal Network (as is current practice). There would also be the option to use the 4 transitional care rooms as single cot nurseries either on a temporary or permanent basis.
- **Children's Inpatient Unit:** there is flexibility in capacity between inpatient beds, the Paediatric Assessment Unit and day case area (all co-located on the unit).
- **Delivery Suite:** there is flexibility in capacity within Delivery Suite between high risk delivery rooms, the birthing centres and the bereavement rooms (as is current practice).

5.7.3 In relation to Operating Theatres:

- **For emergency cases**: the capacity already exists within the emergency theatres planned for MMH as demand for these was rounded up to ensure adequate 24/7 capacity and hence there is a lower utilisation rate.
- **For elective cases**: there is some flexibility within the planned capacity as there was a rounding up rather than down of number of theatres compared to the number indicated by the modelling work (to allow flexibility for longer lists as complexity of surgery increases e.g. in Gynaecology Oncology and to ensure the required range of specialist theatres). Additional capacity of 49 elective sessions per week can be created by introducing routine three session days Monday-Friday and two sessions on a Saturday.

5.7.4 There is some soft expansion space within the MMH between the Operating Theatre Department and Critical Care Unit that could be used to create additional capacity in either department including support accommodation such as recovery spaces for additional theatre lists.

5.7.5 In relation to outpatient clinics

- Additional capacity for antenatal clinics and paediatric clinics can be created through planning routine weekend sessions (three additional sessions per room per week in each department).
- The remaining outpatient activity is planned to be provided in Community Facilities. If however, there was a change in service model resulting in the need to provide additional adult outpatient clinics in the MMH some of the expansion space could be converted to outpatient rooms rather than beds.

5.7.6 In relation to other areas:

- Most Imaging modalities and Endoscopy (apart from Nuclear Physics and Bronchoscopy) are also provided in the Community Facilities (BTC and STC) and so additional capacity for these can be created by transferring any routine work from MMH to these sites and increasing their capacity

by use of three routine sessions per day Monday to Friday and up to four routine sessions at the weekend. Within MMH there is also the option of increasing from a 16 session routine working week up to 22 sessions (three session days on Saturday and Sunday).

- Within Interventional Cardiology and Bronchoscopy (only delivered in MMH) there is the option of increasing capacity from a 16 session routine working week up to 22 sessions (three session days on Saturday and Sunday).
- If further temporary capacity is required there is the option of commissioning mobile or temporary facilities and locating these in the planned temporary facility docking station on the ground floor of MMH adjacent to the facilities area.

5.7.7 Within the future Community Facilities the following expansion capacity is planned:

- Additional theatre sessions from increasing day case theatres from 10 sessions per week to 16 sessions per week.
- Additional outpatient clinics from increasing routine sessions from 16 sessions per week to 19 sessions per week.

Reduction Strategy

5.7.8 If the MMH capacity was too great the Trust could use its estate flexibly. In the scenario where clinical space in the acute hospital was surplus, and there really was no clinical function that could be delivered from it, the space could be converted to corporate administration offices to allow relocation of corporate functions from Trust estates allowing a consequent disposal.

Ensuring Delivery to Plan

5.7.9 As outlined above activity trajectories have been agreed with partners. Ambitious targets have been set for service changes and improvements in performance. It is important that progress against trajectory is monitored to ensure that the Trust is on track to move into the new hospital and the refurbished community facilities. This will allow time to implement mitigating actions if there is a significant variance from plan.

5.7.10 A governance process to monitor delivery has been agreed. Progress is overseen by the Clinical Leadership Executive via the MMH and Reconfiguration Clinical Leadership Executive (CLE) Committee. The following measures will ensure delivery:

- The ABC Version 1 trajectories inform the Trust's Transformation Plan which is currently being refreshed into an Integrated Transformation Programme;
- Trust and Clinical Group level Annual Plans take the activity and capacity levels in ABC Version 1 trajectories into consideration;
- Bi-annual review of progress against trajectory at Clinical Group and specialty level is undertaken at Clinical Group performance review meetings;
- The Executive will report whole system progress to deliver the trajectories along with any material future system planning documents to the Trust Board on a quarterly basis from April 2014; and
- Additional reviews are undertaken at key project milestones including appointment of Preferred Bidder and Financial Close,

5.7.11 A formal review of progress with demand figures, bed numbers and outpatient supply will be concluded no later than 15 months before the opening of the new hospital. The results of this should

trigger mutual provider and commissioner formal re-confirmation of the safety of those assumptions for the due date, together with any actions agreed to mitigate risk. This overall assessment of risk will be made publically available.

Key Activity and Capacity Measures

5.7.12 Activity and capacity measures have been proposed for the monitoring process as presented below:

- Emergency Care: A&E attendances and non-elective admissions;
- Elective Care: Elective admissions and day cases;
- Outpatients: first attendances and review attendances;
- Bed Capacity: bed days (split emergency, elective and intermediate care) and bed numbers; and
- Community Contacts: outpatient and bed alternative contacts.

5.7.13 Monitoring for each of the above measures will include:

a) LTFM/RCRH trajectory – at least current year and end point (2019-2020);

b) LD /Contract trajectory – current year; and

c) Actual performance – current year.

Other Trust Capacity Requirements

5.7.14 The table below presents the other Trust capacity requirements.

Table 46: Other Facilities

Service	2014/15	2020/21 New Acute Hospital	Key Performance Factors	2020/21 Community Sites	2020/21 Total
Endoscopy	7	2	16 sessions per week and 24 hour access for emergencies	6 endoscopy rooms: 3 in BTC 3 in STC 10 sessions per week	8
Cardiac Interventional rooms	2 and access to interventional imaging room	3	16 sessions per week and 24 hour access for emergencies	None	3
Birth Rooms	20	18 (12 high risk and 6 midwifery led)	In addition within Delivery Suite there are 6 Induction spaces	3 birth rooms in Halcyon Birthing Centre (stand-alone midwifery led centre)	21

5.8 Summary of Requirements of MMH

5.8.1 The specification for the new acute hospital can be split into two parts: the Design Vision and the Functional Content; the two coming together to form the core of the Design Brief. The aim of the Design Brief is to describe the Trust's aspirations and expectations as well as providing a clear framework for the development of a design.

Design Vision

5.8.2 The Trust developed the Design Vision with a Design Group chaired by the Trust Design Champion. The group included members of the Trust, Local Government and PCT partners led by the Design Champion, Sue Davis, who was the previous Trust Chair.

5.8.3 The Design Vision developed by this group reflects the requirement to create a landmark hospital, which will be an asset to the local community and will support local regeneration. The design should be enduring and take account of the diverse needs of the population it serves.

5.8.4 The key elements of the Design Vision are that the hospital will be:

- Inspirational, attractive and imaginative;
- Welcoming;
- Reassuring;
- Light and airy;
- Clean without being clinical;
- Sympathetic to the environment;
- Fully accessible;
- Supportive to privacy and dignity; and
- A good place to work.

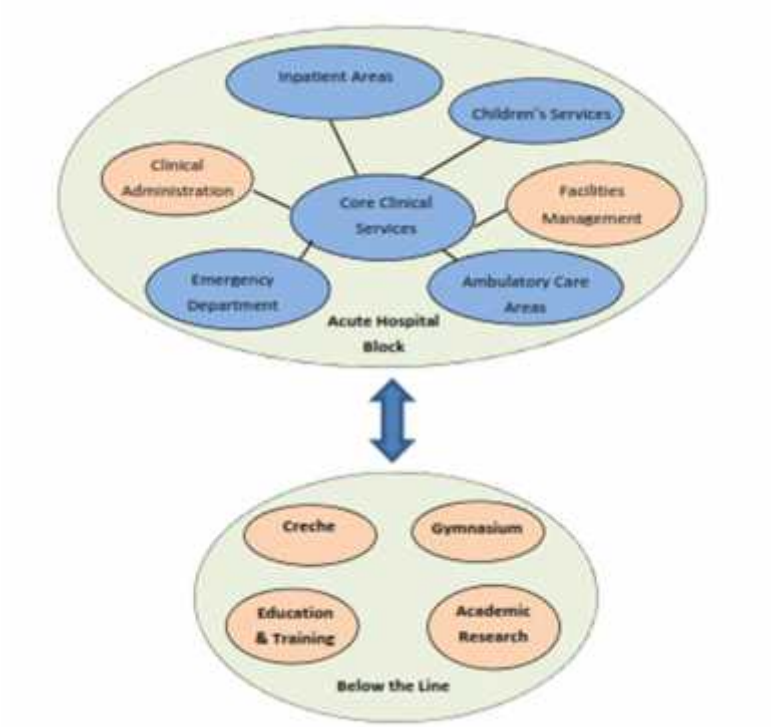
The Functional Content

5.8.5 Prior to the procurement the Trust developed a Functional Brief which consisted of the Whole Hospital Operational Overview and individual Departmental Planning Policies and Design Descriptions (PPDDs).

5.8.6 A philosophy of zoning to facilitate co-ordination of associated services was developed ensuring that physical adjacency will support the patient journey.

5.8.7 Space for a crèche, gymnasium; research and training facilities was included in the site plan. However, they were not included in brief for the PF2 bidders and are therefore presented below the line in the model summarised in below:

Figure 16: Design Solution



5.9 New Hospital Clinical Requirements

5.9.1 The Activity and Capacity Model (ABC Version 1) has formed the basis for calculating the clinical facilities required within the new hospital. The following summarises the key components specified to bidders as required for the acute hospital:

5.9.2 A total of 669 beds, including:

- A 30 Bed Critical Care Unit (Level 2 and 3);
- 117 space Adult Acute Assessment Unit;
- 36 Neonatal Cots; and
- A 56 bed Children's Unit.

5.9.3 There will be 14 Generic Wards of 32 beds each, including:

- 14 Coronary Care Beds; and
- 16 distributed higher dependency monitored beds (Level 1);

5.9.4 13 Operating Theatres, comprising:

- 2 Trauma Theatres;
- 2 Emergency Theatres (including laparoscopic equipment);
- 2 Maternity Theatres in Delivery Suite; and

- 7 Elective Theatres;

5.9.5 Bespoke outpatient clinics for:

- Children;
- Urodynamics; and
- Antenatal services.

5.10 The MMH Service Solution

Capacity Modelling and Clinical Engagement

5.10.1 The activity and capacity model, informed by high levels of clinical engagement, forms the basis for an understanding of the clinical facilities required. The capacity requirements for the MMH are presented in the sections above.

5.10.2 The service model is also underpinned by a set of detailed operational policies covering all of the departments in the MMH. These informed the development of the Planning Policy and Design Descriptions (PPDDs) which specified departmental requirements in the new hospital for Bidders.

5.10.3 Each of the PPDDs and operational policies has an identified clinical lead who has worked with clinical colleagues and operational staff in developing the documents. This work was co-ordinated throughout the process via clinical leadership groups including the Clinical Leadership Executive.

5.10.4 The Architectural Design Review (ADR), undertaken with clinicians during autumn 2013 provided the opportunity for update to the clinical brief for the MMH prior to commencing the procurement phase of the project. It also prepared them for the procurement to ensure no surprises and keep them engaged in the process. The Trust's Medical Director confirmed clinician support for the MMH at OBC.

Other Factors Influencing Development of the Service Solution

5.10.5 The following key issues were also considered when developing the Operational Policies and PPDDs:

- Adjacencies between departments to facilitate patient flows;
- Separating flows of public and ambulatory patients, inpatients and goods from the point of entering the hospital until at least the entrance into departments;
- Ease of access for patients;
- Future flexibility in use of space;
- Responding to national, regional and local policy;
- Improving efficiency of service provision;
- Dealing with major incidents and business continuity; and
- Provision of the facilities and support required to develop the more specialist services (that have a regional or national profile) provided by the Trust in a way that integrates them with other services within the hospital but also retains their specialist identity.

Emergency and Urgent Care

5.10.6 Circa 30% of patients requiring urgent care will be able to attend one of the community-based urgent care services or be managed in primary care through an out-of-hours service. The largest of these functions will be delivered from the Sandwell Hospital site delivered on an integrated basis by the Trust. As a result a smaller percentage of emergency attendances will take place in the Emergency Department (ED) within MMH. These patients will typically have injuries and conditions requiring the level of specialist assessment, diagnosis and treatment that will only be available in an acute setting.

5.10.7 Most patients attending the ED will be assessed, diagnosed, treated and discharged from the ED by the team of clinical staff based within the Department. To facilitate this dedicated Imaging facilities and near patient testing will be required within the Department.

5.10.8 A significant number of patients will require further assessment by specialty teams and/or admission. The flow for adult patients will primarily be from the ED to the adult Acute Assessment Unit which will therefore need to be located immediately adjacent (vertical or horizontal) to the ED. For children and young adolescents the flow will be from the dedicated children's area in the ED to the Paediatric Assessment Unit which is part of the Children's Inpatient Unit.

Admitted Patient (Specialist Services)

5.10.9 A number of specialist services are required to support the patient pathway for admitted care including the adult Acute Assessment Unit (AAU), Critical Care, Interventional Cardiology, Coronary Care, Operating Theatres, Children's inpatient services, the Delivery Suite and Neonatal services. In many cases patients will need interventions and care in more than one of these services and so easy, quick access between services will be required to facilitate rapid assessment and diagnosis or on-going treatment. These services will be operational or at least accessible 24 hours a day.

5.10.10 The Adult Assessment Unit will comprise of a Surgical Assessment Unit and a Medical Assessment Unit (with ambulatory, assessment and monitored bed zones).

5.10.11 The Delivery Suite and Neonatal Unit will be co-located and adjacent to the antenatal clinic with ground floor access. The Delivery Suite will have a low risk, midwifery led birth centre collocated with a high risk consultant led area including 2 dedicated operating theatres, high dependency beds and a dedicated bereavement suite.

5.10.12 The Children's Inpatient Unit will include a Paediatric Assessment Unit (PAU), day case area and adolescent area as well as inpatient Paediatric beds including high dependency care. The Unit will be located away from adult inpatient facilities and will be adjacent to the Children's Outpatient Department.

Admitted Patient Care – Generic Adult Inpatients

5.10.13 Adult inpatients (apart from those requiring care in one of the specialist areas above) will be accommodated in generic inpatient beds. The majority of emergency admissions will be admitted to these beds via the adult AAU (with 117 assessment spaces) and the majority of elective surgical inpatients will be admitted following surgery via the Operating Theatre Department (which includes the central admissions area).

5.10.14 An important element of the new service model is a reduced length of stay facilitated by new pathways which include a streamlined admissions process, early initial diagnosis, rapid assessment and timely treatment. These will be supported by early senior medical assessment and decision making with 24/7 on site consultant presence in key specialties.

5.10.15 In the MMH there will be 376 generic adult inpatient beds. These will be accommodated in 12 wards each with 32 beds. The wards will be based on a generic design and primarily located in clusters of three in order to facilitate future flexibility in use. In addition there will be 64 maternity beds located across two wards (in a generic ward design).

5.10.16 The future service requires generic wards with 50% single rooms and en-suite bathrooms and the remaining 50% of beds will be in bays of four (each bay having a dedicated bathroom). This arrangement will improve patient privacy and dignity, facilitate infection control and offer patient choice between a single room and a bay of four beds in line with feedback from public engagement work.

Outpatients

5.10.17 The vast majority of outpatient attendances will be provided outside the MMH in the Trust's community facilities and will be delivered by a mixture of secondary care specialists, community staff and primary care professionals. This includes specialist Ophthalmology attendances which will continue to be provided at BMEC. The aim will be to provide rapid access with a one stop approach, and where required, follow up in the community or primary care. Many staff will work in multiple locations across the MMH, the Trust's Community Facilities and other community locations including primary care and patients' homes.

5.10.18 Within the MMH the main outpatient services delivered will be in the Antenatal Clinic (for high risk women and consultant care) and the Children's outpatient department.

5.10.19 There will also be a Medical Day Case Unit in MMH for the provision of day cases that need to be delivered on an acute hospital site with the full clinical back up that this offers. Examples include biologic infusions, Sickle Cell and Thalassemia treatments.

Diagnostics

5.10.20 Diagnostic services are key to the rapid assessment, diagnosis and treatment of patients in all specialities and settings and so need to form part of the patient pathway at the right time and in the right place. Where possible a one-stop approach will be developed.

5.10.21 Diagnostic services, as far as possible, will be provided in the Trust's Community Facilities as well as in the MMH. The Trust will be a provider for many of the community based services. The exceptions to this service model will be where specialist equipment and technology is required but with insufficient demand to justify duplicating this in multiple locations or where there is only a small team of staff with specialist skills (for example: Bronchoscopy and Nuclear Medicine will be based in the MMH and Breast Surgery services in the BTC).

5.10.22 The Trust's main pathology service will continue to be based in STC with an 'essential laboratory' (including Blood Bank) in the MMH to support emergency and urgent inpatient care.

Clinical Support Services

5.10.23 The majority of clinical support services will be located in the Community Facilities as most patients access these on an ambulatory basis. They will provide an in-reach service to inpatients in the MMH (where appropriate this will include some bespoke accommodation). There will however be some clinical support services with their main base in the MMH because their service has a significant contribution to inpatient pathways. These include Pharmacy and Cardiac Diagnostics. These services will provide an outreach service to the Community Facilities. The main mortuary will continue to be located in STC (adjacent to the main pathology department) with a body store located in the MMH to support emergency and inpatient care.

Non-Clinical Support Services

5.10.24 There are a range of non-clinical services within the MMH. Some of these closely support clinical services and are therefore located adjacent to the relevant clinical service in hubs or admin zones. Others do not so directly support clinical services and are located further away from clinical areas e.g. the receipts and distribution centre.

Research and Education

5.10.25 Research and education are important to the Trust's future success and the wider health economy. The Trust has a good track record for delivery of research and education and they play a significant part in attracting the best staff, with consequent impact on quality of care and reputation as well as attracting related income. The main base for these departments will be at STC. However, high quality facilities for the elements that relate to inpatient care will be provided in the MMH. These facilities will be developed in a way that gives a clear identity to research and education.

5.10.26 When the MMH opens the Trust expects to provide most of the essential research and education facilities in retained estate with small satellites for essential services in the MMH.

5.11 Conclusion

5.11.1 The model of care, activity assumptions and capacity requirements have been developed jointly with the RCRH Programme Board following extensive engagement in the community and with clinicians. A service model has been developed to inform the requirements of the new acute hospital.

5.11.2 Activity projections have been refreshed and agreed with RCRH partners. The activity expected in 2019-2020 remains consistent with the OBC in all areas except for outpatients. Outpatient activity has increased by circa 40,000 cases per year due to more procedures taking place in an outpatient setting and due to the introduction of 'virtual outpatients'.

6 Background to the Option Appraisal

6.1 Introduction

6.1.1 The purpose of this chapter is to outline:

- The background to the option appraisal which shows how the Grove Lane solution, Option 4, has been reconfirmed over several iterations of the MMH business case; and
- A description of the shortlisted options.

6.1.2 The conclusion of the evaluation conducted for the Outline Business Case (OBC) was that the Grove Lane solution represented the best economic solution to achieve the objectives of the project.

6.1.3 Since the approval of the OBC there have been no changes in the underlying assumptions used to make that assessment and therefore the assessment still stands.

6.2 Background: Reconfirmation of Option 4

Option 4 approved in OBC 2009

6.2.1 The original non-financial appraisal was undertaken after the public consultation in April 2007. The outcome of this work is presented in Chapter 7.

6.2.2 Version 2 of the OBC approved by the Department of Health (DH) in August 2009 contained a comprehensive economic appraisal across four options to determine which option was the preferred solution. Chapter 6 presents the development and evaluation of options undertaken at that time along with a subsequent economic update undertaken in March 2011.

6.2.3 Following approval of the OBC in August 2009 the DH approved the decision to pursue a Compulsory Purchase Order (CPO) to facilitate acquisition of the Grove Lane site. The Trust now owns the entire site.

Option 4 reconfirmed by Trust Board 2013

6.2.4 In 2013 the Trust Board discussed, in a series of workshop settings, whether the original option appraisal in 2009 remained valid. In doing that specific consideration has been given to:

- The changed financial circumstances for public services notwithstanding the strong performance of the Trust in recent years;
- Revised population expectations including changes in the migrant patterns of the area;
- Enhanced expectations of care integration with local GP practices; and
- Considerably revised expectations of critical mass of acute care service infrastructure.

6.2.5 The conclusion was that the case for change remains overwhelming and that only a new build acute hospital can deliver change at the pace required.

Option 4 reconfirmed in the Non-Financial Appraisal February 2014

6.2.6 In February 2014 the Trust and its advisors undertook a review of each option to consider the changes to the options and to identify which, if any, of the scores and weightings should be revised. The main difference to the 2009 option appraisal is that the new build options would include less new build and additional retained estate at Sandwell and at City. The conclusion of the review was that no scorings were altered and thus the economic analysis that option 4 was the preferred option remained valid.

Option 4 reapproved in OBC 2014

6.2.7 In 2014 the Trust reviewed and refreshed the economic appraisal of the original four options and a Do Nothing option. The conclusion of this was that Option 4 remained the preferred option and this was approved within the OBC in July 2014.

Changes since the OBC approval July 2014

6.2.8 There have been no changes to the key underlying assumptions since the OBC was approved and therefore the conclusion that Option 4 is the preferred option remains valid.

6.3 Identification of the Shortlist of Options

6.3.1 The four options considered were:

- Option 1: Do Minimum;
- Option 2: City Site re-development;
- Option 3: Sandwell Site re-development; and
- Option 4: A new build on the Grove Lane Site.

6.4 Description of the Shortlisted Options

Option 0: Do Nothing

6.4.1 Although, the Do Nothing option is non-viable in the long-term, it serves as a baseline assessment of the costs needing to be incurred. It demonstrates the forecast costs for which no additional quantitative benefits will accrue. All subsequent options costs and benefits are assessed against this outcome. The core assumptions for Do Nothing are:

- Revenue costs are based upon 2013-2014 costs as presented within the Trust's LTFM and then adjusted to reflect differences for this option.
- The Trust has a major backlog maintenance need which would need to be addressed as well as a refurbishment across a long timeline at circa £15m additional investment per annum.
- Small capital investments are included within the Capital Programme representing schemes which will take place irrespective of option chosen.
- The lifecycle replacement trajectory would bring forward the need for earlier significant additional lifecycle expenditure. Adopting consistent Trust accounting practices would see most of this cost being incurred against capital resources and the remaining adding to the Trust's revenue cost base.

- Equipment replacement is consistent with capital programme routine maintenance investment levels. Priorities will be formed from these stable investment levels.
- The land owned by the Trust, valued at April 2013, is determined as an opportunity cost as, technically, this land may be used for alternative purposes.
- The residue of land the Trust is committed to purchase at Grove Lane is included and then sold later in the timeline.
- Building asset residual values have been calculated for new builds taking new asset values, adding capital additions, deducting depreciation to arrive at a view of the building values at the end of both appraisal periods, years 36 and 66.

Option 1: Do Minimum

6.4.2 This option involves significant refurbishment of both the City Hospital site and the Sandwell Hospital site. The refurbishment would take place over a longer time period as service provision continues on the sites being redeveloped. This would inevitably slow down the delivery of the Right Care Right Here service model as hospital facilities would not be in place to enable the full service delivery.

6.4.3 Services would be delivered by splitting emergency care and elective inpatient care between City and Sandwell Hospital sites. Once the full model of care is operational, activity volumes undertaken will be consistent with the Grove Lane option.

6.4.4 This would create a three year delay in the roll out of the full service model with full delivery not occurring until 2021-2022 at the earliest.

6.4.5 The general approach to assessing the cash flows inherent within this option is consistent with the Do Nothing Option. Additional characteristics specific to Do Minimum are detailed below:

- The Do Minimum option considers to what extent the approach would change the costs identified under Grove Lane. A full list of these annual changes is included within ***Appendix 6a*** and includes for example:
  - Additional bed capacity on the Sandwell site to allow for peaks in demand;
  - Additional critical care beds, one per site, are required; and
  - Additional tiers of medical staffing cover are required to enable safe practice.
- Additional Soft FM needs have been included recognising the two site strategy.
- Refurbishment costs of both sites are significant and cover an extended timeline.
- New capital expenditure and associated revised lifecycle estimates have been considered and included within the modelling.
- New residual building values will be derived through alternative refurbishment costs and revised lifecycle estimates.
- A small element of land within the City site will be sold as well as the Grove Lane site.

6.4.6 The Do Minimum option delivers the service model but in a dysfunctional manner with annual revenue costs being significantly greater.

Option 2: New Build on the City Hospital Site

6.4.7 The characteristics of this option are similar to Grove lane although capital forecast costs are higher and build time would be 2-3 years longer.

6.4.8 This would mean the Trust is unable to realise efficiencies from a single acute site and will have to:

- Incur additional on call and 24/7 medical staff cover;
- Lose soft FM savings;
- Keep greater bed coverage for longer; and
- Land sales would apply to Grove Lane and part of the Sandwell site.

Option 3: New Build on the Sandwell Hospital Site

6.4.9 This option is similar to Option 2 in outline. However, capital costs are greater and timelines are one year longer. Decanting costs are greater due to the complexity inherent with the build as Sandwell is a very confined site.

Option 4: New Build on the Grove Lane Site

6.4.10 The details of this option are presented in Chapter 5, which outlines how the Midland Metropolitan Hospital will be supported by community facilities developed on retained estate. The characteristics of this option are:

- The purchase of land by Compulsory Purchase Order to build the Midland Metropolitan Hospital;
- A new build discounted capital expenditure consistent with GEM principles;
- Limited refurbishment of retained hospital estate;
- New medical and IT equipment required in preparation for the new acute hospital;
- Lifecycle costs are charged 30% to capital and 70% to revenue;
- Detailed revenue cost modelling has been included in the economic modelling;
- Transition costs have been included recognising that one-off costs will be incurred as the option gets closer to fruition and dual running costs are forecast as Grove Lane becomes operational;
- Consideration has been given to activities, currently being provided by the Trust, which will, under future service models, be delivered by third parties e.g. GPs; and
- Significant disposal of land occurs when large parts of City and Sandwell sites are sold.

6.5 Conclusion

6.5.1 The following 4 options for evaluation are:

- Option 1: Do Minimum;
- Option 2: City Site re-development;
- Option 3: Sandwell Site re-development; and
- Option 4: A new build on the Grove Lane Site.

7 Benefits Appraisal

7.1 Introduction

7.1.1 The non-financial benefits appraisal process and outcome is presented at ***Appendix 7a***. This chapter summarises the methodology, results and conclusions reached. Chapter 6 outlines how the results were reconfirmed in 2014 and that there have been no changes since Outline Business Case (OBC) approval in 2014.

7.2 Methodology

7.2.1 Benefit criteria were identified, weightings applied and then scored against each of the options. A sensitivity analysis was conducted to test the conclusion.

7.3 Benefit Criteria

7.3.1 The following benefit criteria were used to assess the options:

- Clinical quality;
- Environmental quality;
- Development of existing services;
- Strategic fit, including regeneration;
- National, Regional and local policy;
- Training, Teaching and Research;
- Effective use of resources; and
- Ease of delivery.

7.4 Non-Financial Benefit Scores

7.4.1 The table below shows the raw scoring by option by criteria as well as the two sets of weights assigned to each criterion.

Table 47: Raw Scores and Range of Weights

Criteria Covered	Weight %	Option 0 Do Nothing	Option 1a Do Minimum SGH Hot / CH Cold	Option 1b Do Minimum CH Hot / SGH Cold	Option 2 Build / Refurbish City	Option 3 Build / Refurb. SGH	Option 4 New Build Grove Lane
Better Access	15%	55	55	60	60	55	70
Clinical quality	17-19%	35	45	45	85	80	90
Environmental quality	13-8%	30	45	40	85	80	90
Development of existing services	8-9%	65	70	70	90	90	90

Criteria Covered	Weight %	Option 0 Do Nothing	Option 1a Do Minimum SGH Hot / CH Cold	Option 1b Do Minimum CH Hot / SGH Cold	Option 2 Build / Refurbish City	Option 3 Build / Refurb. SGH	Option 4 New Build Grove Lane
Strategic fit, inc. regeneration	8-10%	25	30	30	70	70	90
National, Regional and local policy	7-6%	50	60	60	90	90	90
Training, Teaching and Research	12-7%	60	60	60	80	80	80
Effective use of resources	14-15%	70	70	70	90	90	90
Ease of delivery	7-11%	20	20	25	40	15	70
Total	**15%**	**410**	**455**	**460**	**690**	**650**	**760**

7.4.2 The table below shows the average weighted scoring by option by criteria.

Table 48: Average Weighted Scores

Criteria Covered	Option 0 Do Nothing	Option 1a Do Minimum SGH Hot / CH Cold	Option 1b Do Minimum CH Hot / SGH Cold	Option 2 Build / Refurbish City	Option 3 Build / Refurb SGH	Option 4 New Build Grove Lane
Better Access	8.2	8.2	8.9	8.9	8.2	10.4
Clinical quality	6.2	7.9	7.9	15.0	14.1	15.8
Environmental quality	3.6	4.7	4.2	8.9	8.3	9.4
Development existing services	5.7	6.2	6.2	7.9	7.9	7.9
Strategic fit, including regeneration	2.3	2.8	2.8	6.5	6.5	8.3
National, Regional, local policy	3.1	3.7	3.7	5.5	5.5	5.5
Training, Teaching, Research	5.7	5.7	5.7	7.6	7.6	7.6
Effective use of resources	10.1	10.1	10.1	13.0	13.0	13.0
Ease of delivery	2.7	1.8	2.2	3.6	1.3	6.2
Total	**47.62**	**51.05**	**51.71**	**76.87**	**72.51**	**84.28**

7.5 Results of the Non-Financial Option Appraisal

7.5.1 The resultant outcome clearly demonstrates the significant variance between the Do Nothing, Do Minimum and Grove Lane solutions and reflects the view that investment in the Grove Lane option will generate significantly higher non-financial benefits.

7.5.2 The benefit point scores are critical to the choice of the preferred option as they affect the ranking and relative by benefit point option scores significantly.

7.5.3 The table below shows the ranking and the percentage difference between the options, showing Grove Lane option as the highest in terms of qualitative score.

Table 49: Results Based on Average Weighted Scores

	Option 0 Do Nothing	Option 1a Do Minimum SGH Hot / CH Cold	Option 1b Do Minimum CH Hot / SGH Cold	Option 2 Build / Refurbish City	Option 3 Build / Refurb SGH	Option 4 New Build Grove Lane
Average Score	47.62	51.05	51.71	76.87	72.51	84.28
Rank Order	5	5	4	2	3	1
Difference	-44%	-39%	-39%	-9%	-14%	0%

7.6 Sensitivity Analysis

7.6.1 A sensitivity analysis was undertaken which:

- For access: reduced the score for the Grove Lane option from 70 to 68;
- For environmental quality: reduced the score for the three new build options by two points each; and
- For effective use of resources: reduced the score for all three new build options by 2two points each.

7.6.2 The table below shows the ranking and the percentage difference between the options as a result of this sensitivity, showing no material change to the score and no change to the ranking or the percentage difference between the scores.

Table 50: Non-Financial Appraisal Sensitivity Analysis

	Option 1a Do Minimum SGH Hot / CH Cold	Option 1b Do Minimum CH Hot / SGH Cold	Option 2 Build / Refurbish City	Option 3 Build / Refurb SGH	Option 4 New Build Grove Lane
Average Score	51.05	51.71	76.37	72.01	83.48
Rank Order	5	4	2	3	1
Difference	-39%	-38%	-9%	-14%	0%

7.6.3 A further stress test is to consider how much the Grove Lane scores would need to reduce in order for the next best solution which is the refurbishment and new build on the City site. Each score on the Grove Lane option would need to be reduced by 10% in order for the preferred option to switch to the City site (1% difference in average score).

7.7 Conclusion

7.7.1 Option 4, the Grove Lane New Build, scores highest in the non-financial appraisal even with a sensitivity analysis where its scores for access, environmental quality and effective use of resources were reduced.

8 Economic Appraisal

8.1 Introduction

8.1.1 This chapter presents an economic appraisal of the options identified in Chapter 6. As outlined in Chapter 6 there have been no changes to the economic appraisal (summarised in ***Appendix 7a***) since Outline Business Case (OBC) approval in 2014.

8.2 Methodology

8.2.1 A Do Nothing option is non-viable in the long-term. It serves however as a baseline to assess the net benefit of each option. This option will therefore be known as Option 0.

8.2.2 All five options have been developed by applying technical guidance consistent with the Treasury Green Book, and Generic Economic Model (GEM) Investment Appraisal Guidance. In particular the following is of note:

- The base year and price base is 2013-2014;
- Prices quoted exclude VAT;
- Cash flows are discounted by 3.5% per annum to year 30 and 3% per annum thereafter;
- Affordability cash flows have been amended to exclude capital charges and provisions for redundancy costs;
- Although, build/refurbishment timelines are different a 66 year appraisal period has been used, which reflects the re-development period plus 60 years of operation; and
- An alternate period of 36 years is also included.

8.3 Costs

Cash Flows

8.3.1 There are a number of steps involved in arriving at a preferred economic option. Traditional discounted cash flows across the following categories are considered for each option:

- **Opportunity Costs**: these are costs identified for areas which may be used for alternative means, (i.e. what opportunity has been foregone by using this resource in the option being considered). In most NHS cases, opportunity costs are restricted to land values.
- **Capital Outlays:** for new builds or refurbishment (net of VAT and discounted by a 2.5% GDP deflator) are applied by year of spend.
- **Land or building sales** - recorded in the year(s) in which they are estimated to be realised.
- **An estimate of the residual value of an asset** - at the end of the lifespan to represent an estimate of an assets value at that time, i.e. 36 and 66 years.
- **Capital and revenue lifecycle costs** - of maintaining estate assets.
- **The Trust's capital programme** - for new and replacement assets.
- **Revenue cost cash flows** - across clinical, non-clinical and estates costs across the lifetime. For non-Grove Lane options, the Grove Lane revenue streams have been taken as a baseline and adjusted for dysfunctional expenditure incurred in the alternative options.

- **Transitional costs** - declared separately and consider non-recurrent or ad-hoc spends.
- **Externalities** - require an assessment of lost activities to the host provider and consideration to where this work goes in future.

8.3.2 An adjustment is made for the assessment of risk relevant to each option and sensitivity is considered against criteria of each option.

8.3.3 The sum of these discounted results creates a Net Present Cost (NPC) and an Equivalent Annual Cost (EAC) by option. A ranking occurs with the lowest NPC receiving the preferred option status.

Revenue Cost Forecasts

8.3.4 The Grove Lane option revenue costs have been driven from the cost projections in the Trust's LTFM. Capital charges and restructuring costs have been removed in line with guidance.

8.3.5 All other options have been considered to assess the degree to which they might be different to the LTFM expected position. Typical areas considered include:

- Additional revenue costs due to needing to maintain two acute sites;
- The additional build timeline leading to savings not being realised as quickly as hoped;
- Different transitional costs, for project management, decanting, soft FM, and non-recurring costs;
- Additional ward requirements;
- Different dual running assumptions;
- Revenue lifecycle estimates over a 65 year lifespan; and
- Beyond the ten year LTFM time horizon, a stable 1% growth has been applied to all revenue costs in all options.

8.3.6 ***Appendix 8a*** presents the revenue costs by option.

Capital Cost Forecasts

8.3.7 Capital cash-flow is specific to each option and includes:

- Estimates for new capital build;
- Major refurbishment estimates;
- Land acquisition and disposal;
- Capital lifecycle trajectories;
- Internal replacement capital programme forecasts; and
- Internal new and replacement equipment requirements.

8.3.8 Each option has been considered discretely. External advisors have updated new capital build forecasts and refurbishment in the Do Minimum option which takes account of circa £130m of backlog maintenance as well as a capital build over a significant timeline.

Residual Value Calculations

8.3.9 An estimate of the value of new build assets has been included to discount costs over 36 and 66 years. Due to time limitations it has not been possible to model retained estate residual values or equipment lifecycle replacement residual values. Land residual values have also been calculated adjusted for additions and estimated disposals.

Transition Costs

8.3.10 Non-recurring, project and dual running forecasts have been modelled. Also, where revenue forecasts are different to the LTFM position the differences are reflected in this section to allow them to be identified discretely.

Externalities

8.3.11 In each option a headline review has considered how different the outflow of activity to other providers might be as catchment activity loss might change depending upon the site of the main acute hospital.

8.3.12 Different build timelines affect the timing of activity changes. A delay in realising some changes has been applied to some options. In Do Nothing the activities have been repatriated to the Trust, rather than other providers.

8.4 Risk Assessment

8.4.1 An exercise has been undertaken to update the risk assessment underpinning the economic appraisal. The risks identified in the OBC approved by the DH in August 2009 were re-examined for this appraisal. This included:

- An updated assessment of cost drivers;
- A review of the likelihood of events occurring; and
- An assessment of a revised timeline of occurrence.

Risks Associated with Delay

8.4.2 Options 1, 2 and 3 are associated with two to three year delay in service model delivery depending on the option. This is because of revisions that will be required to reconfigure plans already consulted on and implemented. These were consulted upon in the context of being interim changes until the opening of a single site new acute hospital.

8.4.3 The plans for emergency surgery reconfiguration were approved by the Secretary of State following referral to the Independent Reconfiguration Panel. This approval included a recommendation that the NHS West Midlands Strategic Health Authority, Heart of Birmingham and Sandwell Primary Care Trusts and Sandwell and West Birmingham Hospitals NHS Trust should ensure that plans for future healthcare provision, including buildings, are delivered as rapidly as possible.

8.4.4 This is a conservative estimate for delay considering the complexity of the changes required to the model and the strength of local support for the Grove Lane solution. It will involve the following detailed work:

- For the Do Minimum there is a requirement to develop new reconfiguration plans to achieve a clinically effective ‘hot’ and ‘cold’ site model.

- For new build on the City/Sandwell sites there will be a requirement to seek new planning consents.
- For all options there will be a requirement to repeat a consultation process that previously strongly supported the Grove Lane solution, with the potential for public concern.
- There will be a requirement to resolve issues and concerns caused by not following the plans put forward to support the compulsory purchase order which was approved following an unopposed inquiry indicating public support for the Grove Lane solution.
- There will be a requirement to develop new delivery plans and business cases to initiate the new solutions.

8.4.5 These delays would have an inevitable impact upon capital costs. It would also create local concerns about the sustainability of services. This risk is shown in the following tables as NHS Consultation. The tables below present a summary of the risk analysis.

Table 51: EAC of Risk Retained Under Each Option

	Option 0	Option 1	Option 2	Option 3	Option 4
Risk Category	**EAC £000**	**EAC £000**	**EAC £000**	**EAC £000**	**EAC £000**
NHS Consultation	717.7	1,152.5	1,225.4	534.7	350.4
Scale of Facilities	0.0	0.0	0.0	0.0	0.0
Planning Costs	81.2	158.7	175.6	121.7	0.0
Acquisition Costs	0.0	0.0	0.0	(16.4)	0.0
Site Development Costs	2.3	36.0	20.8	102.2	124.7
Sale Valuations	2.5	15.3	15.5	19.3	0.2
Land Holding	0.0	0.0	0.0	6.0	6.0
Project termination	0.0	0.0	0.0	3.9	0.0
Judicial Review	58.4	79.2	99.1	65.7	0.0
Total	**862.1**	**1,441.6**	**1,536.4**	**837.1**	**481.3**

Table 52: NPC of Risk Retained Under Each Option

	Option 0	Option 1	Option 2	Option 3	Option 4
Risk Category	**EAC £000**	**EAC £000**	**EAC £000**	**EAC £000**	**EAC £000**
NHS Consultation	19,411.9	31,172.0	33,143.6	14,462.1	9,476.8
Scale of Facilities	0.0	0.0	0.0	0.0	0.0
Planning Costs	2,195.4	4,291.5	4,749.6	3,291.8	0.0
Acquisition Costs	0.0	0.0	0.0	(443.0)	0.0
Site Development Costs	62.0	974.8	562.0	2,764.0	3,372.0
Sale Valuations	68.6	412.9	419.7	521.8	5.1
Land Holding	0.0	0.0	0.0	163.0	163.0
Project termination	0.0	0.0	0.0	105.0	0.0

Risk Category	Option 0 EAC £000	Option 1 EAC £000	Option 2 EAC £000	Option 3 EAC £000	Option 4 EAC £000
Judicial Review	1,578.6	2,141.0	2,681.6	1,776.2	0.0
Total	**23,316.5**	**38,992.3**	**41,556.5**	**22,640.9**	**13,016.9**

8.5 Net Present Cost and Equivalent Annual Cost Analysis

8.5.1 Once the non-financial benefit scores are considered against the economic results a revised ranking is generated. The EAC by Benefit Point clearly changes the ranking demonstrating the Grove Lane solution to be the preferred option. The margin of preference is significant, with Grove Lane achieving a 68.5% lower EAC by Benefit Point compared with the next best option: Do Minimum.

8.5.2 Taking the economic GEM results the table below demonstrates the relative economic position and relative ranking. The table demonstrates Do Nothing as the preferred option, with Grove Lane second.

Table 53: Economic Cost of Options (Including Impact of Risk)

Economic Impact Appraisal Period 66 Years All Options	Option Do Nothing £m	Option 1 Do Minimum £m	Option 2 City Site £m	Option 3 Sandwell Site £m	Option 4 Grove Lane £m
NPC	16,315.4	16,747.6	16,608.7	16,638.0	16,479.1
EAC	599.1	614.8	611.5	613.0	607.2
EAC Variance	+0.0	+15.7	+12.4	+13.9	+8.1
Rank	1	5	3	4	2

8.5.3 The table below considers the impact of the qualitative benefit scores on the option ranking over 36 years.

Table 54: Combined Economic and Non-Financial Scores (Over 66 Years)

Economic Impact Appraisal Period 66 Years All Options	Option Do Nothing	Option 1 Do Minimum	Option 2 City Site	Option 3 Sandwell Site	Option 4 Grove Lane
EAC (£000)	599,081.7	614,812.6	611,470.9	612,962.3	607,221.2
Benefit Point	47.6	51.0	76.9	72.5	84.3
EAC per Benefit Point (£000)	12,581.10	12,044.52	7,954.31	8,453.71	7,204.79
Rank	5	4	2	3	1
Margin (%)	74.6%	67.2%	10.4%	17.3%	0.0%

8.5.4 The table below considers the impact of the qualitative benefit scores on the option ranking over 36 years.

Table 55: Combined Economic and Non-Financial Scores (Over 36 Years)

Economic Impact Appraisal Period 36 Years All Options	Option Do Nothing	Option 1 Do Minimum	Option 2 City Site	Option 3 Sandwell Site	Option 4 Grove Lane
EAC (£000)	532,386	545,388	543,444	544,612	539,577
Benefit Point	47.6	51.0	76.9	72.5	84.3
EAC per Benefit Point (£000)	11,180.5	10,684.5	7,069.4	7,511.1	6,402.2
Rank	5	4	2	3	1
Margin (%)	74.6%	66.9%	10.4%	17.3%	0.0%

8.6 Determining the Preferred Option

8.6.1 Both of the Combined Economic and non-financial scores show Grove Lane to be the preferred option by a margin of circa 10% compared with Option 2, City site development.

8.7 Health Economic Benefits Assessment

8.7.1 The next step demonstrates that sufficient health and regeneration benefits are delivered to offset the additional net present costs incurred compared with either a Do Nothing or Do Minimum.

8.7.2 In 2011 the Trust undertook an exercise to quantify selected non-financial external health benefits for each of the Do Nothing, Do Minimum and Grove Lane options. In February 2014, the Trust convened a workshop to review this analysis.

Approach

8.7.3 The 2011 workshops were held to identify which of the benefits identified in the Benefits Realisation Plan had already been quantified and included within the revenue cash flows in the economic appraisal. It was agreed that these would be excluded to avoid double count of benefits. The excluded benefits are primarily those resulting in internal efficiencies such as reduction in length of stay, reduced capacity etc.

8.7.4 For the remaining health benefits a method of quantification was identified focusing on the benefit to the individuals and the wider economy rather than to the Trust. The exception to this was the reduced level of did not attend (DNA) rates which had not previously been included in the affordability model.

8.7.5 A number of meetings and discussions were then held with the Trust's Medical Director, senior clinicians and the Directors of Public Health to confirm the measures, the level of benefit anticipated between the options and to identify potential sources of evidence. In looking at the level of benefits anticipated the Trust's ability to contribute to the RCRH Programme outcomes was also considered. This is because of the strong interdependencies between the wider RCRH Programme and the project.

8.7.6 The detailed work on quantifying the health benefits is presented at ***Appendix 8b***. The outcome of the work on the economic analysis is presented below:

External Health Benefit Outcomes

8.7.7 The outcome of this analysis is contained in the table below and which shows a NPC of the benefits from the Grove Lane investment amounts to £794m whereas the Do Minimum shows £325m with the Do Nothing being zero, given zero investment.

Table 56: Summary of External Health Benefit Quantification

	Do Nothing		Do Minimum		Option 2: City Option 3: Sandwell Option 4: Grove Lane	
	NPC £000s	EAC £000s	NPC £000s	EAC £000s	NPC £000s	EAC £000s
Transport related services	0	0	-7,793	-288	65,285	2,414
Reduction in mortality rate	0	0	-	-	-100,296	-3,708
Reduction in discharges to nursing homes	0	0	-52,515	-1,942	-122,411	-4,526
Reduction in DNA costs	0	0	-31,946	-1,181	-103,262	-3,818
Increased day case rates	0	0	-140,821	-5,206	-164,126	-6,068
Public health benefits: Stroke	0	0	-92,023	-3,402	-368,623	-13,629
Increased public health benefits: reduced levels of heart disease	0	0	-35	-1	-122	-5
Total External Health Benefits	**-**	**-**	**-325,133**	**-12,021**	**-793,555**	**-29,339**

8.8 Quantification of Regeneration Benefits

8.8.1 The position is strengthened further if the impact of regeneration benefits is incorporated into the case.

8.8.2 Regeneration benefits were also presented in the Benefits Realisation Plan. Understanding of the impact of these benefits to the local community has been developed further and can be summarised as follows:

- The direct and indirect creation of additional jobs within an area of higher than average unemployment.
- The re-skilling of a portion of the local labour force.
- Increased economic activity in the local construction industry and support services.
- The project enables developers to generate enhanced property rental values that would otherwise have been unachievable in this area. Hence re-enabling an active local property market to meet pent up demand for quality building stock.
- A decreased level of unemployment in the local economy due to the attraction of inwards investment by companies that would otherwise have located elsewhere.
- Post-construction benefits profiled to 20% in Construction +1 to rising 20% p.a. until 100% of benefit is realised in Construction +5 years.
- The opportunity cost of investment in regenerative terms.

8.8.3 This work was first undertaken for the OBC approved in August 2009. The analysis has been updated for assumptions about land sales, accepted economic norms and impact on the wider Smethwick regeneration plans.

8.9 Impact of Incorporating the External Health and Regeneration Benefits

8.9.1 The table below draws the external health and regeneration benefits together and extends the economic option appraisal to determine the options with the greatest Net Present Value (NPV). This shows the option which generates the best economic outcome when comparing all costs and benefits identified.

8.9.2 The table below reflects this outcome and clearly demonstrates the NPV of the Grove Lane option is the preferred outcome against a Do Nothing baseline.

8.9.3 Grove Lane has a net benefit of £1,116m.

Table 57: Impact of Incorporating External Health and Regeneration Benefits

External Benefit Considered	Do Nothing		Do Minimum		Option 2		Option 3		Option 4: Grove Lane	
	NPC £000s	EAC £000s	NPC £000s	EAC £000s	NPC £000s	EAC £000s	NPC £000s	NPC £000s	NPC £000s	NPC £000s
Appraisal Outcome	16,316,745	599,130	16,750,199	614,909	16,613,532	611,650	16,642,457	613,129	16,482,198	607,335
Variance to Do Nothing	-	-	433,453	15,778	296,786	12,520	325,712	13,998	165,453	8,204
External Health Benefit Quantification	0	0	-325,133	-12,021	-793,555	-29,339	-793,555	-29,339	-793,555	-29,339
Health Benefits Compared to Additional Costs	0	0	108,320	3,758	-496,768	-16,820	-467,843	-15,341	-628,102	-21,135
Ranking on NPV Position	**5**		**4**		**2**		**3**		**1**	
Consideration of Regeneration Benefit Impact	0	0	14,060	520	10,756	398	325	12	-488,347	-18,055
Net Cost and All Benefits Position	0	0	122,381	4,277	-486,012	-16,422	-467,518	-15,329	-1,116,449	-39,190

8.10 Conclusions of the Economic Case

8.10.1 It can be concluded that the Option 4 NPV is circa 1% favourable to the Option 2 NPV. This is strengthened to 4% of NPV once Regeneration Benefits are taken into account.

8.10.2 This review and refresh of the economic case reconfirms the original conclusion that Option 4: Grove Lane is the appropriate preferred option.

8.10.3 There have been no changes in the underlying assumptions to this economic assessment since the OBC and therefore this analysis remains valid.

9 Procurement Route

9.1 Introduction

9.1.1 An assessment was made in the Outline Business Case (OBC) to establish the optimal procurement approach; whether to procure using a public sector procurement route or to use Private Finance 2 (PF2). The conclusion of this assessment was that PF2 offered better value for money (VfM) than the Public Sector Comparator (PSC).

9.1.2 This section reassesses the VfM case made and approved in the OBC to procure the Midland Metropolitan Hospital using PF2. It evaluates the impact of any relevant changes in determining whether or not PF2 remains the optimal procurement route for the Trust.

9.2 Background and Advent of Single Bidder Scenario

9.2.1 The OBC approved in July 2014 presented a quantitative and qualitative assessment demonstrating that the PF2 procurement route demonstrated best value for money (VfM).

9.2.2 Following approval of the OBC the Trust commenced a PF2 process to procure the Midland Metropolitan Hospital (MMH). The Competitive Dialogue phase started with three bidders. However, one of the bidders withdrew following the issue of the Invitation to Participate in Dialogue (ITPD). Only one bidder (Carillion, referred to as The Hospital Company) submitted an interim bid, under competitive conditions, by the deadline of 12 December 2014. This interim bid submission was evaluated by the Trust as compliant and 'above the line'.

9.2.3 The PF2 procurement process relies upon competition to drive and demonstrate VfM. Therefore, whilst noting that continuing with the PF2 procurement with a single bidder was legal, the Trust Board reassessed (on 16 January 2015) which procurement option would best achieve its objectives and secure a value for money solution.

9.2.4 The Trust worked closely with the MMH Stakeholder Board (comprising the DH, HMT and TDA) in developing and agreeing an approach to mitigate against the potential effects of a single bidder so early in the procurement process.

9.3 Trust Board Reappraisal of the Procurement Options – January 2015

9.3.1 The Trust Board made a full reassessment of the procurement options available to the Trust. This re-assessment is presented at ***Appendix 9a***. The key points from the reassessment are set out in this section.

9.3.2 The MMH is critical to the Trust's strategy of concentrating complex care, acute inpatients and emergency services into a single acute inpatient hospital. The Trust's key objectives in procuring this effectively are to:

- Procure a hospital which is fully functional, high quality and enables delivery of the Trust's strategy and service model;
- Ensure that the MMH is operational by 2018 so that the clinical and financial benefits are secured in accordance with the Trust's long term plan;
- Procure the hospital within the Trust's affordability envelope; and
- Conduct the procurement within an acceptable risk profile, managing risks such as construction delay, cost inflation, securing approvals and funding.

Assessment Criteria

9.3.3 Given the Trust's procurement objectives, the criteria used to assess which procurement route is most advantageous were:

- The quality of the solution, including functionality, build quality and design – which is fit for purpose for the long term;
- Timescales for delivery – to enable sustainability in the short term;
- Affordability, taking into account both project costs and operational costs impacted by the scheme e.g. cost of running two Emergency Departments;
- The risks to the Trust - other than those that would transfer to a private sector partner (these will be taken into account in the Value for Money (VfM) assessment); and
- VfM of the PF2 procurement route compared with a public sector procurement route.

Procurement Options

9.3.4 The option of re-procuring via PF2 was discounted given that this would be likely to result in a similar or worse outcome. The market appetite was unlikely to have improved significantly so recently after the current procurement. Therefore, in reappraising the procurement route, there were two main options available for the Trust, either to:

- Abort the existing procurement and re-procure with a conventional public sector approach such as P21+ (assuming that the Trust would purchase the Interim Bid design from The Hospital Company); or
- Continue with PF2 with additional measures to mitigate against the potential implications of a single bidder scenario.

Mitigations to Support PF2 VfM

9.3.5 The following mitigations were proposed to ensure that VfM was demonstrated, achieved and maintained in the event that the Trust chose to continue with the remainder of the PF2 procurement:

- Requiring increased quality of bids from interim submissions through to Preferred Bidder;
- Cost modelling and benchmarking of separable cost streams (e.g. construction cost, lifecycle and facilities management);
- Monitoring of bidder's cost plans;
- Open book accounting; and
- Supply chain competition.

Option Evaluation PF2 versus P21+ (Using The Hospital Company's Design)

9.3.6 The Trust robustly tested which procurement route was the best means of the Trust achieving its strategic objectives despite the single bidder scenario: whether to procure via P21+ using The Hospital Company design solution or whether to continue with the existing PF2 procurement with mitigations.

9.3.7 The table below presents the appraisal which was made of PF2 versus P21+ (using The Hospital Company design) against the criteria outlined above to meet the Trust's procurement objectives.

Table 58: Option Evaluation- PF2 versus P21+

Criteria	PF2	P21+
Quality of Solution	Current solution evaluated as compliant and 'above the line' with plan in place to address Trust's 'red issues'. PF2 contract incentivises private sector to deliver integrated design which takes account of lifecycle and is inherently more efficient to run.	Reasonable to expect that the solution would be 'above the line'. Trust takes risk on functionality, on-going maintenance and fabric of the building. Therefore incumbent on Trust to integrate the design with lifecycle considerations.
Delivery Timescales	Operational by October 2018	Operational by October 2019
Affordability	Affordable with overall Continuity of Service Risk Rating (CSSR) of 4 and £11m surplus forecast in 2020-2021	Affordable with overall CSRR of 4 and £8.3m surplus forecast in 2020-2021
Risks	The Trust may not be able to drive the quality of the solution to the extent that would have been possible under on-going competition. However, the bid is currently 'above the line' and resolution of the outstanding areas of concern would be a condition of continuing the procurement. The Trust may not be able to secure and demonstrate that it has the best price. However, this would be largely mitigated through the additional measures proposed. There is a risk of the single bidder withdrawing/failing to provide a compliant bid. This is assessed as low given that the bidder already has sunk bid costs of £1.9m and is expecting to commit a further £3.8m before Financial Close.	There is a risk that the Trust would not secure the necessary public funding. There is a risk that more time would be required to address the design issues in the exemplar design, adding further delay, if the Trust did not buy the design from The Hospital Company. There is a risk that the construction programme would take longer than the assumed 31 months due to the lack of competitive pressure. Clearly the Trust would have the risk of the functionality and availability of the hospital and the on-going maintenance. However, this has been priced into the VfM comparison below. There is a risk of needing to pay bid costs to the current bidder which is circa £1.9m. It is expected that the bidder would claim for costs given that its bid is compliant.
VfM	A quantitative analysis shows that the PF2 option is 19.1% better value for money than the P21+ option. The PF2 option has a total risk adjusted NPV of £366m.	A quantitative analysis shows that the PF2 option is 19.1% better value for money than the P21+ option. The P21+ option has a total risk adjusted NPV of £434m.

Option Evaluation Commentary

Quality Comparison

9.3.8 The Hospital Company submitted a compliant interim bid to the Trust which would be required to improve further given that would be a condition of continuing the procurement. However, a P21+ approach could yield a similar quality scheme and so the consideration regarding quality was inconclusive.

Timescale Comparison

9.3.9 Analysis identified that a P21+ procurement route was likely to deliver an operational MMH by October 2019. This delay from the Trust's procurement objective of October 2018 would create significant operational, clinical and financial challenges.

Affordability Comparison

9.3.10 Affordability as measured by reference to the Continuity of Service Risk Rating (CSRR) was not a differentiating factor between an updated PF2 and prospective P21+ route. Each route provided for an affordable solution and improved affordability over the extant PF2 model, all other things being equal.

Risk Comparison

9.3.11 The risks of the two procurement options were distinct. The main risk of continuing with PF2 was that the Trust would not be able to demonstrate a fully competitive price despite the mitigations. However, the Trust would not be able to demonstrate a fully competitive price in P21+ procurement either. Furthermore, there were additional risks of being able to secure the level of public funding or a private sector partner to deliver the scheme. Overall, the risk profile of the Public Sector Procurement was assessed as higher than that of continuing the existing PF2 procurement.

VfM Comparison

9.3.12 The VfM assessment showed that the PF2 option was 19.1% better value than the P21+ option on a Net Present Value (NPV) basis. This reflected the value to the Trust of the risk transfer to The Hospital Company. It also showed that the adjusted PF2 option was VfM compared to the PSC by 19%.

Qualitative Analysis

9.3.13 A qualitative analysis was undertaken by the Trust's advisor, Deloitte, for the OBC and this was reviewed to establish the extent to which it had relied upon market competition. The analysis highlighted that in one out of the 40 sections, additional measures would be required to compensate for the lack of competitive pressure. This related to the desire to introduce innovation into the design and the provision of services. Innovation had already been evidenced in the interim bid submission and the Trust would require all of the remaining concerns regarding the design and service provision to be addressed in order for subsequent bids to be compliant.

Conclusion of analysis of procurement options

9.3.14 The PF2 option was assessed in January 2015 as meeting all of the Trust's procurement objectives. Whilst not as favourable as a competitive situation through to Preferred Bidder, the mitigations were expected to secure and demonstrate a sufficiently competitive price and drive a quality solution.

9.3.15 The P21+ option would not meet the Trust's objective of delivering an operational hospital by October 2018. Furthermore, such procurement would have a higher risk profile than PF2 and the value for money analysis demonstrated that it was not as favourable as the PF2 approach. P21 is a framework model which creates a single partner position at an earlier stage than a single bid PF2 solution.

9.3.16 The conclusion of the analysis was that the PF2 option was preferable due to a lower procurement risk profile, better VfM and an earlier delivery timescale, which met the Trust's requirement of October 2018.

9.3.17 Based on the above analysis, the Trust Board made a decision on 16 January 2015 that the Trust should continue with the procurement and apply the mitigations referred to above. It was considered that this decision would be the best means of achieving the Trust's procurement objectives.

9.3.18 The additional requirements that the mitigations imposed on the Bidder were detailed in the Invitation to Participate in Dialogue (ITPD) Volume 4 of the procurement documentation which was approved by

the DH on 26 March 2015. The ITPD made it clear that adherence to and fulfilment of these conditions would be a requirement for both the Draft Final Bid and Final Bid to be compliant. The Hospital Company accepted the terms of the ITPD on 30 March 2015.

9.3.19 The quantitative analysis which was undertaken in January 2015 based on the Interim Bid Submission has been updated following receipt of the Draft Final Bid with the result that the PF2 option is 18.9% better value for money than the P21+ option. This analysis is presented at ***Appendix 9b***.

9.4 Trust's Exemplar (PSC) via P21+ versus The Hospital Company Solution via PF2

9.4.1 The purpose of this comparison is to review the assessment made in the OBC to establish whether it remains better VfM to procure the Trust's exemplar (PSC) via a public sector procurement route (P21+) or to procure using PF2. The assessment in the OBC concluded that PF2 offered better VfM. This assessment focuses on the changes since the OBC and whether these alter the outcome of the OBC assessment.

Quantitative assessment

9.4.2 The results arising from the VfM assessment at OBC stage are summarised in the table below demonstrating that the PF2 option offered better value for money than the PSC route.

Table 59: VfM Assessment at OBC Stage

Option	NPV* of Project Cost £m	NPV* of risk retained by Trust £m	Total risk adjusted NPV* £m
PF2 (£100m capital contribution)	392.1	18.3	410.4
PSC	323.2	105.4	428.6
VfM	-	-	4.3%

** NPVs discounted to April 2013*

9.4.3 The key relevant facts/underlying assumptions that have changed and have a potential impact on the VfM assessment are shown in the table below.

Table 60: Change in Assumptions Impacting on VfM Assessment

Fact / assumption	OBC	CBC Based on Final Bid
1. Funding term sheet	A term sheet was drafted to reflect market conditions at the time of OBC drafting. This formed the basis of the shadow tariff model and also the basis on which the bidder submitted the interim solution.	Following the funding competitions, the first full year of the UP has reduced to £20.501m. The LTFM retains a 50bps buffer (equivalent to c£800k) as mitigation for market risk to Financial Close.
2. Lifecycle costs	Assumed at £20/m^2 in the PSC.	The Trust has recognised that £20/m^2 is below market rates. Revised to £23.53/m^2 in the revised exemplar PSC. The Final Bid assumes £22.05/m^2

Fact / assumption	OBC	CBC Based on Final Bid
3. Schedule of accommodation	Design based upon exemplar developed and costed at this point in time. The schedule of accommodation of the PSC at OBC stage was 79,828m^2. The gross internal floor area (GIFA) of the exemplar drawn solution at OBC was 83,628m^2.	The PSC SoA has been refined to reflect the outcome of the dialogue and is now 80,047m^2. The drawn solution is still assumed to be 83,628m^2. The Final bid drawn solution is 83,937m2.
4. Construction programme/phasing	Construction programme based upon exemplar plan developed at this point in time. Per OBC the construction programme was estimated at 27 months.	Construction programme based upon bidder design and feedback from dialogue with the Trust. Per final bid the total construction programme outlined is 33 months.
5. Facilities management costs	Costing at OBC based upon exemplar design and provided by Trust/Trust's technical advisor in line with industry benchmarks. £30/m^2 (25.2% of capex)	FM costs provided within bidder submission and benchmarked against similar projects and Trust's technical advisor database. £30/m^2 (25.1% of capex) excluding AGVs.
6. Risk transfer	The Trust's project team undertook a detailed exercise to assess the level of risk and probability of occurrence for each procurement route investigated making use of prior project experience, empirical data and industry benchmarks.	The risk assessment exercise was reviewed and updated where necessary as a result of any significant changes implemented post OBC. Examples include changes in price bases/inflation, phasing of costs and impact of using P21+ as the PSC route.

9.4.4 The Trust's exemplar costings have been refreshed to reflect the key factors above and thus enable a more robust comparison with the PF2 option. Additionally, the exemplar has been re-costed at the same price index as The Hospital Company bid. A summary of how these changes have altered the capital costs is presented in the table below.

Table 61: Summary of Capital Cost Changes from OBC to CBC

	OBC PSC (£m) (price base April 17 – midpoint construction)	OBC PSC (current price base – PUBSEC index 223 Jan 2015)	Revised PSC (current price base – PUBSEC index 223 Jan 2015)
2015/16	41.3	45.3	45.0
2016/17	114.9	125.9	125.1
2017/18	112.9	127.2	126.5
2018/19	16.0	17.5	17.4
Total Capex	**285.0**	**315.9**	**314.0**

9.4.5 The movement in capex from OBC to CBC is as a result of the following:

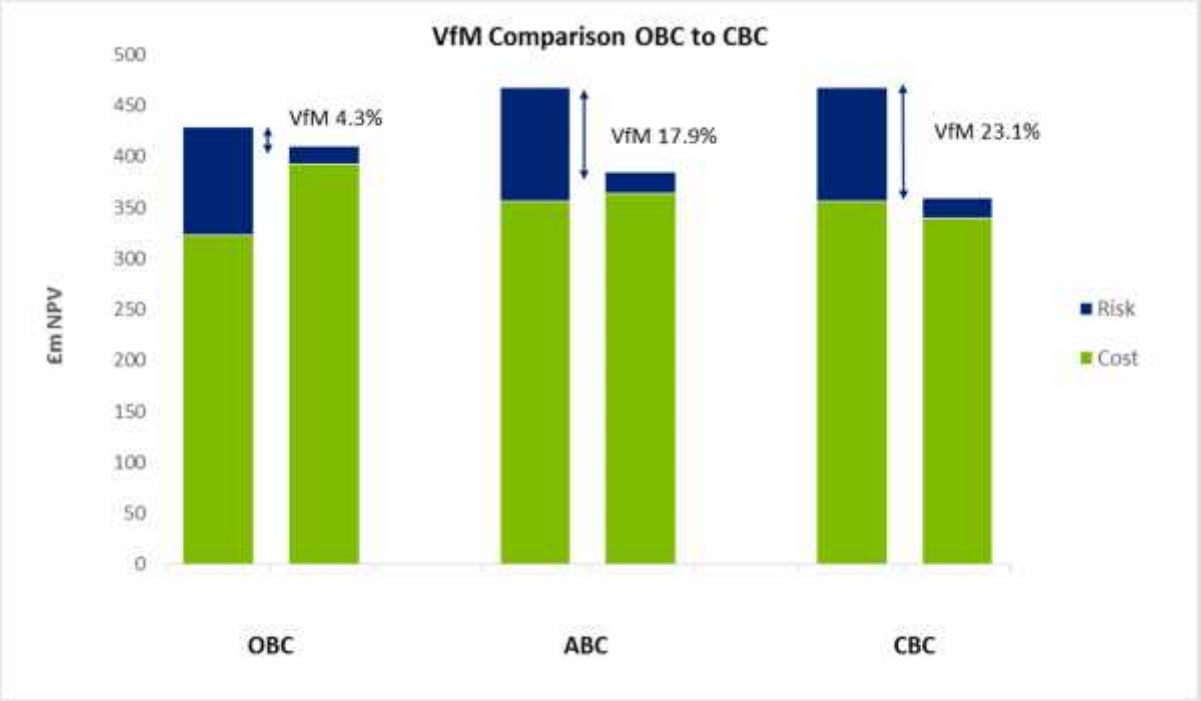
- Refinement of the exemplar design and schedule of accommodation leading to an increase in the gross internal floor area (GIFA);
- Revised costing of the building materials and process as the design has developed;
- A significant increase in the construction inflation indices, and
- Inclusion of AGVs upfront capital cost in both the PF2 and PSC options based on a quotation received for the specification required. The cost of the AGVs per the quote is £3.6m. This

amount has been factored into the value for money comparison and adjusted affordability hurdle targets.

9.4.6 A review of the risk transfer was made comparing the risk assessment exercise undertaken at OBC with the current scenario and procurement option. This exercise was updated where necessary as a result of any significant changes implemented post-OBC. Examples include changes in price bases/inflation and phasing of costs.

9.4.7 The impact of changes in the above factors has been quantified and is shown in the figure below which compares the Net Present Values (NPVs) of the two potential procurement routes at OBC and CBC stages highlighting the VfM differential at each stage. In addition it highlights the movement in the constituent cost streams at each stage.

Figure 17: VfM Comparison OBC to CBC

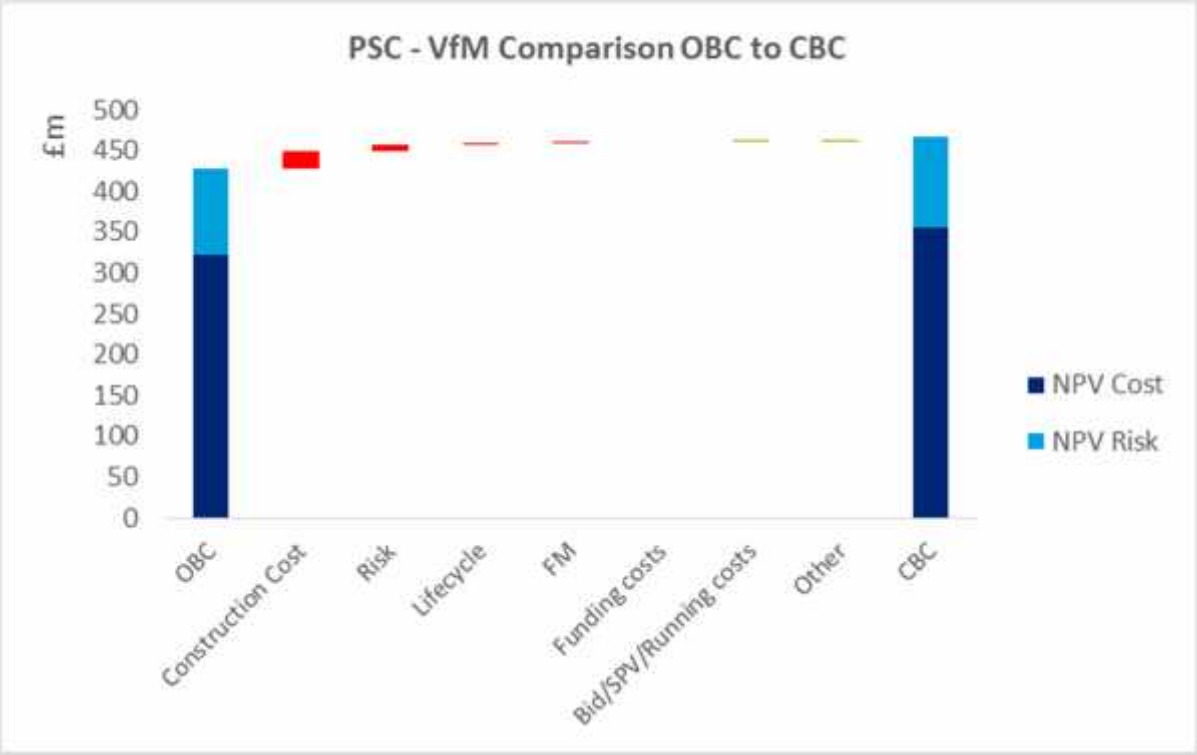


9.4.8 Key changes from OBC to CBC are:

- PF2 costs have decreased as a result of a significant improvement in the senior debt funding terms and underlying swap market position;
- The estimated construction costs for the PSC exemplar have increased significantly, largely as a result of construction inflation;
- The income stream arising from the public sector's 10% equity stake in the SPV has been factored into the ABC VfM calculation. The income has been included within 'Other'; and
- Inclusion of AGVs upfront capital cost in both the PF2 and PSC options based on a quotation received for the specification required. The cost of the AGVs per the quote is £3.6m. This amount has been factored into the value for money comparison and adjusted affordability hurdle targets.

9.4.9 The waterfall charts presented in the figures below illustrate the increase/decrease in each of the constituent parts for each procurement route from OBC to CBC. They highlight that the most significant movement from OBC to CBC is due to the improvement in funding terms available. This change only has impact on the PF2 option hence this is largely the reason for the significant improvement in the VfM position.

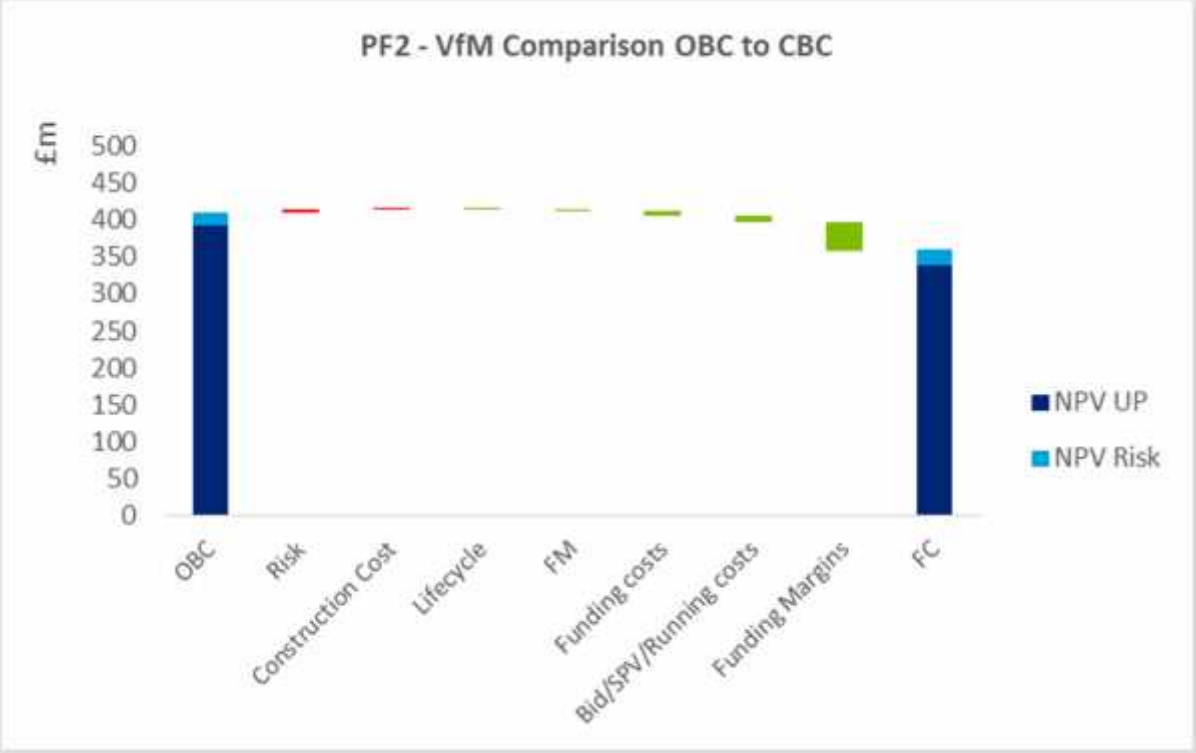
Figure 18: Comparison OBC to CBC for PSC



9.4.10 Key changes from OBC to CBC for the PSC solution are:

- Significant increase in the construction costs as a result of inflation/indices;
- Many of the risks identified are directly linked to construction cost hence as a result of the above the risks associated also increased;
- Inclusion of AGV capital costs;
- Increases in the GIFA of the building in turn increase the FM/Lifecycle costs which are based upon a £/m^2 metric; and
- Changes in the Schedule of Accommodation and construction costs as a result of dialogue and refinement of the solution and costs.

Figure 19: Comparison OBC to CBC for PF2



9.4.11 Key changes from OBC to CBC for the PF2 solution/bid are:

- Funding costs decreased significantly as a result of improvements in the funding market and underlying rates. This change was captured within the analysis at this stage and is reflected in the term sheets issued to Bidders.
- Changes in the Schedule of Accommodation and construction costs as a result of dialogue and refinement of the solution and costs.
- Inclusion of AGV capital costs;
- Changes in the Schedule of Accommodation and construction costs as a result of dialogue and refinement of the solution and costs.

9.4.1 The quantitative assessment presented in the table below demonstrates that the Final Bid submission at CBC stage is 23.1% better value for money procured via PF2 than the PSC being procured through P21+.

Table 62: Quantitative Assessment

Option	NPV of Project Cost £m	NPV of risk retained by Trust £m	NPV of Equity Return as a result of 10% stake in SPV	Total risk adjusted NPV £m
PF2 – Final Bid	339.8	20.3	(0.3)	359.8
PSC – ABC Stage	355.7	112.4	-	468.1
VfM	-	-		23.1%

Sensitivity Analysis

9.4.2 A sensitivity analysis has been conducted to establish the switching point at which the two routes represent equivalent VfM as well as the impact of potential future changes such as construction cost increase and sensitivity to funding terms.

9.4.3 This analysis has shown that:

- The NPV of the risk retained under the PSC solution would need to reduce by £108.3m (96%) in order for the PF2 solution to cease being value for money.
- The PF2 solution still demonstrates value for money (15.1%) when the risk transferred/UP NPV metric is adjusted in line with the Midland Metropolitan Hospital OBC metric of 16%.
- The construction cost of the PF2 solution would need to increase by £82.9m in order for the PF2 solution to cease being value for money.
- The underlying swap rate or funding margins would need to increase by 4.87%, making a total 'All in' funding rate of 9.70%, in order for the PF2 option to cease being value for money.

Qualitative Assessment

9.4.4 A qualitative assessment was undertaken at OBC. This has been reviewed to reflect any new information since OBC and a summary of the changes are shown in the table below.

Table 63: Changes in the Qualitative Assessment

Description of Change from OBC	Commentary
Quality of Competition At ABC stage the procurement process is well underway hence focus is on ensuring that a robust competitive process is in place to fully deliver the expected benefits.	The project team is satisfied that there was competitive tension up to the point that the Interim Bid was submitted. As a result of the single bidder status the Trust is putting in place measures to ensure maximum competitive tension and value for money for the remainder of the procurement including market testing, cost/benefit ratios and financial and quality hurdles.
Efficiency of Procurement Process At ABC stage the procurement is well underway and efficient process is required in order to sustain market interest and drive towards the best overall solution	The project plan has been agreed as appropriate by approval bodies. The plan has remained on track since OJEU without any undue delays. The procurement process could have an impact on VfM given that there is now a single bidder. Hence, the Trust has developed a series of mitigations to drive and demonstrate VfM in the absence of another bidder. The Trust Board is satisfied that this approach will deliver better value for money than the alternative procurement options.
Risk Transfer Reassessment at the ABC stage to ensure that the selected procurement route is delivering the expected risk transfer as anticipated from a robust competitive process.	The Interim Bid Submission received 12 December 2014 from The Hospital Company is on the basis of accepting the risk transfer as per the standard contract. The Trust Board 16 January 2015 confirmed that the deal is suitable for delivery through PF2 and that the Trust's objectives are best met through that route. Risk transfer is achievable and that has formed the basis of the Interim Bid Submission. The Trust and The Hospital Company are proceeding on the basis that the risk transfer remains as per the standard contract. If The Hospital Company subsequently does not meet required standards or affordability hurdles on future submissions then those bids will be non-compliant and the Trust will have the option of terminating the procurement and not paying The Hospital Company any bid costs.

9.4.5 The detailed qualitative assessment is presented at ***Appendix 9c***.

9.4.6 In summary the qualitative assessment shows the following:

9.4.7 **Quality of competition** - The Trust was satisfied that competitive tension existed up to the point that the Interim Bid was submitted. For the Draft Final Submission and Final Submissions, the Trust has implemented measures to ensure maximum competitive tension has been maintained and that VfM has been delivered for the remainder of the procurement.

9.4.8 **Efficient procurement process** - The procurement process could have an impact on VfM given that there is now a single bidder. Hence, the Trust has developed a series of mitigations to drive and demonstrate VfM in the absence of another bidder.

9.4.9 **Risk transfer** - Risk transfer is achievable and has formed the basis of the Interim and Draft Final Bid Submissions. Risk transfer remains as per the standard contract.

9.5 Conclusion

9.5.1 The VfM assessment at OBC confirmed that both quantitatively and qualitatively it was better VfM to procure the MMH via PF2.

9.5.2 In January 2015 The Trust Board made a robust re-appraisal of procurement route options given that only a single bidder submitted an Interim Bid in December 2014. The conclusion of this re-appraisal was that continuing with the PF2 route and was the best means of achieving the Trust's procurement objectives. This was on the basis that additional mitigations would be applied to ensure that value for money was delivered and evidenced.

9.5.3 The VfM assessment has been refreshed to compare the Trust's exemplar with the Final Bid. The key changes are: a revised PSC to enable a like for like comparison; revised funding terms; revised lifecycle costs; revised schedule of accommodation and revised risk transfer. The most significant of these changes in terms of the VfM assessment are the revised funding terms.

9.5.4 A reassessment, taking into account the key factors that have subsequently changed, has confirmed that the PF2 route remains value for money with it increasing from 4.3% on a NPV basis to 23.1%, following the outcome of the funding competitions.

9.5.5 The VfM of PF2 has improved mainly due to more favourable funding terms offered by funders and the underlying market rate.

10 Project Scope

10.1 Introduction

10.1.1 This chapter sets out the scope of the project requirements as briefed to bidders in the Invitation to Participate in Dialogue documentation. It covers:

- An overview of the site;
- The design approach;
- Planning;
- site strategy;
- Energy and sustainability;
- ICT strategy;
- Equipment strategy;
- Hard FM services strategy;
- Soft FM services strategy; and
- Income generation opportunities.

10.2 Overview of the site

10.2.1 The schedule of area required for the new hospital development and the activities laid out in the Functional Brief dictated that a substantial area of land was required for the new MMH. A 6.76 hectare brownfield site that meets this requirement has been identified at Grove Lane. The Trust has purchased the freehold using NHS compulsory purchase powers where necessary.

10.2.2 The Grove Lane site is bounded by the Grove Lane dual carriageway to the west, London Street to the north, Cranford Street to the north-east, Cape Arm canal to the east, Grove Street to east and old Grove Lane to the south-west. It was previously in industrial use and located just within the local authority boundary of Sandwell Metropolitan Borough Council (SMBC) and adjacent to the boundary with Birmingham City Council.

10.2.3 An aerial view and plan view of the site showing the PSC are presented on the next page.

Figure 20: Aerial View of the Site Prior to Demolition

Figure 21: Plan View of PSC

10.3 The Design Approach

Clinical Engagement

10.3.1 The clinical design has been informed by comprehensive clinical engagement right from the beginning when clinical groups supported development of the operational policies, specification documents and Public Sector Comparator (PSC)/exemplar design. In this way the Project Scope has been clinically led.

Design Vision

10.3.2 The design vision was summarised by the following statements in the Functional Brief which emphasise the human impact of the building which is required to be:

- Inspirational, attractive and imaginative;
- Welcoming;
- Reassuring;
- Light and airy;
- Clean without being clinical;
- Sympathetic to the environment;
- Fully accessible;
- Designed with privacy and dignity at the centre of patient flows; and
- A good place to work.

10.4 Planning

10.4.1 The brief for bidders included the planning arrangements laid out in this section.

10.4.2 There has been extensive engagement with planning officers from Sandwell Metropolitan Borough Council (SMBC), the wider public, Trust employees, landowners to be affected by the proposals and local MPs/Councillors through the Public Consultation events.

10.4.3 On completion of the Public Consultation an outline planning application, complete with Design and Access Statement, was submitted to SMBC on the 4 April 2008.

10.4.4 This outline planning application was for the redevelopment of the Grove Lane site to provide a new acute hospital (Use Class C2) and a supporting education, research and administration centre (Use Class B1 (a) and (b)), together with a gym (D2), crèche (D1) and car parking.

10.4.5 Sandwell Metropolitan Borough Council granted outline planning approval on 29 October 2008. This was renewed in July 2013.

10.4.6 Carillion submitted the Full Planning Application on the 29 June 2015. The application was determined at a Full Planning Committee at SMBC on 23 September 2015. The 6 week Judicial Review period is due to expire on 6 November 2015, prior to Financial Close.

10.5 Site strategy

The Functional Make-up of the MMH

10.5.1 The service requirement was defined in Chapter 5. As a result, a functional make up and operations of the MMH has been derived to form the scope. This has been divided into the following areas, each of which are summarised below:

- Emergency and Urgent Care;
- Admitted Patient Care – Specialist Services;
- Admitted Patient Care – Generic Adult Inpatients;
- Outpatients;
- Diagnostics;
- Clinical Support Services; and
- Non-clinical Support Services.

10.5.2 The functional content of the MMH is presented in the table below.

Table 64: Functional Content

Department	Functional Content
Emergency	Initial assessment areas, Minors, Majors, Children's, Resuscitation and 2 plain film x-ray
Inpatients	14 generic 32 bed wards (including 14 Coronary Care Beds), 117 Adult Assessment Beds, 56 Children's Beds, 30 Level 2/3 Critical Care beds
Maternity Delivery Suite	2 theatres, Delivery Suite, Birth Centre
Neonatal	36 cots
Operating Theatres	11 theatres, Central Admissions Area and Recovery
Outpatients	Bespoke Antenatal Clinic (including ultrasound), bespoke Paediatric Clinic and Urodynamics
Interventional Cardiology	3 Cardiology Catheterisation Laboratories and support accommodation including Day Case Area
Imaging	2 CT and MRI scanners, 2 plain film, 5 Ultrasound, Interventional Radiology Suite, 4 gamma cameras and Radio-Pharmacy
Clinical Support	Therapy Suites (including physiotherapy), Pathology Essential Laboratory, Pharmacy, Endoscopy, Medical Day Case Unit including Sickle Cell and Thalassemia, Cardiac Diagnostics, Cardiac Rehabilitation, Neurophysiology, Respiratory Physiology, Mortuary (no Post Mortem facilities), Medical Illustration
Administration/Non Clinical support	Multi-faith Centre, Clinical/Corporate Administration, Education and Training, Academic Research, Medical Engineering, Facilities, IM&T and Energy Centre, Relatives Overnight Stay

Phasing

10.5.3 The Trust expects that the MMH will open by October 2018. Given the availability of a clear site, the Trust expects that the development will be achieved in a single phase.

10.5.4 Advance works are due to commence in November 2015 to prepare the site for the main construction in January 2016, following Financial Close.

10.5.5 The concession period of 30 years will apply from the scheduled end of this single phase completion date.

Car Parking

10.5.6 Construction, maintenance and lifecycle of car parking infrastructure (excluding barrier equipment) is included in the PF2 contract. Car park management (including supply and maintenance of barrier equipment) will remain the responsibility of the Trust.

Remediation

10.5.7 The Trust has completed remediation of the site in preparation for future hospital redevelopment with the exception of the perimeter. It has been agreed that the perimeter will be the responsibility of the Hospital Company because it is more practical for this work to be done as part of the construction programme in order to maintain the integrity of the site boundary.

10.5.8 In addition, testing of the remediated land has revealed residual low level asbestos and hydrocarbon contamination in certain areas. Therefore, there is a likelihood that some percentage of the soil to be disposed of in landfill will be categorised as 'non-hazardous' rather than 'inert'.

10.5.9 At ABC, the Hospital Co estimated the cost of this remediation as being up to £1.5m. The price has now been fixed at £1.491m and the financial model amended accordingly.

10.5.10 Following remediation and handover of the site, the Hospital Company will take responsibility for site contamination at Financial Close.

Retained Estate

10.5.11 The Estates Strategy has been updated to show the approach to developing the community facility model described in Chapter 5. Development will be managed through the Trust's capital programme.

10.5.12 It will still be possible to release the remaining land/buildings for primary care use if required. The land not being used for health purposes will be released for investment in regeneration projects. This is part of the comprehensive regeneration strategy described below.

10.6 Energy, Sustainability and Regeneration

10.6.1 The Trust is committed to ensuring that the new development is environmentally sustainable to the maximum extent possible and will contribute to longer term affordability by minimising energy costs.

10.6.2 Bidders were required to consider sustainability and the design vision together ensuring that a sustainable future is fully integrated into the design. The Trust has required that technology, materials and policies that promote sustainability are developed in relation to:

- Energy use in the building;
- Minimising pollution;
- Water use in the building;
- The materials used in construction;
- Land use and ecology;
- Travel plans for the new hospital;
- The equipment used by the Trust;
- Recycling and waste management;

10.6.3 It is essential that any carbon reduction or energy saving measures adopted are sustainable in the long term. Bidders were required to demonstrate the sustainable credentials over the whole life cycle of any low carbon or renewable technology employed. The analysis includes the supply chain and all aspects of the associated infrastructure.

10.6.4 Bidders were required to demonstrate sustainable proposals both in terms of the completed scheme and during the construction process. These include the use of manufactured materials, recycled materials and the embodied energy held within these materials. Throughout the construction programme, under the requirements of BREEAM Healthcare, Bidders were required to demonstrate sustainable transport options for construction traffic and illustrate suitable disposal method for both site waste and consequential waste generated by the development. A BREEAM Healthcare 'Excellent' rating is a fundamental Trust requirement and achievement of the final rating as detailed above will be part of the building acceptance procedure.

Energy

10.6.5 It is a requirement of the Trust to raise the profile of operational energy and environmental management in order to improve performance in these areas. As the impact of the new facility will be influenced by both the activities of those operating the building and those occupying the building, it is recognised that the minimisation of such impacts will be as a result of partnerships.

10.6.6 Therefore, the Trust required bidders to deliver a solution capable of achieving energy consumption not greater than 42GJ/100m³ whilst achieving a BREEAM 'Excellent' score under ENE01.

Regeneration

10.6.7 The community served by the Trust is one of the most deprived in England and suffers from high levels of chronic ill health. Bearing in mind the strong links between poverty and ill health the Trust is committed to local regeneration as a key strand in the RCRH Programme and intends that the scheme will act as a catalyst for development in Sandwell and west Birmingham.

10.6.8 The Trust therefore required bidders to present proposals that will:

- Generate employment and training opportunities during construction and on-going management;
- Provide opportunities for local suppliers when sourcing goods and services; and
- Engage with local social and economic regeneration initiatives.

10.7 IM&T Strategy

10.7.1 The Trust has developed an Informatics Strategy (presented at ***Appendix 10a***) to inform the development of a Digital Hospital.

10.7.2 The vision for Health Informatics is to:

Develop an integrated health care system which connects and shares information across our community, supported across a modern and flexible infrastructure which will meet the needs of our local healthcare community and provide high quality patient information at the point of care.

10.7.3 The Strategy (presented at ***Appendix 10a***) sets out the vision in more detail including a five-year framework for transforming IM&T capability and capacity in the Trust.

The Current Situation

10.7.4 The Trust's electronic patient record (EPR) currently consists of the CSC iPM PAS solution with iCM providing clinical functionality. Various departments have stand-alone systems installed as part of Connecting for Health which currently contribute to the EPR e.g. Radiology, Maternity and Theatres.

10.7.5 The Trust has also developed the Clinical Data Archive (CDA) which is a repository of clinical reports, letters and clinical results. The EPR has been closely integrated with other key systems, such as

Radiology, Pathology and the clinical letter system. This has been crucial to supporting improved working practices and greater efficiencies.

10.7.6 The organisation is also in the process of transferring non-clinical records to electronic formats. The Trust has already made significant progress in the transition to efficient office working processes to maximise the utilisation of current estate.

The Strategic Plan

10.7.7 In alignment with national policy the Trust is investing in new systems over the next five years. The funding for this is shown in the Long Term Financial Model (LTFM). IM&T is a major enabler for the successful transition to the services to be delivered from the MMH.

10.7.8 The Trust plans to build upon and consolidate existing systems to deliver the enhanced capability required of the full EPR. This will enable improved integration of care records and reduce the complexity of managing multiple systems and interfaces.

10.7.9 A document management solution that combines data held electronically across multiple systems with an electronic view of paper based records will support the migration to a paperlite operating model by the time the MMH opens.

10.7.10 The Electronic Patient Record Outline Business Case (OBC) was approved by the Trust Board on 2 April 2015 and approval has been provided by the NTDA for the Trust to commence procurement. The business case sets out a timeline (presented at ***Appendix 10b***) which will deliver a 'Clinical Wrap' solution by October 2017, thus enabling the migration to a 'paperlite' environment prior to the opening of the MMH.

10.7.11 Migration to agile working in office environments will continue until the MMH opens.

Impact of the IM&T Strategy on the Scope of the MMH

10.7.12 The impact of the Informatics Strategy is summarised below:

- Minimal space for holding medical records has been planned into the MMH assuming significant progress to a paperlite operating model; this will be enabled by the EPR Programme and associated Document Management solutions (hosted externally to the MMH).
- Office/administration capacity in the MMH and other Trust facilities is based on efficient assumptions driven by well tested agile working models;
- Technology that can support 'voice over IP' and agile desktop functionality will be required. This will be enabled by the Infrastructure Programme;
- A requirement to support connectivity between the MMH and the Trust's community facilities has been specified; this will be enabled by the Infrastructure Programme; and
- The need to build in sufficient capacity to support incremental growth of functionality and implementation of new technology over time has been included in scope.

Trust Requirements Specified in the PF2 Contract

10.7.13 The management of informatics services and systems has a very different risk profile to the rest of the services being considered in the PF2 contract. The future requirements and systems of the Trust are extremely difficult to forecast for the duration of the contract (30 years) and is therefore impossible to price on any realistic basis.

10.7.14 Given this, the only aspect of IT services proposed to be included within the PF2 contract is the network infrastructure within the facilities, including the relevant connections to the external

environment. The requirements for this have been documented in the recently modified Schedules. The full impact of these schedules will be agreed prior to submission of final bids.

10.7.15 The fixed network cabling and containment systems will be designed to ensure that the capacity and connectivity provided can support the Informatics Strategy.

10.7.16 The Trust's hardware, software, systems and management services remain outside the scope of the scheme.

10.7.17 The Trust required Bidders to design a single integrated network delivering wired and wireless coverage to agreed criteria at completion and at the operational stage. The Trust will manage the single integrated network across the site after completion and requires that the successful bidder will utilise that network for building management and other systems.

10.7.18 The brief was for the PF2 partner to be responsible for the supply, installation, and lifecycle of the network infrastructure. Maintenance of the passive element of the network will be provided throughout the operational phase of the contract.

10.7.19 In addition, a short-term hardware maintenance service for the active network will also be provided as an elective service for the first five years of the contract. The Trust will be responsible for the procurement, installation, maintenance and lifecycle of the hardware/equipment needed to enable voice and data transmission across the network infrastructure.

Internal Fixed Cable Networking

10.7.20 The configuration of network cabling and components would depend on the design of the building; however certain minimum requirements were specified as follows:

- Core network components will be dual connected to provide alternate routing;
- Physical network cabling to operational areas should be provided from more than one location so that, in the event of failure of one network location, an entire operational area is not impacted; and
- Networks should have sufficient bandwidth and resilience to support images, VoIP, data and wireless mobile technologies and communications.

Wireless Network

10.7.21 Full wireless access to the single integrated network has been specified. Arrangements for testing the wireless network after commissioning are set out in Schedule 8 of the Project Agreement to ensure that good levels of performance are maintained when the hospital is fully operational.

Incoming Network

10.7.22 Incoming network services will be provided through diverse routes such as primary N3 link to reduce the risk of duct damage or building work causing a complete failure of service.

10.7.23 Robust high capacity network links will be required to Trust's community facilities from the MMH prior to opening. These links will be required to support clinical care between these sites.

Not Included in the Scope of the PF2 Contract

10.7.24 The following have not been included in scope:

- IT software/platforms/systems and other hardware and peripheral requirements, such as PCs and servers – these will be funded from the Trust's Capital Programme.

- The main Data Centre – this will be externally located and Informatics will determine the design and required supplier within the time period of the current Strategy. It is highly probable that this Data Centre will be N3 hosted and it is therefore important that the MMH site has dual resilient N3 connections. However, Informatics requirements are for small local computer rooms in which to host racks containing locally required service provision e.g. Active Directory services/locally specific clinical services.

Wider System Integration

10.7.25 At present the Trust has a mixed economy of well integrated commercial and local clinical systems which support the both direct care of the patient and the use of patient data for reporting and secondary purposes comprising: clinical audit and monitoring of safety, quality and clinical outcomes. This will continue and improve on the implementation of the EPR which will give a richer data source to support and improve the quality agenda.

10.7.26 The Trust currently uses the Rhapsody integration engine across the clinical IT Systems estate to ensure real time integration of the clinical data and this will continue to be used on completion of the EPR implementation as not all systems will initially be replaced.

10.7.27 The Trust plans to procure an integrated EPR with the first phase of the implementation comprising a Clinical Wrap with the Trust current Patient Administration System. A number of departmental systems will also be maintained and the Trust's local systems will be modularised to provide archive of previous data and to continue with the use of an element of current rich bespoke functionality which will not be replaced by the EPR. This will be reconsidered when the Trust enters its second phase of implementation which will deliver the PAS element of the system post the opening of MMH. This is included as an option in the procurement. The integration that this requires will be carried out by the Trust's in-house development team and is detailed in the output based specification (OBS) for the EPR supplier.

10.7.28 Clinical Decision support (clinical knowledge) is included within the integrated EPR.

10.7.29 Use of the system will be supported by full training of all users included as part of the programme plan and monitored in the early stages to ensure the usage is meeting expected levels. The Trust is already heavily dependent on clinical IT systems and a number of the existing systems will be retired with transition to the use of the new EPR.

10.7.30 The process to date has involved extensive discussion and engagement with the Trust's Clinical Groups and the leadership team in relation to the EPR process. This has involved clinicians across the Clinical Groups in the creation of the OBS and each group has signed off the OBS in relation to their requirements at the Informatics. Each clinical group has identified dedicated clinical resources to lead on the evaluation of the responses to the tender.

Benefits Realisation

10.7.31 Benefits have been fully considered and are fully described in the Benefits section of the EPR OBC and include cash releasing benefits and improvement in quality.

10.8 Equipment Strategy

Procurement

10.8.1 Equipment for MMH will be sourced via 4 separate means:

- Procured by the PF2 Partner;
- Procured through a Managed Equipment Service (MES);

- Transferred from existing facilities; and
- Directly procured prior to occupation of the facility.

10.8.2 The PF2 Partner will procure equipment which is fixed and integral to the design and construction of MMH. Examples include lighting and automated guided vehicles infrastructure.

10.8.3 The Trust will be procuring a MES for certain large items of medical equipment in parallel to the MMH procurement. The Trust will require beneficial access to the MMH facilities prior to Practical Completion for the purpose of installing and commissioning these items of fixed medical equipment. The MES business case is at ***Appendix 10c*** and provides for other trust sites as well as MMH.

10.8.4 The remainder of equipment for the MMH will be either transferred from existing facilities or directly procured by the Trust prior to occupation of the facility, dependent upon the condition of individual items.

Responsibilities

10.8.5 The Trust has defined which equipment types would be best managed by the Trust or by the PF2 Partner. The PF2 Partner is required to provide, install, maintain and replace certain items of fixed medical equipment which have been specified and selected by the Trust. The provision, installation, maintenance and replacement of all other equipment will be the responsibility of the Trust.

10.8.6 The Trust's approach has therefore been to define equipment into detailed classifications to reflect the proposed responsibilities. These classifications are shown in the Equipment Responsibility Matrix presented at ***Appendix 10d*** which outlines the responsibility for the procurement, transfer, fit, maintenance and lifestyle for each category in the classification matrix.

10.8.7 At Final Bid, all 1:50 designs were completed for all repeatable rooms and those which are likely to have a potential significant cost. All rooms (except for those agreed by both parties to be addressed within reviewable design data) were populated into a database of equipment requirements by Financial Close.

10.9 Hard FM Services Strategy

10.9.1 The Trust has specified a hard FM service to maintain the fabric of the MMH buildings and estate and ensure their lifecycle replacement for the duration of the PF2 Contract. The Trust also requires elective and minor maintenance services.

10.9.2 Hard FM services to Trust retained estate are outside the scope of the PF2 contract.

10.9.3 The required standards for the hard FM service are set out in the Project Agreement. The full payment mechanism applies.

10.9.4 It is proposed to transfer some members of the Trust's hard FM staff using TUPE arrangements. Some staff will be retained to maintain the retained estate. The Trust has engaged with Estates staff regarding the most appropriate way of identifying staff that will transfer to the hard FM provider within the PF2 contract.

10.10 Soft FM Services Strategy

10.10.1 Soft FM services are not included within the scope of requirements and will be provided by the Trust directly or by a third party.

In House Soft FM Services

10.10.2 The Trust's preferred solution for Soft FM is in accordance with PF2. Management of services will stay within the hospital where there are strong interdependencies with clinical services, for example:

- Domestic/ward services;
- Patient catering;
- Portering;
- Postal services and receipt and distribution services (due to the close operational links and shared capacity with portering); and
- Security (and therefore also car parking due to synergies between the two services).

Outsourced Soft FM Services

10.10.3 The Trust may outsource the following services that do not have strong interdependencies with clinical services however it will not do so through the PF2 contract:

- Retail Catering; and
- Linen and Laundry Services (the Trust will continue to outsource this service).

Automated Guided Vehicles (AGVs)

10.10.4 AGVs are used for the movement of goods and waste in the hospital. Following a value for money assessment (at ***Appendix 10e***), the Trust has required that 9 AGVs are the supporting infrastructure are provided by the Hospital Company. This is a change in scope since the OBC, resulting in an increase of £3.6m and £277K in the capital cost and unitary payment respectively. This increase in cost is more than offset by the productivity improvements enabled by the introduction of AGVs.

10.11 Summary Impact on Capital Cost of Changes of Scope (Remediation and AGVs)

10.11.1 The impact of including remediation and the provision of AGVs is summarised below:

Table 65: Capital Cost Changes due to Change in Scope

Scope	CAPEX (£m)
Draft Final Bid – April 2015 (excluding AGVs and remediation)	291.8
Remediation	1.5
AGVs	3.6
Final Bid – July 2015 (including AGVs and remediation)	296.9

10.12 Capital Implications outwith the PF2 Deal

10.12.1 Provision has been made for the following enabling and related schemes outwith the PF2 deal:

- Transferred equipment;
- Trust procured equipment (detailed in Capital Funding Table in Chapter 16);
- Managed Equipment Service (MES) (detailed in SDEV3 – Imaging MES Table in Chapter 16);
- Double running costs (detailed in Statement of Comprehensive Income Table in Chapter 16);
- Retained estate (detailed in Capital Funding Table in Chapter 16);
- IM&T (detailed in IM&T Investment Strategy Table in Chapter 16)

10.12.2 All of the above commitments are fully costed in the Trust's LTFM.

10.12.3 There are no decant costs because this is a single phase and single move scheme. Existing services will move directly from their current location to the new build.

10.13 Income Generation Opportunities

10.13.1 The Trust does not expect the PF2 partner to manage retail opportunities (including retail catering) within the hospital. The Trust will deliver retail catering services.

10.13.2 The Trust has specified an amount of retail space within the MMH atrium which it expects to manage itself or sublet to an independent third party.

10.13.3 The Trust will require that internet access through the single integrated IM&T network will be available to visitors and patients and reserves the right to charge for this access.

10.14 Conclusion

10.14.1 The project has a clearly defined scope which reflects the Trust's requirements which were detailed in the Invitation to Participate in Dialogue procurement documentation.

11 Procurement Strategy

11.1 Introduction

11.1.1 This chapter describes the procurement strategy, the process and outcome of commercial negotiations to date.

11.2 The Procurement Strategy

Underpinning Regulations

11.2.1 The Trust has procured the MMH through the Government's new approach to the delivery of private finance into public infrastructure and services, Private Finance 2 (PF2) route.

11.2.2 The procurement has followed the Competitive Dialogue (CD) procedure under Article 29 of directive 2004-2018/EC (the Directive) and Regulation 18 of the Public Contracts Regulations 2006 (SI 2006/5) (as amended).

11.2.3 The purpose of Dialogue was for the Trust to work with Bidders to develop solutions to meet the Trust's requirements.

11.2.4 The rules of CD required that Final Bids contained all of the elements required and necessary for the performance of the project. This meant that a high level of detail was required such that price and commercial certainty was achieved prior to 'Closure of Dialogue'.

Summary of Trust Approach

11.2.5 It was originally planned for the Dialogue process to follow a 3:2:1 pattern.

11.2.6 The aim was to make the Dialogue process as structured and transparent as possible to achieve the best outcome for the Trust without incurring unnecessary bid costs. The process was controlled by the Core Project Team to retain an overview of all issues and ensure consistency of approach.

11.2.7 The draft Project Agreement was based on Department of Health (DH) Standard Form (Version 3, as amended July 2004, February 2006, November 2006) ('DHSF') and was tailored to reflect SOPC4 amendments, HM Treasury's Standardisation of PF2 Contracts which was issued in December 2012 and the specific elements of this project. It was prepared with comprehensive bespoke drafting to reflect the Trust's commercial position as outlined in ITPD Volume 3.

11.2.8 Delivery of the Project under PF2 meant that two separate Funding Competitions were required. The first was used to identify the third party Equity Provider and the second was used to appoint the Senior Debt Provider. In each case these competitions were mandatory. The equity funding competition was held prior to appointment of Preferred Bidder and the Senior Debt competition was held at the Preferred Bidder stage. Due Diligence Advisors were appointed in March 2015 and ensured that potential issues for Debt Funders were reviewed regularly through the procurement.

11.2.9 The Due Diligence Advisors Stage Two technical review of the draft Project Agreement and the Draft Final Bid are presented at ***Appendix 11***a.

Impact of Single Bidder at CD Stage 4

11.2.10 The Trust set out a procurement plan following OBC approval which commenced with the OJEU publication in July 2014. Due to only one bidder proceeding to the 4th stage of Competitive Dialogue,

the Trust has been able to shorten the remainder of the procurement period, enabling Financial Close to be targeted 4 months earlier in December 2015.

11.2.11 The key stages are summarised in the table below:

Table 66: Procurement Stages

Procurement Milestones	Post OBC plan	Single bidder approach
OJEU	14 July 2014	14 July 2014
Prequalification Stage Selection of 3 Bidders and one reserve	4 September 2014	4 September 2014
Invitation to Participate in Dialogue Issued	5 September 2014	5 September 2014
CD Stage 1: ITPD Clarification Induction activities	8-19 September 2014	8-19 September 2014
CD Stage2/3: Dialogue to Interim Submissions Interim submissions Appointment of Single Bidder	12 December 2014 8 January 2015	12 December 2014 11 March 2015
CD Stage 4: Dialogue with Single Bidder Submission of Draft Final Bid Closure of Dialogue	9 April 2015 30 July 2015	2 April 2015 17 July 2015
CD Stage 5: Final Bid Final Bid submitted Appointment Preferred Bidder	31 July 2015 22 October 2015	17 July 2015 7 August 2015
Preferred Bidder to Financial Close Financial Close	15 April 2016	9 December 2015
Construction Handover Hospital Opening	20 July 2018 12 October 2018	20 July 2018 15 October 2018

11.3 Official Journal of the European Union (OJEU)

11.3.1 The Project has been procured under the UK Government's new PF2 scheme and follows the Competitive Dialogue procedure set out in the Public Contracts Regulations 2006. The Project was advertised by way of a contract notice published in the OJEU on 17 July 2014 (OJEU ref. 2014/S 135-242757). A copy of the OJEU notice is at ***Appendix 11b***.

11.4 Pre-Qualification Stage

11.4.1 A Memorandum of Information, Pre-Qualification Questionnaire (PQQ) and PQQ Evaluation Methodology were made available to all interested candidates through the NHS Sourcing Electronic Procurement Portal.

11.4.2 The PQQ was intended to shortlist three bidders with a potential reserve bidder to shadow the early stages of the procurement. There were three responses to the PQQ:

- Balfour Beatty;
- Carillion (The Hospital Company);
- Laing O'Rourke/Interserve (Momentum Healthcare);

11.4.3 The constitution of these bidders is at ***Appendix 11c***.

11.4.4 These responses were scored and the sum of the weighted scores in each case was in excess of the minimum score defined in the PQQ Evaluation Methodology (50%). All three bidders were therefore shortlisted to receive the Invitation to Participate in Dialogue (ITPD).

11.5 CD Stage 1 - ITPD Clarification

11.5.1 The aims of this stage were to:

- Initiate the CD process with the Bidders selected;
- Provide the information Bidders need to proceed effectively;
- Allow Bidders to test their understanding of the Trust's brief;
- Respond effectively to queries and requests for clarifications;
- Acknowledge the approach to the Senior Debt Funding Competition;
- Facilitate discussion of the intended approach to the Equity Funding Competition;
- Initiate the appointment of the due diligence advisors; and
- Establish effective lines of communication and rules of engagement.

11.5.2 The ITPD was issued to three bidders. However, one bidder (Balfour Beatty) withdrew immediately after issue.

11.5.3 The two remaining Bidders were required to deliver short presentations to demonstrate their understanding of the Project. These presentations did not form part of the evaluation process and covered:

- Opportunities – understanding of Trust requirements and aspirations;
- Constraints – understanding of site issues, planning etc; and
- Innovations – first ideas on innovation at sketch outline level.

11.5.4 The Core Project Team provided feedback to help the Bidders develop understanding of the Trust's design and commercial principles.

11.6 CD Stage 2 and 3 - Preliminary Proposals and Dialogue to Interim Submissions

11.6.1 These stages were merged in order to reduce the programme length. The aims of these stages were for:

- Bidders to indicate how, and in what way, they would seek to improve the Exemplar Design;
- Bidders to have an early opportunity to test their developing ideas and approaches;
- Provision of full feedback on the proposals;
- Bidders to work with the Trust to continue development of their design;
- Bidders to develop an Interim Bid Submission for evaluation;
- The Trust to manage requests for information and to resolve issues raised during the process;
- The Trust to evaluate Interim Bid Submissions to shortlist two Bidders; and
- The Trust Board to consider the evaluation report and approve the two Bidders going forward into CD Stage 4.

Interim Bid Evaluation

11.6.2 Although Momentum Healthcare engaged in the early part of dialogue it did not submit a response by the interim submission deadline of 12.00pm, 12 December 2015. Consequently, Momentum Healthcare was deemed to have effectively withdrawn from the competition.

11.6.3 There was one response from The Hospital Company. The submission met the price targets and that was complete. The submission was evaluated by the MMH Project Team and other relevant staff and advisors in accordance with the published Evaluation Methodology in the ITPD.

11.6.4 The groups met and achieved consensus scores which were recorded contemporaneously together with relevant evidence as to why that score was appropriate on the Trust's electronic procurement portal Bravo.

11.6.5 Other non-scoring activities included a Design Quality Indicator (DQI) presentation from the bidder and a full day of meetings with the departmental clinical design groups. Views from both sources formed part of the evidence reviewed during the Clinical Design scoring session.

11.6.6 The bid was compliant in terms of quality scores because it achieved an overall score of 50% and no questions were scored as 1 (unacceptable).

11.6.7 The overall weighted score of 71.76 positioned the Bid between adequate and good. Only one section – Estates and Technical – had an average score below adequate. However all issues were felt to be resolvable in the next stage of dialogue.

11.6.8 There were a number of questions where the bidder scored either 2 (very poor) or 3 (poor). These were captured to be resolved early in the next stage of Dialogue.

11.6.9 The Trust Board met on 8 January 2015 and agreed that the submission was compliant and should proceed to the next stage of Dialogue. However, the fact that there was only one bidder raised concerns about the ability to drive and demonstrate value for money. The approach to managing this issue is covered below.

11.7 Single Bidder Implications and Treatment

The Issue

11.7.1 The consequence of a single bidder at the end of CD3 presented the Trust with both a challenge and an opportunity:

11.7.2 The lack of a competitive lever could have compromised the ability to improve the quality of the interim bid through to Preferred Bidder;

11.7.3 Additionally, the absence of competition might have prevented the Trust from securing and demonstrating the best possible price and value for money;

11.7.4 However, there was an opportunity to de-risk the programme by bringing Financial Close earlier, thus making the October 2018 hospital operational date more viable and enabling better value for money.

11.7.5 An option appraisal was undertaken by the Trust Board to determine the best way forward given that only a single bidder submitted an Interim Bid Submission. This appraisal has been detailed in Chapter 9. The Trust Board determined that it was in the Trust's best interests to continue the existing procurement, albeit with some additional mitigations to counter the issues described above. These mitigations drive quality and control cost, thereby safeguarding value for money.

Approach to driving quality

11.7.6 In order to drive quality, the Trust required that all concerns identified at the evaluation of the interim bid submission have been addressed early in the CD Stage 4.

11.7.7 Additionally, the Trust required that the quality scoring achieved at the draft final and final bids matches or exceeds that achieved at the interim submission.

11.7.8 The Trust created a new metric of 'cost per benefit points' from The Hospital Company's interim submission. This is the product of the NPV of the unitary payment and an assessment of the quality, scored at bid evaluations. The Trust required that this metric improves at each subsequent bid.

Approach to ensuring that costs are competitive

11.7.9 The Trust requested that The Hospital Company provided a market testing strategy to demonstrate what level of market testing is possible without the market testing becoming part of the critical path of the procurement and thus delaying Financial Close. 78% of the value of the construction packages was market tested using the following methods:

- True market lump sum;
- True market test rates;
- Subcontractor target cost/budget estimates;
- Quality/capability evaluation with all in rate for sample scope of works; and
- Market testing of rates using other schemes and adjusting for inflation.

11.7.10 The deliverables that were required from The Hospital Company to evidence the above are presented in the Invitation to Submit Final Bids (ITFB) Volume 4 presented at ***Appendix 11d***.

11.7.11 Two or three suppliers were approached to provide a cost. As the scheme was developed from the draft final bid submission (April 2015) to the Final Bid submission (July 2015) an increasing number of work packages were subjected to a rigorous approach, resulting in The Hospital Company demonstrating that 83% of the construction cost had been tested.

11.7.12 The Hospital Company was required to demonstrate market testing as described above at both draft final bid submission and final submissions.

11.7.13 The Trust's cost advisor provided support by:

- Cost modelling to compare with the Public Sector Comparator and/or another relevant scheme such as the Royal Liverpool Hospital (also being constructed by The Hospital Company).
- Monitoring the bidder's cost plans to ensure that costs were contained within the limits set out in the interim bid.
- Using open book accounting to ensure that movements in elemental costs are transparent understood and accepted.
- Providing assurance that at least 78% of the value of the scheme had been market tested through having sight of market testing and tendering information.

11.7.14 Additionally, the Trust had a financial hurdle in place based on the first year Unitary Payment (UP) and net present value of the UP over the contract life. The Hospital Company was required to pass the hurdle at both draft final bid submission and final bid submissions in order to submit a compliant bid.

11.7.15 FM and lifecycle costs in the unitary payment were benchmarked prior to Preferred Bidder. Lifecycle costs were subject to early review by the technical due diligence advisors. The Trust required an amendment to Clause 28 of the Project Agreement to require The Project Company to competitively tender lifecycle costs.

11.7.16 The Hospital Company was required to competitively procure equipment and other non-pay items during the operational period in accordance with the Trust Standing Financial Instructions or some other agreed protocol and to evidence that.

11.7.17 The above mitigations were detailed in a revised ITPD which was issued to The Hospital Company on 11 March 2015. The Hospital Company confirmed acceptance of the terms in full in a letter to the Trust dated 30 March 2015.

11.8 Competitive Dialogue Process Stage 4

11.8.1 The aims of CD Stage 4 were for:

- The Bidder to complete development of their proposals;
- The Bidder to resolve all project specific commercial requirements with the Trust;
- Costings and the financial model to be completed ensuring that all price sensitive issues have been resolved;
- The Trust to manage the process ensuring that meetings, requests for information (RFI), issues etc are managed effectively and without incurring unnecessary costs and pressures on Bidders and Trust staff;
- Development of all items required for the Bidder to prepare the Draft Final Bid;
- The Trust to prepare an Appointment Business Case (ABC) in draft and seek approval as a condition of Closure of Dialogue;
- Submission and evaluation of Draft Final Bids; and
- Approval for Closure of Dialogue.

Draft Final Bid Evaluation

11.8.2 Compliance tests were applied to assess the Draft Final Bid which confirmed that:

- All specified deliverables were included;
- Those deliverables specified as compliant were fulfilled e.g. a bid which demonstrates compliance with the set price targets;
- All deliverables were in the required formats and the prescribed pro-forma have been used;
- Sufficient information at the required standard had been provided to enable a full evaluation; and
- Compliance with instructions regarding Reference and Variant Bids had been followed.

11.8.3 The Draft Final Bid was received on 2 April 2015 and it was agreed that it met the price hurdles and that it was complete.

11.8.4 The bid was evaluated in accordance with the methodology outlined in the ITPD. Consensus scores were achieved which were recorded contemporaneously together with relevant evidence as to why that score was appropriate on the Trust's electronic procurement portal Bravo.

11.8.5 Other non-scoring activities included two presentations (one for clinical staff and one for the public) from the bidder on 17 April 2015 and two full days of meetings with the departmental clinical design groups. Views from both sources formed part of the evidence reviewed during the clinical design scoring session.

11.8.6 The bid was compliant in terms of quality scores because it achieved an overall score of more than 50% and had no questions scored as 1 (unacceptable).

11.8.7 The overall weighted score of 79.44 positioned the Bid well above adequate (66.67) but not quite at good (83.33). All sections had improved since the interim submission and only eight deliverables were scored as poor (50.0) with no very poor or unacceptable scores. The remaining poor issues were all considered to be resolvable prior to submission of Final Bids.

11.8.8 The Bidder's base scheme proposed a first year UP of £21.95 m and a NPV of the UP over the operating period of £261.09 m. The Bidder had therefore complied with the price hurdles of £22m and £262m respectively.

11.8.9 The Draft Final Bid was compliant with the single bidder mitigations.

Technical Due Diligence Draft Stage Two Reports

11.8.10 The Due Diligence Advisors Stage Two technical review of the draft Project Agreement and the Draft Final Bid are presented at ***Appendix 11a*** demonstrating satisfactory findings at this stage of the project. No issues were identified which would have prevented the scheme being funded.

11.9 Competitive Dialogue Process Stage 5

11.9.1 The aims of CD Stage 5 were for:

- The Bidder to submit a Final Bid;
- The Trust to evaluate the Final Bid;
- The Due Diligence Advisors to review the changes from Draft Final Bids and comment on any effect on their report;
- The Trust to update the ABC; and
- The Trust to coordinate approvals leading to approval of the Preferred Bidder.

Final Bid Submission

11.9.2 The Trust issued an Invitation to Submit Final Bids (ITFB) to the Bidder at the Conclusion of Dialogue on 17 July 2015. This document included addenda to the ITPD to capture significant changes to the brief that were raised and addressed during the Dialogue process.

11.9.3 The ITFB specified:

- Confirmation of changes to requirements set out in the ITPD which have arisen from the Dialogue process.
- Reference to previous amendments or addenda which recorded these changes throughout the process;
- The detailed content required for the Final Bid;
- The deadline for submission of the Final Bid;
- Any specific terms agreed with the Bidder during the CD process; and
- That Dialogue was now 'closed'.

11.9.4 The Bidder was required to submit a Final Bid based on the solution identified and agreed prior to the Closure of Dialogue.

11.9.5 Only items that had changed since the Draft Final Bid were submitted by the Bidder in the Final Bid. A schedule of items submitted as part of the Draft Final Bid and that remained unchanged was also required for completeness.

Final Bid Evaluation

Compliance Testing

11.9.6 The Final Bid was received on 17 July. Compliance tests were applied to assess the Final Bid which have confirmed that:

- All specified deliverables were included;
- Those deliverables specified as compliant were fulfilled e.g. a bid which demonstrates compliance with the set price targets;
- All deliverables were in the required formats and the prescribed pro-forma have been used;
- Sufficient information at the required standard had been provided to enable a full evaluation; and
- Compliance with instructions regarding Reference and Variant Bids had been followed.

Evaluation Approach

11.9.7 The bid was evaluated in accordance with the methodology outlined in the ITFB. Consensus scores were achieved which were recorded contemporaneously together with relevant evidence as to why that score was appropriate on the Trust's electronic procurement portal 'Bravo'.

11.9.8 Only Bid Deliverables that had changed since the Draft Final Bid were evaluated at the Final Bid. The scores were then combined with the Draft Final Bid Scores of the remaining deliverables to complete the evaluation.

11.9.9 The Trust evaluated the Bidder through the application of the evaluation criteria, scoring and weightings set out in the tables below. The Competitive Dialogue Stage 3 section weightings were carried through to Competitive Dialogue Stage 4 and 5 so that a direct comparison of the scores from interim submission to Draft Final and Final Bid could be made.

Table 67: Weighting by Main Criterion/Workstream

Main Criterion/Workstream	Weighting CD Stage 3/4/5
Cost	10%
Clinical and Operational Functionality	34%
Estates and Technical	24%
Legal, Commercial and Finance	14%
Hard FM	9%
Subjective Assessment of Design Vision	9%
Total	**100%**

Table 68: Scoring of Bids

Score	General Definition	Criteria Based Definition
1	Unacceptable	Fails to meet requirements for almost all key criteria.
2	Very poor	Fails to meet requirements for many of the key criteria.
3	Poor	Fails to meet requirements for some key criteria.
4	Adequate	Meets requirements for all key criteria.

Score	General Definition	Criteria Based Definition
5	Good	Meets requirements / performs well for all key criteria and offers some additional benefits.
6	Excellent	Exceeds all project criteria and offers significant additional benefits.

11.9.10 The groups that contributed to the evaluation are detailed at ***Appendix 11e***.

11.9.11 The bid was compliant in terms of quality scores because it achieved an overall score of more than 50% and had no questions scored as 1 (unacceptable).

11.9.12 The overall weighted score of 83.46 positioned the Bid above 'good' (83.33). There were significant improvements since the Draft Final Bid across M&E and Design Vision Scores and some improved Clinical scores. No deliverables were scored as poor (50.0) or below. The eight poor issues identified at Draft Final Bids were satisfactorily addressed in the Final Bids.

11.9.13 The Bidder's Final Bid proposed a first year UP of £22.272m and a NPV of the UP over the operating period of £265.477m. The Bidder has therefore complied with the price hurdles of £22.295m and £265.5m respectively.

11.9.14 The Final Bid was compliant with the single bidder criteria.

11.9.15 The table below summarises the weighted evaluation scores at Final Bids:

Table 69: Final Bid - Weighted Evaluation Scores

Section	Current Weighted Score	Maximum Weighted Score	%
Design Vision	7.65	9	83.33
E&T	19.17	24	78.90
Clinical	26.80	34	76.17
Legal	4.17	5	83.33
Finance	4.50	5	90.00
FM	7.50	9	83.33
Project Management	1.67	2	83.33
Regeneration	2.00	2	100.00
Pricing	10.00	10	100.00
Grand Total	**83.46**	**100**	

11.9.16 The evaluation report of the Final Bid is at ***Appendix 11e***.

11.10 Appointment of Preferred Bidder

11.10.1 The Final Bid was confirmed as compliant.

11.10.2 The Due Diligence advisors submitted a Final Stage Two Due Diligence Report in light of the Final Bid. This report reviewed risks that had arisen since the full review conducted at Draft Final Bid stage.

11.10.3 The Trust appointed Preferred Bidder on 7 August 2015 following a satisfactory Stage Two Due Diligence Report, the approval of the ABC and approval by the DH of the letter to appoint Preferred Bidder.

11.11 Key Project Milestones

11.11.1 These are set out in Chapter 14.

11.12 Procurement Documentation

11.12.1 The procurement process and supporting information was presented in 4 volumes of the ITPD. These were issued prior to the commencement of the Competitive Dialogue process and refreshed as required during the process.

Volume 1 – Executive Summary

11.12.2 This provides an executive summary of the ITPD suite of documents and additionally includes:

- Background to the Trust;
- Content for change;
- Right Care, Right Here model of care;
- MMH acute model of care; and
- Activity assumptions.

Volume 2 - Design Specification

11.12.3 This provides detail on:

- Clinical and functional brief;
- Architectural design requirements;
- Quality of construction; and
- Technical information.

Volume 3 - Commercial Document

11.12.4 This provides detail on the Trust's commercial position, the Project Agreement and its schedules and includes:

- Facilities management;
- Interim services;
- Retail opportunities;
- Car parking; and
- Regeneration strategy.

Volume 4 - Procurement Process

11.12.5 This provides detail on the Competitive Dialogue process including:

- The Competitive Dialogue strategy;
- The procurement timetable;
- The evaluation process;
- Approach to reference and variant bids; and

- Price and value for money assessment.

11.12.6 The updated version of Volume 4 is presented at ***Appendix 11d***.

11.13 Standard Form Compliance

11.13.1 The Project Agreement and Schedules are compliant with HM Treasury's Standardisation of PF2 Contracts. Since this is the first hospital project to be procured under the PF2 model, the Project Agreement and Schedules have been worked up in close consultation with the Department of Health and HM Treasury. Some project specific drafting has been included and is summarised in the following sections.

Clause 17.1A (Advance Works)

11.13.2 Certain Advance Works will be carried out by The Hospital Company Construction Limited (the Advance Works Contractor) at the Site under the terms of an Advance Works Agreement. The Project Agreement acknowledges this and includes drafting stating that the Advance Works are deemed to be part of the Works and to have been carried out by Project Co under the Project Agreement. The Advance Works Contractor is also listed as a Project Co Party under the Project Agreement.

11.13.3 The Trust will sign a separate advance works contract with The Hospital Company Construction Limited. This contract will fall away when the Project Agreement is signed and the works will be rolled up into the main PF2 contract. In the event that the Trust and the Hospital Company do not reach Financial Close by a mutually agreed 'long stop' date the Trust will pay for the Advanced Works directly under the terms of the Advance Works Agreement.

Clause 35.11 - 35.13 (Capital Payments)

11.13.4 The Trust will make capital payments of £97.2m funded by Public Dividend Capital as agreed with the DH towards the Constructions Costs. Drafting has been included to describe how these payments will be made, the timing of such payments and the conditions which must be satisfied before such payments are made.

Schedule 14 (Service Requirements)

11.13.5 The draft PF2 Schedule 14 provided by HM Treasury was used as the base for the MMH Schedule 14 and the MMH document is compliant with that document. Due to the fact that this is a health project and certain health specific elements are required, the Schedule has been adapted in certain areas to ensure it works well in the health context.

11.13.6 Project specific drafting in relation to IM&T arrangements has also been included.

Schedule 18 (Payment Mechanism)

11.13.7 The draft PF2 Schedule 18 provided by HM Treasury was used as the base for the MMH Schedule 18 and the MMH Schedule 18 is compliant with that document. Due to the fact this is a health project and certain health specific elements are required, this has been adapted slightly in order to ensure it works well in the health context. The changes have been signed off by both the Department of Health and HM Treasury (against the template version provided).

Schedule 22 (Variation Procedure)

11.13.8 Whilst this Schedule is compliant with PF2, some work has been done in order to seek to ensure that the Schedule is as effective as possible. Single Stage Variations for less complex variations and Two Stage Variations for more involved variations have been introduced in order to seek to streamline the

process where appropriate but to ensure enough time is given and detail worked up where the variation is more complex.

Retail

11.13.9 PF2 does not contain drafting in relation to retail arrangements. The Trust will be managing its own retail tenants and they will be included within the definition of Trust Party in the Project Agreement. Drafting has been included setting out Project Co's, the Trust's and the tenants' responsibilities in relation to the relevant areas of the MMH.

11.14 Remediation warranties and guarantees

11.14.1 The Trust has completed remediation of the site in preparation for future hospital redevelopment with the exception of the perimeter. Following remediation and handover of the site, the Hospital Company will take responsibility for site contamination at Financial Close.

11.14.2 The contract includes warrantees to the Hospital Company in respect of remediation carried out on behalf of the Trust as follows:

- A warranty limited to £5m directly from the company that completed the survey and analysis work to the Hospital Company;
- A warranty of support limited to £2m from the Trust to the Hospital Company in respect of the work carried out on its behalf by Capita Construction. There is an indemnity from Capita Construction to the Trust for these works up to a maximum of £1m.

11.15 Approach to Funding Competitions and Due Diligence

11.15.1 The project has been procured via PF2 and therefore there was a requirement for two funding competitions to take place as follows:

- Equity funding competition; and,
- Debt funding competition.

The approach to each of these exercises is set out in chapters 14 and 15 respectively.

11.16 Planning Permission

11.16.1 Full Planning Approval was granted on 23 September and expiry of the judicial review period was on 6 November 2015, 6 weeks later and prior to Financial Close.

11.16.2 The Trust will bear the cost of Section 106 and 278 agreements.

11.17 Certificate of Title

11.17.1 The Trust has prepared a report on Title which was included within the data room for the information of the Bidders and which Bidders could review and raise queries on. The Trust also provides a "Trust Title Warranty" to Project Co in Clause 7.2.4 of the Project Agreement. The Trust warrants and undertakes that throughout the Project Term:

- The Site will be in the sole legal and beneficial ownership of the Trust;
- The Site will not be subject to any Adverse Rights;
- No one will be in adverse possession of the Site or has acquired or is acquiring any Adverse Rights affecting the Site;

- There will be no disputes, claims, actions, demands or complaints in respect of the Site that are outstanding or that are expected by the Trust and that would prevent or disrupt the carrying out of the Services; and
- No person, other than the Trust will have any right (actual or contingent) to possession, occupation or use or interest in the Sites.

11.18 Transfer of Undertakings and Protection of Employment (TUPE)

11.18.1 It is planned that there will be a TUPE transfer of staff from the Trust to Project Co. This will be a Service Provision Change type TUPE transfer under Regulation 3 of the TUPE Regulations.

11.18.2 The Trust currently carries out the relevant Hard FM services itself across all of its sites using a directly employed workforce. Under the Project Agreement, Project Co will have responsibility for delivering those services at MMH and the Trust will continue to have responsibility for the other sites.

11.18.3 Prior to the transfer date, the Trust will establish an organised grouping of employees by dividing the current workforce into two 'teams' – 'Team A' which will continue to be employed by the Trust and 'Team B' which is the group of staff who will transfer. This will be done as far as possible on a voluntary basis but could be achieved on a compulsory basis if required. Those employees who volunteer or are selected will be expressly designated as the grouping of staff whose purpose is to deliver the relevant services at the MMH site from the date of the transfer onwards.

11.18.4 There will be a single transfer of staff from the Trust to Project Co. The services to be provided after the transfer are the same as those currently carried out by the Trust itself. The services will be provided to the same legal entity - the Trust - which currently employs those staff to carry out the activities in question.

11.18.5 The drafting in the Project Agreement is compliant with the PF2 standard form drafting and has been amended only to reflect the slightly different circumstances with staff – with some staff remaining with the Trust and some transferring to Project Co.

11.19 Value for Money (VfM)

11.19.1 The Value for Money analysis conducted at OBC has been updated, resulting in an improvement from 4.3% to 23.1%. The quantitative and qualitative analysis is at Appendices 6a and 6b respectively.

11.20 Due Diligence Contracts and Finalisation of Contract Documentation

11.20.1 The due diligence advisor contracts were novated from the Trust to Carillion. Immediately following the formal appointment of the senior debt funders, the due diligence advisors were novated to them. Following novation, the Trust worked closely with The Hospital Company, the senior funders and the due diligence advisors to finalise project documentation, particularly funding documentation.

11.21 Conclusion

11.21.1 The procurement process was completed ahead of schedule.

11.21.2 The key issue that arose was that only a single bidder submitted an interim bid submission at CD Stage 3. However, the Trust conducted a rigorous option appraisal, with input from TDA/DH/ HMT of the best way forward. This was to ensure that the Trust could meet the project objectives, including achieving value for money. The conclusion of the option appraisal was that the procurement should continue, albeit with mitigations to ensure that the bid continued to improve in quality, that costs were controlled and value for money secured.

11.21.3 The Final Bid submitted on 17 July 2015 was compliant with all of the Trust's requirements.

11.21.4 As a result of the opportunity afforded by the single bidder situation, Financial Close is on track to be achieved in December 2015, 4 months earlier than scheduled.

12 Bidder Solution

12.1 Introduction

12.1.1 This section outlines the solution developed by The Hospital Company and the Trust including the:

- Design vision values maintained by the Trust;
- Design proposed for the MMH;
- Approach to construction;
- Facilities management arrangements; and
- Sustainability strategy.

12.2 Design Vision

12.2.1 The Trust has a strong vision and key set of values which have been maintained throughout the design process. The MMH aims to implement new ways of delivering healthcare across Sandwell and west Birmingham to an increasing population, which is currently around 530,000. The Trust's aspiration is that this is achieved within a notable and high quality healthcare environment. The core requirement for the Trust is to create a landmark hospital which will be an asset to the local community and will support local regeneration. The design will be enduring and reflect the needs of the population it serves.

12.2.2 The design proposals fully support and enhance the Trust's design vision values which are for the MMH to be:

- Inspirational, attractive and imaginative;
- Welcoming;
- Reassuring;
- Light and airy;
- Clean without being clinical;
- Sympathetic to the environment;
- Fully accessible;
- Supportive to privacy and dignity; and
- A good place to work.

12.3 Design

Key Attributes

12.3.1 The Hospital Company has worked closely with the Trust to develop a hospital design which is characterised by:

- A clear, simple and legible building form which maximises the use of natural daylight.
- A building which focuses on the delivery of acute care only, concentrating staff specialist care on the acutely unwell.
- A building where there is clear separation of flows between staff, public and facilities management functions.

- A strong external landscaping strategy which looks to tie in with the existing features around the site such as the canal.
- A building which utilises the topography of the site to create safe and secure parking for staff and visitors without cluttering the external views.
- A central circulation floor which is visible from the outside as well as the inside.
- A building which looks to minimise travel distances for both patients and staff vertically and horizontally.
- Internal spaces which are clear, simple and in clinical areas repetitive allowing staff to work more efficiently.
- A building which induces civic pride.
- A building which utilises natural boundary lines allowing the public and the wider community to free flow across the external spaces.

12.3.2 Key to the heart of the design is *The Green* which will provide the building with a vibrant, landscaped setting and the *Winter Garden* which will form a highly visual and active main circulation floor. The hospital sits on a main gateway site and, with its elevated position, will create a prominent feature against the skyline. Despite the size and massing of the building from a distance, the use of a variety of carefully selected, high quality materials and the change in form created by the ward floor plates means that on closer inspection the building will be less overpowering and its individual elements will be visible giving it a more reassuring and welcoming feel.

Figure 22: MMH within a Landscaped Setting

A Good Neighbour

12.3.3 Grove Lane sits within a key area of regeneration and development by the local authority. The building of the MMH will provide the catalyst for growth in the immediate surrounding areas and act as a gateway into Birmingham from the west side of the City.

Natural Light

12.3.4 The Winter Garden will provide much of the natural daylight into the ward spaces. Despite its deep plan appearance within the clinical floor plates, pockets of courtyards have been formed to allow natural daylight into spaces with a focus on areas which will be heavily occupied. All of this supports the Trust's design vision value to create a building which is 'light and airy'.

Healing Environment

12.3.5 The principal purpose of the hospital is to provide a safe, healing and reassuring environment to all users of the building. The design will inspire and promote clinical staff providing a learning and development platform for those entering into the health environment.

12.3.6 The quality of inpatient accommodation is a key feature within the overall design and the single rooms will enjoy pleasant views to support recovery and patient amenity.

12.3.7 The design of the single bedrooms will provide the patient and visitor with privacy and dignity when required, but also supports maximum staff observation.

12.4 Clinical Design

12.4.1 Throughout the development of the clinical design for MMH there has been comprehensive clinical engagement. In summary this has included:

- 2006 onwards - development of the service model, PP&DDs and clinical operational policies – 37 clinical leads with involvement from their wider teams.
- 2007-2008 onwards - Public Sector Comparator (PSC) Design - via work on 1:500, 1:200, exemplar room drawings and involvement in the AEDET review of the PSC – 37 clinical leads and representatives from their wider clinical teams.
- 2010 - Value engineering work for MMH (identifying additional activity that could appropriately be delivered closer to home in community facilities, updated clinical brief etc) - meetings with circa 40 clinical leads. In addition regular updates were given to the Clinical Executive Team.
- 2013 -The Architecture Design Review (ADR) for MMH undertaken autumn 2013 –
  - Open sessions for staff held in September 2013 - attended by circa 80 staff.
  - FT members' sessions held in September & October 2013.
  - Boot camp design meetings which involved – circa 100 clinical participants.
  - Monthly updates to the Clinical Leadership Executive attended by Executive Team and Clinical Group Management Teams. Issues were presented to allow senior clinical engagement in managing these and also in agreeing the whole hospital layout (1:500 drawings).
- 2014-2015 - Competitive Dialogue as part of procurement phase of the project. Clinical leads reviewed and updated the brief (Operational Policies and PP&DDs) prior to the start of dialogue and during the dialogue process with circa 60 clinical and operational leads participating in the boot camp design meetings including feedback on the proposed design in preparation for evaluation. In addition there have been a number of clinical department meetings outside of the boot camps including with wider teams including Critical Care, Emergency Department, Operating Theatres, Acute Adult Assessment, Sickle Cell and Thalassemia Unit.

12.4.2 The MMH will provide clinical teams with modern purpose-built facilities in which to deliver a single site acute hospital. It will allow consolidation of acute emergency and inpatient services with a critical mass of patients, staff and equipment.

12.4.3 The Trust's aspiration is that patients attending services for investigation or treatment, whether for planned elective care or unplanned acute care, will have excellence in clinical care with rapid availability of clinical expertise at all points in their individual care pathways.

12.4.4 The Hospital Company has worked closely with the Trust and engaged with a range of senior clinical teams, with a single-minded focus on delivering the best clinical planning to deliver the service model.

12.4.5 In respect to clinical flows planning the hospital is characterised by:

Separation of Flows

12.4.6 Clear separation of the public, ambulatory patients, inpatients and goods from the point of entering the hospital until the entrance into departments has been achieved. This promotes privacy and dignity for patients and the public.

12.4.7 The public will arrive on clinical floors at a visitor hub (there will be four on each podium floor and three on the ward floors) and then enter the right clinical department without having to travel far from the visitor hub. The design delivers this separation but still achieves clinical adjacencies that allow efficient use of staff and facilities.

Clinical Adjacencies

12.4.8 Strong clinical adjacencies will support smooth patient pathways, especially for emergency and acute patients. There will be two podium floors which have co-located hot clinical areas to best facilitate acute patient and clinical staff flows;

12.4.9 At Level 2 the first of these floors will provide a co-located Emergency Department, Imaging, an Acute Assessment Unit (AAU) (with capacity to accommodate patients for up to 48 hours) and a Surgical Assessment Unit. Many emergency patients will have all of their care, from arrival to discharge, provided on this level. In addition the Cardiac Unit including the Cardiac Catheterisation Laboratory Unit will be on this floor to facilitate direct access for emergency patients.

12.4.10 At Level 3, the second of these floors will provide a co-located Operating Theatre Suite and Integrated Critical Care Unit immediately above the Emergency Department and Imaging with a hot lift.

12.4.11 The Delivery Suite (with a high risk zone and a Midwifery-led Unit) and Neonatal Unit will also be located on this floor. Women arriving in labour will access the Delivery Suite via a dedicated ground floor entrance and lift. The high risk antenatal facilities (Clinic, Day Assessment Unit and Foetal Medicine) are located on this level. The maternity wards will be located on the floor above.

Bed Configuration

12.4.12 The designed bed configuration meets the Trust's brief and a table showing the disposition of the speciality inpatient beds is at ***Appendix 12a***.

Dedicated Children's Unit

12.4.13 Children's services will be located on Level 4 in a dedicated Children's Unit that accommodates distinctive, but co-located, zones for paediatric acute assessment, inpatient beds (including Level 2 high dependency beds), adolescent beds, day-case facilities and outpatients.

Therapy Zones

12.4.14 Therapy zones will be co-located with the relevant clinical ward/department [including stroke, musculoskeletal and Acute Assessment Unit (AAU)] to facilitate early access for patients who require therapy as well as strengthening wider team working.

Bariatric Provision

12.4.15 Whilst the Trust does not provide specialist bariatric care or surgery it is recognised that a significant proportion of our local population has bariatric support requirements which need to be accommodated when they are admitted to hospital for other conditions. All departments will accommodate patients up to 300 kg. In addition facilities will be provided for patients up to 380 kg in key departments to allow delivery of the most likely pathways, e.g. emergency attendance to the Emergency Department resulting in admission to the Acute Medical Unit and then the respiratory ward.

Isolation Provision

12.4.16 The Hospital Company has met the Trust's brief for 50% single rooms in generic inpatient wards.

12.4.17 In addition the Trust's brief for isolation facilities in each ward with additional clustering on the respiratory and medicine/haematology ward has been achieved in the design. This distributed approach to isolation facilities will allow patients requiring isolation to receive care on the relevant specialty ward with appropriately trained clinical teams as well as providing zones for cohort nursing in the event of an outbreak requiring greater isolation facilities (over and above the 50% single bedroom provision).

12.4.18 The isolation rooms have been designed based on the generic single inpatient bed room and en-suite with the addition of a lobby. The layout of the ward single bedroom zones is such that additional lobbies could be added (with addition of the required engineering) at a future date if required. In addition rooms in key clinical departments will also have isolation facilities e.g. the Emergency Department and the Integrated Critical Care Unit. This provision reflects the health needs profile of the local population including the high prevalence of TB.

Infection Control

12.4.19 In addition to the isolation provision The Hospital Company has achieved in the design a high level of separation of clean and dirty flows in clinical departments (including Theatres, Endoscopy and Cardiac Catheter Laboratories). This principle has also been applied within the design of the facilities hubs and automatic guided vehicle routes.

Waste Flows

12.4.20 Within clinical wards and departments staff will place waste in local disposal holds within the ward or department. These will be located close to the goods entrance to the ward so that facilities staff will not have to travel far with waste from the disposal hold to the facilities management (FM) lift. This will also reduce double handling of waste as the disposal hold is designed with containers that will be taken directly (via automatic guided vehicles from the facilities hub) to the FM yard.

12.5 Patient Experience

Winter Garden

12.5.1 The Winter Garden will provide a focal point for visitors on their journey through the hospital. It will also provide a central space for staff to meet and relax in which is away from their respective clinical departments. One of the Trust's key requirements is the provision of a good place to work and this

impressive space will encourage staff to leave their intense, highly acute, working environments and enjoy different sights and sounds. As well as the use of the Winter Garden, staff rest and change facilities will be provided within each clinical floor plate at every level.

12.5.2 The Trust will be responsible for routine cleaning of the interior of the Winter Garden and internal glazing up to 2 metres above floor level. The Hospital Company will be responsible for cleaning the remaining areas. The Hospital Company will also be responsible for: deep cleaning the floor of the Winter Garden; the maintenance and lifecycle of the Winter Garden; and the provision and maintenance of plants and other decorative vegetation to create an attractive environment.

12.5.3 The Trust will furnish the Winter Garden with loose furnishings, including tables and chairs. These will be procured directly by the Trust.

12.5.4 Birds and other potential pests such as squirrels will be prevented from entering the winter garden via the louvres in the ceiling by the use of grills. The risk of birds and pests entering via the external doors to the Winter Garden will be minimised through operational policies of the doors only being opened whilst people are entering and exiting the building. In the event of a bird or pest entering the Winter Garden, the Hospital Company will be responsible for its removal using pest control protocols. This approach is similar to that used in other large public spaces such as enclosed shopping centres and sports halls.

12.5.5 As well as enhancing the staff and visitor experience to the hospital, the Winter Garden will also provide additional energy saving benefits. The Winter Garden will be unheated space. It will have the effect of reducing heat loss from the wards within during winter and reducing solar gain during the summer months. This will improve the energy efficiency (estimated at 1.2% more efficient) of the building and has contributed towards the Trust achieving an ‘Excellent’ Building Research Establishment Energy Assessment Model (BREEAM) rating.

12.5.6 As a result of the Winter Garden protecting the ward facades from the elements, lifecycle and maintenance costs will be reduced.

12.5.7 The operational costs to the Trust associated with the Winter Garden are thus limited to the cleaning of the interior up to 2 metres in height and the provision of loose furnishings. These are both costed into the Trust’s LTFM.

Figure 23: Winter Garden

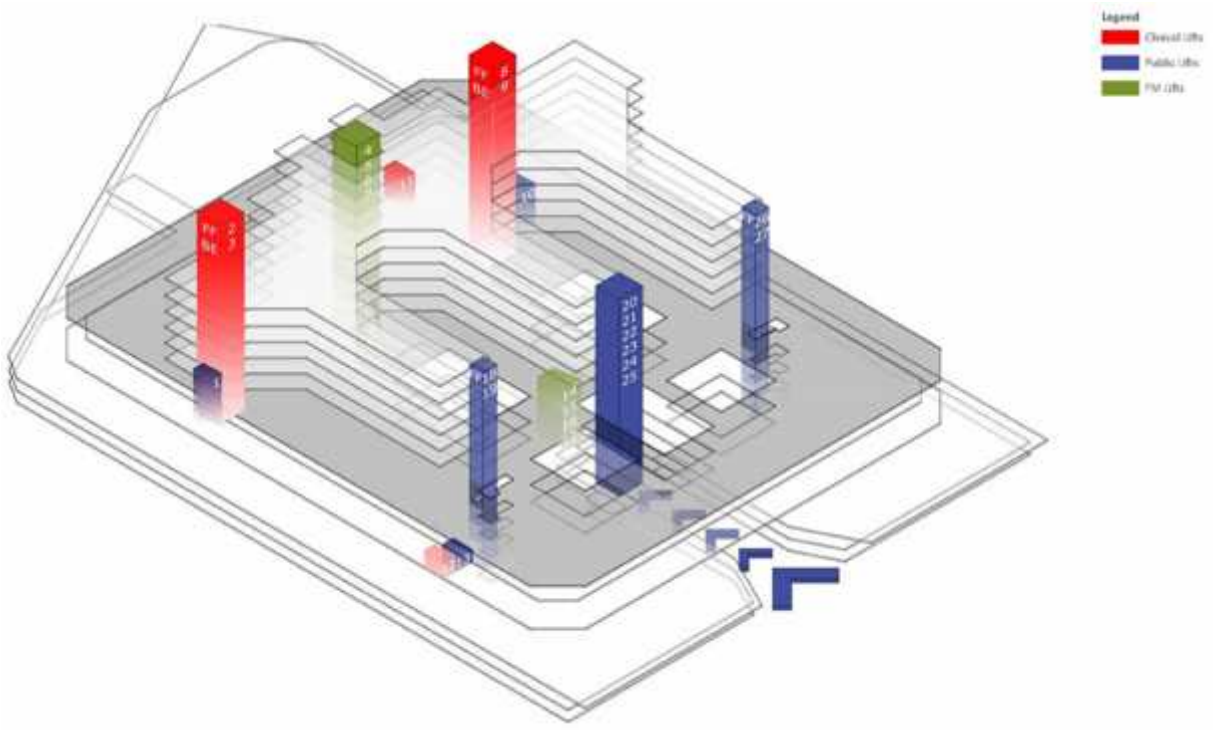
Way Finding and Separation of Flows

12.5.8 The Trust has placed great importance on way finding within the scheme and is keen to ensure that it will be clear and intuitive. The general flows of staff, visitors and facilities management have therefore been separated providing greater efficiency for staff moving in between clinical spaces and reduces the risk of visitors becoming lost and disorientated in what will be a highly complex building.

12.5.9 With a single and direct route up from the under croft car park below, the Winter Garden will provide the starting point for visitors and patients to begin the decision making process of their journey. With clearly defined lifts up to the ward floors and specific public lifts down to the clinical floors the reduced choices should make journeys easier and less stressful.

12.5.10 The Trust is working closely with The Hospital Company to ensure that the way finding ties in with the arts strategy for the hospital, allowing more illustrative and graphic depictions to represent routes rather than presenting visitors and patients with wordy signage which can often be more confusing.

Figure 24: Separation of Flows



12.5.11 The separation of flows will improve patient privacy and dignity and remove the need to travel in lifts alongside back-of-house activities.

12.6 Safety and Security

12.6.1 The Hospital Company has developed a robust approach to security in accordance with the Trust Brief.

Site-wide Security

12.6.2 Vehicle and pedestrian signage and control systems around the site will ensure that areas which are accessible by the public and those which are intended for staff/authorised personnel are clearly identifiable and demarcated.

12.6.3 Access to the Emergency Department forecourt via Grove Lane will be a blue light route for emergency vehicles. Emergency public drop-off to the department and the Delivery Suite will also be provided. These drop-off areas will be strictly controlled and monitored.

12.6.4 Landscaping has been designed to act as a deterrent to unauthorised access using defensive planting in lieu of barbed wire to provide an equally effective but less aggressive approach. The selection and position of trees and low level planting will be designed such that there are no hiding places or blind spots in the security and CCTV system.

12.6.5 The building has been designed to support safety and security as follows:

- The number of entrance/egress points has been reduced to a minimum;
- Isolated areas, recesses and hiding places have been avoided to promote natural surveillance and create a feeling of safety for building users; and
- Low lying flat roofs and scalable facades with exposed rainwater pipes have been avoided.

12.6.6 The design meets security standards for access/egress/escape points, windows and alarm systems.

12.6.7 Out-of-hours access will be controlled by the security base adjacent to the Emergency Department reception area.

Staff and Visitor Car Park

12.6.8 The staff and visitor car parks will be accessible 24 hours a day.

12.6.9 Staff and public parking will be segregated and will be controlled via access barrier systems and separate entrances. CCTV coverage will be provided throughout the car parks.

12.6.10 Car parking has been designed to create an environment that is well lit, non-threatening and with clear and direct way finding methodology.

12.6.11 Cycle parking/stores are also designed to be safe, secure, undercover and with natural surveillance

External Access Controls

12.6.12 The main entrance will be accessed through automatic opening doors from the car park during normal operating hours. Video entry linked to the security room will be used for out-of-hours access and proxy card access will be used for staff. CCTV will be provided with link back to Security Room.

12.6.13 The Emergency Department entrance will be accessed through automatic opening doors 24 hours a day. CCTV will be provided with link back to the security room.

12.6.14 The Maternity entrance will be accessed through access controlled doors with video entry linked to the Maternity Department and proxy card access will be used for staff. CCTV will be provided with link back to the security room.

Security Zoning

12.6.15 Five security categories have been defined as follows:

- **Public spaces,** freely accessible to the staff and public including the visitor car park and emergency department entrance;
- **Public spaces which will be access controlled out-of-hours** including the *Winter Garden*, public circulation cores etc.;
- **Semi-public spaces,** which will be access controlled public areas;
- **Semi-private spaces,** which will be controlled/escorted access for visitors and patients; and
- **Private spaces**, which will be controlled access, staff only, areas.

12.6.16 This has facilitated design of robust and proportionate security arrangements in all areas of the hospital. Access control systems utilising proximity readers will be installed at the entrances to key areas/departments in line with zoning arrangements.

12.7 Accessibility

12.7.1 The master plan has been developed to focus on the simplicity of the routes into the building from both the car park and the Green directly into the Winter Garden. The Winter Garden provides the main circulation hub from where lifts, which are clearly visible from within the space, will take visitors and patients to their intended destination. The intention is that from the Winter Garden by looking up visitors will be able to see routes to the wards and other areas, making the return journey easier.

12.7.2 Having a single point of access up to the Winter Garden has allowed drop-off positions to be located close by and in most cases undercover. The whole ingress and egress strategy for the building should be simple to understand and remember.

12.8 Future Proofing and Flexibility

12.8.1 Where clinically possible a generic design has been used for clinical accommodation to facilitate future change in use. This includes adult inpatient wards having a generic design and layout. This approach allows future flexibility in terms of which specialties can be accommodated in wards.

12.8.2 Within the Operating Theatre Department The Hospital Company has worked with the Trust's team to demonstrate how three of the operating theatres can be converted to fully integrated theatres including use of robotic surgery.

12.8.3 Internal strategically embedded soft expansion space has been included within or adjacent to key clinical departments to allow for future localised expansion or change of use. This includes:

- Expansion space designated on Level 9 which has been confirmed by the Trust's expansion strategy as suitable for purposes other than inpatients, including primary and community care. There would be a significant capital cost in fitting the space out for such purposes which would have to be funded by any prospective tenants in addition to on-going service level agreements to cover increases in the unitary payment and related facilities costs.
- The same expansion space on Level 9 that could be converted to three generic wards. Fit out of these wards has been costed by the Hospital Company at approximately £6m each.
- Two areas of expansion within the Imaging Department have been provided - one for more general imaging e.g. plain film and one for specialist modality expansion such as magnetic resonance imaging (MRI) or computerised tomography (CT). Externally, but immediately adjacent to the Imaging Department is provision for mobile clinical vehicles such as CT scanners. This allows not only for future use whilst static equipment is being replaced but also use of mobile equipment as technology develops or becomes more available e.g. mobile positron emission tomography (PET) scanner.
- Adjacent to recovery within the Operating Theatre Suite but in close proximity to the Integrated Critical Care Unit is expansion space that could be used for an additional operating theatre and support rooms, recovery expansion or an eight bed Level 1 unit.
- Within the Delivery Suite is space that can be used for additional delivery rooms in the future.
- Clinical administration zones are provided on all floors and on clinical floors located in zones such that in the future they could be converted to clinical use facilitating expansion of neighbouring clinical departments e.g. Integrated Critical Care Unit.

12.8.4 In all of these areas The Hospital Company has demonstrated how the space can be laid out or converted for operational use.

Operational Flexibility

12.8.5 There are additional flexibilities in operational practice that could facilitate additional capacity as described in the following sections.

Neonatal Unit

12.8.6 If additional neonatal capacity was required the first option would be transfer of cases within the Neonatal Network (as is current practice). There would also be the option to use the four transitional care rooms as single cot nurseries either on a temporary or permanent basis.

Children's Inpatient Unit

12.8.7 There is flexibility in capacity between paediatric inpatient beds, the Paediatric Assessment Unit and day case area (all co-located on the Children's Inpatient Unit).

Delivery Suite

12.8.8 There is flexibility in capacity within the Delivery Suite between high risk delivery rooms, the birthing centres and the bereavement rooms (as is current practice).

Operating Theatres

12.8.9 For emergency cases there is some flexibility within the planned capacity as demand was rounded up in the modelling to ensure adequate 24/7 capacity and hence there is a lower utilisation rate.

12.8.10 For elective cases there is some flexibility within the planned capacity as there was a rounding up in the modelling to allow flexibility for longer lists as the complexity of surgery increases and to ensure the required range of specialist theatres. An additional capacity of 49 elective sessions per week can also be created by introducing routine three session days Monday-Friday and two sessions on a Saturday.

Outpatient Clinics

12.8.11 Additional capacity for Antenatal Clinics and Paediatric Clinics can be created through planning routine weekend sessions (three additional sessions per room per week in each department).

Medical Day Case, Interventional Radiology, Endoscopy and Sickle Cell and Thalassemia Unit

12.8.12 In recognition of the evolving nature of clinical practice within these departments and the on-going shift from inpatient to ambulatory care (including for emergency conditions), these departments have been co-located in a way that will allow them to function in any one of these ways:

- As discrete departments;
- As one integrated department; or
- Flexible use of facilities in line with changing demand.

12.8.13 In particular, the admissions and recovery rooms are based on a generic design and are co-located to allow flexibility in use between the zones. In addition these rooms have the required bed head provision to support Integrated Critical Care Unit (Level 2) patients if required for temporary additional capacity or as a decant facility.

Emergency Department/Surgical Assessment Unit/Ambulatory Zone of the Acute Medicine Unit

12.8.14 These departments have been co-located and designed to allow flexibility in use of the capacity. The ambulatory zone of the Acute Assessment Unit can be used as a temporary minors facility for the Emergency Department (e.g. if required to segregate flows in a pandemic influenza scenario or a major incident). In addition The Hospital Company has demonstrated how the chaired wait in the ambulatory zone could be converted into a bed or trolley assessment area (based on the generic four bed bay template with en-suite).

12.9 The Generic Ward

12.9.1 The generic adult inpatient ward design provides the Trust's brief of 50% single bedrooms and 50% of beds in four bed bays. This also meets the feedback received from patients in terms of having a choice of single rooms or four bed bays especially for older patients who might feel isolated in single

rooms. The design will allow excellent observation into all bedrooms through the use of touch down spaces (as opposed to central staff bases) and viewing panels. This will allow patients good observation of staff and the corridors as well as facilitating staff to monitor and support groups of four or eight beds in line with agreed staffing ratios.

12.9.2 The retention of a generic ward layout follows lean principles for staff and, in particular, staff with transient work patterns, e.g. junior medical staff, therapists and facilities staff, in terms of locating room types etc.

12.9.3 Each inpatient bed will have an adjacent vertical medi-rail for attaching monitoring and clinical equipment (such as infusion pumps) so allowing flexibility in use of the bed and reducing the need for additional mobile equipment adjacent to the bed. Each inpatient bed space will have an overhead H-track for patient hoists allowing the Trust flexibility to add a hoist in any bed location.

12.9.4 The majority of generic adult inpatient wards will be located on Levels 6-8 with three on each of these levels. The clinical lifts for bed transfers/movements will be located at one end of these wards allowing easy access. The facilities lifts will also be located at this end of the ward but in a dedicated zone away from the clinical lifts. Similar principles apply to the generic adult wards located on podium floors.

12.9.5 Each generic ward will have good access to local shared staff facilities including changing rooms, seminar room and staff rest room with the latter having external views. Entrance to these zones on Levels 6-8 will be via the clinical and facilities entrance to the ward and so separate to the public entrance.

12.9.6 The design will also facilitate the experience for visitors to wards. Each ward will have a dedicated visitor hub (on Levels 6-8) or access to a shared visitor hub with similar clinical departments (on podium floors). Each hub will be centred around a public lift with signposting to this from the Winter Garden on Level 5. Each visitor hub will include toilet provision, a water dispenser and seating. At the entrance to each ward there will be a welcome point for visitors. Visitor entrances will be at the opposite end of the ward to the clinical and facilities entrance.

12.9.7 As shown in the figure below the internal ward corridors will have an open feeling as a result of the recessed entrances to the single rooms. In addition to the quiet day room the design has delivered a recess/breakout area in the middle of the ward with an external view which also allows external light into the corridor.

Figure 25: Generic Ward: Recessed Room Entrances

12.9.8 Some wards require a suite of specialist rooms. These rooms will follow generic design principles (e.g. based on a procedure room) and will be located at the clinical and facilities entry end of the ward so allowing future flexibility in use of the ward.

12.9.9 On the Gynaecology (for the Emergency Gynaecology Assessment Unit) and Stroke [for Transient Ischaemic Attack (TIA) patients] Wards these specialist rooms will require access for ambulatory patients and their carers/relatives often as a result of an urgent or emergency referral. These wards will therefore be located on Level 6 to allow the podium public lifts to extend to the wards. The lifts will arrive in an additional small visitor hub for each of these zones. This location will also allow easy access to these facilities for patients referred from the Emergency Department, Acute Assessment Unit or Surgical Assessment Unit and [for Transient Ischaemic Attack (TIA) patients)] easy access to imaging facilities.

12.10 Standard Bedroom Design

12.10.1 The single bedrooms will be located along a main internal corridor to the ward. The layout of the single bedroom, with the bed head at an angle, will allow patients easy views into the internal ward corridor and externally. This will reduce the feeling of isolation for patients within these rooms whilst retaining privacy and dignity.

Figure 26: Standard Bedroom Design

12.10.2 The entrance to the en-suite bathroom will be located on the same side as the bed head with a grab rail between the bed and en-suite door. This should reduce the risk of patient falls.

12.10.3 This layout has been used for all single bed rooms even if the ward layout has varied (including children's inpatient beds and the Acute Assessment Unit).

12.10.4 The single room and en-suite layout has been mocked up at various stages during dialogue to enable testing with a wider group of clinical and facilities staff. The level of mock-up has developed from taping out at initial stage to full physical mock up prior to draft final submission.

12.10.5 The Trust brief is for a single room at 17 m2. This is below the current HBN recommendation of 19 m2. The Trust constructed a mock up to test the functionality prior to going to market and it was agreed as clinically functional by clinicians.

12.10.6 The Hospital Company proposal is for a room at 15.7 m2. Their initial proposal was rejected by the Trust because of poor observation. The current design, although a further derogation on HBN, has excellent observation. The Hospital Company has mocked up a single room in this design and over fifty clinical staff have viewed it. The consensus is that it is well liked and functional.

12.11 Car Parking

12.11.1 The Hospital Company has developed a solution which removes visitor parking from view, and places it all in a well-lit, secure and undercover location beneath the hospital. It provides easy access to the lifts, along with drop off, and is immediately adjacent to the hospital entrance and the main circulation hub.

12.11.2 Therefore, the only vehicles accessing the main entrance will be buses which will give an unobstructed view of the hospital.

12.11.3 Integrated parking is a feature of many overseas hospitals, but is not frequently seen in the UK. However, it is a recognised feature of many contemporary airport and shopping centre designs and therefore familiar to the public.

12.11.4 A key benefit to an integrated car park is that it provides both staff and patients with parking close to the hospital, whilst retaining separate entrances for each. It also automatically creates a vertical focus for staff and visitor movement. To aid orientation, in the MMH this vertical circulation will be deliberately highlighted from both outside and inside the hospital. The design also enables flexibility in designating staff and visitor parking numbers.

12.11.5 The Trust will be responsible for parking payment, access and barrier systems.

12.12 Open Spaces

12.12.1 The Green at the front of the hospital offers an opportunity for a variety of events and activities, encouraging the wider community to come together and populate the space.

Figure 27: Open Spaces

12.13 Design Quality Indicators (DQIs)

12.13.1 A review of the DQIs has been undertaken at key stages of the project to provide assurance that a high quality design is developed. The key stages are as follows:

Table 70: Key Stages of Design Quality Indicators

Date	Stage	Purpose
April 2014	Briefing	Define and identify priorities for the project. Agree what constitutes success.
December 2014	Concept	Interim bid submission reviewed and feedback provided.
April 2015	Mid-design	Draft final bid submission reviewed and feedback provided.
July 2018	Ready for occupation	Assessment to be made of extent to which the building meets the expectations of the assessment group prior to occupation.
October 2019	In use	Assessment to be made of extent to which the building meets the expectations of the assessment group a year post occupation. Lessons learned.

12.14 Technical Design confirmation

12.14.1 The Trust's advisors have reviewed all aspects of the design including those described in this chapter and technical issues such as the adequacy of plant space. At the request of DH they have produced a report which concludes that:

'The Trust's Technical Advisory Team is comfortable that the building envelope set out in the single bidder's design is adequate to meet the brief set out in the Trust Construction Requirements.'

12.14.2 The report is included at ***Appendix 12b***.

12.15 Construction

12.15.1 The construction programme includes a two month period of advanced works prior to Financial Close for site set up works and accommodation, cut and fill to create formation levels and laying of the piling mat to allow piling works to commence immediately post Financial Close.

12.15.2 The overall construction period is 33 months and includes beneficial access for the Trust to install and commission equipment and IT services.

12.15.3 The building is designed to sit within the natural contours of the site which may require a substantial amount of ground works, which the bidder is seeking to reduce by adjusting levels accordingly.

12.15.4 The building is designed to support a fast-track construction by using pre-cast frame for the podium levels with a steel frame for the ward levels which allows both speed of construction and design flexibility. The plan is for multiple work areas to be created to allow parallel working to keep the construction programme as short as is practicable, bearing in mind this hospital will be one of the shortest build programmes in the UK.

12.15.5 Off-site component manufacture will be maximised to:

- Support the construction programme by craning in completed components e.g. bathroom pods and services units;
- Reduce on-site activity to minimise the impact of the construction works on the local community; and

- Allow robust quality control systems to be used in the factory setting.

12.15.6 The location of the new hospital occupies a site which is served by dual carriageway from Junction 1 of the M5 which further reduces the impact of the construction works on the local community.

12.15.7 Detailed work will be undertaken to develop the beneficial access arrangements as a coordinated programme with the equipment supply.

12.16 Facilities Management

Soft Facilities Management (FM) Services Strategy

12.16.1 The approved OBC sets out the outcome of the VfM assessment undertaken in respect of the soft FM services. The overall conclusion was that to achieve the same specification in respect of core soft FM services, including cleaning, catering and portering the PF2 route does not provide VfM or flexibility of the service. Soft FM services do not therefore form part of the scope of the contract.

12.16.2 All of the soft FM services are currently managed in-house with the exception of the Laundry and Linen Service. The Trust construction requirements set out the PF2 partner's responsibilities for the facilities required for these services and the equipment responsibility matrix provides this information for equipment.

12.16.3 The Trust is aware of the potential for issues to arise at the interface between soft FM services and the PF2 partner. The Trust will work with The Hospital Company to ensure respective responsibilities are clearly set out. For example, domestic cleaning services will be carried out in accordance with accepted practice. The Hospital Company will be expected to identify any specific considerations that their solution may require and how these may be managed.

Installation of Automated Guided Vehicles (AGVs)

12.16.4 The Hospital Company will install an Automated Guided Vehicle (AGV) System to move goods and waste within the hospital. The Draft Final Bid received in April 2015 provided a solution that was 'AGV ready'. Following a value for money assessment, which is at ***Appendix 10e***, the Trust included AGVs within the scope of the scheme. Consequently, the Final Bid provides not only the necessary infrastructure but also the AGVs.

12.16.5 The Hospital Company has developed a fully integrated design which ensures that a working solution will be available from day one of operations. The Hospital Company will provide the infrastructure and its on-going maintenance. The inclusion of providing 9 AGVs in the scope of the scheme has added £3.6m to the capital cost of the scheme, resulting in an additional £277K to the Unitary Payment which was presented in the Draft Final Bid in April 2015. Whilst the Hospital Company will procure the AGVs, the Trust will be responsible for their operation, on-going maintenance and replacement.

12.16.6 The automated transportation of materials and supplies in the hospital will deliver a return on investment by reducing labour and inventory costs, eliminating time wasted looking for supplies and improving efficiency. The bidder solution separates AGV routes from public flows and minimises cross-over with clinical flows.

12.16.7 The key benefits of AGVs are:

- Reduced manpower requirement for moving supplies, materials and waste (back-of-house logistics) around the hospital;
- Availability 24 hours a day, seven days per week;

- FM activities enabled to be scheduled outside normal working hours at no additional cost to improve the Trust's operational efficiency; and
- Reduced risk of accidental damage to the hospital fabric as AGVs will not collide with doors or walls.

12.17 Sustainability

12.17.1 It is a requirement of the Trust to raise the profile of operational energy and environmental management in order to improve performance in these areas. As the impact of the new facility will be influenced by both the activities of those operating the building and those occupying the building, it is recognised that the minimisation of such impacts will be as a result of partnerships.

12.17.2 Reducing the carbon footprint and energy consumption together with resulting emissions is of paramount importance to the Trust. The Trust requires a solution capable of achieving energy consumption of not greater than 42GJ/100m³.

12.17.3 The BREEAM (Building Research Establishment Energy Assessment Model) assesses many criteria including sustainability management; waste from construction and in use, water, materials and transport. The mandated score of Excellent will drive out a fully comprehensive sustainability package including the ENE01 reduction of admissions standard.

12.17.4 Combined heat and power and ground source cooling using the local aquifer will form the basis of sustainable energy.

12.17.5 The planning application is accompanied by a Green Travel Plan which is required to generate modal shifts in transport to support sustainability. The local bus operator, Centro, has agreed to divert bus routes onto the site and the site is also served by public footpaths and cycle ways linked to the wider Birmingham and Sandwell network

Community

12.17.6 The MMH is a once in a lifetime opportunity to boost the economic prospects of the Smethwick and wider Sandwell and Birmingham area. It will make a positive difference to the development of Birmingham and Sandwell's local communities, enabling them to further thrive and prosper through a Supply Chain and Employment Framework. The Hospital Company has great experience in creating employment and skills opportunities. Coupled with the Trust's understanding of the needs of local communities, the project will make a significant and positive contribution to the region's economic regeneration.

12.17.7 The Hospital Company's supply chain will act as a catalyst for long term employment and economic regeneration in the local region. They will achieve 80% of project spend with supply chain and will achieve 70% local employment in MMH from within the Midlands and achieve 50% from the B postcode.

12.17.8 Diversifying and localising the supply chain benefits the area through:

- Monitoring supplier diversity and local supply chain performance;
- Making diverse and local suppliers aware of relevant opportunities to provide services;
- Removing barriers that prevent local or diverse suppliers applying for work;
- Encouraging the supply chain to use local and diverse suppliers; and
- Maximising local spend and employment, including spend with small and medium sized enterprises (SMEs) measured as a percentage of contract turnover.

12.17.9 The Hospital Company is a signed up member of the Birmingham Business Charter for Social Responsibility and is committed to achieve positive outcomes against the following standards:

- Local Employment;
- Buy Birmingham First;
- Partners in the Community;
- Good Employer;
- Green and Sustainable;
- Ethical Procurement.

12.17.10 They will procure local first and most importantly pay the National Living Wage. They will encourage subcontractors to promote work opportunities in the region. Each section of The Hospital Company's operations and the supply chain will commit to this from contract award to completion.

The Virtual Hospital Portal Tool

12.17.11 The Virtual Hospital Portal Tool is vital to promoting, pricing and giving access to the supply chain partners to facilitate development of comprehensive quotes. The tool will complement The Hospital Company's approach to:

- Attracting local businesses and suppliers within the community; and
- Gathering information on who has registered interest, their geographic location and scope of provision.

12.17.12 The Hospital Company will impose upon the Tier 1 [with NG Bailey the mechanical and electrical (M&E) partner in full support] subcontractors that they use the Virtual Hospital Portal Tool both for their pre-contract pricing and as a tool for recruitment of local Tier 2 and 3 supply chain partners.

Supply Chain Support

12.17.13 The Hospital Company is committed to working in partnership with the Trust and the local authorities by inviting a minimum of two organisations from the region to be included on the list of organisations invited to tender or submit a price for works, services or supplies, where suitable organisations exist.

12.17.14 From the outset localism in procurement and supply within the Midlands will be promoted. The Hospital Company will consider each package individually and establish the most appropriate route of procurement whether this be a labour, plant and materials (full package), labour only, supply only etc. through interaction with the market in Meet the Buyer events. Having such a procurement strategy ensures a healthy supply chain which engages niche local specialists.

Procurement Efficiency Workshops for Small and Medium Sized Enterprises

12.17.15 To develop the local supply chain The Hospital Company is seeking to host workshops for Small and Medium Sized Enterprises on procurement efficiency in the supply chain led by a Chartered Institute of Procurement and Supply expert.

12.17.16 The Planning Manager, Community Regeneration Manager and subcontractors will provide labour forecasts highlighting all vacancies and training opportunities on site. Through the Talent Match initiative, the Employment Steering Group will work with:

- Birmingham City Council's *Building Jobs for Birmingham*;
- Sandwell Metropolitan Council's *Think Sandwell*; and
- The Trust's *Learning Works* in Unett Street to recruit locally to the site.

12.18 Conclusion

12.18.1 The Bidder Solution presents an exciting landmark building that responds to the Design Vision and Functional Brief. Clinical staff have been involved in every stage of the design process to ensure that the MMMH will deliver the model of care with flexibility for future use.

12.18.2 The design has maximised the use of a constrained site and The Hospital Company has engaged with the planning department to ensure that it has retained good fit with local plans.

12.18.3 The construction timescales have been minimised through the use of advanced works and use of fast track construction methodologies.

12.18.4 This solution will deliver the full range of benefits anticipated for the project and represents a bright future for acute healthcare in Sandwell and west Birmingham.

13 Design Development, Derogations and Delivery Programme

13.1 Introduction

13.1.1 Delivery of MMH is an integral and vital component of the Right Care Right Here programme and of the Trust's strategy. The case for MMH has been made in detail within the Outline Business Case (OBC) and it remains critical that the new hospital is fully operational by October 2018 in order to secure the sustainability of acute services.

13.1.2 The procurement has been underpinned by a rigorous design process with significant clinical and user involvement to ensure that MMH will be fit for purpose.

13.2 Design Development and Review Process

13.2.1 Full size mock-ups for key clinical rooms were constructed to support the 1:50 review process and also to support and inform the derogations assurance process. The mock ups include:

- single generic inpatient bedroom with en suite and isolation lobby;
- a 4 bed generic inpatient bedroom with en suite and staff base;
- an example of inpatient ward corridor to demonstrate the narrowest width in the plans;
- a clean utility room;
- a dirty utility room;

- a consultant examination room;
- a treatment room;
- generic assisted WC;
- a multi cot neonatal room;
- an operating theatre suite comprising: anaesthetic room, preparation room, operating theatre with scrub alcove.

13.3 Derogations

13.3.1 A number of derogations from Health Building Notes (HBN) and Health Technical Memoranda (HTM) have been proposed and accepted within the design. Some of the derogations are as a direct result of an innovative design, which provides other operational and functional benefits. In some instances the design exceeds the Trust's brief and HBNs.

13.3.2 The Trust worked closely with the approval bodies to identify where derogations exist and confirm that they are acceptable to both the Trust Board and its external stakeholders.

Independent review

13.3.3 The Trust commissioned an independent review of the design and derogations. This review is at ***Appendix 12c.***

13.3.4 The brief was that the review should:

- Compare and analyse the design and derogations against standards and guidance;
- Confirm whether the design supported the delivery of the Trusts service models, operational policies and procedures; and
- Establish whether any derogations had a detrimental impact.

13.3.5 Key considerations of the review included:

- Room size, critical dimensions & layouts;
- Functionality, accessibility, clinical adjacencies, segregation flows;
- Standards, Control of Infection, Privacy and Dignity;
- Patient Well-Being and Experience;
- Flexibility / Future-proofing; and
- Technical / Environmental performance.

13.3.6 The review noted that some of the rooms, such as the single bedrooms and ensuites, exceed the HBN example in at least one of the criteria analysed, and in some cases, several. It was also noted that the following areas require further design development and resolution:

- The number of toilets to serve the multi bedded bays;
- The number of dirty utility rooms per ward and disposal practices;
- The design of the patient personal washing areas;
- The need for testing of bed access into the multi bedded rooms (against a full scale model).

13.3.7 It was noted that design development was underway to resolve these issues and the report concluded that resolution of these issues was achievable.

Derogations assurance process

13.3.8 The Trust developed a robust derogations assurance process which it shared with the TDA. The purpose of the process was to gain assurance that the derogations were acceptable, albeit as a result of sufficient mitigations in some instances. The process involved:

- A full desktop risk assessment, using the Trust's risk management methodology (aligned to HSE guidance) on all proposed derogations;
- Scenario testing on clinical space derogations. This was conducted using the full scale mock-ups involving operational clinical teams and Trust corporate subject matter experts such as infection control, health and safety;
- The risks and attendant mitigations are being reviewed and updated. Design implications at 1:50 level were incorporated into the 1:50 design review process.

13.4 Hospital Company Proposals

13.4.1 The Hospital Company proposals are based upon the Final Bid, which it submitted in July 2015 and which also formed the basis of the planning application.

13.4.2 A minimum dataset has been included in Schedule 8 Part 4 which includes:

- Site development and masterplan;
- Clinical Planning (1:500, 1:200, 1:50 and elevations, Schedule of Accommodation);
- Architectural (elevations, sections, roof plans, fire compartmentation, plans, glazing, interior design and way finding strategies;
- Mechanical & Electrical (site infrastructure, M&E installations, fire protection systems, security strategy and installations and lift installations);
- Civil & Structural (foundations, structural floor plans and drainage plans);
- Performance and sustainability;
- Construction phasing and programme.

13.4.3 The Hospital Company proposals have been signed off.

13.5 Reviewable Design Data (RDD)

13.5.1 The Trust has agreed a RDD process to provide the Trust with the opportunity to review and make decisions over elements of the design during the construction phase. This process is detailed in Schedule 10.

13.5.2 A schedule detailing which elements of the design will be subject to the RDD process has been detailed at Schedule 8 Part 5.

13.6 Delivery Programme

13.6.1 The project will be delivered in a single phase. Advance works commenced on site in November 2015. The main construction programme is due to commence in January 2016 with practical completion due in July 2018.

13.7 Conclusion

13.7.1 The design derogations have identified and are being fully assessed through an internal assurance process. This is due to report to the Trust Board on 5 November 2015.

13.7.2 The design programme remains on track with significant clinical and technical input to ensure that quality is assured.

14 Equity Funding Competition

14.1 Introduction

14.1.1 The overall funding requirement for the MMH is as follows:

Table 71: Sources of Funding

Sources	£m
Senior Debt Funding	216.5
Equity Bridge Loan	28.0
Share Capital	0.1
Capital Grant	97.2
Total	**341.8**

14.1.2 In accordance with the DH and HM Treasury's funding protocol, The Hospital Company (with the direct involvement of the Trust and IUK) has undertaken an Equity Funding Competition (EFC).

14.1.3 One of the most significant changes under PF2 in comparison to PFI is the approach to the equity funding and ownership and make-up of the SPV/Project Co. Under PF2 a proportion of the equity is offered to the market through an EFC in order to test market pricing and potentially secure a lower blended equity return. In addition, the public sector (IUK) also takes a proportion of the equity under the same pricing and conditions as the selected equity funder.

14.1.4 Typically, the EFC is envisaged to take place post Preferred Bidder appointment. However, as a result of the single bidder status, the Trust has been able to advance discussions around the process. Whilst appointment of the equity funder took place following the appointment of Preferred Bidder, much of the process, evaluation and selection can be undertaken concurrently with the procurement.

14.1.5 The objective of the competition was to obtain competitive proposals for an equity funding solution which:

- are firm, unqualified and deliverable;
- do not undermine the ABC approval;
- deliver 40% of the required equity funding;
- minimise the Net Present Value of Unitary Payments made by the Trust;
- Allow Financial Close to be achieved in a timely manner;
- do not require renegotiation of commercial points or project documentation; and
- do not undermine the Trust's wider objectives and principles.

14.2 Funding Competition Process

14.2.1 The Equity Funding Competition has been managed by The Hospital Company and administered by HSBC with full visibility for the Trust and its advisors.

14.2.2 It has been delivered in a three stage process:

- Stage 0 – Preparation and Identification

- Stage 1 – Long List
- Stage 2 – Short List

Objectives

14.2.3 The provision of risk capital for the project is to be split between the sponsors as follows:

- 50% Carillion Private Finance
- 40% Third Party Equity Provider (determined via Equity Funding Competition)
- 10% IUK (matching the terms of the successful Third Party Equity Provider)

14.2.4 This split was determined to be sufficiently attractive to the market in terms of scale, but also maintained the appropriate balance of control and input for each party.

14.3 Stage Outcome

Stage 0 – Preparation

14.3.1 A long list of potential equity funders was considered by the Trust, its advisers and HSBC to identify those funders considered potentially capable of delivering a competitive funding solution and testing a wide range of solutions and sources available in the market. This list was subsequently considered and approved by the Private Finance Unit and IUK.

Stage 1 – Long List

14.3.2 The long list of funders was invited to participate in the competition and was issued with the following:

- Full unabridged Draft Project Documents (including Project Agreement and schedules relevant to funders;
- Phase 1 Due Diligence adviser reports (legal, technical, insurance);
- Base case financial model and equity cash flow profiles;
- Proposed timetable for the competition and project;
- Summary of response requirements; and
- Evaluation criteria.

14.3.3 The objective of this stage was to select a sufficient number of competitive funders capable of delivering to be progressed to the next stage of the competition.

14.3.4 The primary consideration was a quantitative analysis of the terms of each submission however the assessment also considered qualitative elements such as deliverability, ability to meet the project timetable and experience of working with Carillion.

14.3.5 It was decided that only the proposals deemed competitive at Stage 1 should be shortlisted. The shortlisted bidders were determined by those giving the lowest net present value but also well placed to meet the qualitative requirements.

14.3.6 The solutions forming the short list were as follows:

- 3i
- Equitix

- Aberdeen Asset Management
- Semperian
- Richardson's Capital LLP

Stage 2 – Short List

14.3.7 This stage offered the shortlisted funders the opportunity to:

- Improve upon the indicative terms provided at Stage 1;
- Provide clarity on any matters raised by HSBC, The Hospital Company or the Trust; and
- Obtain approvals to their funding solution from their investment committees (or equivalent approving level of management).

14.3.8 Final submissions were received on 28 July 2015.

14.4 Selection

14.4.1 The first part of the evaluation focused upon the quantitative analysis of each submission, whereby the project financial model was populated with each of the shortlisted equity funder's terms.

14.4.2 This assessment highlighted that the Richardson's Capital LLP submission resulted in the lowest net present cost to the Trust over the thirty year concession and the lowest first year Unitary Payment.

14.4.3 An assessment was also made of the qualitative aspects of each submission such as deliverability, acceptance of the commercial terms, acceptance of the propose Debt Funding Competition process, financial standing of the bidder in line with the PQQ evaluation criteria, experience of delivery in the sector and experience of partnering with Carillion.

14.4.4 All submissions were deemed to be deliverable within the Trust's timescale and the qualitative aspects were not the deciding factor between bids. Richardson Capital LLP was selected as preferred third party equity funder and the appointment was approved by PFU and IUK.

14.4.5 Richardson Capital LLP was also required to provide assurance of compliance with the ethical criteria and considerations as set out by the Trust. This confirmation was provided within their Investment Committee Approval letter.

14.5 Conclusion

14.5.1 The Equity Funding Competition was successfully held with Richardson's Capital LLP being selected.

14.5.2 The competition was delivered to time and within the affordability parameters.

15 Debt Funding Competition

15.1 Introduction

15.1.1 In accordance with the DH and HM Treasury's funding protocol, The Hospital Company (with the direct involvement of the Trust and IUK) has undertaken a Debt Funding Competition (DFC).

15.2 Due Diligence

15.2.1 Historically, funders have commissioned due diligence following the appointment of the Preferred Bidder. This often resulted in the re-opening of commercial terms and as a consequence, delays to the project programme. In addition, the re-opening of commercial positions is at odds with the legal requirements of Competitive Dialogue and the ABC process.

15.2.2 In order to provide potential participants in the DFC with an appropriate level of understanding to limit the re-opening of any commercial points, the Trust adopted a strategy to work with the single bidder in appointing the due diligence advisors. The strategy outlined the roles and responsibilities of each of the appointed advisors and required agreement to the timetable and funding protocol. Advisors were also required to acknowledge that they owed a duty of care to not only the debt provider but also the equity provider.

15.2.3 Due diligence advisors (legal, technical and insurance) were appointed by the Trust (acting in an administrative capacity only and as trustee for the due diligence advisor duty of care to the debt/equity providers) and the single bidder. The procurement process was undertaken in January 2015 and appointments made in March 2015. Payment to the appointed advisors will be made by the senior debt funders following Financial Close and fees have been factored into the financial model.

15.2.4 The stages with the due diligence scope of services are as follows:

- At Draft Final Bid stage, a full due diligence report was commissioned.
- At Final Bid stage the due diligence report was reviewed for any changes from the Draft Final Bid stage – this report informed the funding competition and enabled prospective funders to compete and bid against a known set of commercial terms.
- At Financial Close, the advisers to the Hospital Company, the senior debt funder's technical advisers and the model auditor will be required to give letters of reliance to the equity investors.

15.2.5 The due diligence appointments were novated first to the Preferred Bidder and then to the selected funders when they were appointed as preferred funders and will continue their remit beyond Financial Close.

15.2.6 The single bidder situation allowed for the bidder to be more involved and engaged in this process - their involvement included:

- Contribution to the list of firms invited to tender;
- Agreement to the scope of services to be provided and terms and conditions of appointment; and
- Participation in the evaluation of tender responses, face-to-face interviews and decision making process.

15.3 Funding Competition Process

Objective

15.3.1 The objective of the competition was to obtain competitive proposals for a senior debt funding solution which:

- Are firm, unqualified and deliverable;
- Do not undermine the ABC approval;
- Deliver the required amount of senior debt funding;
- Minimise the Net Present Value of Unitary Payments made by the Trust;
- Allow Financial Close to be achieved in a timely manner; and
- Do not require renegotiation of commercial points or project documentation.

Approach

15.3.2 The Preferred Bidder Senior DFC has been managed by The Hospital Company and administered by HSBC with full visibility for the Trust and its advisors. It has been delivered in a three stage process:

- Stage 0 – Preparation and Identification
- Stage 1 – Long List
- Stage 2 – Short List

15.4 European Investment Bank (EIB) Engagement

15.4.1 EIB indicated their intention to provide 50% of the senior debt required for the MMH. The DFC was undertaken on this basis however potential funders were also questioned on their appetite and requirements for the project were EIB not involved. This contingency position was to ensure that a deliverable funding package was available were EIB to withdraw from the process.

15.4.2 The tenure of the EIB facility will be equal to that of the Commercial Term Loan Facility of 31 years and 4 months and the EIB and commercial debt will rank pari passu.

15.4.3 Approval by the EIB Board of Directors to provide funding for the project was confirmed 22 September 2015.

15.5 Stage Outcomes

Stage 0 – Preparation

15.5.1 A long list of potential funders was considered by the Trust, its advisers and HSBC to identify those funders considered to be potentially capable of delivering a competitive funding solution. This list was subsequently considered and approved by the Private Finance Unit and IUK.

Stage 1 – Long List

15.5.2 The long list of funders was invited to participate in the competition and was issued with the following:

- Full unabridged Draft Project Documents (including Project Agreement and schedules relevant to funders
- Due Diligence adviser reports (legal, technical, insurance)
- Base case financial model
- Proposed timetable for the competition and project
- Summary of response requirements
- Evaluation criteria

15.5.3 The objective of this stage was to select a sufficient number of competitive funders and alternative funding products (i.e. bank and capital markets) to be progressed to the next stage of the competition.

15.5.4 The primary consideration was a quantitative analysis of the funding terms of each submission. However, the assessment also considered qualitative elements such as structure of the funding solution, ability to meet the project timetable and experience of working with EIB.

15.5.5 Stage 2 was a resource intensive exercise for funders. Thus following a review of the Stage 1 submission, it was decided that only the proposals deemed competitive should be shortlisted. These were determined by those giving the lowest net present value but also well placed to meet the qualitative requirements.

15.5.6 The solutions forming the short list were as follows:

- A bank club of KfW Bankengruppe, CACIB and Sumitomo Mitsui Banking Corporation (the three banks that submitted the most competitive bids)
- M&G and SMBC - fixed rate bond solution
- L&G and Lloyds – fixed rate bond solution

Stage 2 – Short List

15.5.7 This stage offered the shortlisted funders the opportunity to:

- Improve upon the indicative terms provided at Stage 1;
- Participate in clarification meetings with the due diligence advisers, the sponsors and the Trust;
- Provide clarity on any matters raised by HSBC, The Hospital Company or the Trust; and
- Obtain approvals to their funding solution from their credit committees (or equivalent approving level of management).

15.6 Selection

15.6.1 The first part of the evaluation focused upon the quantitative analysis of each submission, whereby the project financial model was populated with each of the shortlisted funder's terms. This assessment highlighted that the bank club submission resulted in the lowest net present cost to the Trust over the thirty year concession and also the lowest first year Unitary Payment. An assessment was also made of the qualitative aspects of each submission such as deliverability, experience of working with EIB, experience of delivery in the sector and access to additional finance to fund any future variations.

15.6.2 Having submitted the best overall bid on a quantitative basis and also taking into consideration qualitative aspects such as deliverability within the required timescale, the 3 bank club of CA-CIB, KfW and SMBC was appointed as the preferred funding package, along with the European Investment Bank.

15.7 Conclusion

15.7.1 The Senior Debt Funding Competition was successfully held the 3 bank club of CA-CIB, KfW and SMBC being appointed as the preferred funding package, along with the European Investment Bank.

15.7.2 The competition was delivered to time and within the affordability parameters.

16 Affordability

16.1 Introduction

16.1.1 This chapter re-confirms the financial affordability of the project.

16.2 Key Messages

16.2.1 The Trust retains the affordability ceiling of £27m as per the Outline Business Case (OBC) and remains affordable as demonstrated by the consistent achievement of Continuity of Service Risk Rating (CoSRR) Level 3 ratings across the period of the LTFM. Estates costs are also consistently within the 12.5% test limit.

16.2.2 The first full year unitary payment (2019/20) is now at £20.501m in nominal terms. This reflects updated funding terms and represents a significant improvement on the unitary payment at OBC of £27m.

16.2.3 The beneficial headroom created between the affordability ceiling and expected unitary payment since OBC is held as contingency.

16.2.4 The Trust delivered the 2014-2015 surplus ahead of plan.

16.2.5 The downside case stress tests the plan including early years impact bias. The mitigation identified suggests that affordability stands that scrutiny with an impact of a reduction to CoSRR Level 2 in the first two years of operation.

16.2.6 The scheme is aligned with commissioner plans including Better Care Fund (BCF) aspirations and remains consistent with RCRH strategies.

16.2.7 The scale of the CIP is driven principally by national efficiency requirements reflecting assumptions of cost inflation and price deflation and not the additional costs of MMH. Even without MMH, the Trust would need to deliver the significant savings expected of providers across the NHS. The additional net investment in the scheme is the equivalent of circa one additional year of that efficiency and is specifically enabled by delivery of the RCRH service changes. The Trust contends that the scale of opportunity for operational productivity and service transformation driven cost change is consistent with that required to underpin scheme affordability.

16.2.8 The case includes necessary and sufficient investment in key enabling and supporting infrastructure and specifically informatics including Electronic Patient Record, retained estate and medical equipment. Fixed imaging equipment investment is assumed to be delivered through a Managed Equipment Service Contract. The revenue costs are reflected in full in the LTFM supporting the case.

16.3 Key assumptions

16.3.1 Changes since the OBC was approved in July 2014 include:

- An update of the base year of assessment to 2014-2015 and including the Financial Plan for 2015-2016 as Year 1 within the LTFM;
- A reduction in the expected Unitary Payment (UP) for the first full year of the concession (2019/20) to £20.501m. This includes a 50 basis point buffer (equivalent to c£800k of the UP) to provide for an adverse movement in the swap rate prior to Financial Close;
- A reduction in the £100m PDC contribution from DH to £97.2m with a revised cash profile over 3 years;
- An update of cost inflation and cost efficiency assumptions having regard to published regulator guidance;

- An acceleration in the retained estate programme, resulting in the earlier investment of £6m at Sandwell Treatment Centre (STC);
- A revised phasing of land disposals, previously planned for after 2024. These are now scheduled to be made in phases, commencing in 2018/2019 and releasing a contribution of £6m (approval bodies have agreed that land receipts up to £16m will go to the Trust) to fund the above investment; and
- An increase of the surplus target for 2015/2016 to £5m, to be delivered on a strictly non recurrent basis.

16.3.2 A coherence of top line income, revenue surpluses, capital investment and balance sheet management consistent with sustaining a CoSRR Level 3 and providing for meaningful downside mitigation.

16.3.3 The financial planning parameters also include a necessary and sufficient non-PF2 internal capital programme covering MMH equipment and refurbishment of the buildings that will become the Trust's community facilities. A Managed Equipment Service contract provides for that investment necessary in fixed imaging equipment.

16.3.4 The financial models and assumptions used in support of the LTFM derive much of their input from the RCRH activity trajectories which are integrated with the Trust's operational plans. Coherence with RCRH principles and strategies has been reviewed and confirmed.

16.3.5 The case confirms the approach to build up a reserve which is applied non-recurrently in the period to new hospital commissioning to enable transformation and then to underpin payment of the Unitary Charge. By utilising these resources on a non-recurrent basis the Trust will be able to fund any additional costs during the transition. From 2018/19 the costs associated with the Midland Metropolitan Hospital, and in particular the PF2 unitary payment, are included within the model and are funded from within internally generated sources.

16.3.6 The LTFM demonstrates that the MMH is recurrently affordable and that the overall CIP requirement is marginally greater than current Monitor CIP assumptions.

16.4 MMH Capital Costs

16.4.1 The bidder cost of construction of £296.95m is contained within the Unitary Payment. The PF2 solution provides for a GIFA of 78,828 m2.

Capital Charge Implications

16.4.2 Capital charges for the existing estate are forecast to reduce commensurate with the intended disposal of most of the City Hospital site and some of the Sandwell Hospital site. This is compensated by the depreciation charge for Midland Metropolitan Hospital reflecting the capital cost of the new hospital and the need to equip the new facilities to appropriate standards.

16.4.3 In calculating the capital charges within both the PSC and PF2 options a judgment of a revised 10% impairment of the initial Midland Metropolitan Hospital capital build cost has been included. This is consistent with Trust past experience in District Valuer (DV) valuations of significant capital builds including the BTC and the Emergency Care Facility at Sandwell Hospital and is more cautious than the OBC position given the upward trend in asset valuations witnessed in 2014-2015.

16.4.4 Depreciation within the affordability assessment has been calculated based upon an impaired asset value of £275m and PDC interest calculations have been undertaken assuming £97.2m drawn down of PDC. The table below analyses forecast depreciation movements by site.

Table 72: Depreciation by Site

Depreciation by site		Year					
Site	Asset Type	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
BMEC Sheldon	Buildings	(390)	(440)	(501)	(515)	(505)	(611)
	Information Technology	0	0	0	0	0	0
	Intangible Assets	0	0	0	0	0	0
	Plant and Machinery	0	(36)	(157)	(157)	(166)	(184)
	Subtotal	**(390)**	**(476)**	**(658)**	**(673)**	**(671)**	**(795)**
BTC	Buildings	(552)	(552)	(563)	(608)	(625)	(671)
	Information Technology	0	0	0	0	0	0
	Intangible Assets	0	0	0	0	0	0
	Plant and Machinery	0	0	(100)	(100)	(100)	(146)
	Subtotal	**(552)**	**(552)**	**(663)**	**(708)**	**(725)**	**(818)**
City Hospital	Buildings	(2,575)	(2,660)	(2,764)	(2,922)	(201)	(307)
	Dwellings	(11)	(11)	(11)	(11)	0	0
	Furniture and Fittings	(138)	(81)	(108)	(152)	(52)	(50)
	Information Technology	(944)	(1,374)	(1,087)	(871)	(426)	(420)
	Intangible Assets	(179)	(169)	(91)	(9)	(3)	0
	Plant and Machinery	(3,447)	(3,133)	(3,220)	(2,732)	(885)	(942)
	Transport and Equipment	(13)	(10)	(10)	(7)	(7)	(4)
	Subtotal	**(7,307)**	**(7,437)**	**(7,290)**	**(6,703)**	**(1,572)**	**(1,724)**
MMH (Grove Lane)	Buildings	0	0	0	0	(3,700)	(4,933)
	Furniture and Fittings	0	0	0	0	0	(50)
	Information Technology	0	0	0	0	(150)	(300)
	Plant and Machinery	0	0	0	0	0	(64)
	Project Cost	0	(26)	(42)	(59)	0	0
	Subtotal	**0**	**(26)**	**(42)**	**(59)**	**(3,850)**	**(5,348)**
Rowley Regis	Buildings	(387)	(388)	(404)	(452)	(467)	(530)
	Information Technology	0	0	0	0	0	0
	Plant and Machinery	(29)	(29)	(50)	(60)	(95)	(131)
	Subtotal	**(416)**	**(416)**	**(454)**	**(512)**	**(562)**	**(661)**
Sandwell	Buildings	(2,894)	(3,596)	(2,953)	(2,855)	(2,110)	(2,098)
	Dwellings	(33)	(33)	(33)	(33)	0	0
	Furniture and Fittings	(15)	(15)	(15)	(15)	(15)	(15)
	Information Technology	(523)	(647)	(1,375)	(1,794)	(2,242)	(2,914)
	Intangible Assets	(58)	(58)	(51)	(42)	(33)	0
	Plant and Machinery	(1,019)	(1,075)	(1,021)	(911)	(447)	(462)
	Transport and Equipment	(155)	(185)	(180)	(175)	(129)	(78)
	Subtotal	**(4,698)**	**(5,610)**	**(5,628)**	**(5,825)**	**(4,976)**	**(5,567)**
TOTAL	Buildings	(6,799)	(7,636)	(7,185)	(7,352)	(7,607)	(9,150)
	Dwellings	(44)	(44)	(44)	(44)	0	0
	Furniture and Fittings	(154)	(96)	(124)	(168)	(67)	(116)
	Information Technology	(1,467)	(2,021)	(2,461)	(2,665)	(2,818)	(3,634)
	Intangible Assets	(237)	(227)	(142)	(51)	(35)	0
	Plant and Machinery	(4,495)	(4,273)	(4,548)	(3,961)	(1,693)	(1,930)
	Transport and Equipment	(168)	(195)	(190)	(182)	(135)	(82)
	Project Cost	0	(26)	(42)	(59)	0	0
	Total	**(13,363)**	**(14,517)**	**(14,736)**	**(14,481)**	**(12,356)**	**(14,911)**

16.4.5 The table below shows the change in estate footprint from 2014-2015 to 2019-2020.

Table 73: Change in Area by Site

Change in area by site, 2014/15 to 2019/20								
Site		City	Sandwell	Rowley	BMEC / Sheldon	BTC Incl Archway	Grove Lane	TOTAL
Area (m^2)	2014/15	65,727	60,726	8,736	11,761	12,600	0	**159,550**
	2019/20	1,254	28,000	8,000	11,736	12,600	82,257	**143,847**
Change in area	Area (m^2)	(64,473)	(32,726)	(736)	(25)	0	82,257	**(15,703)**
	Percentage	**-98%**	**-54%**	**-8%**	**0%**	**0%**	**0%**	**-10%**

Impairment

16.4.6 The existing fixed asset bases of the City, Sandwell and Rowley sites are reduced via impairment to reflect the change in area. A proportion of this write down is charged to the Trust Revaluation Reserve and the balance forms a charge against expenditure in 2017-2018 (circa £84m).

16.4.7 The Sandwell site land assets are assumed to be retained across the period of the LTFM. Any prospective land sales in respect of that retained estate are excluded from the base case and likely modest with any realisation necessarily post hospital opening.

16.4.8 The impairment value (presented in the table below) in 2018-2019 reflects the reduction in asset valuation based upon the PF2 scenario. In this case, the construction cost is assessed at a lower value to the PSC as the PF2 contractor is able to reclaim VAT.

Table 74: Forecast Impairments by Site

	Site	Year 2017/18	Year 2018/19
Impairment Charges to the Expenditure	City Hospital	(43,024)	0
	MMH (Grove Lane)	(7,514)	(30,508)
	Rowley Regis	(655)	0
	Sandwell	(33,448)	0
	TOTAL	**(84,641)**	**(30,508)**
Impairment Charges to the Revaluation	City Hospital	(11,879)	0
	MMH (Grove Lane)	0	0
	Rowley Regis	(719)	0
	Sandwell	(9,006)	0
	TOTAL	**(21,603)**	**0**

Trust Capital Programme

16.4.9 The table below demonstrates the capital outlay over the period of the LTFM and the supporting funding streams to meet this need.

16.4.10 Both the Managed Equipment Service (MES) and the Electronic Patient Record (EPR) procurements are progressing to timetable and are anticipated to fall within allowable resources.

16.4.11 The MMH asset value recognised for accounting purposes is represented by the construction cost outlined below of c£297m together with £8m of bidder costs incurred on the journey to create the MMH asset.

Table 75: Capital Programme and Funding

	CBC Position									
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Period
	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Total
	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Construction Costs	42,146	113,885	98,408	38,061	4,454	0	0	0	0	296,954
Capital Programme	14,911	8,596	9,687	7,484	13,503	9,814	7,896	7,156	7,026	86,074
Fixed Imaging Kit	-	2,300	3,000	10,800	-	1,800	70	80	800	18,850
EPR & IM&T	5,096	7,147	8,899	2,116	600	1,472	1,309	1,000	900	28,539
Retained Estate Refurbishment Contingency	-	-	1,000	1,000	-	4,000	-	-	-	6,000
Total	62,153	131,929	120,994	59,461	18,557	17,086	9,275	8,236	8,726	436,416
Funded by:										
Special Purpose Vehicle	42,146	69,384	51,849	31,921	4,454	0	0	0	0	199,754
Public Dividend Capital	0	44,501	46,559	6,140	-	0	0	0	0	97,200
Trust Capital Programme	20,008	15,744	18,586	9,600	14,103	11,286	9,205	8,156	7,926	114,612
MES operating Lease	-	2,300	3,000	10,800	-	1,800	70	80	800	18,850
Land Sale Proceeds	-	-	-	1,500	1,500	3,000	-	-	-	6,000
Total	62,153	131,929	119,994	59,961	20,057	16,086	9,275	8,236	8,726	436,416
Working Capital Impact	-	-	1,000	500	- 1,000	-	-	-	-	

16.5 Approach to Affordability Modelling

The Affordability Assessment Process

16.5.1 The affordability modelling starts from a refreshed baseline of the Trust's operational forecast outturn for 2014-2015 based upon final service delivery plans and LDP agreements with CCGs. Alongside this outturn the Trust has developed its detailed plans for 2015-2016. It is from this base that future activity, investment, cost and workforce models have been projected.

16.5.2 The process has been developed to dovetail with Monitor's Long Term Financial Model (LTFM) such that three LTFMs have been developed:

- A version that translates the effect of the PF2 process and reflects affordability under PF2 conditions;
- A Downside PF2 Position; and
- A Mitigated Downside PF2 Position.

16.5.3 The Trust has a well-developed activity and capacity model which enables granular interpretation of future activity behaviour to create future patterns of activity. From this an assessment of future income streams and capacity requirements is generated.

16.5.4 Cost and workforce models are developed by taking a granular view of the Trust's forecast outturn and modelling an assessment of how different areas will change with changes in assumed activity and capacity. Developments and efficiency are then layered on top of this baseline.

16.5.5 The affordability assessment process has included an evaluation of how each currently provided function might change for acute and/or community services. This has been achieved by the application of cost drivers (e.g. activity change, income, space, bed days, theatre minutes, and outpatient minutes), which most accurately forecast the likely long term impact on each function or service. Consideration is also given to the nature of current service costs and how these might vary with changes in service provision.

16.5.6 Specialised costs such as capital charges have been assessed separately to reflect both the impact of the MMH and the costs of developing and operating the community facilities on retained estate.

16.5.7 The Service Development Tabs (SDEVs) within the LTFM have been used to isolate key areas of development change fundamental to the case. Each analysis focuses on one key developmental theme, as follows

SDEV1 – Repatriation Opportunities

16.5.8 SDEV1 focuses upon market research opportunities assessed by the Trust and its host commissioner as activities, currently presenting at other providers, will be attracted to the Trust pre and post-service reconfiguration. These activities will be blended within the core activities of the Trust and therefore a significant marginal investment gain is targeted. A report summarising the rational for the repatriation opportunities is at ***Appendix 16a***.

16.5.9 This gain contributes to the affordability of the scheme over the timeline. Plans for 2015-2016 include a major step in this repatriation objective with £3m of investment targeted to be delivered at a 33% margin.

16.5.10 The Trust has undertaken detailed demand and capacity modelling such that it should be confident this activity fits within planned capacity can reasonably be expected to be processed at the necessary level of productivity.

16.5.11 The table below summarises SDEV1:

Table 76: SDEV1 - Repatriation Opportunities

SDEV 1 - Repatriation Opportunities	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Total revenue	3,000	5,937	7,568	10,505	14,031	17,033	18,665	18,665	18,665
Employee Benefit Expenses	(1,784)	(2,454)	(2,576)	(2,868)	(4,321)	(5,631)	(6,072)	(6,072)	(6,072)
Drug expenses	(90)	(178)	(227)	(315)	(421)	(511)	(560)	(560)	(560)
Clinical supplies and services expenses	(90)	(178)	(227)	(315)	(421)	(511)	(560)	(560)	(560)
Secondary Commissioning Expenses	0	0	0	0	0	0	0	0	0
Shared services expenses	0	0	0	0	0	0	0	0	0
CNST	0	0	0	0	0	0	0	0	0
Other expenses	(36)	(71)	(91)	(126)	(168)	(204)	(224)	(224)	(224)
Total Expense	**(2,000)**	**(2,881)**	**(3,120)**	**(3,625)**	**(5,331)**	**(6,857)**	**(7,416)**	**(7,416)**	**(7,416)**
Margin	**1,000**	**3,055**	**4,448**	**6,880**	**8,700**	**10,175**	**11,249**	**11,249**	**11,249**

SDEV2 – Community Developments

16.5.12 SDEV2 reflects the expected significant service developments in community related services to underpin the RCRH strategy of care closer to home and significantly more of it provided in community locations. Priority areas will evolve over time to enable seamless integration between a reduced acute and an emerging community service. The table below summarises SDEV2:

Table 77: SDEV2 - Community Developments

SDEV 2 - Community Developments	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Total revenue	0	2,400	6,573	9,823	11,823	14,423	17,523	19,673	23,672
Employee Benefit Expenses	0	(1,940)	(4,890)	(6,837)	(8,740)	(9,913)	(11,739)	(14,196)	(16,874)
Drug expenses	0	0	(123)	(491)	(473)	(577)	(876)	(787)	(1,065)
Clinical supplies and services expenses	0	0	(123)	(491)	(473)	(577)	(876)	(787)	(1,065)
Secondary Commissioning Expenses	0	0	0	0	0	0	0	0	0
Shared services expenses	0	0	0	0	0	0	0	0	0
CNST	0	0	0	0	0	0	0	0	0
Other expenses	0	0	(432)	(982)	(946)	(1,875)	(2,278)	(1,967)	(2,367)
Total Expense	**0**	**(1,940)**	**(5,569)**	**(8,801)**	**(10,631)**	**(12,942)**	**(15,769)**	**(17,737)**	**(21,371)**
Margin	**0**	**460**	**1,004**	**1,022**	**1,192**	**1,481**	**1,754**	**1,936**	**2,301**

SDEV3 – Imaging Managed Equipment Service

16.5.13 One of the keys to success in enabling the RCRH Clinical Strategy is the provision of effective diagnostic services. A significant investment need has been highlighted in replacing and adding Imaging equipment. Since the MMH OBC was developed, an OBC Managed Equipment Service (MES) Business Case has been approved by the TDA. The aim of this case is to pass the provision of Imaging equipment to a third party through an MES contract and thus spread the investment need over a longer time frame, yet still ensuring the approach provides good value for money through the transference of risk and training. The model assumes a MES contract will be in existence from the beginning of 2016-2017. The table below summarises SDEV3:

Table 78: SDEV3 - Imaging MES

SDEV 3 - Imaging Managed Equipment Service	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Employee Benefit Expenses	0	0	0	0	0	0	0	0	0
Drug expenses	0	0	0	0	0	0	0	0	0
Clinical supplies and services expenses	0	(971)	(1,464)	(3,019)	(3,068)	(3,247)	(3,247)	(3,511)	(3,602)
Secondary Commissioning Expenses	0	0	0	0	0	0	0	0	0
Shared services expenses	0	0	0	0	0	0	0	0	0
CNST	0	0	0	0	0	0	0	0	0
Other expenses	0	0	0	(900)	(900)	(900)	(900)	(900)	(900)
Total Expense	**0**	**(971)**	**(1,464)**	**(3,919)**	**(3,968)**	**(4,147)**	**(4,147)**	**(4,411)**	**(4,502)**

SDEV4 – IM&T Investment Strategy

16.5.14 A further cornerstone to enable the Trust's objectives is 21st Century informatics and support solutions, including a paperlite philosophy. Current IM&T infrastructure requires a significant overhaul to meet these objectives. An IM&T Strategy establishes a route to these objectives by analysing the steps into four components:

- Infrastructure resilience;
- EPR (including Clinical Wrap) replacement;
- MMH Specific Networking and hardware needs; and
- Other IM&T hardware and software solutions for business integrity.

16.5.15 The table below summarises SDEV4:

Table 79: SDEV4 - IM&T Investment Strategy

SDEV 4 - IM&T Investment Strategy	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Employee Benefit Expenses	(55)	(55)	(205)	(205)	(55)	(55)	(55)	(27)	(27)
Drug expenses	0	0	0	0	0	0	0	0	0
Clinical supplies and services expenses	0	0	0	0	0	0	0	0	0
Secondary Commissioning Expenses	0	0	0	0	0	0	0	0	0
Shared services expenses	0	0	0	0	0	0	0	0	0
CNST	0	0	0	0	0	0	0	0	0
Other expenses	(647)	(1,320)	(2,840)	(3,177)	(3,177)	(2,957)	(3,047)	(3,015)	(3,009)
Total Expense	**(702)**	**(1,375)**	**(3,045)**	**(3,382)**	**(3,232)**	**(3,012)**	**(3,102)**	**(3,042)**	**(3,036)**
Non Maintenance Capex									
Networking & Stabilisation	(4,490)	(525)	(800)	(750)	(500)	(350)	0	0	0
EPR Related	(556)	(3,872)	(5,959)	(416)	0	(1,122)	(1,309)	0	0
Non Direct EPR Related	(50)	(2,750)	(440)	0	0	0	0	(1,000)	(900)
MMH	0	0	(1,700)	(950)	(100)	0	0	0	0
Total Capex	**(5,096)**	**(7,147)**	**(8,899)**	**(2,116)**	**(600)**	**(1,472)**	**(1,309)**	**(1,000)**	**(900)**
Grand Total	**(5,798)**	**(8,522)**	**(11,944)**	**(5,498)**	**(3,832)**	**(4,483)**	**(4,411)**	**(4,042)**	**(3,936)**

16.5.16 The Trust Board has recently approved an Electronic Patient Record (EPR) Business Case which is currently with the TDA for scrutiny. The additional cost needed to enable this, and the other three components of the strategy, are outlined in SDEV4. Significant additional capital and revenue resources are built into overall affordability to enable delivery in this key area.

SDEV5 – Internal Developments

16.5.17 SDEV5 has been used to isolate those developments and contingencies where the Trust has discretion. This includes the headroom generated as a consequence of the improved funding terms reducing the unitary charge.

Table 80: SDEV5 - Internal Developments

SDEV 5 - Contingencies including UP	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Employee Benefit Expenses	(750)	(750)	(750)	(750)	(2,000)	(3,750)	(4,500)	(5,250)	(6,000)
Drug expenses	0	0	0	0	0	0	0	0	0
Clinical supplies and services expenses	(750)	(750)	(750)	(750)	(1,500)	(2,750)	(3,750)	(5,250)	(6,575)
Secondary Commissioning Expenses	0	0	0	0	0	0	0	0	0
Shared services expenses	0	0	0	0	0	0	0	0	0
CNST	0	0	0	0	0	0	0	0	0
Other expenses	0	0	0	(500)	(2,000)	(4,500)	(5,500)	(4,500)	(4,500)
Total Expense	**(1,500)**	**(1,500)**	**(1,500)**	**(2,000)**	**(5,500)**	**(11,000)**	**(13,750)**	**(15,000)**	**(17,075)**

16.6 Factors Influencing Affordability

16.6.1 The key factors influencing the affordability model in relation to acute services are summarised below:

- A&E services reflect RCRH activity predictions and the introduction of Urgent Care Centres within retained estate which relocates significant attendances. The Emergency Departments at City and Sandwell Hospitals have received significant new investment in 2013-2014. This investment will be maintained across the timeline until the two A&E functions merge within MMH. Thereafter economies of scale are modelled to reduce direct costs across medical staffing and nursing areas.
- Critical care services are predicted to remain stable but with enhanced support for outreach functions.

- Rehabilitation and intermediate care services are provided in community retained estate based facilities and bed models grow as new pathways discharge patients from acute to community based facilities at an early length of stay.
- The costs associated with admitted patient care services change in line with activity projections.
- Admitted patient care requirements are consistent with OBC modelled expectations with the potential for ten fewer Intermediate care beds by 2019-2020.
- From MMH opening in 2018-2019 most surgical day cases, with the exception of children's day surgery, remain at Sandwell (STC), the BTC or, for ophthalmology, BMEC and are thus no longer provided within an acute setting.
- Medical day cases are provided from a number of sites rather than all categorised as acute activity.
- Paediatric services are assumed to remain as local services with no significant expectation of referral pattern change.
- Maternity services are assumed to see a repatriation of births from other Black Country acute providers as a result of the Delivery Suite and co-located Midwifery Birth Centre within MMH being located in Sandwell MBC and therefore births being registered in the Black Country rather than Birmingham.
- The planned reduction in length of stay reduce the forecast bed requirements within the acute hospital and this is reflected within the cost projections over the next few years as length of stay and improved models of care impact on bed provision. A net reduction of circa c100 beds is modelled to occur by 2019-2020 with circa 160 fewer acute beds and circa 60 more intermediate care beds compared with today's model of care.
- A significant majority of future outpatient volumes are provided from Community based estate, with only approximately 13% of outpatients attending the acute setting. Overall volumes of outpatients are targeted to reduce and therefore direct operating costs are forecast to reduce in correlation to this.
- Diagnostic services are predicted to grow as demand increases and trends move towards an enriched case mix and an increasing range of tests/scans, although significant imaging work will also be undertaken within community retained estate facilities.
- Non-clinical support functions are modelled to fit within the new service configuration recognising efficiencies that will be achieved through service integration within one acute hospital site;
- The cost of Hard and Soft FM services have been individually modelled taking into account the reduction in the overall space requirement for acute hospital services compared to the current position and including an updated assessment of energy and rates costs.
- The Trust is planning a major new investment in IM&T infrastructure and support over the next few years to update PAS systems and move towards a paperlite operating model. This features in both additional revenue costs in operational expenditure and significant provision within the Capital Programme explained within the service development analysis.

16.6.2 The key factors influencing the affordability model in relation to services provided in the community retained estate facilities are:

- The provision of a significant majority of outpatient activity in community retained estate facilities;
- Provision of the majority of surgical day case activity in the community facilities based in the BTC, BMEC, STC sites;
- Pathology main laboratories and all direct access work undertaken from a community retained estate setting;
- Outpatient ophthalmology, dermatology and oral surgery will be fully provided from STC and BMEC locations;

- The provision of Community Services from community retained estate facilities and other community based locations including patients' own homes;
- Inpatient facilities for intermediate care are provided by the Trust within Sheldon, STC and Rowley Regis Hospital facilities; and
- Fixed estate related costs relevant to the facilities in use.

16.7 Activity & Income

Patient Related Activity and Income

16.7.1 Sandwell and West Birmingham CCG together with the two Birmingham CCGs make up 80% of the Trust's clinical income. Sandwell and West Birmingham CCG (65.5%), Birmingham Cross City CCG (11%), Birmingham South & Central CCG (3.5%), with the balance from other CCGs. This is an important metric in terms of securing strategic alignment and/or support from commissioning bodies. A high level summary of activity by CCG is presented in the table below:

Table 81: High Level Summary of Income and Activity by CCG

HIGH LEVEL SUMMARY OF INCOME & ACTIVITY BY CCG												
Category	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
	Plan 15/16	19/20	Plan 15/16	19/20	Plan 15/16	19/20	Plan 15/16	19/20	Plan 15/16	19/20	Plan 15/16	19/20
INCOME												-
A&E Incl Urgent Care	15.3	15.7	2.7	2.8	1.0	1.1	-	-	2.0	2.1	21.1	21.6
Day Cases	17.8	20.1	4.1	4.6	1.2	1.3	4.3	4.5	2.8	3.1	30.1	33.6
Elective IP	13.4	12.4	2.2	2.1	0.7	0.7	0.8	0.6	1.8	1.7	18.9	17.5
Elective Sub total	*31.2*	*32.5*	*6.3*	*6.7*	*1.9*	*2.0*	*5.1*	*5.2*	*4.6*	*4.8*	*49.0*	*51.1*
Non Electives	70.6	72.9	9.1	9.6	3.3	3.4	4.9	5.1	4.2	4.4	92.1	95.4
OCL	53.0	54.5	10.7	11.6	2.9	3.1	29.0	30.9	4.8	6.3	100.5	106.5
OP First	15.5	13.7	4.0	3.9	1.2	1.2	1.6	1.5	3.1	2.9	25.4	23.2
OP Follow Up	20.0	13.7	5.3	4.0	1.6	1.3	3.6	2.8	3.1	2.4	33.6	24.1
OPPROC	6.4	6.7	1.0	1.0	0.3	0.3	0.3	0.3	0.5	0.5	8.4	8.8
OP Virtual	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5
Maternity Pathway	14.0	13.8	2.6	2.5	0.4	0.4			0.3	0.3	17.3	17.0
Outpatient Sub total	*56.1*	*48.2*	*13.0*	*11.5*	*3.6*	*3.2*	*5.5*	*4.6*	*6.9*	*6.1*	*85.0*	*73.7*
Community (TCS)	22.9	25.1	1.1	1.2	0.0	0.0	6.3	6.8	1.4	1.6	31.8	34.8
Sub-total Total Income Excluding MFF	**249.1**	**248.9**	**43.0**	**43.5**	**12.7**	**12.8**	**50.7**	**52.6**	**24.1**	**25.2**	**379.6**	**383.0**
Adjustments to the above												
MFF	6.4	6.2	1.1	1.1	0.4	0.3	0.7	0.6	0.6	0.6	9.1	8.8
Developments	3.0	19.2	0.0	2.7	0.0	1.3	0.0	3.7	0.0	0.3	3.0	27.3
Sub-total Income Adjustments	**9.4**	**25.4**	**1.1**	**3.8**	**0.4**	**1.7**	**0.7**	**4.4**	**0.6**	**0.9**	**12.1**	**36.1**
TOTAL CONTRACTED INCOME	**258.5**	**274.3**	**44.1**	**47.4**	**13.1**	**14.5**	**51.3**	**56.9**	**24.7**	**26.1**	**391.662**	**419.2**
Other Income												
Taper Relief	-	-	-	-	-	-	-	-	-	4.4	-	4.4
Other Income (Non-contracted)	0.3	0.3	-	-	-	-	0.8	0.8	44.0	44.1	45.0	45.1
Sub-total Other Income	**0.3**	**0.3**	**-**	**-**	**-**	**-**	**0.8**	**0.8**	**44.0**	**48.5**	**45.0**	**49.5**
TOTAL INCOME BEFORE TARIFF DEFLATOR	**258.8**	**274.6**	**44.1**	**47.4**	**13.1**	**14.5**	**52.1**	**57.7**	**68.7**	**74.6**	**436.6**	**468.7**
Tariff Deflator	-	(9.8)	-	(1.7)	-	(0.5)	-	(2.1)	-	(1.0)	-	(15.1)
Adjustment to Tariff Deflator	-	-	-	-	-	-	-	-	-	-	-	-
Tariff Deflator	**-**	**(9.8)**	**-**	**(1.7)**	**-**	**(0.5)**	**-**	**(2.1)**	**-**	**(1.0)**	**-**	**(15.1)**
INCOME AFTER TARIFF DEFLATOR	**258.8**	**264.8**	**44.1**	**45.7**	**13.1**	**14.0**	**52.1**	**55.6**	**68.7**	**73.6**	**436.6**	**453.6**
CCG share as a percentage of Total Contracted Income		**65.5%**		**11.0%**		**3.5%**						
Total for S&WB and Bham CCGs												**80.0%**
	000's	000's	000's	000's	000's	000's	000's	000's	000's	000's	000's	000's
Activity												
A&E Incl Urgent Care	155.2	168.3	30.5	31.9	10.9	11.3	-	-	22.7	23.6	219.3	235.1
Day Cases	24.4	27.2	5.4	6.0	1.7	1.8	5.9	6.1	3.6	3.8	40.8	45.0
Elective IP	6.1	5.7	1.1	1.0	0.3	0.3	0.4	0.4	0.8	0.7	8.7	8.1
Elective Sub total	30.4	33.0	6.5	6.9	2.0	2.1	6.3	6.5	4.3	4.5	49.5	53.1
Non Electives	46.2	46.9	6.2	6.2	2.2	2.2	1.8	1.8	3.2	3.1	59.6	60.2
OP First	130.3	122.1	34.7	34.4	9.2	9.0	10.8	10.7	19.1	18.6	204.2	194.7
OP Follow Up	285.4	210.2	68.8	53.5	20.7	16.8	45.1	35.6	38.1	29.7	458.1	345.7
OPPROC	43.5	46.2	6.9	7.1	2.0	2.1	2.2	2.2	3.4	3.5	57.9	61.2
OP Virtual	8.8	17.6	2.3	3.4	0.6	0.9	0.0	0.7	1.1	1.6	12.7	24.1
Maternity Pathway	15.3	15.2	2.7	2.6	0.5	0.5	-		0.4	0.4	18.9	18.7
Outpatient Sub total	483.3	411.4	115.3	101.0	33.0	29.3	58.1	49.1	62.1	53.8	751.8	644.5
Community (TCS)	523.7	662.7	21.6	24.2	0.5	0.7	145.3	157.4	32.9	35.7	724.0	880.8
TOTAL ACTIVITY	**1,238.7**	**1,322.3**	**180.2**	**170.3**	**48.6**	**45.7**	**211.5**	**214.8**	**125.2**	**120.7**	**1,804.3**	**1,873.7**

16.7.2 The activity modelling addresses the following factors:

- Amendments to model results across the future timeline, reflecting latest LDP contract performance (2015-2016) compared with historic modelled expectations for this period - in effect, restating the activity baseline and thus any impact across the future eight year period.
- Some growth in activity as a result of increasing demand for the Trust's population, i.e. assumption of increased demand for short stay emergencies and as a result of demographic change.
- An anticipated transfer (loss) of activity (especially outpatient activity) to new primary care-based provider organisations. However a proportion is assumed to be retained by the Trust but in a community rather than an acute setting. New pathways including "virtual" outpatients are being developed which are forecast to expand significantly.
- A loss of emergency catchment to other local acute providers reflecting the change in location due to transfer to the MMH (circa 11% of affected specialties).

16.7.3 The provision by the Trust of a range of services (outpatients, diagnostics, day surgery, urgent care and intermediate care) in settings outside of an acute hospital. Many of these services will be covered by national PBR arrangements (e.g. outpatients, day surgery) and where appropriate national tariff has been used to forecast future income. Others (e.g. intermediate care, urgent care) have been the subject of local discussions and the Trust's base case includes income assumptions agreed with the Trust's main commissioners.

- The development of alternative treatment pathways in community services to avoid hospital bed days and outpatient follow up attendances within the acute setting. This is a service model which is intended to grow over time to avoid work in the acute setting and enable on-going treatment closer to patients' homes. This mirrors national and local commissioning strategies.
- The inclusion of community services integrated within the Trust should lead to long-term investment in this area as an enabling strategy to change/reduce demand on secondary care.
- The inclusion of health economy-wide QiPP schemes to reflect commissioning intent, e.g. improving new-to-review follow up ratios, decommissioning of certain elective procedures and minimising the impact of future emergency admissions by targeting reductions in average length of stay.
- Modest development growth for new service provision. This covers service areas where the Trust is confident, and has received commissioner agreement, that resources will be targeted, e.g. Health Visitor growth, Behçets Centre, Gynae-oncology and Stroke. In addition the Trust will be seeking, with support from its host commissioner, to repatriate some activities currently delivered by alternative providers across most points of delivery.

Activity in 2019-2020

16.7.4 The tables below summarise the activity and income split between MMH and the Trust's community facilities:

Table 82: Activity Split between MMH and Retained Estate

	Activity		
	MMH	Retained Estate	TOTAL
Outpatients	97,924	546,611	644,535
Electives	14,666	38,442	53,109
Emergencies	56,917	3,303	60,221
A&E	127,652	32,151	159,803
Urgent Care	36,628	38,639	75,267
Total	**333,788**	**659,146**	**992,934**

Table 83: Income Split between MMH and Retained Estate (excluding Community Services)

	Income (£'000s)		
	MMH	Retained Estate	TOTAL
Outpatients	22,611	54,954	77,565
Electives	24,644	30,537	55,181
Emergencies	90,926	10,187	101,112
A&E	18,664	4,633	23,297
OCL	110,667	0	110,667
Total	**267,512**	**100,312**	**367,823**

16.7.5 The pie charts below show in the first full year of site reconfiguration (2019-2020) by point of delivery (POD) the proportions of activity and income undertaken in acute and retained estate settings:

Figure 28: MMH Activity and Income

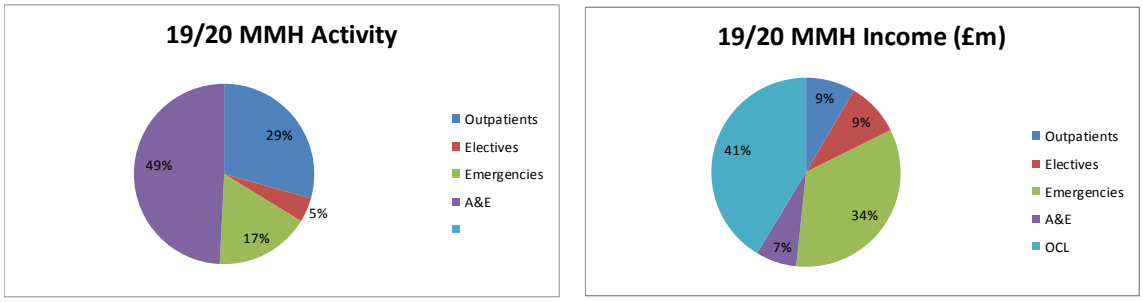
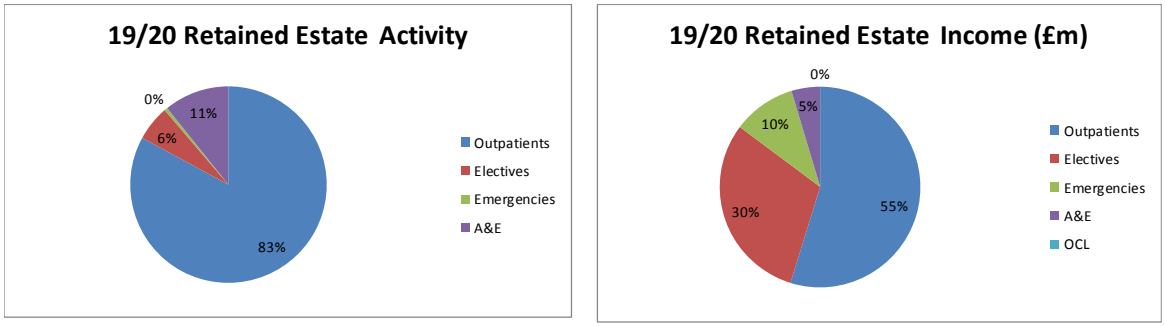


Figure 29: Retained Estate Activity and Income



16.7.6 The total activity and income trajectory expressed at point of delivery level (POD) is outlined in the table below:

Table 84: Total Activity and Income Position

Activity & Income Projections	2013/14 Activities	2014/15 Activities	2015/16 Activities	2016/17 Activities	2017/18 Activities	2018/19 Activities	2019/20 Activities	2020/21 Activities	2021/22 Activities	2022/23 Activities	2023/24 Activities
Elective	52,642	48,651	49,540	50,528	51,452	52,253	53,109	53,979	54,767	55,416	56,082
Non elective	57,838	58,022	59,582	60,175	59,943	59,388	60,221	61,488	62,618	63,530	64,463
Outpatient	730,364	742,025	751,849	708,593	669,414	634,267	644,535	656,076	666,709	675,890	685,306
A&E	174,928	220,558	219,340	223,324	227,209	230,038	235,069	239,195	242,377	244,247	246,151
Other clinical - Tariff	53,703	1,414,134	1,460,561	1,467,195	1,485,499	1,505,792	1,533,467	1,558,305	1,583,429	1,608,872	1,634,638
Service Developments included in above:											
Acute											
Spells			613	1,227	1,619	2,233	3,133	3,779	4,171	4,171	4,171
A&E Attendances			-	2,323	3,669	5,993	8,316	10,639	11,985	11,985	11,985
Outpatients			1,234	4,027	5,708	8,501	11,294	14,087	15,768	15,768	15,768
Community			-	21,218	31,827	53,045	74,263	95,481	106,090	106,090	106,090
Non electives made up of:											
Non elective	57,838	58,022	57,075	57,431	56,812	55,574	55,517	56,352	57,206	58,078	58,970
Intermediate Care			2,507	2,382	2,531	2,852	3,094	3,132	3,171	3,211	3,251
Repatriation				362	600	962	1,610	2,004	2,242	2,242	2,242
Total Non electives	**57,838**	**58,022**	**59,582**	**60,175**	**59,943**	**59,388**	**60,221**	**61,488**	**62,618**	**63,530**	**64,463**

	2013/14 £000's	2014/15 £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Electives	54,311	53,528	50,985	50,331	49,838	49,783	50,337	51,007	51,849	52,711	53,647
Non elective	93,585	99,445	95,551	95,736	94,457	93,649	93,559	94,958	96,673	98,431	100,329
Outpatient	82,416	81,807	87,578	81,187	75,695	71,415	72,184	73,194	74,451	75,737	77,134
A&E	18,074	20,070	21,977	21,633	21,362	21,075	21,271	21,484	21,765	22,053	22,367
Community Core Contacts	36,765	32,836	31,779	32,305	32,671	33,347	33,994	34,727	35,588	36,468	37,412
Other Contract Lines	108,945	109,537	102,865	103,037	104,386	107,119	110,341	113,632	117,322	121,206	125,373
Sub Total	394,096	397,223	390,735	384,229	378,408	376,387	381,686	389,002	397,648	406,607	416,262
Service Developments	-	-	3,000	8,145	13,526	19,249	24,482	29,846	34,507	36,739	40,816
Patient Related Income	**394,096**	**397,223**	**393,735**	**392,373**	**391,935**	**395,636**	**406,168**	**418,848**	**432,154**	**443,346**	**457,078**
MMH Related	-	-	-	3,000	7,000	7,900	4,400	-	-	-	-
Cummulative Position	**394,096**	**397,223**	**393,735**	**395,373**	**398,935**	**403,536**	**410,568**	**418,848**	**432,154**	**443,346**	**457,078**
Cat C Income	43,509	43,513	42,910	42,802	42,962	43,000	43,030	43,207	43,386	43,590	43,776
Trust Wide Position	**437,605**	**440,736**	**436,645**	**438,175**	**441,896**	**446,537**	**453,598**	**462,055**	**475,541**	**486,936**	**500,854**

16.7.7 Key activity movements by POD have been analysed into key change themes which summarise the trajectory behaviour.

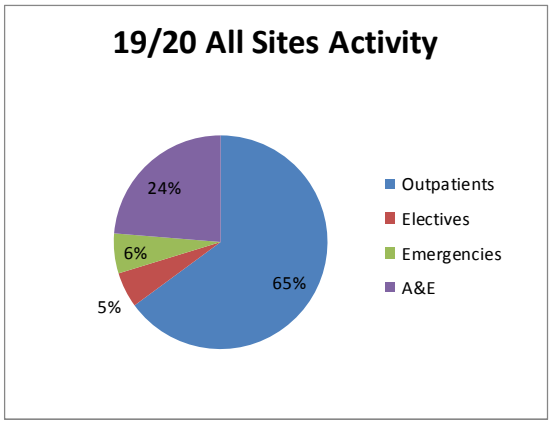
16.7.8 The table below presents these movements by POD to illustrate the annual trajectory changes predicted to occur until 2020-2021:

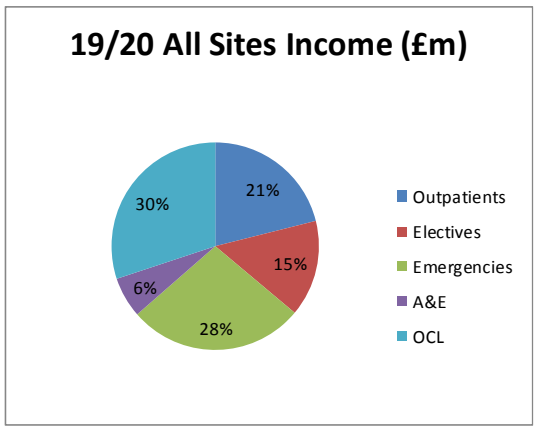
Table 85: Activity Movements

POD	CHANGE THEME	2014/2015 000's	2015/2016 000's	2016/2017 000's	2017/2018 000's	2018/2019 000's	2019/2020 000's	2020/2021 000's	2021/2022 000's	2022/2023 000's	2023/2024 000's	Grand Total £'000
Electives	Baseline Steps	52.6	48.7	49.5	50.5	51.5	52.3	53.1	54.0	54.8	55.4	**52.6**
	Baseline Changes	(4.0)	0.3	-	-	-	-	-	-	-	-	**(3.7)**
	Demography & Demand	-	-	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.7	**5.4**
	Alternative Service Pathway	-	-	(0.1)	(0.1)	(0.0)	(0.0)	(0.0)	-	-	-	**(0.2)**
	Alternative Service Provider	-	-	-	-	-	-	-	-	-	-	**-**
	Catchment Loss	-	-	-	-	-	-	-	-	-	-	**-**
	Change Site	-	-	0.0	-	(0.0)	0.0	-	-	-	-	**0.0**
	Peer Productivity	-	-	(0.0)	0.0	(0.0)	-	-	-	-	-	**(0.0)**
	Repatriation	-	0.6	0.3	0.2	0.3	0.3	0.3	0.2	-	-	**1.9**
	Electives Total	**48.7**	**49.5**	**50.5**	**51.5**	**52.3**	**53.1**	**54.0**	**54.8**	**55.4**	**56.1**	**56.1**
Emergencies	Baseline Steps	58.0	58.2	59.6	60.2	59.9	59.4	60.2	61.5	62.6	63.5	**58.0**
	Baseline Changes	0.2	1.4	(0.9)	(0.6)	(0.5)	0.2	0.0	(0.0)	0.0	0.0	**(0.2)**
	Demography & Demand	-	-	1.1	1.1	1.1	0.9	0.9	0.9	0.9	0.9	**7.8**
	Alternative Service Pathway	-	-	(0.7)	(0.5)	(0.4)	-	-	-	-	-	**(1.6)**
	Alternative Service Provider	-	-	-	-	-	-	-	-	-	-	**-**
	Catchment Loss	-	-	-	(1.1)	(1.9)	(1.0)	-	-	-	-	**(4.1)**
	Change Site	-	(0.3)	(0.3)	(0.3)	(0.3)	0.1	-	-	-	-	**(1.0)**
	Peer Productivity	-	0.3	1.0	1.0	1.1	-	-	-	-	-	**3.4**
	Repatriation	-	-	0.4	0.2	0.4	0.6	0.4	0.2	-	-	**2.2**
	Emergencies Total	**58.2**	**59.6**	**60.2**	**59.9**	**59.4**	**60.2**	**61.5**	**62.6**	**63.5**	**64.5**	**64.5**
Outpatients	Baseline Steps	730.4	742.0	751.8	708.6	669.4	634.3	644.5	656.1	666.7	675.9	**730.4**
	Baseline Changes	-	-	-	-	-	-	-	-	-	-	**-**
	Demography & Demand	11.7	8.6	13.9	13.6	10.0	8.5	8.7	9.0	9.2	9.4	**102.6**
	Alternative Service Pathway	-	-	(8.3)	(7.4)	(6.7)	-	-	-	-	-	**(22.4)**
	Alternative Service Provider	-	-	(36.7)	(33.0)	(28.0)	(1.2)	-	-	-	-	**(98.9)**
	Catchment Loss	-	-	-	-	-	-	-	-	-	-	**-**
	Change Site	-	-	(0.0)	-	0.0	0.0	-	-	-	-	**0.0**
	Peer Productivity	-	-	(15.0)	(14.1)	(13.2)	-	-	-	-	-	**(42.3)**
	Repatriation	-	1.2	2.8	1.7	2.8	3.0	2.8	1.7	-	-	**16.0**
	Outpatients Total	**742.0**	**751.8**	**708.6**	**669.4**	**634.3**	**644.5**	**656.1**	**666.7**	**675.9**	**685.3**	**685.3**
A&E	Baseline Steps	174.9	220.6	219.3	223.3	227.2	230.0	235.1	239.2	242.4	244.2	**174.9**
	Baseline Changes	-	-	-	-	-	-	-	-	-	-	**-**
	Demography & Demand	45.6	(1.2)	1.7	5.5	5.5	5.5	1.8	1.8	1.9	1.9	**70.1**
	Alternative Service Pathway	-	-	-	-	-	-	-	-	-	-	**-**
	Alternative Service Provider	-	-	-	-	-	-	-	-	-	-	**-**
	Catchment Loss	-	-	-	(3.0)	(5.0)	(2.8)	-	-	-	-	**(10.8)**
	Change Site	-	-	0.0	0.0	(0.0)	(0.0)	-	-	-	-	**(0.0)**
	Peer Productivity	-	-	-	-	-	-	-	-	-	-	**-**
	Repatriation	-	-	2.3	1.3	2.3	2.3	2.3	1.3	-	-	**12.0**
	A&E Total	**220.6**	**219.3**	**223.3**	**227.2**	**230.0**	**235.1**	**239.2**	**242.4**	**244.2**	**246.2**	**246.2**
Community Contract	Baseline Steps	748.1	720.8	724.0	769.0	801.0	843.3	880.8	918.7	946.4	963.9	**748.1**
	Baseline Changes	-	-	-	-	-	-	-	-	-	-	**-**
	Demography & Demand	(27.3)	3.2	15.2	15.5	15.9	16.3	16.7	17.1	17.5	17.9	**108.0**
	Alternative Service Pathway	-	-	3.0	1.2	1.2	-	-	-	-	-	**5.4**
	Alternative Service Provider	-	-	5.4	4.5	3.8	-	-	-	-	-	**13.7**
	Catchment Loss	-	-	-	-	-	-	-	-	-	-	**-**
	Peer Productivity	-	-	-	-	-	-	-	-	-	-	**-**
	Change Site	-	-	0.2	0.2	0.2	-	-	-	-	-	**0.6**
	Repatriation	-	-	21.2	10.6	21.2	21.2	21.2	10.6	-	-	**106.1**
	Community Contract Total	**720.8**	**724.0**	**769.0**	**801.0**	**843.3**	**880.8**	**918.7**	**946.4**	**963.9**	**981.8**	**981.8**

16.7.9 Overall POD activity, excluding community services, provided by the Trust is represented in the figure below:

Table 86: All Sites Activity and Income - 2019-2020





Non-Patient Related Income

16.7.10 Non-patient related income is largely divided into two categories:

- Education and training related, including national levies; and
- General Category C income for activities or services provided by various departments within the Trust.

16.7.11 Each area has been individually considered to determine the likely impact of the planned changes on individual income streams. Training income streams have been assumed to generally remain stable across the period, whilst Category C income accruing to service departments fluctuates depending on individual circumstances. The Category C Income profile is presented in the table below:

Table 87: Category C Income

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
43,509	43,513	42,910	45,802	49,962	50,900	47,430	43,207	43,386	43,590	43,776

16.8 Costs Underpinning PF2 Affordability

Characteristics of the Affordability Model

16.8.1 The overall projections demonstrate that the Trust maintains a bottom line surplus, after adjusting for technical issues, across the period.

16.8.2 This position includes the following key features:

- In order to afford the forecast unitary charge and generate support for transitional costs, an internal CIP has been developed which exceeds expected national efficiency requirements and the impact of activity cessation. In the intermediate years, the savings are set aside to deal with non-recurrent transitional costs so that, by 2018-2019, they can be fully released to meet the affordability demands of the project.
- The PF2 solution model assumes £97.2m of support is granted through PDC and this is paid over to the Special Purpose Vehicle at defined completion stages which maximises risk transfer. The profile contained within the forecast Unitary Payment structure is shown below.

- Future modelling forecast surpluses of around 1% of turnover are successfully maintained across the period. Surpluses are required to grow significantly prior to MMH opening to enable a strong liquidity position to be established which assists in generating a 3 CsRR score.

16.8.3 The Statement of Comprehensive Income is presented in the table below incorporating the PF2 based Unitary Charge from mid-year 2018-2019. Surpluses grow as the maximum opportunities are gained from preparedness for single acute site working.

16.8.4 The years to the MMH opening in 2018-2019 have non-recurring expenditure covering transition and restructuring contingencies. A review of dual running costs and taper relief support has been undertaken since the OBC. The revised profile has been agreed with the TDA and is reflected in the table below.

Table 88: Statement of Comprehensive Income

Headline Summary Position Statement of Comprehenisve Income		10 Year Timeline									
		2014/15 £m	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	2019/20 £m	2020/21 £m	2021/22 £m	2022/23 £m	2023/24 £m
Main Income		440.7	436.6	435.2	434.9	438.6	449.2	462.1	475.5	486.9	500.9
Taper Relief		-	-	3.0	7.0	7.9	4.4	-	-	-	-
	Total Income	**440.7**	**436.6**	**438.2**	**441.9**	**446.5**	**453.6**	**462.1**	**475.5**	**486.9**	**500.9**
Expenditure											
Pay		(285.0)	(283.0)	(276.0)	(267.0)	(261.5)	(259.3)	(263.1)	(265.3)	(268.5)	(272.2)
Non Pay		(125.1)	(122.6)	(124.7)	(129.1)	(138.4)	(145.3)	(157.0)	(167.2)	(175.0)	(185.2)
Transition Reserves		(5.4)	(3.6)	(6.1)	(9.0)	(0.8)	(6.3)	(2.3)	(2.5)	(2.5)	(2.2)
Dual Running		-	-	(3.0)	(7.0)	(7.9)	(4.4)	-	-	-	-
	Operating Expenditure	(415.5)	(409.3)	(409.9)	(412.0)	(408.6)	(415.3)	(422.4)	(435.0)	(446.1)	(459.6)
EBITDA		25.3	27.4	28.3	29.9	37.9	38.3	39.7	40.5	40.9	41.3
Non Operating Costs		(20.7)	(22.4)	(24.0)	(23.3)	(28.7)	(33.9)	(35.0)	(35.7)	(36.0)	(36.6)
Net Surplus (discounting Impairments)		**4.6**	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**4.7**	**4.8**	**4.8**	**4.7**

16.8.5 The table below summarises the impact of these contingencies and presents a headline view of surplus if these elements were discounted from the annual positions to arrive at an underlying assessment of financial performance:

Table 89: Normalised I&E Position

Normalised I&E Position	2014/15 £m	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	2019/20 £m	2020/21 £m	2021/22 £m	2022/23 £m	2023/24 £m
Net Surplus / (Deficit)	4,321	5,001	4,278	(78,038)	(21,241)	4,425	4,741	4,763	4,849	4,669
Taper Relief	-	-	(3,000)	(7,000)	(7,900)	(4,400)	-	-	-	-
Reserves / TWT	-	(700)	-	-	-	-	-	-	-	-
Transition - RCRH	3,000	3,000	1,870	1,250	-	-	-	-	-	-
MMH Orientation / Backfill	-	-	-	-	75	2,000	-	-	-	-
Restructuring Reserve	-	-	1,000	4,000	-	2,250	-	-	-	-
Section 106 Infrastructure for MMH	-	-	1,750	2,250	-	-	-	-	-	-
Contingency Bed Flexibility/ Winter Pressures	-	-	700	300	760	2,010	2,300	2,500	2,500	2,200
Winter Resilence	-	1,300	-	-	-	-	-	-	-	-
Estates Renewal	-	-	-	-	-	-	-	-	-	-
Section 278 Contingency & BS Flex	(596)	-	800	1,200	-	-	-	-	-	-
Dual Running Costs	-	-	3,000	7,000	7,900	4,400	-	-	-	-
Fixed Asset impairments	263	-	-	84,641	30,508	-	-	-	-	-
Normalised Net Surplus / (deficit)	**6,988**	**8,601**	**10,398**	**15,603**	**10,101**	**10,685**	**7,041**	**7,263**	**7,349**	**6,869**
Normalised Net Surplus Margin	***1.6%***	***2.0%***	***2.4%***	***3.5%***	***2.3%***	***2.4%***	***1.5%***	***1.5%***	***1.5%***	***1.4%***

Pay Forecast Trajectory

16.8.6 The table below presents the pay forecast trajectory by major staff group incorporating the impact of cost improvement efficiencies, service developments, and new ways of working including RCRH behavioural change. Pay cost also includes an annual assessment of incremental drift and an estimate of future annual pay awards:

Table 90: Pay Forecast Trajectory by Staff Group

	10 Year Timeline: Pay Spend									
	2014/15 £m's	2015/16 £m's	2016/17 £m's	2017/18 £m's	2018/19 £m's	2019/20 £m's	2020/21 £m's	2021/22 £m's	2022/23 £m's	2023/24 £m's
Pay Forecast Expenditure: (Real)	**(285.0)**	**(278.2)**	**(270.0)**	**(259.3)**	**(249.0)**	**(241.8)**	**(240.1)**	**(236.9)**	**(234.6)**	**(232.0)**
Analysed Across Pay Headings										
Consultants	(42.7)	(41.5)	(41.7)	(41.9)	(42.1)	(41.7)	(42.2)	(42.8)	(43.3)	(43.7)
Junior Medical Staff	(32.5)	(32.1)	(32.1)	(31.8)	(31.3)	(29.1)	(28.7)	(28.2)	(27.7)	(27.2)
Nursing - Acute	(71.0)	(72.0)	(69.6)	(66.1)	(62.8)	(62.2)	(64.6)	(65.1)	(65.4)	(65.6)
Nursing - Community	(17.8)	(17.1)	(18.4)	(20.7)	(22.1)	(23.6)	(23.7)	(24.4)	(26.1)	(27.6)
Other clinical staff (include HCAs)	(16.6)	(15.5)	(14.9)	(13.9)	(13.1)	(12.9)	(12.7)	(12.5)	(12.3)	(12.1)
Scientific / Prof & Tech	(40.8)	(39.4)	(38.5)	(37.2)	(36.0)	(35.8)	(35.4)	(34.7)	(33.9)	(33.0)
Non Clinical	(56.6)	(54.4)	(50.9)	(46.9)	(41.3)	(35.8)	(32.0)	(28.9)	(25.7)	(22.4)
Agency	(8.9)	(9.5)	(9.0)	(8.4)	(7.9)	(8.2)	(8.2)	(7.9)	(7.9)	(7.9)
Other Pay Changes	2.0	3.3	5.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Total Pay Spend	**(285.0)**	**(278.2)**	**(270.0)**	**(259.3)**	**(249.0)**	**(241.8)**	**(240.1)**	**(236.9)**	**(234.6)**	**(232.0)**
Wte's including Developments	**6,962**	**6,757**	**6,556**	**6,295**	**6,004**	**5,875**	**5,842**	**5,776**	**5,729**	**5,674**
Forecast Average Cost Per Wte (£'000's)	**(40.9)**	**(41.2)**	**(41.2)**	**(41.2)**	**(41.5)**	**(41.2)**	**(41.1)**	**(41.0)**	**(41.0)**	**(40.9)**

16.8.7 The average cost per WTE is presented in the table below:

Table 91: Average Cost per WTE

	10 Year Timeline: Average Cost Per WTE									
	2014/15 £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018/19 £000's	2019/20 £000's	2020/21 £000's	2021/22 £000's	2022/23 £000's	2023/24 £000's
Average Cost Per WTE (Nominal)										
Consultants	(147.6)	(145.3)	(146.4)	(147.8)	(150.9)	(151.8)	(155.4)	(158.0)	(161.7)	(166.0)
Junior Medical Staff	(68.2)	(69.9)	(71.4)	(72.9)	(75.2)	(72.9)	(75.3)	(77.7)	(80.3)	(83.2)
Nursing - Acute	(40.4)	(41.9)	(42.1)	(42.3)	(43.0)	(44.2)	(45.5)	(46.6)	(47.7)	(49.1)
Nursing - Community	(38.3)	(38.8)	(38.6)	(38.7)	(39.3)	(40.0)	(40.3)	(40.7)	(41.2)	(41.9)
Other clinical staff (include HCAs)	(24.7)	(24.4)	(24.4)	(24.5)	(24.9)	(25.0)	(25.4)	(25.9)	(26.4)	(27.0)
Scientific / Prof & Tech	(37.8)	(38.0)	(37.8)	(37.6)	(37.9)	(38.3)	(38.8)	(39.2)	(39.7)	(40.2)
Non Clinical	(28.6)	(29.4)	(29.0)	(28.5)	(28.3)	(27.7)	(26.9)	(26.3)	(25.4)	(24.4)

Operational Non Pay Forecast

16.8.8 The operational non-pay trajectory is outlined in the table below. Clinical non-pay costs are forecast to rise due in part to inflation but also recognising volume changes in high cost drugs in particular. Non-pay efficiencies are assumed as part of the cost improvement programme. Other expenses rise over the timeline as this contains:

- Support for IM&T development;
- The introduction of an Imaging MES arrangement from 2016-2017;
- Restructuring contingencies;
- Reserve contingencies; and
- Section 106 enabling costs.

Table 92: Operational Non-Pay Forecast Expenditure

	10 Year Timeline: Non Pay Spend v Workforce									
	Forecast Outturn	LTFM Modelled Future Years								
	2014/15 £m's	2015/16 £m's	2016/17 £m's	2017/18 £m's	2018/19 £m's	2019/20 £m's	2020/21 £m's	2021/22 £m's	2022/23 £m's	2023/24 £m's
Operational Non Pay Forecast Expenditure (Nominal)	**(130.5)**	**(126.2)**	**(133.9)**	**(145.1)**	**(147.1)**	**(156.0)**	**(159.3)**	**(169.7)**	**(177.5)**	**(187.4)**
Drug expenses	(34.9)	(33.7)	(34.8)	(35.8)	(37.4)	(39.2)	(40.8)	(42.6)	(44.0)	(46.0)
Clinical supplies and services expenses	(46.3)	(47.8)	(47.7)	(49.2)	(51.8)	(54.8)	(58.9)	(63.0)	(67.8)	(72.8)
CNST Premium	(6.7)	(6.7)	(7.0)	(7.3)	(7.6)	(8.0)	(8.4)	(8.9)	(9.6)	(10.1)
Other expenses	(41.4)	(36.8)	(40.4)	(44.1)	(37.0)	(43.0)	(44.4)	(47.8)	(47.7)	(49.3)
PFI specific expenses:										
- Operating charge element of Unitary Payment	(1.2)	(1.3)	(1.0)	(1.7)	(4.0)	(5.5)	(6.2)	(6.0)	(7.1)	(8.0)
- Other Expenses	0.0	0.0	(3.0)	(7.0)	(9.2)	(5.5)	(0.7)	(1.4)	(1.3)	(1.1)
Total Operational Non Pay Spend	**(130.5)**	**(126.2)**	**(133.9)**	**(145.1)**	**(147.1)**	**(156.0)**	**(159.3)**	**(169.7)**	**(177.5)**	**(187.4)**

16.8.9 The PFI elements within the table refer to the existing PFI scheme for the BTC and subsequent dual running costs for the PSC/PF2 project.

16.9 Approach to PF2 Affordability

16.9.1 This section moves on to consider the impact of PF2 on affordability.

Unitary Charge based Upon Partial Indexation and IFRIC 12 Consequences

16.9.2 The Unitary Charge modelled within the affordability position updates the ceiling value that was included in the OBC against which the Public Sector Comparator (PSC) was measured. The updated unitary charge position reflects an improvement in the annual charge and falls well within the ceiling of £27m set at OBC stage.

Revenue Implications of the PF2

16.9.3 The Hospital Company's financial model has been updated to reflect the terms of the Preferred Bidder and the annual Unitary Payment, at 2014/2015 price base is assessed as £19.678m. The first full year of concession includes a Unitary Payment £20.501m in nominal terms.

16.9.4 Elements of the Unitary Charge will be subject to inflation. The indexation rate is assessed at 38% of the Unitary Payment. This indexation will affect hard FM, SPV costs and lifecycle cost in particular. Annual forecast indexation is modelled at 2.5% per annum.

16.9.5 The Trust will pay a reduced annual public dividend based on 3.5% of £97.2m, rather than 3.5% of £100m.

The Maximum Affordable Unitary Charge

16.9.6 The Unitary Charge in the final bid has improved significantly from OBC as a direct consequence of updated funding terms. That improvement is retained as affordability headroom in this case. That is, the affordability case presented here is consistent with the OBC Unitary Charge affordability ceiling of £27m.

16.9.7 The OBC allowed for a maximum first full year affordability ceiling of circa £27m. Most components of the OBC Unitary Payment assessment have proven to be close benchmarks.

16.9.8 The table below presents the statement of comprehensive income for PF2.

16.9.9 This demonstrates that top line income and revenue surpluses which, when taken together with capital investment and balance sheet management are consistent with sustaining a CoSRR Level 3 and providing for meaningful downside mitigation.

Table 93: Statement of Comprehensive Income (PF2)

Statement of Comprehensive Income	Outturn 2014/15	Forecast 2015/16	Forecast 2016/17	Forecast 2017/18	Forecast 2018/19	Forecast 2019/20	Forecast 2020/21	Forecast 2021/22	Forecast 2022/23	Forecast 2023/24
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Income										
NHS Clinical income	397.2	393.7	392.4	391.9	395.6	406.2	418.8	432.2	443.3	457.1
Non NHS Clinical income	43.5	42.9	42.8	43.0	43.0	43.0	43.2	43.4	43.6	43.8
Other Operating income	-	-	3.0	7.0	7.9	4.4	-	-	-	-
Total Operating Income	**440.7**	**436.6**	**438.2**	**441.9**	**446.5**	**453.6**	**462.1**	**475.5**	**486.9**	**500.9**
Expenditure										
Pay	(285.0)	(283.0)	(276.0)	(267.0)	(261.5)	(259.3)	(263.1)	(265.3)	(268.5)	(272.2)
Non Pay	(130.5)	(126.2)	(133.9)	(145.1)	(147.1)	(156.0)	(159.3)	(169.7)	(177.5)	(187.4)
Total Operating Expenses	**(415.5)**	**(409.3)**	**(409.9)**	**(412.0)**	**(408.6)**	**(415.3)**	**(422.4)**	**(435.0)**	**(446.1)**	**(459.6)**
Operational Surplus	**25.3**	**27.4**	**28.3**	**29.9**	**37.9**	**38.3**	**39.7**	**40.5**	**40.9**	**41.3**
Profit / loss on asset disposal	(0.0)	(0.0)	(0.0)	-	-	-	-	-	-	-
Impairment losses	(0.3)	-	-	(84.6)	(30.5)	-	-	-	-	-
Depreciation	(13.4)	(14.5)	(14.7)	(14.5)	(12.4)	(14.9)	(16.0)	(16.4)	(16.9)	(17.6)
Total interest receivable / (payable)	0.1	0.1	(0.2)	0.2	0.2	0.2	0.2	0.1	0.2	0.3
Total interest payable on loans / leases	(2.2)	(2.2)	(2.3)	(2.1)	(10.8)	(13.5)	(13.2)	(13.3)	(12.9)	(12.7)
PDC Dividend	(5.2)	(5.7)	(6.8)	(6.8)	(5.7)	(5.7)	(5.9)	(6.2)	(6.4)	(6.7)
Non Operating Costs	(21.0)	(22.4)	(24.0)	(107.9)	(59.2)	(33.9)	(35.0)	(35.7)	(36.0)	(36.6)
Surplus / (deficit) before tax	4.3	5.0	4.3	(78.0)	(21.2)	4.4	4.7	4.8	4.8	4.7
Add back technical adjustments	0.3	-	-	84.6	30.5	-	-	-	-	-
Revised Surplus / (deficit) before tax	**4.6**	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**4.7**	**4.8**	**4.8**	**4.7**
Net Margin %	**1.04%**	**1.15%**	**0.98%**	**1.49%**	**2.08%**	**0.98%**	**1.03%**	**1.00%**	**1.00%**	**0.93%**

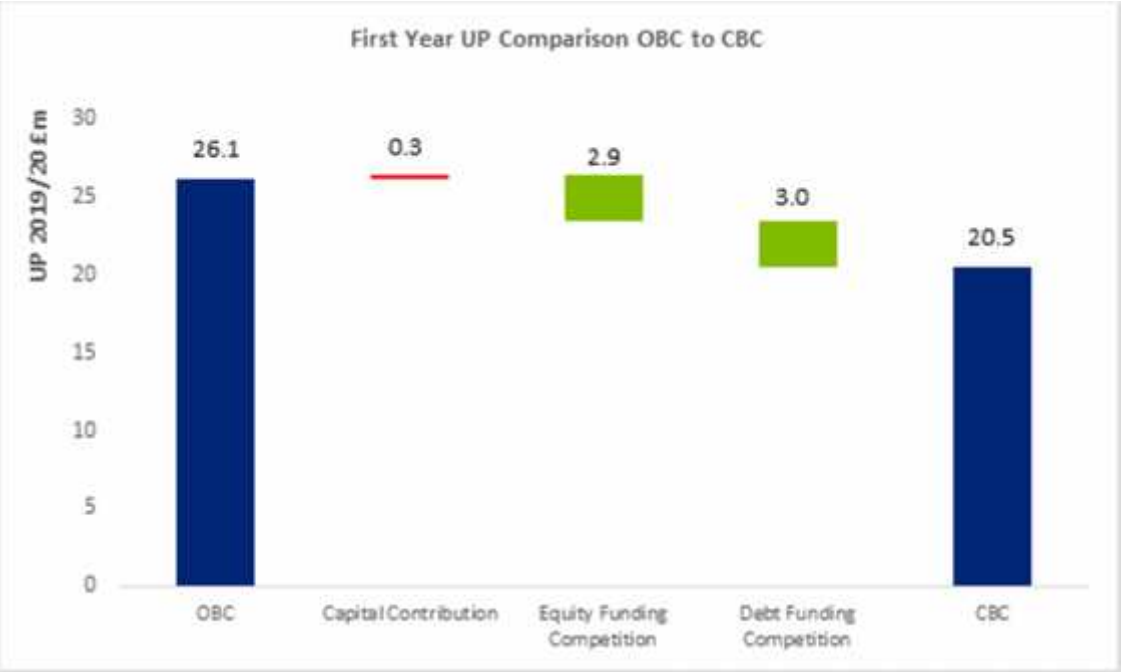
Reduction in the Unitary Payment

16.9.10 The first full year of the UP has reduced from £26.1m as stated in the OBC to £20.501m. This is as a result of the following factors:

- the capital contribution (Public Dividend Capital) has decreased by £2.8m, resulting in an increase in the underlying UP;

- the equity funding competition has resulted in a reduction in the blended Internal Rate of Return (IRR) of the project from 12% to 10.3%, resulting in a reduction in the underlying UP;
- the debt funding competition has resulted in a significant reduction in the cost of the overall funding package of the project.

Figure 30: Change in First Year UP 2019/20 from OBC to CBC



16.10 Balance Sheet

16.10.1 The Trust starts from a solid balance sheet base. The table below shows how the balance sheet is forecast to move over the time period.

Table 94: Balance Sheet

BALANCE SHEET	Outturn Mar-15	Forecast Mar-16	Forecast Mar-17	Forecast Mar-18	Forecast Mar-19	Forecast Mar-20	Forecast Mar-21	Forecast Mar-22	Forecast Mar-23	Forecast Mar-24
ASSETS, NON CURRENT										
Property, Plant and Equipment and intangible assets, Net	213,891	223,850	229,620	133,754	137,779	144,705	150,783	153,063	153,937	154,014
Property, plant & equipment (PFI)	20,094	19,544	18,983	18,374	288,609	283,004	277,387	271,755	266,109	260,450
PFI Other Assets	0	0	0	0	0	0	0	0	0	0
Investments, Non-Current	0	0	0	0	0	0	0	0	0	0
Trade and Other Receivables, Net, Non-Current (including prepayments)	890	890	890	890	890	890	890	890	890	890
Other Assets, Non-Current	0	0	0	0	0	0	0	0	0	0
Assets, Non-Current, Total	**234,875**	**244,284**	**249,493**	**153,018**	**427,278**	**428,600**	**429,059**	**425,708**	**420,937**	**415,354**
ASSETS, CURRENT										
Inventories	3,467	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217	3,217
NHS Trade Receivables, Current	14,124	12,270	12,264	5,444	5,495	5,641	5,817	6,002	6,158	6,348
Non NHS Trade Receivables, Current	395	124	174	(747)	(660)	(671)	(775)	(904)	(974)	(911)
Other Receivables, Current	1,799	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
Other Financial Assets, Current (e.g. accrued income)	0	0	0	0	0	0	0	0	0	0
Prepayments, Current, PFI related	0	0	0	0	0	0	0	0	0	0
Prepayments, Current, non-PFI related	0	0	44,502	91,061	0	0	0	0	0	0
Cash and Cash Equivalents	28,382	29,886	29,022	30,701	39,343	37,023	36,705	41,408	47,906	55,243
Other Assets, Current	(0)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Assets, Current, Total	**48,167**	**47,045**	**90,726**	**131,223**	**48,942**	**46,758**	**46,511**	**51,270**	**57,854**	**65,445**
ASSETS, TOTAL	**283,042**	**291,329**	**340,219**	**284,241**	**476,220**	**475,358**	**475,570**	**476,978**	**478,791**	**480,799**
LIABILITIES, CURRENT										
Interest-Bearing Borrowings , Current (including accrued interest)	(1,000)	0	0	0	0	0	0	0	0	0
Deferred Income, Current	0	0	0	0	0	0	0	0	0	0
Provisions, Current	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)	(4,502)
Trade payables, Current	(19,555)	(20,340)	(17,952)	(12,088)	(12,258)	(12,998)	(13,275)	(14,141)	(14,794)	(15,617)
Other payables, Current	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)	(3,252)
Capital payables, Current	(8,035)	(8,035)	(8,035)	(8,035)	(10,035)	(8,035)	(7,035)	(7,035)	(7,035)	(7,035)
Accruals, Current	(15,109)	(15,909)	(15,909)	(15,909)	(15,909)	(15,909)	(15,909)	(15,909)	(15,909)	(15,909)
Payments on Account	0	0	0	0	0	0	0	0	0	0
Finance Leases, Current	0	0	0	0	0	0	0	0	0	0
PFI leases, Current	(1,017)	(1,306)	(903)	(24,690)	(6,494)	(6,392)	(6,934)	(6,441)	(6,185)	(6,470)
PDC dividend payable, Current	0	0	0	0	0	0	0	0	0	0
Other Liabilities, Current	0	0	0	0	0	0	0	0	0	0
Interest payable	0	0	0	0	0	0	0	0	0	0
Liabilities, Current, Total	**(52,470)**	**(53,344)**	**(50,553)**	**(68,476)**	**(52,450)**	**(51,089)**	**(50,906)**	**(51,280)**	**(51,677)**	**(52,786)**
NET CURRENT ASSETS (LIABILITIES)	**(4,303)**	**(6,300)**	**40,173**	**62,747**	**(3,508)**	**(4,331)**	**(4,396)**	**(10)**	**6,177**	**12,659**
LIABILITIES, NON CURRENT										
Interest-Bearing Borrowings, Non-Current	0	0	0	0	0	0	0	0	0	0
Deferred Income, Non-Current	0	0	0	0	0	0	0	0	0	0
Provisions, Non-Current	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)
Trade and Other Payables, Non-Current	0	0	0	0	0	0	0	0	0	0
Finance Leases, Non-current	0	0	0	0	0	0	0	0	0	0
PFI leases, Non-Current	(26,897)	(25,592)	(24,690)	0	(220,801)	(214,408)	(207,474)	(201,034)	(194,848)	(188,378)
Other Liabilities, Non-Current	**(29,883)**	**(28,578)**	**(27,675)**	**(2,986)**	**(223,786)**	**(217,394)**	**(210,460)**	**(204,019)**	**(197,834)**	**(191,364)**
TOTAL ASSETS EMPLOYED	**200,689**	**209,407**	**261,990**	**212,779**	**199,984**	**206,875**	**214,204**	**221,678**	**229,280**	**236,650**
TAXPAYERS' EQUITY										
Public dividend capital	162,210	162,210	206,711	253,270	259,410	259,410	259,410	259,410	259,410	259,410
Retained Earnings (Accumulated Losses)	(15,170)	(10,170)	(5,892)	(83,930)	(105,171)	(100,746)	(96,005)	(91,242)	(86,393)	(81,723)
Charitable Funds	0	0	0	0	0	0	0	0	0	0
Donated asset reserve	0	0	0	0	0	0	0	0	0	0
Revaluation reserve	44,591	48,309	52,113	34,381	36,687	39,153	41,740	44,452	47,204	49,905
Miscellaneous Other Reserves	9,058	9,058	9,058	9,058	9,058	9,058	9,058	9,058	9,058	9,058
TOTAL TAXPAYERS EQUITY	**200,689**	**209,407**	**261,990**	**212,779**	**199,984**	**206,875**	**214,204**	**221,678**	**229,280**	**236,650**

16.10.2 Key features include:

- Liquidity growth over time driven from cash backed surpluses;
- Management of working capital to optimise the Trust's liquidity position
- Land and buildings have been indexed between 1-2% per annum and
- The existing estate fixed assets are impaired as they fall out of use based upon a granular review of the Trust's asset base.

16.10.3 The £97.2m Public Dividend Capital is phased into the position. The annual values are treated as prepayments until the full asset comes on stream in 2018-2019 where the prepayment is then released to offset the capital contribution:

Table 95: Public Dividend Capital

	2016/17 £m	2017/18 £m	2018/19 £m	Total £m
PDC Drawdown	44.5	46.6	6.1	97.2

16.10.4 MMH is estimated to be re-valued on commissioning with a consequent 10% impairment.

16.11 Cost Improvement Savings (CIP) 2014-2015

16.11.1 The Trust has a strong track record of delivering efficiency requirements consistent with planning assumptions. The Trust delivered a CIP of £20.6m in 2014-2015 across a number of transformational themes. The CIP delivered between 2011-2012 and 2014-2015 is shown in the table below:

Table 96: Cost Improvement Programme Savings 2011-2012 to 2014-2015

CIP Delivery 11/12 to 14/15	2011/12 £000's	2012/13 £000's	2013/14 £000's	2014/15 £000's
Care Pathway Redesign	292			
Clinical Adinistration Systems	40			
Coding and Counting	242			
Community Service Efficiency		1,594	1,337	318
Corporate Servces/Facilities				4,855
Cross Organisational IT Solutions	107	18	90	69
Diagnostics		175	48	1,010
Estates	1,501	701	250	
Improving Profitability	911			
Income Generation		2,131		189
Medical Staffing	1,506	1,547	1,236	1,146
Other	9,251	755	2,791	5,404
Outpatient Improvement	163	1,007	565	65
Patient Flow & Bed Utilisation	1,506	3,845	782	983
Procurement	2,458	2,986	3,717	1,516
SLR Improvement			5,334	366
Theatre Improvement	456	1,093	192	76
Urgent Care		413	43	
Use of Non-recurrent Flexibilities				2,787
Workforce Utilisation	3,046	7,816	5,369	1,820
Total	**21,478**	**24,081**	**21,754**	**20,604**

16.11.2 For future years the cost improvements modelled within the trajectory are presented in the table below at subjective cost heading:

Table 97: Cost Improvement Programme by Year and Type

CIP savings by year and type, 2014/15 to 2023/24 Value at 2014/15 prices (£m)	2014/15 (£m)	2015/16 (£m)	2016/17 (£m)	2017/18 (£m)	2018/19 (£m)	2019/20 (£m)	2020/21 (£m)	2021/22 (£m)	2022/23 (£m)	2023/24 (£m)
Pay - Consultants	1.4	0.6	0.6	0.6	0.6	1.0	0.6	0.6	0.6	0.6
Pay - Junior Medical	0.1	1.2	1.0	1.1	1.1	0.9	1.3	1.3	1.3	1.3
Pay - Nursing, Midwifery and Health Visitors	2.2	3.1	2.6	2.9	2.9	2.0	1.8	1.8	1.8	1.8
Pay - Other Clinical	0.0	0.6	0.5	0.6	0.6	0.7	0.3	0.3	0.3	0.3
Pay - Community Nursing, Midwifery and Health Visitors	0.1	1.1	1.0	1.0	1.0	0.9	1.4	1.4	1.4	1.4
Pay - Scientific, Therapeutic and Technical	0.8	2.3	1.9	2.1	2.1	1.8	1.7	1.7	1.7	1.7
Pay - Non Clinical	2.8	4.6	3.8	4.2	4.2	3.9	3.6	3.6	3.6	3.6
Pay - Agency (Consultants)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Junior Medical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Nursing, Midwifery and Health Visitors)	2.0	1.3	1.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Scientific, Therapeutic and Technical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - Agency (Non Clinical)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pay - TOTAL	**9.4**	**14.9**	**13.3**	**15.0**	**12.5**	**11.3**	**10.7**	**10.7**	**10.7**	**10.7**
Non Pay - Drugs	0.2	1.2	1.2	1.0	1.0	0.6	1.0	1.0	1.0	1.0
Non Pay - Clinical Supplies and Services	2.3	1.8	2.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0
Non Pay - General Supplies and Services	0.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Non Pay - Establishment Expenditure	0.6	0.5	0.3	0.5	0.3	0.1	0.1	0.1	0.1	0.1
Non Pay - Premises and Fixed Plant	1.3	1.0	0.5	1.0	0.2	0.1	0.1	0.1	0.1	0.1
Non Pay - CNST	0.7	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Non Pay - Other	2.1	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Non Pay - TOTAL	**7.9**	**4.9**	**4.2**	**3.7**	**2.6**	**1.6**	**2.2**	**2.2**	**2.2**	**2.2**
Income improvements contributing to TSP target	**3.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TOTAL TSP savings at 2014/15 prices (£m)	**20.6**	**19.8**	**17.5**	**18.7**	**15.2**	**12.9**	**13.0**	**13.0**	**12.9**	**12.9**

16.11.3 The Trust has developed detailed plans for 2015-2016 and outline themes for future years under the umbrella transformational schemes approach. This recognises that there are a number of elements which make up the gross savings requirements for the Trust which are:

- Meeting the nationally driven CIP objectives laid down by DH/Monitor for any given period. Presently this is largely driven by the impact of tariff deflation and meeting cost inflation.
- Clinical Transformation which defines the impact of RCRH change on capacity and infrastructure, e.g. fewer beds, fewer outpatient clinics and improved theatre utilisation.
- The impact of site reconfiguration which affects Hard and Soft FM environments but also bringing together clinical models on to one acute site provides the opportunity for savings in on-call, medical rota management and intensity banding payments.

16.11.4 These elements represent savings targets as outlined in the table below:

Table 98 Transitional RCRH Changes and National CIP Expectations

Transitional RCRH Change & National CIP Expectations	Outturn 2014/15 £m	Forecast 2015/16 £m	Forecast 2016/17 £m	Forecast 2017/18 £m	Forecast 2018/19 £m	Forecast 2019/20 £m	Forecast 2020/21 £m	Forecast 2021/22 £m	Forecast 2022/23 £m	Forecast 2023/24 £m	Across Period 19/20 to 14/15 £m	Across Period 19/20 to 15/16 £m
Efficiency Driven Expectations (CIP)												
Income	3.3	-	-	-	-	-	-	-	-	-	3.3	-
Pay	9.4	14.9	13.3	15.0	12.5	11.3	10.7	10.7	10.7	10.7	76.4	67.0
Non Pay	5.9	4.9	4.2	3.7	2.6	1.7	2.2	2.2	2.2	2.2	23.0	17.1
Non Recurring	2.0	-	-	-	-	-	-	-	-	-	2.0	-
Sub Total	**20.6**	**19.8**	**17.5**	**18.7**	**15.2**	**12.9**	**13.0**	**13.0**	**12.9**	**12.9**	**104.7**	**84.1**
Transformational Change Driven by RCRH & Site												
Medical & Surgical Bed Reductions	-	1.2	1.8	2.2	1.6	-	-	-	-	-	6.9	6.9
Theatre Utilisation	-	-	0.4	0.2	0.3	-	-	-	-	-	0.9	0.9
A&E Removal of 13/14 Stepped Investment	-	-	-	-	0.4	1.2	-	-	-	-	1.7	1.7
Review of On Call	-	-	-	-	-	0.3	-	-	-	-	0.3	0.3
Review of Junior Medical Bandings	-	-	-	-	-	1.9	-	-	-	-	1.9	1.9
Outpatient Environments	-	-	0.6	0.6	0.8	0.7	-	-	-	-	2.7	2.7
Reduce Premium Rate Working	-	-	0.1	0.1	0.2	0.2	0.2	-	-	-	0.6	0.6
Sub Total	**-**	**1.2**	**3.0**	**3.1**	**3.3**	**4.3**	**0.2**	**-**	**-**	**-**	**14.9**	**14.9**
Hard and Soft FM	-	-	-	-	-	-	-	-	-	-	-	-
Estates Pay Transfer to PF2 Provider (TUPE)	-	-	-	-	0.5	0.5	-	-	-	-	1.0	1.0
Utilities Avoided	-	-	-	-	2.5	1.5	-	-	-	-	4.0	4.0
Estate Hard FM Avoided - Non Pay	-	-	-	-	0.6	0.5	-	-	-	-	1.0	1.0
Estate Soft FM Reductions - Pay	-	-	-	-	0.8	0.7	-	-	-	-	1.5	1.5
Estate Soft FM Avoided - Non Pay	-	-	-	-	0.8	0.4	-	-	-	-	1.2	1.2
Sub Total	**-**	**-**	**-**	**-**	**5.2**	**3.6**	**-**	**-**	**-**	**-**	**8.8**	**8.8**
Total Transformational Changes Modelled	**20.6**	**21.0**	**20.5**	**21.9**	**23.6**	**20.8**	**13.2**	**13.0**	**12.9**	**12.9**	**128.4**	**107.8**

16.11.5 ***Appendix 6a*** provides further details of savings plans for 2015-2016, together with the outline opportunities for 2016-2017 to 2019-2020. This demonstrates a scale of opportunity and approach to delivery consistent with credible cost reduction.

16.12 Affordability – Transformational Journey

16.12.1 The table below presents a summarised source and applications view of the LTFM journey necessary to, and consistent with, the achievement of a sustainable CoSRR Level 3 rating.

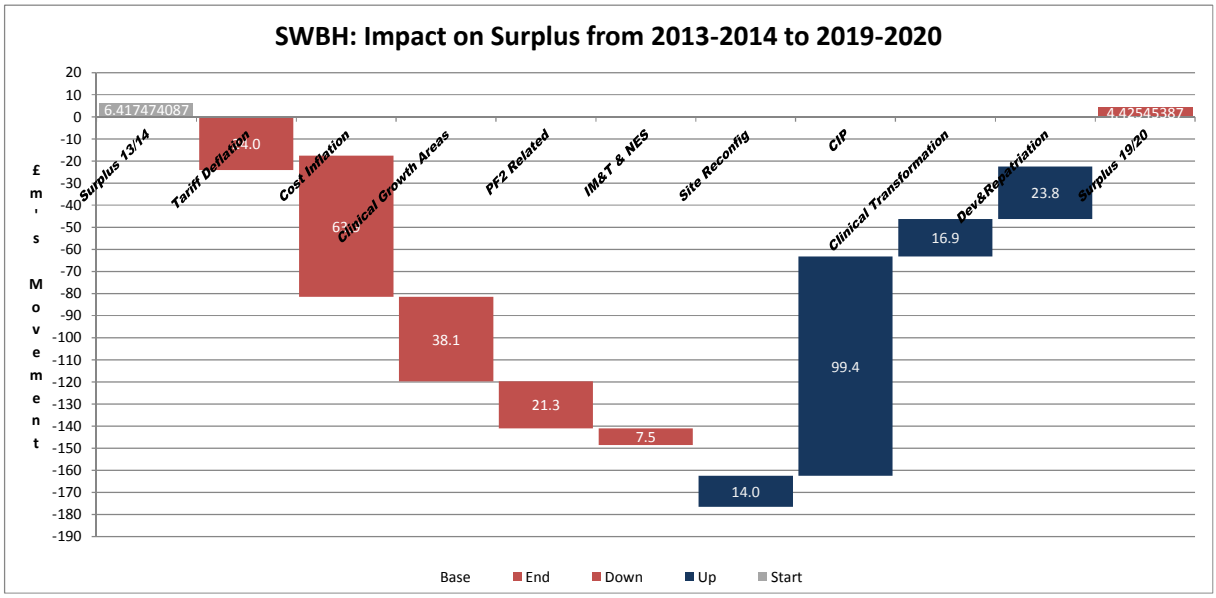
16.12.2 The table shows annual change across many themes, transformation, efficiency savings, inflation issues, development changes and the implications of site change. It represents an affordability "roadmap" which presents a route across the years as change is delivered:

Table 99: Affordability and Transformation

		PERIOD MOVEMENT				ANNUAL MOVEMENTS					PERIOD
		2013/14	2019/20	Movem't	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Movem't
		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Modelled Surplus Movement		**6.4**	**4.4**	**(2.0)**	**4.6**	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**(2.0)**
Total Income		**438**	**454**	**16**	**441**	**437**	**438**	**442**	**447**	**454**	**16**
Explained By:											
Net RCRH Themes / Activity Movements				10	12	(7)	(0)	1	0	4	10
Future Service Developments				26	0	3	5	6	6	6	26
Tariff Impact				(24)	(9)	0	(6)	(7)	(3)	1	(24)
PFI Taper Relief				4	0	0	3	4	1	(4)	4
Income Movement Over Period				**16**	**3**	**(4)**	**2**	**4**	**5**	**7**	**16**
Total Operating Expenditure :	Pay	**(292)**	**(259)**	**32**	**(285)**	**(283)**	**(276)**	**(267)**	**(262)**	**(259)**	**32**
	Annual Variance				7	2	7	9	5	2	32
Explained By:											
Pay											
Net RCRH Themes / Activity Movements				3	1	(3)	(0)	1	0	5	3
AfC Inc Drift & ConCon & Merit Awards				(19)	(3)	(3)	(3)	(3)	(3)	(3)	(19)
Medical & Surgical Bed Reductions inc Agency				9	2	1	2	2	2	(1)	9
IM&T Development				(0)	0	(0)	0	(0)	0	(0)	(0)
Theatres Transformaion				1	0	0	0	0	0	0	1
Future Service Developments				(15)	0	(3)	(3)	(3)	(2)	(4)	(15)
Investment Advisory Panel				(2)		(1)				(1)	(2)
Outpatient Transformation				3	0	0	1	1	1	1	3
A&E Transformation				2	0	0	0	0	0	1	2
Medical Staffing Rotas				2	0	0	0	0	0	2	2
Premium Rate Working				1	0	0	0	0	0	0	1
Hard & Soft FM				3	0	0	0	0	1	1	3
Inflation				(20)	(3)	(5)	(1)	(2)	(5)	(5)	(20)
CIP				76	9	15	13	15	13	11	76
Icare Growth				(8)	0	0	(2)	(1)	(1)	(5)	(8)
Community Growth				(2)			(0)	(0)	(1)	(0)	(2)
Diagnostics Growth				(1)			(0)	0	(0)	(0)	(1)
Pay Movement Over Period Sub Total				**32**	**7**	**2**	**7**	**9**	**5**	**2**	**32**
Non Pay		**(119)**	**(156)**	**(37)**	**(130)**	**(126)**	**(134)**	**(145)**	**(147)**	**(156)**	(37)
	Annual Variance				**(11)**	**4**	**(8)**	**(11)**	**(2)**	**(9)**	(37)
Non Pay Inflation				(25)	(6)	(1)	(4)	(4)	(4)	(5)	(25)
CIP & Transformation Agenda				23	6	5	4	4	3	2	23
Repatriation				(1)	(0)	(0)	(0)	(0)	(0)	(0)	(1)
Future Community Developments				(2)	0	0	0	(1)	(1)	0	(2)
Other Non Pay Net Movements				2	0		1	0		(0)	2
Dual Running Contingency				(4)		0	(3)	(4)	(1)	4	(4)
PFI Operating Charge				(10)	(0)	(0)	(3)	(5)	(5)	2	(10)
Imaging MES				(4)			(1)	(0)	(2)	(0)	(4)
IM&T Strategy				(3)	0	(1)	(1)	(2)	(0)	0	(3)
Net RCRH Themes / Activity Movements	Drugs			(5)	(2)	1	(1)	(1)	(1)	(1)	(5)
	Clinical Supplies			(4)	(2)	(2)	1	(0)	0	(0)	(4)
Site Changes	Other Expenses			9	(2)	2	(0)	0	7	2	9
Non Recurring Assigned				(7)	(4)	2	(1)	1	4	(9)	(7)
Investment Advisory Panel				(3)	0	(1)	0	0	(1)	(2)	(3)
Non Pay Movement Over Period Sub Total				**(37)**	**(11)**	**4**	**(8)**	**(11)**	**(2)**	**(9)**	**(37)**
Non Operational Costs		**(21)**	**(34)**	**(13)**	**(21)**	**(22)**	**(24)**	**(23)**	**(29)**	**(34)**	**(13)**
	Annual Variance				**(0)**	**(2)**	**(2)**	**1**	**(5)**	**(5)**	
Depreciation: New MMH				(6)					(4)	(1)	(6)
Depreciation: Other Movements				4	0	(1)	(0)	0	6	(1)	4
PDC Dividend : £100m				(4)			(1)	(2)	(1)		(4)
PDC Dividend : Other Movements				3	(1)	(1)	(0)	2	2	0	3
Loss on Disposal				0	0						0
PFI Interest MMH & BTC				(11)	(0)	0	(0)	1	(9)	(3)	(11)
Non Operating Costs Movement Over Period Sub Total				**(13)**	**(0)**	**(2)**	**(2)**	**1**	**(5)**	**(5)**	**(13)**
Summary											
Income		438	454	16	441	437	438	442	447	454	16
Operating Expenditure		(411)	(415)	(5)	(415)	(409)	(410)	(412)	(409)	(415)	(5)
Non Operating Expenditure		(21)	(34)	(13)	(21)	(22)	(24)	(23)	(29)	(34)	(13)
Net Position		**6.4**	**4.4**	**(2.0)**	**4.6**	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**(2.0)**

16.19.1 This is represented graphically below:

Figure 31: Impact on Surplus



16.20 Affordability and Sustainability

Inflation Assumptions

16.20.1 Tariff assumptions within the LTFM suggest a period of deflation will continue until 2019-2020 as part of the delivery of annual efficiency. Thereafter, tariff will stabilise and start to increase towards the end of the trajectory.

16.20.2 Pay-related inflation is modelled at relatively low levels, reflecting current trends. The Trust assumes the national pay award will grow but remain below the underlying rate of RPI until 2019-2020. Thereafter pay awards may increase more in line with a circa 2.5% RPI expectation. Other pay increases associated with incremental uplift and consultant discretionary awards are modelled as cost pressure adjustments and therefore do not feature in the inflationary calculations, but do feature in consideration of the implied efficiency. This typically adds circa 1% per annum to the annual pay bill.

16.20.3 Although the Health Service Cost Index (HSCI), suggests minimal inflationary pressure on drugs (September 2013 compared with September 2012) the Trust has modelled a growth of 4.55% per annum. This is additional to a volume growth of 2%-3% built into baseline income forecasts. Taken together, this represents a material annual increase in income and cost to cover inflation, volume and latest NICE prescribing guidance.

16.20.4 Other areas of non-pay cover a broad spectrum of non-pay costs with differing component judgments of cost inflation. For example:

- Medical and surgical purchases are running at an annual rate of circa 4% growth; and
- Utilities - a growth of circa 5%.

16.20.5 The Trust has modelled a blended position which takes these elements into account. Future years assumptions predict reductions in non-pay cost inflation, although, levels remain relatively high.

16.20.6 PFI estimated inflation has been applied to the unitary charge for expenditure in respect of the BTC, as contractually the Trust is obliged to pay RPI indexation each year. Future RPI levels of 2.5% have been modelled for the Unitary Payment (UP).

16.20.7 The actual Inflation indices used in developing the base case of the Trust's LTFM are presented in the table below:

Table 100: Inflation Indices used for the LTFM Base Case

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	Income									
Elective	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Non Elective	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Outpatients	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
A&E	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Other Clinical Tariff	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Other Clinical Non Tariff	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Other Block Cost & Volume (Community	-1.3%	0.0%	-2.3%	-2.1%	-1.0%	0.0%	0.2%	0.5%	0.5%	0.6%
Other Income - Private Patients	-1.3%	0.0%	-0.9%	-2.1%	-1.8%	0.3%	0.3%	0.3%	0.8%	0.8%
Other Income - Education & Training	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Income - Research & Development	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Income - Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Expenditure									
Pay	0.4%	1.7%	0.5%	0.7%	2.0%	2.1%	2.2%	2.2%	2.2%	2.5%
Drugs	5.0%	1.9%	4.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Clinical Supplies & Services	2.8%	1.0%	3.0%	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%
CNST Premium	2.8%	1.0%	3.0%	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Other Costs	2.8%	1.0%	3.0%	3.0%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%
PFI Indexation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Capex Inflation	2.0%	1.0%	1.5%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Implied Efficiency

16.20.8 The Trust is required to form its own view of future inflation trends/indices. Guidance is typically issued at the end of quarter 3 each year indicating expectations for the forthcoming year. The inflation/deflation assessments must deliver an overall implied efficiency rate consistent with national expectations. The Trust is working to long range implied efficiency levels as directed by Monitor in 2014 for the period to 2017-2018 of circa 4% per annum base case. Thereafter expectations are reflected between 3.5%-3.0% annually.

16.20.9 The case has been built upon assumptions generated ahead of the latest guidance for 2014-2015 which reduced efficiency assumptions for 2014-2015 to a net 4%. The inflation assumptions outlined above, plus cost pressures including PF2 elements, creates an implied efficiency trajectory as outlined in the table below:

Table 101: LTFM Implied Annual Efficiency Assessment (Base Case)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2021/22	2022/23	2023/24
LTFM Implied Efficiency Assessment	3.2%	3.0%	4.0%	4.0%	4.0%	3.5%	3.4%	3.2%	3.2%

The 12.5% Test

16.20.10 The test seeks to confirm that estates costs do not exceed 12.5% of the Trust's annual normalised income. The precise definition of costs to be included in this metric has not been independently stated; therefore, two measures have been developed in consideration of the test.

16.20.11 Firstly, to assess the proportion of the full unitary charge compared to normalised turnover, and secondly, to include the unitary charge, non-MMH depreciation, PDC dividend and estates Hard FM costs in comparison to normalised turnover. In both instances the Trust is able to meet the test successfully. The table below demonstrates the components of the test and the result of the two approaches:

Table 102: 12.5% Test

Calculation of 12.5%	18/19 £000's	19/20 £000's	20/21 £000's	21/22 £000's	22/23 £000's	23/24 £000's
Turnover:						
Recurrent	438,637	449,198	462,055	475,541	486,936	500,854
Non Recurrent	7,900	4,400	-	-	-	-
Total	**446,537**	**453,598**	**462,055**	**475,541**	**486,936**	**500,854**
Maximum value of estates costs (12.5% of Total	*55,817*	*56,700*	*57,757*	*59,443*	*60,867*	*62,607*
Maximum value of estates costs (12.5% of	*54,830*	*56,150*	*57,757*	*59,443*	*60,867*	*62,607*
Total Estates Costs						
Facilities Management (Operating Charge)						
PFI Interest	10,796	13,548	13,247	13,264	12,925	12,656
Capital Repayment	2,462	6,494	6,392	6,934	6,441	6,185
Facilities Management (Operating Charge)	4,031	5,453	6,187	5,969	7,150	8,032
Total PFI Charges	**17,289**	**25,494**	**25,826**	**26,167**	**26,516**	**26,873**
Expressed as a % of turnover	***3.87%***	***5.62%***	***5.59%***	***5.50%***	***5.45%***	***5.37%***
In Excess of recommended 12.5%	-	-	-	-	-	-
Group 2 : Estates Costs Excl Soft FM						
PFI Interest	10,796	13,548	13,247	13,264	12,925	12,656
Capital Repayment	2,462	6,494	6,392	6,934	6,441	6,185
Facilities Management (Operating Charge)	4,031	5,453	6,187	5,969	7,150	8,032
Depreciation Excluding MMH Build	3,714	4,137	4,413	4,737	4,982	5,127
PDC Dividend	5,718	5,669	5,927	6,168	6,441	6,694
Estates Building Related	530	335	335	335	335	335
Estates Engineering Related	1,694	1,145	1,145	1,145	1,145	1,145
Estates General Related	401	209	209	209	209	209
Estates Grounds Related	194	85	85	85	85	85
Total Group 2 : Estates Costs Excl Soft FM	**29,540**	**37,075**	**37,941**	**38,846**	**39,713**	**40,468**
Expressed as a % of turnover	***6.62%***	***8.17%***	***8.21%***	***8.17%***	***8.16%***	***8.08%***
In Excess of recommended 12.5%	-	-	-	-	-	-

Continuity of Service Risk Rating (CsRR)

16.20.12 The Trust is able to secure a minimum Risk Rating of at least Level 3 in its base case affordability position. This is achieved in the early trajectory years by strong performance against the Capital Service Capacity component of the test. As the MMH PF2 scheme is introduced performance against this component deteriorates placing a greater emphasis on the liquidity position.

16.20.13 The liquidity position improves across the timeline to strengthen the underlying rating. This is generated by annual cash backed surpluses across each year of the trajectory. The position does not rely upon a working capital facility under FT conditions. The Trust estimates a working capital facility of circa £30m. If this were to be included into the metric the liquidity position would be greatly strengthened as would the overall rating position. The Trust is not relying on this facility to meet the rating assessment. The continuity of service risk rating is presented in the table below:

Table 103: Continuity of Service Risk Rating in the Base Case LTFM

CSRR in the base case PF2 LTFM	Forecast 2014/15	Forecast 2015/16	Forecast 2016/17	Forecast 2017/18	Forecast 2018/19	Forecast 2019/20	Forecast 2020/21	Forecast 2021/22	Forecast 2022/23	Forecast 2023/24
Liquidity ratio (days)										
Current assets	62.5	48.2	47.0	90.7	131.2	48.9	46.8	46.5	51.3	57.9
Inventories	3.3	3.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
PFI prepayments and assets held for sale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current liabilities	-66.2	-52.5	-53.3	-50.6	-68.5	-52.4	-51.1	-50.9	-51.3	-51.7
Days	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0
Operating expenses	-415.5	-409.3	-409.9	-412.0	-408.6	-415.3	-422.4	-435.0	-446.1	-459.6
Fully committed Working Capital Facility	-	-	-	-	-	-	-	-	-	-
Derivatives and embedded financial assets	-	-	-	-	-	-	-	-	-	-
Liquidity ratio (days) - opening liquidity	**-6.0**	**-6.8**	**-8.4**	**32.3**	**52.4**	**-5.8**	**-6.4**	**-6.3**	**-2.6**	**2.3**
Capital servicing capacity (times)										
Interest payable (-ve)	-2.1	-2.1	-2.5	-2.0	-10.6	-13.3	-13.0	-13.1	-12.7	-12.3
Debt repayment (-ve)	-3.0	-2.0	-1.3	-0.9	-102.5	-6.5	-6.4	-6.9	-6.4	-6.2
PDC dividend (-ve)	-5.2	-5.7	-6.8	-6.8	-5.7	-5.7	-5.9	-6.2	-6.4	-6.7
PDC repayment (-ve)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	25.2	27.3	28.2	29.8	37.8	38.3	39.6	40.4	40.8	41.2
Interest receivable (+ve)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surplus available	25.2	27.3	28.2	29.8	37.8	38.3	39.6	40.4	40.8	41.2
Capital servicing capacity (times)	**2.4**	**2.8**	**2.7**	**3.1**	**0.3**	**1.5**	**1.6**	**1.5**	**1.6**	**1.6**
Scoring (uses opening liquidity)										
Liquidity ratio score	3	3	2	4	4	3	3	3	3	4
Capital servicing capacity score	3	4	4	4	1	2	2	2	2	2
Overall Continuity of Service Risk Rating (CSRR)	**3**	**4**	**3**	**4**	**3**	**3**	**3**	**3**	**3**	**3**

Downside and Sensitivity

16.20.14 The Trust has developed a downside case and then a sensitivity to that case which stretches the scale and accelerates the timing of risk. Mitigations have then been identified which are over and above those cost and productivity improvements represented in the base case.

- The downside case from OBC has been subject to significant review and hardened in presentation of this ABC. The base case now shows risks to £41m by Year 9 being some 6% higher than at OBC. This ABC now also includes a stress test sensitivity with risks to £62m and with an accelerated impact in the early years.
- The Trust contends that it can reasonably mitigate against the base downside fully through a range of credible yet challenging actions and which provide for a minimum CoSRR Level 2. In the downside base case this recovers to a Level 3 by 2021-2022 but remains at Level 2 in the stress test sensitivity.
- The downside case tackles risk through cost reduction with minimal reliance on additional income expectations. That cost reduction specifically includes a review of workforce terms and conditions and is necessarily aggressive in the stress test sensitivity.
- The Trust has been explicit with commissioners that its final stage mitigation would see site retrenchment. It is recognised that any such plan would require consultation and robust quality and equality impact assessment.

16.20.15 ***Appendix 16b*** explains further the approach to downside modelling and considers in more depth the risks generated from the Trust's Risk Register and mitigation available to the Trust under these circumstances.

16.20.16 The tables below summarises the downside and sensitivity results:

Table 104: Downside Case

	ABC Downside: I&E Position								
	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case (Surpluses excluding Impairment)	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**4.7**	**4.8**	**4.8**	**4.7**
Downside Case	(7.7)	(12.4)	(16.7)	(21.1)	(25.5)	(29.9)	(33.9)	(37.3)	(41.3)
Revised Downside I&E Position	**(2.7)**	**(8.1)**	**(10.1)**	**(11.8)**	**(21.0)**	**(25.2)**	**(29.2)**	**(32.4)**	**(36.6)**
Mitigation Case	7.2	10.7	18.3	15.2	25.7	29.8	32.7	36.7	40.0
Net Impact of Interest and Inflation	0.0	0.1	0.1	(0.2)	(0.1)	0.1	0.1	(0.3)	(0.6)
Revised Mitigated I&E Position	**4.6**	**2.6**	**8.3**	**3.2**	**4.6**	**4.7**	**3.6**	**3.9**	**2.7**

	ABC Downside: Cash Position								
	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case (Surpluses excluding Impairment)	**29.9**	**29.0**	**30.7**	**39.3**	**37.0**	**36.7**	**41.4**	**47.9**	**55.2**
Downside Case	(7.7)	(20.1)	(36.9)	(58.0)	(83.4)	(113.3)	(147.2)	(184.5)	(225.8)
Revised Downside Cash Position	**22.2**	**8.9**	**(6.2)**	**(18.6)**	**(46.4)**	**(76.6)**	**(105.8)**	**(136.6)**	**(170.6)**
Mitigation Case	7.9	18.6	37.1	52.5	78.6	108.5	141.2	177.9	217.7
Net Impact of Interest and Inflation	0.1	0.5	1.0	0.9	0.9	0.8	0.9	0.8	0.2
Revised Mitigated I&E Position	**30.1**	**27.9**	**31.9**	**34.8**	**33.0**	**32.7**	**36.3**	**42.0**	**47.4**

	ABC Downside: Continuity of Service Risk Rating								
	2015/16 Year 1	2016/17 Year 2	2017/18 Year 3	2018/19 Year 4	2019/20 Year 5	2020/21 Year 6	2021/22 Year 7	2022/23 Year 8	2023/24 Year 9
Base Case - CBC	4	3	4	3	3	3	3	3	3
Downside Case - CBC	3	2	3	3	1	1	1	1	1
Mitigation Case - CBC	4	3	4	3	2	2	2	3	3

Table 105: Downside Sensitivity

	CBC 10% Downside Sensitivity: I&E Position								
	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case	**5.0**	**4.3**	**6.6**	**9.3**	**4.4**	**4.7**	**4.8**	**4.9**	**4.7**
Downside Case	(8.7)	(17.4)	(26.1)	(35.7)	(45.5)	(49.9)	(54.0)	(58.0)	(62.0)
Revised Downside I&E Position	**(3.7)**	**(13.1)**	**(19.5)**	**(26.4)**	**(41.1)**	**(45.2)**	**(49.2)**	**(53.1)**	**(57.3)**
Mitigation Case	7.2	11.0	19.1	16.6	42.0	49.8	54.8	60.7	66.0
Net Impact of Interest and Inflation	0.0	(0.1)	(0.3)	(1.2)	(0.8)	(0.3)	(0.1)	(0.3)	(0.3)
Revised Mitigated I&E Position	**3.5**	**(2.2)**	**(0.7)**	**(11.0)**	**0.1**	**4.3**	**5.5**	**7.3**	**8.4**

	CBC 10% Downside Sensitivity : Cash Position								
	2015/16 Year 1 £m	2016/17 Year 2 £m	2017/18 Year 3 £m	2018/19 Year 4 £m	2019/20 Year 5 £m	2020/21 Year 6 £m	2021/22 Year 7 £m	2022/23 Year 8 £m	2023/24 Year 9 £m
Base Case	**29.9**	**29.0**	**30.7**	**39.3**	**37.0**	**36.7**	**41.4**	**47.9**	**55.2**
Downside Case	(8.7)	(26.1)	(52.2)	(87.9)	(133.4)	(183.3)	(237.3)	(295.2)	(357.2)
Revised Downside Cash Position	**21.2**	**2.9**	**(21.5)**	**(48.5)**	**(96.4)**	**(146.6)**	**(195.9)**	**(247.3)**	**(302.0)**
Mitigation Case	7.9	18.9	38.3	54.8	97.0	145.9	199.7	259.3	324.2
Net Impact of Interest and Inflation	0.1	0.3	0.6	(0.1)	(0.7)	(0.3)	0.7	1.5	2.4
Revised Mitigated I&E Position	**29.1**	**22.1**	**17.4**	**6.1**	**(0.1)**	**(1.0)**	**4.5**	**13.5**	**24.6**

	CBC 10% Downside Sensitivity: Continuity of Service Risk Rating								
	2015/16 Year 1	2016/17 Year 2	2017/18 Year 3	2018/19 Year 4	2019/20 Year 5	2020/21 Year 6	2021/22 Year 7	2022/23 Year 8	2023/24 Year 9
Base Case	4	3	4	3	3	3	3	3	3
Downside Case	3	1	3	3	1	1	1	1	1
Mitigation Case	4	3	4	3	2	2	2	2	2

16.21 Approval Conditions Compliance

Evidence for Marginal Cost Assessment of Repatriation

16.21.1 SLR analysis supports the assessment of low marginal cost to underpin repatriation activities. Once income and costs are nominalised the actual marginal gain is reduced. SLR analysis shows approximately 13% of activities income covers variable costs across points of delivery. Forecast costs accommodate this and allow for growth in semi-fixed costs. Over time marginal costs in the 40-50% range are provided for which will adequately cover the incremental change in capacity. This matter has been addressed in the NTDA deep dive review, 30 September 2015.

The use of SLM within the Trust

16.21.2 The Trust has established arrangements for the production of reference cost and SLR based information. This is recognised as a base for further development to enable improved business decision support. The Trust has invested in relevant costing systems and strengthened the capacity and capability of the relevant finance team. The development of a fit for purpose Business Intelligence Function is in progress. The Trust is also developing its internal trading and EPR systems consistent with enhanced PLICs capability going forwards. This matter has been addressed in the NTDA deep dive review, 30 September 2015.

Impairment of the MMH Fixed Asset

16.21.3 The Trust has maintained an assessment of a 10% economic impairment on the introduction of the MMH fixed asset into its accounts in 2018/2019. The Trust has recently worked with the District Valuer to review and validate this assessment.

16.21.4 The District Valuer has concluded that the impairment percentage may actually be slightly greater (c12%) of the asset value. Therefore, the Trust has not amended its accounting treatment, judging 10% to be a prudent position. The summary conclusions from the DV are included at ***Appendix 16c***.

Continuity of Service Risk Rating (CSRR)

16.21.5 The Trust continues to forecast a CSRR of 3 for 2015/16 as planned.

Review of the PF2 Accounting Treatment

16.21.6 The Trust has engaged KPMG to review the accounting treatment adopted for the introduction of MMH Unitary Payment under PF2 conditions. The KPMG report is presented at ***Appendix 16d***. The report provides appropriate assurances recognising the matters of judgment appropriate under IFRS and makes relevant recommendation in respect of re-considering those judgments in 2018 when the scheme is brought onto the trust's SOFP.

16.22 Conclusion

16.22.1 The Trust retains the affordability ceiling of £27m as per the Outline Business Case (OBC) and remains affordable as demonstrated by the consistent achievement of Continuity of Service Risk Rating (CoSRR) Level 3 ratings across the period of the LTFM. Estates costs are also consistently within the 12.5% test limit.

16.22.2 The first full year unitary payment (2019/20) is now at £20.501m in nominal terms. This reflects updated funding terms and represents a significant improvement on the unitary payment at OBC of £27m.

16.22.3 The beneficial headroom created between the affordability ceiling and expected unitary payment since OBC is held as contingency.

16.22.4 The Trust delivered a 2014-2015 surplus, ahead of plan.

16.22.5 The downside case stress tests the plan including early years' impact bias. Mitigation identified demonstrates that affordability withstands the stress test with impact of a reduction to CoSRR Level 2 in the first two years of operation.

16.22.6 The scheme is aligned with commissioner plans including Better Care Fund aspirations and remains consistent with RCRH strategies.

16.22.7 The CIP is consistent with national efficiency requirements reflecting assumptions of cost inflation and price deflation. The additional net investment in the scheme is the equivalent of circa one additional year of that efficiency and is specifically enabled by delivery of the RCRH service changes. The scale of opportunity for operational productivity and service transformation driven cost change is consistent with that required to underpin scheme affordability.

16.22.8 The case includes necessary and sufficient investment in key enabling and supporting infrastructure and specifically informatics including EPR, retained estate and medical equipment. Fixed imaging equipment investment is assumed to be delivered through a Managed Equipment Service Contract. The revenue costs are reflected in full in the LTFM supporting the case.

16.22.9 The anticipated unitary payment reflects updated terms and represents a significant improvement on those at OBC and ABC. This case retains that improvement as affordability headroom.

16.22.10 The base case assumes £97.2m of Public Dividend Capital investment.

16.22.11 A revised phasing of land disposals that were previously planned for after 2024 are now scheduled to be made in phases, commencing in 2018/2019 and releasing a contribution of £6m. Approval bodies have agreed that land receipts up to £16m will go to the Trust to fund the above investment.

17 Workforce

17.1 Introduction

17.1.1 This Chapter builds on work undertaken for the OBC as part of an on-going process of robust planning and delivery of the workforce changes required for service reconfiguration in readiness for the opening of the MMH. It presents the current workforce profile and outlines the Trust's successful track record for delivery of workforce change.

17.1.2 The Long Term Workforce Model (LTWM) embeds the rigor of top down modelling through integration with the Long Term Financial Model (LTFM) as well as addressing bottom-up design of the future workforce in line with activity trajectories, productivity improvements and safe staffing standards.

17.1.3 The Trust has already successfully delivered the 'Safe and Sound Phase 1' – the first stage of the Trust's workforce change plan. This has resulted in the reduction of 260 Whole Time Equivalents (WTEs).

17.1.4 The Trust has a clear plan to deliver the remainder of the Workforce Change Plan by March 2020 which will be a combination of a further reduction of 1,087 WTEs and a reduction in the cost per WTE in the future establishment.

17.1.5 It should be noted that the reduction in pay bill required is principally driven by the need to meet the national efficiency requirement, not the additional costs of MMH. There will be no revenue costs associated with MMH until 2018 and thus no pay bill reductions are due to MMH. Beyond 2018, many of the pay bill savings will be possible as a result of the planned reconfiguration of services.

17.1.6 The Trust has made the necessary changes and investments in safe staffing and now meets all of the standards agreed by the Trust Board. A robust approach is in place to ensure that these standards are maintained.

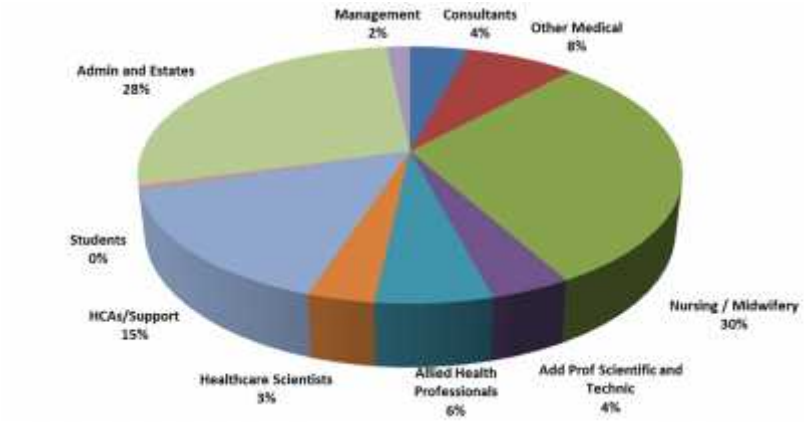
17.1.7 The Workforce Change Plan has clear governance and the Trust has recently appointed an experienced Director of Workforce and Organisational Development to the Trust Board to lead its implementation.

17.2 Current Workforce Profile

17.2.1 The Trust is one of the largest teaching Trusts in the country employing circa 7,000 staff for the delivery of acute and community services.

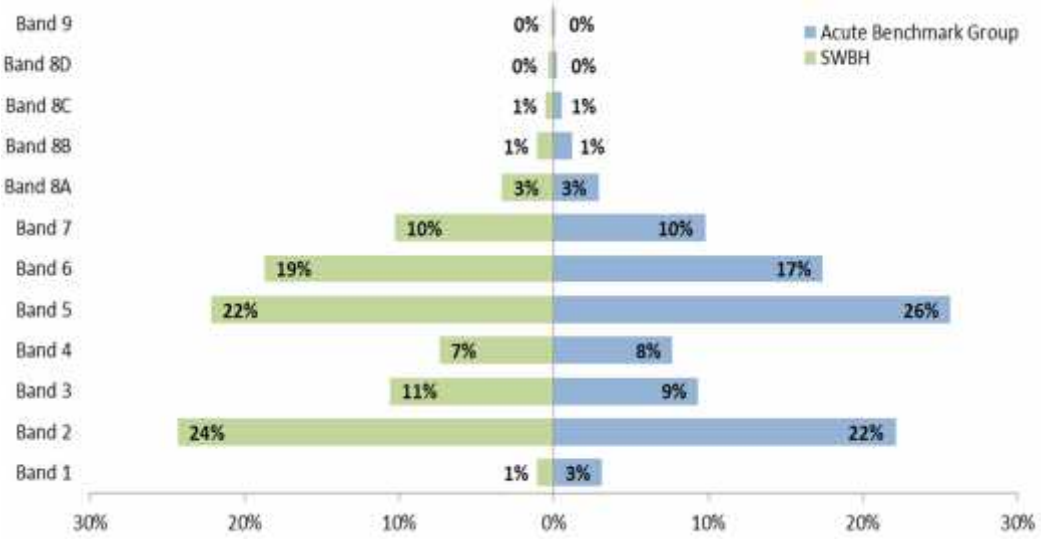
17.2.2 Approximately 70% of the workforce has a clinical role. The current workforce as at February 2015 is represented in the pie chart below:

Figure 32: Current Workforce by Job Role



17.2.3 88% of the current workforce is employed on Agenda for Change (AfC) terms and conditions with the remainder being Trust directors and medical staff. The majority of the workforce (83%) is paid on AfC Band 7 or below. When compared with the regional acute benchmark group the Trust's AfC banding profile has slightly more Band 1 to 4 and slightly fewer Band 5 posts (as at February 2015) as reflected in the figure below. This is reflective of the Trust's plans to continue to alter the skill mix in line with new working practices.

Figure 33: Current Workforce: AfC Band Against Benchmark Group



17.2.4 The gender of the workforce is fairly typical of most NHS provider organisations with females making up 78% of the workforce.

17.2.5 Analysis shows a typical spread of staff in each age bracket with an average age of 42 years. The average age of consultant and middle grade medical staff is 48. The Trust actively maps retirement forecast patterns across professions to inform succession plans and create opportunities to profile the workforce in line with the LTWM.

17.2.6 The workforce profile as at February 2015 is set out in the table below:

Table 106: Workforce Profile - Snapshot in February 2015

ABC Workforce Profile								
Staff Category	HC	WTE	Full Time %	Part Time %	Male %	Female %	Average Age	Sickness %
Registered Nursing, Midwifery and Health visiting staff	**2083**	**1,896.36**	**68.55**	**31.45**	**6.72**	**93.28**	**41**	**5.44**
Qualified Scientific, Therapeutic and Technical Staff	**921**	**819.93**	**66.99**	**33.01**	**28.66**	**71.34**	**39**	**3.29**
Allied Health Professionals	437	375.74	60.18	39.82	20.37	79.63	38	2.95
Other Scientific, Therapeutic and Technical Staff	213	191.12	66.67	33.33	34.74	65.26	42	4.19
Healthcare Scientists	271	253.08	78.23	21.77	37.27	62.73	40	3.11
Qualified Ambulance Staff	**1**	**0.92**	**0.00**	**100.00**	**100.00**	**0.00**	**25**	**0.00**
Other Qualified Ambulance Staff	1	0.92	0.00	100.00	100.00	0.00	25	0.00
Support to clinical staff	**1970**	**1,696.10**	**57.11**	**42.84**	**13.40**	**86.60**	**43**	**6.35**
Support to nursing	860	752.49	59.19	40.81	11.86	88.14	43	7.63
NHS Infrastructure Support	**1353**	**1,100.51**	**50.33**	**49.67**	**32.52**	**67.48**	**46**	**4.29**
Managers & senior managers	110	104.69	84.55	15.45	39.09	60.91	46	1.46
Admin and Estates staff	501	456.20	72.46	27.54	35.73	64.27	44	3.46
Other Infrastructure & Support Staff	742	539.62	30.32	69.68	29.38	70.62	48	5.56
Medical Staff Group	**788**	**755.50**	**88.71**	**11.29**	**58.63**	**41.37**	**38**	**0.80**
Career/Staff Grades	84	74.00	75.76	24.24	66.67	33.33	46	1.63
Trainee Grades	425	417.60	95.19	4.81	49.52	50.48	30	0.59
Consultant	279	263.90	83.52	16.48	69.60	30.40	49	0.88
Others	**47**	**45.85**	**89.36**	**8.51**	**19.15**	**80.85**	**27**	**3.86**
Total	**7163**	**6,315.17**	**64.11**	**35.86**	**22.06**	**77.94**	**42**	**4.65**

17.2.7 42% of employees have worked in the organisation for more than 10 years and 12% of the workforce has less than 12 months service.

17.2.8 Employee turnover in February 2015 was running at 12.46% (excluding medical staff) and shows an increasing trend since April 2013 (10%-11%). The leavers' rate is higher than local benchmark groups (9% and 11%). This is influenced by plans to reduce workforce numbers.

17.2.9 The ethnicity profile is broadly representative of the local population with the exception of the Asian ethnic group which is under-represented. The Trust has been successful in reducing the number of staff that choose not to disclose their ethnicity from 18% to 9% over the last few years and continues to improve this data source.

17.3 Best Practice and Key Successes

17.3.1 The Trust is developing the workforce for the future through a range of best practice approaches which are summarised in this section.

17.3.2 The Trust is in the second year of a comprehensive three year leadership development programme developed and supported by recognised industry experts (Hay Group). This is in recognition of the need to ensure that the cadre of leaders in the Trust are capable of leading large scale service and workforce redesign to deliver its future ambitions.

17.3.3 The organisation is widely acknowledged for its long term commitment to employee engagement and currently acts on staff feedback through one of the most comprehensive real-time staff feedback systems in the country known as 'Your Voice'.

17.3.4 In 2014 the NHS Staff Survey showed improvement in key areas related to team working, feeling valued and agreeing that their role makes a difference to patients. Staff ability to contribute towards improvements at work is ranked as in the best 20% of all acute Trusts and staff motivation at work is ranked as above average.

17.3.5 The Trust has a target of 100% employees to have had an appraisal in the last 12 months and was at 90% at the end of March 2015.

17.3.6 The Trust's new appraisal process is designed improve the appraisal experience and on driving high performance through clarity of role, 'SMART' objectives, performance assessment and talent development. The outputs of the new process will link more systematically to succession planning and career development.

17.3.7 The Trust has a proactive employee health and well-being service linked to its Public Health Plan which includes improving employee health data used to offer tailored support on risk issues such as being overweight, smoking and high alcohol consumption. An employee counselling service is also provided and the Trust is working towards being recognised as a leader in workplace mental health provision.

17.3.8 The Trust's approach to flu vaccination has been recognised nationally for achieving vaccinations for 80% of front line staff.

17.3.9 Workforce initiatives that will support the long term economic well-being of the area in line with the aims outlined in Chapter 15 include:

- **The Learning Works** which is a community based initiative developed in partnership with Sandwell Metropolitan Borough Council and Job Centre Plus to provide access to training and employment opportunities for local people.
- **The Live and Work Programme** which tackles homelessness by offering people from the local community access to work through the Trust's apprenticeship programme and provides on-site accommodation.

17.4 Key challenges and Opportunities

17.4.1 Having commenced its workforce change programme, the Trust will need to make further significant whole time reductions in line with the LTWM of 1,087 WTE by March 2020.

17.4.2 Significant workforce change will be required to deliver the new model of care in line with RCRH including shifts of activity to more community based services. This also provides an opportunity for skill mix review to contribute to an expected reduction in cost per WTE.

17.4.3 Vacancy rates in some staff groups, e.g. medical ward nursing (Band 5) and emergency care, continue to be high. The Trust actively reviews management of hard to fill and hard to retain posts. The table below presents the current 'hot-spots' and the Trust's approach to managing these vacancies:

Table 107: Management of Hard to Fill Posts

Posts	Action Planned

Posts	Action Planned
Medical workforce Consultants in the following specialties: ▪ Interventional radiology ▪ Acute medicine ▪ Emergency medicine ▪ Elderly care	Working in partnership with Health Education West Midlands through the Black Country LETC and there is an established task force driving approaches to targeted recruitment and increasing the use of advanced practice roles. Targeted recruitment search and advertising campaign. The long term solution is consolidating emergency and inpatient services on to the new MMH single site hospital.
Non-medical workforce ▪ Sonographers ▪ Advanced nursing practitioners ▪ General nursing	Working in partnership with Health Education West Midlands through the Black Country LETC who are engaging the Health Education Institutions in a review of the content and duration of the training and is commissioning more education places to increase supply. In-house there are plans in place to enable other healthcare professionals to obtain the sonography competencies. Focus on attracting and retaining named nursing commissions students. Overseas recruitment.
Management and Leadership Difficulty in recruiting high calibre candidates to clinical group senior management positions	Targeted attraction, recruitment and retention strategy. 3 year leadership development programme in place (Year 2 in 2015-2016). New appraisal system rolling out with systematic link to succession planning.

17.5.1 Typically between 700 and 800 staff leave the Trust each year, in addition to medical staff. This provides opportunities for reducing pay costs through the disestablishment of vacancies where the role is not required in the future or redesign of the role. The Trust has been successful in redeploying staff who may occupy a post that will be disestablished into new roles to avoid redundancies.

17.5.2 The Trust has demonstrated its ability to manage and reduce premium rate pay costs. The Trust's agency spend has reduced from £1.2m in June 2014 to £862k in February 2015 (a reduction of 26%). The Trust has also enhanced its utilisation of nursing bank and recently established a medical bank. This is a sound base from which to further progress reductions in cost/WTE through avoidance of premium payments. In support of this the Trust has implemented the following measures:

- Trust bank pay rates have been revised to encourage Trust employees to work on the internal bank to reduce reliance on agency staffing;
- The nurse staffing review has resulted in additional registered nurses being rostered on nights from January 2015 to help to reduce reliance on temporary staffing when additional capacity is required;
- Plans to reduce sickness absence to 3.5% or less in 2015/16 and recruitment plans to staff 'hard to fill' vacancies are in place and will drive down reliance on temporary staffing further.

17.5.3 Sickness absence levels are relatively high at 5.27% for February 2015 and 4.65% for the 12 month rolling period, costing £9m each year on salary costs for time lost alone. A challenging target has been set at 3.5% with a range of measures and a detailed action plan in place designed to make improvements.

17.5.4 The Trust's current configuration of split site working across the two acute hospitals continues to create cost pressures for premium rate working, poor economies of scale and duplication of rotas as well as exacerbating the Trust's ability to resource 'hard to fill' posts, particularly in the Trust's Emergency Departments.

17.5.5 This section has presented examples of the main challenges being faced by the Trust in the broader context of pay inflation, incremental drift and requirement for future investment in staffing new services.

17.6 Workforce and Organisational Development Strategy

Strategic Aims and Objectives

17.6.1 The Workforce and Organisational Development Strategy is a key enabler for achieving the Trust's vision:

'To be renowned as the best integrated care organisation in the NHS'

17.6.2 In support of the Trust's vision the workforce aims are to:

- Develop and retain a high quality workforce that enables the Trust to provide the very best patient care;
- Become the employer of choice in the region; and
- Ensure that the workforce is highly productive and affordable.

17.6.3 In order to achieve these strategic aims, the Trust has five key strategic workforce objectives to:

- Deliver the LTWM;
- Develop the Trust's leadership capacity and capability;
- Ensure that the workforce has the necessary development, skills and training;
- Become a truly effective and engaged organisation; and
- Address recruitment and retention issues.

17.7 The Long Term Workforce Model

17.7.1 As outlined above delivery of the LTWM is a key objective in the Workforce and Organisational Development Strategy. This section outlines how it has been developed and presents the model from 2014-2015/2023-2024.

Alignment with the LTFM

17.7.2 The LTWM is consistent with the LTFM which has top down workforce assumptions aligned to activity and income.

17.7.3 The LTWM is consistent with the OBC trajectory and reduces WTEs by 1,347 (against a 1,367 reduction within the OBC) between March 2014 and March 2020. In addition to WTE reduction the Trust expects to achieve a reduction in cost/WTE. The key drivers to reduce the pay bill are threefold:

- Activity and pathway driven changes in workforce e.g. fewer beds in the acute setting leading to a reduction in nursing staff but more care closer to home resulting in an increase in community nursing;
- Productivity driven reductions in workforce, leading to fewer WTE to deliver a given quantity of activity e.g. use of technology and improved processes;
- Reduction in the cost per WTE of the future establishment e.g. ensuring that staff spend a greater proportion of their time conducting tasks appropriate to their grade through role re-design and the introduction of more junior roles.

17.7.4 The above threefold approach will mean that not only will the workforce establishment in terms of WTE be reduced but also the average cost per WTE, although this will be focused on certain staff groups rather than universally applied. The drivers and how they will be applied are described in more detail in the Workforce Change Plan.

17.7.5 The Trust has undertaken detailed workforce modelling with service and clinical leads for circa 90% of staff. This work is being refined regularly. The nursing models have been refreshed following the Trust's review of nursing establishments to ensure that the nurse staffing models in 2018-2019 will meet the Trust's safe minimum staffing standards.

Table 108: Long Term Workforce Model

		Outturn 2014/15 Wte	Plan 2015/16 Wte	Forecast 2016/17 Wte	Forecast 2017/18 Wte	Forecast 2018/19 Wte	Forecast 2019/20 Wte	Forecast 2020/21 Wte	Forecast 2021/22 Wte	Forecast 2022/23 Wte	Forecast 2023/24 Wte
BASELINE inc RCRH Change & CIP											
Pay - Consultants		289.2	289.2	289.7	290.0	290.8	291.6	293.5	299.3	302.0	304.5
Pay - Junior Medical		500.8	476.6	476.3	476.0	473.4	470.7	471.0	471.1	471.3	471.5
Pay - Nursing, Midwifery and Health Visitors		1,789.7	1,759.7	1,734.5	1,696.7	1,664.4	1,635.0	1,661.0	1,677.8	1,691.9	1,706.2
Pay - Community Nursing, and Health Visitors		473.4	465.5	472.9	482.8	495.9	505.0	513.1	519.6	536.7	544.0
Pay - Scientific, Therapeutic and Technical		1,131.7	1,078.7	1,088.9	1,097.3	1,108.5	1,129.8	1,144.9	1,156.7	1,169.4	1,180.6
PAY - OTHER CLINICAL		683.2	671.8	666.7	649.2	640.3	660.5	668.8	674.0	679.7	684.9
Pay - Non Clinical		2,127.3	1,980.0	1,978.2	1,972.5	1,903.7	1,834.1	1,829.7	1,834.3	1,840.0	1,845.1
Agency		240.0	240.0	227.1	205.7	188.8	195.6	197.1	192.3	193.6	195.1
Sub Total		7,235	6,962	6,934	6,870	6,766	6,722	6,779	6,825	6,885	6,932
Repatriation & Community Developments											
Pay - Consultants		-	2	3	3	4	6	7	8	9	10
Pay - Junior Medical		-	3	5	6	7	10	13	14	16	17
Pay - Nursing, Midwifery and Health Visitors		-	34	86	156	204	288	365	426	498	574
Pay - Community Nursing, and Health Visitors		-	-	-	-	-	-	-	-	-	-
Pay - Scientific, Therapeutic and Technical		-	12	18	19	22	33	42	46	47	47
PAY - OTHER CLINICAL		-	-	-	-	-	-	-	-	-	-
Pay - Non Clinical		-	4	5	6	6	9	12	13	13	13
Agency		-	-	-	-	-	-	-	-	-	-
Sub Total		-	55	117	190	244	347	439	508	582	661
CIP Impact											
Pay - Consultants		-	- 0	- 1	- 2	- 2	- 3	- 3	- 4	- 5	- 5
Pay - Junior Medical		- 24	- 12	- 22	- 33	- 44	- 53	- 66	- 79	- 92	- 105
Pay - Nursing, Midwifery and Health Visitors		- 30	- 48	- 88	- 132	- 176	- 214	- 241	- 269	- 296	- 323
Pay - Community Nursing, and Health Visitors		- 8	- 17	- 31	- 46	- 62	- 75	- 96	- 117	- 138	- 159
Pay - Scientific, Therapeutic and Technical		- 53	- 36	- 66	- 99	- 132	- 160	- 187	- 213	- 239	- 266
PAY - OTHER CLINICAL		- 11	- 24	- 44	- 66	- 88	- 107	- 120	- 133	- 145	- 158
Pay - Non Clinical		- 147	- 103	- 188	- 282	- 376	- 457	- 537	- 617	- 697	- 777
Agency		-	- 20	- 55	- 105	- 125	- 125	- 125	- 125	- 125	- 125
Sub Total		- 274	- 260	- 495	- 765	- 1,005	- 1,195	- 1,376	- 1,557	- 1,738	- 1,919
Net Trust Wide Position											
Pay - Consultants		289	290	291	292	293	295	298	304	306	309
Pay - Junior Medical		477	467	459	449	437	428	418	406	395	383
Pay - Nursing, Midwifery and Health Visitors		1,760	1,746	1,733	1,720	1,692	1,709	1,784	1,835	1,894	1,957
Pay - Community Nursing, and Health Visitors		466	449	442	437	434	430	417	402	398	385
Pay - Scientific, Therapeutic and Technical		1,079	1,055	1,040	1,018	999	1,002	1,000	989	976	962
PAY - OTHER CLINICAL		672	648	623	583	552	554	549	541	534	527
Pay - Non Clinical		1,980	1,881	1,795	1,696	1,534	1,386	1,305	1,230	1,156	1,081
Agency		240	220	172	101	64	71	72	67	69	70
Net Position	7,221	6,962	6,757	6,556	6,295	6,004	5,875	5,842	5,776	5,729	5,674
ABC Annual Movement		- 260	- 205	- 201	- 261	- 291	- 130	- 32	- 67	- 47	- 54
ABC Cummulative Movement		- 260	- 465	- 665	- 926	- 1,217	- 1,347	- 1,379	- 1,445	- 1,493	- 1,547

17.7.6 The LTWM shows that a net 1,087 fewer WTEs will be required arising from a pay-bill reduction of £86m by March 2020 as shown in the table below. Of the £86m savings, £54m is targeted to come from a reduction in WTEs, with the balance to be achieved from new working practices that will see new skill mix profiles, new ways of working and a reduction in premium rate payments including: on-call, overtime and consultant PAs:

Table 109: Staff/Pay Savings Forecast

	Outturn 2014/15 £m	Forecast 2015/16 £m	Forecast 16/17 to 17/18 £m	Forecast 18/19 to 19/20 £m	Forecast Over Timeline £m	15/16v19/20 Over Timeline £m
Pay Target Savings	11.4	16.1	34.4	35.2	97	86
Costs Saved by WTE	- 11.4	- 10.3	- 23.1	- 21.0	- 66	- 54
New Ways of Working	- 0.0	- 5.9	- 11.3	- 14.2	31	31

17.7.7 During the same timeframe the community workforce will grow by 347 posts to support the Trust's strategy of delivering care closer to home through enhancing community based services and intermediate care provision.

17.8 Workforce Change Plan

17.8.1 This section presents the Workforce Change Plan which outlines how the changes will be delivered between now and 2020.

17.8.2 The Trust is in the second year of a six year Workforce Change Plan which will deliver in three distinct phases. This is designed to achieve the ambition to deliver the best integrated services, maintain safe staffing levels and to prepare for the transition into MMH.

17.8.3 The three phases are:

- Safe and Sound (April 2014 to March 2016);
- Workforce Transition (April 2016 to March 2018)
- Operational MMH (April 2018 to March 2020)

17.8.4 The table below presents WTE reduction and savings targets for each of the phases:

Table 110: WTE Reduction and Savings Target

Phase	Year	Net WTE reduction	Net £m reduction
Safe and Sound 1	Apr 14 - Mar 15	260	11.4
Safe and Sound 2	Apr 15 - Mar 16	205	16.1
Transition	Apr 16 - Mar 18	462	34.4
MMH	Apr 18 - Mar 20	420	35.3
TOTAL		**1,347**	**97.2**

17.8.5 The workforce planning approach to deliver the LTWM has been to develop strategic workforce change themes grouped within the following 3 drivers:

- Activity and pathway driven changes in workforce;
- Productivity driven reductions in workforce; and
- Reduction in the cost per WTE, through the introduction of new roles with different skills required, creating a path for progression from a wider range of backgrounds.

17.8.6 The rationale for this structured approach is to avoid double-counting pay cost savings across schemes and years and ensure a coherent transition to MMH is achieved. These strategic workforce change themes deliver across all three phases of the Change Plan.

17.8.7 Definitions for the key drivers and strategic workforce change themes are presented in the table below:

Table 111: Key Drivers and Strategic Workforce Change Themes

Drivers	Driver Description	Strategic workforce change theme
Activity and pathway driven changes in	Changes in the workforce in response to activity changes in line with RCRH and the transition to the new model of	**Clinical Restructuring** Change in clinical staffing as a result of a change in activity e.g. staffing numbers and ratios

Drivers	Driver Description	Strategic workforce change theme
workforce	care in the MMH.	**Non-Clinical** Review of support functions e.g. estates and facilities
Productivity driven reductions in workforce	Building upon the activity driven modelling described above the next stage is to model productivity opportunities which will result in the requirement for fewer WTEs. Workforce reductions will be delivered by changes to ways of working.	**Technology** Use of technology to improve productivity and reduce waste, including EPR, speech recognition, automation, robots, telehealth and mobile working in community
		Clinical Transformation Medical and surgical bed reductions, shift to community settings, outpatients redesign, theatre utilisation, site reconfiguration, de-duplication of on-call rotas
		Scheduling Improving scheduling and changing working practices to ensure optimal use of clinics and theatres.
		Black Country Alliance Collaboration of three NHS Trusts to share back office processes and reduce costs.
		Sickness Absence Driving down sickness absence to ensure that the Trust is fully staffed.
		User-Led Empowering service users to carry out certain administrative tasks relating to their appointments e.g. booking transport and tests.
		Management de-layering Review of management structures to ensure fit for purpose and efficient, i.e. spans of control and consolidation of disparate corporate functions
Reduction in the cost per WTE, through the introduction of new roles with different skills required, creating a path for progression from a wider range of backgrounds.	In addition to the activity driven modelling and reductions in WTEs through productivity presented above this driver is to reduce costs per WTE. This will principally be achieved through reviewing the skill mix and conducting role re-design The resultant reduction in cost per head will allow additional efficiencies to be made without further reduction in WTEs.	**Skill mix and role redesign** A review of roles to introduce new more junior roles to reduce cost per WTE and create a career path for progression from a wider range of backgrounds. This will enable staff to spend a greater proportion of their time working to their grade and maximising the use of their skills and experience.
		Non-consultant Doctors Improving senior medical cover/review of middle grade doctors against future requirements. **Assistant grades** Review of junior doctors intensity payments
		Premium Payments Eliminating bank, agency, overtime and waiting list payments to reduce temporary staffing costs.
		Intermediate Care is Cheaper Shifting care from acute to community models of care.

17.8.8 The Workforce Change Plan is presented in the table below:

Table 112: Workforce Change Plan

Driver	Strategic change theme	13/14 March 14	Ave Annual Year 2014/2015	2015-2016 WTE reduction/	2016-2018 WTE reduction/	2018-2020 WTE reduction/	2019-2020 Resultant WTE Establishment
	Opening WTE Position		6,962	6,962	6,757	6,295	
Activity & Pathway driven change	Clinical Functions		822.1	- 41.4	- 103.2	7.8	685
	Intermediate Care Development		207.1		77.4	48.0	332
	Community Pathway Redesign		679.7	55.0	16.6	26.8	778
	Non Clinical		619.5		0.7	- 138.8	481
Productivity driven reduction	Technology			-	- 43.9	- 43.2	- 87
	Clinical Transformation		2,584.0	- 13.4	- 104.3	- 100.0	2,366
	Scheduling		1,253.7	- 69.3	- 190.7	- 122.0	872
	Black country alliance		470.7	- 27.2	- 32.6	- 44.0	367
	Sickness absence			- 40.0	- 20.0	- 20.0	- 80
	Premium Payments			- 5.2	-	-	- 5
	User-led		205.3	- 25.7	- 53.4	- 28.6	98
	Management delayering		174.5	- 37.7	- 8.2	- 5.9	123
Total WTE CHANGES			260	- 205.0	- 461.8	- 420.0	5,875
Total WTE		7,221	6,962	6,757	6,295	5,875	- 1,346

17.9 Safe and Sound Phase 1 April 2014 – March 2015

Overview of Phase 1 of Safe and Sound

17.9.1 The first phase of the Workforce Transformation Plan, Safe and Sound, was launched in October 2014 and is now complete.

17.9.2 The aims of Safe and Sounds Phase 1 were to:

- Eliminate the use of agency work other than in disciplines where a national shortage exists;
- Significantly reduce the use of overtime; extra hours and bank work; and
- Reduce staffing numbers through productivity without compromising on safety and quality.

Delivery approach for Phase 1 of Safe and Sound

17.9.3 The Trust has engaged in an open and extensive consultation with Trade Unions and with staff. Every change scheme has been visible, providing the opportunity for staff to test the operational impact and to influence change proposals. This resulted in improvements being made to scheme proposals.

17.9.4 The changes were implemented in line with the Trust's organisational change policy and included statutory consultation. The WTE reduction has been achieved through:

- Natural turnover;
- A comprehensive redeployment plan that matched staff at risk of redundancy to vacancies; and
- Skills development programmes for staff redeployed into new or different roles.

17.9.5 Examples of schemes delivered to enable the reduction in WTE are:

- **Clinical Transformation:** changing staffing models in outpatients nursing and in the Birmingham and Midland Eye Centre (BMEC);
- **Scheduling:** improved productivity in imaging sessions;
- **Technology:** adjustments to roles and administrative processes in outpatients including, introduction of self-check-in kiosks and major changes to receptionist roles; and
- **Management delayering:** revised structures in finance, pharmacy and facilities.

17.9.6 The average cost per WTE has also been reduced, for example through:

- **Restructuring the medical secretary function:** through the creation of a new Band 2 administrative assistant role.

Outcomes of Phase 1 of Safe and Sound

17.9.7 Phase 1 delivered a WTE reduction of 260 WTEs with an attendant reduction in pay costs of £11.4m.

17.9.8 The Trust has strengthened its quality and safety standards. Investment has been made in 20 WTE more registered nurses in addition to converting a further 20 WTE unregistered posts to registered posts. This has been to meet minimum safe staffing levels.

17.9.9 In addition the Trust has invested significantly in an additional 60 WTE nursing posts in community based services enabling the opening of two new intermediate care wards.

17.9.10 Redundancies have been minimised.

17.9.11 Lessons have been learnt from Safe and Sound 1 which will improve the effectiveness of Safe and Sound 2.

17.10 Safe and Sound Phase 2 April 2015 – March 2016

Overview of Phase 2 'Safe and Sound'

17.10.1 The second phase of the Workforce Change Plan, Safe and Sound, was launched in April 2015.

17.10.2 Its overall aims are the same as Safe and Sound Phase 1 with the objective of reducing the workforce by a further 205 WTE and reducing pay costs by £16.1.

Delivery approach of Phase 2 'Safe and Sound'

17.10.3 A statutory consultation process commenced in May 2015 for affected staff groups. Circa 260 staff will be affected by the changes proposed. As was the case in 'Safe and Sound' Phase 1, a significant amount of posts will be released through the disestablishment of vacant posts and re-deployment.

17.10.4 Specific schemes from the Change Plan for Safe and Sound Phase 2 to reduce WTEs include:

- **Technology:** improving productivity in the medical secretary group through new working practices including 1:2 medical secretary to consultant ratios, new ways of working and the introduction of speech recognition; and
- **Clinical transformation:** reducing circa 22 Band 5 nursing posts due to bed reductions.

17.10.5 Schemes to reduce the cost per WTE include:

- **Assistant grades:** systematic review of all clinical departments and specialist nurse roles to make optimal use of specialist nursing skills in the management of long-term conditions including tasks that are currently undertaken by medical staff;
- **Assistant practitioner roles**: using more (Band 4) assistant practitioners in place of Band 5 registered nurses and AHPs in outpatients, imaging, rehabilitation services;
- **Advanced practitioner roles**: using advanced practitioners in place of middle grade doctors for some tasks and 2nd on-call rotas;
- **Non-clinical:** re-configuration of administrative services and further skill mix revision in facilities and estates.

17.11 Workforce Transition and Realising MMH benefits (April 2016 to March 2020)

Opportunities Unlocked by MMH

17.11.1 Whilst the majority of the Trust's Workforce Change Plan can be delivered pre-MMH, there remain significant benefits which can only be realised once MMH is operational and the site reconfiguration is complete.

17.11.2 Operating a single emergency services department is the most sustainable solution to responding to the severe recruitment and retention shortages that continue to threaten to compromise the safe running of the Trust's current two emergency departments. The Trust's emergency departments continue to experience difficulties in being fully staffed to deliver safe high quality care and are reliant on long term locum temporary staffing. Whilst quality has been maintained, this is being achieved at a high price and the staffing model is fragile. Proactive attempts have been made to recruit high calibre medics but to date this has proved unsuccessful. Solutions such as consultant secondments from other NHS organisations have been trialled but have not proved to be a sustainable solution.

17.11.3 In light of the national consultant shortage, for which it is recognised that reconfiguration of services is the only solution in many of cases, the Trust acknowledges that the staffing arrangements in the ED departments will remain fragile until such time it can operate with one emergency department. This is unlikely to happen until it has all inpatient services on one acute hospital site thus creating the critical mass to ensure resilience and permanent staffing which is sustainable both clinically and financially.

17.11.4 All acute inpatient services will be consolidated onto the single site resulting in a concentration of clinical staff which will enable a greater level of senior medical cover throughout the day, seven days per week. This forms a core part of the Trust's strategy to improve quality and continue to ensure safety.

17.11.5 Productivity driven reductions in workforce will be realised through economies of scale and bringing staff together onto one acute site to achieve more effective ways of working. De-duplication of clinical and operational rotas, including on-call and out-of-hours will enable a reduction in WTE and release resources to ensure resilience and seven day working.

17.11.6 Corporate reductions will be enabled through consolidating teams on to a single head office site at Sandwell General Hospital. Completion of this will only be possible once acute services have been relocated to MMH. This will facilitate greater team working and joined up business intelligence support

to clinical groups through maximising the use of standardising data and information and operating systems.

17.11.7 Optimal scheduling and consultant job planning that will ensure that clinical staff do not undertake unnecessary travel to deliver care between the new MMH hospital and community locations.

17.11.8 MMH will enable new effective working practices and effective team working arising through new workflows in the new hospital design e.g. ward layouts, optimal location and co-location of services and departments.

17.11.9 Greater use of technology will be made possible by the move to the MMH. For example: a new IM&T infrastructure will enable tasks to be undertaken more easily by patients/service users or robots through assistive technology in the workplace e.g. self-check in, stores and distribution and robots cleaning.

17.11.10 Multi-site working across acute and community environments will be made productive through minimising staff movement and exploiting the time saving opportunities that new technology offers e.g. docking technology, teleconferencing, tele-health and videoconferencing.

17.11.11 Further terms and conditions driven reductions will be made possible by consolidating staff on one acute hospital site. For example: a reduction in trainee doctors intensity payments, reduction in non-medical on-call payments and a reduction in premium rate working.

17.11.12 The transition phase (April 2016 – March 2018) will continue to drive productivity to the full extent possible in advance of the delivery of MMH.

Overview of Key Changes April 2016 to March 2020

17.11.13 The key changes are shown in the table below. These are largely within the control of the Trust, with the exception of the Black Country Alliance.

17.11.14 The Black Country Alliance was formed between the Trust, the Dudley Group NHS FT and Walsall Healthcare NHS Trust in July 2015. The purpose of the alliance is to deliver higher quality care and increased productivity through working at scale. Opportunities are being identified in specialist clinical areas and corporate services.

Table 113: Overview of Key Workforce Changes April 2016 - March 2020

Key Drivers	Strategic Workforce Change Theme	Transition Phase (April 2016 – March 2018)	MMH Phase (April 2018 – March 2020)
Activity and pathway driven changes in workforce	**Clinical Restructuring**	Fewer nurses and HCAs due to fewer outpatient sessions and reduction in beds. Investment in community nursing.	Fewer nurses and HCAs due to fewer outpatient sessions and reduction in beds. Investment in community nursing. Fewer emergency department staff as a result of single ED within MMH.

Key Drivers	Strategic Workforce Change Theme	Transition Phase (April 2016 – March 2018)	MMH Phase (April 2018 – March 2020)
	Non-Clinical	Reduction in facilities staff due to greater cross-functional working.	
Productivity driven reductions in workforce	**Technology**	Fewer healthcare records staff due to introduction of EpR. Better use of consultants' time through telehealth enabling resources to be channelled into seven day working. Introduction of mobile technology to improve productivity in community. Fewer medical secretaries as a result of completing speech recognition technology.	Fewer porters and distribution staff as a result of introduction of automated guided vehicles.
	Clinical Transformation	Medical and surgical bed reductions, shift to community settings, outpatients redesign, theatre utilisation, site reconfiguration, de-duplication of on-call rotas.	Single site reconfiguration will result in transfer of Hard FM staff to PF2 provider under TUPE.
	Scheduling	Reduction in theatre staff and outpatient staff as a result of improved scheduling and changing working practices to ensure optimal use of clinics and theatres.	
	Black Country Alliance	Collaboration of three NHS Trusts to share back office processes and reduce costs.	-
	Sickness Absence	Driving down sickness absence to ensure that the Trust is fully staffed.	
	User-Led	Empowering service users to carry out certain administrative tasks relating to their appointments e.g. booking and changing appointments, transport and tests.	
	Management de-layering	Completion of management de-layering pre MMH. Fewer corporate staff due to co-location into single head office site.	Further management de-layering as a result of single site configuration. Fewer corporate staff due to completion of co-location into single head office site at Sandwell General Hospital.
	Non-consultant Doctors	Improving senior medical cover/review of middle grade doctors against future requirements.	Reduction in medical staff due to de-duplication of medical rotas enabled by single site configuration.
	Skill mix and role redesign	A review of roles to introduce new more junior roles to reduce cost per WTE and create a career path for progression from a wider range of backgrounds.	
	Premium Payments	Eliminating bank, agency, overtime and waiting list payments to reduce temporary staffing costs.	
	Intermediate Care is Cheaper	Shifting care from acute to community models of care.	

17.12 Safe staffing

Nurse Staffing Establishment Review

17.12.1 A nurse staffing establishment review, led by the Trust's Chief Nurse, was undertaken of outpatient, community and ward areas in November 2014. Group directors and nurse leadership teams were engaged and external benchmarking and best practice were taken into account. The review was published on the Trust's intranet site to enable all staff to review the proposal and feedback any issues or concern.

17.12.2 The outcome of the review was:

- An agreed ward leadership model;
- Minimum standards for nurse: bed ratio; and
- The normal balance between registered and non-registered practitioners for early, late and night shifts.

17.12.3 The recommendations of the review were agreed by the Trust Board in December 2014.

Safe Staffing Standards

17.12.4 The minimum safe staffing standards are as follows:

- A ward should have one ward manager (Band 7) supported by two deputy ward managers;
- A registered nurse should have no more than eight patients in their care as a minimum;
- No acute ward should have fewer than two registered nurses despite the number of patients; and
- The normal balance between registered nurses and non-registered HCAs should be 60%-70% registered and 30%-40% non-registered.

17.12.5 The Trust has subsequently changed nursing establishment levels such that the minimum safe staffing level standards have been fully met.

Monitoring of Safe Staffing Standards

17.12.6 The BRAD assessment tool (an acuity and dependency tool) is currently used on the wards to determine daily adjustments required to staffing levels based on patient acuity and occupancy levels. The Trust plans to introduce the use of the Safer Nursing Care Tool.

17.12.7 Compliance against safe staffing levels, comparisons with the national reporting system, fill rates and use of temporary staffing are scrutinised by the Trust Board every month.

Staffing for MMH Configuration

17.12.8 As outlined in Chapter 12 the design of generic wards will facilitate observation into all bedrooms through the use of touch down spaces (as opposed to central staff bases) and viewing panels. This will enable monitoring and support of groups of four or eight beds in line with agreed staffing ratios. The generic design supports implementation of lean principles.

17.12.9 The Trust's nursing model for the MMH has been revised for the staffing impact of different ward configuration with 50% single rooms. The workforce model has identified additional nurse staffing requirements associated with 50% single rooms. The staffing model includes the requirement for an additional health care assistant across all wards to work at night to ensure safe observation of patients

and to minimise the risk of patient falls. This nursing establishment of an additional 70 WTEs has been informed by learning from other Trusts which already have a 50% single room ratio.

17.13 Management of Change

17.13.1 This section outlines how the Trust is supporting staff through transition as well as the governance, leadership and assurance arrangements that have been put in place to deliver the change.

Supporting Staff through Transition

17.13.2 The Trust has put in place a number of support measures to equip and prepare staff for change and to work effectively in the future and maximise the opportunity to redeploy staff and reduce the risk of redundancies. These include:

- A three year education plan to develop a workforce that is fit, safe and effective to practice in their roles now and in the future;
- Communication and engagement with staff affected through sharing ideas about changes with staff and publishing proposals on the Trust's intranet;
- Joint working with trade union colleagues to effectively manage change and minimise the need for redundancies; and
- Using vacancies to redeploy staff with associated trial periods and 12 months skills development programmes.

Clinical Leadership and Involvement in Workforce Redesign

17.13.3 The Chief Nurse and Medical Director have guided and signed off the Trust's bottom-up staffing models for the MMH. A range of clinicians and service leads were involved for each of the models developed.

17.13.4 A series of development days with clinical groups are being planned for June 2015 where the Trust's Workforce Change Plan for 2016-2020 will be worked up further.

17.13.5 The Trust has a lead clinician, who is a Consultant Acute Assessment Physician, working with the MMH planning team with a particular focus on workforce planning.

17.13.6 Both the Chief Nurse and the Medical Director are active contributors to the Trust's annual education commissioning plan designed to ensure that the Trust has a workforce with the skills for the future.

17.14 Governance and Leadership

17.14.1 In recognition of the scale and importance of the Workforce Change Plan the Trust has appointed an experienced Board level Director of Workforce and Organisational Development. The appointee has extensive experience in leading major workforce change programmes including one of the most significant local authority workforce reductions in the UK.

17.14.2 The Trust has successfully delivered a range of large scale workforce changes associated with significant clinical service reconfigurations including: surgery, maternity, pathology and stroke services.

17.14.3 The Trust's Organisational Change policy has been revised and the processes for how workforce change is managed have been made more robust. This includes a rigorous tracking of the implementation of changes and new working practices.

17.14.4 The Workforce Delivery Committee (a sub-committee of the Clinical Leadership Executive) is the main body for involving group representatives and lead clinicians in formulating the Trust's workforce strategy and plan and oversees progress against delivery. This Committee is chaired by the Executive Director of Workforce and Organisational Development. Other members comprise the Medical Director, Chief Nurse, Chief Operating Officer and representatives from each of the Clinical Groups.

Assurance

17.14.5 Board level assurance of the execution of the Trust's Workforce and Organisational Development Strategy is provided by the Workforce and OD Committee. This is chaired by a Non-Executive Director and meets quarterly.

17.14.6 The Trust has engaged with the NTDA in the workforce assurance meetings. The Trust's approach to safe staffing, working modelling and the scope of the workforce component of the ABC has been shared with the TDA to ensure that it meets the requirements of approval bodies.

Risk Management

17.14.7 The key risks associated with the Workforce Change Programme and the approach to mitigation is summarised in the table below:

Table 114: Workforce Risks

Workforce risk	Approach to mitigation
There is a risk that genuine change does not occur and that the Trust does not make sustainable workforce changes leading to inability to change and develop services whilst achieving pay cost reductions	Improving productivity through changing the ways of working (working smarter, introduction of technology, reducing duplication). Removing posts where there is less work to do (activity reductions). Workforce change proposals will clearly set out new work flow/new working practices. Greater connectivity between service redesign and opportunities for pay cost reductions. Auditing outcomes to ensure sustainable changes to working practices.
There is a risk that the Trust will not control temporary staffing expenditure leading to increased financial pressure	Continued use of in-house medical staff bank. Full use of e-rostering to ensure minimum staffing levels. Executive led bank/agency approval procedures. Stringent management of vacancies and time lost through sickness absence.
There is a risk that uncertainty for staff leads to low morale and inability to retain key skills	Ensuring that changes to structures and roles create opportunities for career development and progression, Involving staff in change proposals and decisions that affect the way they work. Managing change well and without unnecessary delay. Monitoring levels of staff engagement and taking corrective action where necessary.
There is a risk that services cannot be delivered in 2018/19	Staffing models for operating in the MMH to be developed with service and clinical leads. Workforce reduction plans will ensure safe minimum staffing levels are maintained. Quality and safety impact assessments for all workforce change proposals are reviewed by Chief Nurse and Medical Director and discussed at the Quality and Safety Committee. Safe staffing governance and reporting linked to clinical outcomes.

17.15 Conclusion

17.15.1 This chapter sets out the Trust's Workforce and Organisational Development Strategy which is underpinned by an affordable LTWM, Workforce Change Plan and change management arrangements.

17.15.2 The reduction in pay bill required is principally driven by the need to meet the national efficiency requirement, not the additional costs of MMH. There will be no revenue costs associated with MMH until 2018 and thus no pay bill reductions are due to MMH. Beyond 2018, many of the pay bill savings will be possible as a result of the planned reconfiguration of services.

17.15.3 The Trust has already made good progress in delivering the Workforce Plan that it set out in the Outline Business Case (OBC). Since OBC approval the Trust has:

- Successfully delivered the first wave (April 2014 – March 2015) of the Safe and Sound workforce change programme resulting in a reduction of 260 WTE;
- Launched the second wave of workforce change with the aim of achieving a reduction of 205 posts between April 2015 and March 2016;
- Made good progress in re-configuring existing services and developing more detailed plans for workforce changes to be delivered in 2016-2018 in readiness to work safely in the MMH; and
- Confirmed that clear safe staffing standards are currently in place and outlined plans to ensure that they will be maintained in 2018-2019.

17.15.4 The benefits of moving to the MMH configuration are vital to continue to improve quality and sustain safe services with a more productive workforce.

17.15.5 The leadership and governance arrangements are in place to drive the execution of the Workforce Plan to deliver the LTWM.

18 Project Timetable and Management Arrangements

18.1 Introduction

18.1.1 This chapter sets out how the project will be successfully managed through the remainder of the procurement to ensure that it delivers the project objectives required by the Trust.

18.1.2 A project plan is being followed to enable Financial Close to be achieved by December 2015 and MMH to be operational by October 2018.

18.1.3 Robust project management arrangements are in place to drive project delivery.

18.1.4 Risks have been actively managed and a benefits realisation plan produced.

18.2 Key Milestones

18.2.1 The key milestones already achieved for the project are set out in the table below along with subsequent dates showing the aim to achieve Financial Close on 9 December 2015 and MMH to be operational by October 2018:

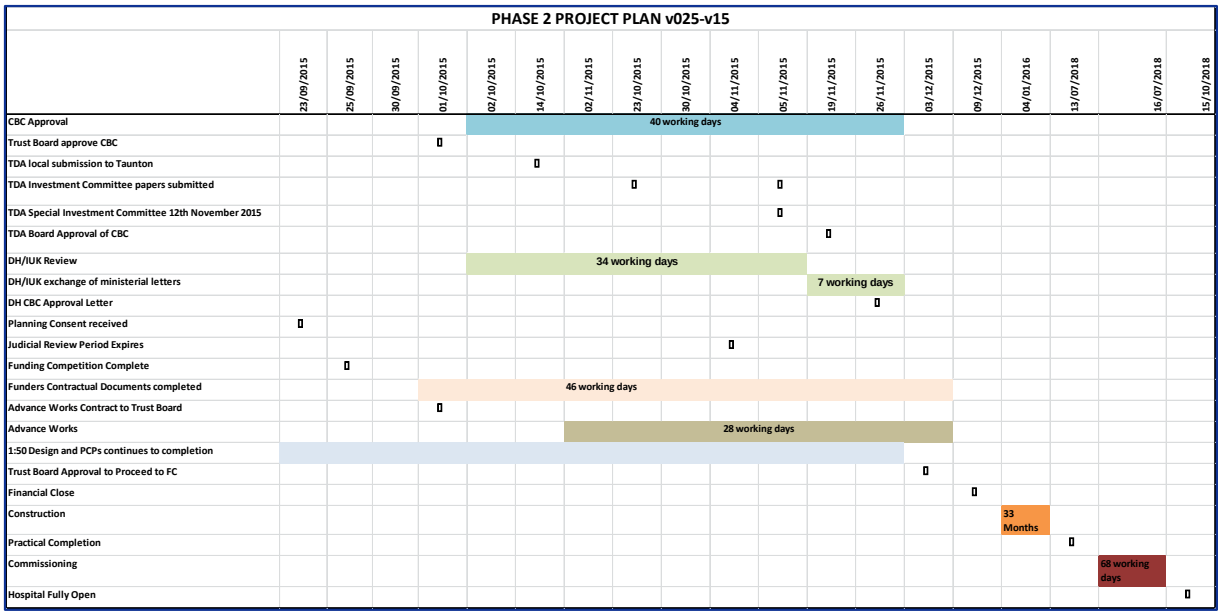
Table 115: Key milestones to MMH being fully operational

Milestone	Date
Strategic Outline Case approved	July 2004

Milestone	Date
Outline Planning Consent granted	October 2008
Trust purchased Grove Lane site	September 2012
Refreshed Outline Planning Consent	June 2013
Outline Business Case approved	July 2014
OJEU Notice published	July 2014
Invitation to participate in dialogue issued	September 2014
Interim bid submission received	December 2014
Receipt of Draft Final Bids	April 2015
Approval of Generic Appointment Business Case and Close Dialogue	July 2015
Receipt of Final Bid	July 2015
Approval of Specific Appointment Business Case and Appoint Preferred Bidder	August 2015
Full planning consent granted	September 2015
Conclusion of Funding Competitions	September 2015
Submission of Confirmatory Business Case	October 2015
Advanced works commence on site	November 2015
Approval of Confirmatory Business Case	November 2015
Financial Close	December 2015
Commencement of main construction programme	January 2016
Practical completion - MMH handed over to Trust	July 2018
MMH operational	October 2018

18.2.2 The key dates and processes for the next phase of the project are presented in the figure below and a detailed project plan is presented in ***Appendix 18a:***

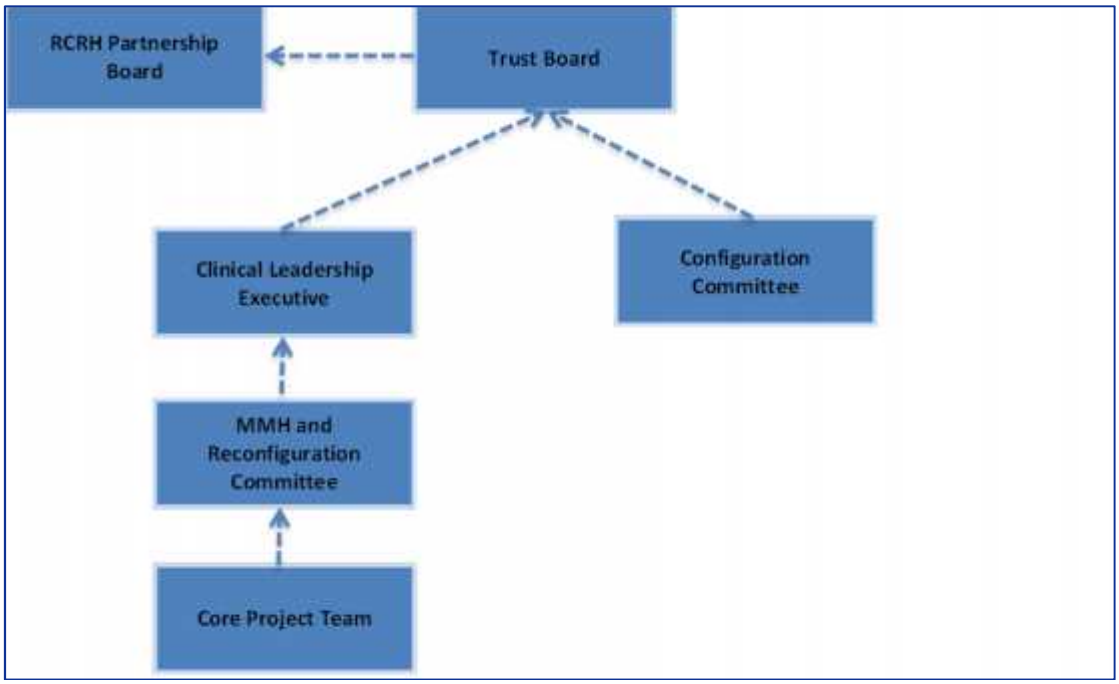
Figure 34: Key Dates and Processes



18.3 Organisational Structure and Governance – Current Structure

18.3.1 The project structure is shown below.

Figure 35: Current Project Structure



18.3.2 A more detailed structure chart showing individual roles is presented at ***Appendix 18b***.

Roles and Responsibilities

The Senior Responsible Owner (SRO)

18.3.3 The Chief Executive Officer undertakes the SRO role for this project. The SRO is personally accountable for the success of the project ensuring that the project meets its objectives and delivers benefits. The SRO will ensure that the project maintains business focus in a changing healthcare context and that risks are managed effectively.

The Project Director

18.3.4 The Project Director is responsible for day-to-day decision making on behalf of the SRO and setting high standards for delivery of the project.

The Project Manager

18.3.5 The Commercial Manager/Senior Project Manager is a full-time post and coordinates the activities of the Core Project Team on a day-to-day basis and is responsible for ensuring that:

- The Competitive Dialogue process runs smoothly;
- Requests for information, issues and changes are managed appropriately;
- Project standards are maintained; and

The project budget is managed effectively.

Governance Arrangements

The Trust Board

18.3.6 The Trust Board is the investment decision maker for the project ensuring that the project has a viable and affordable business case. The Board will require evidence that the project can deliver value for money and best quality healthcare for the local community through effective management of the procurement process.

18.3.7 The project is managed through two key Trust Sub-Committees to ensure that proper scrutiny and oversight is maintained during transition and to ensure effective alignment with planning across all the years of the project. This avoids the risks of solo-working and ensures that new ways of working are developed well before MMH opening.

The Configuration Committee

18.3.8 The purpose of the Configuration Committee is to provide the Board with assurance concerning strategic direction ensuring on-going alignment of the MMH and the programme of interim reconfigurations. The Committee holds the Executive to account for delivering the Estates Strategy and the Final Business Case (FBC). The LTFM is tracked by the Board's Finance Committee on a bi-monthly basis.

18.3.9 The membership includes:

- The Trust Chair (Chair);
- Two Non-Executive Directors;
- The Chief Executive Officer (SRO);
- The Medical Director;
- The Director of Finance and Performance Management;
- The Director of Estates and New Hospital Project.

18.3.10 A quorum is at least four members, of which there must be at least one Non-Executive Director.

18.3.11 The full terms of reference are presented in the PEP presented at ***Appendix 18c***. A brief summary of the MMH related duties of the Committee are presented below. The committee:

- Oversees the Competitive Dialogue process ensuring that best practice is carried out in line with EU regulations;
- Approves project plans and monitors progress against plan;
- Approves and sign off the key outputs and decisions at each stage of the project;
- Reviews and acts on factors affecting the successful delivery of the project;
- Reviews serious issues, which have reached threshold level, considering requirement for changes to the project scope, budget or timescale if required;
- Brokers relationships with stakeholders within and outside the project to maintain positive support for the acute hospital development; and
- Maintains awareness of the broader perspective advising the SRO on how it may affect the project.

18.3.12 The Configuration Committee delegates authority, to the MMH and Reconfiguration Committee of the Clinical Leadership Executive and Core Project Team to ensure that the project meets its objectives.

MMH and Reconfiguration Committee

18.3.13 The MMH and Reconfiguration Committee is a committee of the Clinical Leadership Executive comprising a group of SWBH Executive Directors and representatives of the seven Clinical Groups

who manage the operational services of the Trust. They provide leadership within the organisation to ensure successful delivery of the project and assurance to the Clinical Leadership Executive and Trust Board about the project. The group provides guidance to the Project Director and ensures that Trust resources are available to support the project. The group:

- Provides leadership, mandate and focus within the Trust ensuring that Clinical Group objectives will drive effective delivery of the Competitive Dialogue process;
- Provides advice to the Project Director, Configuration Committee and Trust Board, raising any concerns and providing expert opinion to support decision making;
- Resolves issues at organisational level when the Core Project Team requires assistance;
- Resolves issues which impact on SWBH involving senior external stakeholders, the press; Government, arm's length bodies etc.;
- Provides assessment of serious issues;
- Manages changes to the project where required ensuring tight control of cost;
- Ensures that project plans are achievable and facilitate delivery as required; and
- Reviews the risk register on a quarterly basis/at key milestones, advises the Configuration Committee prior to approval and helps the Core Project Team mitigate risks at organisational level.

18.3.14 The membership of the MMH and Reconfiguration Committee includes:

- Chief Executive Officer (Chair);
- All Executive Directors;
- The Commercial Manager;
- Deputy Chief Operating Officer/Transformation Director; and
- Representatives of each Clinical Group.

18.3.15 Issues exceeding the delegated authority of the MMH and Reconfiguration Committee are referred to the Clinical Leadership Executive or the Trust Board.

Core Project Team

18.3.16 The Core Project Team is the group of individuals with appropriate and complementary professional, technical or specialist skills who, under the direction of the Project Director and co-ordinated by the Project Manager, are responsible for carrying out the work detailed in the project plan

.

18.3.17 The Core Team is responsible for:

- Planning and delivering the Competitive Dialogue and bid evaluation process and all other activities to Financial Close;
- Developing, maintaining and implementing project plans;
- Co-ordinating working groups and evaluation teams as required;
- Monitoring progress and reporting to the MMH and Reconfiguration Committee and Configuration Committee;
- Managing issues as they arise in line with the issue management policy and escalating those above threshold to the MMH and Reconfiguration Committee;

- Managing change control;
- Managing project advisors, ensuring that their contribution is well understood and that the Trust obtains best advice and value;
- Managing risks in line with project risk management strategy; and
- Ensuring effective development and delivery of the Engagement and Communications Plan

18.3.18 The Core Team membership includes the:

- Director of Estates and New Hospital Project;
- Commercial Manager;
- Deputy Chief Operating Office /Transformation Director;
- Head of Estates;
- Deputy Director of Workforce;
- Head of Facilities
- Senior Project Accountant; and
- Project Manager.

18.3.19 The Core Team meets weekly, or as required, to co-ordinate the work required by the project. It reports to the MMH and Reconfiguration Committee.

18.3.20 The Core Team coordinates the working groups as required by the procurement process.

The Clinical Leadership Executive

18.3.21 The Clinical Leadership Executive maintains an overview of the clinical brief and the activity and financial parameters set by the MMH and Reconfiguration Committee. It provides clinical leadership in relation to the design process and will inform evaluation of bidders' proposals in the PF2 process. The Clinical Leadership Executive includes the management teams of the Trust's seven Clinical Groups and the Executive Directors of the Trust.

Land Acquisition Group

18.3.22 The Land Acquisition Group was formed during Phase One of the project to acquire the land required to build the hospital. This group will continue to meet until the final amounts due for the land acquired under compulsory purchase have been agreed and paid and the remediation of the site is complete.

18.3.23 The group is responsible for:

- Completing purchase of land required for the hospital site;
- Arranging agreed demolition works on the land acquired;
- Ensuring that this work is completed to timeframe; Managing budget in line with the capital programme; and
- Overseeing the remediation of the site prior to handover to the PF2 contractor.

18.3.24 Membership of the group includes the:

- Director of Estates and New Hospital Project;
- Director of Finance;
- Head of Estates;
- Commercial Manager; and
- Legal, land and other advisors as required

18.4 Project Management

18.4.1 The Trust places particular importance on effective project management arrangements across all its development activities, and has significant in-house experience.

18.4.2 A comprehensive Project Management approach was established by the Trust for this project prior to entering the Outline Business Case (OBC) Phase of the project and these arrangements and structures have continued with on-going refinement and expansion into the Procurement Phase of the Project.

18.5 Capability and Best Practice

18.5.1 The Chief Executive Officer (Senior Responsible Owner for this project) and Director of Finance and Performance both have considerable experience of delivering large PFI schemes. The Trust's Chairman has significant experience in property management. This level of capability will ensure strong leadership for the project.

18.5.2 The Project Team is supported by a fully resourced Project Office, of appropriately experienced and qualified individuals. Details are set out within the PEP presented at ***Appendix 18c***.

18.5.3 The project is managed in line with best practice ensuring that roles and responsibilities are clearly defined and decision making is transparent and is documented to ensure a robust audit trail is maintained.

18.7 External Advisors

18.7.1 The project advisors are listed in table below.

Table 116: Project Advisers

Advice requirement	Company
Legal advisors	Pinsent Masons
Financial Advisors	Deloitte
Co-ordination of technical advice	Capita Consulting
Health Planning	Capita Consulting
Facilities Management	FMS Consulting
Equipping	MTS
Architecture	IBI Nightingales

Advice requirement	Company
Town Planning	IBI Nightingales
Engineering	Hulley & Kirkwood
Traffic & Transport	Hulley & Kirkwood
Quantity Surveying	Cyril Sweett Limited (incorporating Nisbet)
Life Cycle Analysis	Cyril Sweett Limited (incorporating Nisbet)
Health & Safety	Cyril Sweett Limited (incorporating Nisbet)
Costing Services	Cyril Sweett Limited (incorporating Nisbet)
Insurance	Willis Ltd.

18.7.2 Project advisors have been appointed on a terms of reference which includes all work required from pre-OJEU to Financial Close. The tender documentation outlines the work programme and deliverables anticipated. The Core Team and work streams co-ordinate delivery of work or advice as required.

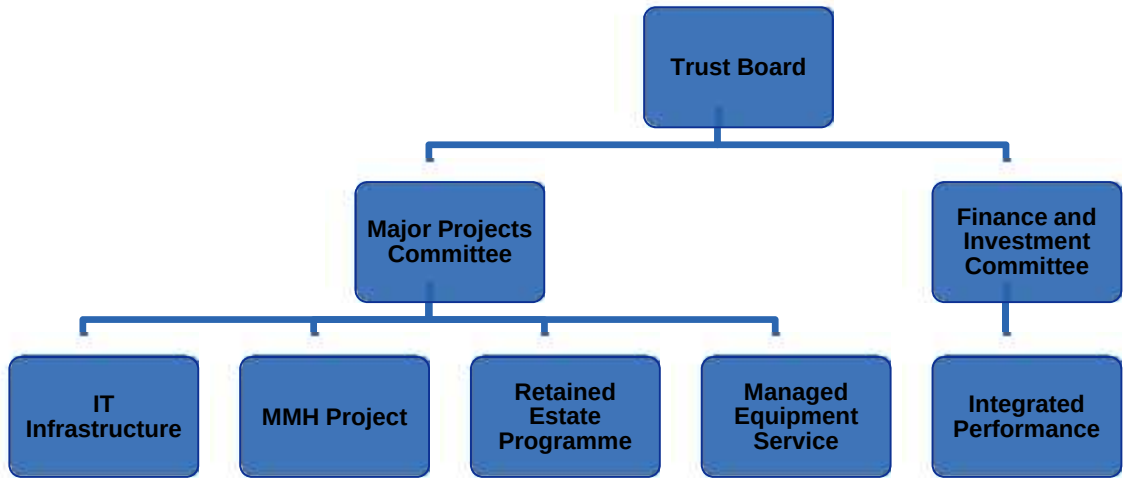
18.7.3 The project advisors meet with the Core Team as required to:

- Plan and co-ordinate work across working groups;
- Maintain communication;
- Report on progress and issues; and
- Provide advice as required.

18.8 Organisational Structure and Governance – Construction and Commissioning Stages

18.8.1 Following Financial Close the Trust will migrate to an integrated project structure to manage both the MMH Project and ensure that associated programmes are co-ordinated to optimise delivery. This is shown at the figure below:

Figure 36: Future Structure for Construction and Commissioning Phases



18.9 Construction Phase

18.9.1 The key objectives of the construction phase will be:

- To manage the interface with the Hospital Company in order to ensure delivery of a fit for purpose MMH on time;
- To ensure a smooth transition of Hard FM services to the Hospital Company in terms of TUPE transfer and service delivery;
- To deliver the necessary service design to align with the new hospital and yield the required quality and cost benefits; and
- To ensure that specified construction and engineering standards are achieved throughout the construction phase.

18.10 Commissioning Phase

18.10.1 The key objectives from commissioning the hospital through to it being operational are to deliver:

- a fully operational hospital, complete with the necessary equipment and infrastructure;
- the necessary induction, training and embedding for staff to be effective in the new environment;
- the smooth transfer under the TUPE arrangements of staff to the Hospital Company;
- the safe migration of services into the new building;
- the continuity of services across the Trust's community sites; and
- a comprehensive communications plan which will ensure that staff, patients and the public understand what is happening and when.

18.11 Transition plan

18.11.1 The Trust's Major Projects Committee will oversee the creation of a detailed integrated transition plan which will ensure the co-ordination of the multiple workstreams required to deliver a smooth transition.

18.12 Benefits Realisation and Evaluation

18.12.1 A Benefits Realisation Plan has been written and is presented at ***Appendix 18d***. The key benefit themes identified are:

- Improved clinical quality and sustainability of clinical services;
- Improved customer care;
- More effective use of staff resources;
- Improved patient flows;
- Improved accessibility of services for the local population;
- Improved flexibility and quality of accommodation;
- Improved ability to develop/sustain services and respond to commissioner intentions;
- Financial benefits; and
- Local area regeneration.

18.13 Project Procurement Costs and Funding

18.13.1 The table below presents the staff funded by the project:

Table 117: Posts Funded by the Project

Staffing	WTE
Project Director	0.8 WTE
Commercial Manager	1 WTE
Project Manager	1 WTE
Workforce Lead	1 WTE
Accountants/Commercial	3 WTE
Change Team Lead	0.4 WTE
Service Development Managers	2 WTE
Head of Estates	0.65WTE
Project Manager Capital Projects	1WTE
Equipping Manager	1 WTE
Estates Managers	2 WTE
Facilities Managers	1 WTE
Project Administrators:	2 WTE

18.13.2 The Trust has established a specific budget for the remaining stages of the Project as set out in the table below.

18.13.3 The budget is managed by the Project Director, with clear delegated powers within the overall budgetary arrangements of the Trust.

Table 118: Project Budget

MMH /Community Facilities	Budget 2014/15 to 2019/20						
	13/14	14/15	15/16	16/17	17/18	18/19	19/20
	£	£	£	£	£	£	£
Pay							
Project Office	342,500	382,000	382,000	317,000	317,000	317,000	317,000
Human Resources	46,000	46,000	46,000	106,000	106,000	106,000	46,000
Finance	180,000	180,000	180,000	130,000	130,000	130,000	130,000
Redesign	155,000	405,000	230,000	170,000	350,000	350,000	260,000
Estates	271,000	366,000	366,000	446,000	446,000	466,000	295,000
Total Pay	994,500	1,379,000	1,204,000	1,169,000	1,349,000	1,369,000	1,048,000
MMH Project Office Non Pay							
Engagement and Comms	20,000	30,000	20,000	10,000	10,000	30,000	30,000
Boot Camp expenses	50,000	50,000	50,000				
Market Engagement	30,000						
Misc (stationery,printing,travel etc)	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Sub-Total Project Office NonPay	140,000	120,000	110,000	50,000	50,000	70,000	70,000
Advisor Costs							
OBC							
Development of workforce model	20,000						
Development of activity model	30,000						
External Assurance	50,000						
Update Outline Planning Permission	50,000						
Business Case Production	15,000	15,000	15,000				
PSC refresh	265,000						
Sub-Total - OBC	430,000	15,000	15,000	-	-	-	-
PFI PROCUREMENT							
Insurance Advisor		3,000	900				
Estates & Technical Against Tender	131,000	300,000	188,000	104,000	39,000	39,000	
Estates & Technical Out of Scope							
Legal Advice Against Tender	20,000	100,850	80,000				
Legal Advice Outside Scope	96,100	100,850	80,000				
Corporate Finance Advice Against Tender	20,000	109,850	60,000				
Corporate Finance Advice Outside Scope	94,700	109,850	60,000				
Business, Finance, Activity & Project Management	500		4,800				
IT Advisor	20,000	20,000	20,000				
Regeneration Advisor	5,000	5,000	5,000				
Warranty of Title -legal costs			50,000				
Independent Tester				50,000	100,000	150,000	
Due Diligence Advisors							
Bidder Costs							
Advisor Contingency	127,925	260,000	220,925	210,000	210,000	150,000	210,000
Sub-Total - PFI Procurement	515,225	1,009,400	769,625	364,000	349,000	339,000	210,000
Total Advisor Costs	945,225	1,024,400	784,625	364,000	349,000	339,000	210,000
Total Non Pay	1,085,225	1,144,400	894,625	414,000	399,000	409,000	280,000
Total Pay and Non Pay	2,079,725	2,523,400	2,098,625	1,583,000	1,748,000	1,778,000	1,328,000

18.14 Project Execution Plan

18.14.1 A Project Execution Plan was initially written in 2008 and has been refreshed at key stages of the project. The document is presented at ***Appendix 18c***.

18.15 Audit and Review

Gateway Reviews

18.15.1 The Right Care, Right Here (RCRH) Programme has undertaken regular Gateways Reviews and a Strategic Health Authority Review to oversee the programme.

18.15.2 The MMH Gateway Review process was initiated with a Risk Potential Assessment (RPA) in 2008 which indicated a score of 51. This put the project within the high risk threshold. The Gateway reviews to date and planned are shown in the table below:

Table 119: Gateway Review Dates and Outcomes

Date	Gateway	Purpose	Delivery Confidence	Actions outstanding
November 2008	Gate 1	To confirm that the business case is robust – that in principle it meets the business need, is affordable, achievable with appropriate options explored and likely to achieve value for money.	Green	None
December 2010	Gate 2	To confirm the OBC now that the project is fully defined and ensure that the delivery strategy and procurement is robust and appropriate.	Amber Green	None
March 2014	Second Gate 2	To reconfirm the above in the light of PF2.	Amber Green	None
June 2015	Gate 3	Prior to submission of the Specific ABC and appointment of Preferred Bidder.	Amber Green	3 actions – the last of which due to be completed by March 2016
June 2018	Gate 4	'Readiness for Service' prior to practical completion.	TBC	TBC
March 2019	Gate 5	Post-project review	TBC	TBC

Trust Board Assurance

18.15.3 New members were appointed to the Trust Board during 2013, including a new Chief Executive Officer. The Board therefore undertook a review of project assumptions during the period of update for PF2. This enabled robust project validation to be undertaken including a clinical review of the Public Sector Comparator design. This process provided assurance for the Board to support the OBC approval process during 2014.

18.16 Gateway 3 - Outcome and Close Out of Recommendations

18.16.1 The most recent review (Gate 3) in June 2015 assessed the project as Green/Amber. The Gateway 3 Report and Action Plan is at ***Appendix 18e***. There were 3 recommendations which have now been cleared. These were regarding:

- Project governance arrangements;
- Benefits Realisation Plan; and
- Contract management capacity.

Project governance arrangements

18.16.2 Recommendation 1 was that 'the SRO should refresh the project governance arrangements to ensure that they integrate into wider Trust infrastructure and transformation activity'.

18.16.3 The wider Trust infrastructure requires investment in a range of projects all of which impact on MMH, specific projects include:

- Investments in the Trust retained estate e.g. its existing Sandwell, City and Rowley Regis sites;
- Land sale opportunities which arise through the rationalisation of the Trusts estate, e.g. City Hospital;
- Procurement and contract management of a Managed Equipment Service (MES) for the provision and maintenance of medical equipment;
- ICT Investments, including Electronic Patient Records and Health Informatics Services.

18.16.4 The CEO/SRO has confirmed that a Major Project Committee will be established in February 2016 which will have oversight of the monitoring and decision making associated with of MMH, each of the above projects/investments and provide evidence based assurance to the Trust Board.

Benefits Realisation Plan

18.16.5 Recommendation 2 was that 'the SRO should ensure that the Benefits Realisation Plan is sufficiently developed in time to support the Confirmatory Business Case'.

18.16.6 The MMH Benefits Realisation Plan has been reviewed and updated to reflect the phases of the scheme and the contribution that MMH will directly make to benefits realisation.

Contract management capacity

18.16.7 Recommendation 3 was that 'the Project Director should identify and build the contract management capacity so that it has the competence and capability to manage the PF2 contract from the outset'.

18.16.8 There are a number of executives and senior managers in the Trust and Midland Met project team who collectively have experience of managing the delivery (construction) and commissioning of large hospital developments and the operational contract/performance management of hard & soft FM and equipment services. There is also a robust corporate memory of the PF2 procurement process, the contract, project agreement, supporting schedules, terms and conditions and the obligations and responsibilities of parties.

18.16.9 The 'contract management capacity' needs to reflect not just the MMH contract but also other key projects which impact on the MMH.

18.16.10 Feasibility studies to confirm the scope, programme and costs associated with the projects below will be completed and reported to the Trust Board. This will then allow the resource needs and options (in house or contracted) to be also confirmed for the following:

- Investments in the Trust retained estate to establish Integrated Treatment Centre sites on its existing Sandwell, City and Rowley Regis sites;
- Land sale opportunities which arise through the rationalisation of the Trusts estate, e.g. City Hospital;
- Procurement and contract management of a Managed Equipment Service for the provision and maintenance of medical equipment; and
- Management of the Birmingham Treatment Centre PFI contract.

18.17 Immediate Timetable to Financial Close

18.17.1 Following submission of the CBC the following steps will take place leading up to Financial Close:

- The Judicial Review period associated with the planning approval will have expired by 6 November 2015;
- The Project Agreement and Schedules will be agreed; and
- The 3 December 2015 Trust Board will give its final approval to proceed to Financial Close.

18.18 Conclusion

18.18.1 The project management arrangements have proved robust to date. Strong leadership and effective issue and risk management have ensured that the procurement has remained on track for MMH to be operational by October 2018.

19 Risk Management

19.1 Introduction

19.1.1 The MMH Project risk management process forms an integral part of the Trust's overall risk management process with a line of sight through to the Trust Board.

19.1.2 There have been no additional significant risks identified since the ABC was approved and extant risks continue to be reviewed and mitigated.

19.2 Methodology

19.2.1 A risk register was established at the beginning of the project. The register records:

- A description of each risk and the scope of its potential impact;
- The probability of each risk occurring (with a score of between 1-5, 5 being the highest, 1 the lowest);
- The level of impact (with a score of between 1-5 as above); and
- Risk management arrangements to minimise the probability and/or impact.

19.2.2 Risk workshops involving all members of the Core Project Team and lead Directors have been undertaken throughout the project. As a result, risks have been actively managed at each stage.

19.2.3 The risk register for the procurement stage of the project has been reviewed by the team and risks are being actively managed. A copy of the risk register is at ***Appendix 19a***.

19.2.4 Trust wide risks are systematically identified through a variety of routes including:

- The Annual Plan;
- Corporate Review and Performance Dashboards;
- Legislation / Regulation / Accreditation schemes / Inspections / Audits;
- Reviews of Trust Strategic Objectives;
- Incidents / Complaints / Claims / H&S Risk Assessments; and
- Review of Business Continuity Plans / Disaster Recovery Plans for critical functions.

19.2.5 Risk registers are reviewed locally and corporately as part of routine management and audit processes including: Performance Reviews, external inspections, audits and accreditation programmes.

19.3 Reporting

19.3.1 A 3 tier risk reporting structure is in place to ensure robust governance and oversight of the process:

- A Risk Management Committee reviews all red and amber risks based on initial scoring and escalates to the Clinical Leadership Executive as appropriate;
- The Clinical Leadership Executive reviews all red risks and receives assurance that operational and strategic interventions are either adequately managing the risks or is informed of new risks that may be unmitigated. It escalates risks to the Trust Board as appropriate;
- The Trust Board Receives Trust Risk Register report and agrees whether risks will be tolerated, treated, transferred or terminated.

19.4 Key Risks

19.4.1 The key risks are at the table below:

Table 120: Key Risks

Risk	Risk Impact	Mitigation
Workforce		
Insufficient policy levers to ensure effective delivery of Trust workforce plan establishment reduction of 1400 WTE	• Excess pay costs	• Review of existing policy levers to ensure options are maximised and are executed sufficiently early. • Strong governance oversight by the Trust Board. • Detailed plans for 15/16 being implemented. • Key planning assumptions for 2016 onwards in development.
IM&T		
The IM&T specification changes during, or after, procurement.	• Cost and time delay during construction. • The Trust IM&T strategy is not implemented in time to support Midland Met models of care. • The operating model is dependent on an integrated EPR document management solution with no space for document storage. • The Midland Met operating model assumes 'paperlite' by Midland Met opening.	• Definition of IT strategy and requirements / integration with the PF2 contractor's scope of works and programme required. • Trust informatics strategy to be reflected in road map outlining vision for delivery. • Funding for delivery identified in LTFM. • Trust Board oversight of IT Committee
A not fit for purpose IT infrastructure	• Failure to achieve strategic objectives. • Significantly diminishes the ability to realise benefits from related capital investments eg successful move to paperlite MMH, successful implementation of Trust Wide EPR	• Approved Business Case for infrastructure stabilisation programme achieved June 2015. • Specialist technical resources engaged (direct and via supplier model) to facilitate key activities. • Appropriate governance model and controls underway.
Failure of a trust wide implementation of a new EPR	• High risk that in adding the full costs of an EPR into the LTFM that there is insufficient capital for related and pre-requisite schemes eg infrastructure remediation/MMH infrastructure preparation/business plan schemes	• Recruitment of suitably skilled specialist resource for the EPR Programme and associated infrastructure programme. • Informatics LTFM will be prioritised to ensure appropriate funding is allocated to EPR and necessary dependencies. • Managerial and Board support for programme ensuring investment in infrastructure dependencies and required resource is given priority. • Management time will be given for programme elements (benefit realisation/change processes etc.) • Setup of appropriately manned programme board with strict

Risk	Risk Impact	Mitigation
		governance and TORs. • Development of contingency plans in relation to clinical IT systems will be established to ensure that if there is any slippage there is an alternative and fully considered option.
Estates Strategy		
Delivery of community facilities to plan and budget will be compromised because of changes since 2013 and on-going detailed planning.	• Increased costs and project delay or an inefficient future estate.	• Annual review of Estates Strategy to support clinical services requirements. • Community facilities project structure set up to plan and implement changes. • Estates Strategy updated to reflect Trust Annual Plan (2015/16) • Business case to support investment in Rowley Regis approved by Trust Board. • Business case to support first phase of investment in Sandwell site to establish Sandwell Treatment Centre approved by Trust Board • Development Controls Plans to be developed for Sandwell Treatment Centre site and City Hospital site
Equipment		
Opening of MMH could be delayed because Trust fails to manage the purchase, commissioning and transfer of equipment	• Commissioning delays, insufficient equipment, service delays and increased costs.	• Careful consideration of equipping strategy and feasibility, whilst maintaining control of capital programme. • Existing equipment group receive input from operational policies. • Beneficial access requirements are defined.
Finance		
Local CCG financial position deteriorates during procurement such that CCG is unable to support funding requirements of ABC.	• The scheme becomes unaffordable	• Sustainable approach to activity modelling being developed to embed on-going refinement of activity modelling which informs investment forecasts. These are then discussed with commissioners. • LDP regular review of activity performance - quarterly. • Produce activity summaries from model for testing sustainable future forecasts. • Development of activity modelling by CCG's to determine future activity trajectory. • Shared approach to assessment of future activity levels (Achieved Apr 15). • Contract monitoring review process in year. RCRH plan to share updated trajectories as part of ABC sign-off.

19.5 Commercial Risk Profile and Risk Allocation

19.5.1 There have been few changes to the project since ABC approval. The progress in the project has served to reduce the risk profile as follows:

- Since ABC, both equity and debt funding competitions have concluded providing certainty regarding the cost of funding and Confirmatory that the UP has not only remained within the affordability envelope but actually reduced;
- The site remediation to be undertaken by Carillion has been confirmed at a fixed price within the £1.5m of capital provided within the Final Bid model, thus removing the risk of breaching the overall capital expenditure limit;
- The swap rate continues to remain within the required parameters, indicating that the 50 basis point buffer is likely to be sufficient to cover any adverse movements in the 10 weeks leading up to Financial Close;
- The programme risk, and therefore risk of cost escalation, has reduced given that the project remains on track with only 10 weeks to Financial Close;
- With less time until Financial Close, the risk arising from changes in the legal and regulatory environment has lessened.

20 Sustainability, Regeneration and Corporate Citizenship

20.1 Introduction

20.1.1 Sustainability, regeneration and corporate citizenship are important aspects of the project stated clearly in the:

- Project objectives and benefits presented in the Outline Business Case (OBC); and
- The specification for bidders contained within the Functional Brief.

20.1.2 The Trust required bidders to demonstrate how they would deliver these objectives. Chapter 12 (Bidder Solution) outlines the approach The Hospital Company has taken to meet the Trust's requirements. This work has strengthened the approach by providing a robust measurable set of proposals to meet the specification.

20.1.3 This chapter builds on Chapter 12 to set out the overarching approach to sustainability, regeneration and corporate citizenship.

20.2 Approach to Sustainability for the New Hospital

BREEAM

20.2.1 BREEAM is the Building Research Establishment Environmental Assessment Method for buildings and large scale developments. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe environmental performance of buildings and communities. A BREEAM Assessment was undertaken in November 2008. The Public Sector Comparator (PSC) achieved a BREEAM score of 78.7%, achieving a rating of Excellent. As outlined in Chapter 12 The Hospital Company will be required to achieve a rating of Excellent in the MMH.

Energy Use of the Facilities

20.2.2 The Trust will raise the profile of operational energy and environmental management in order to improve performance in these areas. As the impact of the new facility will be influenced by both the activities of those operating the building and those occupying the building, it is recognised that the minimisation of such impacts will be as a result of partnerships. An energy use performance target will be set for a maximum of 42GJ/100m3.

Travel Plans for the New Hospital

20.2.3 The Trust's Travel Plan investigates the potential for providing alternative means of transport to and from the site in order to reduce reliance upon the car and sets actions and targets for the minimisation of pollution and congestion. It is supported by a detailed transport assessment, including staff surveys and makes recommendations on travel to work.

20.2.4 As outlined in Chapter 12 the Bidder Solution has prepared a planning application supported by a Green Travel Plan to generate shifts in transport.

20.2.5 The RCRH Programme has formed a Transport Group which aims to develop effective transport routes to the MMH and other healthcare facilities. The Trust will liaise with local public transport providers and the local authority to ensure good accessibility from all town and community centres in the catchment area.

Water Use of the Facilities

20.2.6 Water consumption will be minimised as much as possible given that clinical risks and requirements are to be a clear priority.

Materials Used in Construction

20.2.7 The Trust aims to ensure that the materials and construction techniques used are classified as 'A rated' in the Green Guide to Specification. Use of recycled 'aggregate' materials (crushed masonry for example) for use in foundations and under road surfaces is also to be incorporated where possible and where such materials can be found within a sensible distance for transport.

Land Use and Ecology

20.2.8 Whilst the Trust recognises that the current use of the proposed site is urban/industrial the Trust aims that the site should be developed to benefit the people, environment and ecology in the locality.

Pollution

20.2.9 The development will limit the emission of carbon dioxide through the significant use of low/zero carbon energy technologies (LZC). LZC should deliver no less than a 30% reduction of carbon dioxide emissions. Operational pollution will be reduced through the application of good practice design of the site, buildings and services.

Operational Waste Management

20.2.10 The MMH will support minimisation of waste and maximal recycling. Dedicated facilities will be incorporated for storage and collection of recyclable material in conjunction with adequate segregation.

20.3 Regeneration and Urban Renewal

20.3.1 The development of a new hospital in this area will have substantial regenerative and health benefits which are mutually supportive. It represents a big step forward in the achievement of the Council's policy objectives set out in the Smethwick AAP to regenerate the Grove Lane area of Smethwick.

20.3.2 A detailed report on the many regeneration opportunities provided by the MMH can be provided if required (this report provides part of the proof of evidence for the compulsory purchase order public Inquiry). A number of the significant social, economic and environmental regeneration benefits of the scheme are outlined below:

20.3.3 The health and social benefits are that:

- The MMH will provide improved delivery of acute health services in Sandwell and west Birmingham;
- The RCRH programme has established links with the Learning and Skills Council, colleges and local partnerships to develop initiatives to train local people for health employment;
- The flagship building will become the civic heart of the area and a point of pride for the community;
- The MMH will act as a catalyst for new, mixed use regeneration helping to inspire new confidence in the area and major new public and private investment; and
- The regeneration potential of the City Hospital site will be maximised as a 'gateway' link to the Jewellery Quarter.

20.3.4 The economic, regeneration and skills benefits are summarised below:

- Working with partners across the borough the Project Team specified a commitment to ensuring that local people will be given equal opportunities for training and employment. As outlined in Chapter 12 The Hospital Company has now made clear proposals about how this can be achieved.
- To optimise the employment and training benefits arising from significant investment that will take place in the program.
- Temporary jobs will be created in the demolition and remediation of the site, and in the subsequent construction of the hospital with estimated impact of circa 500 full time construction jobs.
- The hospital will directly employ skilled and unskilled people who will be relocated from the existing sites thus creating a concentration of health professionals within the Grove Lane area of Smethwick.
- New health activity in the area is likely to demand locally produced goods and services which will result in indirect jobs. Using a conservative multiplier it is anticipated that the new hospital could generate in the region of 220 jobs indirectly and 440 induced jobs.
- A new hospital will add an additional dimension to the mixed use development proposed on these sites. It will provide a catalyst for new types of economic activity associated with hospital research and services.
- The hospital may attract related economic activities and need for key worker housing.
- The development of a new acute hospital at Grove Lane will release land at City and Sandwell Hospitals for comprehensive regeneration to provide major new investment opportunities.

20.3.5 The environmental benefits are summarised below:

- The hospital will be one of Sandwell's most significant development projects and will help to transform a largely derelict and run down part of the Borough.
- The MMH makes efficient use of land opening up a run down private industrial area for public use.
- The majority of existing buildings are not appropriate for modern industrial use and a large part of the site is derelict with a low density of employment. A new hospital will regenerate the site and bring it back into productive use.
- The MMH will be set within a landscaped context and will provide a high quality building of design that will dramatically improve the visual appearance of the area.
- The position of the hospital next to the canal will enable public access to this part of the waterways network, which was previously inaccessible.
- The site will be permeable and accessible whilst ensuring security for staff, visitors and patients.
- The proposals include a substantial area of public realm, which will be available to staff, visitors and patients.
- A key regenerative benefit will be the comprehensive remediation of a large area, rather than piecemeal remediation of individual sites.
- Public transport access to the site will be catered for with dedicated bus and taxi drop-off facilities located directly adjacent to the main entrance.

Trust Activities to Support Regeneration

20.3.6 Since the first OBC approval in August 2009 the Trust has actively worked with partners to maximise the regeneration benefits of the MMH, which will act as a catalyst for development in the area. The following activities have taken place:

- The Trust has participated in a workshop on the vision for regeneration for the RCRH Programme. A vision group has since formed and continues to coordinate work with the two councils and other stakeholders to ensure joined up approaches to regeneration.
- The Trust ran an event for regeneration group professionals, the councils and other interested parties to develop plans for ensuring that the impact of the new hospital will be to realise real benefits for local communities. This event was led by the Chair of the Trust and resulted in the development of an action plan. Work has already begun in response to the plan and there is a high level of commitment for joint working in the future.
- Members of the team have presented at, and participated in, activities for the residential led neighbourhood regeneration of the Windmill Eye estate, which is adjacent to the Grove Lane site.
- Members of the team are involved in the Western Growth Corridor regeneration programme.

20.3.7 The Trust is working with Find it in Sandwell and Find it in Birmingham on innovative new ways of ensuring that the new hospital will provide opportunities for local businesses before, during and after the construction phase of the project. This involves the linking of the new acute hospital website to the 'Find it' sites to lead local companies expressing an interest in the scheme to the 'Find it' web pages. They can then register on the sites and access training to help them prepare their business for the new opportunities. The website will then provide a resource for the PF2 bidders (and eventually Project Co) to identify highly capable local companies to provide products and services for the scheme.

20.3.8 Working with the 'Find it' initiative the Trust plans to run a supply chain engagement event to ensure that local companies continue to be involved and to provide opportunities for them to link with architects and potential PF2 partner organisations.

20.3.9 The RCRH Partnership Board has agreed a vision for regeneration and the Vision Group has completed a detailed mapping exercise of regeneration initiatives, over the next 20 years

Corporate Citizen Checklist

20.3.10 A Good Corporate Citizen Checklist has been completed which makes reference to how the project will support sustainable development and tackle health inequalities. This self-assessment tool addresses:

- Transport;
- Procurement;
- Facilities Management;
- Employment and Skills;
- Community Engagement; and
- New buildings.

Regeneration Objectives for the PF2 Partner

20.3.11 The Hospital Company is required to actively work to generate opportunities for:

- Local employment and apprenticeships;
- Work for local companies in the PF2 supply chain for provision of products and/or services; and
- Other benefits for the local community.

20.3.12 The Hospital Company has presented a strong regeneration strategy in its Draft Final Bid submission. It has committed to:

- 80% construction spend within East and West Midlands
- 70% employment within 20 miles of MMH
- 50% employment within B postcode

20.3.13 A dedicated Community Regeneration Manager will work with the Trust and local authorities to develop a community needs plan for MMH. This would be combined with local spend and employment initiatives to ensure a lasting local legacy.

20.3.14 The Hospital Company is working towards National Skills Academy for Construction "centre of excellence" status for MMH. They have committed to a high level of work experience, apprenticeship and other training posts.

20.3.15 In turn the Trust will work with local partners to ensure that local companies and colleges are able to respond to demand when products, services and workforce are required.

20.4 Equality Impact Assessment

20.4.1 An equality impact assessment is a careful examination of a proposed policy, project or service to see if it could affect some groups unfavourably.

20.4.2 The Trust has developed a framework (presented at ***Appendix 20a***) to tackle discrimination in a proactive way, ensuring that equality considerations are consistently integrated into day-to-day business through equality impact assessment. This ensures legal compliance, but also helps to ensure that Trust services best support the healthcare needs of the local population.

20.4.3 The framework was used to make an assessment in November 2013 of the potential impact on the following 'protected characteristics':

- Age;
- Disability;
- Race;
- Sex;
- Gender;
- Reassignment;
- Sexual Orientation;
- Religion or Belief;
- Pregnancy & Maternity;
- Marriage & Civil Partnership; and
- Other socially excluded groups.

20.4.4 The conclusion of the assessment was that some frail and elderly patients/members of the public would have further to travel to the new hospital. This is addressed in the transport strategy which has been agreed with the RCRH Board.

21 Consultation and Stakeholder Involvement

21.1 Introduction

21.1.1 The MMH project has been underpinned by strong stakeholder involvement and support since its inception. This chapter sets out consultation and engagement to date and the Trust's plan to continue to work with its key stakeholders.

21.2 Consultation and Engagement

21.2.1 A formal public consultation was undertaken in 2007 as part of the Right Care, Right Here proposals (the RCRH Consultation Documents can be found at ***Appendix 21a***). This set out the scope of the MMH project, including the implications for City Hospital and Sandwell General Hospital. Since then there has been significant on-going engagement regarding the design development of the scheme.

21.3 Staff and Patient Involvement in Design Development

Engagement in the Design Brief

21.3.1 Staff and patients have contributed to the design brief and to the subsequent design development. The scheme is unusual in that an exemplar was developed with significant clinical involvement at 1:200 scale. This enabled the Trust to issue a design brief which enjoyed strong clinical support and reduced the risk of issues being surfaced during the Competitive Dialogue itself.

Engagement in Competitive Dialogue

21.3.2 In advance of the Competitive Dialogue Process Clinical Leads were identified who were able to:

- Dedicate time to Competitive Dialogue and ensure consistency throughout the process;
- Represent their clinical team and other teams in related departments/services;
- Engage with wider clinical teams between meetings; and
- Have a good understanding of the clinical brief, MMH project and whole hospital function.

21.3.3 'Boot camps' have been an effective means for concentrated and focused staff involvement both pre-OJEU and during the Competitive Dialogue. The format of these has typically been in blocks of two days centred round key areas such as 'theatres', 'facilities management' and the 'emergency floor'. Clinicians have been provided with additional time away from their clinical duties to enable sufficient focus to be given to the design development.

21.3.4 Each team consisted of 6-8 people depending on the specific departments in each group, typically teams included:

- A member of the capital projects team;
- A member of the service redesign team; and
- For clinical department groups typically: 1-2 medical clinical leads, 1-2 nursing clinical leads, 1 therapy lead and 1-2 corporate function leads (e.g. facilities team, infection control team).

21.3.5 Consistent membership was maintained through the series of boot camps and training was provided prior to Competitive Dialogue. All team members were familiar with the brief documents and relevant whole hospital policies.

21.3.6 Clinical leads represented all the departments in the group they were allocated to and actively engaged with the relevant clinical teams between boot camps and meetings.

21.3.7 Community, patient and public representatives have been involved in workshops and focus groups to comment on the design development for the new hospital.

21.4 Stakeholder Engagement and Communications

21.4.1 Regular communications have been maintained with staff and the public. The channels used for internal communications are:

- Chief Executive Officer weekly message to all staff;
- Corporate Team Brief;
- 'Hot Topics' (the monthly team discussion forum);
- Focus groups and events;
- 'Heartbeat' (the Trust Magazine);
- Staff Communications (daily staff briefing);
- The intranet; and
- The RCRH Newsletter.

21.4.2 Public facing media/channels used for communications are:

- The RCRH Newsletter;
- The Acute Hospital Brochure;
- The website;
- Press releases;
- Public meetings/focus groups;
- Trust Members newsletter;
- 'GP Focus' (GP magazine);
- A DVD which explains the RCRH Programme to the public;
- Twitter and Facebook; and
- Stakeholder update.

21.5 Outline Communications and Engagement Plan

21.5.1 The Outline Communications and Engagement Plan is presented at ***Appendix 21b***.

21.6

21.7 Commissioner and Council Support

Commissioner Support

21.7.1 The MMH is vital to the delivery of the RCRH Programme. A strong partnership of commissioners and providers has developed since approval of the Strategic Outline Case (SOC) in July 2004 and a local

health economy activity and capacity model has been developed. GPs have been involved in the programme from the beginning. The Trust provides services for three main CCGs:

- NHS Sandwell and West Birmingham (SWB) CCG (accounts for circa 75% of Trust activity);
- NHS Cross City CCG (accounts for circa 13% of Trust activity); and
- NHS Birmingham South and Central CCG (accounts for circa 5% of Trust activity).

21.7.2 SWB CCG, the largest commissioner for the Trust, is represented on the RCRH Partnership Board. All three of the CCGs continue to support RCRH and the development of the MMH.

21.7.3 The Trust's lead commissioners signed a Commissioner Support Letter at the OBC stage. The commissioners have now reaffirmed their support at this stage.

21.7.4 The CCG support letters for this stage and at OBC approval in 2014 are presented at ***Appendix 21c*** demonstrating the long term support from commissioners from the early days of the MMH Project.

21.7.5 NHS England has provided a letter of support for the MMH Project. This is at ***Appendix 21c***.

Engagement with Overview and Scrutiny Committees

21.7.6 Regular presentations have been made to both Overview and Scrutiny Committees (OSCs). The approach to this has been a joint presentation led by the RCRH Programme in which regular updates on the progress of the acute hospital development are also presented. Feedback from the OSCs has been positive and the Trust and other partners have been keen to respond to questions/requests for information.

Support from the Local Health and Wellbeing Boards

21.7.7 The RCRH Programme has facilitated the support of local stakeholders throughout the years of the programme. Sandwell Metropolitan Borough and Birmingham City Councils are both represented on the RCRH Partnership Board and have worked closely with the Trust on many aspects of the MMH Project.

21.8 Stakeholder Board Engagement

21.8.1 A Stakeholder Board was established following the OBC approval in order to expedite the approval process for the ABC, recognising that the timescales for ABC production and approval were relatively short. The Stakeholder Board comprises representatives from the DH, HMT, TDA and the Trust.

21.8.2 The Stakeholder Board has met regularly since December 2014.

21.9 Conclusion

21.9.1 The endorsement letters from the CCGs demonstrate a high level of support for RCRH and specifically the development of the MMH. They are all actively involved in the RCRH Programme and see the benefits for their local communities. They also point to on-going public support for the scheme. The lead commissioner SWB CCG also commits to working closely with the Trust to ensure delivery of the business case.

21.9.2 Reappraisal of the financial and activity model took place in April 2015 and is aligned with commissioner intentions.

22 Conclusion

22.1 Purpose

22.1.1 This Final Business Case (FBC) combines the Appointment Business Case and Confirmatory Business Case which were used to secure approval to conclude the procurement of the Midland Metropolitan Hospital (MMH).

22.2 The foundations for the scheme remain robust

22.2.1 The MMH Outline Business Case (OBC) was approved in July 2014.

22.2.2 The case for change remains strong and there is an increasing urgency for the scheme in order to secure the sustainability of acute services – hence the requirement for a newly commissioned hospital by October 2018.

22.2.3 The project remains aligned with the national strategic context and will support delivery of local strategic plans for the RCRH Programme.

22.2.4 The project remains on track to deliver the following benefits to the local health economy:

- **Improved quality and sustainability of clinical services** resulting in improved clinical outcomes, reduced mortality and ability to deliver excellent clinical care;
- **Improved customer care** so that that patients are treated with respect, are involved in decisions about their treatment and can be confident in the quality of their care;
- **More effective use of staff resources**, ensuring that staff are trained to deliver a new sustainable model of care, are productive and satisfied with their experience at work;
- **More effective patient flows** to maximise use of resources and improve patient experience;
- **Improved accessibility of services for the local population**, so that patients can access a good range of local services, with faster access to treatment, at times convenient to them;
- **Improved flexibility and quality of accommodation** which will improve the patient and staff experience, maintain the best environment for clinical care and provide greater privacy and dignity for patients;
- **Improved ability to develop/sustain services and respond to commissioning intentions**, so that the Right Care, Right Here (RCRH) vision is achieved and new services can develop and be sustained over time;
- **Financial benefits** from services which are affordable, financially sustainable in the long-term and achieve budget forecasts;
- **Contribution to local community regeneration** as new developments are built around the hospital and the local community have opportunities to find work in the hospital.

22.2.5 The strategic solution of Midland Metropolitan Hospital being delivered on the Grove Lane site remains valid.

22.2.6 The Trust's annual update of the Long Term Financial Model (LTFM) has confirmed that the scheme remains affordable and demonstrates that the Trust will achieve a CoSRR of at least Level 3 throughout the LTFM horizon.

22.2.7 Activity and capacity assumptions remain consistent with the OBC.

22.2.8 Given the continuity in the factors above, the scope of the scheme remains unchanged.

22.3 Key changes since OBC approval have strengthened the case

22.3.1 There is an increasing urgency to consolidate acute care on to a single site in order to sustain the provision of high quality, safe services.

22.3.2 The PF2 procurement route represents strong value for money (increased from 4.3% at OBC to 23.1% at CBC), principally due to a reduction in the funding terms of the PF2.

22.4 Significant progress has been made since the OBC

22.4.1 Since the OBC, the PF2 procurement has commenced and Financial Close is now scheduled for December 2015 rather than April 2016 as originally planned.

22.4.2 Design development has progressed successfully with comprehensive clinical involvement, culminating in a Final Bid being submitted on time and being evaluated by the Trust as fully compliant in all respects.

22.4.3 The Trust has worked closely with the DH and HMT to ensure that sufficient robust mitigations have been put in place to secure value for money given that only a single interim bid was received.

22.4.4 Demolition on the Grove Lane site has been completed and the site has been remediated ready for site preparation works to commence prior to the main construction programme.

22.4.5 All of the conditions of OBC approval (and subsequent DH conditions) have been met in so far as that is possible at this stage in the procurement process. All conditions are on track to be met by the timescales stipulated by approval bodies.

22.4.6 Local commissioners and stakeholders continue to endorse this project as a key enabler for the RCRH Programme, aligned with commissioning intentions, and affordable within the local health economy.

22.4.7 The Trust's workforce transformation programme is well underway. Statutory consultation has already taken place on circa 400 posts on the 'Safe and Sound' phase. The first stage of Safe and Sound was delivered on time in 2014-2015 with the second stage to be delivered during 2015-2016.

22.4.8 The EpR OBC has been approved by the Trust Board and the TDA has authorised the trust to commence procurement. The procurement is on track to deliver a paperless solution by October 2017.

22.4.9 The Managed Equipment Service procurement has commenced and the Trust is on track to sign the contract by 31 March 2016.

22.5 The project is on track for MMH to open by October 2018

22.5.1 Financial Close is on track to take place in December 2015, ahead of the programme outlined in the OBC. Consequently, MMH is on schedule to being operational by October 2018.

23 Addendum following Financial Close

23.1 Introduction

23.1.1 This addendum provides an update to the Confirmatory Business case (CBC) approved by the Department of Health (DH) and reflects the actual position achieved at Financial Close on 11 December 2015.

23.1.2 There have been no changes to the scope, capital cost or timescales of the scheme since the CBC approval.

23.1.3 The key areas of progress since the CBC was submitted to the DH 1 October 2015 are:

- The completion of the 1:50 design process;
- The expiration of the judicial review period on 6 November 2015, with no issues raised;
- The DH formally approved the CBC on 9 December 2015. The approval letter is at ***Appendix 23a***, including a revised set of approval conditions;
- The achievement of Financial Close on 11 December 2015, resulting in a final Unitary Payment of £19.598m.

23.2 Department of Health Approval Conditions

23.2.1 The Trust confirms that the project remains within the parameters set by the DH at ABC and those re-affirmed in the Department's letter of approval dated 9 December 2015, namely that:

Table 121: CBC Approval Conditions

No.	Approval Condition
1	No subsequent amendments shall be made to the Project Agreement and Schedules without the approval of the Department's Commercial Division
2	Financial Close must be achieved within three months of the date of this letter.
3	The NHS Trust should continue to work towards satisfying conditions that were imposed for completion by Financial Close.
4	The Trust is to work with the TDA to make sure that the Key Performance Indicators that have been developed as a response to ABC approval condition 46 (develop a framework to measure actual performance) are collated and shared quarterly as agreed by the Stakeholder Board.
5	The Trust should undertake a review of its derogated clinical spaces within three months of the operational opening of the new hospital and this review should be shared with all partners.
6	The Trust should finalise designs in line with the project timetable. This work should be in line with the recommendations in the NHSE PAU letter dated 5th November; in addition to some technical matters the letter asks the Trust to continue work to ensure that clear documented evidence of scenario testing outcomes and follow up actions is maintained for good audit and legacy purposes.
7	The Trust should monitor the swap rate after CBC approval and notify the TDA if it moves outside of the 0.5% buffer during the period leading up to Financial Close. The Department would also expect to be notified if this were to occur.
8	That the Trust should ensure it obtains a satisfactory independent opinion on the accounting treatment of the asset when it comes on Balance Sheet, as well as External Audit agreement.
9	The Trust should ensure it resolves the recommendations associated with the Internal Audit report on the Cost Improvement Programme (CIP), "Delivery and Compliance with Process", rated Amber/Red. This will be assured through the monitoring framework post Financial Close.
10	The Trust should respond to the recommendations in the Gateway Review report as described in the paper to its October Reconfiguration Committee.

23.3 Contract Documentation

23.3.1 With the exception of the completion of gaps that could not be concluded until Financial Close, the Project Agreement and its Schedules remain as set out in Chapter 11 of this report.

23.4 Derogations

23.4.1 A full report on derogations was presented to the Trust Board 5 November 2015 which was accepted. This is at ***Appendix 12c***. This also served to satisfy the relevant approval conditions.

23.5 Revenue Implications of the PF2

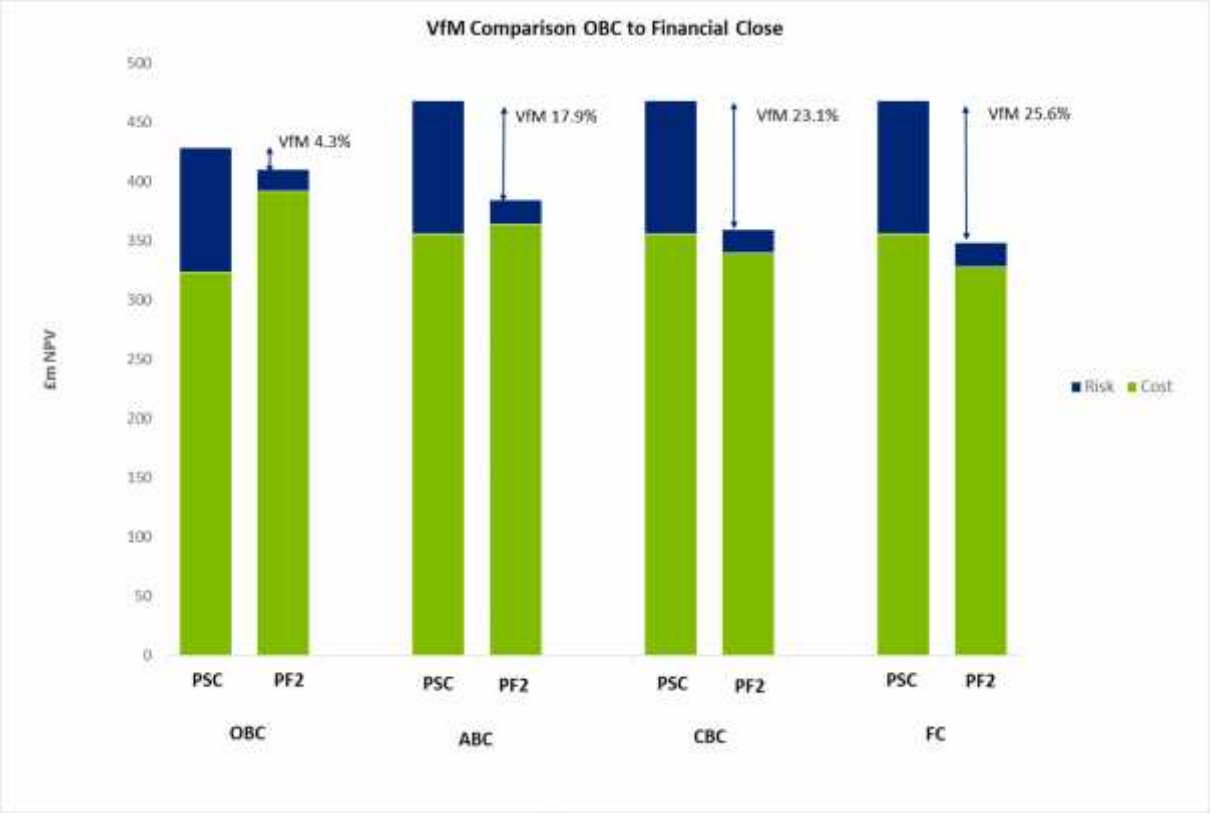
23.5.1 Terms achieved at Financial Close mean that the Trust's forecast financial position is improved from that given in the CBC as the business case had been required to include an interest rate buffer of 50 basis points and this fell away at Financial Close.

23.5.2 Whereas the CBC had used an annual Unitary Payment (2019/20) of £20.501m. The figure achieved at Financial Close was £19.598m.

23.6 Value for Money reassessment

23.6.1 A reassessment of Value for Money (VfM) has been made following Financial Close as shown in the figure below:

Figure 37: VfM Comparison OBC to Financial Close



23.7 Risk Management

23.7.1 The CBC identified a number of commercial risks in Chapter 18 which could have occurred prior to Financial Close. None of these have crystallised.

23.8 Timetable

23.8.1 Key project milestones remain as per Chapter 19 and MMH is on track to be operational by October 2018.

23.9 Conclusion

23.9.1 Financial Close was delivered within the approval parameters. This completes the procurement of MMH ahead of schedule, delivering an affordable scheme which will result in the new hospital being operational by October 2018.

24 Appendices

Table 122: List of Appendices

Appendix Number	Document Name	Document Status since OBC Approval in July 2014
VOLUME 1		
2a	Previous MMH Business Case Approval Letters	Updated
2b	Planning Approval	New document
3a	Estates Strategy	New document
3b	Retained Estate Programme	New document
5a	Activity, Performance and Capacity Assumptions	Updated
5b	Clinical Service Model	Updated
6a	Cost Improvement Programme (CIP)	Updated
7a	Economic Appraisal from OBC	Unchanged
8a	Revenue Costs for Economic Appraisal from OBC	Unchanged
8b	External Health Benefits	Unchanged
VOLUME 2		
9a	Trust Board Procurement Options Appraisal	New document
9b	Quantitative assessment of P21+ vs PF2 (both using Hospital Company design	New document
9c	Qualitative Assessment	New document
10a	IM&T Strategy	Updated
10b	Electronic Patient Record Procurement Timeline	New document
10c	Managed Equipment Service Business Case	New document
10d	Equipment Responsibility Matrix	New document
10e	VfM Case for Automated Guided Vehicles	New document
VOLUME 3		
11a	Draft Stage Two Due Diligence Reports	New document
11b	OJEU Notice	New document
11c	Constitutions of Consortia	New document
11d	Invitation to Submit Final Bid Volume 4	New document
11e	Final Bid Evaluation	New document
12a	Inpatient Bed Configuration by Condition Group	New document
12b	Technical Adviser Report	New document
12c	Independent Review of Design and Derogations	New document
VOLUME 4		
16a	Market Share Analysis	New document
16b	Downside Case	New document
16c	District Valuer Assessment of Impairment of MMH Fixed Asset	New document
16d	Review of PF2 Accounting Treatment	New document
16e	Debt Funding Competition Stage 2 Evaluation Summary	New document

Appendix Number	Document Name	Document Status since OBC Approval in July 2014
18a	Project Plan	New document
18b	Project Structure	Updated
18c	Project Execution Plan	Updated
18d	Benefits Realisation Plan	Updated
18e	Gateway 3 Report and Action Plan	New document
VOLUME 5		
19a	Risk Register	Updated
20a	Equality Impact Assessment	Unchanged
21a	Right Care Right Here Consultation Documents	Unchanged
21b	Outline Communications and Engagement Plan	New document
21c	Letters of Support from Commissioners	Updated
23a	CBC DH Approval Letter 9 December 2015	New document